

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

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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: 092-202101-0361	
B40 MOBILE DRILL 6" AUGER		LOCATION: 1758+650 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 & GRAVEL		DEPTH (m)
				PLASTIC 20 40 60 80	M.C. 20 40 60 80	LIQUID 20 40 60 80			PERCENT SAND 20 40 60 80	PERCENT GRAVEL 20 40 60 80	
0.0	ORGANIC SANDY SILT -some +5mm material -brown -damp										0.0
1.0	SILTY SAND WITH GRAVEL (SM) -light brown -damp -maximum 25mm material -grindy drilling										1.0
2.0											2.0
3.0	-moist below 2.8m		678	●	▲		SM	⊞	■	◆	3.0
4.0	-damp below 4.0m		679	●	▲		SM	⊞	■		4.0
5.0	END HOLE @ 4.7m		680	●	▲		SM	⊞	■	◆	5.0
6.0											6.0

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		REVIEWED BY:	COMPLETE: 00/06/07
		Fig. No:	Page 1 of 1

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 / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
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

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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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC SILTY SAND -brown -moist											0.0
1.0												1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL (GP-GM)-(SM) -brown -damp -maximum 25mm material -grindy drilling -harder drilling below 1.8m -frozen (Nf) below 2.5m	☒	684	▲			GP-GM	▲▲▲	◆	■		2.0
3.0		☒	685	◆	▲		SM	●●●●		■	◆	3.0
4.0	-grey below 4.0m -easier drilling below 4.0m											4.0
5.0	END HOLE @ 4.7m	☒	686	◆	▲		SM	●●●●		■	◆	5.0
6.0												6.0

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		REVIEWED BY:	COMPLETE: 00/06/07
		Fig. No:	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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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 -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	☒	731	● ▲	ML	◆ ■		4.7
5.0								5.0
6.0								6.0

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
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

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
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

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COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/07

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1516	
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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)										0.0
	-brown										
	-moist										
	-maximum 50mm material										
	-grindy drilling										
1.0											1.0
2.0											2.0
3.0	SILTY SAND WITH GRAVEL (SM)		733				SM				3.0
	-grey										
	-saturated										
	-some +5mm material contamination										
	-easy smooth drilling										
4.0											4.0
5.0	END HOLE @ 4.7m		734				SM				5.0
6.0											6.0

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		REVIEWED BY:	COMPLETE: 00/06/12
		Fig. No:	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 ☐ 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	
0.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -damp -grindy drilling										0.0
1.0											1.0
2.0	-smoother drilling 1.8 to 2.5m										2.0
3.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -maximum 50mm material -very hard slow grindy drilling										3.0
4.0	SILTY SAND WITH GRAVEL (SM) -grey -moist										4.0
5.0	END HOLE @ 4.7m										5.0
6.0											6.0

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	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 ☒ 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 ■				
				20	40	60	80		20	40	60	80	
0.0	ORGANIC SILT -trace sand -damp -brown												0.0
1.0	SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (SM)-(GP-GM)-(SW-SM) -brown -damp -maximum 50mm material -grindy drilling												1.0
2.0	-very hard grindy drilling below 2.0m												2.0
3.0		☒	692	●	▲			SM	◆◆◆◆		■	◆	
4.0	-grey below 4.0m -wet below 4.0												4.0
5.0	END HOLE @ 4.7m	☒	693	●	▲			GP-GM	◆◆◆◆		■	◆	
6.0		☒	694	●	▲			SW-SM	◆◆◆◆		■	◆	

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		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 ☒ 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							
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	
2.0												2.0	
3.0												3.0	
4.0	SILTY SAND WITH GRAVEL (SM) -grey -moist -very hard slow grindy drilling											4.0	
5.0	END HOLE @ 4.7m											5.0	
6.0												6.0	

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	REVIEWED BY:	COMPLETE: 00/06/12
	Fig. No:	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 ☐ 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	
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											2.0
3.0	-grey below 2.5m -very hard grindy drilling below 2.5m										3.0
4.0	SILTY SAND WITH GRAVEL (SM) -grey -saturated										4.0
5.0	END HOLE @ 4.7m										5.0
6.0											6.0

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☒ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	ORGANIC ASH SANDY SILT -brown -damp										0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -damp -grindy drilling										1.0
2.0											2.0
3.0											3.0
4.0	SILTY GRAVEL WITH SAND (GM) -grey -moist										4.0
5.0	END HOLE @ 4.7m										5.0
6.0											6.0

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		REVIEWED BY:	COMPLETE: 00/06/12
		Fig. No:	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	☒	698	● ▲		GP-GM	◆ ■	2.0
3.0	SANDY SILT TO SILTY SAND WITH GRAVEL (ML)-(SM) -grey -frozen (Nb)	☒	699	● ▲		SM	◆ ■	3.0
4.0		☒	700	● ▲		ML	◆ ■	4.0
5.0	END HOLE @ 4.7m	☒	701	● ▲		SM	◆ ■	5.0
6.0								6.0

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

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1520	
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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
											20	
0.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -maximum 50mm material -grindy drilling											0.0
1.0												1.0
2.0	ORGANIC -smooth drilling											2.0
3.0	ASH SILTY GRAVEL WITH SAND (GM) -with organic -black -saturated	☒	745				GP-GM					3.0
4.0	SILTY SAND WITH GRAVEL (SM) -grey -saturated -very hard slow grindy drilling	☒	746				GM					4.0
5.0	END HOLE @ 4.7m Note: hole drilled in Museum Parking Lot	☒	747				SM					5.0
6.0												6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC -frozen (Nb)											0.0
1.0												1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf)	☒	702				SM					2.0
3.0	-frozen (Nf) below 2.6m	☒	703				SM					3.0
4.0	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nb)	☒	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. 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: 553-1521	
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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
											20	
0.0	ORGANIC											0.0
	SILTY SAND WITH GRAVEL (SM)											
	-brown											
	-saturated											
1.0												1.0
	-grindy drilling below 1.5m											
	-grey below 1.5m											
	-moist below 1.5m											
2.0												2.0
3.0												3.0
4.0												4.0
5.0												5.0
	END HOLE @ 4.7m											
6.0												6.0

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		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 ☒ 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)
				20	40	60			80	20	40	60	
0.0	GRAVEL -grindy drilling												0.0
0.0	SILTY SAND WITH GRAVEL (SM) -brown -wet -smooth drilling -some organics												
1.0													1.0
1.0			751					SM					
2.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -grey -moist -maximum 50mm material -grindy drilling												2.0
2.0													
3.0			752					GM					3.0
3.0													
4.0													4.0
4.0													
5.0	END HOLE @ 4.7m Note: Hole drilled in gas station parking lot		753					SM					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: 00/06/12
		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 ☒ 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)
				20	40	60			20	40	60	80	
0.0	ORGANIC SANDY SILT -brown -damp											0.0	
1.0	SILTY SAND WITH GRAVEL (SM) -brown -damp -grindy drilling											1.0	
		☒	705	●	▲		SM		■	◆			
2.0												2.0	
3.0	SILTY GRAVEL WITH SAND (GM) -brown -damp -maximum 25mm material											3.0	
		☒	706	●	▲		GM		■	◆			
4.0	-hard slow grindy drilling -dense below 4.0m											4.0	
5.0	END HOLE @ 4.7m											5.0	
		☒	707	●	▲		GM		■	◆			
6.0												6.0	

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		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 ☒ 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 80				
				20	40	60			20	40	60		
0.0	SILTY GRAVEL WITH SAND (GM) -grey -moist -grindy drilling												0.0
1.0													1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -moist												2.0
3.0													3.0
4.0													4.0
5.0	END HOLE @ 4.7m												5.0
6.0													6.0

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		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			PERCENT GRAVEL ■			
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												2.0
3.0												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: 00/06/07		Page 1 of 1				

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 553-1524	
ENGINEERING CAPITAL		KM 1729.6-1787		Project No: 092-202101-0361	
B40 MOBILE DRILL 6" AUGER		LOCATION: 1759+800 + 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 ◆			PERCENT GRAVEL ■			DEPTH (m)
				PLASTIC	M.C.	LIQUID									
0.0	ORGANIC ASH SILT & ORGANIC -brown													0.0	
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -moist -maximum 25mm material -grindy drilling													1.0	
2.0														2.0	
3.0														3.0	
4.0														4.0	
5.0														5.0	
6.0														6.0	
	END HOLE @ 4.7m														

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		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			20	40	60		80
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	

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	REVIEWED BY:	COMPLETE: 00/06/07
	Fig. No:	Page 1 of 1

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 ◆		PERCENT GRAVEL ■	DEPTH (m)			
				20	40	60			80	20			40	60	80
0.0	ORGANIC SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -grey -moist											0.0			
1.0												1.0			
2.0												2.0			
3.0												3.0			
4.0	-more +5mm material below 4.0m											4.0			
5.0	END HOLE @ 4.7m											5.0			
6.0												6.0			

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	REVIEWED BY:	COMPLETE: 00/06/12
	Fig. No:	Page 1 of 1

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 ☒ 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)
				20	40	60			80	20	40	60	
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	☒	714	●	▲			SM	◆			2.0	
3.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -grindy drilling	☒	715	●	▲			SM	◆	■		3.0	
4.0	SILTY GRAVEL WITH SAND (GM) -brown -saturated -maximum 50mm material -grindy drilling	☒	716	●	▲			GM	◆	■		4.0	
5.0	END HOLE @ 4.7m											5.0	
6.0												6.0	

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		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 ◆			PERCENT GRAVEL ■	DEPTH (m)	
				PLASTIC	M.C.	LIQUID			20	40	60			80
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	-coarser below 3.6m													
5.0	END HOLE @ 4.7m	☒	765	●	▲		GM		■	◆			5.0	
6.0													6.0	

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		REVIEWED BY:	COMPLETE: 00/06/12
		Fig. No:	Page 1 of 1

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 ◆			PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60		
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	☒	717	●	▲		SM	◆					2.0
3.0		☒	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.		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: 552-1510			
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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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	DEPTH (m)
				◆ PERCENT SAND ◆ 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	☒	719	● ▲	SM	●	2.0
3.0	-saturated below 2.8m	☒	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 ▲ 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	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
		☒	730	● ▲		GP-GM	■ ◆	3.0
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 ☒ 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
1.0	SANDY GRAVELLY SILT -brown -frozen (Nb)											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	☒	721	▲			SM	◆	■	◆		2.0
3.0		☒	722	▲			SW-SM	◆	■	◆		3.0
4.0	-very hard slow grindy drilling below 3.7m - coarser material											4.0
5.0	END HOLE @ 4.7m	☒	723	▲			SW-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: 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 ☐ 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
	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
		☒	728					SW-SM				
2.0												2.0
3.0	-no sample below 2.5m material washed off.											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

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	Fig. No:	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
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											1.0
		☒	724	●	▲		GM		■	◆		
2.0												2.0
3.0		☒	725	●	▲		SM		■	◆		3.0
4.0	SILTY SAND (SM) -grey -moist -dense											4.0
		☒	726	●	▲		SM		■	◆		
5.0	-very hard slow tight grindy drilling below 4.5m											5.0
6.0	END HOLE @ 6.0m	☒	727	●	▲		SM		■	◆		6.0
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				REVIEWED BY:		COMPLETE: 00/06/07						
				Fig. No:		Page 1 of 1						

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 ☐ 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	80
0.0	ORGANIC										0.0		
	ASH												
	SANDY SILT (ML) -brown -damp												
1.0		☒	766	●		▲		ML		◆	1.0		
	SILTY GRAVEL WITH SAND (GM) -brown -damp -maximum 25mm material -grindy drilling												
2.0		☒	767	●	▲			GM		◆	2.0		
3.0		☒	768	●	▲			GM		◆	3.0		
4.0													
5.0		☒	769	●	▲			GM		◆	5.0		
6.0													
	END HOLE @ 4.7m												

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		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 ☒ 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	80
0.0	ORGANIC SILT SILTY SAND WITH GRAVEL (SM) -grey -moist -maximum 50mm material -grindy drilling											0.0		
1.0												1.0		
2.0												2.0		
3.0												3.0		
4.0												4.0		
5.0												5.0		
6.0												6.0		
	END HOLE @ 4.7m													

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	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 ☒ 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	80	
0.0	ORGANIC (SM)-(GM) ORGANIC & SILT SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)-(GM) -brown -damp -maximum 25mm material -grindy drilling										0.0
1.0											1.0
2.0											2.0
3.0											3.0
4.0											4.0
5.0											5.0
6.0											6.0

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		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 ☒ 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 ■			
				20	40	60	80					
				20	40	60	80					
0.0	ORGANIC GRAVELLY SANDY SILT -brown											0.0
1.0	SANDY SILT TO SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (ML)-(SM)-(GM) -brown -moist -maximum 25mm material -grindy drilling											1.0
2.0												2.0
3.0												3.0
4.0												4.0
5.0												5.0
6.0												6.0

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	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	☒	779	20	40	60	SM		20	40	60	80	1.0 - 2.0
2.0 - 3.0													
3.0 - 4.0		☒	780	20	40	60	GM		20	40	60	80	3.0 - 4.0
4.0 - 5.0													
5.0 - 6.0		☒	781	20	40	60	SM		20	40	60	80	5.0 - 6.0
6.0	END HOLE @ 4.7m												

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		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 ☐ 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									
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														2.0	
3.0														3.0	
4.0														4.0	
5.0														5.0	
6.0														6.0	
4.7	END HOLE @ 4.7m													4.7	

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		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 ☒ 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 80	20 40 60 80	20 40 60 80			20 40 60 80	20 40 60 80	20 40 60 80		
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	
2.0	-moist below 2.0m											2.0	
3.0		☒	785	●	▲		SM	⦿	■	◆		3.0	
4.0		☒	786	●	▲		SM	⦿	■	◆		4.0	
5.0	END HOLE @ 4.7m	☒	787	●	▲		SM	⦿	■	◆		5.0	
6.0												6.0	

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		REVIEWED BY:	COMPLETE: 00/06/12
		Fig. No:	Page 1 of 1

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 ☒ 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			80
0.0	Ditch Debris												0.0	
	ORGANIC													
	ASH													
1.0	SILTY SAND (SM) -brown -frozen (Nf)												1.0	
2.0		☒	788	●	▲		SM	◆◆◆◆	■	◆			2.0	
3.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -grey -grindy drilling	☒	789	●	▲		GM	◆◆◆◆	■	◆	■		3.0	
4.0	-moist below 4.0m												4.0	
5.0	-some H2O contamination in sample #790	☒	790	●	▲		SM	◆◆◆◆	■	◆			5.0	
6.0	END HOLE @ 4.7m												6.0	

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Transportation Engineering		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 ☒ 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 ■			
				20	40	60			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
2.5	-free water @ 2.5m											2.5
3.0												3.0
4.0	SILTY SAND (SM) -grey -moist -easier drilling											4.0
4.7	END HOLE @ 4.7m											4.7
5.0												5.0
6.0												6.0

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		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 ▲ 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 ORGANIC & SILT -saturated							0.0
1.0	WELL-GRADED GRAVEL WITH SAND (GW) -brown -free water -grindy drilling							1.0
2.0		☒	799	▲ ●	GW	▲ ▲ ▲ ▲ ▲ ▲	◆ ■	2.0
3.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nb)	☒	800	● ▲	SM	■ ■ ■ ■ ■ ■	■ ◆	3.0
4.0								4.0
5.0	END HOLE @ 4.7m Note: Water level @ 0.2m at completion of hole	☒	801	● ▲	SM	■ ■ ■ ■ ■ ■	■ ◆	5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 00/06/12
	Fig. No:	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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
0.0	ORGANIC												0.0
	SANDY SILT												
	-wet												
1.0	POORLY GRADED GRAVEL WITH SAND (GP)												1.0
	-brown												
	-free water												
	-grindy drilling												
2.0													2.0
3.0													3.0
4.0													4.0
5.0													5.0
6.0													6.0

802 -no samples below 2.5, material washed off auger END HOLE @ 4.7m Note: hole drilled at Burwash Airport Road	GP
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Transportation Engineering		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
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
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

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		REVIEWED BY:	COMPLETE: 00/06/12
		Fig. No:	Page 1 of 1

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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	ORGANIC SANDY SILT -brown -wet										0.0
1.0	WELL-GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GW-GM)-(GP) -brown -free water -grindy drilling -sample washed										1.0
2.0		☒	804				GW-GM				2.0
3.0		☒	805				GP				3.0
4.0											4.0
5.0	END HOLE @ 4.7m										5.0
6.0											6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)		
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
0.0	ORGANIC SANDY SILT -some +5mm material												0.0
	POORLY GRADED GRAVEL WITH SAND (GP) -brown -wet -grindy drilling												
1.0													1.0
2.0													2.0
3.0													3.0
4.0	-material washed @ 4.0m												4.0
5.0	END HOLE @ 4.7m												5.0
6.0													6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -grindy drilling											0.0
1.0												1.0
2.0												2.0
3.0	-wet below 2.5m		808				GP					3.0
4.0	-saturated below 4.0m		809				GP					4.0
5.0	END HOLE @ 4.7m		810				GP					5.0
6.0												6.0

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		REVIEWED BY:	COMPLETE: 00/06/14
		Fig. No:	Page 1 of 1

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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				20 40 60 80					20 40 60 80			
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	SANDY SILT -brown -damp -smooth drilling											0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP-GM)-(GP) -brown -damp -maximum 50mm material -grindy drilling											1.0
2.0												2.0
3.0												3.0
4.0	-wet below 4.0m											4.0
5.0	END HOLE @ 4.7m											5.0
6.0												6.0

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		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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	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		☒	814	●	▲		GM		◆	■		2.0
3.0												3.0
4.0												4.0
5.0	END HOLE @ 4.7m	☒	815	▲			GP-GM		◆	■		5.0
6.0												6.0

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		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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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	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		☒	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

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	Fig. No:	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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	SANDY SILT										0.0
1.0	SILTY SAND (SM) -brown -moist										1.0
2.0	SANDY SILT										2.0
3.0	SILTY GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL (GM)-(SW-SM) -grey -maximum 50mm material -grindy drilling										3.0
4.0											4.0
5.0	END HOLE @ 4.7m										5.0
6.0											6.0

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		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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	SILT WITH SAND TO SANDY SILT (ML) -brown -moist -trace +5mm material										0.0
1.0		☒	820	●		▲	ML		◆		1.0
2.0	-grey below 1.6m -frozen (Nb) below 1.6m	☒	821	●		▲	ML		◆		2.0
3.0	SILTY GRAVEL WITH SAND (GM) -grey -damp -grindy drilling										3.0
4.0											4.0
5.0	-silt contaminated sample	☒	822	●	▲		GM		◆	■	5.0
6.0	END HOLE @ 4.7m										6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC 20 40 60 80	M.C. 20 40 60 80	LIQUID 20 40 60 80			PERCENT SAND 20 40 60 80	PERCENT GRAVEL 20 40 60 80		
0.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -maximum 50mm material -grindy drilling											0.0
1.0												1.0
2.0												2.0
2.5		☒	823				GP					
3.0												3.0
3.5		☒	824				GP-GM					
4.0	SANDY SILT (ML) -grey -moist -smooth drilling	☒	825				ML					
4.5												4.5
5.0	SILTY GRAVEL WITH SAND (GM) -grey -damp -grindy drilling	☒	826				GM					
5.5												5.5
6.0	END HOLE @ 4.7m											6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
0.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)												0.0
	-grey												
	-maximum 50mm material												
	-grindy drilling												
1.0													1.0
2.0													2.0
	-wet below 2.6m												
3.0													3.0
4.0													4.0
5.0													5.0
6.0													6.0
	END HOLE @ 4.7m												

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -grindy drilling												0.0
1.0													1.0
2.0													2.0
3.0	-coarser gravel below 3.1m												3.0
4.0													4.0
5.0	SANDY SILT (ML) -grey -moist END HOLE @ 4.7m												5.0
6.0													6.0

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
				20 40 60 80	20 40 60 80	20 40 60 80			20 40 60 80	20 40 60 80	
0.0	ORGANIC										0.0
	ASH										
	POORLY GRADED GRAVEL WITH SAND TO WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY-GRADED GRAVEL WITH SILT & SAND (GP)-(SW-SM)-(GP-GM)										
1.0	-grey -damp -grindy drilling										1.0
		☒	833				GP				
2.0											2.0
		☒	834				SW-SM				
3.0											3.0
4.0											4.0
		☒	835				GP-GM				
5.0	END HOLE @ 4.7m										5.0
6.0											6.0

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		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 ☒ 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										
0.0	ORGANIC POORLY TO WELL-GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GW-GM) -grey -damp -grindy drilling												0.0			
1.0													1.0			
2.0													2.0			
3.0													3.0			
4.0													4.0			
5.0	SANDY SILT (ML) -brown -moist -trace +5mm contaminates -smooth drilling END HOLE @ 4.7m												5.0			
6.0													6.0			

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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 SANDY SILT							0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP-GM)-(GP) -grey -damp -grindy drilling							1.0
2.0		☒	839			GP-GM		2.0
3.0		☒	840			GP-GM		3.0
4.0								4.0
5.0	END HOLE @ 4.7m	☒	841			GP		5.0
6.0								6.0

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		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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				20 40 60 80					20 40 60 80			
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
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												3.0
4.0												4.0
5.0												5.0
6.0												6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				20 40 60 80					20 40 60 80			
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	SILTY SAND (SM) -brown -wet											0.0
1.0												1.0
2.0	SILT WITH SAND (ML) -brown -saturated	☒	845				SM					2.0
3.0	ORGANIC -black -wet	☒	846				ML					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

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		REVIEWED BY:	COMPLETE: 00/06/14
		Fig. No:	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 ☐ 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	SANDY SILT (ML) -brown -saturated -smooth drilling											0.0	
1.0												1.0	
2.0												2.0	
2.5		☒	847				ML						2.5
3.0	ORGANIC												3.0
3.0	SILTY GRAVEL WITH SAND (GM) -saturated -grindy drilling												3.0
3.5		☒	848				GM						3.5
4.0													4.0
4.5	-no sample recovered - washed off -more gravelly material observed.												4.5
5.0													5.0
5.0	END HOLE @ 4.7m												5.0
6.0													6.0

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		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 ☒ 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			80
0.0	ORGANIC -frozen (Nf) -smooth drilling												0.0	
1.0	SANDY SILT (ML) -brown -frozen(Nf)												1.0	
2.0		☒	849				ML						2.0	
3.0	ORGANIC -frozen (Vx)												3.0	
4.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -grindy drilling	☒	850				SM						4.0	
5.0	END HOLE @ 4.0m -refusal - rock dust on bit												5.0	
6.0													6.0	

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		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 ☒ 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 80				
				20	40	60			20	40	60		
0.0	ORGANIC -smooth drilling												0.0
	ASH												
	SILTY SAND -frozen (Vx)												
1.0	SILT WITH SAND (ML) -brown -frozen (Vx)												1.0
		☒	851				ML						
2.0	SILTY SAND WITH GRAVEL (SM) -grey -damp -grindy drilling												2.0
		☒	852				SM						
3.0	-very hard slow grindy drilling @ 3.2m -refusal #1 @ 3.5m - move 2m upchain												3.0
4.0	-frozen (Nb) below 4.0m												4.0
		☒	853				SM						
5.0	END HOLE @ 4.4m -refusal #2												5.0
6.0													6.0

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		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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
									PERCENT SAND	PERCENT GRAVEL	
				PLASTIC	M.C.	LIQUID					
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	☒	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

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC -smooth drilling SANDY SILT (ML) -brown -frozen (Nf)											0.0
1.0												1.0
2.0	POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL (GP-GM)-(SM) -frozen (Nf) -grindy drilling											2.0
3.0			855				ML					3.0
4.0												4.0
5.0			856				GP-GM					5.0
6.0												6.0
7.0			857				SM					7.0
8.0	END HOLE @ 4.7m											8.0

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		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 ☒ 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	80
0.0	ORGANIC											0.0		
	SANDY SILT (ML) -brown -frozen (Nf)													
1.0												1.0		
		☒	858				ML							
2.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -tr. grindy drilling											2.0		
		☒	859				SM							
3.0												3.0		
4.0	END HOLE @ 4.1m -refusal											4.0		
5.0												5.0		
6.0												6.0		

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		REVIEWED BY:	COMPLETE: 00/06/15
		Fig. No:	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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC 20 40 60 80	M.C. 20 40 60 80	LIQUID 20 40 60 80			PERCENT SAND 20 40 60 80	PERCENT GRAVEL 20 40 60 80	
0.0	ORGANIC -smooth drilling SILT WITH SAND (ML) -brown -frozen (Nb)										0.0
1.0											1.0
2.0											2.0
3.0	SILT (ML) -grey -frozen (Vx) -replaced bit @ 3.1m	☒	861				ML				3.0
4.0	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nb) -slow hard grindy drilling END HOLE @ 4.4m -refusal	☒	862				GM				4.0
5.0											5.0
6.0											6.0

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	REVIEWED BY:	COMPLETE: 00/06/15
	Fig. No:	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 ☒ 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	80
0.0	ORGANIC -smooth drilling SANDY SILT (ML) -brown -frozen (Nb)											0.0		
1.0												1.0		
2.0												2.0		
3.0	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -brown -frozen (Nb) -grindy drilling -very hard slow grindy drilling below 3.5m		863	●	▲		ML		◆			3.0		
4.0												4.0		
5.0			864	●	▲		GM		◆	■		5.0		
6.0												6.0		
			865	●	▲		SM		◆	■				
	END HOLE @ 4.7m													

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		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 & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	ORGANIC										0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)										
	-brown										
	-damp										
	-grindy drilling										
1.0											1.0
2.0											2.0
	-very hard slow grindy drilling below 2.5m										
3.0											3.0
	END HOLE @ 3.2m										
	-refusal										
4.0											4.0
5.0											5.0
6.0											6.0

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Transportation Engineering		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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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 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					0.0
1.0						1.0
2.0						2.0
3.0	-saturated below 2.8m		873		GP	3.0
4.0						4.0
5.0	-moist below 4.0m -some H2O contamination from above		874		SW-SM	5.0
6.0						6.0
	END HOLE @ 4.7m Note: Test hole @ culvert outlet		875		GP-GM	

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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 ▲ 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									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) -damp -maximum 50mm material -grindy drilling									1.0
2.0										2.0
3.0	-moist below 2.5m									3.0
4.0										4.0
5.0	END HOLE @ 4.7m Note: Test hole @ culvert inlet									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: 00/06/15 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 ◆		PERCENT GRAVEL ■		DEPTH (m)
				20	40	60			80	20	40	60	
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												
3.0	END HOLE @ 3.3m												3.0
	-refusal												
4.0													4.0
5.0													5.0
6.0													6.0

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		REVIEWED BY:	COMPLETE: 00/06/15
		Fig. No:	Page 1 of 1

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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC											0.0
	ORGANIC & ASH -frozen (Nf)											
1.0	SILTY SAND WITH GRAVEL (SM) -frozen (Nb) -maximum 50mm material -grindy drilling -very hard slow grindy drilling below 1.3m											1.0
2.0												2.0
3.0	-1st refusal @ 2.7m moved 2m downchain END HOLE @ 2.7m -refusal	☒	876				SM					3.0
4.0												4.0
5.0												5.0
6.0												6.0
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				REVIEWED BY:		COMPLETE: 00/06/15						
				Fig. No:		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
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												
		☒	877					SM					
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

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	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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	ORGANIC										0.0
	ASH										
	-frozen										
	POORLY TO WELL-GRADED GRAVEL WITH SAND (GP)-(GW)										
1.0	-grey										1.0
	-frozen (Nf)										
	-grindy drilling										
	-very hard slow grindy drilling @ 1.0m										
2.0											2.0
		☒	878					GP			
3.0											3.0
		☒	879					GW			
4.0											4.0
	END HOLE @ 3.2m										
	-refusal										
5.0											5.0
6.0											6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	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

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		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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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							0.0
	ASH							
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)							
	-grey							
	-damp							
1.0	-grindy drilling							1.0
		☒	882			GP-GM		
2.0								2.0
	-very hard slow grindy drilling below 2.5m							
3.0		☒	883			GP-GM		3.0
4.0	END HOLE @ 4.0m							4.0
5.0								5.0
6.0								6.0

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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 ☐ 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	
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

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				20 40 60 80					20 40 60 80			
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC											0.0
	WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW-SM)-(GP-GM)											
	-grey											
	-damp											
	-grindy drilling											
1.0												1.0
2.0												2.0
3.0												3.0
	-very hard slow grindy drilling below 3.4m											
4.0												4.0
	-frozen (Nb) below 4.0m											
5.0												5.0
	END HOLE @ 4.7m											
6.0												6.0

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		REVIEWED BY:	COMPLETE: 00/06/16
		Fig. No:	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
0.0	ORGANIC										0.0
	ASH										
	ORGANIC										
1.0	WELL-GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY SAND WITH GRAVEL (GW)-(GP-GM)-SM) -grey -damp -grindy drilling										1.0
2.0	-very hard slow grindy drilling below 2.1m										2.0
3.0	-some flat & elongated particles below 3.0m										3.0
4.0	-frozen (Nb) below 4.0m										4.0
4.5	END HOLE @ 4.5m										4.5
5.0											5.0
6.0											6.0

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		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 ☐ 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	
0.0	ORGANIC										0.0
	ASH										
	WELL-GRADED GRAVEL WITH SAND TO										
	WELL-GRADED SAND WITH SILT & GRAVEL										
	(GW)-(SW-SM)										
1.0	-grey										1.0
	-damp										
	-grindy drilling										
2.0											2.0
	-very hard slow grindy drilling below 2.3m										
3.0											3.0
	-frozen (Nb) below 3.0m										
4.0	END HOLE @ 4.0m										4.0
	-refusal										
5.0											5.0
6.0											6.0

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	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		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)
0.0	ORGANIC								0.0
	ASH								
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)								
	-grey								
	-damp								
	-grindy drilling								
1.0									1.0
2.0									2.0
3.0									3.0
	-very hard slow grindy drilling below 3.2m								
4.0									4.0
	-frozen (Nb) below 4.0m								
5.0									5.0
	END HOLE @ 4.7m								
6.0									6.0

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COMPLETION DEPTH: 4.7 m

COMPLETE: 00/06/16

Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEGMENT 11		TEST HOLE NO: 555-1577	
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 ☐ 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)			
				20	40	60			80	20			40	60	80
				PLASTIC M.C. LIQUID											
0.0	ORGANIC											0.0			
	ASH														
	ORGANIC & ASH														
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)														
1.0	-grey -damp -maximum 50mm material -grindy drilling											1.0			
		☒	898				GP-GM								
2.0												2.0			
3.0		☒	899				GP-GM					3.0			
4.0	END HOLE @ 3.7m -refusal											4.0			
5.0												5.0			
6.0												6.0			

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
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

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	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	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 POORLY GRADED GRAVEL WITH SILT & SAND (GW)-(GP-GM) -grey -damp -maximum 50mm material -grindy drilling												
1.0													1.0
2.0													2.0
3.0													3.0
4.0													4.0
4.4	END HOLE @ 4.4m -refusal												4.4
5.0													5.0
6.0													6.0

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	REVIEWED BY:	COMPLETE: 00/06/19
	Fig. No:	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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
									PERCENT SAND	PERCENT GRAVEL	
				PLASTIC	M.C.	LIQUID			20 40 60 80	20 40 60 80	
0.0	ORGANIC										0.0
	SAND ORGANIC & ASH										
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)										
1.0	-grey -damp -maximum 50mm material -grindy drilling										1.0
		☒	905				GP-GM				
2.0											2.0
	-1st refusal @ 2.1m - move 2m upchain										
3.0		☒	906				GP-GM				3.0
	END HOLE @ 3.4m -refusal										
4.0											4.0
5.0											5.0
6.0											6.0

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		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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
0.0	ORGANIC												0.0
	POORLY GRADED GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(SM)-(GP-GM)												
	-grey												
	-damp												
1.0	-maximum 75mm material												1.0
	-grindy drilling												
	-very hard slow difficult grindy drilling below 1.0m												
2.0		☒	907					GP					2.0
3.0		☒	908					SM					3.0
4.0	-moist below 4.0m												4.0
5.0	END HOLE @ 4.7m	☒	909					GP-GM					5.0
6.0													6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC SAND & ASH											0.0
1.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO SILTY GRAVEL WITH SAND (GP)-(GP-GM)-(GM) -grey -damp -maximum 75mm material -grindy drilling -very hard slow difficult drilling below 1.0m		910				GP					1.0
2.0												2.0
3.0			911				GP-GM					3.0
4.0	-frozen (Nb) below 4m											4.0
5.0	END HOLE @ 4.7m		912				GM					5.0
6.0												6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				20 40 60 80					20 40 60 80			
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC SAND & ASH											0.0
1.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -grey -damp -grindy drilling											1.0
2.0												2.0
3.0	-max 75mm material below 2.5m											3.0
4.0												4.0
5.0												5.0
6.0												6.0

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		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: 092-202101-0361	
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1765+700 CENTERLINE		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 & GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
0.0	ORGANIC SAND & ASH												0.0
	POORLY GRADED GRAVEL WITH SAND (GP)												
	-grey												
	-damp												
1.0	-maximum 75mm material												1.0
	-grindy drilling												
		☒	915					GP					
2.0	-very hard slow difficult grindy drilling below 1.8m												2.0
	-dense below 2.8m												
3.0		☒	916					GP					3.0
	END HOLE @ 3.3m												
4.0													4.0
5.0													5.0
6.0													6.0

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	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 ☒ 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	
0.0	ORGANIC SAND & ASH										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											2.0
3.0	-very hard slow grindy difficult drilling below 2.3m -frozen (Nb) below 2.3m		917				GP				3.0
4.0											4.0
5.0	- silt content increases with depth		918				GP-GM				5.0
6.0											6.0
			919				GP-GM				
	END HOLE @ 4.7m										

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC 20 40 60 80	M.C. 20 40 60 80	LIQUID 20 40 60 80			PERCENT SAND 20 40 60 80	PERCENT GRAVEL 20 40 60 80		
0.0	ORGANIC											0.0
	ORGANIC SAND & ASH											
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)											
1.0	-grey -damp -maximum 75mm material -grindy drilling											1.0
		☒	920				GP					
2.0	-very hard slow grindy difficult drilling below 1.8m -frozen (Nb) below 1.8m											2.0
		☒	921				GP-GM					
3.0	-1st refusal @ 3.0m											3.0
4.0	END HOLE @ 4.0m -refusal											4.0
5.0												5.0
6.0												6.0

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		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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
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			922				GP-GM					3.0
4.0			923				GP-GM					4.0
5.0	END HOLE @ 4.7m -refusal		924				GP-GM					5.0
6.0												6.0

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	REVIEWED BY:	COMPLETE: 00/06/20
	Fig. No:	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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 SAND & ASH							0.0
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -grey -damp -maximum 75mm material -grindy drilling							0.0
1.0								1.0
2.0								2.0
2.0	-broke off auger shank - replace all augers on this string -very hard slow difficult grindy drilling -1st refusal @ 2.5 - move 2m upchain							2.0
3.0								3.0
3.0	END HOLE @ 3.4m -refusal							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

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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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
0.0	ORGANIC												0.0
	ASH SAND & ORGANIC												
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)												
1.0	-grey -damp -maximum 75mm material -grindy drilling												1.0
		☒	927					GP					
2.0													2.0
3.0													3.0
		☒	928					GP-GM					
4.0	END HOLE @ 3.5m -refusal												4.0
5.0													5.0
6.0													6.0

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		REVIEWED BY:	COMPLETE: 00/06/20
		Fig. No:	Page 1 of 1

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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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 & SAND							0.0
0.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp -maximum 75mm material -grindy drilling							0.0
1.0								1.0
2.0	-very hard slow difficult grindy drilling below 1.8m							2.0
2.0		☒	929			GP		2.0
3.0								3.0
4.0								4.0
5.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -grey -frozen (Vx) -smoother drilling							5.0
5.0	END HOLE @ 5.0m -refusal	☒	930			SW-SM		5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: D.T.	COMPLETION DEPTH: 5.0 m
REVIEWED BY:	COMPLETE: 00/06/20
Fig. No:	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 ☐ 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	80
0.0	ORGANIC										0.0		
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)												
	-brown												
	-damp												
1.0	-maximum 75mm material										1.0		
	-grindy drilling												
		☒	931	▲				GP-GM	◆	■			
2.0											2.0		
3.0											3.0		
4.0											4.0		
5.0		☒	932	◆	▲			GP-GM	◆	■			
	END HOLE @ 45.m												
	-refusal												
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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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						0.0
	SAND & ASH						
	WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW-SM)-(GP-GM)						
1.0	-brown -moist -maximum 75mm material -grindy drilling						1.0
2.0		☒	933		SW-SM		2.0
3.0							3.0
4.0		☒	934		GP-GM		4.0
5.0	END HOLE @ 4.5m -refusal						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: 556-1593	
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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL		DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL	
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											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										6.0

Government of Yukon Transportation Engineering		LOGGED BY: D.T. REVIEWED BY: Fig. No:	COMPLETION DEPTH: 6.0 m COMPLETE: 00/06/20 Page 1 of 1
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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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				20 40 60 80					20 40 60 80			
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
0.0	ORGANIC											0.0
	ORGANIC SAND & ASH											
	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM)											
1.0	-brown -damp -maximum 75mm material -grindy drilling											1.0
		☒	937				GP					
2.0												2.0
3.0		☒	938				GP					3.0
4.0												4.0
		☒	939				GP-GM					
	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 ☒ 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 ■		
				20	40	60	80								
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	☒	940					GP	▲▲▲▲	◆	■	2.0			
3.0												3.0			
4.0												4.0			
5.0	END HOLE @ 5.0m -refusal	☒	941					GP-GM	▲▲▲▲	◆	■	5.0			
6.0												6.0			

Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 5.0 m
	REVIEWED BY:	COMPLETE: 00/06/21
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1596	
ENGINEERING CAPITAL		KM 1729.6-1787 A/H		Project No: 092-202101-0361	
B40-L MOBILE DRILL 6" AUGER		LOCATION: 1767+115 CENTERLINE		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 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							0.0
	ORGANIC, SAND & ASH							
1.0	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM) -brown -damp -maximum 75mm material -grindy drilling							1.0
2.0	-1st refusal @ 1.8m - moved 2m upchain	☒	942			GW-GM		2.0
3.0	END HOLE @ 2.5m -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: 2.5 m
	REVIEWED BY:	COMPLETE: 00/06/21
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		SHAKWAK SEG 11		TEST HOLE NO: 556-1597	
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 ☒ RETURN		☒ S.P.T.		☒ AUGER	
		☐ BULK		☐ TUBE	
				☐ CORE	

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
											20	
0.0	ORGANIC											0.0
	SILTY SAND (ML) -brown -moist											
1.0												1.0
		☒	943				ML					
2.0	SILT WITH SAND (ML) -brown -frozen (Nf) -hard drilling											2.0
		☒	944				ML					
3.0	-grindy drilling @ 2.6m -1st refusal @ 2.7m - moved 2m upchain/ END HOLE @ 2.8m -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: 2.8 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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ 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 -smooth drilling							0.0
	SAND -some silt -brown -damp							
1.0	SILT (ML) -brown -trace organic -frozen (Nb)							1.0
		☒	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 ☐ 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	
0.0	ORGANIC -smooth drilling										0.0
	SILT WITH SAND TO SILT (ML) -brown -some organic -frozen (Vx)										
1.0											1.0
2.0											2.0
3.0											3.0
4.0	SILTY SAND (SM) -brown -frozen (Nf) -grindy drilling -difficult grindy drilling @ 4.1m END HOLE @ 4.2m -refusal										4.0
5.0											5.0
6.0											6.0

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 ☐ RETURN ☒ S.P.T. ☒ AUGER ☐ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND / GRAVEL			DEPTH (m)	
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL			
				20	40	60	80		20	40	60	80	
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	☒	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 ☒ RETURN ☒ S.P.T. ☒ AUGER ☒ BULK ☐ TUBE ☐ CORE					

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND & GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT SAND	PERCENT GRAVEL		
				20 40 60 80	20 40 60 80	20 40 60 80			20 40 60 80	20 40 60 80		
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
3.6	END HOLE @ 3.6m	☒	950					GP-GM				3.6
4.0												4.0
5.0												5.0
6.0												6.0

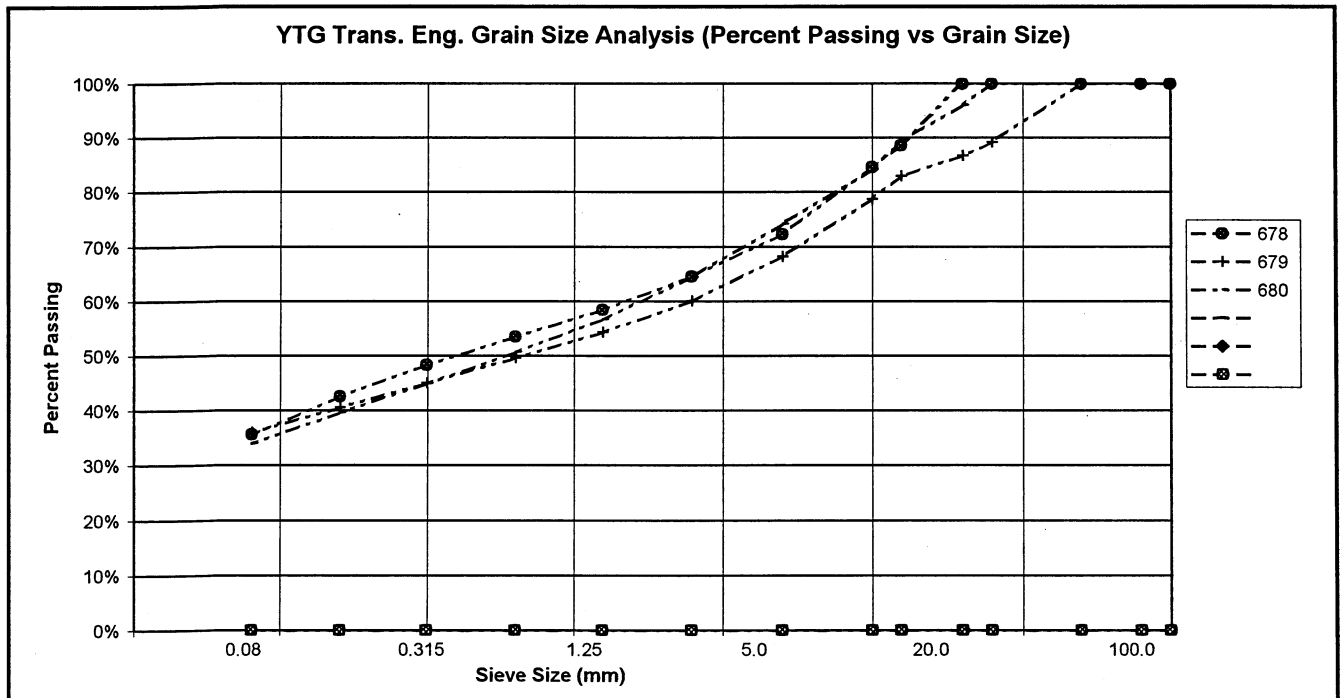
Government of Yukon Transportation Engineering	LOGGED BY: D.T.	COMPLETION DEPTH: 3.6 m
	REVIEWED BY:	COMPLETE: 00/06/21
	Fig. No:	Page 1 of 1

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)			

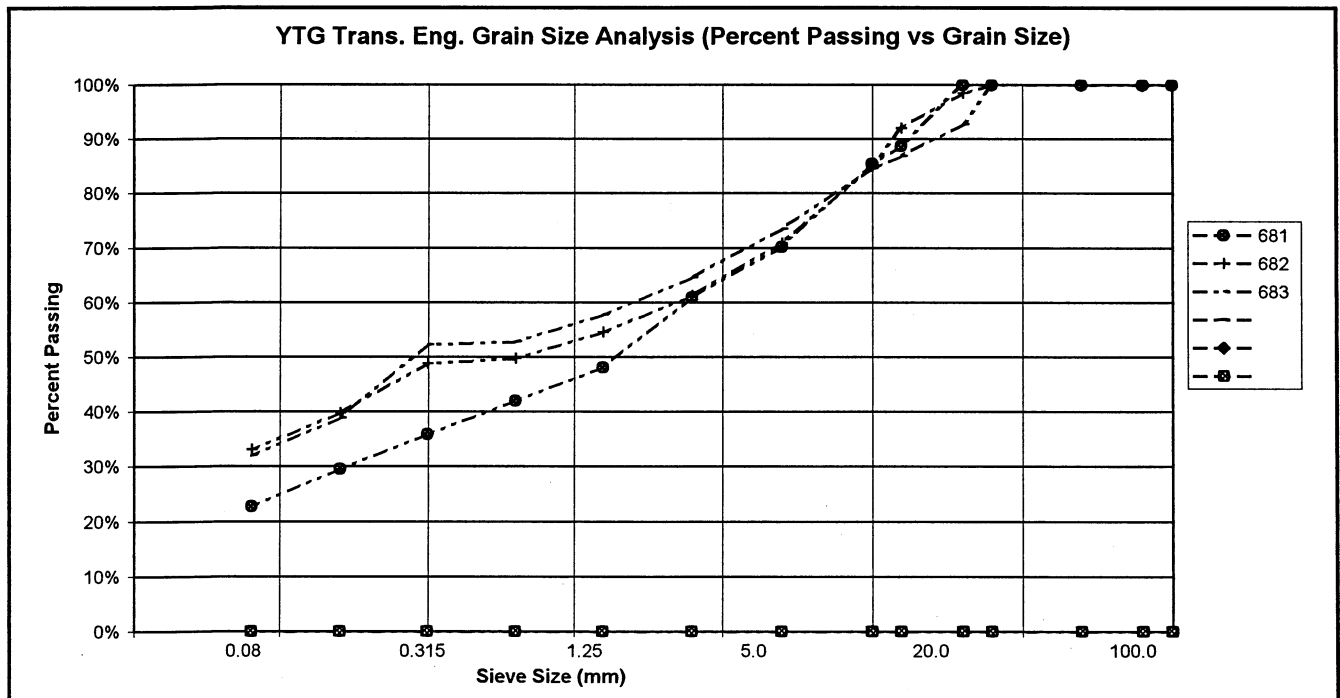


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1758+800 C/L
 LOGGED BY: D.T.

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)			



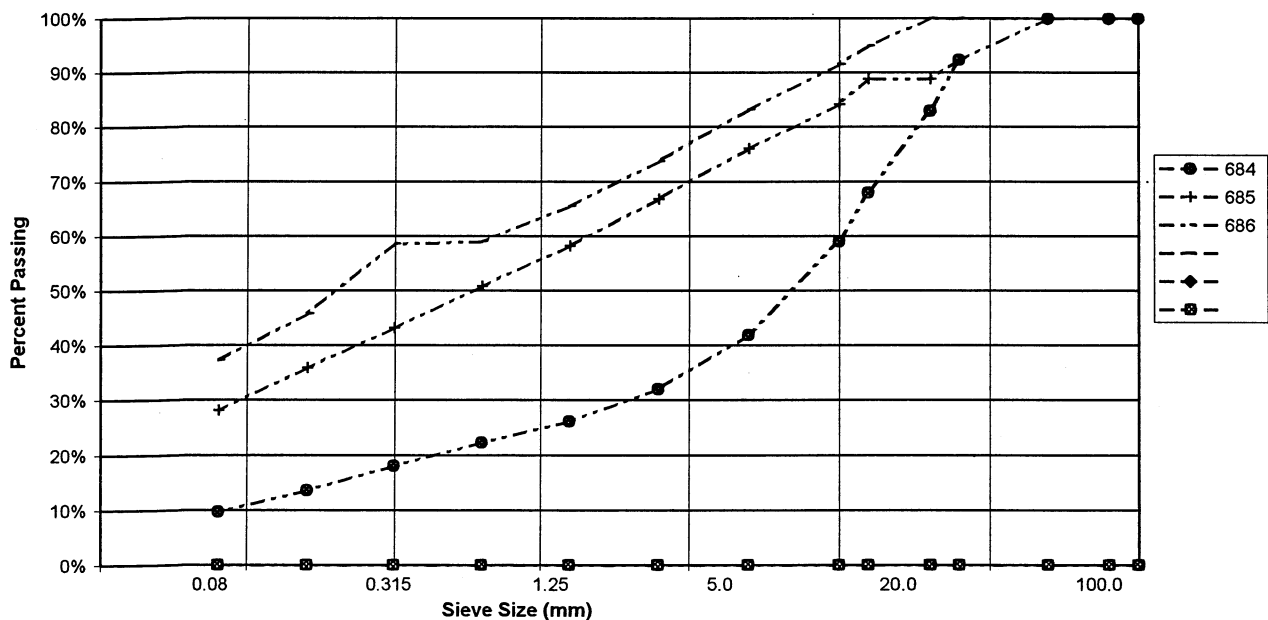
PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1758+900 14M LT
 LOGGED BY: D.T.

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)			

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

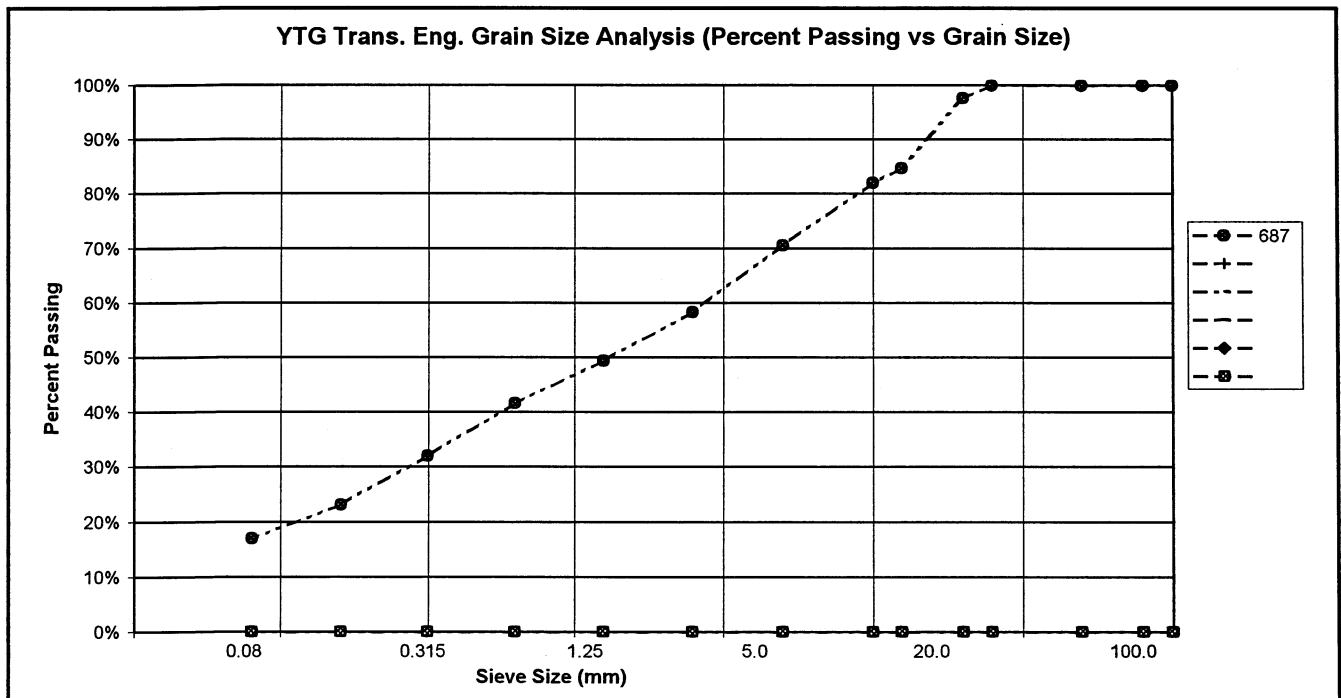


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+010 15M LT
 LOGGED BY: D.T.

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)				

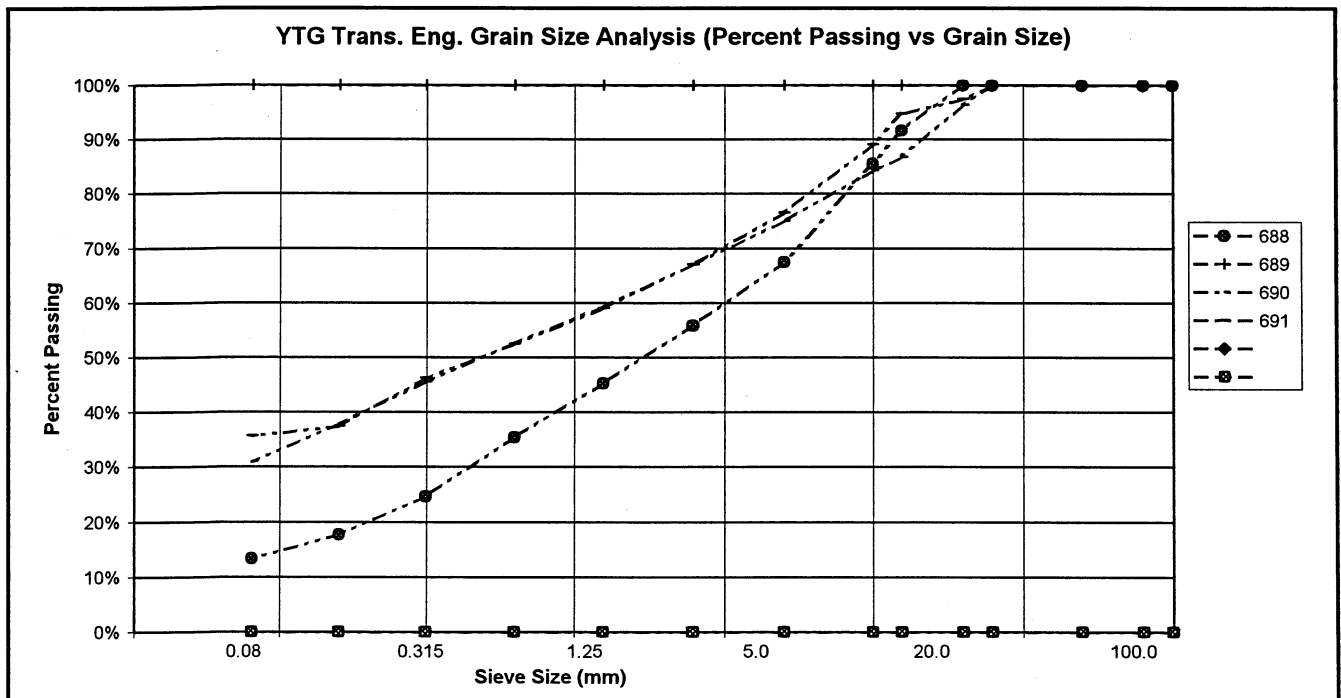


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+100 13M LT
 LOGGED BY: D.T.

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)		

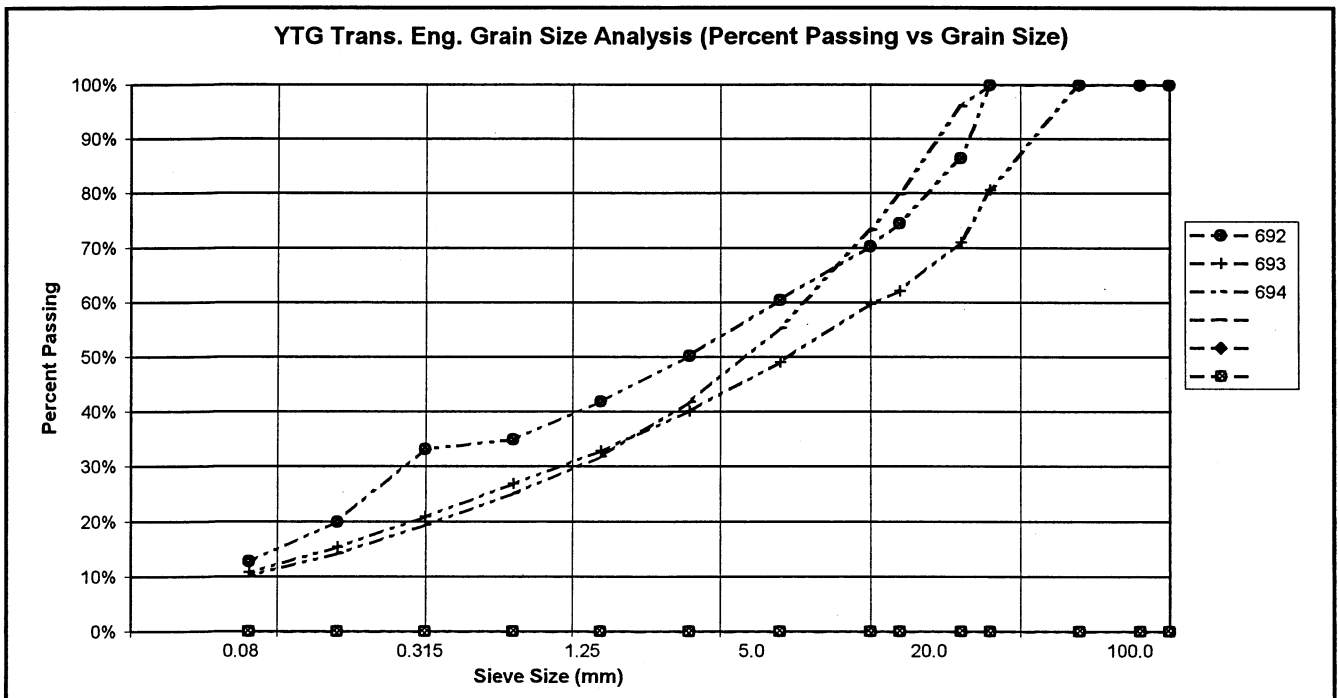


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+200 7M LT
 LOGGED BY: D.T.

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)			

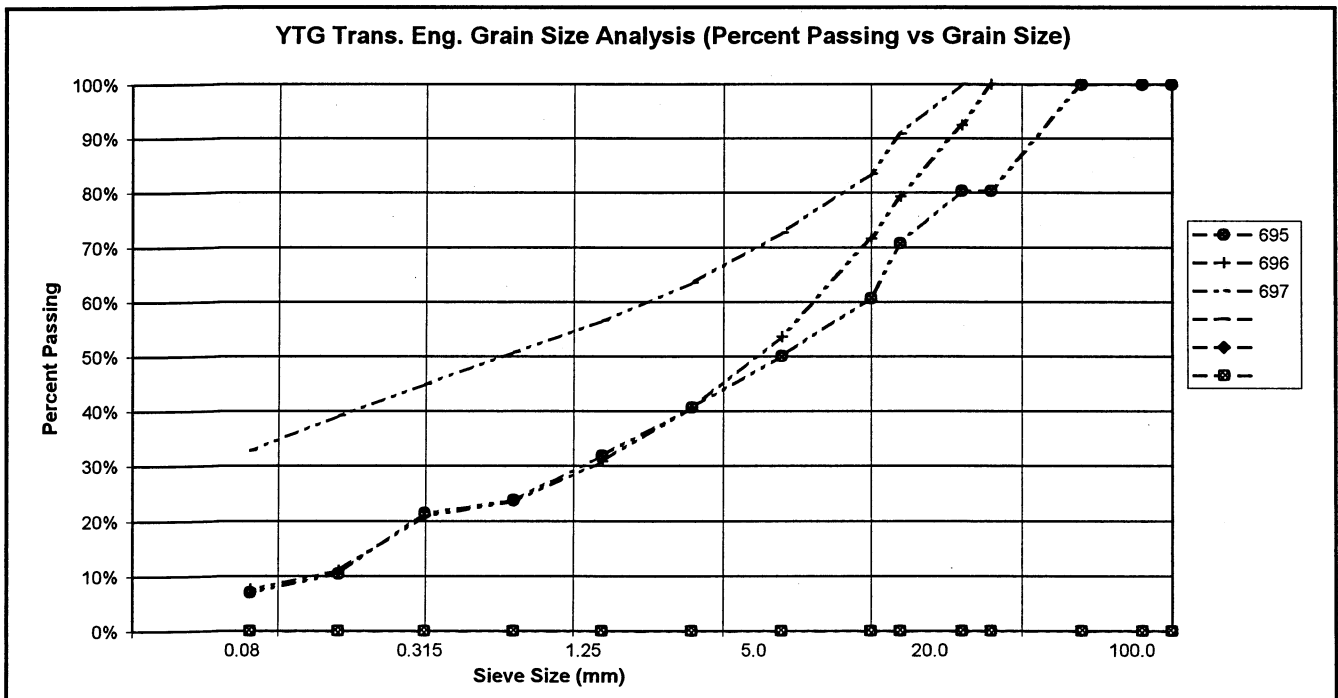


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+300 11M LT
 LOGGED BY: D.T.

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

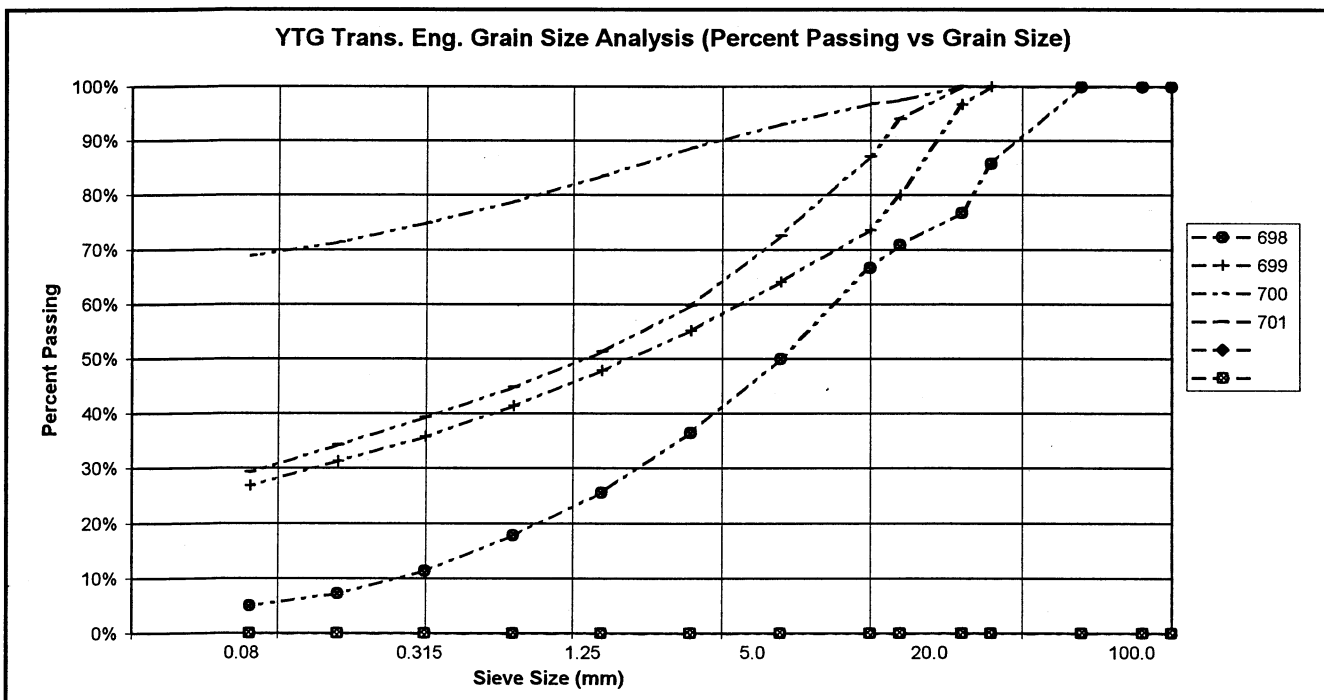


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+400 12M LT
 LOGGED BY: D.T.

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)		

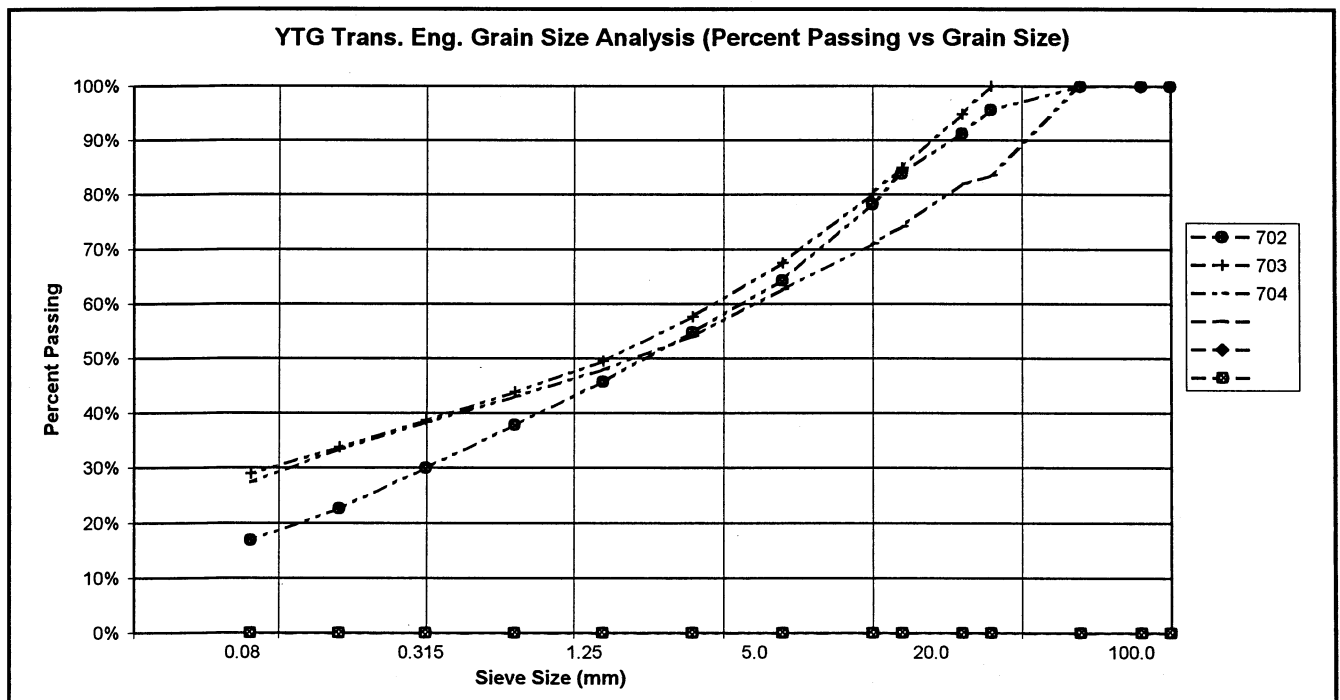


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+475 15M LT
 LOGGED BY: D.T.

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)		

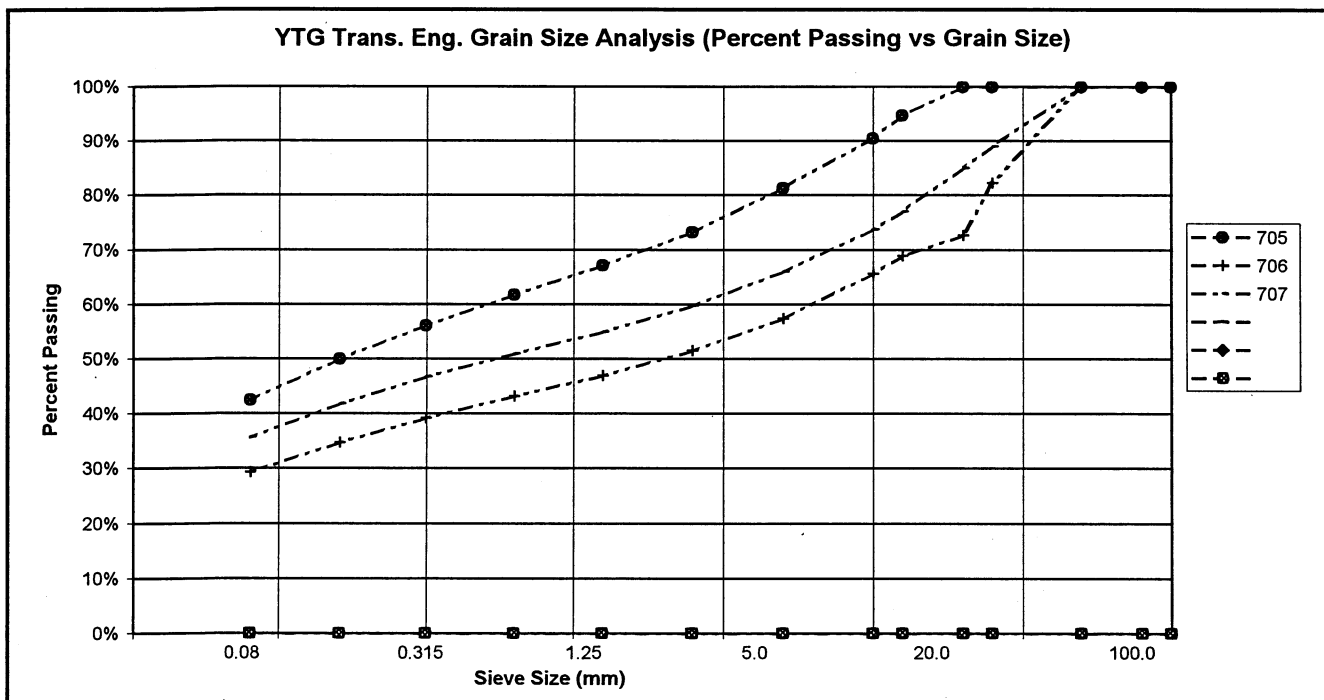


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+625 15M LT
 LOGGED BY: D.T.

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)		

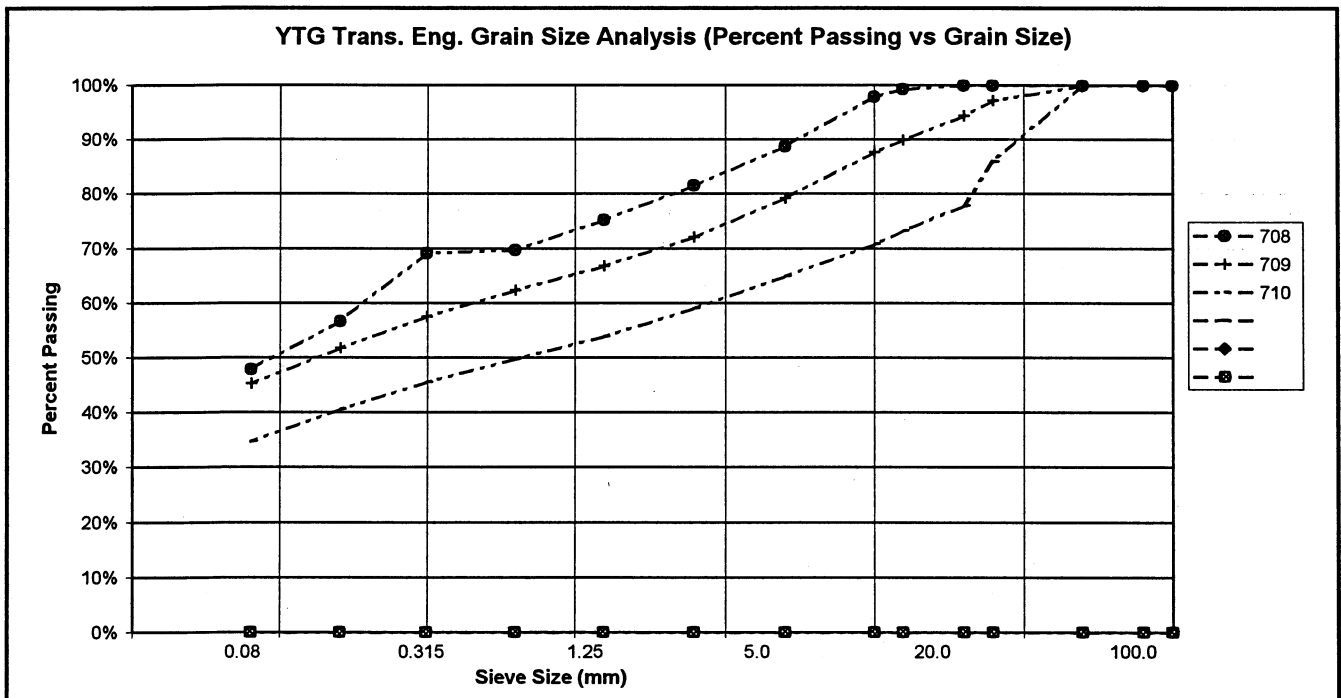


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+750 8M LT
 LOGGED BY: D.T.

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)		

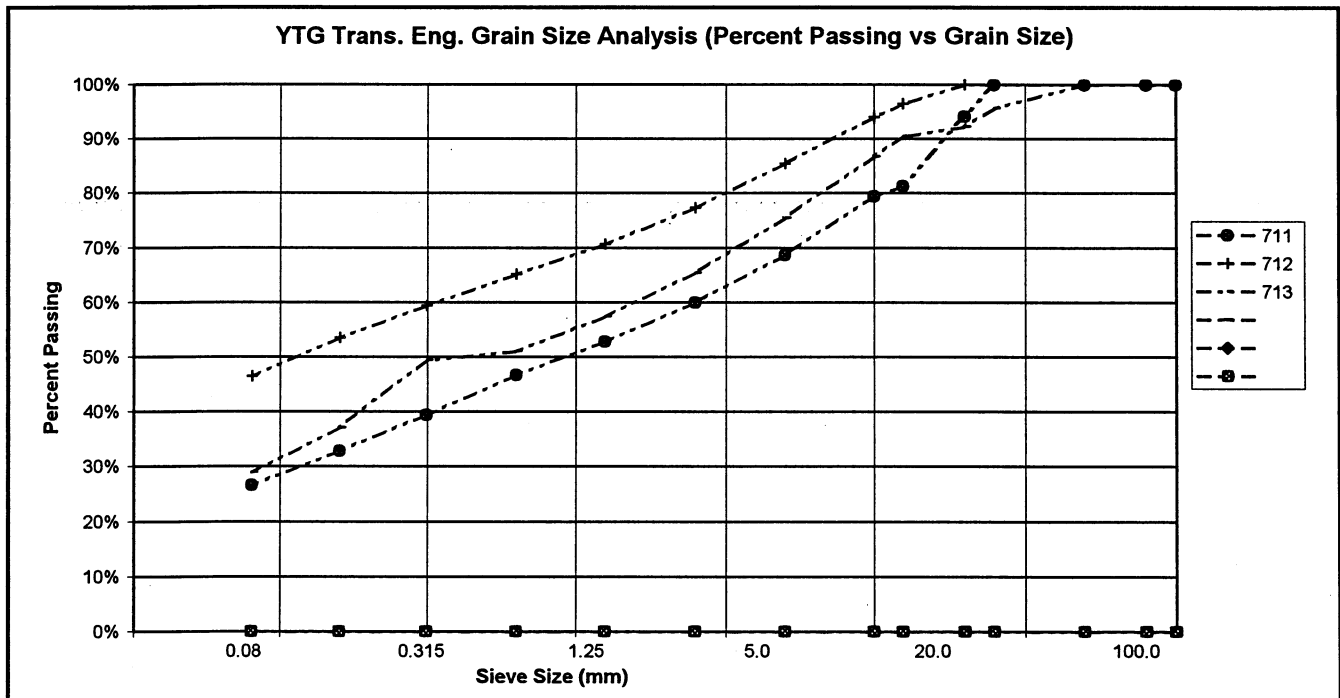


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+850 10M LT
 LOGGED BY: D.T.

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)		

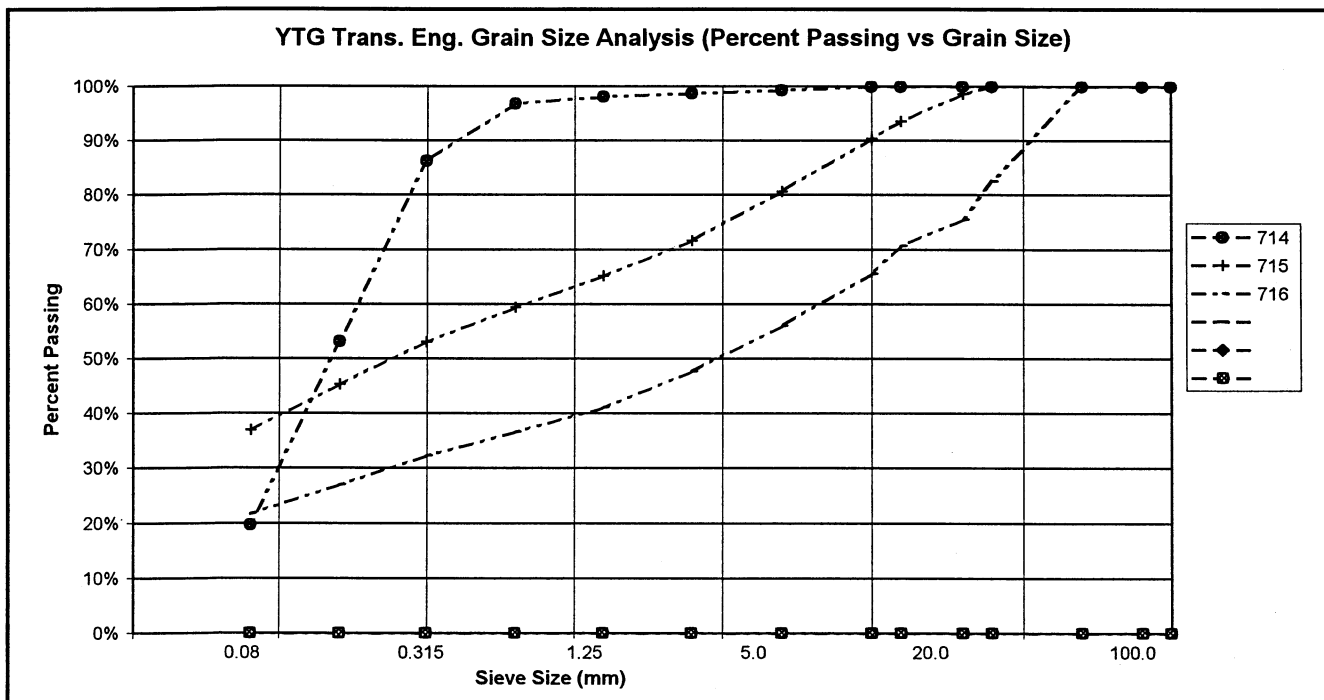


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1759+950 11M LT
 LOGGED BY: D.T.

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)		

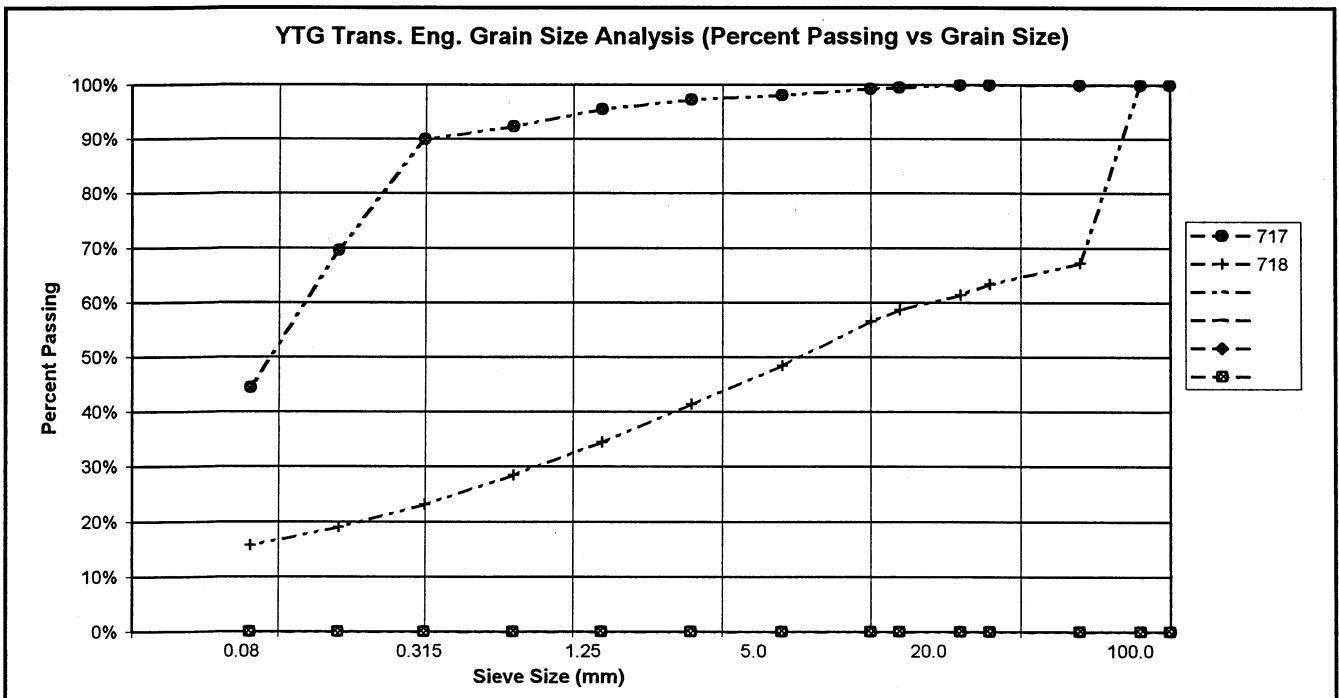


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+050 10 M LT
 LOGGED BY: D.T.

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)			

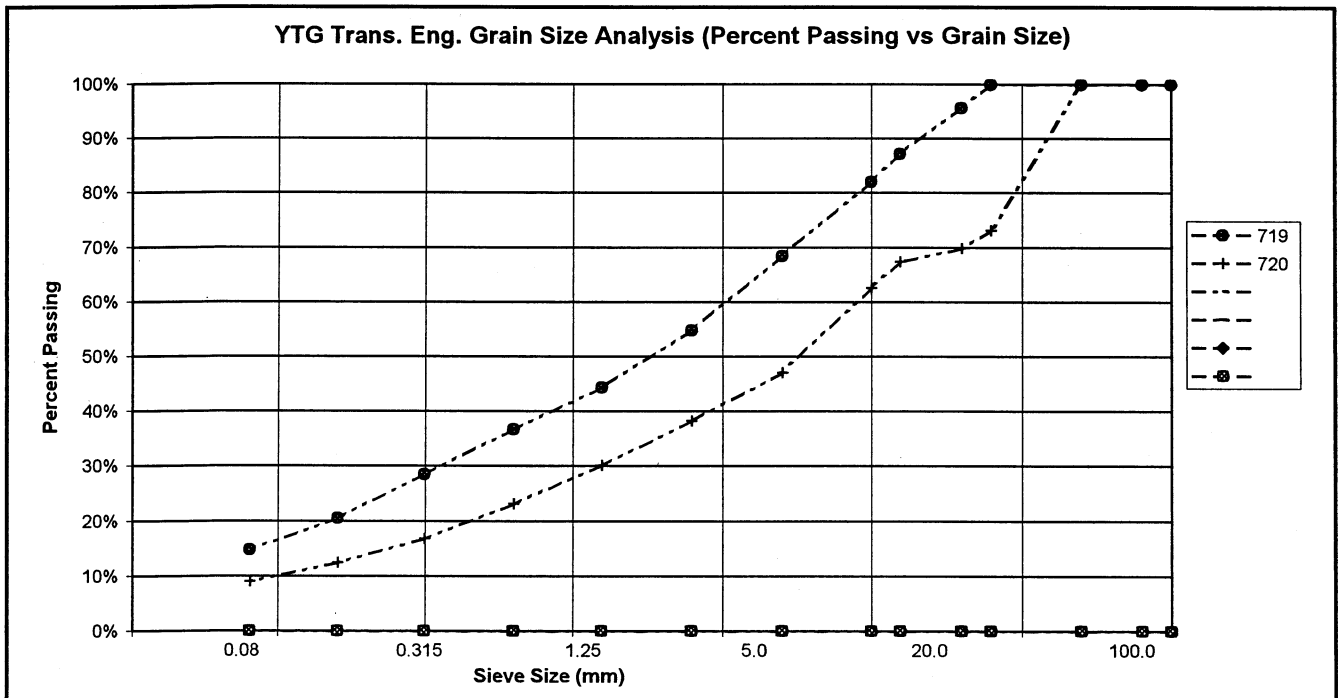


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+150 10M LT
 LOGGED BY: D.T.

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)			

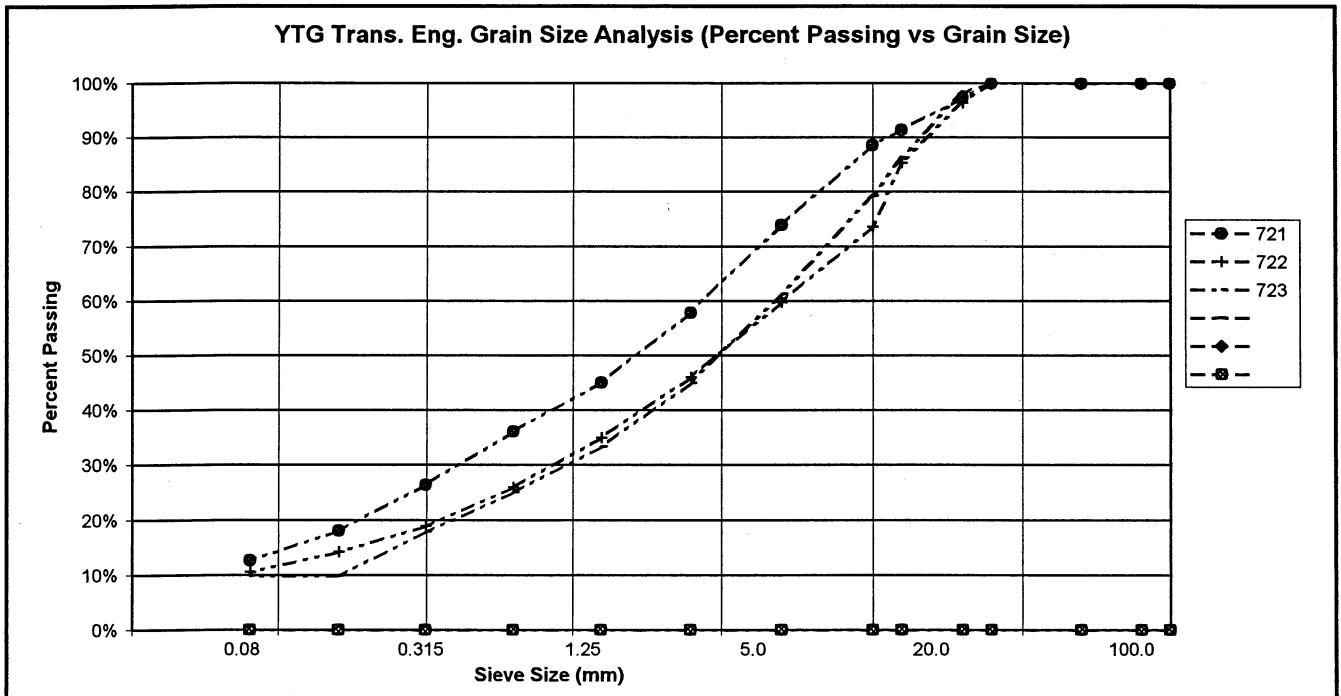


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+250 20M LT
 LOGGED BY: D.T.

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)			

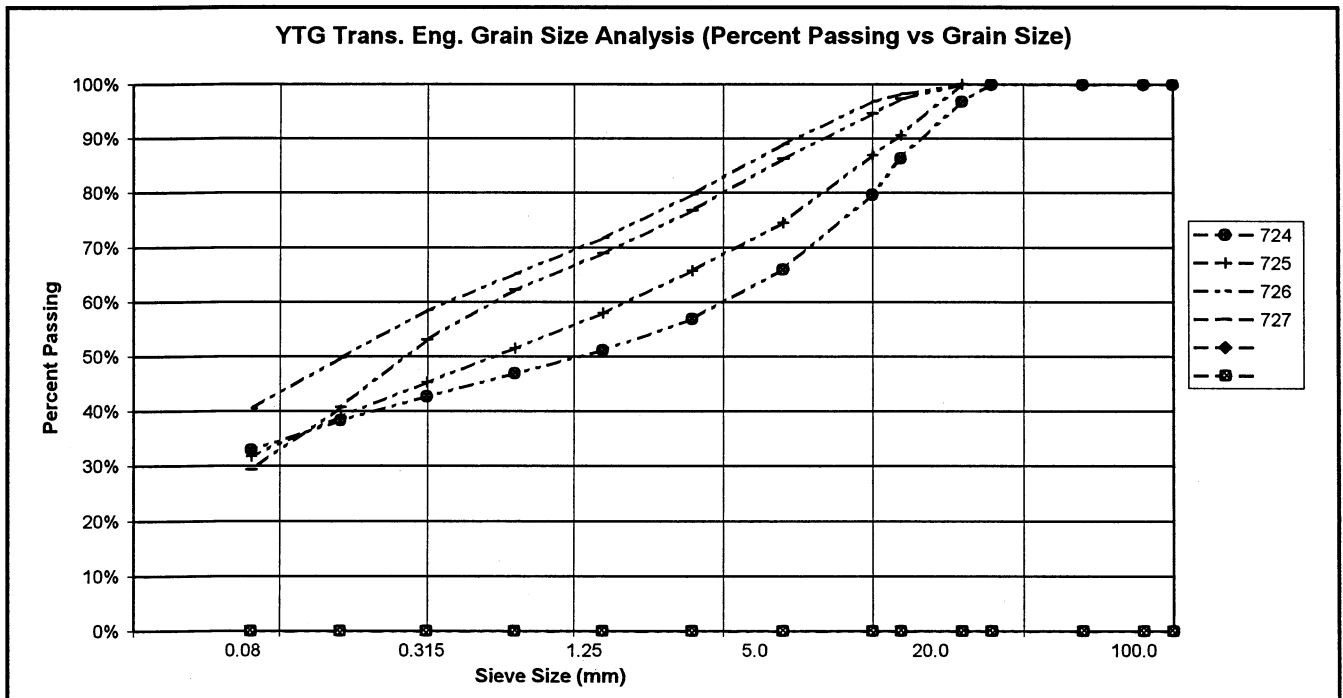


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+350 20M LT
 LOGGED BY: D.T.

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)		

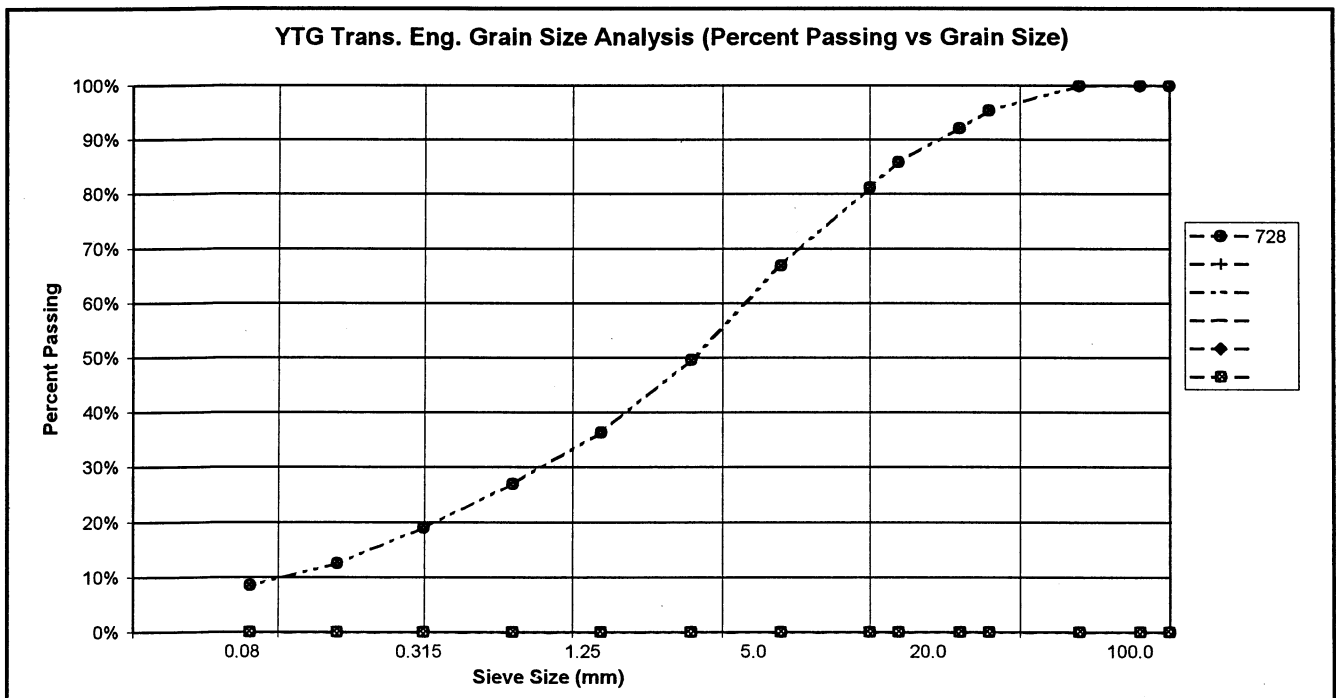


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+300 10M RT
 LOGGED BY: D.T.

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)				

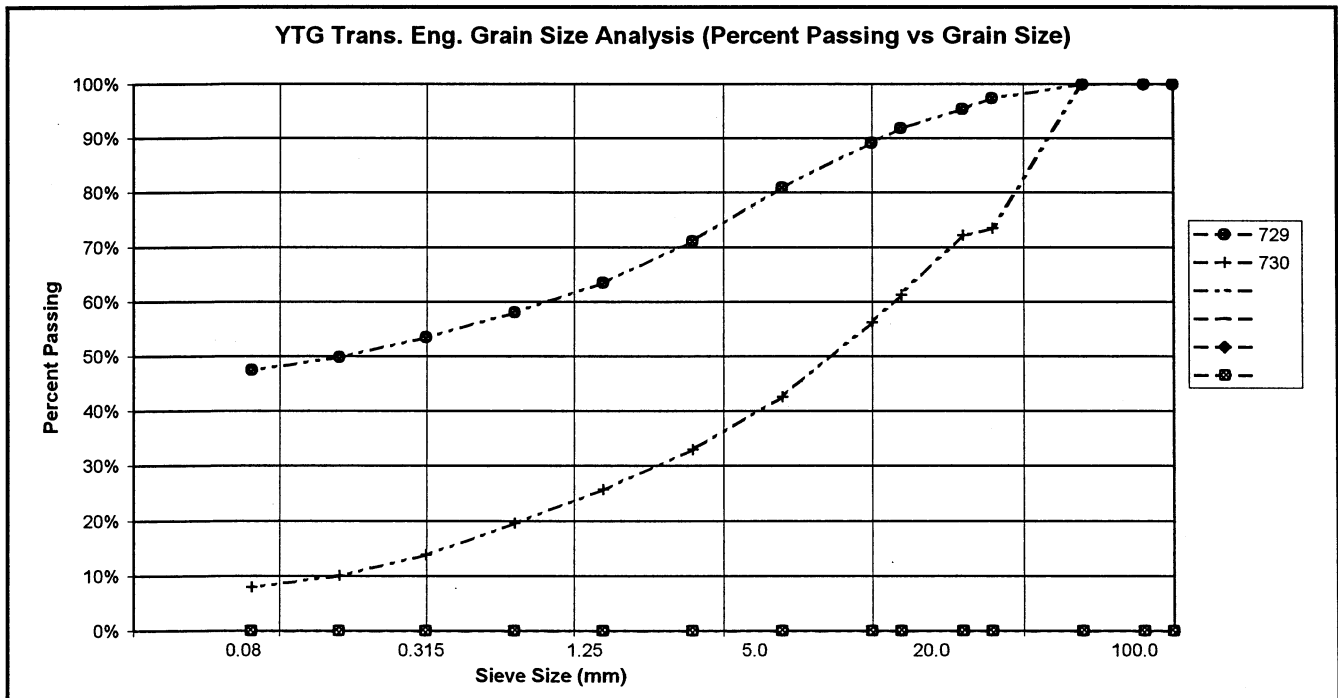


PROJECT NUMBER: 092-202-101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: KM 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: 1760+200 10M RT
 LOGGED BY: D.T.

HOLE No.: 552-1514

DATE COMP: 2000/06/09

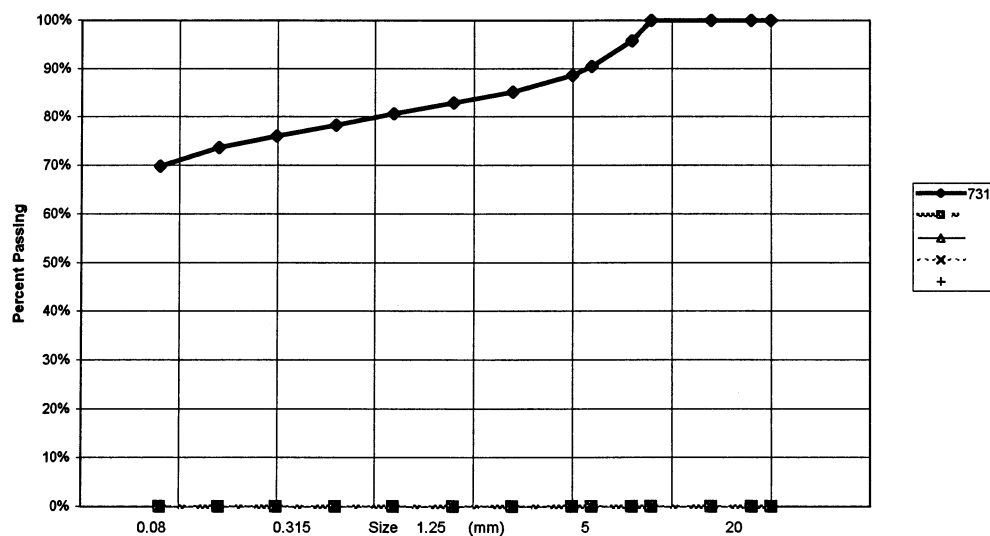
FIELD NO:	729	730				
LAB NO:	1135	1136				
DEPTH:	1.8-2.0	3.0-3.2				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	97%	74%				
20.0	95%	72%				
12.5	92%	61%				
10.0	89%	56%				
5.0	81%	43%				
2.5	71%	33%				
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)				

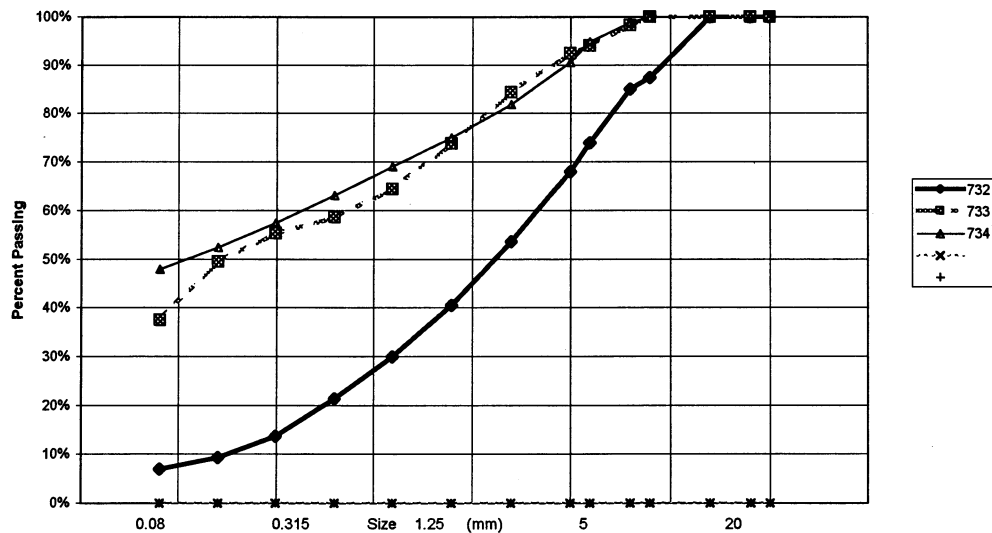
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1759+075 10M RT	DATE COM	06/12/2000

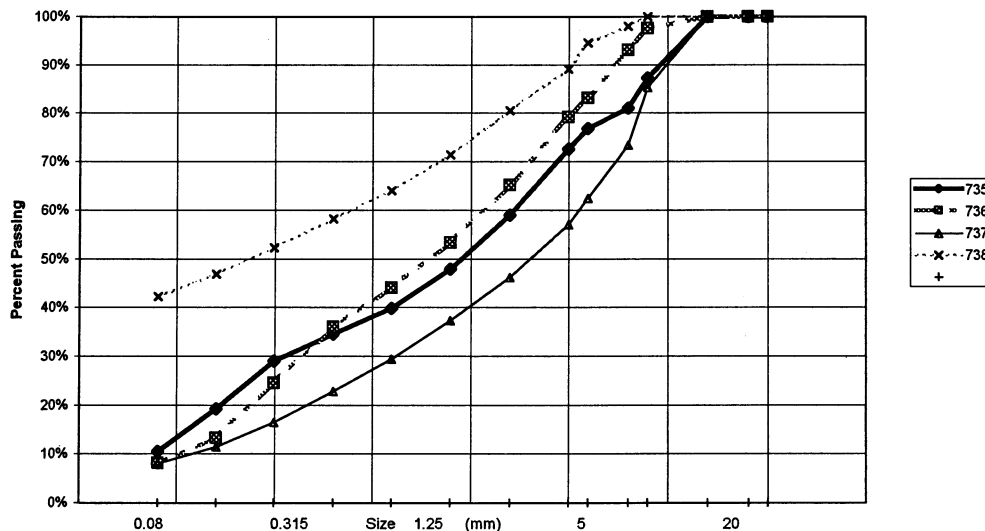
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	87%	25.0	100%	25.0	100%
20.0	85%	20.0	98%	20.0	99%
12.5	74%	12.5	94%	12.5	95%
10.0	68%	10.0	93%	10.0	91%
5.0	54%	5.0	84%	5.0	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:		CLASSIFICATION:		CLASSIFICATION:	
WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)		SILTY SAND WITH GRAVEL (SM)		SILTY SAND WITH GRAVEL (SM)	

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



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)	

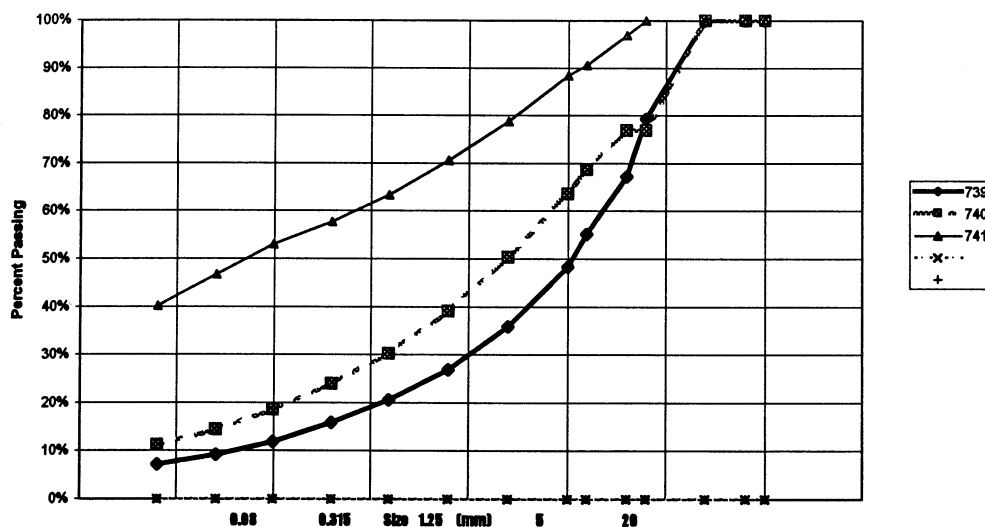
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER: 092-202101-0361 HOLE No.: 553-1518
 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+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 AUGER		FIELD No: 741 LAB No: 1147 DEPTH: 4.5-4.7 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	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:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		SILTY SAND WITH GRAVEL (SM)	

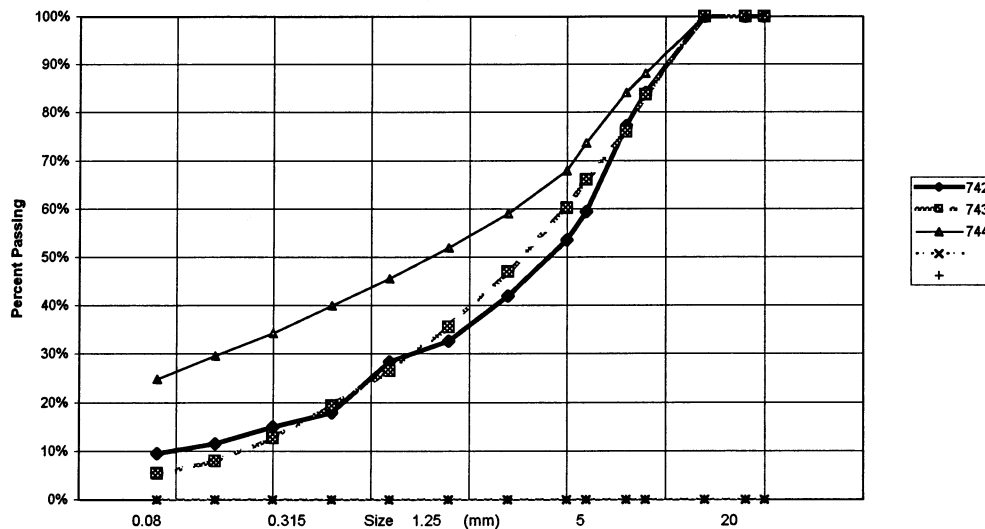
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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 LAB NO: 1148 DEPTH: 1.4-1.6 TYPE: AUGER		FIELD No. 743 LAB No. 1149 DEPTH: 3.0-3.2 A AUGER		FIELD No: 744 LAB No: 1150 DEPTH: 4.5-4.7 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:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL		POORLY GRADED GRAVEL		SILTY GRAVEL WITH SAND	
WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GP-GM)		(GM)	

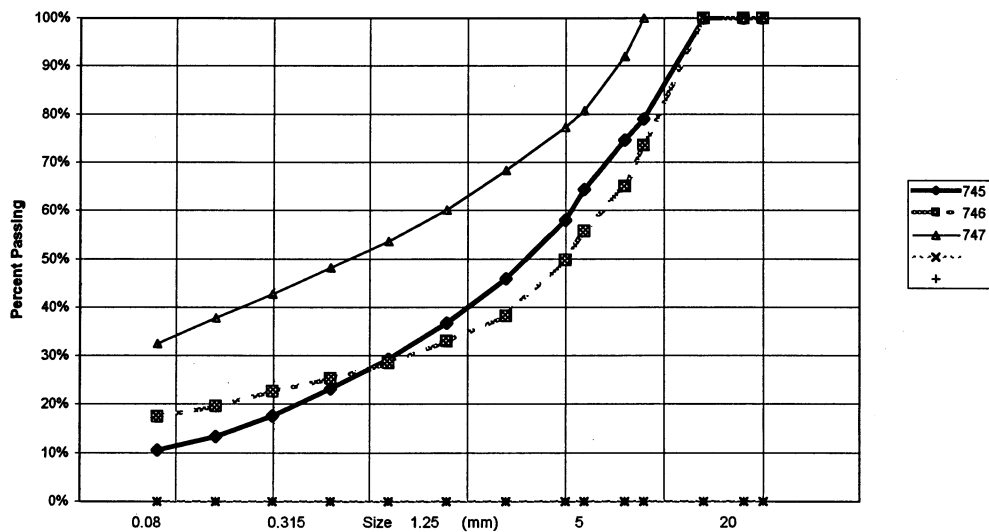
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.
 HOLE LOCATION: 1759+450 8M RT DATE COM 2000/06/12

FIELD No: 745 LAB No: 1151 DEPTH: 1.4-1.6 TYPE: AUGER	FIELD No: 746 LAB No: 1152 DEPTH: 3.0-3.2 A AUGER	FIELD No: 747 LAB No: 1153 DEPTH: 4.5-4.7 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	79%	25.0	74%
20.0	75%	20.0	65%
12.5	64%	12.5	56%
10.0	58%	10.0	50%
5.0	46%	5.0	38%
2.5	37%	2.5	33%
1.25	29%	1.25	29%
0.630	23%	0.630	25%
0.315	18%	0.315	23%
0.160	13%	0.160	20%
0.080	11%	0.080	18%
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: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)	CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	

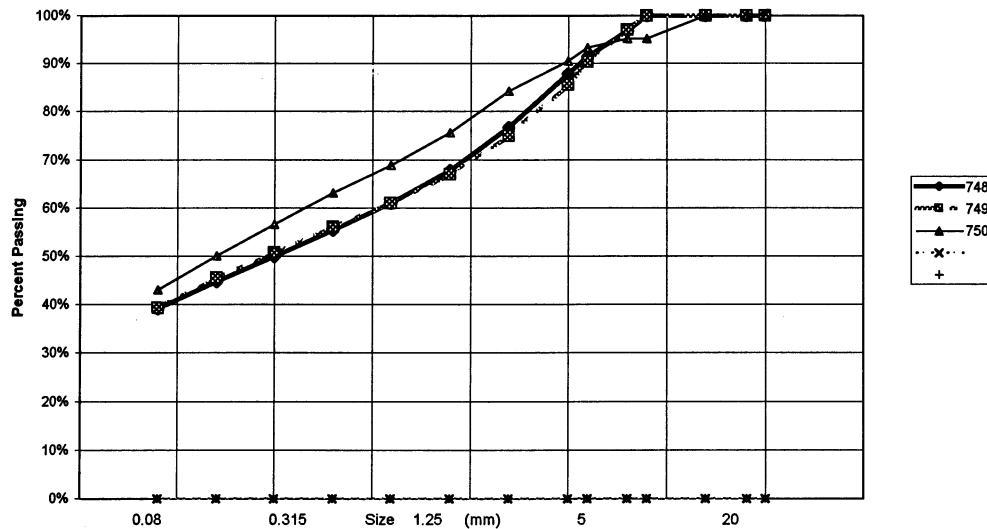
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.	
HOLE LOCATION:	1759+500 20M RT	DATE COM 06/12/2000

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)	

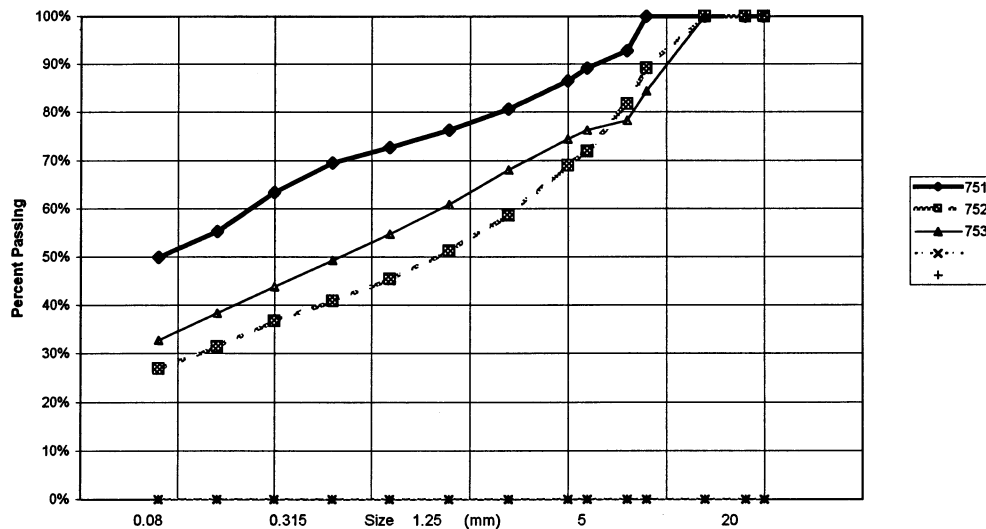
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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 LAB NO: 1157 DEPTH: 1.2-1.4 TYPE: AUGER	FIELD No: 752 LAB No: 1158 DEPTH: 2.9-3.1 A AUGER	FIELD No: 753 LAB No: 1159 DEPTH: 4.5-4.7 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	89%
20.0	93%	20.0	82%
12.5	89%	12.5	72%
10.0	87%	10.0	69%
5.0	81%	5.0	59%
2.5	76%	2.5	51%
1.25	73%	1.25	46%
0.630	70%	0.630	41%
0.315	63%	0.315	37%
0.160	55%	0.160	32%
0.080	50%	0.080	27%
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)	

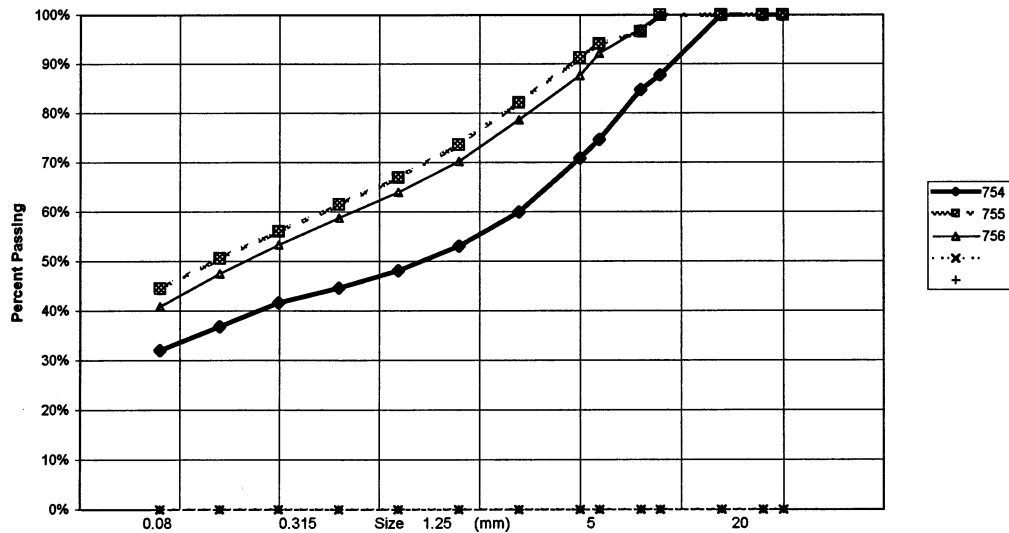
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

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

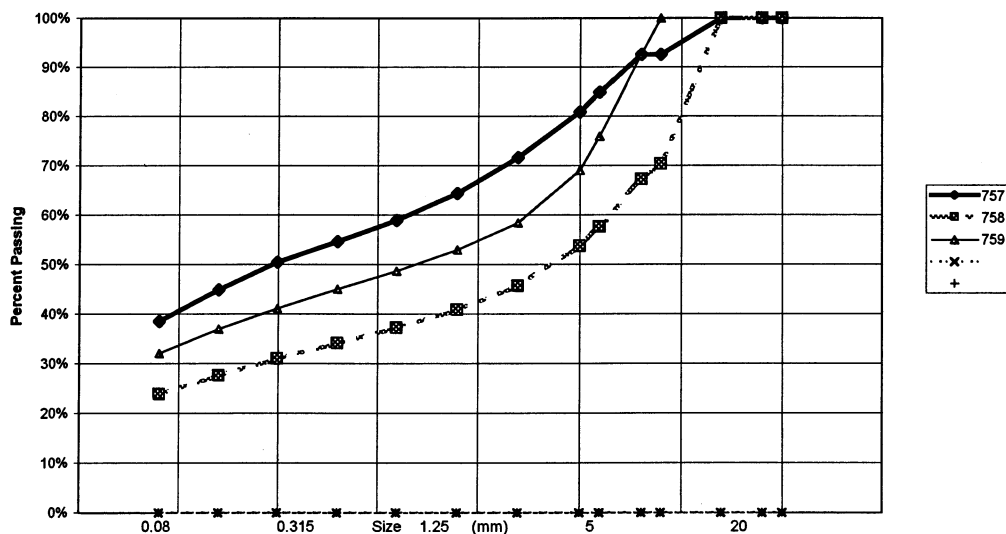
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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 LAB NO: 1160 DEPTH: 1.4-1.6 TYPE: AUGER		FIELD No. 758 LAB No. 1164 DEPTH 3.0-3.2 AUGER		FIELD No: 759 LAB No: 1165 DEPTH: 4.5-4.7 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)	

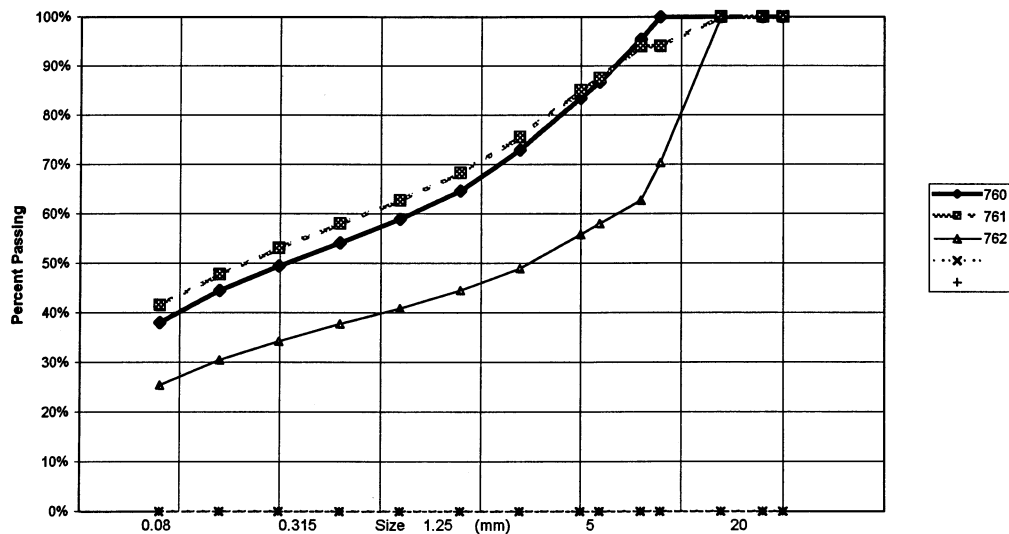
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.	
HOLE LOCATION:	1759+900 17M RT	DATE COM 06/12/2000

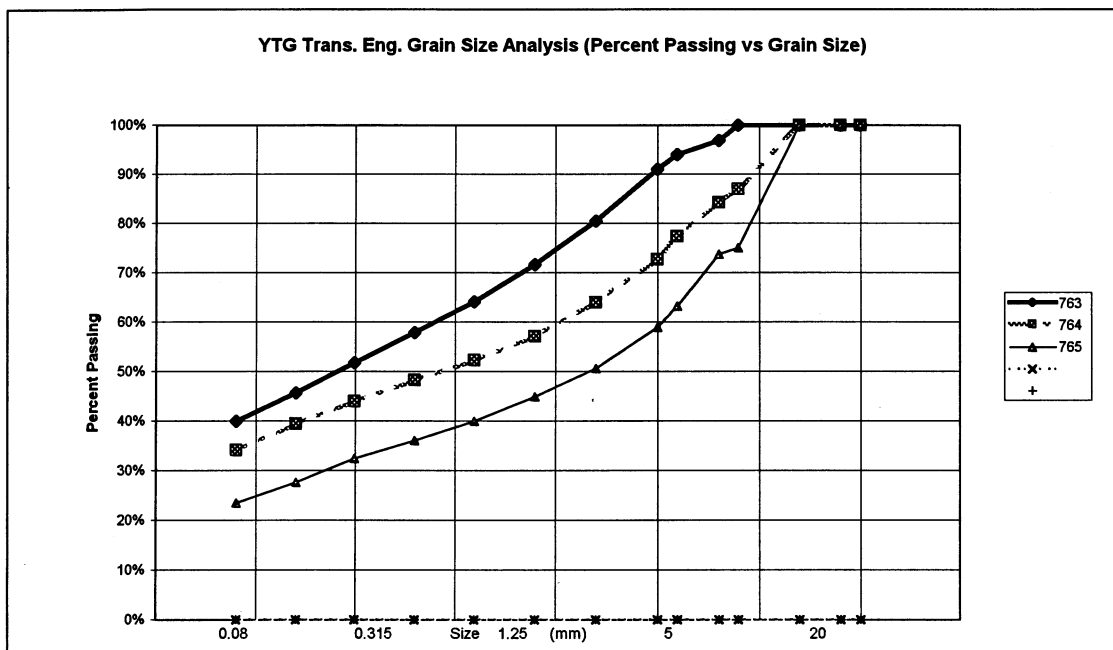
FIELD NO: 760		FIELD No. 761		FIELD No: 762	
LAB NO: 1166		LAB No. 1167		LAB No: 1168	
DEPTH: 1.4-1.6		DEPTH 2.8-3.0		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	100%	25.0	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)	

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



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

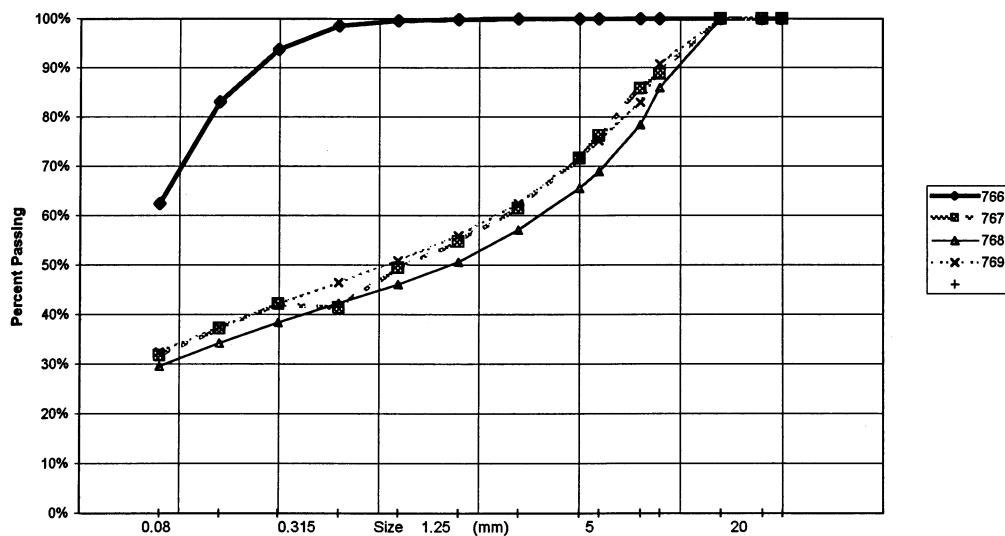
FIELD No: 763 LAB No: 1169 DEPTH: 1.6-1.8 TYPE: AUGER		FIELD No: 764 LAB No: 1170 DEPTH: 2.9-3.1 AUGER		FIELD No: 765 LAB No: 1171 DEPTH: 4.5-4.7 AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	80.0	100%
50.0	100%	50.0	100%	50.0	100%
25.0	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: SILTY SAND WITH GRAVEL (SM)		CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)		CLASSIFICATION: 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

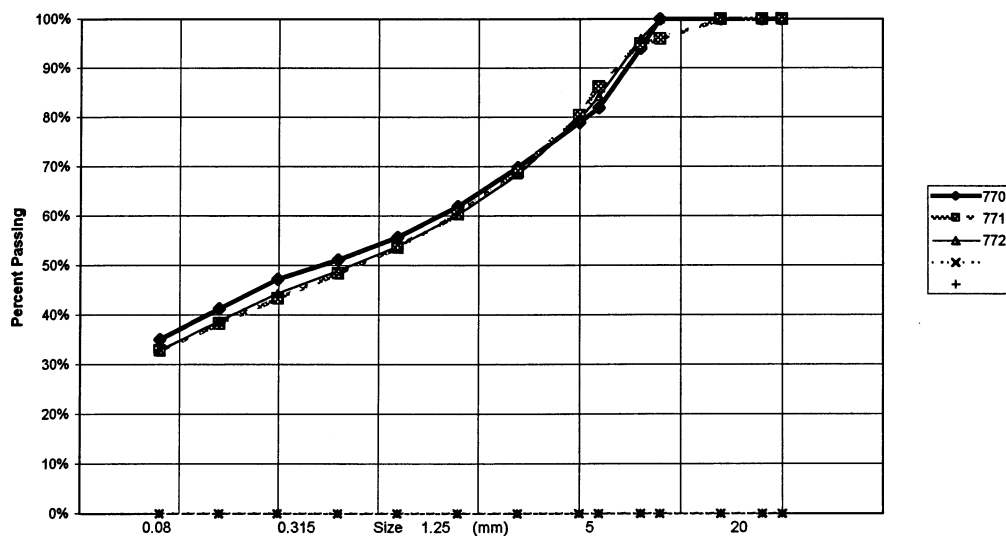
FIELD NO: 766		FIELD No. 767		FIELD No: 768		FIELD No: 769	
LAB NO: 1172		LAB No. 1173		LAB No: 1174		LAB No: 1175	
DEPTH: 1.0-1.2		DEPTH 1.9-2.1		DEPTH: 3.0-3.2		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	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)	

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



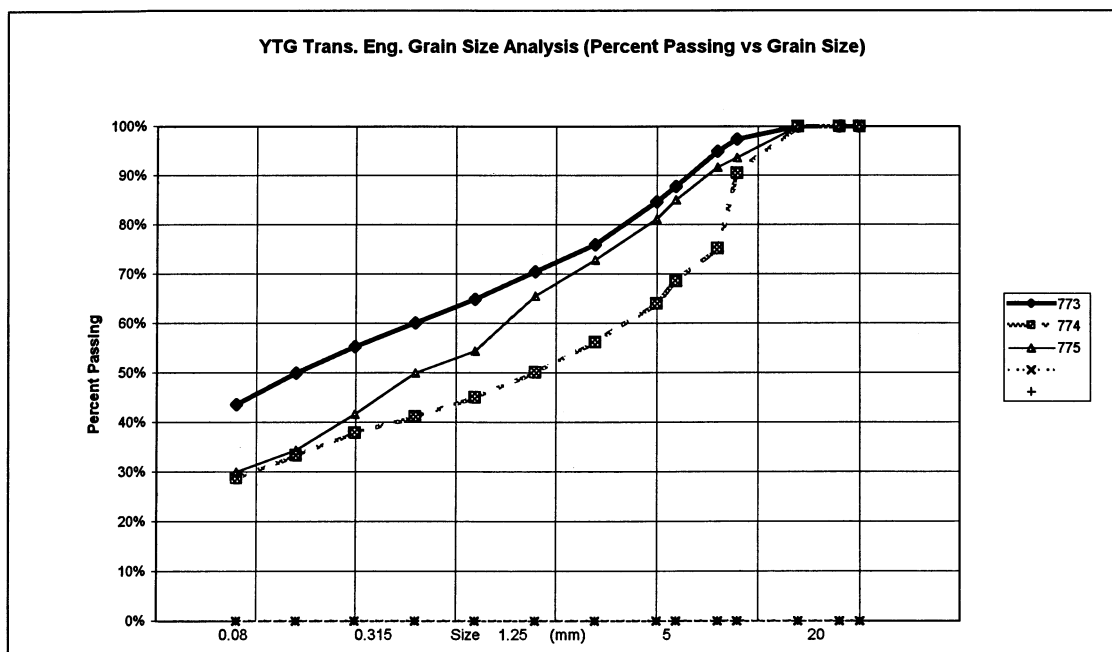
PROJECT NUMBER: 092-202101-0361				HOLE No.: 553-1528	
CLIENT: ENGINEERING-CAPITAL					
PROJECT NAME: SHAKWAK SEG 11					
PROJECT LOCATION: KM 1729.6 - 1729.6 A/H					
DRILL UNIT: MOBILE B40L 6" AUGER					
LOGGED BY: D.T.					
HOLE LOCATION: 1760+500 CENTRELINE				DATE COM 06/12/2000	
=====					
FIELD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

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



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

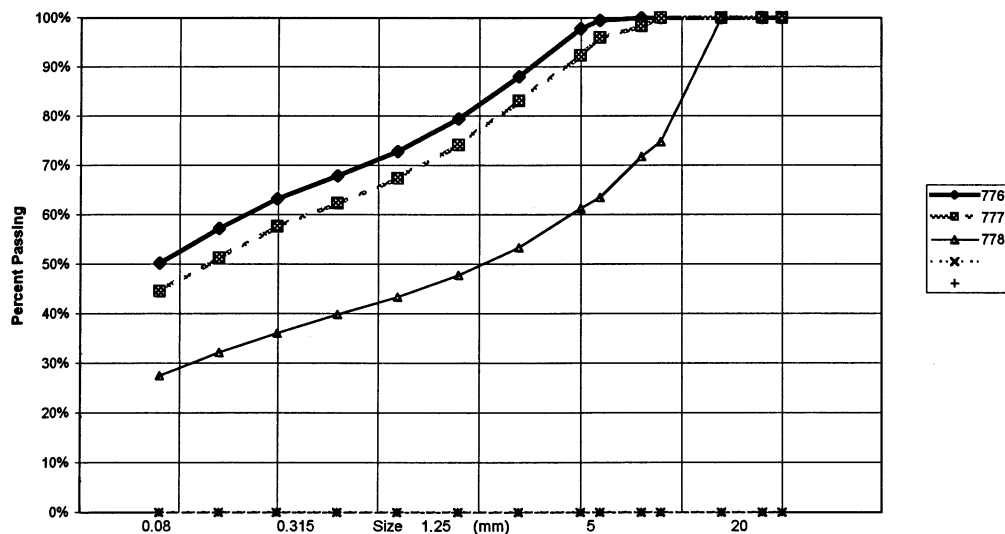
FIELD NO: 773		FIELD No. 774		FIELD No: 775	
LAB NO: 1179		LAB No. 1180		LAB No: 1181	
DEPTH: 1.3-1.5		DEPTH 2.6-3.0		DEPTH: 4.5-4.7	
TYPE: AUGER		A AUGER		TYPE: AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%	100.0	100%
80.0	100%	80.0	100%	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: SILTY SAND WITH GRAVEL (SM)		CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)		CLASSIFICATION: SILTY SAND WITH GRAVEL (SM)	



PROJECT NUMBER: 092-202101-0361 HOLE No.: 553-1530
 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.
 HOLE LOCATION: 1760+700 12M LT DATE COM 06/12/2000

FIELD No: 776 LAB No: 1182 DEPTH: 1.4-1.6 TYPE: AUGER		FIELD No: 777 LAB No: 1183 DEPTH: 2.8-3.0 A AUGER		FIELD No: 778 LAB No: 1184 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	100%	25.0	100%	25.0	75%
20.0	100%	20.0	98%	20.0	72%
12.5	100%	12.5	96%	12.5	64%
10.0	98%	10.0	92%	10.0	61%
5.0	88%	5.0	83%	5.0	53%
2.5	80%	2.5	74%	2.5	48%
1.25	73%	1.25	67%	1.25	43%
0.630	68%	0.630	62%	0.630	40%
0.315	63%	0.315	58%	0.315	36%
0.160	57%	0.160	51%	0.160	32%
0.080	50%	0.080	45%	0.080	28%
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)	

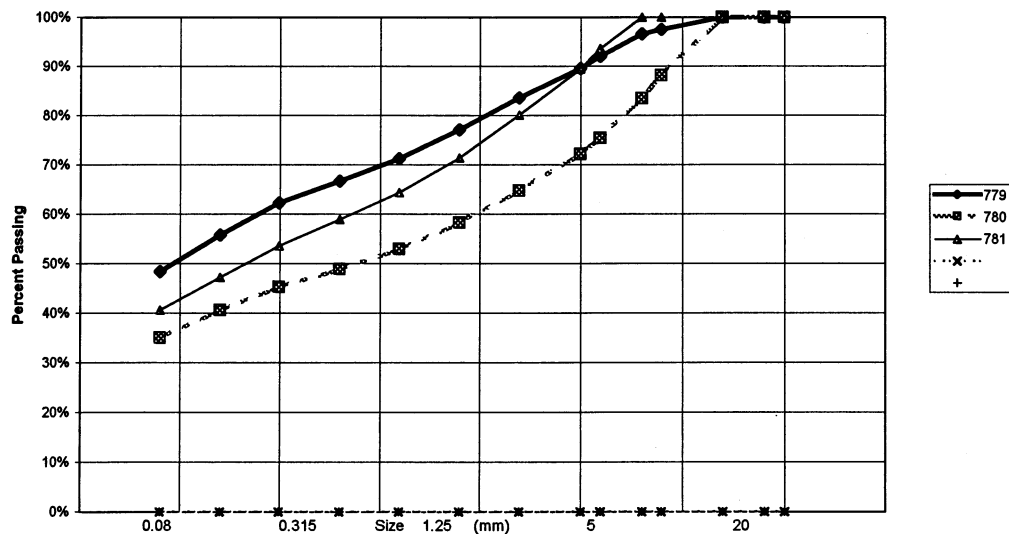
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

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)

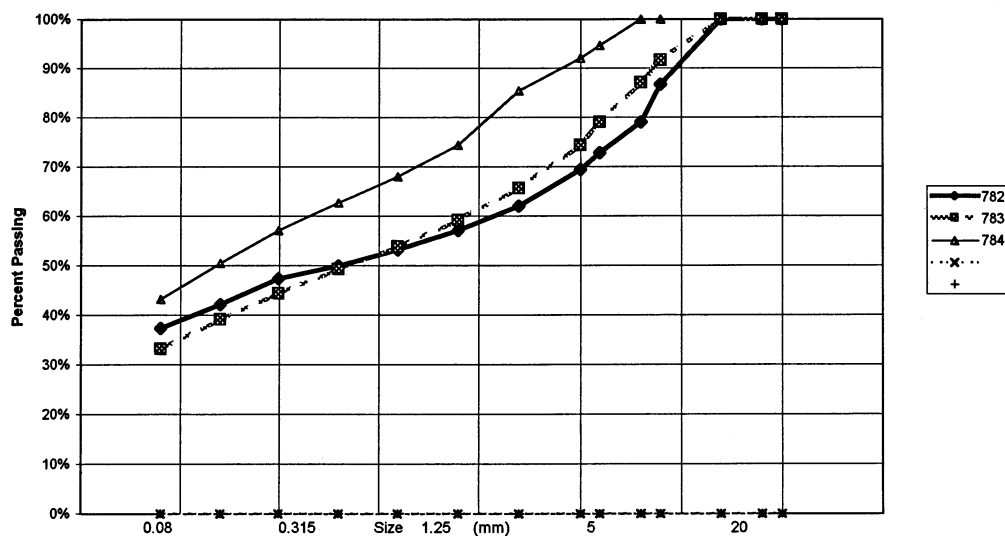
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.
 HOLE LOCATION: 1760+900 12M LT DATE COM 06/13/2000

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

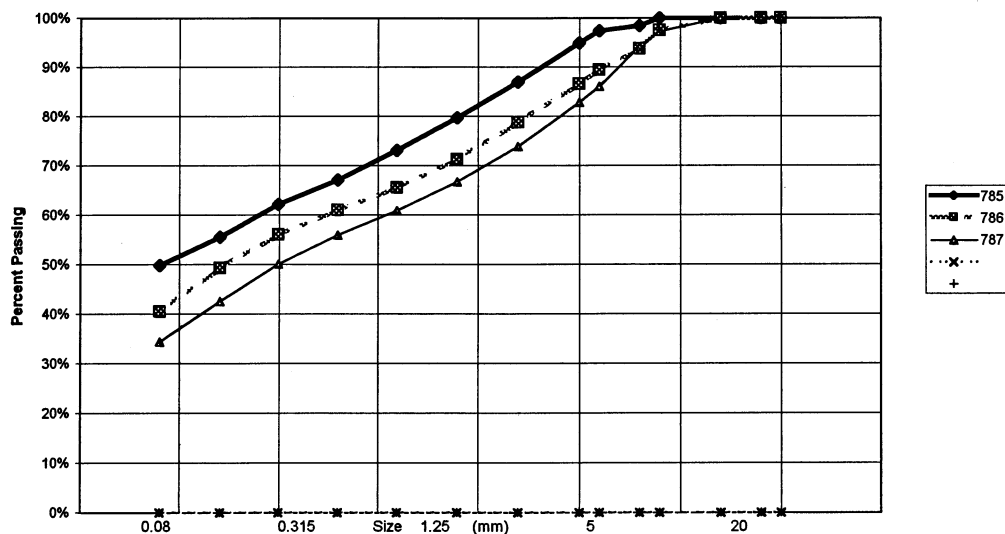
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1761+000 15M LT	DATE COM	06/13/2000

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

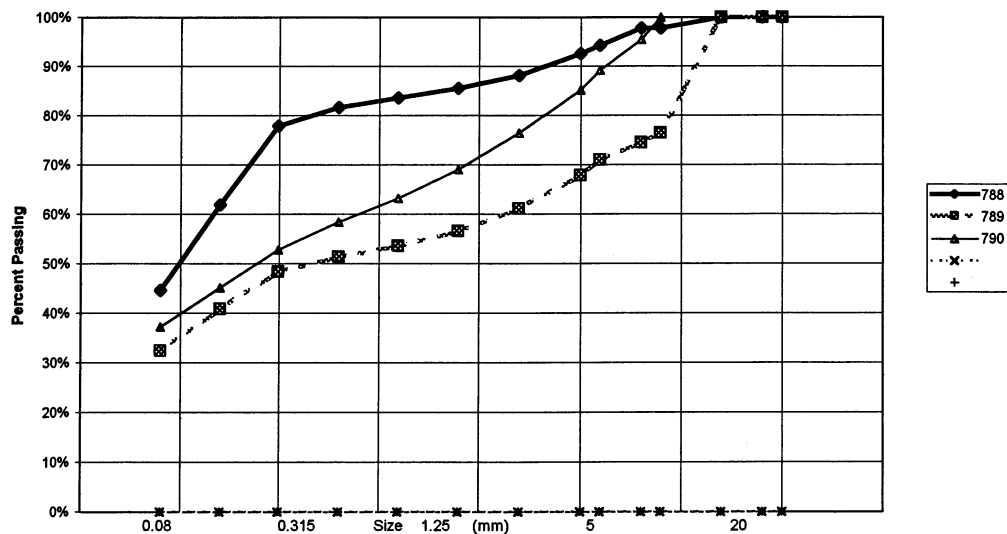
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

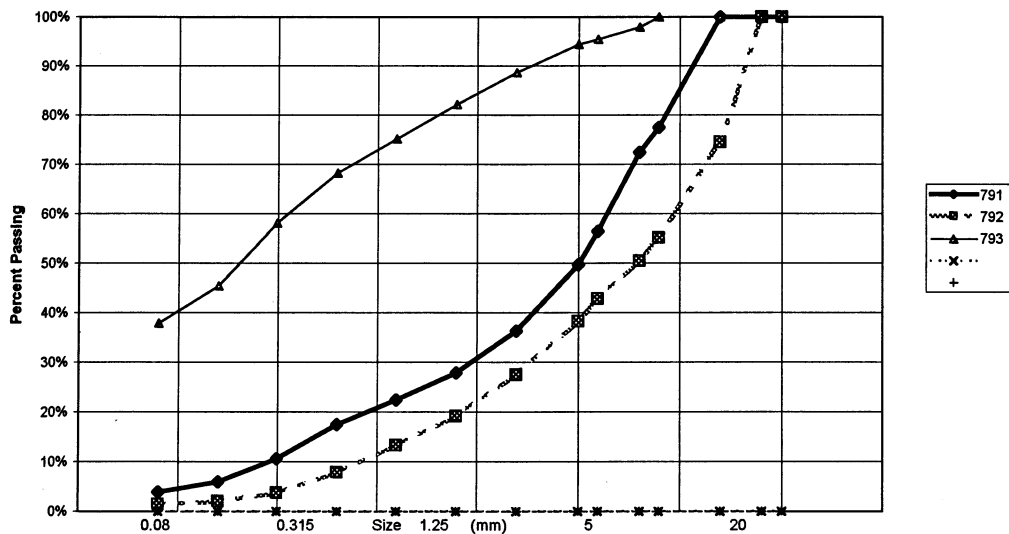
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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 LAB NO: 1197 DEPTH: 1.4-1.6 TYPE: AUGER		FIELD No. 792 LAB No. 1198 DEPTH: 2.9-3.1 A AUGER		FIELD No: 793 LAB No: 1199 DEPTH: 4.5-4.7 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: POORLY GRADED GRAVEL WITH SAND (GP)		CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)		CLASSIFICATION: SILTY SAND (SM)	

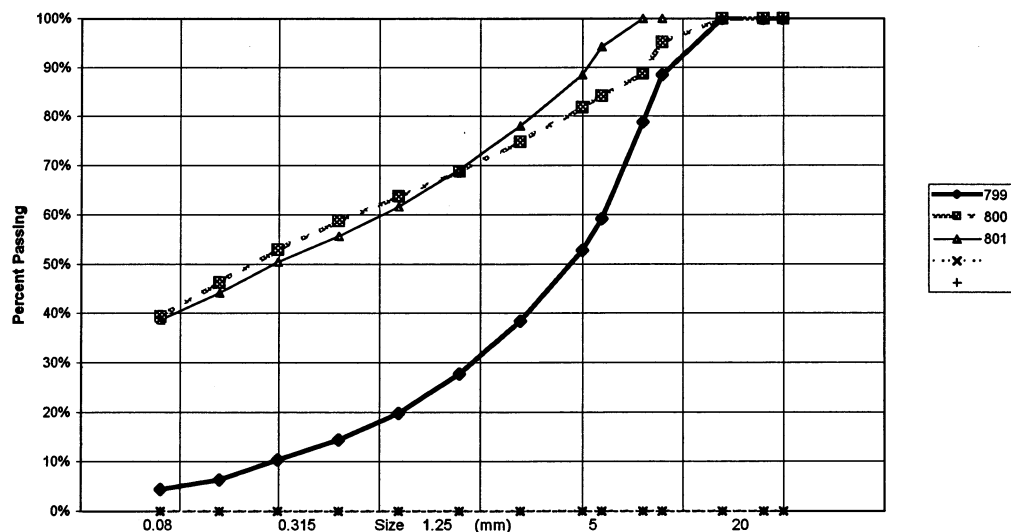
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1761+206 15M RT	DATE COM	06/13/2000

FIELD No: 799		FIELD No: 800		FIELD No: 801	
LAB NO: 1200		LAB No: 1201		LAB No: 1202	
DEPTH: 1.4-1.6		DEPTH: 2.8-3.1		DEPTH: 4.5-4.7	
TYPE: AUGER		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	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		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	62	% GRAVEL	25	% GRAVEL	22
% SAND:	34	% SAND:	35	% SAND:	39
% FINES:	4	% FINES:	39	% FINES:	39
CLASSIFICATION:		CLASSIFICATION:		CLASSIFICATION:	
WELL-GRADED GRAVEL WITH SAND (GW)		SILTY SAND WITH GRAVEL (SM)		SILTY SAND WITH GRAVEL (SM)	

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



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			

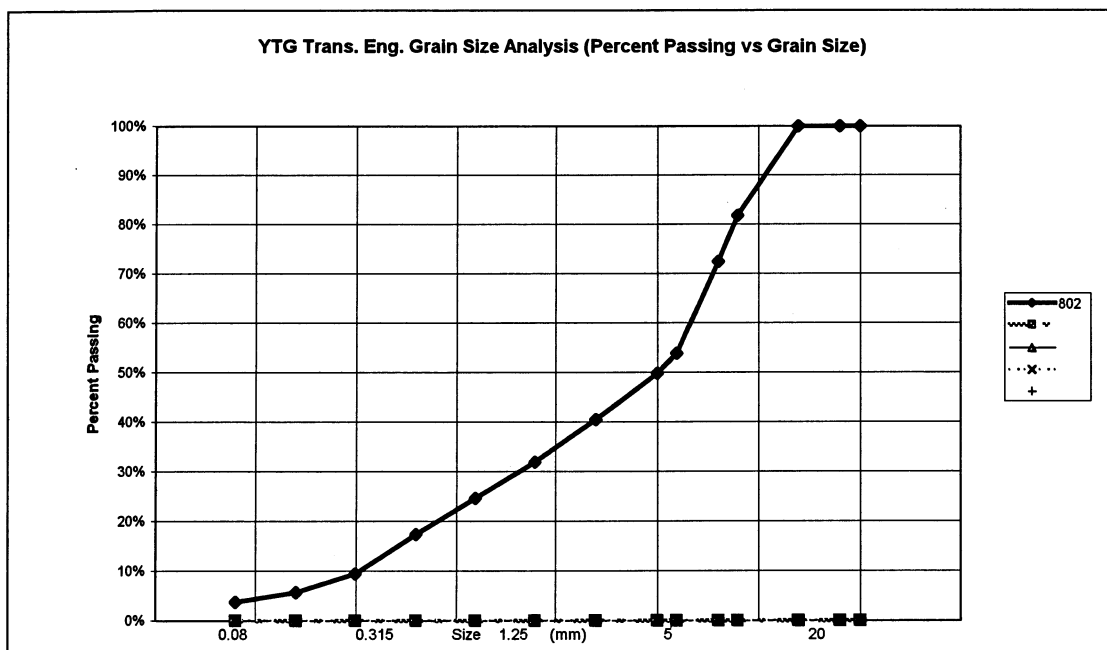
SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	82%		
20.0	72%		
12.5	54%		
10.0	50%		
5.0	40%		
2.5	32%		
1.25	25%		
0.630	17%		
0.315	10%		
0.160	6%		
0.080	4%		

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

% GRAVEL	60
% SAND:	37
% FINES:	4

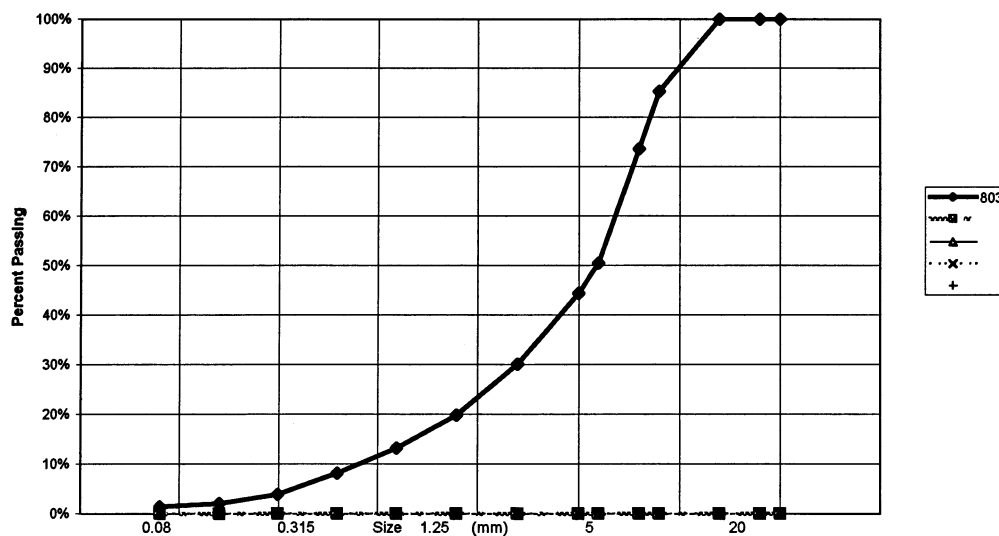
CLASSIFICATION:	
POORLY GRADED GRAVEL WITH SAND (GP)	



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)				

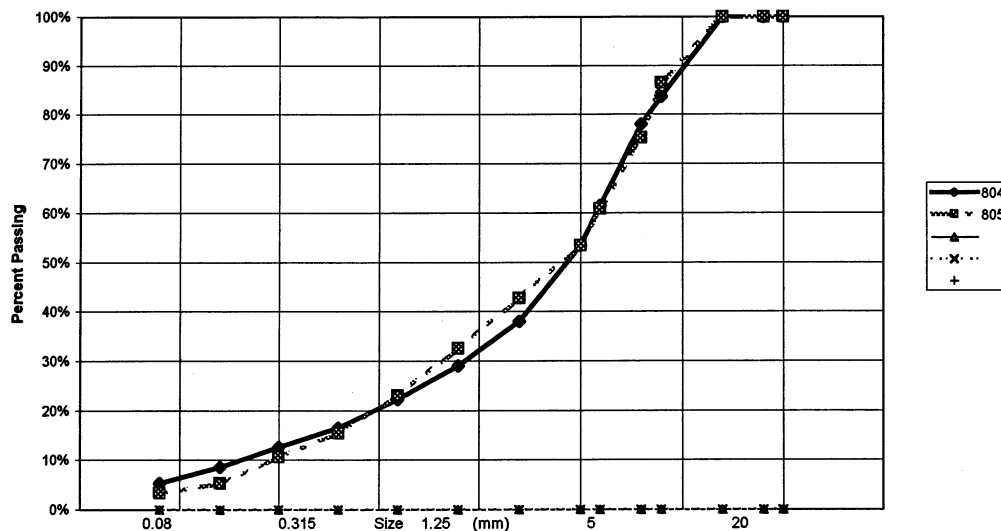
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1761+500	DATE COM	06/13/2000

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

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



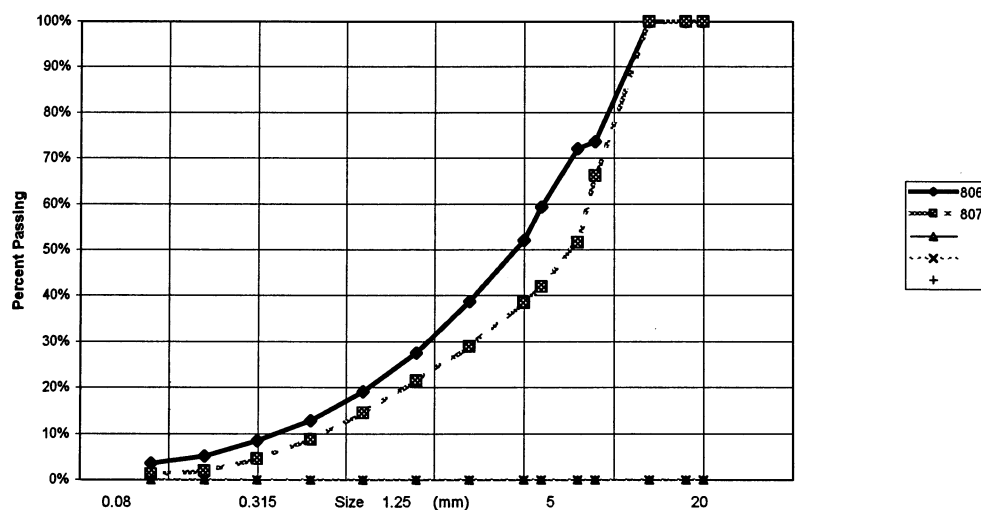
PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1540	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COMP: 2000/06/14	
HOLE LOCATION: 1761+600 8M RT			

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	
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)

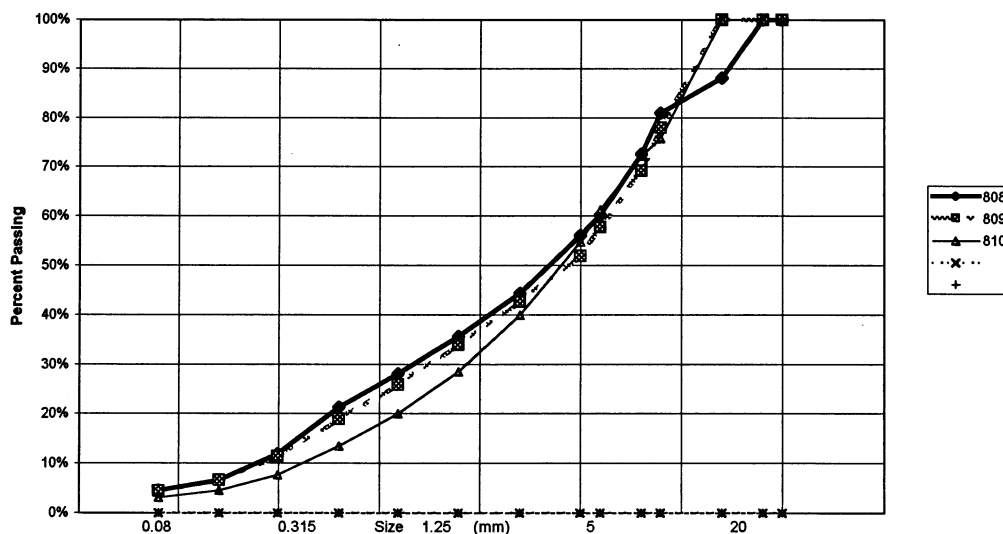
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

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)	

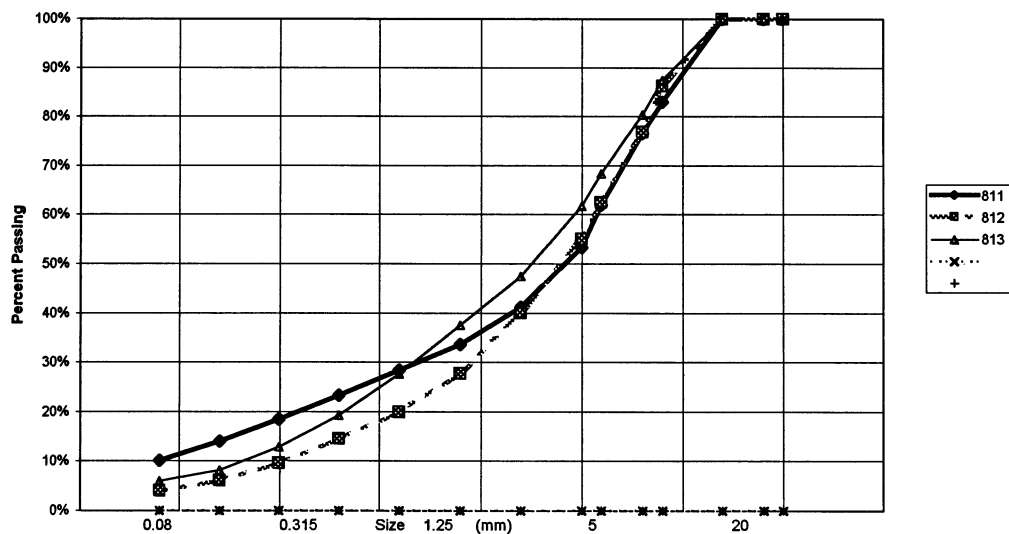
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

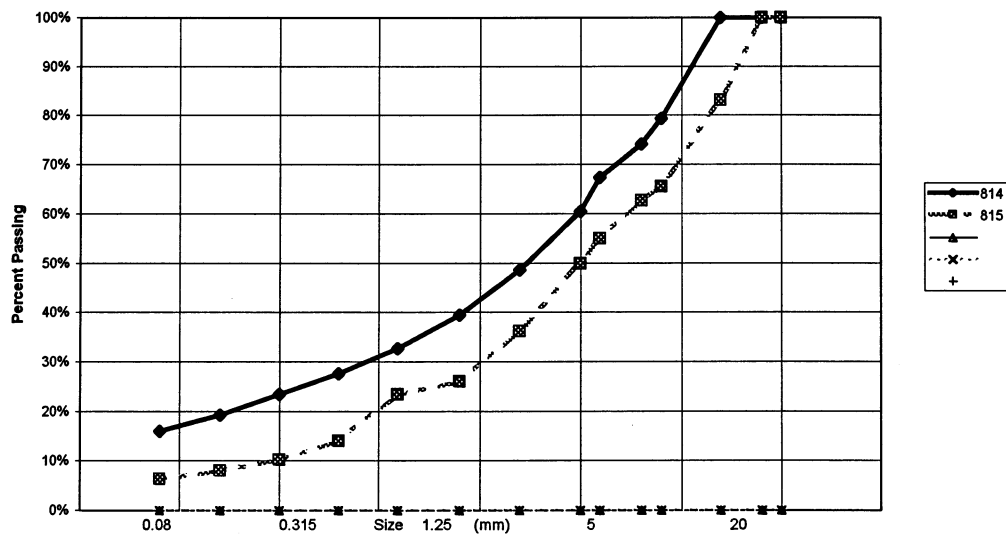
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1761+900 9M RT	DATE COM	2000/06/14

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

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



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%

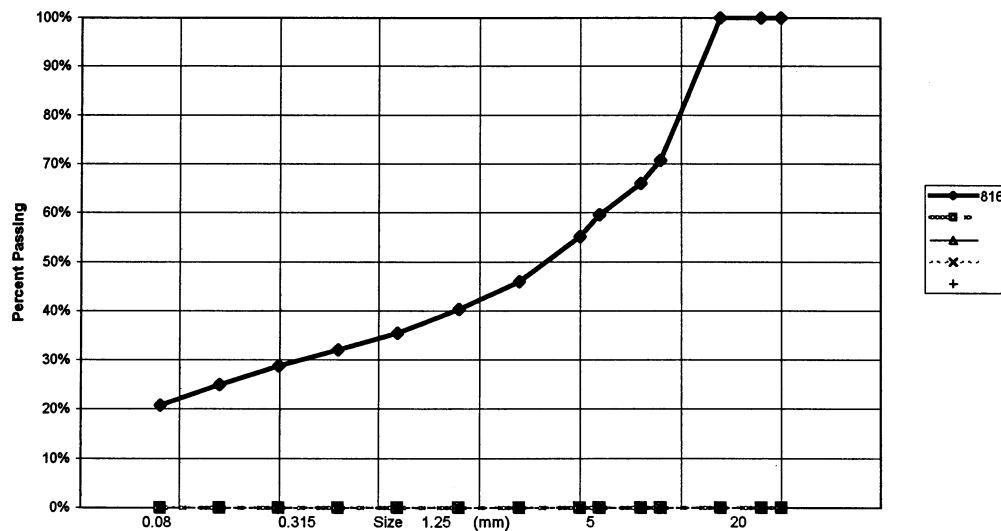
M.C.(%): 6%

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

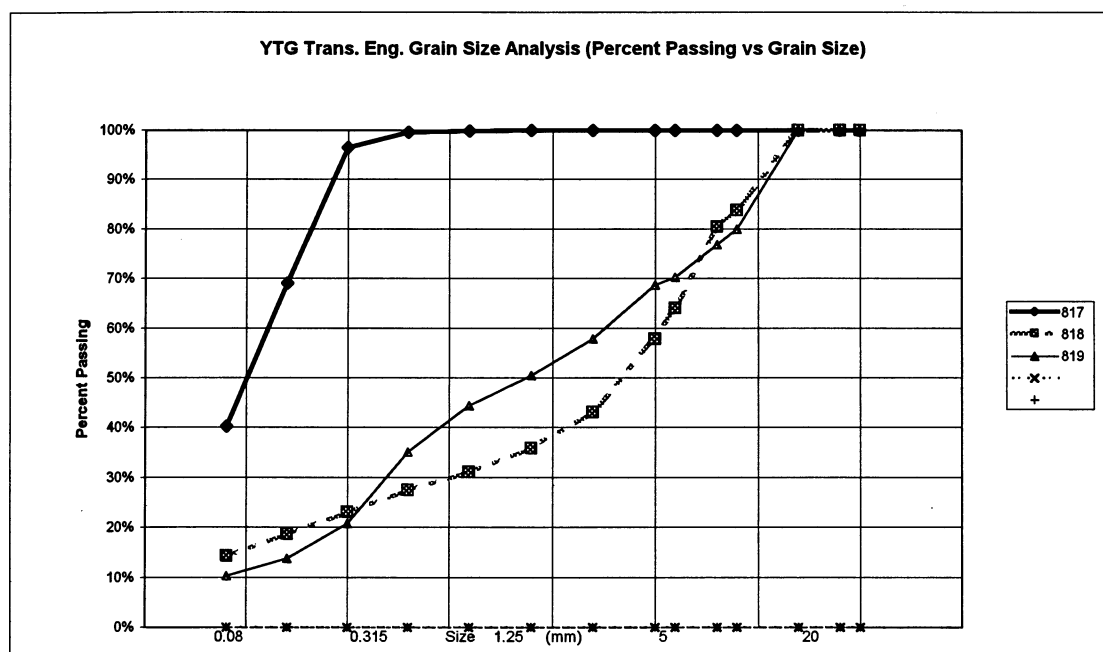
% GRAVEL: 54
 % SAND: 25
 % FINES: 21

CLASSIFICATION:
 SILTY GRAVEL WITH SAND
 (GM)

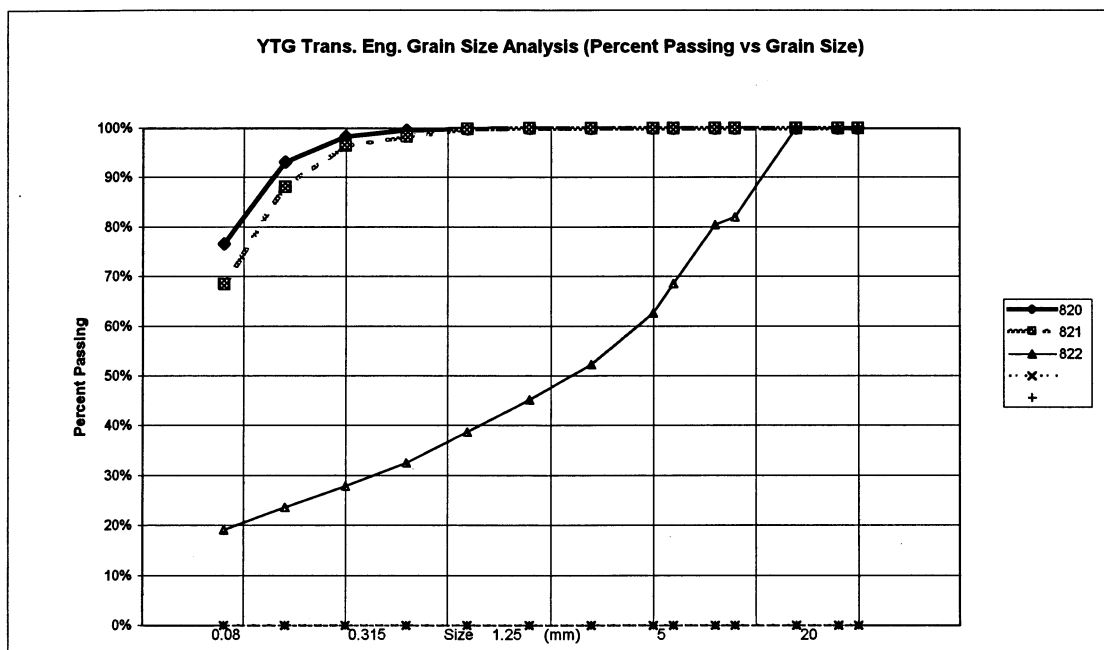
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.			
HOLE LOCATION: 1762+100 12M RT		DATE COM 2000/06/14	
=====		=====	
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
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	100%	25.0	80%
20.0	100%	20.0	77%
12.5	100%	12.5	70%
10.0	100%	10.0	69%
5.0	100%	5.0	58%
2.5	100%	2.5	50%
1.25	100%	1.25	44%
0.630	100%	0.630	35%
0.315	97%	0.315	21%
0.160	69%	0.160	14%
0.080	40%	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)	



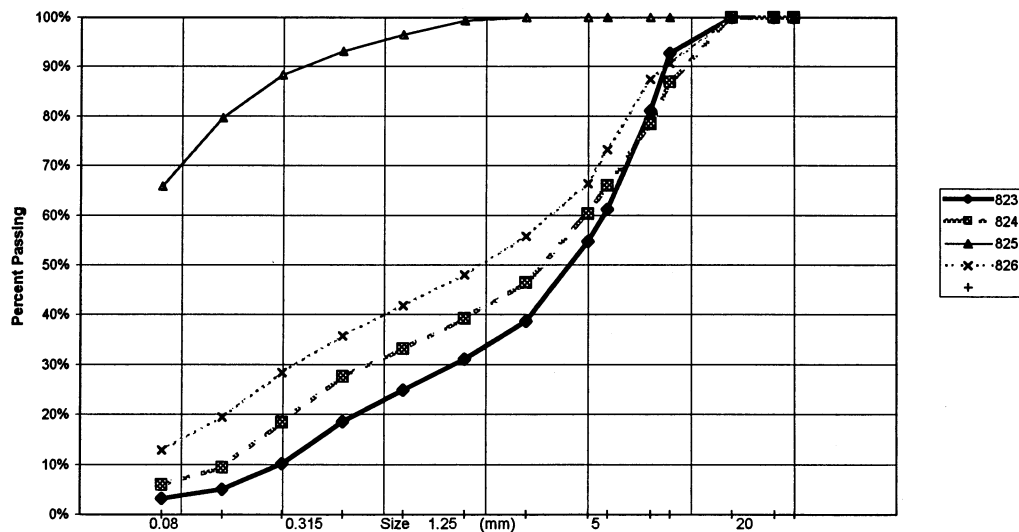
PROJECT NUMBER: 092-202101-0361		HOLE No.: 554-1546	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: MOBILE B40L			
LOGGED BY: D.T.		DATE COM 2000/06/14	
HOLE LOCATION: 1762+200 10M RT			
=====		=====	
FIELD NO: 820		FIELD No: 821	
LAB NO: 1221		LAB No: 1222	
DEPTH: 0.9-1.1		DEPTH: 2.0-2.2	
TYPE: AUGER		AUGER	
=====		=====	
SIEVE SIZE		SIEVE SIZE	
PERCENT PASSING		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	82%
12.5	100%	20.0	80%
12.5	100%	12.5	69%
10.0	100%	10.0	63%
5.0	100%	5.0	52%
2.5	100%	2.5	45%
1.25	100%	1.25	39%
0.630	100%	0.630	33%
0.315	98%	0.315	28%
0.160	93%	0.160	24%
0.080	77%	0.080	19%
=====		=====	
M.C.(%):	13%	M.C.(%):	33%
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	48
% SAND:	23	% SAND:	33
% FINES:	77	% FINES:	19
=====		=====	
CLASSIFICATION:		CLASSIFICATION:	
SILT WITH SAND (ML)		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 LAB NO: 1224 DEPTH: 1.4-1.6 TYPE: AUGER	FIELD No. 824 LAB No: 1225 DEPTH: 2.7-2.9 A AUGER	FIELD No: 825 LAB No: 1226 DEPTH: 3.4-3.6 TYPE: AUGER	FIELD No: 826 LAB No: 1227 DEPTH: 4.5-4.7 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 LIQUID: 0.0 PLASTIC: 0.0 P.I.: 0.0	LIMITS LIQUID: 0.0 PLASTIC: 0.0 P.I.: 0.0	LIMITS LIQUID: 0.0 PLASTIC: 0.0 P.I.: 0.0	LIMITS LIQUID: 0.0 PLASTIC: 0.0 P.I.: 0.0				
% GRAVEL 61 % SAND: 35 % FINES: 3	% GRAVEL 53 % SAND: 41 % FINES: 6	% GRAVEL 0 % SAND: 34 % FINES: 66	% GRAVEL 44 % SAND: 43 % FINES: 13				
CLASSIFICATION: POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION: SANDY SILT (ML)	CLASSIFICATION: SILTY GRAVEL WITH SAND (GM)				

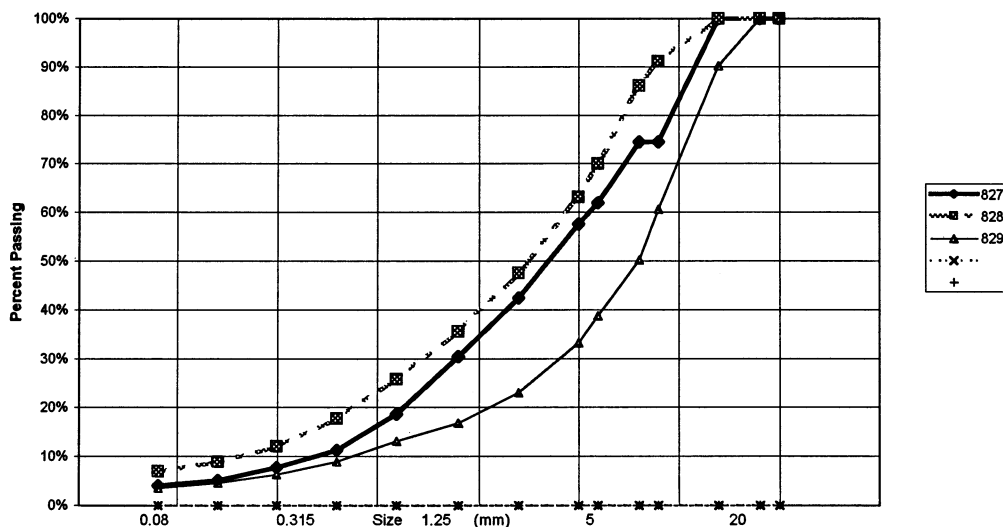
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1762+400 CENTRELINE	DATE COM	2000/06/14

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

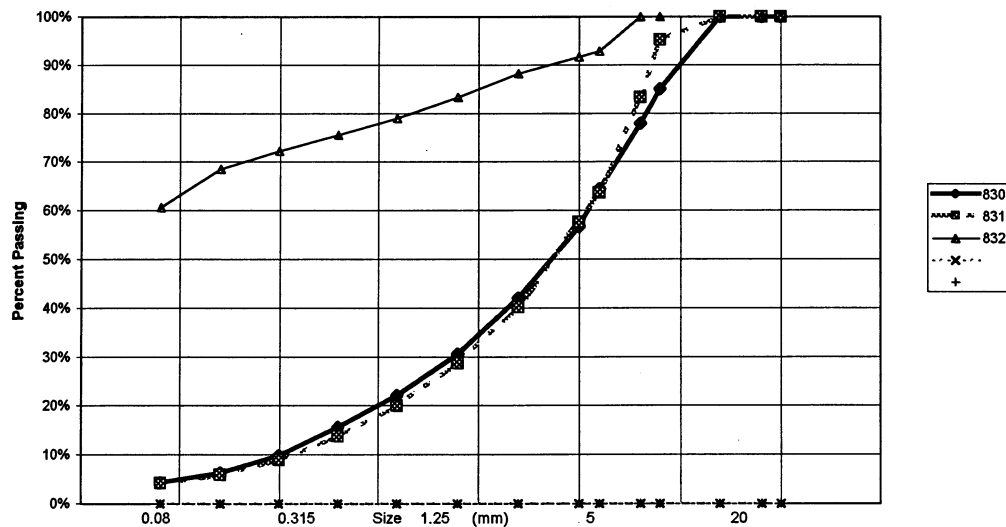
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

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:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL		POORLY GRADED GRAVEL		SANDY SILT (ML)	
WITH SAND (GP)		WITH SAND (GP)			

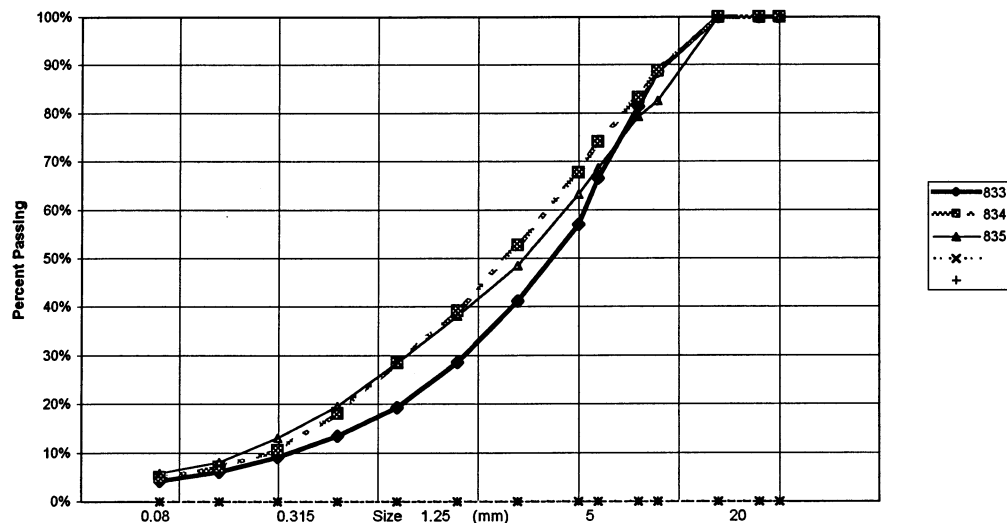
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.	
HOLE LOCATION:	1762+600 9M LT	DATE COM 2000/06/14

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

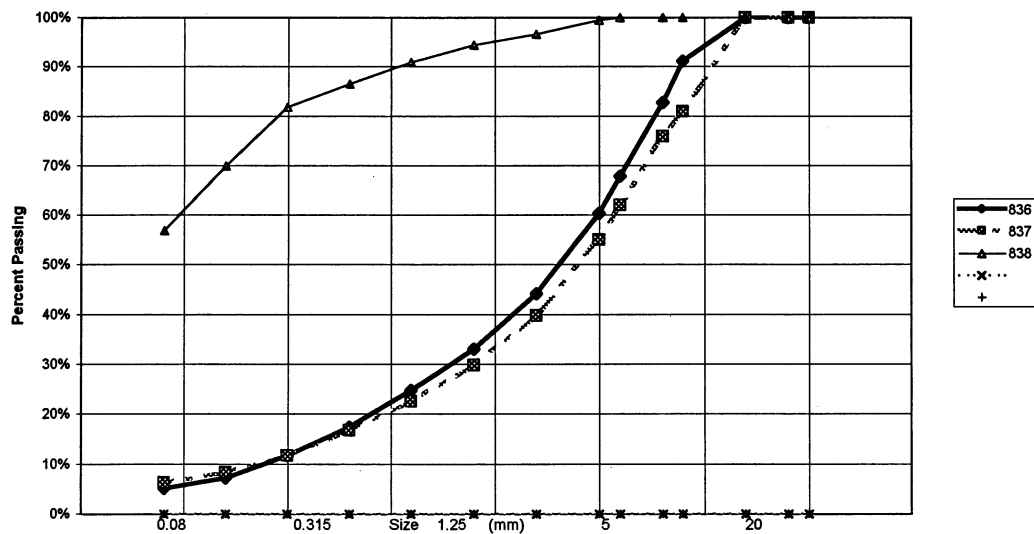
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	91%	25.0	100%
20.0	83%	20.0	100%
12.5	68%	12.5	100%
10.0	60%	10.0	99%
5.0	44%	5.0	97%
2.5	33%	2.5	94%
1.25	25%	1.25	91%
0.630	18%	0.630	87%
0.315	12%	0.315	82%
0.160	7%	0.160	70%
0.080	5%	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)	

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



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	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%

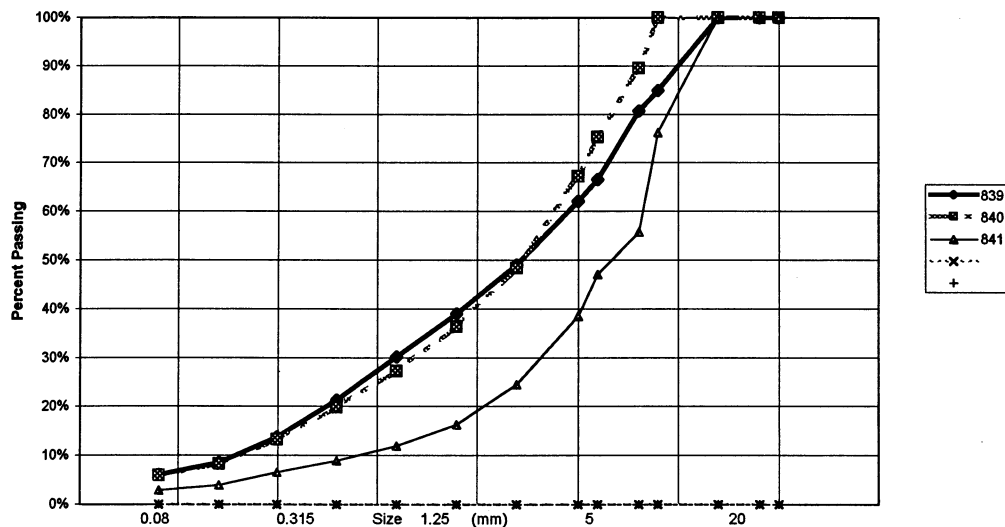
M.C.(%): 2%	M.C.(%): 2%	M.C.(%): 2%
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LIMITS	LIMITS	LIMITS
LIQUID: 0.0	LIQUID: 0.0	LIQUID: 0.0
PLASTIC: 0.0	PLASTIC: 0.0	PLASTIC: 0.0
P.I.: 0.0	P.I.: 0.0	P.I.: 0.0

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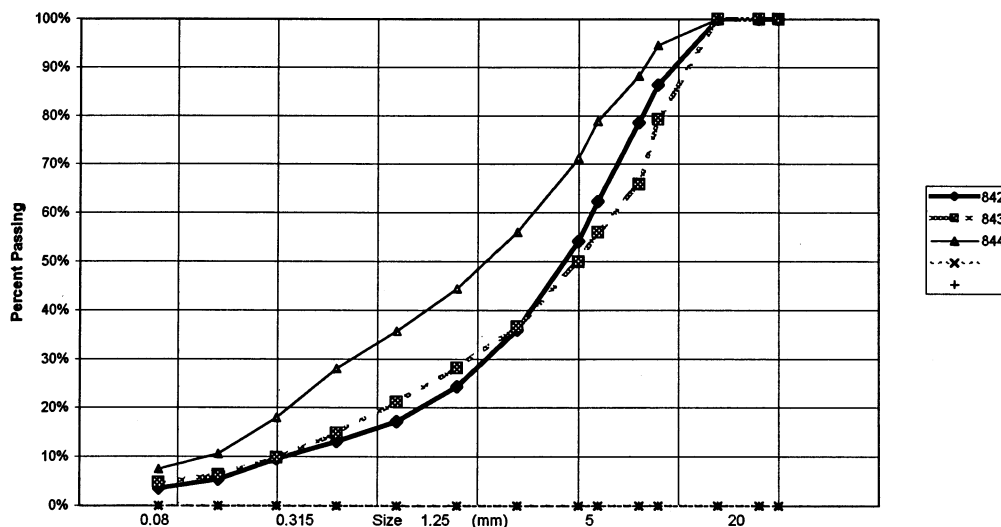
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.
 HOLE LOCATION: 1762+900 10M LT DATE COM 2000/06/14

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

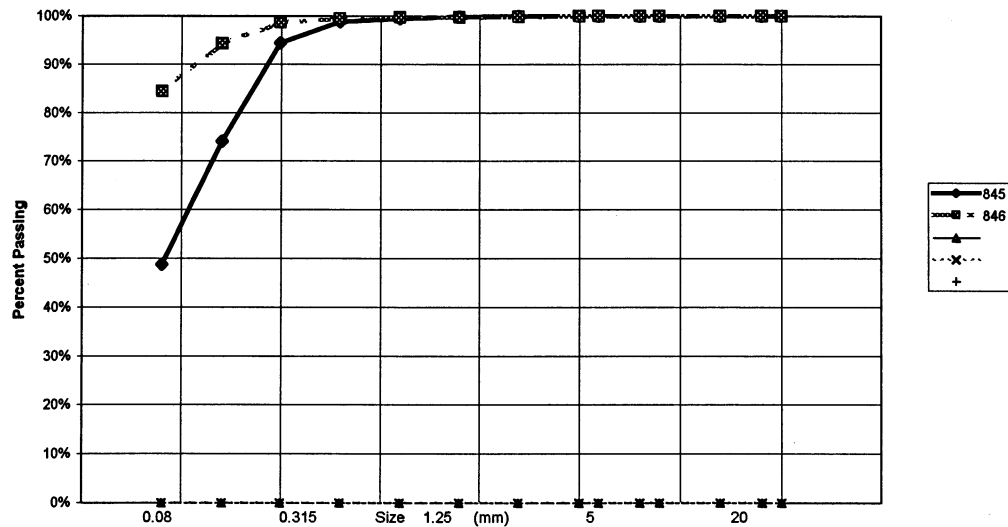
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1763+000 9M LT	DATE COM	2000/06/14

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:		CLASSIFICATION:			
SILTY SAND (SM)		SILT WITH SAND (ML)			

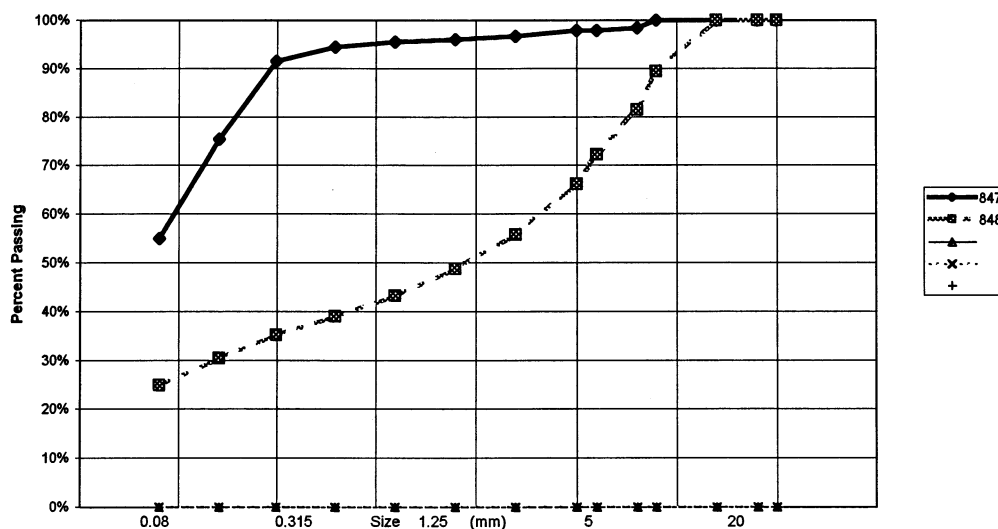
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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 ~~9745~~ DATE COM 2000/06/14

FIELD NO: 847		FIELD No. 848	
LAB NO: 1248		LAB No. 1249	
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	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:		CLASSIFICATION:	
SANDY SILT (ML)		SILTY GRAVEL WITH SAND (GM)	

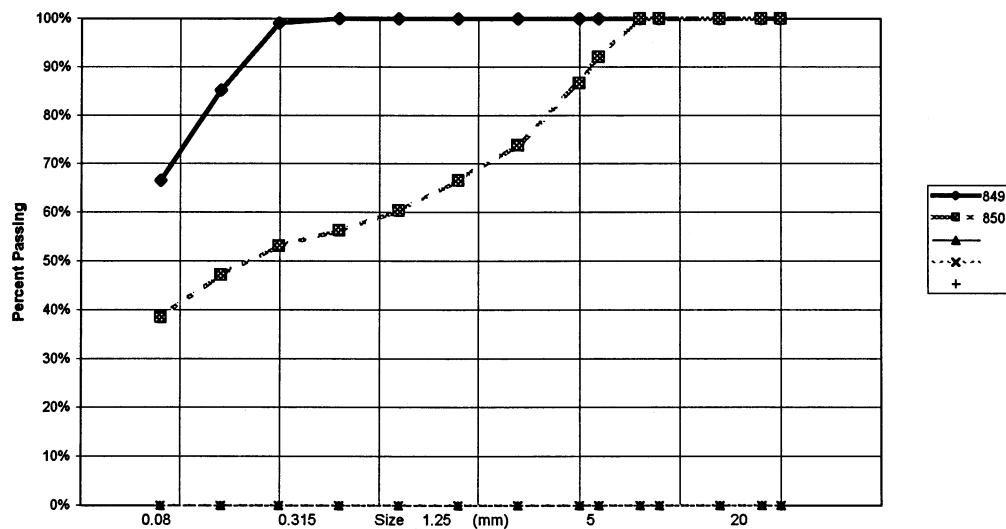
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

FIELD NO: 849		FIELD No. 850			
LAB NO: 1250		LAB No. 1251			
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	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:		CLASSIFICATION:			
SANDY SILT (ML)		SILTY SAND WITH GRAVEL (SM)			

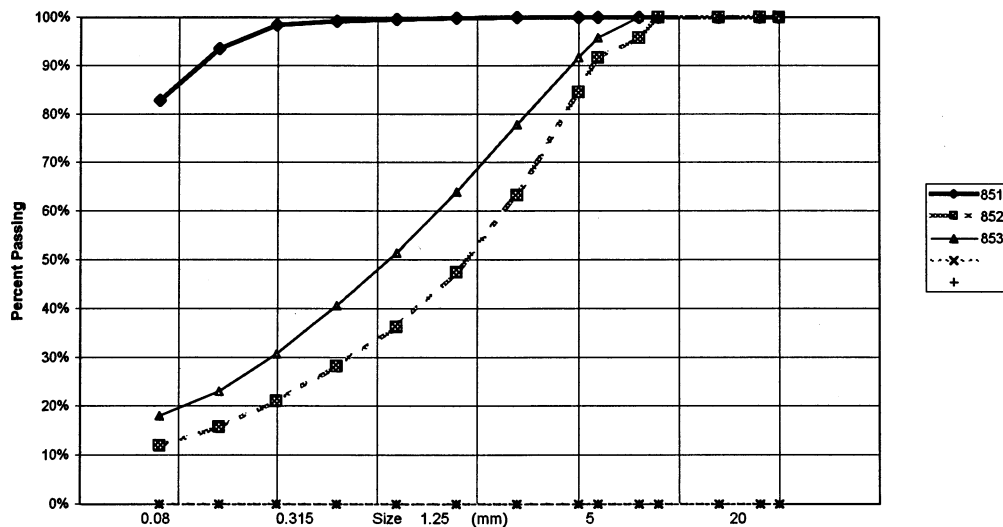
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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		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:		CLASSIFICATION:		CLASSIFICATION:	
SILT WITH SAND (ML)		SILTY SAND WITH GRAVEL (SM)		SILTY SAND WITH GRAVEL (SM)	

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



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			

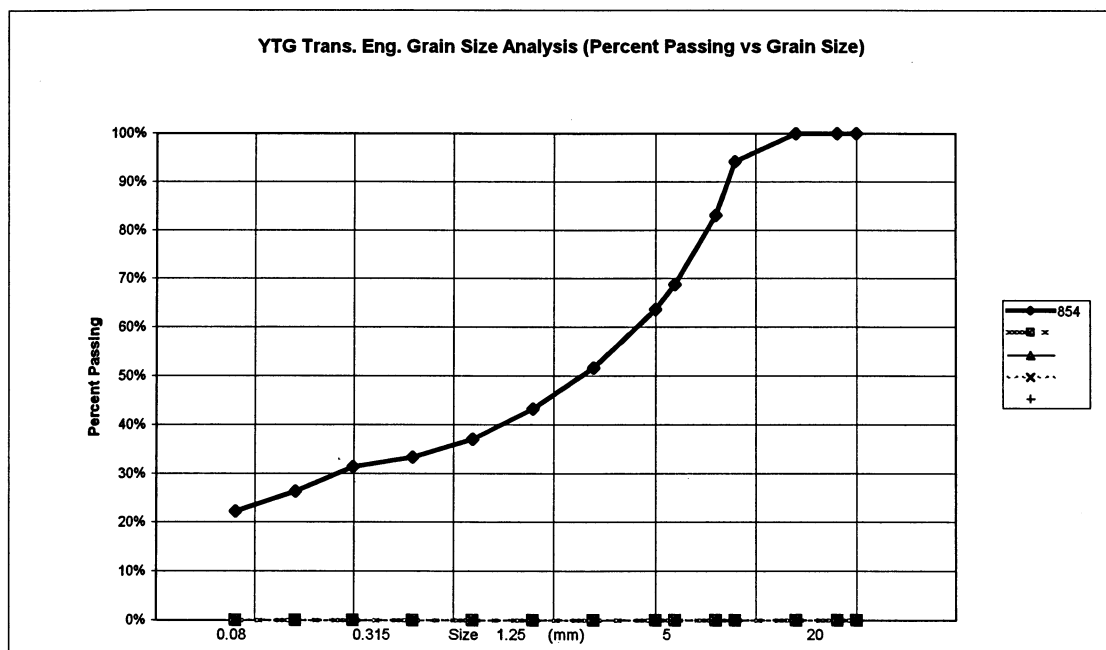
SIEVE SIZE	PERCENT PASSING		
100.0	100%		
80.0	100%		
50.0	100%		
25.0	94%		
20.0	83%		
12.5	69%		
10.0	64%		
5.0	52%		
2.5	43%		
1.25	37%		
0.630	33%		
0.315	31%		
0.160	26%		
0.080	22%		

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

% GRAVEL	48
% SAND:	29
% FINES:	22

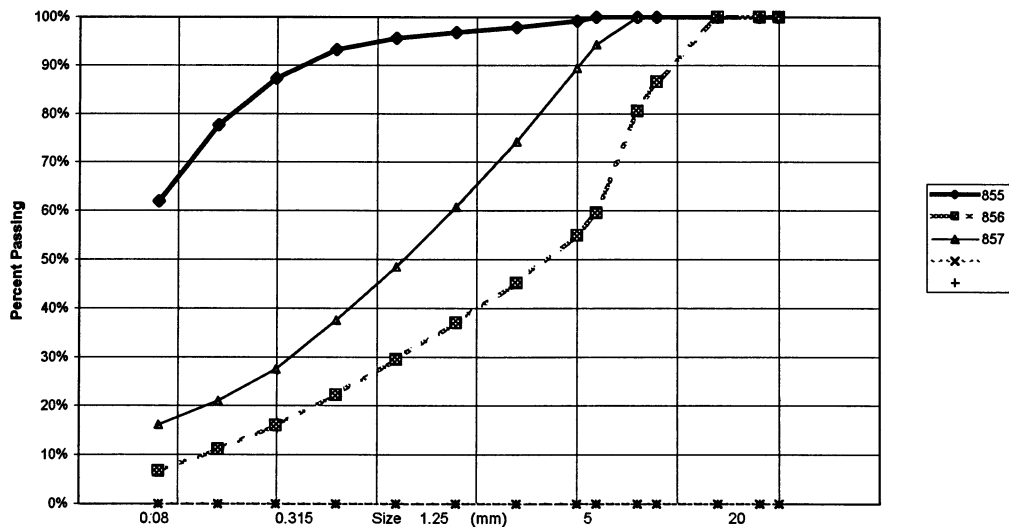
CLASSIFICATION:	
SILTY GRAVEL WITH SAND (GM)	



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

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



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.		
HOLE LOCATION:	1763+400 CENTRELINE	DATE COM	2000/06/15

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%

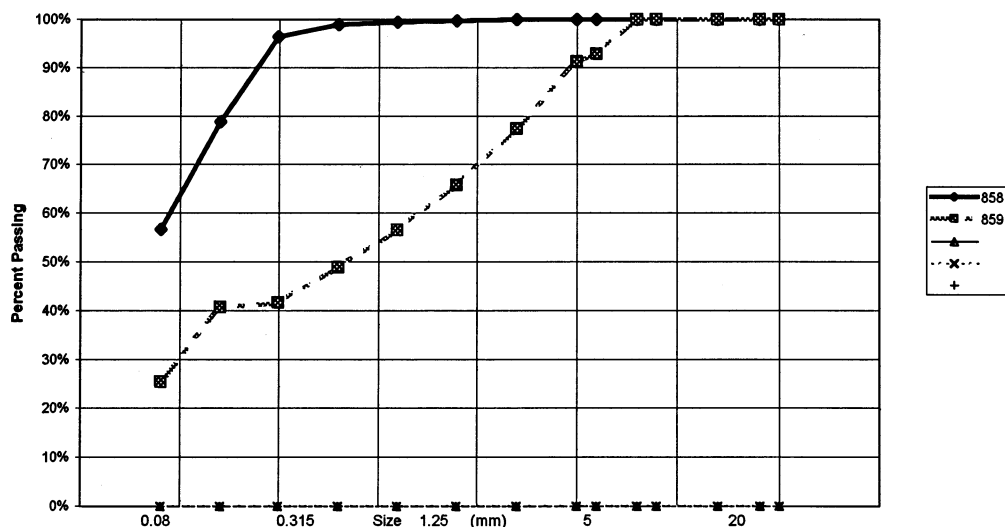
M.C.(%):	28%	M.C.(%):	12%
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LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0

% GRAVEL	0	% GRAVEL	23
% SAND:	43	% SAND:	52
% FINES:	57	% FINES:	25

CLASSIFICATION:		CLASSIFICATION:	
SANDY SILT (ML)		SILTY SAND WITH GRAVEL (SM)	

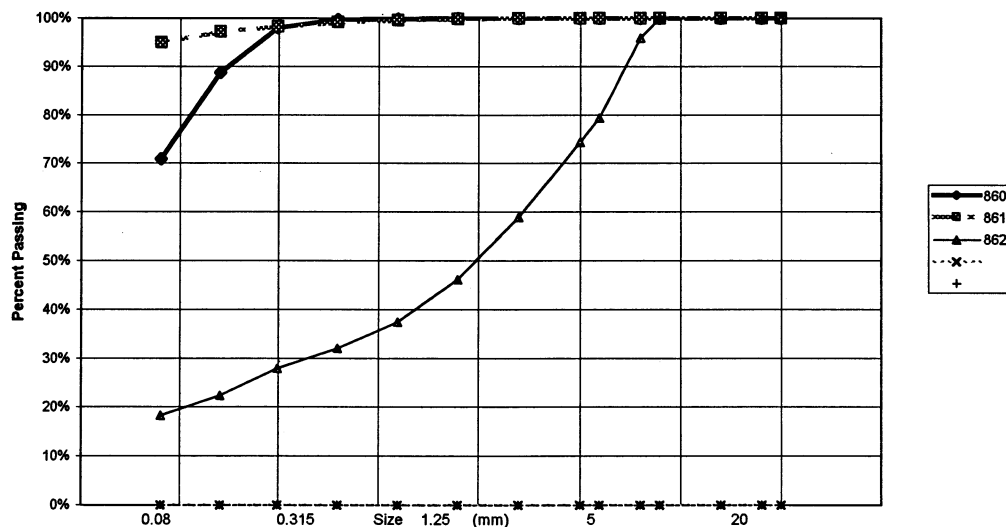
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

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)

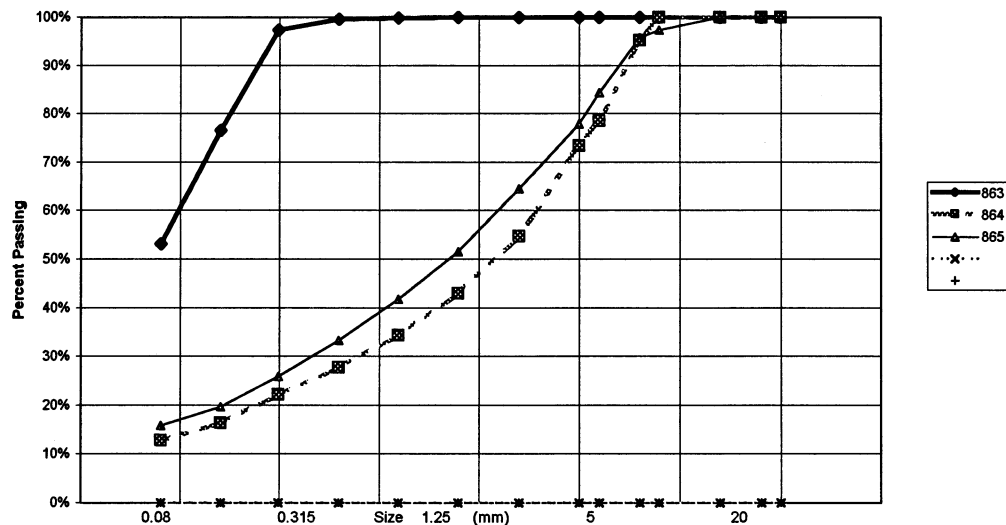
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

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)

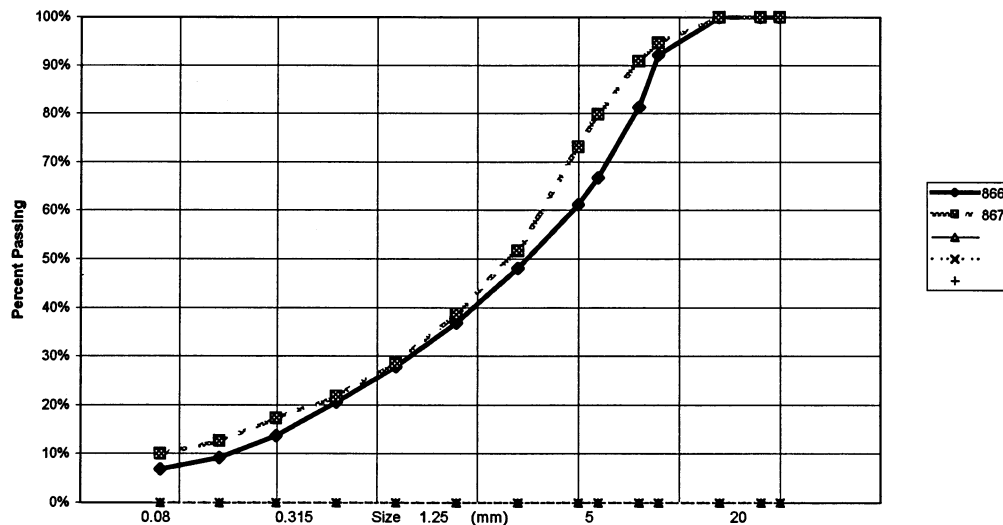
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

FIELD NO: 866		FIELD No. 867			
LAB NO: 1267		LAB No. 1268			
DEPTH: 1.3-1.5		DEPTH A			
TYPE: AUGER		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	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:		CLASSIFICATION:			
POORLY GRADED GRAVEL		POORLY GRADED GRAVEL			
WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GP-GM)			

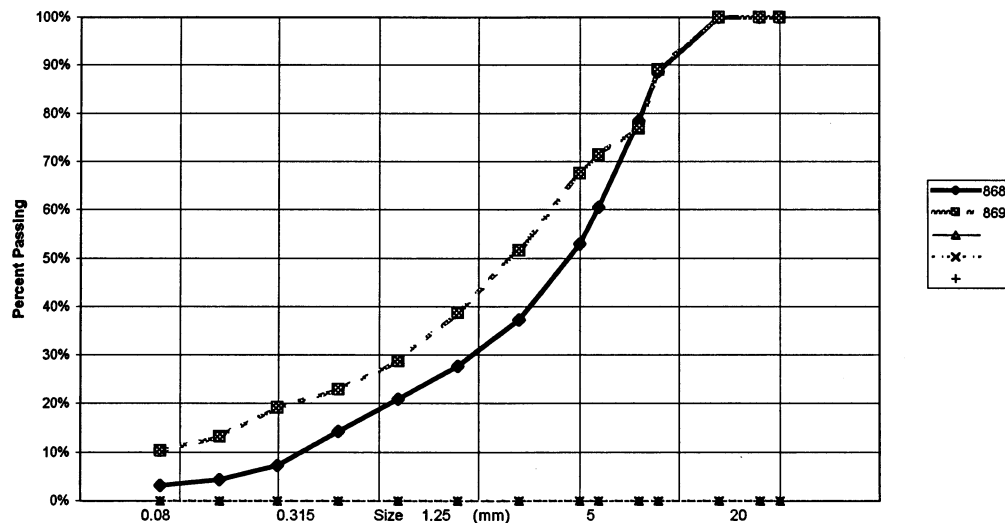
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

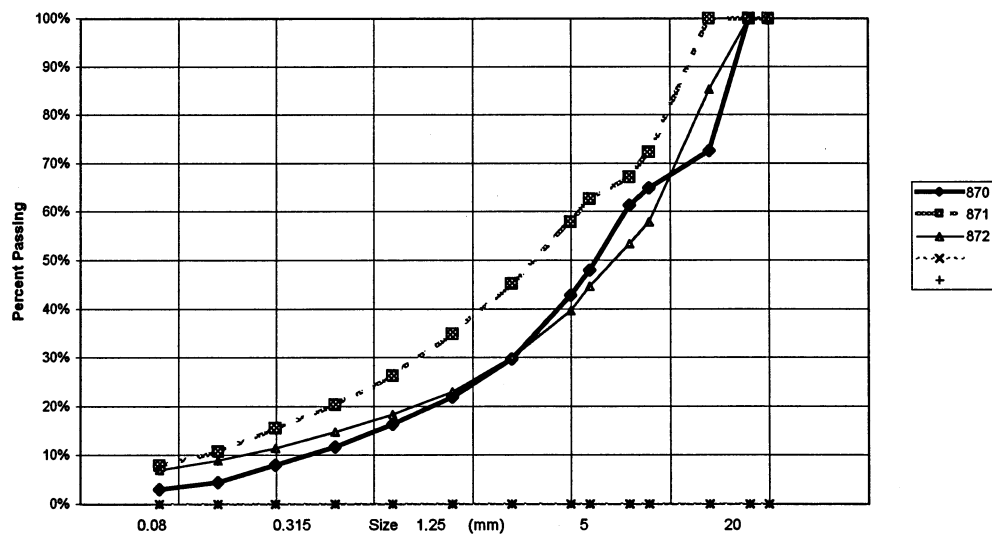
FIELD NO: 868		FIELD No. 869			
LAB NO: 1269		LAB No. 1270			
DEPTH: 1.4-1.6		DEPTH 3.0-3.2			
TYPE: AUGER		A AUGER			
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING		
100.0	100%	100.0	100%		
80.0	100%	80.0	100%		
50.0	100%	50.0	100%		
25.0	89%	25.0	89%		
20.0	79%	20.0	77%		
12.5	61%	12.5	71%		
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)

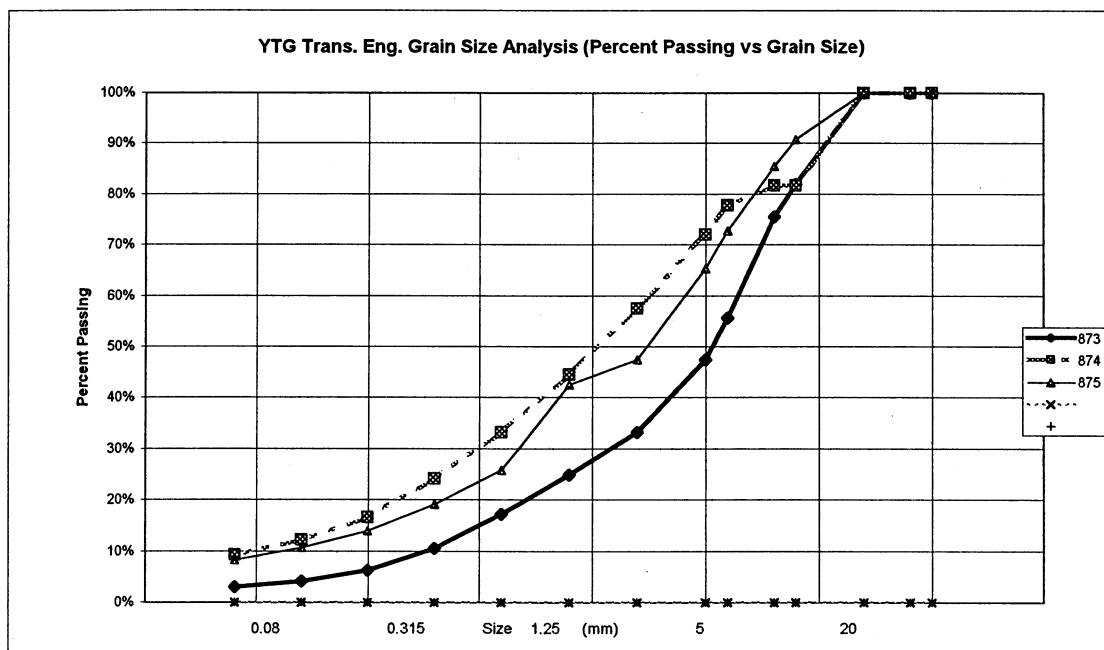


PROJECT NUMBER:		092-202101-0361-1		HOLE No.: 555-1565	
CLIENT:		ENGINEERING-CAPITAL			
PROJECT NAME:		SHAKWAK SEG 11			
PROJECT LOCATION:		KM 1729.6-1787 A/H			
DRILL UNIT:		B-40L 6" AUGER			
LOGGED BY:		D.T.			
HOLE LOCATION:		1763+880 15M LT		DATE COMP: 2000/06/15	
FIELD NO: 870		FIELD No. 871		FIELD 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 PERCENT		SIEVE PERCENT		SIEVE PERCENT	
SIZE PASSING		SIZE PASSING		SIZE 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:		CLASSIFICATION:		CLASSIFICATION:	
WELL-GRADED GRAVEL		POORLY GRADED GRAVEL		WELL-GRADED GRAVEL	
WITH SAND (GW)		WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GW-GM)	

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



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	
LAB NO: 1274		LAB No: 1275	
DEPTH: 1.5-1.7		DEPTH: 2.9-3.1	
TYPE: AUGER		A	AUGER
FIELD No: 875		FIELD No: 875	
LAB No: 1276		LAB No: 1276	
DEPTH: 4.5-4.7		DEPTH: 4.5-4.7	
TYPE: 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%		M.C.(%): 5%	
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: 42	
% SAND: 30		% SAND: 48	
% FINES: 3		% FINES: 9	
% GRAVEL: 52		% GRAVEL: 52	
% SAND: 39		% SAND: 39	
% FINES: 8		% 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)		CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

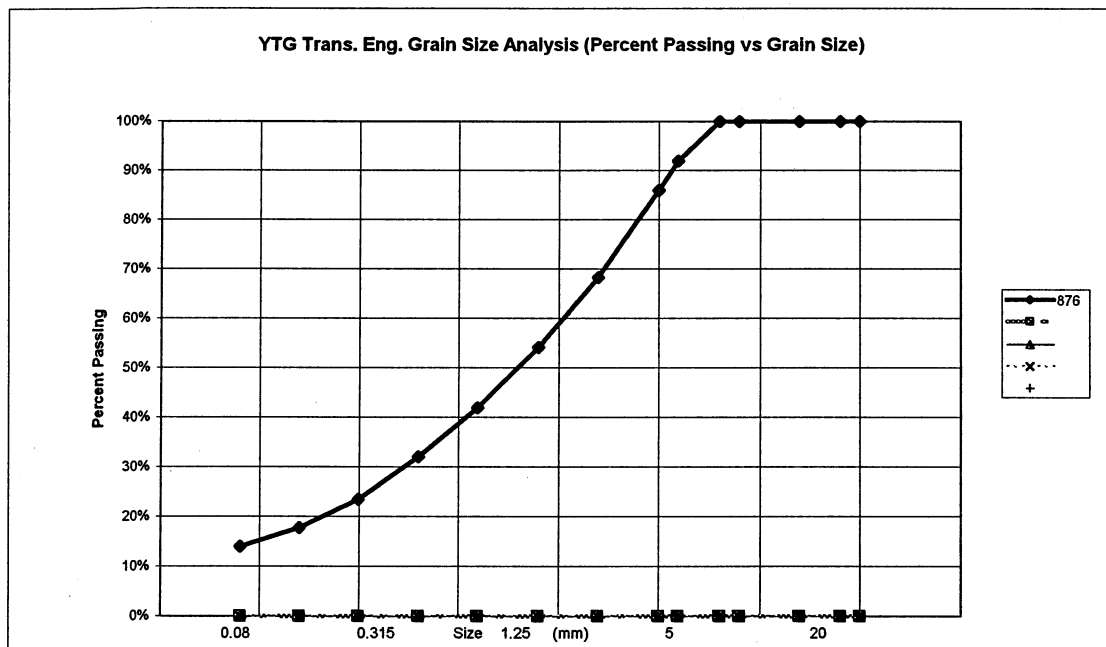


PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1567
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6' AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1764+000 Centreline	DATE COMP:	2000/06/15

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)	

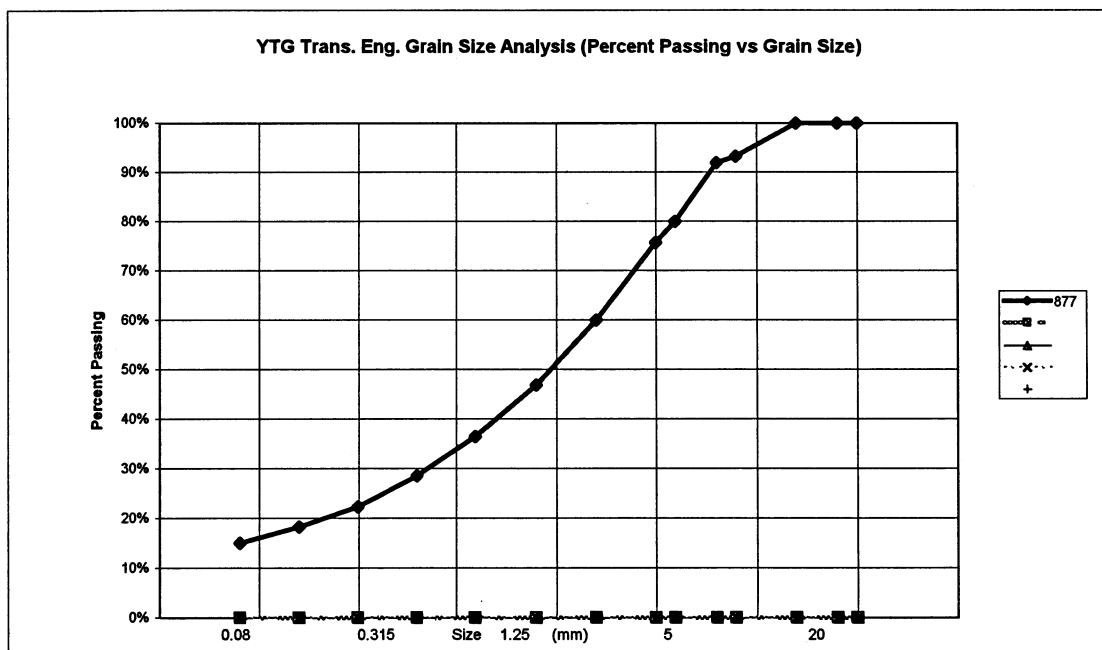


PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1568	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6" AUGER			
LOGGED BY: D.T.			
HOLE LOCATION: 1764+100 CENTRELINE		DATE COMP: 2000/06/16	

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

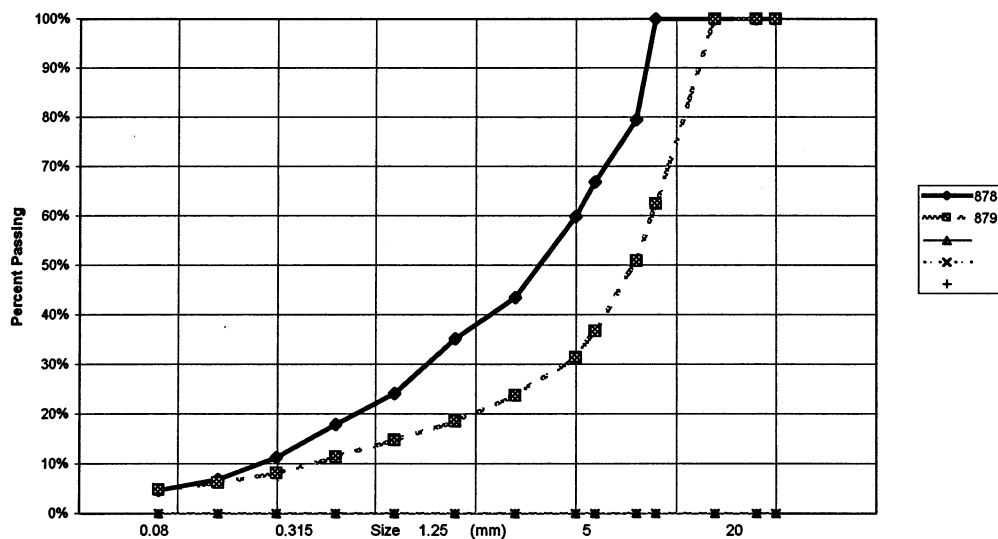
SIEVE SIZE	PERCENT PASSING
100.0	100%
80.0	100%
50.0	100%
25.0	93%
20.0	92%
12.5	80%
10.0	76%
5.0	60%
2.5	47%
1.25	36%
0.630	29%
0.315	22%
0.160	18%
0.080	15%

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)	



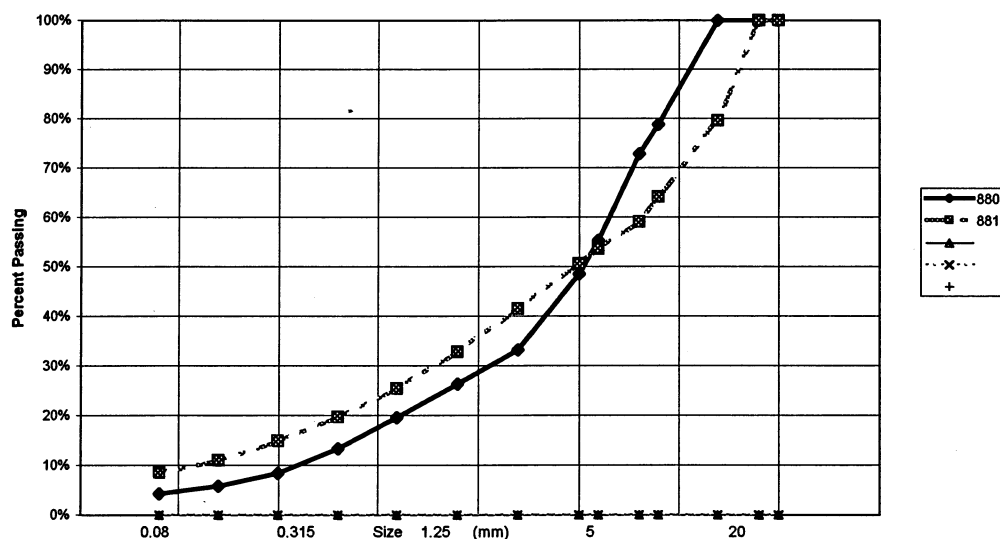
PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1569	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6' AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/16	
HOLE LOCATION: 1764+200 CENTRELINE			
=====		=====	
FIELD NO: 878		FIELD 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: POORLY GRADED GRAVEL WITH SAND (GP)		CLASSIFICATION: WELL-GRADED GRAVEL WITH SAND (GW)	

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



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

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



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1571
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%

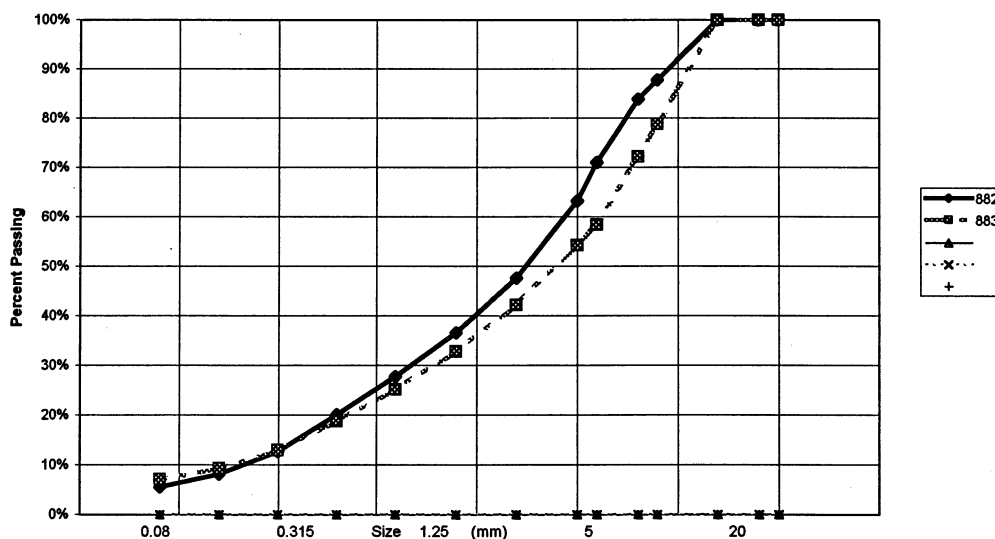
M.C.(%):	2%	M.C.(%):	2%
----------	----	----------	----

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

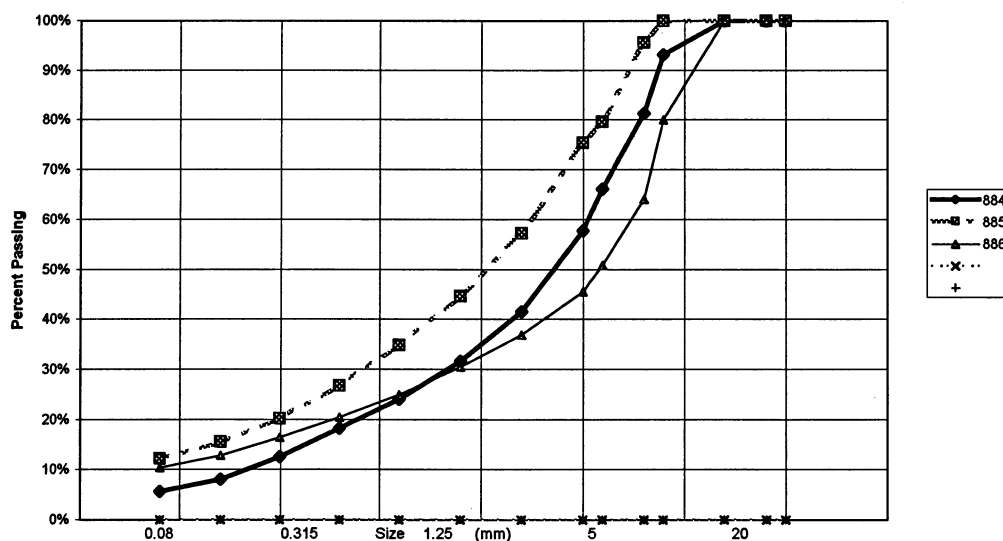
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL		POORLY GRADED GRAVEL	
WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GP-GM)	

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



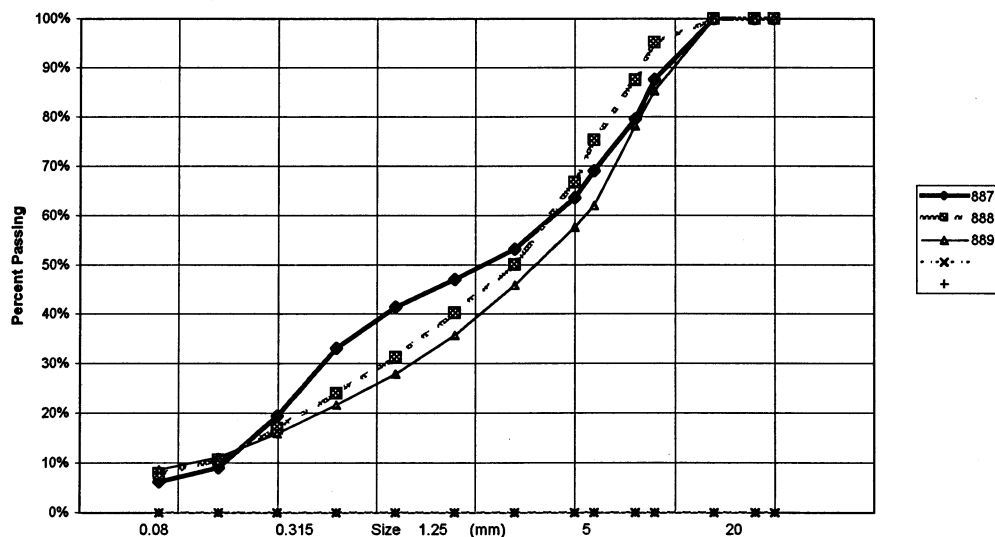
PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1572	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6" AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/16	
HOLE LOCATION: 1764+500 CENTRELINE			
=====		=====	
FIELD No: 884		FIELD No: 885	
LAB No: 1285		LAB No: 1286	
DEPTH: 1.3-1.5		DEPTH: 2.8-3.0	
TYPE: AUGER		TYPE: AUGER	
=====		=====	
FIELD No: 886		FIELD No: 886	
LAB No: 1287		LAB No: 1287	
DEPTH: 4.2-4.4		DEPTH: 4.2-4.4	
TYPE: 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.(%):	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:	58	% GRAVEL:	43
% SAND:	36	% SAND:	45
% FINES:	6	% FINES:	12
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL		SILTY SAND WITH GRAVEL	
WITH SILT & SAND (GP-GM)		(SM)	
CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL		POORLY GRADED GRAVEL	
WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GP-GM)	

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



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1573	
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	
LAB NO: 1288		LAB No: 1289	
DEPTH: 1.3-1.5		DEPTH: 2.9-3.1	
TYPE: AUGER		TYPE: AUGER	
=====		=====	
SIEVE	PERCENT	SIEVE	PERCENT
SIZE	PASSING	SIZE	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%	
LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0
% GRAVEL: 47		% GRAVEL: 50	
% SAND: 47		% SAND: 42	
% FINES: 6		% FINES: 8	
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)	

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



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.		
HOLE LOCATION:	1764+700 CENTRELINE	DATE COMP:	2000/06/16

FIELD NO:	890	FIELD No:	891	FIELD No:	892
LAB NO:	1291	LAB No:	1292	LAB No:	1293
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	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%

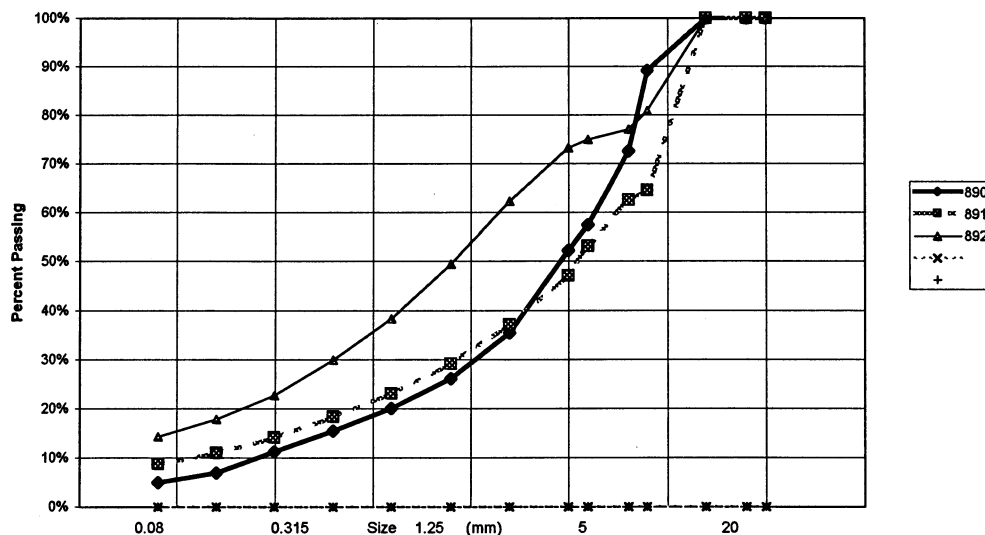
M.C.(%):	2%	M.C.(%):	2%	M.C.(%):	4%
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LIMITS		LIMITS		LIMITS	
LIQUID:	0.0	LIQUID:	0.0	LIQUID:	0.0
PLASTIC:	0.0	PLASTIC:	0.0	PLASTIC:	0.0
P.I.:	0.0	P.I.:	0.0	P.I.:	0.0

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



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1575
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+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%

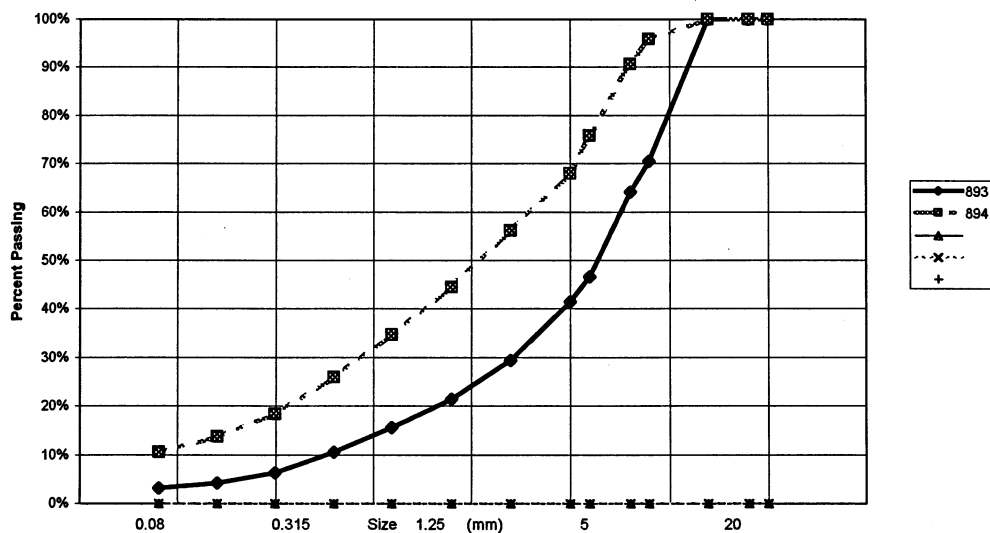
M.C.(%):	2%	M.C.(%):	2%
----------	----	----------	----

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

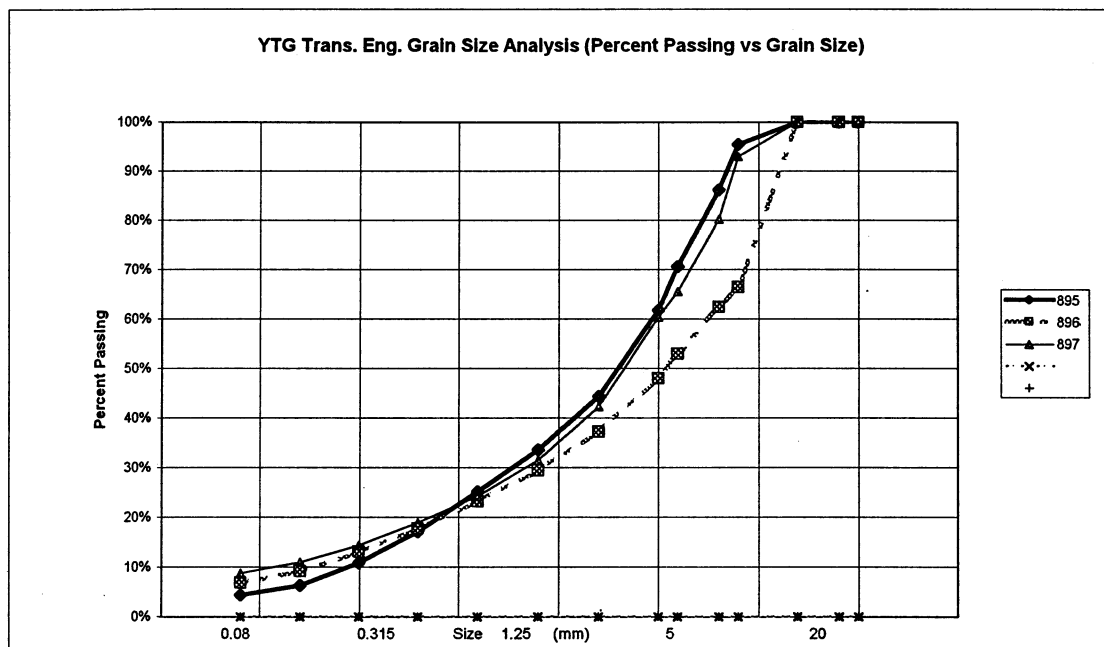
% GRAVEL:	71	% GRAVEL:	44
% SAND:	26	% SAND:	46
% FINES:	3	% FINES:	11

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

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

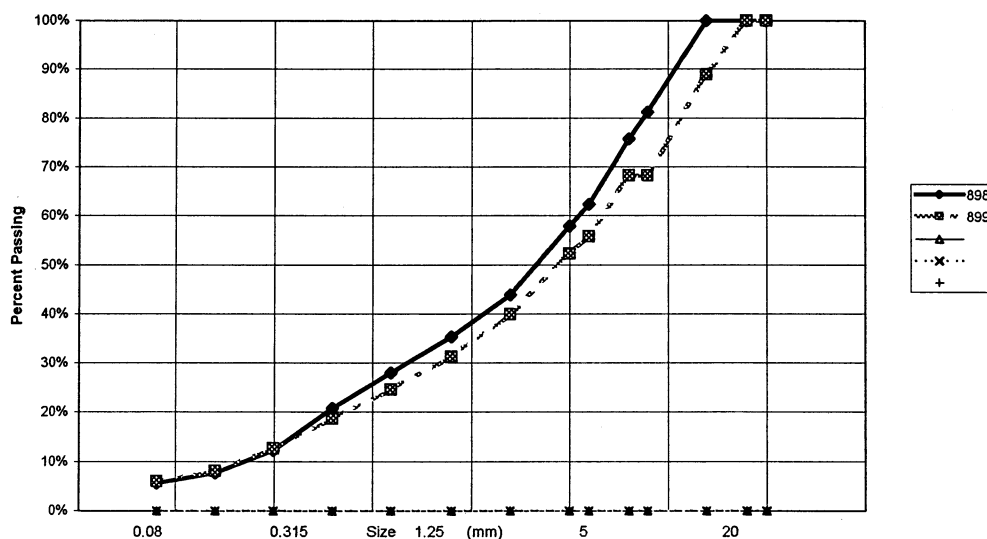


PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 555-1576	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6" AUGER			
LOGGED BY: D.T.		DATE COMP: 2000/06/16	
HOLE LOCATION: 1764+900 CENTRELINE			
=====		=====	
FIELD NO: 895	FIELD No: 896	FIELD No: 897	
LAB NO: 1296	LAB No: 1297	LAB No: 1298	
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
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	95%	25.0	93%
20.0	86%	20.0	80%
12.5	71%	12.5	66%
10.0	62%	10.0	60%
5.0	44%	5.0	42%
2.5	34%	2.5	32%
1.25	25%	1.25	24%
0.630	17%	0.630	19%
0.315	11%	0.315	14%
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: 56		% GRAVEL: 63	
% SAND: 40		% SAND: 34	
% FINES: 4		% 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)	



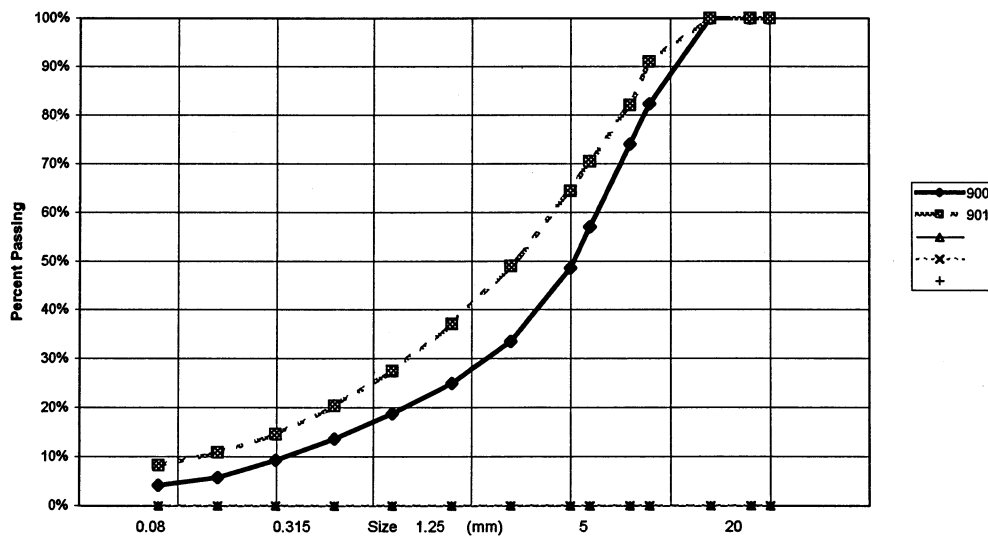
PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	555-1577
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1765+000 CENTRELINE	DATE COMP:	2000/06/16
FIELD NO:	898	FIELD No:	899
LAB NO:	1299	LAB 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:		CLASSIFICATION:	
POORLY GRADED GRAVEL		POORLY GRADED GRAVEL	
WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GP-GM)	

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



PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1578	
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)	

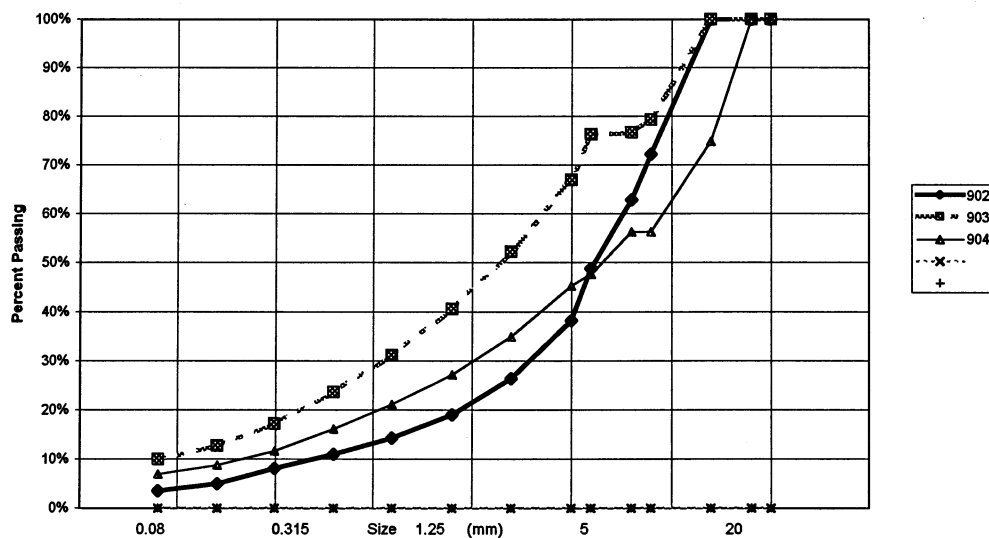
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1765+200 CENTRELINE	DATE COM	2000/06/19

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

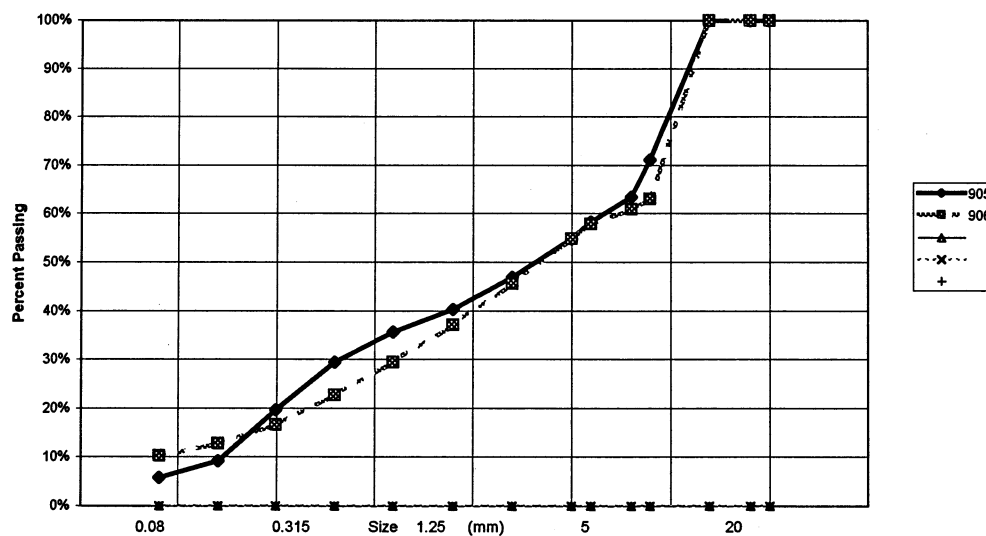
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1580
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.		
HOLE LOCATION:	1765+300 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	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: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

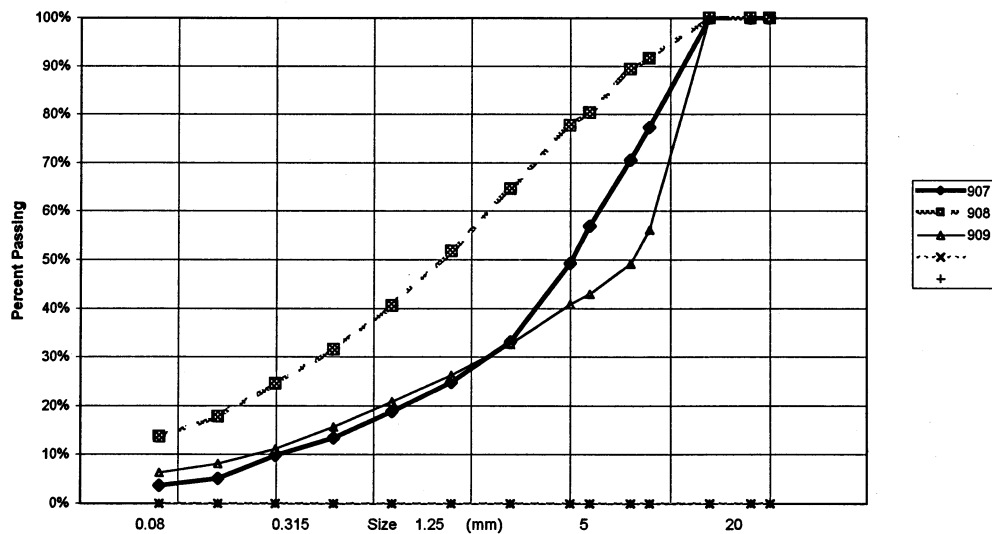
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1581
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

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

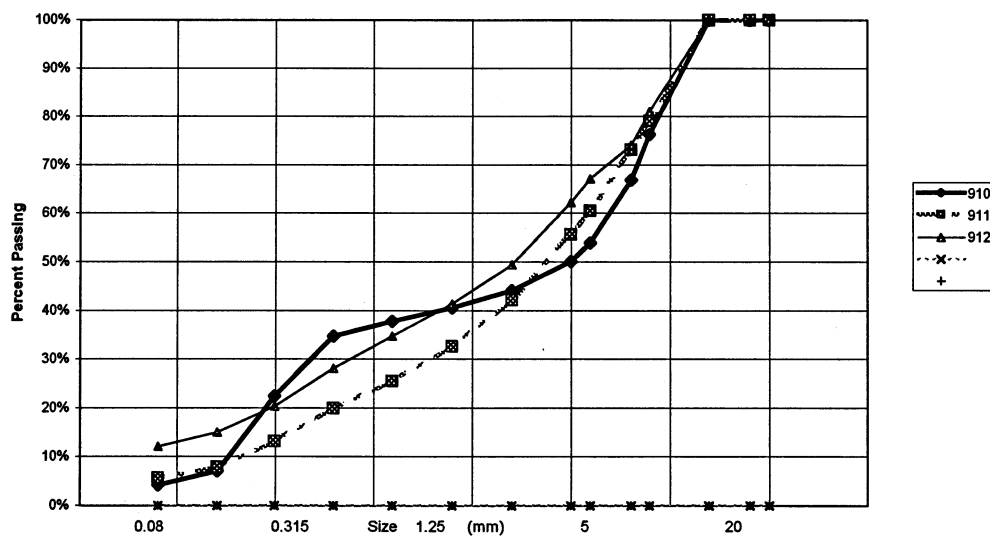
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1582
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

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

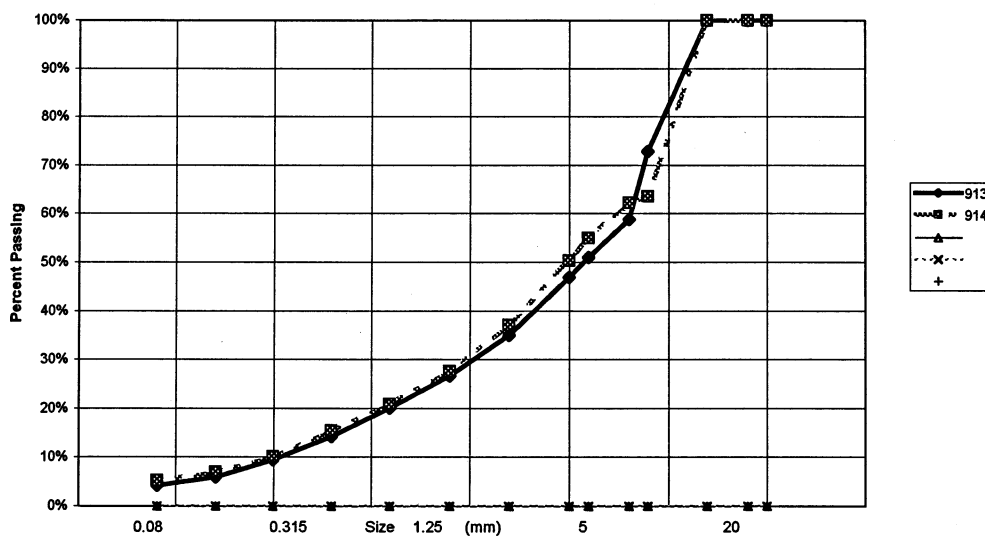
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

FIELD NO: 913		FIELD No. 914			
LAB NO: 1314		LAB No. 1315			
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	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:		CLASSIFICATION:			
POORLY GRADED GRAVEL WITH SAND (GP)		POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

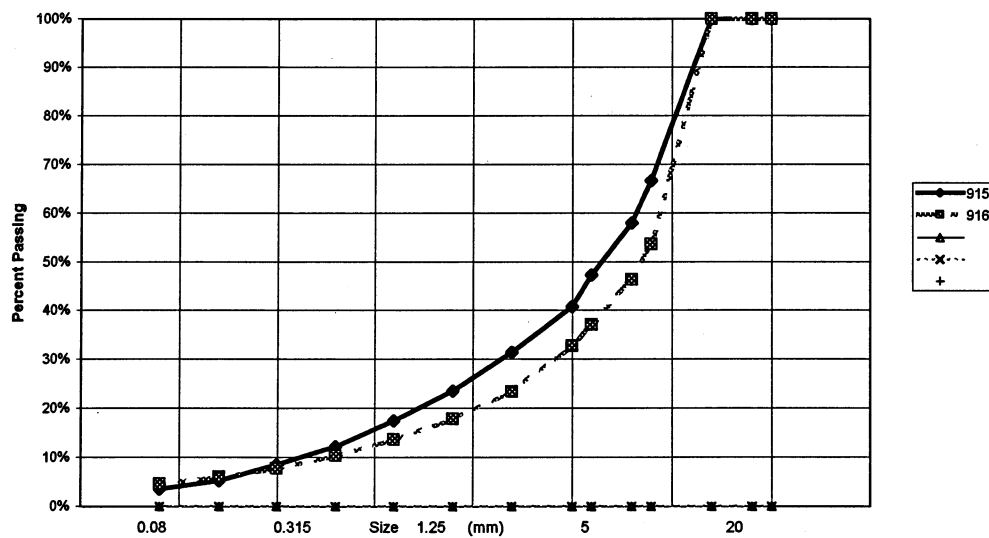
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	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		POORLY GRADED GRAVEL	
WITH SAND (GP)		WITH SAND (GP)	

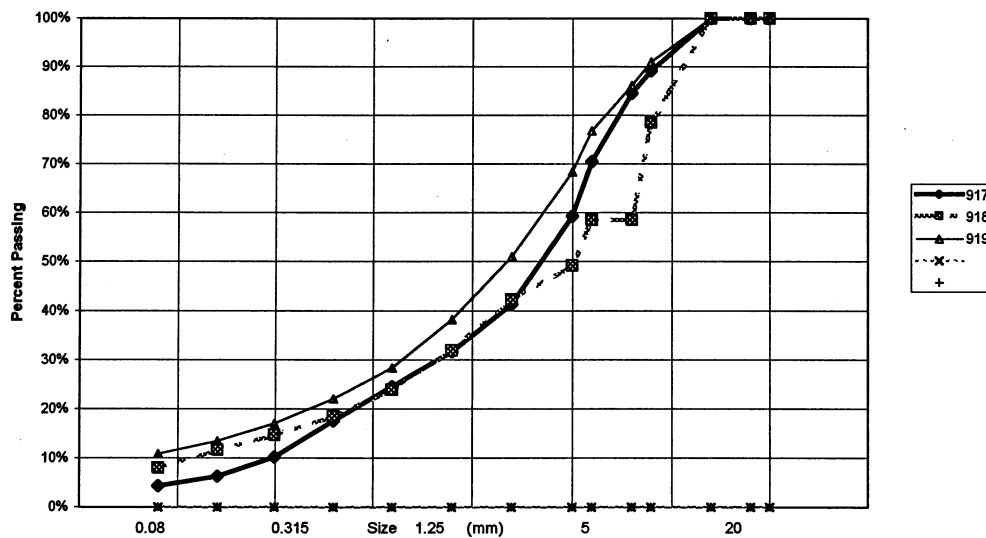
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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 LAB No: 1318 DEPTH: 1.5-1.7 TYPE: AUGER	FIELD No: 918 LAB No: 1319 DEPTH: 2.9-3.1 A AUGER	FIELD No: 919 LAB No: 1320 DEPTH: 4.5-4.7 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	79%
20.0	85%	20.0	59%
12.5	71%	12.5	59%
10.0	59%	10.0	49%
5.0	41%	5.0	42%
2.5	32%	2.5	32%
1.25	25%	1.25	24%
0.630	18%	0.630	19%
0.315	10%	0.315	15%
0.160	6%	0.160	12%
0.080	4%	0.080	8%
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: POORLY GRADED GRAVEL WITH SAND (GP)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	

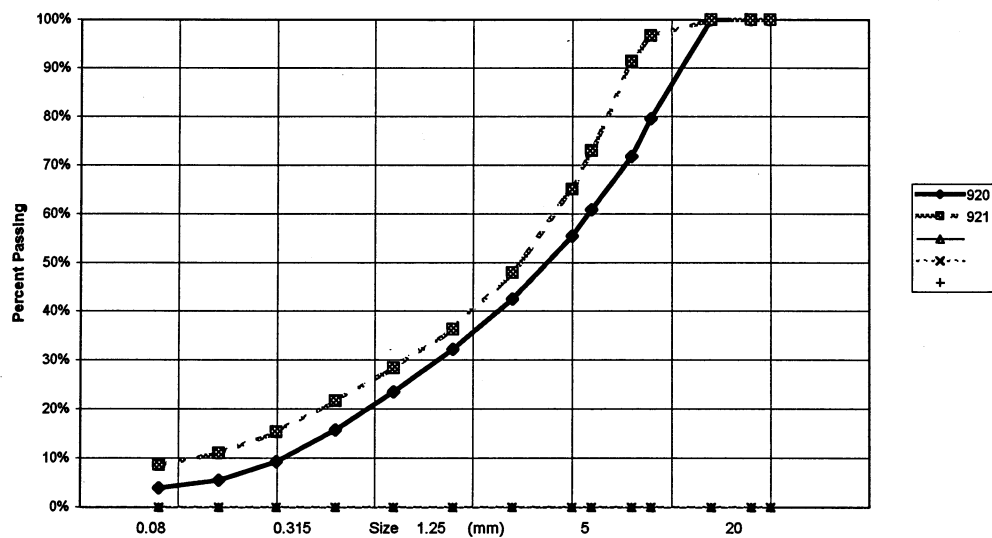
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1586
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.		
HOLE LOCATION:	1765+900 CENTRELINE	DATE COM	2000/06/19

FIELD NO: 920 LAB NO: 1321 DEPTH: 1.3-1.5 TYPE: AUGER		FIELD No. 921 LAB No. 1322 DEPTH: 2.8-3.0 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: POORLY GRADED GRAVEL WITH SAND (GP)		CLASSIFICATION: POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

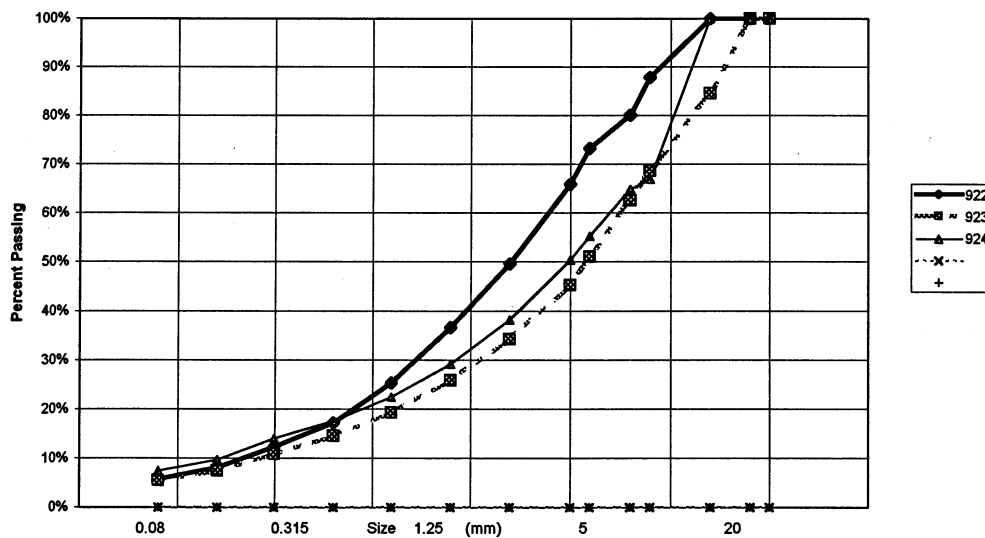
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1587
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		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:		CLASSIFICATION:		CLASSIFICATION:	
POORLY GRADED GRAVEL		POORLY GRADED GRAVEL		POORLY GRADED GRAVEL	
WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GP-GM)		WITH SILT & SAND (GP-GM)	

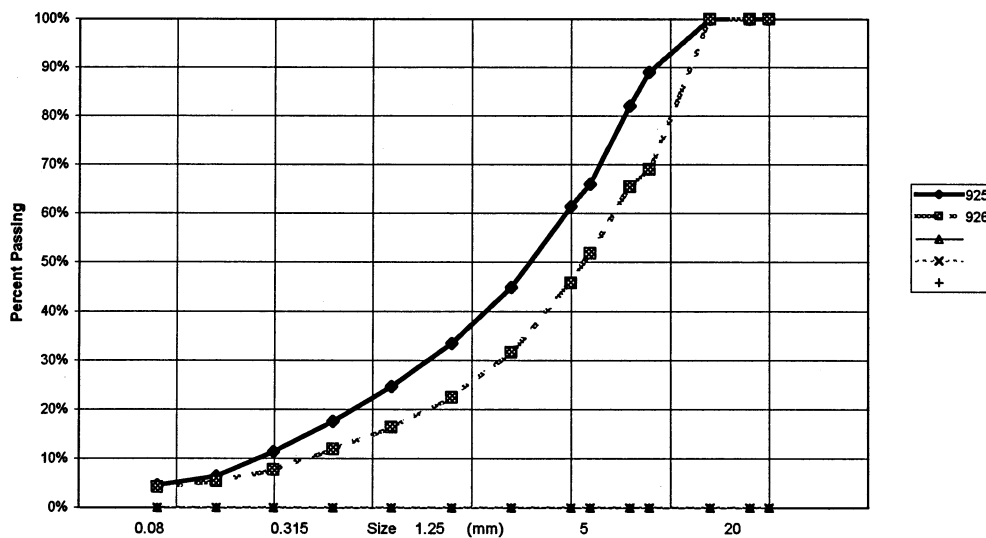
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

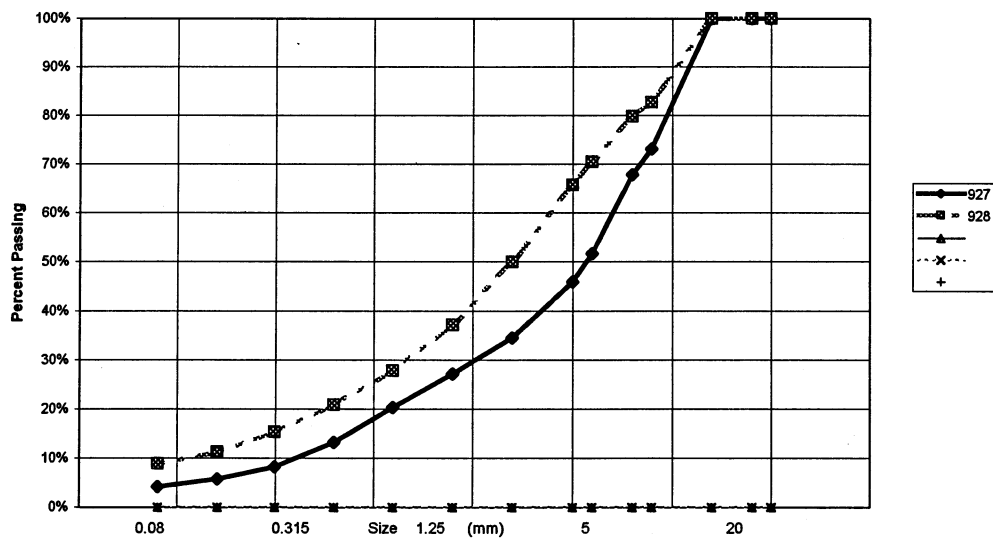
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1766+200 CENTRELINE	DATE COM	2000/06/20

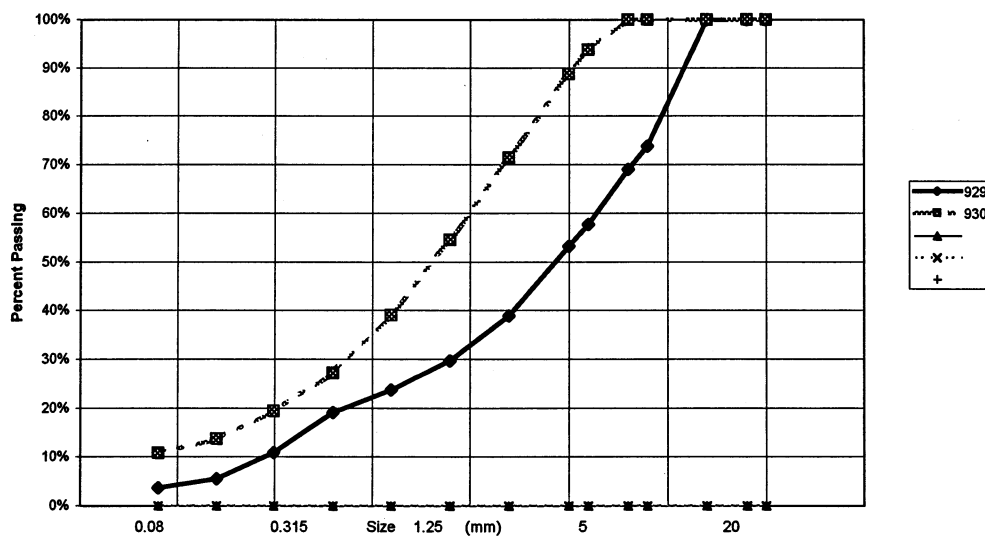
FIELD NO: 927		FIELD No. 928	
LAB NO: 1328		LAB No. 1329	
DEPTH: 1.4-1.6		DEPTH 3.3-3.5	
TYPE: AUGER		A AUGER	
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	73%	25.0	83%
20.0	68%	20.0	80%
12.5	52%	12.5	71%
10.0	46%	10.0	66%
5.0	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)	

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



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)	

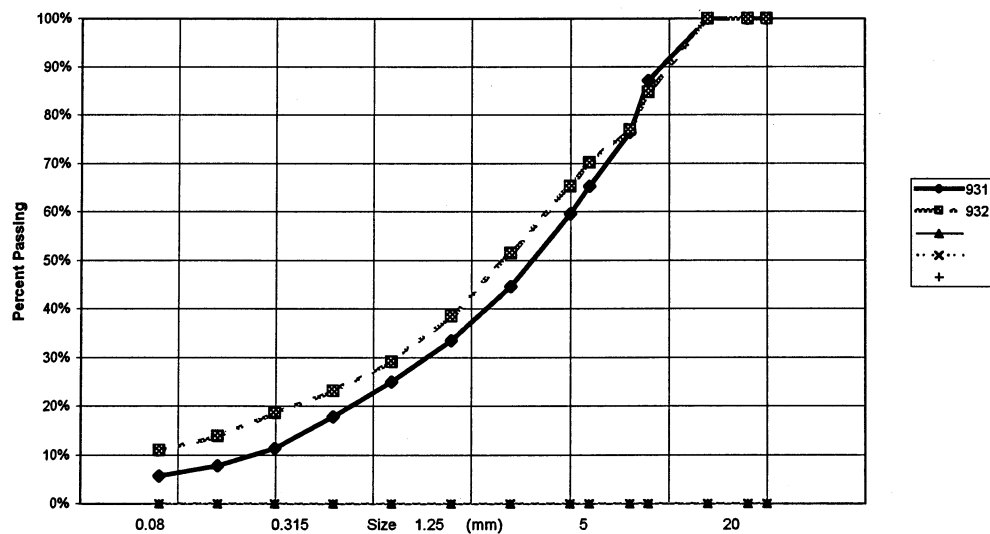
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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.		
HOLE LOCATION:	1766+600 CENTRELINE	DATE COM	2000/06/20

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

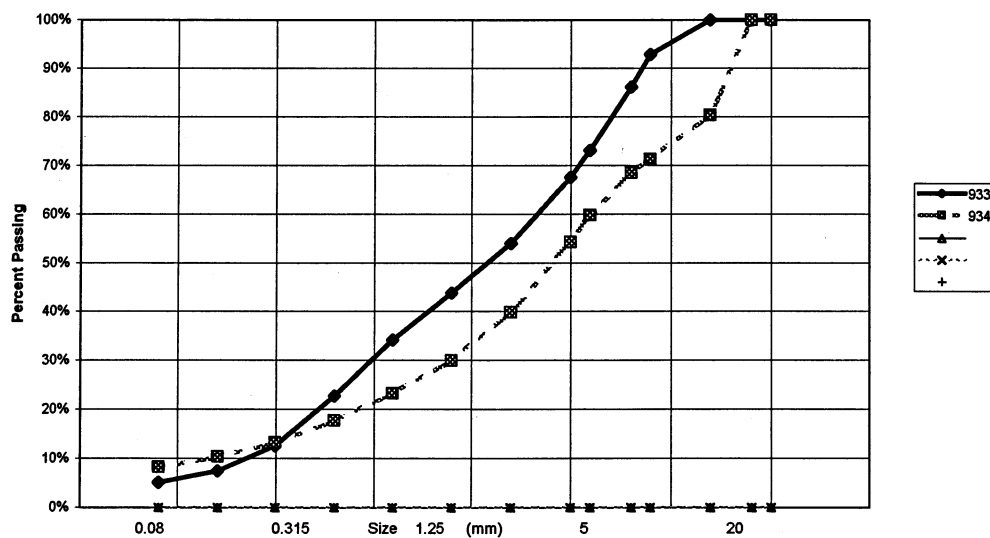
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1592
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		

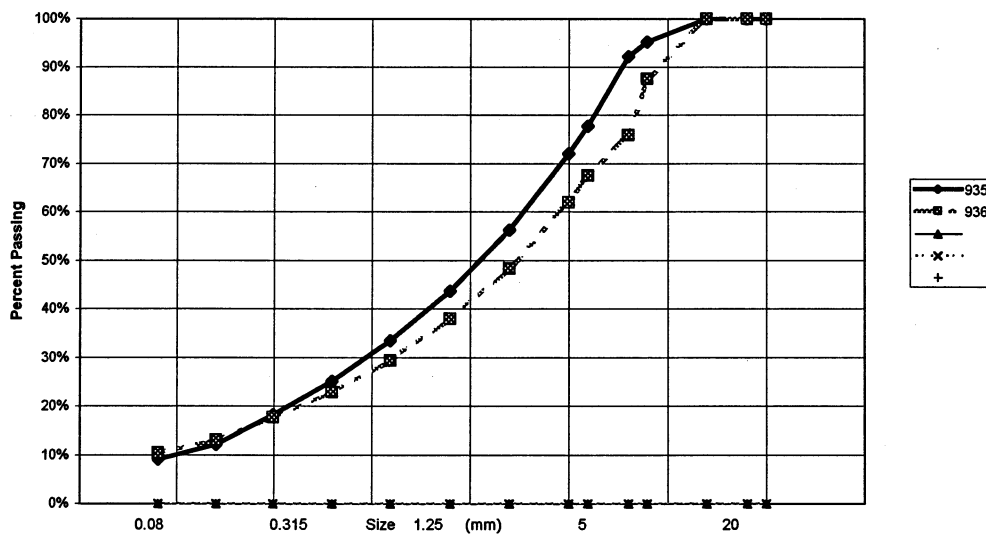
SIEVE SIZE	PERCENT PASSING	SIEVE SIZE	PERCENT PASSING
100.0	100%	100.0	100%
80.0	100%	80.0	100%
50.0	100%	50.0	100%
25.0	95%	25.0	88%
20.0	92%	20.0	76%
12.5	78%	12.5	68%
10.0	72%	10.0	62%
5.0	56%	5.0	48%
2.5	44%	2.5	38%
1.25	33%	1.25	29%
0.630	25%	0.630	23%
0.315	18%	0.315	18%
0.160	12%	0.160	13%
0.080	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:	CLASSIFICATION:
WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)

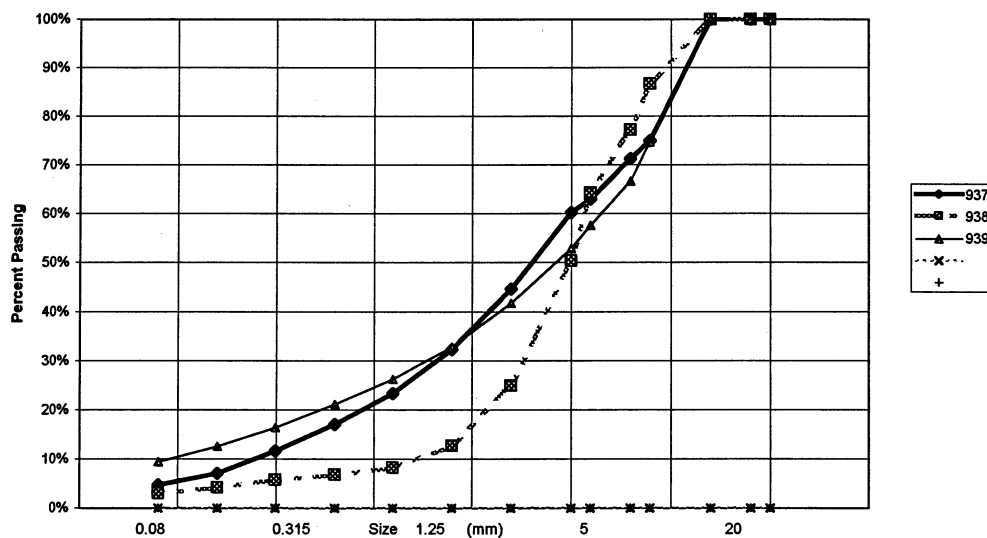
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

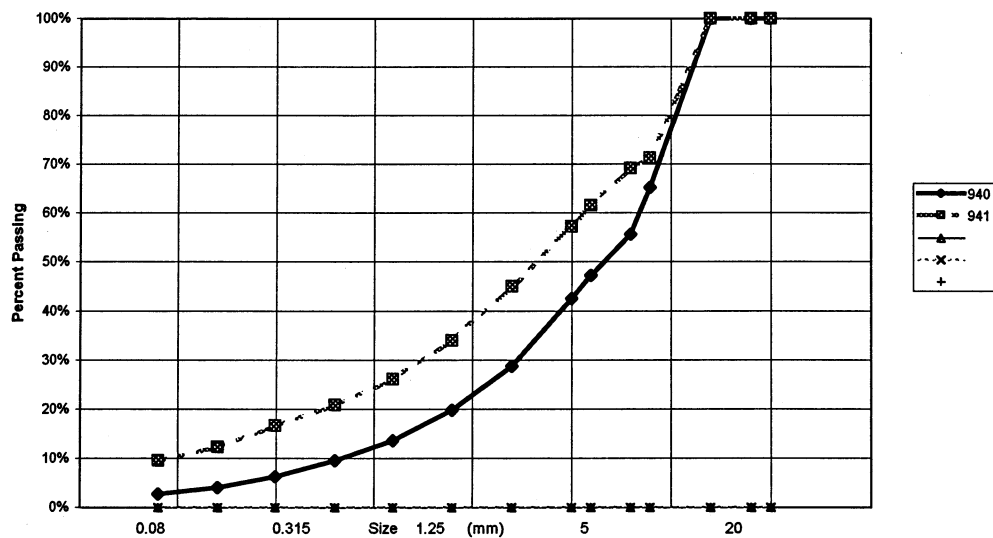
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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

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)	

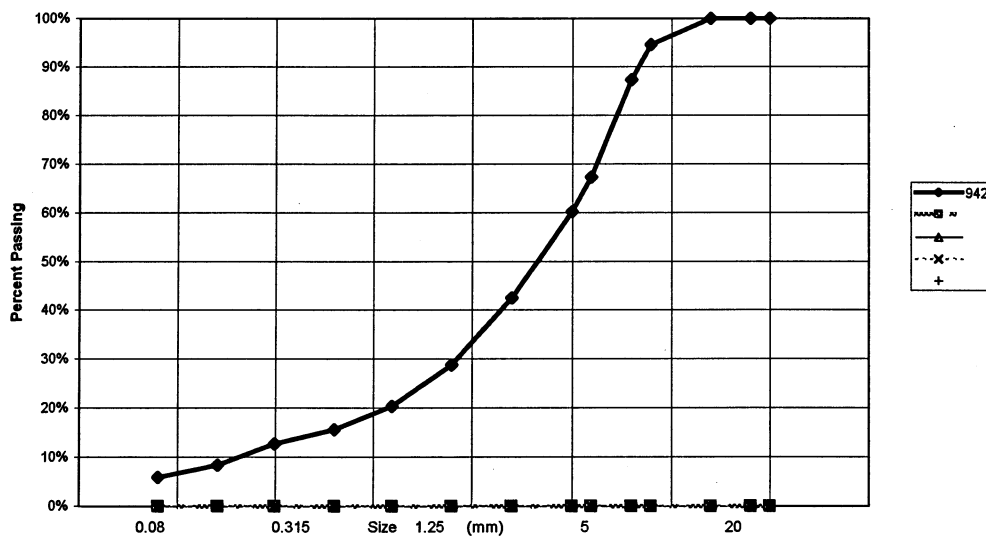
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



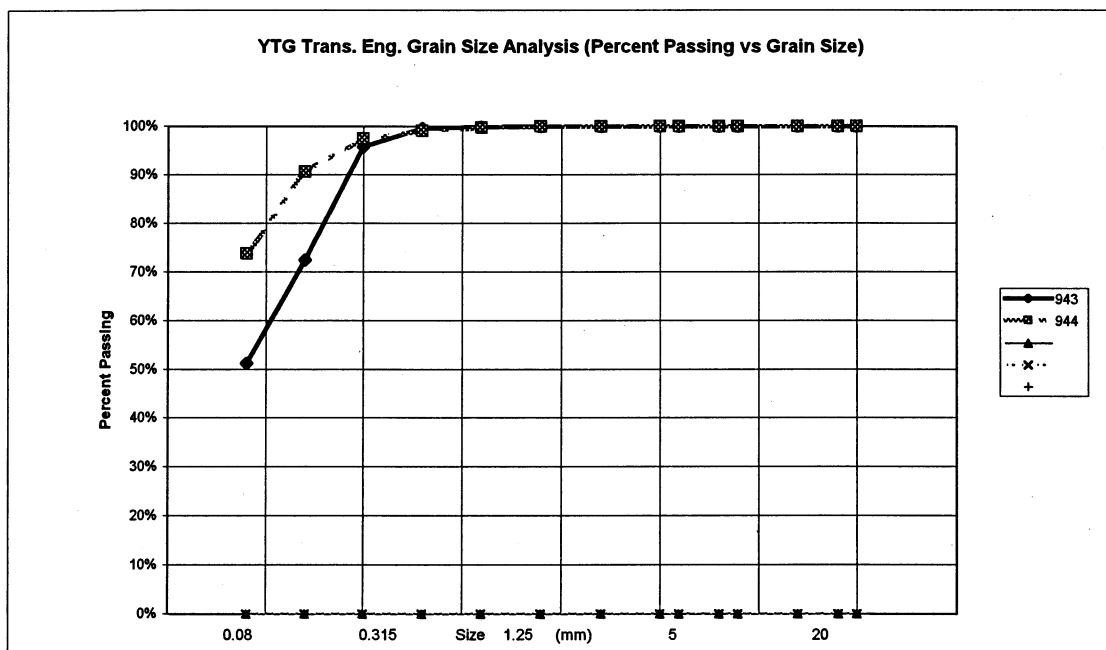
PROJECT NUMBER:	092-202101-0361-1	HOLE No.:	556-1596
CLIENT:	ENGINEERING-CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	KM 1729.6-1787 A/H		
DRILL UNIT:	B-40L 6" AUGER		
LOGGED BY:	D.T.		
HOLE LOCATION:	1767+100 CENTRELINE	DATE COM	2000/06/21

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)				

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



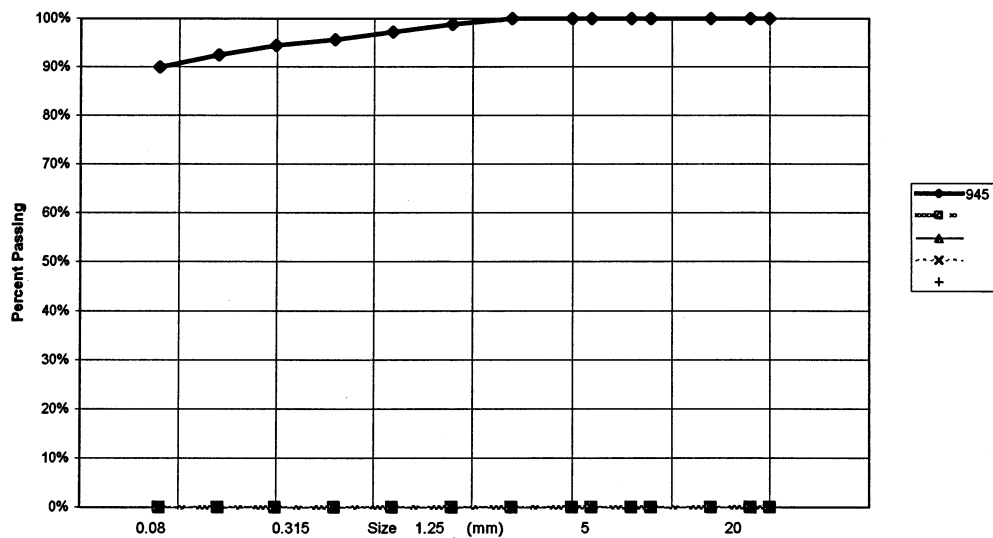
PROJECT NUMBER: 092-202101-0361-1		HOLE No.: 556-1597	
CLIENT: ENGINEERING-CAPITAL			
PROJECT NAME: SHAKWAK SEG 11			
PROJECT LOCATION: KM 1729.6-1787 A/H			
DRILL UNIT: B-40L 6" AUGER			
LOGGED BY: D.T.		DATE COM 2000/06/21	
HOLE LOCATION: 1767+200 CENTRELINE			
=====		=====	
FIELD NO: 943		FIELD No. 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

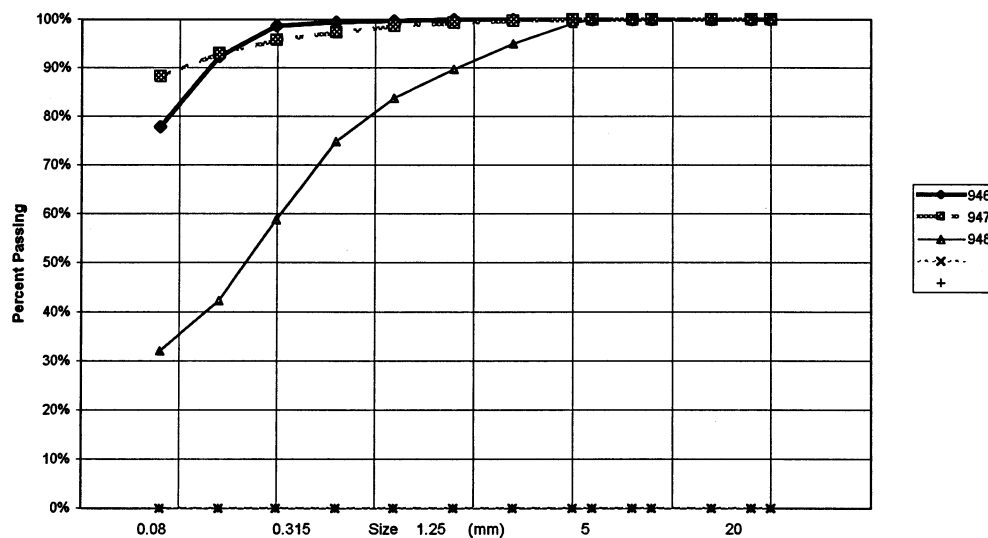
FIELD NO: 945 LAB NO: 1346 DEPTH: 1.5-1.7 TYPE: AUGER				
SIEVE SIZE	PERCENT PASSING			
100.0	100%			
80.0	100%			
50.0	100%			
25.0	100%			
20.0	100%			
12.5	100%			
10.0	100%			
5.0	100%			
2.5	99%			
1.25	97%			
0.630	96%			
0.315	95%			
0.160	92%			
0.080	90%			
M.C.(%):	66%			
LIMITS				
LIQUID:	0.0			
PLASTIC:	0.0			
P.I.:	0.0			
% GRAVEL	0			
% SAND:	10			
% FINES:	90			
CLASSIFICATION:				
SILT (ML)				

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



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
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	99%
5.0	100%	5.0	95%
2.5	100%	2.5	90%
1.25	100%	1.25	84%
0.630	99%	0.630	75%
0.315	99%	0.315	59%
0.160	92%	0.160	42%
0.080	78%	0.080	32%
M.C.(%): 30%		M.C.(%): 17%	
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 5	
% SAND: 22		% SAND: 63	
% FINES: 78		% FINES: 32	
CLASSIFICATION: SILT WITH SAND (ML)		CLASSIFICATION: SILTY SAND (SM)	

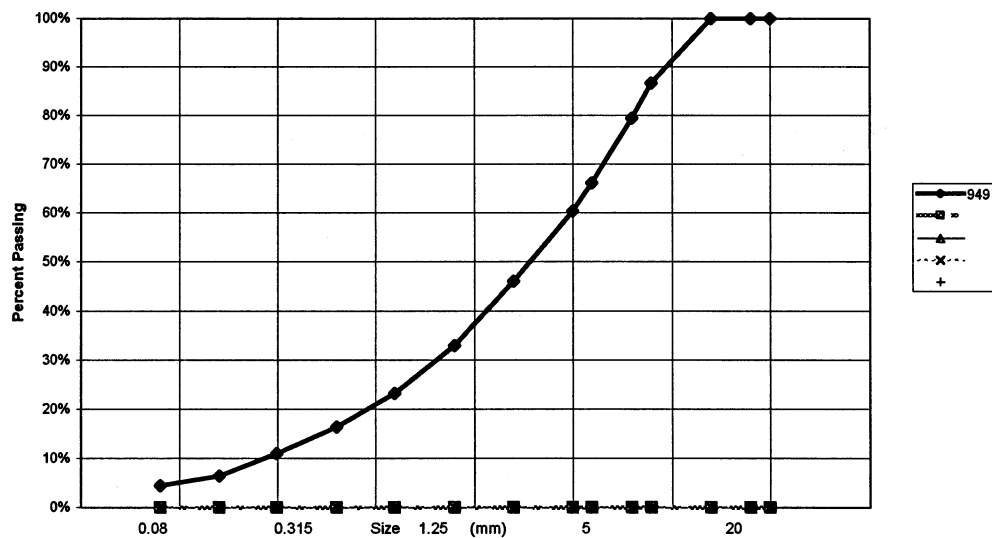
YTG Trans. Eng. Grain Size Analysis (Percent Passing vs Grain Size)



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)				

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



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

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)

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

