

GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1758.7 to 1768.1
Alaska Highway #1
Yukon 2001-2002
Volume 1 of 2



Community and Transportation Services
Transportation Engineering Branch

Geotechnical Services

BOX 2703, WHITEHORSE, YUKON
PHONE 867-667-8820 FAX 867-393-6447

ORIGINAL - Do Not Remove From File

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
Km 1758.7 to 1768.1
YUKON 2001-2002

ALASKA HIGHWAY #1

Highway Construction
Km 1758.7 to 1768.1
Alaska Highway #1
Yukon 2001-2002
Volume 1 of 2

This Data Package prepared for project viewing:

May, 2001

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 2

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.
The reports for the centreline holes are arranged according to project location, starting at Km 1758+650 and increasing to Km 1767+600.

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 552-1496 and increasing to 556-1601.

2000	TEST HOLES 1496 to 1514	shown with prefix 552-
	TEST HOLES 1515 to 1539	shown with prefix 553-
	TEST HOLES 1540 to 1564	shown with prefix 554-
	TEST HOLES 1565 to 1577	shown with prefix 555-
	TEST HOLES 1578 to 1601	shown with prefix 556-

NOTE:

2000 Centreline Test Hole locations on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, compiled by GPS survey, are indicated on project plans.

CONTENTS (continued)**Volume 2 of 2****GRANULAR SOURCE Km 1766.0 LHS ALASKA HIGHWAY**

Location plans, photographs, and subsurface exploration and testing report sheets are provided.

Auger Testing

1985	TEST HOLES 68 to 75	shown with prefix 778-
2000	TEST HOLES 1442 to 1450	shown with prefix 557-

Backhoe Testing

1985	TEST PITS 85, 86, 87, 90, and 91	shown with prefix 807-
1988	TEST PITS 03, 05, 07 to 09, 12 to 16, and 18 to 25	shown with prefix 031-
1988	TEST PITS 26, 27, 29 to 31, and and 33 to 35	shown with prefix 032-

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
Km 1758.7 to 1768.1
YUKON 2001-2002

ALASKA HIGHWAY #1

INTRODUCTION

GEOTECHNICAL INVESTIGATION DATA

This geotechnical investigation data is provided to assist in the interpretation of soil conditions encountered within this project area. The data presented was prepared solely for Departmental designing and estimating purposes.

The description of material / soil description shown on the subsurface exploration and test reports is a textural description based on identification of retrieved material by the field drilling technician at the time of investigation. This description may be modified following laboratory testing and classification of selected samples. The system used is based on the ASTM standards for identification and classification of soils. Permafrost classifications and groundwater levels are indicated as detected at time of drilling, unless otherwise noted. Changes in moisture or frost conditions should be anticipated depending on the season, time lapse or amount of development work done since the date of investigation.

The sample identification and laboratory testing data is provided to give detailed physical properties of selected retrieved samples within the subsurface profile. ***These tests may be conducted on disturbed samples and may exhibit properties different from the native materials. The sample classification may also vary from the soil description due to variations within the sampled strata or because of changes resulting from the sampling method, excavation equipment used or testing preparation procedures.***

These descriptions are not intended to be conclusive as to the nature of any material encountered, or to conditions between or around the test borings/pits.

It is recommended that a site inspection, combined with consideration of the regional geology and climatic conditions be conducted. An evaluation of the investigation methods and development work done since the time of investigation should be done prior to interpreting the subsurface conditions at the site for construction purposes.

HIGHWAY CONSTRUCTION

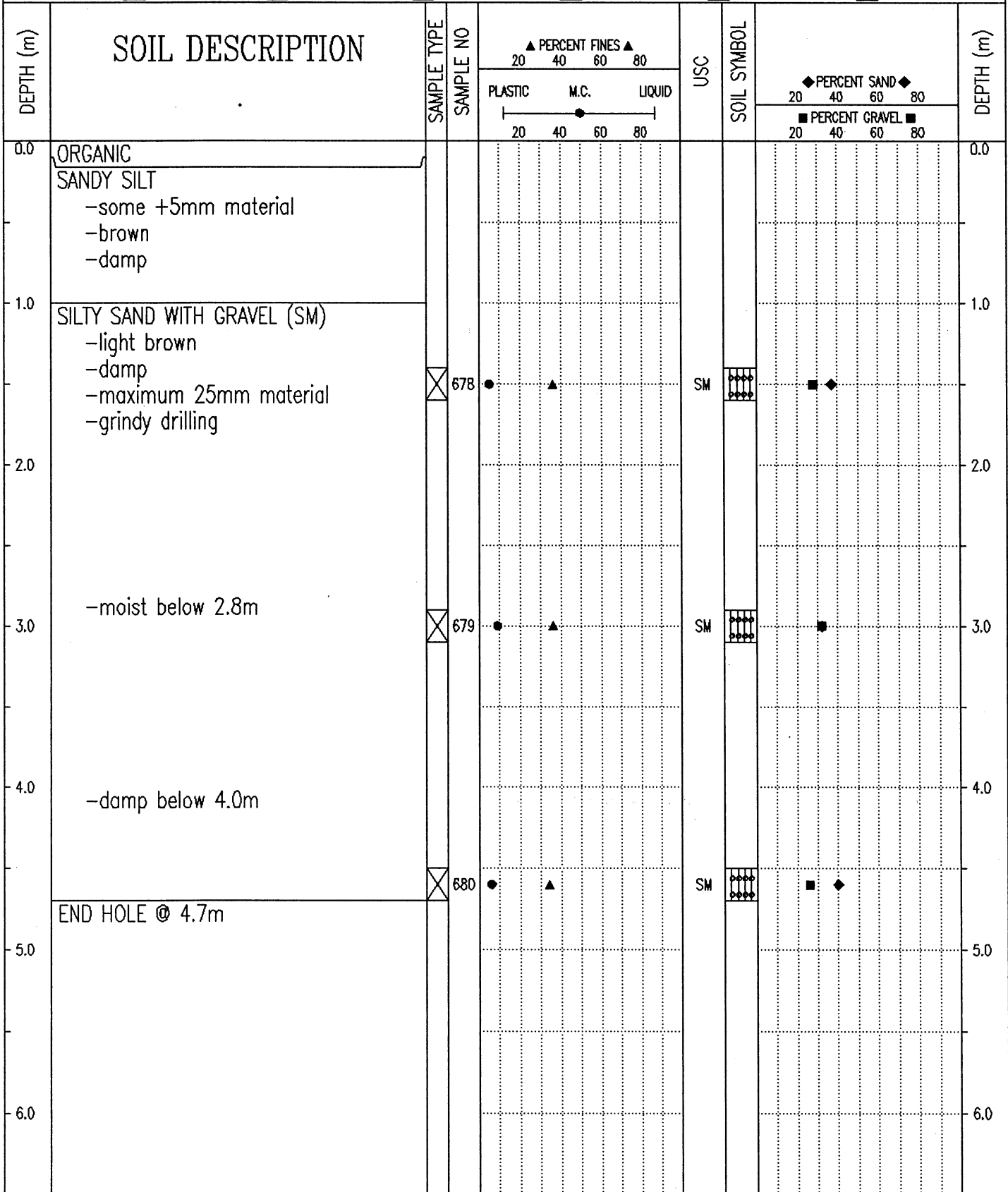
GEOTECHNICAL INVESTIGATION

Km 1758.7 to 1768.1
YUKON 2001-2002

ALASKA HIGHWAY #1

**CENTRELINE TESTING
1758+650 to 1767+600
ALASKA HIGHWAY**

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1496
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-D361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1758+650 CENTRELINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/07

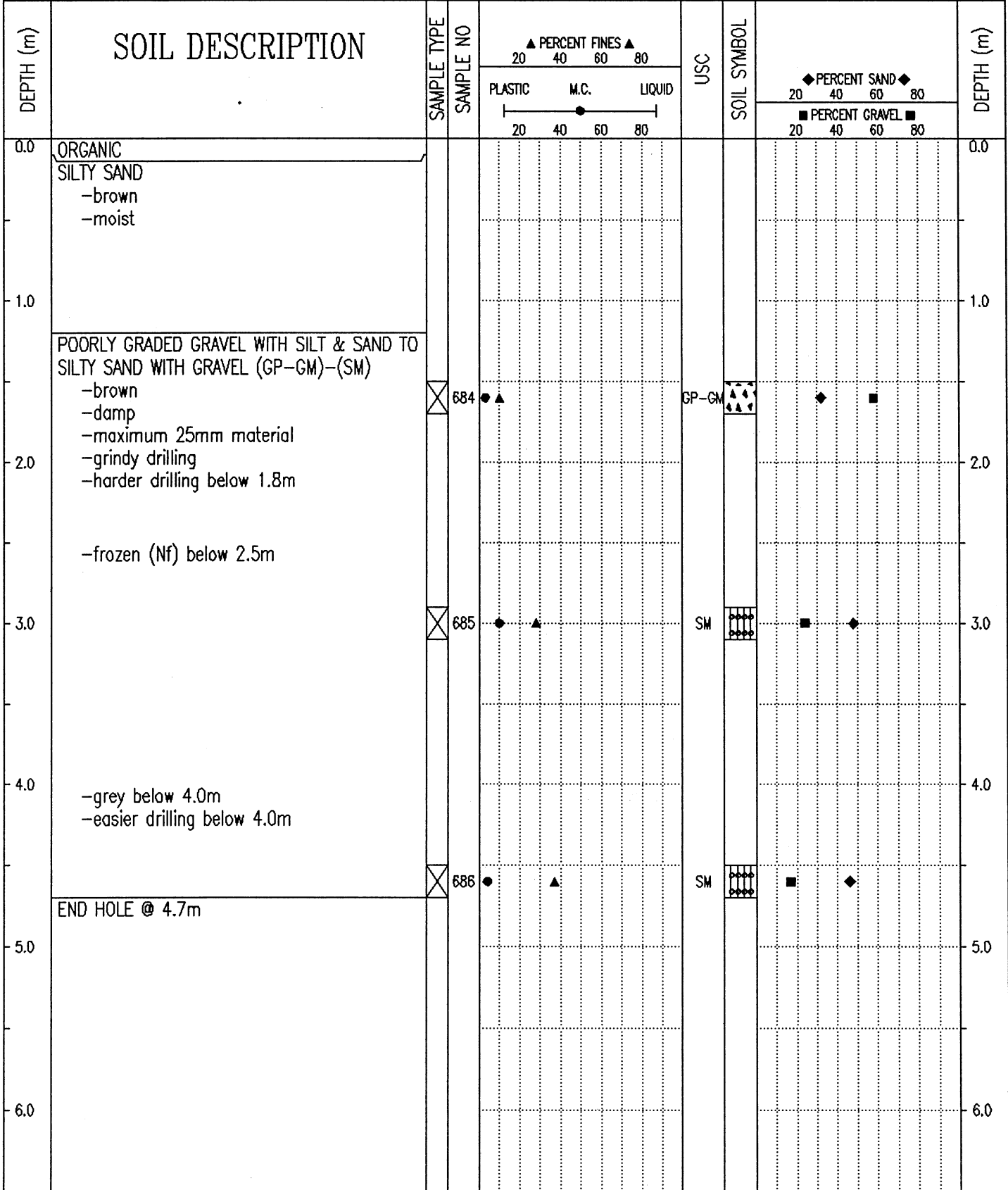
SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1497									
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361									
B40 MOBILE DRILL 6" AUGER		LOCATION: 1758+800 CENTRELINE		ELEVATION: 0.00 (m)									
SAMPLE TYPE		RETURN		S.P.T.									
		AUGER		BULK									
		TUBE		CORE									
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC SANDY SILT -some +5mm material -brown -moist												0.0
1.0	SILTY SAND WITH GRAVEL (SM) -brown -damp -maximum 25mm material -grindy drilling -dense		681	●	▲		SM	◐◑◒◓◔◕◖◗◘◙◚◛◜◝◞◟◠◡◢◣◤◥◦◧◨◩◪◫◬◭◮◯◰◱◲◳◴◵◶◷◸◹◺◻◼◽◾◿◠◡◢◣◤◥◦◧◨◩◪◫◬◭◮◯◰◱◲◳◴◵◶◷◸◹◺◻◼◽◾◿	■	◆			1.0
2.0	-harder grindy drilling below 2.1m												2.0
3.0	-frozen (Nf) below 2.5m		682	●	▲		SM	◐◑◒◓◔◕◖◗◘◙◚◛◜◝◞◟◠◡◢◣◤◥◦◧◨◩◪◫◬◭◮◯◰◱◲◳◴◵◶◷◸◹◺◻◼◽◾◿	■	◆			3.0
4.0	-grey below 4.0m												4.0
5.0	END HOLE @ 4.7m		683	●	▲		SM	◐◑◒◓◔◕◖◗◘◙◚◛◜◝◞◟◠◡◢◣◤◥◦◧◨◩◪◫◬◭◮◯◰◱◲◳◴◵◶◷◸◹◺◻◼◽◾◿	■	◆			5.0
6.0													6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/07

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1498
ENGINEERING CAPITAL		KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER		LOCATION: 1758+900 14M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/07
Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1515
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+000 15M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	ORGANIC -smooth easy drilling										0.0
1.0											1.0
2.0											2.0
3.0											3.0
4.0											4.0
4.7	SANDY SILT (ML) -with organic -grey -saturated -rotting veg. aroma END HOLE @ 4.7m	<input checked="" type="checkbox"/>	731				ML				4.7
5.0											5.0
6.0											6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 5.0 m

REVIEWED BY:

COMPLETE: 00/06/12

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1499
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+010 + 15M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	DITCH DEBRIS										0.0	
	SANDY SILTY ORGANIC -frozen (Nb)											
1.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -grindy drilling		687	●▲			SM	◆■◆			1.0	
2.0	-H2O level @ 2.0m -no sample recovered below 2.0m material washed off augers. -gravelly material observed										2.0	
3.0											3.0	
4.0											4.0	
5.0	END HOLE @ 4.7m -Note: Test hole @ culvert site										5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/07
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1500								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+010 + 13M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND		PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	ORGANIC SILT -some organic -light brown -damp											0.0
1.0	SILTY SAND WITH GRAVEL (SM) -light grey -damp -maximum 25mm material -grindy drilling											1.0
2.0	-saturated below 2.0m -lost sample # 689											2.0
3.0	-grey below 2.6m -frozen (Nb) below 2.6m -harder grindy drilling											3.0
4.0												4.0
5.0	END HOLE @ 4.7m											5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY:		COMPLETION DEPTH: 4.7 m COMPLETE: 00/06/07						
				Fig. No:						Page 1 of 1		

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1516								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+075 10M RT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND		PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -moist -maximum 50mm material -grindy drilling											0.0
1.0												1.0
2.0												2.0
3.0	SILTY SAND WITH GRAVEL (SM) -grey -saturated -some +5mm material contamination -easy smooth drilling -damp below 3.5m	<input checked="" type="checkbox"/>	733	●	▲		SM	▣	◆	■		3.0
4.0												4.0
5.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	734	●	▲		SM	▣	◆	■		5.0
6.0												6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

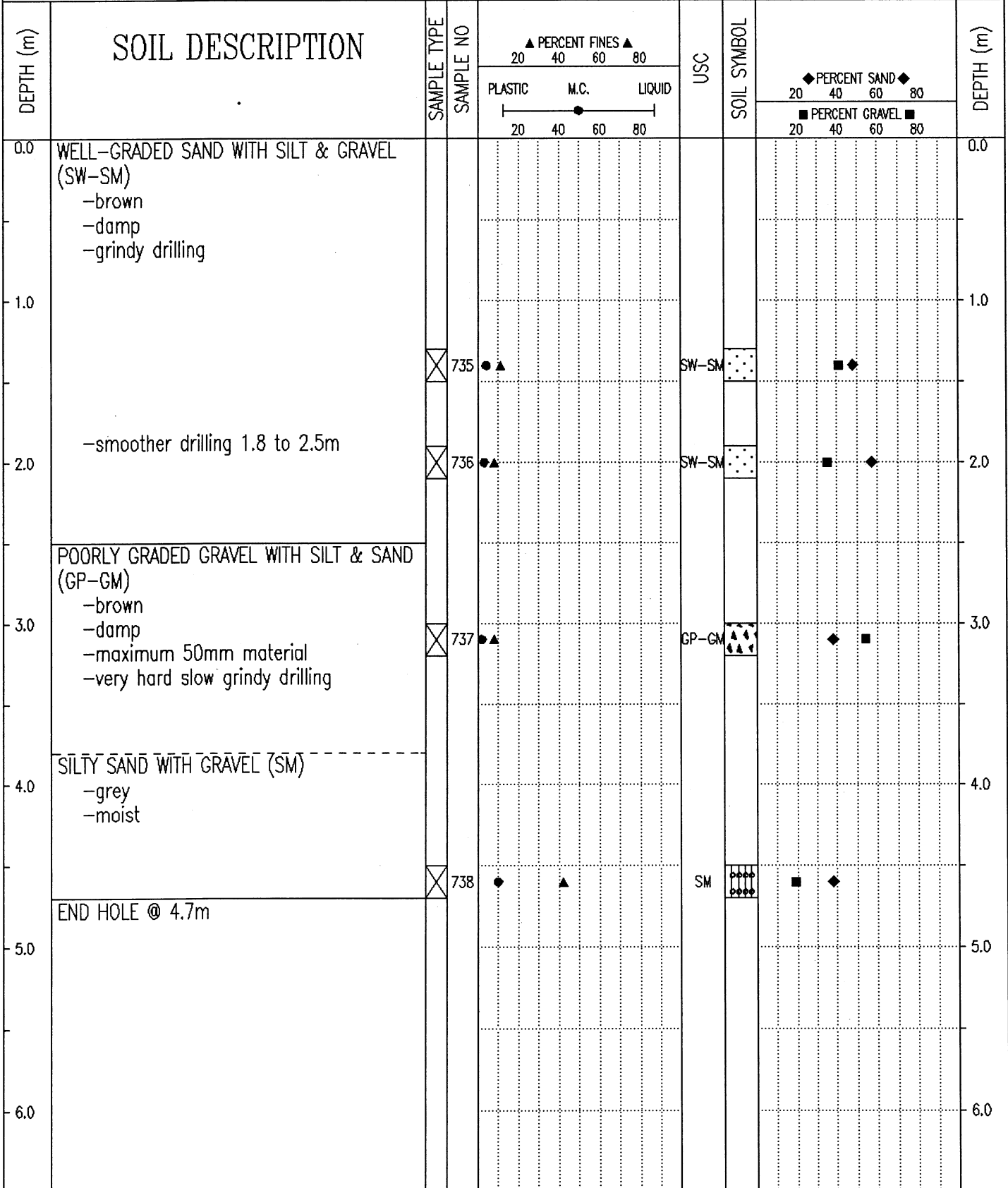
Fig. No:

COMPLETION DEPTH: 5.0 m

COMPLETE: 00/06/12

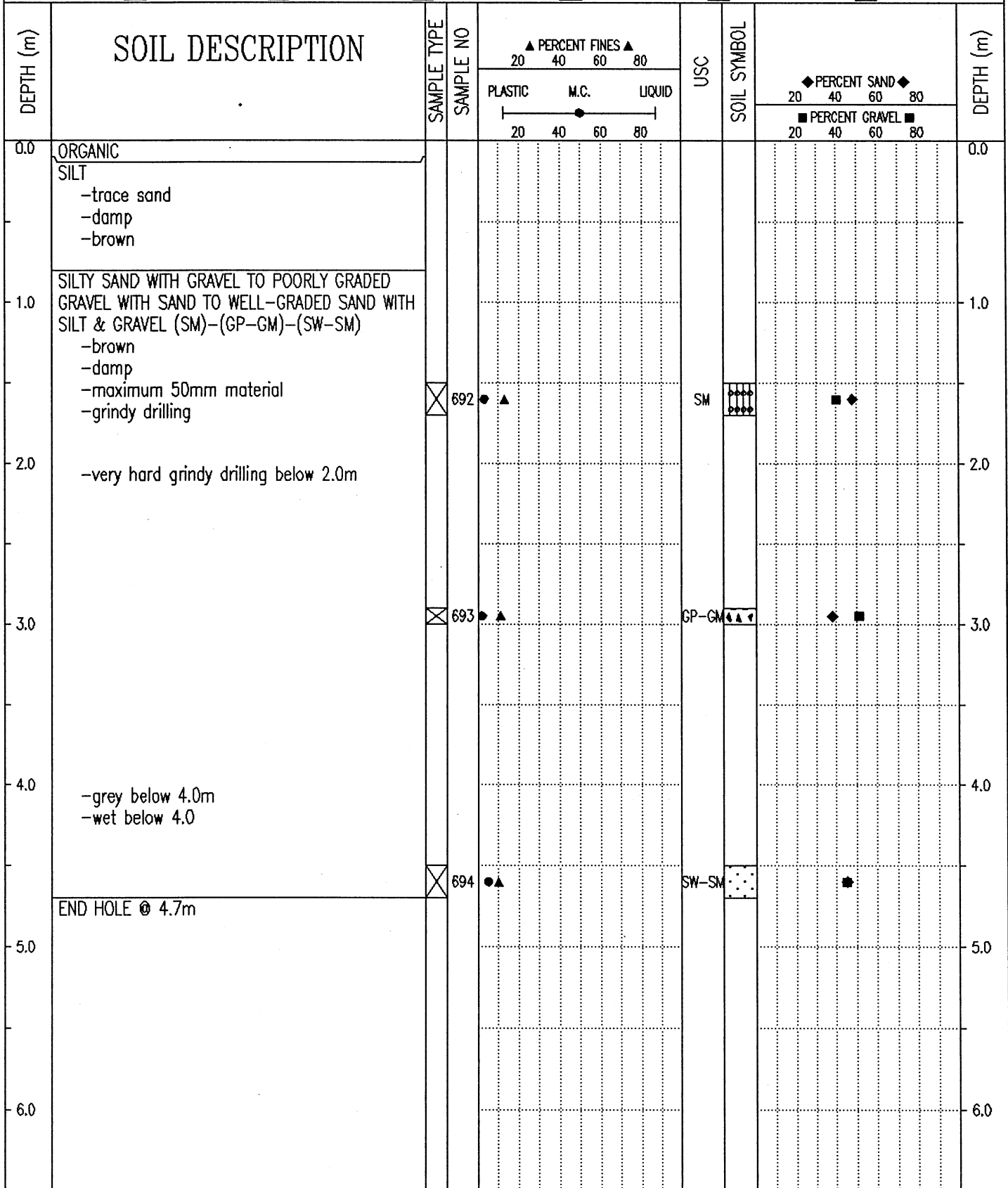
Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1517
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+150 + 12M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/12
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 552-1501
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+200 + 07M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/07
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1518						
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361						
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+250		ELEVATION: 0.00 (m)						
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE										
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80		USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80		DEPTH (m)
				PLASTIC M.C. LIQUID 20 40 60 80				■ PERCENT GRAVEL ■ 20 40 60 80		
0.0	ORGANIC SANDY SILT -damp									0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -maximum 50mm material -grindy drilling									1.0
		<input checked="" type="checkbox"/>	739	▲		GP-GM	▲▲▲▲	◆	■	
2.0										2.0
3.0		<input checked="" type="checkbox"/>	740	●	▲	GP-GM	▲▲▲▲	◆	■	3.0
4.0	SILTY SAND WITH GRAVEL (SM) -grey -moist -very hard slow grindy drilling									4.0
		<input checked="" type="checkbox"/>	741	●	▲	SM	●●●●	◆	■	
5.0	END HOLE @ 4.7m									5.0
6.0										6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/12

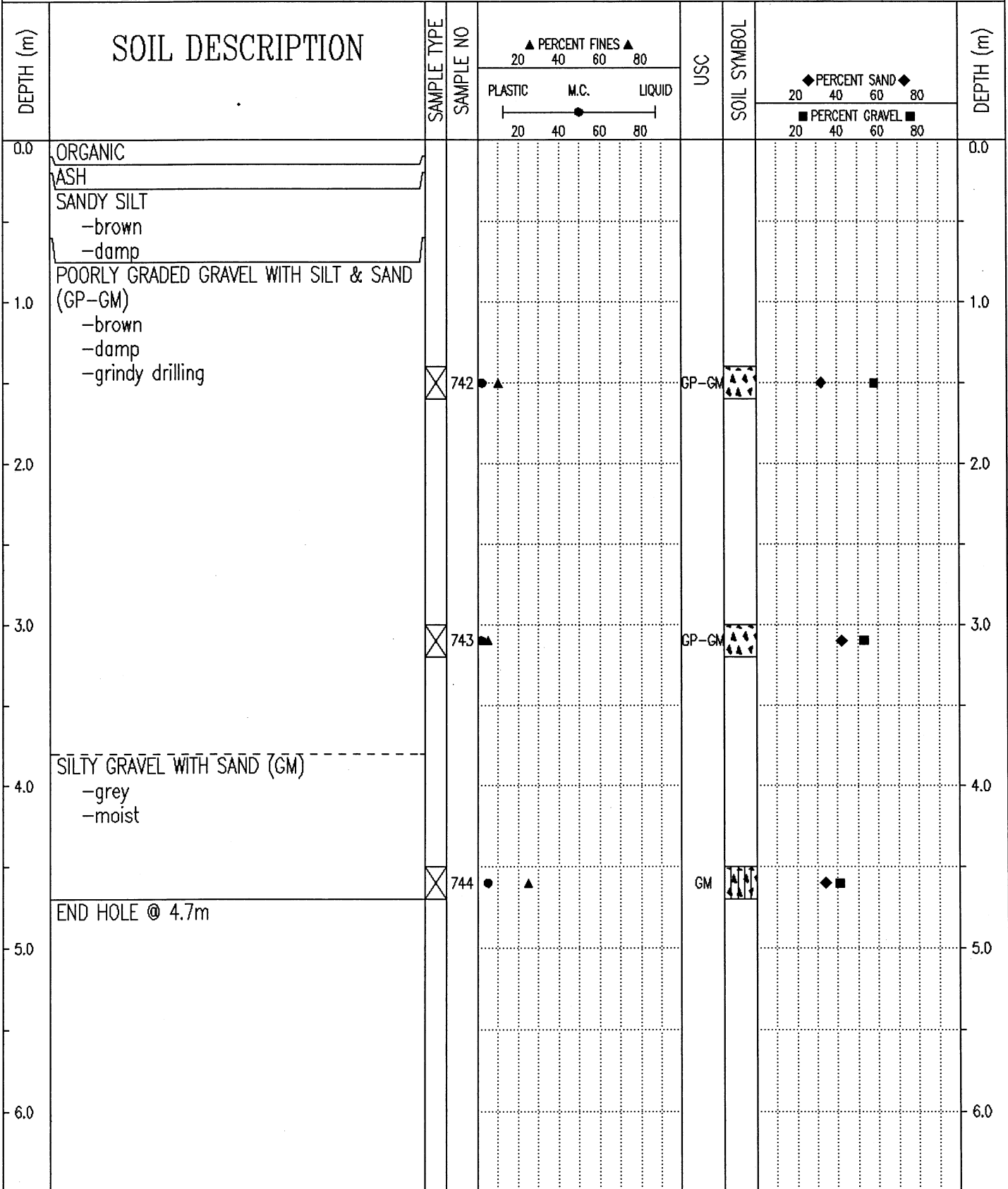
Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1502									
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361									
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+300 + 11M LT		ELEVATION: 0.00 (m)									
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER									
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE									
				<input type="checkbox"/> CORE									
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■				
				20	40	60	80		20	40	60	80	
				20	40	60	80		20	40	60	80	
0.0	SILT & ORGANIC -brown -damp												0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -maximum 50mm material -grindy drilling												1.0
2.0		<input checked="" type="checkbox"/>	695	▲				GP-GM	▲▲▲		◆	■	2.0
3.0	-grey below 2.5m -very hard grindy drilling below 2.5m	<input checked="" type="checkbox"/>	696	▲				GP-GM	▲▲▲		◆	■	3.0
4.0	SILTY SAND WITH GRAVEL (SM) -grey -saturated												4.0
5.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	697	◆	▲			SM	●●●●		◆	■	5.0
6.0													6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T. COMPLETION DEPTH: 4.7 m
REVIEWED BY: COMPLETE: 00/06/07
Fig. No: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1519
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+334 + 15M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

Fig. No:

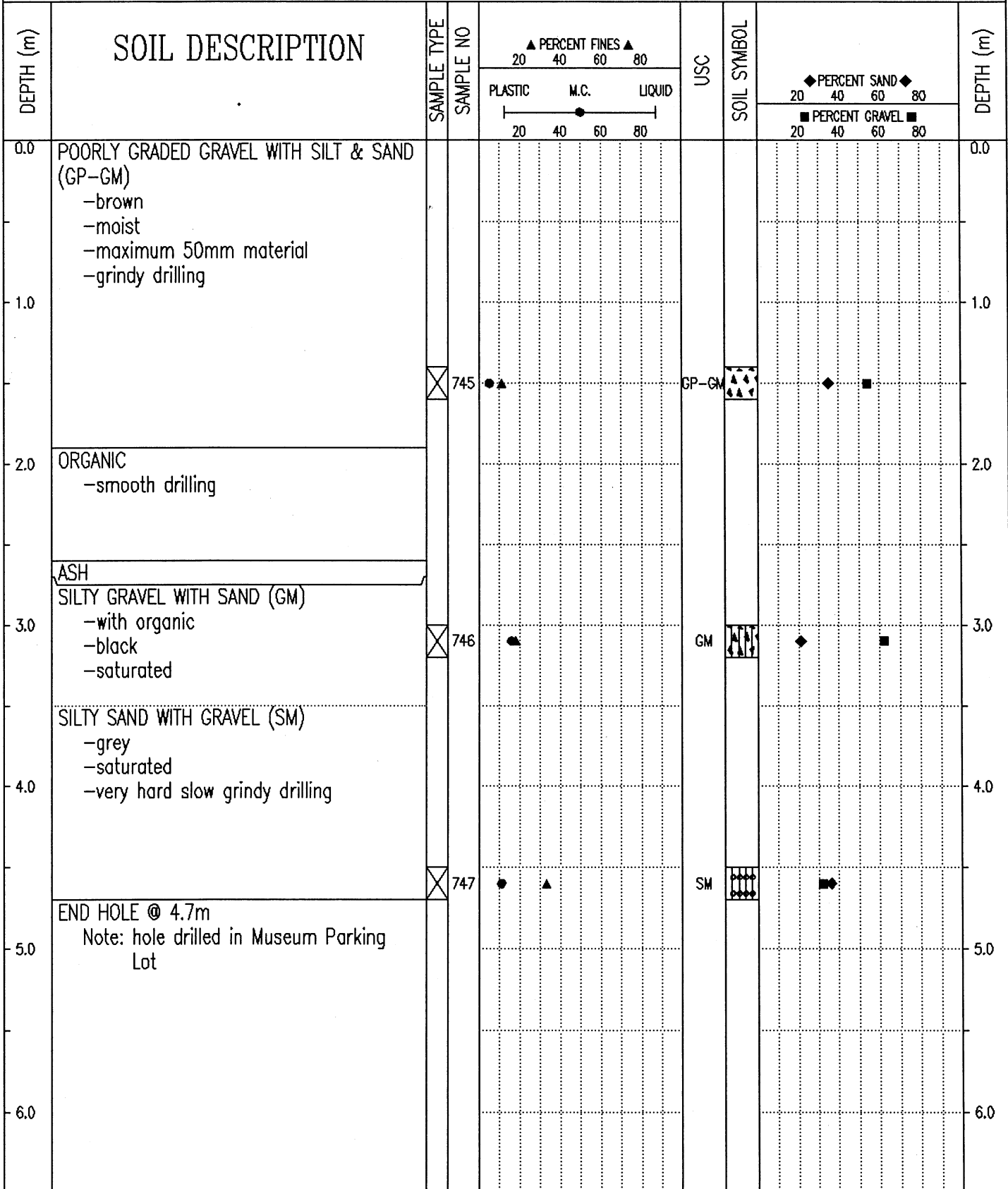
COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/12

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1503								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+400 + 12M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL			
0.0	ORGANIC POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL (GP-GM)-(SM) -grey -wet -maximum 50mm material -grindy drilling										0.0	
1.0											1.0	
2.0	-frozen (Nf) below 2.0m										2.0	
3.0	SANDY SILT TO SILTY SAND WITH GRAVEL (ML)-(SM) -grey -frozen (Nb)										3.0	
4.0											4.0	
5.0	END HOLE @ 4.7m										5.0	
6.0											6.0	
Government of Yukon Transportation Engineering				LOGGED BY: D.T.		COMPLETION DEPTH: 4.7 m						
				REVIEWED BY:		COMPLETE: 00/06/07						
				Fig. No:		Page 1 of 1						

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1520
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+450 + 08M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

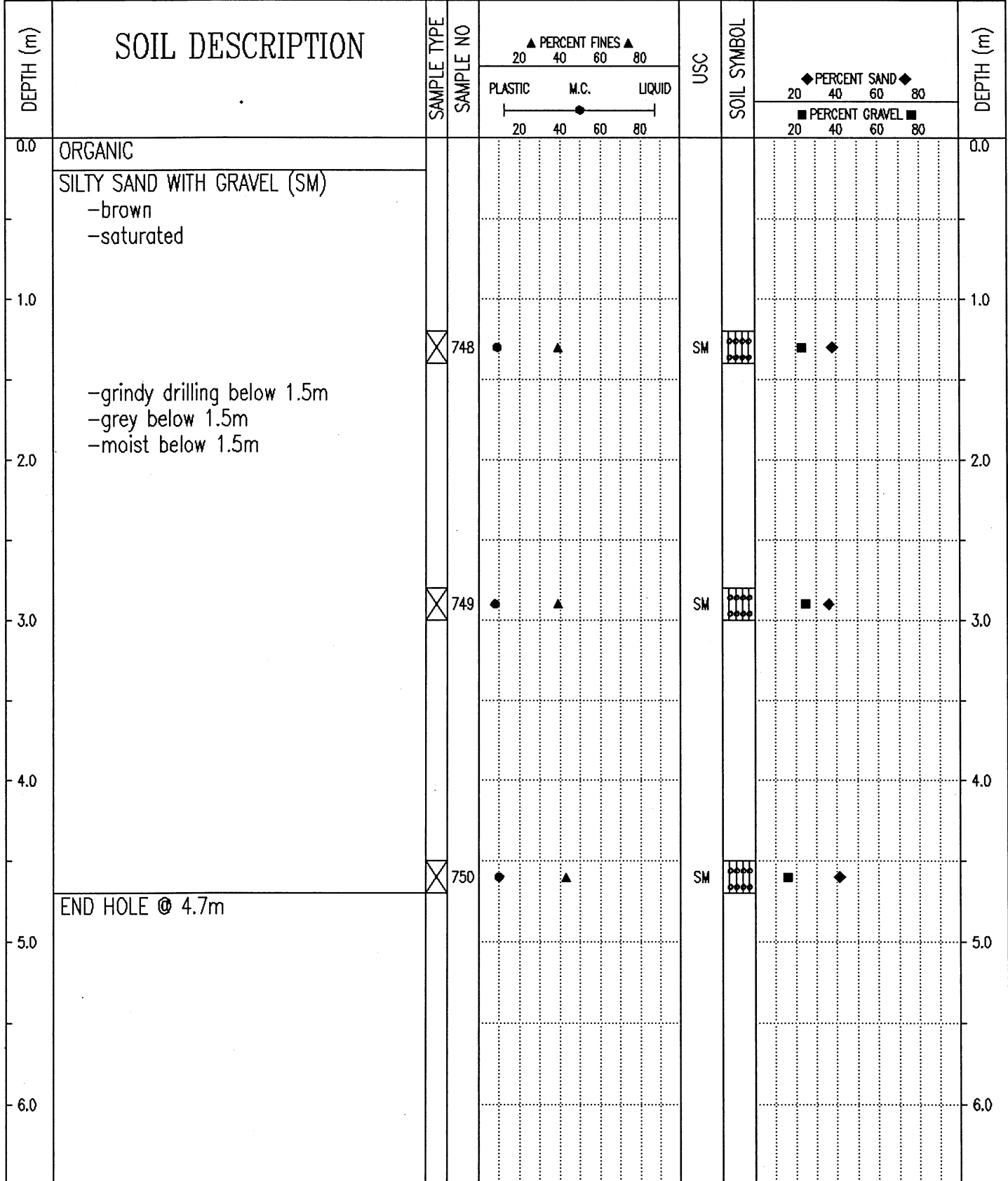


Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/12
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1504								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+475 + 15M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC -frozen (Nb)										0.0	
1.0											1.0	
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf)	<input checked="" type="checkbox"/>	702	▲	●	▲	SM	◆	◆	◆	2.0	
3.0	-frozen (Nf) below 2.6m	<input checked="" type="checkbox"/>	703	▲	●	▲	SM	◆	◆	◆	3.0	
4.0	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nb)	<input checked="" type="checkbox"/>	704	▲	●	▲	GM	◆	◆	◆	4.0	
5.0	END HOLE @ 4.7m -Note: Test hole @ culvert site										5.0	
6.0											6.0	
Government of Yukon Transportation Engineering				LOGGED BY: D.T.		COMPLETION DEPTH: 4.7 m						
				REVIEWED BY:		COMPLETE: 00/06/07						
				Fig. No:		Page 1 of 1						

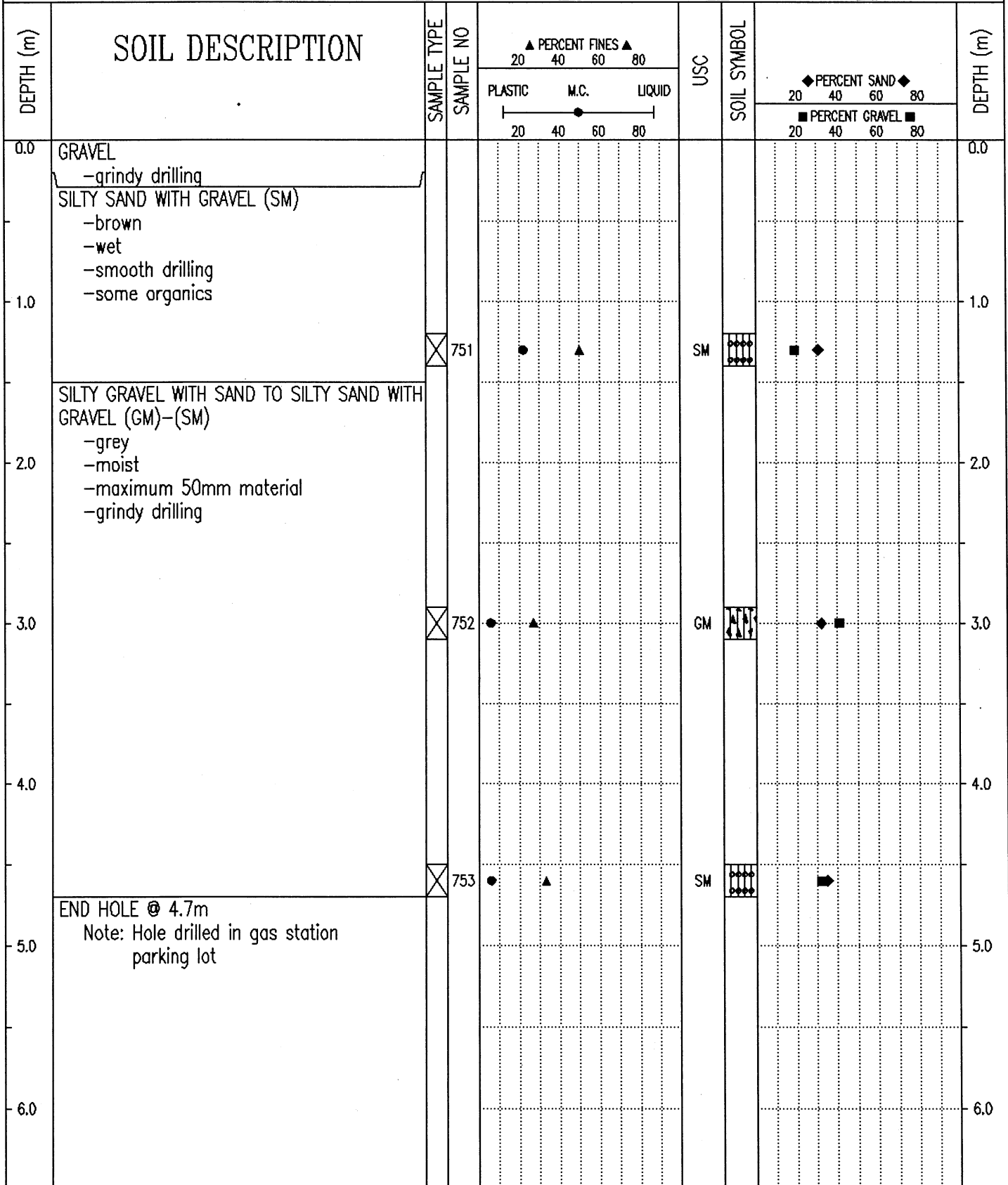
SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1521
ENGINEERING CAPITAL		KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+500 + 20M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/12
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1522
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1759+555 + 05M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/12
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1505								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+625 + 15M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		S.P.T.		AUGER		BULK		TUBE		CORE		
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC SANDY SILT -brown -damp										0.0	
1.0	SILTY SAND WITH GRAVEL (SM) -brown -damp -grindy drilling										1.0	
2.0			705	●	▲		SM	◆	■		2.0	
3.0	SILTY GRAVEL WITH SAND (GM) -brown -damp -maximum 25mm material										3.0	
4.0			706	●	▲		GM	◆	■		3.0	
5.0	-hard slow grindy drilling -dense below 4.0m										4.0	
6.0	END HOLE @ 4.7m		707	●	▲		GM	◆	■		5.0	
Government of Yukon Transportation Engineering		LOGGED BY: D.T.		COMPLETION DEPTH: 4.7 m								
		REVIEWED BY:		COMPLETE: 00/06/07								
		Fig. No:		Page 1 of 1								

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1523								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+670 + 09M RT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	SILTY GRAVEL WITH SAND (GM) -grey -moist -grindy drilling	<input checked="" type="checkbox"/>	754	●	▲		GM	▲▲▲	◆	■		0.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -moist	<input checked="" type="checkbox"/>	755	●	▲		SM	●●●●	■	◆		2.0
5.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	756	●	▲		SM	●●●●	■	◆		5.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 4.7 m

REVIEWED BY:

COMPLETE: 00/06/12

Fig. No:

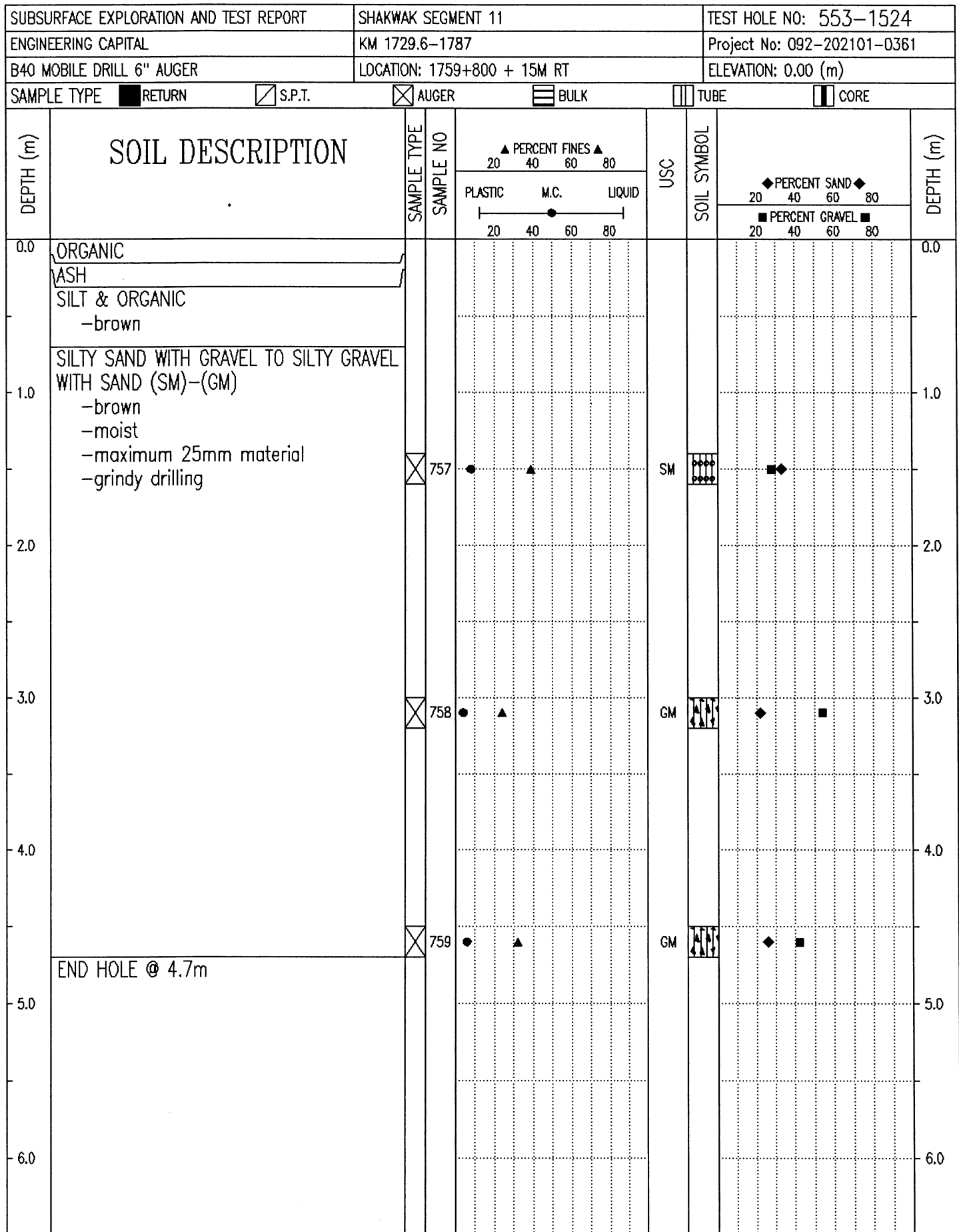
Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1506								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+750 + 08M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC SILT & ORGANIC -brown -moist											0.0
1.0	SILTY SAND TO SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -moist -grindy drilling											1.0
2.0			708				SM					2.0
3.0			709				SM					3.0
4.0			710				GM					4.0
5.0	END HOLE @ 4.7m											5.0
6.0												6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/07



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 4.7 m

REVIEWED BY:

COMPLETE: 00/06/12

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1507								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+850 + 10M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC ASH SANDY SILT -brown -damp										0.0	
1.0											1.0	
2.0	SILTY SAND WITH GRAVEL TO SILTY SAND TO SILTY SAND WITH GRAVEL (SM) -brown -moist -maximum 25mm material -grindy drilling	⊗	711	●	▲		SM	◆	■		2.0	
3.0		⊗	712	●	▲		SM	◆	■		3.0	
4.0											4.0	
5.0	END HOLE @ 4.7m	⊗	713	●	▲		SM	◆	■		5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/07

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1525								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+900 17M RT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -grey -moist			20	40	60	80					0.0
1.0												1.0
2.0												2.0
3.0			760	●	▲			SM	◆	■		3.0
4.0												4.0
5.0			761	●	▲			SM	◆	■		5.0
6.0												6.0
4.0	-more +5mm material below 4.0m											
4.7	END HOLE @ 4.7m		762	●	▲			GM	◆	■		4.7

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/12

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1508											
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361											
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+950 + 11M LT		ELEVATION: 0.00 (m)											
SAMPLE TYPE		<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE													
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			PERCENT GRAVEL ■			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	80	20	40	
0.0	ORGANIC ASH SANDY SILT -brown -damp													0.0	
1.0	SANDY GRAVEL -grindy drilling													1.0	
2.0	SILTY SAND (SM) -brown -moist -smooth drilling	<input checked="" type="checkbox"/>	714	●	▲		SM	●●●●		◆				2.0	
3.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -grindy drilling	<input checked="" type="checkbox"/>	715	●	▲		SM	●●●●	■	◆				3.0	
4.0	SILTY GRAVEL WITH SAND (GM) -brown -saturated -maximum 50mm material -grindy drilling	<input checked="" type="checkbox"/>	716	●	▲		GM	●●●●		◆	■			4.0	
5.0	END HOLE @ 4.7m													5.0	
6.0														6.0	
Government of Yukon Transportation Engineering				LOGGED BY: D.T.				COMPLETION DEPTH: 4.7 m							
				REVIEWED BY:				COMPLETE: 00/06/07							
				Fig. No:				Page 1 of 1							

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1526								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+000 + 13M RT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC SILT -light brown -damp											0.0
1.0	SANDY GRAVEL -trace silt -damp -brown -grindy drilling											1.0
2.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -grey -moist to wet -moist below 2.5m	☒	763	●	▲		SM	◆	◆			2.0
3.0		☒	764	●	▲		GM	◆	◆			3.0
4.0												4.0
5.0	END HOLE @ 4.7m	☒	765	●	▲		GM	◆	◆			5.0
6.0												6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/12

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1509								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+050 + 10M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC SILTY SAND (SM) -brown -moist -trace +5mm material										0.0	
1.0											1.0	
2.0	SILTY GRAVEL WITH SAND (SM)-(GM) -brown -saturated -grindy drilling -H2O level @ 2.6m	X	717	●	▲		SM	◆	■		2.0	
3.0		X	718	●	▲		GM	◆	■		3.0	
4.0	-no sample recovered below 4.0m material washed off. -material observed was similar to sample # 718										4.0	
5.0	END HOLE @ 4.7m										5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/07

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1510						
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361						
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+150 + 10M LT		ELEVATION: 0.00 (m)						
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE										
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80		USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80		DEPTH (m)
				PLASTIC M.C. LIQUID 20 40 60 80				■ PERCENT GRAVEL ■ 20 40 60 80		
0.0	ORGANIC SANDY SILT -brown -moist									0.0
1.0										1.0
2.0	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SM)-(GP-GM) -brown -moist -maximum 50mm material -easy grindy drilling below 2.2m -saturated below 2.8m	<input checked="" type="checkbox"/>	719	● ▲		SM	◻◻◻◻	■ ◆		2.0
3.0		<input checked="" type="checkbox"/>	720	● ▲		GP-GM	◻◻◻◻	■ ◆		3.0
4.0	-no sample recovered below 4.0m material washed off auger -material observed is simalar to sample # 720									4.0
5.0	END HOLE @ 4.7m									5.0
6.0										6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.		COMPLETION DEPTH: 4.7 m				
				REVIEWED BY:		COMPLETE: 00/06/07				
				Fig. No:		Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1514								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+200 + 10M RT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ROAD BED MATERIAL											0.0
	ORGANIC											
	SANDY SILT -brown -moist											
1.0												1.0
	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SM)-(GP-GM) -saturated -maximum 25mm material -grindy drilling											
2.0		☒	729	●	▲		SM	▣	◆	■		2.0
3.0		☒	730	●	▲		GP-GM	▣	◆	■		3.0
4.0	-no sample below 4.0m - material washed off auger											4.0
5.0	END HOLE @ 4.7m											5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.				COMPLETION DEPTH: 4.7 m				
				REVIEWED BY:				COMPLETE: 00/06/07				
				Fig. No:				Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1511								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+250 + 20M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
0.0 - 1.0	SANDY GRAVELLY SILT -brown -frozen (Nb)											1.0
1.0 - 2.0	SILTY SAND WITH GRAVEL TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(SW-SM) -frozen (Nf) -maximum 25mm material -grindy drilling	<input checked="" type="checkbox"/>	721	▲			SM	◆	■			2.0
2.0 - 3.0		<input checked="" type="checkbox"/>	722	▲			SW-SM	◆	■			3.0
3.0 - 4.0												4.0
4.0 - 5.0	-very hard slow grindy drilling below 3.7m - coarser material											5.0
5.0 - 6.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	723	▲			SW-SM	◆	■			5.0
												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:		COMPLETION DEPTH: 4.7 m COMPLETE: 00/06/07		Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1513						
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361						
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+300 + 10M RT		ELEVATION: 0.00 (m)						
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE										
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80		USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80		DEPTH (m)
				PLASTIC M.C. LIQUID 20 40 60 80				■ PERCENT GRAVEL ■ 20 40 60 80		
0.0	ORGANIC									0.0
	SILT & ORGANIC -some +5mm material -brown -frozen (Nb)									
1.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -frozen (Vx) -grindy drilling									1.0
		<input checked="" type="checkbox"/>	728				SW-SM			
2.0										2.0
	-no sample below 2.5m material washed off.									
3.0										3.0
4.0										4.0
5.0	END HOLE @ 4.7m Note: water level @ .3m when finished drilling test hole.									5.0
6.0										6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:		COMPLETION DEPTH: 4.7 m COMPLETE: 00/06/07		Page 1 of 1		

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 552-1512								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+350 + 20M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
	SANDY SILT -brown -moist											
1.0	SILTY GRAVEL WITH SAND TO SILTY GRAVEL WITH SAND (GM)-(SM) -brown -damp -maximum 25mm material -grindy drilling	<input checked="" type="checkbox"/>	724	●	▲		GM	▲▲▲	◆	■		1.0
2.0												2.0
3.0		<input checked="" type="checkbox"/>	725	●	▲		SM	●●●●	◆	■		3.0
4.0	SILTY SAND (SM) -grey -moist -dense	<input checked="" type="checkbox"/>	726	●	▲		SM	●●●●	◆	■		4.0
5.0	-very hard slow tight grindy drilling below 4.5m											5.0
6.0	END HOLE @ 6.0m	<input checked="" type="checkbox"/>	727	●	▲		SM	●●●●	◆	■		6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

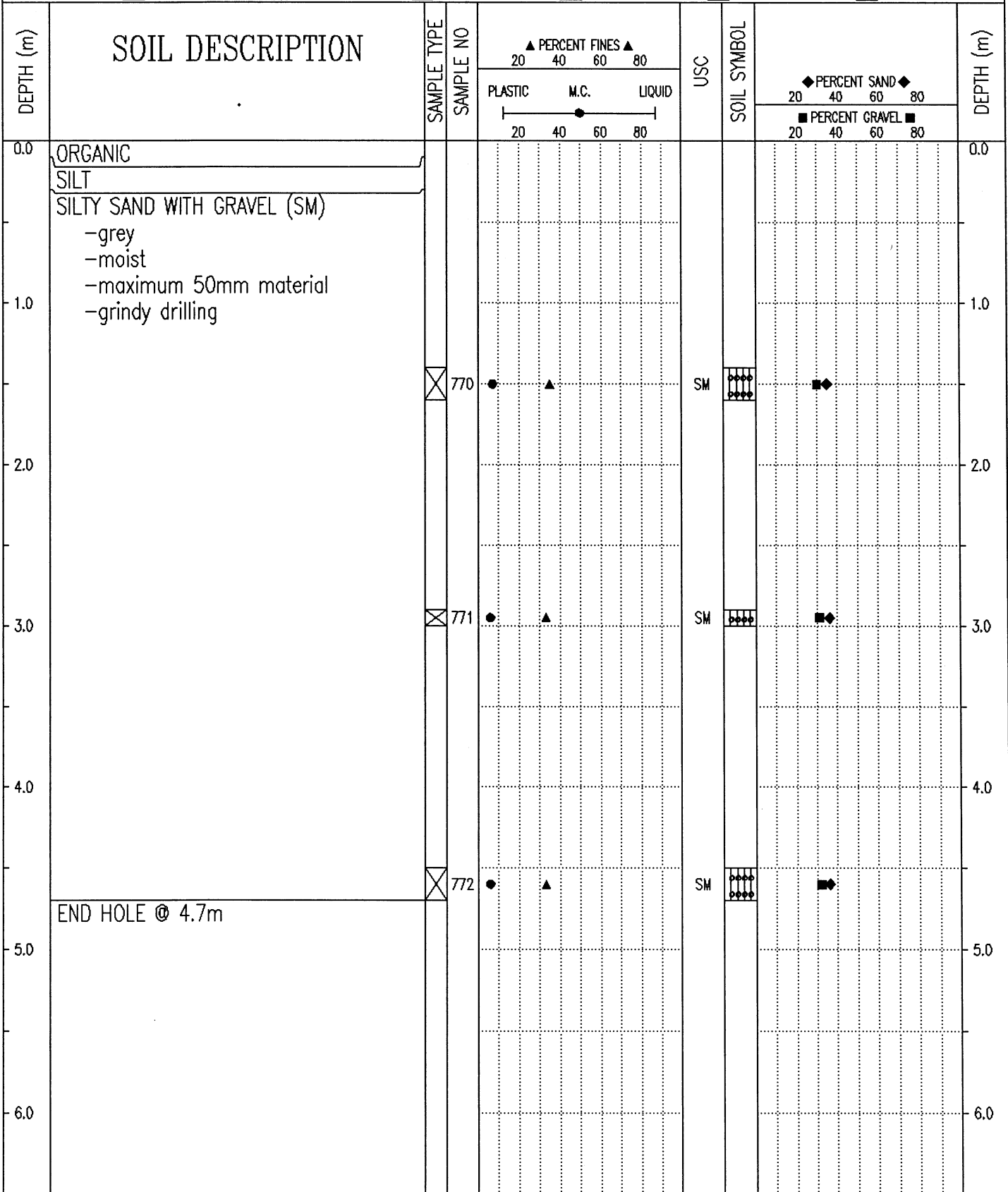
COMPLETION DEPTH: 6.0 m
COMPLETE: 00/06/07

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1527							
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361							
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+400 + 15M LT		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER							
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE							
				<input type="checkbox"/> CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	ORGANIC ASH SANDY SILT (ML) -brown -damp										0.0
1.0		<input checked="" type="checkbox"/>	766	●	▲		ML		◆		1.0
2.0	SILTY GRAVEL WITH SAND (GM) -brown -damp -maximum 25mm material -grindy drilling	<input checked="" type="checkbox"/>	767	●	▲		GM		◆	■	2.0
3.0		<input checked="" type="checkbox"/>	768	●	▲		GM		◆	■	3.0
4.0											
5.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	769	●	▲		GM		◆	■	5.0
6.0											6.0

Government of Yukon
Transportation Engineering

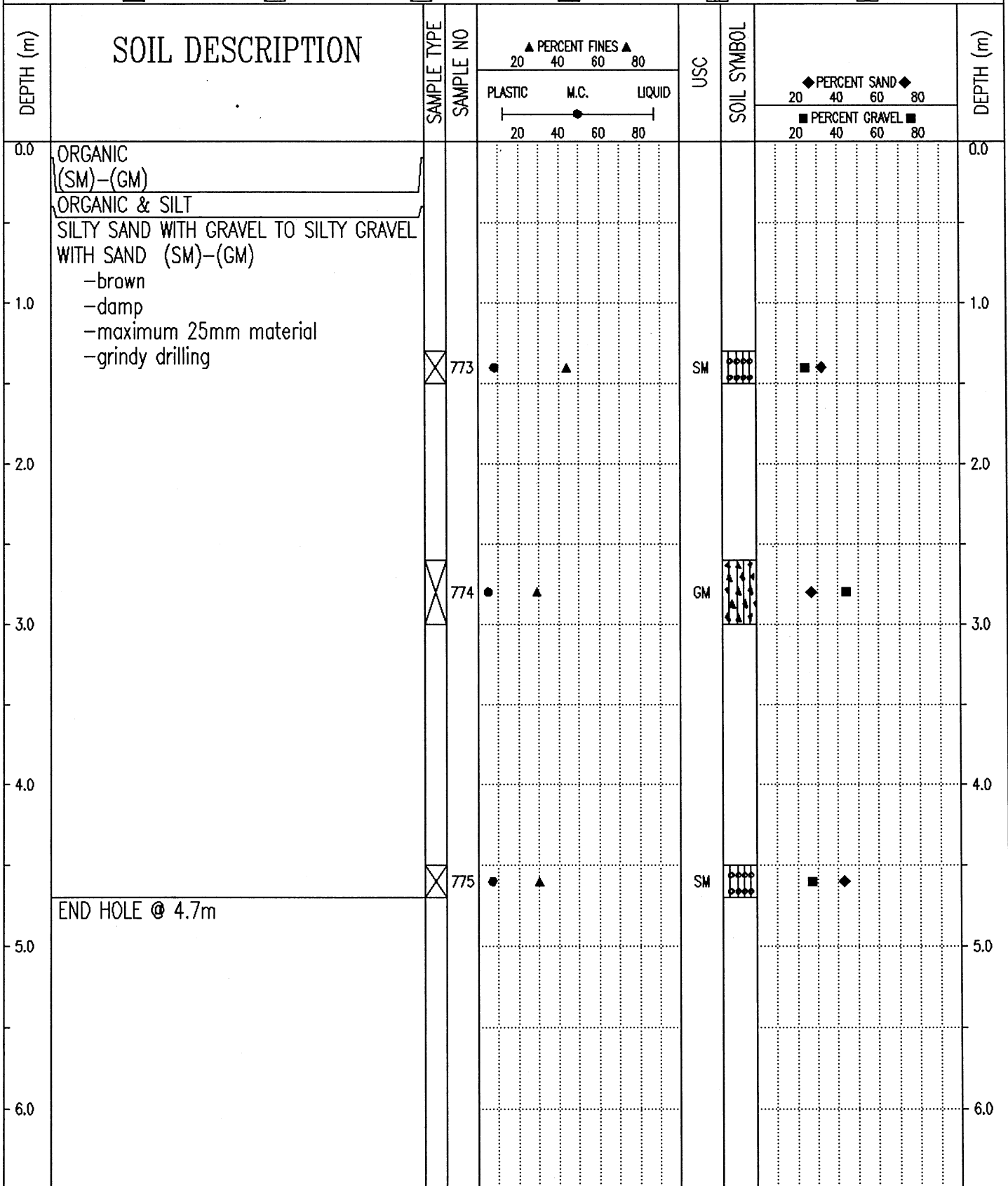
LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/12
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1528
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1760+500	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



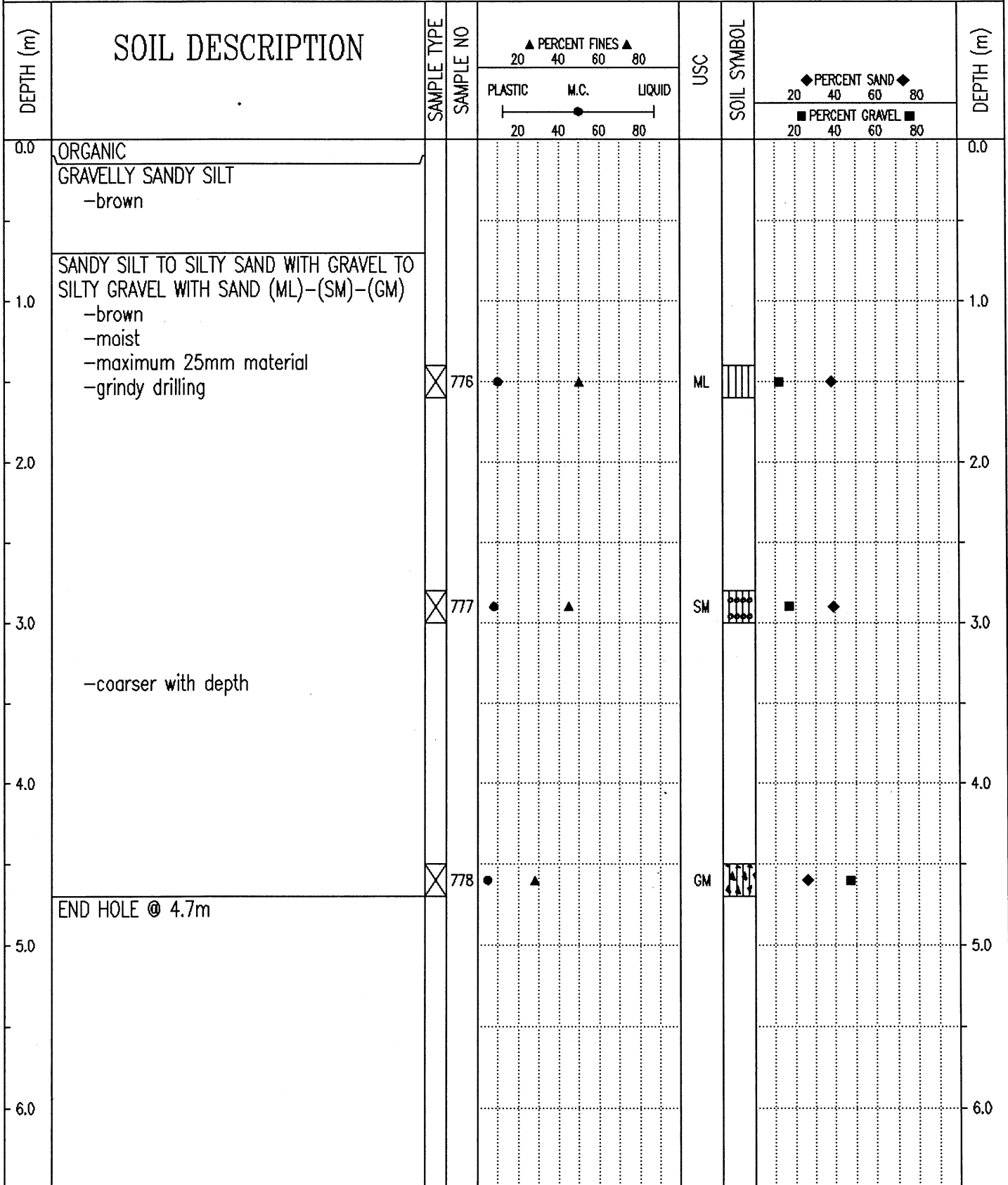
Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/12
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1529
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1760+600 + 4M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/12
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1530
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1760+700 + 12M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/12
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1531								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+800 + 11M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC										0.0	
0.0 - 1.0	SANDY SILT -some +5mm material -brown -damp											
1.0 - 2.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -damp -maximum 25mm material -grindy drilling	<input checked="" type="checkbox"/>	779	●	▲		SM	◆	■			
2.0 - 3.0		<input checked="" type="checkbox"/>	780	●	▲		GM	◆	■			
3.0 - 4.0												
4.0 - 5.0		<input checked="" type="checkbox"/>	781	●	▲		SM	◆	■			
5.0 - 6.0	END HOLE @ 4.7m											
Government of Yukon Transportation Engineering				LOGGED BY: D.T.		COMPLETION DEPTH: 4.7 m						
				REVIEWED BY:		COMPLETE: 00/06/12						
				Fig. No:		Page 1 of 1						

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1532								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1760+900 + 12M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC SANDY SILT -some organic -brown -damp										0.0	
1.0	SILTY GRAVEL WITH SAND TO SILTY SAND (GM)-(SM) -brown -damp -maximum 25mm material -grindy drilling										1.0	
2.0		<input checked="" type="checkbox"/>	782	●	▲		GM	▲▲▲	◆	■	2.0	
3.0		<input checked="" type="checkbox"/>	783	●	▲		GM	▲▲▲	◆	■	3.0	
4.0											4.0	
5.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	784	●	▲		SM	●●●●	◆	■	5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T. COMPLETION DEPTH: 4.7 m
REVIEWED BY: COMPLETE: 00/06/12
Fig. No: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1533								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1761+000 + 15M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	ORGANIC										0.0	
	SANDY SILT -trace +5mm material -brown -wet											
1.0	SILTY SAND TO SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -grindy drilling										1.0	
		<input checked="" type="checkbox"/>	785	●	▲		SM	▢▢▢▢	◆	■		
2.0	-moist below 2.0m										2.0	
3.0		<input checked="" type="checkbox"/>	786	●	▲		SM	▢▢▢▢	◆	■	3.0	
4.0											4.0	
5.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	787	●	▲		SM	▢▢▢▢	◆	■	5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/12

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1534								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1761+100 + 16M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	Ditch Debris										0.0	
	ORGANIC											
	ASH											
1.0	SILTY SAND (SM) -brown -frozen (Nf)										1.0	
2.0		<input checked="" type="checkbox"/>	788	●	▲		SM	◆	■		2.0	
3.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -grey -grindy drilling	<input checked="" type="checkbox"/>	789	●	▲		GM	◆	■		3.0	
4.0	-moist below 4.0m										4.0	
5.0	-some H2O contamination in sample #790	<input checked="" type="checkbox"/>	790	●	▲		SM	◆	■		5.0	
	END HOLE @ 4.7m											

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/12
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1535								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1761+200 + 24M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC - ASH & SILT											0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -wet -grindy drilling											1.0
2.0												2.0
3.0	-free water @ 2.5m											3.0
4.0	SILTY SAND (SM) -grey -moist -easier drilling											4.0
5.0	END HOLE @ 4.7m											5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.				COMPLETION DEPTH: 4.7 m				
				REVIEWED BY:				COMPLETE: 00/06/12				
				Fig. No:				Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1536						
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361						
B40 MOBILE DRILL 6" AUGER		LOCATION: 1761+200 + 15M RT		ELEVATION: 0.00 (m)						
SAMPLE TYPE		RETURN		S.P.T.						
		AUGER		BULK						
		TUBE		CORE						
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲		USC	SOIL SYMBOL	PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.			LIQUID	PERCENT GRAVEL ■	
0.0	ORGANIC ORGANIC & SILT -saturated									0.0
1.0	WELL-GRADED GRAVEL WITH SAND (GW) -brown -free water -grindy drilling									1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nb)									2.0
3.0		X	799	▲			GW	◆	■	3.0
4.0		X	800	●	▲		SM	◆	■	4.0
5.0		X	801	●	▲		SM	◆	■	5.0
6.0	END HOLE @ 4.7m Note: Water level @ 0.2m at completion of hole									6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/12

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1537								
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1761+300 + 10M RT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC										0.0	
	SANDY SILT -wet											
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -free water -grindy drilling										1.0	
		<input checked="" type="checkbox"/>	802	▲	●		GP	▲	◆	■		
2.0											2.0	
3.0											3.0	
	-no samples below 2.5, material washed off auger											
4.0											4.0	
5.0	END HOLE @ 4.7m Note: hole drilled at Burwash Airport Road										5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 4.7 m

REVIEWED BY:

COMPLETE: 00/06/12

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1538
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1761+400	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.
	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK
	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE

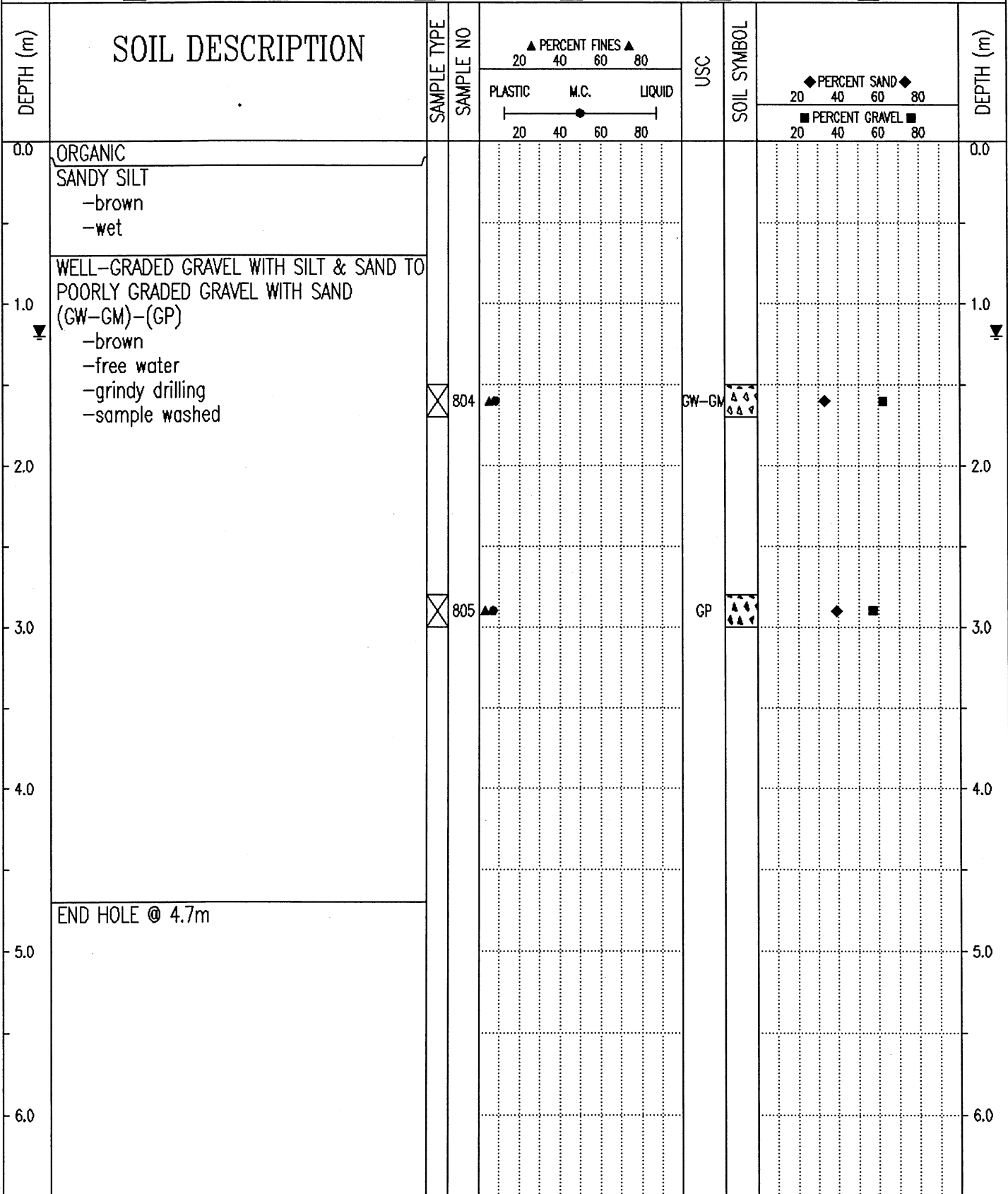
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC												0.0
	GRAVELLY SILTY SAND -moist to wet												
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -free water -grindy drilling -sample washed												1.0
			803					GP					
2.0													2.0
3.0	-no other samples recovered - material washed off auger												3.0
4.0													4.0
5.0	END HOLE @ 4.7m												5.0
6.0													6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

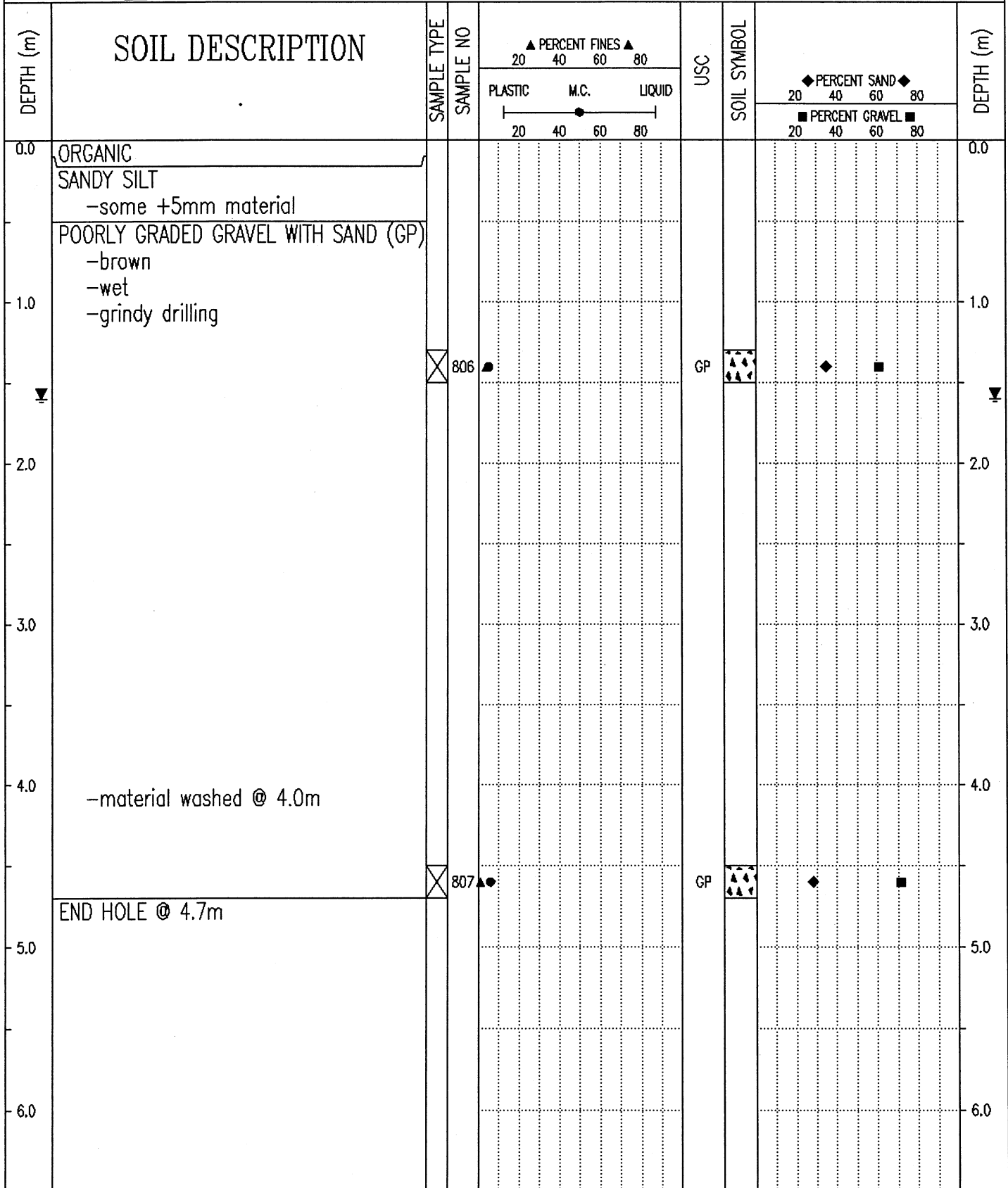
COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/12

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 553-1539
ENGINEERING CAPITAL	KM 1729.6-1787	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1761+500 + 9M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/12
	Fig. No:	Page 1 of 1

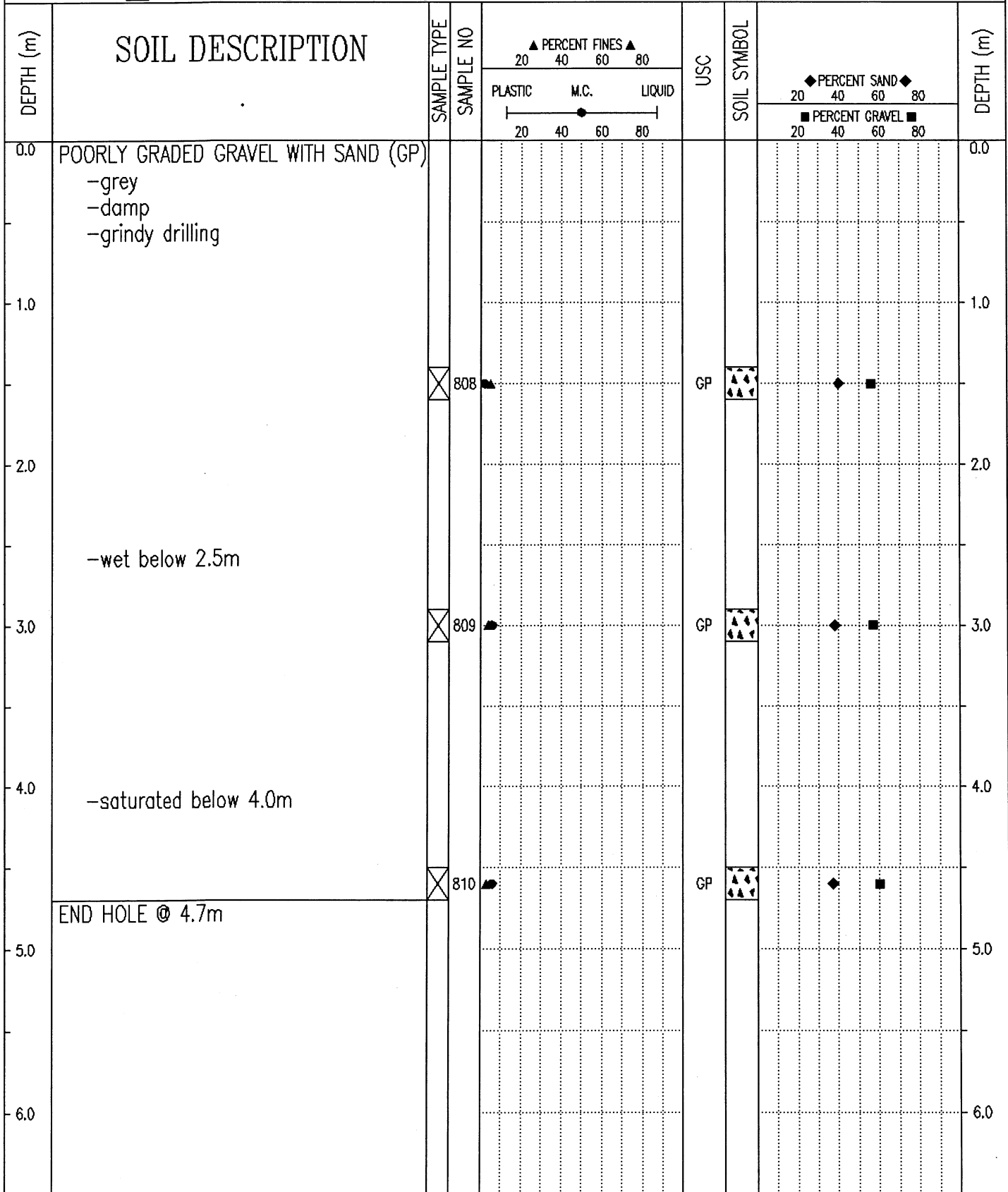
SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1540
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1761+600 + 8M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/14
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1541
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1761+700 + 8M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

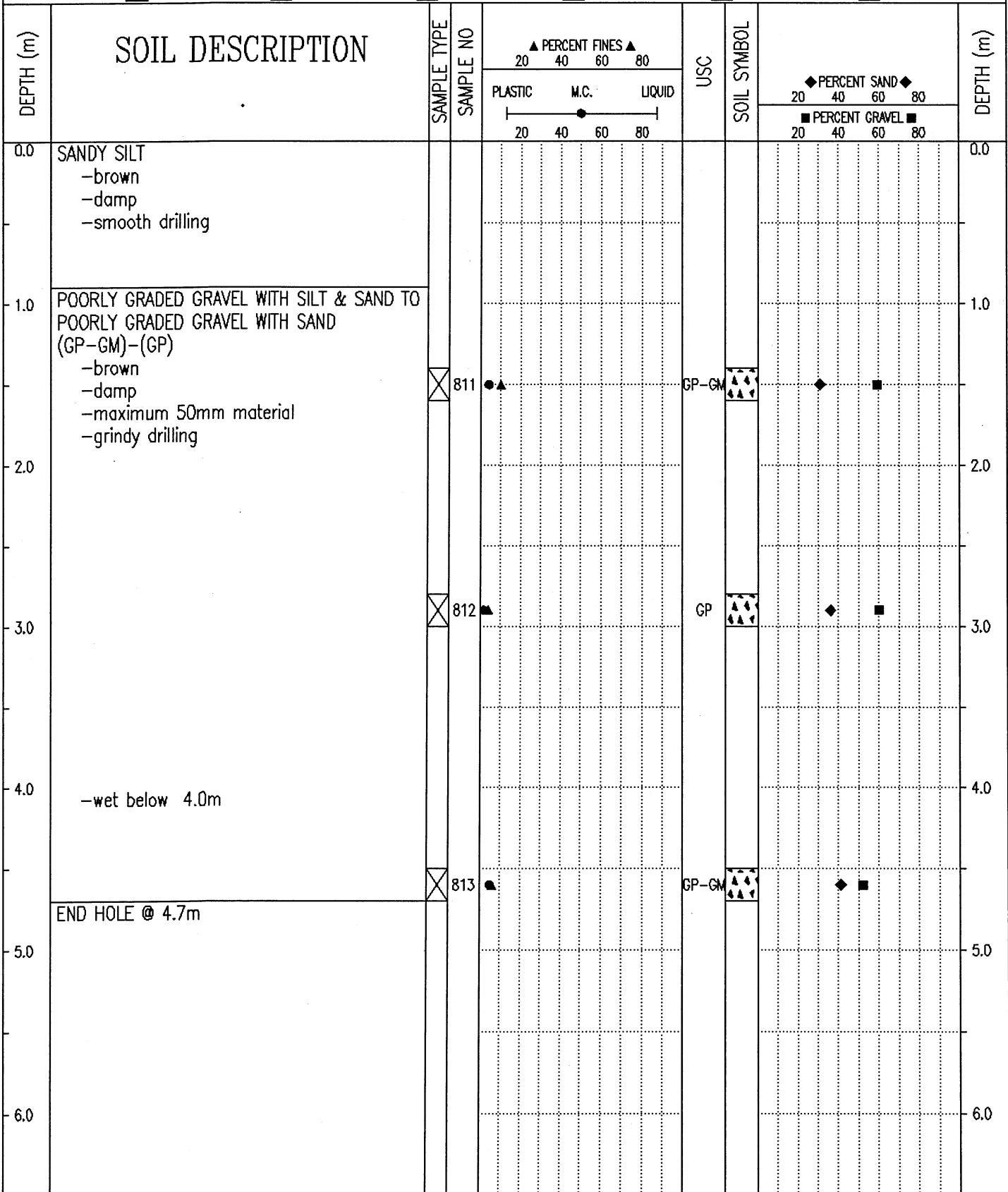


Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/14

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1542
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1761+800 + 9M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 4.7 m

REVIEWED BY:

COMPLETE: 00/06/14

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 554-1543								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1761+900 + 9M RT		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	SANDY SILT -brown -moist -smooth drilling										0.0	
1.0	SILTY GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GM)-(GP-GM) -brown -damp -grindy drilling										1.0	
2.0		<input checked="" type="checkbox"/>	814	●	▲		GM	◆	■		2.0	
3.0											3.0	
4.0											4.0	
5.0	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	815	●	▲		GP-GM	◆	■		5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/14
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1544
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+000 + 9M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
				20 40 60 80				20 40 60 80				
0.0	SANDY SILT -brown -moist -smooth drilling										0.0	
1.0											1.0	
2.0	SILTY GRAVEL WITH SAND (GM) -brown -damp -maximum 50mm material -grindy drilling										2.0	
3.0		<input checked="" type="checkbox"/>	816	●	▲		GM	▲▲▲	◆	■	3.0	
4.0	-no sample recovered @4.5m - material vibrated off auger.										4.0	
5.0	END HOLE @ 4.7m										5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

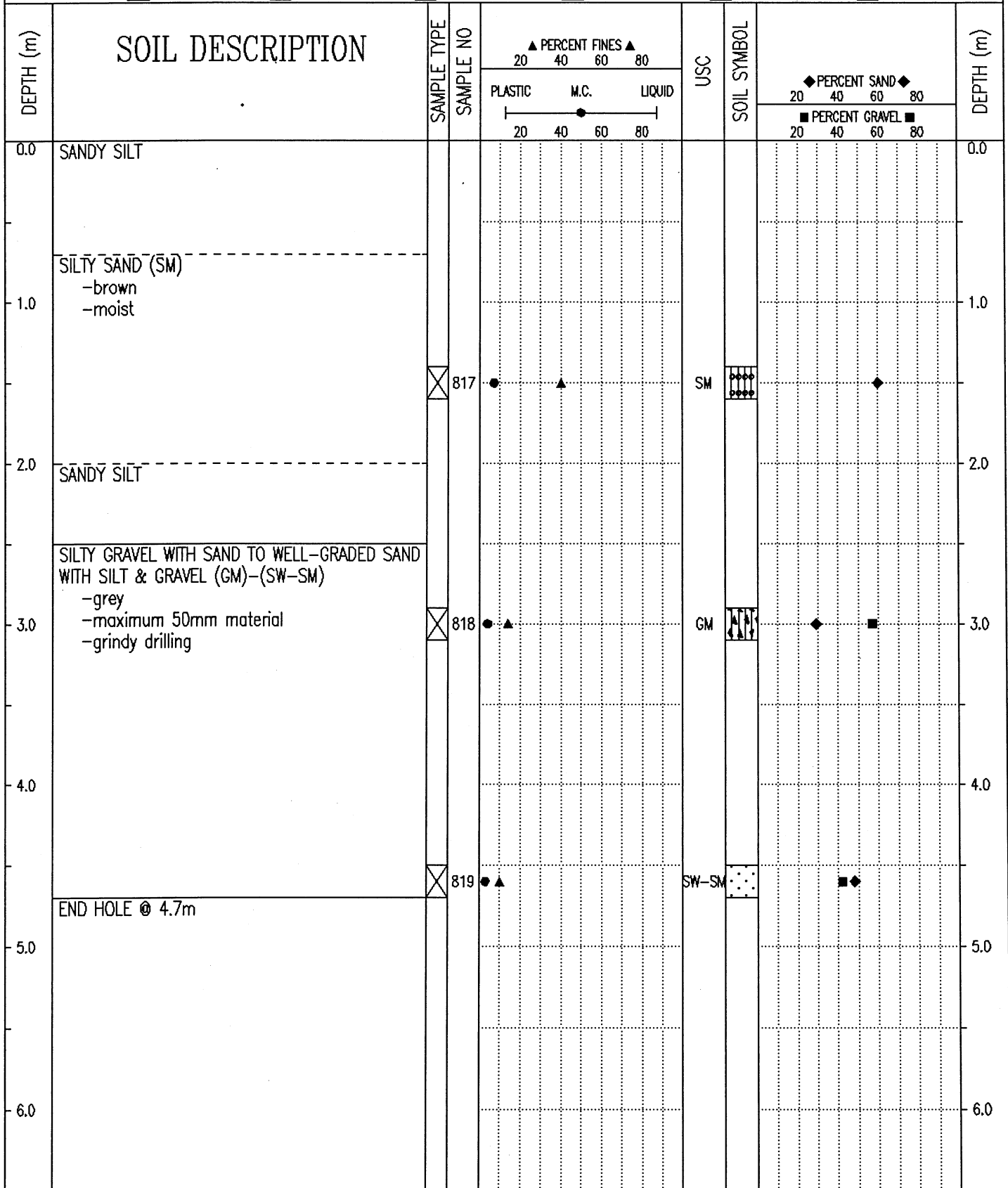
Fig. No:

COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/14

Page 1 of 1

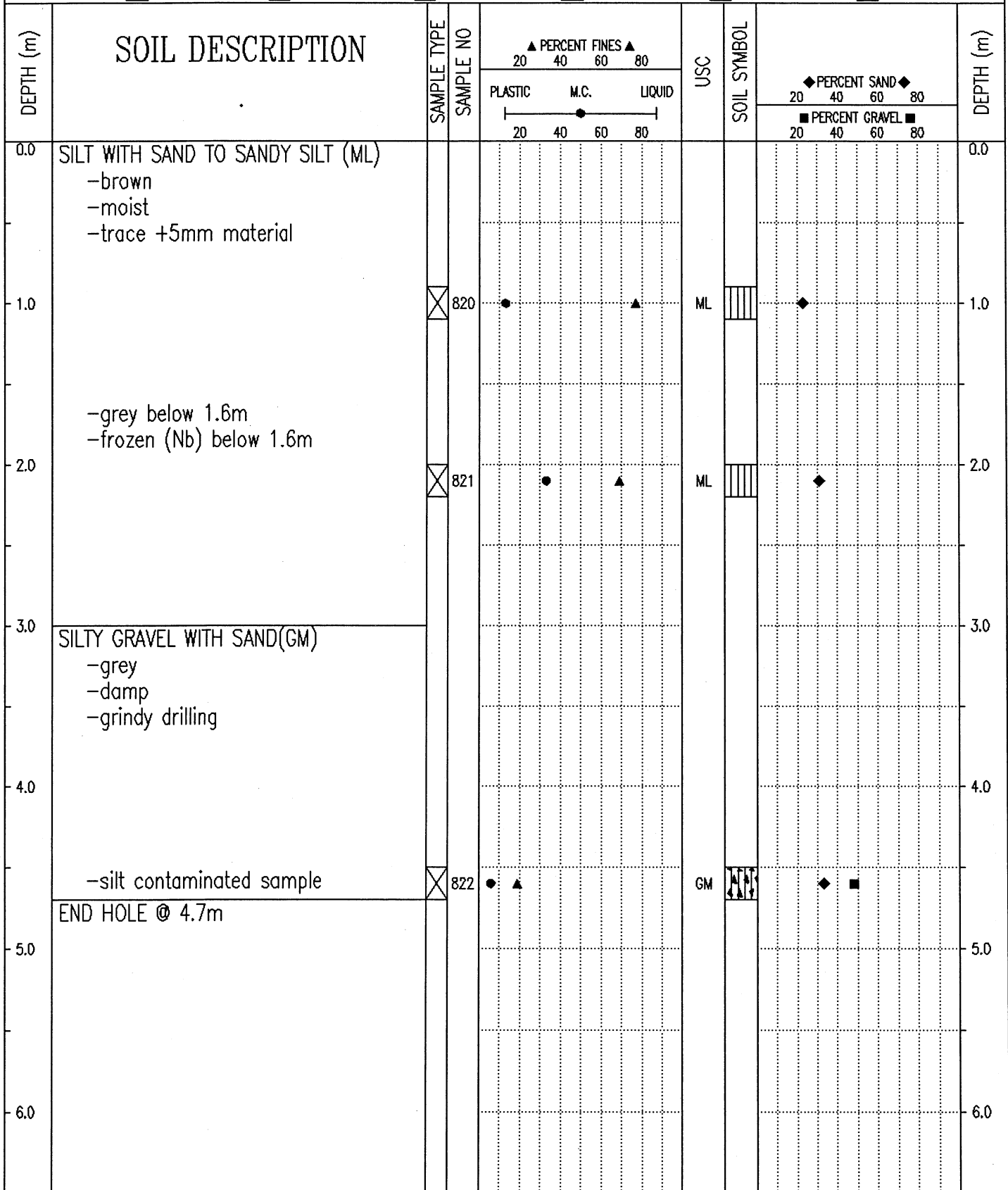
SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1545
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+100 + 12M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/14
Fig. No:	Page 1 of 1

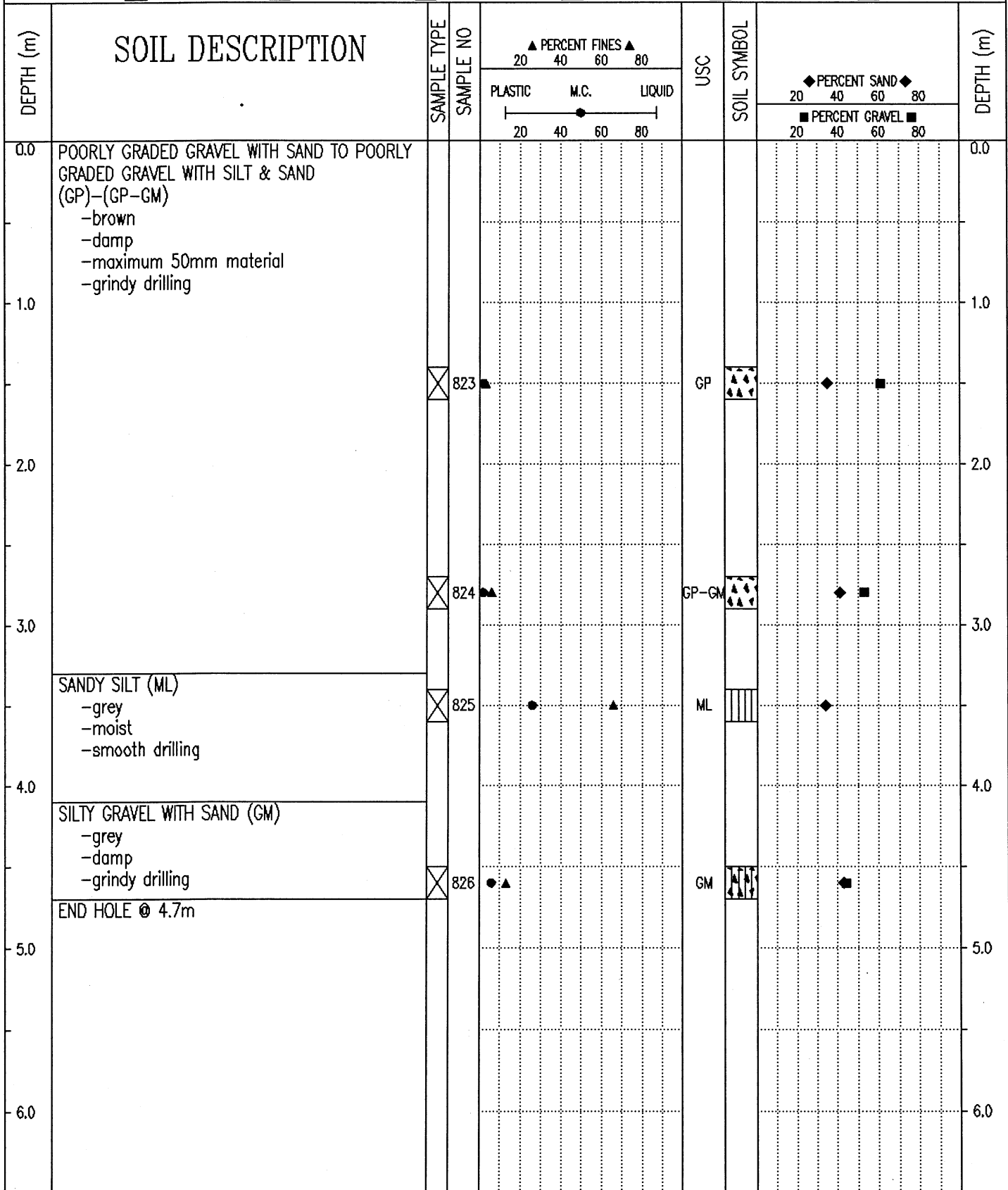
SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1546
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-D361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+200 + 10M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



Government of Yukon
Transportation Engineering

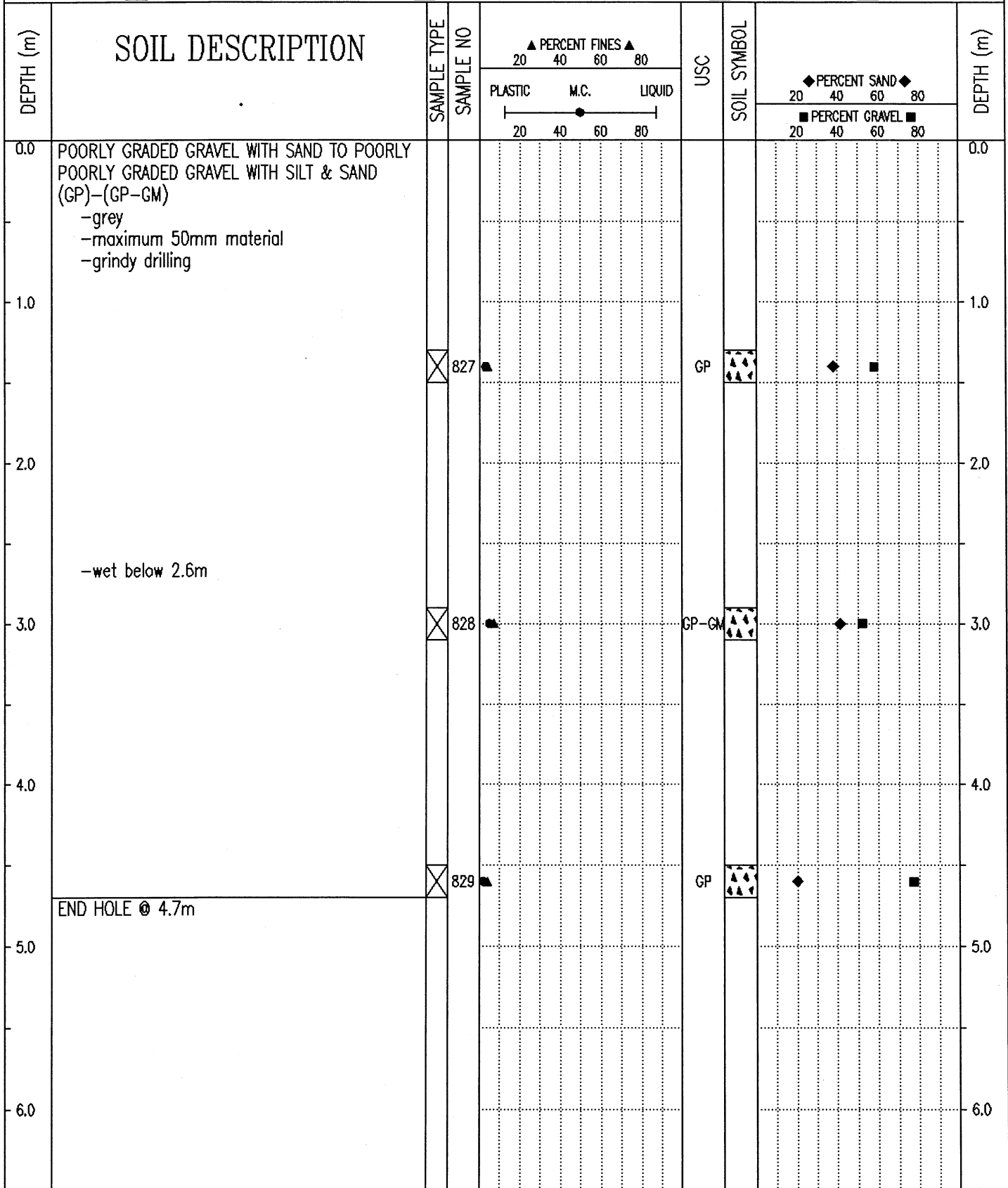
LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/14
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1547
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+300 + 07M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



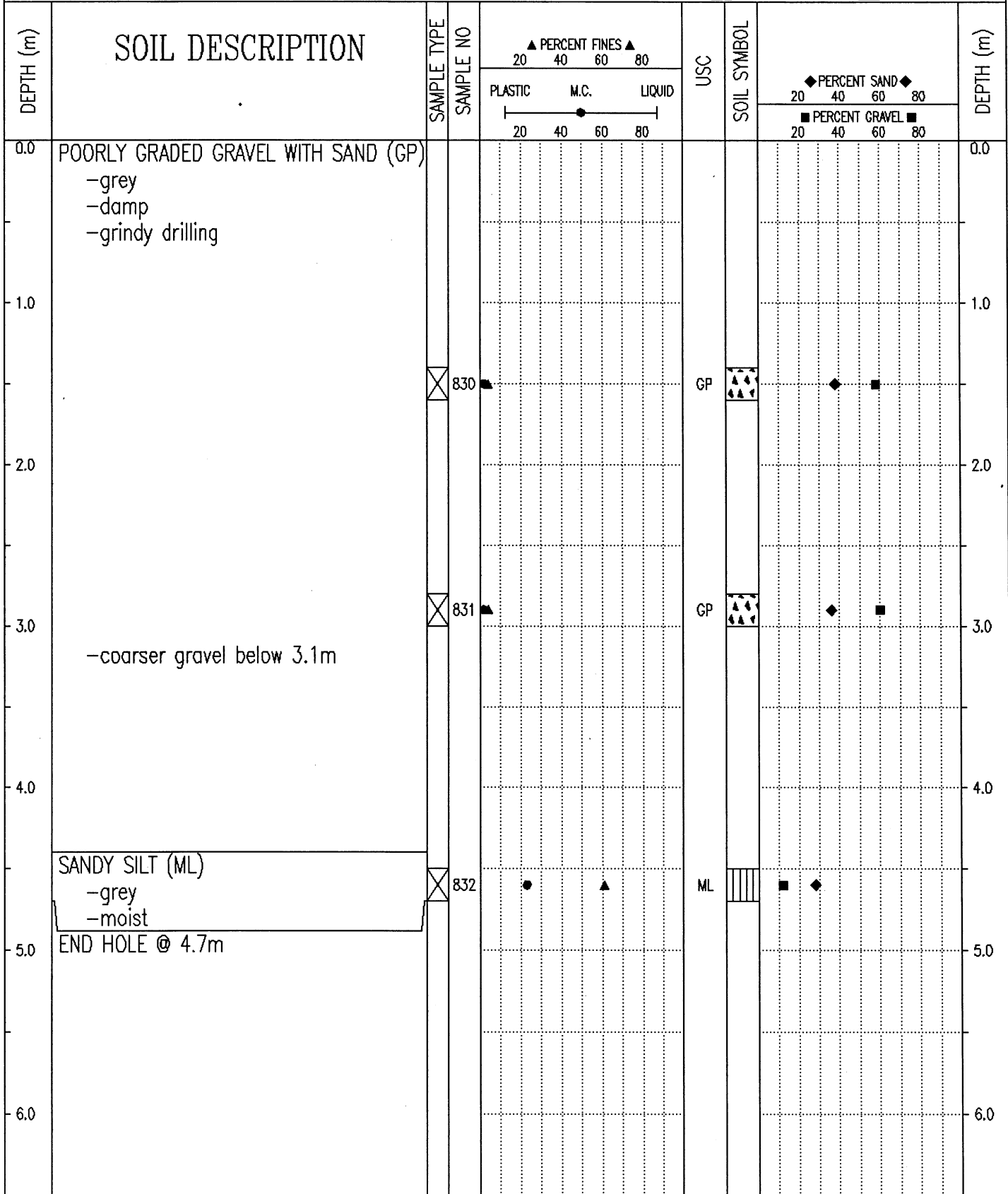
Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/14
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1548
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+400	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/14
	Fig. No:	Page 1 of 1

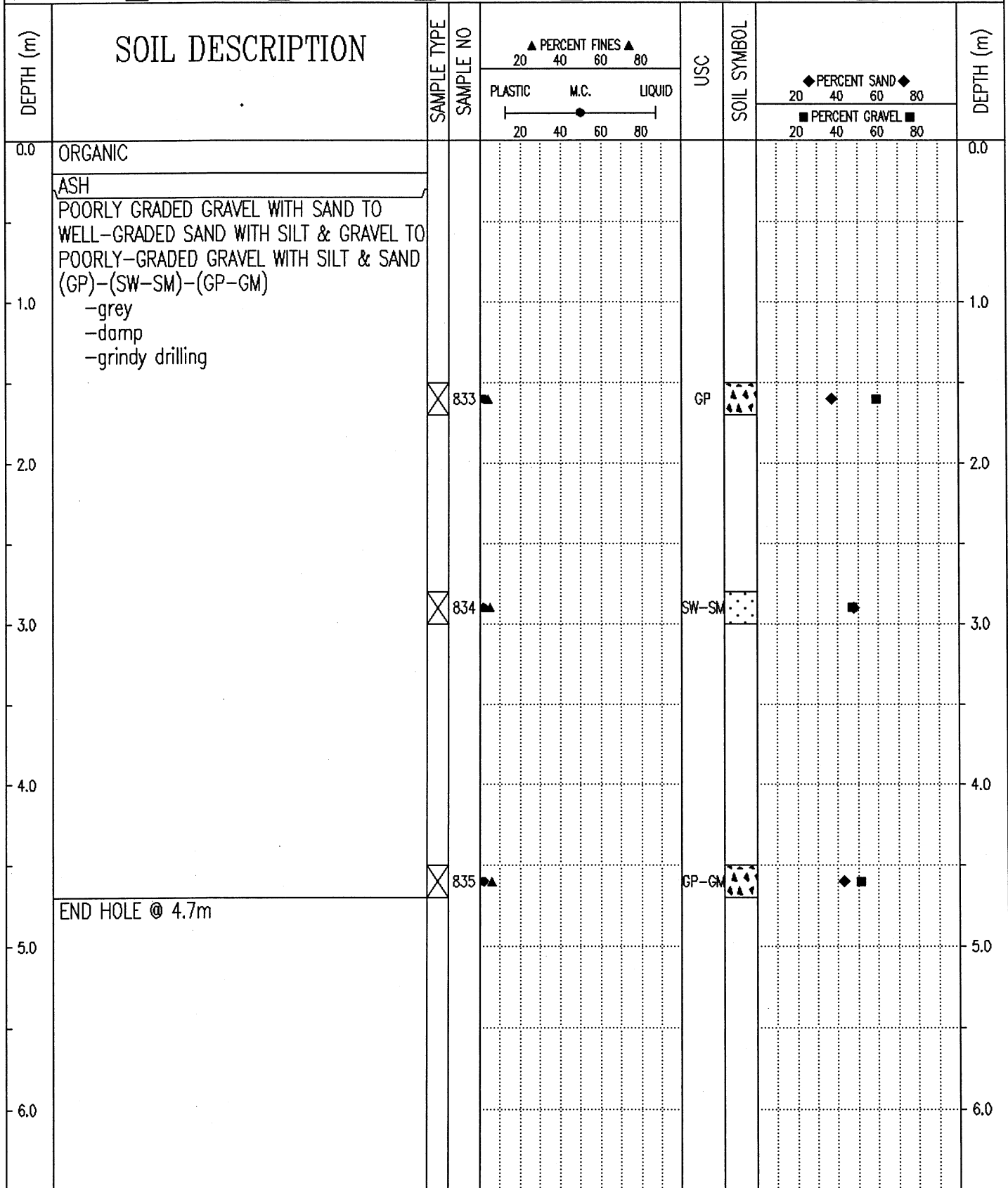
SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1549
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+500 + 3M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.
	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK
	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE



Government of Yukon
 Transportation Engineering

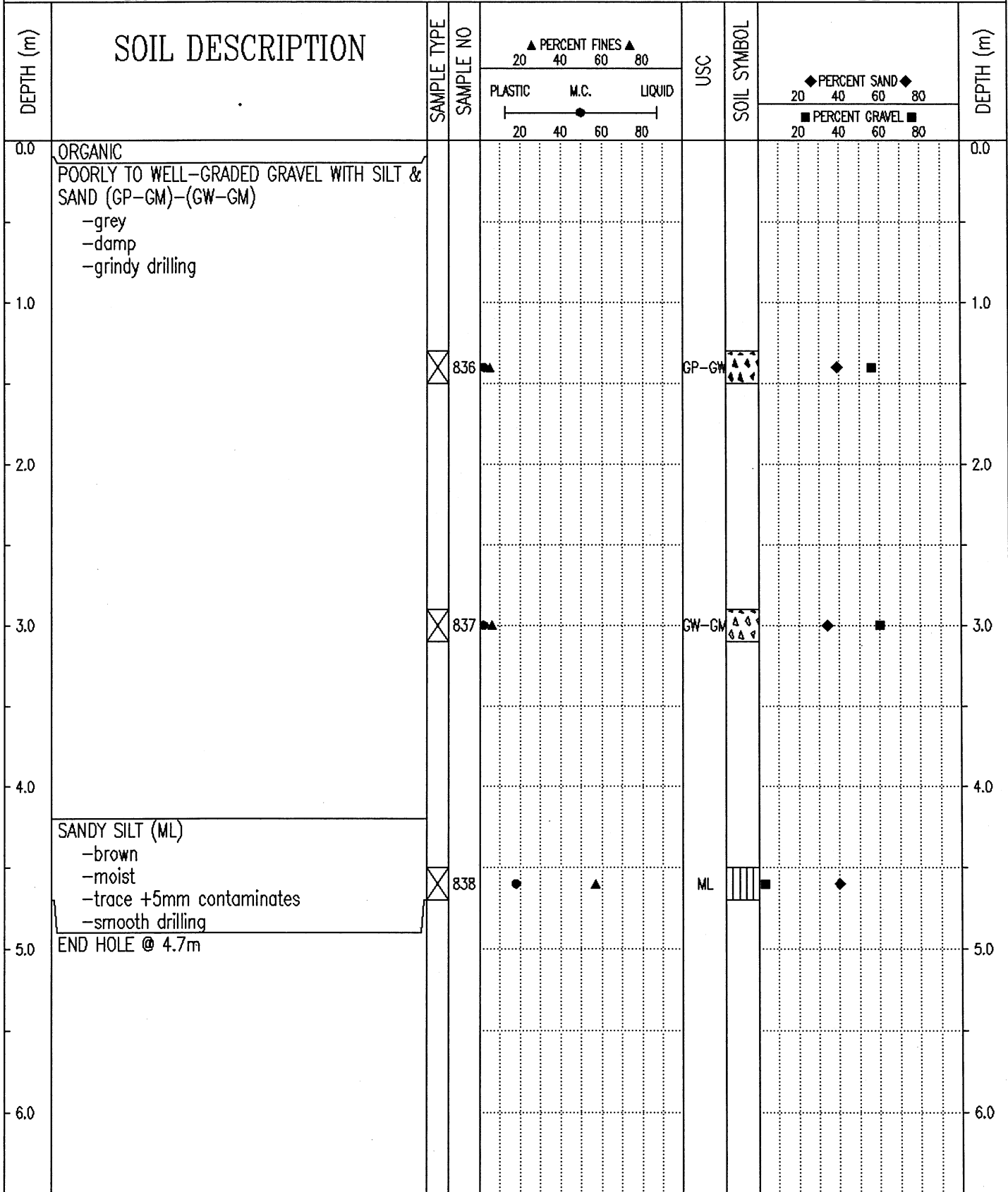
LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/14
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1550
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+600	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/14
	Fig. No:	Page 1 of 1

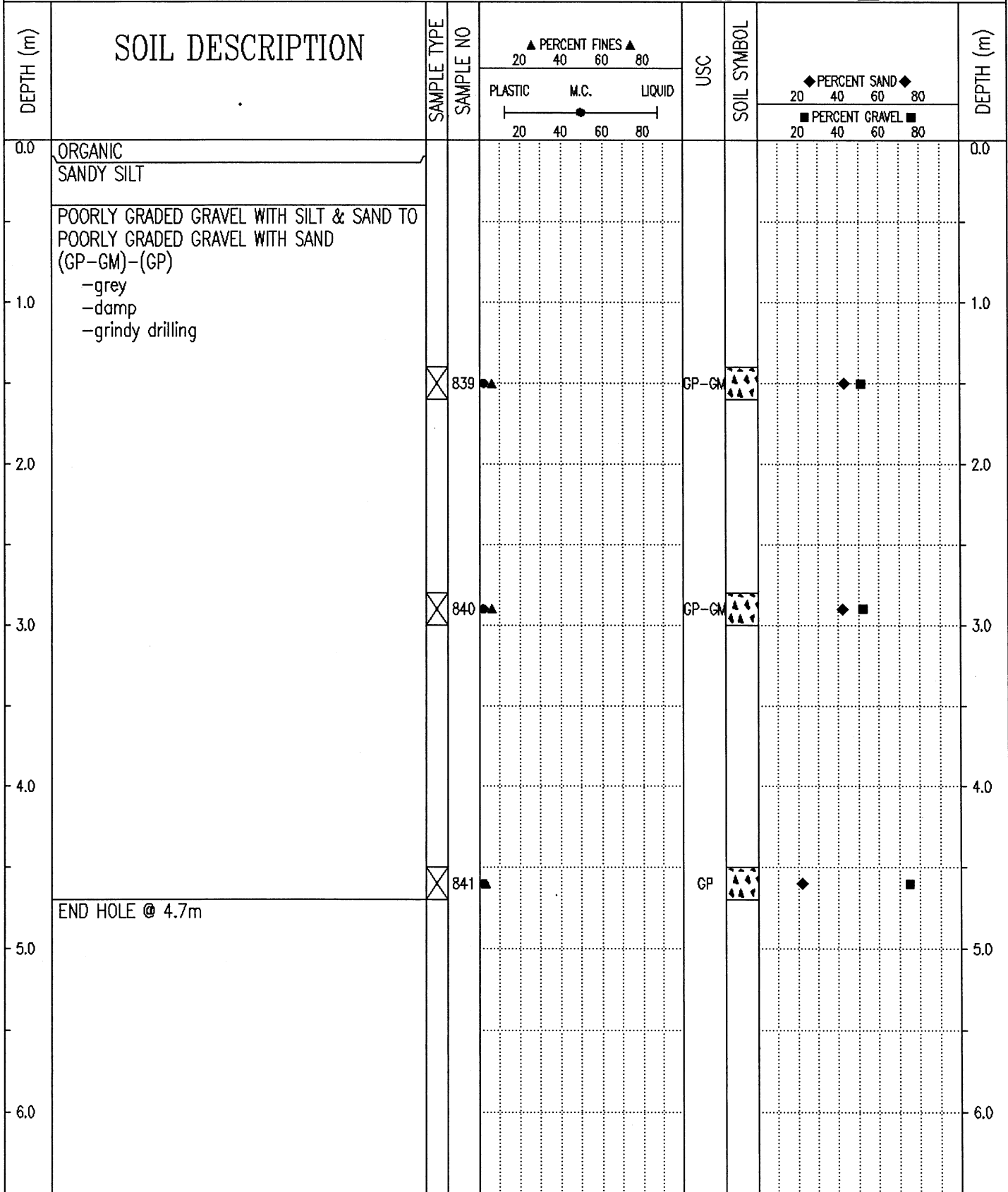
SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1551
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+700 + 9M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
 Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/14
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1552
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1762+800 + 10M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/14
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 554-1553									
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361									
B40 MOBILE DRILL 6" AUGER		LOCATION: 1762+900 + 10M LT		ELEVATION: 0.00 (m)									
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER									
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE									
				<input type="checkbox"/> CORE									
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GP)-(SW-SM) -grey -damp -grindy drilling												0.0
1.0													1.0
2.0													2.0
3.0	-wet below 2.5m		842				GP	▲▲▲▲	◆	■			3.0
4.0													4.0
5.0	-moist below 4.0m		843				GP	▲▲▲▲	◆	■			5.0
6.0													6.0
	END HOLE @ 4.7m		844				SW-SM	●●●●	◆◆				

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 4.7 m

REVIEWED BY:

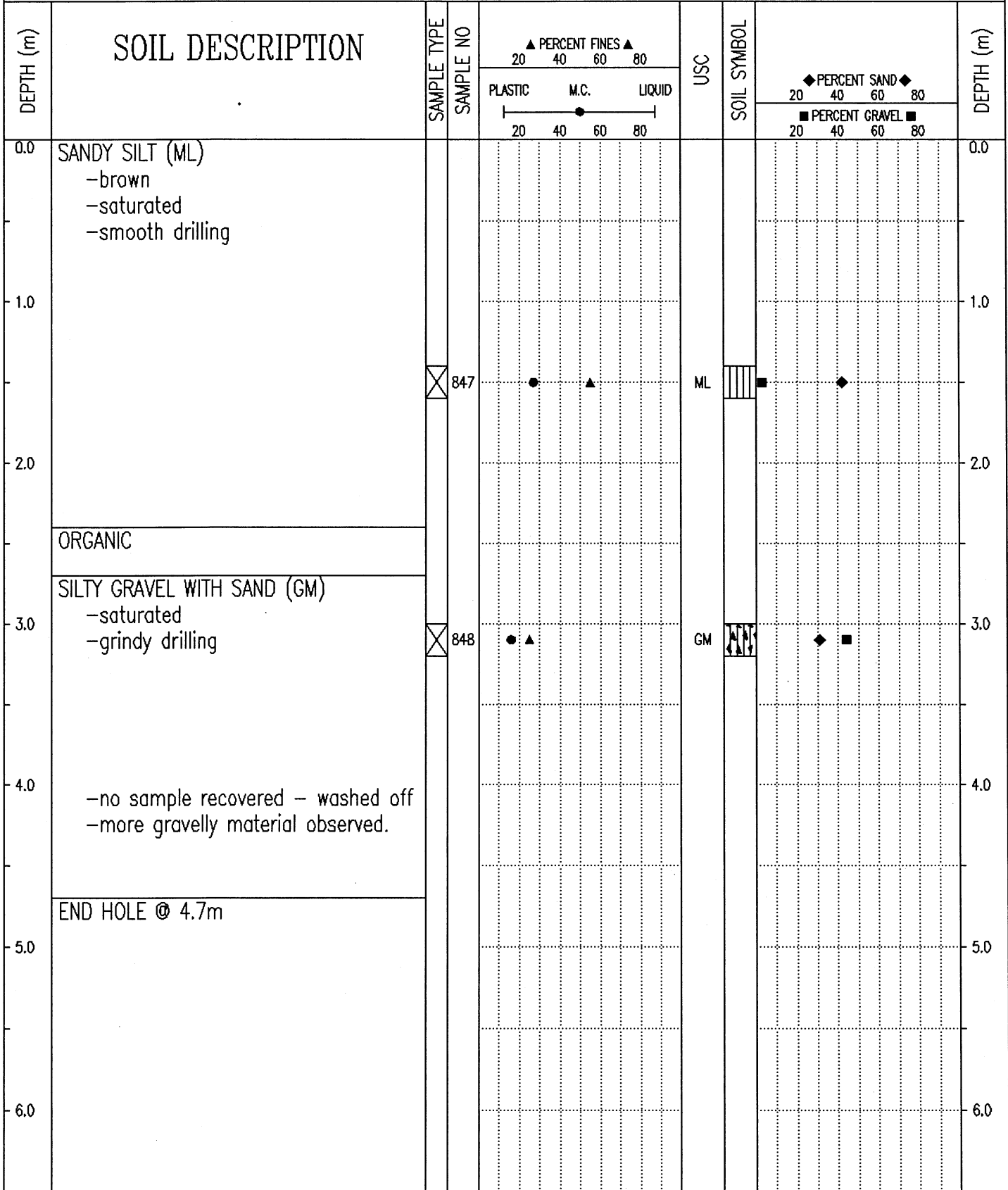
COMPLETE: 00/06/14

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 554-1554								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1763+000 + 09M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE										
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	SILTY SAND (SM) -brown -wet			20	40	60	80					0.0
1.0												1.0
2.0	SILT WITH SAND (ML) -brown -saturated	<input checked="" type="checkbox"/>	845	20	40	60	80	SM				2.0
3.0	ORGANIC -black -wet											3.0
4.0	SANDY GRAVEL -grindy drilling											4.0
5.0	-no sample taken @ 4.5m											5.0
6.0	END HOLE @ 4.7m											6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:		COMPLETION DEPTH: 4.7 m COMPLETE: 00/06/14				Page 1 of 1		

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1555
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1763+100	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

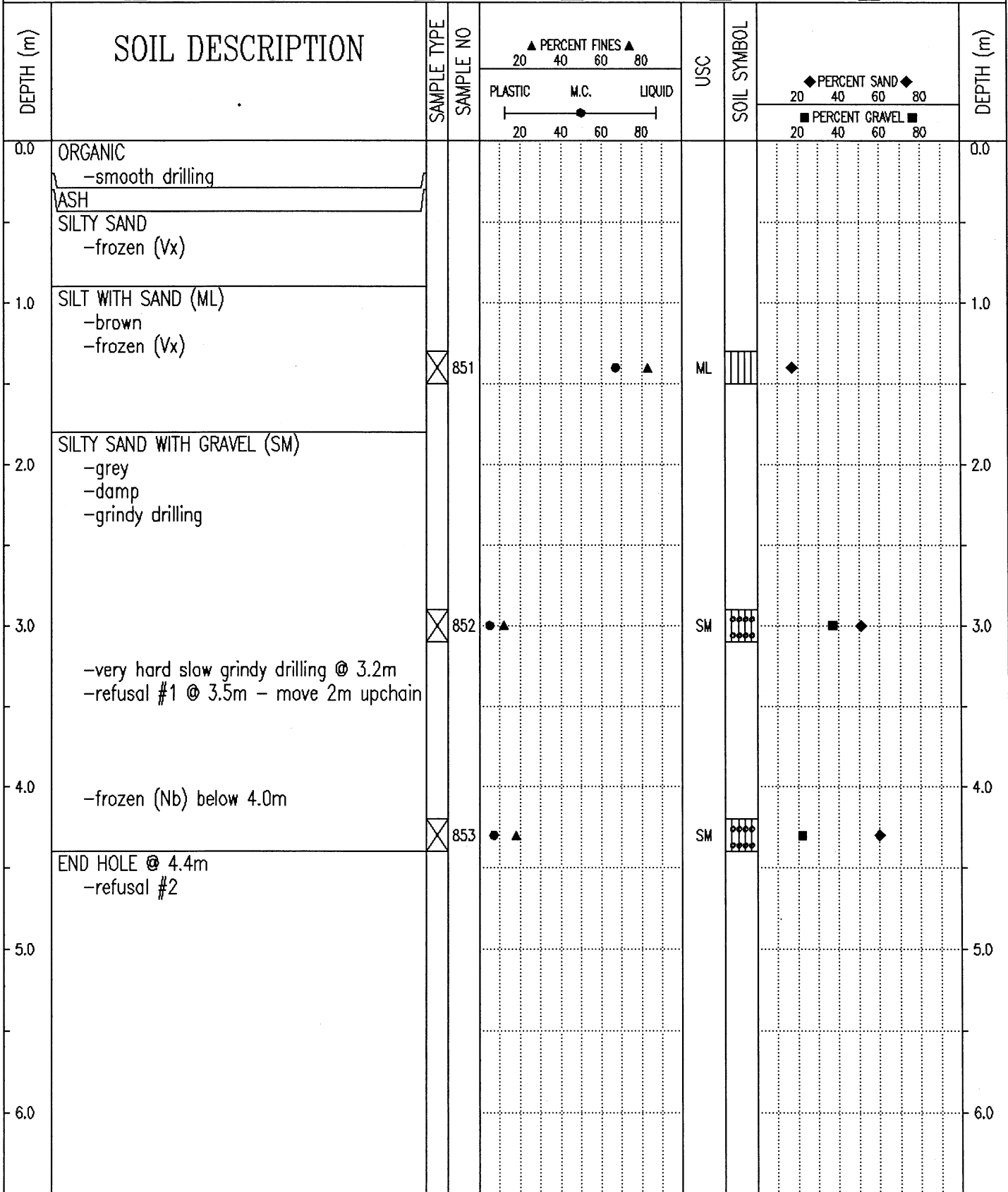


Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/15
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 554-1556								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1763+200		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC -frozen (Nf) -smooth drilling											0.0
1.0	SANDY SILT (ML) -brown -frozen(Nf)											1.0
2.0		<input checked="" type="checkbox"/>	849	●	▲		ML		◆			2.0
3.0	ORGANIC -frozen (Vx)											3.0
4.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -grindy drilling	<input checked="" type="checkbox"/>	850	●	▲		SM	●●●●	◆	■		3.0
5.0	END HOLE @ 4.0m -refusal - rock dust on bit											4.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.				COMPLETION DEPTH: 4.0 m				
				REVIEWED BY:				COMPLETE: 00/06/15				
				Fig. No:				Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1557
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1763+220 15M LT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

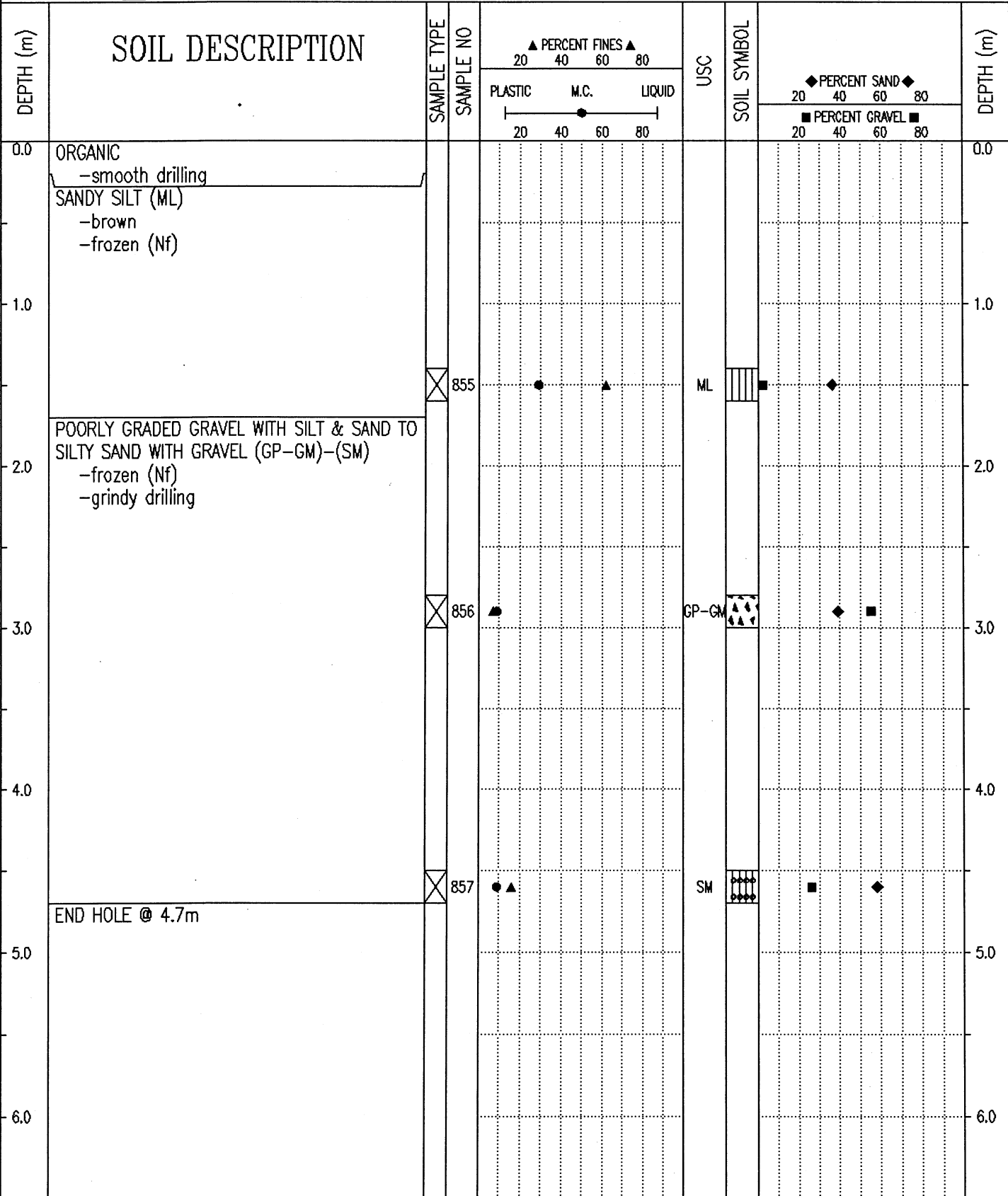
LOGGED BY: D.T.	COMPLETION DEPTH: 4.4 m
REVIEWED BY:	COMPLETE: 00/06/15
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1558
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1763+225 15M RT	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC -smooth drilling										0.0	
	SILT & ICE											
	ICE											
1.0	SILTY SAND -frozen (Vx)										1.0	
	ORGANIC -frozen (Vx)											
2.0	SILTY GRAVEL WITH SAND (GM) -frozen (Vx) -grindy drilling	<input checked="" type="checkbox"/>	854	▲			GM	◆	■		2.0	
3.0	-first refusal @ 2.7 -moved 3m downchain END HOLE @ 3.0m -2nd refusal										3.0	
4.0											4.0	
5.0											5.0	
6.0											6.0	

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 00/06/15
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1559
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1763+300	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/15
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 554-1560							
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361							
B40 MOBILE DRILL 6" AUGER		LOCATION: 1763+400		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	ORGANIC										0.0
	SANDY SILT (ML) -brown -frozen (Nf)										
1.0											1.0
			858				ML				
2.0											2.0
	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -tr. grindy drilling										
3.0			859				SM				3.0
4.0											4.0
	END HOLE @ 4.1m -refusal										
5.0											5.0
6.0											6.0

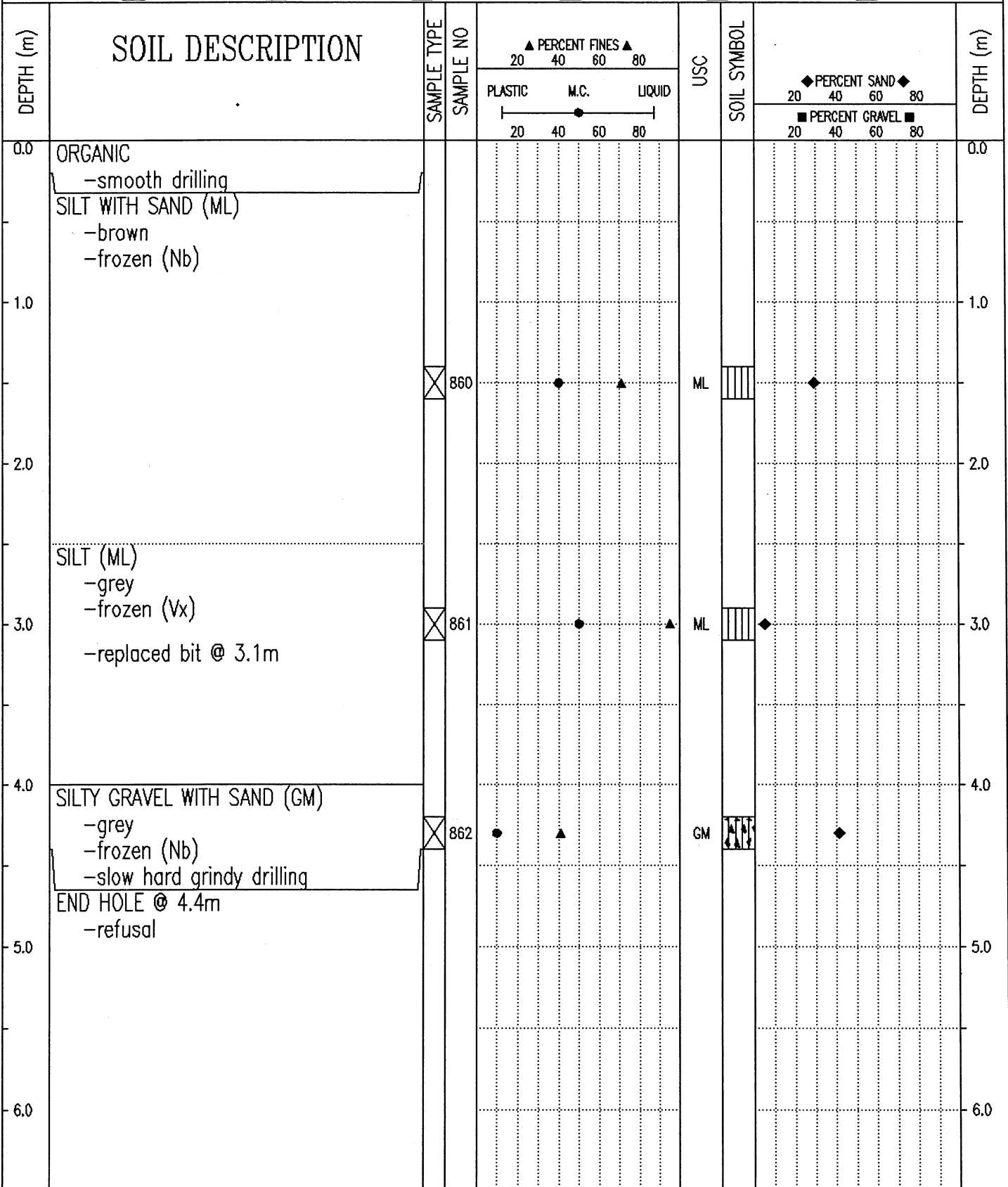
Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.1 m
COMPLETE: 00/06/15

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1561
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1763+600	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

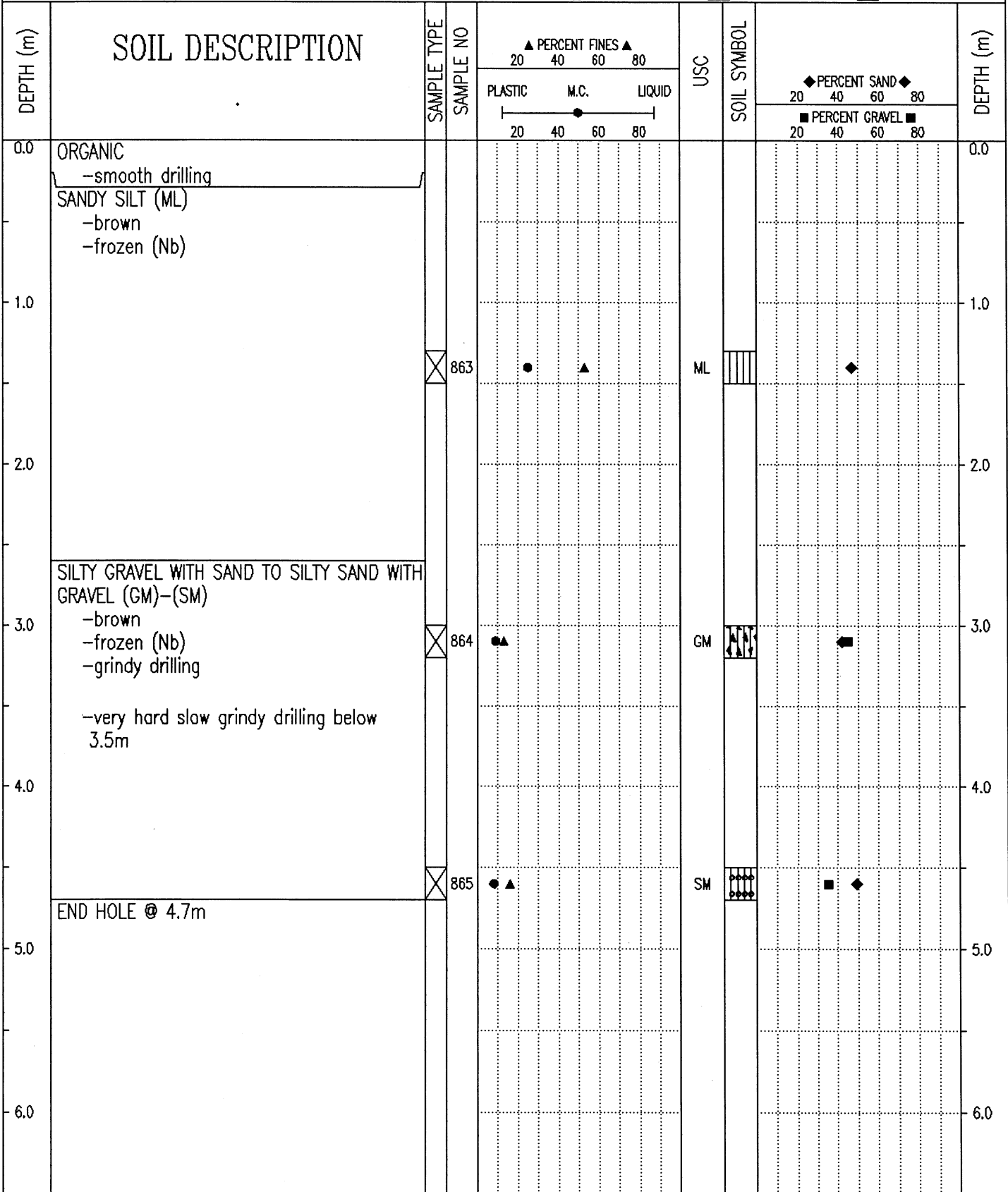
Fig. No:

COMPLETION DEPTH: 4.4 m

COMPLETE: 00/06/15

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 554-1562
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1763+700	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/15
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 554-1563									
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361									
B40 MOBILE DRILL 6" AUGER		LOCATION: 1763+800		ELEVATION: 0.00 (m)									
SAMPLE TYPE		RETURN		S.P.T.									
		AUGER		BULK									
				TUBE									
				CORE									
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC												0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)												
	-brown												
	-damp												
	-grindy drilling												
1.0													1.0
			866	▲			GP-GM	▲▲▲	◆	■			
2.0													2.0
	-very hard slow grindy drilling below 2.5m												
3.0			867	▲			GP-GM	▲▲▲	◆	■			3.0
	END HOLE @ 3.2m												
	-refusal												
4.0													4.0
5.0													5.0
6.0													6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T. COMPLETION DEPTH: 3.2 m
REVIEWED BY: COMPLETE: 00/06/15
Fig. No: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1566						
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361						
B40 MOBILE DRILL 6" AUGER		LOCATION: 1763+880 15M RT		ELEVATION: 0.00 (m)						
SAMPLE TYPE		<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE			
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲		USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.			LIQUID	20	
0.0	ORGANIC POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(SW-SM)-(GP-GM) -grey -damp -maximum 50mm material -grindy drilling	<input checked="" type="checkbox"/>	873				GP			0.0
1.0										1.0
2.0										2.0
3.0	-saturated below 2.8m	<input checked="" type="checkbox"/>	874				SW-SM			3.0
4.0	-moist below 4.0m -some H2O contamination from above									4.0
5.0	END HOLE @ 4.7m Note: Test hole @ culvert outlet	<input checked="" type="checkbox"/>	875				GP-GM			5.0
6.0										6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY:		COMPLETION DEPTH: 4.7 m COMPLETE: 00/06/15		Page 1 of 1		

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1565								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1763+880 15M LT		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
0.0 - 1.0	WELL-GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED GRAVEL WITH SILT & SAND (GW)-(GP-GM)-(GW-GM)											1.0
1.0 - 2.0	-damp -maximum 50mm material -grindy drilling											2.0
2.0 - 3.0												3.0
3.0 - 4.0												4.0
4.0 - 5.0	-moist below 2.5m											5.0
5.0 - 6.0	END HOLE @ 4.7m Note: Test hole @ culvert inlet											6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:				COMPLETION DEPTH: 4.7 m COMPLETE: 00/06/15 Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 554-1564								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1763+900 CENTRELINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC										0.0	
	POORLY GRADED GRAVEL WITH SAND (GP)											
	-grey											
	-damp											
	-maximum 50mm material											
	-grindy drilling											
1.0											1.0	
2.0											2.0	
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)											
	-grey											
	-frozen											
	-maximum 50mm material											
	-grindy drilling											
	END HOLE @ 3.3m											
	-refusal											
3.0											3.0	
4.0											4.0	
5.0											5.0	
6.0											6.0	
		☒	868				GP	▲▲▲▲	◆	■		
		☒	869	▲			GP-GM	▲▲▲▲	◆	■		

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 3.3 m
COMPLETE: 00/06/15

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1567						
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361						
B40 MOBILE DRILL 6" AUGER		LOCATION: 1764+000 Centreline		ELEVATION: 0.00 (m)						
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE										
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲		USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.			LIQUID	20	
0.0	ORGANIC									0.0
	ORGANIC & ASH -frozen (Nf)									
1.0	SILTY SAND WITH GRAVEL (SM)									1.0
	-frozen (Nb) -maximum 50mm material -grindy drilling -very hard slow grindy drilling below 1.3m									
		<input checked="" type="checkbox"/>	876	▲		SM	◆	■		
2.0										2.0
3.0	-1st refusal @ 2.7m moved 2m downchain END HOLE @ 2.7m -refusal									3.0
4.0										4.0
5.0										5.0
6.0										6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:		COMPLETION DEPTH: 2.7 m COMPLETE: 00/06/15 Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1568						
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361						
B40 MOBILE DRILL 6" AUGER		LOCATION: 1764+100 Centreline		ELEVATION: 0.00 (m)						
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE										
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲		USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.			LIQUID	20	
0.0	ORGANIC									0.0
	ASH									
	-frozen									
	SILTY SAND WITH GRAVEL (SM)									
	-grey									
1.0	-frozen (Nb)									1.0
	-maximum 25mm material									
	-grindy drilling									
	-very hard slow grindy drilling below 0.6m									
2.0	END HOLE @ 1.8m									2.0
	-refusal									
3.0										3.0
4.0										4.0
5.0										5.0
6.0										6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 1.8 m

REVIEWED BY:

COMPLETE: 00/06/16

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 555-1569
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1764+200 Centreline	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC												0.0
	ASH -frozen												
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GW)												
1.0	-grey -frozen (Nf) -grindy drilling -very hard slow grindy drilling @ 1.0m												1.0
		<input checked="" type="checkbox"/>	878				GP	▲▲▲▲	◆	■			
2.0													2.0
		<input checked="" type="checkbox"/>	879				GW	▲▲▲▲	◆	■			
3.0													3.0
	END HOLE @ 3.2m -refusal												
4.0													4.0
5.0													5.0
6.0													6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 3.2 m
	REVIEWED BY:	COMPLETE: 00/06/16
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1570								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1764+300 Centreline		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -grey -damp -maximum 50mm material -grindy drilling										0.0	
1.0											1.0	
2.0											2.0	
2.3	-very hard slow grindy drilling below 2.3m											
2.5	-refusal # 1 @ 2.5m - moved 2m upchain											
2.5	-frozen (Nb) below 2.5m											
3.0											3.0	
3.2	END HOLE @ 3.2m -refusal											
4.0											4.0	
5.0											5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 3.2 m
REVIEWED BY:	COMPLETE: 00/06/16
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1571								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1764+400 Centreline		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC ASH POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -damp -grindy drilling											0.0
1.0												1.0
2.0												2.0
3.0	-very hard slow grindy drilling below 2.5m											3.0
4.0	END HOLE @ 4.0m											4.0
5.0												5.0
6.0												6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T. COMPLETION DEPTH: 4.0 m
 REVIEWED BY: COMPLETE: 00/06/16
 Fig. No: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1572								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1764+500 Centreline		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)-(SM)-(GP-GM)											
	-grey -damp -maximum 50mm material -grindy drilling											
1.0												1.0
			884				GP-GM					
2.0												2.0
			885				SM					
3.0												3.0
	-very hard slow grindy drilling below 3.1m -frozen (Nb) below 3.5m											
4.0			886				GP-GM					4.0
	END HOLE @ 4.4m -refusal											
5.0												5.0
6.0												6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 4.4 m

REVIEWED BY:

COMPLETE: 00/06/16

Fig. No:

Page 1 of 1

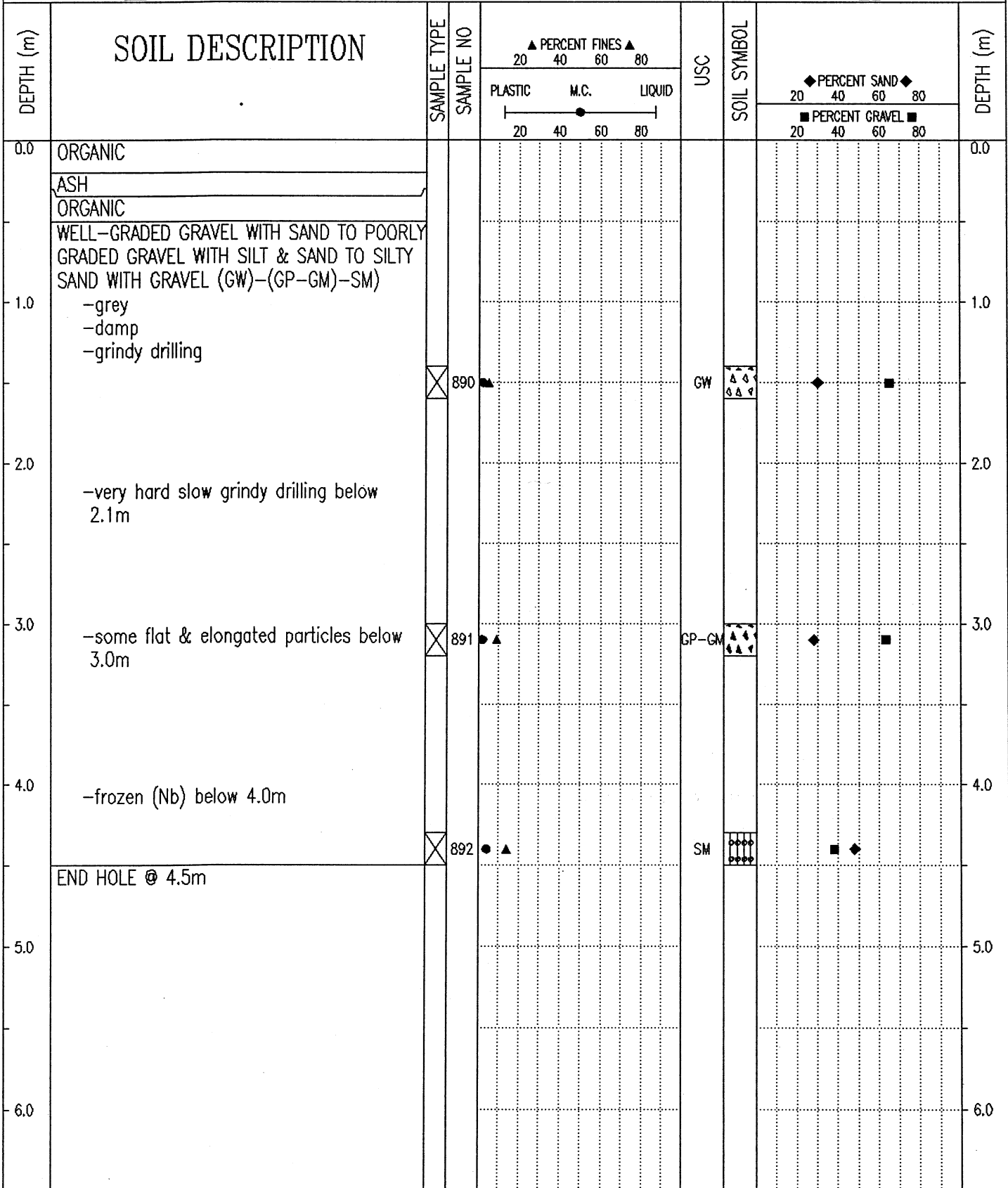
SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1573								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40 MOBILE DRILL 6" AUGER		LOCATION: 1764+600 Centreline		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW-SM)-(GP-GM) -grey -damp -grindy drilling	<input checked="" type="checkbox"/>										0.0
1.0												1.0
2.0												2.0
3.0		<input checked="" type="checkbox"/>	887	▲			SW-SM	◆				3.0
4.0												4.0
5.0		<input checked="" type="checkbox"/>	888	▲			GP-GM	◆	■			5.0
6.0												6.0
	-very hard slow grindy drilling below 3.4m -frozen (Nb) below 4.0m END HOLE @ 4.7m											
		<input checked="" type="checkbox"/>	889	▲			GP-GM	◆	■			

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/16
Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 555-1574
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1764+700 Centreline	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



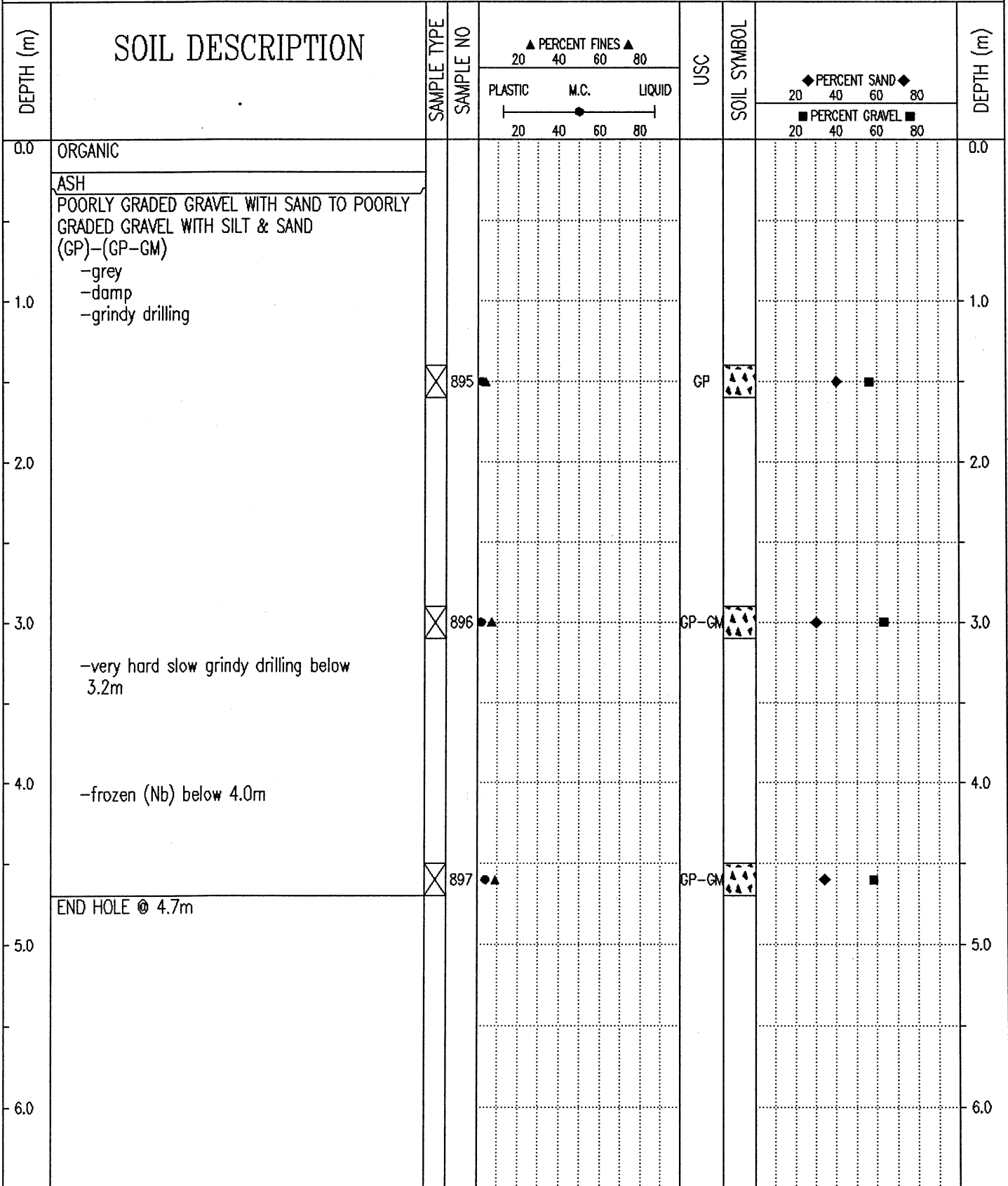
Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 00/06/16
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 555-1575
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1764+800 Centreline	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■				
				20	40	60	80		20	40	60	80	
0.0	ORGANIC ASH												0.0
0.0 - 1.0	WELL-GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GW)-(SW-SM) -grey -damp -grindy drilling												1.0
1.0 - 2.3	-very hard slow grindy drilling below 2.3m		893					GW					2.0
2.3 - 3.0	-frozen (Nb) below 3.0m		894					SW-SM					3.0
3.0 - 4.0	END HOLE @ 4.0m -refusal												4.0
4.0 - 5.0													5.0
5.0 - 6.0													6.0

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.0 m
	REVIEWED BY:	COMPLETE: 00/06/16
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 555-1576
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1764+900 CENTRELINE	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/16
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEGMENT 11	TEST HOLE NO: 555-1577
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40 MOBILE DRILL 6" AUGER	LOCATION: 1765+000 CENTRELINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆		■ PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	ORGANIC ASH ORGANIC & ASH POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -damp -maximum 50mm material -grindy drilling	<input checked="" type="checkbox"/>									0.0	
1.0			898				GP-GM				1.0	
2.0											2.0	
3.0		<input checked="" type="checkbox"/>	899				GP-GM				3.0	
4.0	END HOLE @ 3.7m -refusal										4.0	
5.0											5.0	
6.0											6.0	

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 3.7 m
	REVIEWED BY:	COMPLETE: 00/06/16
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1578								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1765+100 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
1.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -grey -damp -maximum 50mm material -grindy drilling											1.0
2.0	-very hard slow grindy drilling @ 2.1m											2.0
3.0	-maximum 75mm material below 2.7m											3.0
3.3	END HOLE @ 3.3m -refusal											3.3
4.0												4.0
5.0												5.0
6.0												6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T. COMPLETION DEPTH: 3.3 m
 REVIEWED BY: COMPLETE: 00/06/19
 Fig. No: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1579								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1765+200 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC & ASH											0.0
0.0 - 1.0	WELL-GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GW)-(GP-GM) -grey -damp -maximum 50mm material -grindy drilling											1.0
0.0 - 2.0		<input checked="" type="checkbox"/>	902				GW	▲▲▲	◆	■		2.0
2.0 - 3.0												3.0
3.0 - 4.0		<input checked="" type="checkbox"/>	903				GP-GM	▲▲▲	◆	■		4.0
4.0 - 5.0												5.0
5.0 - 6.0		<input checked="" type="checkbox"/>	904				GP-GM	▲▲▲	◆	■		6.0
4.4	END HOLE @ 4.4m -refusal											4.4

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

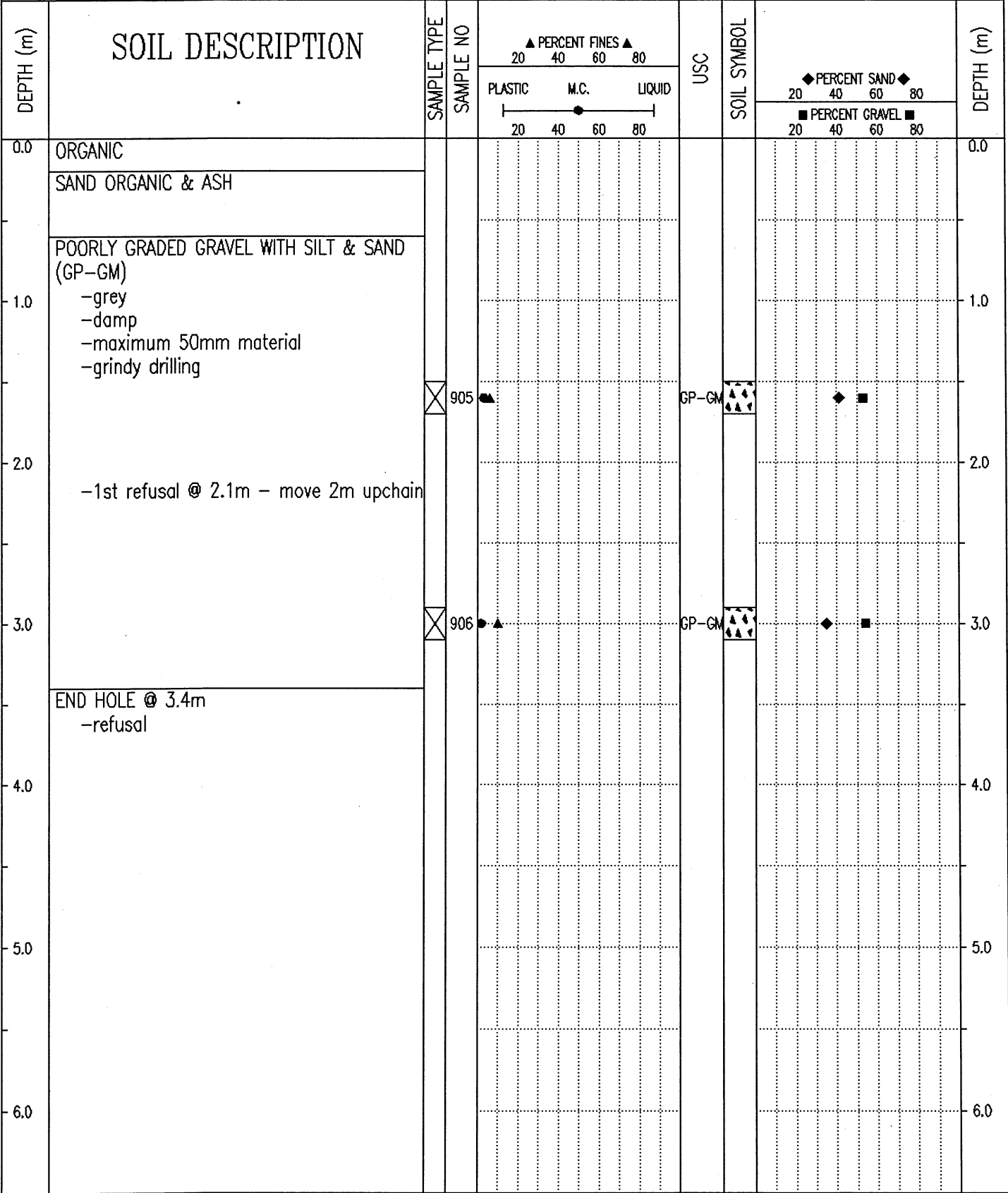
Fig. No:

COMPLETION DEPTH: 4.4 m

COMPLETE: 00/06/19

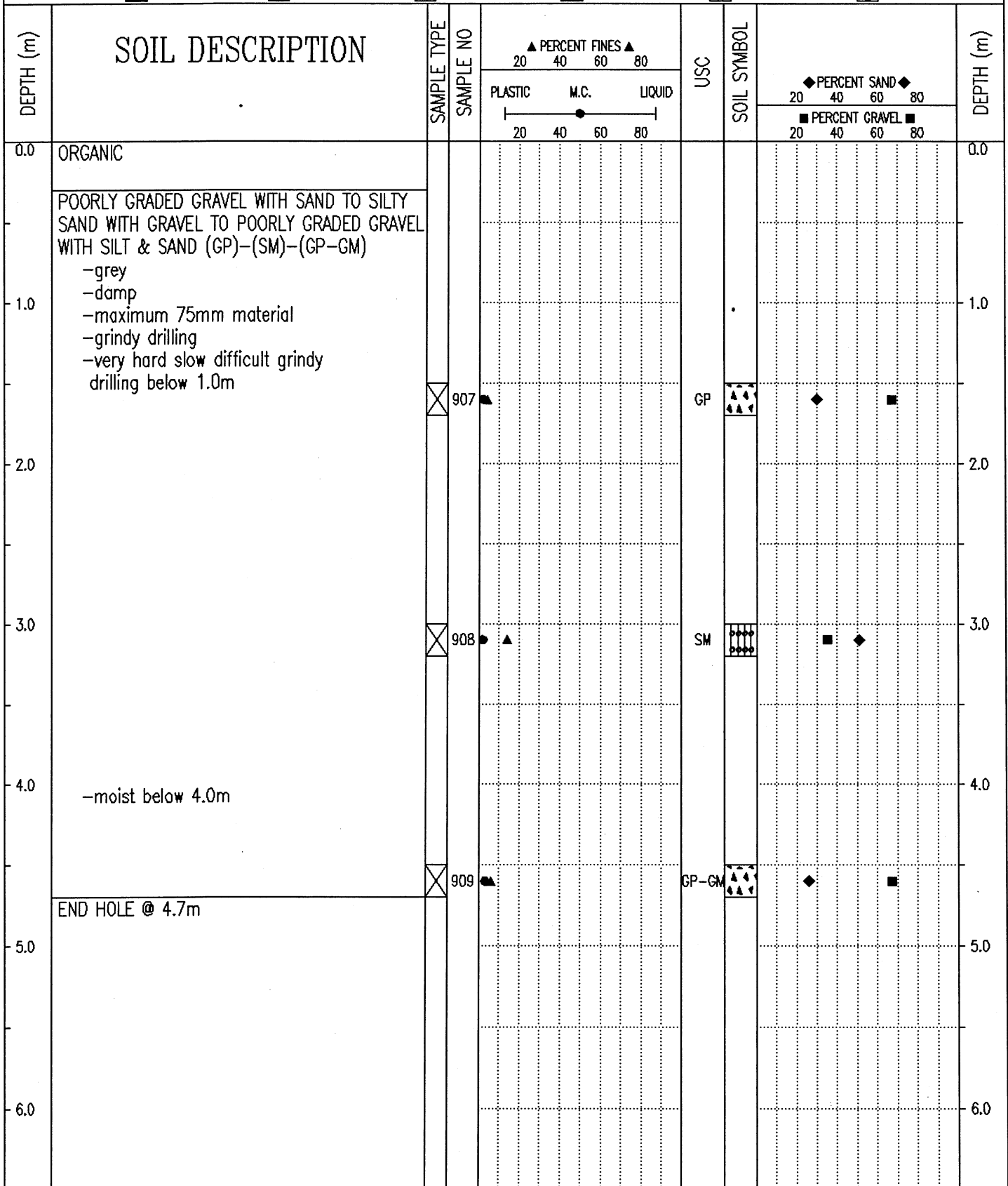
Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 556-1580
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1765+300 CENTERLINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



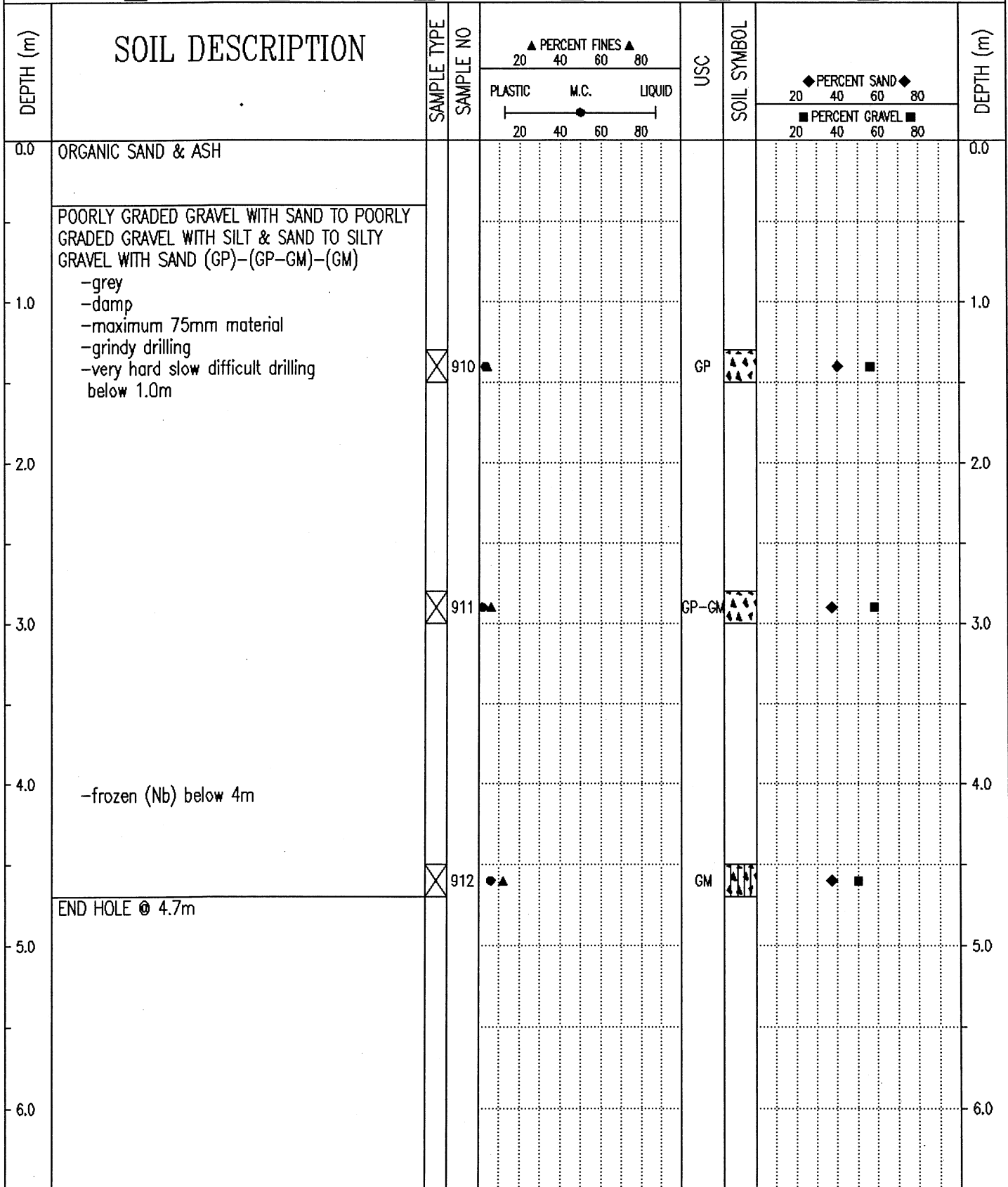
Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 3.4 m
	REVIEWED BY:	COMPLETE: 00/06/19
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 556-1581
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1765+400 CENTERLINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
	REVIEWED BY:	COMPLETE: 00/06/19
	Fig. No:	Page 1 of 1

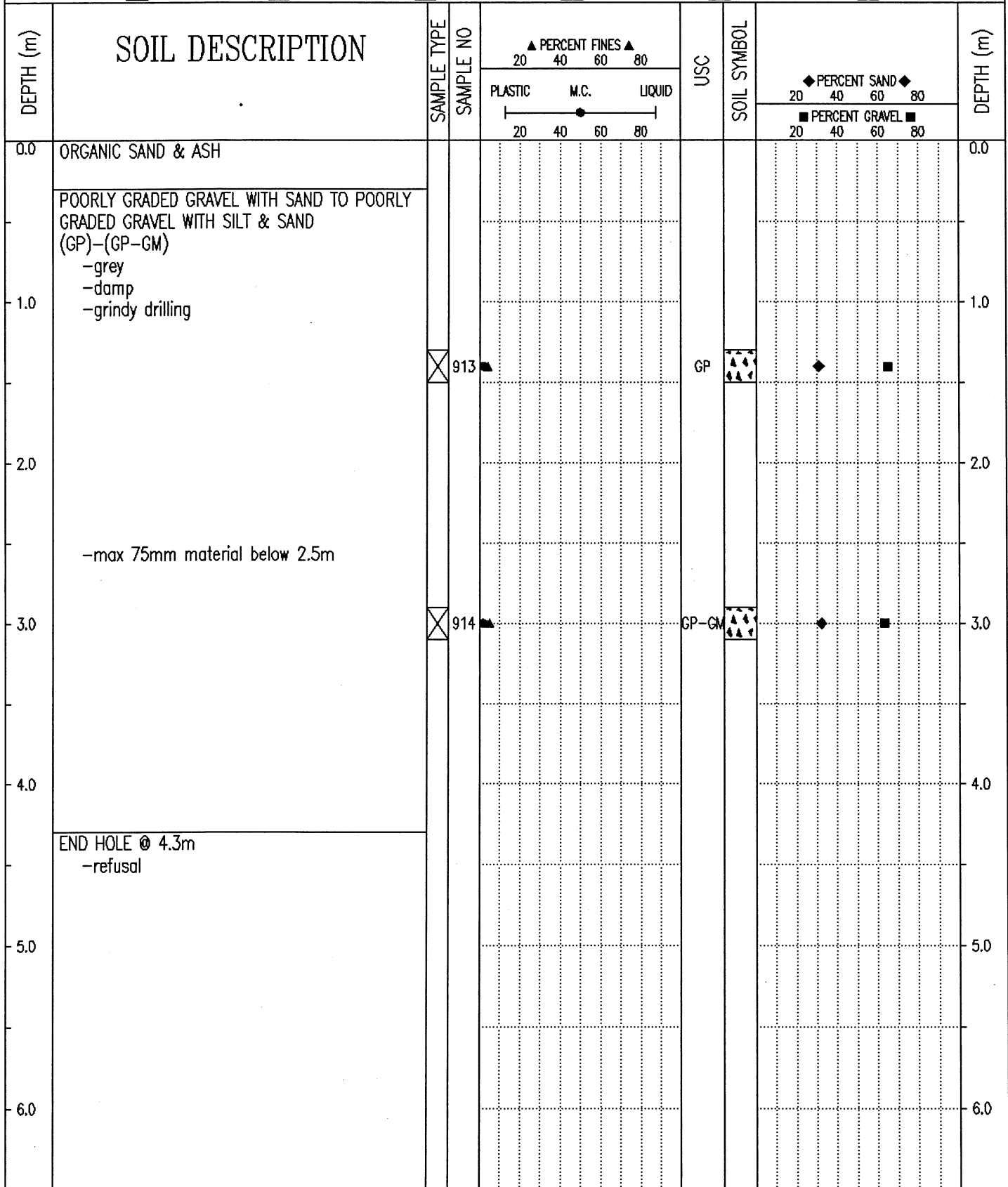
SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 556-1582
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1765+500 CENTERLINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.7 m
REVIEWED BY:	COMPLETE: 00/06/19
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 556-1583
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1765+600 CENTERLINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 00/06/19
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1584								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-D361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1765+700 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC SAND & ASH											0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -maximum 75mm material -grindy drilling											1.0
2.0	-very hard slow difficult grindy drilling below 1.8m											2.0
3.0	-dense below 2.8m											3.0
3.3	END HOLE @ 3.3m											3.3
4.0												4.0
5.0												5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.				COMPLETION DEPTH: 3.3 m				
				REVIEWED BY:				COMPLETE: 00/06/19				
				Fig. No:				Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1585								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1765+800 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	ORGANIC SAND & ASH											0.0
0.0 - 1.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -grey -damp -maximum 50mm material -grindy drilling											1.0
1.0 - 2.3												2.0
2.3 - 3.0	-very hard slow grindy difficult drilling below 2.3m -frozen (Nb) below 2.3m	<input checked="" type="checkbox"/>	917				GP	▲▲▲▲	◆	■		2.0
3.0 - 4.7	-silt content increases with depth	<input checked="" type="checkbox"/>	918				GP-GM	▲▲▲▲	◆	■		3.0
4.7 - 4.7	END HOLE @ 4.7m	<input checked="" type="checkbox"/>	919				GP-GM	▲▲▲▲	◆	■		5.0
5.0 - 6.0												6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 4.7 m

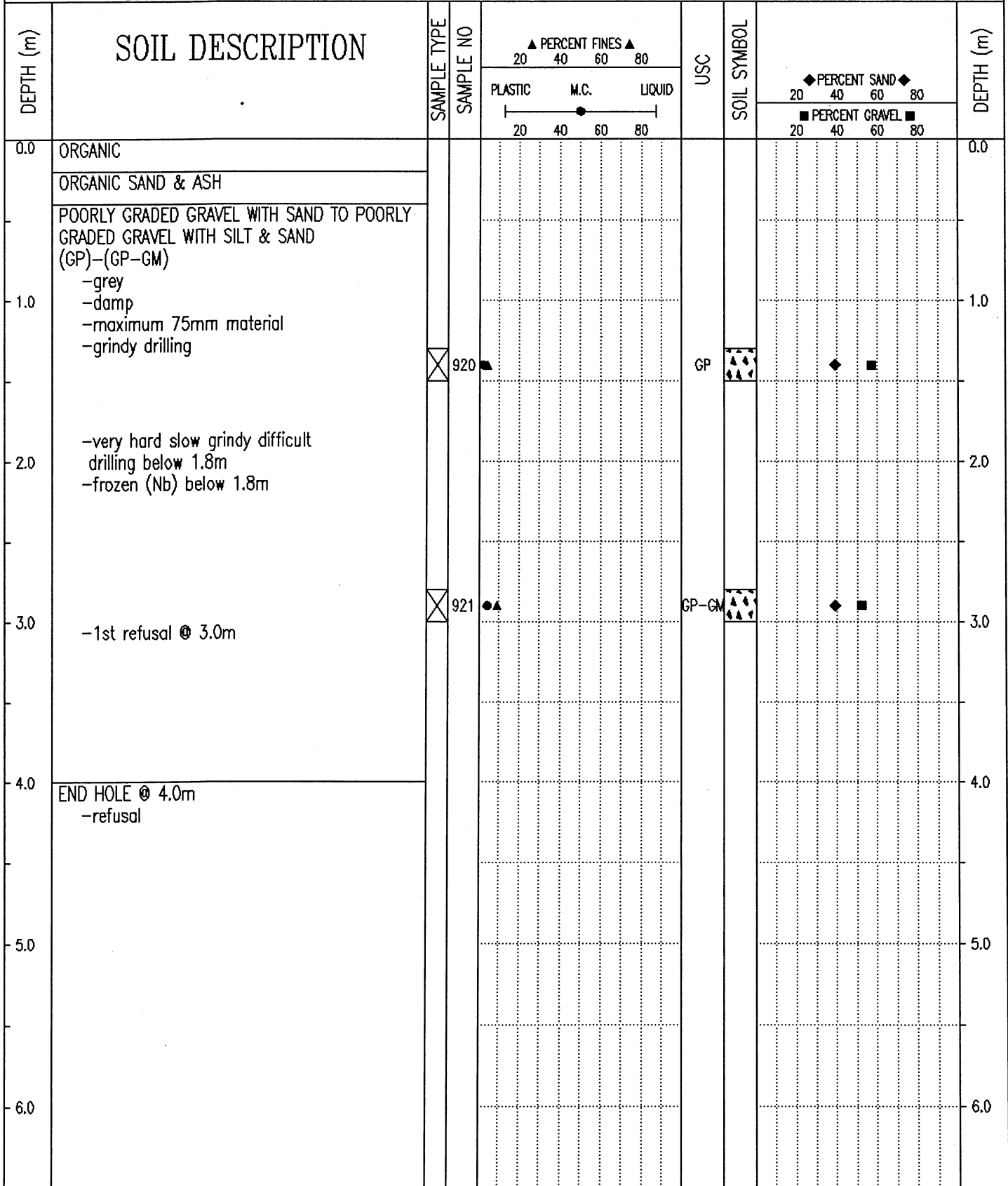
REVIEWED BY:

COMPLETE: 00/06/19

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 556-1586
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1765+900 CENTERLINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 4.0 m
REVIEWED BY:	COMPLETE: 00/06/19
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1587								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+000 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC SAND & ASH											0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -grey -damp -maximum 75mm material -grindy drilling											1.0
2.0	-very hard slow grindy difficult drilling below 2m											2.0
3.0		<input checked="" type="checkbox"/>	922	▲			GP-GM	▲▲▲	◆	■		3.0
4.0		<input checked="" type="checkbox"/>	923	▲			GP-GM	▲▲▲	◆	■		4.0
5.0	END HOLE @ 4.7m -refusal	<input checked="" type="checkbox"/>	924	▲			GP-GM	▲▲▲	◆	■		5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:		COMPLETION DEPTH: 4.7 m COMPLETE: 00/06/20		Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1588									
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361									
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+100 CENTERLINE		ELEVATION: 0.00 (m)									
SAMPLE TYPE		<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC SAND & ASH												0.0
0.0 - 1.0	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -maximum 75mm material -grindy drilling												1.0
1.0 - 2.0													2.0
2.0 - 3.0	-broke off auger shank - replace all augers on this string -very hard slow difficult grindy drilling -1st refusal @ 2.5 - move 2m upchain												3.0
3.0 - 3.4			925					GP					3.4
3.4 - 4.0	END HOLE @ 3.4m -refusal		926					GP					4.0
4.0 - 5.0													5.0
5.0 - 6.0													6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.				COMPLETION DEPTH: 3.4 m					
				REVIEWED BY:				COMPLETE: 00/06/20					
				Fig. No:				Page 1 of 1					

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1589								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+200 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	ORGANIC										0.0	
	ASH SAND & ORGANIC											
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -grey -damp -maximum 75mm material -grindy drilling											
1.0											1.0	
2.0											2.0	
3.0											3.0	
3.5		<input checked="" type="checkbox"/>	927				GP	▲▲▲	◆	■		
4.0											4.0	
4.5		<input checked="" type="checkbox"/>	928	▲			GP-GM	▲▲▲	◆	■		
4.5	END HOLE @ 3.5m -refusal											
5.0											5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 3.5 m
COMPLETE: 00/06/20

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1590								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+500 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC & SAND											0.0
0.0 - 1.8	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp -maximum 75mm material -grindy drilling											
1.8 - 5.0	-very hard slow difficult grindy drilling below 1.8m											
5.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -grey -frozen (Vx) -smoother drilling											
5.0	END HOLE @ 5.0m -refusal											
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:		COMPLETION DEPTH: 5.0 m COMPLETE: 00/06/20		Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1591							
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361							
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+600 CENTERLINE		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	ORGANIC										0.0
0.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)										
1.0	-brown -damp -maximum 75mm material -grindy drilling										1.0
2.0		<input checked="" type="checkbox"/>	931	▲			GP-GM	▲▲▲▲	◆	■	2.0
3.0											3.0
4.0											4.0
5.0	END HOLE @ 45.m -refusal	<input checked="" type="checkbox"/>	932	●▲			GP-GM	▲▲▲▲	◆	■	5.0
6.0											6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T. COMPLETION DEPTH: 4.5 m
REVIEWED BY: COMPLETE: 00/06/20
Fig. No: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1592								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+700 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC SAND & ASH WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW-SM)-(GP-GM) -brown -moist -maximum 75mm material -grindy drilling											0.0
1.0												1.0
2.0		<input checked="" type="checkbox"/>	933				SW-SM					2.0
3.0												3.0
4.0												4.0
5.0	END HOLE @ 4.5m -refusal	<input checked="" type="checkbox"/>	934				GP-GM					5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:		COMPLETION DEPTH: 4.5 m COMPLETE: 00/06/20		Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1593								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+800 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
1.0	WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW-SM)-(GP-GM) -brown -damp -maximum 75mm material -grindy drilling											1.0
2.0			935	▲			SW-SM	◆				2.0
3.0	-very hard slow difficult grindy drilling											3.0
4.0												4.0
5.0												5.0
6.0	-frozen (Nb) @ 5.0m											6.0
6.0	END HOLE @ 6.0m -refusal		936	▲			GP-GM	◆		■		6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 6.0 m
COMPLETE: 00/06/20

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1594							
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361							
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+900 CENTERLINE		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER							
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE							
				<input type="checkbox"/> CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	ORGANIC										0.0
	ORGANIC SAND & ASH										
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)										
	-brown										
	-damp										
	-maximum 75mm material										
	-grindy drilling										
1.0											1.0
		<input checked="" type="checkbox"/>	937				GP	▲▲▲	◆	■	
2.0											2.0
		<input checked="" type="checkbox"/>	938				GP	▲▲▲	◆	■	
3.0											3.0
		<input checked="" type="checkbox"/>	939				GP-GM	▲▲▲	◆	■	
4.0											4.0
	END HOLE @ 4.5m										
	-refusal										
5.0											5.0
6.0											6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.		COMPLETION DEPTH: 4.5 m					
				REVIEWED BY:		COMPLETE: 00/06/21					
				Fig. No:				Page 1 of 1			

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1595								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1767+000 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC, SAND & ASH											0.0
1.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -maximum 75mm material -grindy drilling											1.0
2.0	-very difficult drilling - coarse or frozen material -slow grindy drilling	<input checked="" type="checkbox"/>	940					GP				2.0
3.0												3.0
4.0												4.0
5.0	END HOLE @ 5.0m -refusal	<input checked="" type="checkbox"/>	941					GP-GM				5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:				COMPLETION DEPTH: 5.0 m COMPLETE: 00/06/21 Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1597								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1767+200 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC											0.0
	SILTY SAND (ML) -brown -moist											
1.0												1.0
	SILT WITH SAND (ML) -brown -frozen (Nf) -hard drilling	<input checked="" type="checkbox"/>	943				ML					
2.0												2.0
	-grindy drilling @ 2.6m -1st refusal @ 2.7m - moved 2m upchain/ END HOLE @ 2.8m -refusal	<input checked="" type="checkbox"/>	944				ML					
3.0												3.0
4.0												4.0
5.0												5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.		COMPLETION DEPTH: 2.8 m						
				REVIEWED BY:		COMPLETE: 00/06/21						
				Fig. No:				Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1598							
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361							
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1767+300 CENTERLINE		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	ORGANIC -smooth drilling										0.0
	SAND -some silt -brown -damp										
1.0	SILT (ML) -brown -trace organic -frozen (Nb)										1.0
		<input checked="" type="checkbox"/>	945				ML				
2.0	SANDY GRAVEL -frozen (Nb) -grindy drilling -1st refusal @ 2.1m - replaced bit. -2nd refusal @ 2.6 - moved 2m upchair										2.0
	END HOLE @ 2.6m										
3.0	-refusal										3.0
4.0											4.0
5.0											5.0
6.0											6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

COMPLETION DEPTH: 2.6 m

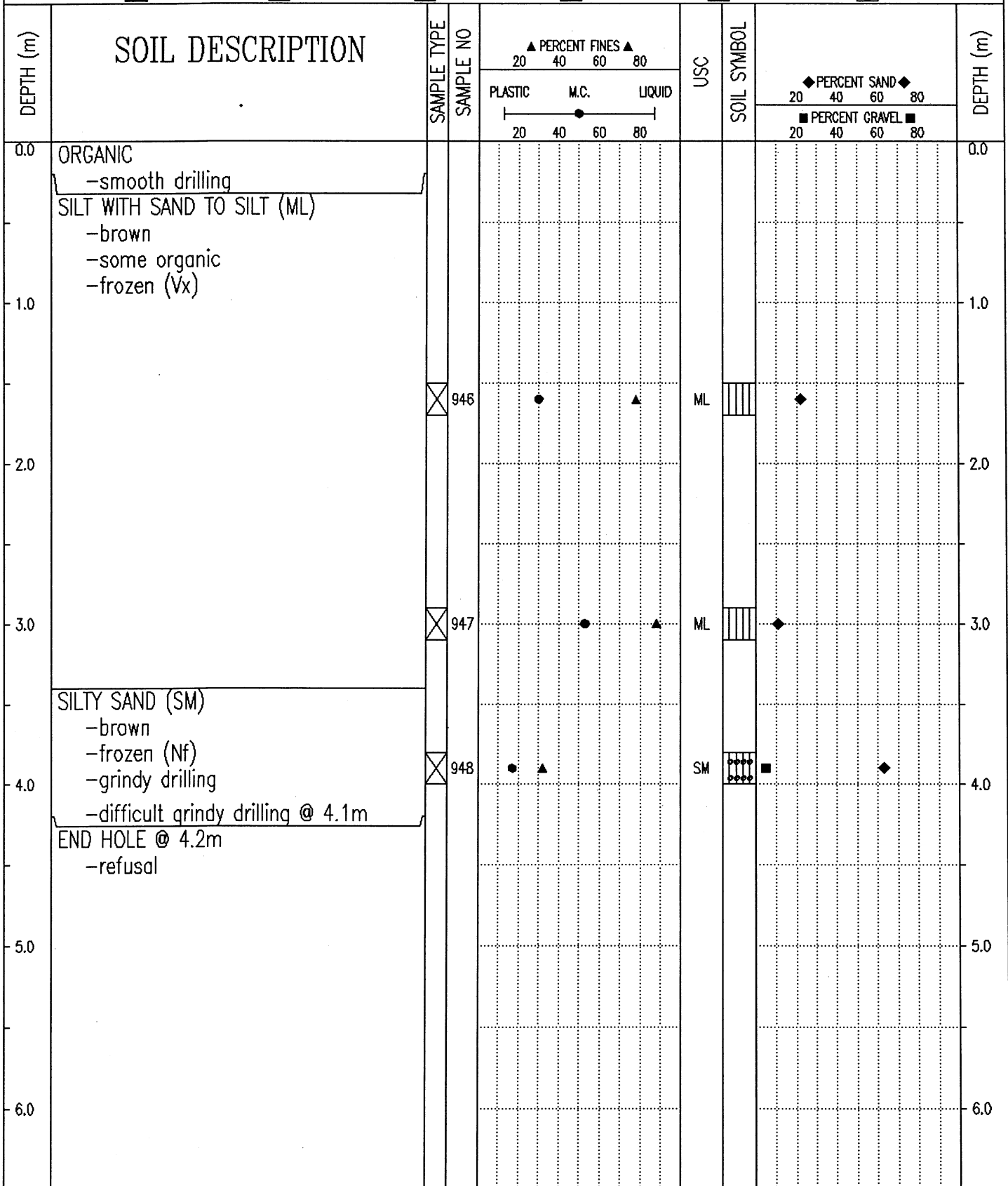
REVIEWED BY:

COMPLETE: 00/06/21

Fig. No:

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST HOLE NO: 556-1599
ENGINEERING CAPITAL	KM 1729.6-1787 A/H	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1767+400 CENTERLINE	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 4.2 m
	REVIEWED BY:	COMPLETE: 00/06/21
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1600								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1767+500 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲			USC	SOIL SYMBOL	◆ PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp -maximum 75mm material -grindy drilling										0.0	
1.0											1.0	
2.0	-very difficult slow grindy drilling @ 1.7m -1st refusal @ 2.2m - moved 2m downchain	<input checked="" type="checkbox"/>	949				GP	▲▲▲▲	◆	■	2.0	
3.0	END HOLE @ 2.9m -refusal Note: 200mm boulders on surface										3.0	
4.0											4.0	
5.0											5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 2.9 m
REVIEWED BY:	COMPLETE: 00/06/21
Fig. No:	Page 1 of 1

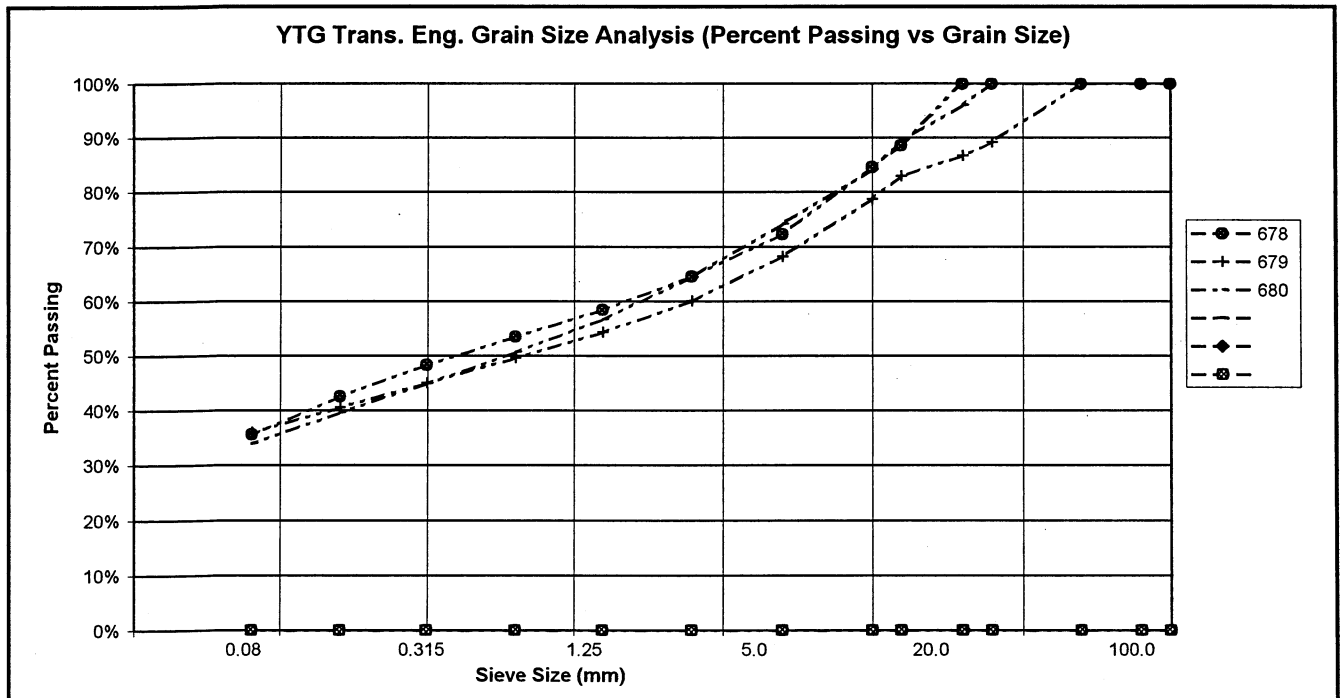
SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1601								
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1767+600 CENTERLINE		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -maximum 75mm material -grindy drilling											0.0
1.0												1.0
2.0												2.0
3.0	-coarser material below 3.0m											3.0
4.0	END HOLE @ 3.6m											4.0
5.0												5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T.		COMPLETION DEPTH: 3.6 m						
				REVIEWED BY:		COMPLETE: 00/06/21						
				Fig. No:				Page 1 of 1				

PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1758+650 C/L
 LOGGED BY: D.T.

HOLE No.: 552-1496

DATE COMP: 2000/06/07

FIELD NO:	678	679	680		
LAB NO:	1084	1085	1086		
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	89%	100%		
20.0	100%	87%	96%		
12.5	89%	83%	89%		
10.0	85%	79%	84%		
5.0	72%	68%	74%		
2.5	65%	60%	64%		
1.25	58%	54%	57%		
0.630	54%	50%	51%		
0.315	48%	45%	45%		
0.160	43%	41%	40%		
0.080	36%	36%	34%		
M.C.(%):	5%	9%	6%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	28	32	26		
% SAND:	37	32	40		
% FINES:	36	36	34		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

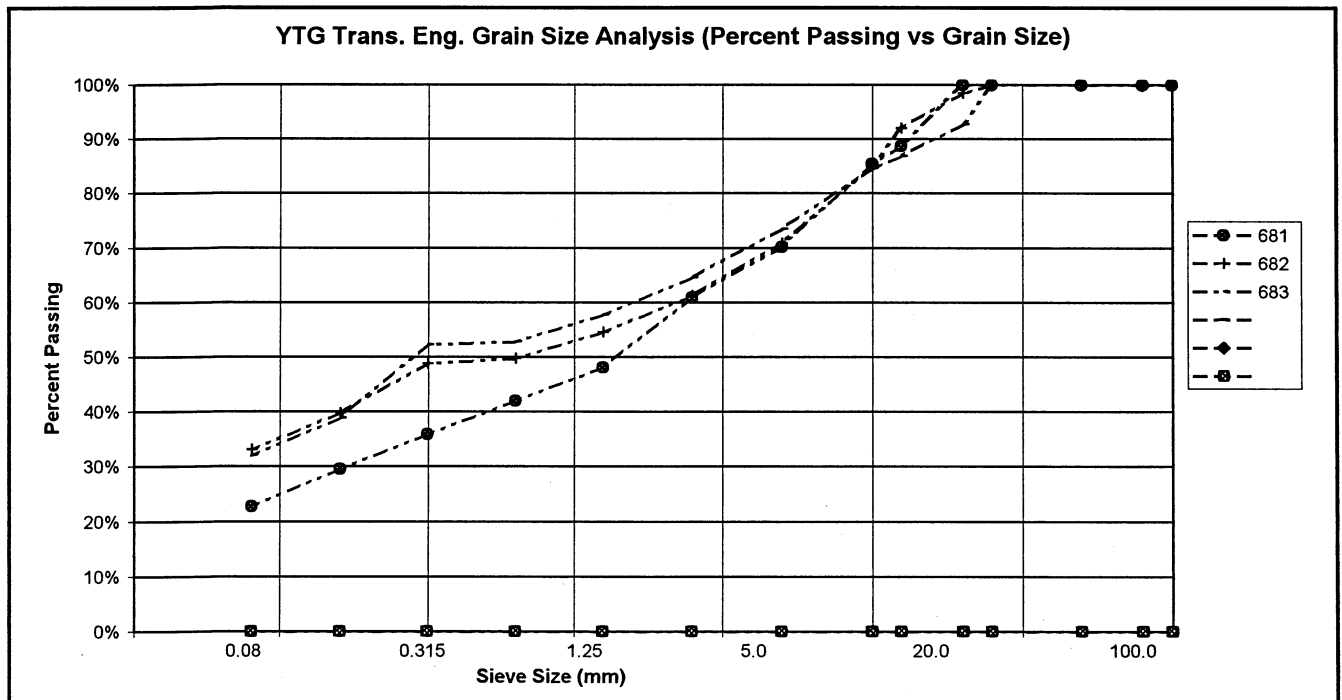


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1758+800 C/L
 LOGGED BY: D.T.

HOLE No.: 552-1497

DATE COMP: 2000/06/07

FIELD NO:	681	682	683		
LAB NO:	1087	1088	1089		
DEPTH:	1.2-1.4	2.8-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	100%	100%		
20.0	100%	99%	93%		
12.5	89%	92%	87%		
10.0	85%	85%	85%		
5.0	70%	71%	73%		
2.5	61%	61%	65%		
1.25	48%	55%	58%		
0.630	42%	50%	53%		
0.315	36%	49%	52%		
0.160	30%	40%	39%		
0.080	23%	33%	32%		
M.C.(%):	4%	9%	12%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	30	29	27		
% SAND:	47	38	41		
% FINES:	23	33	32		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

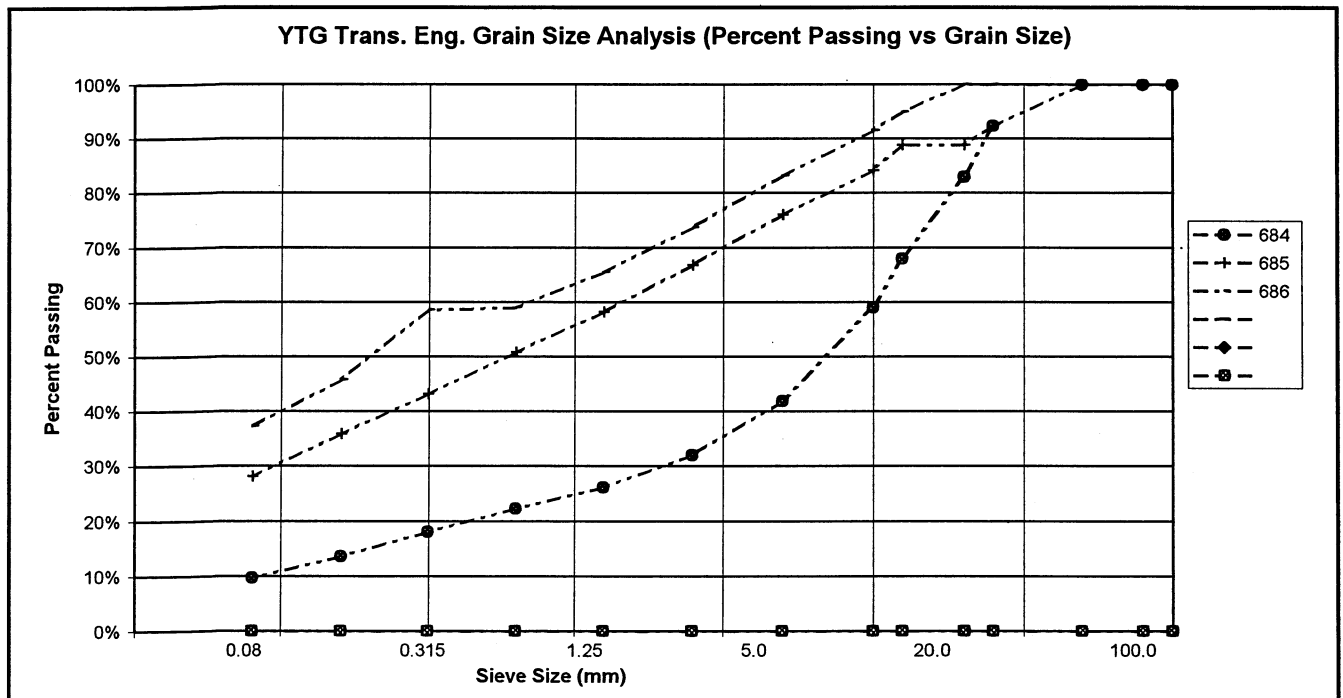


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1758+900 14M LT
 LOGGED BY: D.T.

HOLE No.: 552-1498

DATE COMP: 2000/06/08

FIELD NO:	684	685	686		
LAB NO:	1090	1091	1092		
DEPTH:	1.5-1.7	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	92%	92%	100%		
20.0	83%	89%	100%		
12.5	68%	89%	95%		
10.0	59%	84%	92%		
5.0	42%	76%	83%		
2.5	32%	67%	74%		
1.25	26%	58%	65%		
0.630	22%	51%	59%		
0.315	18%	43%	59%		
0.160	14%	36%	46%		
0.080	10%	28%	37%		
M.C.(%)	3%	10%	4%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	58	24	17		
% SAND:	32	48	46		
% FINES:	10	28	37		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

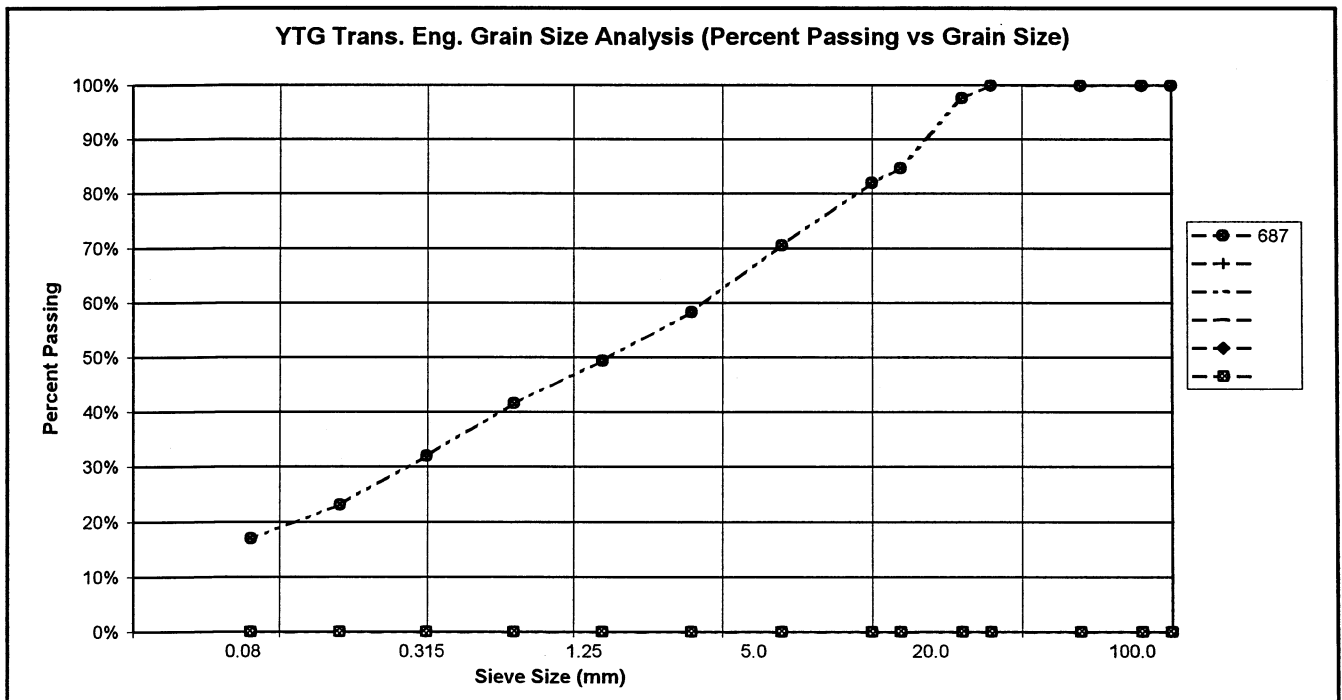


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+010 15M LT
 LOGGED BY: D.T.

HOLE No.: 552-1499

DATE COMP: 2000/06/08

FIELD NO:	687				
LAB NO:	1093				
DEPTH:	1.3-1.5				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	100%				
20.0	98%				
12.5	85%				
10.0	82%				
5.0	71%				
2.5	58%				
1.25	49%				
0.630	42%				
0.315	32%				
0.160	23%				
0.080	17%				
M.C.(%):	11%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	29				
% SAND:	53				
% FINES:	17				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)				

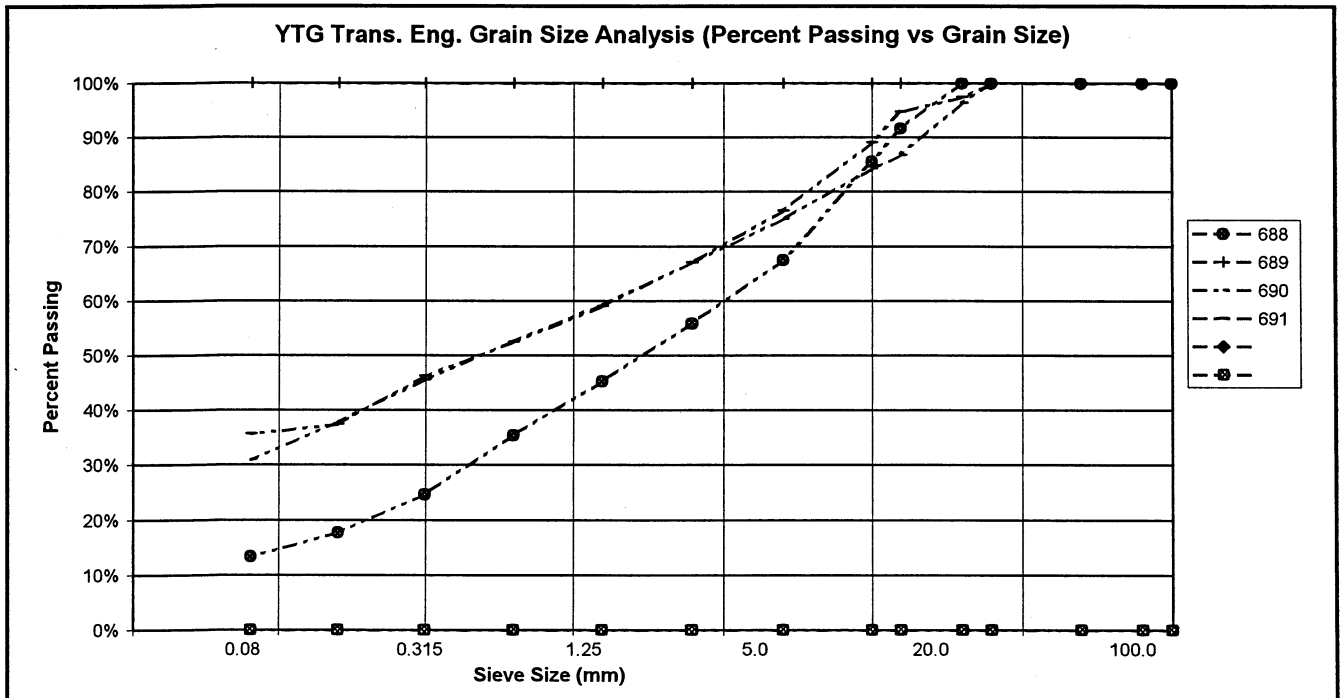


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+100 13M LT
 LOGGED BY: D.T.

HOLE No.: 552-1500

DATE COMP: 2000/06/08

FIELD NO:	688	689	690	691		
LAB NO:	1094	LOST	1096	1097		
DEPTH:	1.4-1.6	2.0-2.2	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	100%	100%	96%	97%		
12.5	92%	100%	87%	95%		
10.0	86%	100%	84%	89%		
5.0	68%	100%	75%	77%		
2.5	56%	100%	67%	67%		
1.25	45%	100%	59%	59%		
0.630	35%	100%	53%	52%		
0.315	25%	100%	46%	46%		
0.160	18%	100%	38%	37%		
0.080	13%	100%	31%	36%		
M.C.(%)	2%	8%	13%	11%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	32	0	25	23		
% SAND:	54	0	44	41		
% FINES:	13	100	31	36		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILT (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)		

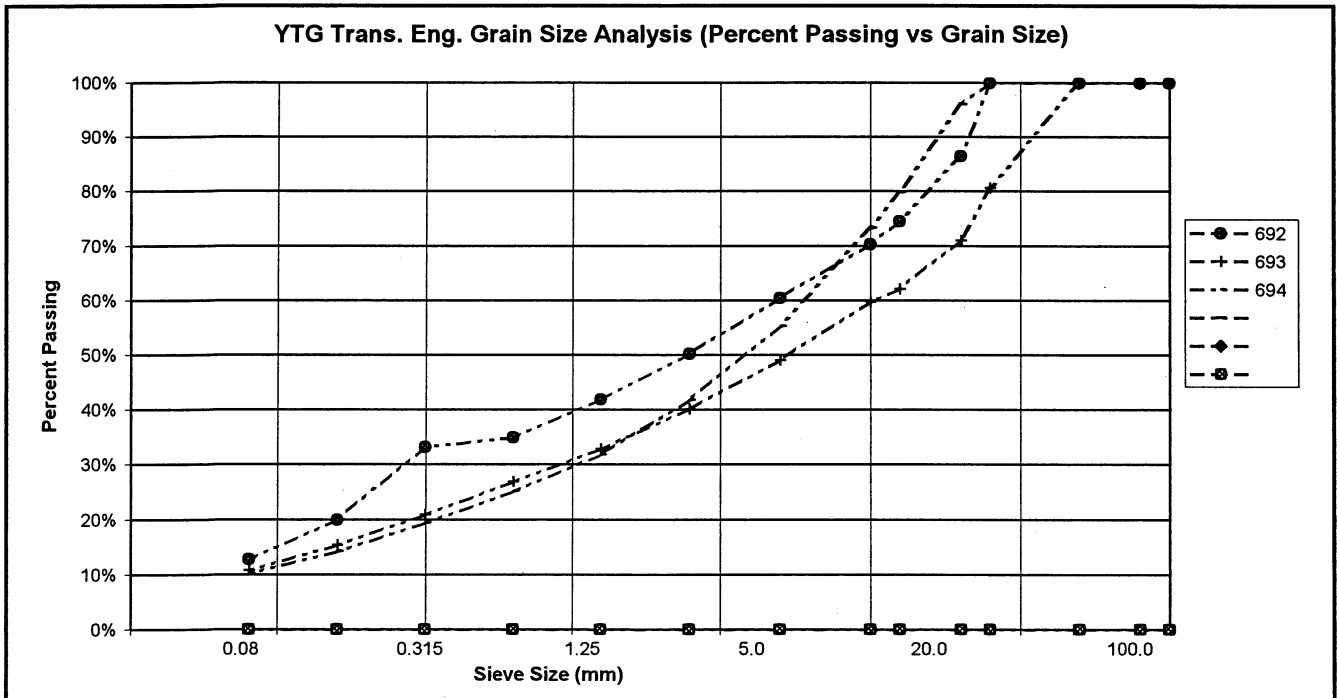


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+200 7M LT
 LOGGED BY: D.T.

HOLE No.: 552-1501

DATE COMP: 2000/06/08

FIELD NO:	692	693	694		
LAB NO:	1098	1099	1100		
DEPTH:	1.5-1.7	2.9-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	81%	100%		
20.0	86%	71%	96%		
12.5	75%	62%	80%		
10.0	70%	60%	73%		
5.0	60%	49%	55%		
2.5	50%	40%	42%		
1.25	42%	33%	32%		
0.630	35%	27%	25%		
0.315	33%	21%	19%		
0.160	20%	15%	14%		
0.080	13%	11%	10%		
M.C.(%):	3%	2%	5%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	40	51	45		
% SAND:	48	38	45		
% FINES:	13	11	10		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		

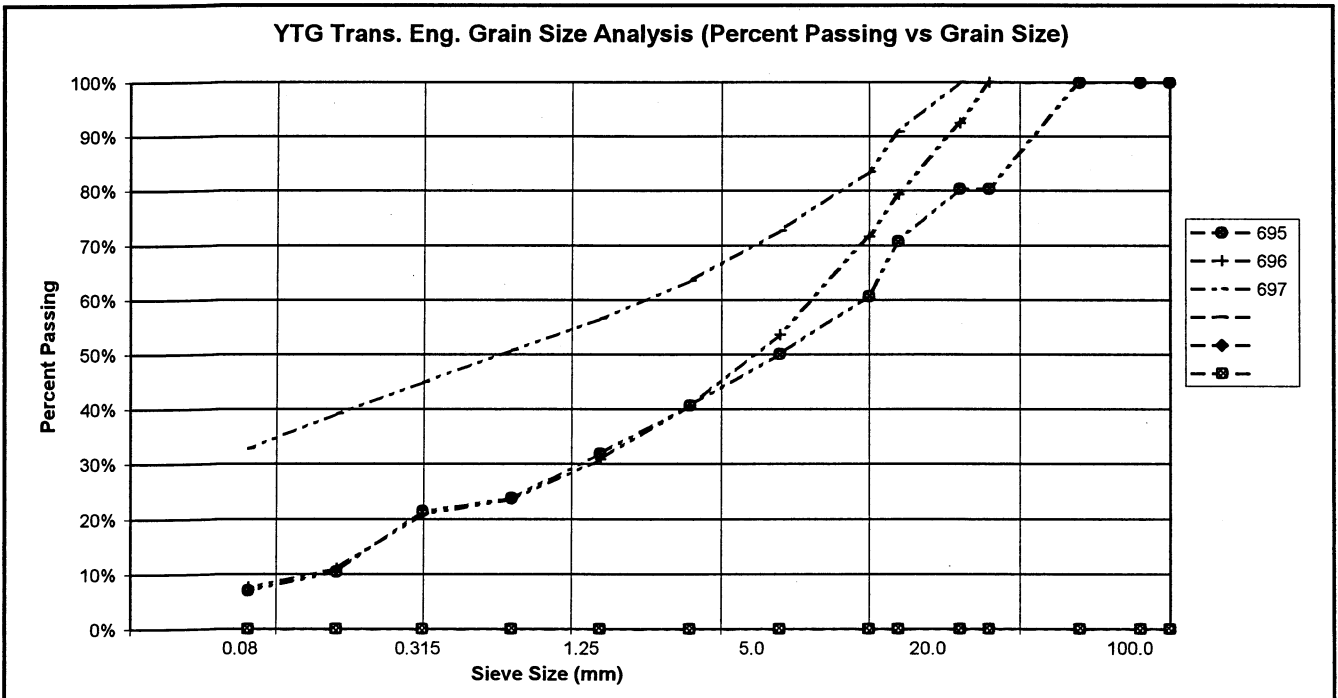


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+300 11M LT
 LOGGED BY: D.T.

HOLE No.: 552-1502

DATE COMP: 2000/06/08

FIELD NO:	695	696	697		
LAB NO:	1101	1102	1103		
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	80%	100%	100%		
20.0	80%	93%	100%		
12.5	71%	79%	91%		
10.0	61%	72%	83%		
5.0	50%	54%	73%		
2.5	41%	41%	63%		
1.25	32%	31%	57%		
0.630	24%	24%	51%		
0.315	21%	21%	45%		
0.160	10%	11%	39%		
0.080	7%	8%	33%		
M.C.(%)	2%	2%	8%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	50	46	27		
% SAND:	43	46	40		
% FINES:	7	8	33		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GR-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GR-GM)	SILTY SAND WITH GRAVEL (SM)		

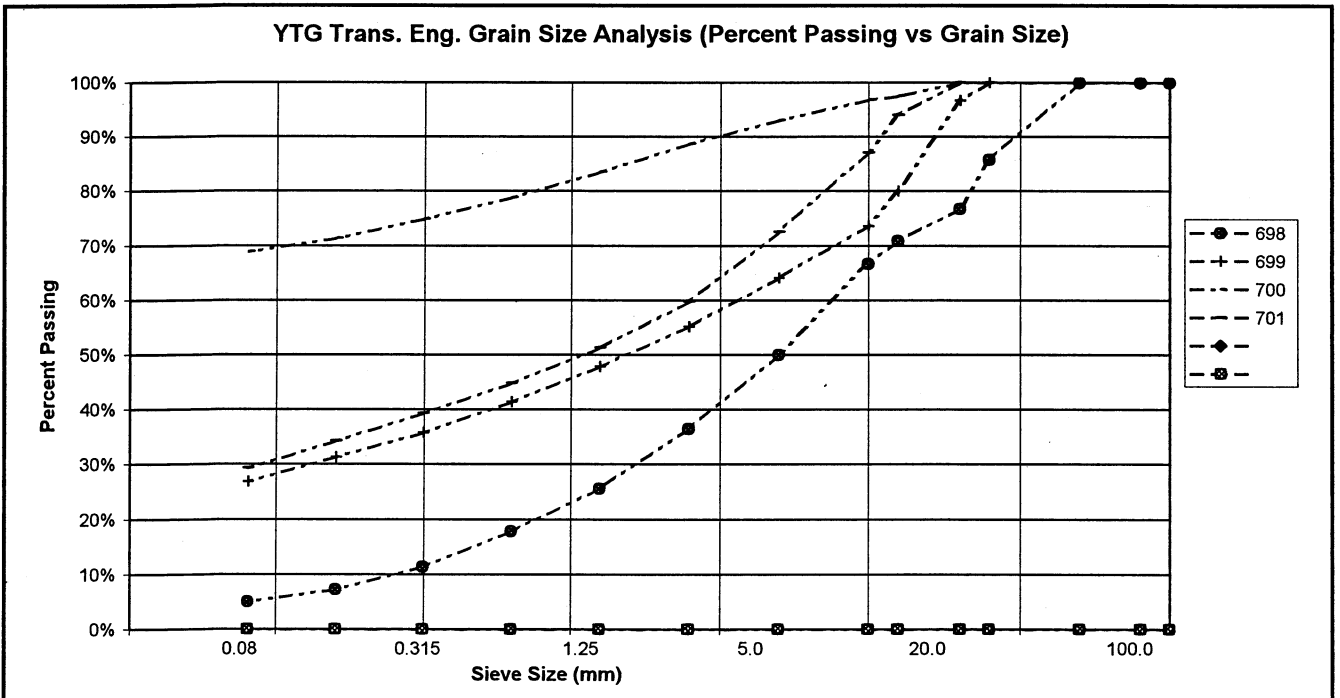


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+400 12M LT
 LOGGED BY: D.T.

HOLE No.: 552-1503

DATE COMP: 2000/06/08

FIELD NO:	698	699	700	701		
LAB NO:	1104	1105	1106	1107		
DEPTH:	1.4-1.6	2.1-2.3	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	86%	100%	100%	100%		
20.0	77%	97%	100%	100%		
12.5	71%	80%	98%	94%		
10.0	67%	74%	97%	87%		
5.0	50%	64%	93%	73%		
2.5	37%	55%	89%	60%		
1.25	26%	48%	84%	51%		
0.630	18%	41%	79%	45%		
0.315	11%	36%	75%	39%		
0.160	7%	31%	71%	34%		
0.080	5%	27%	69%	29%		
M.C.(%)	4%	11%	13%	10%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	50	36	7	27		
% SAND:	45	37	24	43		
% FINES:	5	27	69	29		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)		

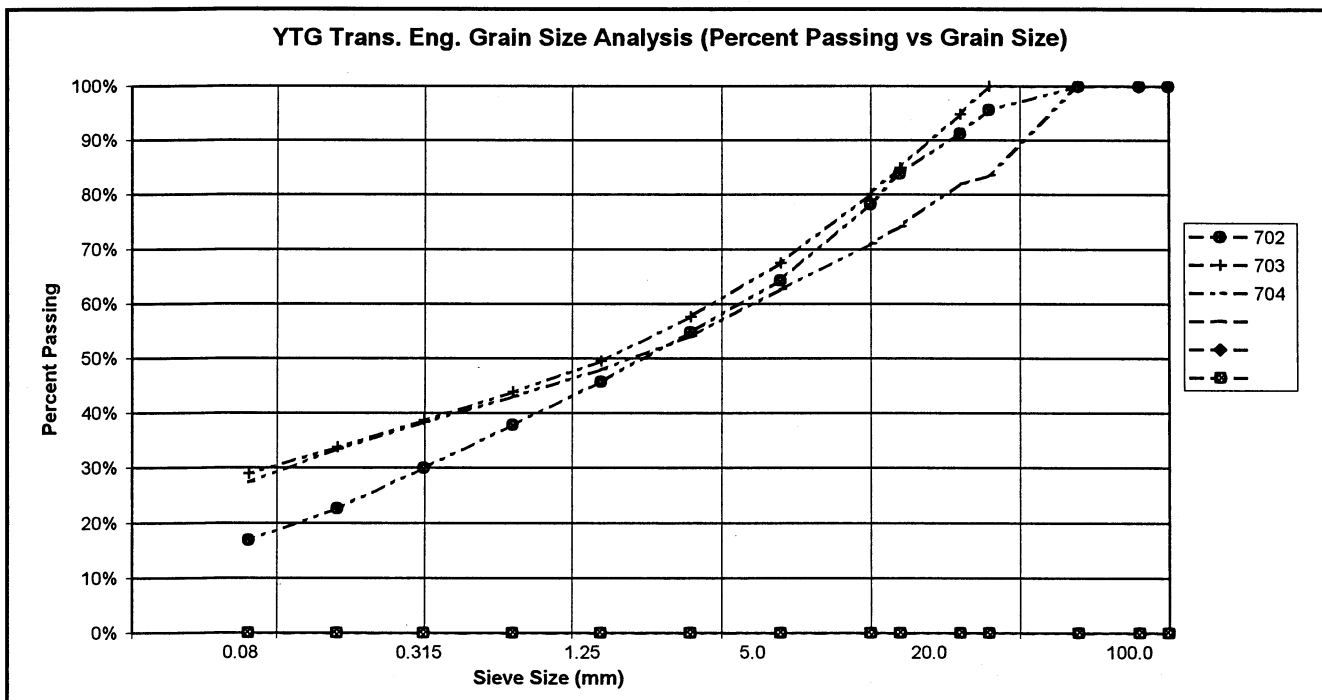


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+475 15M LT
 LOGGED BY: D.T.

HOLE No.: 552-1504

DATE COMP: 2000/06/08

FIELD NO:	702	703	704		
LAB NO:	1108	1109	1110		
DEPTH:	1.8-2.0	2.9-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	96%	100%	84%		
20.0	91%	95%	82%		
12.5	84%	85%	74%		
10.0	78%	80%	71%		
5.0	64%	67%	63%		
2.5	55%	58%	54%		
1.25	46%	50%	48%		
0.630	38%	44%	43%		
0.315	30%	39%	38%		
0.160	23%	34%	33%		
0.080	17%	29%	28%		
M.C.(%)	20%	11%	11%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	36	33	37		
% SAND:	47	38	35		
% FINES:	17	29	28		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		

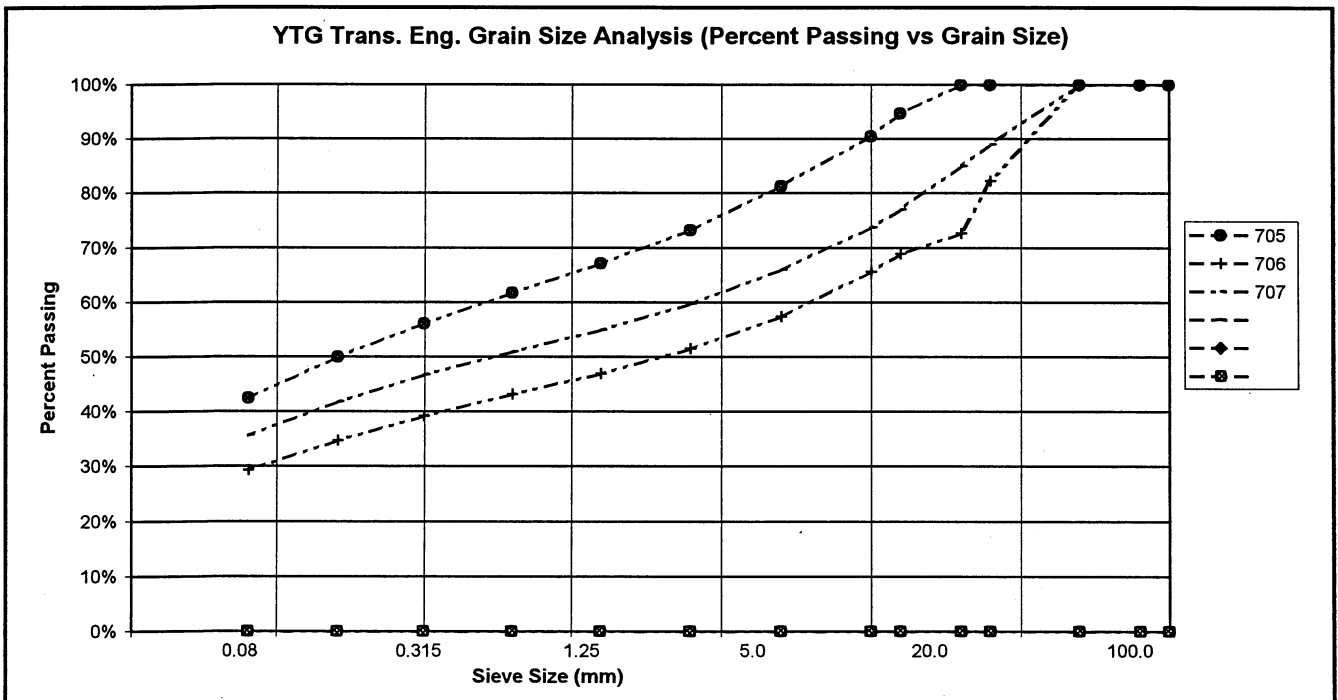


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+625 15M LT
 LOGGED BY: D.T.

HOLE No.: 552-1505

DATE COMP: 2000/06/08

FIELD NO:	705	706	707		
LAB NO:	1111	1112	1113		
DEPTH:	1.5-1.7	3.0-3.2	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	82%	89%		
20.0	100%	73%	85%		
12.5	95%	69%	77%		
10.0	91%	66%	74%		
5.0	81%	57%	66%		
2.5	73%	51%	60%		
1.25	67%	47%	55%		
0.630	62%	43%	51%		
0.315	56%	39%	47%		
0.160	50%	35%	42%		
0.080	43%	29%	36%		
M.C.(%)	7%	5%	6%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	19	43	34		
% SAND:	39	28	30		
% FINES:	43	29	36		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		

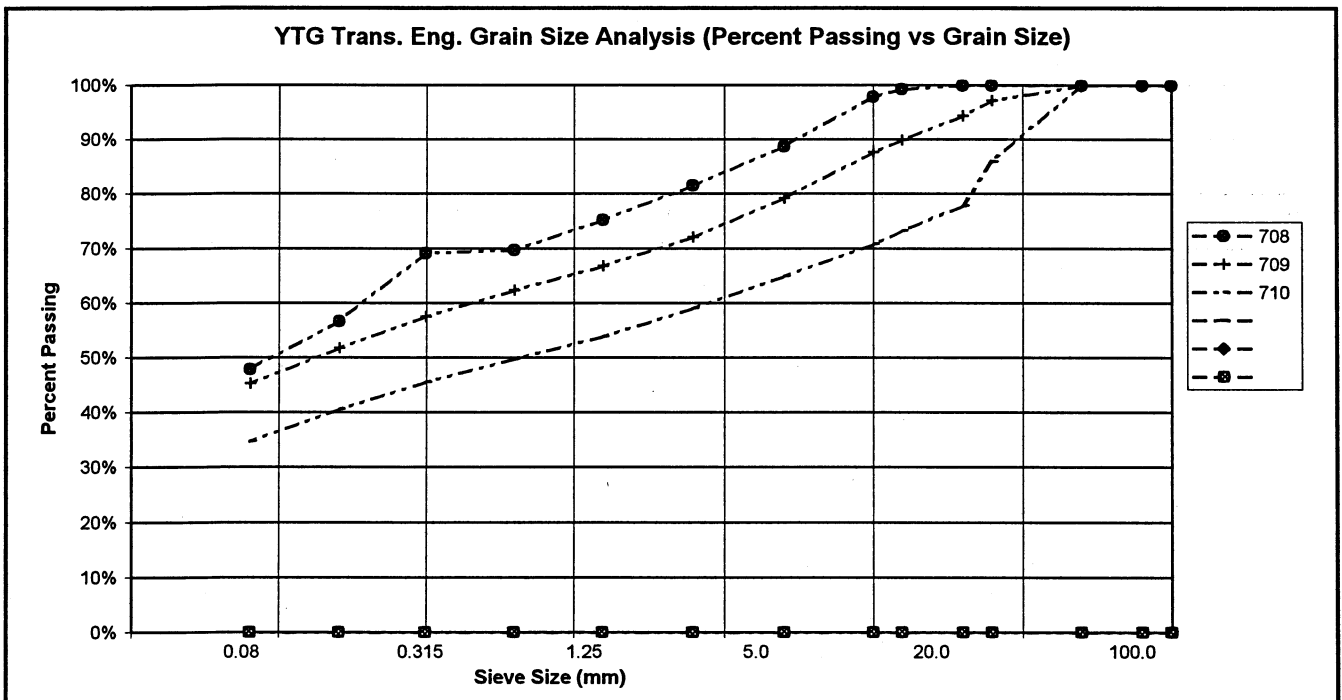


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+750 8M LT
 LOGGED BY: D.T.

HOLE No.: 552-1506

DATE COMP: 2000/06/08

FIELD NO:	708	709	710		
LAB NO:	1114	1115	1116		
DEPTH:	1.4-1.6	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	97%	86%		
20.0	100%	94%	78%		
12.5	99%	90%	73%		
10.0	98%	88%	71%		
5.0	89%	79%	65%		
2.5	82%	72%	59%		
1.25	75%	67%	54%		
0.630	70%	62%	50%		
0.315	69%	57%	46%		
0.160	57%	52%	41%		
0.080	48%	45%	35%		
M.C.(%)	10%	7%	7%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	11	21	35		
% SAND:	41	34	30		
% FINES:	48	45	35		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		

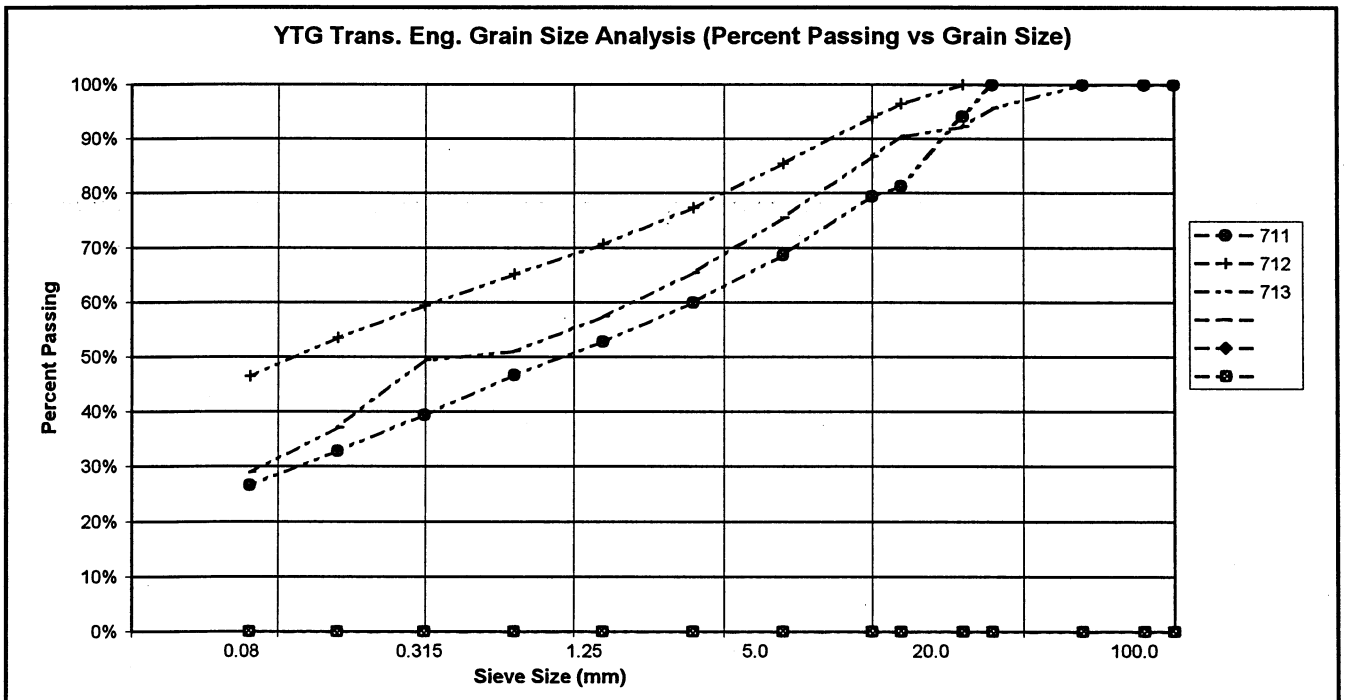


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+850 10M LT
 LOGGED BY: D.T.

HOLE No.: 552-1507

DATE COMP: 2000/06/08

FIELD NO:	711	712	713		
LAB NO:	1117	1118	1119		
DEPTH:	1.4-1.6	2.8-3.0	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	100%	96%		
20.0	94%	100%	92%		
12.5	81%	96%	91%		
10.0	79%	94%	87%		
5.0	69%	85%	75%		
2.5	60%	77%	65%		
1.25	53%	71%	57%		
0.630	47%	65%	51%		
0.315	39%	59%	49%		
0.160	33%	54%	37%		
0.080	27%	46%	29%		
M.C.(%):	7%	9%	8%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	31	15	25		
% SAND:	42	39	47		
% FINES:	27	46	29		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)		

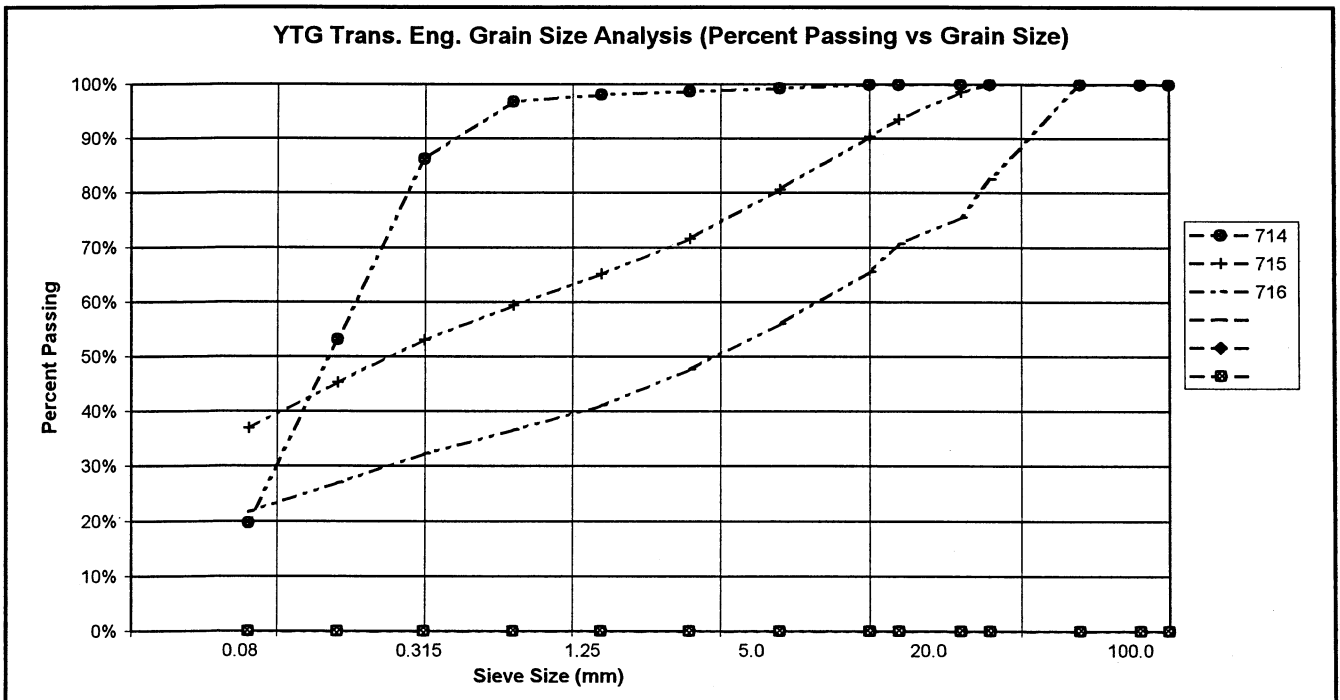


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+950 11M LT
 LOGGED BY: D.T.

HOLE No.: 552-1508

DATE COMP: 2000/06/08

FIELD NO:	714	715	716		
LAB NO:	1120	1121	1122		
DEPTH:	1.5-1.7	2.8-3.0	4.0-4.2		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	100%	82%		
20.0	100%	99%	75%		
12.5	100%	94%	71%		
10.0	100%	90%	65%		
5.0	99%	81%	56%		
2.5	99%	72%	48%		
1.25	98%	65%	41%		
0.630	97%	59%	37%		
0.315	86%	53%	32%		
0.160	53%	45%	27%		
0.080	20%	37%	22%		
M.C.(%):	5%	8%	7%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	1	19	44		
% SAND:	80	44	34		
% FINES:	20	37	22		
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)		

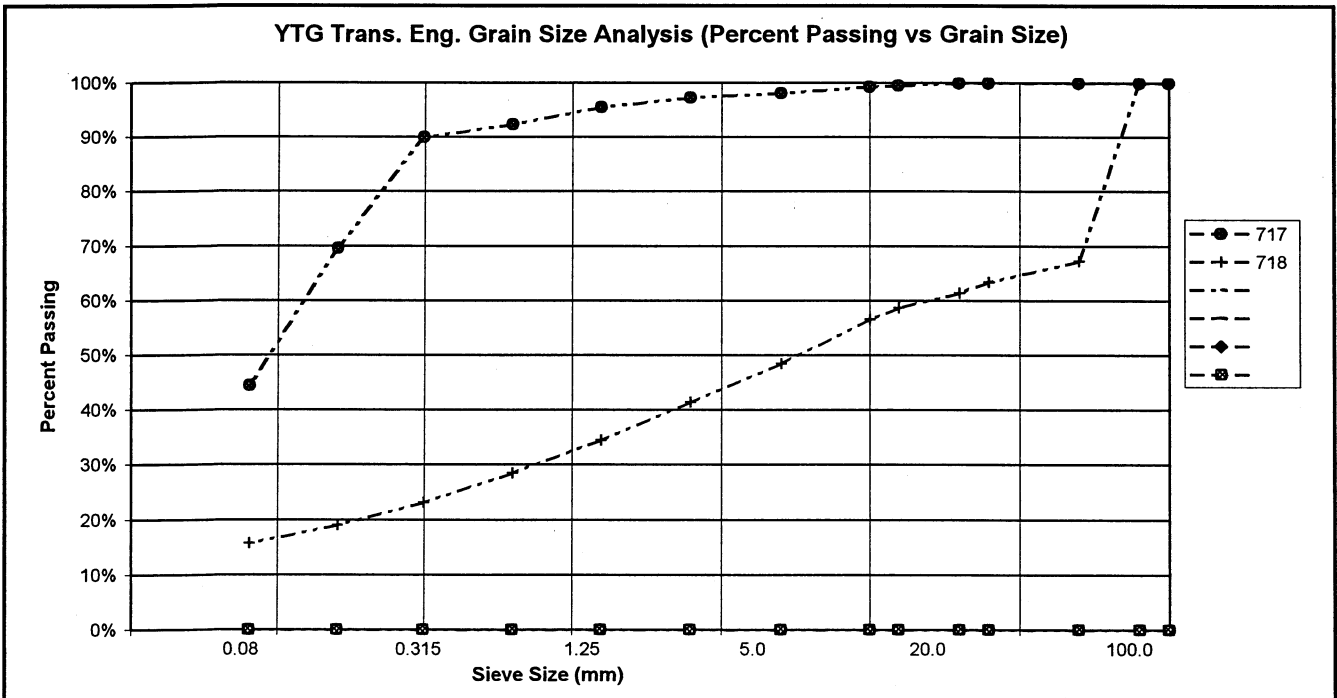


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+050 10 M LT
 LOGGED BY: D.T.

HOLE No.: 552-1509

DATE COMP: 2000/06/08

FIELD NO:	717	718			
LAB NO:	1123	1124			
DEPTH:	1.4-1.6	2.9-3.1			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	67%			
25.0	100%	63%			
20.0	100%	61%			
12.5	100%	59%			
10.0	99%	57%			
5.0	98%	49%			
2.5	97%	41%			
1.25	95%	34%			
0.630	92%	29%			
0.315	90%	23%			
0.160	70%	19%			
0.080	44%	16%			
M.C.(%):	11%	8%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	2	51			
% SAND:	54	33			
% FINES:	44	16			
CLASSIFICATION	SILTY SAND (SM)	SILTY GRAVEL WITH SAND (GM)			

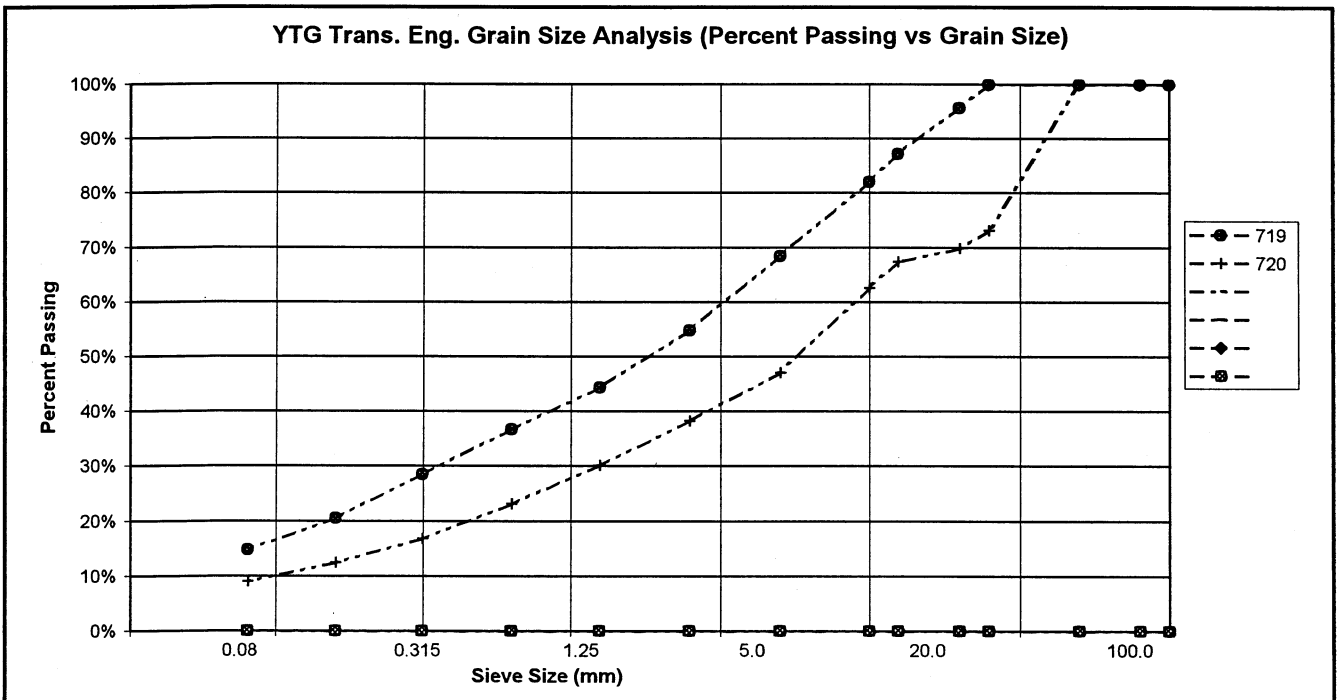


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+150 10M LT
 LOGGED BY: D.T.

HOLE No.: 552-1510

DATE COMP: 2000/06/08

FIELD NO:	719	720			
LAB NO:	1125	1126			
DEPTH:	1.5-1.7	3.0-3.2			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	100%	73%			
20.0	96%	70%			
12.5	87%	67%			
10.0	82%	63%			
5.0	68%	47%			
2.5	55%	38%			
1.25	44%	30%			
0.630	37%	23%			
0.315	29%	17%			
0.160	21%	12%			
0.080	15%	9%			
M.C.(%)	6%	7%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	32	53			
% SAND:	54	38			
% FINES:	15	9			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP, GM)			

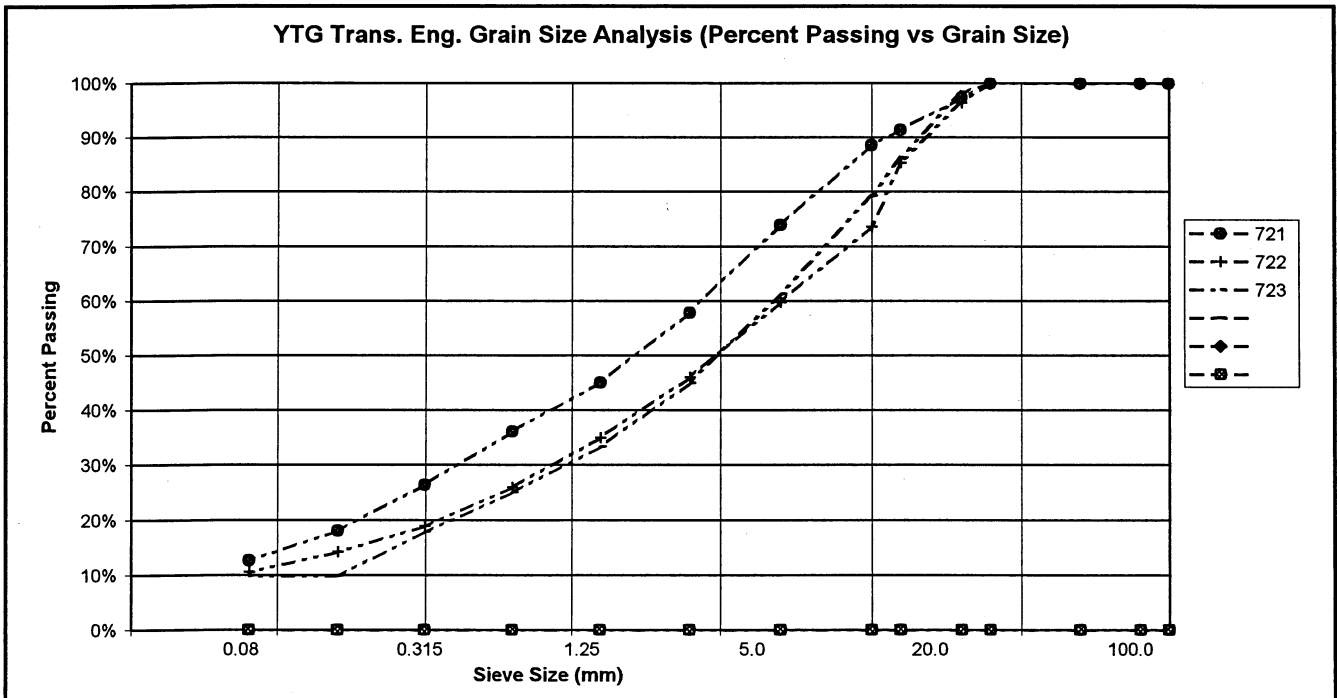


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 AVH
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+250 20M LT
 LOGGED BY: D.T.

HOLE No.: 552-1511

DATE COMP: 2000/06/08

FIELD NO:	721	722	723		
LAB NO:	1127	1128	1129		
DEPTH:	2.0-2.2	2.9-3.1	4.5-4.7		
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	100%	100%	100%		
20.0	97%	96%	98%		
12.5	91%	85%	86%		
10.0	89%	74%	79%		
5.0	74%	60%	61%		
2.5	58%	46%	45%		
1.25	45%	35%	33%		
0.630	36%	26%	25%		
0.315	26%	19%	18%		
0.160	18%	14%	10%		
0.080	13%	11%	10%		
M.C.(%):	10%	8%	9%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	26	40	39		
% SAND:	61	49	51		
% FINES:	13	11	10		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)		

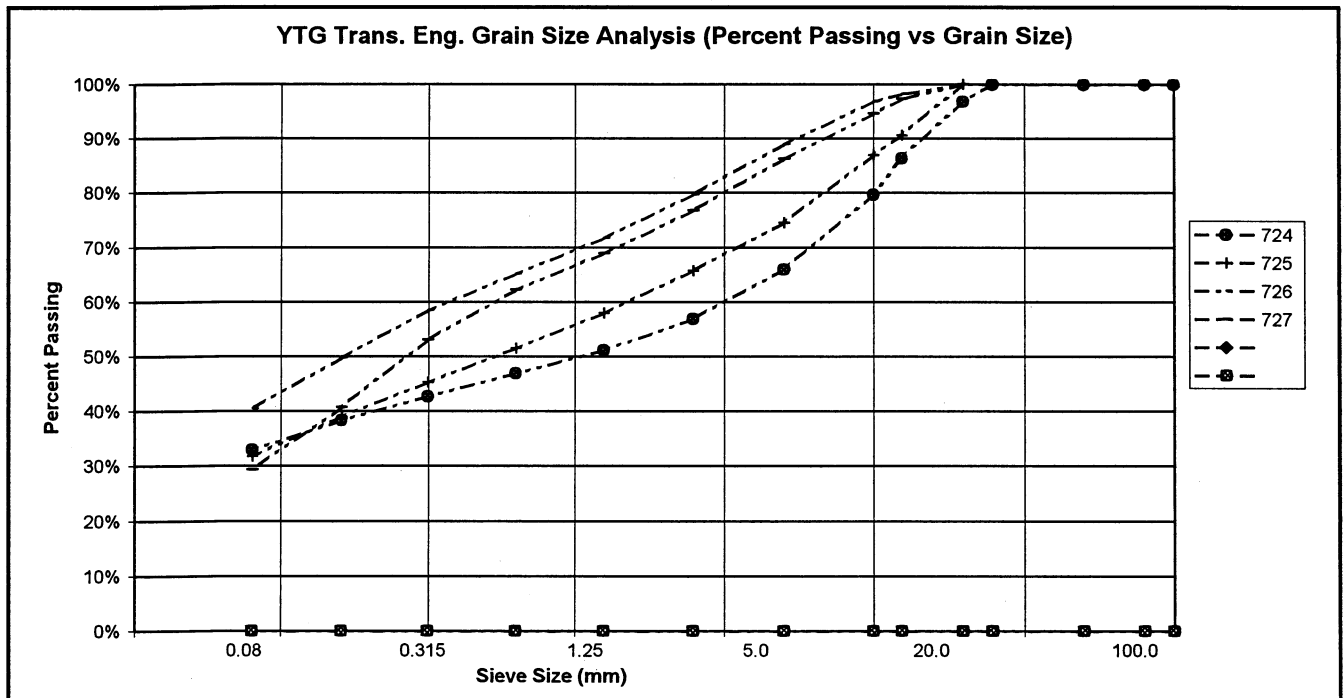


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+350 20M LT
 LOGGED BY: D.T.

HOLE No.: 552-1512

DATE COMP: 2000/06/09

FIELD NO:	724	725	726	727		
LAB NO:	1130	1131	1132	1133		
DEPTH:	1.4-1.6	2.8-3.0	4.1-4.3	5.8-6.0		
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	100%	100%	100%	100%		
20.0	97%	100%	100%	100%		
12.5	86%	91%	98%	97%		
10.0	80%	87%	97%	95%		
5.0	66%	74%	89%	86%		
2.5	57%	66%	80%	77%		
1.25	51%	58%	72%	69%		
0.630	47%	52%	65%	62%		
0.315	43%	45%	58%	53%		
0.160	38%	39%	50%	41%		
0.080	33%	32%	41%	29%		
M.C.(%)	4%	3%	7%	8%		
LIQUID LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0	0.0		
% GRAVEL:	34	26	11	14		
% SAND:	33	43	48	57		
% FINES:	33	32	41	29		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)	SILTY SAND (SM)		

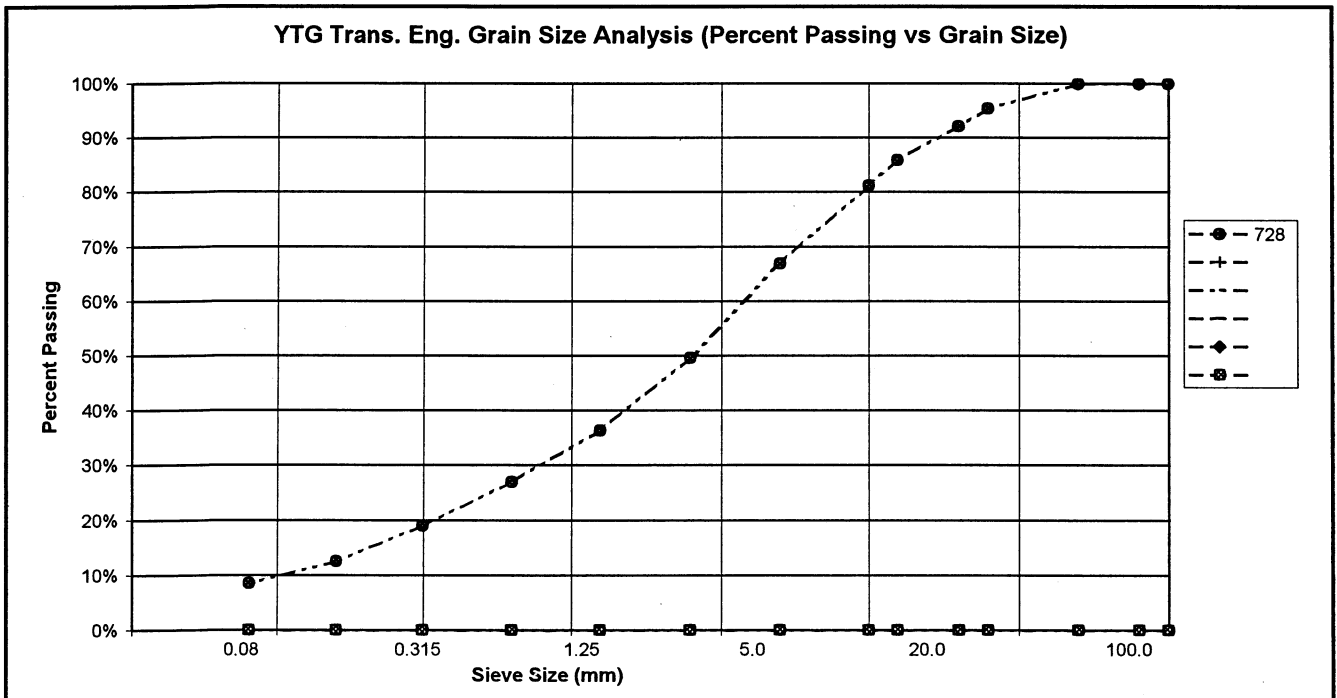


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+300 10M RT
 LOGGED BY: D.T.

HOLE No.: 552-1513

DATE COMP: 2000/06/09

FIELD NO:	728				
LAB NO:	1134				
DEPTH:	1.4-1.6				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	95%				
20.0	92%				
12.5	86%				
10.0	81%				
5.0	67%				
2.5	50%				
1.25	36%				
0.630	27%				
0.315	19%				
0.160	13%				
0.080	9%				
M.C.(%):	11%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	33				
% SAND:	58				
% FINES:	9				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW SM)				

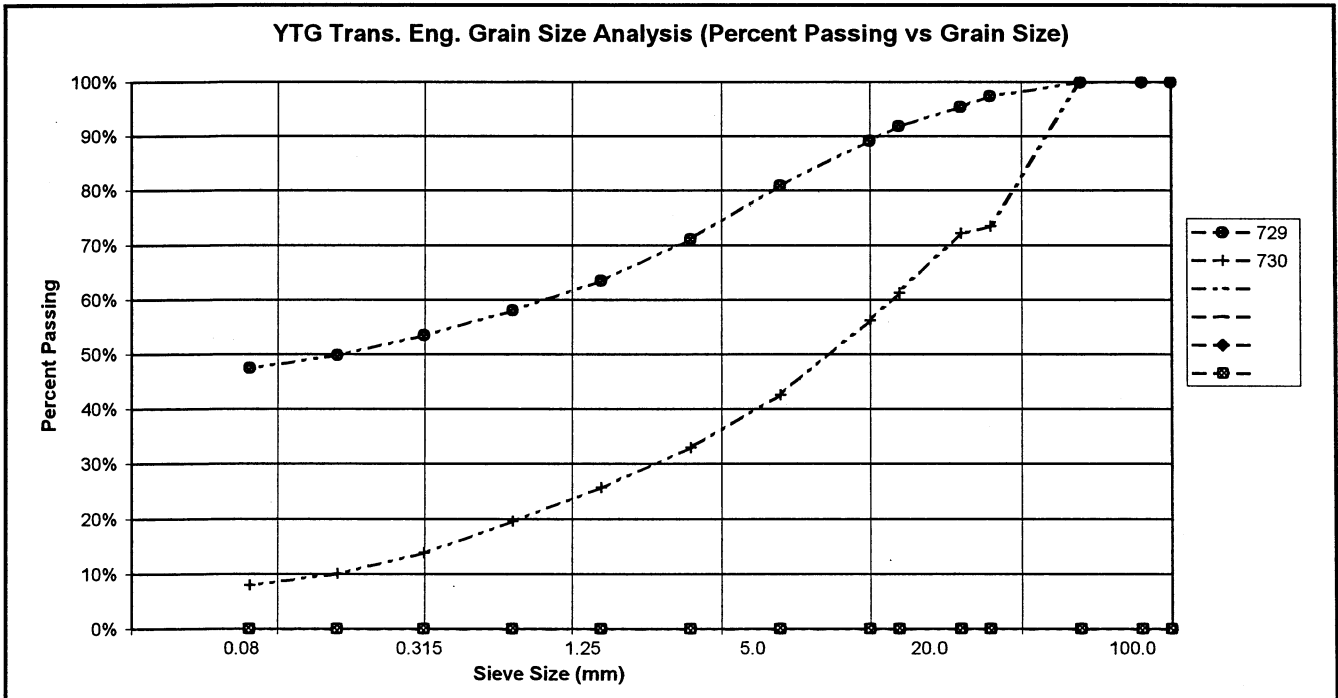


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+200 10M RT
 LOGGED BY: D.T.

HOLE No.: 552-1514

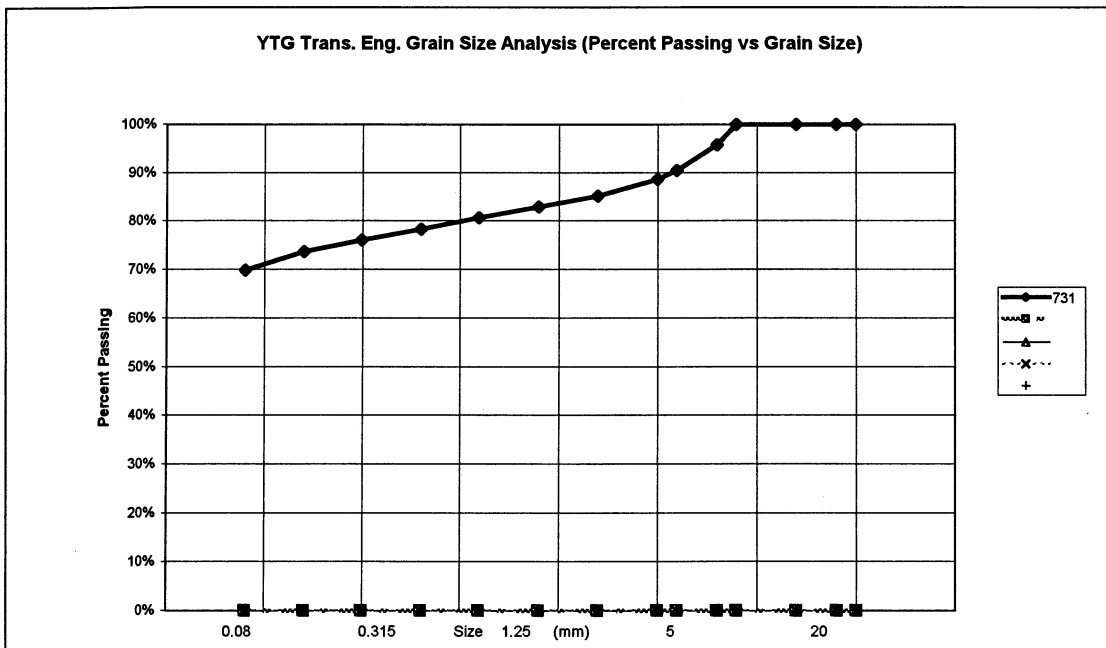
DATE COMP: 2000/06/09

FIELD NO:	729	730			
LAB NO:	1135	1136			
DEPTH:	1.8-2.0	3.0-3.2			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	97%	74%			
20.0	95%	72%			
12.5	92%	61%			
10.0	89%	56%			
5.0	81%	43%			
2.5	71%	33%			
1.25	63%	26%			
0.630	58%	20%			
0.315	54%	14%			
0.160	50%	10%			
0.080	48%	8%			
M.C.(%)	11%	7%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	19	57			
% SAND:	33	35			
% FINES:	48	8			
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



PROJECT NUMBER:	092-202101-0361	HOLE No.:	553-1515
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6 - 1729.6 A/H		
DRILL UNIT:	MOBILE B40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1759+000 15M RT	DATE COM	06/09/2000

FIELD NO: 731 LAB NO: 1137 DEPTH: 4.5-4.7 TYPE: AUGER				
SIEVE SIZE	PERCENT PASSING			
100.0	100%			
80.0	100%			
50.0	100%			
25.0	100%			
20.0	96%			
12.5	90%			
10.0	89%			
5.0	85%			
2.5	83%			
1.25	81%			
0.630	78%			
0.315	76%			
0.160	74%			
0.080	70%			
M.C.(%):	34%			
LIMITS				
LIQUID:	0.0			
PLASTIC:	0.0			
P.I.:	0.0			
% GRAVEL	15			
% SAND:	15			
% FINES:	70			
CLASSIFICATION:				
SANDY SILT (ML)				



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1516	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 06/12/2000	
HOLE LOCATION: 1759+075 10M RT			

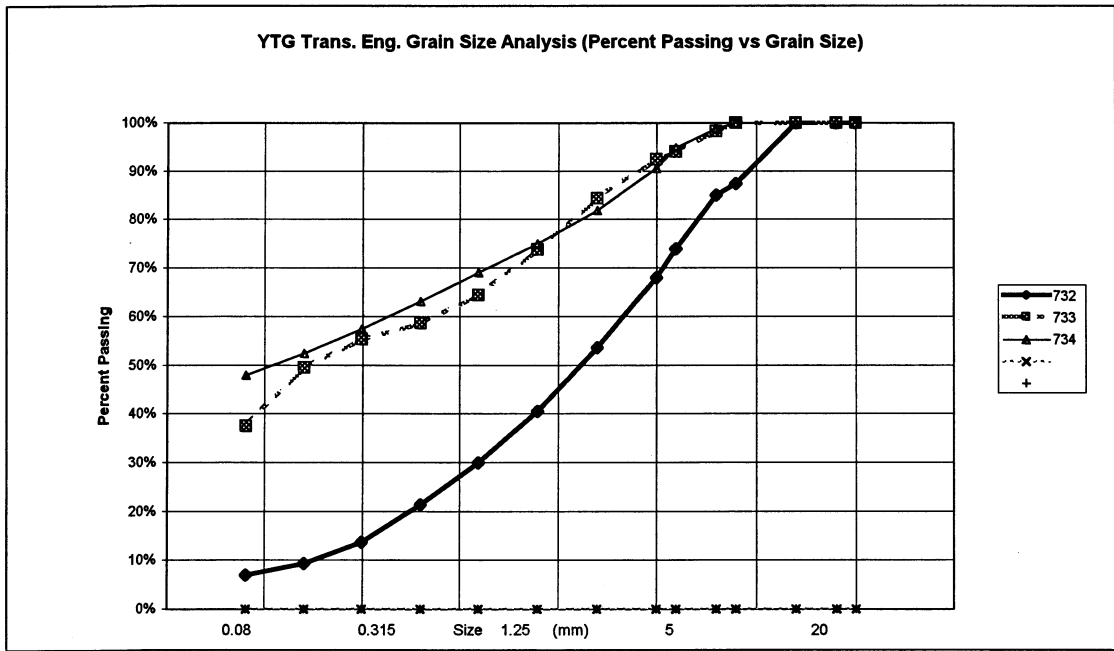
FIELD No: 732		FIELD No: 733		FIELD No: 734	
LAB NO: 1138		LAB No: 1139		LAB No: 1140	
DEPTH: 1.4-1.6		DEPTH 2.8-3.0		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	87%	25.0	100%	25.0	100%
20.0	85%	20.0	98%	20.0	99%
12.5	74%	12.5	94%	12.5	95%
10.0	68%	10.0	93%	10.0	91%
5.0	54%	5.0	84%	5.0	82%
2.5	41%	2.5	74%	2.5	75%
1.25	30%	1.25	64%	1.25	69%
0.630	21%	0.630	59%	0.630	63%
0.315	14%	0.315	55%	0.315	57%
0.160	9%	0.160	50%	0.160	52%
0.080	7%	0.080	37%	0.080	48%

M.C.(%):	5%	M.C.(%):	16%	M.C.(%):	14%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

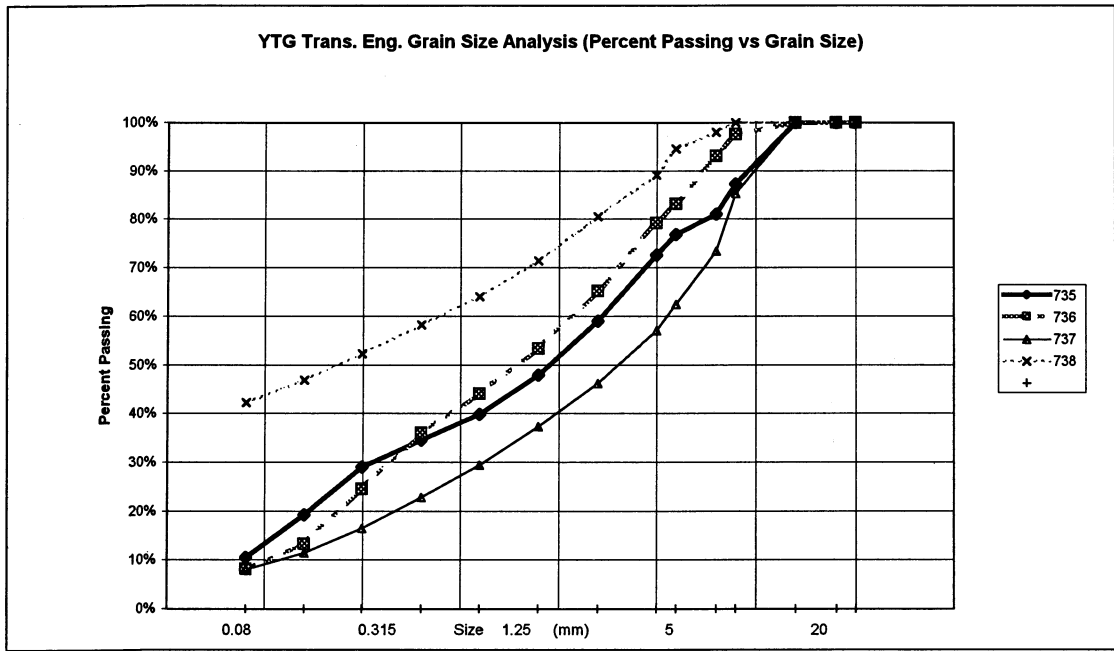
% GRAVEL	46	% GRAVEL	16	% GRAVEL	18
% SAND:	47	% SAND:	47	% SAND:	34
% FINES:	7	% FINES:	37	% FINES:	48

CLASSIFICATION:	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)
-----------------	---	-----------------	-----------------------------	-----------------	-----------------------------

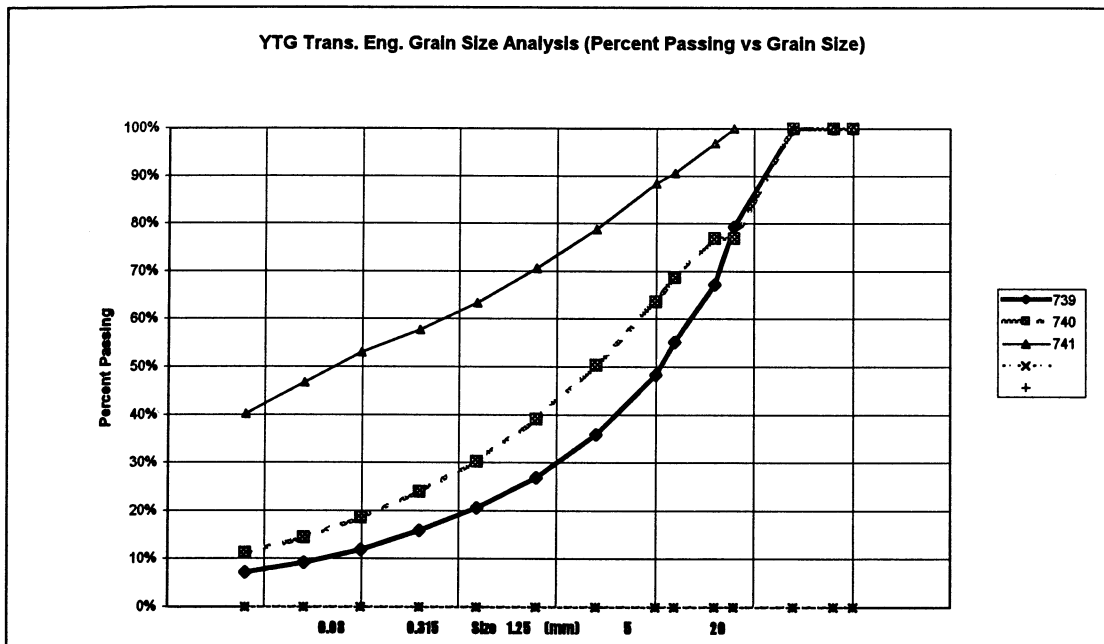


PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1517	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.			
HOLE LOCATION: 1759+150 12M RT		DATE COM 06/12/2000	

FIELD NO: 735		FIELD No: 736		FIELD No: 737		FIELD No: 738	
LAB NO: 1141		LAB No: 1142		LAB No: 1143		LAB No: 1144	
DEPTH: 1.3-1.5		DEPTH: 1.9-2.1		DEPTH: 3.0-3.2		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		AUGER		AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%	50.0	100%
25.0	87%	25.0	98%	25.0	85%	25.0	100%
20.0	81%	20.0	93%	20.0	73%	20.0	98%
12.5	77%	12.5	83%	12.5	62%	12.5	95%
10.0	73%	10.0	79%	10.0	57%	10.0	89%
5.0	59%	5.0	65%	5.0	46%	5.0	81%
2.5	48%	2.5	53%	2.5	37%	2.5	71%
1.25	40%	1.25	44%	1.25	29%	1.25	64%
0.630	35%	0.630	36%	0.630	23%	0.630	58%
0.315	29%	0.315	25%	0.315	17%	0.315	52%
0.160	19%	0.160	13%	0.160	11%	0.160	47%
0.080	11%	0.080	8%	0.080	8%	0.080	42%
M.C.(%)	4%	M.C.(%)	3%	M.C.(%)	2%	M.C.(%)	10%
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	41	% GRAVEL	35	% GRAVEL	54	% GRAVEL	19
% SAND:	48	% SAND:	57	% SAND:	38	% SAND:	38
% FINES:	11	% FINES:	8	% FINES:	8	% FINES:	42
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		SILTY SAND WITH GRAVEL (SM)	



PROJECT NUMBER: 092-202101-0361		CLIENT: ENGINEERING-CAPITAL		HOLE No.: 553-1518	
PROJECT NAME: SHAKWAK SEG 11		PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER		LOGGED BY: D.T.			
HOLE LOCATION: 1759+250 12M RT		DATE COM 2000/06/12			
FIELD NO: 739 LAB No: 1145 DEPTH: 1.4-1.6 TYPE: AUGER		FIELD No. 740 LAB No. 1146 DEPTH: 2.9-3.1 A AUGER		FIELD No: 741 LAB No: 1147 DEPTH: 4.5-4.7 AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	79%	25.0	77%	25.0	100%
20.0	67%	20.0	77%	20.0	97%
12.5	55%	12.5	69%	12.5	91%
10.0	48%	10.0	64%	10.0	88%
5.0	36%	5.0	50%	5.0	79%
2.5	27%	2.5	39%	2.5	71%
1.25	21%	1.25	30%	1.25	63%
0.630	16%	0.630	24%	0.630	58%
0.315	12%	0.315	19%	0.315	53%
0.160	9%	0.160	14%	0.160	47%
0.080	7%	0.080	11%	0.080	40%
M.C.(%):	2%	M.C.(%):	4%	M.C.(%):	9%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	64	% GRAVEL	50	% GRAVEL	21
% SAND:	29	% SAND:	39	% SAND:	39
% FINES:	7	% FINES:	11	% FINES:	40
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)

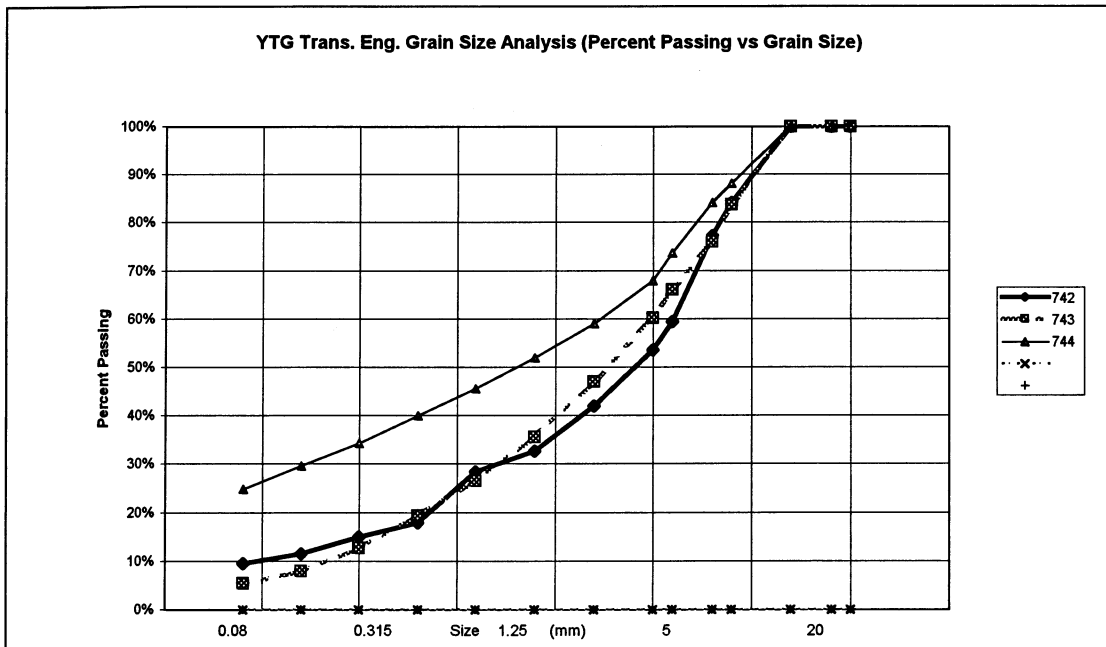


PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1519	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.			
HOLE LOCATION: 1759+334 15M RT		DATE COM 06/12/2000	

FIELD No: 742		FIELD No: 743		FIELD No: 744	
LAB NO: 1148		LAB No: 1149		LAB No: 1150	
DEPTH: 1.4-1.6		DEPTH 3.0-3.2		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	84%	25.0	84%	25.0	88%
20.0	77%	20.0	76%	20.0	84%
12.5	59%	12.5	66%	12.5	74%
10.0	54%	10.0	60%	10.0	68%
5.0	42%	5.0	47%	5.0	59%
2.5	33%	2.5	36%	2.5	52%
1.25	28%	1.25	27%	1.25	46%
0.630	18%	0.630	19%	0.630	40%
0.315	15%	0.315	13%	0.315	34%
0.160	12%	0.160	8%	0.160	30%
0.080	10%	0.080	5%	0.080	25%

M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	5%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	58	% GRAVEL	53	% GRAVEL	41
% SAND:	32	% SAND:	42	% SAND:	34
% FINES:	10	% FINES:	5	% FINES:	25
CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)	



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1520	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/12	
HOLE LOCATION: 1759+450 8M RT			

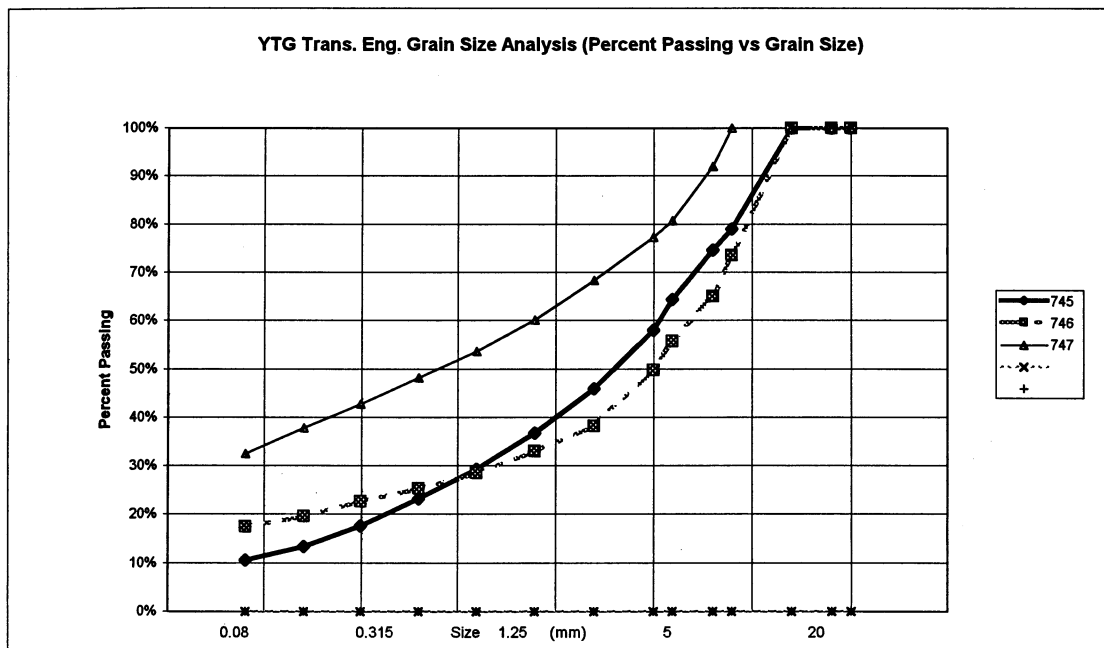
FIELD No: 745		FIELD No: 746		FIELD No: 747	
LAB No: 1151		LAB No: 1152		LAB No: 1153	
DEPTH: 1.4-1.6		DEPTH: 3.0-3.2		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		AUGER	

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	79%	25.0	74%	25.0	100%
20.0	75%	20.0	65%	20.0	92%
12.5	64%	12.5	56%	12.5	81%
10.0	58%	10.0	50%	10.0	77%
5.0	46%	5.0	38%	5.0	68%
2.5	37%	2.5	33%	2.5	60%
1.25	29%	1.25	29%	1.25	54%
0.630	23%	0.630	25%	0.630	48%
0.315	18%	0.315	23%	0.315	43%
0.160	13%	0.160	20%	0.160	38%
0.080	11%	0.080	18%	0.080	33%

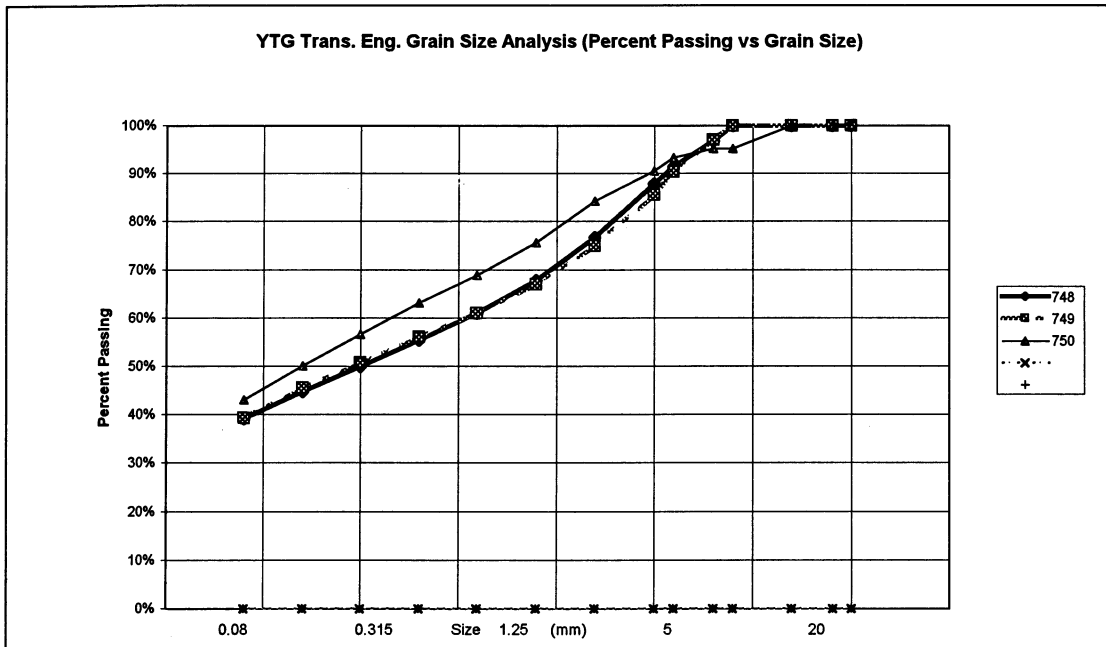
M.C.(%):	5%	M.C.(%):	16%	M.C.(%):	11%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL	54	% GRAVEL	62	% GRAVEL	32
% SAND:	35	% SAND:	21	% SAND:	36
% FINES:	11	% FINES:	18	% FINES:	33

CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)

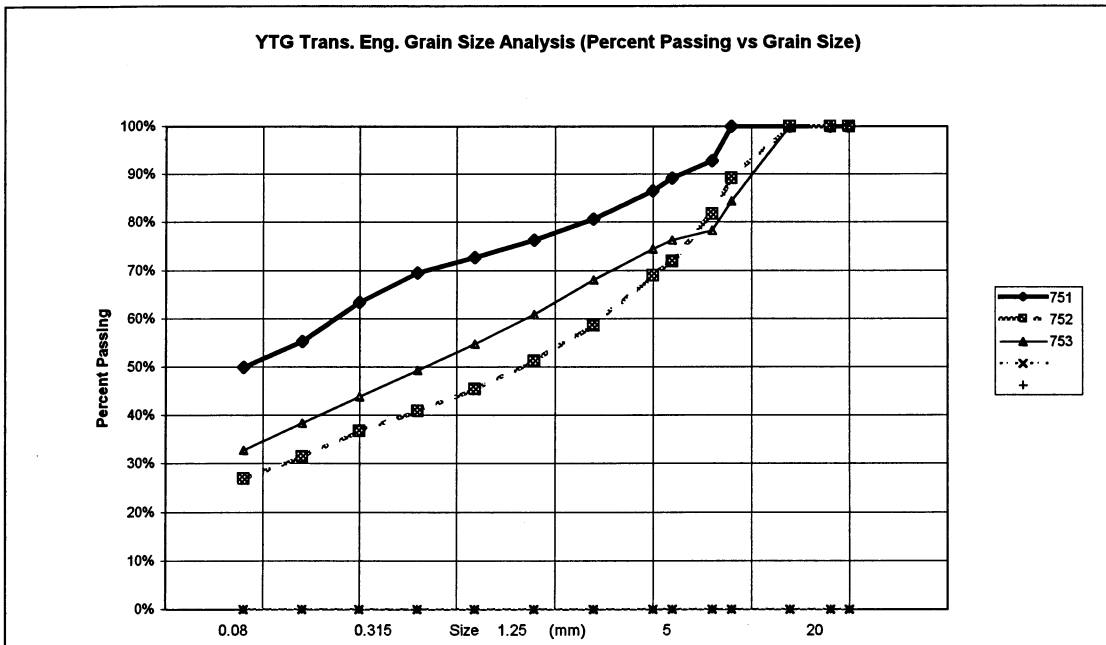


PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1521			
CLIENT: ENGINEERING-CAPITAL					
PROJECT NAME: SHAKWAK SEG 11					
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H					
DRILL UNIT: MOBILE B40L 6" AUGER					
LOGGED BY: D.T.		DATE COM 06/12/2000			
HOLE LOCATION: 1759+500 20M RT					
=====		=====			
FIELD NO: 748		FIELD No. 749		FIELD No: 750	
LAB NO: 1154		LAB No. 1155		LAB No: 1156	
DEPTH: 1.2-1.4		DEPTH 2.8-3.0		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	
=====		=====		=====	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	100%	25.0	95%
20.0	97%	20.0	97%	20.0	95%
12.5	91%	12.5	90%	12.5	93%
10.0	88%	10.0	86%	10.0	91%
5.0	77%	5.0	75%	5.0	84%
2.5	68%	2.5	67%	2.5	76%
1.25	61%	1.25	61%	1.25	69%
0.630	55%	0.630	56%	0.630	63%
0.315	50%	0.315	51%	0.315	57%
0.160	45%	0.160	46%	0.160	50%
0.080	39%	0.080	39%	0.080	43%
M.C.(%):	9%	M.C.(%):	8%	M.C.(%):	10%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	23	% GRAVEL	25	% GRAVEL	16
% SAND:	38	% SAND:	36	% SAND:	41
% FINES:	39	% FINES:	39	% FINES:	43
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
SILTY SAND WITH GRAVEL (SM)		SILTY SAND WITH GRAVEL (SM)		SILTY SAND WITH GRAVEL (SM)	



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1522	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.			
HOLE LOCATION: 1759+555 5M RT		DATE COM 06/12/2000	

FIELD NO: 751		FIELD No. 752		FIELD No: 753	
LAB NO: 1157		LAB No. 1158		LAB No: 1159	
DEPTH: 1.2-1.4		DEPTH 2.9-3.1		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	89%	25.0	84%
20.0	93%	20.0	82%	20.0	78%
12.5	89%	12.5	72%	12.5	76%
10.0	87%	10.0	69%	10.0	74%
5.0	81%	5.0	59%	5.0	68%
2.5	76%	2.5	51%	2.5	61%
1.25	73%	1.25	46%	1.25	55%
0.630	70%	0.630	41%	0.630	49%
0.315	63%	0.315	37%	0.315	44%
0.160	55%	0.160	32%	0.160	38%
0.080	50%	0.080	27%	0.080	33%
M.C.(%):	22%	M.C.(%):	6%	M.C.(%):	6%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	19	% GRAVEL	41	% GRAVEL	32
% SAND:	31	% SAND:	32	% SAND:	35
% FINES:	50	% FINES:	27	% FINES:	33
CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)		CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)		CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1523	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.			
HOLE LOCATION: 1759+670 9M RT		DATE COM 06/12/2000	

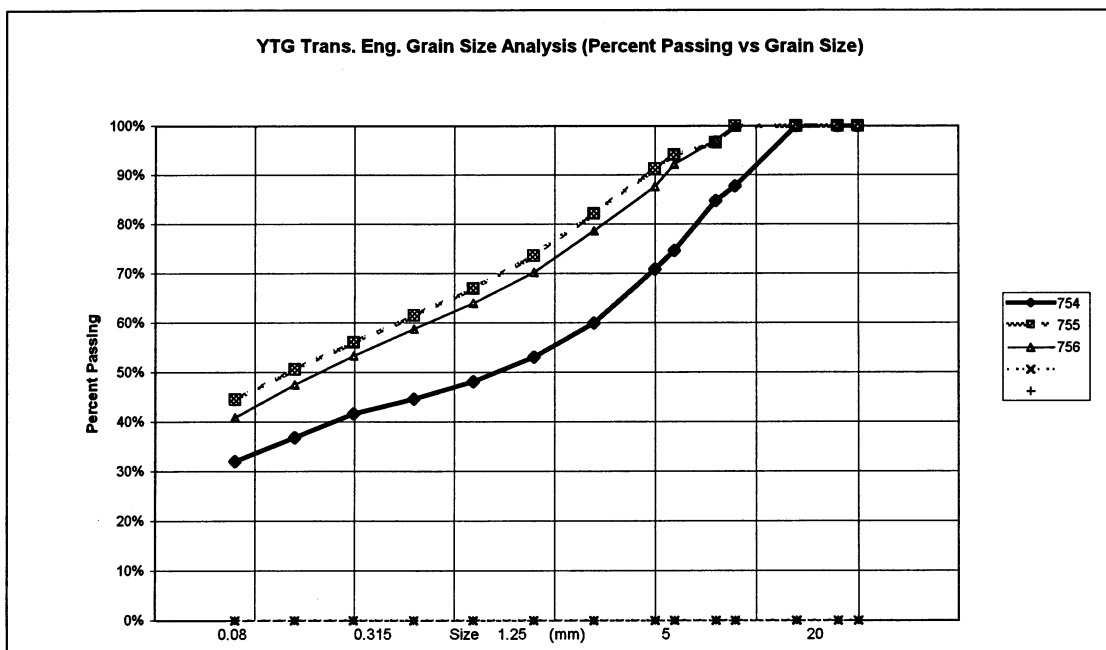
FIELD No: 754		FIELD No: 755		FIELD No: 756	
LAB NO:	1160	LAB No:	1161	LAB No:	1162
DEPTH:	1.3-1.5	DEPTH:	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	88%	25.0	100%	25.0	100%
20.0	85%	20.0	97%	20.0	97%
12.5	75%	12.5	94%	12.5	92%
10.0	71%	10.0	91%	10.0	88%
5.0	60%	5.0	82%	5.0	79%
2.5	53%	2.5	74%	2.5	70%
1.25	48%	1.25	67%	1.25	64%
0.630	45%	0.630	61%	0.630	59%
0.315	42%	0.315	56%	0.315	53%
0.160	37%	0.160	51%	0.160	48%
0.080	32%	0.080	45%	0.080	41%

M.C.(%):	7%	M.C.(%):	7%	M.C.(%):	7%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

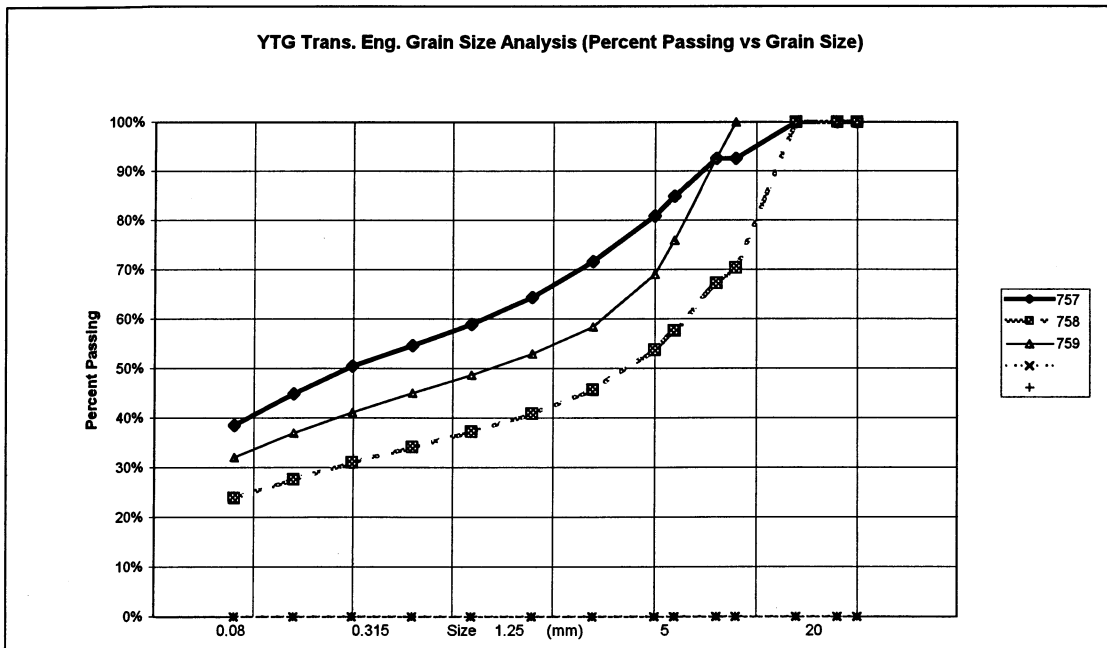
% GRAVEL	40	% GRAVEL	18	% GRAVEL	21
% SAND:	28	% SAND:	38	% SAND:	38
% FINES:	32	% FINES:	45	% FINES:	41

CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)
-----------------	-----------------------------	-----------------	-----------------------------	-----------------	-----------------------------

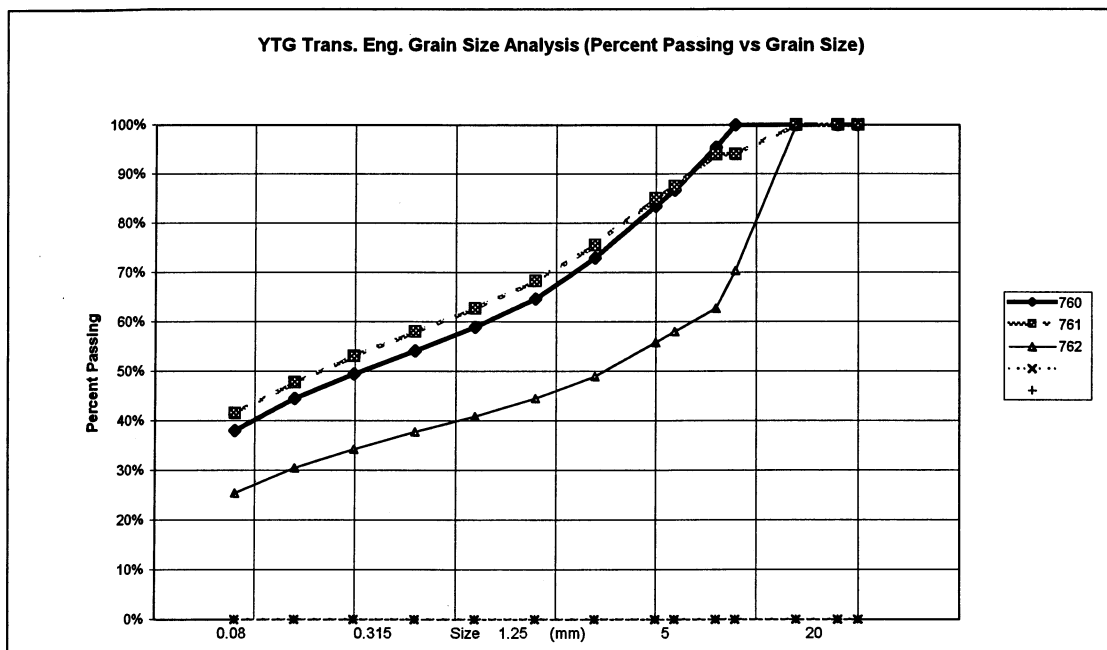


PROJECT NUMBER:	092-202101-0361	HOLE No.:	553-1524
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6 - 1729.6 A/H		
DRILL UNIT:	MOBILE B40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1759+800 15M RT	DATE COM	06/12/2000

FIELD No: 757		FIELD No: 758		FIELD No: 759	
LAB NO:	1160	LAB No:	1164	LAB No:	1165
DEPTH:	1.4-1.6	DEPTH:	3.0-3.2	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	93%	25.0	70%	25.0	100%
20.0	93%	20.0	67%	20.0	93%
12.5	85%	12.5	58%	12.5	76%
10.0	81%	10.0	54%	10.0	69%
5.0	72%	5.0	46%	5.0	58%
2.5	64%	2.5	41%	2.5	53%
1.25	59%	1.25	37%	1.25	49%
0.630	55%	0.630	34%	0.630	45%
0.315	51%	0.315	31%	0.315	41%
0.160	45%	0.160	28%	0.160	37%
0.080	39%	0.080	24%	0.080	32%
M.C.(%):	8%	M.C.(%):	4%	M.C.(%):	6%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	28	% GRAVEL	54	% GRAVEL	42
% SAND:	33	% SAND:	22	% SAND:	26
% FINES:	39	% FINES:	24	% FINES:	32
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
SILTY SAND WITH GRAVEL	(SM)	SILTY GRAVEL WITH SAND	(GM)	SILTY GRAVEL WITH SAND	(GM)

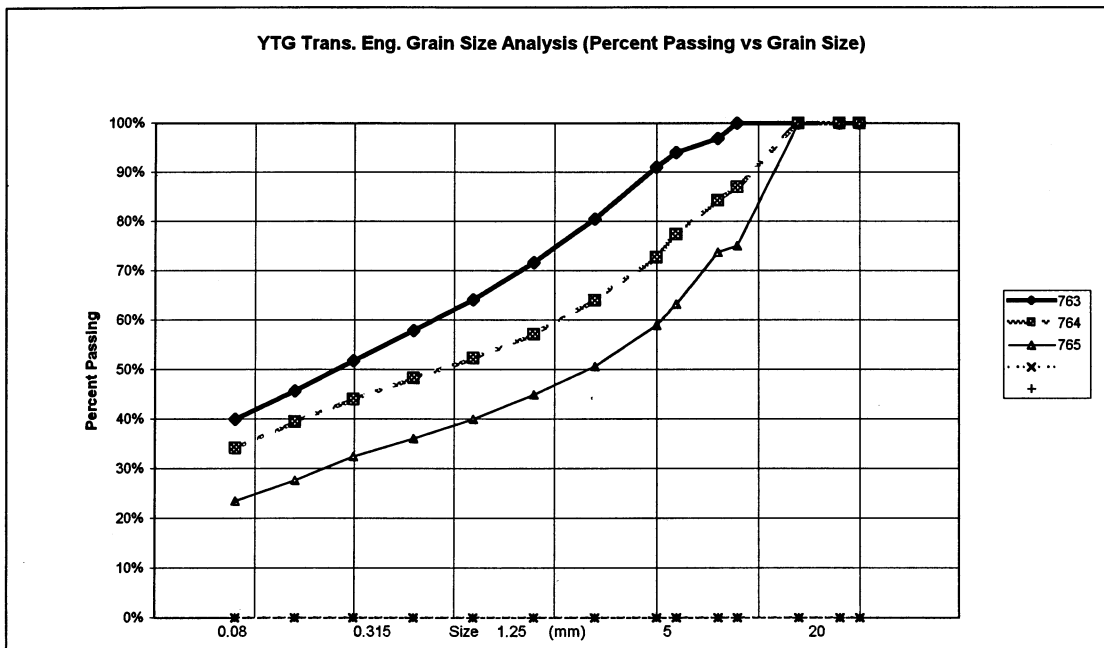


PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1525			
CLIENT: ENGINEERING-CAPITAL					
PROJECT NAME: SHAKWAK SEG 11					
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H					
DRILL UNIT: MOBILE B40L 6" AUGER					
LOGGED BY: D.T.		DATE COM 06/12/2000			
HOLE LOCATION: 1759+900 17M RT					
=====		=====			
FIELD NO: 760		FIELD No. 761			
LAB NO: 1166		LAB No. 1167			
DEPTH: 1.4-1.6		DEPTH 2.8-3.0			
TYPE: AUGER		A AUGER			
=====		=====			
FIELD No: 762		FIELD No: 762			
LAB No: 1168		LAB No: 1168			
DEPTH: 4.5-4.7		DEPTH: 4.5-4.7			
TYPE: AUGER		TYPE: AUGER			
=====		=====			
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	94%	25.0	70%
20.0	95%	20.0	94%	20.0	63%
12.5	87%	12.5	88%	12.5	58%
10.0	83%	10.0	85%	10.0	56%
5.0	73%	5.0	76%	5.0	49%
2.5	65%	2.5	68%	2.5	45%
1.25	59%	1.25	63%	1.25	41%
0.630	54%	0.630	58%	0.630	38%
0.315	49%	0.315	53%	0.315	34%
0.160	45%	0.160	48%	0.160	31%
0.080	38%	0.080	42%	0.080	26%
M.C.(%):	9%	M.C.(%):	7%	M.C.(%):	5%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	27	% GRAVEL	24	% GRAVEL	51
% SAND:	35	% SAND:	34	% SAND:	23
% FINES:	38	% FINES:	42	% FINES:	26
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
SILTY SAND WITH GRAVEL	(SM)	SILTY SAND WITH GRAVEL	(SM)	SILTY GRAVEL WITH SAND	(GM)



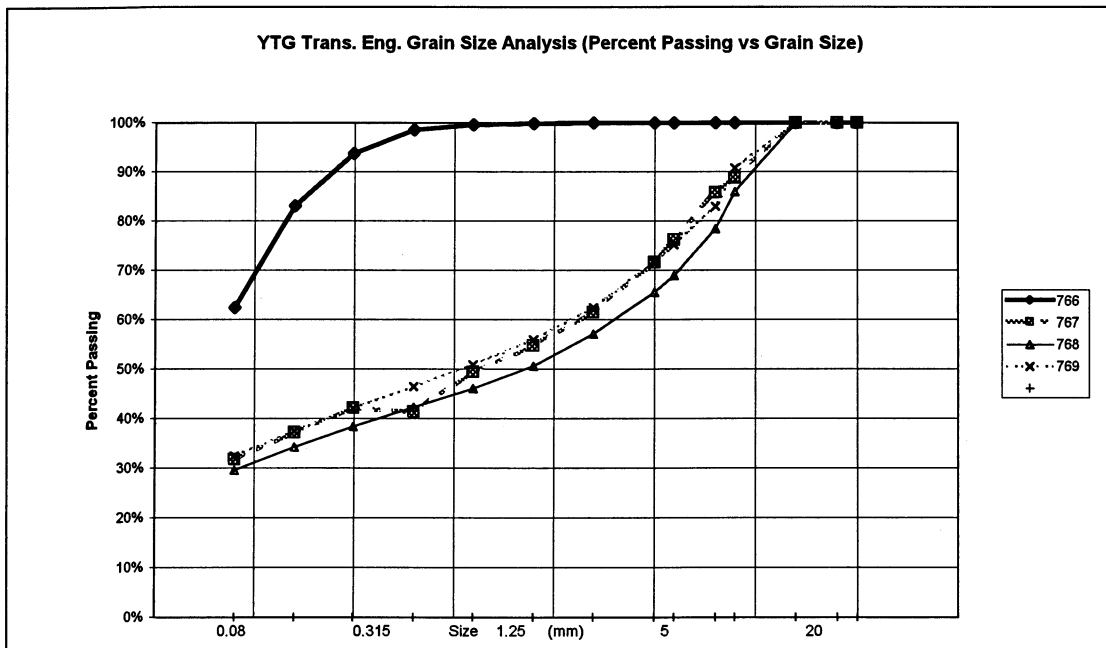
PROJECT NUMBER: 092-202101-0361 HOLE No.: 553-1526
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6 - 1729.6 A/H
 DRILL UNIT: MOBILE B40L 6" AUGER
 LOGGED BY: D.T.
 HOLE LOCATION: 1760+000 13M RT DATE COM 06/12/2000

FIELD No: 763		FIELD No: 764		FIELD No: 765	
LAB NO: 1169		LAB No: 1170		LAB No: 1171	
DEPTH: 1.6-1.8		DEPTH 2.9-3.1		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	87%	25.0	75%
20.0	97%	20.0	84%	20.0	74%
12.5	94%	12.5	77%	12.5	63%
10.0	91%	10.0	73%	10.0	59%
5.0	81%	5.0	64%	5.0	51%
2.5	72%	2.5	57%	2.5	45%
1.25	64%	1.25	52%	1.25	40%
0.630	58%	0.630	48%	0.630	36%
0.315	52%	0.315	44%	0.315	32%
0.160	46%	0.160	39%	0.160	28%
0.080	40%	0.080	34%	0.080	23%
M.C.(%):	11%	M.C.(%):	7%	M.C.(%):	5%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	19	% GRAVEL	36	% GRAVEL	49
% SAND:	41	% SAND:	30	% SAND:	27
% FINES:	40	% FINES:	34	% FINES:	23
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
SILTY SAND WITH GRAVEL	(SM)	SILTY GRAVEL WITH SAND	(GM)	SILTY GRAVEL WITH SAND	(GM)



PROJECT NUMBER:	092-202101-0361	HOLE No.:	553-1527
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6 - 1729.6 A/H		
DRILL UNIT:	MOBILE B40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1760+400 15M LT	DATE COM	06/12/2000

FIELD NO: 766		FIELD No. 767		FIELD No: 768		FIELD No: 769	
LAB NO: 1172		LAB No. 1173		LAB No: 1174		LAB No: 1175	
DEPTH: 1.0-1.2		DEPTH 1.9-2.1		DEPTH: 3.0-3.2		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	89%	25.0	86%	25.0	91%
20.0	100%	20.0	86%	20.0	78%	20.0	83%
12.5	100%	12.5	76%	12.5	69%	12.5	75%
10.0	100%	10.0	72%	10.0	66%	10.0	72%
5.0	100%	5.0	62%	5.0	57%	5.0	62%
2.5	100%	2.5	55%	2.5	51%	2.5	56%
1.25	100%	1.25	50%	1.25	46%	1.25	51%
0.630	99%	0.630	41%	0.630	42%	0.630	47%
0.315	94%	0.315	42%	0.315	38%	0.315	42%
0.160	83%	0.160	37%	0.160	34%	0.160	37%
0.080	62%	0.080	32%	0.080	30%	0.080	32%
M.C.(%):	7%	M.C.(%):	5%	M.C.(%):	5%	M.C.(%):	5%
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	38	% GRAVEL	43	% GRAVEL	38
% SAND:	38	% SAND:	30	% SAND:	27	% SAND:	30
% FINES:	62	% FINES:	32	% FINES:	30	% FINES:	32
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1528	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 06/12/2000	
HOLE LOCATION: 1760+500 CENTRELINE			

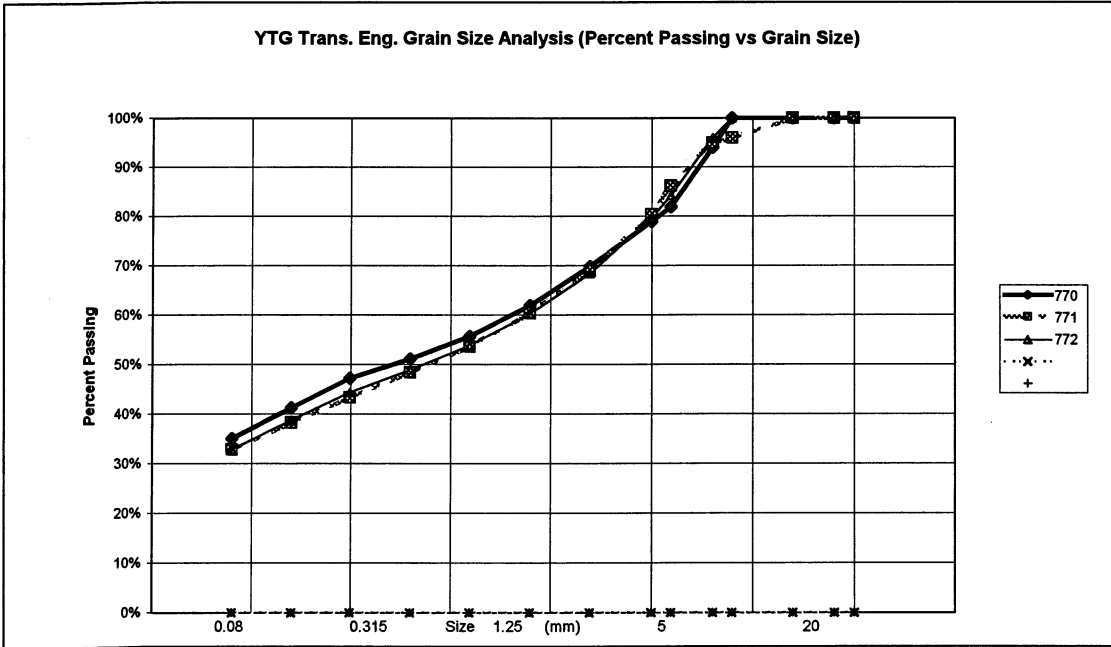
FIELD No: 770		FIELD No: 771		FIELD No: 772	
LAB NO: 1176		LAB No: 1177		LAB No: 1178	
DEPTH: 1.4-1.6		DEPTH: 2.9-3.0		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		AUGER	

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	96%	25.0	100%
20.0	94%	20.0	95%	20.0	96%
12.5	82%	12.5	86%	12.5	84%
10.0	79%	10.0	80%	10.0	80%
5.0	70%	5.0	69%	5.0	68%
2.5	62%	2.5	60%	2.5	60%
1.25	56%	1.25	54%	1.25	54%
0.630	51%	0.630	48%	0.630	49%
0.315	47%	0.315	43%	0.315	44%
0.160	41%	0.160	38%	0.160	39%
0.080	35%	0.080	33%	0.080	33%

M.C.(%):	7%	M.C.(%):	6%	M.C.(%):	6%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

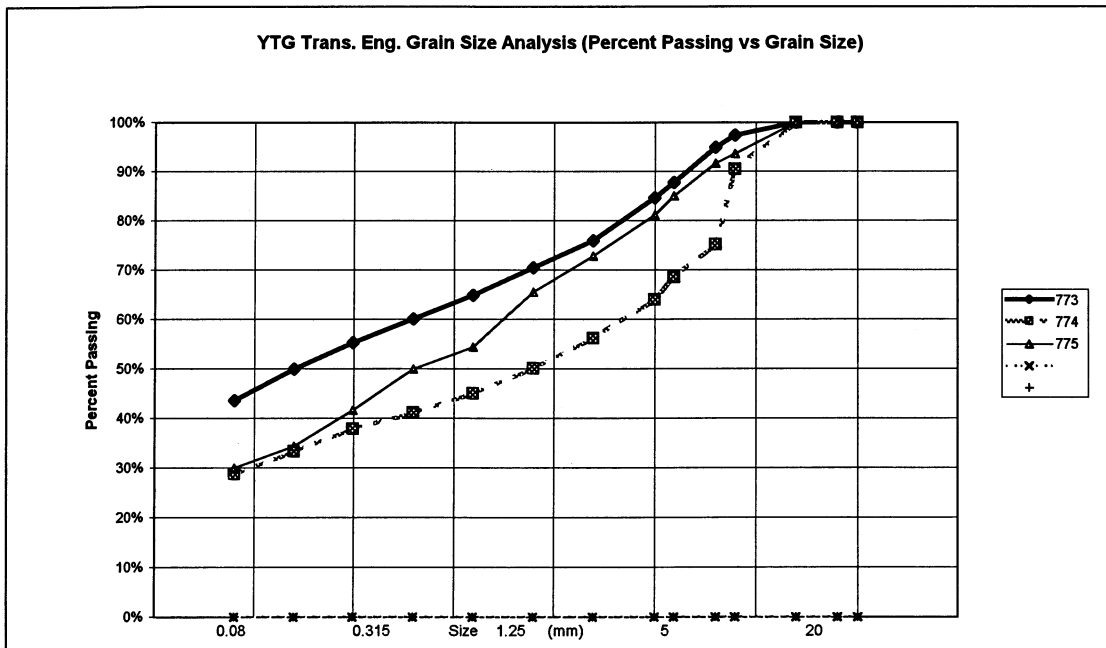
% GRAVEL	30	% GRAVEL	31	% GRAVEL	32
% SAND:	35	% SAND:	36	% SAND:	36
% FINES:	35	% FINES:	33	% FINES:	33

CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)
-----------------	-----------------------------	-----------------	-----------------------------	-----------------	-----------------------------

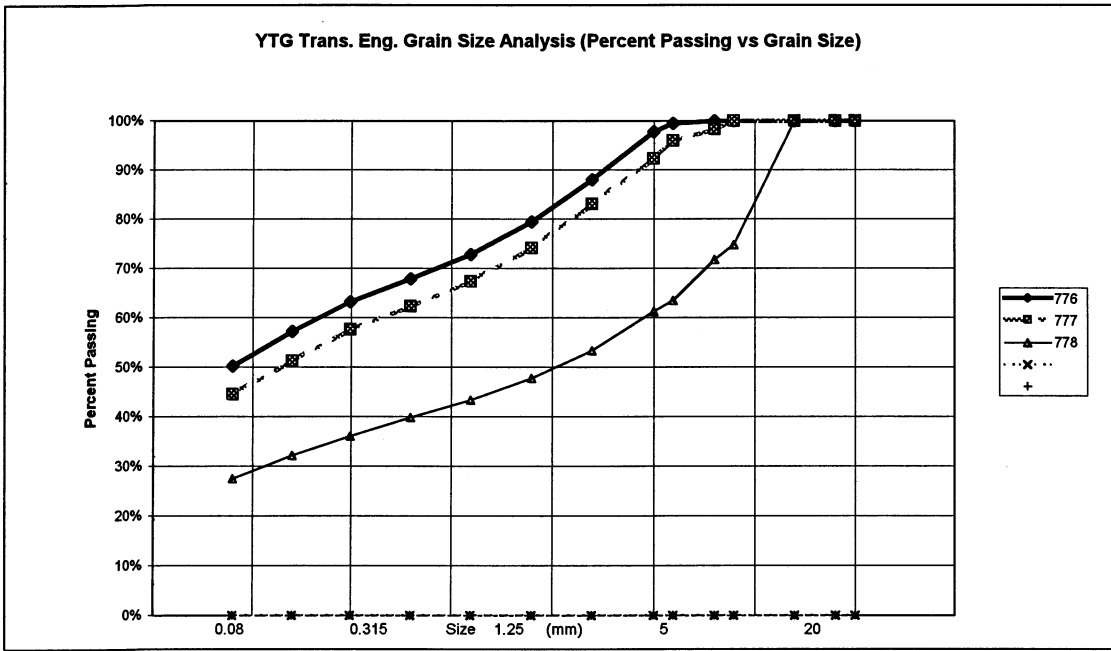


PROJECT NUMBER:	092-202101-0361	HOLE No.:	553-1529
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6 - 1729.6 A/H		
DRILL UNIT:	MOBILE B40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1760+600 4M LT	DATE COM	06/12/2000

FIELD No: 773		FIELD No: 774		FIELD No: 775	
LAB NO:	1179	LAB No:	1180	LAB No:	1181
DEPTH:	1.3-1.5	DEPTH:	2.6-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	97%	25.0	91%	25.0	94%
20.0	95%	20.0	75%	20.0	92%
12.5	88%	12.5	69%	12.5	85%
10.0	85%	10.0	64%	10.0	81%
5.0	76%	5.0	56%	5.0	73%
2.5	70%	2.5	50%	2.5	66%
1.25	65%	1.25	45%	1.25	54%
0.630	60%	0.630	41%	0.630	50%
0.315	55%	0.315	38%	0.315	42%
0.160	50%	0.160	33%	0.160	34%
0.080	44%	0.080	29%	0.080	30%
M.C.(%):	8%	M.C.(%):	5%	M.C.(%):	7%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	24	% GRAVEL	44	% GRAVEL	27
% SAND:	32	% SAND:	27	% SAND:	43
% FINES:	44	% FINES:	29	% FINES:	30
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
SILTY SAND WITH GRAVEL	(SM)	SILTY GRAVEL WITH SAND	(GM)	SILTY SAND WITH GRAVEL	(SM)

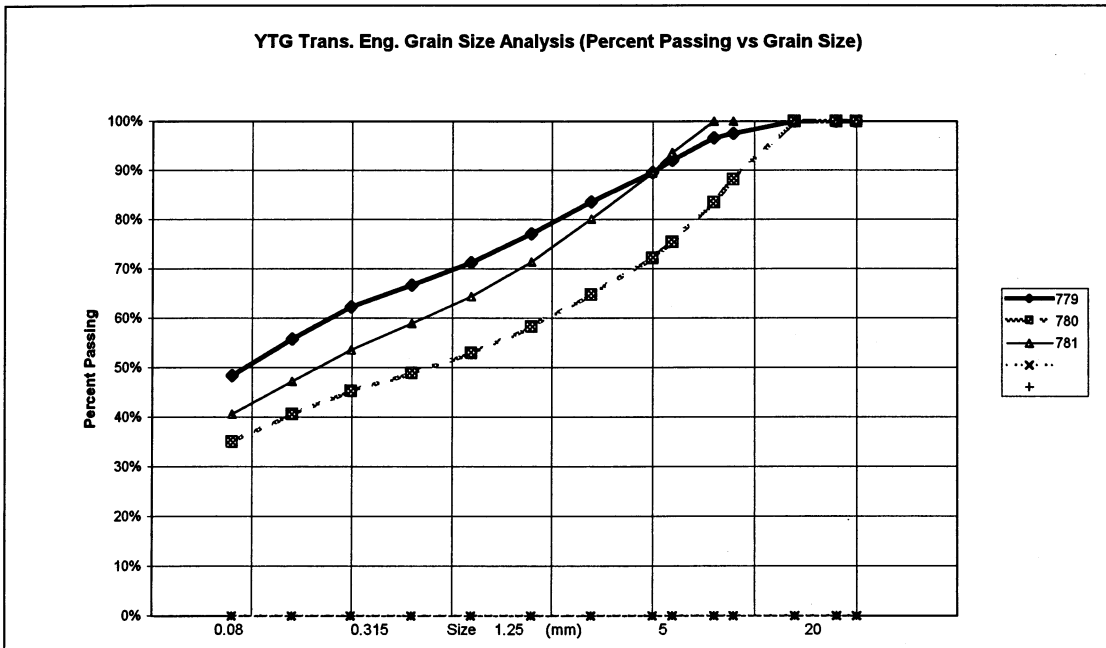


PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1530	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 06/12/2000	
HOLE LOCATION: 1760+700 12M LT			
=====		=====	
FIELD NO: 776	FIELD No. 777	FIELD No: 778	
LAB NO: 1182	LAB No. 1183	LAB No: 1184	
DEPTH: 1.4-1.6	DEPTH 2.8-3.0	DEPTH: 4.5-4.7	
TYPE: AUGER	A AUGER	TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	100%
20.0	100%	20.0	98%
12.5	100%	12.5	96%
10.0	98%	10.0	92%
5.0	88%	5.0	83%
2.5	80%	2.5	74%
1.25	73%	1.25	67%
0.630	68%	0.630	62%
0.315	63%	0.315	58%
0.160	57%	0.160	51%
0.080	50%	0.080	45%
M.C.(%): 10%	M.C.(%): 8%	M.C.(%): 5%	
LIMITS	LIMITS	LIMITS	
LIQUID: 0.0	LIQUID: 0.0	LIQUID: 0.0	
PLASTIC: 0.0	PLASTIC: 0.0	PLASTIC: 0.0	
P.I.: 0.0	P.I.: 0.0	P.I.: 0.0	
% GRAVEL 12	% GRAVEL 17	% GRAVEL 47	
% SAND: 38	% SAND: 39	% SAND: 26	
% FINES: 50	% FINES: 45	% FINES: 28	
CLASSIFICATION: SANDY SILT (ML)	CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)	



PROJECT NUMBER:	092-202101-0361	HOLE No.:	553-1531
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6 - 1729.6 A/H		
DRILL UNIT:	MOBILE B40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1760+800 11M LT	DATE COM	06/12/2000

FIELD No: 779		FIELD No: 780		FIELD No: 781	
LAB NO:	1185	LAB No:	1186	LAB No:	1187
DEPTH:	1.4-1.6	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	98%	25.0	88%	25.0	100%
20.0	97%	20.0	84%	20.0	100%
12.5	92%	12.5	75%	12.5	94%
10.0	90%	10.0	72%	10.0	90%
5.0	84%	5.0	65%	5.0	80%
2.5	77%	2.5	58%	2.5	71%
1.25	71%	1.25	53%	1.25	64%
0.630	67%	0.630	49%	0.630	59%
0.315	62%	0.315	45%	0.315	54%
0.160	56%	0.160	41%	0.160	47%
0.080	48%	0.080	35%	0.080	41%
M.C.(%):	8%	M.C.(%):	6%	M.C.(%):	7%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	16	% GRAVEL	35	% GRAVEL	20
% SAND:	35	% SAND:	30	% SAND:	39
% FINES:	48	% FINES:	35	% FINES:	41
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
SILTY SAND WITH GRAVEL	(SM)	SILTY GRAVEL WITH SAND	(GM)	SILTY SAND WITH GRAVEL	(SM)



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1532	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 06/13/2000	
HOLE LOCATION: 1760+900 12M LT			

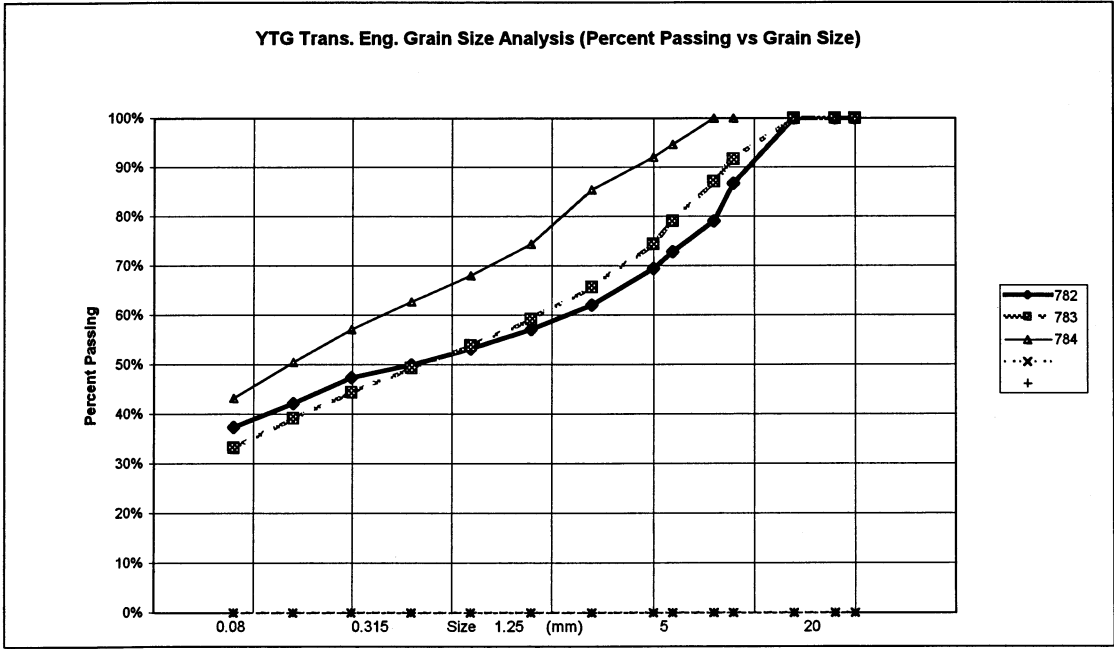
FIELD No: 782		FIELD No: 783		FIELD No: 784	
LAB NO: 1188		LAB No: 1189		LAB No: 1190	
DEPTH: 1.5-1.7		DEPTH 2.8-3.0		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	87%	25.0	92%	25.0	100%
20.0	79%	20.0	87%	20.0	100%
12.5	73%	12.5	79%	12.5	95%
10.0	69%	10.0	74%	10.0	92%
5.0	62%	5.0	66%	5.0	85%
2.5	57%	2.5	59%	2.5	74%
1.25	53%	1.25	54%	1.25	68%
0.630	50%	0.630	49%	0.630	63%
0.315	47%	0.315	44%	0.315	57%
0.160	42%	0.160	39%	0.160	51%
0.080	37%	0.080	33%	0.080	43%

M.C.(%):	8%	M.C.(%):	6%	M.C.(%):	9%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL	38	% GRAVEL	34	% GRAVEL	15
% SAND:	25	% SAND:	32	% SAND:	42
% FINES:	37	% FINES:	33	% FINES:	43

CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND (SM)
-----------------	-----------------------------	-----------------	-----------------------------	-----------------	-----------------



PROJECT NUMBER: 092-202101-0361		HOLE No.: 533-1533	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 06/13/2000	
HOLE LOCATION: 1761+000 15M LT			

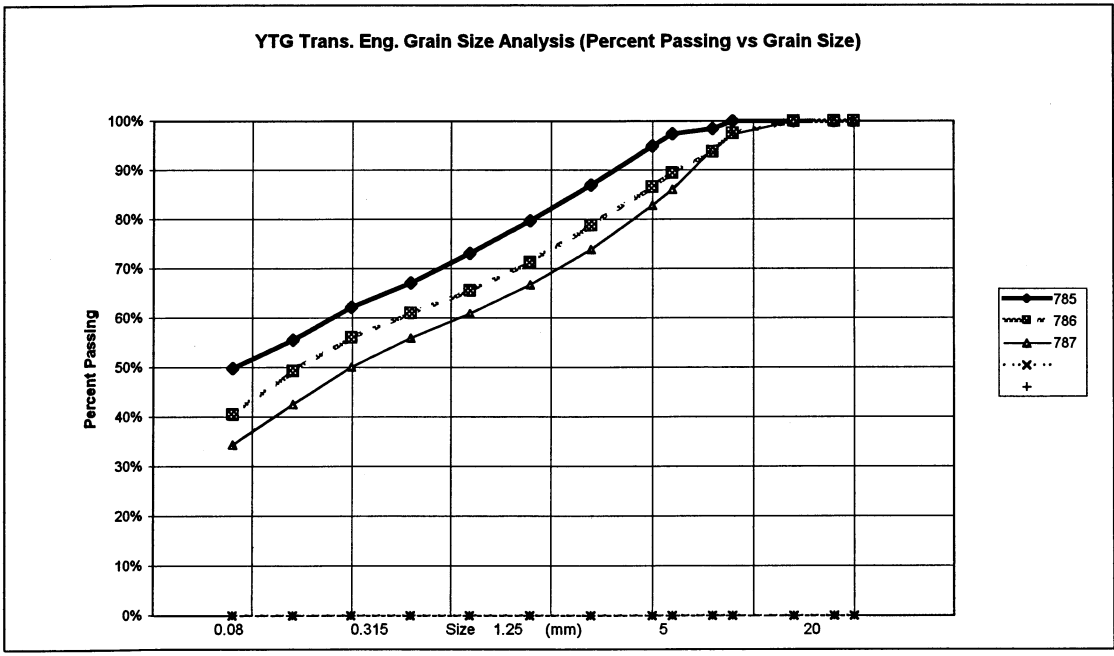
FIELD NO:	785	FIELD No:	786	FIELD No:	787
LAB NO:	1191	LAB No:	1192	LAB No:	1193
DEPTH:	1.4-1.6	DEPTH	2.9-3.1	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	98%	25.0	97%
20.0	98%	20.0	94%	20.0	94%
12.5	97%	12.5	89%	12.5	86%
10.0	95%	10.0	87%	10.0	83%
5.0	87%	5.0	79%	5.0	74%
2.5	80%	2.5	71%	2.5	67%
1.25	73%	1.25	66%	1.25	61%
0.630	67%	0.630	61%	0.630	56%
0.315	62%	0.315	56%	0.315	50%
0.160	56%	0.160	49%	0.160	43%
0.080	50%	0.080	40%	0.080	34%

M.C.(%):	16%	M.C.(%):	8%	M.C.(%):	8%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

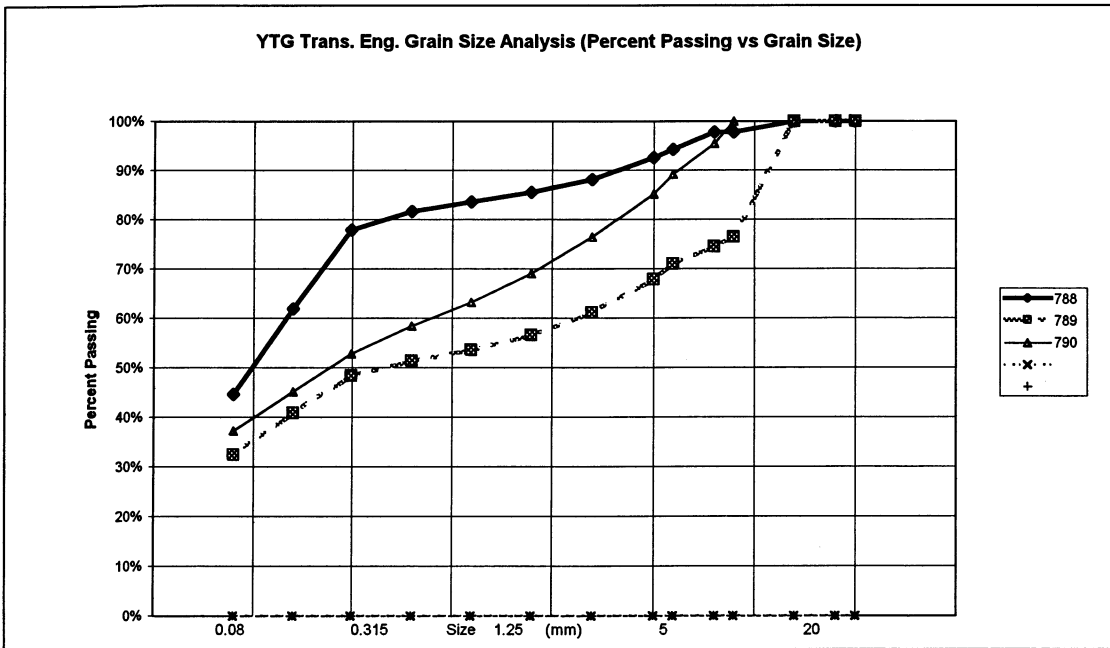
% GRAVEL	13	% GRAVEL	21	% GRAVEL	26
% SAND:	37	% SAND:	38	% SAND:	40
% FINES:	50	% FINES:	40	% FINES:	34

CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)
-----------------	-----------------	-----------------	-----------------------------	-----------------	-----------------------------



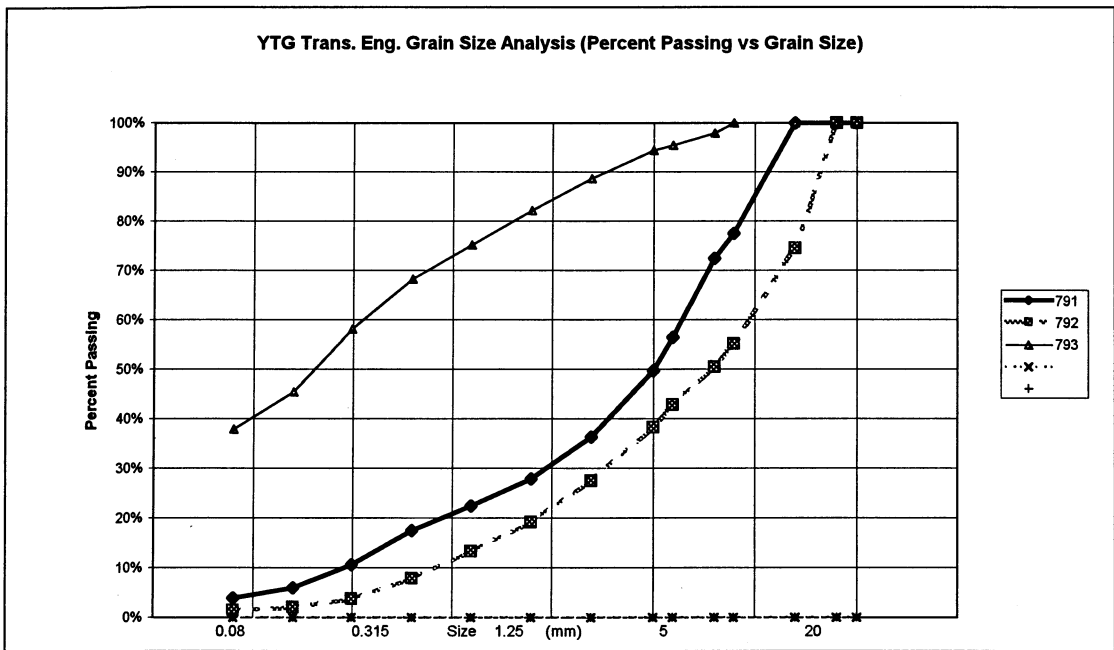
PROJECT NUMBER:	092-202101-0361	HOLE No.:	553-1534
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6 - 1729.6 A/H		
DRILL UNIT:	MOBILE B40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1761+100 16M LT	DATE COM	06/13/2000

FIELD NO: 788		FIELD No. 789		FIELD No: 790	
LAB NO: 1194		LAB No. 1195		LAB No: 1196	
DEPTH: 1.8-2.0		DEPTH 3.1-3.3		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	98%	25.0	76%	25.0	100%
20.0	98%	20.0	75%	20.0	95%
12.5	94%	12.5	71%	12.5	89%
10.0	93%	10.0	68%	10.0	85%
5.0	88%	5.0	61%	5.0	76%
2.5	86%	2.5	57%	2.5	69%
1.25	84%	1.25	54%	1.25	63%
0.630	82%	0.630	51%	0.630	58%
0.315	78%	0.315	49%	0.315	53%
0.160	62%	0.160	41%	0.160	45%
0.080	45%	0.080	32%	0.080	37%
M.C.(%):	20%	M.C.(%):	13%	M.C.(%):	12%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	12	% GRAVEL	39	% GRAVEL	24
% SAND:	43	% SAND:	29	% SAND:	39
% FINES:	45	% FINES:	32	% FINES:	37
CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)



PROJECT NUMBER: 092-202101-0361 HOLE No.: 553-1535
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6 - 1729.6 A/H
 DRILL UNIT: MOBILE B40L 6" AUGER
 LOGGED BY: D.T.
 HOLE LOCATION: 1761+200 24M LT DATE COM 06/13/2000

FIELD No: 791		FIELD No: 792		FIELD No: 793	
LAB No: 1197		LAB No: 1198		LAB No: 1199	
DEPTH: 1.4-1.6		DEPTH: 2.9-3.1		DEPTH: 4.5-4.7	
TYPE: AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	75%	50.0	100%
25.0	77%	25.0	55%	25.0	100%
20.0	73%	20.0	51%	20.0	98%
12.5	56%	12.5	43%	12.5	95%
10.0	50%	10.0	38%	10.0	94%
5.0	36%	5.0	28%	5.0	89%
2.5	28%	2.5	19%	2.5	82%
1.25	22%	1.25	13%	1.25	75%
0.630	18%	0.630	8%	0.630	68%
0.315	11%	0.315	4%	0.315	58%
0.160	6%	0.160	2%	0.160	46%
0.080	4%	0.080	1%	0.080	38%
M.C.(%):	6%	M.C.(%):	5%	M.C.(%):	11%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	64	% GRAVEL	72	% GRAVEL	11
% SAND:	32	% SAND:	26	% SAND:	51
% FINES:	4	% FINES:	1	% FINES:	38
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SAND (GP)		SILTY SAND (SM)	



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1536	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 06/13/2000	
HOLE LOCATION: 1761+206 15M RT			

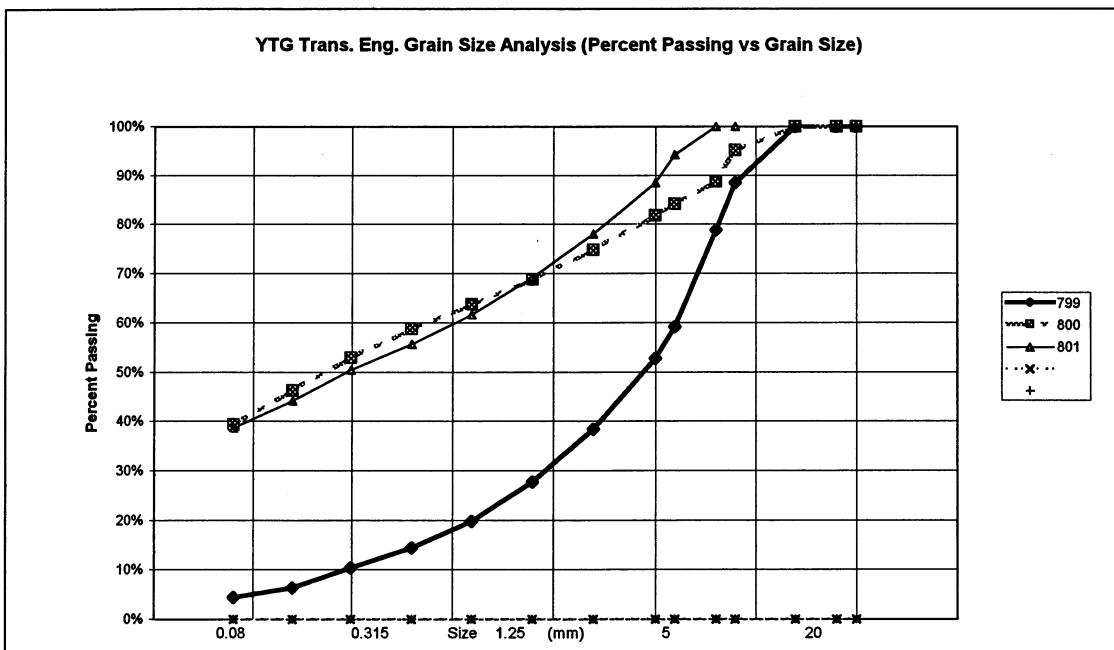
FIELD No:	LAB No:	DEPTH:	TYPE:
799	1200	1.4-1.6	AUGER
800	1201	2.8-3.1	AUGER
801	1202	4.5-4.7	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	89%	25.0	95%	25.0	100%
20.0	79%	20.0	89%	20.0	100%
12.5	59%	12.5	84%	12.5	94%
10.0	53%	10.0	82%	10.0	88%
5.0	38%	5.0	75%	5.0	78%
2.5	28%	2.5	69%	2.5	69%
1.25	20%	1.25	64%	1.25	62%
0.630	15%	0.630	59%	0.630	56%
0.315	10%	0.315	53%	0.315	50%
0.160	6%	0.160	46%	0.160	44%
0.080	4%	0.080	39%	0.080	39%

M.C.(%): 8%	M.C.(%): 12%	M.C.(%): 10%
LIMITS		
LIQUID: 0.0	LIQUID: 0.0	LIQUID: 0.0
PLASTIC: 0.0	PLASTIC: 0.0	PLASTIC: 0.0
P.I.: 0.0	P.I.: 0.0	P.I.: 0.0

% GRAVEL: 62	% GRAVEL: 25	% GRAVEL: 22
% SAND: 34	% SAND: 35	% SAND: 39
% FINES: 4	% FINES: 39	% FINES: 39

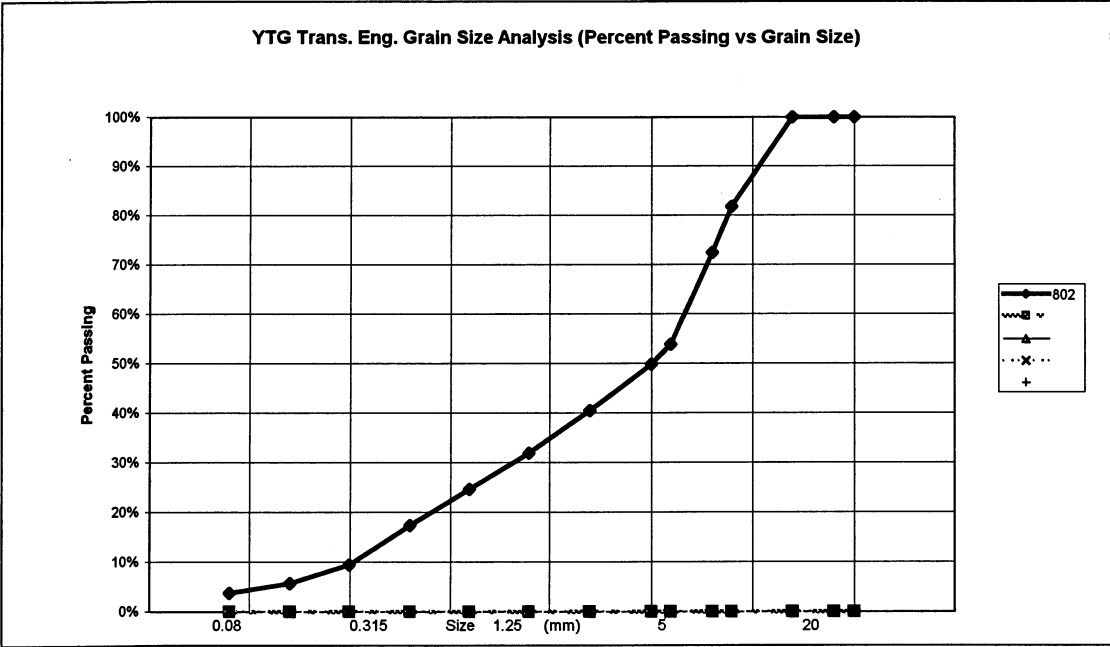
CLASSIFICATION: WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)
---	---	---



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1537	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.			
HOLE LOCATION: 1761+300		DATE COM 06/13/2000	

FIELD NO: 802			
LAB NO: 1203			
DEPTH: 1.4-1.6			
TYPE: AUGER			

SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	82%		
20.0	72%		
12.5	54%		
10.0	50%		
5.0	40%		
2.5	32%		
1.25	25%		
0.630	17%		
0.315	10%		
0.160	6%		
0.080	4%		
M.C.(%):	9%		
LIMITS			
LIQUID:	0.0		
PLASTIC:	0.0		
P.I.:	0.0		
% GRAVEL	60		
% SAND:	37		
% FINES:	4		
CLASSIFICATION:			
POORLY GRADED GRAVEL WITH SAND (GP)			



PROJECT NUMBER:	092-202101-0361	HOLE No.:	553-1538
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6 - 1729.6 A/H		
DRILL UNIT:	MOBILE B40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1761+400	DATE COM	06/13/2000

FIELD NO:	803		
LAB NO:	1204		
DEPTH:	1.4-1.6		
TYPE:	AUGER		

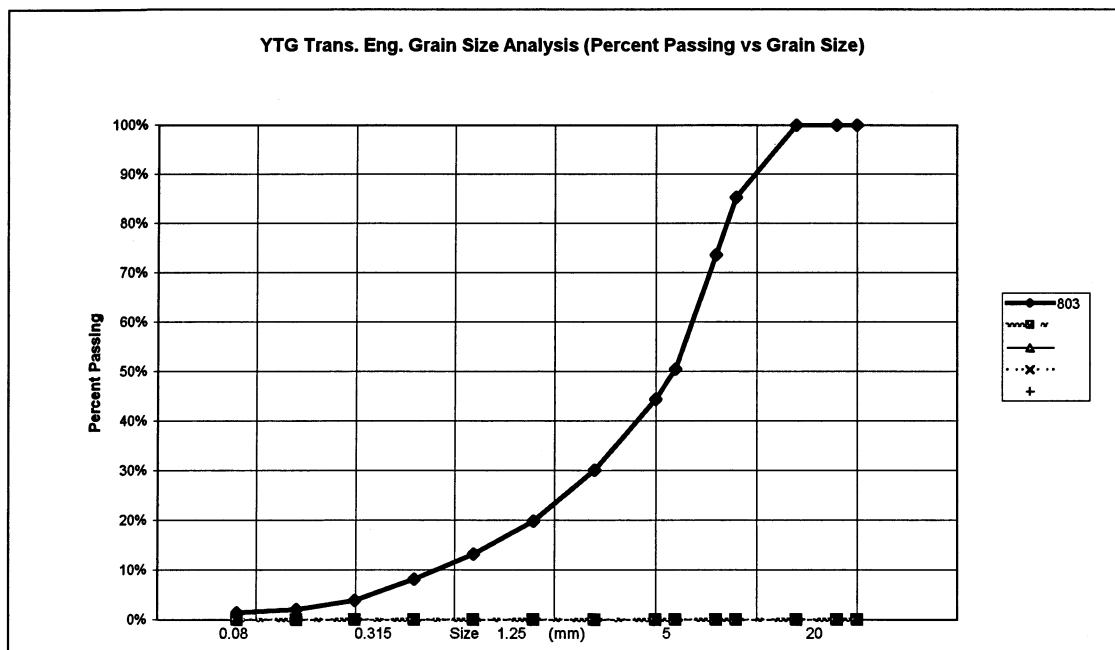
SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	85%		
20.0	74%		
12.5	51%		
10.0	44%		
5.0	30%		
2.5	20%		
1.25	13%		
0.630	8%		
0.315	4%		
0.160	2%		
0.080	1%		

M.C.(%):	5%
----------	----

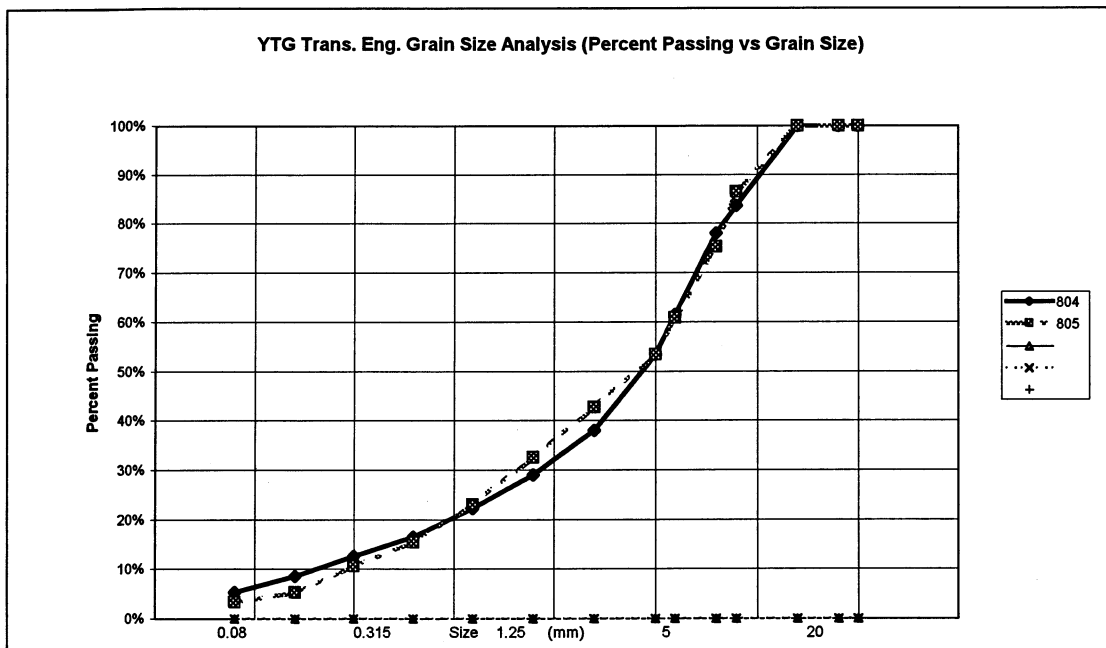
LIMITS	
LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0

% GRAVEL	70
% SAND:	29
% FINES:	1

CLASSIFICATION:	
POORLY GRADED GRAVEL	
WITH SAND (GP)	



PROJECT NUMBER: 092-202101-0361		HOLE No.: 553-1539	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H			
DRILL UNIT: MOBILE B40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 06/13/2000	
HOLE LOCATION: 1761+500			
FIELD NO: 804		FIELD No. 805	
LAB NO: 1205		LAB No. 1206	
DEPTH: 1.5-1.7		DEPTH 2.8-3.0	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	84%	25.0	87%
20.0	78%	20.0	75%
12.5	61%	12.5	61%
10.0	54%	10.0	53%
5.0	38%	5.0	43%
2.5	29%	2.5	33%
1.25	22%	1.25	23%
0.630	17%	0.630	16%
0.315	13%	0.315	11%
0.160	9%	0.160	5%
0.080	5%	0.080	3%
M.C.(%):	8%	M.C.(%):	7%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	62	% GRAVEL	57
% SAND:	33	% SAND:	39
% FINES:	5	% FINES:	3
CLASSIFICATION:		CLASSIFICATION:	
WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)		POORLY GRADED GRAVEL WITH SAND (GP)	



PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1540
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1761+600 8M RT	DATE COMP:	2000/06/14

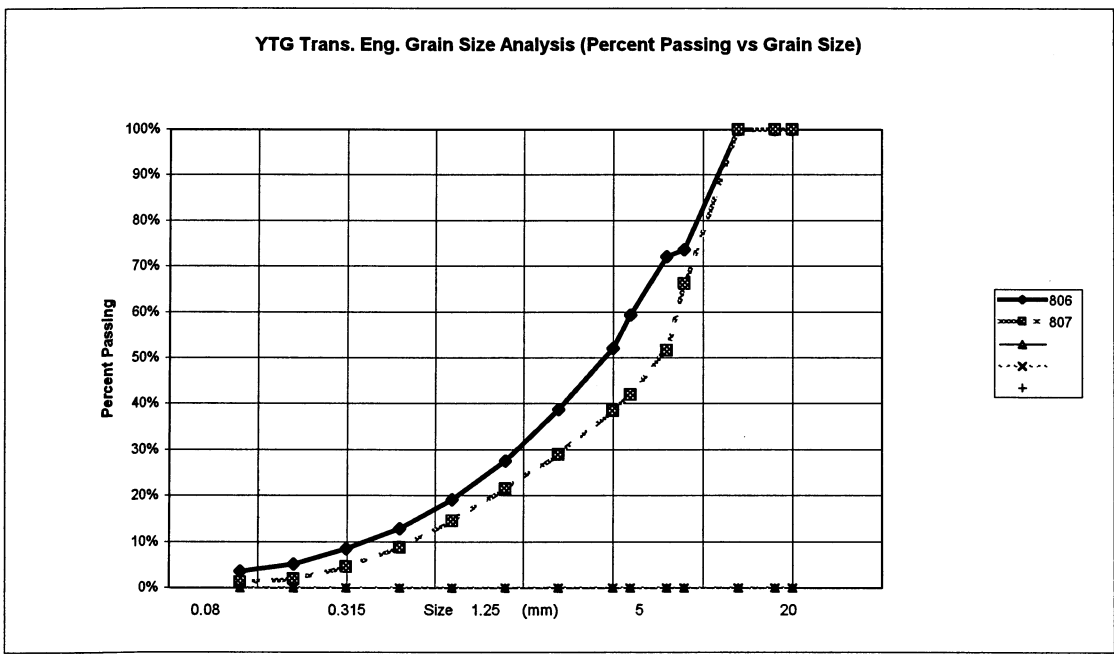
FIELD NO:	806	FIELD No:	807
LAB NO:	1207	LAB No:	1208
DEPTH:	1.3-1.5	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	74%	25.0	66%
20.0	72%	20.0	52%
12.5	59%	12.5	42%
10.0	52%	10.0	39%
5.0	39%	5.0	29%
2.5	28%	2.5	22%
1.25	19%	1.25	15%
0.630	13%	0.630	9%
0.315	9%	0.315	5%
0.160	5%	0.160	2%
0.080	4%	0.080	1%

M.C.(%):	5%	M.C.(%):	6%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

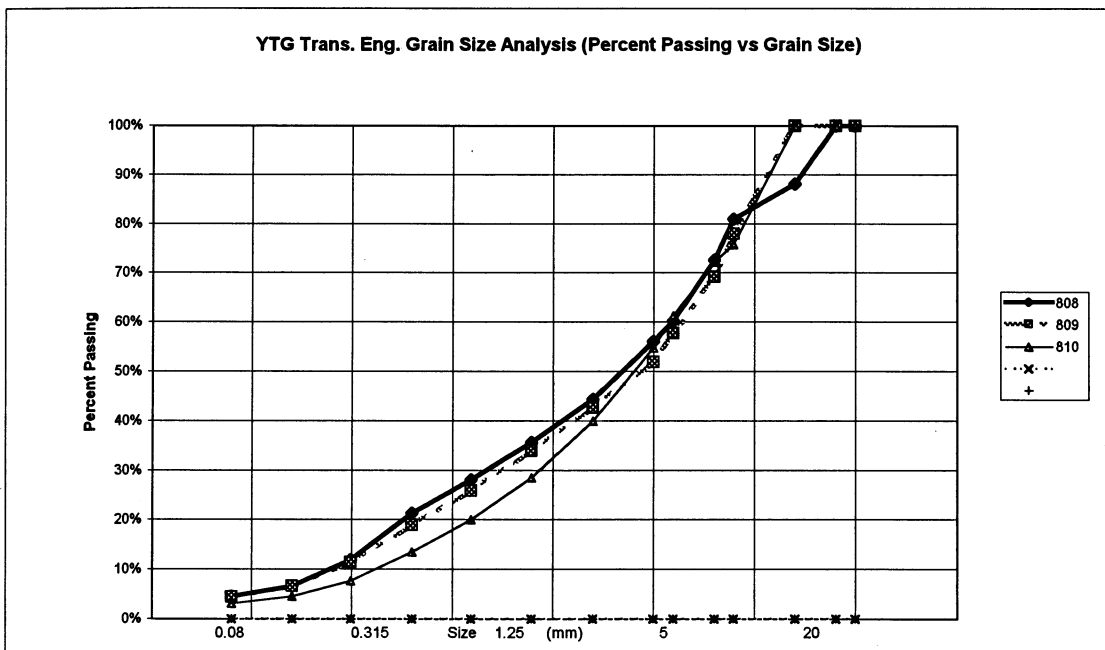
% GRAVEL:	61	% GRAVEL:	71
% SAND:	35	% SAND:	28
% FINES:	4	% FINES:	1

CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)
-----------------	-------------------------------------	-----------------	-------------------------------------



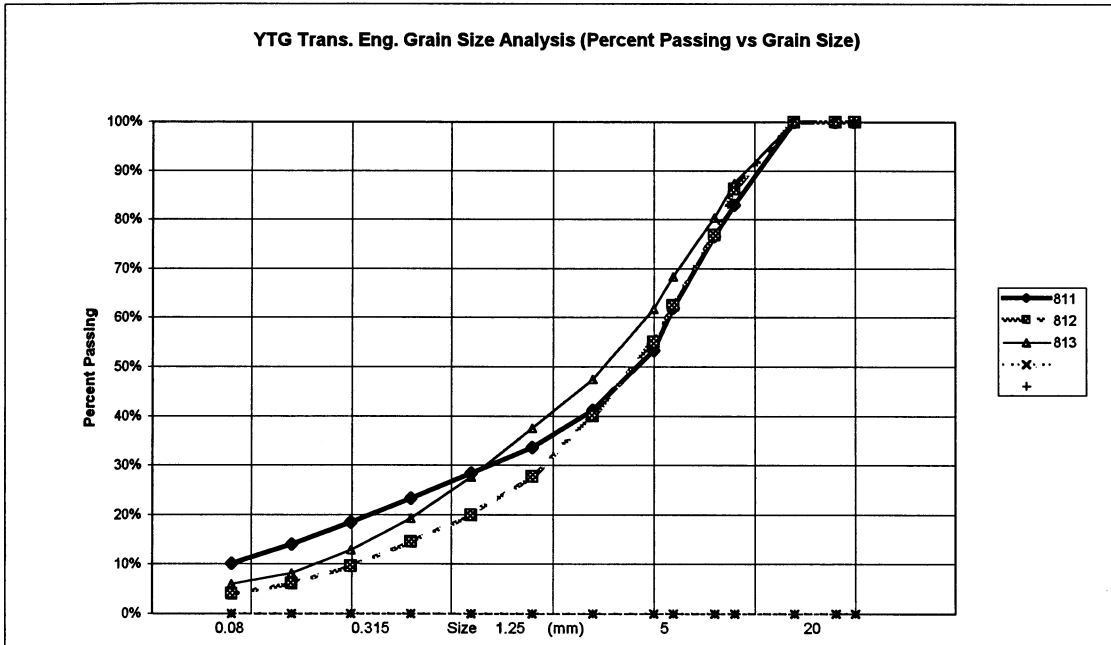
PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1541
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1761+700 8M RT	DATE COM	2000/06/14

FIELD No: 808		FIELD No: 809		FIELD No: 810	
LAB NO:	1209	LAB No:	1210	LAB No:	1211
DEPTH:	1.4-1.6	DEPTH	2.9-3.1	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	88%	50.0	100%	50.0	100%
25.0	81%	25.0	78%	25.0	76%
20.0	73%	20.0	69%	20.0	72%
12.5	60%	12.5	58%	12.5	61%
10.0	56%	10.0	52%	10.0	55%
5.0	44%	5.0	43%	5.0	40%
2.5	36%	2.5	34%	2.5	29%
1.25	28%	1.25	26%	1.25	20%
0.630	21%	0.630	19%	0.630	14%
0.315	12%	0.315	11%	0.315	8%
0.160	7%	0.160	7%	0.160	5%
0.080	5%	0.080	4%	0.080	3%
M.C.(%):	2%	M.C.(%):	6%	M.C.(%):	6%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	56	% GRAVEL	57	% GRAVEL	60
% SAND:	40	% SAND:	38	% SAND:	37
% FINES:	5	% FINES:	4	% FINES:	3
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SAND (GP)	

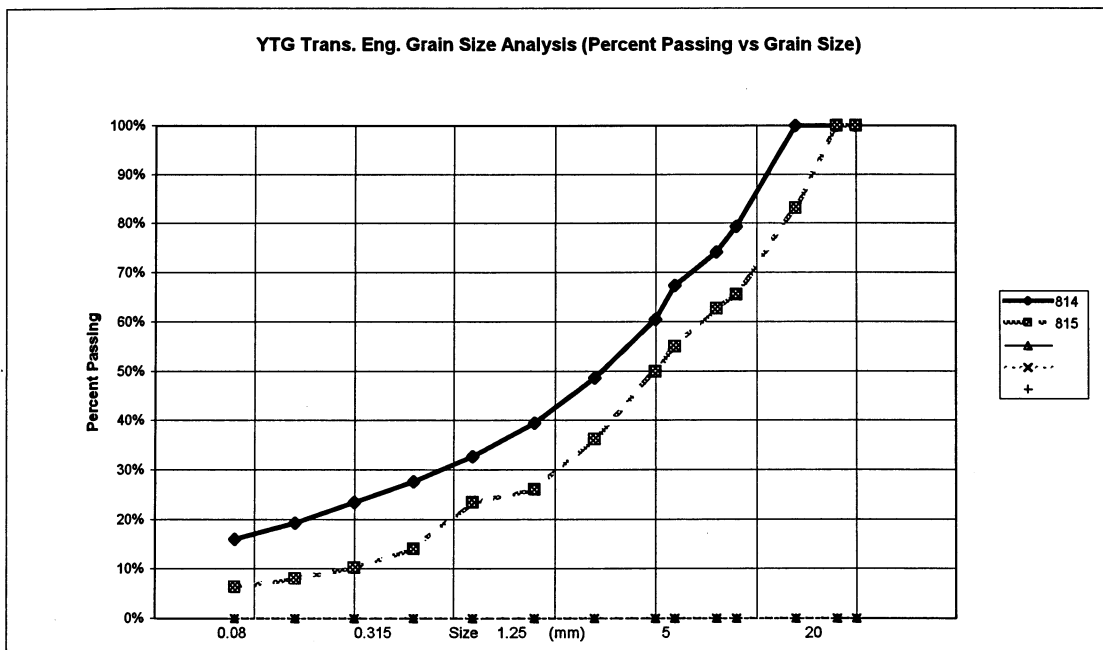


PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1542
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1761+800 8M RT	DATE COM	2000/06/14

FIELD No: 811		FIELD No: 812		FIELD No: 813	
LAB NO:	1212	LAB No:	1213	LAB No:	1214
DEPTH:	1.4-1.6	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	83%	25.0	86%	25.0	87%
20.0	77%	20.0	77%	20.0	80%
12.5	62%	12.5	63%	12.5	68%
10.0	53%	10.0	55%	10.0	62%
5.0	41%	5.0	40%	5.0	48%
2.5	34%	2.5	28%	2.5	38%
1.25	28%	1.25	20%	1.25	28%
0.630	23%	0.630	15%	0.630	19%
0.315	19%	0.315	10%	0.315	13%
0.160	14%	0.160	6%	0.160	8%
0.080	10%	0.080	4%	0.080	6%
M.C.(%):	4%	M.C.(%):	2%	M.C.(%):	5%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	59	% GRAVEL	60	% GRAVEL	52
% SAND:	31	% SAND:	36	% SAND:	41
% FINES:	10	% FINES:	4	% FINES:	6
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

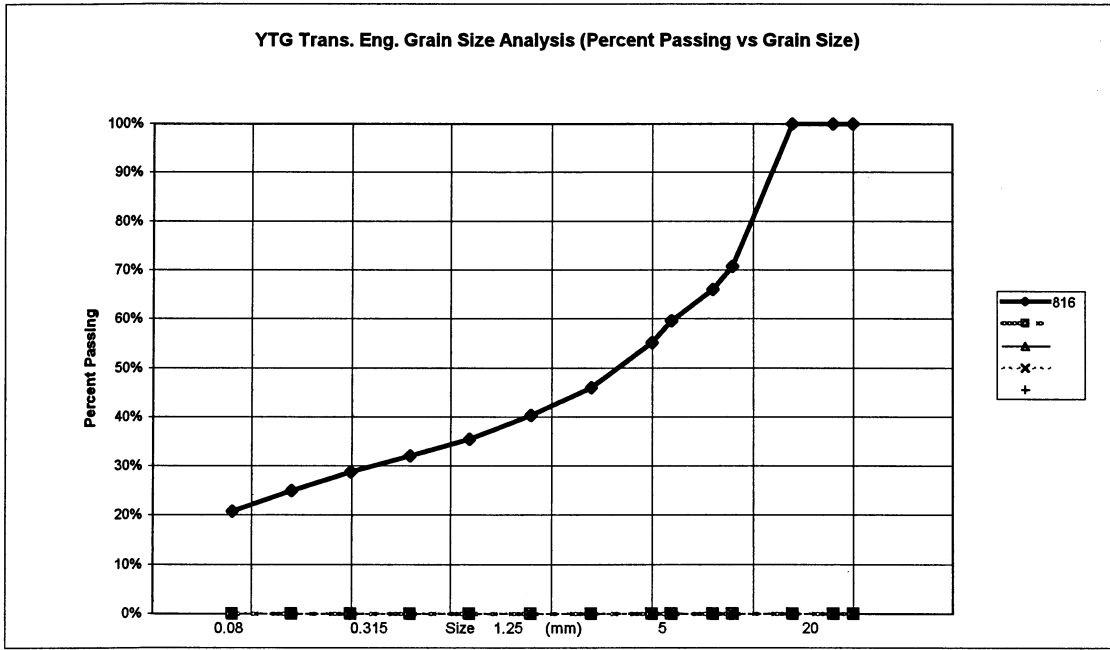


PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1543	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1761+900 9M RT			
FIELD NO: 814		FIELD No. 815	
LAB NO: 1215		LAB No. 1216	
DEPTH: 2.0-2.2		DEPTH 4.5-4.7	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	83%
25.0	79%	25.0	66%
20.0	74%	20.0	63%
12.5	67%	12.5	55%
10.0	60%	10.0	50%
5.0	49%	5.0	36%
2.5	40%	2.5	26%
1.25	33%	1.25	23%
0.630	28%	0.630	14%
0.315	23%	0.315	10%
0.160	19%	0.160	8%
0.080	16%	0.080	6%
M.C.(%):	4%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	51	% GRAVEL	64
% SAND:	33	% SAND:	30
% FINES:	16	% FINES:	6
CLASSIFICATION:		CLASSIFICATION:	
SILTY GRAVEL WITH SAND (GM)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1544
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1762+000 9M RT	DATE COM	2000/06/14

FIELD NO: 816 LAB NO: 1217 DEPTH: 2.8-3.0 TYPE: AUGER			
SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	71%		
20.0	66%		
12.5	60%		
10.0	55%		
5.0	46%		
2.5	40%		
1.25	36%		
0.630	32%		
0.315	29%		
0.160	25%		
0.080	21%		
M.C.(%):	6%		
LIMITS			
LIQUID:	0.0		
PLASTIC:	0.0		
P.I.:	0.0		
% GRAVEL	54		
% SAND:	25		
% FINES:	21		
CLASSIFICATION:			
SILTY GRAVEL WITH SAND (GM)			



PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1245	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1762+100 12M RT			

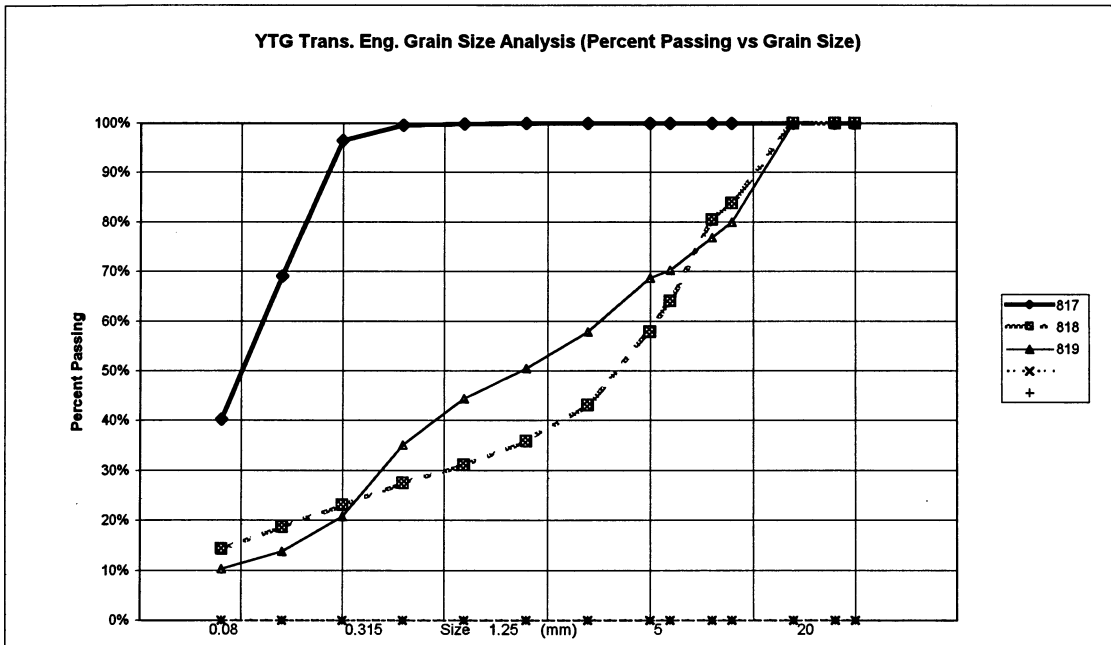
FIELD No: 817		FIELD No: 818		FIELD No: 819	
LAB NO: 1218		LAB No: 1219		LAB No: 1220	
DEPTH: 1.4-1.6		DEPTH 2.9-3.1		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	84%	25.0	80%
20.0	100%	20.0	80%	20.0	77%
12.5	100%	12.5	64%	12.5	70%
10.0	100%	10.0	58%	10.0	69%
5.0	100%	5.0	43%	5.0	58%
2.5	100%	2.5	36%	2.5	50%
1.25	100%	1.25	31%	1.25	44%
0.630	100%	0.630	27%	0.630	35%
0.315	97%	0.315	23%	0.315	21%
0.160	69%	0.160	19%	0.160	14%
0.080	40%	0.080	14%	0.080	10%

M.C.(%):	7%	M.C.(%):	4%	M.C.(%):	3%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL	0	% GRAVEL	57	% GRAVEL	42
% SAND:	60	% SAND:	29	% SAND:	48
% FINES:	40	% FINES:	14	% FINES:	10

CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)
-----------------	-----------------	-----------------	-----------------------------	-----------------	---

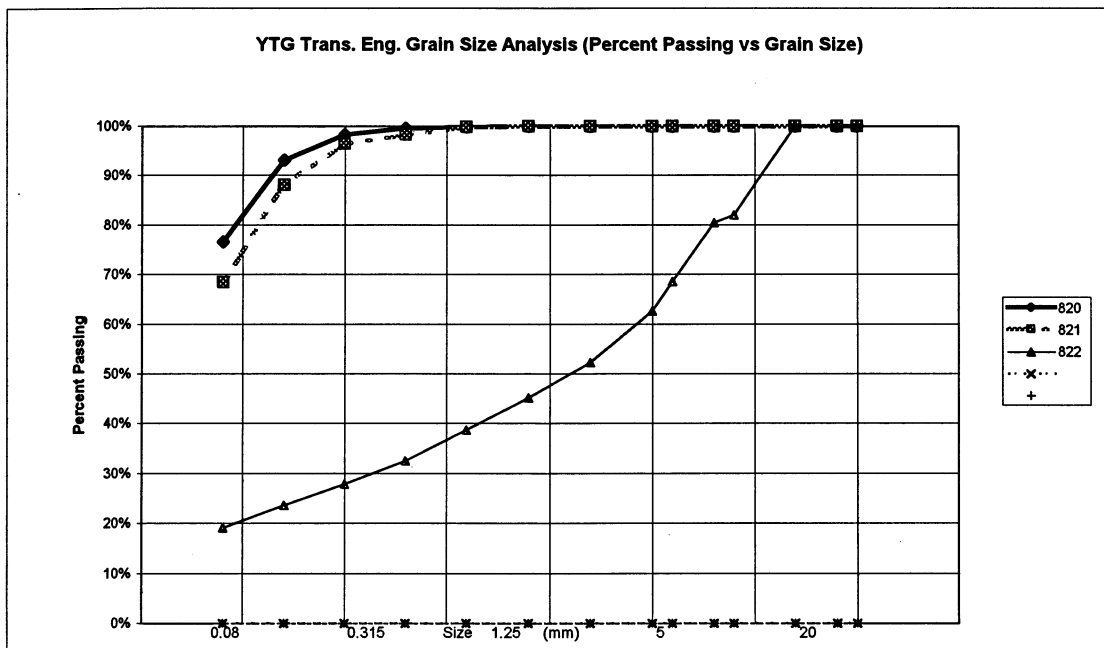


PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1546	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1762+200 10M RT			

FIELD No:	LAB No:	DEPTH:	TYPE:
820	1221	0.9-1.1	AUGER
821	1222	2.0-2.2	AUGER
822	1223	4.5-4.5	AUGER

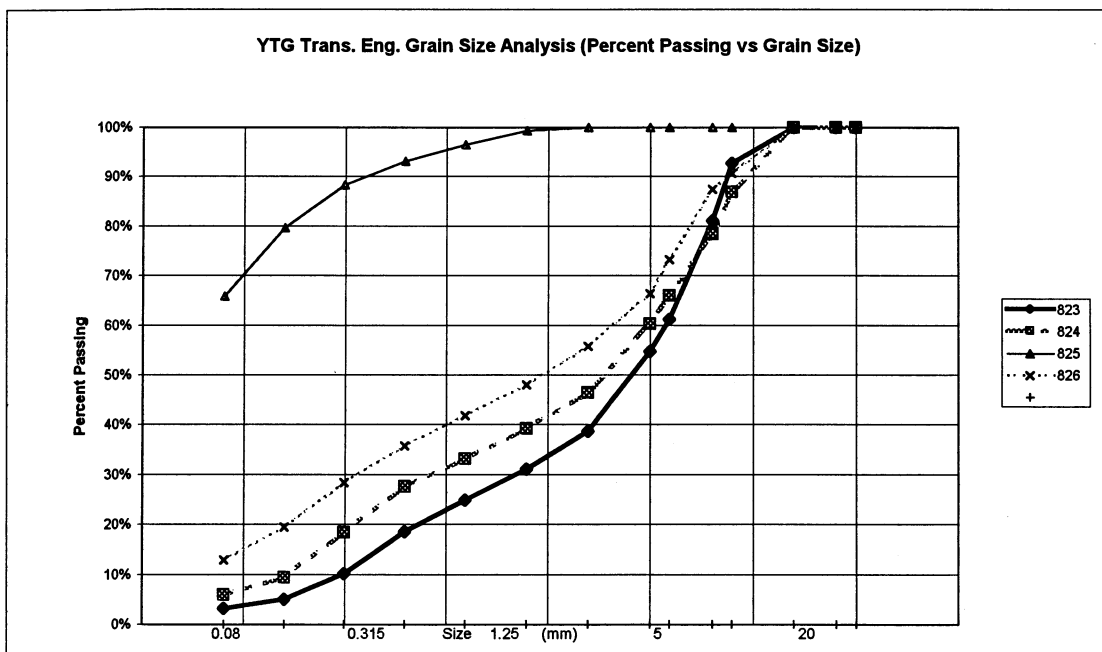
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	100%	25.0	82%
20.0	100%	20.0	100%	20.0	80%
12.5	100%	12.5	100%	12.5	69%
10.0	100%	10.0	100%	10.0	63%
5.0	100%	5.0	100%	5.0	52%
2.5	100%	2.5	100%	2.5	45%
1.25	100%	1.25	100%	1.25	39%
0.630	100%	0.630	98%	0.630	33%
0.315	98%	0.315	96%	0.315	28%
0.160	93%	0.160	88%	0.160	24%
0.080	77%	0.080	69%	0.080	19%

M.C.(%):	13%	M.C.(%):	33%	M.C.(%):	6%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	0	% GRAVEL	48
% SAND:	23	% SAND:	31	% SAND:	33
% FINES:	77	% FINES:	69	% FINES:	19
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)



PROJECT NUMBER: 092-202101-0361				HOLE No.: 554-1547			
CLIENT: ENGINEERING-CAPITAL							
PROJECT NAME: SHAKWAK SEG 11							
PROJECT LOCATION: KM 1729.6-1787 A/H							
DRILL UNIT: MOBILE B40L							
LOGGED BY: D.T.							
HOLE LOCATION: 1762+300 7M LT				DATE COM 2000/06/14			

FIELD No: 823		FIELD No: 824		FIELD No: 825		FIELD No: 826	
LAB No: 1224		LAB No: 1225		LAB No: 1226		LAB No: 1227	
DEPTH: 1.4-1.6		DEPTH: 2.7-2.9		DEPTH: 3.4-3.6		DEPTH: 4.5-4.7	
TYPE: AUGER		TYPE: AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%	50.0	100%
25.0	93%	25.0	87%	25.0	100%	25.0	91%
20.0	81%	20.0	78%	20.0	100%	20.0	87%
12.5	61%	12.5	66%	12.5	100%	12.5	73%
10.0	55%	10.0	60%	10.0	100%	10.0	66%
5.0	39%	5.0	47%	5.0	100%	5.0	56%
2.5	31%	2.5	39%	2.5	99%	2.5	48%
1.25	25%	1.25	33%	1.25	97%	1.25	42%
0.630	19%	0.630	28%	0.630	93%	0.630	36%
0.315	10%	0.315	18%	0.315	88%	0.315	28%
0.160	5%	0.160	9%	0.160	80%	0.160	20%
0.080	3%	0.080	6%	0.080	66%	0.080	13%
M.C.(%)	2%	M.C.(%)	2%	M.C.(%)	26%	M.C.(%)	6%
LIMITS		LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	61	% GRAVEL	53	% GRAVEL	0	% GRAVEL	44
% SAND:	35	% SAND:	41	% SAND:	34	% SAND:	43
% FINES:	3	% FINES:	6	% FINES:	66	% FINES:	13
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		SANDY SILT (ML)		SILTY GRAVEL WITH SAND (GM)	



PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1548	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1762+400 CENTRELINE			

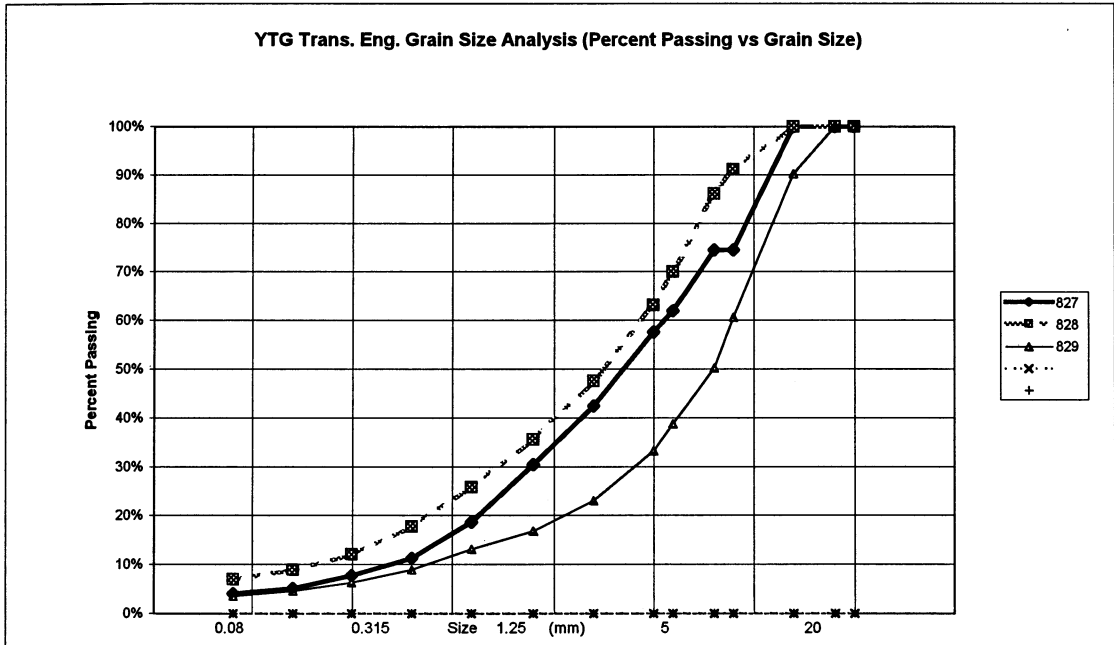
FIELD NO:	LAB NO:	DEPTH:	TYPE:	FIELD No:	LAB No:	DEPTH:	TYPE:	FIELD No:	LAB No:	DEPTH:	TYPE:
827	1228	1.3-1.5	AUGER	828	1229	2.9-3.1	AUGER	829	1230	4.5-4.7	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	90%
25.0	74%	25.0	91%	25.0	61%
20.0	74%	20.0	86%	20.0	50%
12.5	62%	12.5	70%	12.5	39%
10.0	58%	10.0	63%	10.0	33%
5.0	42%	5.0	48%	5.0	23%
2.5	30%	2.5	36%	2.5	17%
1.25	19%	1.25	26%	1.25	13%
0.630	11%	0.630	18%	0.630	9%
0.315	8%	0.315	12%	0.315	6%
0.160	5%	0.160	9%	0.160	5%
0.080	4%	0.080	7%	0.080	4%

M.C.(%): 3%	M.C.(%): 5%	M.C.(%): 2%
LIMITS	LIMITS	LIMITS
LIQUID: 0.0	LIQUID: 0.0	LIQUID: 0.0
PLASTIC: 0.0	PLASTIC: 0.0	PLASTIC: 0.0
P.I.: 0.0	P.I.: 0.0	P.I.: 0.0

% GRAVEL: 58	% GRAVEL: 52	% GRAVEL: 77
% SAND: 38	% SAND: 41	% SAND: 20
% FINES: 4	% FINES: 7	% FINES: 4

CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)
---	---	---

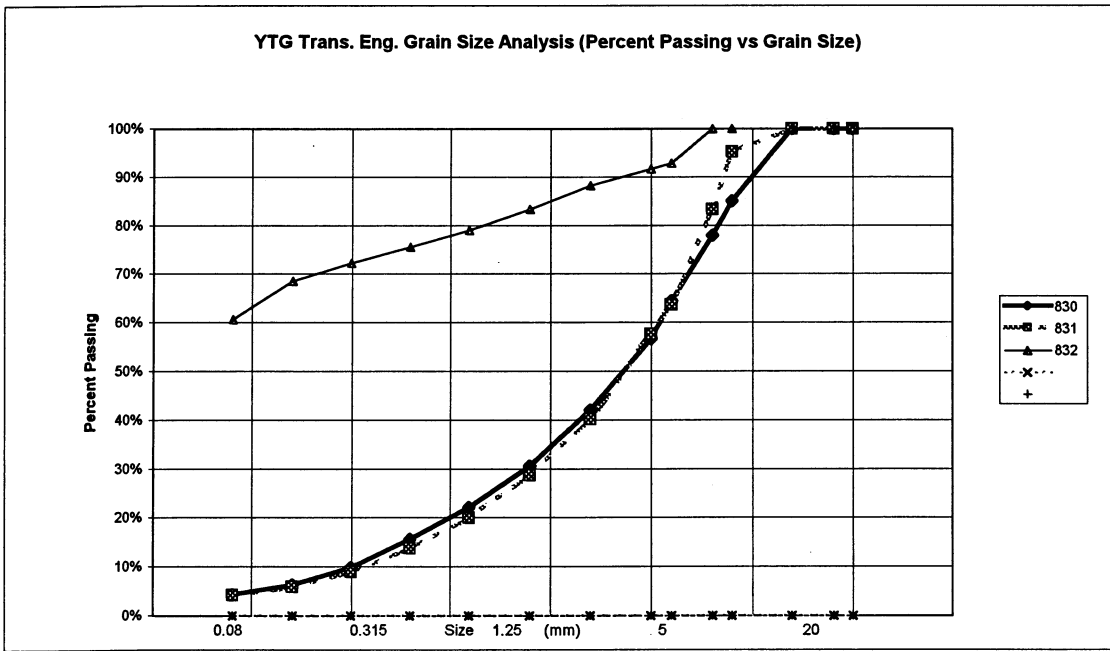


PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1549	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.			
HOLE LOCATION: 1762+500 3M LT		DATE COM 2000/06/14	

FIELD No: 830		FIELD No: 831		FIELD No: 832	
LAB NO: 1231		LAB No: 1232		LAB No: 1233	
DEPTH: 1.4-1.6		DEPTH 2.8-3.0		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	85%	25.0	95%	25.0	100%
20.0	78%	20.0	83%	20.0	100%
12.5	65%	12.5	64%	12.5	93%
10.0	57%	10.0	58%	10.0	92%
5.0	42%	5.0	40%	5.0	88%
2.5	31%	2.5	29%	2.5	83%
1.25	22%	1.25	20%	1.25	79%
0.630	16%	0.630	14%	0.630	76%
0.315	10%	0.315	9%	0.315	72%
0.160	6%	0.160	6%	0.160	69%
0.080	4%	0.080	4%	0.080	61%

M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	23%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	58	% GRAVEL	60	% GRAVEL	12
% SAND:	38	% SAND:	36	% SAND:	28
% FINES:	4	% FINES:	4	% FINES:	61
CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)		CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)		CLASSIFICATION: SANDY SILT (ML)	



PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1550	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1762+600 9M LT			

FIELD No: 833		FIELD No: 834		FIELD No: 835	
LAB NO:	1234	LAB No:	1235	LAB No:	1236
DEPTH:	1.5-1.7	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER

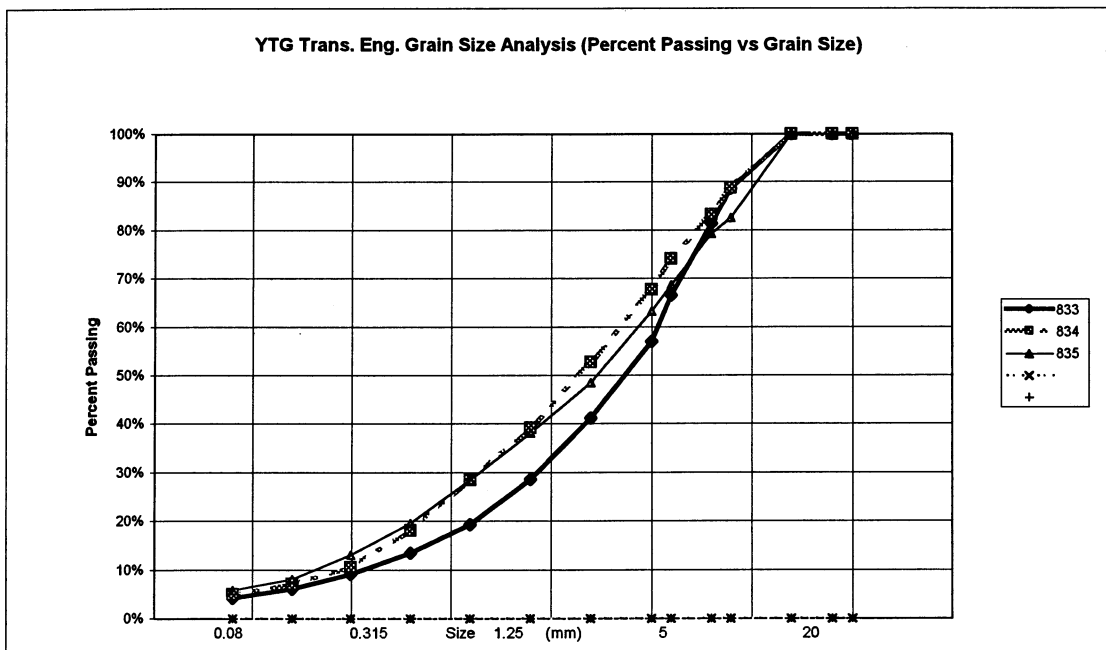
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	89%	25.0	89%	25.0	83%
20.0	81%	20.0	83%	20.0	79%
12.5	67%	12.5	74%	12.5	69%
10.0	57%	10.0	68%	10.0	63%
5.0	41%	5.0	53%	5.0	49%
2.5	29%	2.5	39%	2.5	38%
1.25	19%	1.25	28%	1.25	28%
0.630	13%	0.630	18%	0.630	20%
0.315	9%	0.315	11%	0.315	13%
0.160	6%	0.160	7%	0.160	8%
0.080	4%	0.080	5%	0.080	6%

M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	2%
----------	----	----------	----	----------	----

LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

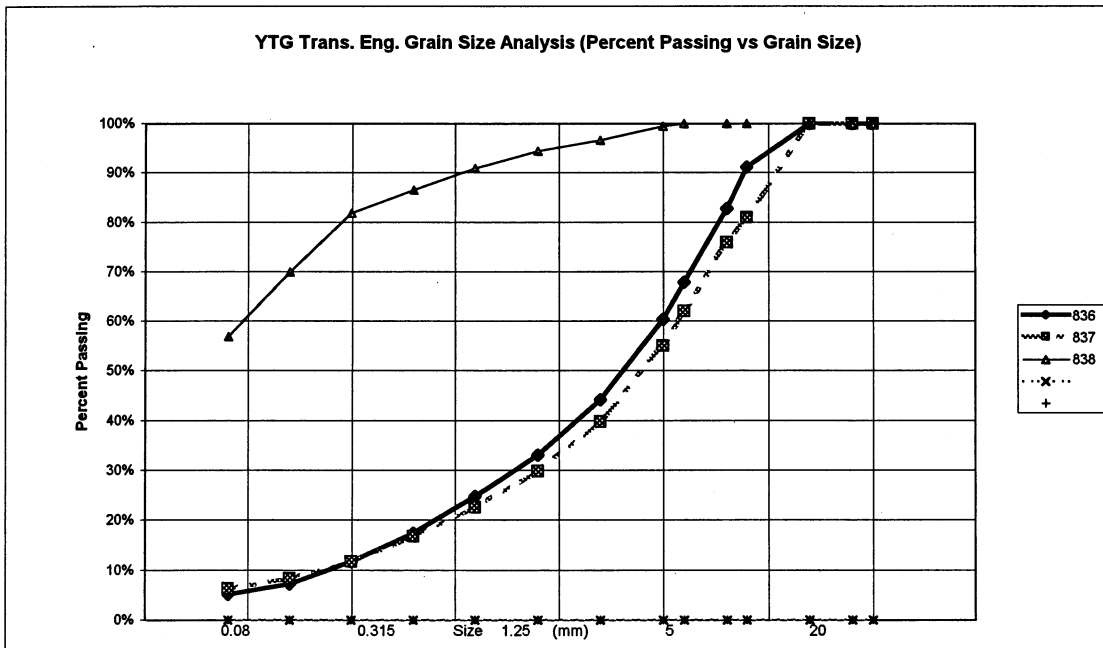
% GRAVEL	59	% GRAVEL	47	% GRAVEL	51
% SAND:	37	% SAND:	48	% SAND:	43
% FINES:	4	% FINES:	5	% FINES:	6

CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
-----------------	-------------------------------------	-----------------	---	-----------------	---



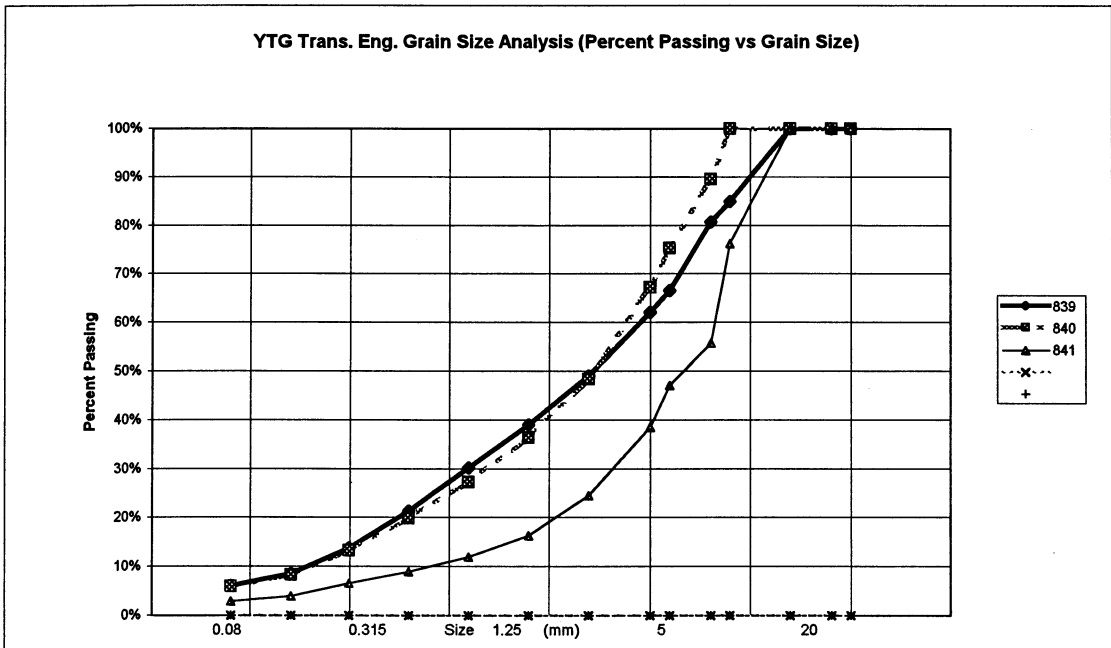
PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1551
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1762+700 9M LT	DATE COM	2000/06/14

FIELD No: 836		FIELD No: 837		FIELD No: 838	
LAB NO:	1237	LAB No:	1236	LAB No:	1239
DEPTH:	1.3-1.5	DEPTH	2.9-3.1	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	91%	25.0	81%	25.0	100%
20.0	83%	20.0	76%	20.0	100%
12.5	68%	12.5	62%	12.5	100%
10.0	60%	10.0	55%	10.0	99%
5.0	44%	5.0	40%	5.0	97%
2.5	33%	2.5	30%	2.5	94%
1.25	25%	1.25	23%	1.25	91%
0.630	18%	0.630	17%	0.630	87%
0.315	12%	0.315	12%	0.315	82%
0.160	7%	0.160	8%	0.160	70%
0.080	5%	0.080	6%	0.080	57%
M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	18%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	56	% GRAVEL	60	% GRAVEL	3
% SAND:	39	% SAND:	34	% SAND:	40
% FINES:	5	% FINES:	6	% FINES:	57
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	CLASSIFICATION:	SANDY SILT (ML)



PROJECT NUMBER: 092-202101-0361 HOLE No.: 554-1552
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40L
 LOGGED BY: D.T.
 HOLE LOCATION: 1762+800 10M LT DATE COM 2000/06/14

FIELD No: 839		FIELD No: 840		FIELD No: 841	
LAB NO:	1240	LAB No:	1241	LAB No:	1242
DEPTH:	1.4-1.6	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	85%	25.0	100%	25.0	76%
20.0	81%	20.0	90%	20.0	56%
12.5	67%	12.5	75%	12.5	47%
10.0	62%	10.0	67%	10.0	39%
5.0	49%	5.0	48%	5.0	25%
2.5	39%	2.5	36%	2.5	16%
1.25	30%	1.25	27%	1.25	12%
0.630	21%	0.630	20%	0.630	9%
0.315	14%	0.315	13%	0.315	7%
0.160	9%	0.160	8%	0.160	4%
0.080	6%	0.080	6%	0.080	3%
M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	2%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	51	% GRAVEL	52	% GRAVEL	75
% SAND:	43	% SAND:	42	% SAND:	22
% FINES:	6	% FINES:	6	% FINES:	3
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)



PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1553	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1762+900 10M LT			

FIELD No: 842		FIELD No: 843		FIELD No: 844	
LAB NO:	1243	LAB No:	1244	LAB No:	1245
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER

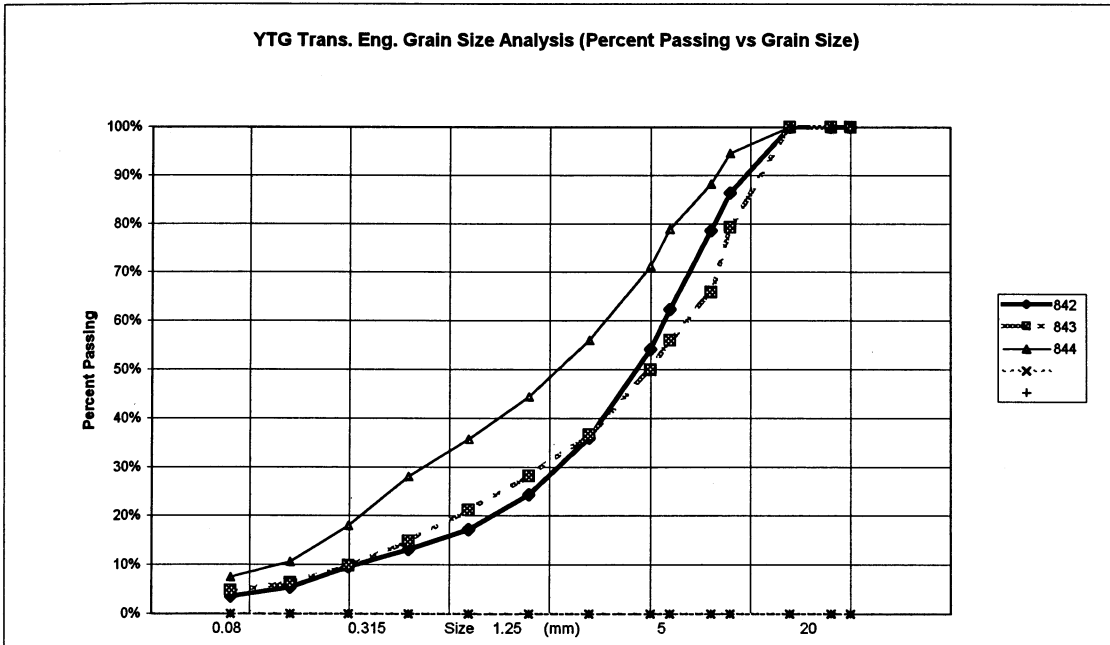
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	86%	25.0	79%	25.0	95%
20.0	79%	20.0	66%	20.0	88%
12.5	62%	12.5	56%	12.5	79%
10.0	54%	10.0	50%	10.0	71%
5.0	36%	5.0	37%	5.0	56%
2.5	24%	2.5	28%	2.5	44%
1.25	17%	1.25	21%	1.25	36%
0.630	13%	0.630	15%	0.630	28%
0.315	10%	0.315	10%	0.315	18%
0.160	5%	0.160	6%	0.160	11%
0.080	4%	0.080	5%	0.080	8%

M.C.(%):	1%	M.C.(%):	3%	M.C.(%):	4%
----------	----	----------	----	----------	----

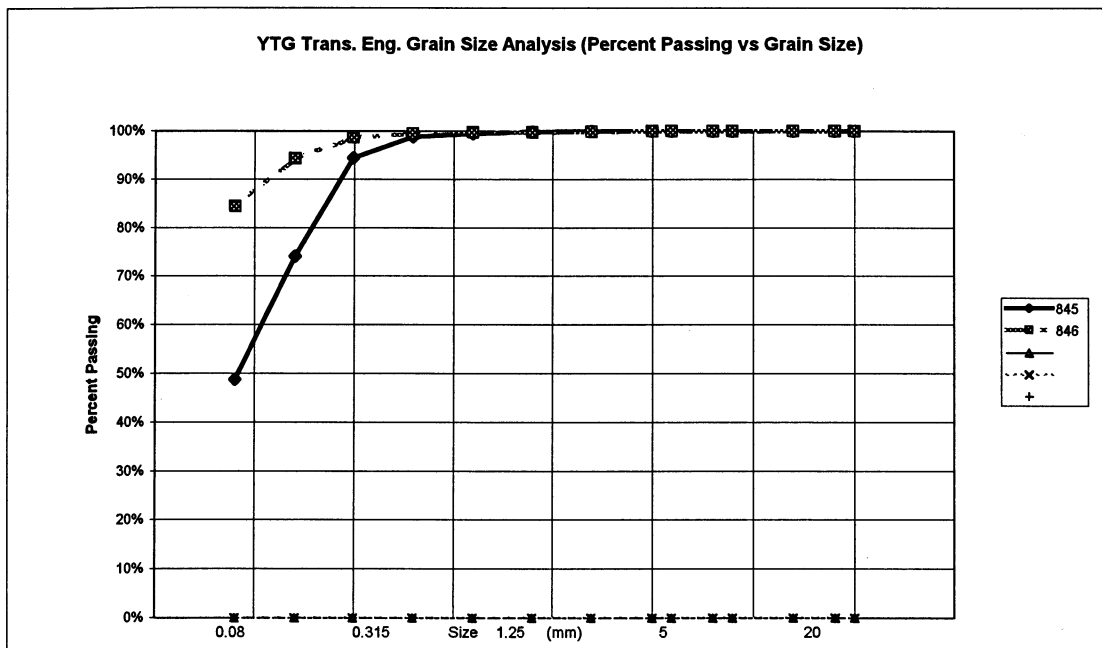
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL	64	% GRAVEL	63	% GRAVEL	44
% SAND:	32	% SAND:	32	% SAND:	49
% FINES:	4	% FINES:	5	% FINES:	8

CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)

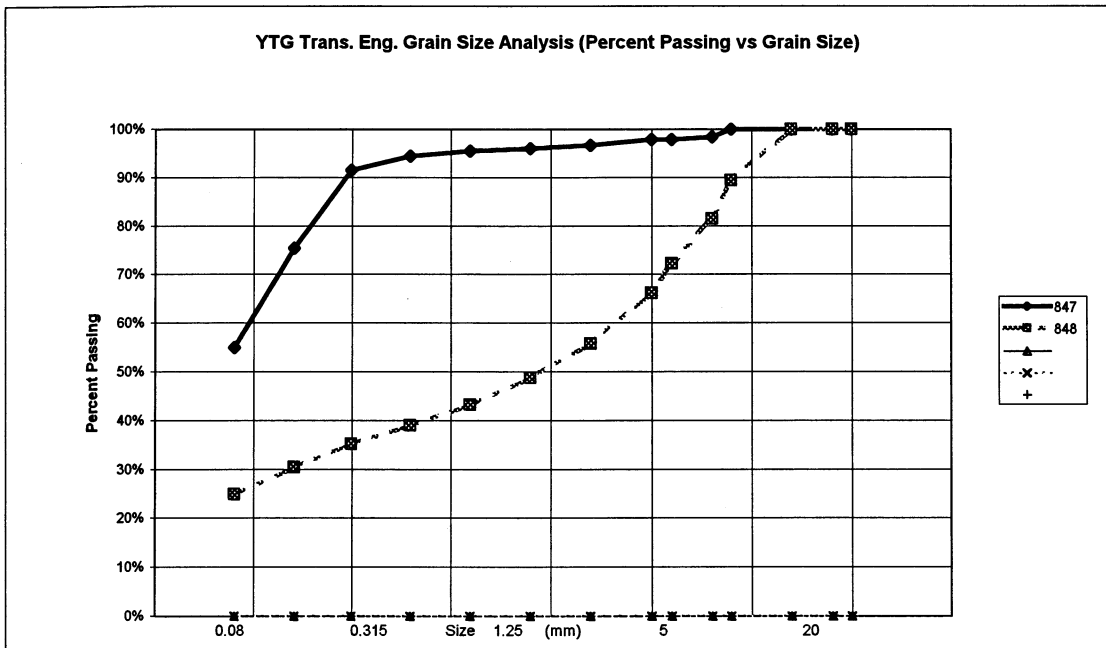


PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1554	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1763+000 9M LT			
FIELD NO: 845		FIELD No. 846	
LAB NO: 1246		LAB No. 1247	
DEPTH: 1.4-1.6		DEPTH 2.3-2.5	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	100%
20.0	100%	20.0	100%
12.5	100%	12.5	100%
10.0	100%	10.0	100%
5.0	100%	5.0	100%
2.5	100%	2.5	100%
1.25	99%	1.25	100%
0.630	99%	0.630	99%
0.315	94%	0.315	99%
0.160	74%	0.160	94%
0.080	49%	0.080	84%
M.C.(%):	24%	M.C.(%):	34%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	0
% SAND:	51	% SAND:	15
% FINES:	49	% FINES:	84
CLASSIFICATION:	SILTY SAND (SM)	CLASSIFICATION:	SILT WITH SAND (ML)



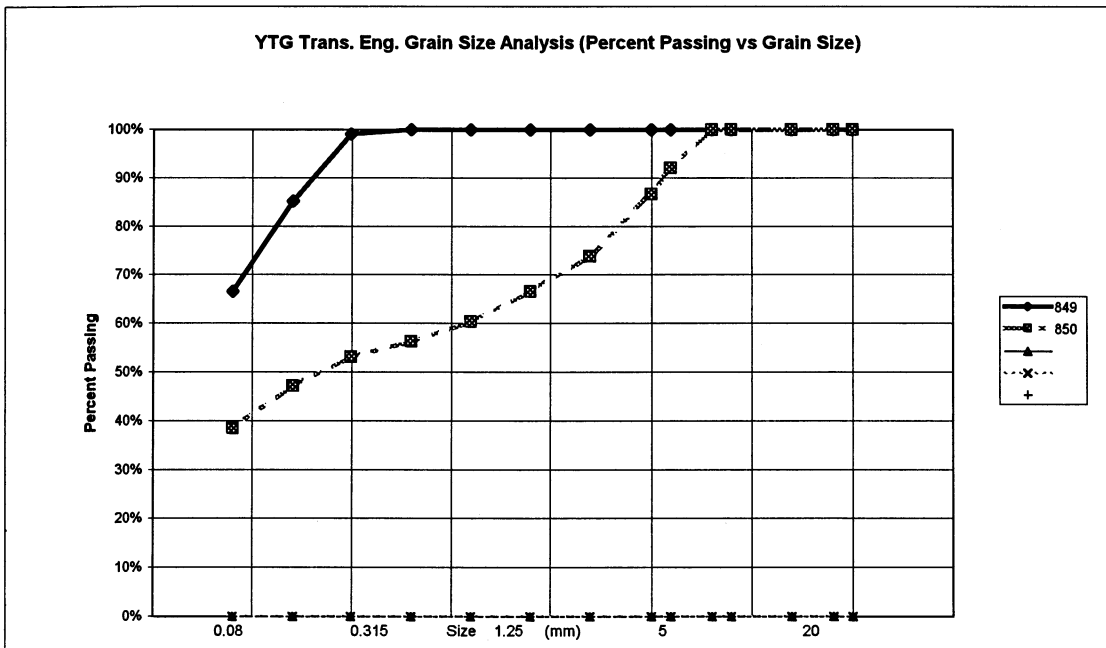
PROJECT NUMBER: 092-202101-0361 HOLE No.: 554-1555
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40L
 LOGGED BY: D.T.
 HOLE LOCATION: 1763+100 ~~9775~~ DATE COM 2000/06/14

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	89%
20.0	98%	20.0	82%
12.5	98%	12.5	72%
10.0	98%	10.0	66%
5.0	97%	5.0	56%
2.5	96%	2.5	49%
1.25	96%	1.25	43%
0.630	94%	0.630	39%
0.315	92%	0.315	35%
0.160	75%	0.160	30%
0.080	55%	0.080	25%
M.C.(%):	27%	M.C.(%):	16%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	3	% GRAVEL	44
% SAND:	42	% SAND:	31
% FINES:	55	% FINES:	25
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)



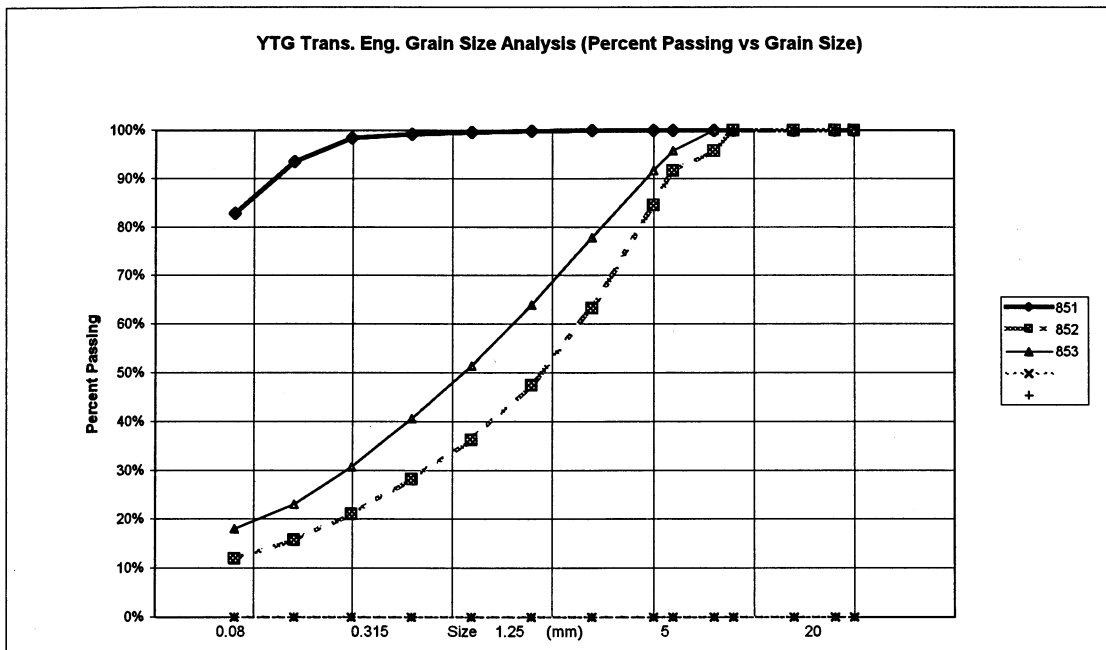
PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1556
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1763+200 CENTRELINE	DATE COM	2000/06/14

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	100%
20.0	100%	20.0	100%
12.5	100%	12.5	92%
10.0	100%	10.0	87%
5.0	100%	5.0	74%
2.5	100%	2.5	67%
1.25	100%	1.25	60%
0.630	100%	0.630	56%
0.315	99%	0.315	53%
0.160	85%	0.160	47%
0.080	67%	0.080	39%
M.C.(%):	30%	M.C.(%):	10%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	26
% SAND:	33	% SAND:	35
% FINES:	67	% FINES:	39
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)



PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1557
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1763+220 15M LT	DATE COM	2000/06/14

FIELD No: 851		FIELD No: 852		FIELD No: 853	
LAB NO:	1252	LAB No:	1253	LAB No:	1254
DEPTH:	1.3-1.5	DEPTH	2.9-3.1	DEPTH:	4.2-4.4
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	100%	25.0	100%
20.0	100%	20.0	96%	20.0	100%
12.5	100%	12.5	92%	12.5	96%
10.0	100%	10.0	85%	10.0	92%
5.0	100%	5.0	63%	5.0	78%
2.5	100%	2.5	47%	2.5	64%
1.25	100%	1.25	36%	1.25	51%
0.630	99%	0.630	28%	0.630	41%
0.315	98%	0.315	21%	0.315	31%
0.160	94%	0.160	16%	0.160	23%
0.080	83%	0.080	12%	0.080	18%
M.C.(%):	67%	M.C.(%):	5%	M.C.(%):	7%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	37	% GRAVEL	22
% SAND:	17	% SAND:	51	% SAND:	60
% FINES:	83	% FINES:	12	% FINES:	18
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)

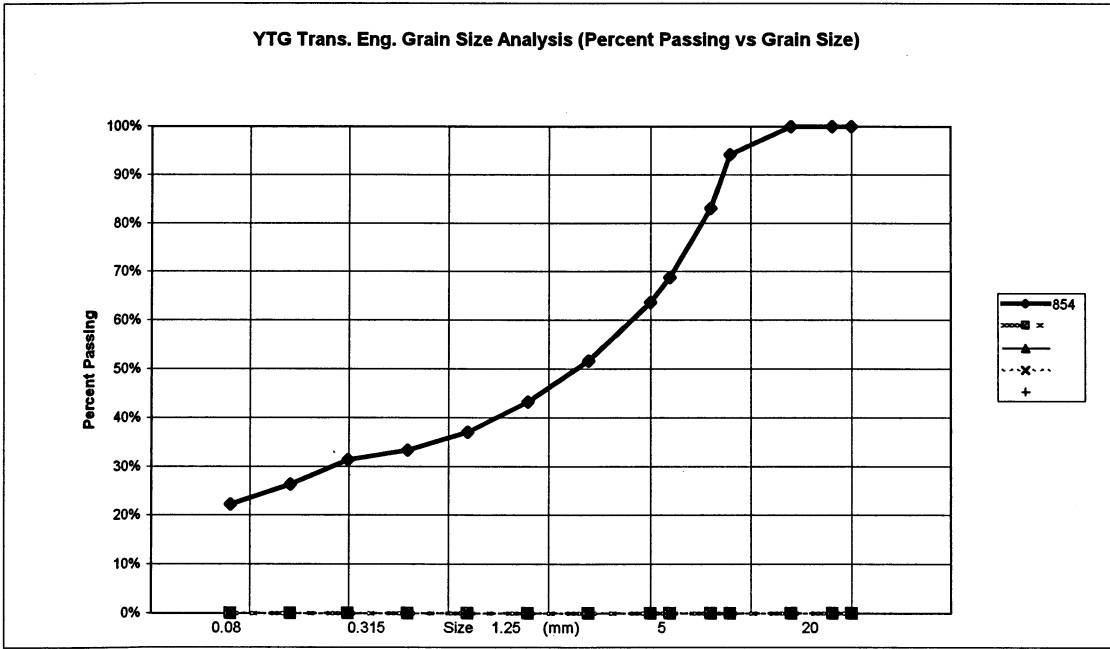


PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1558
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1763+225 15M RT	DATE COM	2000/06/15

FIELD NO:	854		
LAB NO:	1255		
DEPTH:	1.9-2.1		
TYPE:	AUGER		

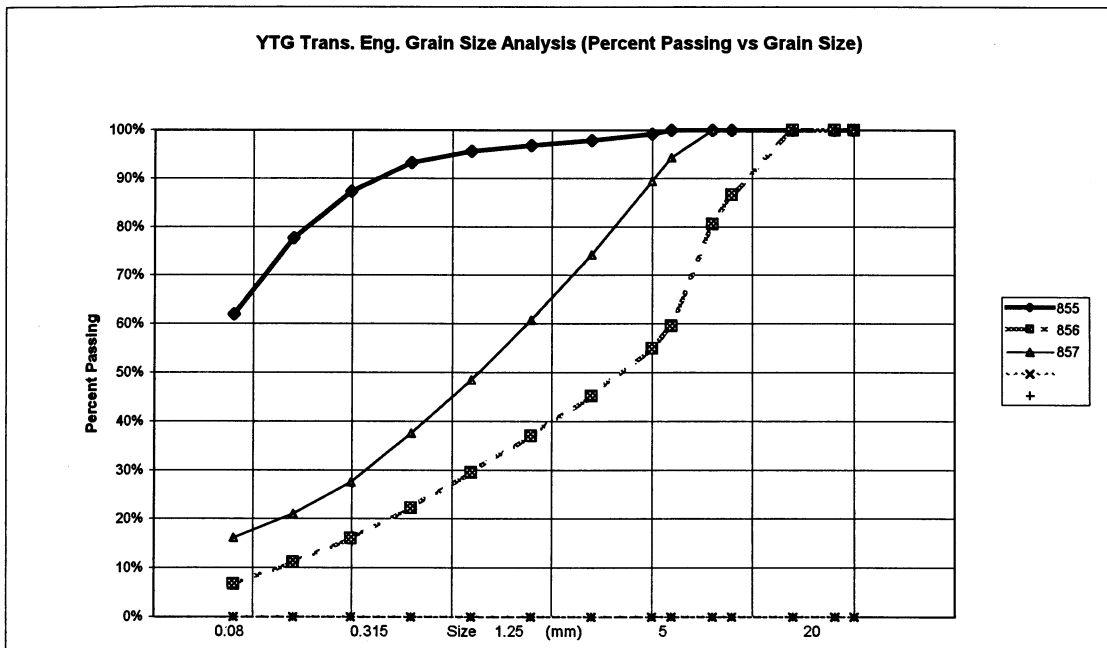
SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	94%		
20.0	83%		
12.5	69%		
10.0	64%		
5.0	52%		
2.5	43%		
1.25	37%		
0.630	33%		
0.315	31%		
0.160	26%		
0.080	22%		

M.C.(%):	16%
LIMITS	
LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0
% GRAVEL:	48
% SAND:	29
% FINES:	22
CLASSIFICATION:	
SILTY GRAVEL WITH SAND (GM)	

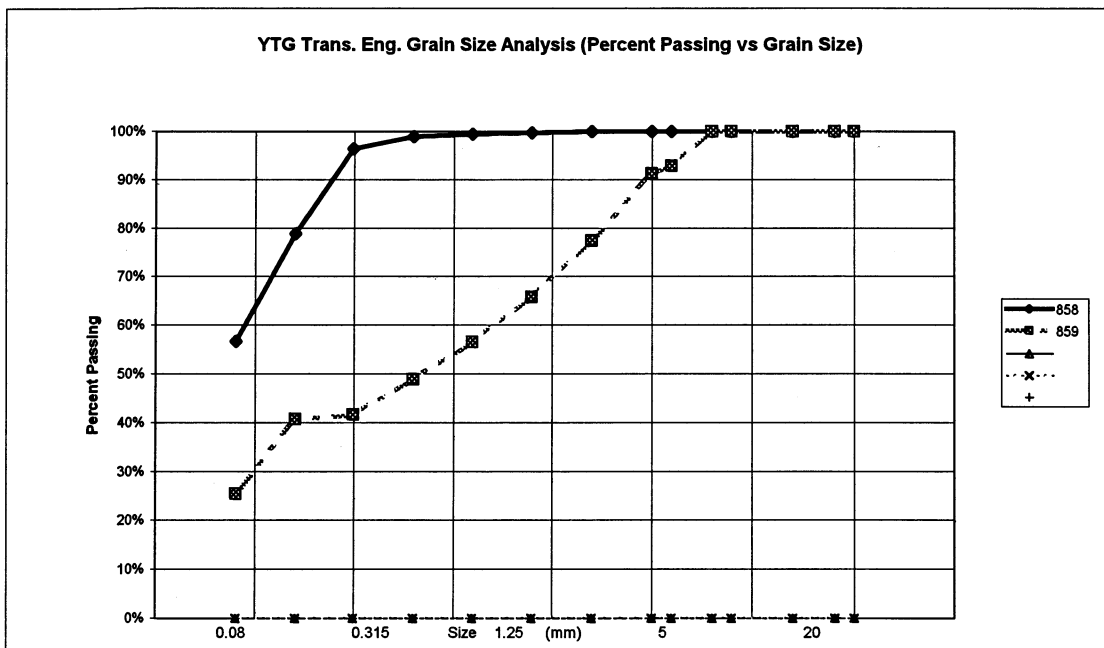


PROJECT NUMBER: 092-202101-0361 HOLE No.: 554-1559
 CLIENT: ENGINEERING-CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40L
 LOGGED BY: D.T.
 HOLE LOCATION: 1763+300 CENTRELINE DATE COM 2000/06/15

FIELD No: 855		FIELD No: 856		FIELD No: 857	
LAB NO:	1256	LAB No:	1257	LAB No:	1258
DEPTH:	1.4-1.6	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	87%	25.0	100%
20.0	100%	20.0	81%	20.0	100%
12.5	100%	12.5	60%	12.5	94%
10.0	99%	10.0	55%	10.0	89%
5.0	98%	5.0	45%	5.0	74%
2.5	97%	2.5	37%	2.5	61%
1.25	96%	1.25	30%	1.25	48%
0.630	93%	0.630	22%	0.630	38%
0.315	87%	0.315	16%	0.315	28%
0.160	78%	0.160	11%	0.160	21%
0.080	62%	0.080	7%	0.080	16%
M.C.(%):	29%	M.C.(%):	9%	M.C.(%):	9%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	2	% GRAVEL	55	% GRAVEL	26
% SAND:	36	% SAND:	39	% SAND:	58
% FINES:	62	% FINES:	7	% FINES:	16
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)

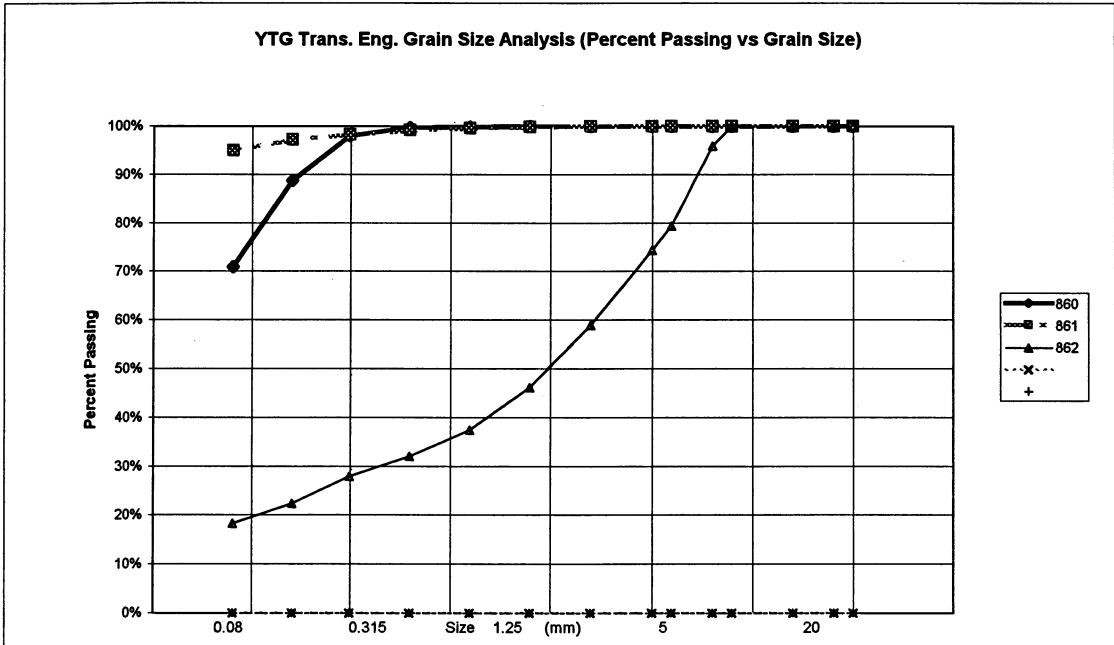


PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1560	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/15	
HOLE LOCATION: 1763+400 CENTRELINE			
FIELD NO: 858		FIELD No. 859	
LAB NO: 1259		LAB No. 1260	
DEPTH: 1.3-1.5		DEPTH 2.8-3.0	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	100%
20.0	100%	20.0	100%
12.5	100%	12.5	93%
10.0	100%	10.0	91%
5.0	100%	5.0	77%
2.5	100%	2.5	66%
1.25	99%	1.25	57%
0.630	99%	0.630	49%
0.315	96%	0.315	42%
0.160	79%	0.160	41%
0.080	57%	0.080	25%
M.C.(%):	28%	M.C.(%):	12%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	23
% SAND:	43	% SAND:	52
% FINES:	57	% FINES:	25
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)



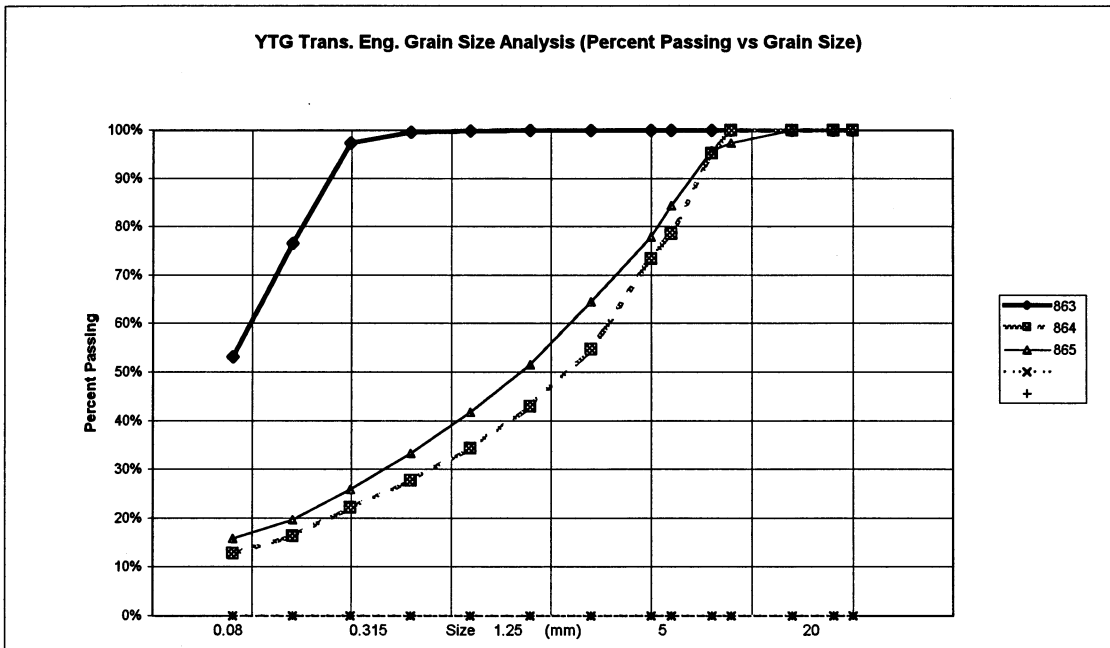
PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1561
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1763+600 CENTRELINE	DATE COM	2000/06/15

FIELD No: 860		FIELD No: 861		FIELD No: 862	
LAB NO:	1261	LAB No:	1262	LAB No:	1263
DEPTH:	1.4-1.6	DEPTH	2.9-3.1	DEPTH:	4.2-4.4
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	100%	25.0	100%
20.0	100%	20.0	100%	20.0	96%
12.5	100%	12.5	100%	12.5	79%
10.0	100%	10.0	100%	10.0	74%
5.0	100%	5.0	100%	5.0	59%
2.5	100%	2.5	100%	2.5	46%
1.25	100%	1.25	100%	1.25	37%
0.630	100%	0.630	99%	0.630	32%
0.315	98%	0.315	98%	0.315	28%
0.160	89%	0.160	97%	0.160	22%
0.080	71%	0.080	95%	0.080	18%
M.C.(%):	40%	M.C.(%):	50%	M.C.(%):	10%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	0	% GRAVEL	41
% SAND:	29	% SAND:	5	% SAND:	41
% FINES:	71	% FINES:	95	% FINES:	18
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)



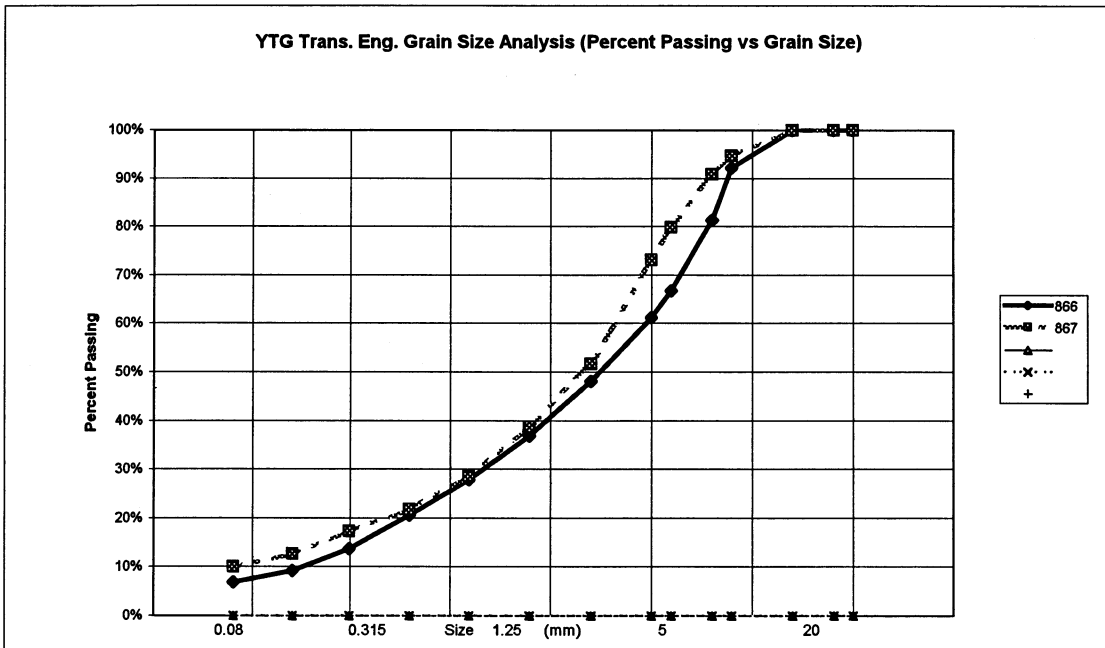
PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1562
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1763+700 CENTRELINE	DATE COM	2000/06/15

FIELD No: 863		FIELD No: 864		FIELD No: 865	
LAB NO:	1264	LAB No:	1265	LAB No:	1266
DEPTH:	1.3-1.5	DEPTH	3.0-3.2	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	100%	25.0	97%
20.0	100%	20.0	95%	20.0	96%
12.5	100%	12.5	79%	12.5	84%
10.0	100%	10.0	73%	10.0	78%
5.0	100%	5.0	55%	5.0	65%
2.5	100%	2.5	43%	2.5	52%
1.25	100%	1.25	34%	1.25	42%
0.630	100%	0.630	28%	0.630	33%
0.315	97%	0.315	22%	0.315	26%
0.160	77%	0.160	16%	0.160	20%
0.080	53%	0.080	13%	0.080	16%
M.C.(%):	25%	M.C.(%):	9%	M.C.(%):	8%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	45	% GRAVEL	35
% SAND:	47	% SAND:	42	% SAND:	49
% FINES:	53	% FINES:	13	% FINES:	16
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)



PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1563
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1763+800 CENTRELINE	DATE COM	2000/06/15

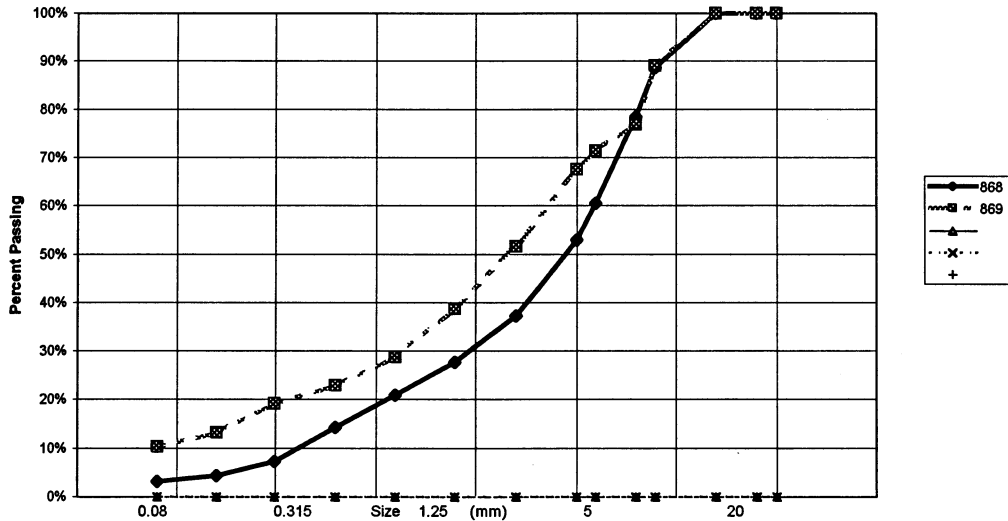
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	92%	25.0	95%
20.0	81%	20.0	91%
12.5	67%	12.5	80%
10.0	61%	10.0	73%
5.0	48%	5.0	52%
2.5	37%	2.5	39%
1.25	28%	1.25	29%
0.630	21%	0.630	22%
0.315	14%	0.315	17%
0.160	9%	0.160	13%
0.080	7%	0.080	10%
M.C.(%):	3%	M.C.(%):	7%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	52	% GRAVEL	48
% SAND:	41	% SAND:	42
% FINES:	7	% FINES:	10
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)



PROJECT NUMBER:	092-202101-0361	HOLE No.:	554-1564
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40L		
LOGGED BY:	D.T.		
HOLE LOCATION:	1763+900 CENTRELINE	DATE COM	2000/06/15

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	89%	25.0	89%
20.0	79%	20.0	77%
12.5	61%	12.5	71%
10.0	53%	10.0	68%
5.0	37%	5.0	52%
2.5	28%	2.5	39%
1.25	21%	1.25	29%
0.630	14%	0.630	23%
0.315	7%	0.315	19%
0.160	4%	0.160	13%
0.080	3%	0.080	10%
M.C.(%):	2%	M.C.(%):	7%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	63	% GRAVEL	48
% SAND:	34	% SAND:	41
% FINES:	3	% FINES:	10
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1565	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 AH			
DRILL UNIT: B-40L 6" AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/15	
HOLE LOCATION: 1763+880 15M LT			

FIELD NO:	870	FIELD No:	871	FIELD No:	872
LAB NO:	1271	LAB No:	1272	LAB No:	1273
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER

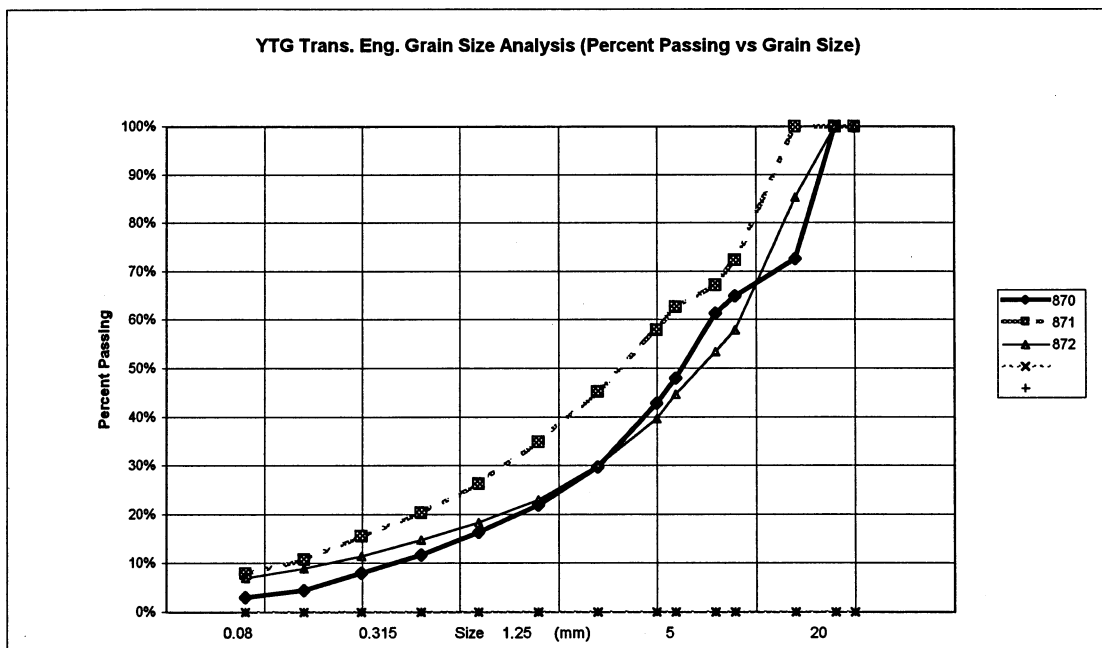
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	73%	50.0	100%	50.0	85%
25.0	65%	25.0	72%	25.0	58%
20.0	61%	20.0	67%	20.0	53%
12.5	48%	12.5	63%	12.5	45%
10.0	43%	10.0	58%	10.0	40%
5.0	30%	5.0	45%	5.0	30%
2.5	22%	2.5	35%	2.5	23%
1.25	16%	1.25	26%	1.25	18%
0.630	12%	0.630	20%	0.630	15%
0.315	8%	0.315	16%	0.315	11%
0.160	4%	0.160	11%	0.160	9%
0.080	3%	0.080	8%	0.080	7%

M.C.(%):	2%	M.C.(%):	3%	M.C.(%):	5%
----------	----	----------	----	----------	----

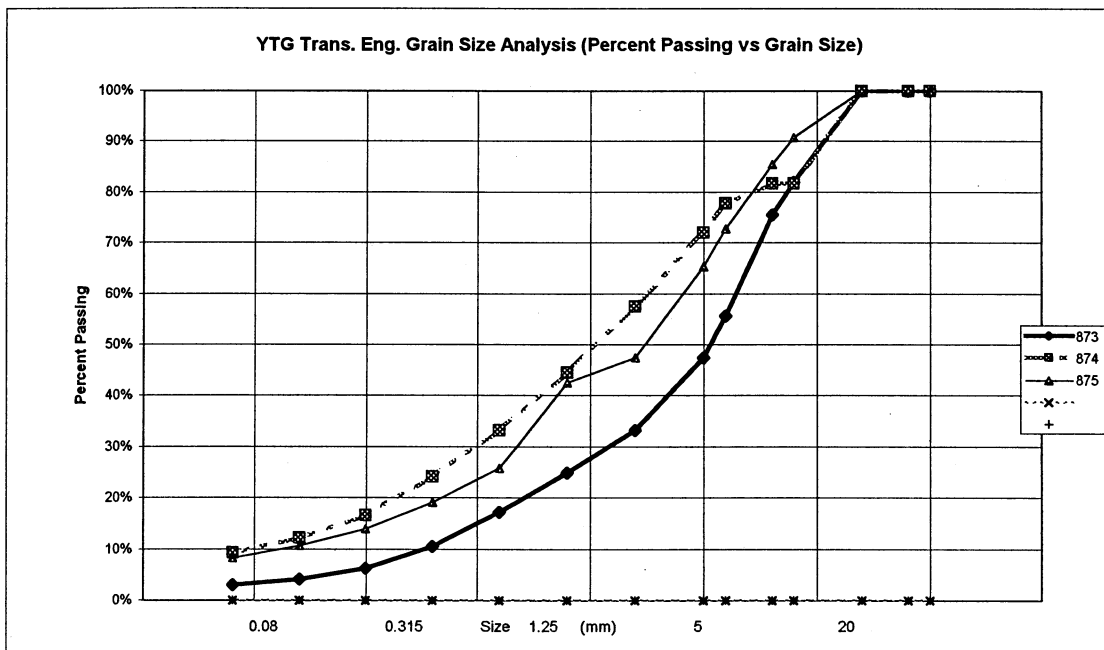
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL:	70	% GRAVEL:	55	% GRAVEL:	70
% SAND:	27	% SAND:	37	% SAND:	23
% FINES:	3	% FINES:	8	% FINES:	7

CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)
-----------------	-----------------------------------	-----------------	---	-----------------	---



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1566	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/15	
HOLE LOCATION: 1763+880 15M RT			
=====		=====	
FIELD NO: 873	FIELD No. 874	FIELD No: 875	
LAB NO: 1274	LAB No. 1275	LAB No: 1276	
DEPTH: 1.5-1.7	DEPTH 2.9-3.1	DEPTH: 4.5-4.7	
TYPE: AUGER	A AUGER	TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	82%	25.0	91%
20.0	76%	20.0	85%
12.5	56%	12.5	73%
10.0	47%	10.0	65%
5.0	33%	5.0	48%
2.5	25%	2.5	43%
1.25	17%	1.25	26%
0.630	11%	0.630	19%
0.315	6%	0.315	14%
0.160	4%	0.160	11%
0.080	3%	0.080	8%
M.C.(%): 2%	M.C.(%): 8%	M.C.(%): 5%	
LIMITS	LIMITS	LIMITS	
LIQUID: 0.0	LIQUID: 0.0	LIQUID: 0.0	
PLASTIC: 0.0	PLASTIC: 0.0	PLASTIC: 0.0	
P.I.: 0.0	P.I.: 0.0	P.I.: 0.0	
% GRAVEL: 67	% GRAVEL: 42	% GRAVEL: 52	
% SAND: 30	% SAND: 48	% SAND: 39	
% FINES: 3	% FINES: 9	% FINES: 8	
CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION: WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

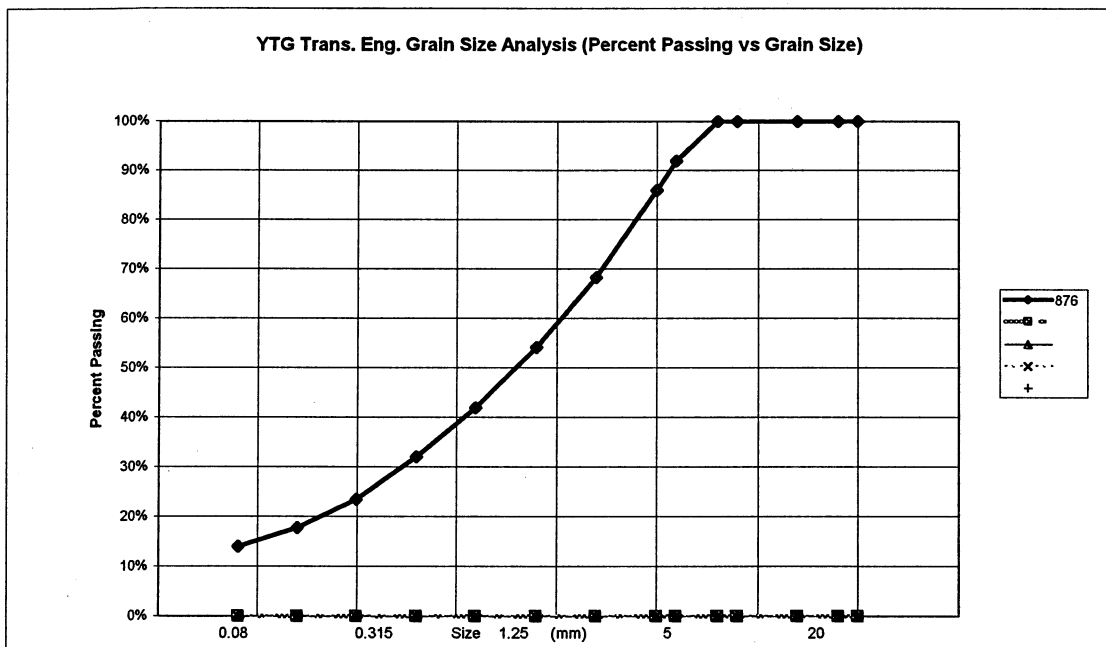


PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1567
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+000 Centreline	DATE COMP:	2000/06/15

FIELD NO:	876		
LAB NO:	1277		
DEPTH:	1.5-1.7		
TYPE:	AUGER		

SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	100%		
20.0	100%		
12.5	92%		
10.0	86%		
5.0	68%		
2.5	54%		
1.25	42%		
0.630	32%		
0.315	24%		
0.160	18%		
0.080	14%		

M.C.(%):	8%
LIMITS	
LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0
% GRAVEL:	32
% SAND:	54
% FINES:	14
CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	

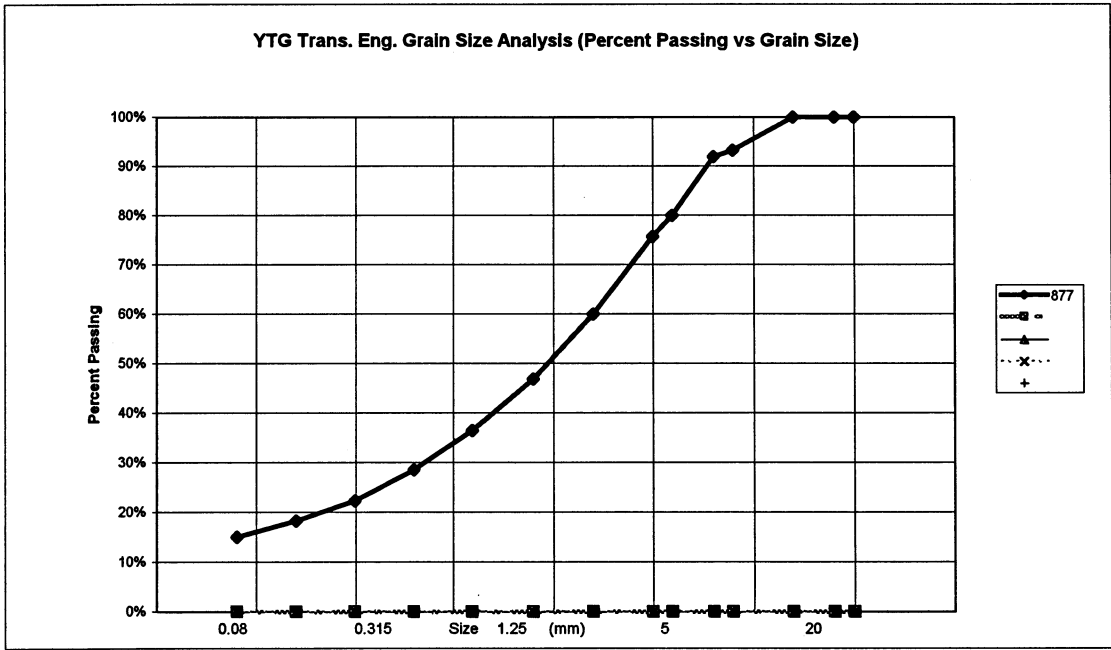


PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1568
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+100 CENTRELINE	DATE COMP:	2000/06/16

FIELD NO:	877		
LAB NO:	1278		
DEPTH:	1.4-1.6		
TYPE:	AUGER		

SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	93%		
20.0	92%		
12.5	80%		
10.0	76%		
5.0	60%		
2.5	47%		
1.25	36%		
0.630	29%		
0.315	22%		
0.160	18%		
0.080	15%		

M.C. (%)	8%
LIMITS	
LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0
% GRAVEL:	40
% SAND:	45
% FINES:	15
CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1569
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+200 CENTRELINE	DATE COMP:	2000/06/16

FIELD NO:	878	FIELD No:	879
LAB NO:	1279	LAB No:	1280
DEPTH:	1.5-1.7	DEPTH:	2.8-3.0
TYPE:	AUGER	A	AUGER

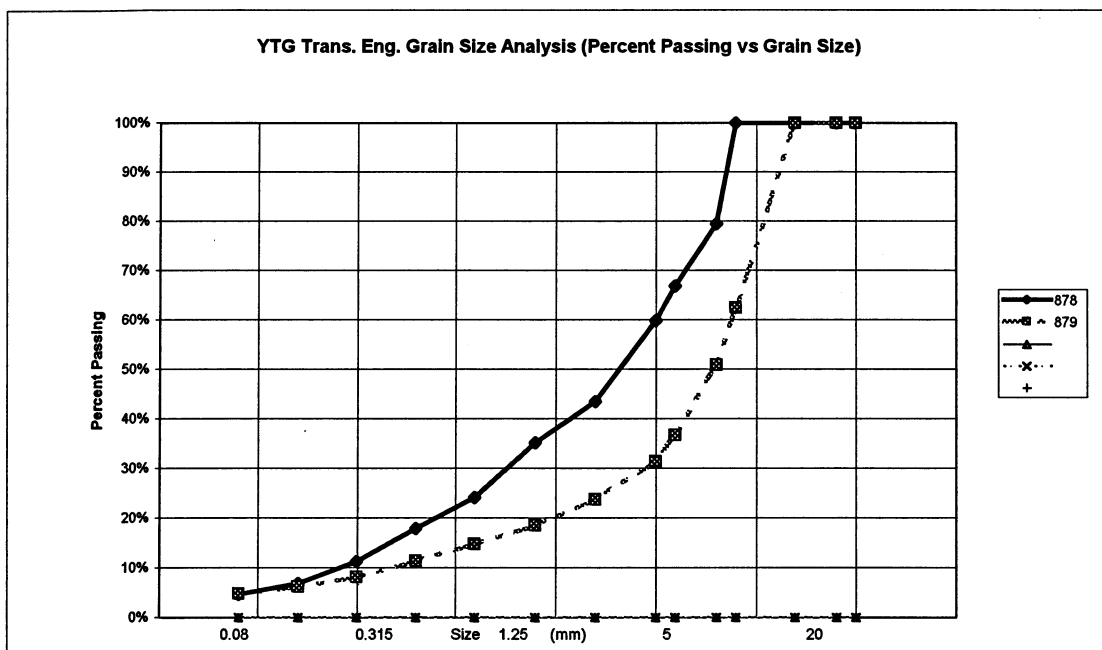
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	62%
20.0	79%	20.0	51%
12.5	67%	12.5	37%
10.0	60%	10.0	31%
5.0	44%	5.0	24%
2.5	35%	2.5	19%
1.25	24%	1.25	15%
0.630	18%	0.630	11%
0.315	11%	0.315	8%
0.160	7%	0.160	6%
0.080	5%	0.080	5%

M.C.(%):	2%	M.C.(%):	3%
----------	----	----------	----

LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL:	56	% GRAVEL:	76
% SAND:	39	% SAND:	19
% FINES:	5	% FINES:	5

CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED		WELL-GRADED GRAVEL	
GRAVEL WITH SAND (GP)		WITH SAND (GW)	



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1570
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+300 CENTRELINE	DATE COMP:	2000/06/16

FIELD NO:	880	FIELD No:	881
LAB NO:	1281	LAB No:	1282
DEPTH:	1.4-1.6	DEPTH:	3.0-3.2
TYPE:	AUGER	A	AUGER

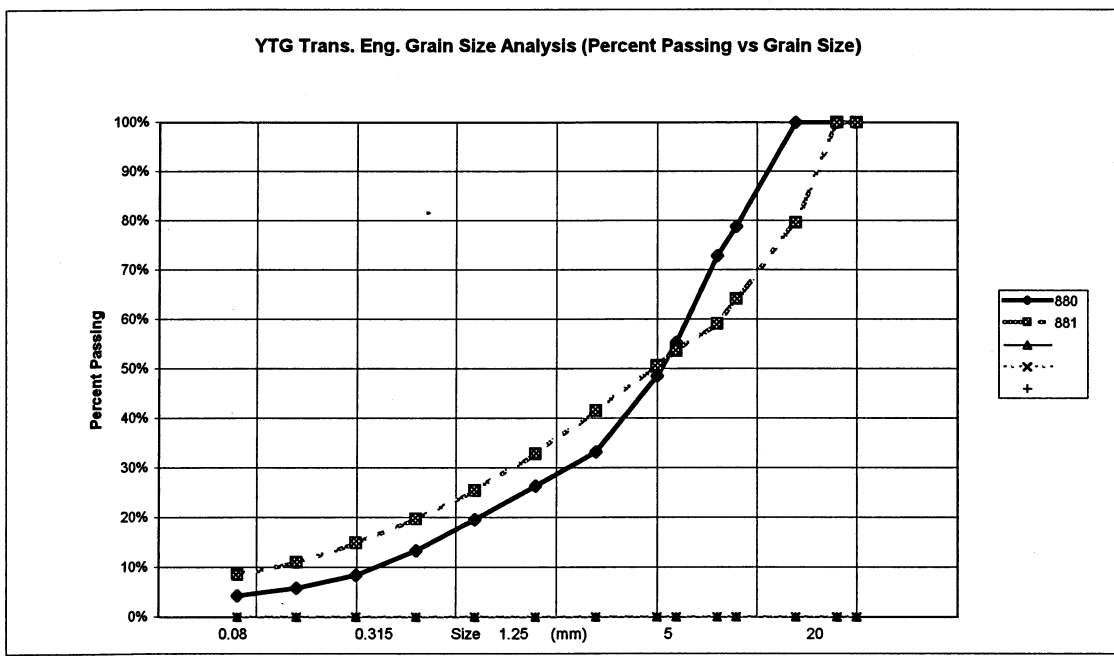
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	80%
25.0	79%	25.0	64%
20.0	73%	20.0	59%
12.5	55%	12.5	54%
10.0	49%	10.0	51%
5.0	33%	5.0	42%
2.5	26%	2.5	33%
1.25	20%	1.25	25%
0.630	13%	0.630	20%
0.315	8%	0.315	15%
0.160	6%	0.160	11%
0.080	4%	0.080	9%

M.C.(%):	1%	M.C.(%):	4%
----------	----	----------	----

LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL:	67	% GRAVEL:	58
% SAND:	29	% SAND:	33
% FINES:	4	% FINES:	9

CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1571
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+400 CENTRELINE	DATE COMP:	2000/06/16

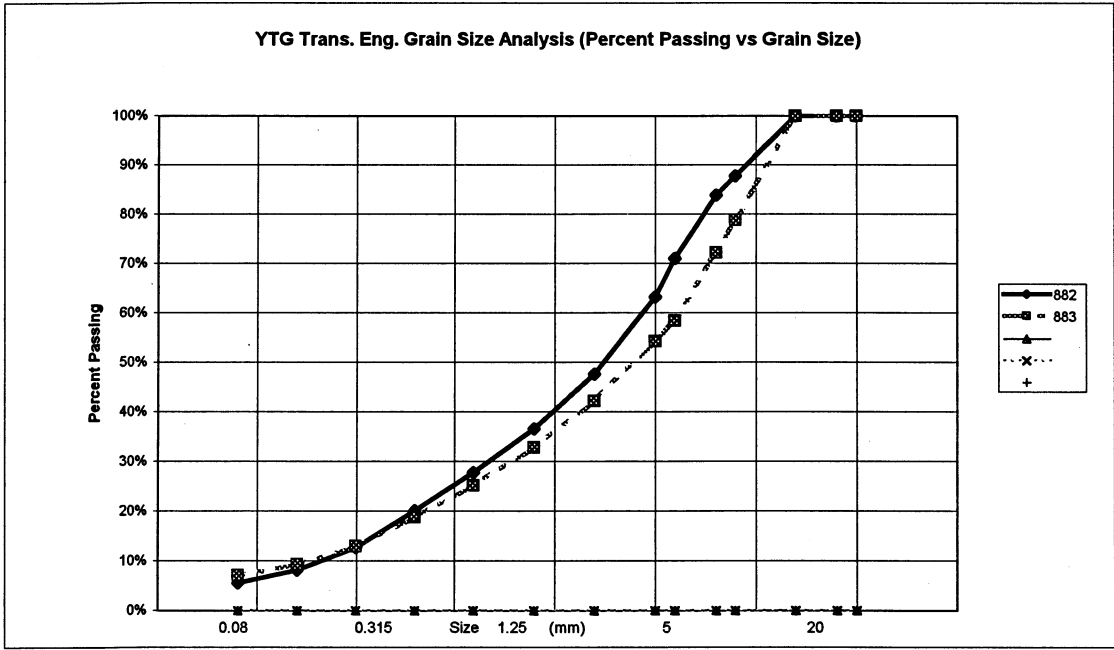
FIELD NO:	882	FIELD No:	883
LAB NO:	1283	LAB No:	1284
DEPTH:	1.3-1.5	DEPTH:	2.9-3.1
TYPE:	AUGER	A	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	88%	25.0	79%
20.0	84%	20.0	72%
12.5	71%	12.5	58%
10.0	63%	10.0	54%
5.0	48%	5.0	42%
2.5	37%	2.5	33%
1.25	28%	1.25	25%
0.630	20%	0.630	19%
0.315	13%	0.315	13%
0.160	8%	0.160	9%
0.080	6%	0.080	7%

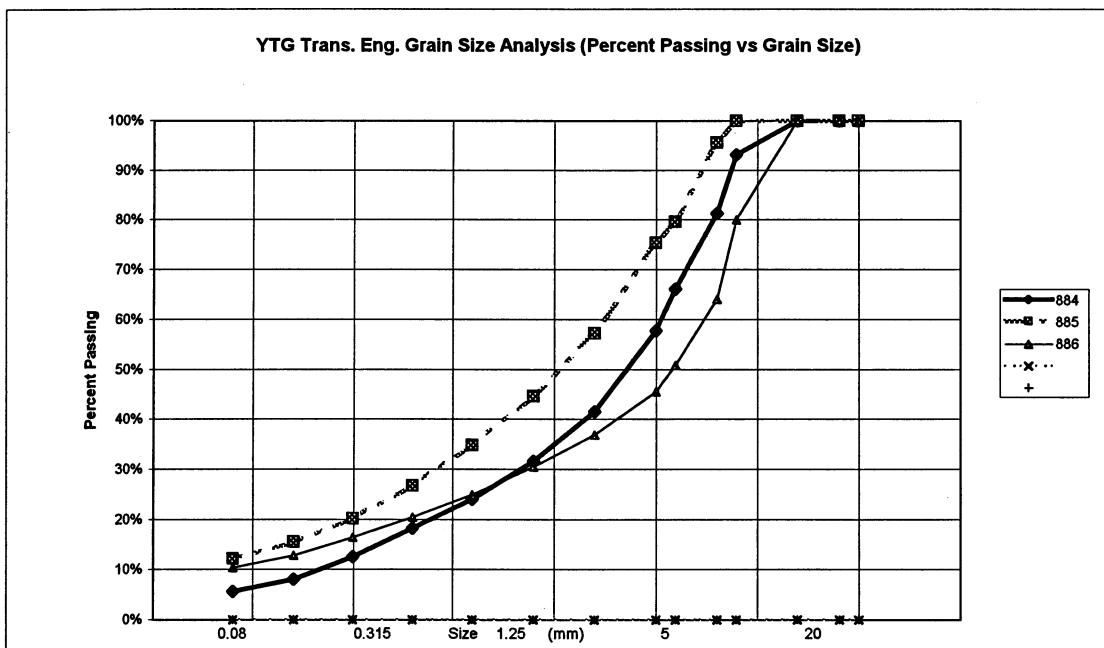
M.C.(%):	2%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL:	52	% GRAVEL:	58
% SAND:	42	% SAND:	35
% FINES:	6	% FINES:	7

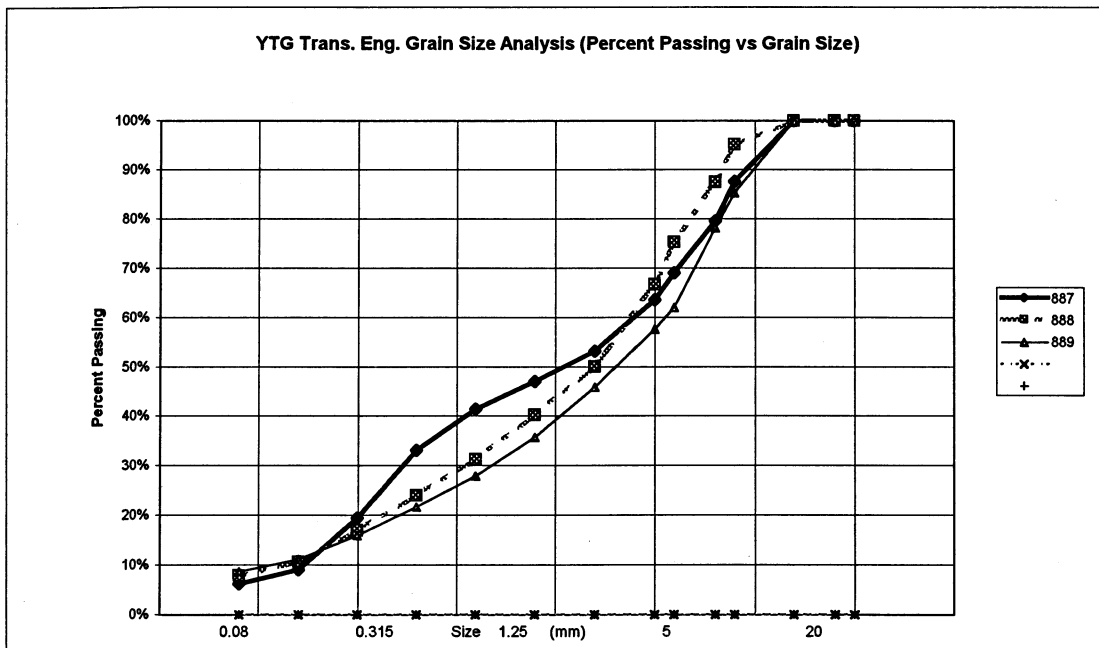
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
-----------------	---	-----------------	---



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1572	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6" AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/16	
HOLE LOCATION: 1764+500 CENTRELINE			
-----		-----	
FIELD NO: 884	FIELD No: 885	FIELD No: 886	
LAB NO: 1285	LAB No: 1286	LAB No: 1287	
DEPTH: 1.3-1.5	DEPTH: 2.8-3.0	DEPTH: 4.2-4.4	
TYPE: AUGER	A AUGER	TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	93%	25.0	100%
20.0	81%	20.0	96%
12.5	66%	12.5	80%
10.0	58%	10.0	75%
5.0	42%	5.0	57%
2.5	32%	2.5	45%
1.25	24%	1.25	35%
0.630	18%	0.630	27%
0.315	13%	0.315	20%
0.160	8%	0.160	16%
0.080	6%	0.080	12%
M.C.(%): 3%	M.C.(%): 2%	M.C.(%): 4%	
LIMITS	LIMITS	LIMITS	
LIQUID: 0.0	LIQUID: 0.0	LIQUID: 0.0	
PLASTIC: 0.0	PLASTIC: 0.0	PLASTIC: 0.0	
P.I.: 0.0	P.I.: 0.0	P.I.: 0.0	
% GRAVEL: 58	% GRAVEL: 43	% GRAVEL: 63	
% SAND: 36	% SAND: 45	% SAND: 26	
% FINES: 6	% FINES: 12	% FINES: 10	
CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1573	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729 6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/16	
HOLE LOCATION: 1764+600 CENTRELINE			
-----		-----	
FIELD NO: 887	FIELD No. 888	FIELD No: 889	
LAB NO: 1288	LAB No. 1289	LAB No: 1290	
DEPTH: 1.3-1.5	DEPTH 2.9-3.1	DEPTH: 4.5-4.7	
TYPE: AUGER	A AUGER	TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	88%	25.0	95%
20.0	80%	20.0	88%
12.5	69%	12.5	75%
10.0	64%	10.0	67%
5.0	53%	5.0	50%
2.5	47%	2.5	40%
1.25	42%	1.25	31%
0.630	33%	0.630	24%
0.315	20%	0.315	17%
0.160	9%	0.160	11%
0.080	6%	0.080	8%
M.C.(%): 2%	M.C.(%): 2%	M.C.(%): 2%	
LIMITS	LIMITS	LIMITS	
LIQUID: 0.0	LIQUID: 0.0	LIQUID: 0.0	
PLASTIC: 0.0	PLASTIC: 0.0	PLASTIC: 0.0	
P.I.: 0.0	P.I.: 0.0	P.I.: 0.0	
% GRAVEL: 47	% GRAVEL: 50	% GRAVEL: 54	
% SAND: 47	% SAND: 42	% SAND: 37	
% FINES: 6	% FINES: 8	% FINES: 9	
CLASSIFICATION: WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1574	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/16	
HOLE LOCATION: 1764+700 CENTRELINE			

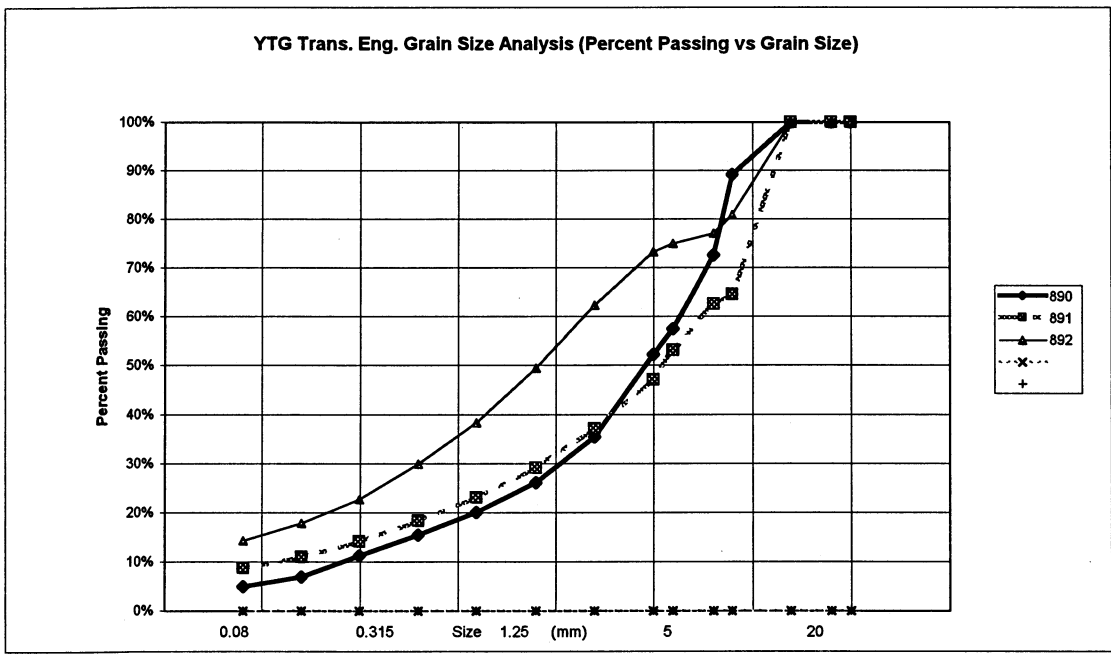
FIELD NO:	LAB NO:	DEPTH:	TYPE:	FIELD No:	LAB No:	DEPTH:	TYPE:	FIELD No:	LAB No:	DEPTH:	TYPE:
890	1291	1.4-1.6	AUGER	891	1292	3.0-3.2	AUGER	892	1293	4.3-4.5	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	89%	25.0	65%	25.0	81%
20.0	73%	20.0	63%	20.0	77%
12.5	58%	12.5	53%	12.5	75%
10.0	52%	10.0	47%	10.0	73%
5.0	35%	5.0	37%	5.0	62%
2.5	26%	2.5	29%	2.5	50%
1.25	20%	1.25	23%	1.25	38%
0.630	15%	0.630	18%	0.630	30%
0.315	11%	0.315	14%	0.315	23%
0.160	7%	0.160	11%	0.160	18%
0.080	5%	0.080	9%	0.080	14%

M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	4%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL:	65	% GRAVEL:	63	% GRAVEL:	38
% SAND:	30	% SAND:	28	% SAND:	48
% FINES:	5	% FINES:	9	% FINES:	14

CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	SILTY SAND WITH GRAVEL (SM)
-----------------	-----------------------------------	-----------------	---	-----------------	-----------------------------



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1575
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 AH		
DRILL UNIT:	B-40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+800 CENTRELINE	DATE COMP:	2000/06/16

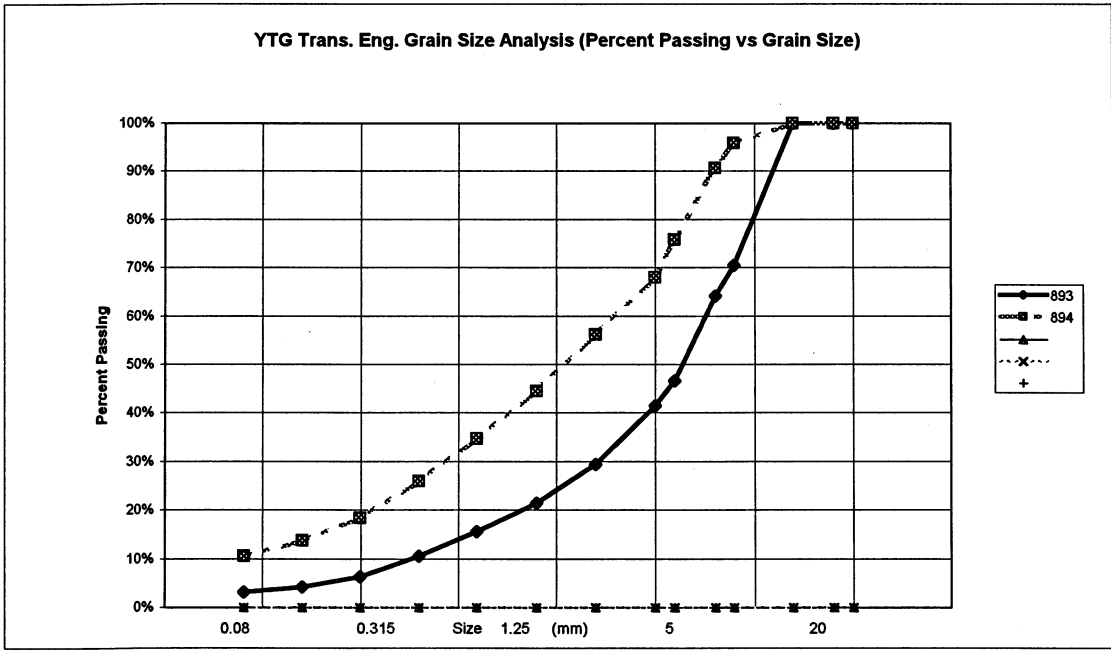
FIELD NO:	893	FIELD No.	894
LAB NO:	1294	LAB No.	1295
DEPTH:	1.5-1.7	DEPTH	3.0-3.2
TYPE:	AUGER	A	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	71%	25.0	96%
20.0	64%	20.0	91%
12.5	47%	12.5	76%
10.0	42%	10.0	68%
5.0	29%	5.0	56%
2.5	22%	2.5	45%
1.25	16%	1.25	35%
0.630	11%	0.630	26%
0.315	6%	0.315	18%
0.160	4%	0.160	14%
0.080	3%	0.080	11%

M.C.(%):	2%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL:	71	% GRAVEL:	44
% SAND:	26	% SAND:	46
% FINES:	3	% FINES:	11

CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)
-----------------	-----------------------------------	-----------------	---



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1576
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+900 CENTRELINE	DATE COMP:	2000/06/16

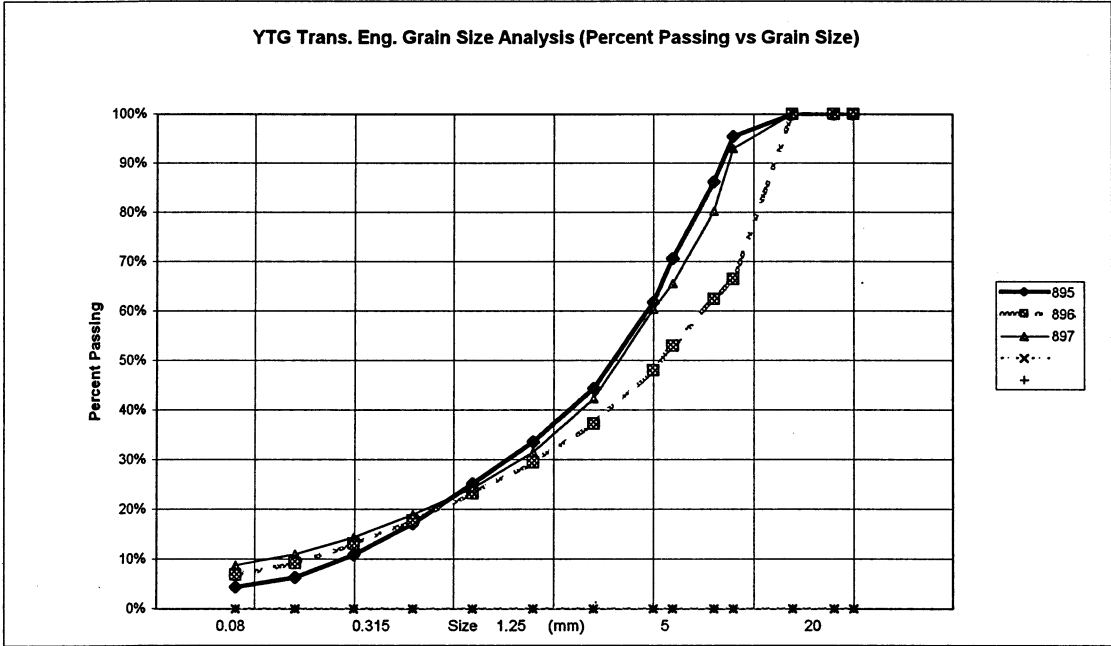
FIELD NO:	LAB NO:	DEPTH:	TYPE:	FIELD No:	LAB No:	DEPTH:	TYPE:	FIELD No:	LAB No:	DEPTH:	TYPE:
895	1296	1.4-1.6	AUGER	896	1297	2.9-3.1	AUGER	897	1298	4.5-4.7	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	95%	25.0	66%	25.0	93%
20.0	86%	20.0	62%	20.0	80%
12.5	71%	12.5	53%	12.5	66%
10.0	62%	10.0	48%	10.0	60%
5.0	44%	5.0	37%	5.0	42%
2.5	34%	2.5	29%	2.5	32%
1.25	25%	1.25	23%	1.25	24%
0.630	17%	0.630	18%	0.630	19%
0.315	11%	0.315	13%	0.315	14%
0.160	6%	0.160	9%	0.160	11%
0.080	4%	0.080	7%	0.080	9%

M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	4%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL:	56	% GRAVEL:	63	% GRAVEL:	58
% SAND:	40	% SAND:	30	% SAND:	34
% FINES:	4	% FINES:	7	% FINES:	9

CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
-----------------	-------------------------------------	-----------------	---	-----------------	---



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1577
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1765+000 CENTRELINE	DATE COMP:	2000/06/16

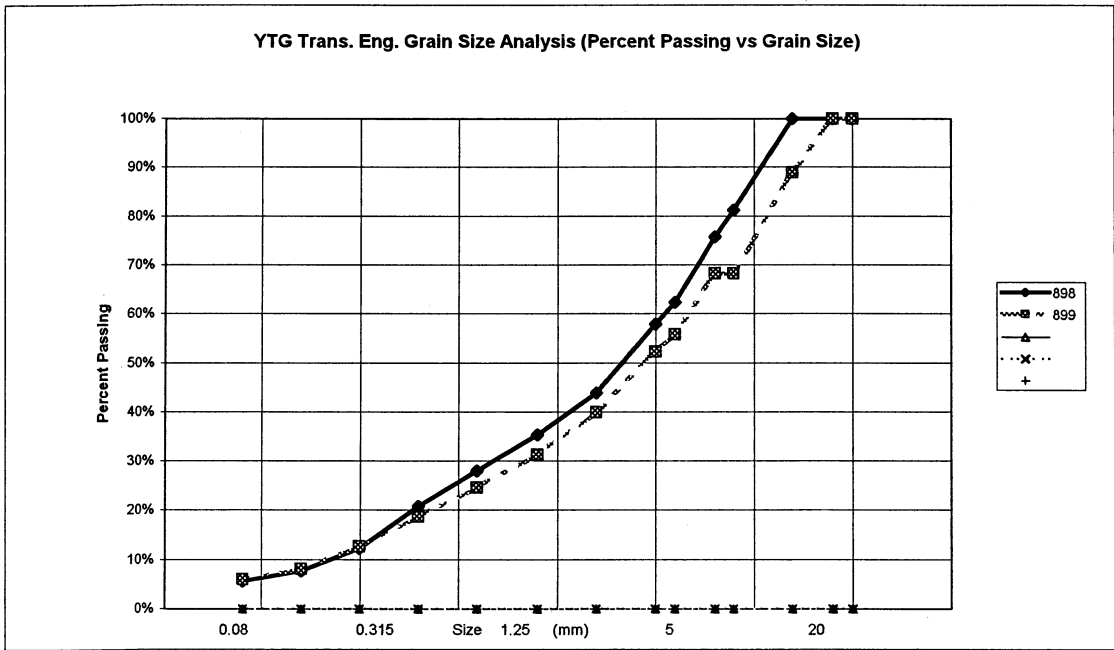
FIELD NO:	898	FIELD No.	899
LAB NO:	1299	LAB No.	1300
DEPTH:	1.3-1.5	DEPTH	3.0-3.2
TYPE:	AUGER	A	AUGER

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	89%
25.0	81%	25.0	68%
20.0	76%	20.0	68%
12.5	62%	12.5	56%
10.0	58%	10.0	52%
5.0	44%	5.0	40%
2.5	35%	2.5	31%
1.25	28%	1.25	25%
0.630	21%	0.630	19%
0.315	12%	0.315	13%
0.160	8%	0.160	8%
0.080	6%	0.080	6%

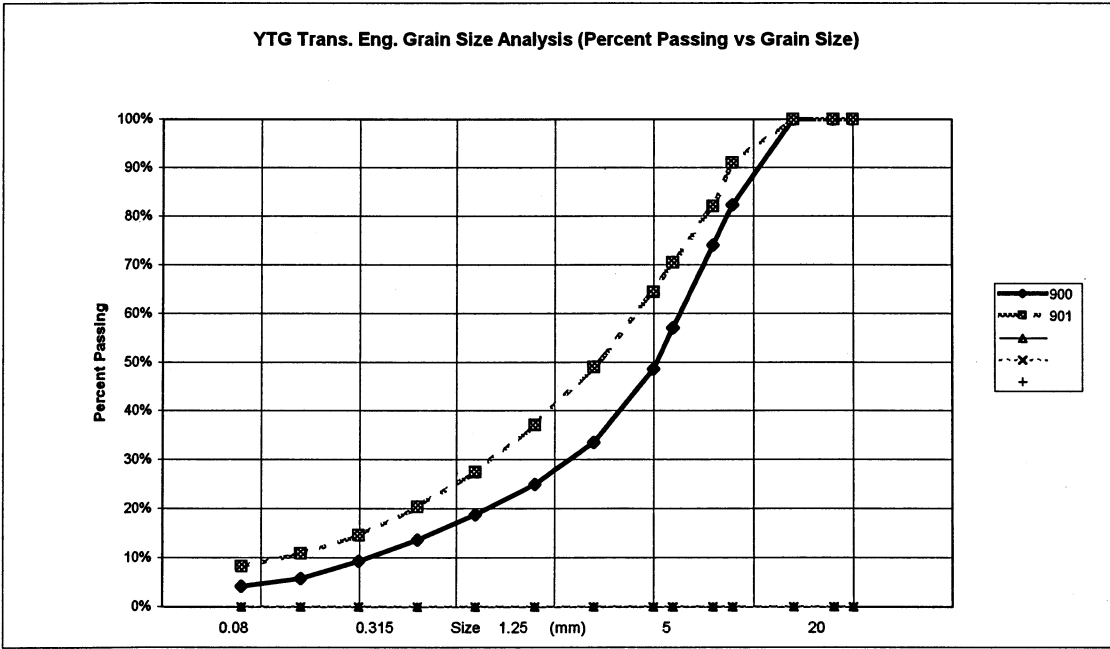
M.C.(%):	3%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL:	56	% GRAVEL:	60
% SAND:	38	% SAND:	34
% FINES:	6	% FINES:	6

CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
-----------------	---	-----------------	---



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1578	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/19	
HOLE LOCATION: 1765+100 CENTRELINE			
-----		-----	
FIELD NO: 900	FIELD No. 901		
LAB NO: 1301	LAB No. 1302		
DEPTH: 1.4-1.6	DEPTH 2.9-3.1		
TYPE: AUGER	A AUGER		
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	82%	25.0	91%
20.0	74%	20.0	82%
12.5	57%	12.5	71%
10.0	49%	10.0	64%
5.0	34%	5.0	49%
2.5	25%	2.5	37%
1.25	19%	1.25	27%
0.630	14%	0.630	20%
0.315	9%	0.315	15%
0.160	6%	0.160	11%
0.080	4%	0.080	8%
M.C.(%): 2%	M.C.(%): 2%		
LIMITS	LIMITS		
LIQUID: 0.0	LIQUID: 0.0		
PLASTIC: 0.0	PLASTIC: 0.0		
P.I.: 0.0	P.I.: 0.0		
% GRAVEL 66	% GRAVEL 51		
% SAND: 29	% SAND: 41		
% FINES: 4	% FINES: 8		
CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1579	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/19	
HOLE LOCATION: 1765+200 CENTRELINE			

FIELD No: 902		FIELD No: 903		FIELD No: 904	
LAB NO:	1303	LAB No:	1304	LAB No:	1305
DEPTH:	1.3-1.5	DEPTH	3.0-3.2	DEPTH:	4.2-4.4
TYPE:	AUGER	A	AUGER	TYPE:	AUGER

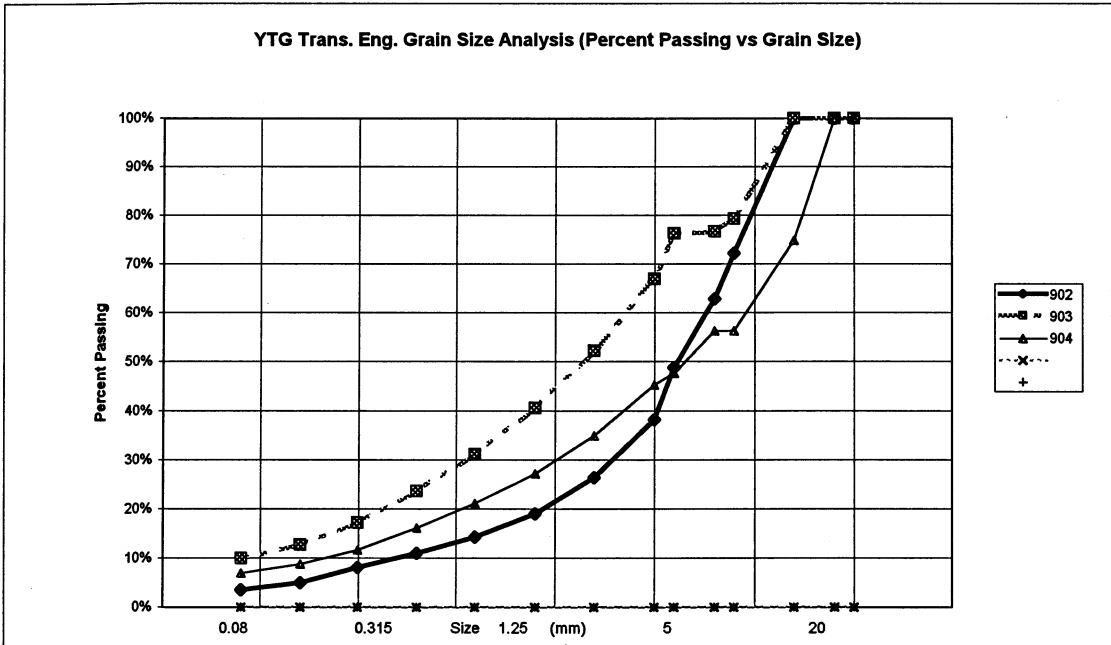
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	75%
25.0	72%	25.0	79%	25.0	56%
20.0	63%	20.0	77%	20.0	56%
12.5	49%	12.5	76%	12.5	48%
10.0	38%	10.0	67%	10.0	45%
5.0	26%	5.0	52%	5.0	35%
2.5	19%	2.5	41%	2.5	27%
1.25	14%	1.25	31%	1.25	21%
0.630	11%	0.630	24%	0.630	16%
0.315	8%	0.315	17%	0.315	12%
0.160	5%	0.160	13%	0.160	9%
0.080	4%	0.080	10%	0.080	7%

M.C.(%):	3%	M.C.(%):	2%	M.C.(%):	2%
----------	----	----------	----	----------	----

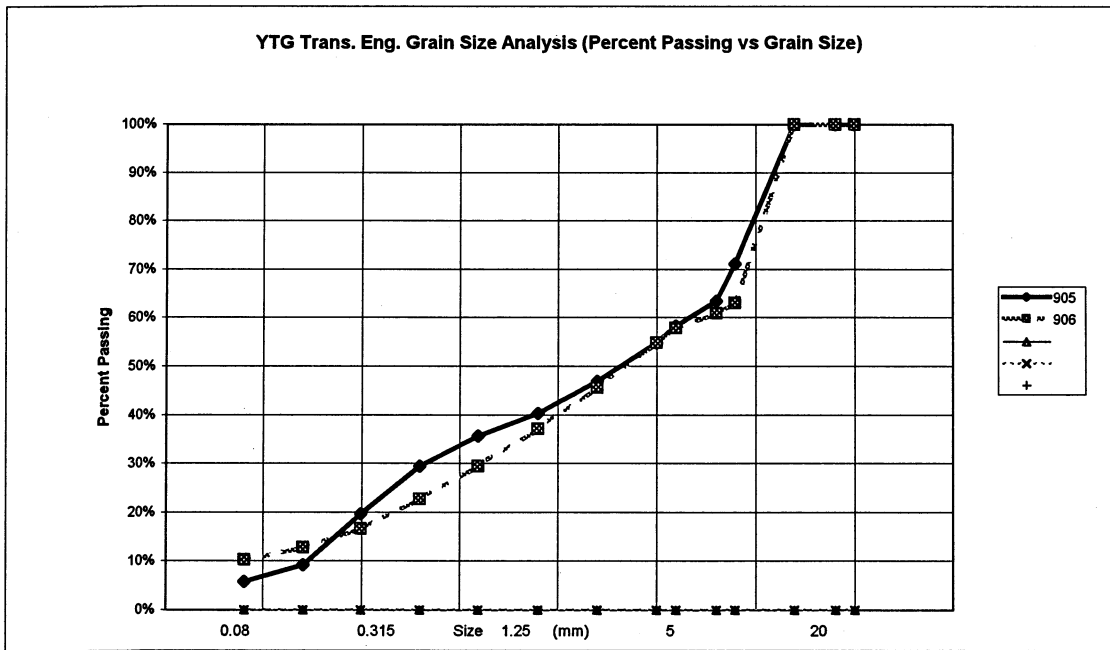
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

% GRAVEL	74	% GRAVEL	48	% GRAVEL	65
% SAND:	23	% SAND:	42	% SAND:	28
% FINES:	4	% FINES:	10	% FINES:	7

CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
-----------------	-----------------------------------	-----------------	---	-----------------	---

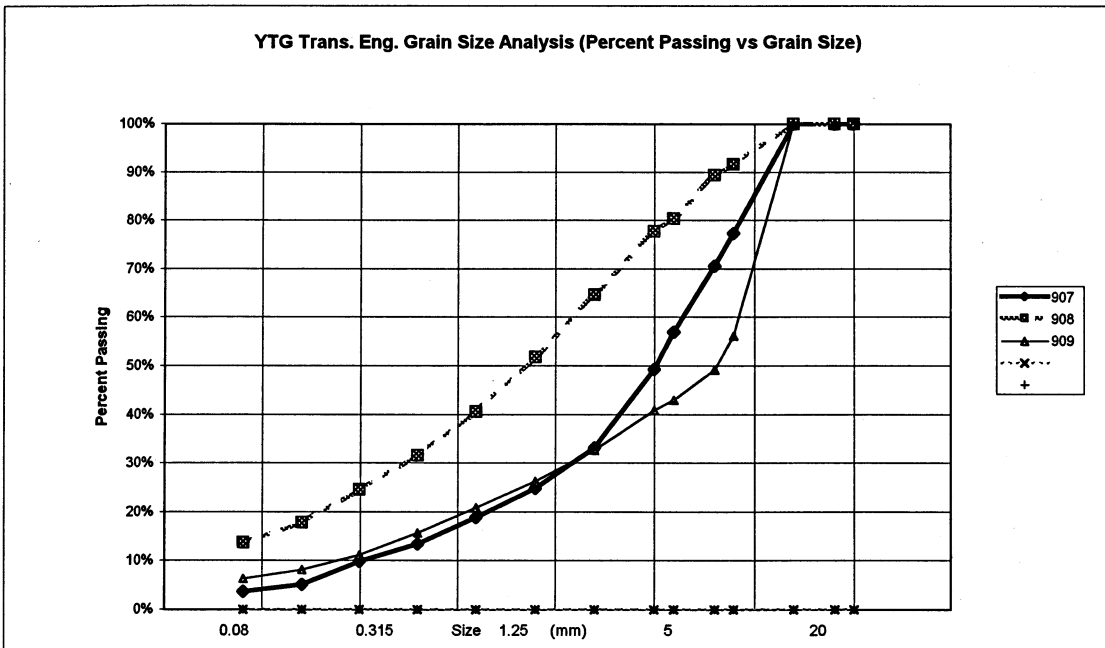


PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1580	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/19	
HOLE LOCATION: 1765+300 CENTRELINE			
FIELD NO: 905		FIELD No. 906	
LAB NO: 1306		LAB No. 1307	
DEPTH: 1.5-1.7		DEPTH 2.9-3.1	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	71%	25.0	63%
20.0	63%	20.0	61%
12.5	58%	12.5	58%
10.0	55%	10.0	55%
5.0	47%	5.0	46%
2.5	40%	2.5	37%
1.25	36%	1.25	29%
0.630	29%	0.630	23%
0.315	20%	0.315	17%
0.160	9%	0.160	13%
0.080	6%	0.080	10%
M.C.(%):	3%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	53	% GRAVEL	54
% SAND:	41	% SAND:	35
% FINES:	6	% FINES:	10
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



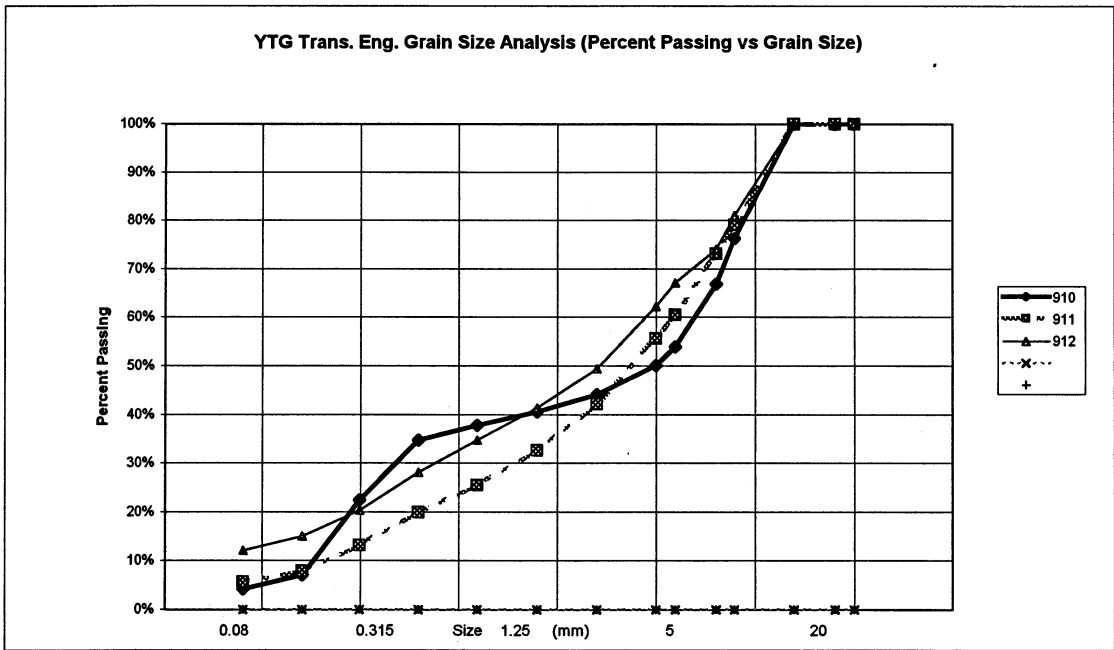
PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1581
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1765+400 CENTRELINE	DATE COM	2000/06/19

FIELD No: 907		FIELD No: 908		FIELD No: 909	
LAB NO:	1308	LAB No:	1309	LAB No:	1310
DEPTH:	1.5-1.7	DEPTH	3.0-3.2	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	77%	25.0	92%	25.0	56%
20.0	71%	20.0	89%	20.0	49%
12.5	57%	12.5	80%	12.5	43%
10.0	49%	10.0	78%	10.0	41%
5.0	33%	5.0	65%	5.0	33%
2.5	25%	2.5	52%	2.5	26%
1.25	19%	1.25	41%	1.25	21%
0.630	13%	0.630	32%	0.630	16%
0.315	10%	0.315	25%	0.315	11%
0.160	5%	0.160	18%	0.160	8%
0.080	4%	0.080	14%	0.080	6%
M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	3%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	67	% GRAVEL	35	% GRAVEL	67
% SAND:	30	% SAND:	51	% SAND:	26
% FINES:	4	% FINES:	14	% FINES:	6
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		SILTY SAND WITH GRAVEL (SM)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1582
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1765+500 CENTRELINE	DATE COM	2000/06/19

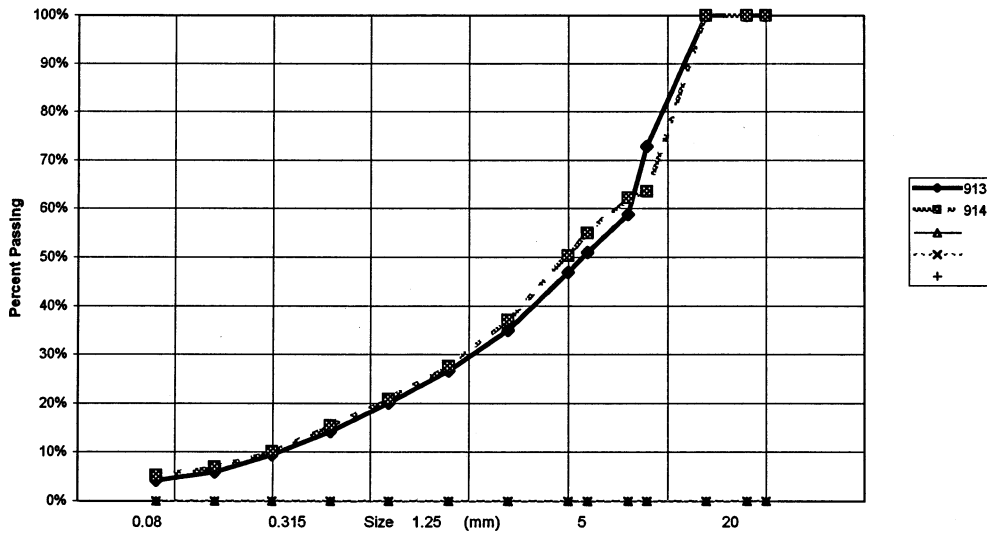
FIELD No: 910		FIELD No: 911		FIELD No: 912	
LAB NO:	1311	LAB No:	1312	LAB No:	1313
DEPTH:	1.3-1.5	DEPTH	2.8-3.0	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	76%	25.0	79%	25.0	81%
20.0	67%	20.0	73%	20.0	74%
12.5	54%	12.5	61%	12.5	67%
10.0	50%	10.0	56%	10.0	62%
5.0	44%	5.0	42%	5.0	50%
2.5	41%	2.5	33%	2.5	41%
1.25	38%	1.25	26%	1.25	35%
0.630	35%	0.630	20%	0.630	28%
0.315	22%	0.315	13%	0.315	20%
0.160	7%	0.160	8%	0.160	15%
0.080	4%	0.080	6%	0.080	12%
M.C.(%):	3%	M.C.(%):	2%	M.C.(%):	6%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	56	% GRAVEL	58	% GRAVEL	50
% SAND:	40	% SAND:	37	% SAND:	37
% FINES:	4	% FINES:	6	% FINES:	12
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	SILTY GRAVEL WITH SAND (GM)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1583
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1765+600 CENTRELINE	DATE COM	2000/06/19

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	73%	25.0	64%
20.0	59%	20.0	62%
12.5	51%	12.5	55%
10.0	47%	10.0	50%
5.0	35%	5.0	37%
2.5	27%	2.5	28%
1.25	20%	1.25	21%
0.630	14%	0.630	15%
0.315	10%	0.315	10%
0.160	6%	0.160	7%
0.080	4%	0.080	5%
M.C.(%):	2%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	65	% GRAVEL	63
% SAND:	31	% SAND:	32
% FINES:	4	% FINES:	5
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

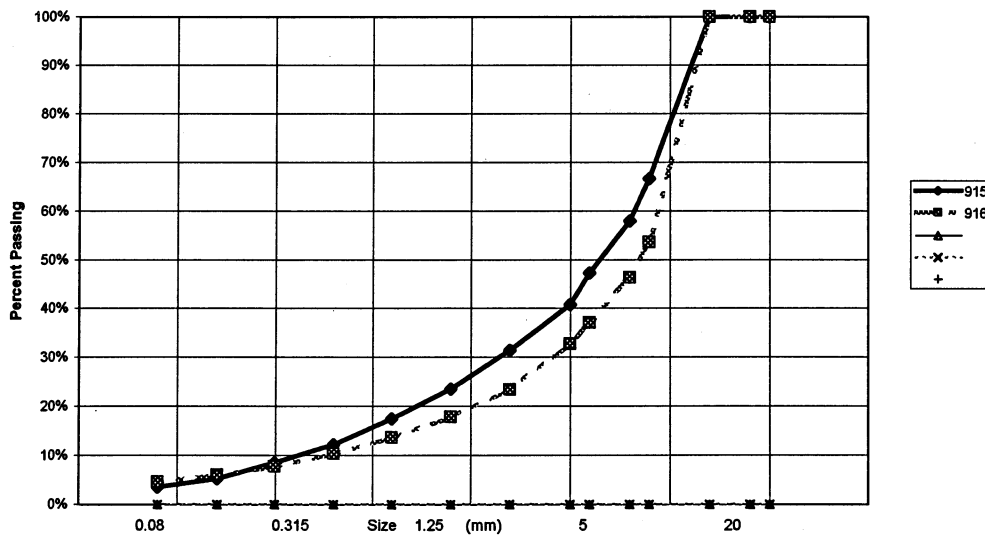
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1584
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1765+700 CENTRELINE	DATE COM	2000/06/19

FIELD NO: 915		FIELD No. 916	
LAB NO: 1316		LAB No. 1317	
DEPTH: 1.3-1.5		DEPTH 3.1-3.3	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	67%	25.0	54%
20.0	58%	20.0	46%
12.5	47%	12.5	37%
10.0	41%	10.0	33%
5.0	32%	5.0	23%
2.5	24%	2.5	18%
1.25	17%	1.25	14%
0.630	12%	0.630	10%
0.315	9%	0.315	8%
0.160	5%	0.160	6%
0.080	4%	0.080	5%
M.C.(%):	1%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	68	% GRAVEL	77
% SAND:	28	% SAND:	19
% FINES:	4	% FINES:	5
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SAND (GP)	

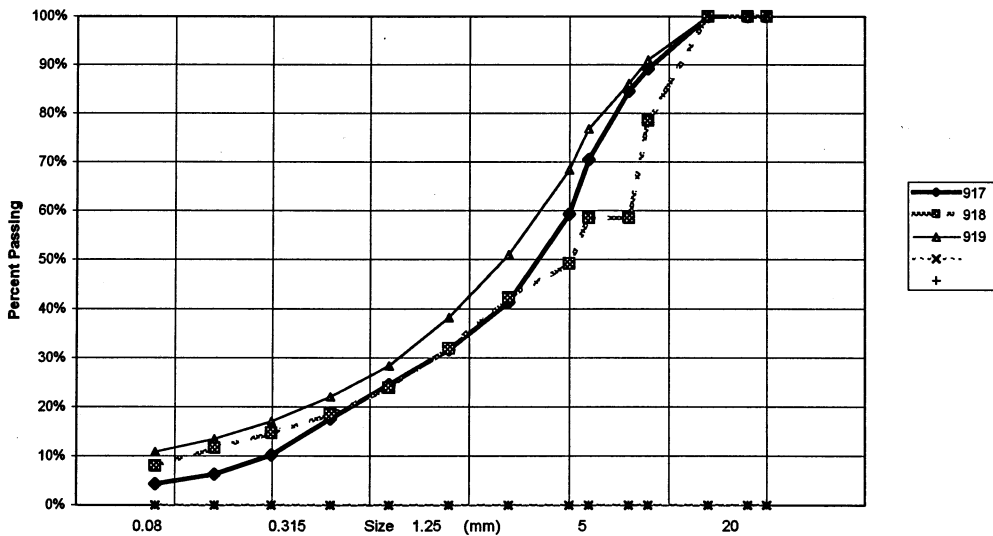
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1585
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1765+800 CENTRELINE	DATE COM	2000/06/19

FIELD No: 917		FIELD No: 918		FIELD No: 919	
LAB NO:	1318	LAB No:	1319	LAB No:	1320
DEPTH:	1.5-1.7	DEPTH	2.9-3.1	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	89%	25.0	79%	25.0	91%
20.0	85%	20.0	59%	20.0	86%
12.5	71%	12.5	59%	12.5	77%
10.0	59%	10.0	49%	10.0	68%
5.0	41%	5.0	42%	5.0	51%
2.5	32%	2.5	32%	2.5	38%
1.25	25%	1.25	24%	1.25	28%
0.630	18%	0.630	19%	0.630	22%
0.315	10%	0.315	15%	0.315	17%
0.160	6%	0.160	12%	0.160	14%
0.080	4%	0.080	8%	0.080	11%
M.C.(%):	2%	M.C.(%):	3%	M.C.(%):	7%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	59	% GRAVEL	58	% GRAVEL	49
% SAND:	37	% SAND:	34	% SAND:	40
% FINES:	4	% FINES:	8	% FINES:	11
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1586	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/19	
HOLE LOCATION: 1765+900 CENTRELINE			

FIELD NO: 920		FIELD No. 921	
LAB NO: 1321		LAB No. 1322	
DEPTH: 1.3-1.5		DEPTH 2.8-3.0	
TYPE: AUGER		A AUGER	

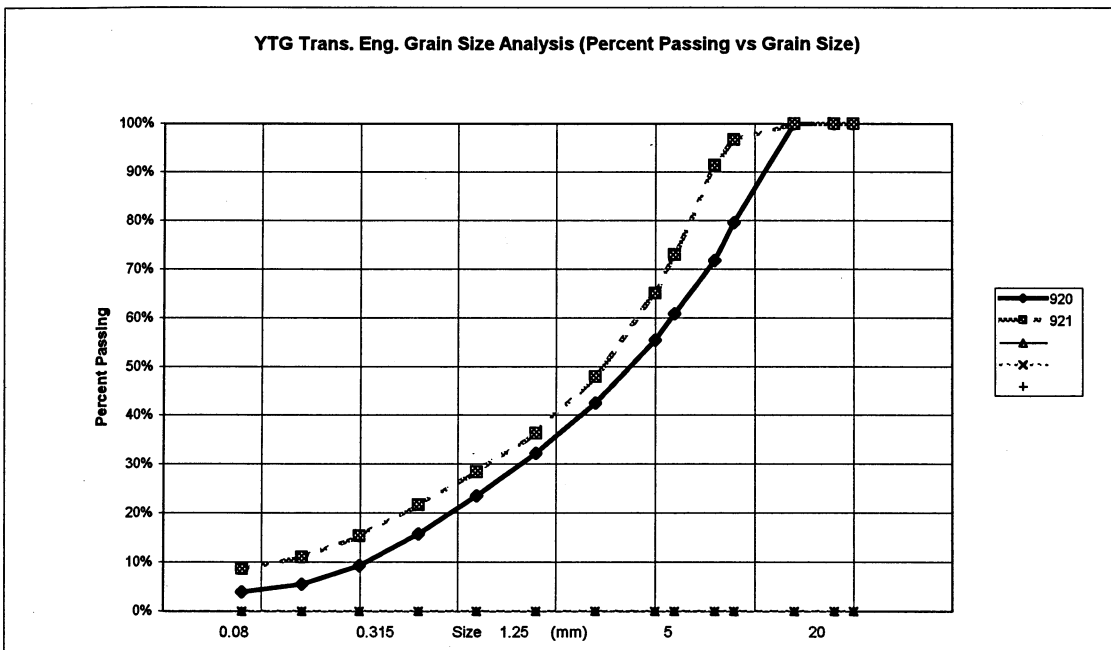
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	80%	25.0	97%
20.0	72%	20.0	91%
12.5	61%	12.5	73%
10.0	55%	10.0	65%
5.0	43%	5.0	48%
2.5	32%	2.5	36%
1.25	24%	1.25	28%
0.630	16%	0.630	22%
0.315	9%	0.315	15%
0.160	6%	0.160	11%
0.080	4%	0.080	9%

M.C.(%):	2%	M.C.(%):	4%
----------	----	----------	----

LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL	57	% GRAVEL	52
% SAND:	39	% SAND:	39
% FINES:	4	% FINES:	9

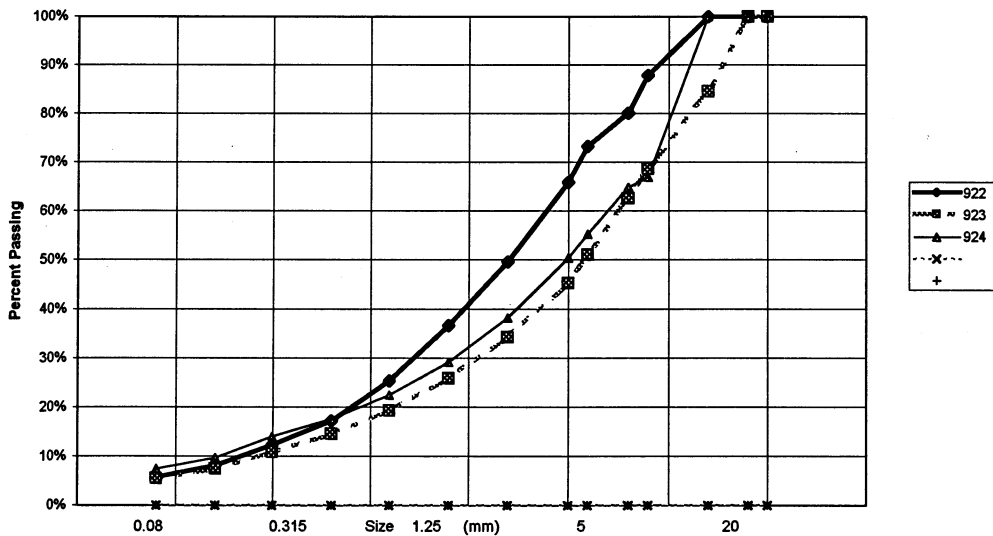
CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1587
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1766+000 CENTRELINE	DATE COM	2000/06/19

FIELD No: 922		FIELD No: 923		FIELD No: 924	
LAB NO:	1323	LAB No:	1324	LAB No:	1325
DEPTH:	1.4-1.6	DEPTH	3.0-3.2	DEPTH:	4.5-4.7
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	85%	50.0	100%
25.0	88%	25.0	69%	25.0	67%
20.0	80%	20.0	63%	20.0	65%
12.5	73%	12.5	51%	12.5	55%
10.0	66%	10.0	45%	10.0	50%
5.0	50%	5.0	34%	5.0	38%
2.5	37%	2.5	26%	2.5	29%
1.25	25%	1.25	19%	1.25	22%
0.630	17%	0.630	15%	0.630	18%
0.315	12%	0.315	11%	0.315	14%
0.160	8%	0.160	7%	0.160	10%
0.080	6%	0.080	6%	0.080	8%
M.C.(%):	3%	M.C.(%):	2%	M.C.(%):	4%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	50	% GRAVEL	66	% GRAVEL	62
% SAND:	44	% SAND:	29	% SAND:	31
% FINES:	6	% FINES:	6	% FINES:	8
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1588
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1766+100 CENTRELINE	DATE COM	2000/06/20

FIELD NO:	925	FIELD No:	926
LAB NO:	1326	LAB No:	1327
DEPTH:	1.3-1.5	DEPTH:	3.2-3.4
TYPE:	AUGER	A	AUGER

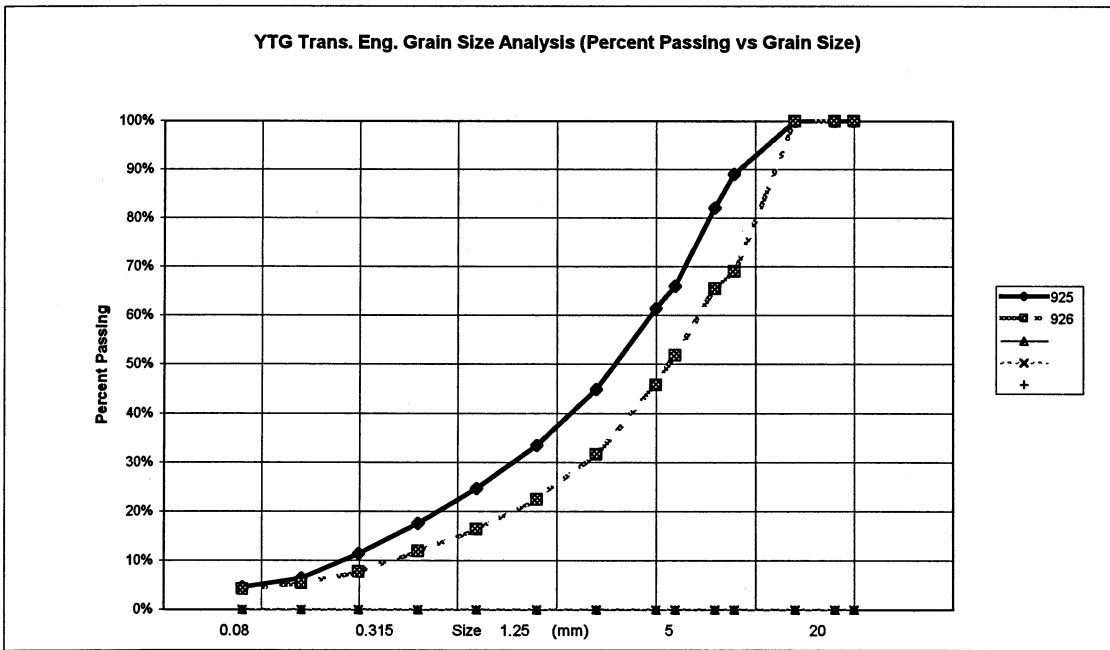
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	89%	25.0	69%
20.0	82%	20.0	66%
12.5	66%	12.5	52%
10.0	61%	10.0	46%
5.0	45%	5.0	32%
2.5	33%	2.5	23%
1.25	25%	1.25	16%
0.630	18%	0.630	12%
0.315	11%	0.315	8%
0.160	6%	0.160	5%
0.080	5%	0.080	4%

M.C.(%)	3%	M.C.(%)	3%
---------	----	---------	----

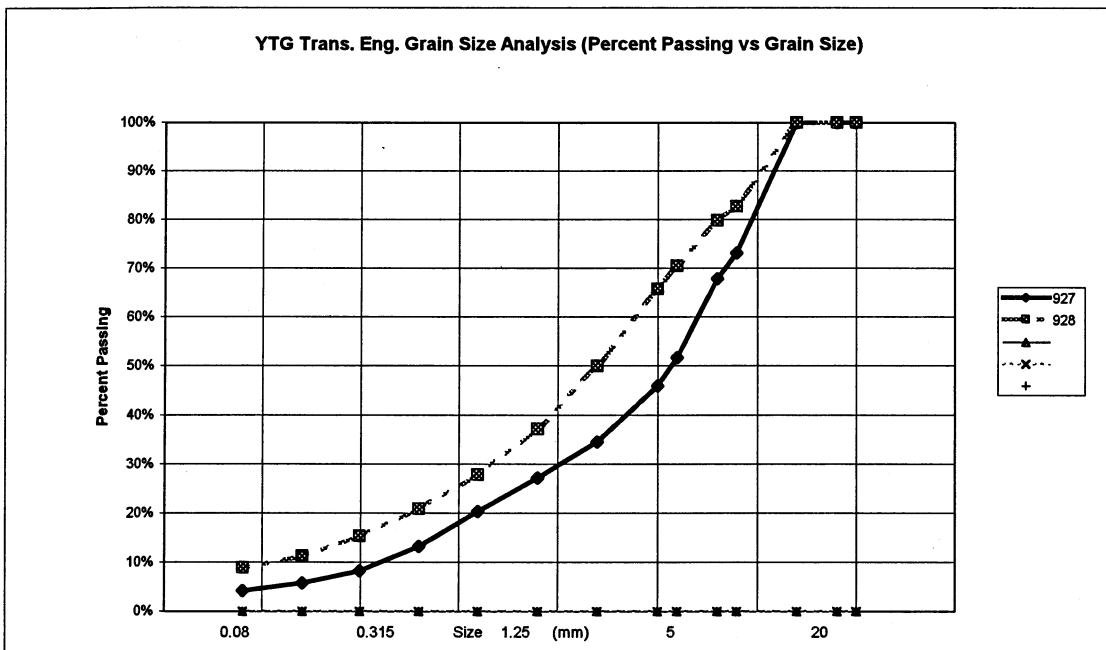
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL	55	% GRAVEL	68
% SAND:	40	% SAND:	27
% FINES:	5	% FINES:	4

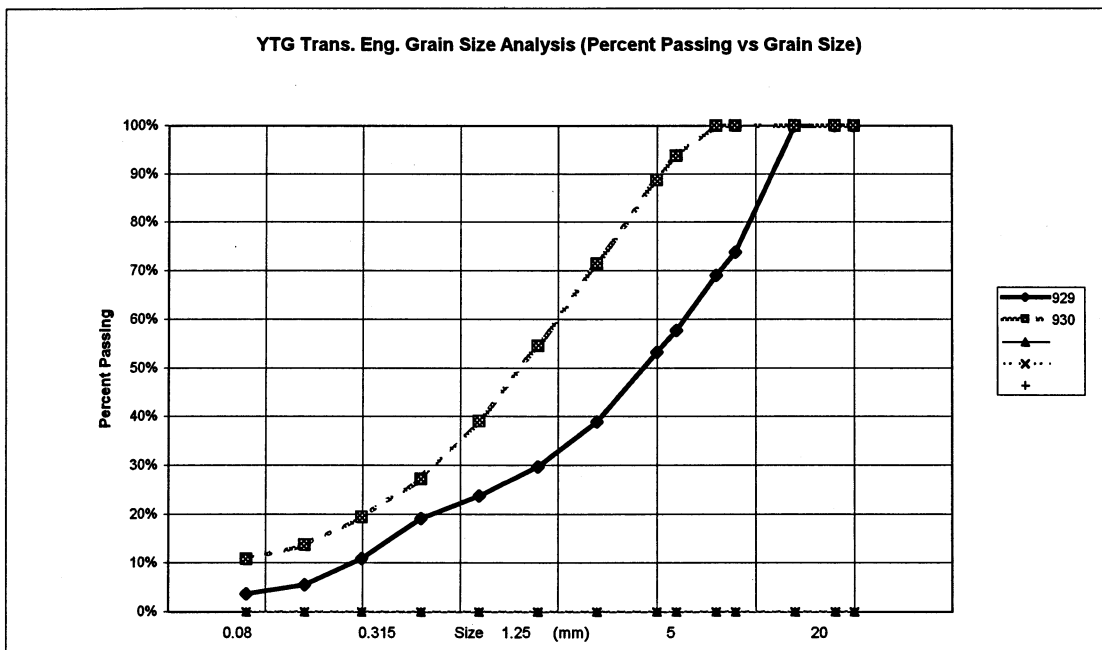
CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)



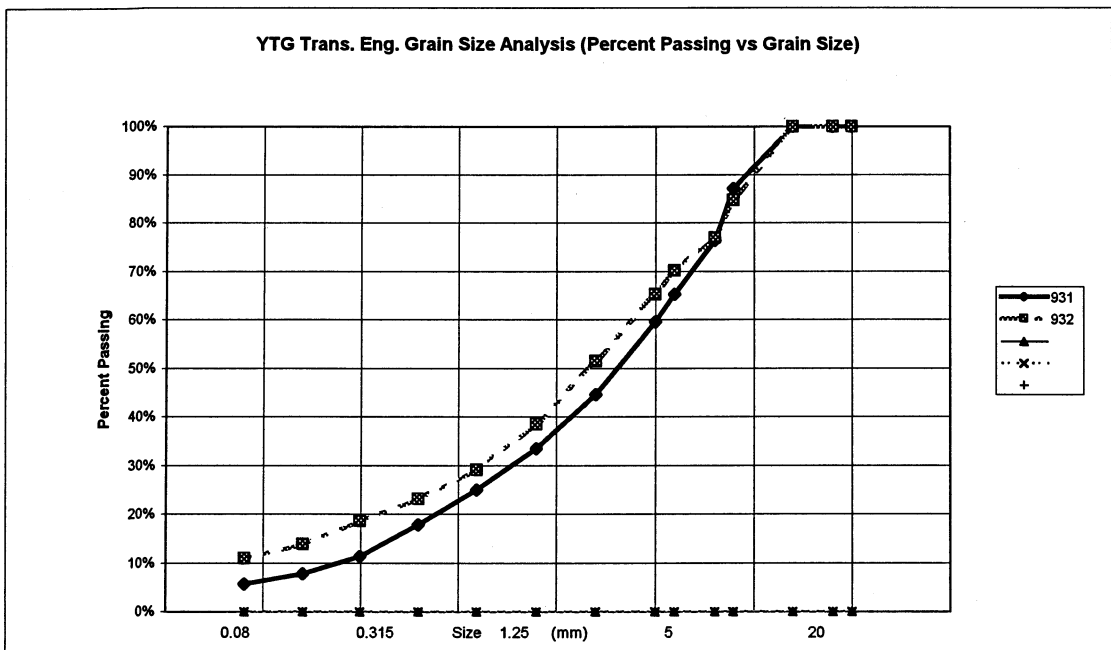
PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1589	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/20	
HOLE LOCATION: 1766+200 CENTRELINE			
FIELD NO: 927		FIELD No. 928	
LAB NO: 1328		LAB No. 1329	
DEPTH: 1.4-1.6		DEPTH 3.3-3.5	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	73%	25.0	83%
20.0	68%	20.0	80%
12.5	52%	12.5	71%
10.0	46%	10.0	66%
5.0	35%	5.0	50%
2.5	27%	2.5	37%
1.25	20%	1.25	28%
0.630	13%	0.630	21%
0.315	8%	0.315	15%
0.160	6%	0.160	11%
0.080	4%	0.080	9%
M.C.(%):	2%	M.C.(%):	3%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	65	% GRAVEL	50
% SAND:	30	% SAND:	41
% FINES:	4	% FINES:	9
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1590	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/20	
HOLE LOCATION: 1766+500 CENTRELINE			
FIELD NO: 929		FIELD No. 930	
LAB NO: 1330		LAB No. 1331	
DEPTH: 1.4-1.6		DEPTH 4.8-5.0	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	74%	25.0	100%
20.0	69%	20.0	100%
12.5	58%	12.5	94%
10.0	53%	10.0	89%
5.0	39%	5.0	71%
2.5	30%	2.5	55%
1.25	24%	1.25	39%
0.630	19%	0.630	27%
0.315	11%	0.315	19%
0.160	6%	0.160	14%
0.080	4%	0.080	11%
M.C.(%):	2%	M.C.(%):	8%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	61	% GRAVEL	29
% SAND:	35	% SAND:	61
% FINES:	4	% FINES:	11
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	



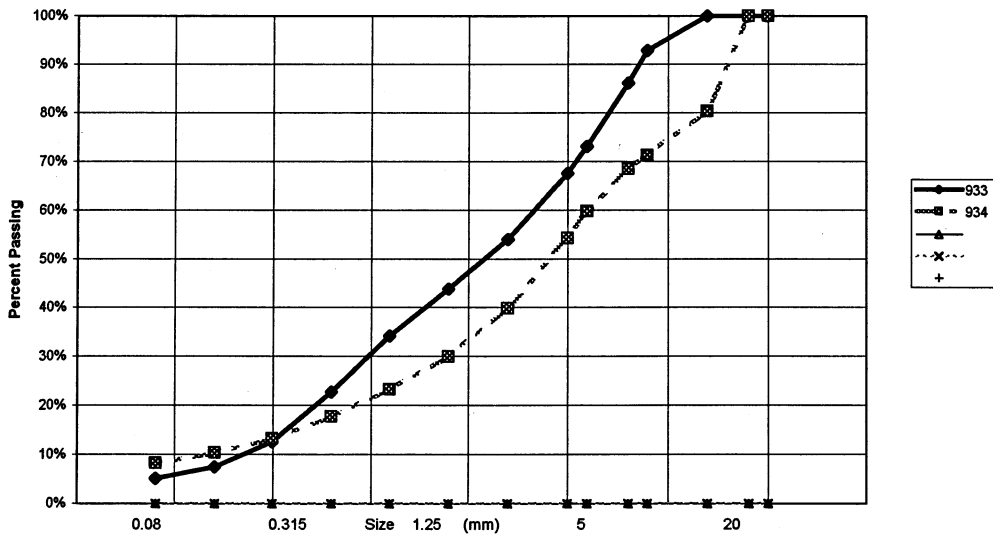
PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1591	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/20	
HOLE LOCATION: 1766+600 CENTRELINE			
FIELD NO: 931		FIELD No. 932	
LAB NO: 1332		LAB No. 1333	
DEPTH: 1.5-1.7		DEPTH 4.3-4.5	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	87%	25.0	85%
20.0	76%	20.0	77%
12.5	65%	12.5	70%
10.0	60%	10.0	65%
5.0	45%	5.0	52%
2.5	34%	2.5	38%
1.25	25%	1.25	29%
0.630	18%	0.630	23%
0.315	11%	0.315	19%
0.160	8%	0.160	14%
0.080	6%	0.080	11%
M.C.(%):	3%	M.C.(%):	4%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	55	% GRAVEL	48
% SAND:	39	% SAND:	41
% FINES:	6	% FINES:	11
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1592
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1766+700 CENTRELINE	DATE COM	2000/06/20

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	80%
25.0	93%	25.0	71%
20.0	86%	20.0	68%
12.5	73%	12.5	60%
10.0	68%	10.0	54%
5.0	54%	5.0	40%
2.5	44%	2.5	30%
1.25	34%	1.25	23%
0.630	23%	0.630	18%
0.315	13%	0.315	13%
0.160	8%	0.160	10%
0.080	5%	0.080	8%
M.C.(%):	4%	M.C.(%):	4%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	46	% GRAVEL	60
% SAND:	49	% SAND:	32
% FINES:	5	% FINES:	8
CLASSIFICATION:	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

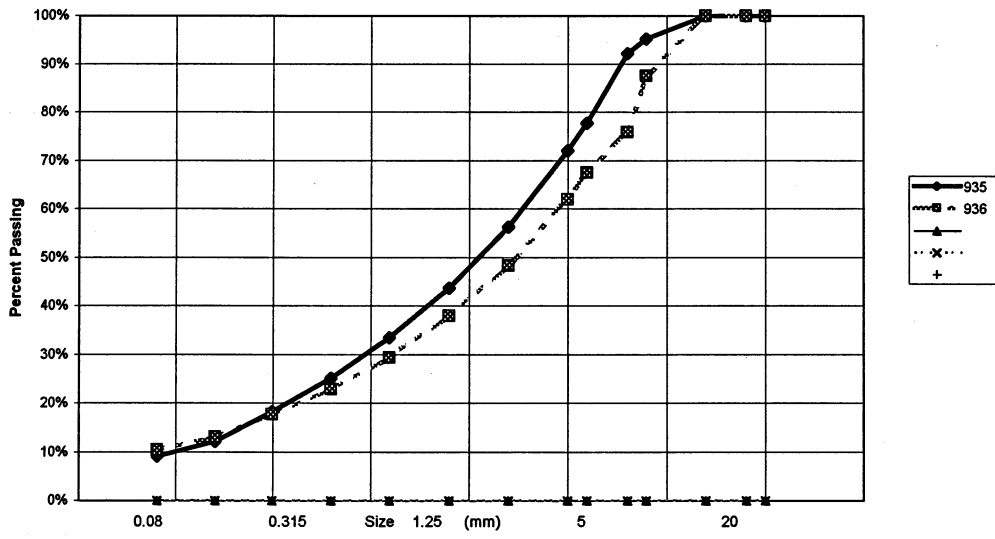
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1593
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1766+800 CENTRELINE	DATE COM	2000/06/20

FIELD NO: 935		FIELD No. 936	
LAB NO: 1336		LAB No. 1337	
DEPTH: 1.3-1.5		DEPTH 5.8-6.0	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	95%	25.0	88%
20.0	92%	20.0	76%
12.5	78%	12.5	68%
10.0	72%	10.0	62%
5.0	56%	5.0	48%
2.5	44%	2.5	38%
1.25	33%	1.25	29%
0.630	25%	0.630	23%
0.315	18%	0.315	18%
0.160	12%	0.160	13%
0.080	9%	0.080	10%
M.C.(%):	3%	M.C.(%):	6%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	44	% GRAVEL	52
% SAND:	47	% SAND:	38
% FINES:	9	% FINES:	10
CLASSIFICATION:	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

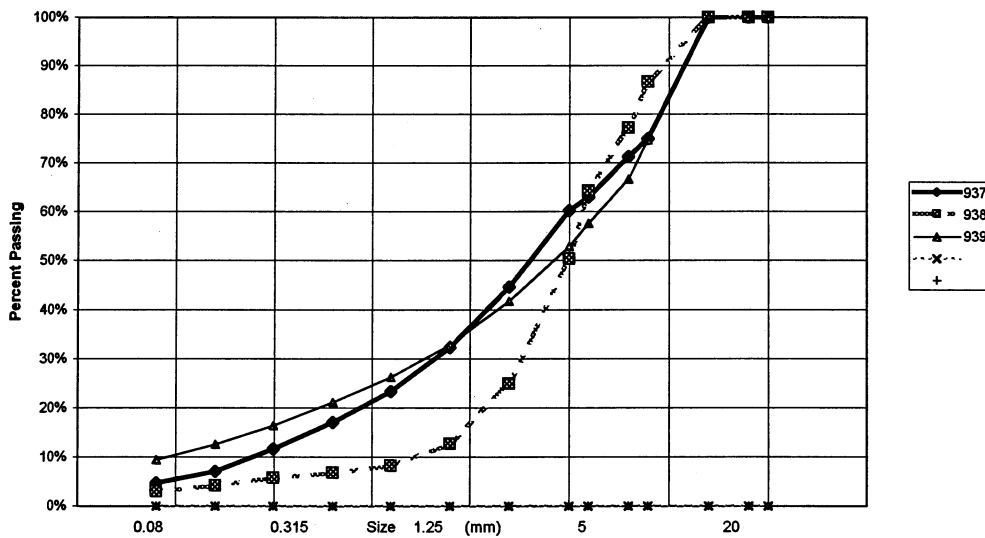
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1594
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1766+900 CENTRELINE	DATE COM	2000/06/21

FIELD No: 937		FIELD No: 938		FIELD No: 939	
LAB NO:	1338	LAB No:	1339	LAB No:	1340
DEPTH:	1.4-1.6	DEPTH	3.0-3.2	DEPTH:	4.3-4.5
TYPE:	AUGER	A	AUGER	TYPE:	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	75%	25.0	87%	25.0	75%
20.0	71%	20.0	77%	20.0	67%
12.5	63%	12.5	64%	12.5	58%
10.0	60%	10.0	50%	10.0	53%
5.0	45%	5.0	25%	5.0	42%
2.5	32%	2.5	13%	2.5	33%
1.25	23%	1.25	8%	1.25	26%
0.630	17%	0.630	7%	0.630	21%
0.315	12%	0.315	6%	0.315	16%
0.160	7%	0.160	4%	0.160	13%
0.080	5%	0.080	3%	0.080	9%
M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	2%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	55	% GRAVEL	75	% GRAVEL	58
% SAND:	40	% SAND:	22	% SAND:	32
% FINES:	5	% FINES:	3	% FINES:	9
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1595
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1767+000 CENTRELINE	DATE COM	2000/06/21

FIELD NO:	940	FIELD No.	941
LAB NO:	1341	LAB No.	1342
DEPTH:	1.5-1.7	DEPTH	4.8-5.0
TYPE:	AUGER	A	AUGER

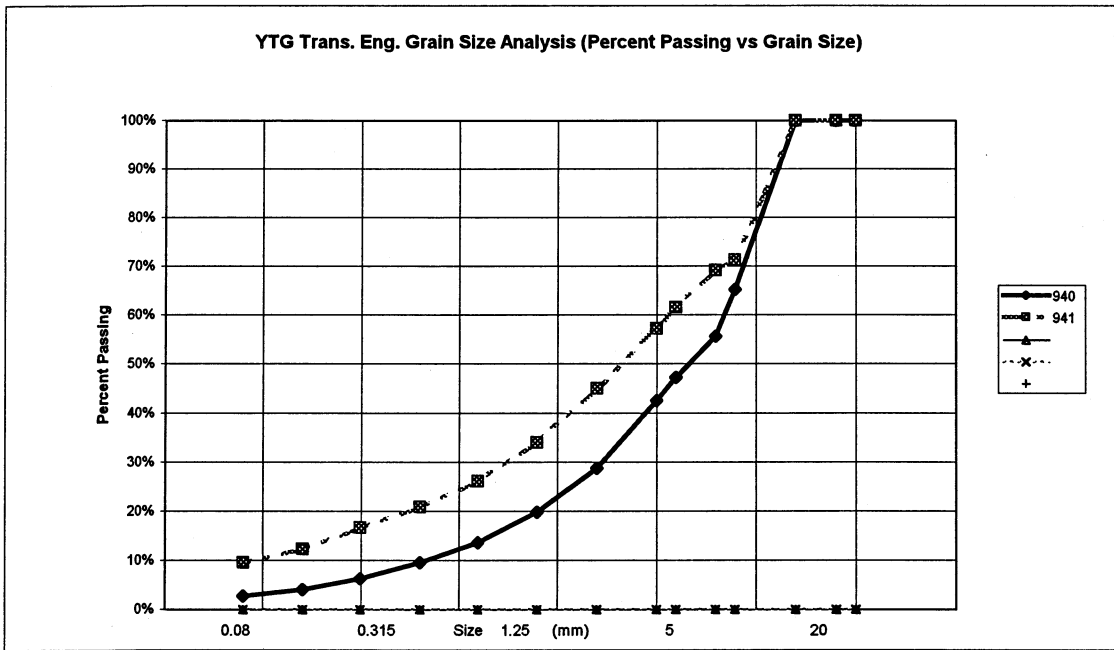
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	65%	25.0	71%
20.0	56%	20.0	69%
12.5	47%	12.5	62%
10.0	43%	10.0	57%
5.0	29%	5.0	45%
2.5	20%	2.5	34%
1.25	14%	1.25	26%
0.630	10%	0.630	21%
0.315	6%	0.315	17%
0.160	4%	0.160	12%
0.080	3%	0.080	10%

M.C.(%)	2%	M.C.(%)	2%
---------	----	---------	----

LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

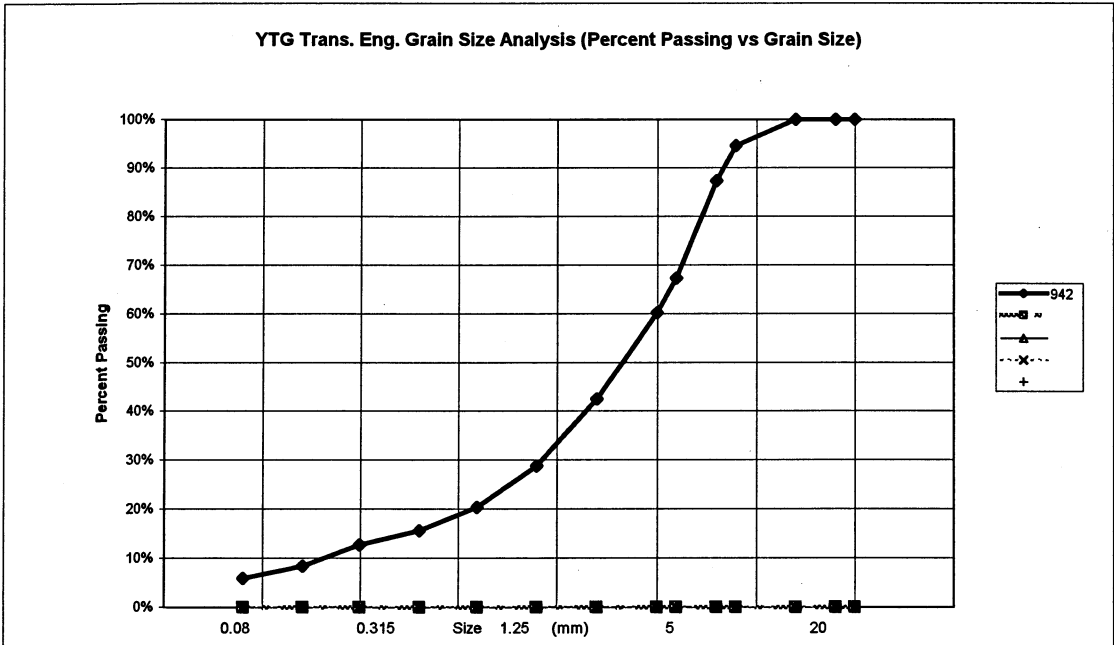
% GRAVEL	71	% GRAVEL	55
% SAND:	26	% SAND:	36
% FINES:	3	% FINES:	10

CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)
-----------------	-------------------------------------	-----------------	---



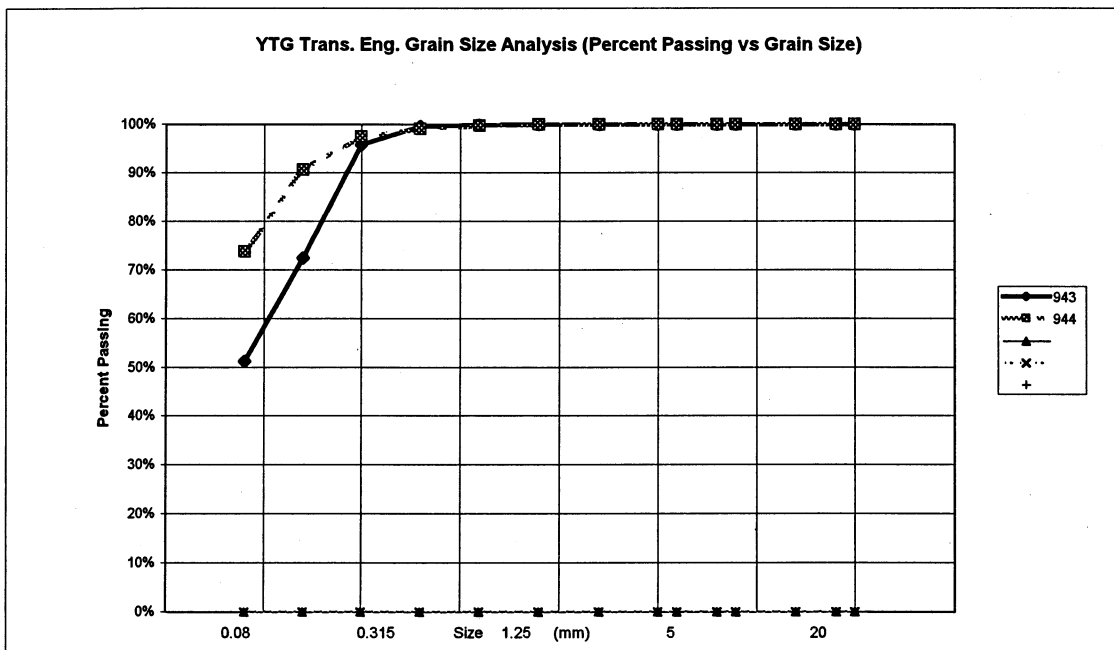
PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1596
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1767+100 CENTRELINE	DATE COM	2000/06/21

FIELD NO: 942 LAB NO: 1343 DEPTH: 1.5-1.7 TYPE: AUGER				
SIEVE SIZE	PERCENT PASSING			
100.0	100%			
80.0	100%			
50.0	100%			
25.0	95%			
20.0	87%			
12.5	67%			
10.0	60%			
5.0	43%			
2.5	29%			
1.25	20%			
0.630	16%			
0.315	13%			
0.160	8%			
0.080	6%			
M.C.(%):	3%			
LIMITS				
LIQUID:	0.0			
PLASTIC:	0.0			
P.I.:	0.0			
% GRAVEL	57			
% SAND:	37			
% FINES:	6			
CLASSIFICATION:				
WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)				



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1597
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1767+200 CENTRELINE	DATE COM	2000/06/21

FIELD NO: 943		FIELD No. 944	
LAB NO: 1344		LAB No. 1345	
DEPTH: 1.4-1.6		DEPTH 2.4-2.6	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	100%
20.0	100%	20.0	100%
12.5	100%	12.5	100%
10.0	100%	10.0	100%
5.0	100%	5.0	100%
2.5	100%	2.5	100%
1.25	100%	1.25	100%
0.630	100%	0.630	99%
0.315	96%	0.315	98%
0.160	72%	0.160	91%
0.080	51%	0.080	74%
M.C.(%):	7%	M.C.(%):	23%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	0
% SAND:	49	% SAND:	26
% FINES:	51	% FINES:	74
CLASSIFICATION:	SANDY SILT (ML)	CLASSIFICATION:	SILT WITH SAND (ML)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1598
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1767+300 CENTRELINE	DATE COM	2000/06/21

FIELD NO:	945		
LAB NO:	1346		
DEPTH:	1.5-1.7		
TYPE:	AUGER		

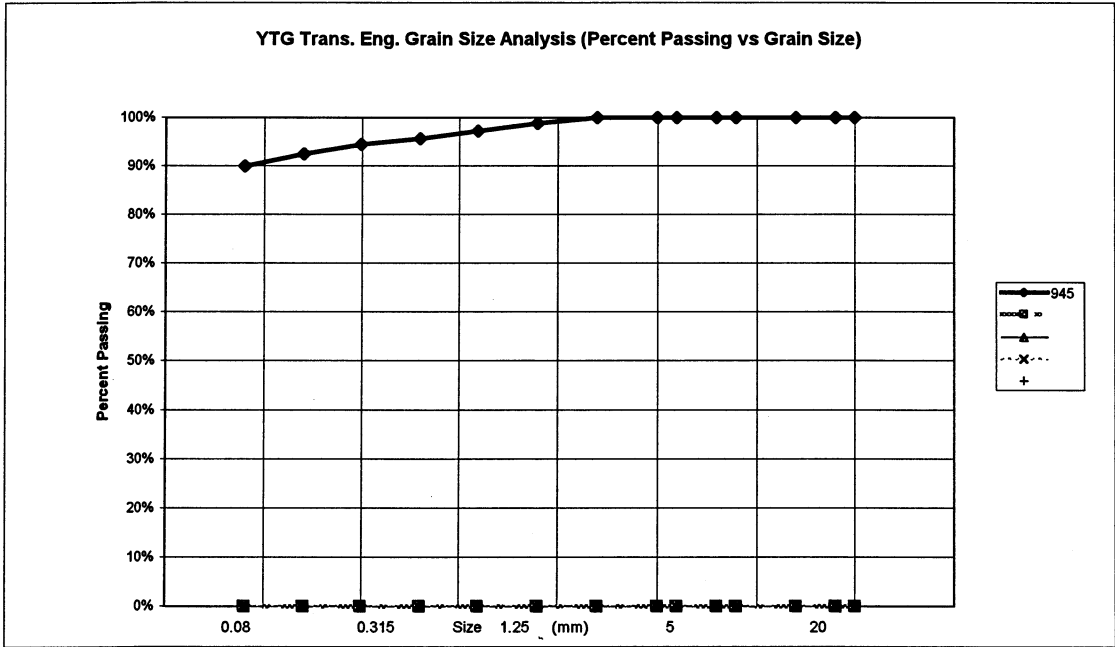
SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	100%		
20.0	100%		
12.5	100%		
10.0	100%		
5.0	100%		
2.5	99%		
1.25	97%		
0.630	96%		
0.315	95%		
0.160	92%		
0.080	90%		

M.C.(%):	66%
----------	-----

LIMITS	
LIQUID:	0.0
PLASTIC:	0.0
P.I.:	0.0

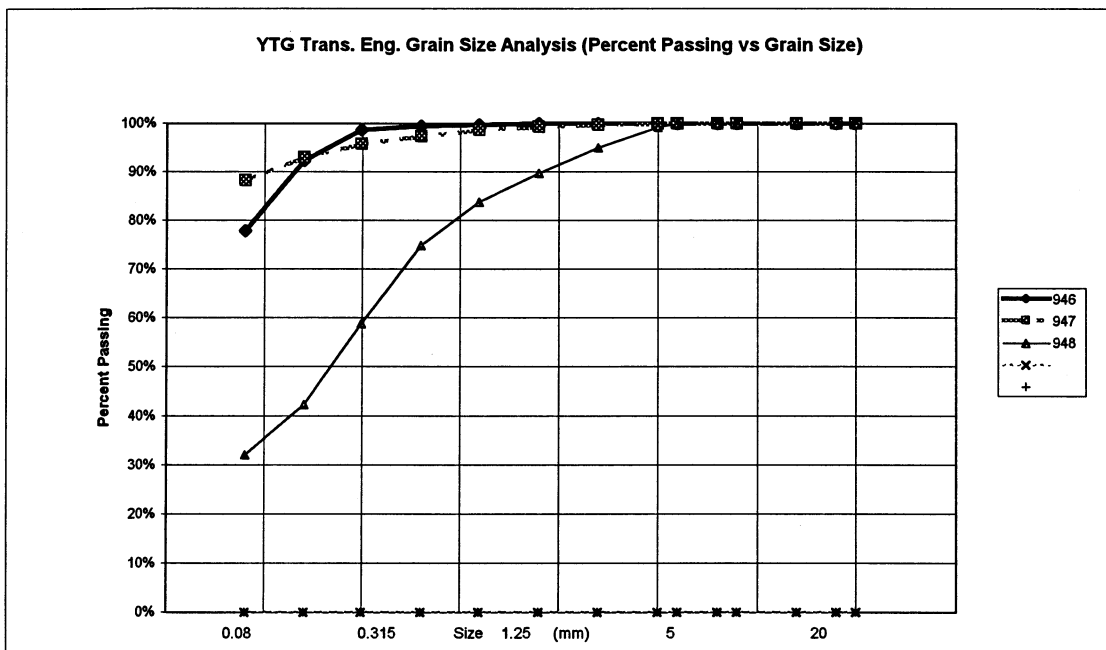
% GRAVEL	0
% SAND:	10
% FINES:	90

CLASSIFICATION:	SILT (ML)
-----------------	-----------



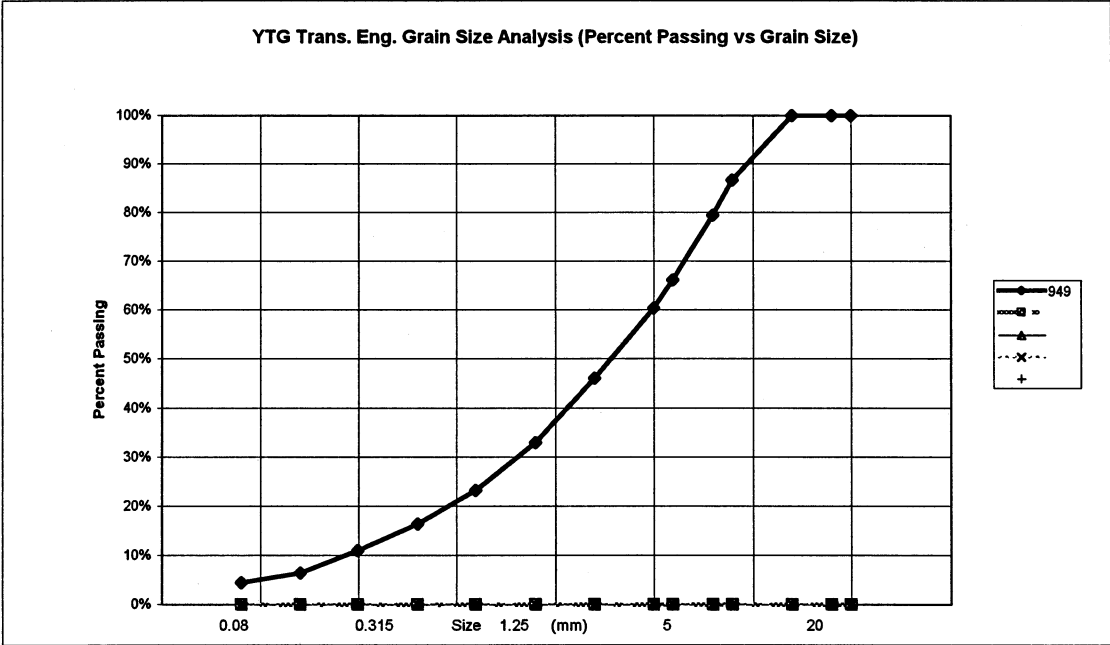
PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1599	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/21	
HOLE LOCATION: 1767+400 CENTRELINE			

FIELD No: 946		FIELD No: 947		FIELD No: 948	
LAB No: 1347		LAB No: 1348		LAB No: 1349	
DEPTH: 1.5-1.7		DEPTH: 2.9-3.1		DEPTH: 3.8-4.0	
TYPE: AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	100%	25.0	100%
20.0	100%	20.0	100%	20.0	100%
12.5	100%	12.5	100%	12.5	100%
10.0	100%	10.0	100%	10.0	99%
5.0	100%	5.0	100%	5.0	95%
2.5	100%	2.5	99%	2.5	90%
1.25	100%	1.25	99%	1.25	84%
0.630	99%	0.630	97%	0.630	75%
0.315	99%	0.315	96%	0.315	59%
0.160	92%	0.160	93%	0.160	42%
0.080	78%	0.080	88%	0.080	32%
M.C.(%):	30%	M.C.(%):	53%	M.C.(%):	17%
LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0
% GRAVEL	0	% GRAVEL	0	% GRAVEL	5
% SAND:	22	% SAND:	11	% SAND:	63
% FINES:	78	% FINES:	88	% FINES:	32
CLASSIFICATION:	SILT WITH SAND (ML)	CLASSIFICATION:	SILT (ML)	CLASSIFICATION:	SILTY SAND (SM)



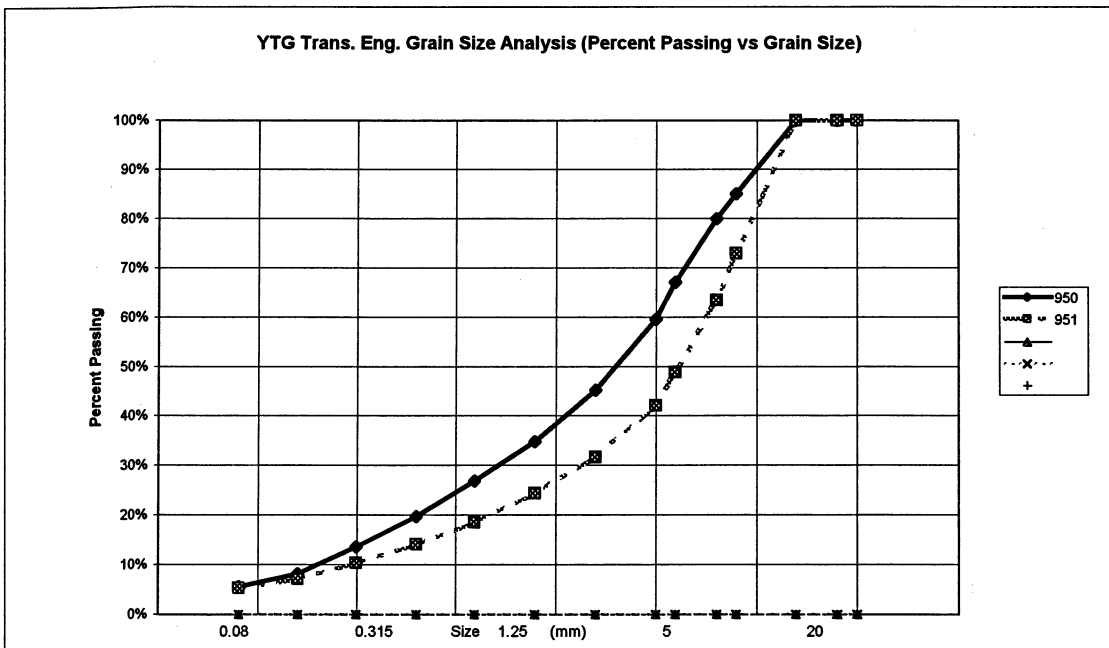
PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1600
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1767+500 CENTRELINE	DATE COM	2000/06/21

FIELD NO: 949 LAB NO: 1350 DEPTH: 1.4-1.6 TYPE: AUGER			
SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	87%		
20.0	80%		
12.5	66%		
10.0	60%		
5.0	46%		
2.5	33%		
1.25	23%		
0.630	16%		
0.315	11%		
0.160	6%		
0.080	4%		
M.C.(%):	2%		
LIMITS			
LIQUID:	0.0		
PLASTIC:	0.0		
P.I.:	0.0		
% GRAVEL	54		
% SAND:	42		
% FINES:	4		
CLASSIFICATION:			
POORLY GRADED GRAVEL WITH SAND (GP)			



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1601
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1767+600 CENTRELINE	DATE COM	2000/06/21

FIELD NO: 950		FIELD No. 951	
LAB NO:	1351	LAB No.	1352
DEPTH:	1.4-1.6	DEPTH	3.4-3.6
TYPE:	AUGER	A	AUGER
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	85%	25.0	73%
20.0	80%	20.0	63%
12.5	67%	12.5	49%
10.0	60%	10.0	42%
5.0	45%	5.0	32%
2.5	35%	2.5	24%
1.25	27%	1.25	19%
0.630	20%	0.630	14%
0.315	14%	0.315	10%
0.160	8%	0.160	7%
0.080	6%	0.080	5%
M.C.(%):	2%	M.C.(%):	2%
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL	55	% GRAVEL	68
% SAND:	40	% SAND:	26
% FINES:	6	% FINES:	5
CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION:	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)



GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1758.7 to 1768.1
Alaska Highway #1
Yukon 2001-2002
Volume 2 of 2



Community and Transportation Services
Transportation Engineering Branch

Geotechnical Services

BOX 2703, WHITEHORSE, YUKON
PHONE 867-667-8820 FAX 867-393-6447

ORIGINAL - Do Not Remove From File

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION

Km 1758.7 to 1768.1
YUKON 2001-2002

ALASKA HIGHWAY #1

Highway Construction
Km 1758.7 to 1768.1
Alaska Highway #1
Yukon 2001-2002
Volume 2 of 2

This Data Package prepared for project viewing:

May, 2001

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 2

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING ALASKA HIGHWAY

Subsurface Exploration and Testing Report Sheets are provided.

The reports for the centreline holes are arranged according to project location, starting at Km 1758+650 and increasing to Km 1767+600.

Laboratory Testing Result Sheets are provided.

The reports for the centreline holes are arranged according to test hole number, starting at 552-1496 and increasing to 556-1601.

2000	TEST HOLES 1496 to 1514	shown with prefix 552-
	TEST HOLES 1515 to 1539	shown with prefix 553-
	TEST HOLES 1540 to 1564	shown with prefix 554-
	TEST HOLES 1565 to 1577	shown with prefix 555-
	TEST HOLES 1578 to 1601	shown with prefix 556-

NOTE:

2000 Centreline Test Hole locations on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, compiled by GPS survey, are indicated on project plans.

CONTENTS (continued)**Volume 2 of 2****GRANULAR SOURCE Km 1766.0 LHS ALASKA HIGHWAY**

Location plans, photographs, and subsurface exploration and testing report sheets are provided.

Auger Testing

1985	TEST HOLES 68 to 75	shown with prefix 778-
2000	TEST HOLES 1442 to 1450	shown with prefix 557-

Backhoe Testing

1985	TEST PITS 85, 86, 87, 90, and 91	shown with prefix 807-
1988	TEST PITS 03, 05, 07 to 09, 12 to 16, and 18 to 25	shown with prefix 031-
1988	TEST PITS 26, 27, 29 to 31, and and 33 to 35	shown with prefix 032-

HIGHWAY CONSTRUCTION





GEOTECHNICAL INVESTIGATION

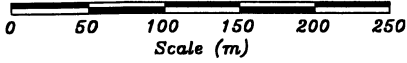
Km 1758.7 to 1768.1
YUKON 2001-2002

ALASKA HIGHWAY #1

GRANULAR SOURCE TESTING
Km 1766.0 LHS
ALASKA HIGHWAY

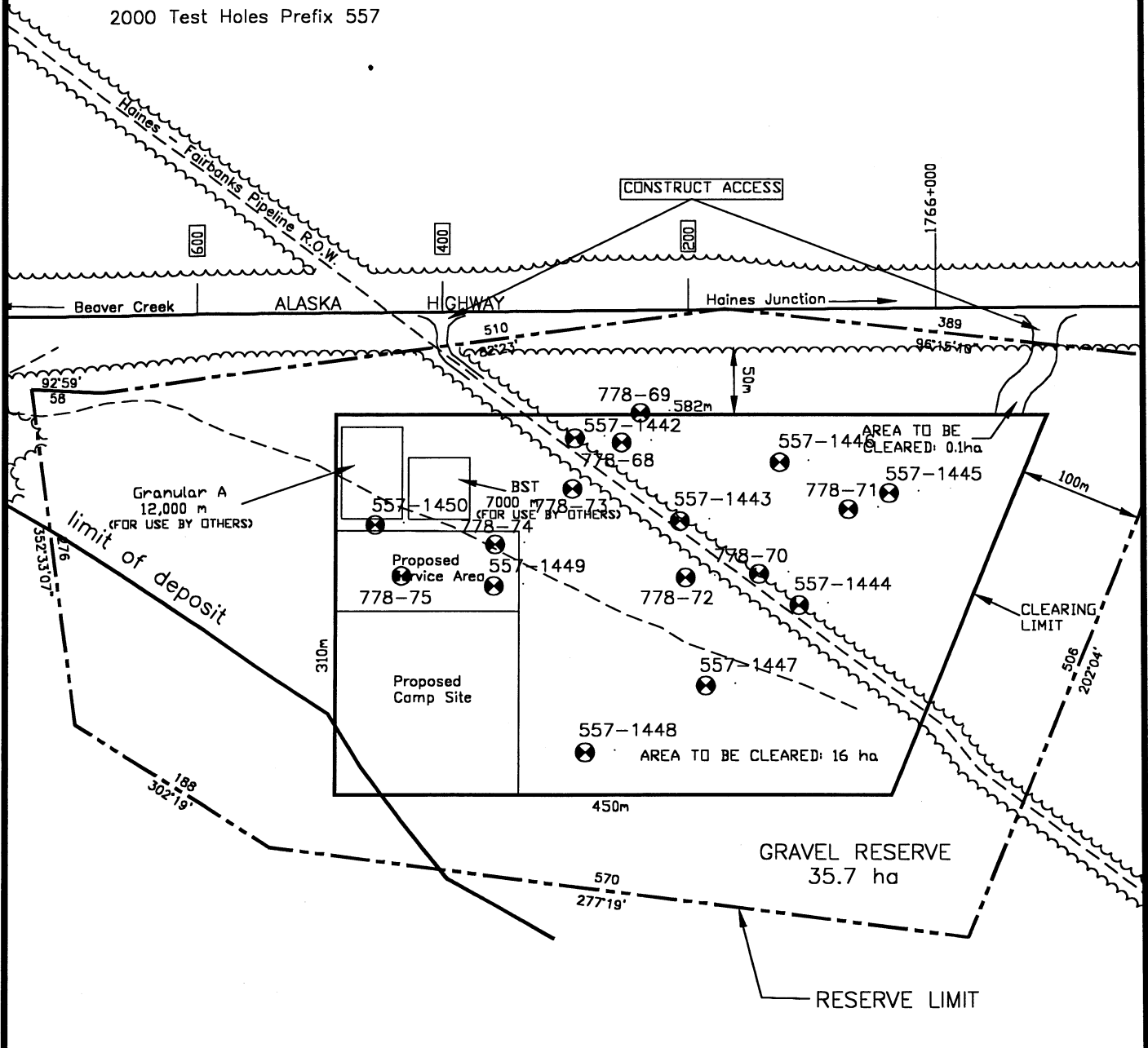
LEGEND

-  Edge of clearing
-  Existing trails
-  Approximate Test Hole Location
-  Approximate Test Pit Location



1985 Test Holes Prefix 778 and 807

2000 Test Holes Prefix 557







Yukon
Community and Transportation Services

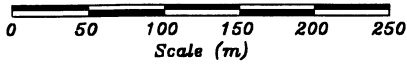
Transportation Engineering Branch

SITE PLAN
PRODUCE AND STOCKPILE
AGGREGATE
Km 1766.0 L.H.S.
(Duke River)
ALASKA HWY. YUKON

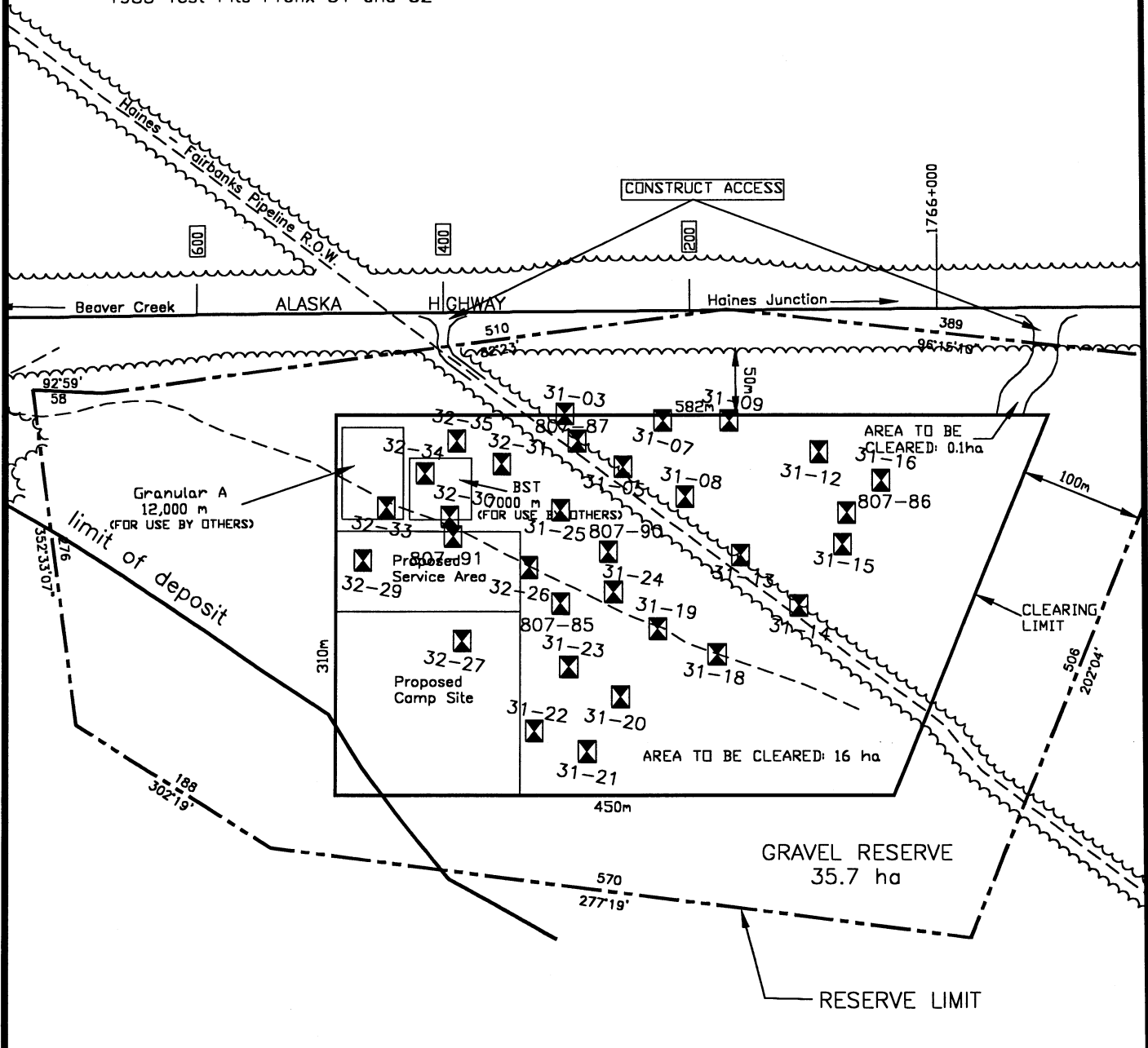
pit file: 115 G-05
revision: 2001-Proposed
drawn: WAE/JJM
date: 01-05-08
scale: 1: 5000
drwg: 115g-05S

LEGEND

-  Edge of clearing
-  Existing trails
-  Approximate Test Hole Location
-  Approximate Test Pit Location



1985 Test Pits Prefix 807
1988 Test Pits Prefix 31 and 32



Transportation Engineering Branch

SITE PLAN
PRODUCE AND STOCKPILE
AGGREGATE
Km 1766.0 L.H.S.
(Duke River)
ALASKA HWY. YUKON

pit file:	115 G-05
revision:	2001-Proposed
drawn:	WAE/JJM
date:	01-05-08
scale:	1: 5000
drwg:	115g-05S



SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION		HOLE No.	85-70
HOLE LOCATION		ELEV.	DEPTH TO G.W.L.
DATE DRILLED	85-06-10	DRILL UNIT	B30-6" AUGER
		TECHNICIAN	D.S.

DEPTH (m)	DESCRIPTION OF MATERIAL	PERMAFROST CLASS or G.W.L.	SAMPLE TYPE	SAMPLE DATA					STD PENETRATION BLOWS/300mm	PLASTIC LIMIT	LIQUID LIMIT
				FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND			
1	POORLY GRADED SAND WITH GRAVEL - brown		AP	183	344	SP	42.1	57.7	—	0x	NP
2	WELL-GRADED GRAVEL WITH SAND - brown										
3	ROCK		AP	184	345	GW	53.9	42.9	—	0x	NP
3	REFUSAL										
4											
5											
6											
7											
8											
9											
10											

0 - % MOISTURE CONTENT
 x - % < .074 mm

PLASTIC LIMIT — LIQUID LIMIT



SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION

HOLE No.

85-75

HOLE LOCATION

ELEV.

DEPTH TO G.W.L.

DATE DRILLED 85-06-10

DRILL UNIT 230-6" AUGER

TECHNICIAN

D.S.

DEPTH (m)	DESCRIPTION OF MATERIAL	SAMPLE DATA							STD PENETRATION BLOWS / 300mm	0 - % MOISTURE CONTENT x - % < .074mm PLASTIC LIMIT — LIQUID LIMIT
		PERMAFROST CLASS or G.W.L.	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND		
1	WELL-GRADED GRAVELS WITH SAND - GREY									
	ROCKS									
	REFUSALS									
2										
3										
4										
5										
6										
7										
8										
9										
10										

AP 194 355 GW 755 23 X

0 10 20 30 40 50 60 70 80 90 100

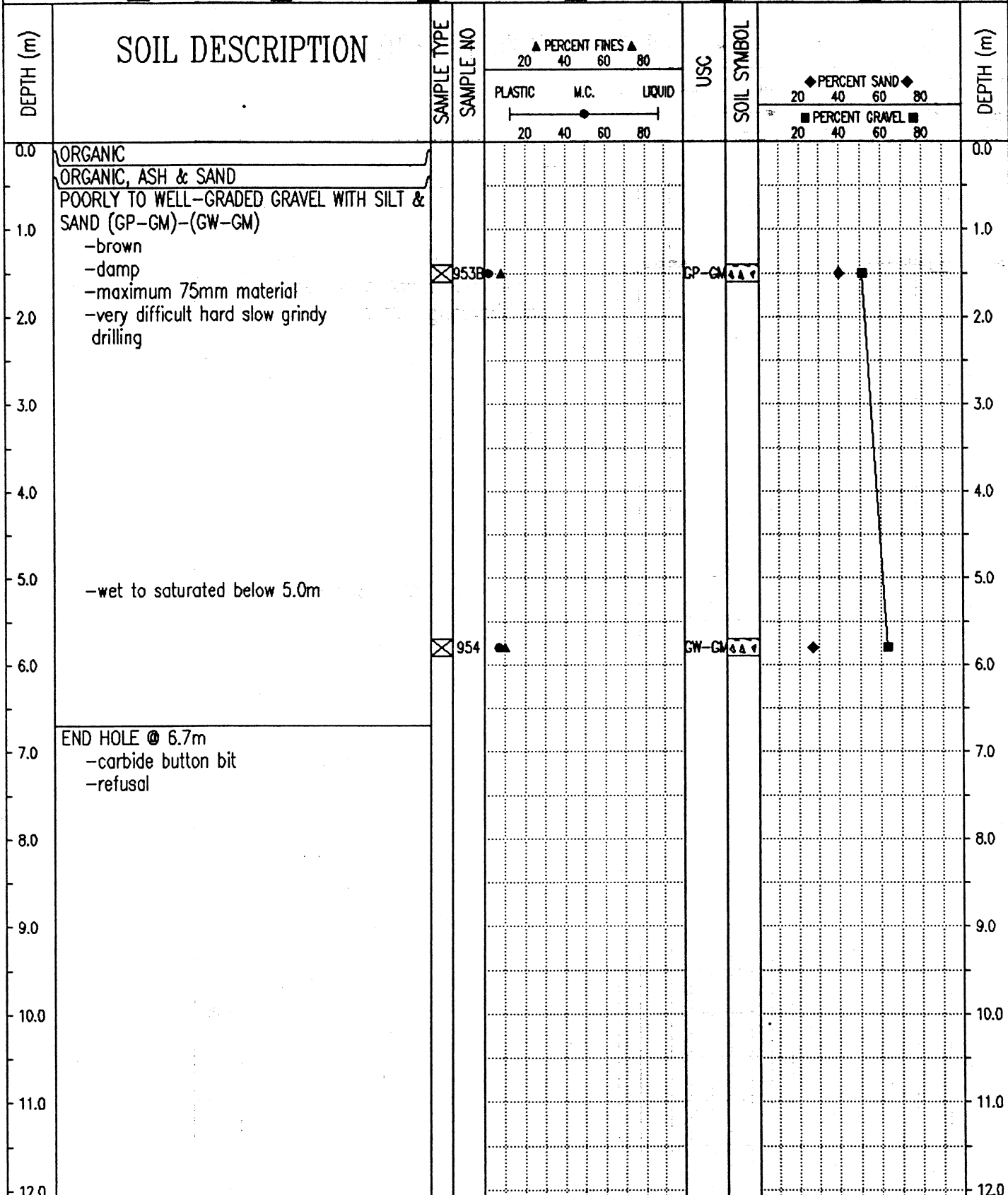
SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST PIT NO: 557-1442T									
ENGINEERING CAPITAL		GRANULAR SOURCE		Project No: 092-202101-0361									
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+400 LHS		ELEVATION: 0.00 (m)									
SAMPLE TYPE		<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED GRAVEL WITH SILT & SAND (GP)-(GW-GM) -brown -damp -maximum 75mm material -very hard slow grindy drilling below 0.9m												0.0
1.0			952				GP						1.0
2.0	-refusal @ 2.0m - moved 2m west on P.L. R.O.W. - changed bits from 7 fishtail to 7 carbide button bit.												2.0
3.0													3.0
4.0	-very coarse material below 4.0m												4.0
5.0	END HOLE @ 4.7m -refusal		953A				GW-GM						5.0
6.0													6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.7 m
COMPLETE: 00/06/21

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST PIT NO: 557-1443T
ENGINEERING CAPITAL	GRANULAR SOURCE	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1766+400 LHS	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
 Transportation Engineering

LOGGED BY: D.T.
 REVIEWED BY:
 Fig. No:

COMPLETION DEPTH: 6.7 m
 COMPLETE: 00/06/21

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST PIT NO: 557-1444T								
ENGINEERING CAPITAL		GRANULAR SOURCE		Project No: 092-202101-0361								
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+400 LHS		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)										0.0	
1.0	-brown -damp -maximum 75mm material -very hard slow grindy drilling		955	▲			GW-GM	◆	■		1.0	
2.0											2.0	
3.0											3.0	
4.0											4.0	
5.0	-trace easier drilling @ 5.0m										5.0	
6.0											6.0	
7.0	-saturated below 7.0m										7.0	
8.0	END HOLE @ 7.9m -carbide button bit -refusal		956	▲			GW-GM	◆	■		8.0	
9.0											9.0	
10.0											10.0	
11.0											11.0	
12.0											12.0	
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY: Fig. No:				COMPLETION DEPTH: 7.9 m COMPLETE: 00/06/22 Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST PIT NO: 557-1445T				
ENGINEERING CAPITAL		GRANULAR SOURCE		Project No: 092-202101-0361				
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+400 LHS		ELEVATION: 0.00 (m)				
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER				
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE				
				<input type="checkbox"/> CORE				
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲	USC	SOIL SYMBOL	◆ PERCENT SAND ◆	DEPTH (m)
				PLASTIC M.C. LIQUID			■ PERCENT GRAVEL ■	
0.0	ORGANIC			20 40 60 80			20 40 60 80	0.0
1.0	POORLY GRADED GRAVEL (GP) -brown -damp -maximum 75mm material -very difficult hard slow grindy drilling			20 40 60 80			20 40 60 80	1.0
2.0	-1st refusal @ 1.3m - moved 3m 220 T -2nd refusal @ 1.3m - moved 2m 220 T	<input checked="" type="checkbox"/>	957			GP		2.0
3.0	END HOLE @ 2.8m -carbide button bit -refusal							3.0
4.0								4.0
5.0								5.0
6.0								6.0
Government of Yukon Transportation Engineering				LOGGED BY: D.T. REVIEWED BY:		COMPLETION DEPTH: 2.8 m COMPLETE: 00/06/22		
				Fig. No:				Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT SHAKWAK SEG 11 TEST PIT NO: 557-1446T

ENGINEERING CAPITAL GRANULAR SOURCE Project No: 092-202101-0361

B40-L MOBILE DRILL 6" AUGER LOCATION: 1766+400 LHS ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL			
0.0	ORGANIC										0.0	
0.0 - 1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -maximum 75mm material -very hard slow grindy drilling											
1.0 - 2.0												
2.0 - 3.0			958				GP-GM					
3.0 - 4.0	END HOLE @ 3.0m -refusal - carbide bit destroyed											
4.0 - 5.0												
5.0 - 6.0												

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 3.0 m

COMPLETE: 00/06/22

Page 1 of 1

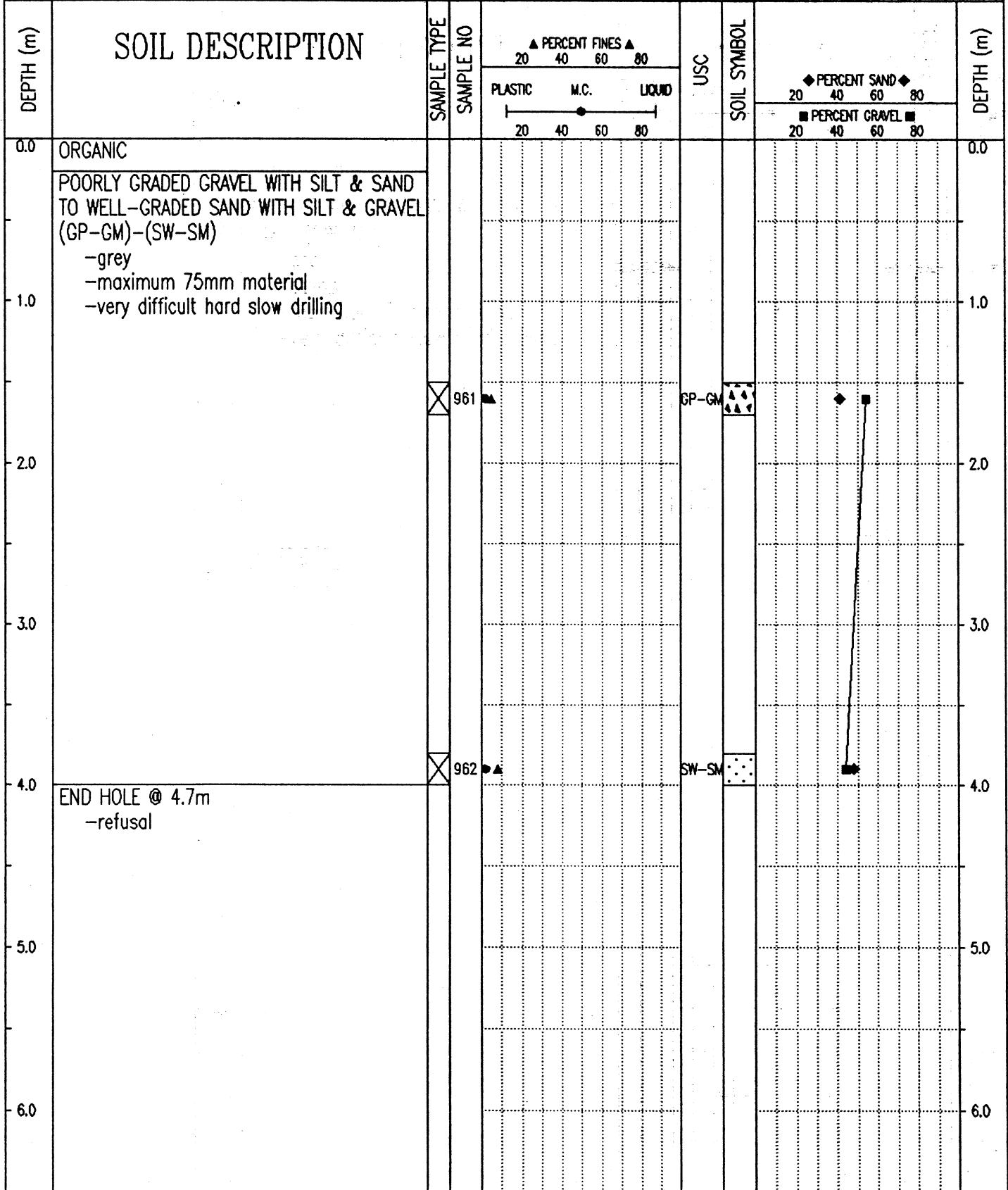
SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST PIT NO: 557-1447T							
ENGINEERING CAPITAL		GRANULAR SOURCE		Project No: 092-202101-0361							
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1766+400 LHS		ELEVATION: 0.00 (m)							
SAMPLE TYPE		S.P.T.		AUGER							
RETURN		S.P.T.		AUGER							
BULK		TUBE		CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES		USC	SOIL SYMBOL	PERCENT SAND		PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.			LIQUID	20		
0.0	ORGANIC POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)										0.0
1.0	-brown -damp -maximum 75mm material -very difficult hard slow grindy drilling										1.0
2.0			959				GP-GM				2.0
3.0											3.0
4.0	END HOLE @ 3.7m -refusal		960				GP-GM				4.0
5.0											5.0
6.0											6.0
7.0											7.0
8.0											8.0
9.0											9.0
10.0											10.0
11.0											11.0
12.0											12.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 3.7 m
COMPLETE: 00/06/22

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST PIT NO: 557-1448T
ENGINEERING CAPITAL	GRANULAR SOURCE	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1766+400 LHS	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	

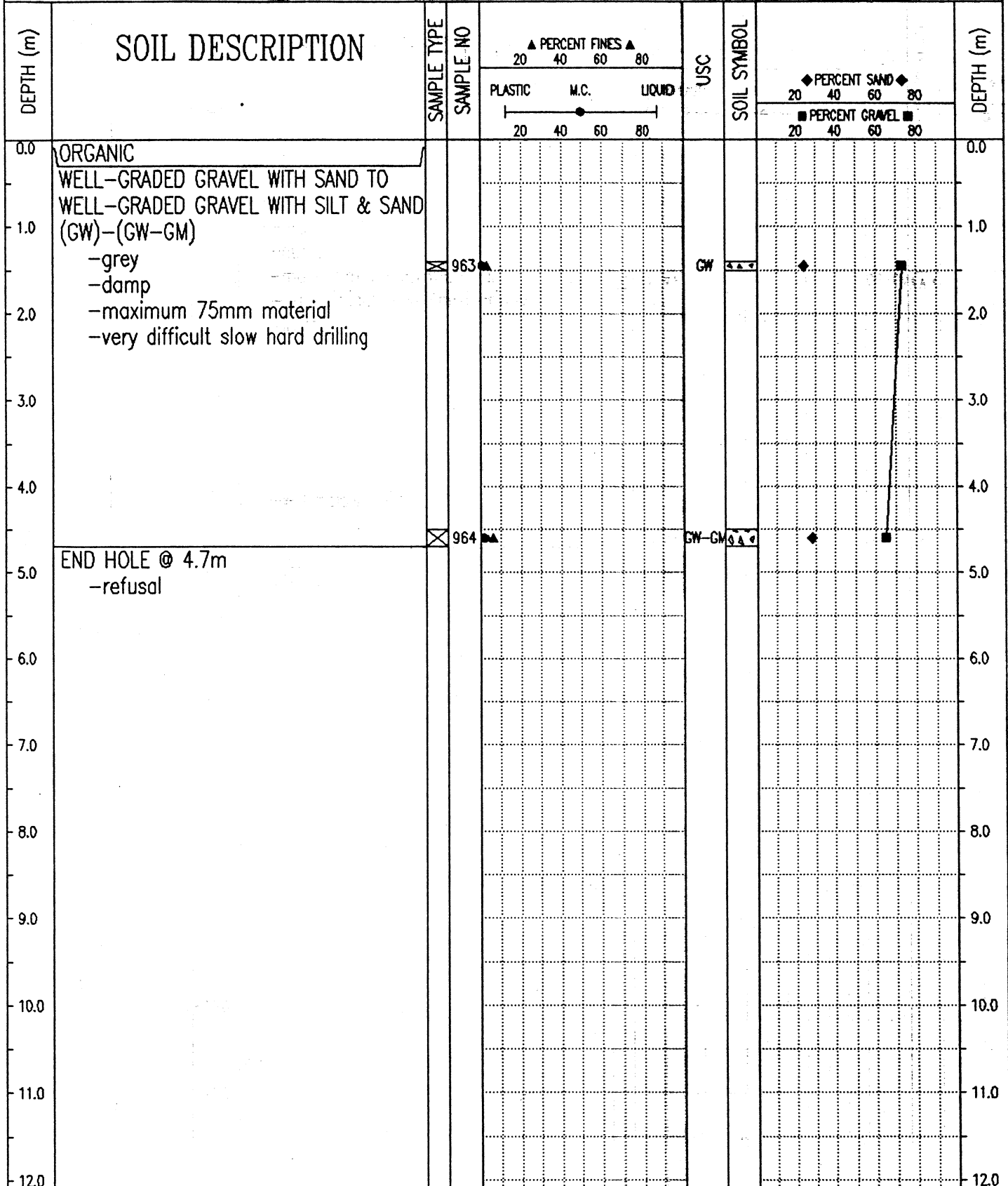


Government of Yukon
Transportation Engineering

LOGGED BY: D.T.
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.0 m
COMPLETE: 00/06/22

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST PIT NO: 557-1449T
ENGINEERING CAPITAL	GRANULAR SOURCE	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1766+400 LHS	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE	



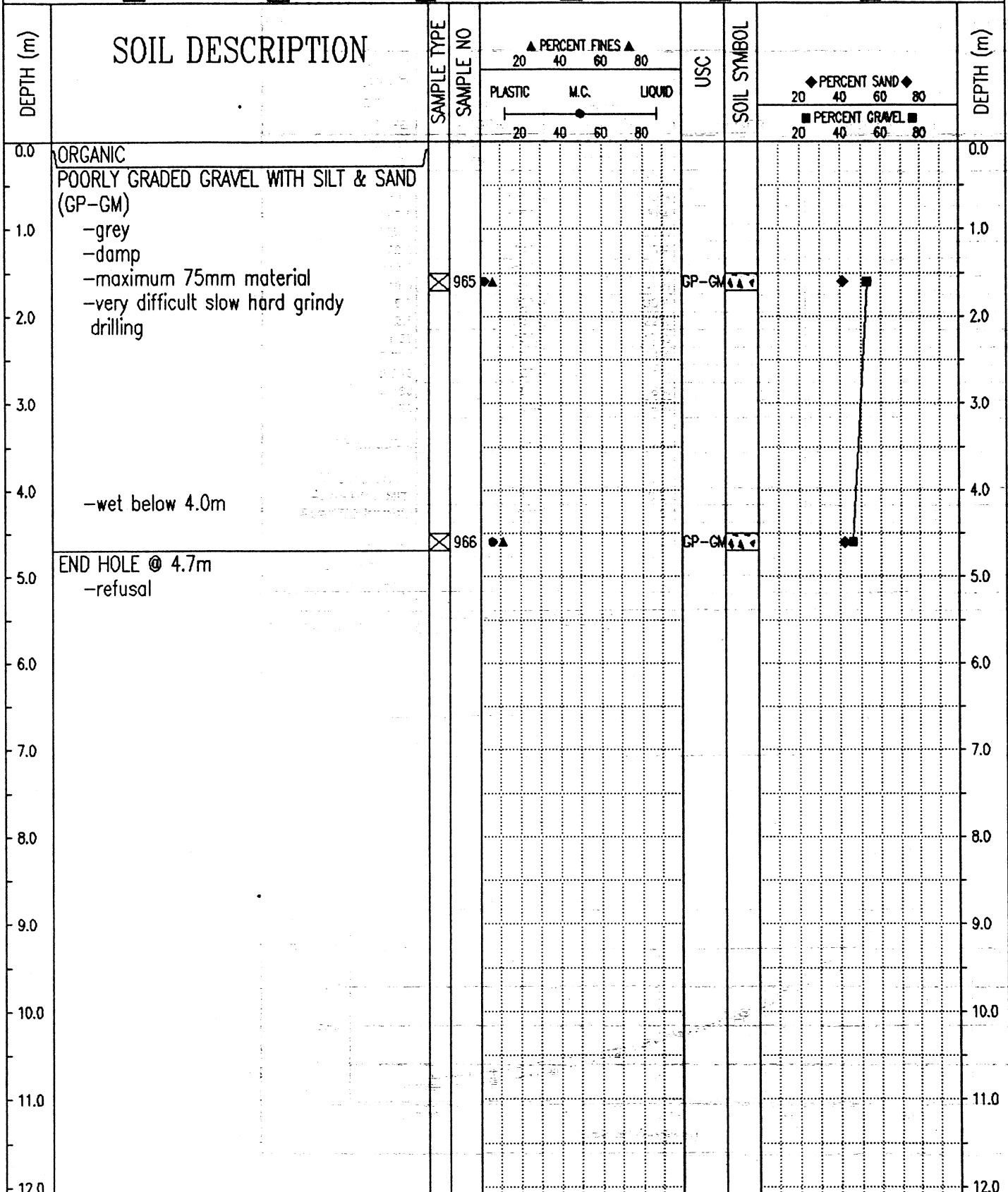
Government of Yukon
 Transportation Engineering

LOGGED BY: D.T.
 REVIEWED BY:
 Fig. No:

COMPLETION DEPTH: 4.7 m
 COMPLETE: 00/06/22

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT	SHAKWAK SEG 11	TEST PIT NO: 557-1450T
ENGINEERING CAPITAL	GRANULAR SOURCE	Project No: 092-202101-0361
B40-L MOBILE DRILL 6" AUGER	LOCATION: 1766+400 LHS	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: D.T.

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/22

Page 1 of 1

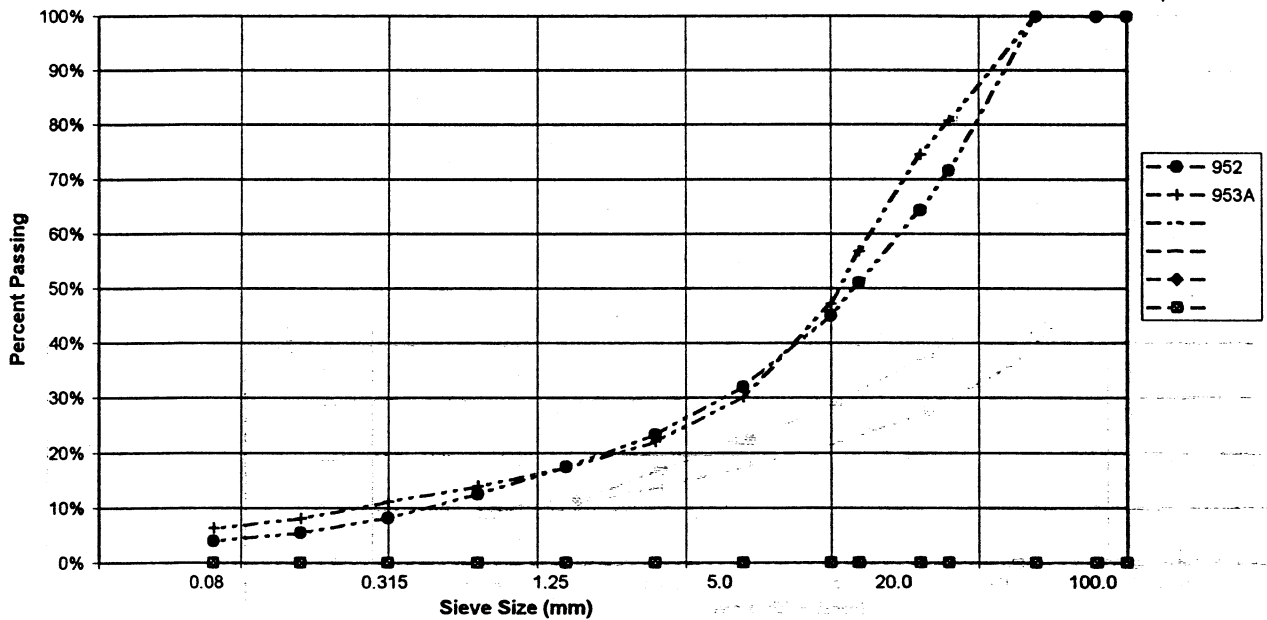
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1788+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1788+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1442T

DATE COMP: 2000/06/21

FIELD NO:	952	953A			
LAB NO:	1353	1354			
DEPTH:	1.3-1.5	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	72%	81%			
20.0	64%	75%			
12.5	51%	57%			
10.0	45%	47%			
5.0	32%	30%			
2.5	23%	22%			
1.25	18%	17%			
0.630	13%	14%			
0.315	8%	11%			
0.160	6%	8%			
0.080	4%	6%			
M.C.(%)	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	68	70			
% SAND:	28	24			
% FINES:	4	6			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



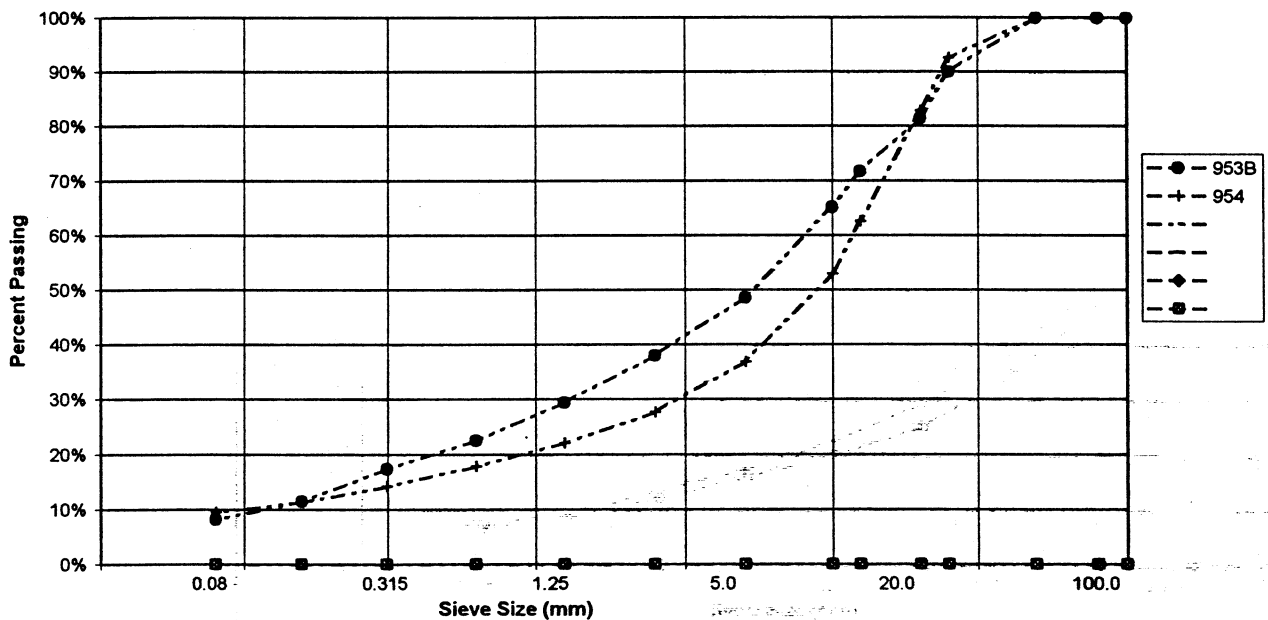
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1766+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1766+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1443T

DATE COMP: 2000/06/22

FIELD NO:	953B	954			
LAB NO:	1355	1356			
DEPTH:	1.4-1.6	5.7-5.9			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	90%	93%			
20.0	81%	83%			
12.5	72%	63%			
10.0	65%	53%			
5.0	49%	37%			
2.5	38%	28%			
1.25	29%	22%			
0.630	22%	18%			
0.315	17%	14%			
0.160	12%	11%			
0.080	8%	10%			
M.C.(%)	2%	7%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	51	63			
% SAND:	40	27			
% FINES:	8	10			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



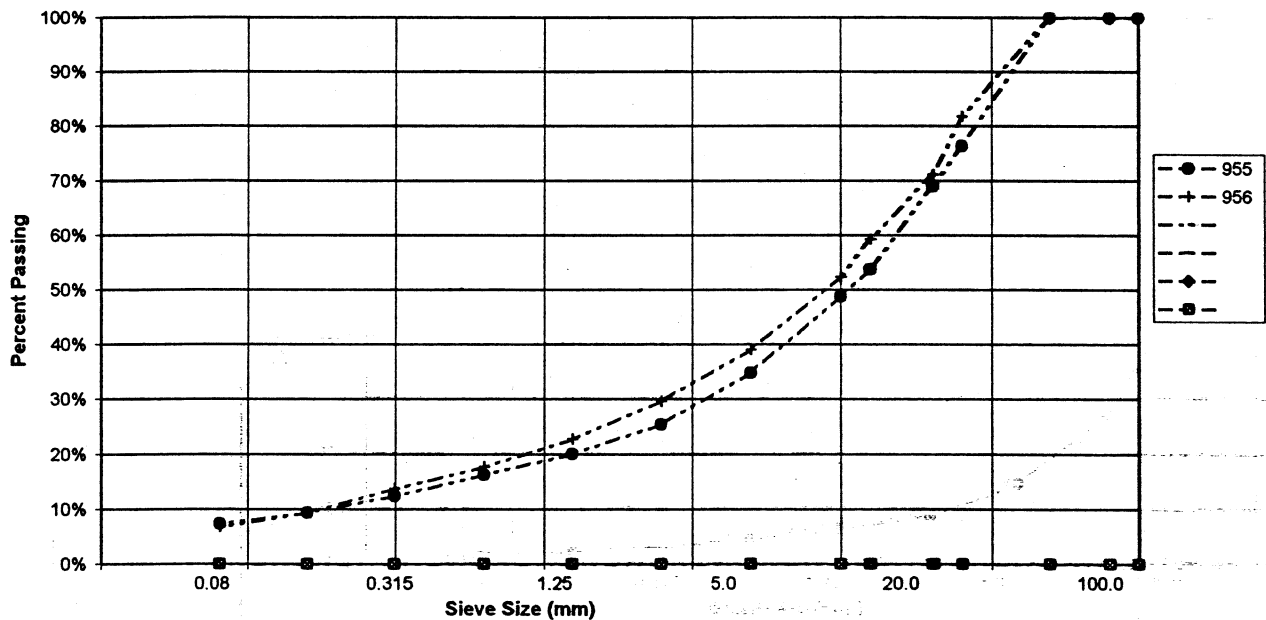
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1766+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1766+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1444T

DATE COMP: 2000/08/22

FIELD NO:	955	956			
LAB NO:	1357	1358			
DEPTH:	1.3-1.5	7.7-7.9			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	76%	82%			
20.0	69%	71%			
12.5	54%	59%			
10.0	49%	52%			
5.0	35%	39%			
2.5	25%	30%			
1.25	20%	23%			
0.630	16%	18%			
0.315	12%	14%			
0.160	9%	9%			
0.080	7%	7%			
M.C.(%)	2%	8%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	65	61			
% SAND:	27	32			
% FINES:	7	7			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



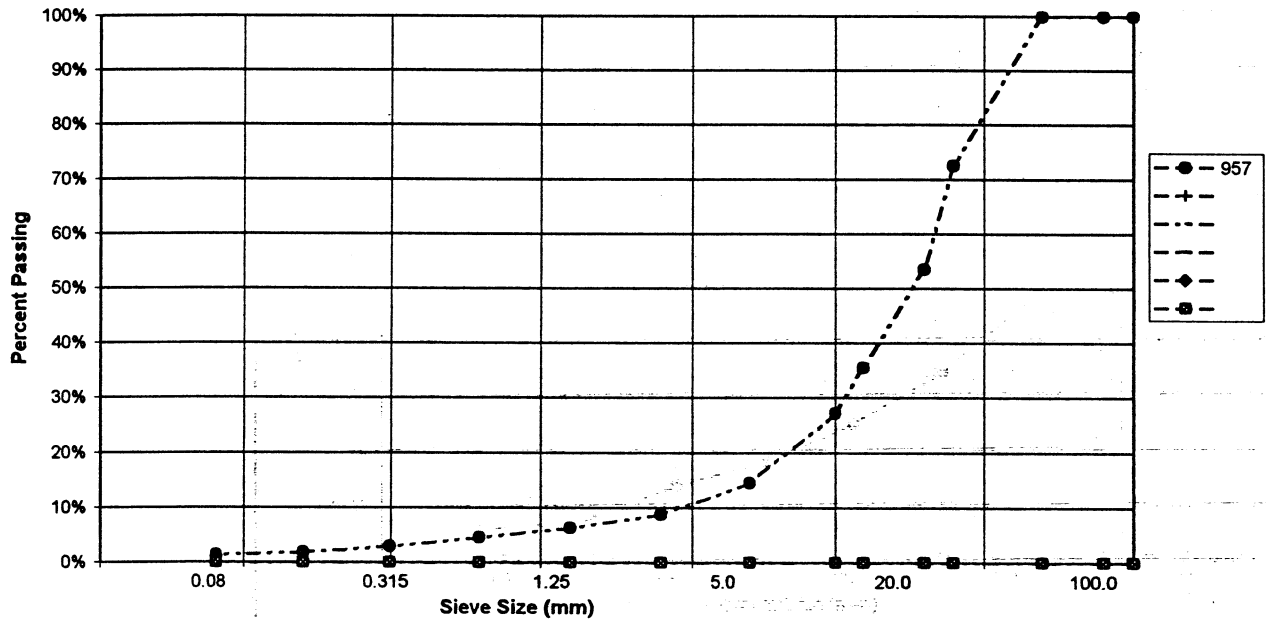
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1766+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1766+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1445T

DATE COMP: 2000/06/22

FIELD NO:	957				
LAB NO:	1359				
DEPTH:	1.5-1.7				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
60.0	100%				
25.0	73%				
20.0	54%				
12.5	36%				
10.0	27%				
5.0	15%				
2.5	9%				
1.25	6%				
0.630	5%				
0.315	3%				
0.160	2%				
0.080	1%				
M.C.(%):	2%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	85				
% SAND:	13				
% FINES:	1				
CLASSIFICATION	POORLY GRADED GRAVEL (GP)				

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



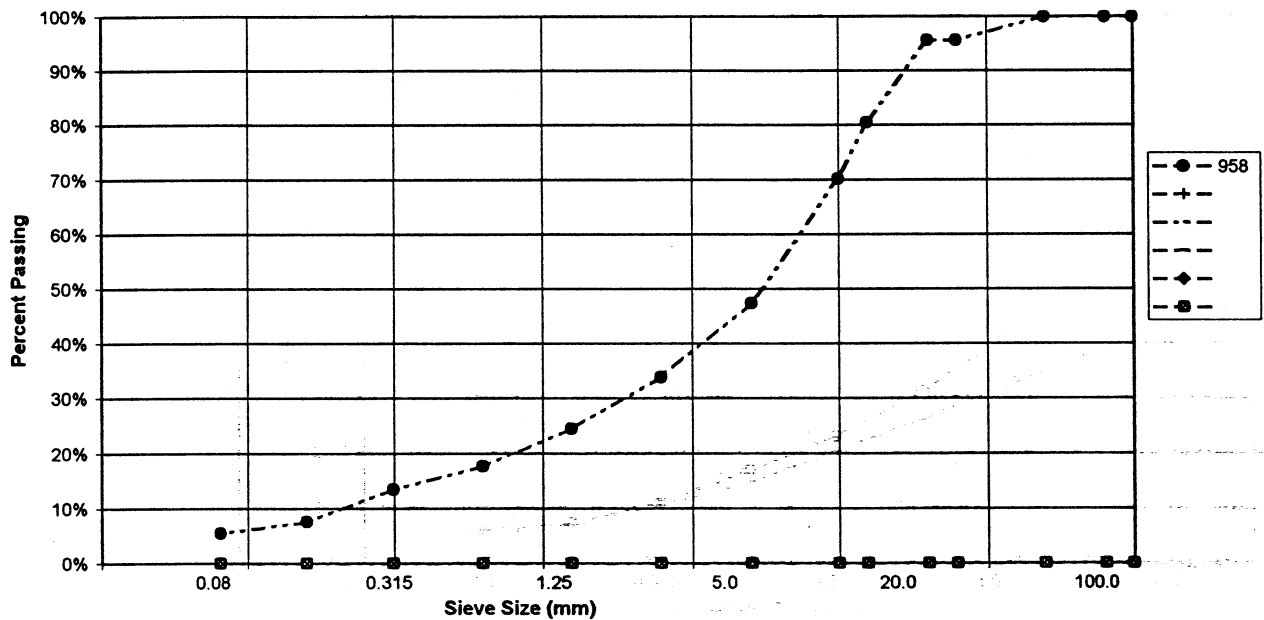
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1766+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1766+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1446T

DATE COMP: 2000/06/22

FIELD NO:	958				
LAB NO:	1360				
DEPTH:	1.4-1.5				
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	96%				
20.0	96%				
12.5	81%				
10.0	70%				
5.0	47%				
2.5	34%				
1.25	24%				
0.630	18%				
0.315	14%				
0.160	8%				
0.080	5%				
M.C.(%):	5%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	53				
% SAND:	42				
% FINES:	5				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



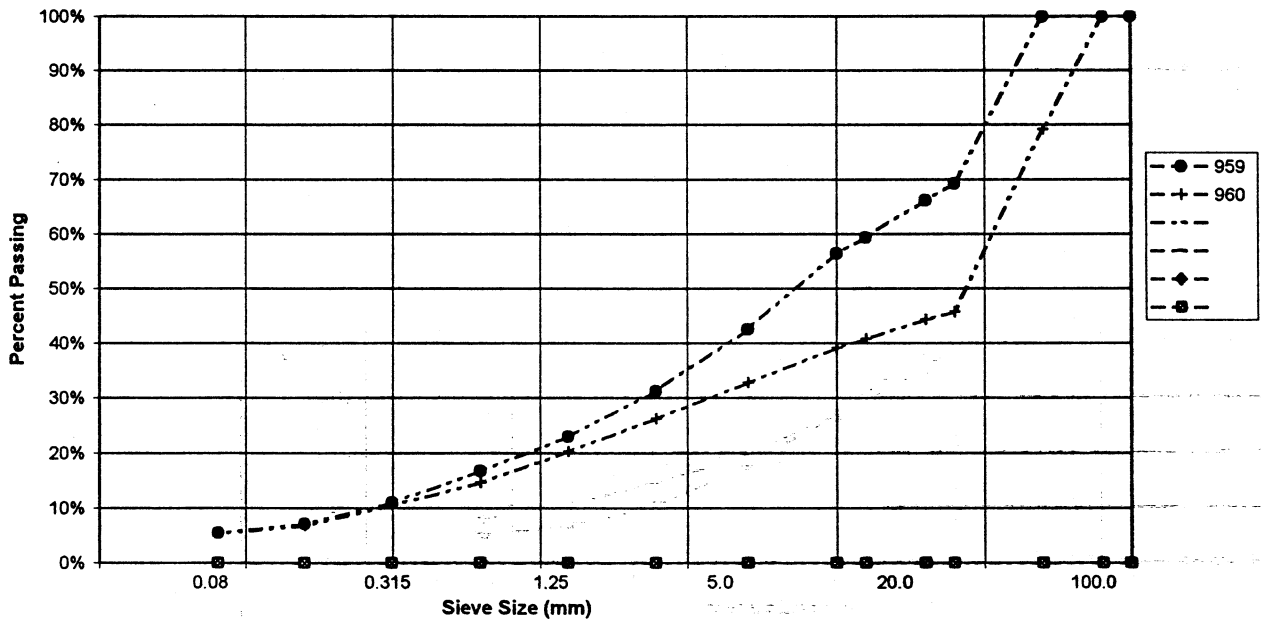
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1768+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1768+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1447T

DATE COMP: 2000/06/22

FIELD NO:	959	960			
LAB NO:	1361	1362			
DEPTH:	1.4-1.6	3.5-3.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	79%			
25.0	69%	46%			
20.0	66%	44%			
12.5	59%	41%			
10.0	56%	39%			
5.0	43%	33%			
2.5	31%	26%			
1.25	23%	20%			
0.630	17%	15%			
0.315	11%	11%			
0.160	7%	7%			
0.080	5%	5%			
M.C.(%):	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	57	67			
% SAND:	37	27			
% FINES:	5	5			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



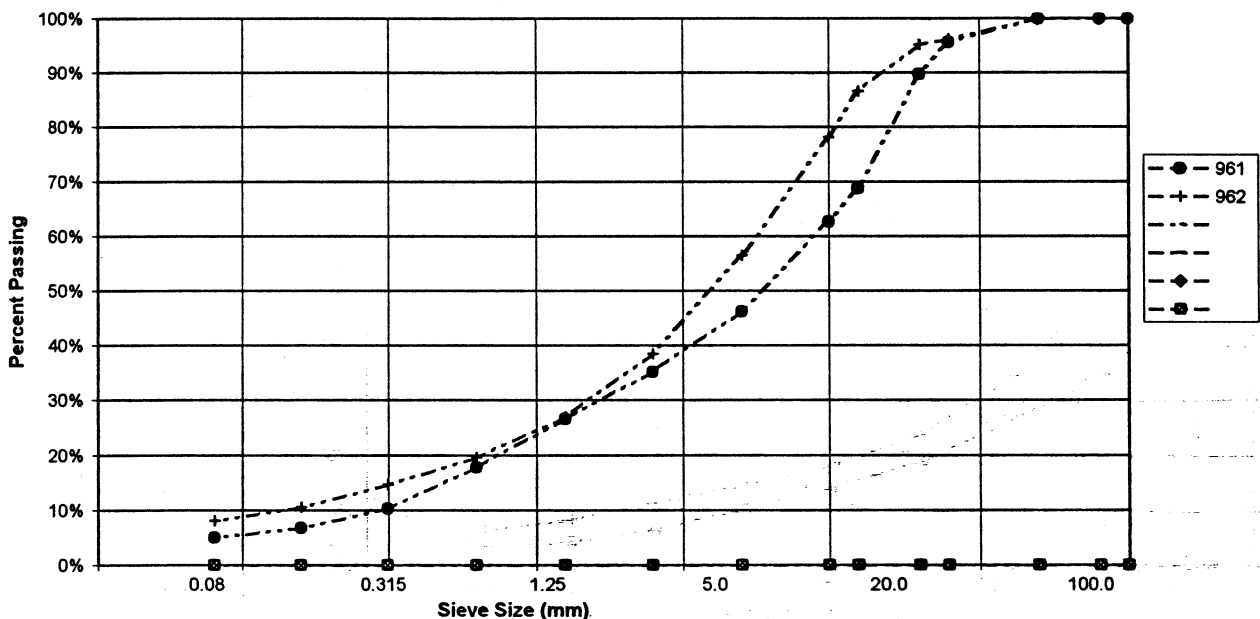
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1766+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1766+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1448T

DATE COMP: 2000/06/22

FIELD NO:	961	962			
LAB NO:	1363	1364			
DEPTH:	1.5-1.7	3.8-4.0			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	96%	96%			
20.0	90%	95%			
12.5	69%	87%			
10.0	63%	78%			
5.0	46%	56%			
2.5	35%	39%			
1.25	27%	27%			
0.630	18%	20%			
0.315	10%	15%			
0.160	7%	11%			
0.080	5%	8%			
M.C.(%)	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	54	44			
% SAND:	41	48			
% FINES:	5	8			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



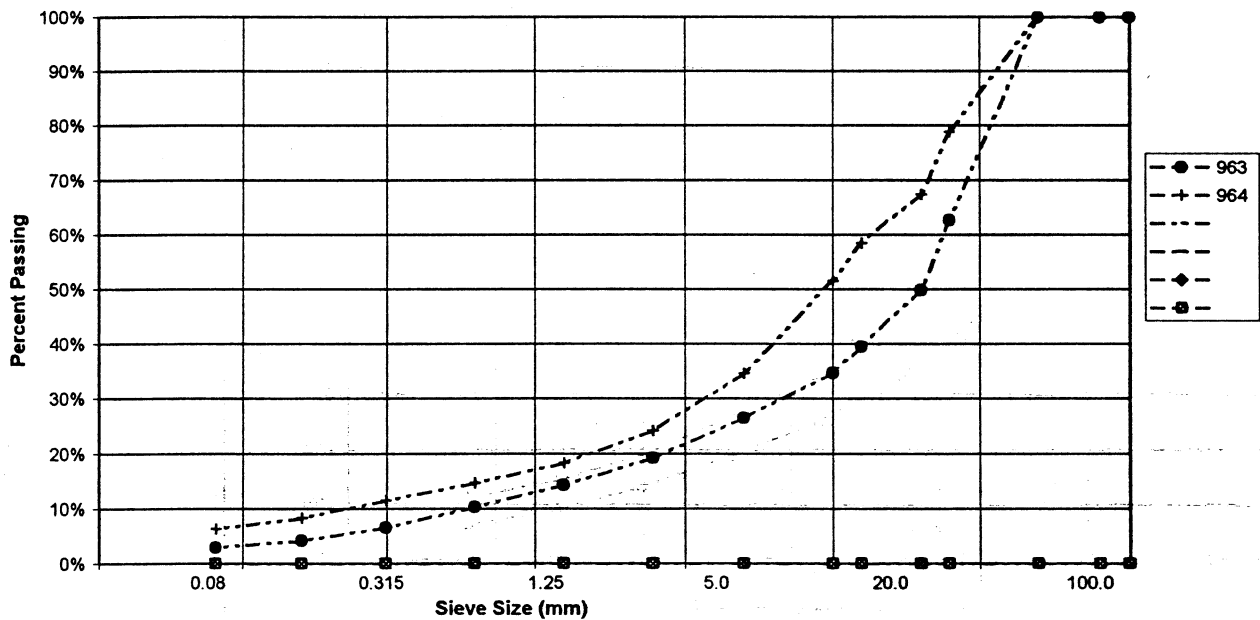
PROJECT NUMBER: 092-202101-0381-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1766+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1766+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1449T

DATE COMP: 2000/06/22

FIELD NO:	963	964			
LAB NO:	1365	1366			
DEPTH:	1.4-1.5	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	63%	79%			
20.0	50%	67%			
12.5	40%	58%			
10.0	35%	52%			
5.0	27%	35%			
2.5	19%	24%			
1.25	14%	18%			
0.630	10%	15%			
0.315	7%	11%			
0.160	4%	8%			
0.080	3%	6%			
M.C.(%)	1%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	73	65			
% SAND:	24	28			
% FINES:	3	6			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



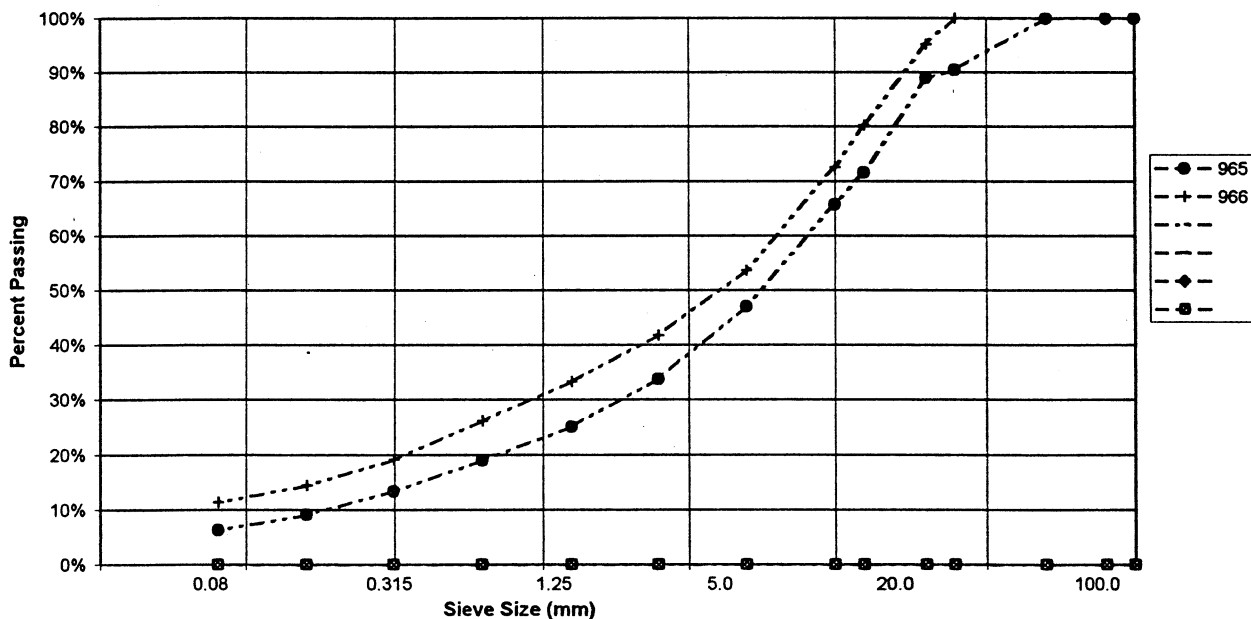
PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: Shakwak Seg 11
 PROJECT LOCATION: 1766+400 LHS
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: PIT 1766+400 LT
 LOGGED BY: D.T.

HOLE No.: 557-1450T

DATE COMP: 2000/06/22

FIELD NO:	965	966			
LAB NO:	1367	1368			
DEPTH:	1.5-1.7	4.5-4.7			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	91%	100%			
20.0	89%	95%			
12.5	72%	80%			
10.0	66%	73%			
5.0	47%	54%			
2.5	34%	42%			
1.25	25%	33%			
0.630	19%	26%			
0.315	13%	19%			
0.160	9%	14%			
0.080	6%	11%			
M.C.(%)	2%	6%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	53	46			
% SAND:	41	42			
% FINES:	6	11			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)





SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION		HOLE No.	85-85
HOLE LOCATION		ELEV.	DEPTH TO G.W.L.
DATE DRILLED	85-06-18	DRILL UNIT	BACKHOE
		TECHNICIAN	D.S.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASS. or G.W.L.	SAMPLE TYPE	FIELD No.	LAB No.	SAMPLE DATA					STD PENETRATION BLOWS/300mm	0 - % MOISTURE CONTENT X - % < .074mm PLASTIC LIMIT — LIQUID LIMIT	
						UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm				
0	SILTY ORGANIC SAND - damp - brown												
1	WELL GRADED GRAVEL WITH SAND - damp - grey - (LOW) TO SUB - (LOW) MTL. - EST. 20% + 100mm MTL. - maximum 250mm MTL.												
2	- HOLE COLLAPSE IN - MAX. 150mm MTL.												
3	END HOLE												
4													
5													
6													
7													
8													
9													
10													

PIT RUN	211	327	GW	74.5	24.5	—	X	NP				
CRUSH	211	327	GW	63.6	34.7	—	X	NP	C.C. = 53.4%			
PIT RUN	212	328	GW	76.4	22.4	—	X	NP				
CRUSH	212	328	GW	67.8	30.4	—	X	NP	C.C. = 60.6%			



SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION		HOLE No.	85-87
HOLE LOCATION		ELEV.	DEPTH TO G.W.L.
DATE DRILLED	35-06-18	DRILL UNIT	BACKHOE
		TECHNICIAN	D.S.

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASS. or G.W.L.	SAMPLE TYPE	FIELD No.	LAB No.	SAMPLE DATA					STD. PENETRATION BLOWS/300mm	0 - % MOISTURE CONTENT X - % < .074mm PLASTIC LIMIT — LIQUID LIMIT	
						UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005mm				
0	SANDY TOPSOIL - Crown - Ramp												
1	WELL GRADED GRAVEL WITH SAND - Ramp - Grey / Crown - Round to sub-round MTL. - Est. 20% + 100mm MTL. - Max. 300mm MTL.												
2													
3	END HOLE												
4													
5													
6													
7													
8													
9													
10													

P. 214 330 GW 72.3 26.1 —
 WASH 214 330 GW 67.2 30.8 —

X NP
 X NP C.C. = 6.3%



SUBSURFACE EXPLORATION AND TESTING REPORT

PROJECT/SECTION

HOLE No.

85-90

HOLE LOCATION

ELEV.

DEPTH TO G.W.L.

DATE DRILLED 85-06-19

DRILL UNIT BACKHOE

TECHNICIAN

D.S.

SAMPLE DATA

DEPTH (m.)	DESCRIPTION OF MATERIAL	PERMAFROST CLASS. or G.W.L.	SAMPLE TYPE	FIELD No.	LAB No.	UNIFIED CLASSIFICATION	% GRAVEL	% SAND	% < .005 mm	STD PENETRATION BLOWS/300mm	MOISTURE CONTENT	
											0 - %	X - % < .074 mm
											PLASTIC LIMIT	LIQUID LIMIT
0	SANDY TOPSOIL - damp - brown											
0.5	GRAVEL WITH SAND - max. 300mm ntl. - EST. 25% +100mm ntl.											
0.5	SAND - damp - grey											
1	WELL GRADED GRAVEL WITH SAND - damp - grey - sub-round ntl. - EST. 15% +100mm ntl. - max. 200mm ntl.											
2												
2.5	END HOLE											
2.5												
3												
4												
5												
6												
7												
8												
9												
10												

PIT	218	334	GW	65.2	32.8	—
WASH	218	334	GW	56.1	40.7	—

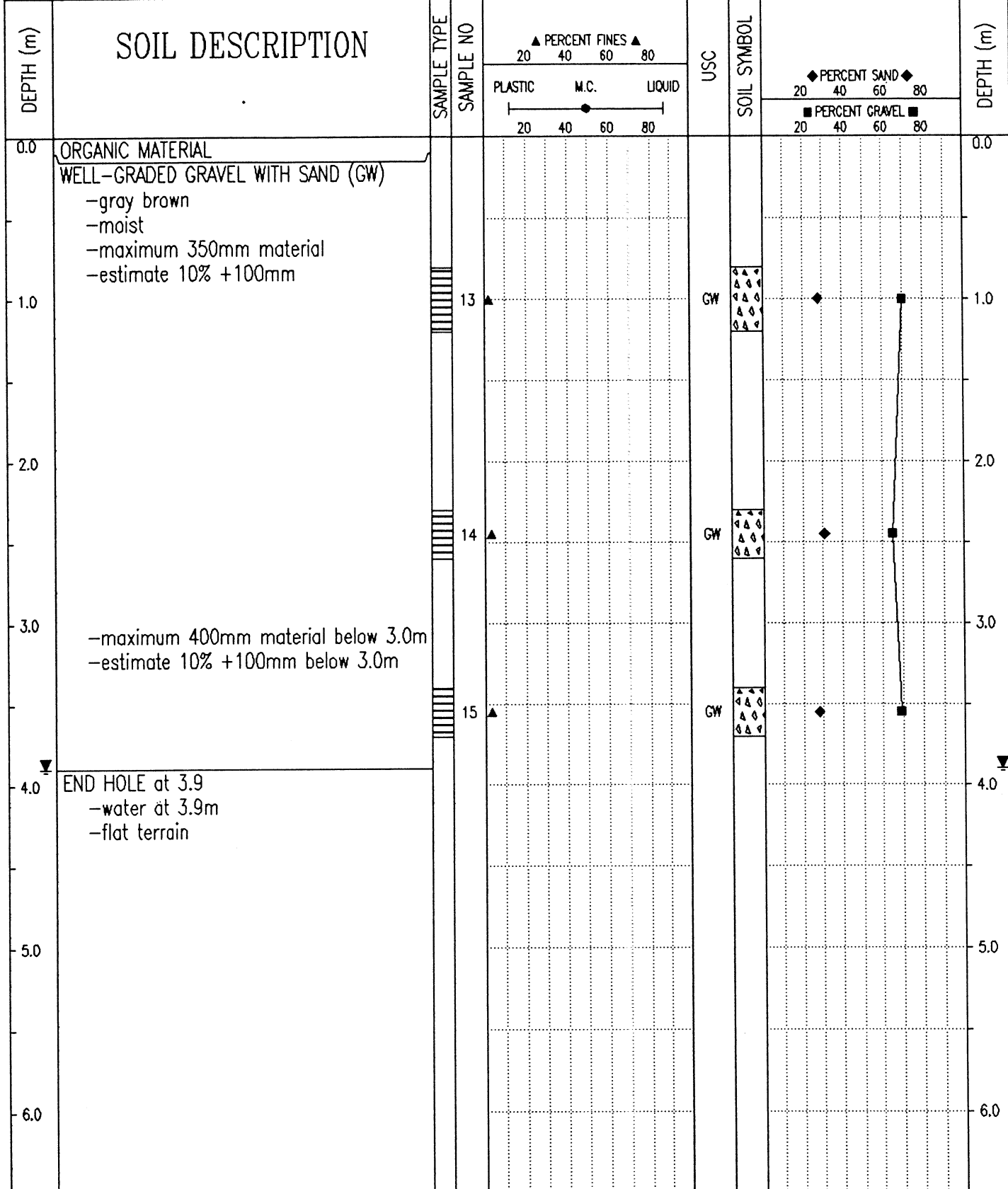
X NP
X NP C.C. = 71.7%

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-03								
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05								
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC MATERIAL WELL-GRADED GRAVEL WITH SAND (GW) -light brown -damp -maximum 200mm material -estimate 5-10% +100mm										0.0	
1.0											1.0	
2.0			7				GW				2.0	
3.0	-maximum 250mm material below 3.0m -estimate 10% +100mm below 3.0m		8				GW				3.0	
4.0			9				GW				4.0	
4.5	END HOLE at 4.5m -water at 4.5m -flat terrain										4.5	
5.0											5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: CB
REVIEWED BY:
Fig. No:
COMPLETION DEPTH: 4.5 m
COMPLETE: 88/10/24
Page 1 of 1

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



-maximum 400mm material below 3.0m
-estimate 10% +100mm below 3.0m

END HOLE at 3.9
-water at 3.9m
-flat terrain

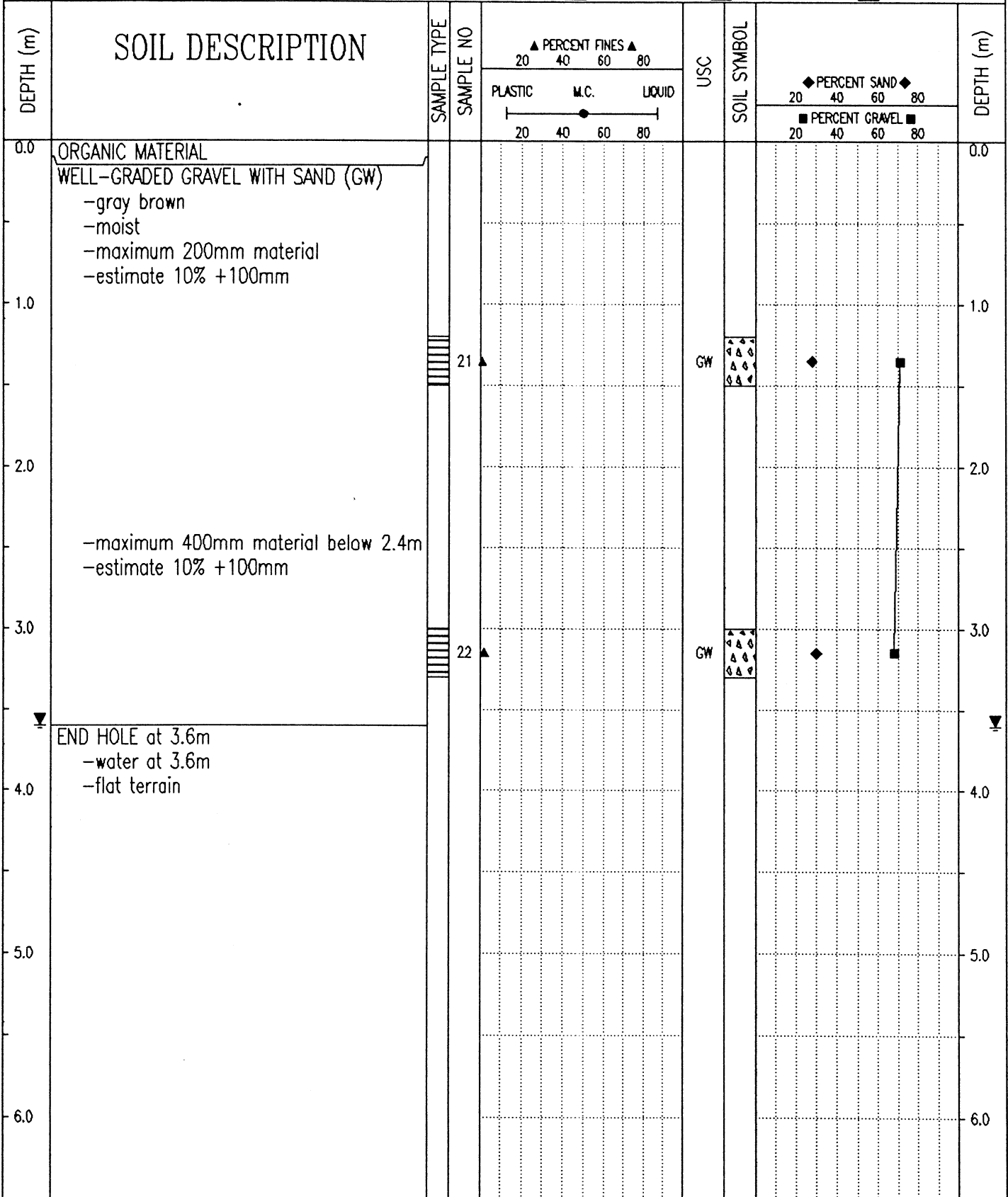
Government of Yukon
Transportation Engineering

LOGGED BY: CB	COMPLETION DEPTH: 3.9 m
REVIEWED BY:	COMPLETE: 88/10/25
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-07								
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05								
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	ORGANIC MATERIAL											0.0
	WELL-GRADED GRAVEL WITH SAND (GW)											
	-gray brown											
	-moist											
	-maximum 250mm material											
	-estimate 5% +100mm											
1.0												1.0
2.0												2.0
	-maximum 300mm material below 2.0m											
	-estimate 5% +100mm											
3.0			18				GW	▲▲▲▲	◆	■		3.0
								▲▲▲▲				
			19				GW	▲▲▲▲	◆	■		3.0
								▲▲▲▲				
			20				GW	▲▲▲▲	◆	■		4.0
								▲▲▲▲				
4.0	END HOLE at 3.9m											4.0
	-water at 3.9m											
	-near hole 85-69											
	-flat terrain											
5.0												5.0
6.0												6.0
Government of Yukon				LOGGED BY: CB		COMPLETION DEPTH: 3.9 m						
Transportation Engineering				REVIEWED BY:		COMPLETE: 88/10/25						
				Fig. No:				Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 031-08
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon
Transportation Engineering

LOGGED BY: CB
REVIEWED BY:
Fig. No:

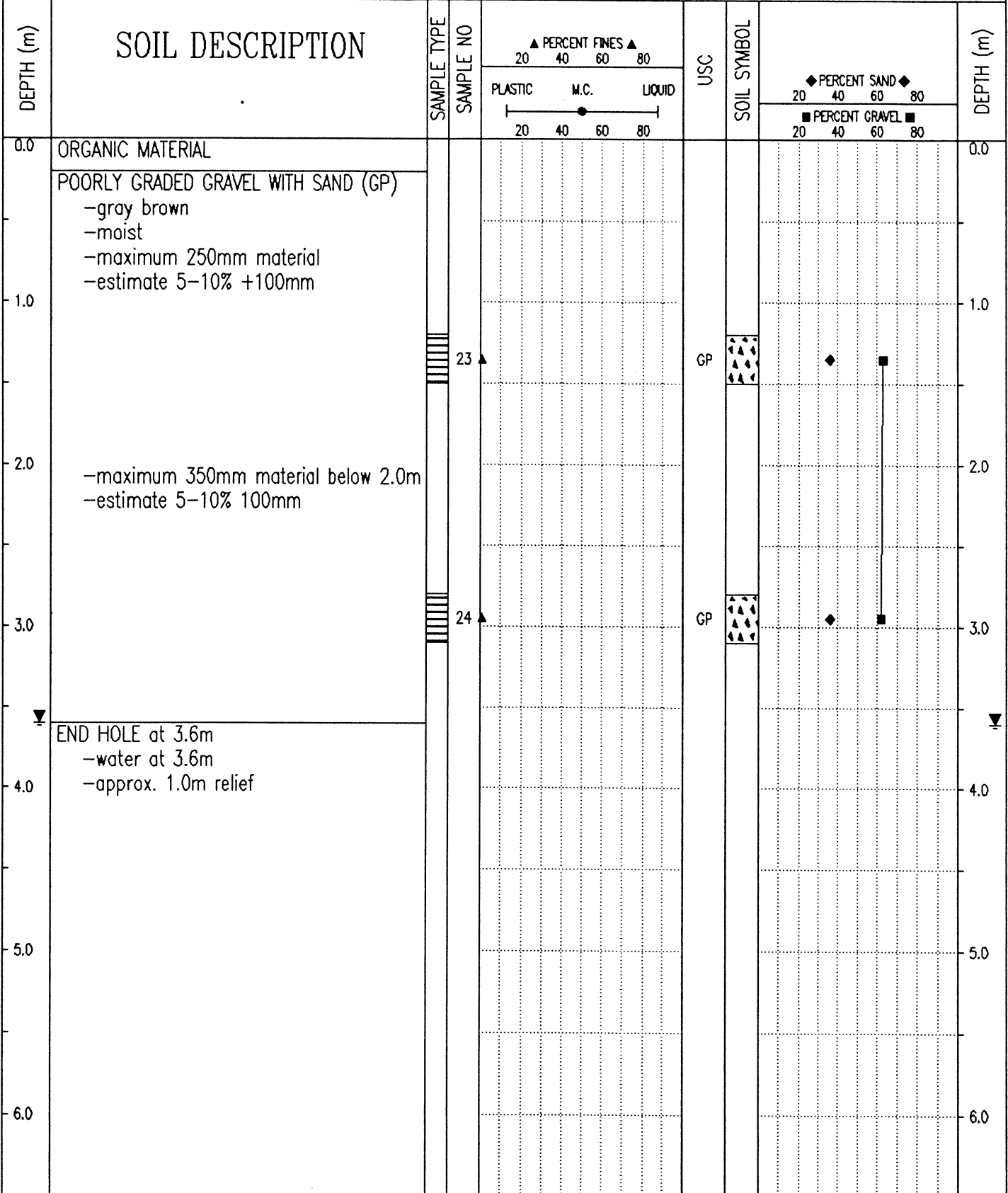
COMPLETION DEPTH: 3.6 m
COMPLETE: 88/10/25

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 031-09
--	--------------------------------	---------------------

PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
--------------------	-----------------	----------------------

BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)
------------------	--------------------	---------------------

SAMPLE TYPE	<input type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE
-------------	---------------------------------	--	---	-------------------------------	-------------------------------	-------------------------------



Government of Yukon
Transportation Engineering

LOGGED BY: CB

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 3.6 m

COMPLETE: 88/10/25

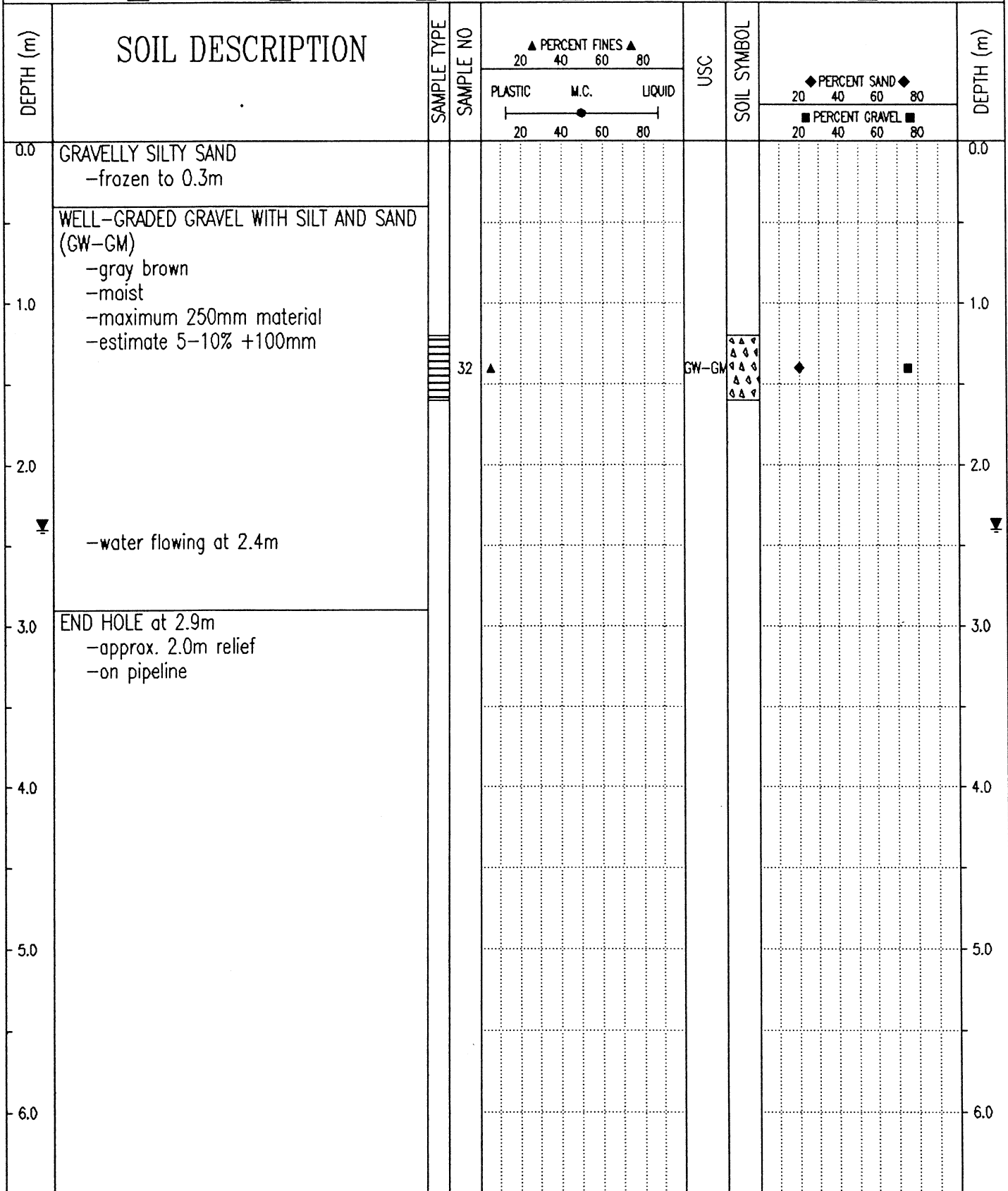
Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-12					
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05					
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)					
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER					
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE					
				<input type="checkbox"/> CORE					
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			
0.0	ORGANIC MATERIAL								0.0
0.0	WELL-GRADED GRAVEL WITH SAND (GW)								0.0
0.0	-gray brown								0.0
0.0	-moist								0.0
0.0	-maximum 250mm material								0.0
0.0	-estimate 5% +100mm								0.0
1.0									1.0
2.0									2.0
2.6			29				GW		2.6
2.6									2.6
3.0									3.0
3.0	END HOLE at 2.6m								3.0
3.0	-water at 2.6m								3.0
4.0									4.0
5.0									5.0
6.0									6.0
Government of Yukon Transportation Engineering				LOGGED BY: CB		COMPLETION DEPTH: 2.6 m			
				REVIEWED BY:		COMPLETE: 88/10/25			
				Fig. No:				Page 1 of 1	

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-13							
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05							
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER							
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE							
				<input type="checkbox"/> CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲		USC	SOIL SYMBOL	◆ PERCENT SAND ◆		DEPTH (m)	
				PLASTIC	M.C.			LIQUID	■ PERCENT GRAVEL ■		
0.0	ORGANIC MATERIAL			20	40	60	80	20	40	60	80
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -gray brown -moist -maximum 300mm material -estimate 5% +100mm			20	40	60	80	20	40	60	80
2.0			30								
3.0	END HOLE at 2.9m -water at 2.9m -on pipeline -flat terrain		31								
4.0											
5.0											
6.0											
Government of Yukon Transportation Engineering				LOGGED BY: CB		COMPLETION DEPTH: 2.9 m					
				REVIEWED BY:		COMPLETE: 88/10/25					
				Fig. No:		Page 1 of 1					

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 031-14
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon Transportation Engineering	LOGGED BY: CB	COMPLETION DEPTH: 2.9 m
	REVIEWED BY:	COMPLETE: 88/10/26
	Fig. No:	Page 1 of 1

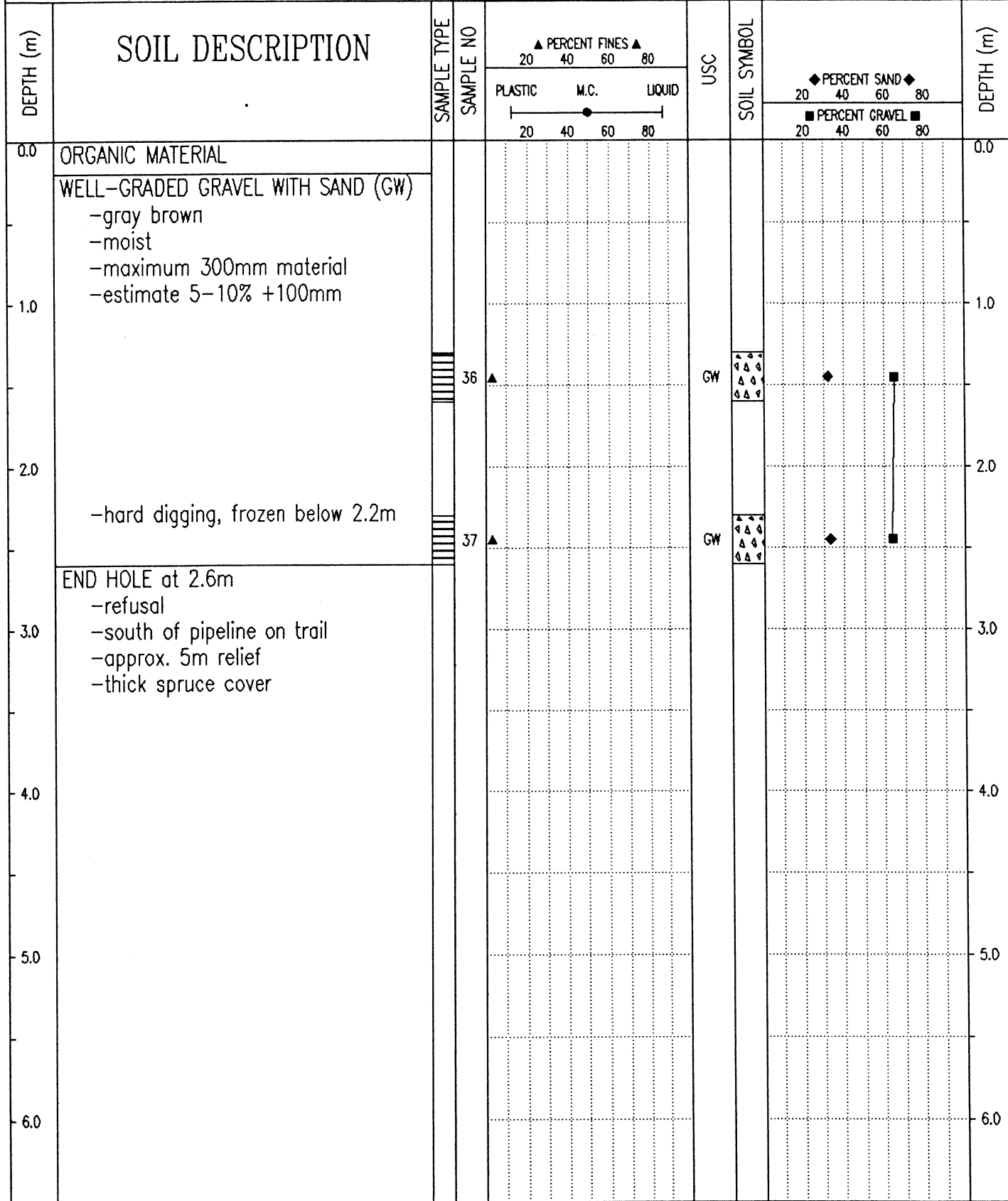
SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-15		
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05		
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)		
SAMPLE TYPE		SAMPLE NO		USC		
<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE						
DEPTH (m)	SOIL DESCRIPTION	PLASTIC	M.C.	LIQUID	SOIL SYMBOL	DEPTH (m)
		▲ PERCENT FINES ▲ 20 40 60 80				
		— PLASTIC — — M.C. — — LIQUID —				
		20 40 60 80			◆ PERCENT SAND ◆ 20 40 60 80	
		20 40 60 80			■ PERCENT GRAVEL ■ 20 40 60 80	
0.0	ORGANIC MATERIAL					0.0
	WELL-GRADED GRAVEL WITH SAND (GW)					
	-gray brown					
	-moist					
	-maximum 300mm material					
	-estimate 5% +100mm					
1.0						1.0
2.0						2.0
	-flowing water at 2.1m					
	-one 400mm boulder below 2.1m					
	END HOLE at 2.5m					
	-photos 10 & 11					
	-photo 10 in hole					
3.0						3.0
4.0						4.0
5.0						5.0
6.0						6.0

Government of Yukon
Transportation Engineering

LOGGED BY: CB	COMPLETION DEPTH: 2.5 m
REVIEWED BY:	COMPLETE: 88/10/26
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-16									
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05									
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)									
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE													
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
0.0	ORGANIC MATERIAL												0.0
	WELL-GRADED GRAVEL WITH SAND (GW) -gray brown -moist -maximum 250mm material -estimate 5% +100mm												
1.0													1.0
2.0	-water flowing at 2.0m		34				GW	▲▲▲▲ ▲▲▲▲ ▲▲▲▲	◆	■			2.0
3.0	END HOLE at 2.4m -0.5m dia. spruce cover -approx. 1.0m relief												3.0
4.0													4.0
5.0													5.0
6.0													6.0
Government of Yukon Transportation Engineering				LOGGED BY: CB REVIEWED BY: Fig. No:				COMPLETION DEPTH: 2.4 m COMPLETE: 88/10/26					

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 031-18
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: CB	COMPLETION DEPTH: 2.6 m
	REVIEWED BY:	COMPLETE: 88/10/26
	Fig. No:	Page 1 of 1

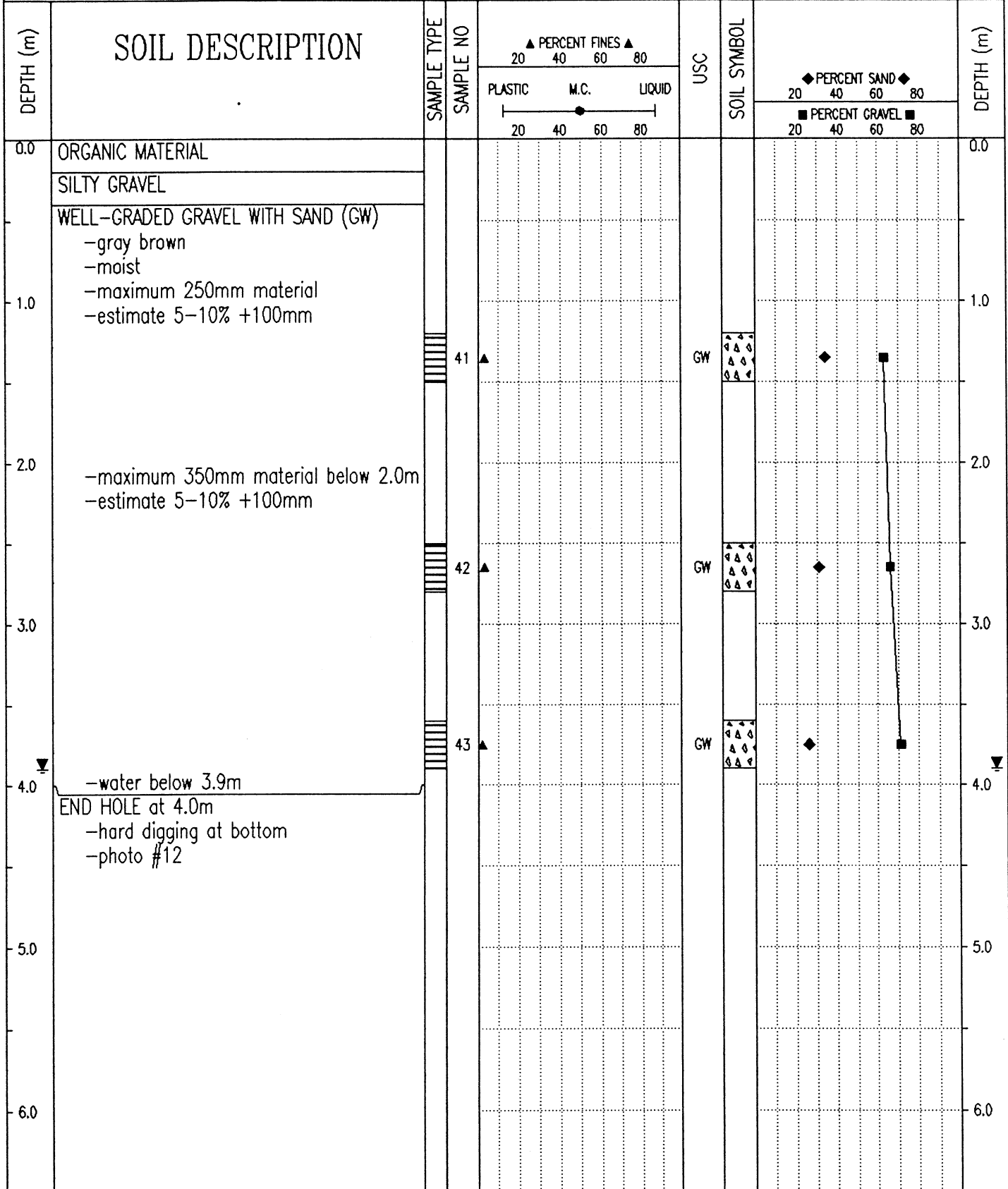
SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-19						
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05						
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)						
SAMPLE TYPE		RETURN		S.P.T.						
		AUGER		BULK						
		TUBE		CORE						
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80		USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80		DEPTH (m)
				PLASTIC M.C. LIQUID 20 40 60 80				■ PERCENT GRAVEL ■ 20 40 60 80		
0.0	ORGANIC MATERIAL								0.0	
0.0 - 1.0	WELL-GRADED GRAVEL WITH SAND (GW) -gray brown -moist -maximum 300mm material -estimate 5-10% +100mm									
1.0 - 2.5	-easy digging -maximum 400mm material below 2.5m -estimate 5-10% +100mm									
2.5 - 3.3	-frozen below 2.9m									
3.3 - 4.0	END HOLE at 3.3m -refusal -water in bottom of hole 5 min. later									
4.0 - 6.0										

Government of Yukon
Transportation Engineering

LOGGED BY: CB
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 3.3 m
COMPLETE: 88/10/26

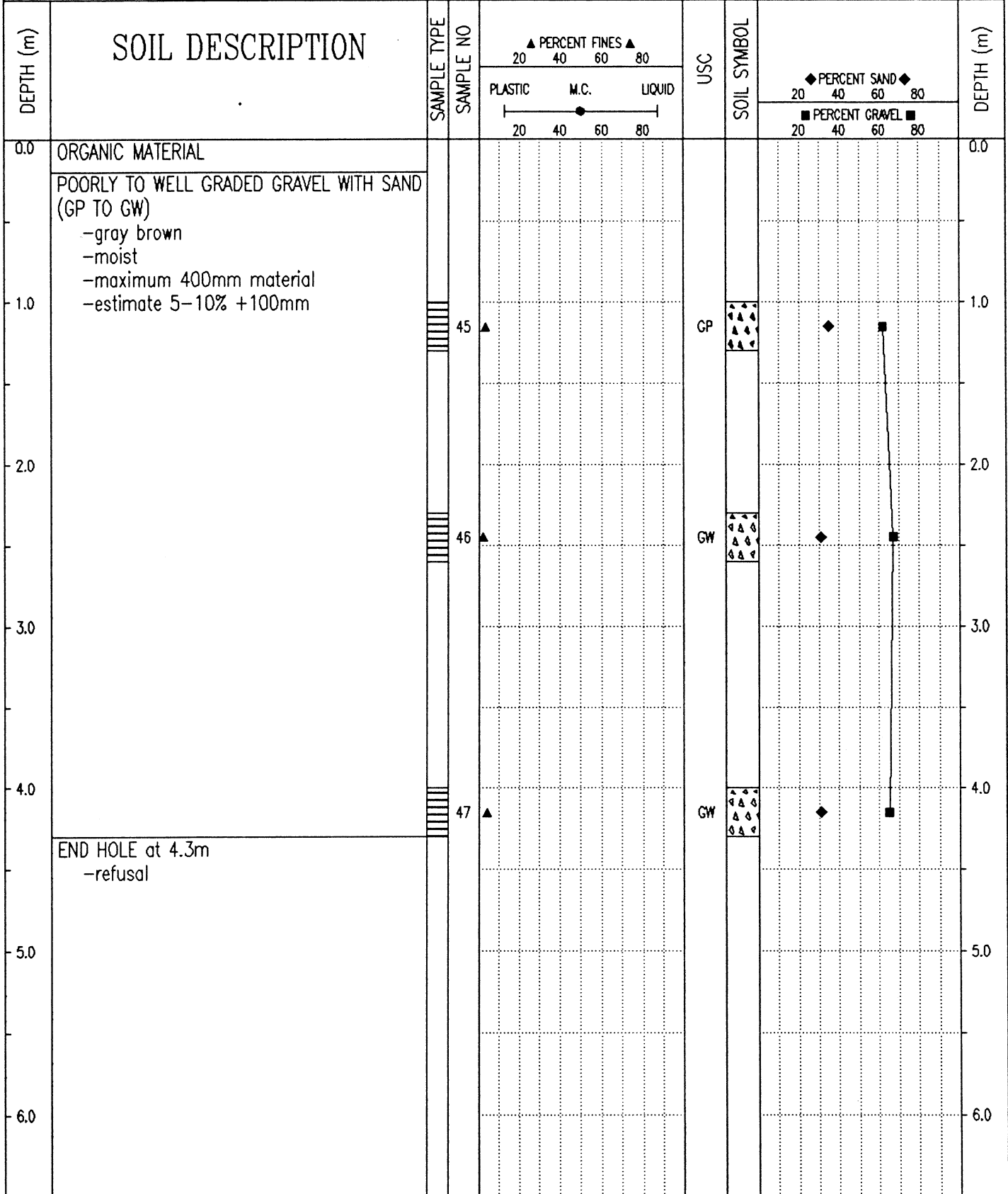
SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 031-20
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon Transportation Engineering	LOGGED BY: CB	COMPLETION DEPTH: 4.0 m
	REVIEWED BY:	COMPLETE: 88/10/26
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-21							
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05							
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER							
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE							
				<input type="checkbox"/> CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	DEPTH (m)		
				PLASTIC	M.C.	LIQUID					
0.0	ORGANIC MATERIAL GRAVEL AND SILTY SAND LAYERS -moist			20	40	60	80		0.0		
1.0	WELL-GRADED GRAVEL WITH SAND (GW) -gray brown -moist -maximum 250mm material -estimate 5-10% +100mm								1.0		
2.0			44	▲				GW	2.0		
3.0	END HOLE at 2.6m -refusal -thick spruce cover								3.0		
4.0									4.0		
5.0									5.0		
6.0									6.0		
Government of Yukon Transportation Engineering				LOGGED BY: CB		COMPLETION DEPTH: 2.6 m					
				REVIEWED BY:		COMPLETE: 88/10/26					
				Fig. No:						Page 1 of 1	

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 031-22
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



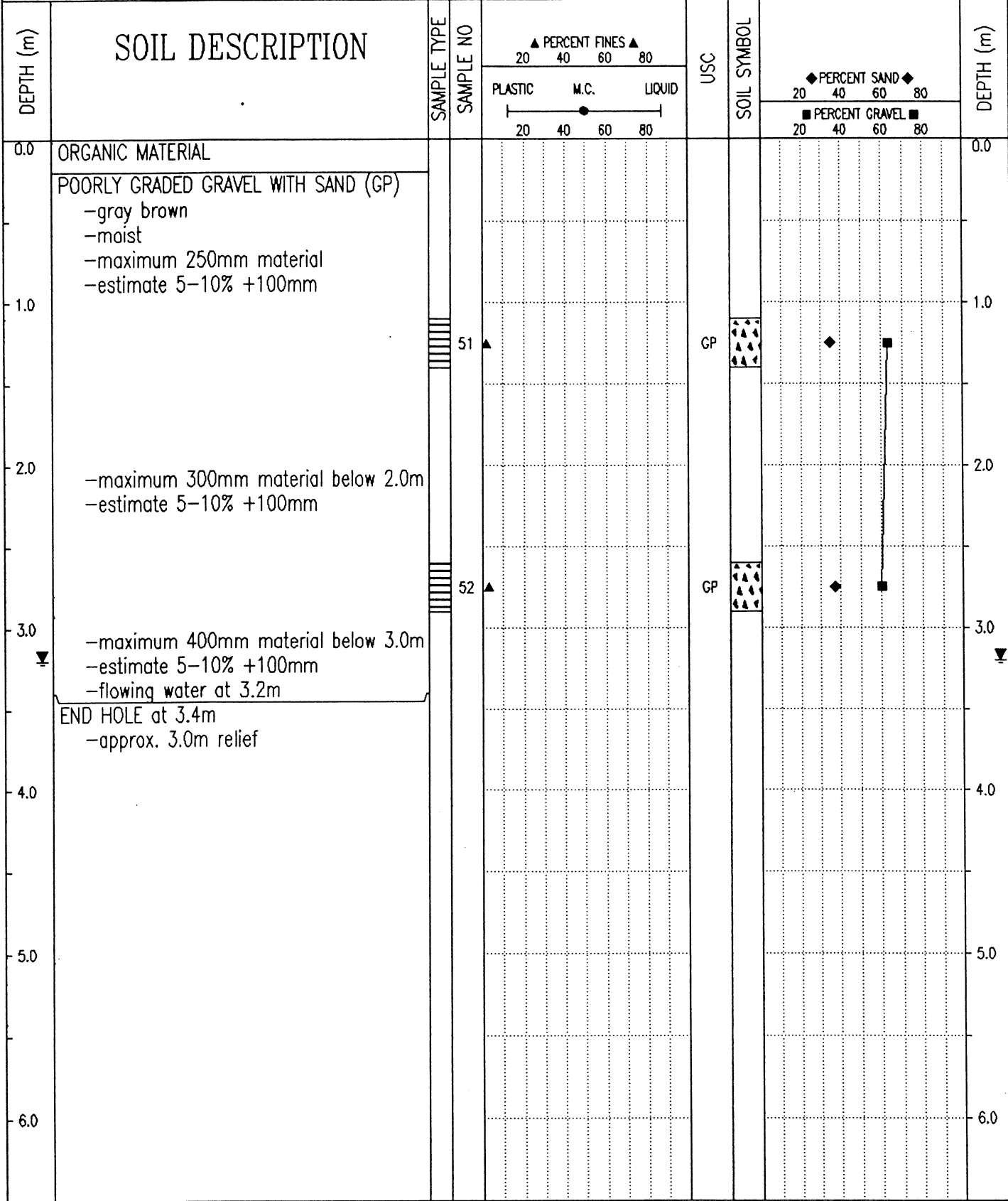
Government of Yukon
Transportation Engineering

LOGGED BY: CB
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.3 m
COMPLETE: 88/10/26

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-23											
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05											
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)											
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER											
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE											
				<input type="checkbox"/> CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			PERCENT GRAVEL ■			DEPTH (m)
				20	40	60			80	20	40	60	80	20	
0.0	ORGANIC MATERIAL													0.0	
	SILTY GRAVEL														
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP TO GW)														
1.0	-gray brown -moist -maximum 300mm material -estimate 5% +100mm													1.0	
2.0			48				GP							2.0	
3.0			49				GW							3.0	
4.0			50				GW							4.0	
4.4	END HOLE at 4.4m -flowing water in bottom of hole													4.4	
5.0														5.0	
6.0														6.0	
Government of Yukon Transportation Engineering				LOGGED BY: CB REVIEWED BY: Fig. No:				COMPLETION DEPTH: 4.4 m COMPLETE: 88/10/26							

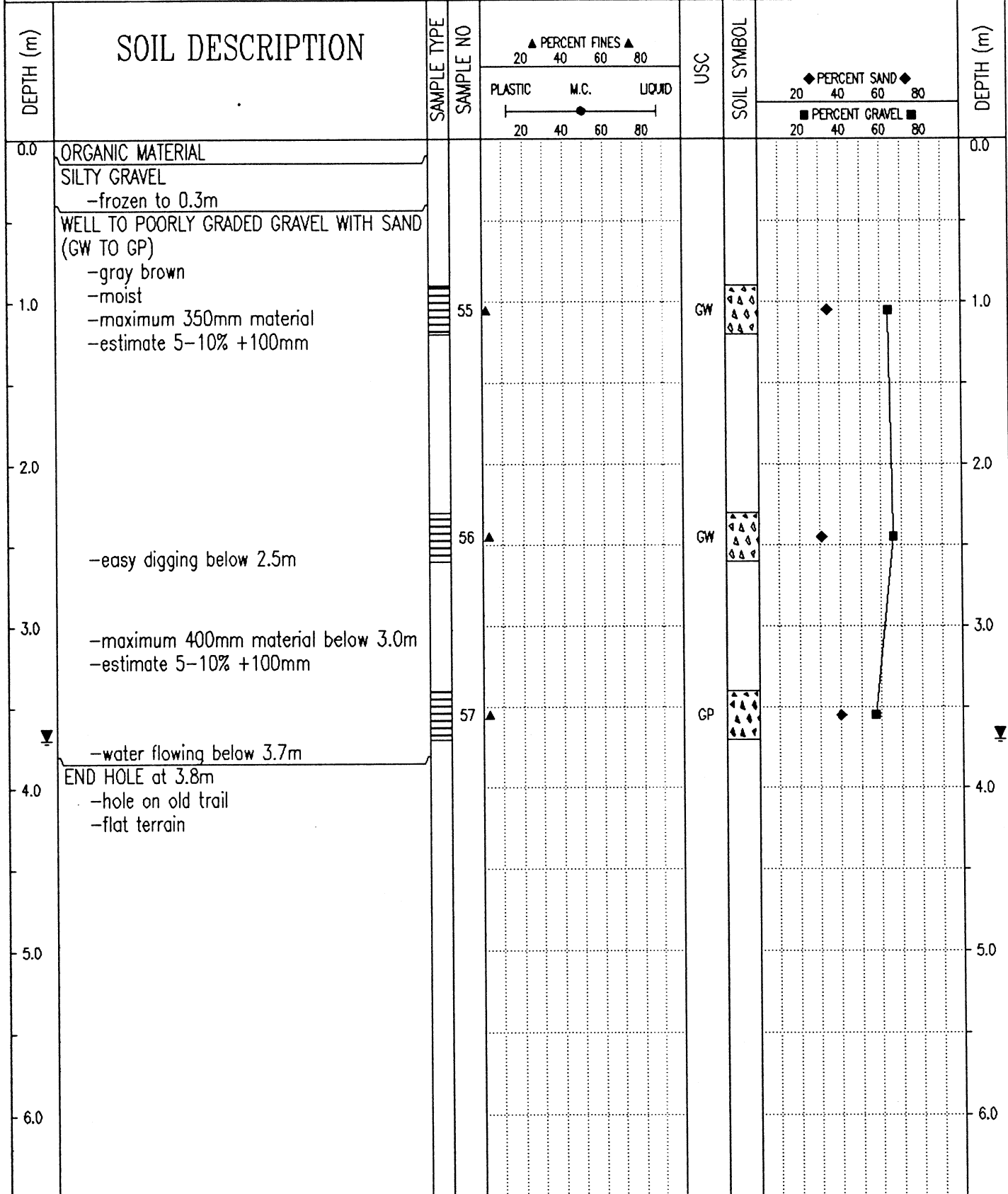
SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 031-24
PWC - CAPITAL Y.T.		A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225		LOCATION: See Plan	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE			



Government of Yukon Transportation Engineering	LOGGED BY: CB	COMPLETION DEPTH: 3.4 m
	REVIEWED BY:	COMPLETE: 88/10/26
	Fig. No:	Page 1 of 1

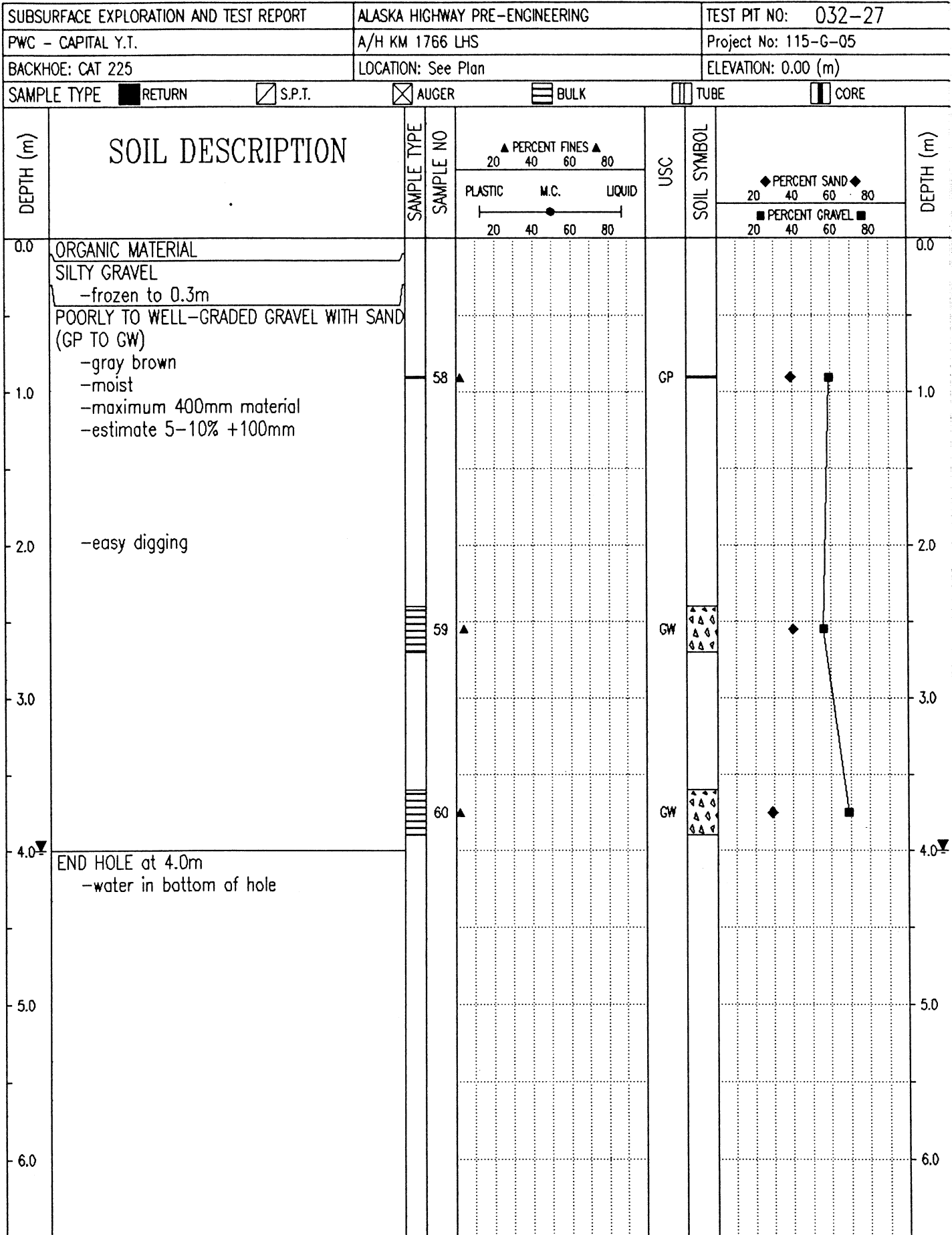
SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 031-25								
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05								
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL ■			
0.0	ORGANIC MATERIAL										0.0	
0.0 - 1.0	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP TO GW) -gray brown -moist -maximum 300mm material -estimate 5-10% +100mm											
1.0 - 2.0												
2.0	-easy digging		53				GP				2.0	
2.0 - 3.0												
3.0			54				GW				3.0	
3.0 - 4.0	-maximum 350mm material below 3.5m -estimate 5-10% +100mm											
4.0	-water below 3.9m										4.0	
4.0 - 4.2	END HOLE at 4.2m											
4.2 - 5.0												
5.0 - 6.0												
6.0											6.0	
Government of Yukon Transportation Engineering				LOGGED BY: CB		COMPLETION DEPTH: 4.2 m						
				REVIEWED BY:		COMPLETE: 88/10/27						
				Fig. No:		Page 1 of 1						

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 032-26
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.
	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK
	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE



Government of Yukon
Transportation Engineering

LOGGED BY: CB	COMPLETION DEPTH: 3.8 m
REVIEWED BY:	COMPLETE: 88/10/27
Fig. No:	Page 1 of 1



Government of Yukon
Transportation Engineering

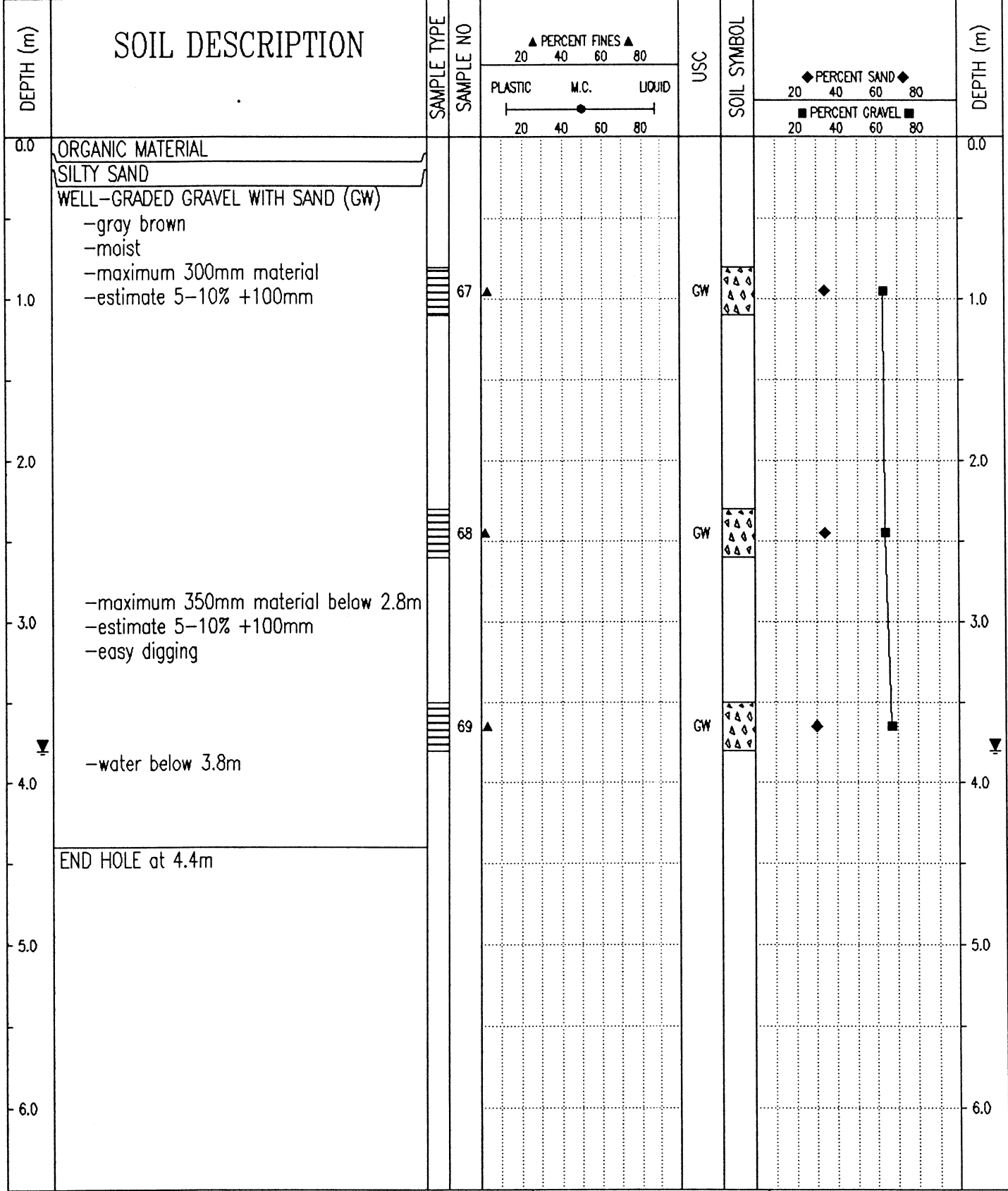
LOGGED BY: CB
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.0 m
COMPLETE: 88/10/27

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 032-29						
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05						
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)						
SAMPLE TYPE		<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 PLASTIC M.C. LIQUID 20 40 60 80		USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 ■ PERCENT GRAVEL ■ 20 40 60 80		DEPTH (m)
0.0	ORGANIC MATERIAL								0.0	
	SILTY SAND									
	WELL-GRADED GRAVEL WITH SAND (GW)									
	-gray brown									
	-moist									
	-maximum 350mm material									
	-estimate 5-10% +100mm									
1.0			64				GW		1.0	
2.0									2.0	
3.0			65				GW		3.0	
4.0									4.0	
5.0			66				GW		5.0	
	-water below 4.8m									
5.0	END HOLE at 5.0m								5.0	
	-photo #13									
6.0									6.0	
Government of Yukon Transportation Engineering				LOGGED BY: CB REVIEWED BY: Fig. No:		COMPLETION DEPTH: 5.0 m COMPLETE: 88/10/27 Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 032-30
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)

SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



Government of Yukon Transportation Engineering	LOGGED BY: CB	COMPLETION DEPTH: 4.4 m
	REVIEWED BY:	COMPLETE: 88/10/27
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 032-31						
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05						
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)						
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER						
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE						
				<input type="checkbox"/> CORE						
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80		USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80		DEPTH (m)
				PLASTIC	M.C.			LIQUID	■ PERCENT GRAVEL ■ 20 40 60 80	
0.0	ORGANIC MATERIAL POORLY GRADED GRAVEL WITH SAND (GP) -gray brown -moist -maximum 300mm material -estimate 5-10% +100mm									0.0
1.0			70 ▲			GP	▲▲▲▲	◆	■	1.0
2.0										2.0
3.0	WELL-GRADED GRAVEL WITH SAND (GW) -gray brown -moist -maximum 400mm material -estimate 5-10% +100mm		71 ▲			GW	▲▲▲▲	◆	■	3.0
4.0	-sample 72 lost in transit -wet below 3.9m -water below 4.2m		72							4.0
5.0	END HOLE at 4.4m									5.0
6.0										6.0
Government of Yukon Transportation Engineering				LOGGED BY: CB		COMPLETION DEPTH: 4.4 m				
				REVIEWED BY:		COMPLETE: 88/10/27				
				Fig. No:		Page 1 of 1				

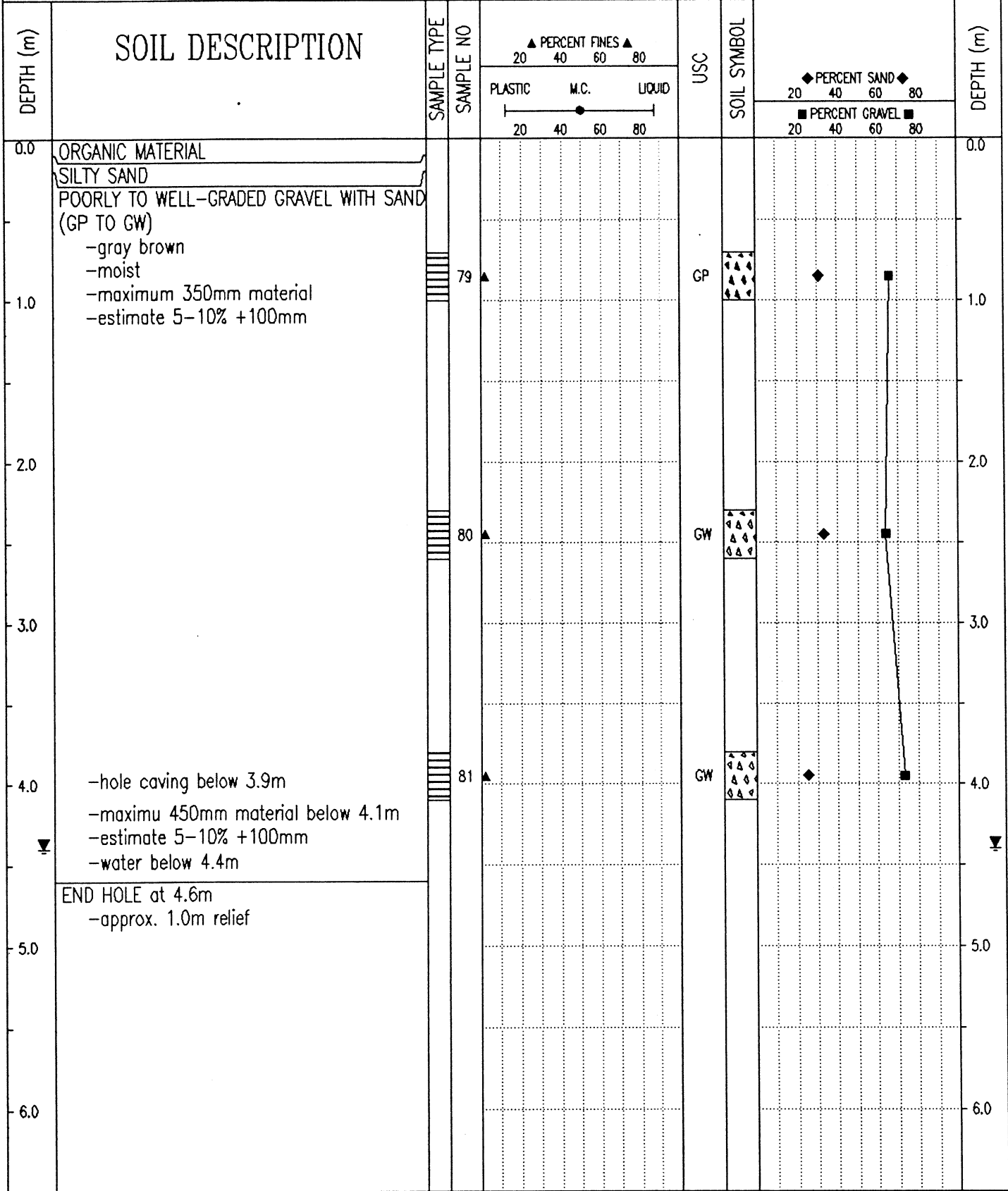
SUBSURFACE EXPLORATION AND TEST REPORT		ALASKA HIGHWAY PRE-ENGINEERING		TEST PIT NO: 032-33											
PWC - CAPITAL Y.T.		A/H KM 1766 LHS		Project No: 115-G-05											
BACKHOE: CAT 225		LOCATION: See Plan		ELEVATION: 0.00 (m)											
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER											
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE											
				<input type="checkbox"/> CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	80	20	40	
0.0	ORGANIC MATERIAL													0.0	
	SILTY GRAVEL -frozen														
1.0	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP TO GW) -gray brown -moist -maximum 300mm material -estimate 5-10% +100mm		76				GP							1.0	
2.0	-maximum 350mm material below 2.0m -estimate 5-10% +100mm -easy digging													2.0	
3.0			77				GW							3.0	
4.0														4.0	
5.0			78				GW							5.0	
6.0														6.0	
5.0	END HOLE at 4.8m -water at 4.8m -flat terrain -open area													5.0	

Government of Yukon
Transportation Engineering

LOGGED BY: CB
REVIEWED BY:
Fig. No:

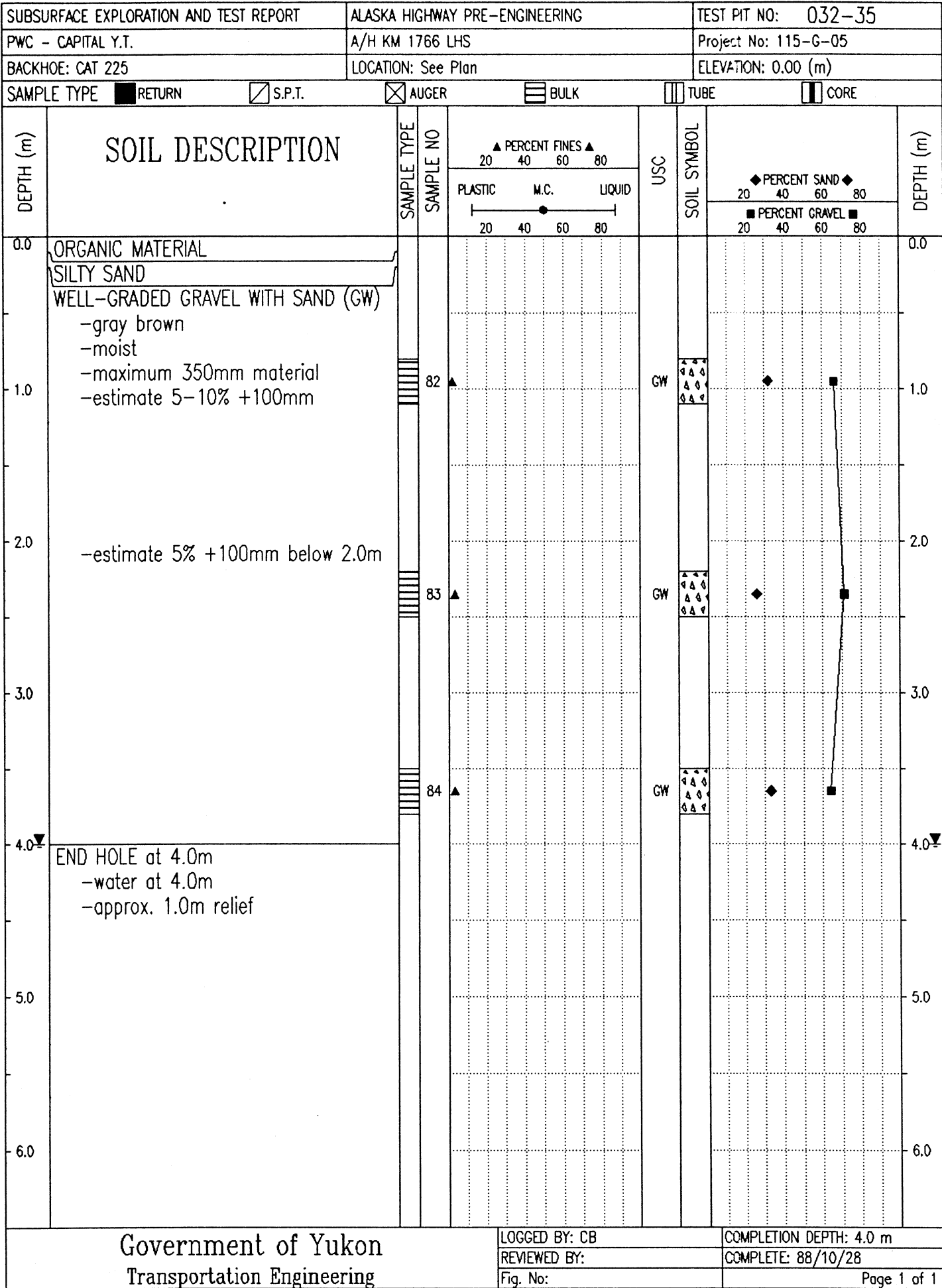
COMPLETION DEPTH: 4.8 m
COMPLETE: 88/10/27

SUBSURFACE EXPLORATION AND TEST REPORT	ALASKA HIGHWAY PRE-ENGINEERING	TEST PIT NO: 032-34
PWC - CAPITAL Y.T.	A/H KM 1766 LHS	Project No: 115-G-05
BACKHOE: CAT 225	LOCATION: See Plan	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



Government of Yukon
Transportation Engineering

LOGGED BY: CB	COMPLETION DEPTH: 4.6 m
REVIEWED BY:	COMPLETE: 88/10/28
Fig. No:	Page 1 of 1



PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-03
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.24

FIELD NO: 7	FIELD NO: 8	FIELD NO: 9
LAB NO: 2759	LAB NO: 2760	LAB NO: 2761
DEPTH: 1.8-2.1	DEPTH: 2.9-3.2	DEPTH: 3.9-4.2
TYPE: BULK	TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	100	101.6	--
76.2	100	76.2	91	76.2	100
50.8	90	50.8	91	50.8	85
38.1	84	38.1	82	38.1	71
25.4	69	25.4	75	25.4	58
19.0	64	19.0	66	19.0	54
12.7	51	12.7	56	12.7	46
9.5	45	9.5	51	9.5	40
4.76	33	4.76	39	4.76	30
2.38	--	2.38	--	2.38	--
2.00	23	2.00	27	2.00	21
1.19	--	1.19	--	1.19	--
0.841	16	0.841	18	0.841	13
0.595	--	0.595	--	0.595	--
0.42	10	0.42	11	0.42	8
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	4	0.149	4	0.149	3
0.074	3	0.074	3	0.074	2

M.C.(%): -- M.C.(%): -- M.C.(%): --

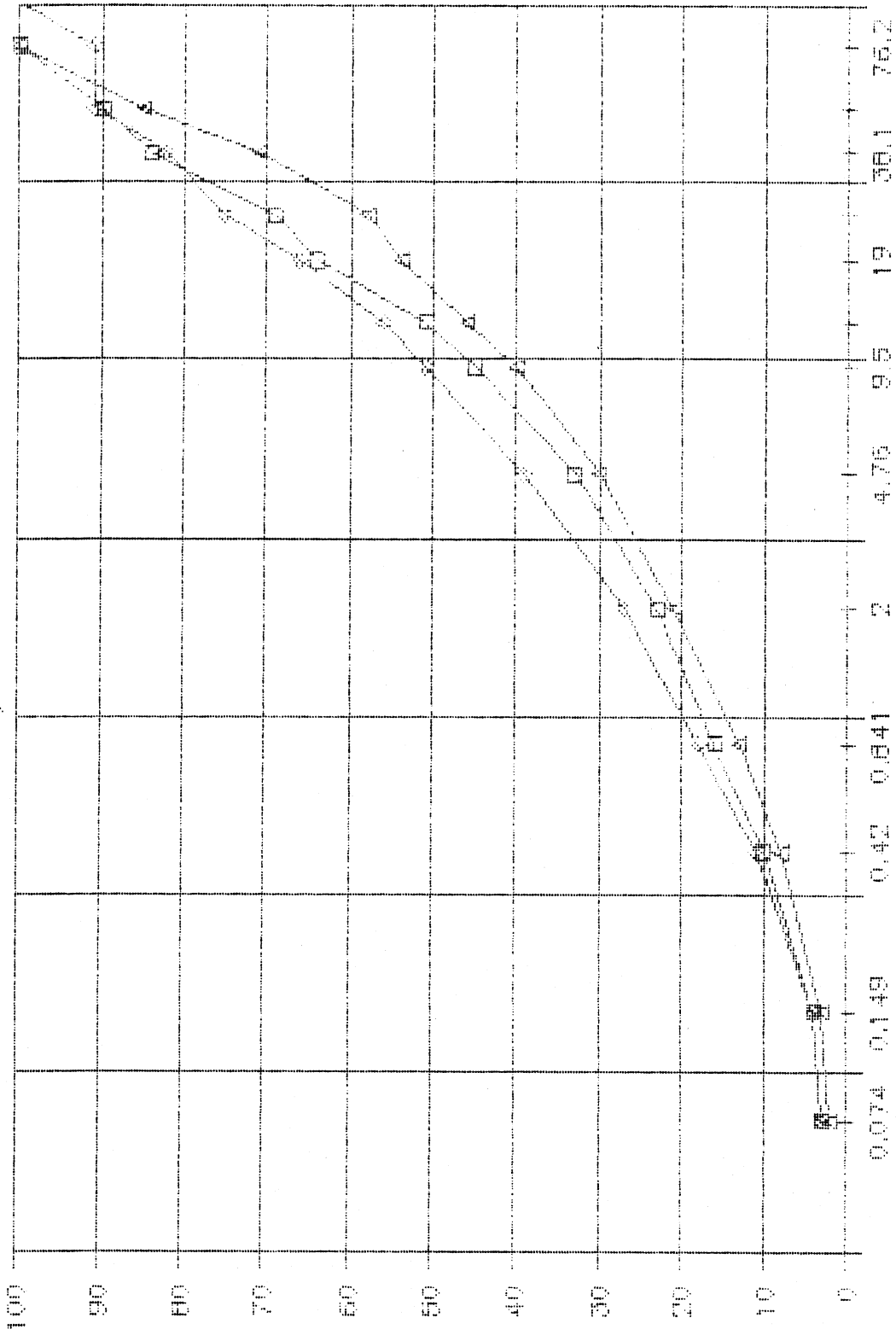
LIMITS	LIMITS	LIMITS
LIQUID: --	LIQUID: --	LIQUID: --
PLASTIC: --	PLASTIC: --	PLASTIC: --
P.I.: N.P.	P.I.: N.P.	P.I.: N.P.

% GRAVEL: 67	% GRAVEL: 61	% GRAVEL: 70
% SAND: 30	% SAND: 36	% SAND: 29
% FINES: 3	% FINES: 3	% FINES: 2

CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:
WELL-GRADED	WELL-GRADED	WELL-GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND	GRAVEL WITH SAND
(GW)	(GW)	(GW)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 031—03



Legend:
 □ SAMP. 7
 ○ SAMP. 8
 △ SAMP. 9
 × SAMP. 2
 ● SAMP. 5

PERCENT PASSING

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-05
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.25

FIELD NO: 13	FIELD NO: 14	FIELD NO: 15
LAB NO: 2765	LAB NO: 2766	LAB NO: 2767
DEPTH: 0.8-1.2	DEPTH: 2.3-2.6	DEPTH: 3.4-3.7
TYPE: BULK	TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--
76.2	100	76.2	100	76.2	100
50.8	82	50.8	96	50.8	79
38.1	74	38.1	82	38.1	67
25.4	61	25.4	71	25.4	59
19.0	55	19.0	70	19.0	52
12.7	45	12.7	51	12.7	45
9.5	40	9.5	46	9.5	41
4.76	30	4.76	35	4.76	31
2.38	--	2.38	--	2.38	--
2.00	20	2.00	24	2.00	20
1.19	--	1.19	--	1.19	--
0.841	12	0.841	15	0.841	13
0.595	--	0.595	--	0.595	--
0.42	8	0.42	9	0.42	8
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	3	0.149	5	0.149	4
0.074	2	0.074	3	0.074	3

M.C.(%): -- M.C.(%): -- M.C.(%): --

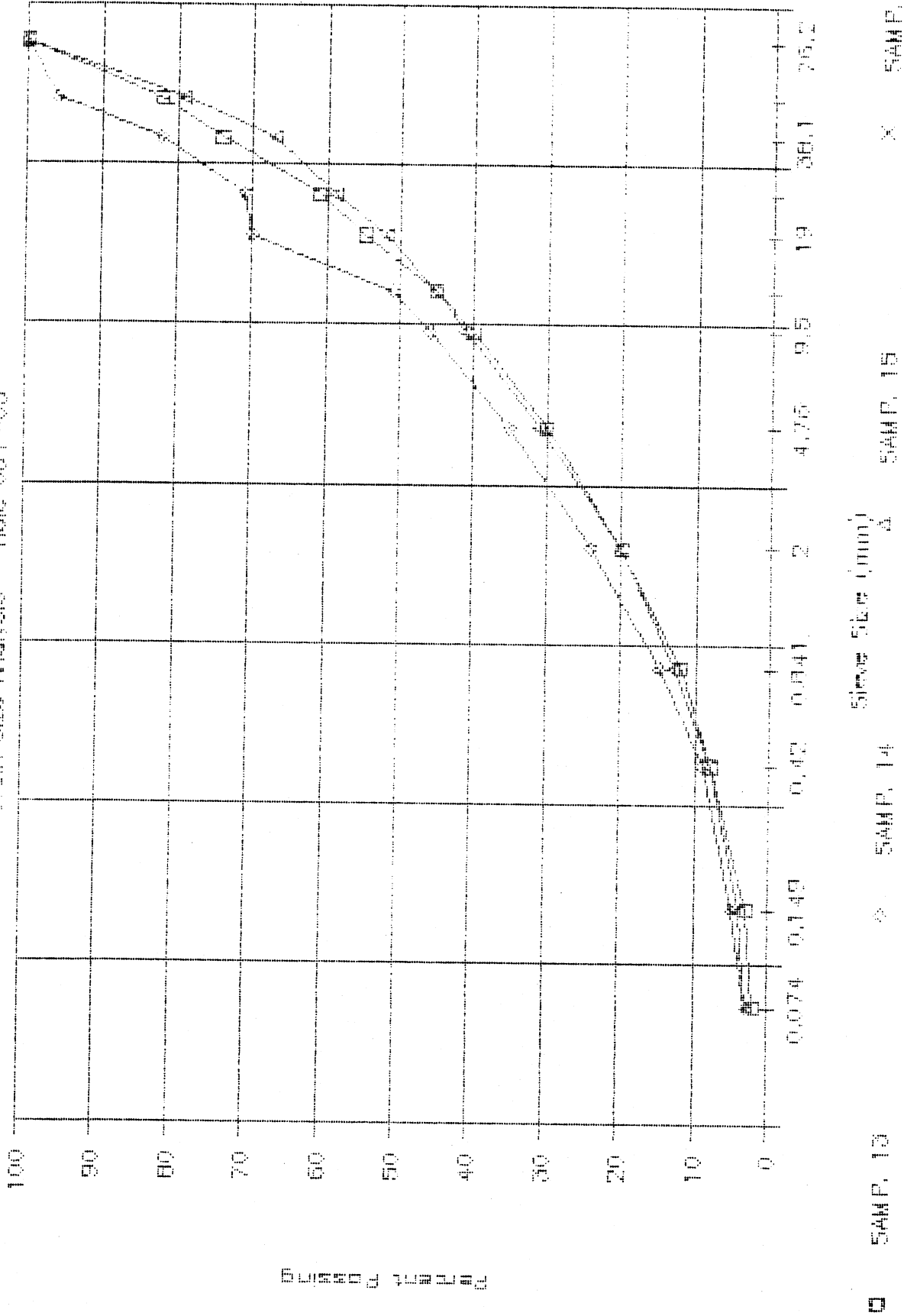
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	70	% GRAVEL:	65	% GRAVEL:	69
% SAND:	28	% SAND:	31	% SAND:	28
% FINES:	2	% FINES:	3	% FINES:	3

CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)
-----------------	-----------------------------------	-----------------	-----------------------------------	-----------------	-----------------------------------

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 031-05



PERCENT PASSING

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-07
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.25

FIELD NO: 18
 LAB NO: 2770
 DEPTH: 1.3-1.6
 TYPE: BULK

FIELD NO: 19
 LAB NO: 2771
 DEPTH: 2.7-3.0
 TYPE: BULK

FIELD NO: 20
 LAB NO: 2772
 DEPTH: 3.6-3.9
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	80
25.4	70
19.0	63
12.7	53
9.5	47
4.76	35
2.38	--
2.00	26
1.19	--
0.841	17
0.595	--
0.42	11
0.297	--
0.177	--
0.149	4
0.074	2

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	100
50.8	88
38.1	78
25.4	66
19.0	58
12.7	48
9.5	43
4.76	32
2.38	--
2.00	22
1.19	--
0.841	13
0.595	--
0.42	7
0.297	--
0.177	--
0.149	2
0.074	2

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	100
50.8	91
38.1	82
25.4	70
19.0	60
12.7	50
9.5	44
4.76	34
2.38	--
2.00	24
1.19	--
0.841	15
0.595	--
0.42	8
0.297	--
0.177	--
0.149	3
0.074	2

M.C.(%): --
 LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

M.C.(%): --
 LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

M.C.(%): --
 LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 65
 % SAND: 33
 % FINES: 2

% GRAVEL: 68
 % SAND: 31
 % FINES: 2

% GRAVEL: 66
 % SAND: 32
 % FINES: 2

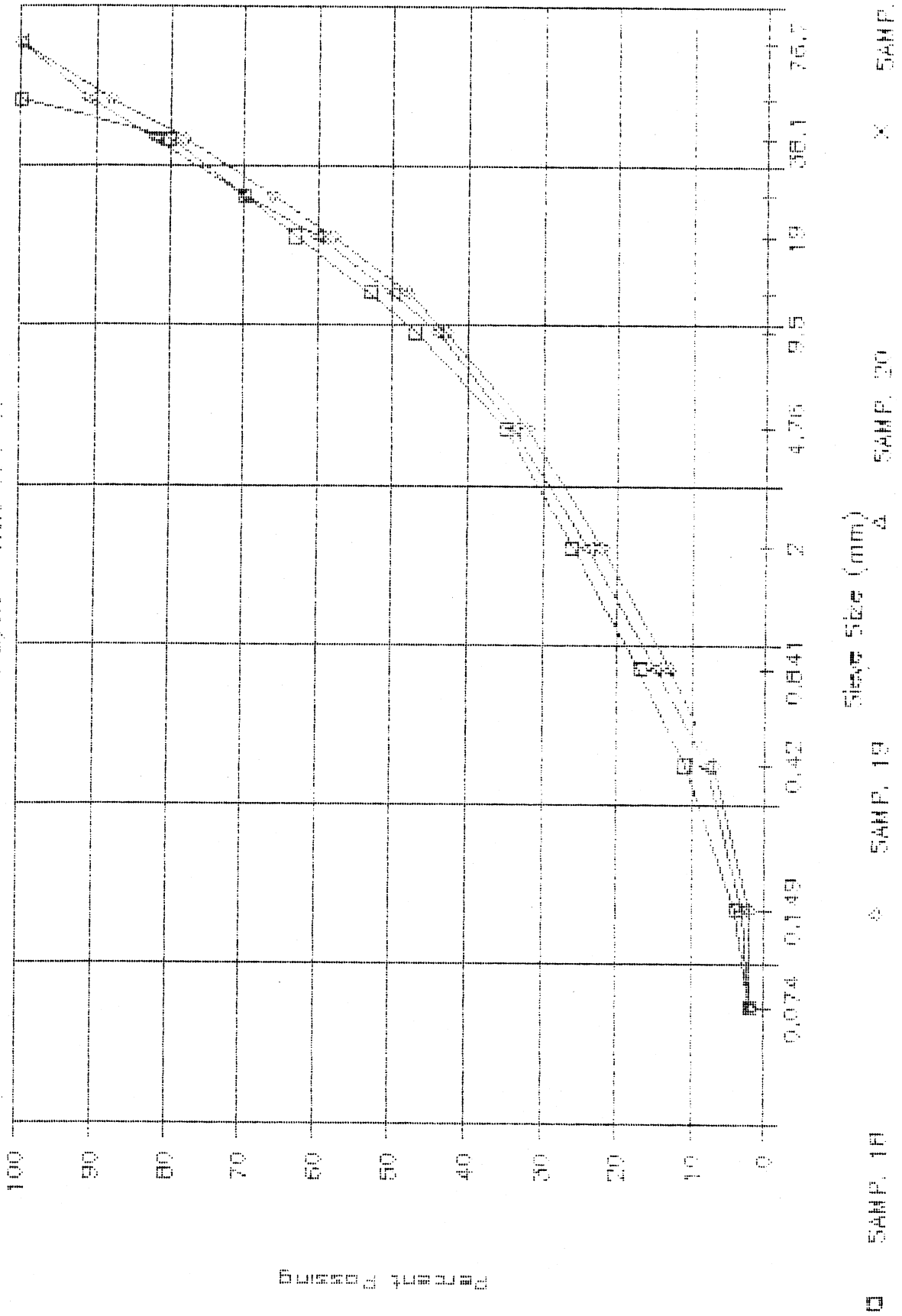
CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA - WHITEHORSE, Y.T.

Grain Size Analysis - Hole 031-07



PERCENT PASSED

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-08
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.25

FIELD NO: 21	FIELD NO: 22
LAB NO: 2773	LAB NO: 2774
DEPTH: 1.2-1.5	DEPTH: 3.0-3.3
TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--
76.2	100	76.2	100
50.8	93	50.8	84
38.1	80	38.1	72
25.4	62	25.4	61
19.0	55	19.0	55
12.7	45	12.7	46
9.5	40	9.5	41
4.76	29	4.76	32
2.38	--	2.38	--
2.00	19	2.00	23
1.19	--	1.19	--
0.841	12	0.841	15
0.595	--	0.595	--
0.42	8	0.42	9
0.297	--	0.297	--
0.177	--	0.177	--
0.149	2	0.149	3
0.074	1	0.074	2

M.C.(%): -- M.C.(%): --

LIMITS	LIMITS
LIQUID: --	LIQUID: --
PLASTIC: --	PLASTIC: --
P.I.: N.P.	P.I.: N.P.

% GRAVEL: 71	% GRAVEL: 68
% SAND: 28	% SAND: 30
% FINES: 1	% FINES: 2

CLASSIFICATION:	CLASSIFICATION:
WELL-GRADED	WELL-GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND
(GW)	(GW)

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-09
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.25

FIELD NO: 23	FIELD NO: 24
LAB NO: 2775	LAB NO: 2776
DEPTH: 1.2-1.5	DEPTH: 2.8-3.1
TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--
76.2	100	76.2	100
50.8	88	50.8	91
38.1	73	38.1	80
25.4	66	25.4	68
19.0	61	19.0	61
12.7	52	12.7	53
9.5	47	9.5	49
4.76	37	4.76	38
2.38	--	2.38	--
2.00	25	2.00	25
1.19	--	1.19	--
0.841	12	0.841	12
0.595	--	0.595	--
0.42	5	0.42	5
0.297	--	0.297	--
0.177	--	0.177	--
0.149	2	0.149	2
0.074	1	0.074	1

M.C.(%): -- M.C.(%): --

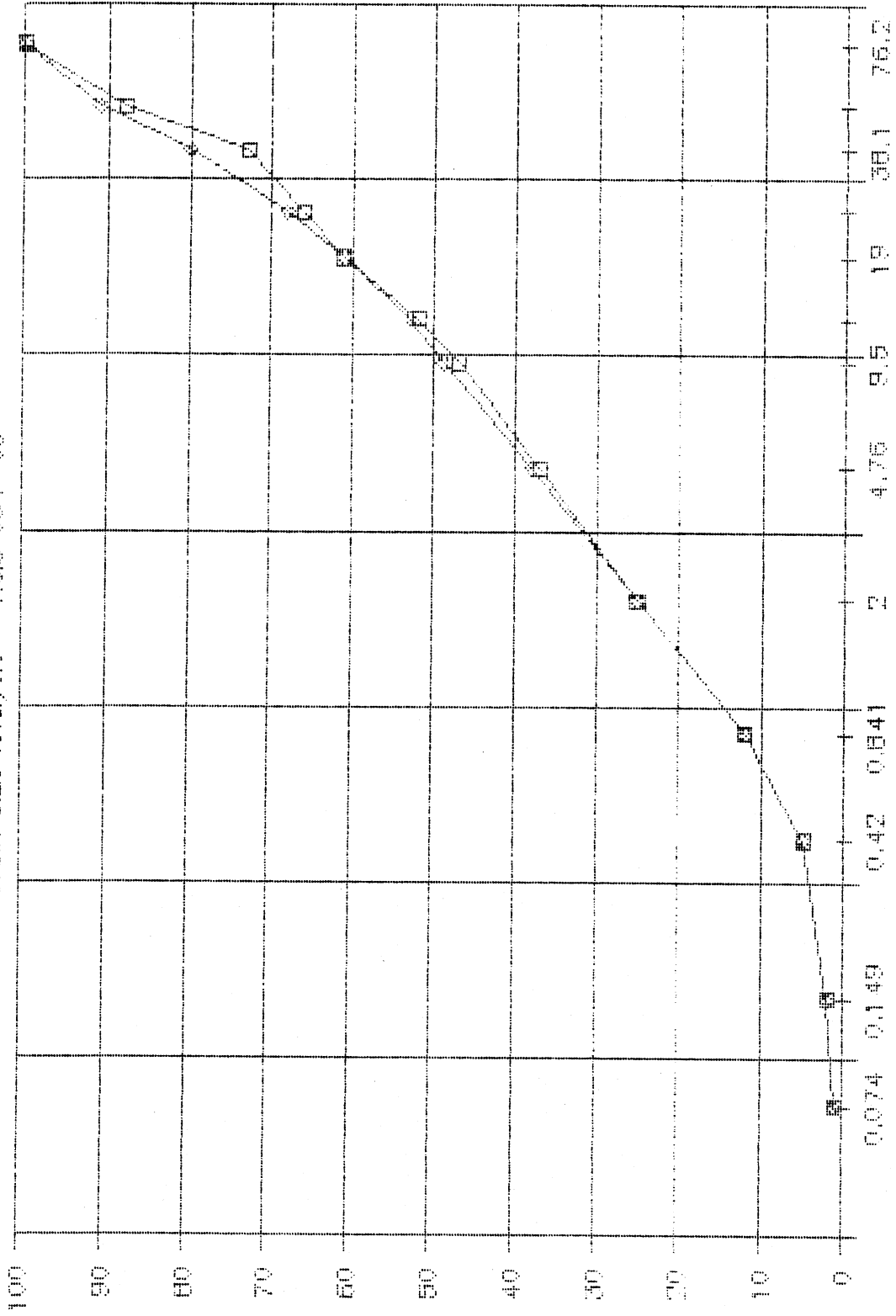
LIMITS	LIMITS
LIQUID: --	LIQUID: --
PLASTIC: --	PLASTIC: --
P.I.: N.P.	P.I.: N.P.

% GRAVEL: 63	% GRAVEL: 62
% SAND: 36	% SAND: 36
% FINES: 1	% FINES: 1

CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED	POORLY GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND
(GP)	(GP)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 031-09



PERCENT FINER

5AMP, 23 5AMP, 24 5AMP, 25 5AMP, 26

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-12
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.25

FIELD NO: 29
 LAB NO: 2781
 DEPTH: 1.4-1.7
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	70
76.2	70
50.8	66
38.1	53
25.4	51
19.0	46
12.7	38
9.5	35
4.76	26
2.38	--
2.00	17
1.19	--
0.841	10
0.595	--
0.42	6
0.297	--
0.177	--
0.149	2
0.074	1

M.C.(%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 74
 % SAND: 25
 % FINES: 1

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-13
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.25

FIELD NO: 30	FIELD NO: 31
LAB NO: 2782	LAB NO: 2783
DEPTH: 1.4-1.7	DEPTH: 2.4-2.7
TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--
76.2	100	76.2	100
50.8	90	50.8	89
38.1	82	38.1	73
25.4	67	25.4	62
19.0	63	19.0	60
12.7	54	12.7	51
9.5	48	9.5	46
4.76	38	4.76	35
2.38	--	2.38	--
2.00	25	2.00	24
1.19	--	1.19	--
0.841	12	0.841	13
0.595	--	0.595	--
0.42	5	0.42	6
0.297	--	0.297	--
0.177	--	0.177	--
0.149	2	0.149	2
0.074	2	0.074	1

M.C. (%): -- M.C. (%): --

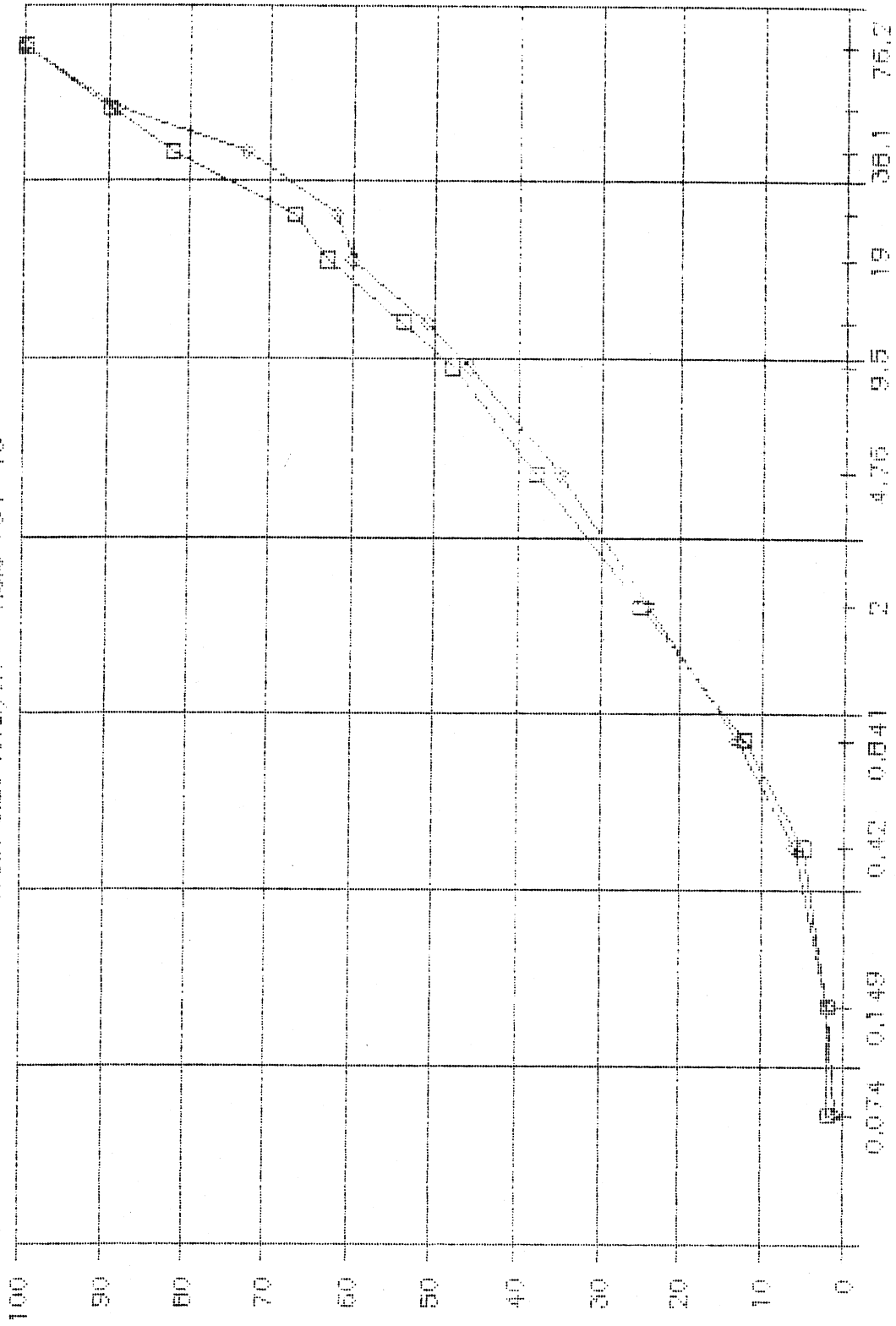
LIMITS	LIMITS
LIQUID: --	LIQUID: --
PLASTIC: --	PLASTIC: --
P.I.: N.P.	P.I.: N.P.

% GRAVEL: 62	% GRAVEL: 65
% SAND: 36	% SAND: 34
% FINES: 2	% FINES: 1

CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED	POORLY GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND
(GP)	(GP)

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis -- Hole 031-13



PERCENT PASSING

Sieve Size (mm)

0 5AMP. 30 0 5AMP. 31 4 5AMP. 4 5AMP. 5AMP. 19 38.1 75.2

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-14
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 32
 LAB NO: 2784
 DEPTH: 1.2-1.6
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	100
76.2	80
50.8	66
38.1	59
25.4	53
19.0	48
12.7	38
9.5	33
4.76	25
2.38	--
2.00	17
1.19	--
0.841	11
0.595	--
0.42	8
0.297	--
0.177	--
0.149	6
0.074	5

M.C.(%): --

LIMITS

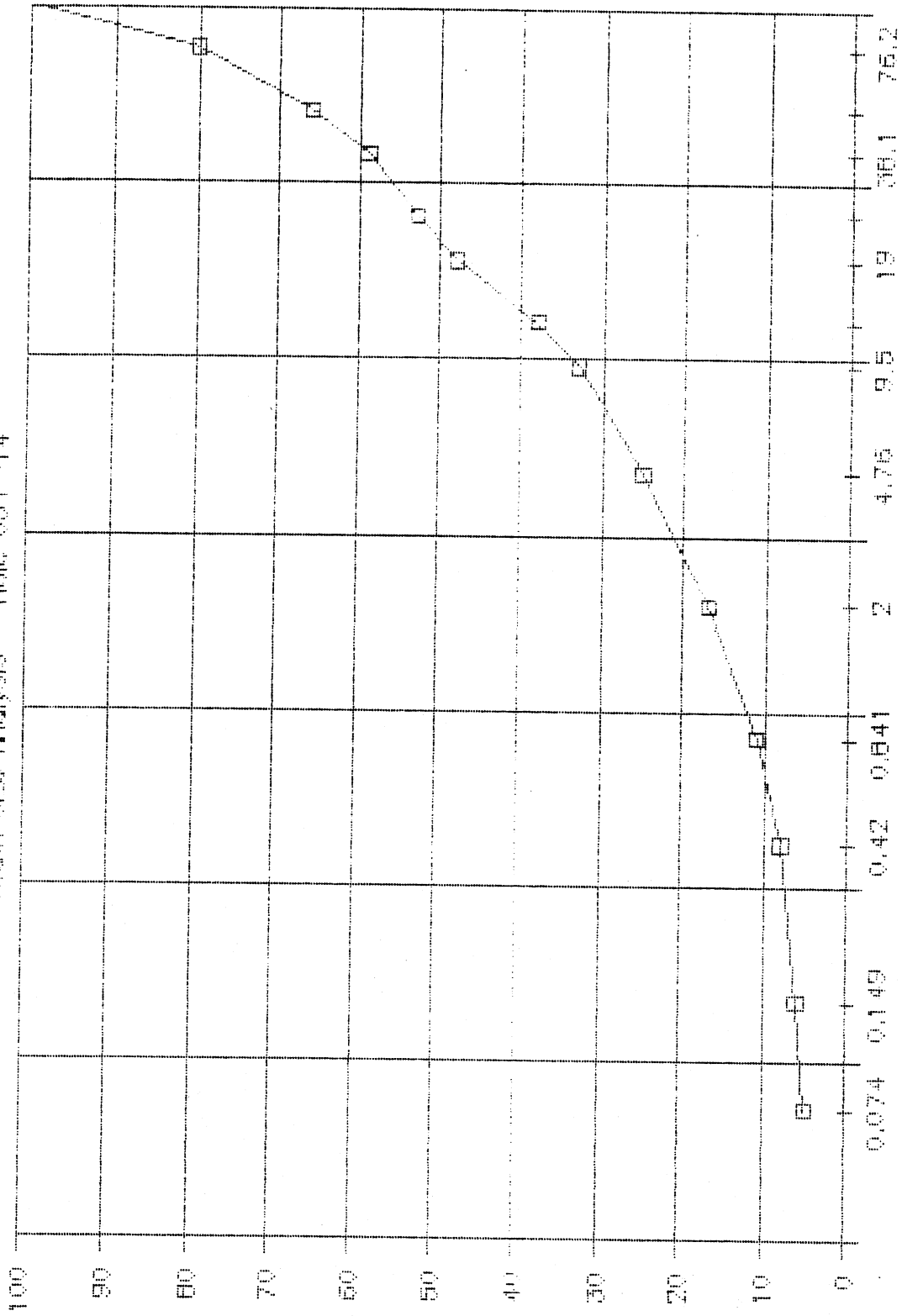
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 75
 % SAND: 20
 % FINES: 5

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SILT
 & SAND (GW-GM)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis - Hole 031-14



LEWIS & CLARK

□ 5AMP, 32 ○ 5AMP Δ 5AMP * 5AMP

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-15
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 33
 LAB NO: 2785
 DEPTH: 1.3-1.6
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	80
38.1	78
25.4	64
19.0	62
12.7	51
9.5	45
4.76	33
2.38	--
2.00	23
1.19	--
0.841	15
0.595	--
0.42	9
0.297	--
0.177	--
0.149	2
0.074	2

M.C.(%): --

LIMITS

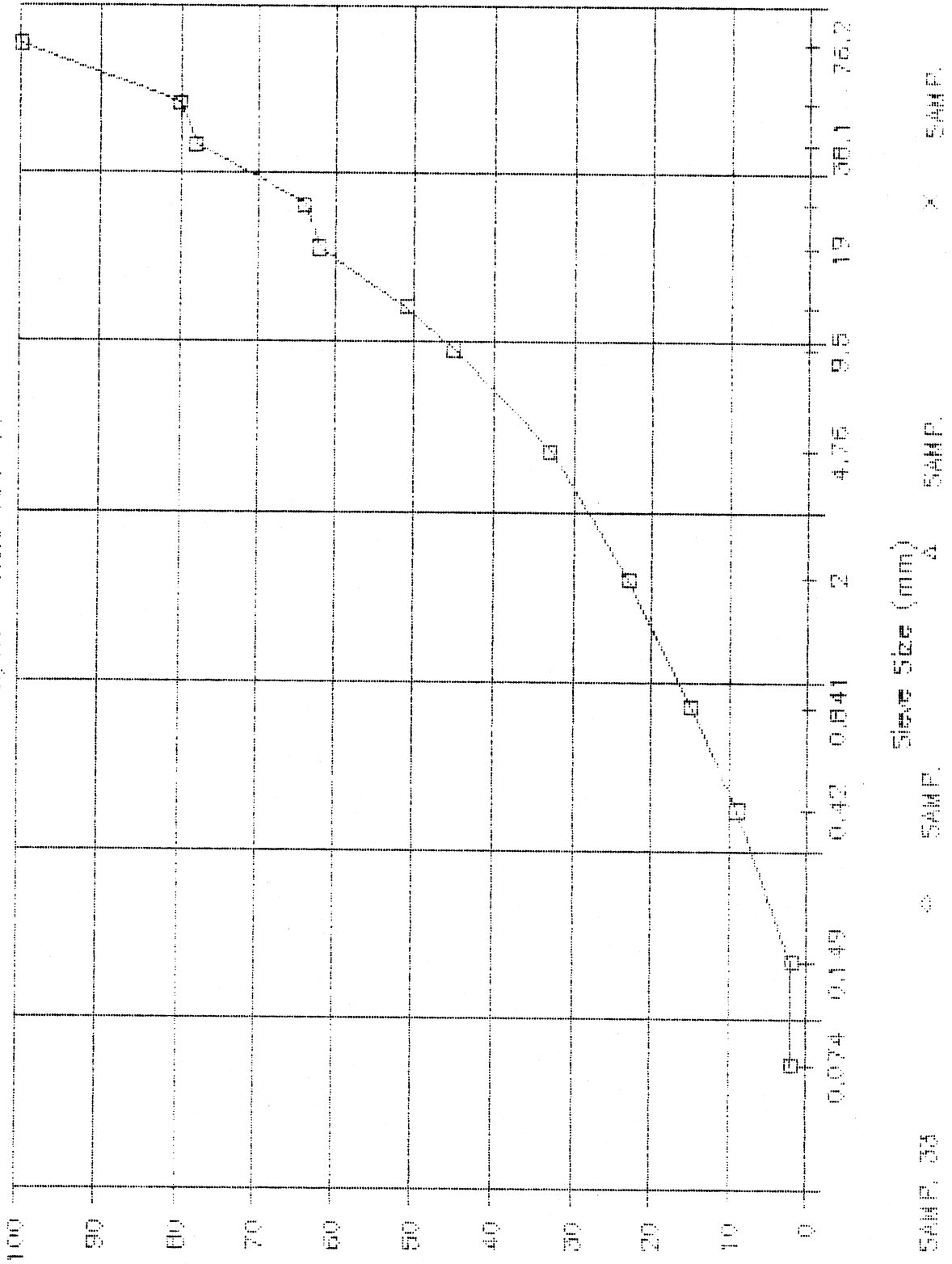
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 67
 % SAND: 32
 % FINES: 2

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 031-15



PLANNED DEVELOPMENT

□ SAMP. 33

○ SAMP.

△ SAMP.

× SAMP.

□ SAMP.

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-16
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 34
 LAB NO: 2786
 DEPTH: 1.2-1.5
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	73
38.1	73
25.4	65
19.0	58
12.7	49
9.5	43
4.76	34
2.38	--
2.00	26
1.19	--
0.841	18
0.595	--
0.42	9
0.297	--
0.177	--
0.149	2
0.074	1

M.C.(%): --

LIMITS

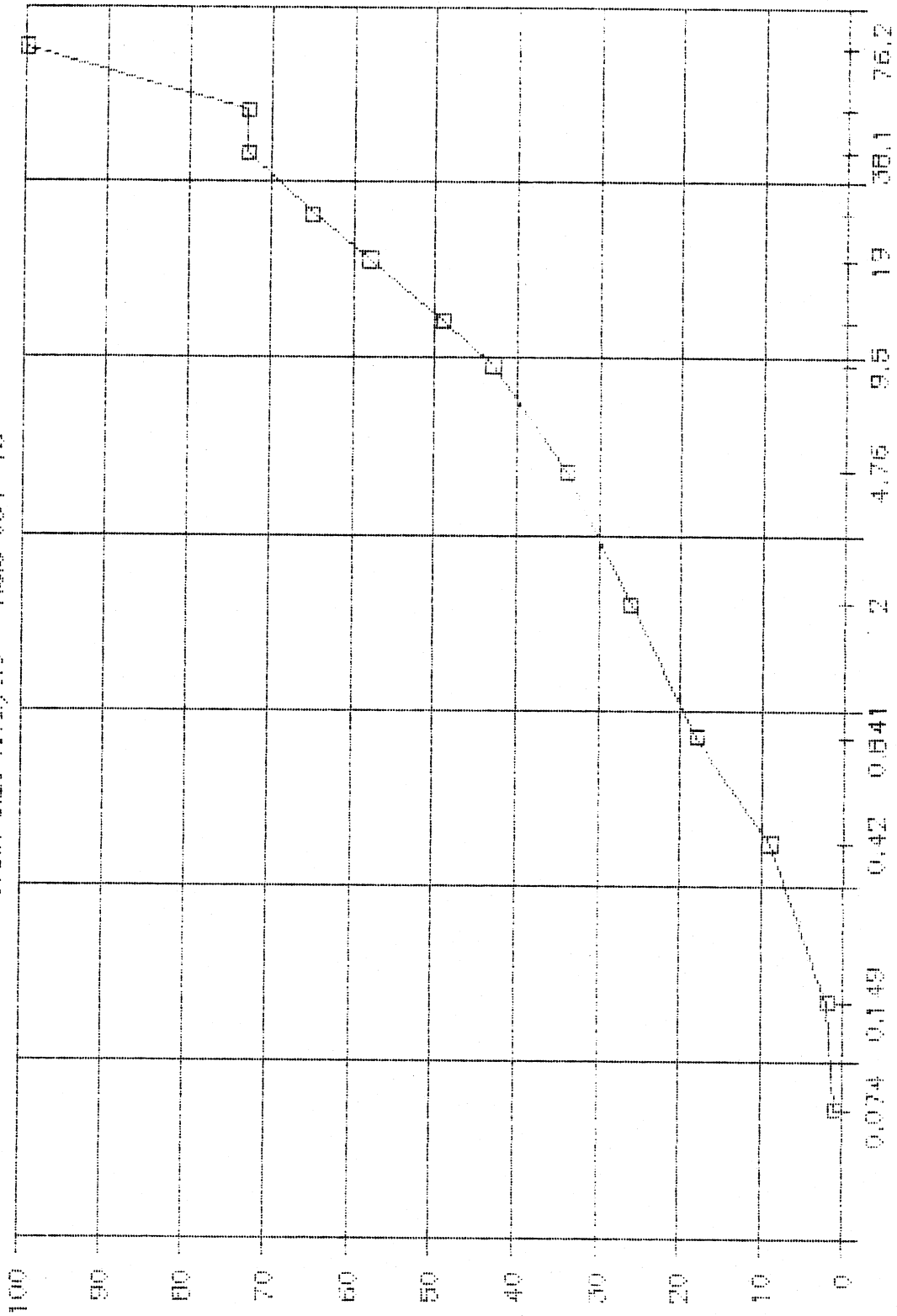
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 66
 % SAND: 33
 % FINES: 1

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 031-16



Sieve Size (mm)

□ SAMP. 34

△ SAMP.

◇ SAMP.

× SAMP.

0 10 20 30 40 50 60 70 80 90 100

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-13
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 176c LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CS DATE COMPLETED: 88.10.26

FIELD NO: 36
 LAB NO: 2788
 DEPTH: 1.3-1.6
 TYPE: BULK

FIELD NO: 37
 LAB NO: 2789
 DEPTH: 2.3-2.6
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	96
38.1	93
25.4	75
19.0	67
12.7	54
9.5	48
4.76	35
2.38	--
2.00	23
1.19	--
0.841	14
0.595	--
0.42	8
0.297	--
0.177	--
0.149	4
0.074	3

101.6	--
76.2	100
50.8	82
38.1	82
25.4	71
19.0	65
12.7	54
9.5	47
4.76	36
2.38	--
2.00	24
1.19	--
0.841	15
0.595	--
0.42	9
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%): --

M.C. (%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 65
 % SAND: 32
 % FINES: 3

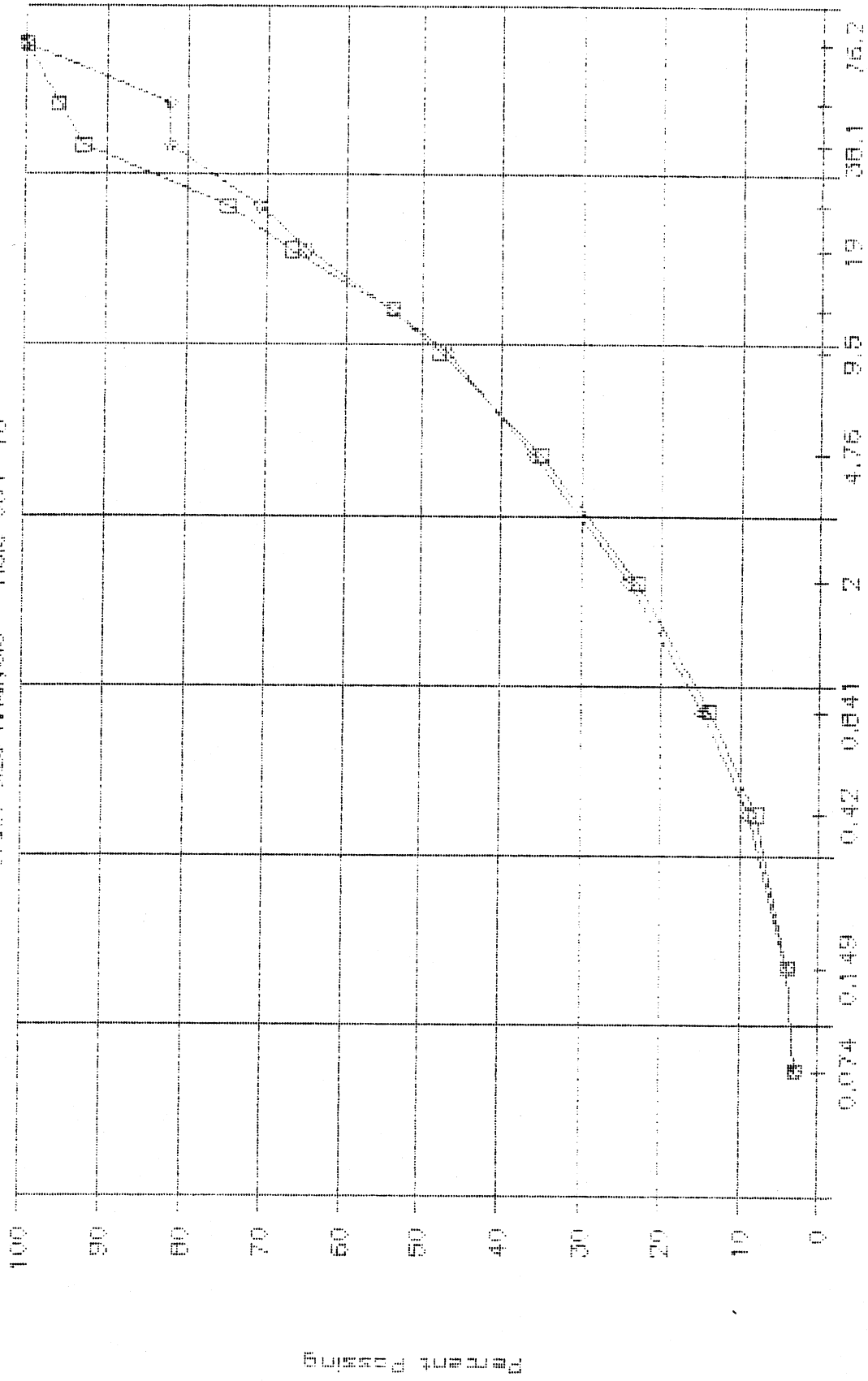
% GRAVEL: 64
 % SAND: 33
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis -- Hole 001-11B



D 5AMP, 36 5AMP, 37 5AMP, 38 5AMP, 39 5AMP, 40 5AMP, 41 5AMP, 42 5AMP, 43 5AMP, 44 5AMP, 45 5AMP, 46 5AMP, 47 5AMP, 48 5AMP, 49 5AMP, 50 5AMP, 51 5AMP, 52 5AMP, 53 5AMP, 54 5AMP, 55 5AMP, 56 5AMP, 57 5AMP, 58 5AMP, 59 5AMP, 60 5AMP, 61 5AMP, 62 5AMP, 63 5AMP, 64 5AMP, 65 5AMP, 66 5AMP, 67 5AMP, 68 5AMP, 69 5AMP, 70 5AMP, 71 5AMP, 72 5AMP, 73 5AMP, 74 5AMP, 75 5AMP, 76 5AMP, 77 5AMP, 78 5AMP, 79 5AMP, 80 5AMP, 81 5AMP, 82 5AMP, 83 5AMP, 84 5AMP, 85 5AMP, 86 5AMP, 87 5AMP, 88 5AMP, 89 5AMP, 90 5AMP, 91 5AMP, 92 5AMP, 93 5AMP, 94 5AMP, 95 5AMP, 96 5AMP, 97 5AMP, 98 5AMP, 99 5AMP, 100

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-19
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO:	LAB NO:	DEPTH:	TYPE:
38	2790	1.4-1.7	BULK
39	2791	2.5-2.8	BULK
40	2792	3.1-3.3	BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--
76.2	--	76.2	100	76.2	100
50.8	100	50.8	94	50.8	82
38.1	89	38.1	86	38.1	76
25.4	71	25.4	76	25.4	65
19.0	63	19.0	67	19.0	56
12.7	49	12.7	52	12.7	46
9.5	43	9.5	47	9.5	41
4.76	30	4.76	36	4.76	32
2.38	--	2.38	--	2.38	--
2.00	20	2.00	25	2.00	23
1.19	--	1.19	--	1.19	--
0.841	11	0.841	18	0.841	16
0.595	--	0.595	--	0.595	--
0.42	7	0.42	12	0.42	11
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	3	0.149	5	0.149	5
0.074	2	0.074	4	0.074	3

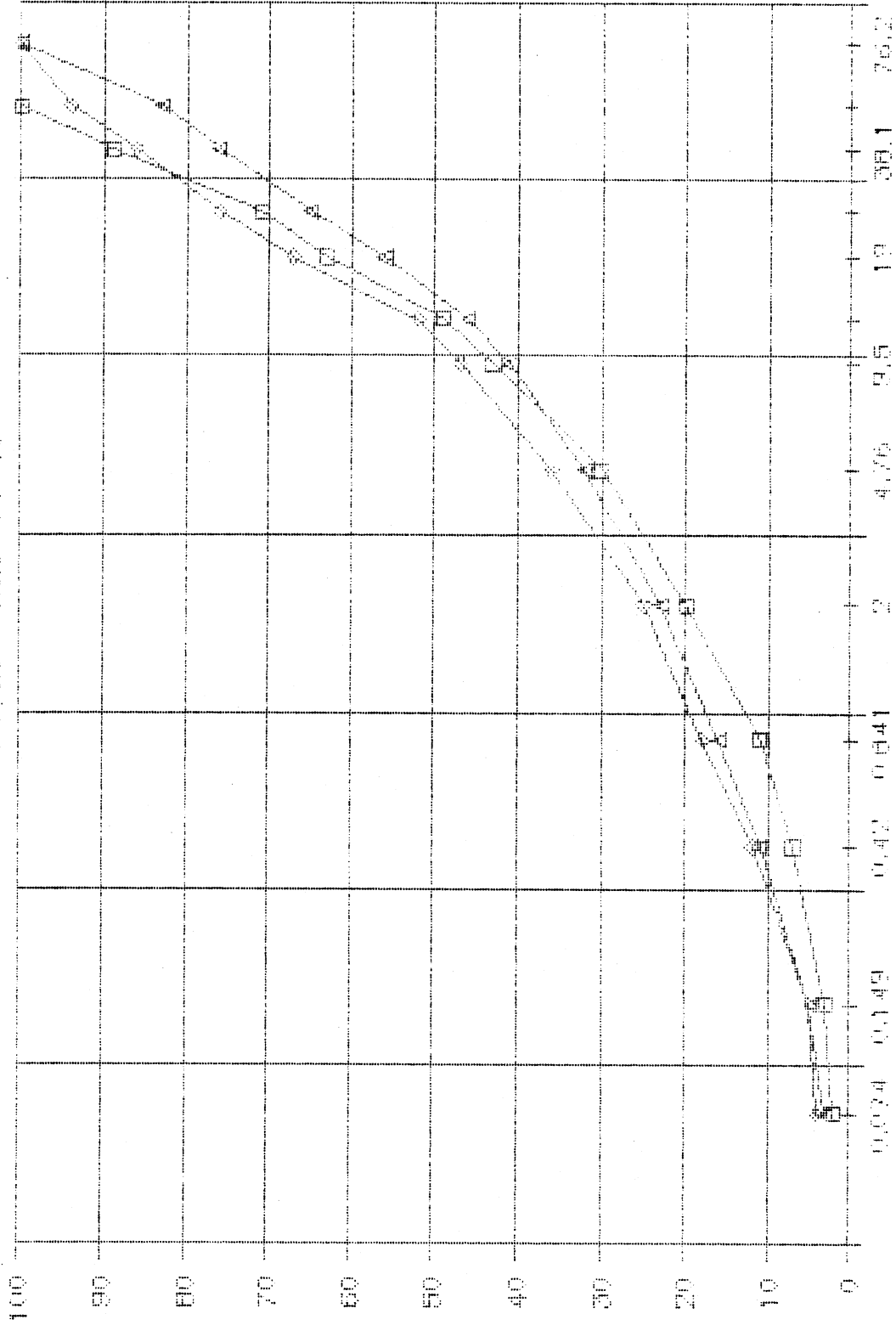
M.C. (%)	LIMITS	M.C. (%)	LIMITS	M.C. (%)	LIMITS
--	LIQUID: --	--	LIQUID: --	--	LIQUID: --
	PLASTIC: --		PLASTIC: --		PLASTIC: --
	P.I.: N.P.		P.I.: N.P.		P.I.: N.P.

% GRAVEL: 70	% GRAVEL: 64	% GRAVEL: 68
% SAND: 28	% SAND: 32	% SAND: 29
% FINES: 2	% FINES: 4	% FINES: 3

CLASSIFICATION: WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION: WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION: WELL-GRADED GRAVEL WITH SAND (GW)
--	--	--

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis - Hole 001-19



SAMP. 38
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39
 SAMP. 40
 SAMP. 39

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-20
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 41
 LAB NO: 2793
 DEPTH: 1.2-1.5
 TYPE: BULK

FIELD NO: 42
 LAB NO: 2794
 DEPTH: 2.5-2.8
 TYPE: BULK

FIELD NO: 43
 LAB NO: 2795
 DEPTH: 3.6-3.9
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	86
38.1	84
25.4	74
19.0	66
12.7	54
9.5	47
4.76	37
2.38	--
2.00	28
1.19	--
0.841	20
0.595	--
0.42	12
0.297	--
0.177	--
0.149	5
0.074	3

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	91
38.1	82
25.4	73
19.0	64
12.7	52
9.5	44
4.76	34
2.38	--
2.00	24
1.19	--
0.841	16
0.595	--
0.42	10
0.297	--
0.177	--
0.149	4
0.074	3

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	87
38.1	76
25.4	65
19.0	52
12.7	43
9.5	38
4.76	29
2.38	--
2.00	21
1.19	--
0.841	15
0.595	--
0.42	9
0.297	--
0.177	--
0.149	3
0.074	2

M.C.(%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 34
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

M.C.(%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 66
 % SAND: 31
 % FINES: 3

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

M.C.(%): --

LIMITS

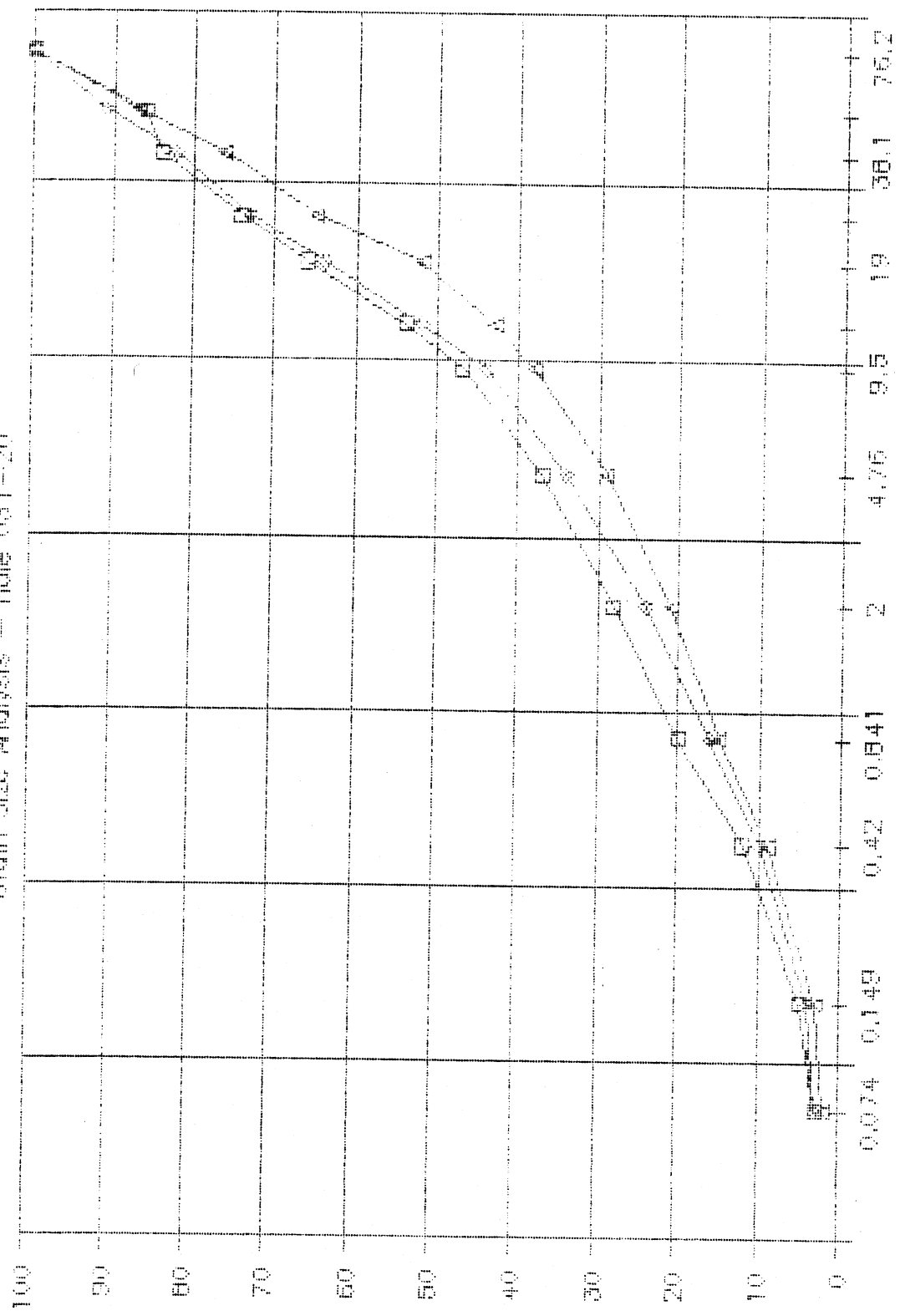
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 71
 % SAND: 26
 % FINES: 2

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis -- Hole 031-20



○ SAMP. 41
□ SAMP. 42
△ SAMP. 43
X SAMP.

PUBLIC WORKS CANADA

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-21
CLIENT: PWC - CAPITAL Y.T.
PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
PROJECT LOCATION: A/H KM 1766 LHS
DRILL UNIT: CAT 225 HOE
HOLE LOCATION: SEE PLAN
LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 44
LAB NO: 2796
DEPTH: 1.6-1.9
TYPE: BULK

SIEVE SIZE	PERCENT PASSING
---------------	--------------------

101.6	--
76.2	100
50.8	87
38.1	77
25.4	57
19.0	51
12.7	43
9.5	40
4.76	31
2.38	--
2.00	24
1.19	--
0.841	18
0.595	--
0.42	13
0.297	--
0.177	--
0.149	6
0.074	4

M.C. (%): --

LIMITS

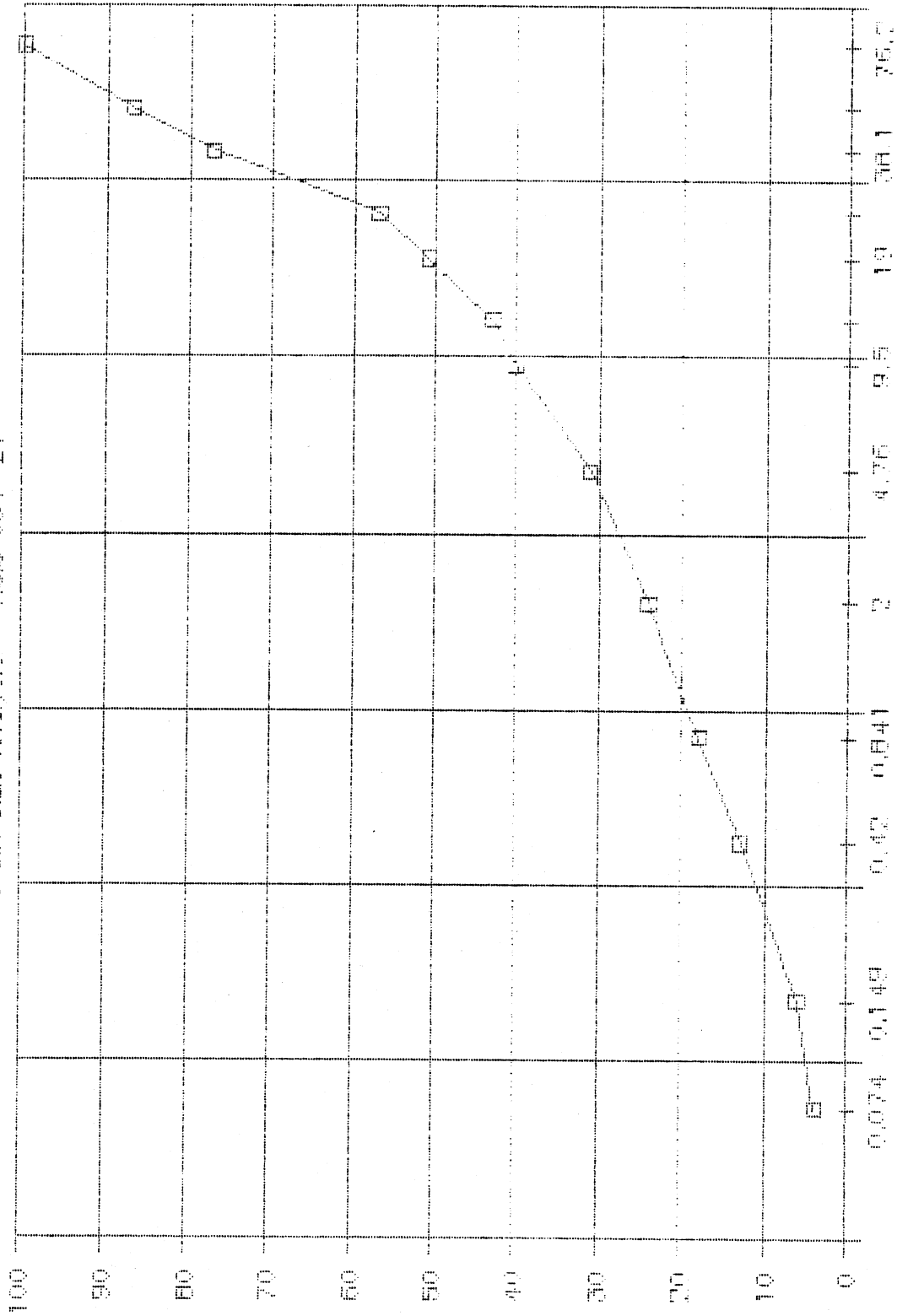
LIQUID: --
PLASTIC: --
P.I.: N.P.

% GRAVEL: 69
% SAND: 28
% FINES: 4

CLASSIFICATION:
WELL-GRADED
GRAVEL WITH SAND
(GW)

PUBLIC WORKS CANADA - WHITEHORSE, Y.T.

Grain Size Analysis - Hole 001-21



TOP LEFT POSITION

□ 5AMP. 44 ◊ 5AMP. Δ 5AMP. X 5AMP.

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-22
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHC
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 45
 LAB NO: 2797
 DEPTH: 1.0-1.3
 TYPE: BULK

FIELD NO: 46
 LAB NO: 2798
 DEPTH: 2.3-2.6
 TYPE: BULK

FIELD NO: 47
 LAB NO: 2799
 DEPTH: 4.0-4.3
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	100
50.8	89
38.1	81
25.4	71
19.0	63
12.7	55
9.5	49
4.76	38
2.38	--
2.00	27
1.19	--
0.841	16
0.595	--
0.42	10
0.297	--
0.177	--
0.149	5
0.074	3

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	100
50.8	88
38.1	83
25.4	69
19.0	62
12.7	49
9.5	43
4.76	33
2.38	--
2.00	25
1.19	--
0.841	17
0.595	--
0.42	8
0.297	--
0.177	--
0.149	3
0.074	2

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	90
25.4	74
19.0	63
12.7	52
9.5	46
4.76	35
2.38	--
2.00	25
1.19	--
0.841	16
0.595	--
0.42	10
0.297	--
0.177	--
0.149	6
0.074	4

M.C.(%): --

M.C.(%): --

M.C.(%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 62
 % SAND: 35
 % FINES: 3

% GRAVEL: 67
 % SAND: 31
 % FINES: 2

% GRAVEL: 65
 % SAND: 31
 % FINES: 4

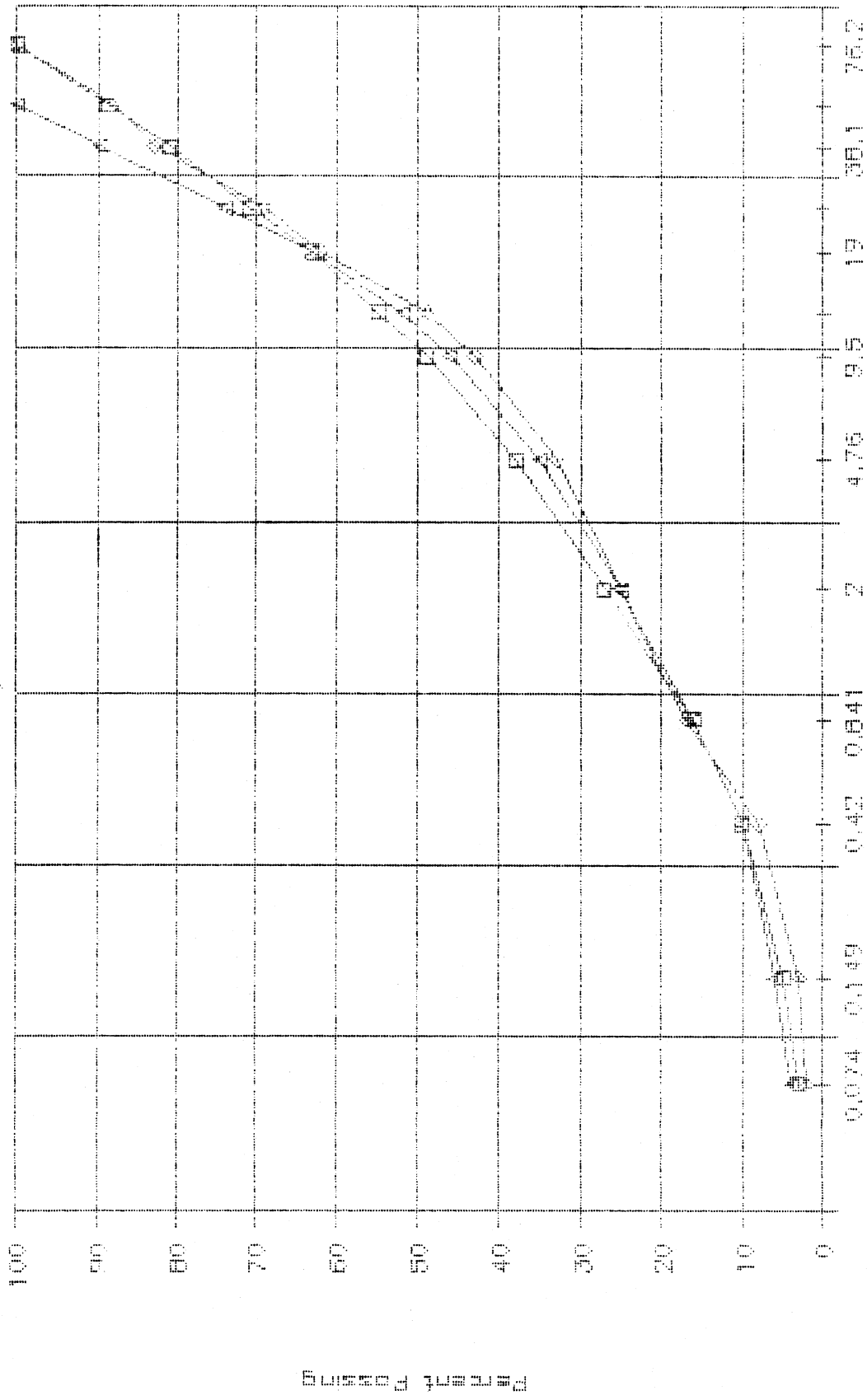
CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA — WHITEHORSE, N.T.

Grain Size Analysis — Hole 031-22



□ SAMP. 45 △ SAMP. 47 × SAMP.

PROJECT NUMBER: 115-G-09 HOLE NUMBER: 031-20
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HCE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 48	FIELD NO: 49	FIELD NO: 50
LAB NO: 2800	LAB NO: 2801	LAB NO: 2802
DEPTH: 1.4-1.7	DEPTH: 2.9-3.2	DEPTH: 4.0-4.3
TYPE: BULK	TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--
76.2	100	76.2	--	76.2	100
50.8	83	50.8	100	50.8	91
38.1	70	38.1	93	38.1	79
25.4	60	25.4	74	25.4	69
19.0	56	19.0	64	19.0	62
12.7	48	12.7	52	12.7	54
9.5	44	9.5	47	9.5	48
4.76	33	4.76	36	4.76	36
2.38	--	2.38	--	2.38	--
2.00	23	2.00	25	2.00	25
1.19	--	1.19	--	1.19	--
0.841	14	0.841	17	0.841	18
0.595	--	0.595	--	0.595	--
0.42	7	0.42	9	0.42	11
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	3	0.149	3	0.149	3
0.074	2	0.074	2	0.074	2

M.C.(%): -- M.C.(%): -- M.C.(%): --

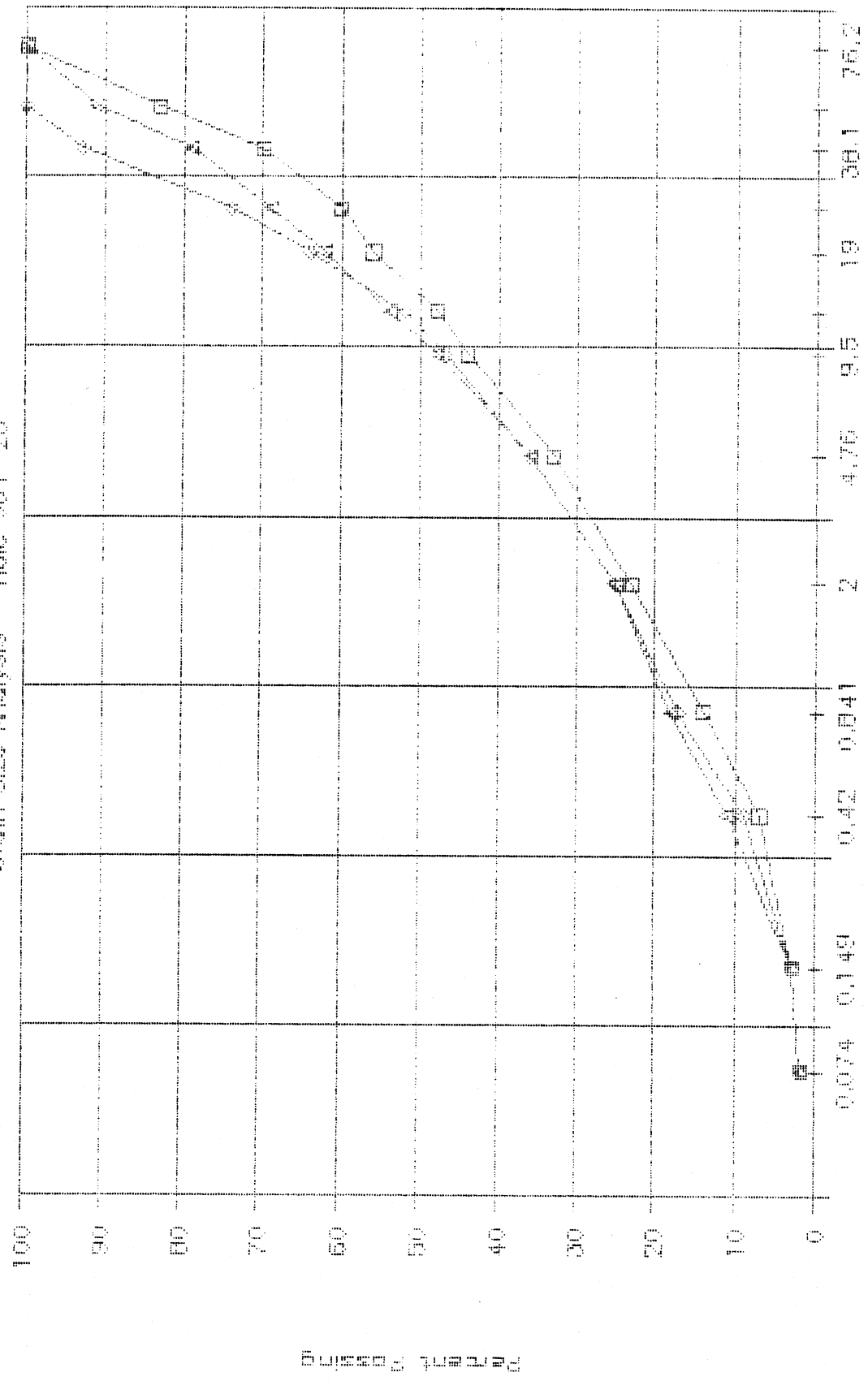
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	67	% GRAVEL:	64	% GRAVEL:	64
% SAND:	31	% SAND:	34	% SAND:	34
% FINES:	2	% FINES:	2	% FINES:	2

CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)
-----------------	-------------------------------------	-----------------	-----------------------------------	-----------------	-----------------------------------

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis -- Hole 031--23



Legend:
 □ SAMP. 48
 ○ SAMP. 50

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-24
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.26

FIELD NO: 51	FIELD NO: 52
LAB NO: 2803	LAB NO: 2804
DEPTH: 1.1-1.4	DEPTH: 2.6-2.9
TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--
76.2	100	76.2	100
50.8	94	50.8	96
38.1	79	38.1	84
25.4	65	25.4	77
19.0	59	19.0	67
12.7	51	12.7	57
9.5	46	9.5	52
4.76	37	4.76	40
2.38	--	2.38	--
2.00	26	2.00	28
1.19	--	1.19	--
0.841	14	0.841	17
0.595	--	0.595	--
0.42	8	0.42	10
0.297	--	0.297	--
0.177	--	0.177	--
0.149	3	0.149	4
0.074	2	0.074	3

M.C.(%): -- M.C.(%): --

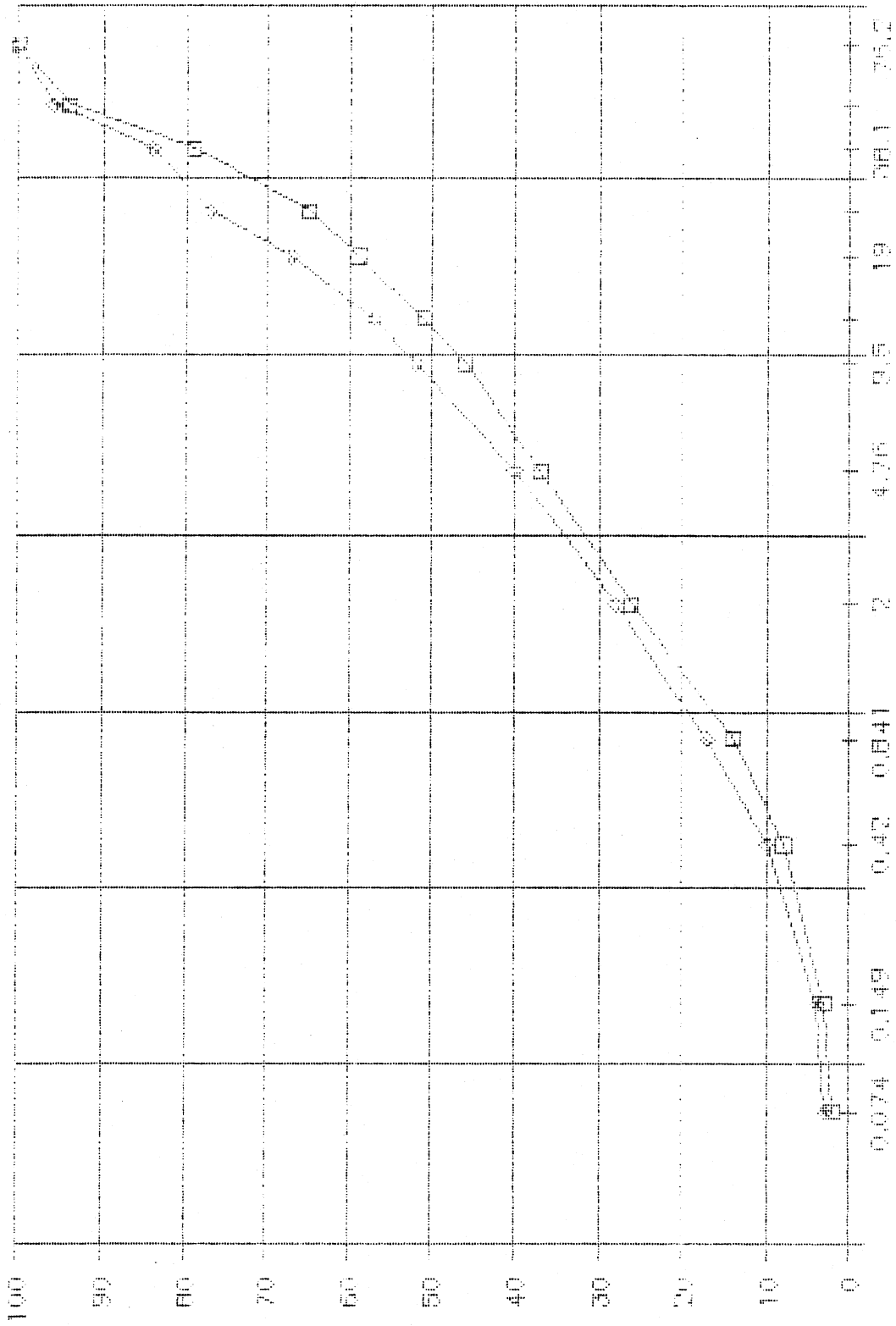
LIMITS	LIMITS
LIQUID: --	LIQUID: --
PLASTIC: --	PLASTIC: --
P.I.: N.P.	P.I.: N.P.

% GRAVEL: 63	% GRAVEL: 60
% SAND: 35	% SAND: 37
% FINES: 2	% FINES: 3

CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED	POORLY GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND
(GP)	(GP)

PUBLIC WORKS CANADA — WHITEHORSE, N.T.

Grain Size Analysis - Hole 001-24



PERCENT PASSING

SAMP. 51
 SAMP. 52
 SAMP. 53
 SAMP. 54
 SAMP. 55

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 031-25
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CE DATE COMPLETED: 88.10.27

FIELD NO: 53	FIELD NO: 54
LAB NO: 2905	LAB NO: 2906
DEPTH: 1.8-2.2	DEPTH: 2.9-3.2
TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--
76.2	100	76.2	100
50.8	84	50.8	91
38.1	70	38.1	83
25.4	63	25.4	73
19.0	56	19.0	65
12.7	48	12.7	53
9.5	43	9.5	45
4.76	35	4.76	31
2.38	--	2.38	--
2.00	24	2.00	19
1.19	--	1.19	--
0.841	12	0.841	11
0.595	--	0.595	--
0.42	6	0.42	5
0.297	--	0.297	--
0.177	--	0.177	--
0.149	2	0.149	2
0.074	1	0.074	2

M.C. (%): -- M.C. (%): --

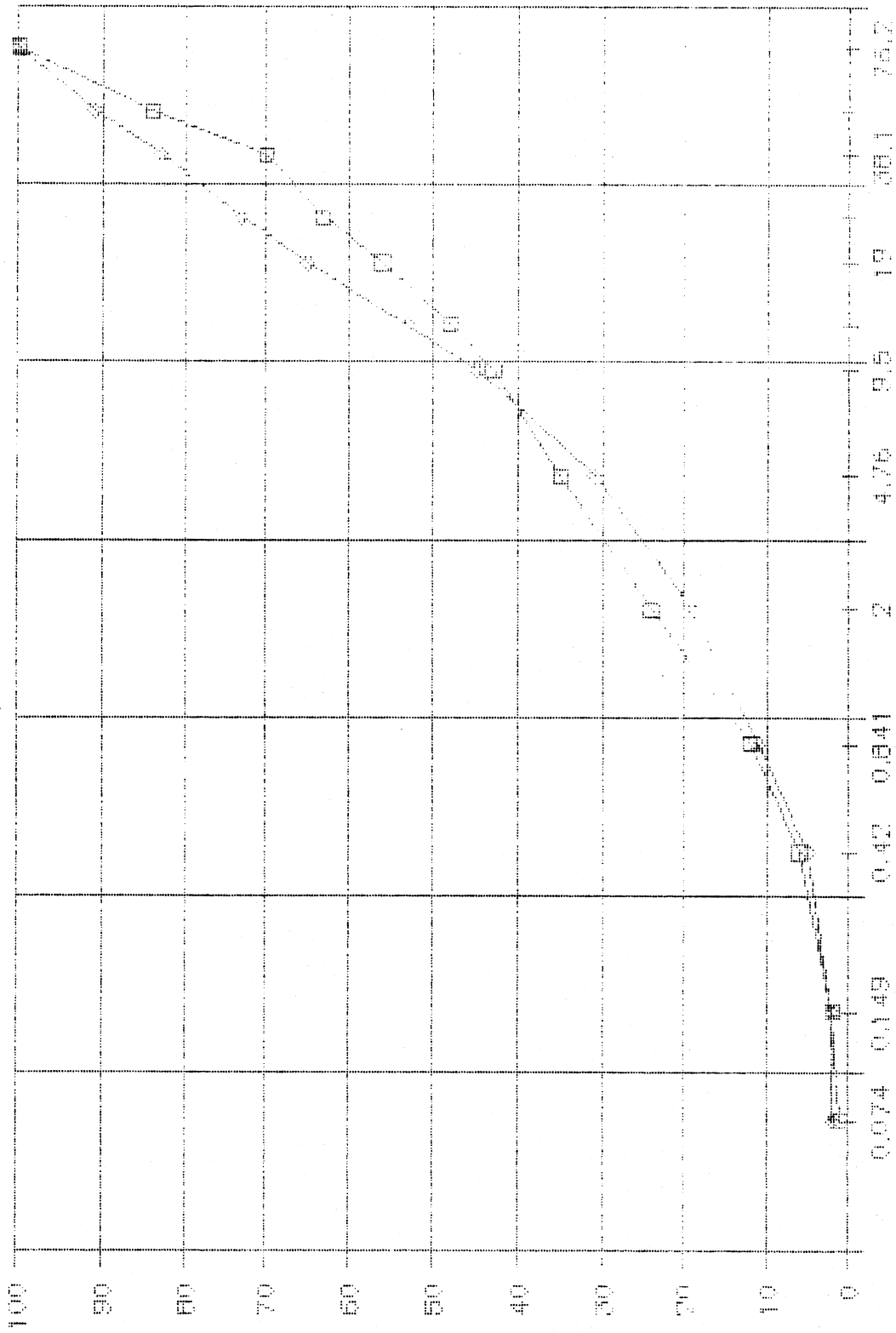
LIMITS	LIMITS
LIQUID: --	LIQUID: --
PLASTIC: --	PLASTIC: --
P.I.: N.P.	P.I.: N.P.

% GRAVEL: 65	% GRAVEL: 69
% SAND: 34	% SAND: 29
% FINES: 1	% FINES: 2

CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED	WELL-GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND
(GP)	(GW)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 001-2b



PERCENT FINER

SAMP. 50 SAMP. 54 SAMP. 54 SAMP. 54

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 032-26
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.27

FIELD NO: 55
 LAB NO: 2807
 DEPTH: 0.9-1.2
 TYPE: BULK

FIELD NO: 56
 LAB NO: 2808
 DEPTH: 2.3-2.6
 TYPE: BULK

FIELD NO: 57
 LAB NO: 2809
 DEPTH: 3.4-3.7
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	94
38.1	81
25.4	71
19.0	65
12.7	54
9.5	48
4.76	36
2.38	--
2.00	24
1.19	--
0.841	14
0.595	--
0.42	8
0.297	--
0.177	--
0.149	3
0.074	2

101.6	--
76.2	100
50.8	86
38.1	84
25.4	72
19.0	64
12.7	53
9.5	47
4.76	34
2.38	--
2.00	21
1.19	--
0.841	14
0.595	--
0.42	9
0.297	--
0.177	--
0.149	4
0.074	3

101.6	--
76.2	--
50.8	100
38.1	81
25.4	73
19.0	66
12.7	57
9.5	52
4.76	43
2.38	--
2.00	33
1.19	--
0.841	22
0.595	--
0.42	12
0.297	--
0.177	--
0.149	4
0.074	3

M.C.(%): --

M.C.(%): --

M.C.(%): --

LIMITS

LIMITS

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 64
 % SAND: 34
 % FINES: 2

% GRAVEL: 66
 % SAND: 31
 % FINES: 3

% GRAVEL: 57
 % SAND: 40
 % FINES: 3

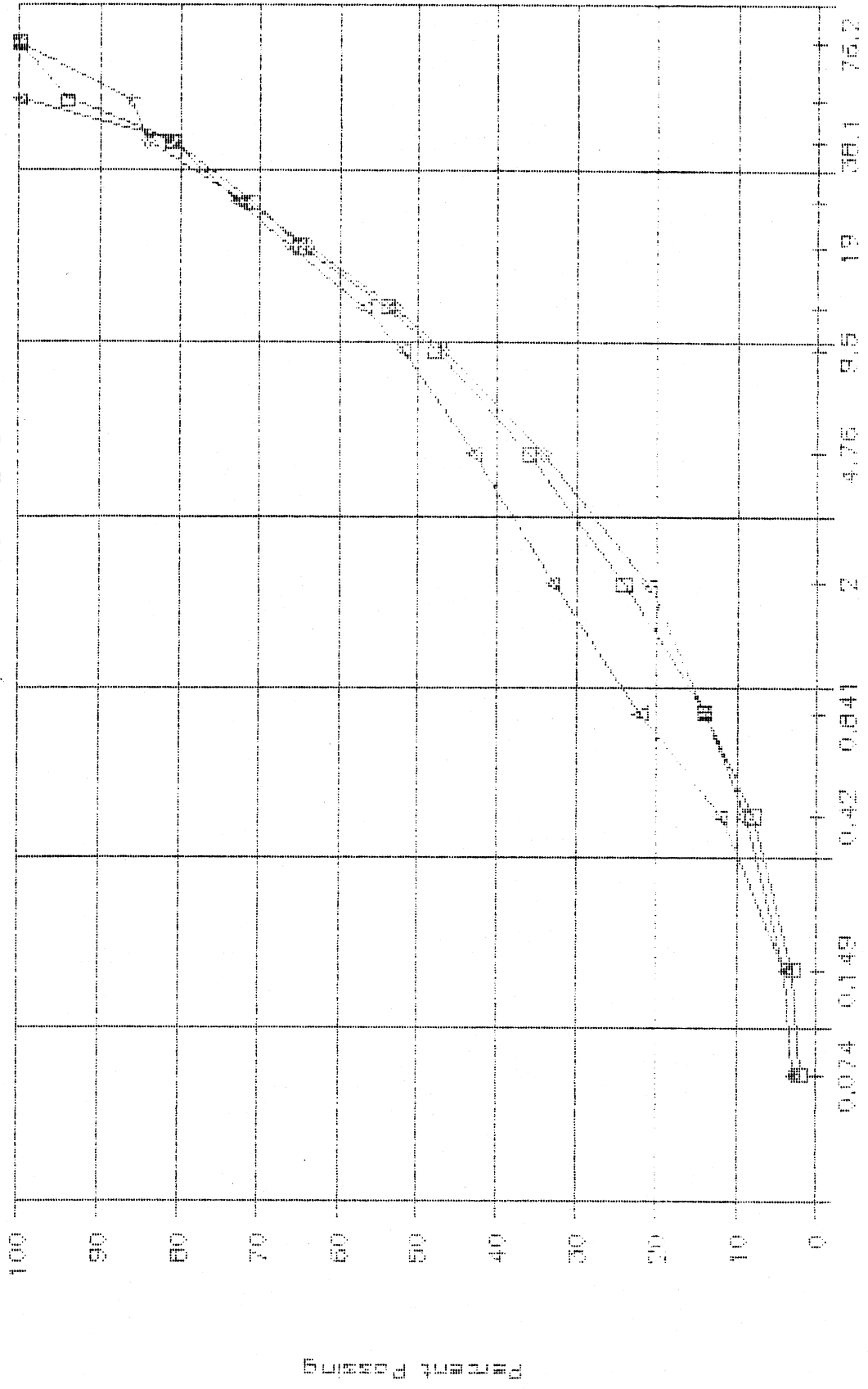
CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis - Hole 032-26



SAMP. 55
 SAMP. 57
 SAMP. 58

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 032-27
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.27

FIELD NO: 58	FIELD NO: 59	FIELD NO: 60
LAB NO: 2810	LAB NO: 2811	LAB NO: 2812
DEPTH: 0.6-0.9	DEPTH: 2.4-2.7	DEPTH: 3.6-3.9
TYPE: BULK	TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--
76.2	100	76.2	--	76.2	100
50.8	92	50.8	100	50.8	95
38.1	86	38.1	96	38.1	79
25.4	74	25.4	87	25.4	67
19.0	68	19.0	80	19.0	56
12.7	58	12.7	64	12.7	47
9.5	52	9.5	57	9.5	41
4.76	41	4.76	44	4.76	31
2.38	--	2.38	--	2.38	--
2.00	31	2.00	30	2.00	20
1.19	--	1.19	--	1.19	--
0.841	19	0.841	21	0.841	12
0.595	--	0.595	--	0.595	--
0.42	10	0.42	14	0.42	7
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	3	0.149	5	0.149	5
0.074	2	0.074	4	0.074	2

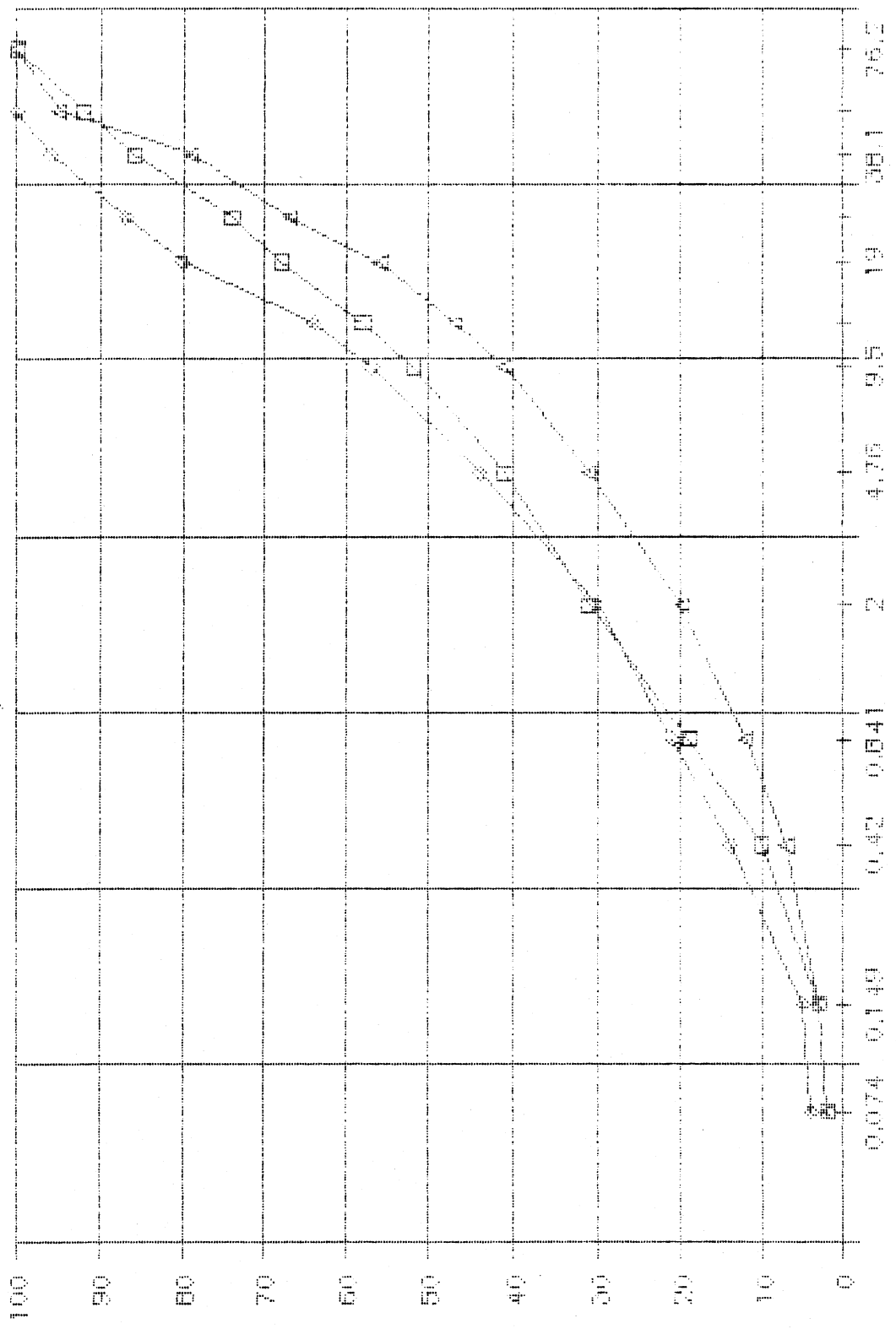
M.C.(%):	--	M.C.(%):	--	M.C.(%):	--
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	59	% GRAVEL:	56	% GRAVEL:	69
% SAND:	39	% SAND:	40	% SAND:	29
% FINES:	2	% FINES:	4	% FINES:	2

CLASSIFICATION:	POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)	CLASSIFICATION:	WELL-GRADED GRAVEL WITH SAND (GW)
-----------------	-------------------------------------	-----------------	-----------------------------------	-----------------	-----------------------------------

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis -- Hole 032-27



PERCENT PASSING

Sieve Size (mm)

□ SAMPLE 50 △ SAMPLE 50

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 032-29
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CE DATE COMPLETED: 88.10.27

FIELD NO: 64
 LAB NO: 2816
 DEPTH: 0.7-1.0
 TYPE: BULK

FIELD NO: 65
 LAB NO: 2817
 DEPTH: 2.4-2.7
 TYPE: BULK

FIELD NO: 66
 LAB NO: 2818
 DEPTH: 4.3-4.6
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	--
50.8	100
38.1	89
25.4	69
19.0	60
12.7	50
9.5	46
4.76	35
2.38	--
2.00	24
1.19	--
0.841	17
0.595	--
0.42	11
0.297	--
0.177	--
0.149	4
0.074	3

101.6	--
76.2	100
50.8	85
38.1	73
25.4	64
19.0	58
12.7	45
9.5	39
4.76	29
2.38	--
2.00	17
1.19	--
0.841	8
0.595	--
0.42	5
0.297	--
0.177	--
0.149	2
0.074	2

101.6	--
76.2	--
50.8	100
38.1	89
25.4	79
19.0	73
12.7	60
9.5	52
4.76	39
2.38	--
2.00	26
1.19	--
0.841	16
0.595	--
0.42	11
0.297	--
0.177	--
0.149	4
0.074	3

M.C.(%): --
 LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

M.C.(%): --
 LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

M.C.(%): --
 LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 65
 % SAND: 33
 % FINES: 3

% GRAVEL: 71
 % SAND: 27
 % FINES: 2

% GRAVEL: 61
 % SAND: 36
 % FINES: 3

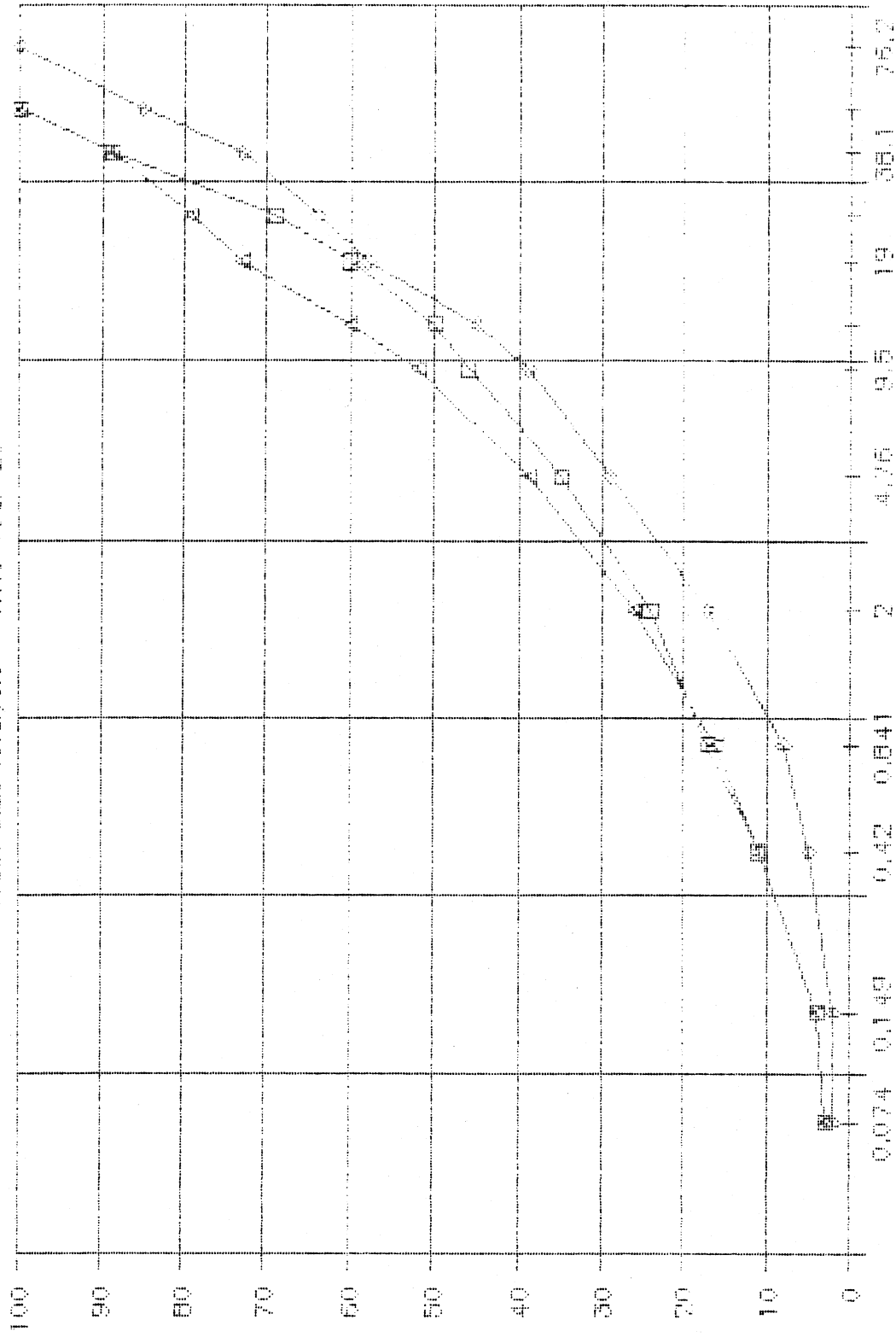
CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis -- Hole 032-23



Legend:
 □ SANP. 64
 ○ SANP. 66
 x SANP.

DATE: 1964

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 032-30
 CLIENT: PWC - CAPITAL Y.T.
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.27

FIELD NO: 67
 LAB NO: 2819
 DEPTH: 0.8-1.1
 TYPE: BULK

FIELD NO: 68
 LAB NO: 2820
 DEPTH: 2.3-2.6
 TYPE: BULK

FIELD NO: 69
 LAB NO: 2821
 DEPTH: 3.5-3.8
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	90
25.4	77
19.0	72
12.7	59
9.5	52
4.76	37
2.38	--
2.00	22
1.19	--
0.841	14
0.595	--
0.42	10
0.297	--
0.177	--
0.149	4
0.074	3

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	--
50.8	100
38.1	84
25.4	68
19.0	61
12.7	53
9.5	46
4.76	36
2.38	--
2.00	25
1.19	--
0.841	12
0.595	--
0.42	9
0.297	--
0.177	--
0.149	3
0.074	2

SIEVE SIZE	PERCENT PASSING
101.6	--
76.2	100
50.8	93
38.1	77
25.4	59
19.0	56
12.7	47
9.5	42
4.76	33
2.38	--
2.00	24
1.19	--
0.841	17
0.595	--
0.42	10
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%): --

M.C. (%): --

M.C. (%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 63
 % SAND: 34
 % FINES: 3

% GRAVEL: 64
 % SAND: 34
 % FINES: 2

% GRAVEL: 67
 % SAND: 30
 % FINES: 3

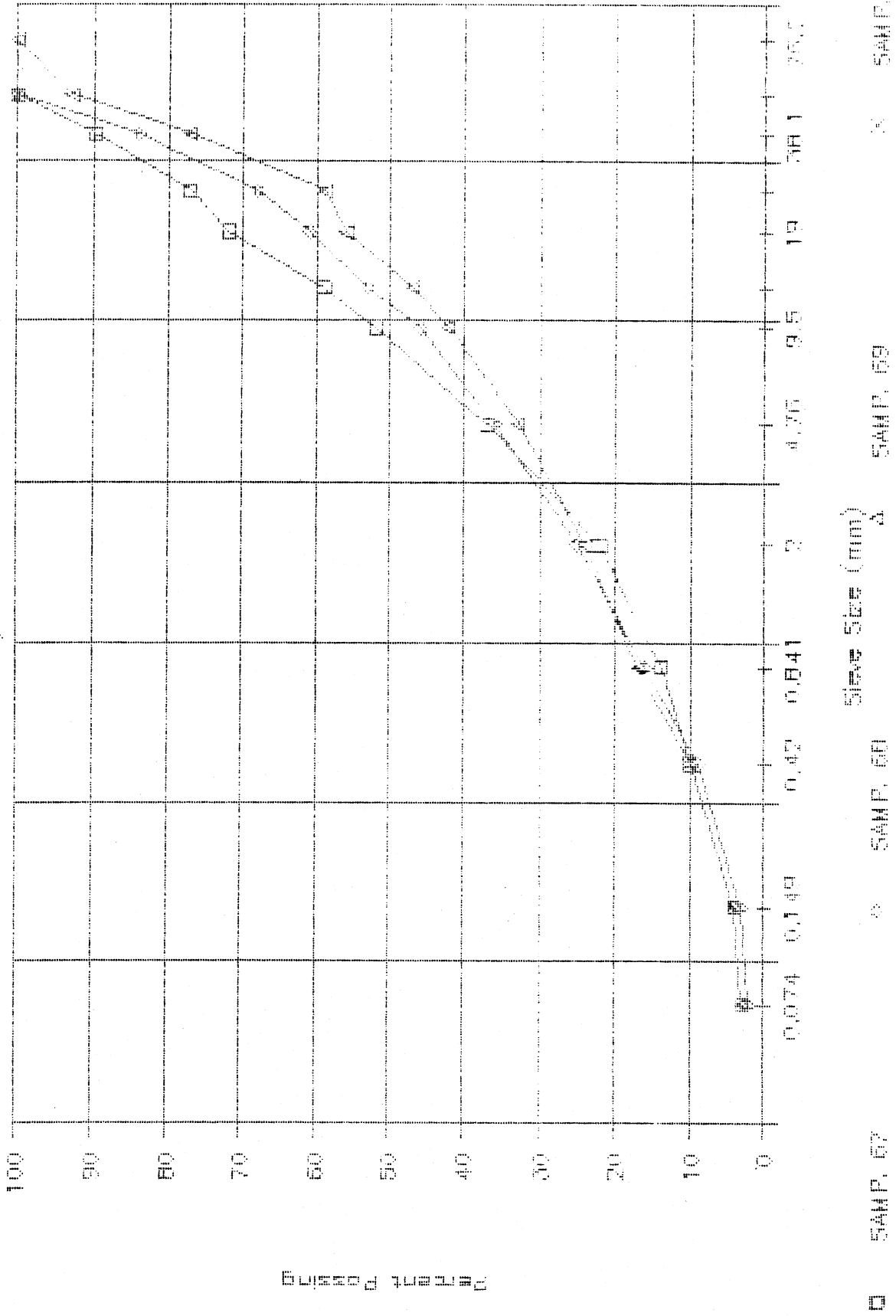
CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA -- WHITEHORSE, Y.T.

Grain Size Analysis - Hole 032--30



PROJECT NUMBER: 115-G-03 HOLE NUMBER: 002-31
 CLIENT: PWC CAPITAL-YT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1786 LHS
 DRILL UNIT: CAT. 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CS DATE COMPLETED: 88.10.27

FIELD NO: 70	FIELD NO: 71
LAB NO: 2922	LAB NO: 2823
DEPTH: 1.0-1.3	DEPTH: 2.8-3.1
TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
------------	-----------------	------------	-----------------

101.6	--	101.6	--
76.2	--	76.2	100
50.8	100	50.8	80
38.1	89	38.1	67
25.4	77	25.4	54
19.0	70	19.0	47
12.7	60	12.7	37
9.5	54	9.5	31
4.76	42	4.76	22
2.38	--	2.38	--
2.00	29	2.00	12
1.19	--	1.19	--
0.841	18	0.841	7
0.595	--	0.595	--
0.42	10	0.42	5
0.297	--	0.297	--
0.177	--	0.177	--
0.149	3	0.149	2
0.074	2	0.074	2

M.C.(%): -- M.C.(%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

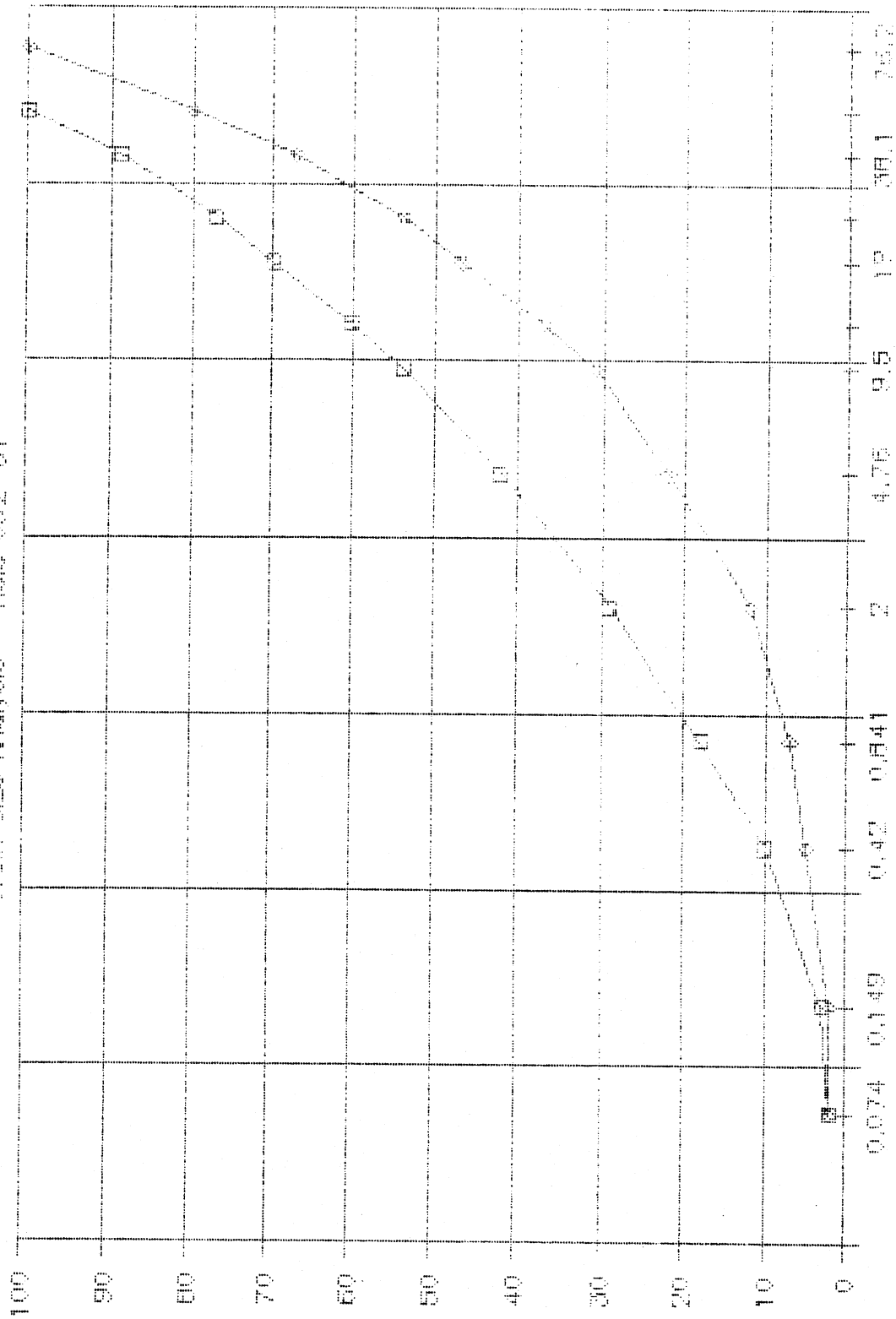
LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 58	% GRAVEL: 78
% SAND: 40	% SAND: 20
% FINES: 2	% FINES: 2

CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION: WELL-GRADED GRAVEL WITH SAND (GW)
--	--

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 032-31



PERCENT PASSING

Sieve Size (mm)

□ 5AMP. 70 ○ 5AMP. 71

PROJECT NUMBER: 115-G-05 HOLE NUMBER: 002-00
 CLIENT: PWC CAPITAL-YT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 88.10.27

FIELD NO: 76
 LAB NO: 2827
 DEPTH: 0.9-1.2
 TYPE: BULK

FIELD NO: 77
 LAB NO: 2928
 DEPTH: 2.5-2.8
 TYPE: BULK

FIELD NO: 78
 LAB NO: 2929
 DEPTH: 4.4-4.7
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
76.2	100
50.8	89
38.1	75
25.4	55
19.0	51
12.7	40
9.5	34
4.76	25
2.38	--
2.00	19
1.19	--
0.841	14
0.595	--
0.42	8
0.297	--
0.177	--
0.149	3
0.074	3

101.6	--
76.2	100
50.8	92
38.1	67
25.4	56
19.0	51
12.7	43
9.5	39
4.76	30
2.38	--
2.00	22
1.19	--
0.841	15
0.595	--
0.42	9
0.297	--
0.177	--
0.149	3
0.074	2

101.6	--
76.2	100
50.8	83
38.1	70
25.4	55
19.0	49
12.7	41
9.5	36
4.76	28
2.38	--
2.00	20
1.19	--
0.841	14
0.595	--
0.42	9
0.297	--
0.177	--
0.149	3
0.074	2

M.C.(%): --

M.C.(%): --

M.C.(%): --

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS
 LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 75
 % SAND: 23
 % FINES: 3

% GRAVEL: 70
 % SAND: 28
 % FINES: 2

% GRAVEL: 72
 % SAND: 25
 % FINES: 2

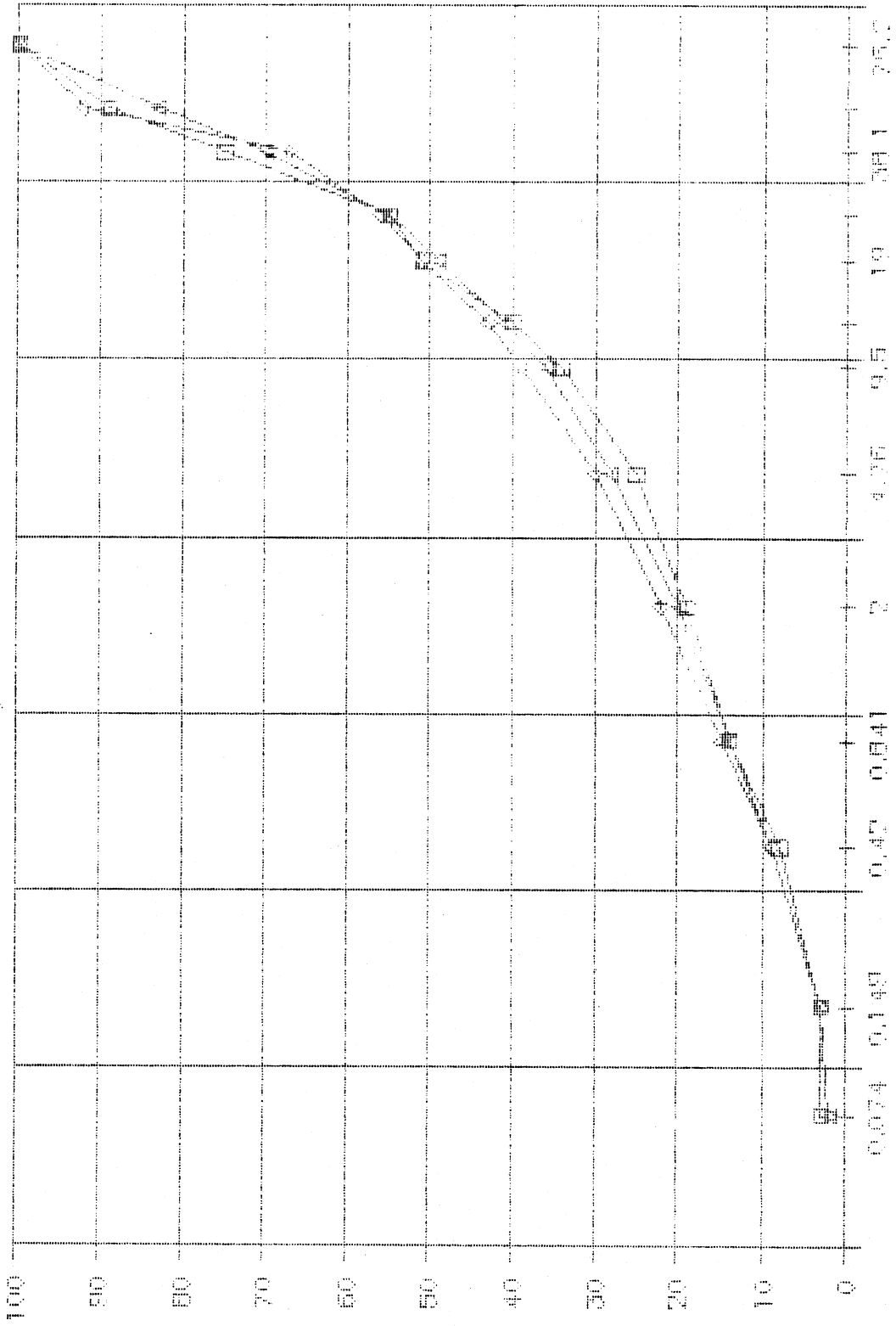
CLASSIFICATION:
 POORLY GRADED
 GRAVEL WITH SAND
 (GP)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis - Hole 032-33



Legend:
 ◻ SAMP. 76
 ◻ SAMP. 78
 ◻ SAMP. 77

PERCENT PASSING

PROJECT NUMBER: 115-G-09 HOLE NUMBER: 002-34
 CLIENT: PWC CAPITAL-YT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HGE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 09.10.08

FIELD NO: 79	FIELD NO: 80	FIELD NO: 81
LAB NO: 2830	LAB NO: 2831	LAB NO: 2832
DEPTH: 0.7-1.0	DEPTH: 2.3-2.6	DEPTH: 3.8-4.1
TYPE: BULK	TYPE: BULK	TYPE: BULK

SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
101.6	--	101.6	--	101.6	--
76.2	100	76.2	--	76.2	100
50.8	86	50.8	100	50.8	85
38.1	75	38.1	88	38.1	63
25.4	59	25.4	75	25.4	54
19.0	55	19.0	65	19.0	49
12.7	47	12.7	54	12.7	42
9.5	42	9.5	47	9.5	37
4.76	34	4.76	38	4.76	27
2.38	--	2.38	--	2.38	--
2.00	24	2.00	25	2.00	18
1.19	--	1.19	--	1.19	--
0.841	15	0.841	16	0.841	11
0.595	--	0.595	--	0.595	--
0.42	8	0.42	10	0.42	6
0.297	--	0.297	--	0.297	--
0.177	--	0.177	--	0.177	--
0.149	3	0.149	4	0.149	3
0.074	2	0.074	2	0.074	2

M.C.(%): -- M.C.(%): -- M.C.(%): --

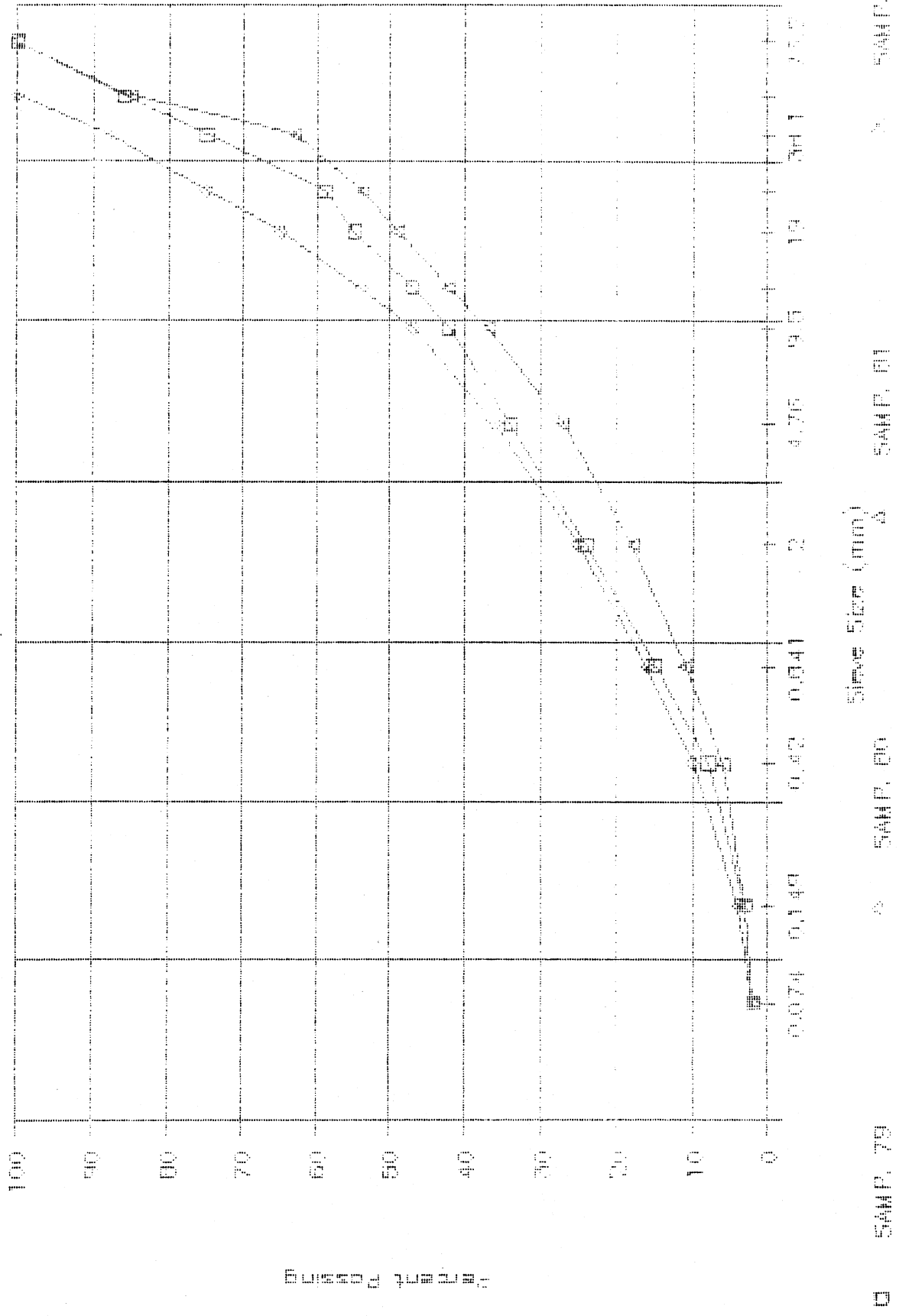
LIMITS		LIMITS		LIMITS	
LIQUID:	--	LIQUID:	--	LIQUID:	--
PLASTIC:	--	PLASTIC:	--	PLASTIC:	--
P.I.:	N.P.	P.I.:	N.P.	P.I.:	N.P.

% GRAVEL:	66	% GRAVEL:	64	% GRAVEL:	73
% SAND:	31	% SAND:	33	% SAND:	25
% FINES:	2	% FINES:	2	% FINES:	2

CLASSIFICATION:	CLASSIFICATION:	CLASSIFICATION:
POORLY GRADED	WELL-GRADED	WELL-GRADED
GRAVEL WITH SAND	GRAVEL WITH SAND	GRAVEL WITH SAND
(GP)	(GW)	(GW)

PUBLIC WORKS CANADA — WHITEHORSE, N.T.

Grain Size Analysis — Hole 032-34



PROJECT NUMBER: 115-G-05 HOLE NUMBER: 000-28
 CLIENT: PWC CAPITAL-YT
 PROJECT NAME: ALASKA HIGHWAY PRE-ENGINEERING
 PROJECT LOCATION: A/H KM 1766 LHS
 DRILL UNIT: CAT 225 HOE
 HOLE LOCATION: SEE PLAN
 LOGGED BY: CB DATE COMPLETED: 89.10.28

FIELD NO: 82
 LAB NO: 2933
 DEPTH: 0.8-1.1
 TYPE: BULK

FIELD NO: 83
 LAB NO: 2934
 DEPTH: 2.2-2.5
 TYPE: BULK

FIELD NO: 84
 LAB NO: 2935
 DEPTH: 3.5-3.8
 TYPE: BULK

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

SIEVE SIZE	PERCENT PASSING
------------	-----------------

101.6	--
75.2	100
50.8	82
38.1	74
25.4	65
19.0	60
12.7	52
9.5	45
4.76	34
2.38	--
2.00	24
1.19	--
0.841	16
0.595	--
0.42	8
0.297	--
0.177	--
0.149	3
0.074	2

101.6	--
75.2	100
50.8	94
38.1	80
25.4	67
19.0	55
12.7	45
9.5	40
4.76	29
2.38	--
2.00	19
1.19	--
0.841	11
0.595	--
0.42	7
0.297	--
0.177	--
0.149	4
0.074	3

101.6	--
75.2	100
50.8	90
38.1	84
25.4	72
19.0	63
12.7	50
9.5	47
4.76	36
2.38	--
2.00	26
1.19	--
0.841	17
0.595	--
0.42	9
0.297	--
0.177	--
0.149	4
0.074	3

M.C. (%): --

M.C. (%): --

M.C. (%): --

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

LIMITS

LIQUID: --
 PLASTIC: --
 P.I.: N.P.

% GRAVEL: 66
 % SAND: 32
 % FINES: 2

% GRAVEL: 71
 % SAND: 26
 % FINES: 3

% GRAVEL: 64
 % SAND: 33
 % FINES: 3

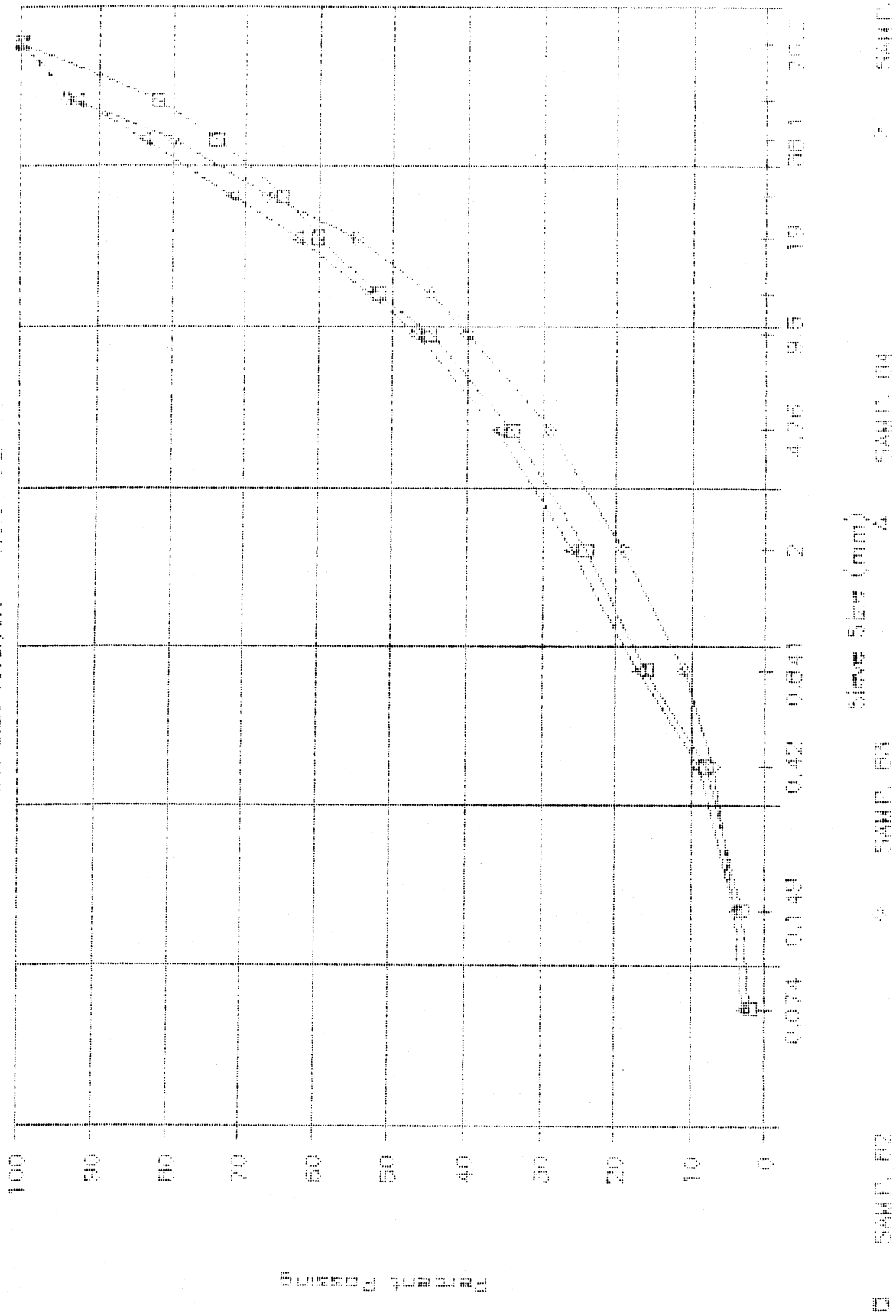
CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

CLASSIFICATION:
 WELL-GRADED
 GRAVEL WITH SAND
 (GW)

PUBLIC WORKS CANADA — WHITEHORSE, Y.T.

Grain Size Analysis — Hole 032-35



PERCENT FINER

Sieve Size (mm)

□ SAND, 04
△ SAND, 03