GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1775.6 to 1786.8 Alaska Highway #1
Yukon, 2002-2003
Volume 1 of 4

Yukon
Community and Transportation Services
Transportation Engineering Branch

Geotechnical Services

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

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GR-01-084

Highway Construction
Km 1775.6 to 1786.8
Alaska Highway #1
Yukon 2002-2003
Volume 1 of 4

This Data Package prepared for project viewing:

January, 2002

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

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Volume 1 of 4

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 1775+500 and increasing to Km 1786+500.

2001	TEST HOLES 117 to 121	shown with prefix 600-
	TEST HOLES 122 to 146	shown with prefix 601-
	TEST HOLES 147 to 159	shown with prefix 602-
	TEST HOLES 160 to 182	shown with prefix 604-
	TEST HOLES 183 to 207	shown with prefix 605-
	TEST HOLES 208 to 228	shown with prefix 606-
	TEST HOLES 242 to 265	shown with prefix 607-
	TEST HOLES 226 to 286	shown with prefix 608-
	TEST HOLES 1687 to 1698	shown with prefix 629-

NOTE:

Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 2 of 4

CENTRELINE TESTING ALASKA HIGHWAY

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 600-117 and increasing to 629-1698.

2001	TEST HOLES 117 to 121	shown with prefix 600-
	TEST HOLES 122 to 146	shown with prefix 601-
	TEST HOLES 147 to 159	shown with prefix 602-
	TEST HOLES 160 to 182	shown with prefix 604-
	TEST HOLES 183 to 207	shown with prefix 605-
	TEST HOLES 208 to 228	shown with prefix 606-
	TEST HOLES 242 to 265	shown with prefix 607-
	TEST HOLES 226 to 286	shown with prefix 608-
	TEST HOLES 1687 to 1698	shown with prefix 629-

NOTE:

Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 3 of 4

GRANULAR SOURCE Km 1776 LHS ALASKA HIGHWAY

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

Backhoe Testing

1988	TEST PITS 1 to 11	shown with prefix 033-
2001	TEST PITS 1-45	shown with prefix 610-

BORROW SOURCE Km 1777.5 RHS ALASKA HIGHWAY

Subsurface exploration and testing report sheets are provided.

Auger Testing

2001	TEST HOLES 1672 to 1679	shown with prefix 629-

CONTENTS (continued)

Volume 4 of 4

BORROW SOURCE Km 1779.5 RHS ALASKA HIGHWAY

Subsurface exploration and testing report sheets are provided.

Auger Testing

2001	TEST HOLES 229 to 232	shown with prefix 606-
2001	TEST HOLES 233 to 241	shown with prefix 607-
2001	TEST HOLES 1680 to 1686	shown with prefix 629-

GRANULAR SOURCE Km 1786 – 4 kms LHS ALASKA HIGHWAY

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

Backhoe Testing

1998	TEST PITS 203 to 226	shown with prefix 497-
2001	TEST PITS 1-26	shown with prefix 609-

INTRODUCTION

GEOTECHNICAL INVESTIGATION DATA

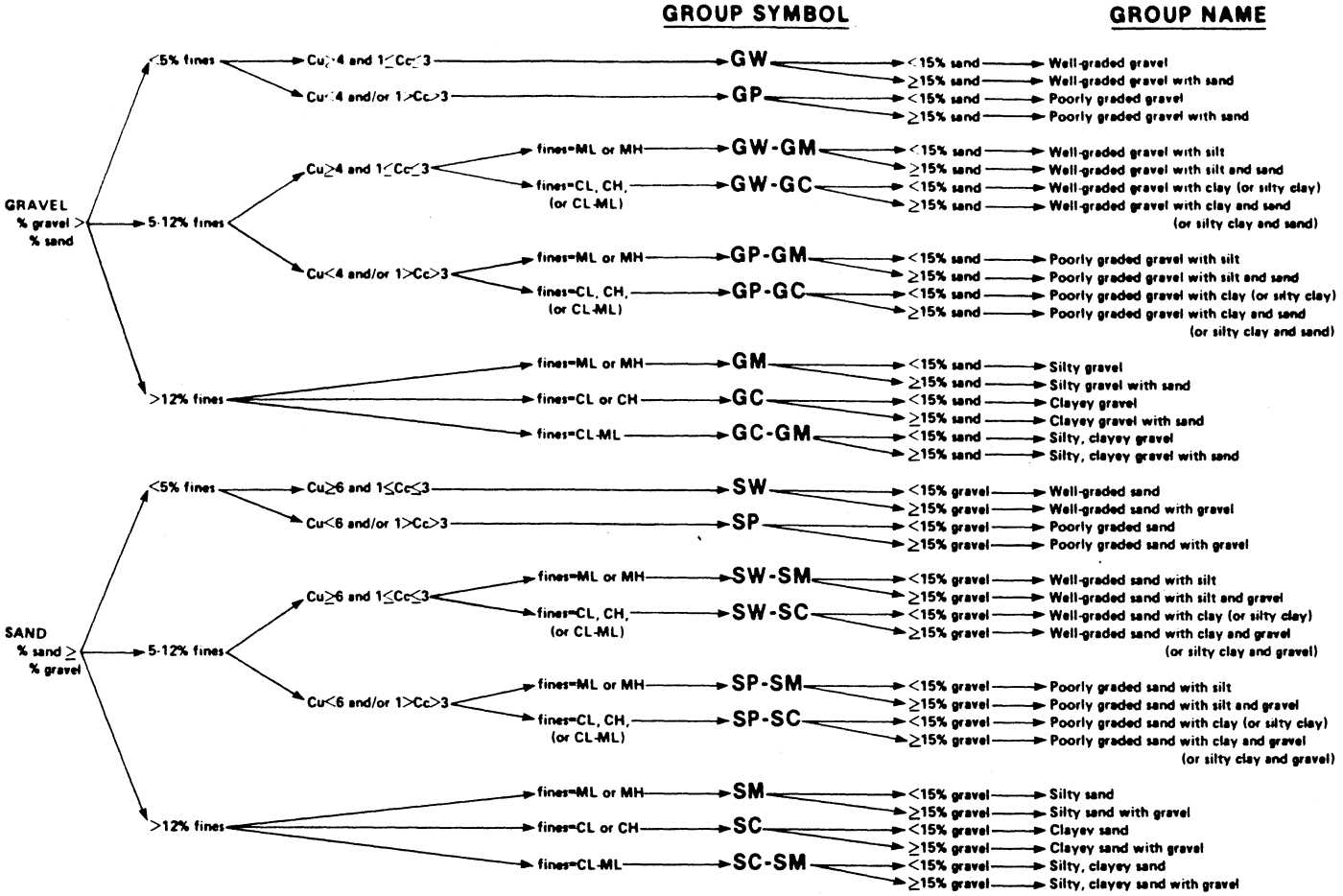
This geotechnical investigation data is provided to assist in the interpretation of soil conditions encountered within this project area. The data presented was prepared solely for Departmental designing and estimating purposes.

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.

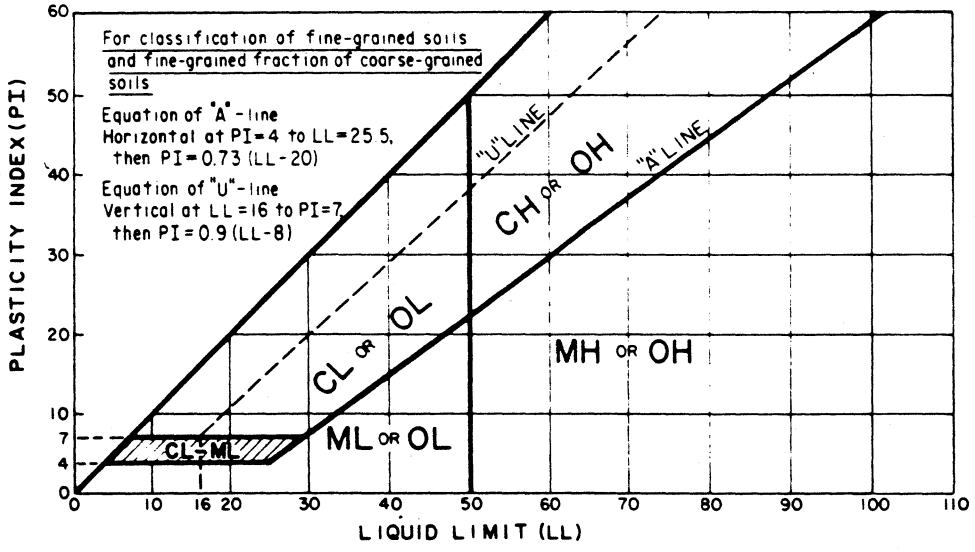
The sample identification and laboratory testing data is provided to give detailed physical properties of selected retrieved samples within the subsurface profile. ***These tests may be conducted on disturbed samples and may exhibit properties different from the native materials. The sample classification 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.

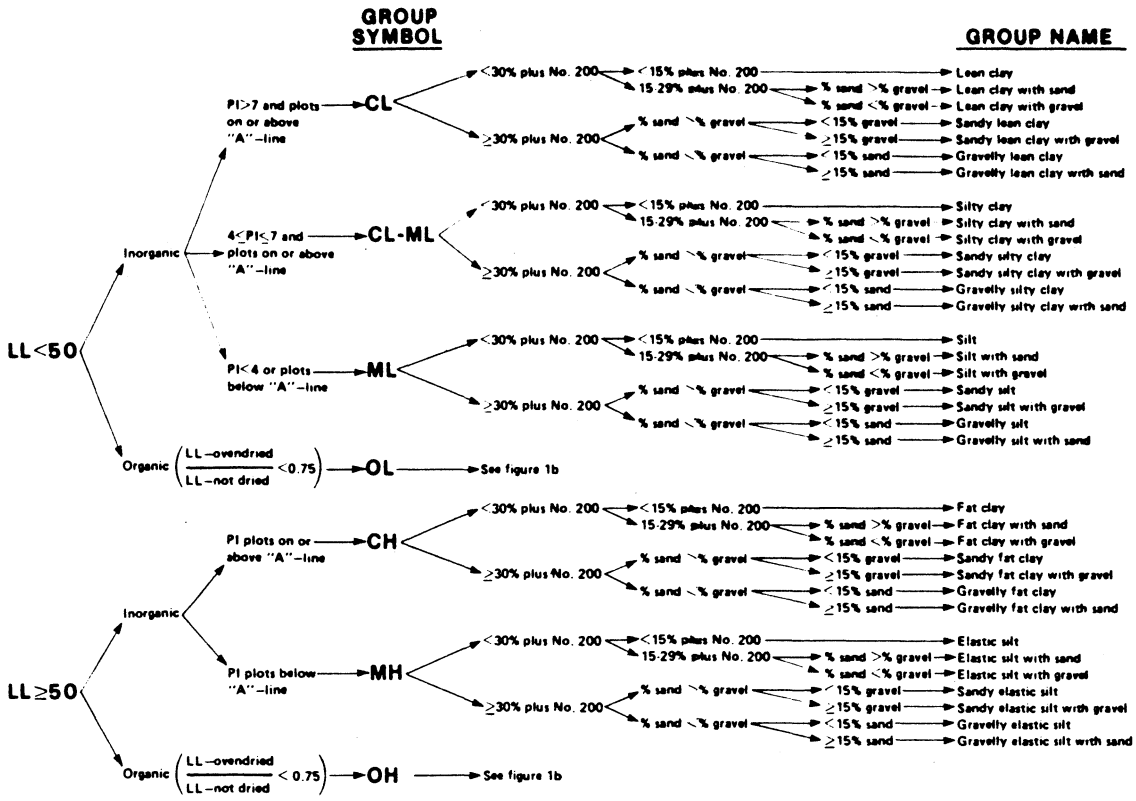
It is recommended that a site inspection, combined with consideration of the regional geology and climatic conditions be conducted. An evaluation of the investigation methods and development work done since the time of investigation should be done prior to interpreting the subsurface conditions at the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



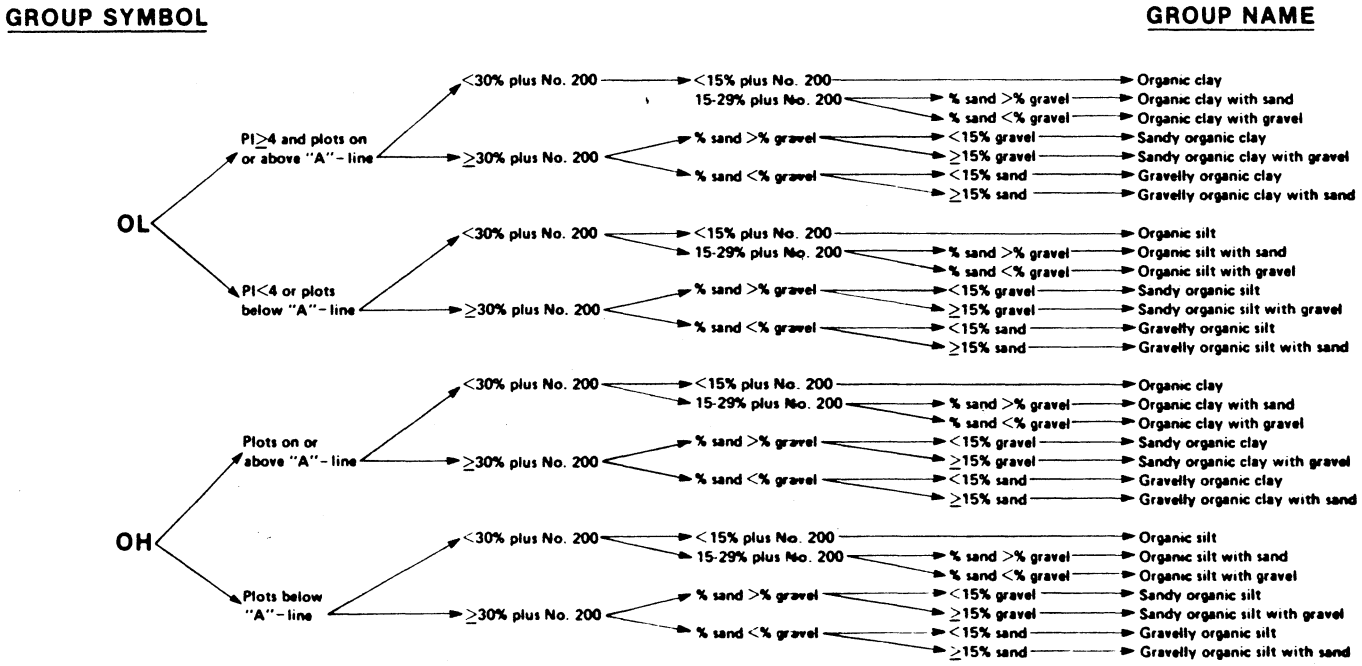
Flow chart for classifying coarse-grained soil.



Plasticity chart.



Flow chart for classifying fine-grained soil.



Flow chart for classifying organic soil.

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS [a]				SOIL CLASSIFICATION	
				GROUP SYMBOL	GROUP NAME [b]
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines [c]	$C_u \geq 4$ and $1 \leq C_c \leq 3$ [e]	GW	Well-graded gravel [f]
			$C_u < 4$ and/or $1 > C_c > 3$ [e]	GP	Poorly graded gravel [f]
		GRAVELS WITH FINES More than 12% fines [c]	Fines classify as ML or MH	GM	Silty gravel [f,g,h]
			Fines classify as CL or CH	GC	Clayey gravel [f,g,h]
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS Less than 5% fines [d]	$C_u \geq 6$ and $1 \leq C_c \leq 3$ [e]	SW	Well-graded sand [i]
			$C_u < 6$ and/or $1 > C_c > 3$ [e]	SP	Poorly graded sand [i]
		SANDS WITH FINES More than 12% fines [d]	Fines classify as ML or MH	SM	Silty sand [g,h,i]
			Fines classify as CL or CH	SC	Clayey sand [g,h,i]
FINE-GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50%	inorganic	PI > 7 and plots on or above "A" line [j]	CL	Lean clay [k,l,m]
			PI < 4 or plots below "A" line [j]	ML	Silt [k,l,m]
		organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OL	Organic clay [k, l, m, n] Organic silt [k, l, m, o]
	SILTS AND CLAYS Liquid limit 50% or more	inorganic	PI plots on or above "A" line	CH	Fat clay [k,l,m]
			PI plots below "A" line	MH	Elastic silt [k,l,m]
		organic	Liquid limit - oven dried / Liquid limit - not dried < 0.75	OH	Organic clay [k, l, m, p] Organic silt [k, l, m, q]
Highly organic soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

a. Based on the material passing the 3-in (75-mm) sieve.
b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name.
c. Gravels with 5 to 12% fines require dual symbols
   GW-GM well graded gravel with silt
   GW-GC well graded gravel with clay
   GP-GM poorly graded gravel with silt
   GP-GC poorly graded gravel with clay
d. Sands with 5 to 12% fines require dual symbols
   SW-SM well graded sand with silt
   SW-SC well graded sand with clay
   SP-SM poorly graded sand with silt
   SP-SC poorly graded sand with clay
e. $C_u = D_{60}/D_{10}$ $\quad C_c = \dfrac{(D_{30})^2}{D_{10} \times D_{60}}$
f. If soil contains $\geq$ 15% sand, add "with sand" to group name.
g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM.
h. If fines are organic, add "with organic fines" to group name.
i. If soil contains $\geq$ 15% gravel, add "with gravel" to group name.
j. If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
k. If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
l. If soil contains $\geq$ 30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soil contains $\geq$ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
n. PI $\geq$ 4 and plots on or above "A" line.
o. PI $<$ 4 or plots below "A" line.
p. PI plots on or above "A" line.
q. PI plots below "A" line.

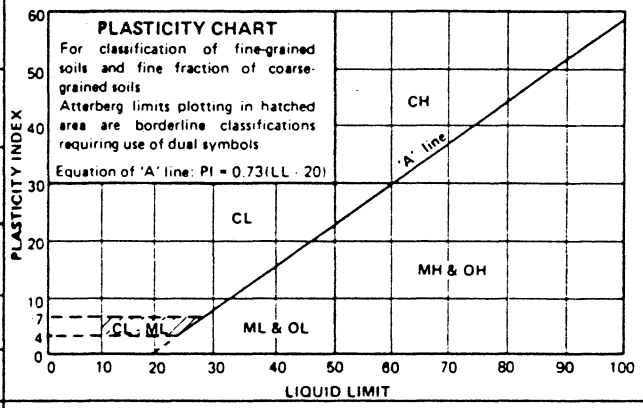
Soil classification chart

UNIFIED SOIL CLASSIFICATION†

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES	CLASSIFICATION CRITERIA
COARSE-GRAINED SOILS — More than 50% retained on No. 200 sieve*	GRAVELS — 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW	Well graded gravels and gravel-sand mixtures, little or no fines	$C_u = D_{60}/D_{10}$ Greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3
			GP	Poorly-graded gravels and gravel-sand mixtures, little or no fines	Not meeting both criteria for GW
		GRAVELS WITH FINES	GM	Silty gravels, gravel-sand silt mixtures	Atterberg limits plot below 'A' line or plasticity index less than 4
			GC	Clayey gravels, gravel-sand clay mixtures	Atterberg limits plot above 'A' line and plasticity index greater than 7
	SANDS — More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	SW	Well-graded sands and gravelly sands, little or no fines	$C_u = D_{60}/D_{10}$ Greater than 6; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ Between 1 and 3
			SP	Poorly-graded sands and gravelly sands, little or no fines	Not meeting both criteria for SW
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures	Atterberg limits plot below 'A' line or plasticity index less than 4
			SC	Clayey sands, sand-clay mixtures	Atterberg limits plot above 'A' line and plasticity index greater than 7
FINE-GRAINED SOILS — 50% or more passes No. 200 sieve*	SILTS AND CLAYS — Liquid limit 50% or less		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
			OL	Organic silts and organic silty clays of low plasticity	
	SILTS AND CLAYS — Liquid limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
			CH	Inorganic clay of high plasticity, fat clays	
			OH	Organic clays of medium to high plasticity	
HIGHLY ORGANIC SOILS			PT	Peat, muck and other highly organic soils	

Classification on basis of percentage of fines
Less than 5% pass No. 200 sieve — GW, GP, SW, SP
More than 12% pass No. 200 sieve — GM, GC, SM, SC
5% to 12% pass No. 200 sieve — Borderline classification requiring use of dual symbols

Atterberg limits plotting in hatched area are borderline classifications requiring use of dual symbols



*Based on the material passing the 3 in. (75 mm) sieve
†ASTM Designation D 2487, for identification procedure see D 2488

GROUND ICE DESCRIPTION

ICE NOT VISIBLE

GROUP SYMBOLS	SYMBOLS	SUBGROUP DESCRIPTION	
N	Nf	Poorly-bonded or friable	
	Nbn	No excess ice, well-bonded	
	Nbe	Excess ice, well-bonded	

VISIBLE ICE LESS THAN 50% BY VOLUME

GROUP SYMBOLS	SYMBOLS	SUBGROUP DESCRIPTION	
V	Vx	Individual ice crystals or inclusions	
	Vc	Ice coatings on particles	
	Vr	Random or irregularly oriented ice formations	
	Vs	Stratified or distinctly oriented ice formations	

VISIBLE ICE GREATER THAN 50% BY VOLUME

ICE	ICE + Soil Type	Ice with soil inclusions	
	ICE	Ice without soil inclusions (greater than 25 mm (1 in.) thick)	

NOTE:

1. *Dual symbols are used to indicate borderline or mixed ice classifications*
2. *Visual estimates of ice contents indicated on borehole logs ± 5%*
3. *This system of ground ice description has been modified from NRC Technical Memo 79, Guide to the Field Description of Permafrost for Engineering Purposes*

LEGEND
Soil  Ice 

	BOUNDARY LINES ON DRILL LOGS	TEST HOLE NO: 3
ENGINEERING–CAPITAL		Project No:
		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	BOUNDARY LINES							0.0
	A solid line is used when a definite soil change is logged and a depth is known.							
1.0	A dashed line is used when a definite soil change is noted either by the field log or the sample test results and the depth of change is unknown.							1.0
2.0	A dotted line is used when a gradual or gradational change is noted by field notes and sample test results.							2.0
3.0	A triangle over two lines indicates water level detected at the time of drilling, unless otherwise noted							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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CENTRELINE TESTING
1775+500 to 1786+500
ALASKA HIGHWAY

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 600-117
ENGINEERING CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B40 L MOBILE DRILL 6" AUGER	LOCATION: 1775+500 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 -brown -moist							0.0
1.0	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM) -grey -moist							1.0
2.0								2.0
3.0								3.0
4.0		⊠	189	▲	GW-GM		◆ ■	4.0
	END HOLE @ 4.0m -refusal							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.0 m
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02/01/11 09:35AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 600-118
ENGINEERING CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B40 L MOBILE DRILL 6" AUGER	LOCATION: 1775+800 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 –brown –damp							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –grey –moist	⊠	190	● ▲	GP-GM		◆ ■	
1.0								1.0
	SILTY SAND (SM) –brown –moist –smooth easy drilling							
2.0								2.0
		⊠	191	● ▲	SM		■ ◆	
3.0								3.0
4.0		⊠	192	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

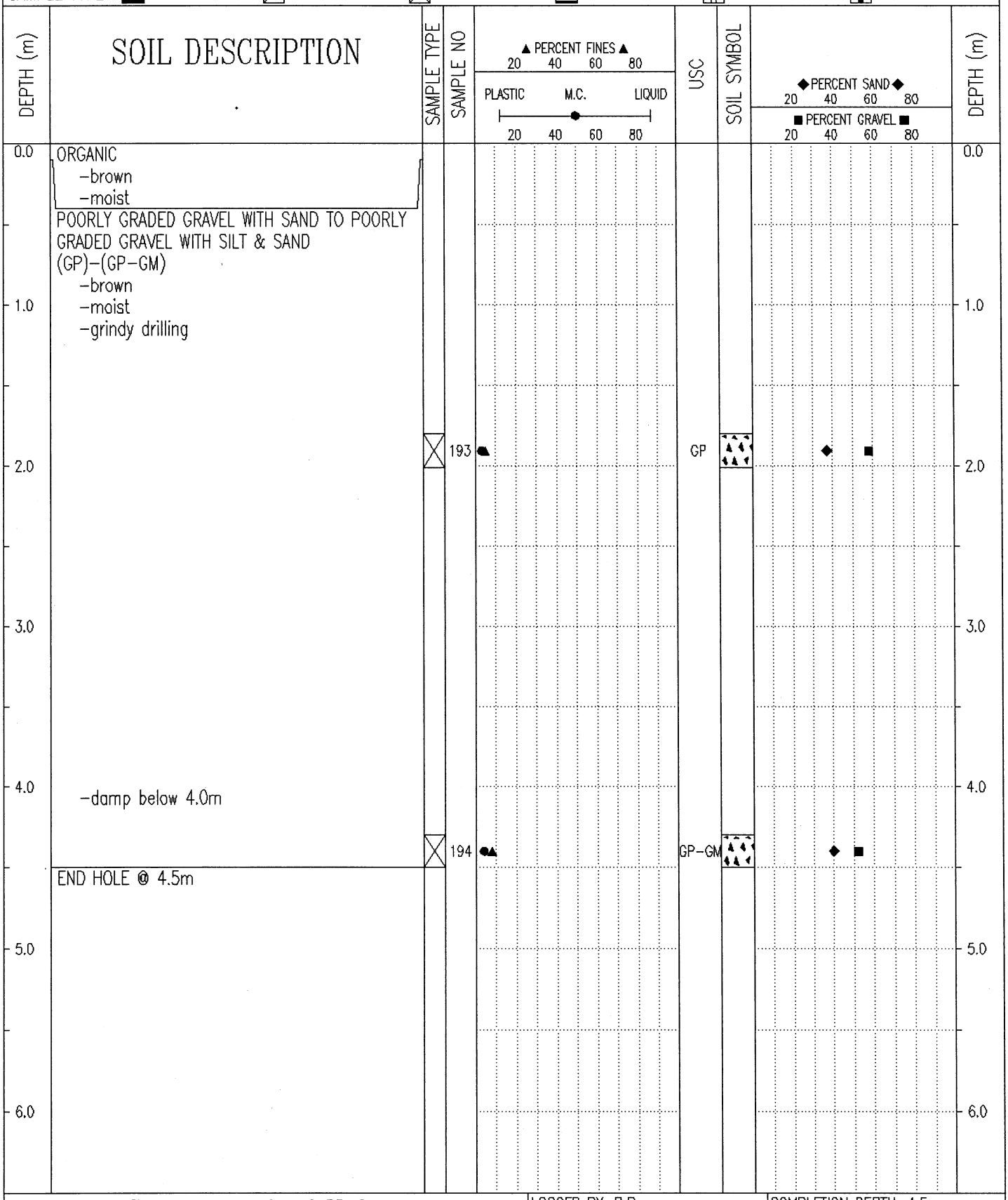
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02/01/11 09:36AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 600-119
ENGINEERING CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B40 L MOBILE DRILL 6" AUGER	LOCATION: 1775+900 7m LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ◧ CORE



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	REVIEWED BY:	COMPLETE: 01/06/21
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01/12/19 10:36AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 600-120
ENGINEERING CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B40 L MOBILE DRILL 6" AUGER	LOCATION: 1776+000 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 ▲ 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	POORLY GRADED GRAVEL WITH SAND (GP) -grey -moist -grindy drilling (old gravel pit)							0.0
1.0								1.0
2.0		⊠	195	▲	GP		◆ ■	2.0
3.0								3.0
4.0		⊠	196	▲	GP		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-146
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+050 30m 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 -brown -moist							0.0
	SILTY SAND (SM) -moist							
1.0		⊠	237	● ▲	SM		■ ◆	1.0
2.0	SILT WITH SAND (ML) -some organic -brown -moist	⊠	238	● ▲	ML		◆	2.0
	ASH							
3.0	END HOLE @ 2.9m -Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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	REVIEWED BY:	COMPLETE: 01/06/28
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01/11/14 09:02AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 600-121
ENGINEERING CAPITAL	KM 1729-1787 A/H	Project No: 092-202101-0361
B40 L MOBILE DRILL 6" AUGER	LOCATION: 1776+100 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 -brown -moist							0.0
	SILTY SAND (SM) -brown -damp	⊠	197	● ▲	SM		■ ◆	
1.0								1.0
2.0	SILTY SAND WITH GRAVEL (SM) -brown -damp -trace of grindy drilling							2.0
		⊠	198	● ▲	SM		■ ◆	
3.0								3.0
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-145
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+150 35m 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 –brown –moist							0.0
	SILT (ML) –brown –frozen (Nb) below 0.5m							
1.0		⊠	235	● ▲	ML		◆	1.0
2.0								2.0
	WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM) –brown –frozen (Nb) –grindy drilling	⊠	236	● ▲	SW-SM	⁘	■ ◆	
3.0	END HOLE @ 2.9m –Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 2.9 m
	REVIEWED BY:	COMPLETE: 01/06/28
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01/11/14 09:02AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-122
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+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 ▲ 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 –brown SILTY SAND (SM) –brown –frozen (Nb)	⊠	199	● ▲	SM		◆	0.0
1.0	SILT –brown –frozen (Nb) SILTY SAND –brown –moist ORGANIC SILTY SAND –brown –moist							1.0
2.0								2.0
3.0	POORLY GRADED GRAVEL WITH SILT AND SAND (GP)–(GM) –grey –damp –grindy drilling below 2.5m							3.0
4.0		⊠	200	● ▲	GP-GM		■	4.0
	END HOLE @ 4.0m –refusal							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.0 m
REVIEWED BY:	COMPLETE: 01/06/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-144
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+250 35m 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 –brown –moist							0.0
	SILT (ML) –brown –wet –frozen (Vx) below 0.4m							
1.0		⊠	233	● ▲	ML		◆	1.0
2.0	SANDY SILT (SM) –brown –frozen (Vx)							2.0
		⊠	234	● ▲	SM		◆	
3.0	END HOLE @ 2.9m –Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

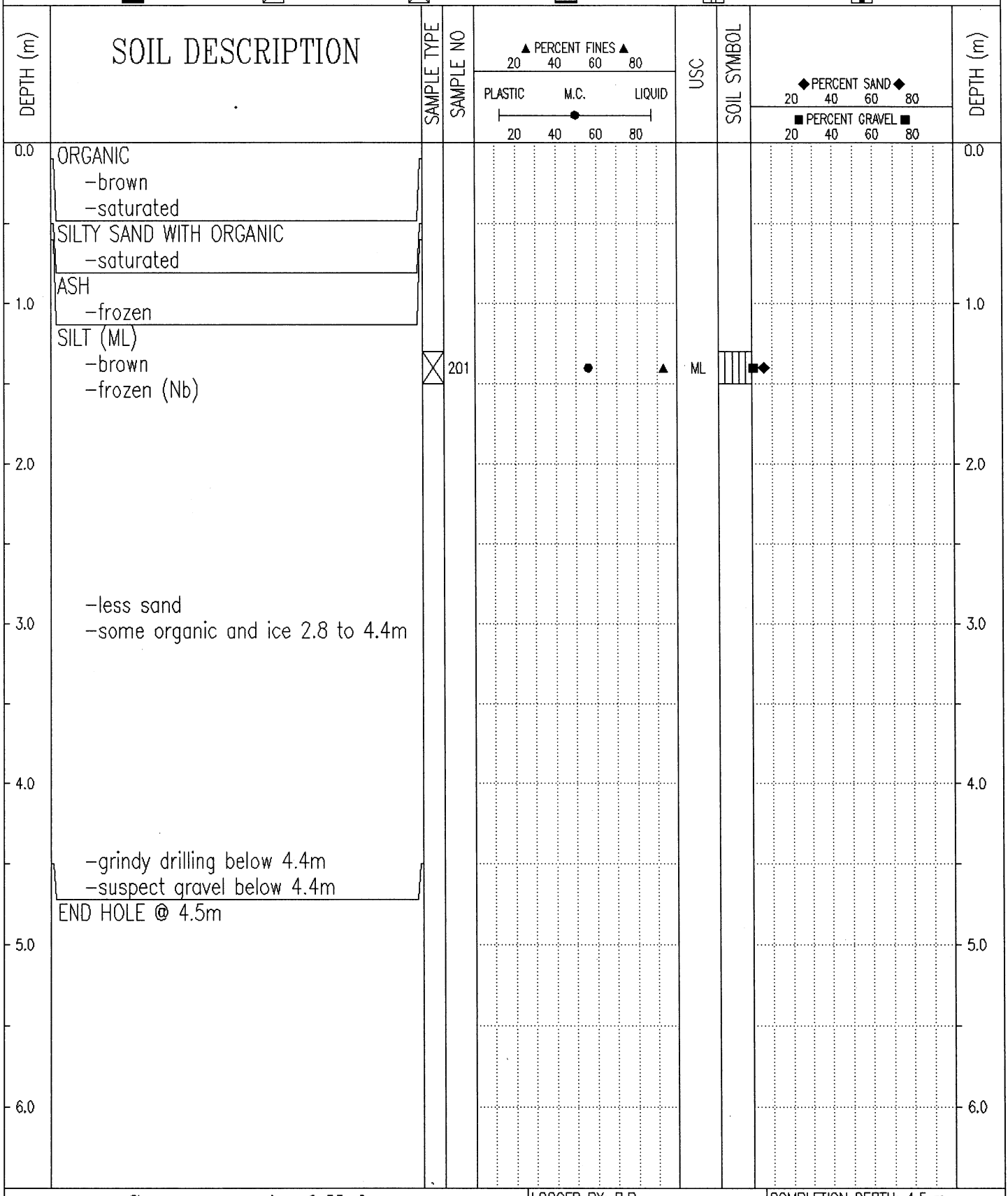
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LOGGED BY: B.B.	COMPLETION DEPTH: 2.9 m
REVIEWED BY:	COMPLETE: 01/06/28
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-123
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+300 10M LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ☒ AUGER ▤ BULK ▥ TUBE ◧ CORE



Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/06/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-124
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+370 2M 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	SILTY SANDY GRAVEL –no sample retrieved, material washed off auger –grindy drilling							0.0
1.0 ▼	–water level @ 1.0m							1.0 ▼
2.0								2.0
3.0	SILTY SAND WITH GRAVEL (SM) –brown –frozen (Nf) –smooth drilling							3.0
4.0		⊠	202	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.3m –water level @ 0.4m upon completion of test hole –culvert location							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.3 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-125
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+370 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 ▲ 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 –brown –damp							0.0
	SILTY SAND –brown –damp							
1.0	POORLY GRADED GRAVEL WITH SAND (GP) –grey –saturated –grindy drilling below 0.5m							1.0
		⊠	203	▲	GP		◆ ■	
2.0 ▼	–water level @ 2.1m							2.0 ▼
	–smooth drilling below 2.8m –no sample retrieved below 2.8m, material washed away							
3.0								3.0
4.0	–hard smooth drilling below 4.0m							4.0
	END HOLE @ 4.3m –refusal –culvert location							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.3 m
	REVIEWED BY:	COMPLETE: 01/06/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-126
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+378 23M 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 -brown -moist							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -damp							
1.0	-grindy drilling below 0.5m							1.0
2.0	-easy grindy drilling below 2.0m							2.0
	-smooth easy drilling below 2.5m							
3.0								3.0
4.0								4.0
	-grey below 4.0m -saturated 4.0m	⊠	204	● ▲	SM		■ ◆	
	END HOLE @ 4.5m							
5.0	Note: Test hole in active boggy water course -culvert location							5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/06/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-143
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+400 35m 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 -brown -moist							0.0
	SILT WITH SAND -brown -frozen (Nb) below 0.4m	⊠	231	◆ ▲	ML		◆	
1.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nb) -grindy drilling							1.0
		⊠	232	● ▲	SM		■ ◆	
2.0	END HOLE @ 2.0m -refusal -Interceptor ditch							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-142
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+500 35m 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 –brown –moist –frozen below .2m							0.0
	ASH							
1.0	SILT (ML) –brown –frozen (Vx)	⊠	230	● ▲	ML	▯	◆	1.0
2.0	ORGANIC –brown –frozen (Vx)							2.0
3.0	END HOLE @ 2.8m –Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 2.8 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-127
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+550 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	POORLY GRADED GRAVEL WITH SILT AND SAND to SILTY GRAVEL WITH SAND (GP-GM)-(GM) -grey to brown -moist -grindy drilling							0.0
1.0		⊠	205	●	GP-GM		◆ ■	1.0
2.0								2.0
3.0								3.0
4.0		⊠	206	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 01/06/26
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-141
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+600 35m 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 –brown –moist							0.0
	SANDY SILT (ML) –brown –frozen (Nb) –some grindy drilling below 0.5m							
1.0		⊠	228	● ▲	ML		■ ◆	1.0
2.0	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM) –brown –frozen (Nf) –more grindy drilling –maximum 25mm material augered up	⊠	229	▲	GP-GM		◆ ■	2.0
3.0	END HOLE @ 2.8m –Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 2.8 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-128
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+650 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 –brown –moist							0.0
	WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM) –brown –moist –grindy drilling	⊠	207	● ▲	SW-SM		■ ◆	
1.0								1.0
2.0								2.0
	–smooth drilling 2.8 to 3.8m							
3.0								3.0
	POORLY GRADED GRAVEL WITH SAND (GP) –grey –moist –grindy drilling below 3.8m –courser material observed below 4.0m	⊠	208	▲ ●	GP		◆ ■	
4.0	END HOLE @ 4.3m –refusal							4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-129
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+682 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 -brown -moist							0.0
	SILTY SAND (SM) -brown -moist -smooth drilling	⊠	209	● ▲	SM		◆	
1.0								1.0
	ASH							
	SILTY SAND -brown -moist							
2.0								2.0
	SILTY GRAVEL WITH SAND (GM) -brown -moist -grindy drilling							
3.0								3.0
4.0		⊠	210	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m -culvert location							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-130
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+682 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 ▲ 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 –brown –moist –smooth drilling							0.0
1.0	SILTY SAND (SM) –brown –moist –frozen (Vx) below 0.4m	⊠	211	● ▲	SM		◆	1.0
2.0	WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM) –brown –frozen (Nf) –grindy drilling	⊠	212	▲	GW-GM		◆ ■	2.0
3.0	END HOLE @ 2.8m –refusal –culvert location							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-140
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION:1776+700 35m 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 –brown –moist							0.0
	SILTY SAND (SM) –brown –frozen (Nf)							
1.0		⊠	226	● ▲	SM		■ ◆	1.0
	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM) –brown –frozen (Nf) –maximum 50mm material augered up –grindy drilling							
2.0		⊠	227	● ▲	GP-GM		■	2.0
	END HOLE @ 2.8m –Interceptor ditch							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 2.8 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-131
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+750 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 -brown -moist							0.0
	POORLY GRADED GRAVEL WITH SILT AND SAND TO WELL GRADED GRAVEL WITH SAND (GP-GM)-(GW) -brown -moist							
1.0	-grindy drilling							1.0
		⊠	213	▲	GP-GM		■	
2.0								2.0
3.0								3.0
	-very hard grindy drilling below 3.8m							
4.0		⊠	214A	▲	GW		◆ ■	4.0
	END HOLE @ 4.5m -refusal							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-139
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+775 35m 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 –brown –moist							0.0
	SILTY SAND –brown –moist							
1.0	WELL GRADED GRAVEL WITH SILT AND SAND (GW–GM) –grey –moist –maximum 50mm material augered up –grindy drilling	⊠	225	▲	GW–GM		◆ ■	1.0
2.0								2.0
	END HOLE @ 2.8m –Interceptor ditch							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 2.8 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-132
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+850 2m 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 -brown -moist							0.0
	POORLY GRADED GRAVEL WITH SILT AND SAND TO POORLY GRADED GRAVEL WITH SAND (GP-GM)-(GP) -brown -moist -grindy drilling -maximum 25mm material augered up							
1.0								1.0
2.0		⊠	214B	▲	GP-GM		◆ ■	2.0
	-very hard grindy drilling below 2.5m -maximum 150mm material augered up below 2.5m							
3.0								3.0
4.0		⊠	215	▲	GP		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/06/27
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01/11/22 01:16PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-138
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+900 35m 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 –brown –moist							0.0
	SILTY SAND (SM) –brown –frozen (Nf)	⊠	223		SM			
1.0								1.0
	ORGANIC –frozen (Vx)							
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) –brown –frozen (Nf) –grindy drilling	⊠	224		SM			
3.0	END HOLE @ 2.8m –Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 2.8 m
	REVIEWED BY:	COMPLETE: 01/06/27
	Fig. No:	Page 1 of 1

02/01/14 01:39PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-133
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1776+950 2m 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 –brown –moist							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –moist							
1.0	–hard grindy drilling							1.0
2.0	–maximum 75mm material augered up below 2.0m							2.0
3.0		⊠	216	▲	GP	▨	◆ ■	3.0
	END HOLE @ 3.0m –refusal							
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/06/27
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01/11/22 01:17PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-137
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+000 35m 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 -brown -moist							0.0
	SILTY SAND (SM) -brown -moist	⊠	220	▲ ●	SM		◆	
1.0	SILTY SAND WITH GRAVEL (SM) -brown -moist -grindy drilling	⊠	221	▲ ●	SM		■ ◆	1.0
	-hard, less grindy below 1.8m							
2.0								2.0
	-frozen (Nf) below 2.6m	⊠	222	▲ ●	SM		■ ◆	
	END HOLE @ 2.8m -refusal -Interceptor ditch							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 2.8 m
REVIEWED BY:	COMPLETE: 01/06/27
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01/11/14 09:02AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-134
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+050 2m 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 -brown -moist							0.0
	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM) -brown -moist -grindy drilling -maximum 75mm material augered up							
1.0								1.0
2.0								2.0
3.0								3.0
4.0		⊠	217	▲	GP-GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/06/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-136
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+100 35m 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 -brown -moist							0.0
1.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf) -grindy drilling							1.0
2.0		⊠	219	● ▲	SM	▥	■ ◆	2.0
	END HOLE @ 2.6m -refusal							
3.0	Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 2.6 m
REVIEWED BY:	COMPLETE: 01/06/27
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01/11/14 09:02AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 601-135
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+150 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	ORGANIC –brown –moist							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –moist –grindy drilling –maximum 50mm material augered up							
1.0								1.0
2.0								2.0
3.0								3.0
4.0		⊠	218	●	GP	▨	◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/06/27
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-147
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+250 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 -brown -frozen (Vx)							0.0
	SILTY SAND (SM) -grey -frozen (Nf)							
1.0	-grindy drilling below 1.1m							1.0
	-smoother drilling below 1.6m							
2.0		⊠	239	● ▲	SM		■ ◆	2.0
3.0								3.0
	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf)							
4.0	-grindy drilling below 3.5m	⊠	240	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/06/28
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01/11/21 03:37PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-171
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION:1777+325 35m 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 –black –wet							0.0
	SILT TO SILTY SAND (ML)–(SM) –brown –frozen (Nb) below 0.4m							
1.0		⊠	274	● ▲	ML		■◆	1.0
	–refusal #1 @ 1.3m							
2.0	–grey below 2.0m –frozen (Nf) below 2.0m –maximum 25mm material augered up							2.0
		⊠	275	● ▲	SM		■ ◆	
3.0	END HOLE @ 2.9m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 2.9 m
	REVIEWED BY:	COMPLETE: 01/07/05
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01/11/26 09:47AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-148
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+350 2m 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 –black –moist							0.0
	SILT, SAND AND ORGANIC –brown –frozen (Nb)							
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) –brown –frozen (Nb) –grindy drilling	☒	241	● ▲	SM	▥	■ ◆	
2.0	END HOLE @ 2.0m –refusal							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

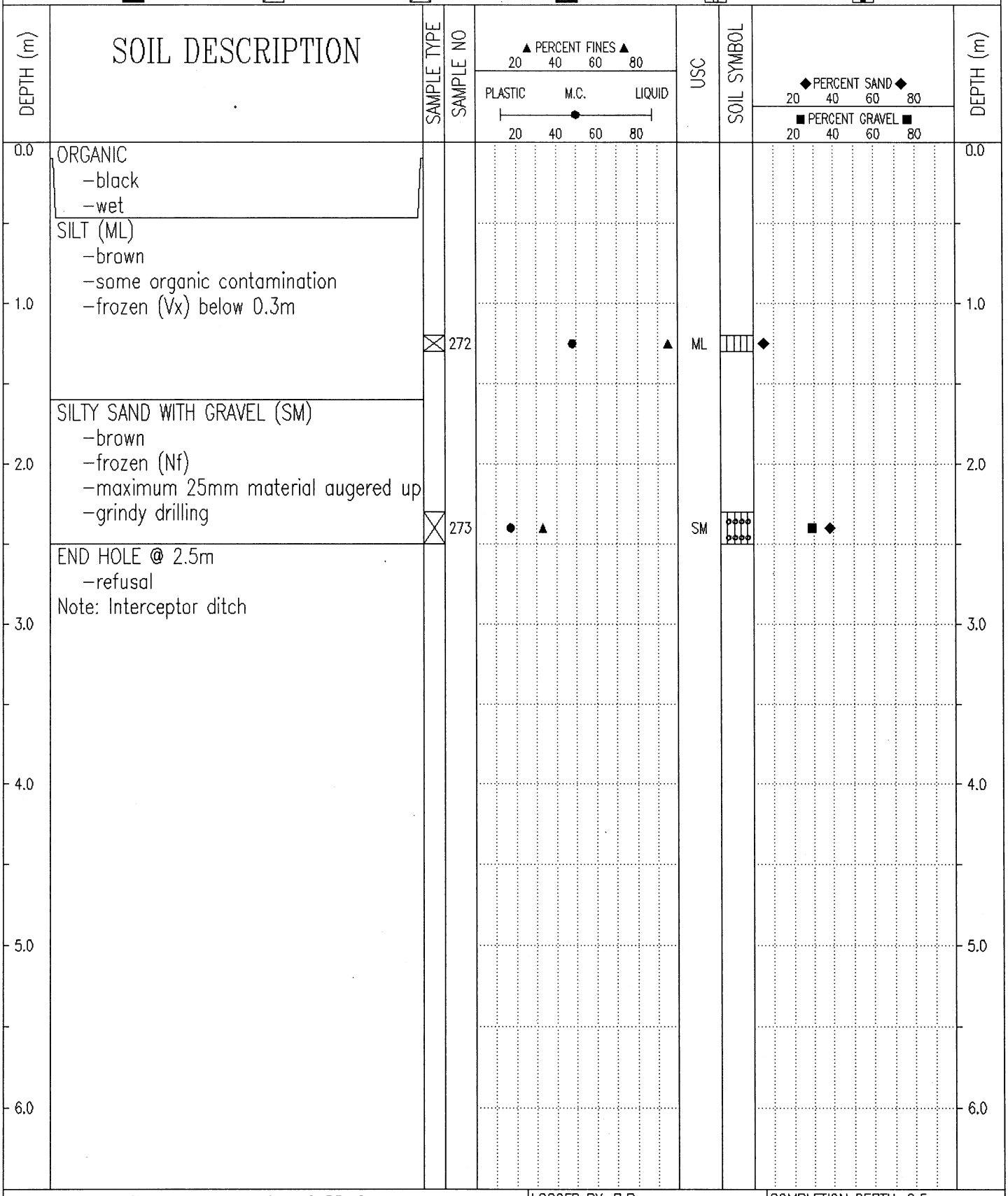
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LOGGED BY: B.B.	COMPLETION DEPTH: 2.0 m
REVIEWED BY:	COMPLETE: 01/06/28
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01/11/14 10:52AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-170
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+425 35m LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE



Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 2.5 m
	REVIEWED BY:	COMPLETE: 01/07/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 602-149
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+445 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 –black –moist –frozen (Nb) below 0.1m							0.0
1.0								1.0
	SILT –some sand –frozen (Nb)							
2.0	SILTY GRAVEL WITH SAND (GM) –grey –frozen (Nf) –grindy drilling							2.0
3.0		☒	242	● ▲	GM		◆ ■	3.0
	–very hard grindy drilling below 3.6m							
	END HOLE @ 3.8m –refusal							
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.8 m
REVIEWED BY:	COMPLETE: 01/06/28
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-169
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION:1777+525 35m 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 -black -wet							0.0
	SILT (ML) -brown -frozen (Nf) below 0.3m	⊠	271	● ▲	ML	▥	◆	
1.0								1.0
	ASH -frozen (Nf)							
	ORGANIC -brown -frozen (Vx)							
2.0								2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 602-150
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+550 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 ▲ 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 –black –moist –frozen below 0.1m							0.0
1.0	SILT –brown –frozen (Nb)							1.0
	ASH							
	ORGANIC –black –frozen (Nb)							
2.0	SILTY SAND WITH GRAVEL (SM) –grey –frozen (Nf) –grindy drilling							2.0
3.0		⊠	243	● ▲	SM		■ ◆	3.0
4.0	END HOLE @ 4.0m –refusal Note: Culvert station							4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.0 m
REVIEWED BY:	COMPLETE: 01/06/28
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 602-151
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+550 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 -black -moist							0.0
	ICE AND ORGANIC -some silt -black -frozen							
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nf) -grindy drilling	⊠	244	●▲	GM		◆■	
2.0	-more silt below 2.4m							2.0
	-lost sample #245		245					
3.0	END HOLE @ 3.0m -refusal Note: culvert section							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 01/06/28
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 602-152
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION:1777+550 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 ▲ 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 –black –moist							0.0
	ICE AND ORGANIC –black –frozen below 0.2m							
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) –grey –frozen (Nf) –grindy drilling							
2.0								2.0
		⊠	246	● ▲	GM		◆ ■	
3.0	END HOLE @ 3.0m –refusal Note: Culvert station							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/06/28
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 602-153
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+650 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 ▲ 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 -black -moist							0.0
	ASH							
	SILT & ICE (ML) -some organic -olive -frozen below 0.3m -sample 123% moisture	⊠	247	▲ ●	ML	▥	◆	
1.0								1.0
2.0	ORGANIC -dark brown -frozen (Vx)							2.0
3.0	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nf) -grindy drilling below 2.8m							3.0
4.0		⊠	248	● ▲	GM	⧄	◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/06/29
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-168
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+650 35m 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 -black -wet							0.0
	SILT (ML) -brown -frozen (Vx) below 0.3m							
1.0		⊠	270		ML	▥	◆	1.0
2.0								2.0
	-grindy drilling below 2.7m -observed silt and small gravels on auger from below 2.7m -no sample recovered							
3.0	END HOLE @ 3.0m Notes: surface water flowing into T.H. : Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon
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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-154
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+750 7m 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 -black -moist							0.0
	ICE AND ORGANIC -some stratified silt -frozen below 0.3m							
1.0								1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf) -grindy drilling							2.0
		⊠	249	●	SM	▨	■ ◆	
3.0								3.0
4.0	END HOLE @ 4.0m -refusal							4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.0 m
REVIEWED BY:	COMPLETE: 01/06/29
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-167
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+750 35m 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 –black –wet							0.0
	SILT WITH SAND (ML) –grey –frozen (Nb) below 0.3m	⊠	268	●▲	ML		◆	
1.0								1.0
2.0	SILT (ML) –grey –frozen (Vx)							2.0
	–sample 122% moisture	⊠	269	▲●	ML		◆	
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-155
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION:1777+850 1m 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	ICE AND ORGANIC -black -frozen below 0.3m							0.0
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Vx)	⊠	250	● ▲	GM		◆ ■	
2.0	-grindy drilling below 1.5m							2.0
3.0	-frozen (Nf)	⊠	251	● ▲	GM		◆■	3.0
	END HOLE @ 3.4m -refusal							
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.4 m
	REVIEWED BY:	COMPLETE: 01/06/29
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-166
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+850 35m 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 -black -wet							0.0
	ORGANIC, SILT AND ICE -some sand -grey							
1.0	-frozen below 0.3m							1.0
2.0	-grindy drilling below 2.0m -no samples recovered							2.0
	END HOLE @ 2.6m : Interceptor ditch							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 2.6 m
REVIEWED BY:	COMPLETE: 01/07/04
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-156
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1777+950	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 -black -moist							0.0
	ICE AND ORGANIC -black -some stratified silt							
1.0								1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nb) -grindy drilling	⊠	252	● ▲	SM	▥	■ ◆	2.0
3.0								3.0
	SILT WITH SAND (ML) -grey -frozen (Nb)							
4.0		⊠	253	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-165
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION:1777+950 35m 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 –black –moist							0.0
	ORGANIC, SILT AND ICE –some sand –grey							
1.0	–frozen below 0.3m							1.0
2.0	SILTY GRAVEL WITH SAND (GM) –grey –frozen (Vx) –maximum 25mm material augered up –grindy drilling	⊠	267	● ▲	GM		◆ ■	2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-157
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+050	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 -black -moist							0.0
	ASH							
	SILT WITH GRAVEL (ML) -sample contaminated with organics -frozen (Vx) -frozen below 0.3m							
1.0		⊠	254	▲ ●	ML		◆ ■	1.0
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf)							
3.0		⊠	255	● ▲	SM		■ ◆	3.0
	END HOLE @ 3.0m -refusal							
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-164
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+050 35m 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 –black –moist							0.0
	ORGANIC, SILT AND ICE –some sand –grey –frozen below 0.3m							
1.0								1.0
2.0	SILTY GRAVEL WITH SAND (GM) –grey –frozen (Nf) –maximum 75mm material augered up –grindy drilling	⊠	266	● ▲	GM		◆	2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-158
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+150 2m 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 -black -moist							0.0
	ORGANIC & ICE -black							
1.0								1.0
	SANDY SILT WITH GRAVEL TO SILT (ML) -grey -ice (Vr)							
2.0	-grindy drilling below 1.4m -refusal #1 @ 1.6m	⊠	256	● ▲	ML	▥	◆	2.0
3.0								3.0
4.0	-frozen (Vr)	⊠	257	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-163
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+150 35m 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 -black -moist							0.0
	ORGANIC, SILT AND ICE -some sand -grey -smooth drilling							
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nf) -grindy drilling							
2.0								2.0
		⊠	265	● ▲	GM		◆ ■	
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

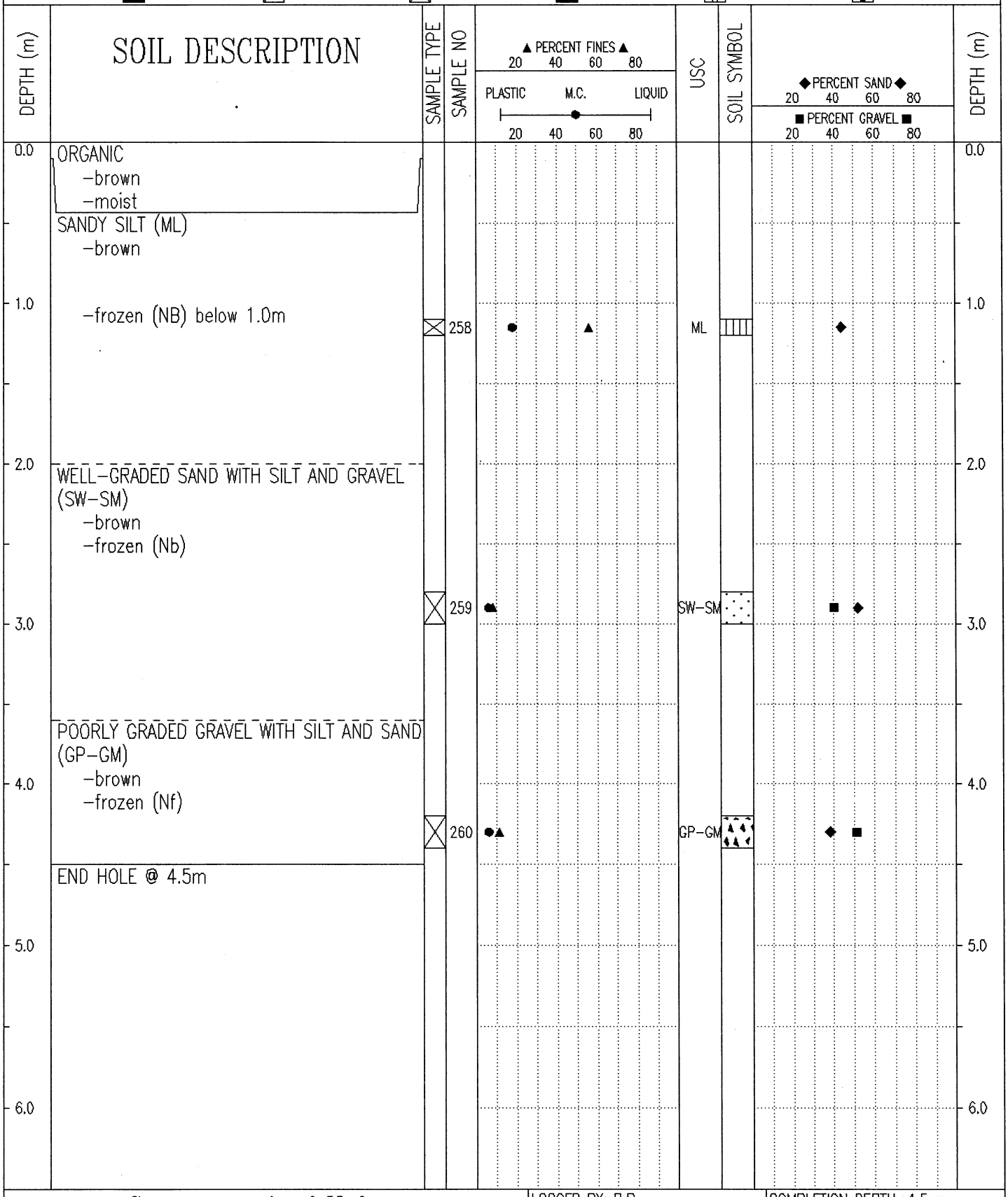
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 602-159
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+250 2m LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE



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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-162
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+250 35m 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 –black –moist							0.0
	SILTY SAND –brown –moist							
1.0	SANDY SILT (ML) –grey –frozen (Nb) –grindy drilling	⊠	263	● ▲	ML		■ ◆	1.0
	SILTY SAND WITH GRAVEL (SM) –grey –frozen (Nf) –smooth drilling	⊠	264	●	SM		■ ◆	
2.0								2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-215
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1778+349 6m 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	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GP)-(GP-GM) -brown -moist -grindy drilling							0.0
1.0		⊠	339	●	GP-GM		◆ ■	1.0
	-maximum 75mm material augered up							
2.0								2.0
3.0	-maximum 75 mm material augered up	⊠	340	●	GP		◆ ■	3.0
4.0								4.0
	-maximum 75mm material augered up	⊠	341	●▲	GP-GM		◆■	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-161
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+350 35m 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 –black –moist							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –grey –moist –maximum 75mm material augered up –grindy drilling	⊠	262	●	GP	▨	◆ ■	
1.0								1.0
2.0								2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-160
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+450 35m 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 –black –moist							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –grey –maximum 75mm material augered up –grindy drilling below 0.2m	⊠	261	●	GP		◆ ■	
1.0								1.0
2.0								2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-216
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1778+451 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 ▲ 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	POORLY GRADED GRAVEL WITH SAND (GP) –brown –moist –maximum 75mm material augered up –grindy drilling							0.0
1.0		⊠	342		GP			1.0
2.0								2.0
3.0								3.0
4.0	–maximum 100mm material augered up	⊠	343		GP			4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/07/12
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-172
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+550 35m 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 –black POORLY GRADED GRAVEL WITH SAND (GP) –grey –moist –grindy drilling							0.0
1.0	–maximum 50mm material augered up	⊠	276	●	GP		◆ ■	1.0
2.0	–maximum 75mm material augered up below 2.0m							2.0
3.0	END HOLE @ 2.9m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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01/11/26 09:48AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-217
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1778+551 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 ▲ 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	POORLY GRADED GRAVEL WITH SAND (GP) -brown -moist -grindy drilling							0.0
1.0								1.0
	-maximum 75mm material augered up	⊠	344	●	GP		◆ ■	
2.0								2.0
3.0								3.0
4.0								4.0
	-maximum 75mm material augered up	⊠	345	●	GP		◆ ■	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/07/12
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-218
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1778+650 2m 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 –brown –moist							0.0
	SILTY SAND							
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –moist							
1.0	–maximum 50mm material augered up –grindy drilling	☒	346	▲	GP		◆ ■	1.0
2.0								2.0
3.0								3.0
4.0	–maximum 75mm material augered up	☒	347	▲	GP		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/07/12
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-173
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+650 35m 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 -black -moist							0.0
	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM) -grey -moist							
1.0	-grindy drilling below 0.3m -maximum 25mm material augered up -sand layer trace of silt 1.2-1.4m -smooth drilling 1.2-1.4m -smooth hard drilling below 1.4m	⊠	277	●▲	GP-GM		◆ ■	1.0
2.0								2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/05
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-219
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1778+749 2m 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 –brown –moist							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –moist							
1.0	–maximum 25mm material augered up –grindy drilling	⊠	348	▲	GP		◆ ■	1.0
2.0								2.0
3.0								3.0
4.0	–maximum 75mm material augered up	⊠	349	▲	GP		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-174
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+750 32m 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 -black -moist							0.0
	SANDY SILT (ML) -brown -frozen (Nb) below 0.4m							
1.0		⊠	278	● ▲	ML		■ ◆	1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf) -grindy drilling							2.0
		⊠	279	▲	SM		■ ◆	
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-220
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1778+849 2m 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 –brown –moist							0.0
	SAND –some silt							
1.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) –brown –moist –grindy drilling							1.0
2.0								2.0
3.0								3.0
4.0	–maximum 100mm material augered up	⊠	350	●	SW-SM		■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-175
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+850 32m 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 –black –moist							0.0
	SANDY GRAVEL –some silt –frozen below 0.5m							
1.0	SILTY SAND TO WELL-GRADED SAND WITH SILT AND GRAVEL (SM)-(SW-SM) –grey –trace of grindy drilling –frozen (Nb)	⊠	280	● ▲	SM	▥	■ ◆	1.0
2.0	–frozen (Nf) Below 2.0m							2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch	⊠	281	▲	SW-SM	▥	■ ◆	3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-221
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1778+949 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 ▲ 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 –brown –moist							0.0
	SAND –some silt							
	POORLY GRADED GRAVEL WITH SAND (GP) –brown –moist							
1.0	–maximum 50mm material augered up –grindy drilling	⊠	351	●	GP		◆ ■	1.0
2.0								2.0
3.0								3.0
4.0	–maximum 100mm material augered up	⊠	352	●	GP		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-176
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1778+950 32m 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 –black –moist							0.0
	SILTY SAND WITH GRAVEL (SM) –brown –moist	☒	282	● ▲	SM	▨	■ ◆	
1.0	–grindy drilling below 1.0m –frozen below 1.1m							1.0
2.0	POORLY GRADED GRAVEL WITH SILT AND SAND (GP-GM) –grey –frozen (Nf) –maximum 50mm material augered up							2.0
		☒	283	●	GP-GM	▤	◆ ■	
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-222
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1779+034 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 ▲ 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 –black –moist							0.0
	SAND –some silt							
	WELL TO POORLY GRADED GRAVEL WITH SAND (GW)–(GP) –brown –moist –maximum 50mm material augered up –grindy drilling	☒	353		GW		◆ ■	
1.0								1.0
2.0								2.0
3.0								3.0
4.0	–maximum 100mm material augered up	☒	354		GP		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-177
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1779+050 32m 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 –black –moist							0.0
	POORLY GRADED GRAVEL WITH SAND (GP) –grey –maximum 50mm material augered up –frozen (Nf) below 0.5m	☒	284		GP			
1.0								1.0
2.0								2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-178
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1779+150 32m 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 –black –moist							0.0
	WELL GRADED SAND WITH SILT AND GRAVEL (SW–SM) –brown –moist							
1.0	–grindy drilling below 1.0m	⊠	285	●	SW–SM		■ ◆	1.0
	–frozen below 1.6m							
2.0	SILT (ML) –brown –frozen (Nf)							2.0
		⊠	286	● ▲	ML		◆	
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-223
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1779+154 3m 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 -black -moist							0.0
	SILTY SAND (SM) -brown -moist							
1.0		⊠	355	● ▲	SM		◆	1.0
2.0	-frozen (Nb) below 2.0m							2.0
3.0		⊠	356	● ▲	SM		◆	3.0
4.0	-some organic & ash below 4.0m -frozen (Vx) below 4.0m	⊠	357	▲ ●	SM		◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-224
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1779+192 7m 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 -black -moist							0.0
	SILT WITH SAND (ML) -brown							
1.0	-frozen (Nb) below 1.0m	⊠	358	▲ ●	ML	▥	◆	1.0
2.0								2.0
3.0	SANDY SILT (ML) -grey -frozen (Nf) -smooth grindy drilling							3.0
4.0		⊠	359	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-225
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1779+192 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 ▲ 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 -black -moist							0.0
	SAND -some silt -frozen below 0.6m							
1.0	SANDY SILT (ML) -brown -frozen (Nb)	⊠	360	● ▲	ML	▯	◆	1.0
2.0	ORGANIC, SAND, & SILT -some ash -some ice							2.0
3.0								3.0
	SANDY SILT (ML) -grey -frozen (Vx) -smooth grindy drilling							
4.0		⊠	361	● ▲	ML	▯	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-226
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1779+192 19m 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 -black -moist							0.0
	ASH							
	SAND & SILT -with ice -frozen below 0.5m							
1.0	SILTY SAND WITH GRAVEL TO SANDY SILT (SM)-(ML) -brown -frozen (Vx) -grindy drilling	⊠	362	● ▲	SM		➡	1.0
2.0	-grey below 2.0m -frozen (Nf) below 2.0m	⊠	363	● ▲	ML		■ ◆	2.0
	END HOLE @ 2.5m -refusal							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-179
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION:1779+250 32m 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 -black -moist							0.0
	SILTY SAND (SM) -brown -frozen (Nb) below 0.4m							
1.0		⊠	287	● ▲	SM		■ ◆	1.0
	ICE AND SILT							
2.0								2.0
	ORGANIC -brown -frozen (Vx)							
3.0	END HOLE @ 3.2m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 01/07/05
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01/11/14 01:39PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-227
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1779+295 1m 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 -black -moist							0.0
	ASH -frozen -smooth drilling							
1.0	SANDY SILT (ML) -brown -frozen (Vx) -grindy drilling	⊠	364	● ▲	ML	▥	■ ◆	1.0
2.0	SANDY SILTY GRAVELLY MATERIAL -very difficult grindy drilling -no sample recovered							2.0
3.0	END HOLE @ 2.6m -refusal							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 2.6 m
	REVIEWED BY:	COMPLETE: 01/07/13
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01/12/18 02:36PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-228
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1779+295 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 ▲ 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 –black –moist							0.0
	SILT (ML) –brown –frozen (Vx) below 0.3m							
1.0								1.0
	–sample 365 – 109% moisture	⊠	365	▲ ●	ML	▥	■ ◆	
	–very difficult grindy drilling below 1.7m							
2.0	END HOLE @ 2.0m –refusal –rock dust on bit							2.0
	Note: Outlet drillsite not accessible							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 01/07/13
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01/12/18 02:36PM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-180
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1779+331 35m 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 –black –moist							0.0
	ASH							
	SANDY SILT –brown –frozen (Vx) below 0.5m							
1.0	SILTY SAND WITH GRAVEL TO SILTY GRAVEL WITH SAND (SM)–(GM) –grey –frozen (Nb) –grindy drilling	⊠	288	● ▲	SM		■ ◆	1.0
2.0	–frozen (Nf) BELOW 2.0m							2.0
3.0	END HOLE @ 3.0m Note: Interceptor ditch	⊠	289	● ▲	GM		◆ ■	3.0
4.0								4.0
5.0								5.0
6.0								6.0

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01/11/26 09:52AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-181
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION:1779+448 36m 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 –black –moist							0.0
	ASH							
	ICE AND ORGANIC –black –frozen below 0.3m							
1.0	SANDY SILT (ML) –grey –frozen (Vx) –smooth grindy drilling	⊠	290	● ▲	ML		■ ◆	1.0
2.0	SILTY SAND WITH GRAVEL (SM) –grey –frozen (Nf)							2.0
	–maximum 50mm material augered up	⊠	291	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/06
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 604-182
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION: 1779+550 32m 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 –black –moist							0.0
	SILT –some sand –brown –frozen (Nb) below 0.3m							
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) –brown –frozen (Nb) –maximum 50mm material augered up –grindy drilling	⊠	292	● ▲	SM		◆	
2.0								2.0
	–frozen (NF) below 2.5m	⊠	293	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m Note: Interceptor ditch							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-183
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION: 1779+619 34m 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 –black –moist							0.0
	SILTY SAND WITH GRAVEL (SM) –grey –maximum 50mm material augered up –frozen (Vx) below 0.3m							
1.0		☒	294	● ▲	SM		■ ◆	1.0
2.0	–frozen (Nb) below 2.0m							2.0
		☒	295	● ▲	SM		■◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-184
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1779+706 31m 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 -black -moist							0.0
	ASH							
	SILTY GRAVEL WITH SAND TO SILTY SAND WITH GRAVEL (GM)-(SM) -grey -maximum 50mm material augered up -frozen (Vx) below 0.3m -grindy drilling below 0.3m	⊠	296	● ▲	GM		◆ ■	
1.0								1.0
2.0								2.0
	-frozen (Nf) below 2.5m	⊠	297	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-185
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1779+793 36m 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 –black –moist							0.0
	PEAT –brown –frozen (Nb)							
1.0	SANDY SILT WITH GRAVEL (ML) –grey –frozen (Nb) –grindy drilling below 1.0m	⊠	298	● ▲	ML	▥	■ ◆	1.0
2.0	SILTY SAND WITH GRAVEL (SM) –grey –frozen (Nf)	⊠	299	● ▲	SM	▨	■ ◆	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-186
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+000 32m 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 -black -moist							0.0
	ASH							
	SILT -brown -moist							
1.0	SILTY GRAVEL WITH SAND (GM) -grey -moist -maximum 50mm material augered up -grindy drilling below 1.0m	⊠	300	● ▲	GM		◆ ■	1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -wet							2.0
		⊠	301	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-187
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+100 36m 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 -black -moist							0.0
	SILTY SAND WITH GRAVEL (SM) -grey -moist	⊠	302	● ▲	SM		■ ◆	
1.0	-maximum 50mm material augered up -grindy drilling below 0.8m							1.0
2.0	-frozen (Nf) below 2.2m							2.0
		⊠	303	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-188
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+200 30m 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 –black –moist							0.0
	ASH							
	ORGANIC AND ICE AND SILT –frozen							
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) –grey –frozen (Nf) –grindy drilling							
2.0								2.0
		⊠	304	● ▲	SM	▥	■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-189
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+300 36m 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 -black -moist							0.0
	ASH -frozen							
1.0	ORGANIC,ICE AND SILT							1.0
	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Vx) -grindy drilling							
2.0								2.0
		☒	305	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-190
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+400 36m 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 -black -moist							0.0
	ORGANIC, ICE AND SILT -frozen							
1.0	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Vx) -maximum 50mm material augered up -grindy drilling	⊠	306	● ▲	GM		◆ ■	1.0
2.0	END HOLE @ 2.0m -refusal							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-191
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+500 36m 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 -black -moist							0.0
	ORGANIC, ICE AND SILT -frozen							
1.0	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nb) -grindy drilling	⊠	307	● ▲	GM		◆ ■	1.0
2.0								2.0
	END HOLE @ 2.7m -refusal							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-192
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+600 36m 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 -black -moist							0.0
	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nb) below 0.3m -more gravel below 1.0m	⊠	308	● ▲	SM		■ ◆	
1.0								1.0
2.0								2.0
	-frozen (Nf) below 2.8m	⊠	309	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-193
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+700 22m 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 –black –moist							0.0
	SILT –brown –frozen (Vx) below 0.3m –sample 310 – 106% moisture	⊠	310	▲ ●	ML		■ ◆	
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) –grey –frozen (Nf)							
2.0								2.0
	–sample 311 contaminated by organic material from above	⊠	311	● ▲	GM		◆ ■	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-194
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+800 32m 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 -black -moist							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nb) below 0.3m	⊠	312	● ▲	SM	▪▪▪▪	■ ◆	
1.0								1.0
2.0	SANDY SILT (ML) -grey -frozen (Nf)	⊠	313	● ▲	ML	▥	■ ◆	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/09
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-195
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1780+900 36m 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 -black -moist							0.0
	SANDY SILT (ML) -brown -frozen (Nb) below 0.3m	⊠	314	● ▲	ML	▥	■ ◆	
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Nf)							
2.0								2.0
		⊠	315	● ▲	GM	▥	◆ ■	
3.0	END HOLE @ 3.0 Note: lead auger reversed and new bit installed @ 0.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 01/07/10
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-196
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+000 32m 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 -black -moist							0.0
	ASH							
	SILT WITH SAND TO SANDY SILT (ML) -brown -wet							
1.0	-frozen (Nb) below 1.0m	⊠	316	● ▲	ML	▥	■ ◆	1.0
	-more gravel below 1.6m							
2.0	-grey below 2.0m							2.0
		⊠	317	● ▲	ML	▥	■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-197
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+100 36m 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 -black -moist							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Vx)							
1.0		⊠	318	● ▲	SM		■ ◆	1.0
2.0	-more gravel below 2.0m -grey below 2.0m -frozen (Nf) below 2.0m							2.0
		⊠	319A	● ▲	SM		■	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-198
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+200 36m 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 –black –moist							0.0
	SILT WITH SAND TO SILT (ML) –brown –frozen (Vx)							
1.0	–sample 320A contaminated by organic material from above	⊠	320A	● ▲	ML	▥	■ ◆	1.0
2.0	–frozen (Nb) below 2.0m							2.0
		⊠	321A	● ▲	ML	▥	■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-199
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+300 36m 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 –black –moist							0.0
	SILT (ML) –brown –frozen (Vx) below 0.6m							
1.0		⊠	322A	● ▲	ML	▥	◆	1.0
2.0								2.0
	–sample 323A contaminated by organic material from above	⊠	323A	● ▲	ML	▥	◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-200
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+400 36m 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 –black –moist							0.0
	ICE AND SILT –frozen below 0.1m							
1.0								1.0
	SILTY GRAVEL WITH SAND (GM) –brown –frozen (Vx)	⊠	324A	● ▲	GM		◆ ■	
2.0								2.0
	SANDY SILT WITH GRAVEL (ML) –grey –frozen (Nb)	⊠	325A	● ▲	ML		■◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-201
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+500 36m 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 –black –moist							0.0
	SILT –brown –trace of sand and gravel –frozen below 0.3m							
1.0	SILTY GRAVEL WITH SAND (GM) –brown –frozen (Nf) –maximum 50mm material augered up	⊠	326A	▲	GM		■	1.0
2.0								2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-202
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+600 36m 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 -black -moist							0.0
	ICE AND PEAT -frozen below 0.3m							
1.0								1.0
	SILT (ML) -grey -frozen (Nb)							
2.0		⊠	326B	● ▲	ML	▥	■ ◆	2.0
	END HOLE @ 2.7m -refusal							
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-203
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+700 36m RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ◧ CORE

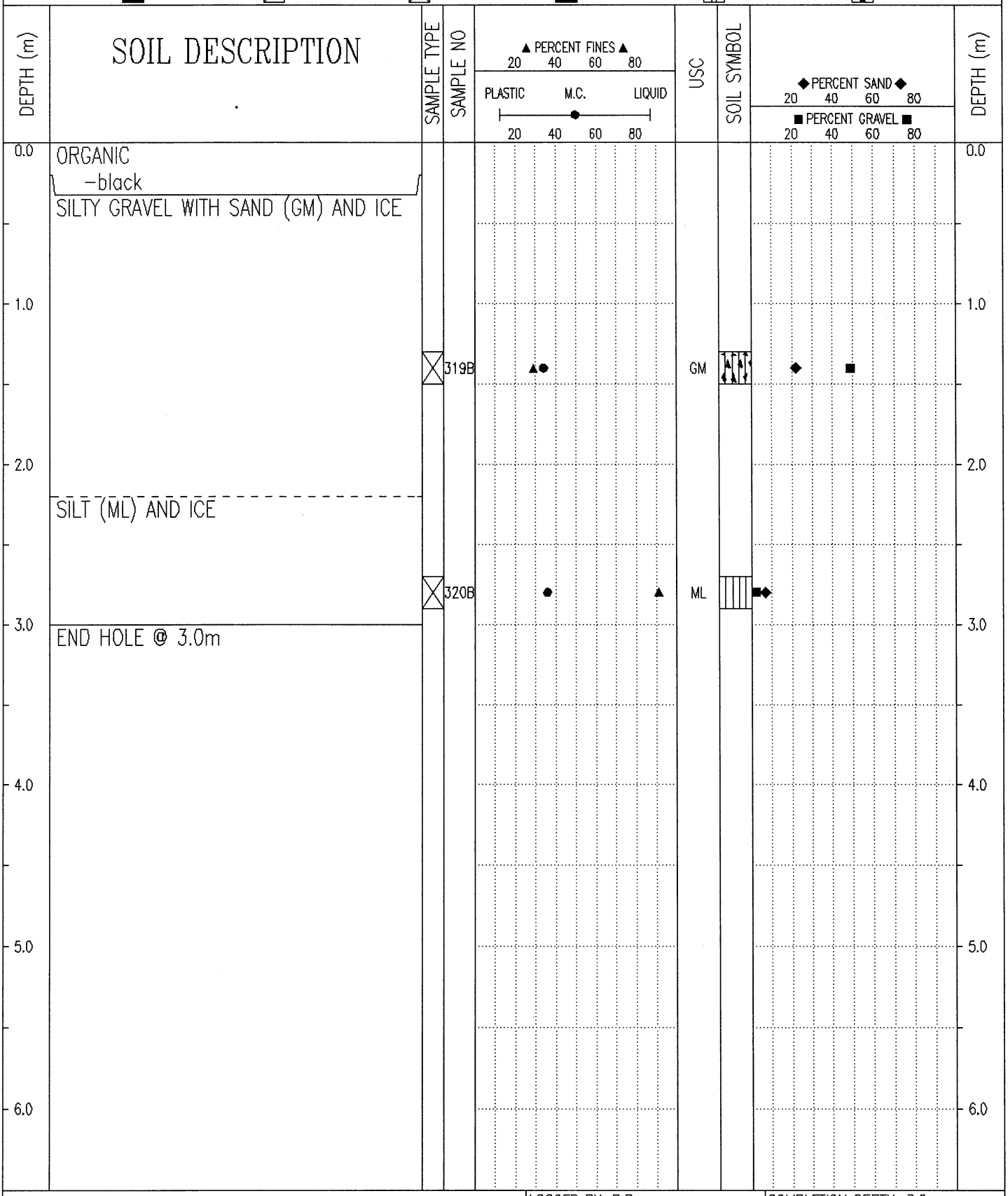
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC -black -moist							0.0
	ASH							
	SILT WITH SAND (ML) -brown -frozen (Vx)							
1.0		⊠	327A	● ▲	ML	▯	■ ◆	1.0
2.0	-observed same material with more gravel below 2.2m -frozen (Nb) below 2.2m							2.0
	-sample 328A lost (no classification)	⊠	328A	●				
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-204
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1781+800 36m RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ☰ BULK ▯ TUBE ◧ CORE



Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-205
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	IOCATION: 1781+900 32m 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 -black -moist							0.0
	SILT (ML) -brown							
1.0	-frozen (Vx) below 1.0m	⊠	321B	● ▲	ML	▥	◆	1.0
2.0	-frozen (Nb) below 2.0m							2.0
		⊠	322B	● ▲	ML	▥	◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-206
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1782+000 32m 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 -black -moist							0.0
	SANDY SILT -grey -frozen (Nb)							
1.0								1.0
	SILTY SAND WITH GRAVEL -grey -frozen (Nb) -grindy drilling below 1.5m	⊠	323B	● ▲	SM	▨	■ ◆	
2.0								2.0
		⊠	324B	● ▲	SM	▨	■	
3.0	END HOLE @ 3.0m Note: surface water running into hole							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 605-207
ENGINEERING CAPITAL	DUKE RV TO QUILL CR.	Project No: 092-202101-0361
MOBILE B40 L 6" AUGER	LOCATION: 1782+100 32m 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 –black –moist							0.0
	ICE AND ORGANIC							
1.0								1.0
	SANDY SILT (ML) –grey –frozen (Vx)							
2.0								2.0
		⊠	325B	● ▲	ML	▥	■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-208
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1782+208 36M 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 -moist							0.0
	SILT WITH SAND (ML) -brown -frozen (Vx) -frozen below 0.4m							
1.0		⊠	326C	● ▲	ML		■ ◆	1.0
	-more gravel below 1.5m							
2.0	SILT (ML) -grey -frozen (Nb) -smooth quiet drilling							2.0
		⊠	327B	● ▲	ML		◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-209
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1782+296 33M 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 -black -moist							0.0
	SANDY SILT WITH GRAVEL (ML) -grey -frozen (Vx) below 0.3m							
1.0		⊠	328B	● ▲	ML	▥	■ ◆	1.0
	SILT (ML) -grey -frozen (Vx) -smooth drilling							
2.0								2.0
		⊠	329	● ▲	ML	▥	◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-210
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1782+403 36M RT	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	ORGANIC -black -moist				
	SILT WITH SAND (ML) -brown -frozen (Nb) below 0.3m				
1.0		AUGER	330	ML	
	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf)				
2.0		AUGER	331	SM	
3.0	END HOLE @ 3.0m				
4.0					
5.0					
6.0					

▲ PERCENT FINES ▲ (20 40 60 80)

PLASTIC — M.C. — LIQUID (20 40 60 80)

◆ PERCENT SAND ◆ (20 40 60 80)

■ PERCENT GRAVEL ■ (20 40 60 80)

DEPTH (m)

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-211
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1782+497 37M 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 -black -moist							0.0
	SILT (ML) -brown -frozen (Vx) below 0.3m							
1.0		⊠	332	● ▲	ML		■ ◆	1.0
2.0								2.0
	-grey below 2.8m	⊠	333	● ▲	ML		◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-212
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1782+595 35M 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 –black –moist							0.0
	ASH –frozen below 0.2m							
1.0	SILT AND ICE							1.0
	SILT WITH SAND (ML) –brown –frozen (Vx)							
2.0								2.0
		⊠	334	● ▲	ML	▥	◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 01/07/11
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-213
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1782+697 33M 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 -black -moist							0.0
	SILT (ML) -some gravels -frozen (Vx) below 0.4m							
1.0		⊠	335	● ▲	ML	▥	◆	1.0
2.0	-less gravels below 2.0m -grey below 2.0m -frozen (Nb) below 2.0m							2.0
		⊠	336	● ▲	ML	▥	◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 606-214
ENGINEERING CAPITAL	DUKE RV TO QUILL CR	Project No: 092-202101-0361
MOBILE DRILL B 40 L 6' AUGER	LOCATION: 1782+792 35M 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 -black -moist							0.0
	ORGANIC & ICE -frozen below 0.4m							
1.0	SILT (ML) -brown -frozen (Vx)	⊠	337	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
		⊠	338	● ▲	ML	▥	◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1687
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+025 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 ▲ 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
	SILT (ML) –brown –moist	⊠	1532	● ▲	ML		◆	
1.0	SILTY SAND WITH GRAVEL (SM) –grindy drilling							1.0
		⊠	1533	● ▲	SM		■ ◆	
2.0	GRAVELLY SILT WITH SAND TO SILTY GRAVEL (ML)–(GM) –frozen –slow tight rough drilling							2.0
		⊠	1534	● ▲	ML		◆ ■	
3.0								3.0
4.0		⊠	1535	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/11/15
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1688
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+125 2M 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	SILT (ML) –frozen –no organics, previously stripped –grinding drilling from surface	⊠	1536	● ▲	ML		■ ◆	0.0
1.0								1.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –not frozen –rough slow dilling	⊠	1534	● ▲	GP-GM		◆ ■	
2.0								2.0
	SILTY GRAVEL WITH SAND (GM) –not frozen –tough tight slow penetration –rougher drilling	⊠	1538	● ▲	GM		◆ ■	
3.0								3.0
4.0		⊠	1539	● ▲	GM		◆ ■	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/11/16
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1689
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+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	SILT WITH ORGANIC (ML) –moist –not frozen	⊠	1540	● ▲	ML		◆	0.0
1.0	POORLY GRADED GRAVEL WITH SILT & SAND (GP–GM) –moist –grindy drilling	⊠	1541	●	GP–GM		◆ ■	1.0
2.0	–steady – not quite easy drilling	⊠	1542	● ▲	GP–GM		◆ ■	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1690
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+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 ▲ 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 SILT (MIX) (ML) –brown –moist (not frozen)	⊠	1543	● ▲	ML		◆	
1.0	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP-GM)-(GP) –damp (not frozen) –grindy drilling	⊠	1544	●	GP-GM		◆ ■	1.0
2.0	–easy grindy drilling below 2.0 m	⊠	1545	●	GP		◆ ■	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1691
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+200 25M 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	SILT WITH ORGANIC (ML) –brown –moist (not frozen)	⊠	1546	● ▲	ML	▤	◆	0.0
1.0								1.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) –brown –moist –easy grindy drilling	⊠	1547	● ▲	GP-GM	▥	◆ ■	
2.0								2.0
		⊠	1548	●	GP-GM	▥	◆ ■	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1692
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+250 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 ▲ 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 ASH SILT WITH SAND (ML) –brown –wet	⊠	1549	● ▲	ML		■ ◆	0.0
1.0	POORLY TO WELL-GRADED GRAVEL WITH SILT & SAND (GP-GM)-(GW-GM) –brown –damp (not frozen) –grindy drilling	⊠	1550	●	GP-GM		◆ ■	1.0
2.0		⊠	1551	●	GW-GM		◆ ■	2.0
3.0								3.0
4.0	SILTY SAND WITH GRAVEL (SM) –moist –smooth drilling	⊠	1552	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1693
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+350 3M 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							0.0
	ASH							
	SILT (ML) –frozen (Vx) –tight drilling	⊠	1553	● ▲	ML	▥	◆	
1.0								1.0
	–brown / yellow below 1.4m	⊠	1554	● ▲	ML	▥	■ ◆	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) –frozen –very slow tough drilling	⊠	1555	● ▲	SM	▨	■	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1694
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+450 3M 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	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -frozen	⊠	1556	● ▲	GP-GM		◆	0.0
1.0	SILT (ML) -brown -frozen -tight slow drilling	⊠	1557	● ▲	ML		■ ◆	1.0
2.0	-smooth drilling below 2.4m	⊠	1558	● ▲	ML		◆	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: G.C.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1695
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+550 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 ▲ 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 & ASH							0.0
	SILT (ML) -moist to wet -brown -frozen (Vx) below 0.6m -sample 1559 - 120% moisture	⊠	1559	▲◆	ML		◆	
1.0								1.0
		⊠	1560	●▲	ML		■◆	
2.0								2.0
	SILT WITH GRAVEL (ML) -frozen -tough slow grinding drilling	⊠	1561	● ▲	ML		◆■	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1696
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+625 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 ▲ 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 & ASH							0.0
	SILT (ML) -frozen -sample 1562 - 128% moisture	⊠	1562	▲ ◆	ML		◆	
1.0								1.0
		⊠	1563	● ▲	ML		◆	
2.0								2.0
	SILTY SAND WITH GRAVEL (SM) -frozen -grindy drilling -lost sample #1564 -tough drilling below 3.0m	⊠	1564	●				
3.0								3.0
		⊠	1565	● ▲	SM	▨	■ ◆	
4.0								4.0
	END HOLE @ 4.2m -refusal							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.2 m
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1697
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+625 20m LT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ⊘ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ◧ CORE

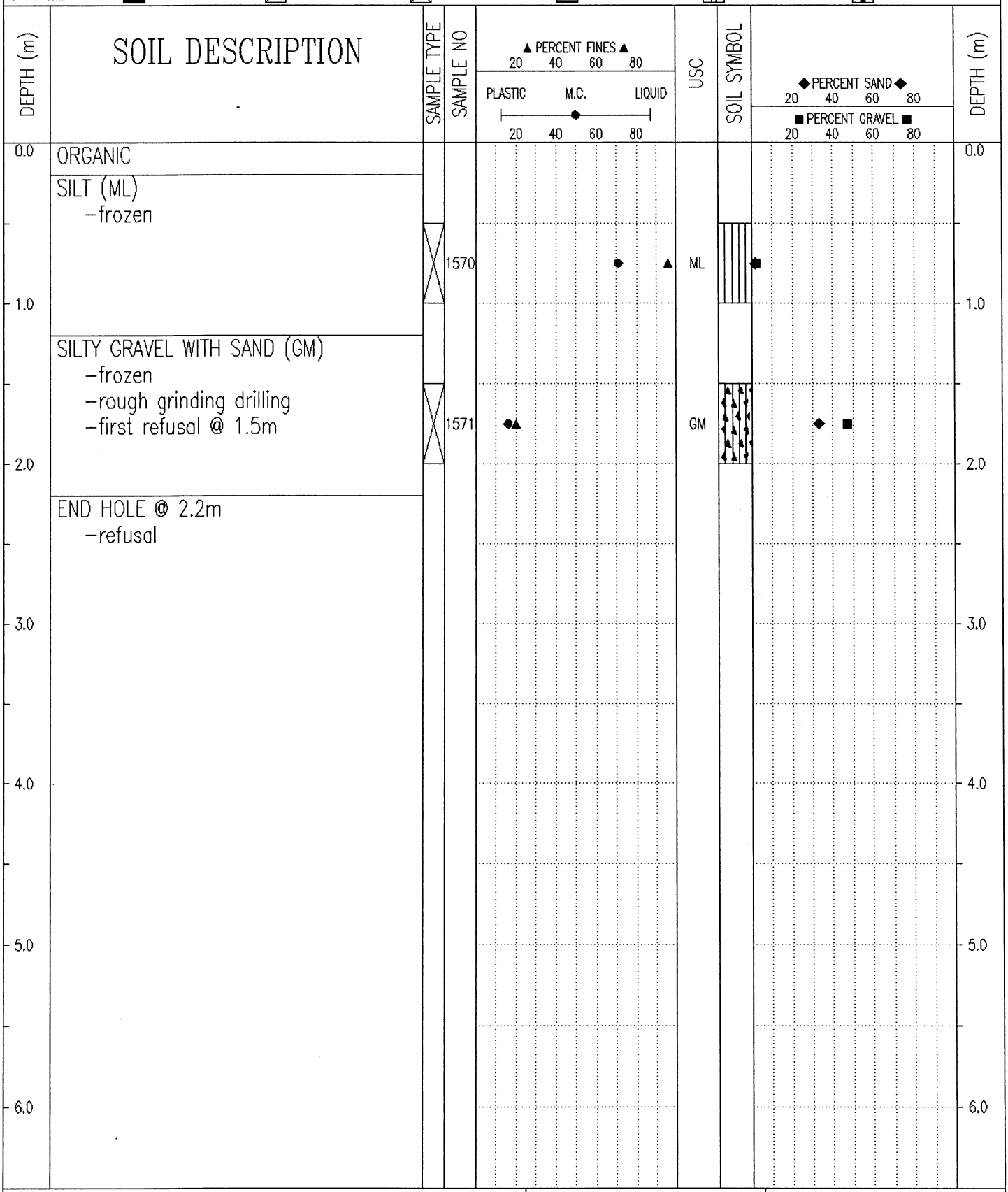
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	▲ PERCENT FINES ▲ 20 40 60 80 / PLASTIC M.C. LIQUID 20 40 60 80	USC	SOIL SYMBOL	◆ PERCENT SAND ◆ 20 40 60 80 / ■ PERCENT GRAVEL ■ 20 40 60 80	DEPTH (m)
0.0	ORGANIC & SILT							0.0
	SILT WITH SAND (ML) -brown -frozen	⊠	1566		ML			
1.0								1.0
	SILT WITH GRAVEL (ML) -frozen -grinding drilling	⊠	1567		ML			
2.0								2.0
	SILTY SAND (SM) -frozen -grindy drilling	⊠	1568		SM			
3.0								3.0
4.0	-extremely tight drilling below 4.0m	⊠	1569		SM			4.0
5.0								5.0
6.0	END HOLE @ 6.0m							6.0

Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 6.0 m
	REVIEWED BY:	COMPLETE: 01/11/16
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SUBSURFACE EXPLORATION & TESTING REPORT.	SHAKWAK SEG 11	TEST HOLE NO: 629-1698
ENGINEERING CAPITAL		Project No: 092-202101-0361
NODWELL B40L 6"AUGER	LOCATION: KM 1783+625 20M RT	ELEVATION: 0.00 (m)

SAMPLE TYPE ■ RETURN ▨ S.P.T. ⊠ AUGER ▤ BULK ▥ TUBE ▮ CORE



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 2.2 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-285
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+743 21M 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 -black -wet							0.0
	ASH							
	SANDY SILT (ML) -brown -frozen (Nb) below 1.0m							
1.0		⊠	465	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
3.0								3.0
4.0		⊠	466	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-284
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+743	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 -black -wet							0.0
	ASH							
	SANDY SILT WITH GRAVEL (ML) -brown -frozen (Vx) below 1.0m							
1.0		⊠	463	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0	-wet below 4.0m							4.0
		⊠	464	● ▲	ML		■ ◆	
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-286
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+745 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 ▲ 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 -black -wet							0.0
	ASH							
	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nb) below 0.5m	☒	467	● ▲	SM		■ ◆	
1.0								1.0
2.0								2.0
3.0								3.0
4.0	-frozen (Nf) below 4.0m	☒	468	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/25
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-281
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+830	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 -black -moist ASH							0.0
	SILTY SAND WITH GRAVEL TO SANDY SILT (SM)-(ML) -brown -wet	⊠	456	● ▲	SM		■ ◆	
1.0								1.0
2.0								2.0
3.0								3.0
	-refusal #1 - moved 1.0m left, rock dust on bit							
4.0								4.0
5.0	-grey below 5.0M -moist below 5.0m							5.0
		⊠	457	● ▲	ML		■ ◆	
6.0	END HOLE @ 6.0m							6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 6.0 m
REVIEWED BY:	COMPLETE: 01/07/24
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-283
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+830 19M 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 -black -wet							0.0
	ASH							
	SANDY SILT WITH GRAVEL TO SILTY SAND WITH GRAVEL (ML)-(SM) -brown -wet							
1.0		⊠	460	● ▲	ML		■ ◆	1.0
2.0								2.0
		⊠	461	● ▲	ML		■ ◆	
3.0	-harder drilling below 3.5m							3.0
4.0								4.0
5.0	-grey below 5.0m -moist below 5.0m							5.0
		⊠	462	● ▲	SM		■ ◆	
6.0	END HOLE @ 6.0m							6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 6.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-282
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+830 22M 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 -black -wet							0.0
	ASH							
	SANDY SILT WITH GRAVEL TO SILTY SAND WITH GRAVEL TO SILTY SAND (ML)-(SM) -brown -wet							
1.0		⊠	457B	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0								3.0
	-harder drilling @ 3.5m	⊠	458	● ▲	SM		■ ◆	
4.0								4.0
5.0	-grey below 5.0m -frozen (Vx) below 5.0m							5.0
		⊠	459	● ▲	SM		■ ◆	
6.0	END HOLE @ 6.0m							6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 6.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-280
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+923 3M 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 -black -wet							0.0
	SILTY SAND WITH GRAVEL TO SANDY SILT (SM) -brown -grindy drilling below 0.4m							
1.0	-frozen (Vx) below 1.1m	⊠	454	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0	-frozen (Nb) below 5.0M							5.0
		⊠	455	● ▲	ML		■ ◆	
6.0	END HOLE @ 6.0m							6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 6.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-279
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1783+987 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 ▲ 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 -black -wet							0.0
	SILT TO SILT WITH SAND (ML) -brown -saturated							
1.0	-frozen (Nb) below 1.0m -grindy drilling below 1.0m	⊠	452	● ▲	ML	▥	◆	1.0
2.0								2.0
3.0								3.0
4.0								4.0
5.0	-grey below 5.0m							5.0
		⊠	453	● ▲	ML	▥	■ ◆	
6.0	END HOLE @ 6.0m							6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 6.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-278
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+075	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 -black -wet							0.0
	ASH							
1.0	ORGANIC SILT -brown -frozen (Vx)							1.0
2.0	SANDY SILT (ML) -grey -frozen (Vx) -grindy drilling	⊠	450	● ▲	ML	▥	■ ◆	2.0
3.0								3.0
4.0								4.0
5.0	-more ice below 5.0m							5.0
		⊠	451	● ▲	ML	▥	■ ◆	
6.0	END HOLE @ 6.0m							6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 6.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-277
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+125 7M 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 -black -wet							0.0
	ASH							
	GRAVELLY SILTY ORGANIC & ICE -frozen -grindy driling below .6m							
1.0								1.0
2.0	GRAVELLY SILT WITH SAND (ML) -grey -frozen (Vx)							2.0
3.0		⊠	449	● ▲	ML	▥	◆	3.0
	-more ice below 3.5m							
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-276
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+200 8M 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 -black -wet							0.0
	ASH							
	ORGANIC SILT -brown -frozen (Vx)							
1.0								1.0
2.0								2.0
	SANDY SILT (ML) -grey -frozen (Vx) -grindy drilling							
3.0		⊠	448	● ▲	ML	▥	■ ◆	3.0
4.0								4.0
5.0	-more ice below 5.0m							5.0
6.0	END HOLE @ 6.0m							6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 6.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-275
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+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 ▲ 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 -black -wet							0.0
	ASH							
	ORGANIC, SILT -brown -frozen (Nb)							
1.0								1.0
2.0								2.0
3.0	END HOLE @ 3.0m -refusal							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-274
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+400 1M 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 -wet ASH							0.0
	ORGANIC, SILT & ICE -brown -frozen							
1.0								1.0
	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nb) -grindy drilling							
2.0								2.0
3.0								3.0
4.0		⊠	447	▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-273
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+490 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 ▲ 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 -black -moist							0.0
	ASH							
1.0	ORGANIC SILT -brown -frozen (Vx)							1.0
	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Vx) -maximum 75mm rock augered up -grindy drilling	⊠	446	● ▲	GM		◆ ■	
2.0								2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-272
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+490	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 -black -wet							0.0
	ASH							
1.0	ORGANIC & SILT -brown -frozen (Nb)							1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nb) -maximum 75mm rock augered up -grindy drilling							2.0
3.0								3.0
4.0		⊠	445	▲●	SM		■◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-271
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+490 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 ▲ 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 -black -moist							0.0
	ASH							
	ORGANIC, SILT, & ICE -frozen							
1.0								1.0
	SILT WITH SAND TO SILTY SAND WITH GRAVEL (ML)-(SM) -brown -frozen (Nf) -grindy drilling	⊠	443	● ▲	ML		■ ◆	
2.0								2.0
		⊠	444	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-270
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+575	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 -black -wet							0.0
	ASH							
1.0	ORGANIC SILT -frozen (Vx)							1.0
	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf) -sample contaminated by water on surface -grindy drilling	⊠	442	● ▲	SM		■ ◆	
2.0								2.0
3.0								3.0
	SANDY SILTY GRAVEL -smooth drilling							
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-269
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+665	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 -moist -black							0.0
	ASH							
	SILTY GRAVEL WITH SAND (GM) -brown -grindy drilling							
1.0	-frozen (Vx) below 1.0m	☒	440	● ▲	GM		◆ ■	1.0
2.0								2.0
	SILTY SAND (SM) -brown -frozen (Nf) -smooth drilling	☒	441	▲	SM		■ ◆	
3.0								3.0
	SANDY SILTY GRAVEL -grindy drilling							
	ICE -smooth drilling							
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-268
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+700 17M 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 -moist							0.0
	ASH							
	ORGANIC SILT -frozen (Vx)							
1.0								1.0
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf) -grindy drilling	⊠	439	● ▲	SM	▨	■ ◆	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon
Transportation Engineering

LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-267
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+741 2M 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 -black -moist							0.0
	ASH							
	SILTY ORGANIC -frozen below .4m							
1.0	SILTY SAND (ML) -brown -frozen (Vx)	⊠	437	● ▲	ML		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0	-grey below 4.0m -frozen (Nf) below 4.0m	⊠	438	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 608-266
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1784+890 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	ORGANIC -black -moist							0.0
	ASH							
1.0	ORGANIC -black -frozen (Vx)							1.0
	ICE, SILT & ORGANICS							
2.0	SILTY SAND WITH GRAVEL (SM) -grey -frozen (Nf) -grindy drilling							2.0
3.0								3.0
4.0		⊠	436	▲ ●	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/23
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-263
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+099 21M 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 -black -moist							0.0
	ASH							
1.0	ORGANIC -black -frozen (Nb)							1.0
	SILT (ML) -brown -frozen (Nb)	☒	431	●	ML	▥	◆	
2.0	END HOLE @ 2.0m -refusal							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-264
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+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 ▲ 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 -black -moist							0.0
	ASH							
	SILTY SAND WITH GRAVEL (SM) -brown							
1.0	-frozen (Nb) below 1.1m	⊠	432	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0	-grey below 4.0m -moist below 4.0m	⊠	433	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-265
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+111 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 -black -moist							0.0
	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nb) below 0.4m							
1.0		⊠	434	● ▲	SM		■ ◆	1.0
2.0								2.0
		⊠	435	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-262
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+251 C.L.	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 -black -moist							0.0
	ASH							
	SANDY SILT (ML) -brown -frozen (Vx)							
1.0		⊠	429	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
3.0								3.0
4.0	-grey below 4.0m -frozen (Nf) below 4.0m	⊠	430	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-261
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+390 19M 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 -black -moist							0.0
	ASH							
	SILT (ML) brown -frozen (Vx)							
1.0		☒	427	● ▲	ML	▥	■ ◆	1.0
2.0								2.0
		☒	428	● ▲	ML	▥	◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-260
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+391 1M 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 -black -moist							0.0
	ASH							
1.0	ORGANIC -black -wet							1.0
	SANDY SILT (ML) -brown -frozen (Vx)	☒	425	● ▲	ML	▥	■ ◆	
2.0								2.0
3.0								3.0
4.0	-frozen (Nf) below 4.0m	☒	426	● ▲	ML	▥	■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-259
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+396 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 ▲ 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 -black -wet							0.0
	ASH							
	SILTY SAND WITH GRAVEL TO SANDY SILT (SM)-(ML) -brown -wet	☒	423	● ▲	SM		■ ◆	
1.0								1.0
2.0	-moist below 2.0m							2.0
		☒	424	● ▲	ML		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-257
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+513 21M 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 -black -frozen (Vx) below 0.4m							0.0
1.0								1.0
2.0	SILT WITH SAND (ML) -brown -frozen (Vx) -some organic contamination in sample 420	☒	420	● ▲	ML	▥	■ ◆	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-256
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+515	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 -black -moist							0.0
	ASH							
	SILTY SAND WITH GRAVEL TO SANDY SILT (SM)-(ML) -brown -frozen (Vx) below 0.5m	⊠	418	● ▲	SM		■ ◆	
1.0								1.0
2.0								2.0
3.0								3.0
4.0	-frozen (Nf) below 4.0m	⊠	419	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-258
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+515 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 ▲ 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 -black -wet							0.0
	ASH							
	SILTY SAND WITH GRAVEL (SM) -brown -wet							
1.0		☒	421	● ▲	SM		■ ◆	1.0
2.0	-moist below 2.0m							2.0
		☒	422	● ▲	SM		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-255
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+576 1M 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 -black -moist							0.0
	ASH							
	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -frozen (Vx) below 0.5m	⊠	416	▲ ●	SW-SM		■ ◆	
1.0								1.0
2.0								2.0
3.0	SANDY SILT (ML) -brown -frozen (Nf) -smooth drilling							3.0
4.0		⊠	417	● ▲	ML		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-254
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+735 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 ▲ 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 -black -moist							0.0
	ASH							
	SANDY SILT (ML) -brown -frozen (Nb) below 0.4m -smooth drilling below 0.6m	⊠	415	● ▲	ML	▥	■ ◆	
1.0								1.0
2.0								2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-253
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+735 C.L.	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 -black -moist							0.0
	SILTY SAND WITH GRAVEL TO SANDY SILT (SM)-(ML) -brown -frozen (Nb) below 0.8m -grindy drilling below 1.0m	⊠	413	● ▲	SM		■ ◆	
1.0								1.0
2.0	-frozen (Nf) below 2.0m							2.0
		⊠	414	● ▲	ML		■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-251
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+746 38M RT.	ELEVATION: 0.00 (m)

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

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	USC	SOIL SYMBOL
0.0	ORGANIC & SILT (ML) -some sand -black -frozen (Nb) below 0.5m				
1.0		AUGER	409	ML	
2.0	GRAVELLY SILT WITH SAND (ML) -brown -frozen (Nf) -easy grindy drilling				
3.0		AUGER	410	SM	
	END HOLE @ 3.0m				
4.0					
5.0					
6.0					

▲ PERCENT FINES ▲ (20 40 60 80)

PLASTIC M.C. LIQUID (20 40 60 80)

◆ PERCENT SAND ◆ (20 40 60 80)

■ PERCENT GRAVEL ■ (20 40 60 80)

DEPTH (m)

Government of Yukon
Transportation Engineering

LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/19
Fig. No:	Page 1 of 1

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-252
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+825 2M 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 -black -moist							0.0
	ASH							
	ORGANIC -black -moist							
1.0	SILTY SAND WITH GRAVEL (SM) -brown -wet -smooth drilling -water flowing into hole 1.5 to 2.0m	⊠	411	● ▲	SM		■ ◆	1.0
2.0								2.0
3.0								3.0
4.0	-grey below 4.0m -frozen (Nf) below 4.0m	⊠	412	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/19
	Fig. No:	Page 1 of 1

01/12/13 11:46AM

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-250
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+900 28M 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 -black -moist							0.0
	ASH							
	SANDY SILT WITH GRAVEL TO SILTY GRAVEL WITH SAND (ML)-(GM) -brown -frozen (Nb) below 0.7m	⊠	407	● ▲	ML	▥	■ ◆	
1.0								1.0
2.0								2.0
		⊠	408	● ▲	GM	▥	◆ ■	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-249
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1785+975 5M 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	OLD ROAD DITCH GRAVEL -grey -wet -smooth grindy drilling							0.0
1.0	ORGANIC -black -moist							1.0
	ASH							
2.0	SILTY SAND (SM) -some gravels -brown -wet to satuarated material between 1.5 to 2.0 -moist below 2.0m							2.0
3.0								3.0
4.0		⊠	406	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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Transportation Engineering

LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/07/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-248
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1786+050 27M 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 -black -moist							0.0
	ASH							
	SANDY SILT (ML -brown -moist							
1.0		⊠	404	● ▲	ML	▥	■ ◆	1.0
	-grindy drilling below 1.5m							
2.0	-frozen (Nf) below 2.0m							2.0
		⊠	405	● ▲	ML	▥	■ ◆	
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 01/07/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-247
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1786+125 6M 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 -black -moist							0.0
	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM) -brown -moist -smooth grindy drilling	⊠	401	● ▲	GP-GM		◆ ■	
1.0								1.0
2.0	SILTY SAND WITH GRAVEL TO SILTY SAND (SM) -brown -saturated -easy drilling							2.0
		⊠	402	● ▲	SM		■ ◆	
3.0	-hard grindy drilling below 3.5m							3.0
4.0	-wet below 4.0m	⊠	403	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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REVIEWED BY:	COMPLETE: 01/07/19
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-246
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1786+197 33M 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 -black -moist							0.0
1.0	SILTY SAND WITH GRAVEL (SM) -brown -moist -maximum 25mm material augered up -grindy drilling	⊠	400	● ▲	SM	▨	➡	1.0
2.0	END HOLE @ 2.0m -refusal							2.0
3.0								3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-245
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1786+275 6M 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 -black -moist							0.0
	ASH -frozen							
1.0	SANDY SILT TO SILT WITH SAND (ML) -brown -wet	⊠	398	● ▲	ML	▥	■ ◆	1.0
	-smooth easy drilling below 1.6m							
2.0								2.0
3.0		⊠	399	● ▲	ML	▥	◆	3.0
4.0								4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/07/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-244
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1786+350 27M 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 -black -frozen (Vx) below 0.3m							0.0
1.0								1.0
	SANDY SILT -trace of gravel -brown -frozen (Nf)							
2.0	SILTY SAND WITH GRAVEL (SM) -brown -frozen (Nf) -easy grindy drilling	⊠	397	● ▲	SM	▨	■◆	2.0
3.0	END HOLE @ 3.0m							3.0
4.0								4.0
5.0								5.0
6.0								6.0

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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-243
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1786+425 6M 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	OLD ROAD DITCH GRAVEL							0.0
	SILT WITH GRAVEL (ML) -brown -moist							
1.0		⊠	395	● ▲	ML		■	1.0
	SILTY SAND (SM) -brown -moist -easy drilling							
2.0								2.0
3.0								3.0
4.0		⊠	396	● ▲	SM		■ ◆	4.0
	END HOLE @ 4.5m							
5.0								5.0
6.0								6.0

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LOGGED BY: B.B.	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 01/07/18
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SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST HOLE NO: 607-242
ENGINEERING CAPITAL	DUKE R. TO QUILL CR.	Project No: 092-202101-0361
MOBILE DRILL B-40L 6" AUGER	LOCATION: 1786+500 24M 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 -black -frozen (Vx)							0.0
1.0								1.0
2.0	SILTY GRAVEL WITH SAND (GM) -grey -frozen (Vx)							2.0
3.0		⊠	394	● ▲	GM		◆ ■	3.0
	END HOLE @ 3.0m							
4.0								4.0
5.0								5.0
6.0								6.0

Government of Yukon Transportation Engineering	LOGGED BY: B.B.	COMPLETION DEPTH: 3.0 m
	REVIEWED BY:	COMPLETE: 01/07/18
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GEOTECHNICAL INVESTIGATIONS

Highway Construction
Km 1775.6 to 1786.8 Alaska Highway #1
Yukon, 2002-2003
Volume 2 of 4

Yukon
Community and Transportation Services
Transportation Engineering Branch

Geotechnical Services

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

ORIGINAL - Do Not Remove From File

GR-01-084

Highway Construction
Km 1775.6 to 1786.8
Alaska Highway #1
Yukon 2002-2003
Volume 2 of 4

This Data Package prepared for project viewing:

January, 2002

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 4

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 1775+500 and increasing to Km 1786+500.

2001	TEST HOLES 117 to 121	shown with prefix 600-
	TEST HOLES 122 to 146	shown with prefix 601-
	TEST HOLES 147 to 159	shown with prefix 602-
	TEST HOLES 160 to 182	shown with prefix 604-
	TEST HOLES 183 to 207	shown with prefix 605-
	TEST HOLES 208 to 228	shown with prefix 606-
	TEST HOLES 242 to 265	shown with prefix 607-
	TEST HOLES 226 to 286	shown with prefix 608-
	TEST HOLES 1687 to 1698	shown with prefix 629-

NOTE:

Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

Volume 2 of 4

CENTRELINE TESTING ALASKA HIGHWAY

Laboratory Testing Result Sheets are provided.
The reports for the centreline holes are arranged according to test hole number, starting at 600-117 and increasing to 629-1698.

2001	TEST HOLES 117 to 121	shown with prefix 600-
	TEST HOLES 122 to 146	shown with prefix 601-
	TEST HOLES 147 to 159	shown with prefix 602-
	TEST HOLES 160 to 182	shown with prefix 604-
	TEST HOLES 183 to 207	shown with prefix 605-
	TEST HOLES 208 to 228	shown with prefix 606-
	TEST HOLES 242 to 265	shown with prefix 607-
	TEST HOLES 226 to 286	shown with prefix 608-
	TEST HOLES 1687 to 1698	shown with prefix 629-

NOTE:

Centreline Test Hole locations indicated on the Subsurface Exploration and Testing Report Sheets are approximate. Actual Test Hole locations, located by GPS survey or field survey, are as shown on project plans.

CONTENTS (continued)

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GRANULAR SOURCE Km 1776 LHS ALASKA HIGHWAY

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

Backhoe Testing

1988	TEST PITS 1 to 11	shown with prefix 033-
2001	TEST PITS 1-45	shown with prefix 610-

BORROW SOURCE Km 1777.5 RHS ALASKA HIGHWAY

Subsurface exploration and testing report sheets are provided.

Auger Testing

2001	TEST HOLES 1672 to 1679	shown with prefix 629-

CONTENTS (continued)

Volume 4 of 4

BORROW SOURCE Km 1779.5 RHS ALASKA HIGHWAY

Subsurface exploration and testing report sheets are provided.

Auger Testing

2001	TEST HOLES 229 to 232	shown with prefix 606-
2001	TEST HOLES 233 to 241	shown with prefix 607-
2001	TEST HOLES 1680 to 1686	shown with prefix 629-

GRANULAR SOURCE Km 1786 – 4 kms LHS ALASKA HIGHWAY

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

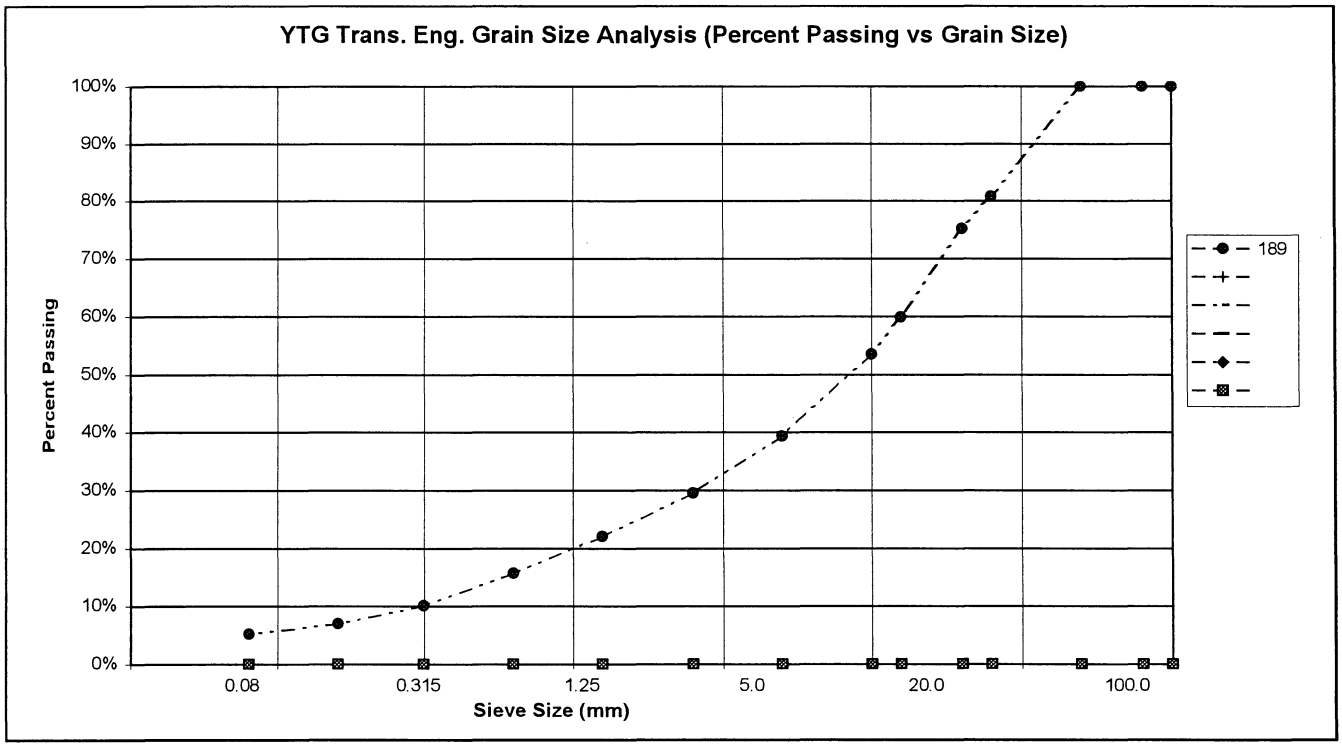
Backhoe Testing

1998	TEST PITS 203 to 226	shown with prefix 497-
2001	TEST PITS 1-26	shown with prefix 609-

CENTRELINE TESTING
1775+500 to 1786+500
ALASKA HIGHWAY

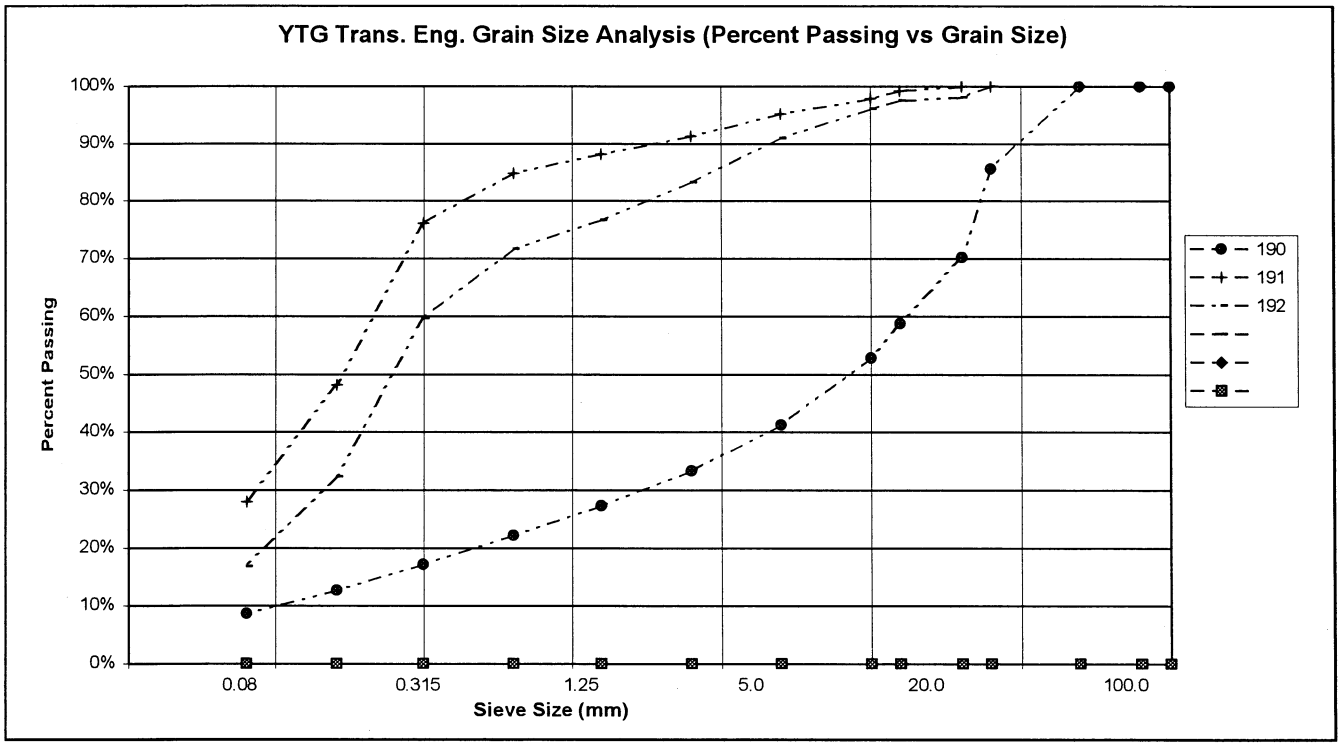
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CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1729-1787 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1775+500 10M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/06/21	

FIELD NO:	189					
LAB NO:	700					
DEPTH:	3.8-4.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	81%					
20.0	75%					
12.5	60%					
10.0	54%					
5.0	39%					
2.5	30%					
1.25	22%					
0.630	16%					
0.315	10%					
0.160	7%					
0.080	5%					
M.C.(%):	2%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	61					
% SAND:	34					
% FINES:	5					
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)					



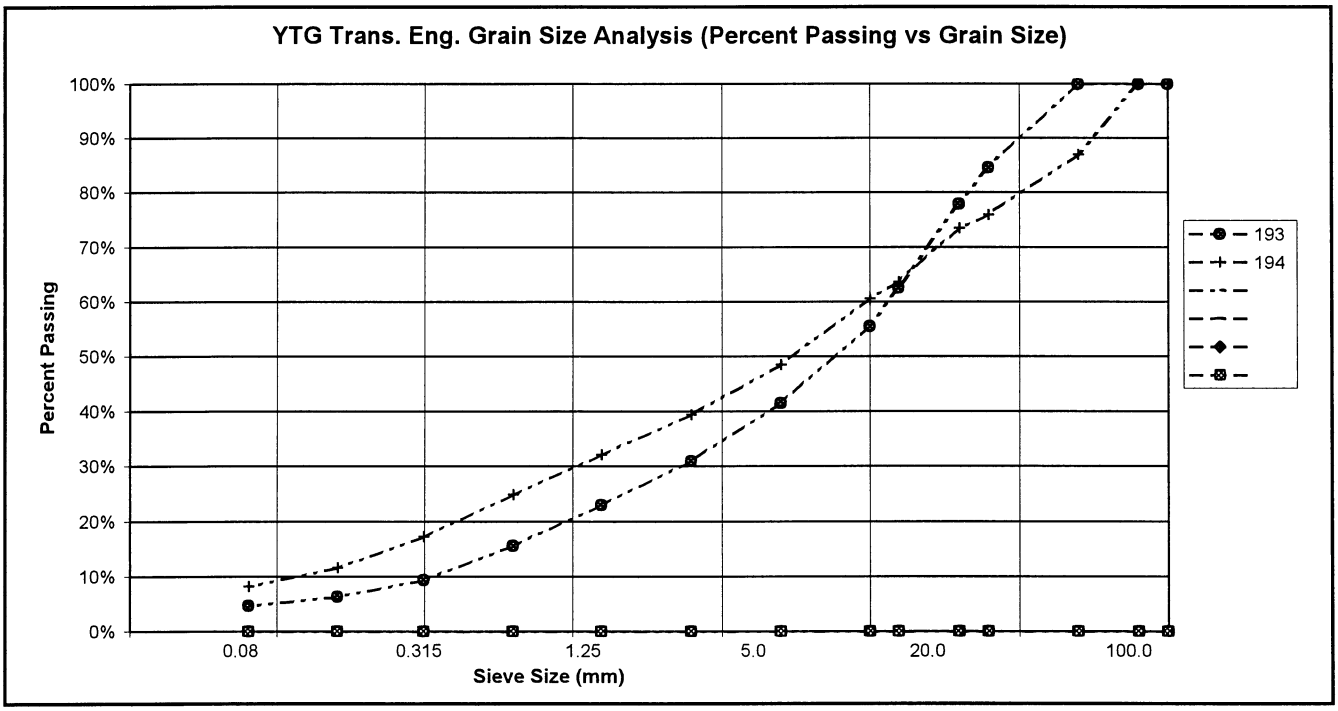
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 600-118
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1775+800 15M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/21

FIELD NO:	190	191	192			
LAB NO:	701	702	703			
DEPTH:	1.3-1.5	2.8-3.0	4.3-4.5			
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	86%	100%	100%			
20.0	70%	100%	98%			
12.5	59%	99%	98%			
10.0	53%	98%	96%			
5.0	41%	95%	91%			
2.5	33%	91%	83%			
1.25	27%	88%	77%			
0.630	22%	85%	72%			
0.315	17%	76%	60%			
0.160	13%	48%	32%			
0.080	9%	28%	17%			
M.C.(%):	4%	11%	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:	59	5	9			
% SAND:	33	67	74			
% FINES:	9	28	17			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND (SM)	SILTY SAND (SM)			



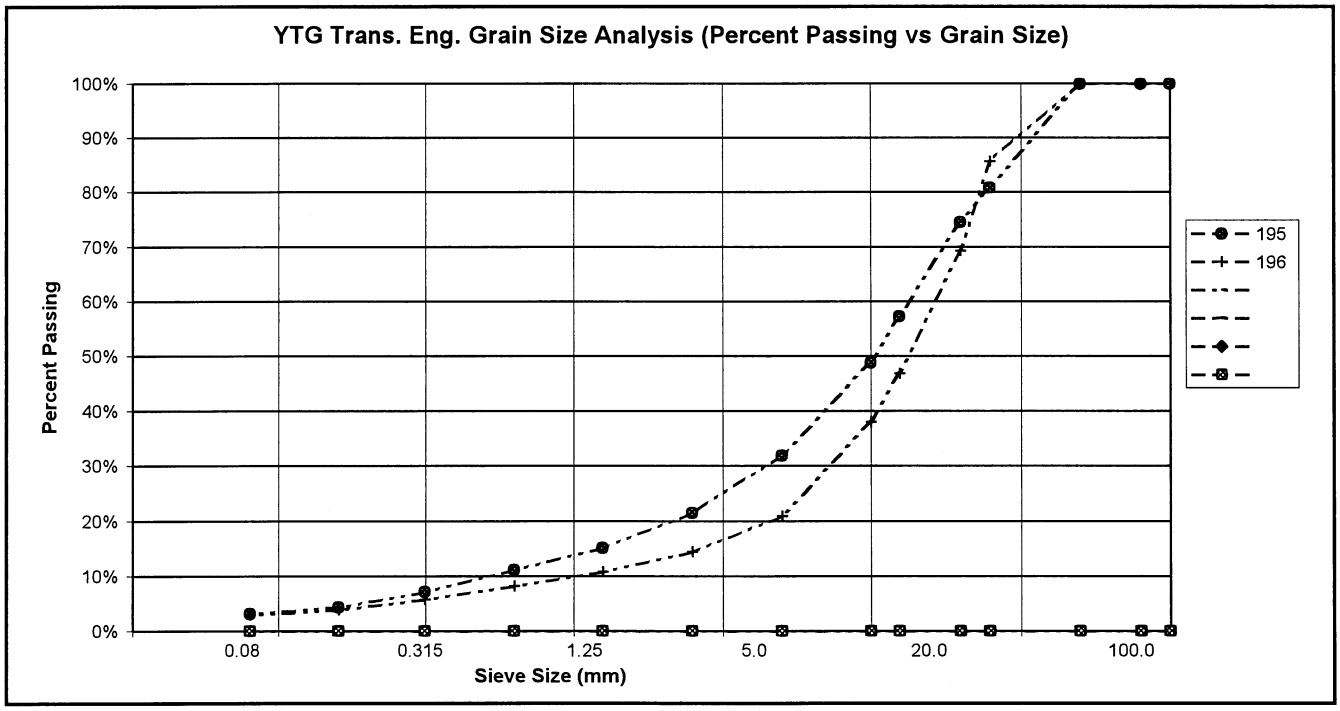
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 600-119
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1775+900 7M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/21

FIELD NO:	193	194				
LAB NO:	704	705				
DEPTH:	1.8-2.0	4.3-4.5				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	87%				
25.0	85%	76%				
20.0	78%	74%				
12.5	63%	64%				
10.0	56%	61%				
5.0	42%	48%				
2.5	31%	39%				
1.25	23%	32%				
0.630	16%	25%				
0.315	9%	17%				
0.160	6%	12%				
0.080	5%	8%				
M.C.(%):	3%	4%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	58	52				
% SAND:	37	40				
% FINES:	5	8				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



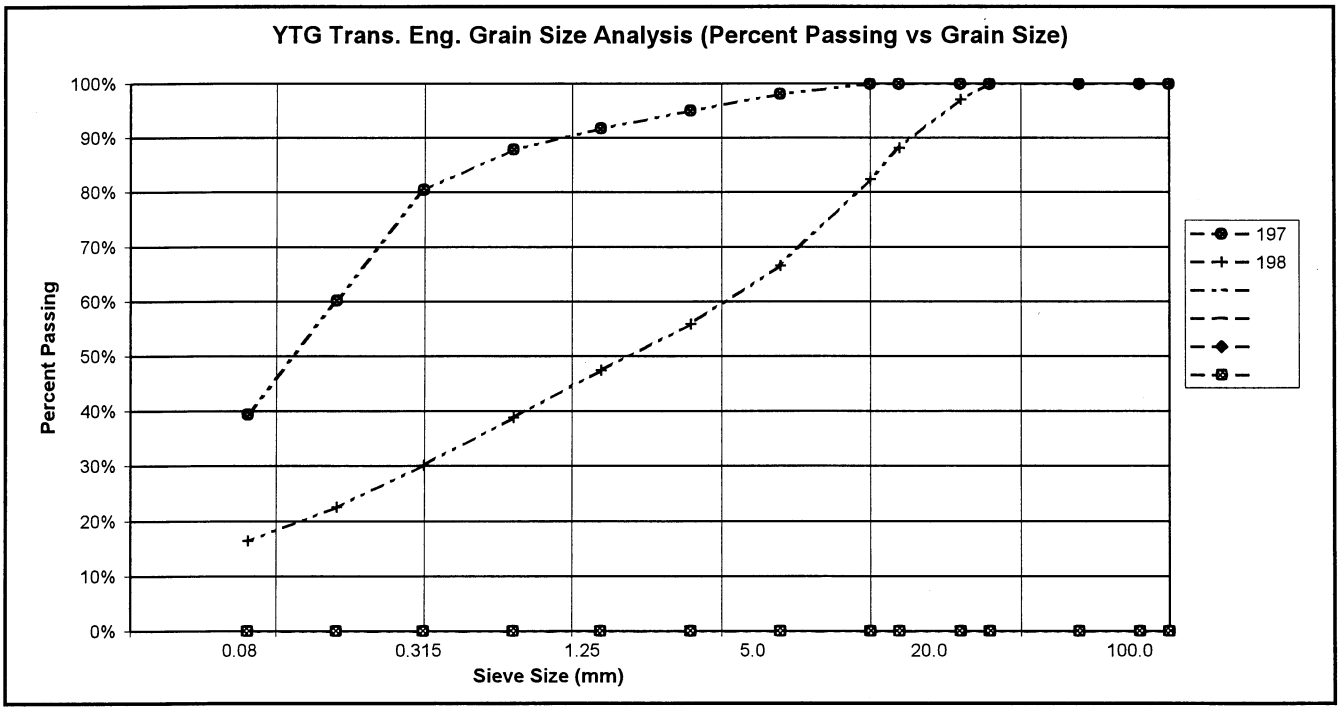
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 600-120
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+000 14M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/21

FIELD NO:	195	196				
LAB NO:	706	707				
DEPTH:	1.8-2.0	4.3-4.5				
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	81%	86%				
20.0	75%	69%				
12.5	57%	47%				
10.0	49%	38%				
5.0	32%	21%				
2.5	21%	14%				
1.25	15%	11%				
0.630	11%	8%				
0.315	7%	6%				
0.160	4%	4%				
0.080	3%	3%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	68	79				
% SAND:	29	18				
% FINES:	3	3				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



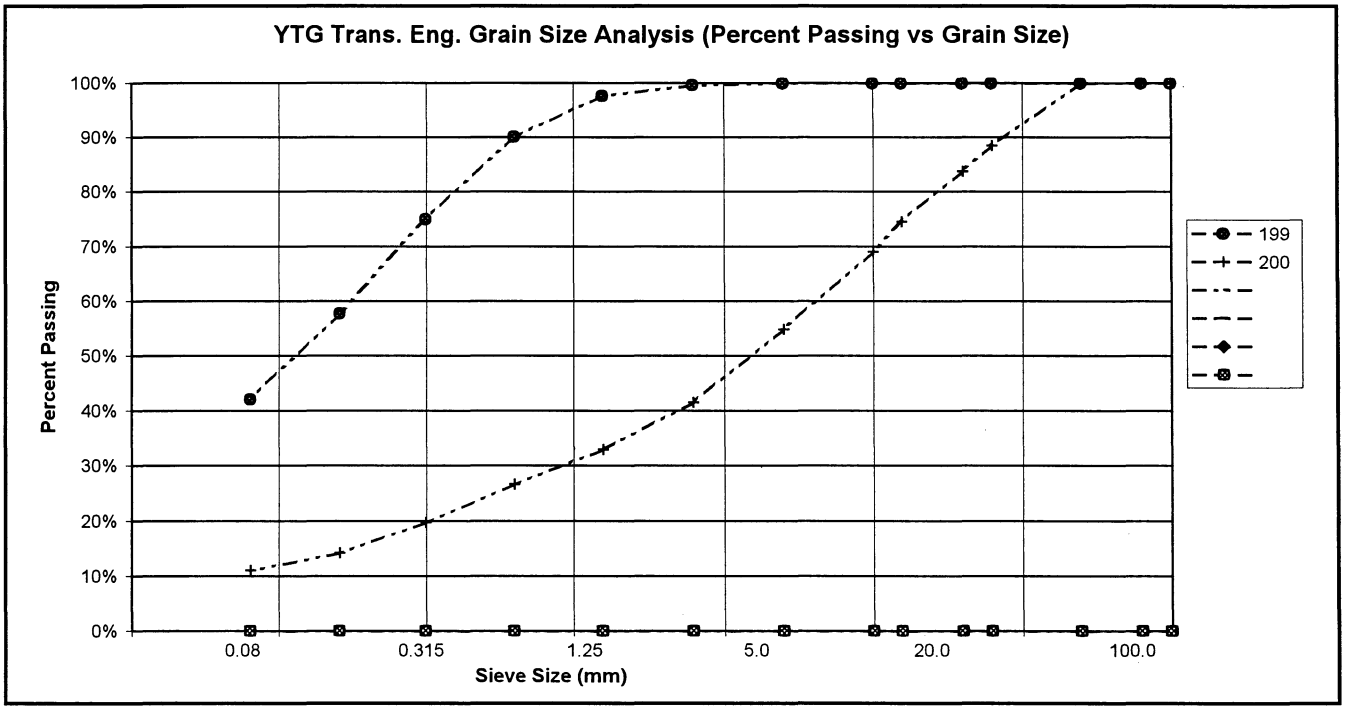
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 600-121
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+100 10M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/21

FIELD NO:	197	198				
LAB NO:	708	709				
DEPTH:	0.8-1.0	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	97%				
12.5	100%	88%				
10.0	100%	82%				
5.0	98%	67%				
2.5	95%	56%				
1.25	92%	47%				
0.630	88%	39%				
0.315	80%	30%				
0.160	60%	23%				
0.080	39%	16%				
M.C.(%):	15%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	2	33				
% SAND:	59	50				
% FINES:	39	16				
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)				



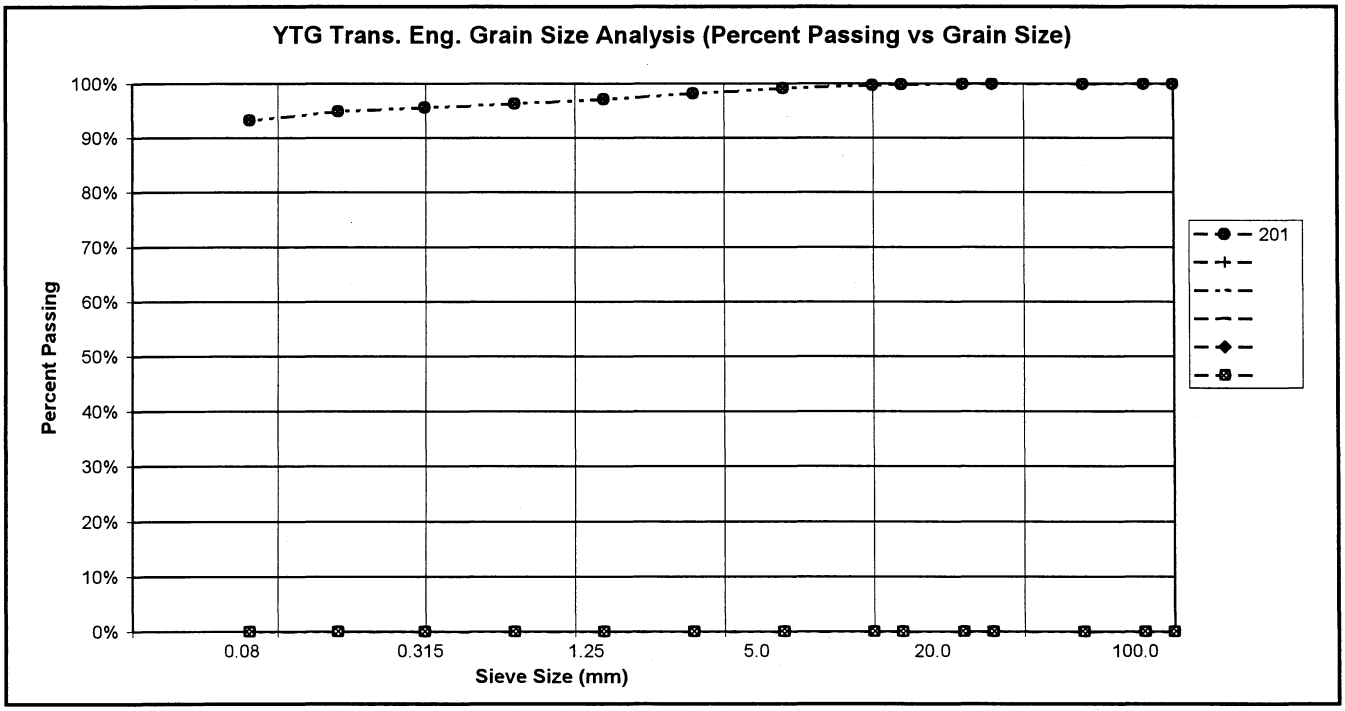
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-122
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+200 10M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/25

FIELD NO:	199	200				
LAB NO:	710	711				
DEPTH:	0.8-1.0	3.8-4.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	88%				
20.0	100%	84%				
12.5	100%	75%				
10.0	100%	69%				
5.0	100%	55%				
2.5	100%	42%				
1.25	98%	33%				
0.630	90%	27%				
0.315	75%	20%				
0.160	58%	14%				
0.080	42%	11%				
M.C.(%):	19%	4%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	45				
% SAND:	58	44				
% FINES:	42	11				
CLASSIFICATION	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



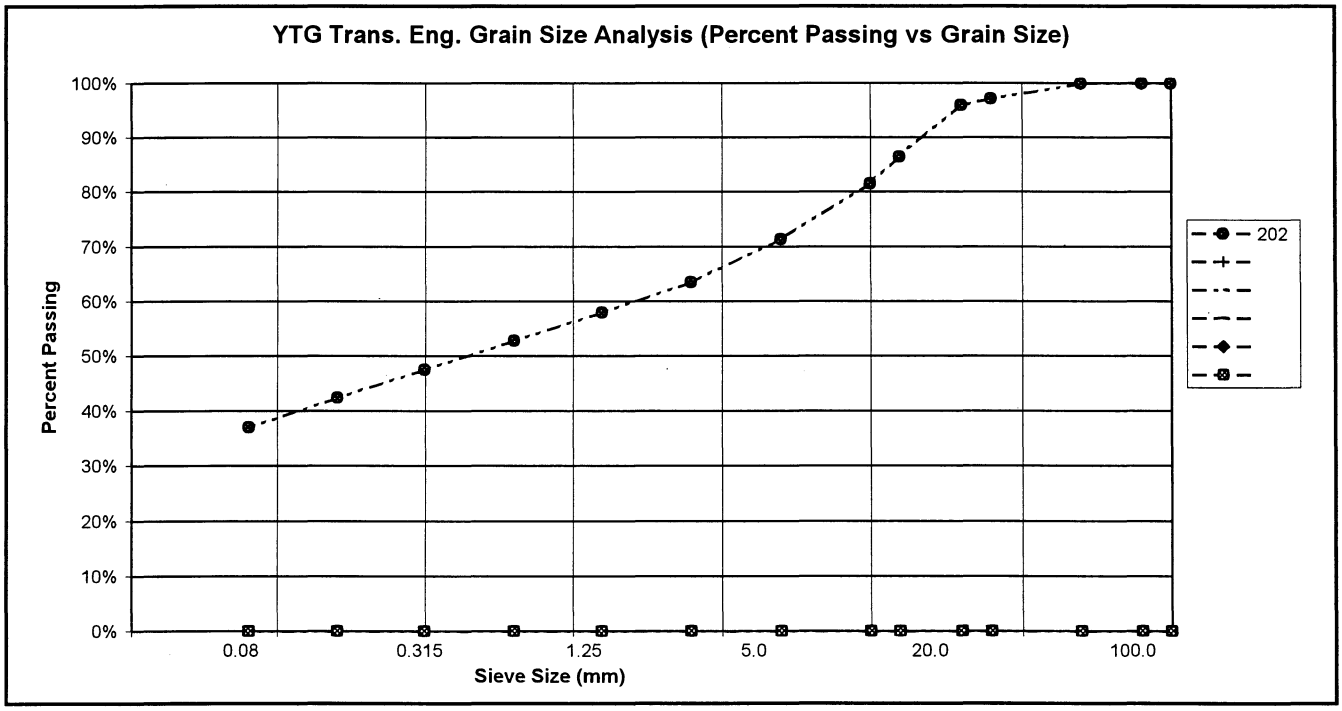
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-123
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+300 10M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/25

FIELD NO:	201					
LAB NO:	712					
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	100%					
12.5	100%					
10.0	100%					
5.0	99%					
2.5	98%					
1.25	97%					
0.630	96%					
0.315	96%					
0.160	95%					
0.080	93%					
M.C.(%):	56%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	1					
% SAND:	6					
% FINES:	93					
CLASSIFICATION	SILT (ML)					



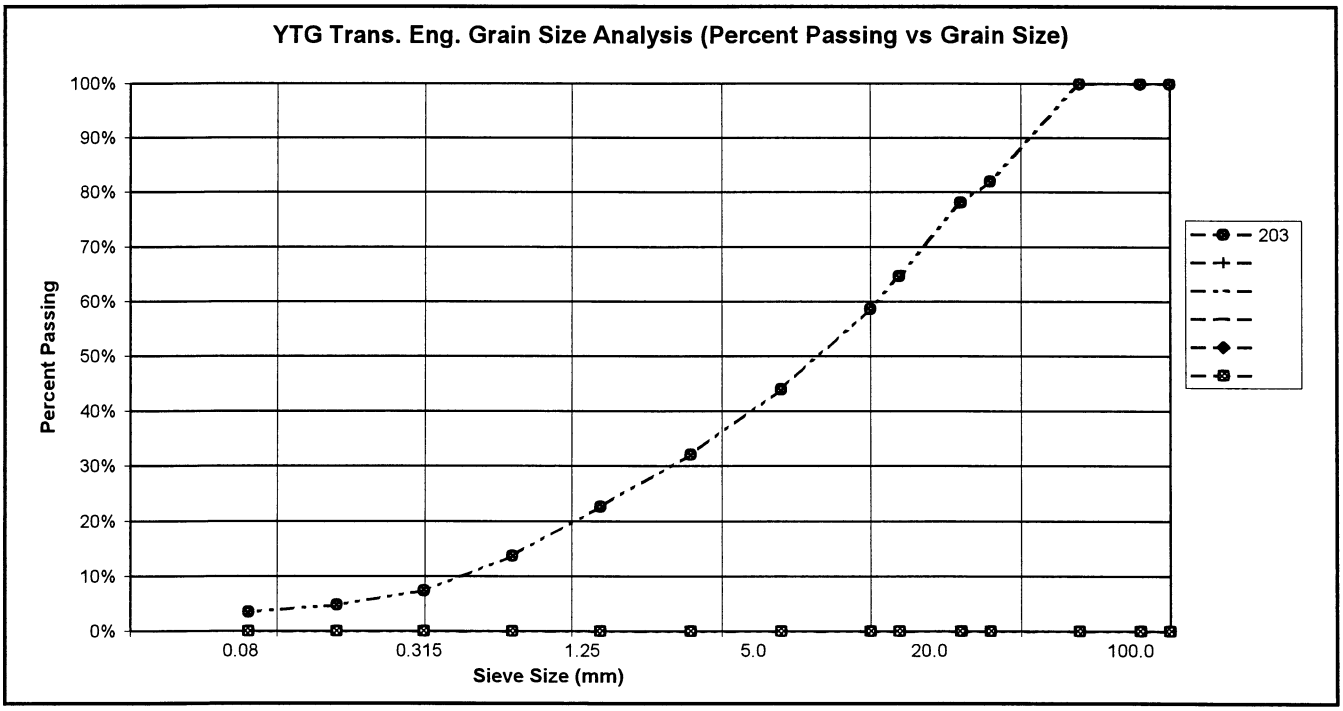
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-124
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+370 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/25

FIELD NO:	202					
LAB NO:	713					
DEPTH:	3.8-4.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	97%					
20.0	96%					
12.5	86%					
10.0	82%					
5.0	71%					
2.5	64%					
1.25	58%					
0.630	53%					
0.315	47%					
0.160	43%					
0.080	37%					
M.C.(%):	11%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	29					
% SAND:	34					
% FINES:	37					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



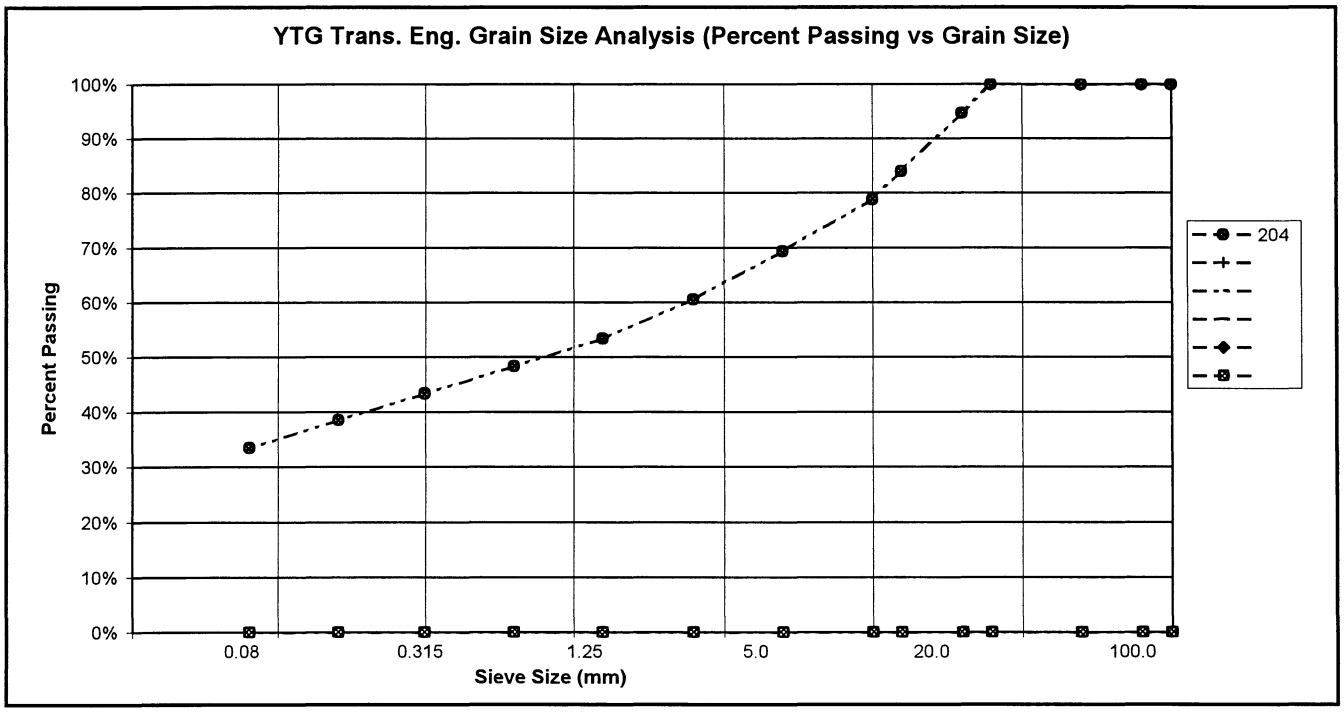
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-125
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+370 20M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/26

FIELD NO:	203					
LAB NO:	714					
DEPTH:	1.8-2.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	82%					
20.0	78%					
12.5	65%					
10.0	59%					
5.0	44%					
2.5	32%					
1.25	23%					
0.630	14%					
0.315	7%					
0.160	5%					
0.080	4%					
M.C.(%):	7%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	56					
% SAND:	40					
% FINES:	4					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



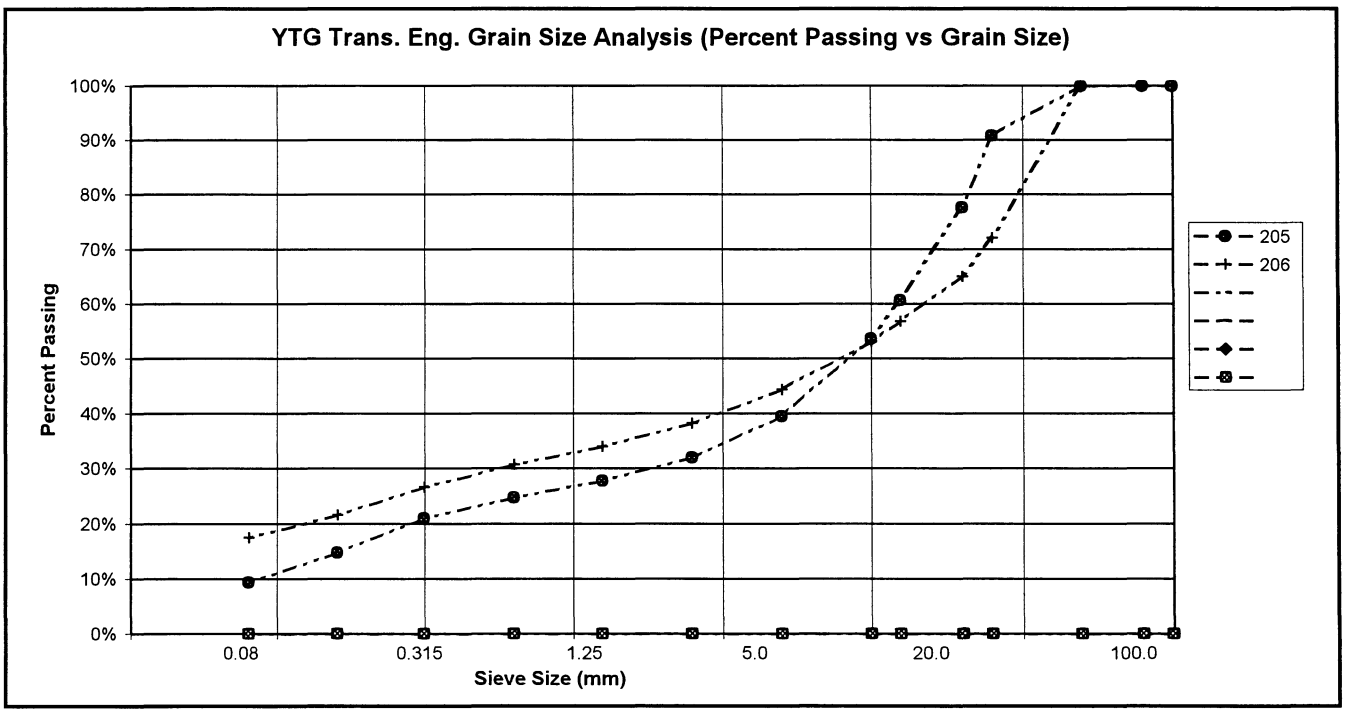
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-126
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+378 23M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/26

FIELD NO:	204					
LAB NO:	715					
DEPTH:	4.3-4.5					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	95%					
12.5	84%					
10.0	79%					
5.0	69%					
2.5	61%					
1.25	53%					
0.630	48%					
0.315	43%					
0.160	39%					
0.080	34%					
M.C.(%):	10%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	31					
% SAND:	36					
% FINES:	34					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



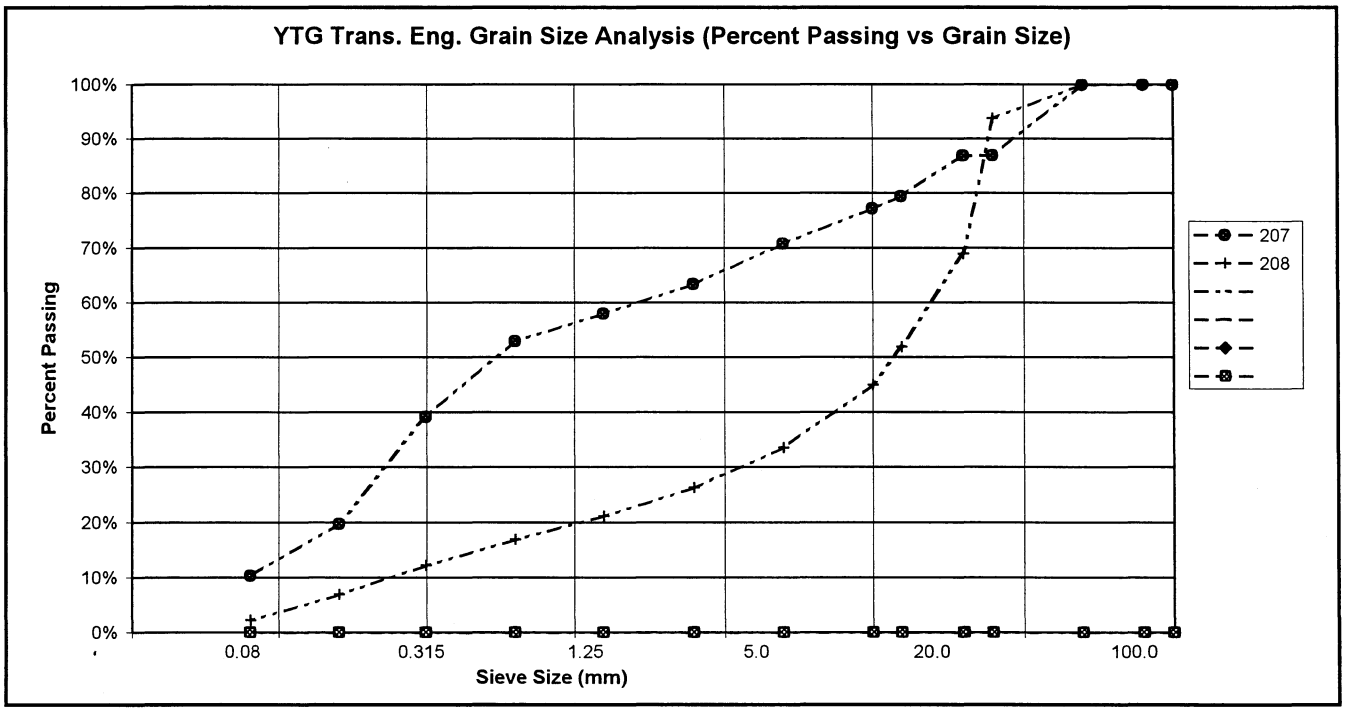
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-127
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+550 CL		
LOGGED BY:	B.B.		DATE COMP: 2001/06/26

FIELD NO:	205	206				
LAB NO:	716	717				
DEPTH:	1.3-1.5	4.3-4.5				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	91%	72%				
20.0	78%	65%				
12.5	61%	57%				
10.0	54%	53%				
5.0	40%	44%				
2.5	32%	38%				
1.25	28%	34%				
0.630	25%	31%				
0.315	21%	27%				
0.160	15%	22%				
0.080	9%	17%				
M.C.(%):	7%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	60	56				
% SAND:	30	27				
% FINES:	9	17				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)				



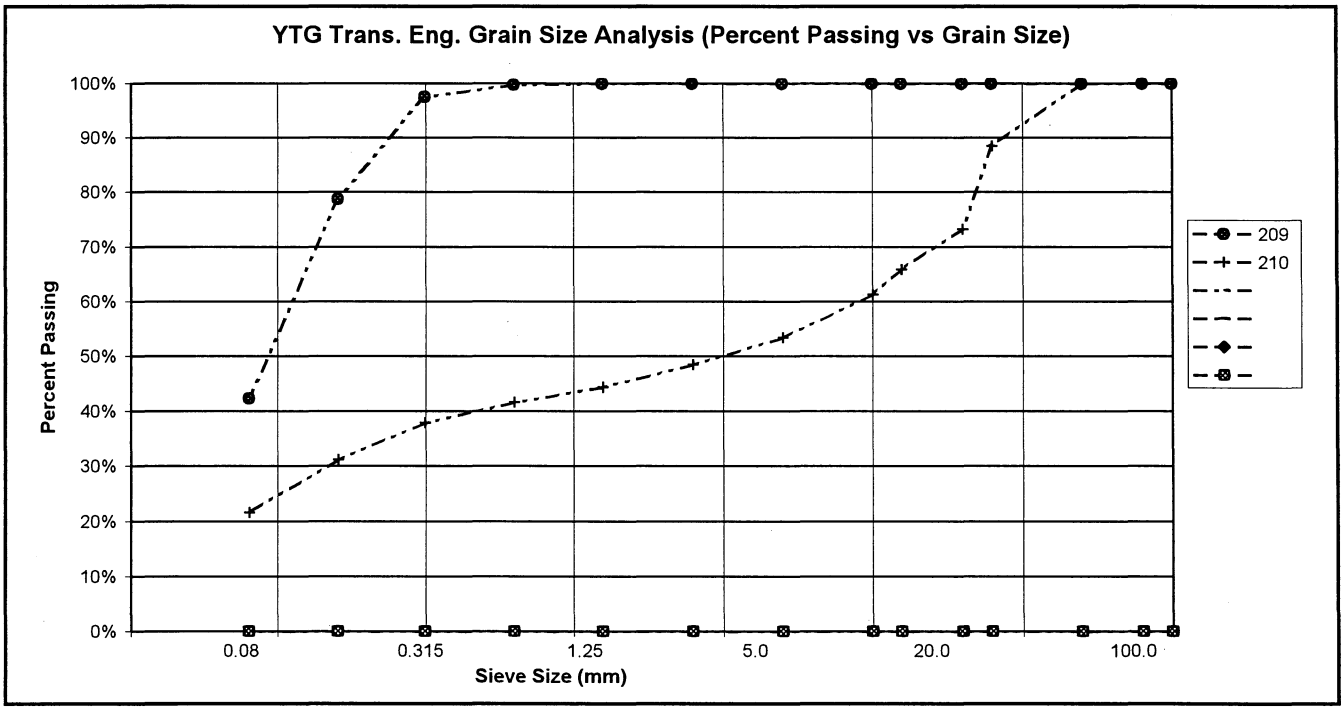
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-128
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+650 CL		
LOGGED BY:	B.B.		DATE COMP: 2001/06/26

FIELD NO:	207	208				
LAB NO:	718	719				
DEPTH:	1.3-1.5	3.8-4.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	87%	94%				
20.0	87%	69%				
12.5	79%	52%				
10.0	77%	45%				
5.0	71%	34%				
2.5	63%	26%				
1.25	58%	21%				
0.630	53%	17%				
0.315	39%	12%				
0.160	20%	7%				
0.080	10%	2%				
M.C.(%):	4%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	29	66				
% SAND:	60	31				
% FINES:	10	2				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)				



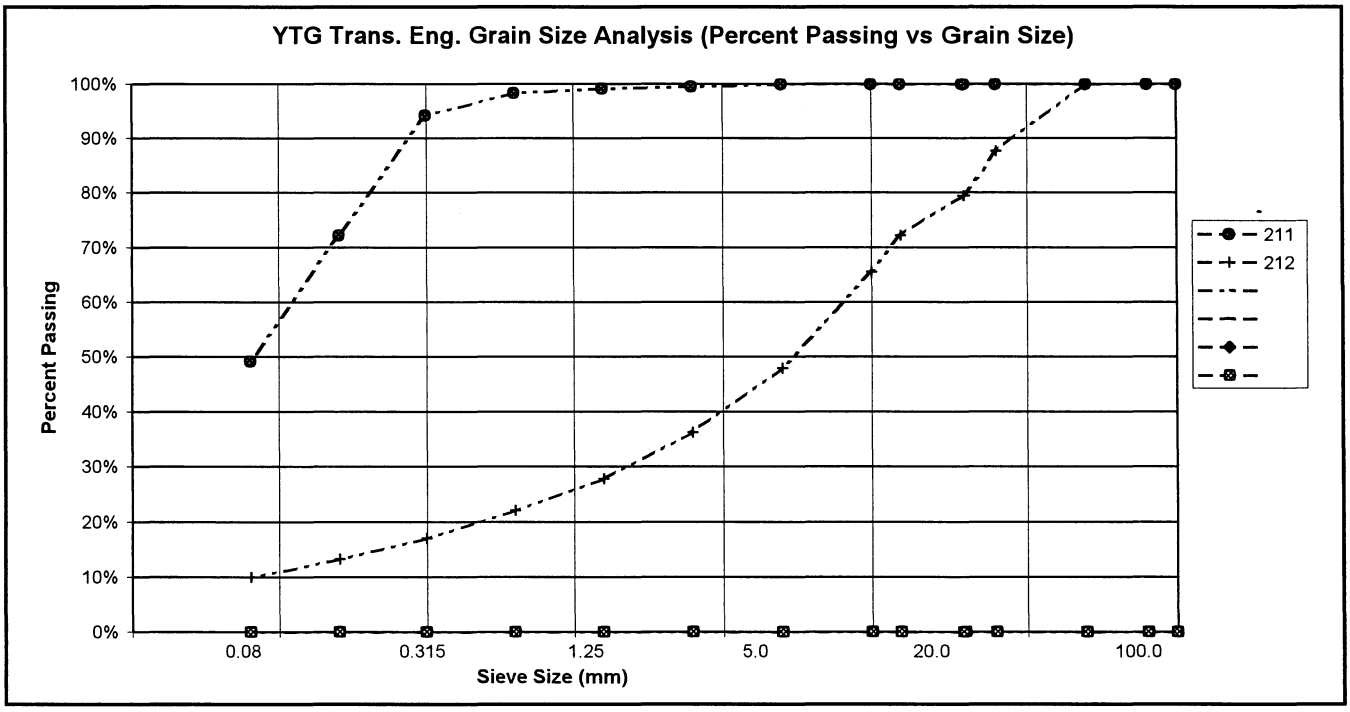
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-129
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+682 CL		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	209	210				
LAB NO:	720	721				
DEPTH:	0.8-1.0	4.3-4.5				
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%	88%				
20.0	100%	73%				
12.5	100%	66%				
10.0	100%	61%				
5.0	100%	53%				
2.5	100%	49%				
1.25	100%	44%				
0.630	100%	42%				
0.315	97%	38%				
0.160	79%	31%				
0.080	42%	22%				
M.C.(%):	19%	9%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	47				
% SAND:	58	32				
% FINES:	42	22				
CLASSIFICATION	SILTY SAND (SM)	SILTY GRAVEL WITH SAND (GM)				



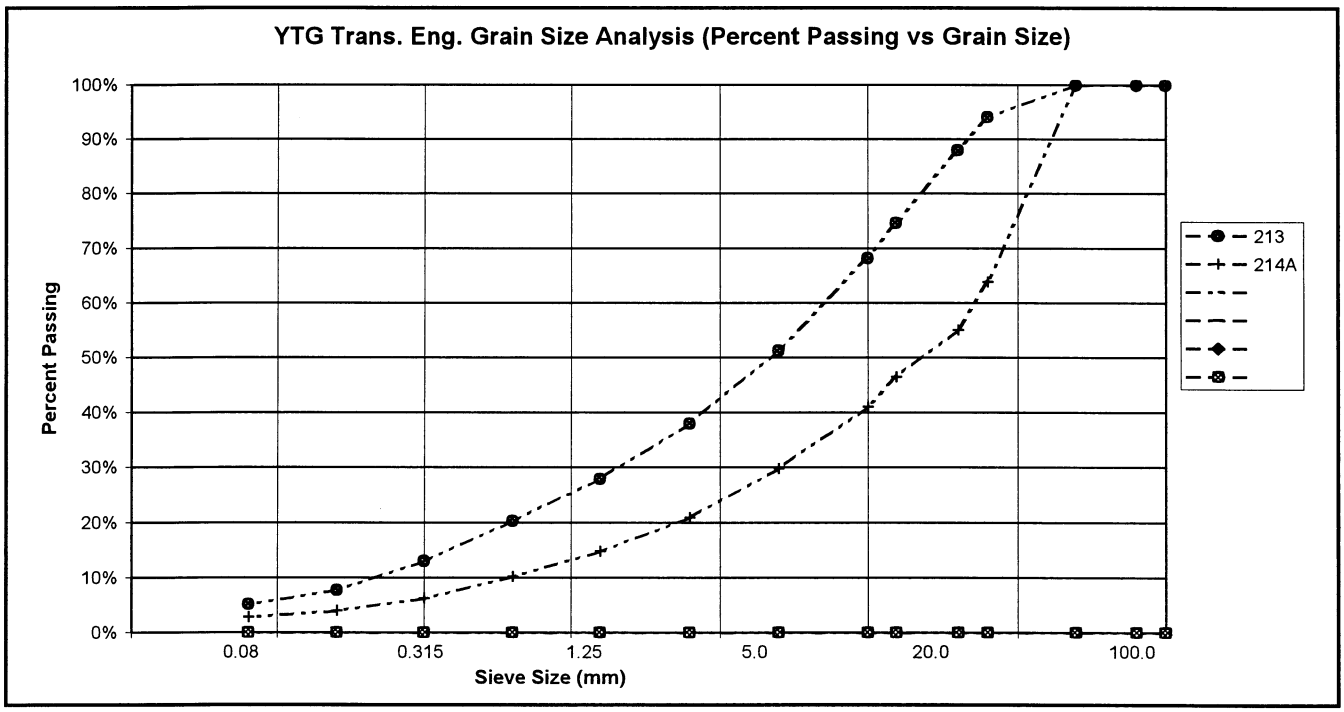
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-130
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+682 20M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	211	212				
LAB NO:	722	723				
DEPTH:	1.3-1.5	2.6-2.8				
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%	88%				
20.0	100%	79%				
12.5	100%	72%				
10.0	100%	65%				
5.0	100%	48%				
2.5	100%	36%				
1.25	99%	28%				
0.630	98%	22%				
0.315	94%	17%				
0.160	72%	13%				
0.080	49%	10%				
M.C.(%):	27%	7%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	52				
% SAND:	51	38				
% FINES:	49	10				
CLASSIFICATION	SILTY SAND (SM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)				



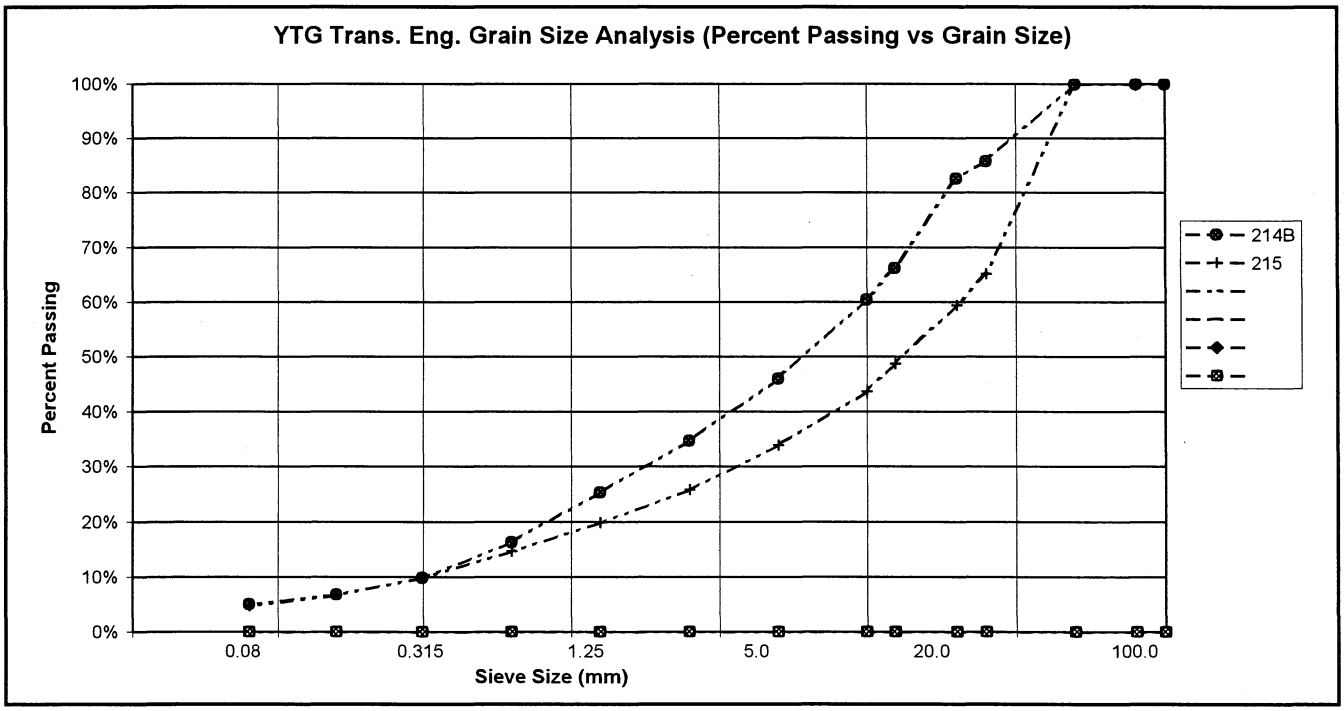
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-131
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+750 CL		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	213	214A				
LAB NO:	724	725				
DEPTH:	1.3-1.5	4.3-4.5				
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	94%	64%				
20.0	88%	55%				
12.5	75%	46%				
10.0	68%	41%				
5.0	51%	30%				
2.5	38%	21%				
1.25	28%	15%				
0.630	20%	10%				
0.315	13%	6%				
0.160	8%	4%				
0.080	5%	3%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	49	70				
% SAND:	46	27				
% FINES:	5	3				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SAND (GW)				



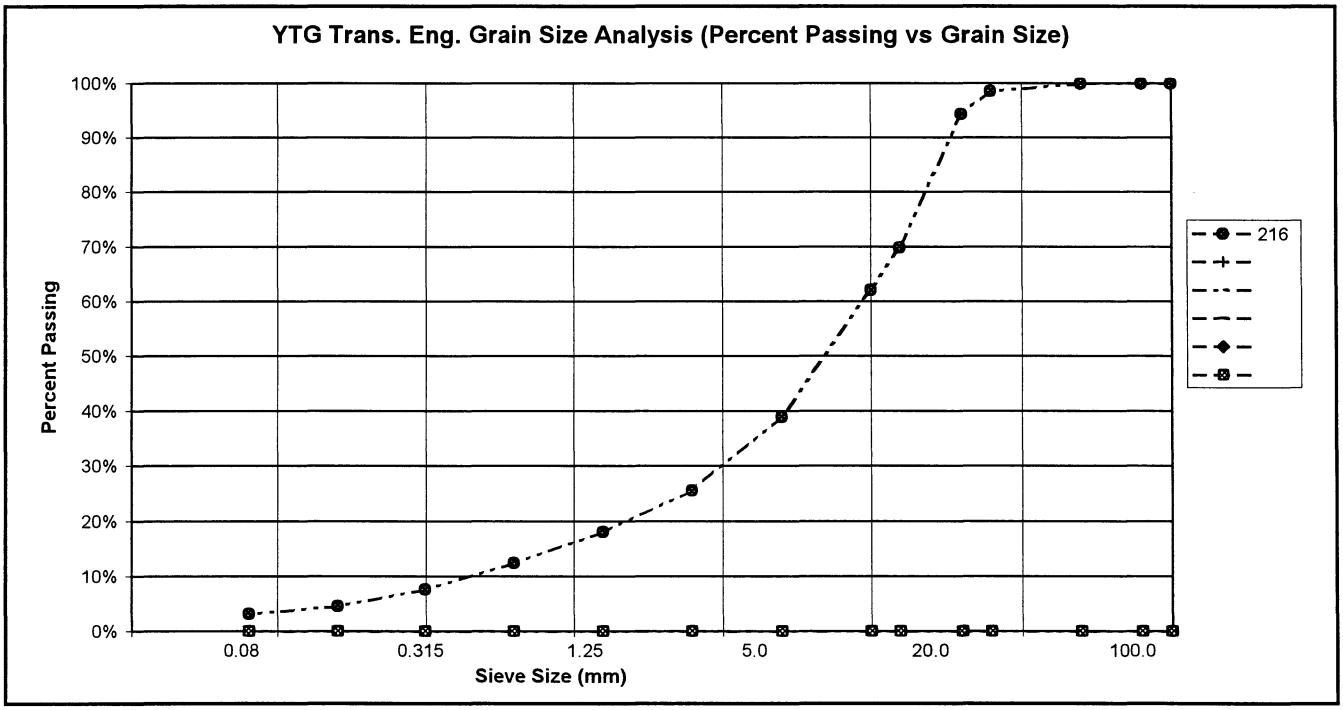
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-132
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+850 2M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	214B	215				
LAB NO:	726	727				
DEPTH:	1.8-2.0	4.3-4.5				
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	86%	65%				
20.0	83%	59%				
12.5	66%	49%				
10.0	60%	44%				
5.0	46%	34%				
2.5	35%	26%				
1.25	25%	20%				
0.630	16%	15%				
0.315	10%	10%				
0.160	7%	7%				
0.080	5%	5%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	54	66				
% SAND:	41	29				
% FINES:	5	5				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)				



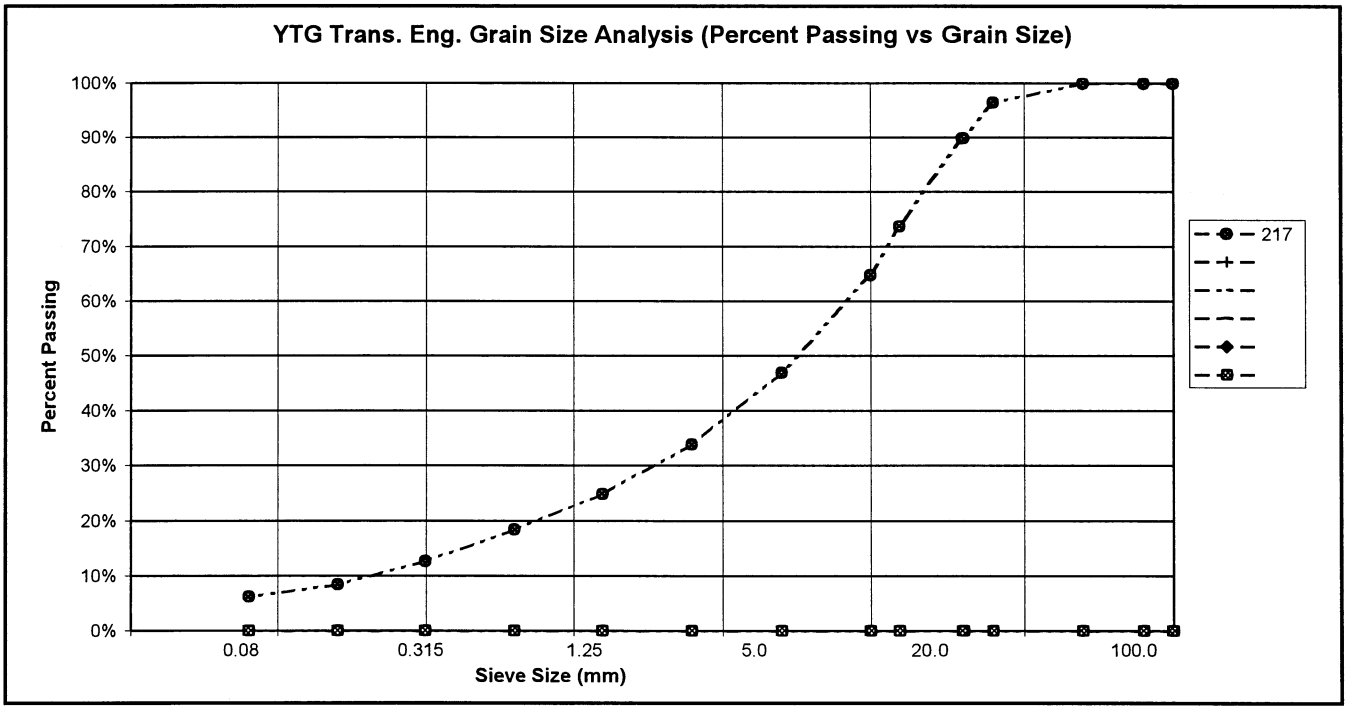
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 601-133	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1776+950 2M RT					
LOGGED BY:	B.B.				DATE COMP: 2001/06/27	

FIELD NO:	216					
LAB NO:	728					
DEPTH:	2.8-3.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	99%					
20.0	94%					
12.5	70%					
10.0	62%					
5.0	39%					
2.5	26%					
1.25	18%					
0.630	12%					
0.315	8%					
0.160	5%					
0.080	3%					
M.C.(%):	2%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	61					
% SAND:	36					
% FINES:	3					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



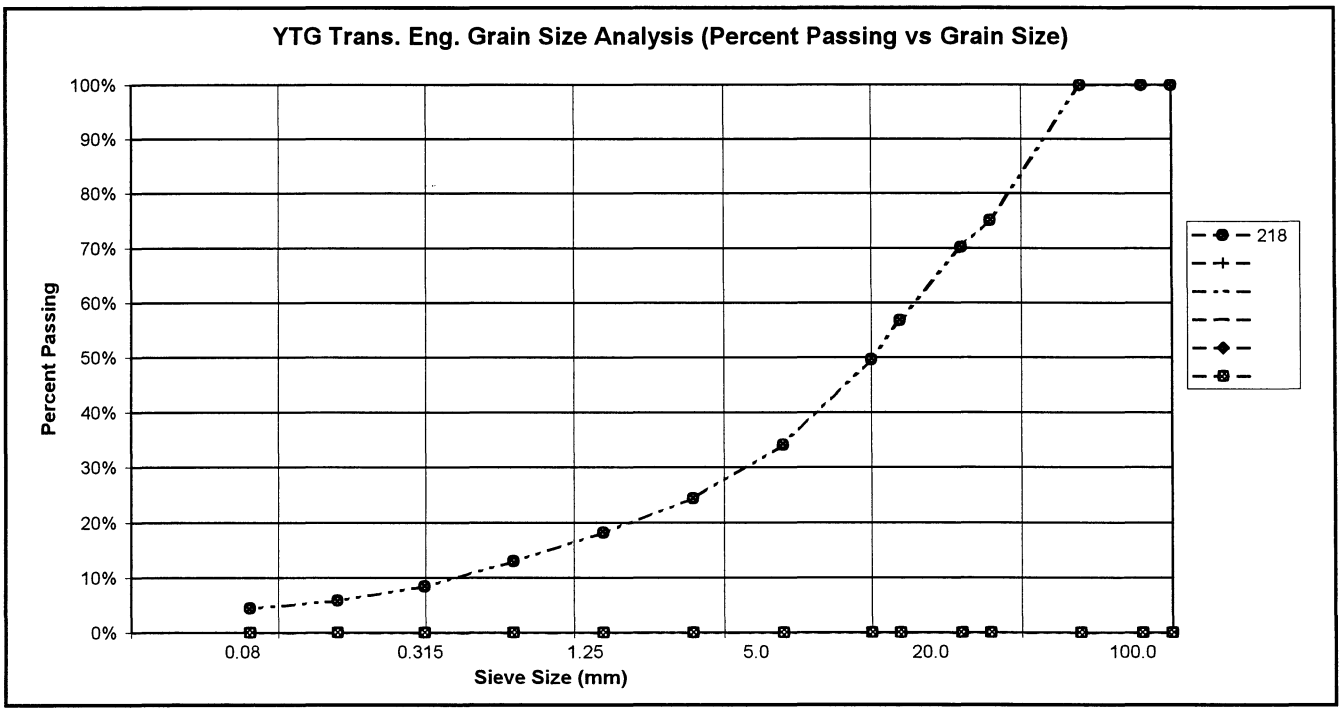
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-134
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+050 2M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	217					
LAB NO:	729					
DEPTH:	4.3-4.5					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	96%					
20.0	90%					
12.5	74%					
10.0	65%					
5.0	47%					
2.5	34%					
1.25	25%					
0.630	18%					
0.315	13%					
0.160	8%					
0.080	6%					
M.C.(%):	3%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	53					
% SAND:	41					
% FINES:	6					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)					



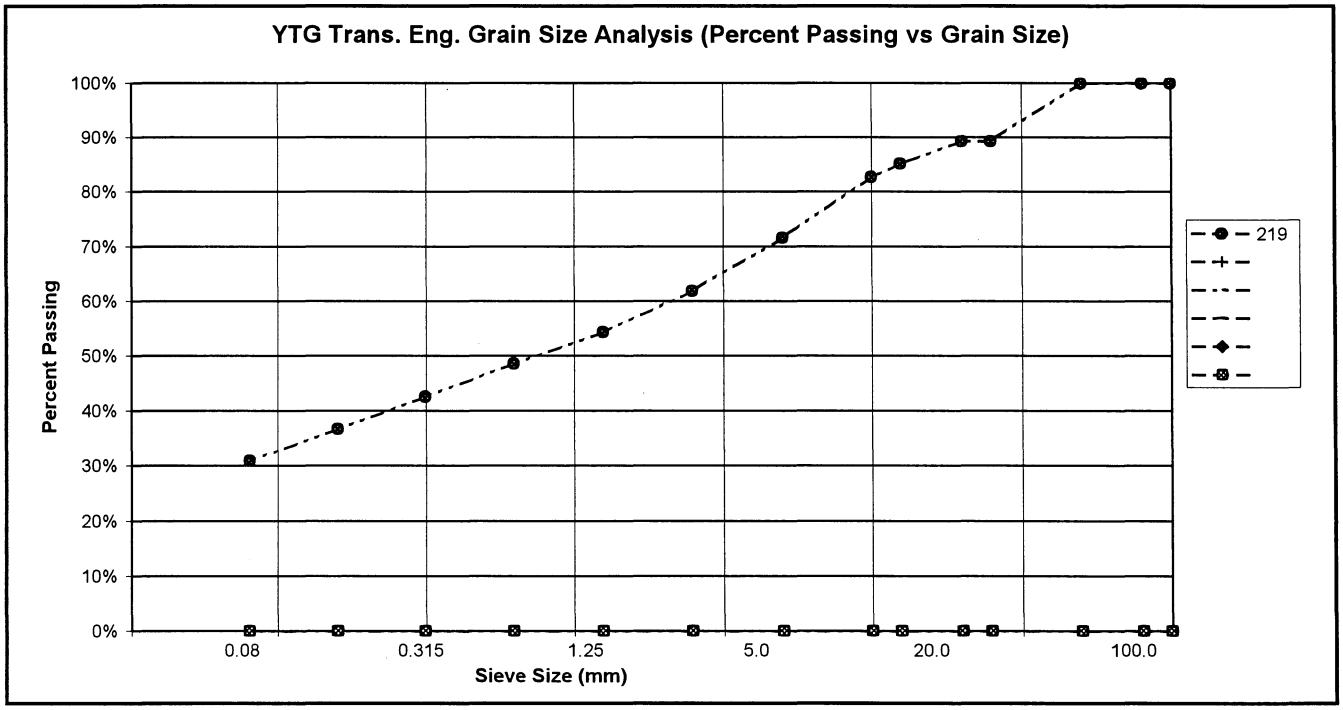
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-135
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+150 10M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	218					
LAB NO:	730					
DEPTH:	4.3-4.5					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	75%					
20.0	70%					
12.5	57%					
10.0	50%					
5.0	34%					
2.5	24%					
1.25	18%					
0.630	13%					
0.315	9%					
0.160	6%					
0.080	5%					
M.C.(%):	3%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	66					
% SAND:	30					
% FINES:	5					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



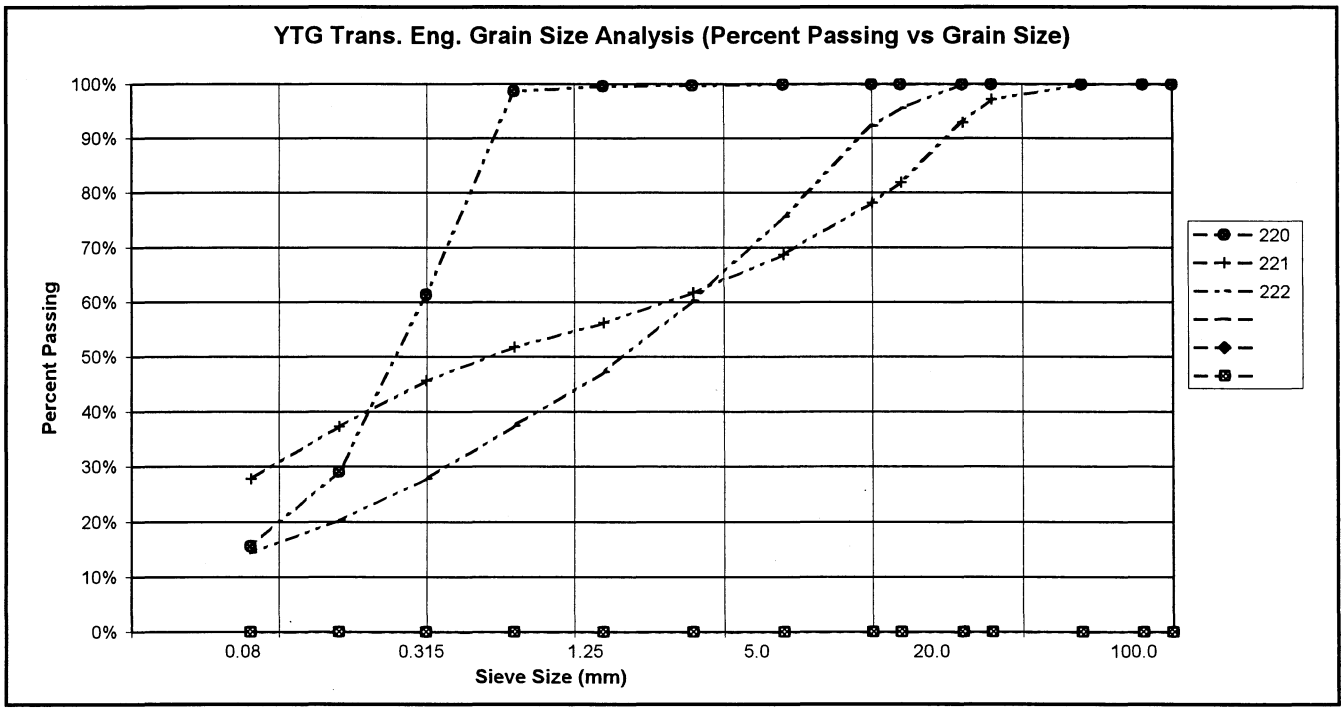
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-136
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+100 35M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	219					
LAB NO:	731					
DEPTH:	2.4-2.6					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	89%					
20.0	89%					
12.5	85%					
10.0	83%					
5.0	72%					
2.5	62%					
1.25	54%					
0.630	49%					
0.315	43%					
0.160	37%					
0.080	31%					
M.C.(%):	5%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	28					
% SAND:	41					
% FINES:	31					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



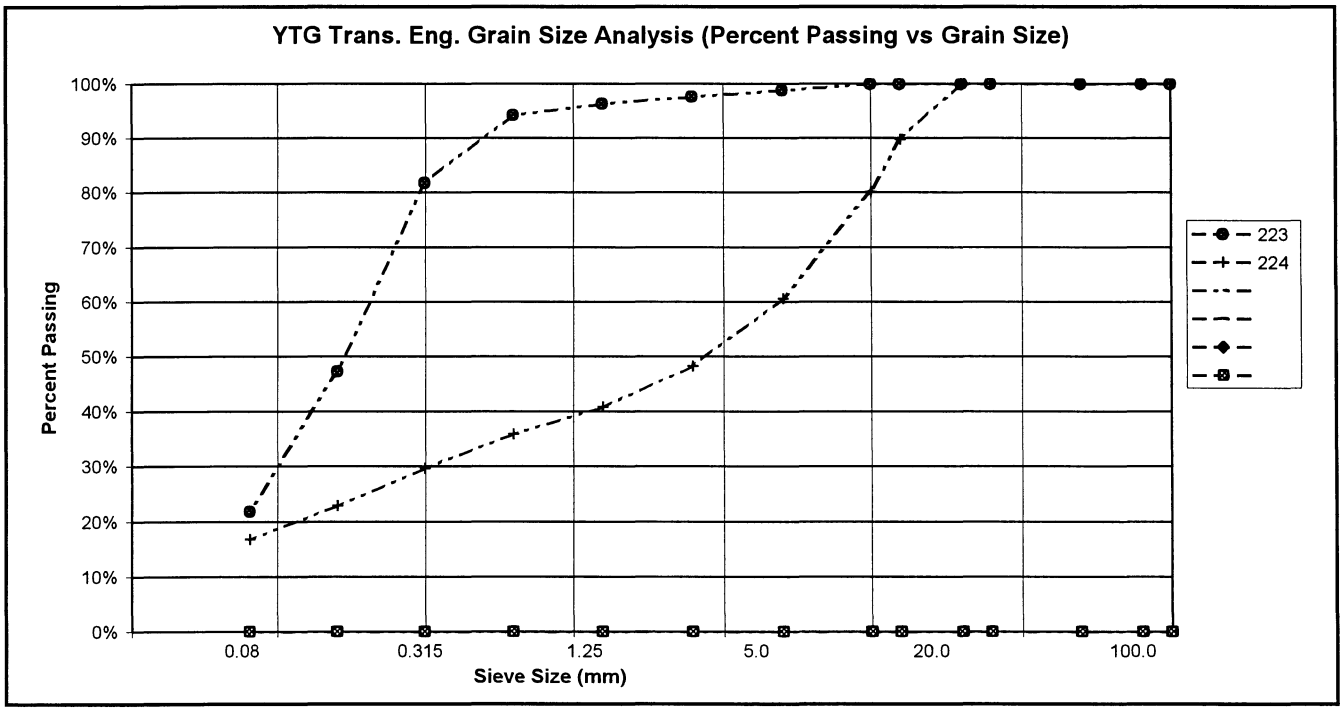
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-137
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+000 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	220	221	222			
LAB NO:	732	733	734			
DEPTH:	0.6-0.8	1.5-1.6	2.6-2.8			
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%	100%			
20.0	100%	93%	100%			
12.5	100%	82%	96%			
10.0	100%	78%	92%			
5.0	100%	69%	76%			
2.5	100%	62%	60%			
1.25	100%	56%	47%			
0.630	99%	52%	37%			
0.315	61%	46%	28%			
0.160	29%	37%	20%			
0.080	16%	28%	14%			
M.C.(%):	13%	12%	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:	0	31	24			
% SAND:	84	41	61			
% FINES:	16	28	14			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)			



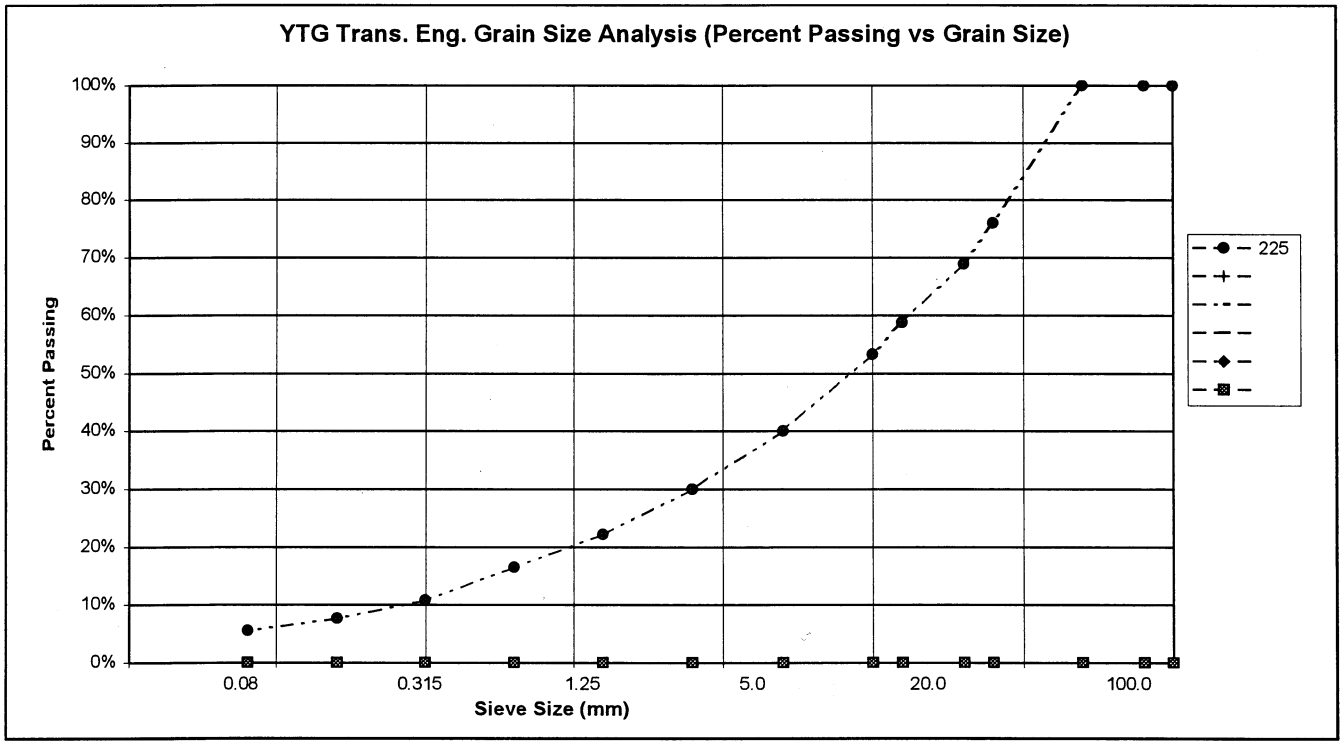
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-138
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+900 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	223	224				
LAB NO:	735	736				
DEPTH:	0.8-1.0	2.7-2.8				
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%	100%				
20.0	100%	100%				
12.5	100%	90%				
10.0	100%	80%				
5.0	99%	61%				
2.5	98%	48%				
1.25	96%	41%				
0.630	94%	36%				
0.315	82%	30%				
0.160	47%	23%				
0.080	22%	17%				
M.C.(%):	22%	19%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	1	39				
% SAND:	77	44				
% FINES:	22	17				
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)				



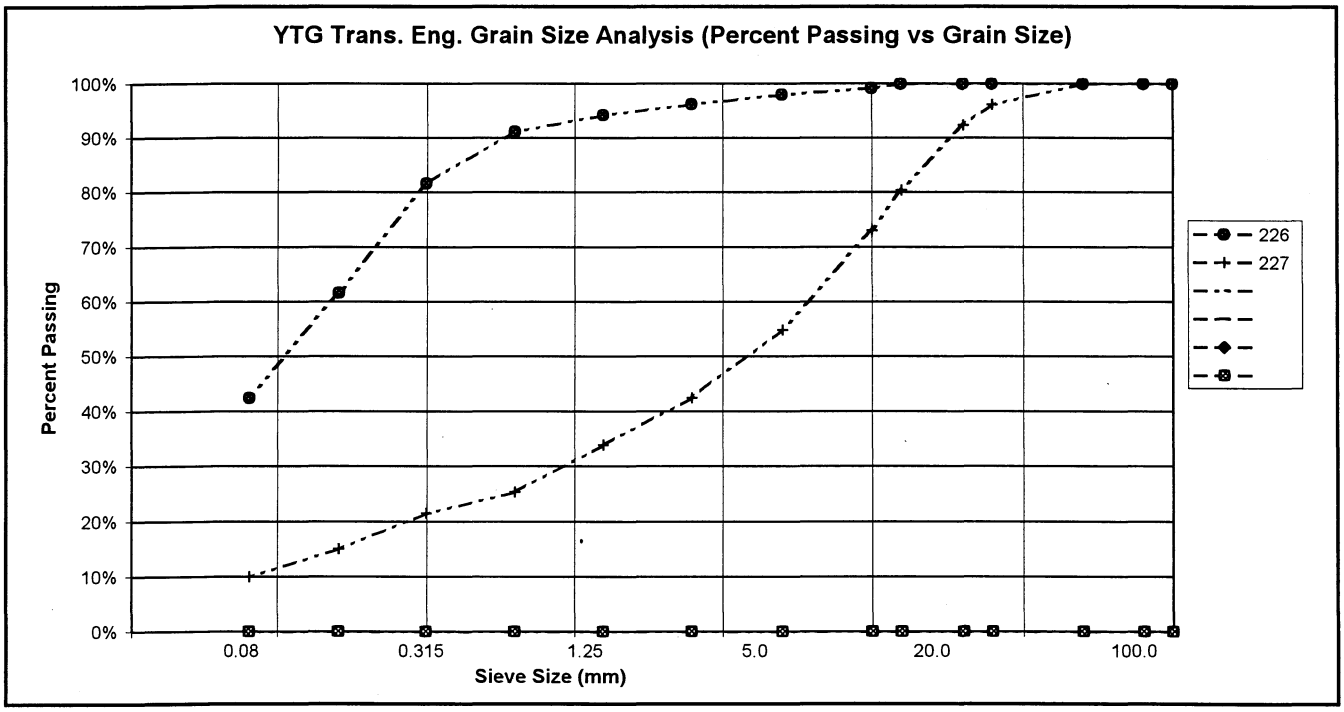
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 601-139	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1776+900 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/06/27	

FIELD NO:	225					
LAB NO:	737					
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	76%					
20.0	69%					
12.5	59%					
10.0	53%					
5.0	40%					
2.5	30%					
1.25	22%					
0.630	16%					
0.315	11%					
0.160	8%					
0.080	6%					
M.C.(%):	3%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	60					
% SAND:	34					
% FINES:	6					
CLASSIFICATION	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)					



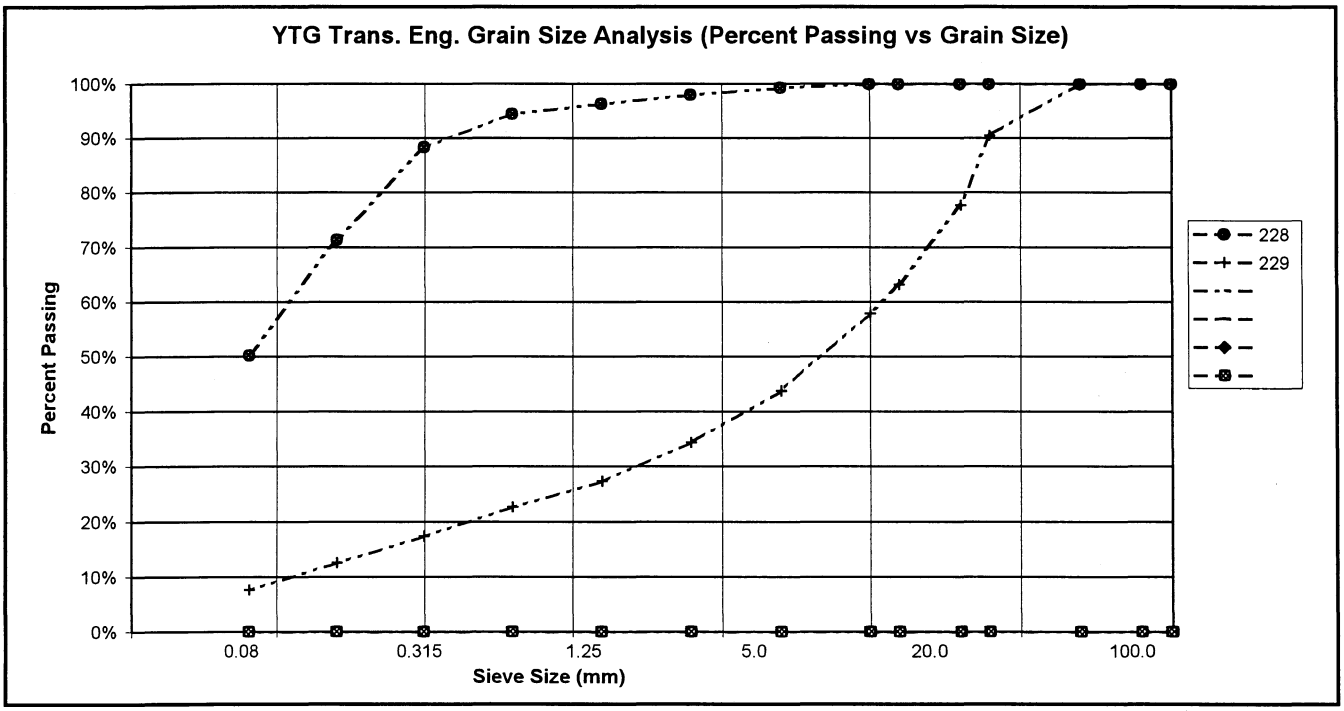
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-140
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+700 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	226	227				
LAB NO:	738	739				
DEPTH:	1.3-1.5	2.6-2.8				
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%	96%				
20.0	100%	92%				
12.5	100%	80%				
10.0	99%	73%				
5.0	98%	55%				
2.5	96%	42%				
1.25	94%	34%				
0.630	91%	25%				
0.315	82%	21%				
0.160	62%	15%				
0.080	42%	10%				
M.C.(%):	16%	4%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	2	45				
% SAND:	56	45				
% FINES:	42	10				
CLASSIFICATION	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



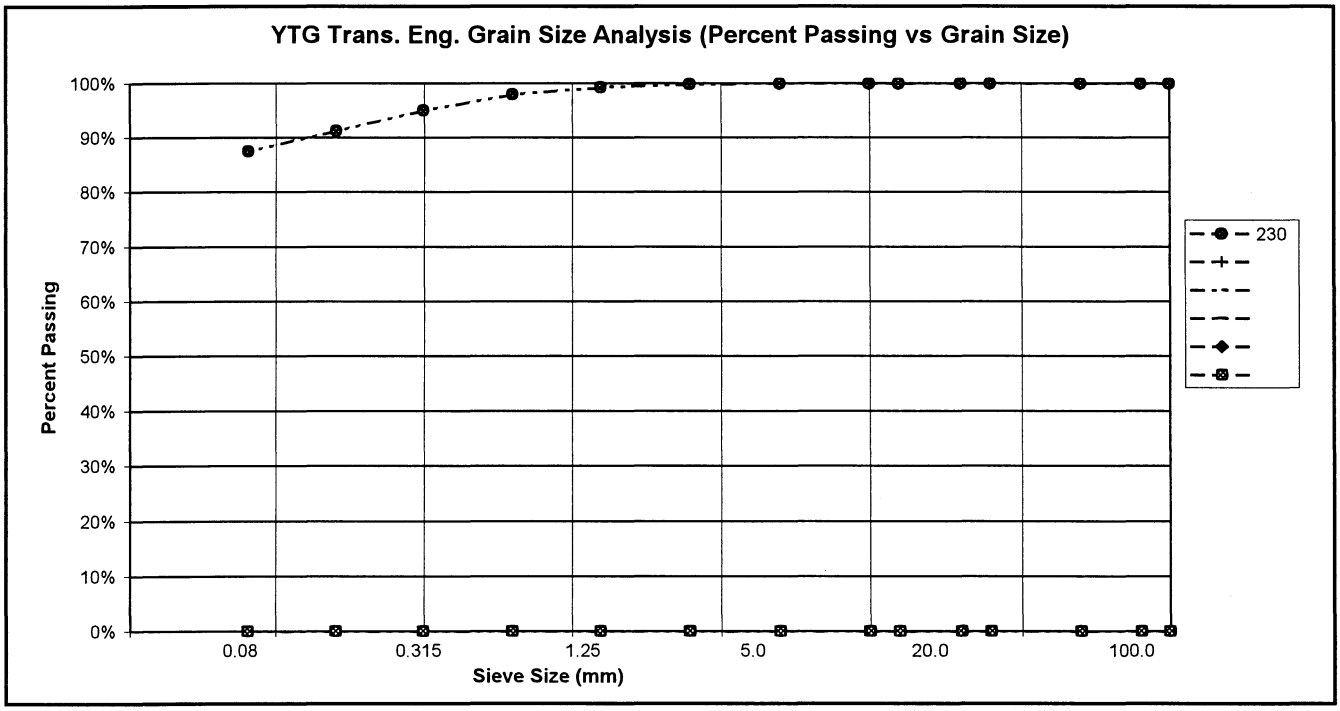
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-141
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+600 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/27

FIELD NO:	228	229				
LAB NO:	740	741				
DEPTH:	1.4-1.6	2.4-2.6				
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%	91%				
20.0	100%	78%				
12.5	100%	63%				
10.0	100%	58%				
5.0	99%	44%				
2.5	98%	34%				
1.25	96%	27%				
0.630	94%	23%				
0.315	88%	17%				
0.160	71%	13%				
0.080	50%	8%				
M.C.(%):	28%	5%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	1	56				
% SAND:	49	36				
% FINES:	50	8				
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



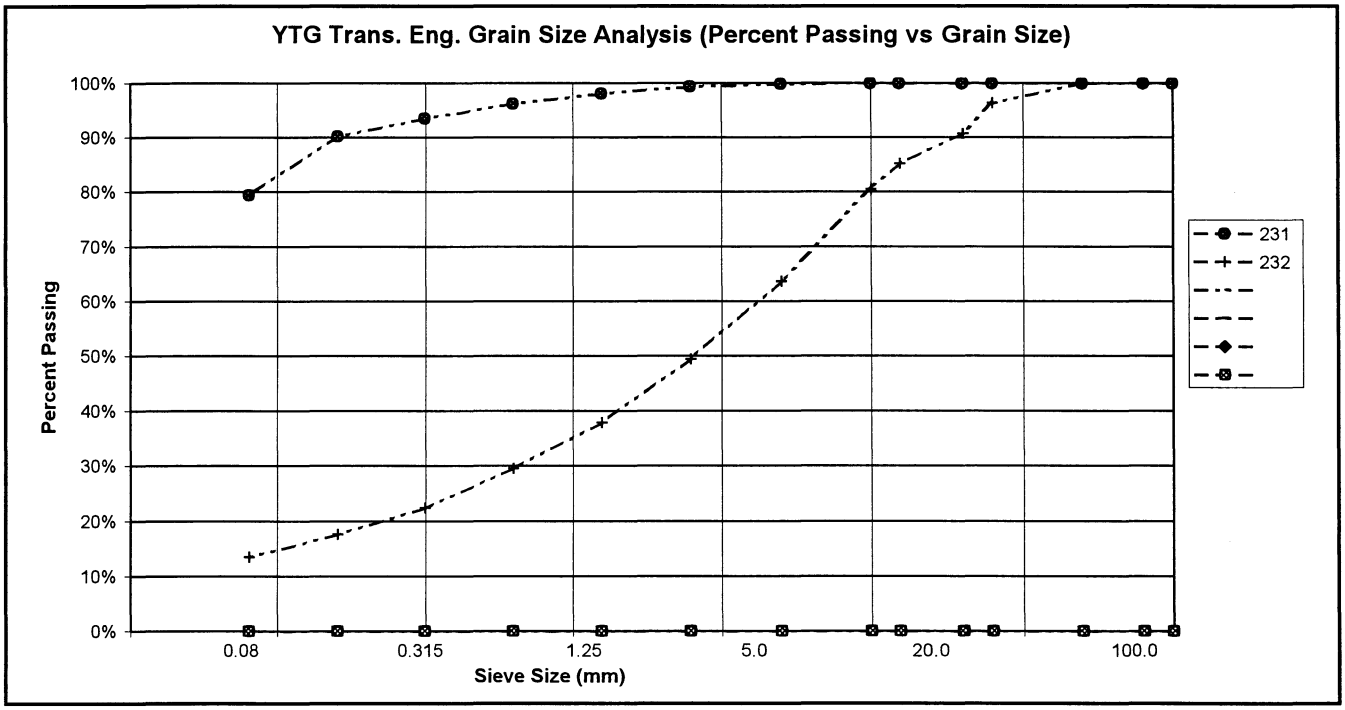
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 601-142	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1776+500 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/06/27	

FIELD NO:	230					
LAB NO:	742					
DEPTH:	0.8-1.0					
TYPE:	AUGER	AUGER	AUGER	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	100%					
1.25	99%					
0.630	98%					
0.315	95%					
0.160	91%					
0.080	88%					
M.C.(%):	46%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	0					
% SAND:	12					
% FINES:	88					
CLASSIFICATION	SILT (ML)					



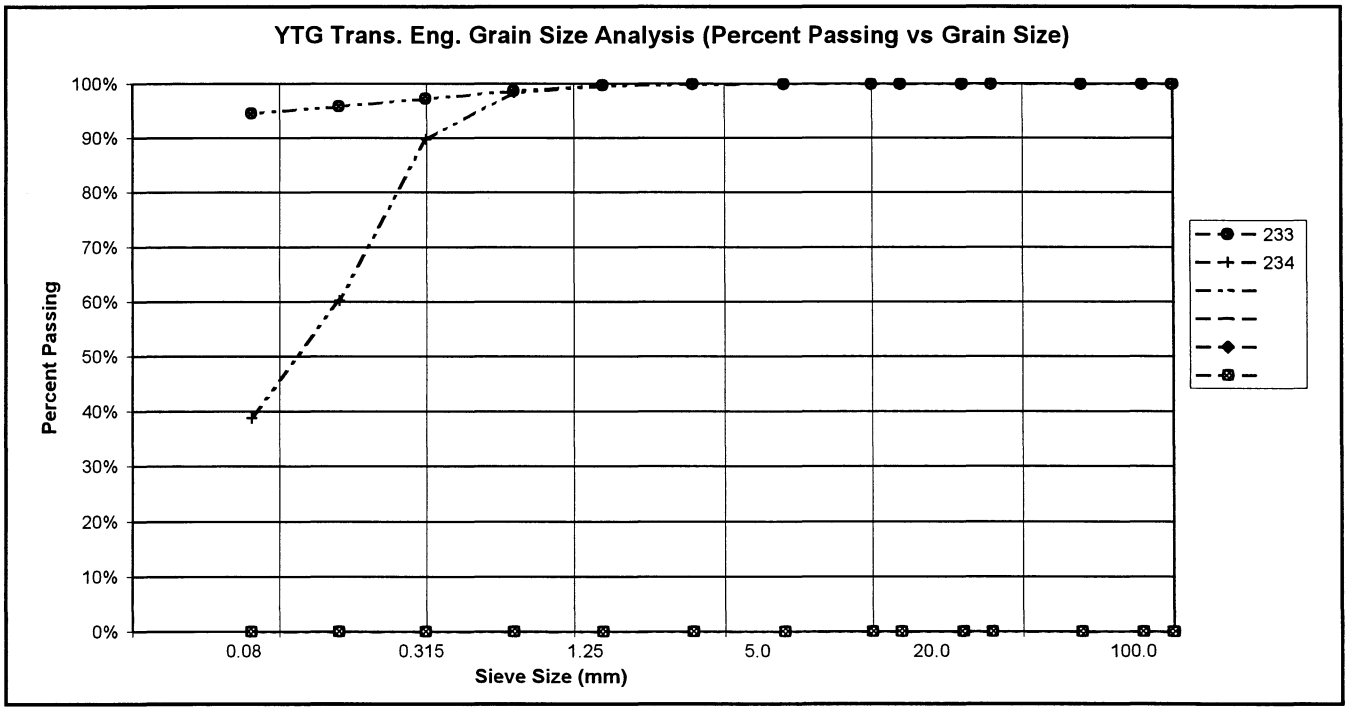
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-143
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+400 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	231	232				
LAB NO:	743	744				
DEPTH:	0.8-1.0	1.8-2.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	96%				
20.0	100%	91%				
12.5	100%	85%				
10.0	100%	81%				
5.0	100%	64%				
2.5	99%	49%				
1.25	98%	38%				
0.630	96%	30%				
0.315	93%	22%				
0.160	90%	18%				
0.080	80%	14%				
M.C.(%):	40%	7%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	36				
% SAND:	20	50				
% FINES:	80	14				
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)				



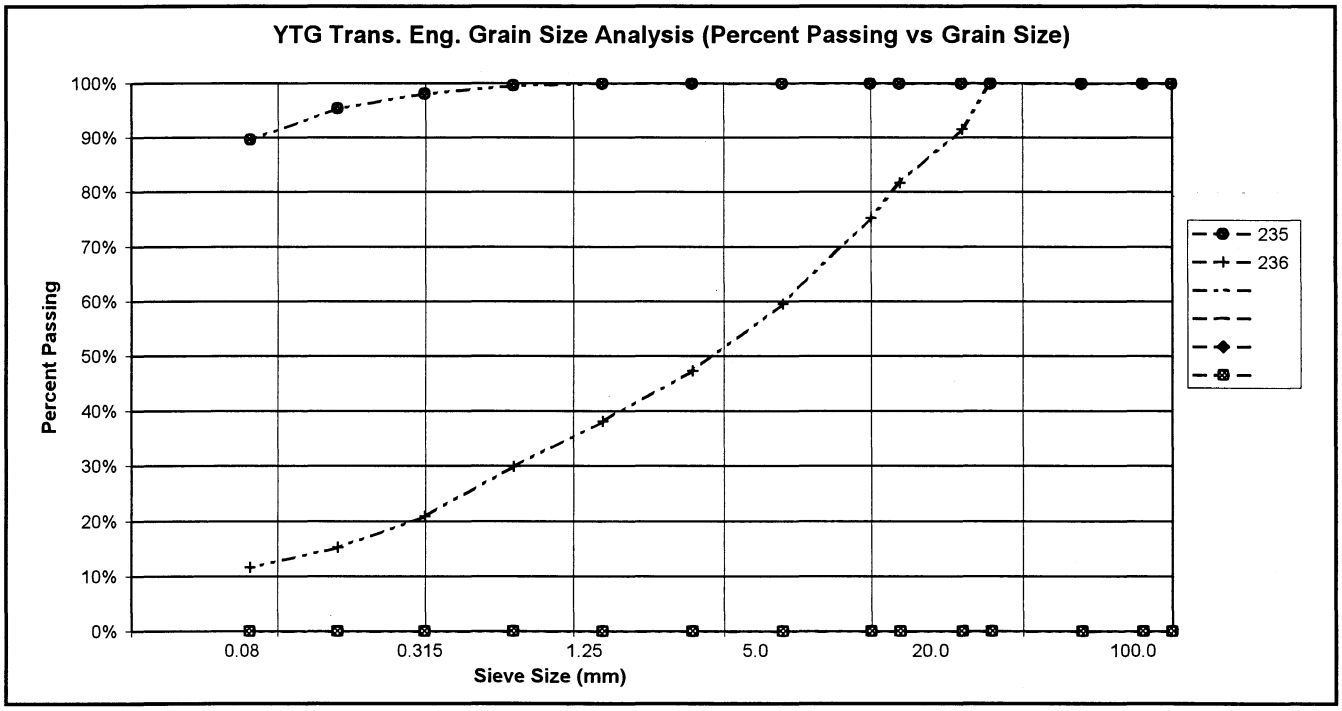
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-144
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+250 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	233	234				
LAB NO:	745	746				
DEPTH:	1.5-1.7	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	100%	100%				
5.0	100%	100%				
2.5	100%	100%				
1.25	100%	100%				
0.630	99%	98%				
0.315	97%	90%				
0.160	96%	60%				
0.080	95%	39%				
M.C.(%):	53%	21%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	0				
% SAND:	5	61				
% FINES:	95	39				
CLASSIFICATION	SILT (ML)	SILTY SAND (SM)				



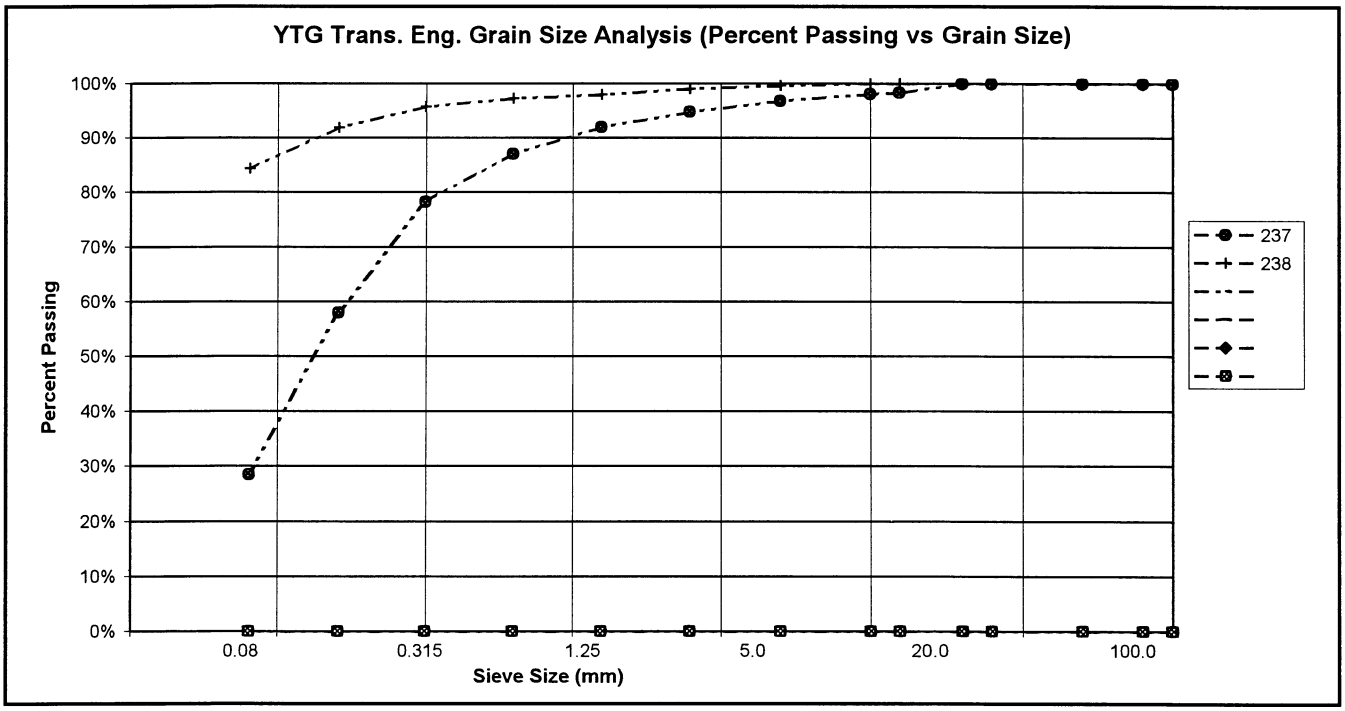
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-145
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+150 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	235	236				
LAB NO:	747	748				
DEPTH:	1.3-1.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	92%				
12.5	100%	82%				
10.0	100%	75%				
5.0	100%	59%				
2.5	100%	47%				
1.25	100%	38%				
0.630	100%	30%				
0.315	98%	21%				
0.160	95%	15%				
0.080	90%	12%				
M.C.(%):	60%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	41				
% SAND:	10	48				
% FINES:	90	12				
CLASSIFICATION	SILT (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)				



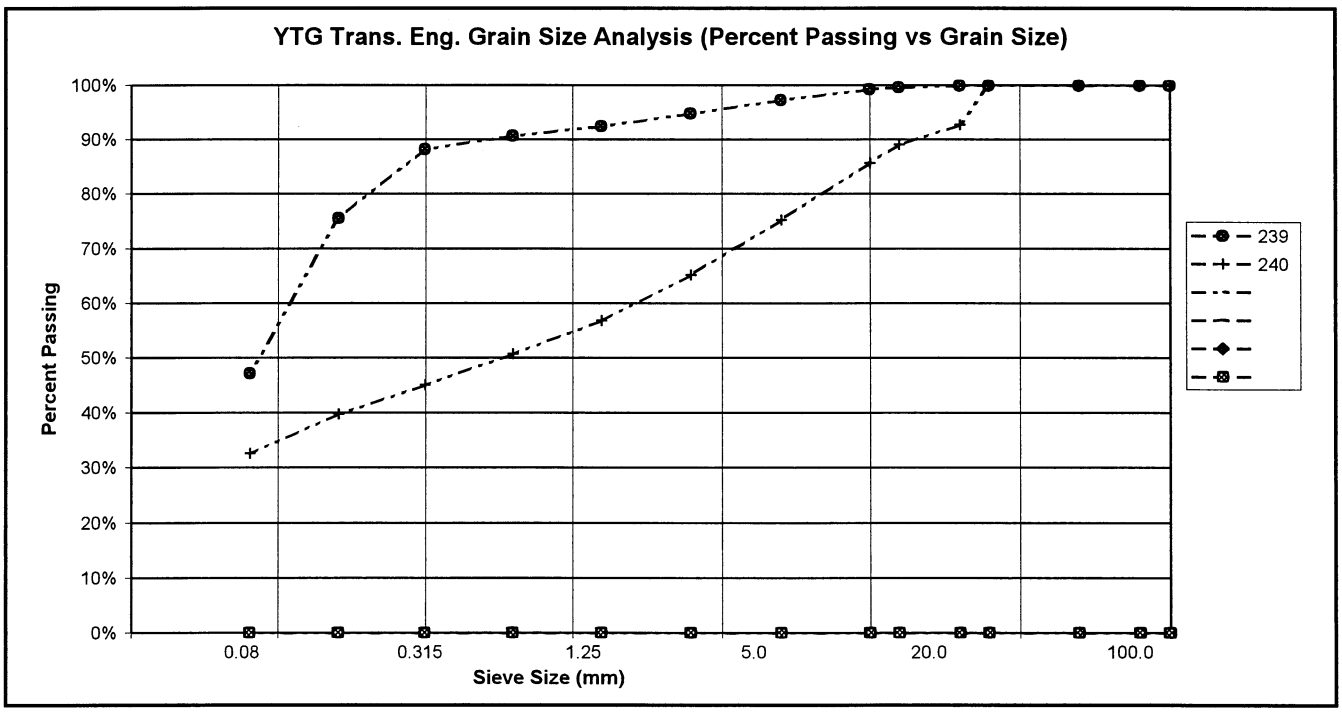
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 601-146
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1776+050 30M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	237	238				
LAB NO:	749	750				
DEPTH:	1.3-1.5	2.5-2.6				
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%	100%				
20.0	100%	100%				
12.5	98%	100%				
10.0	98%	100%				
5.0	97%	100%				
2.5	95%	99%				
1.25	92%	98%				
0.630	87%	97%				
0.315	78%	96%				
0.160	58%	92%				
0.080	29%	84%				
M.C.(%):	13%	42%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	3	0				
% SAND:	68	15				
% FINES:	29	84				
CLASSIFICATION	SILTY SAND (SM)	SILT WITH SAND (ML)				



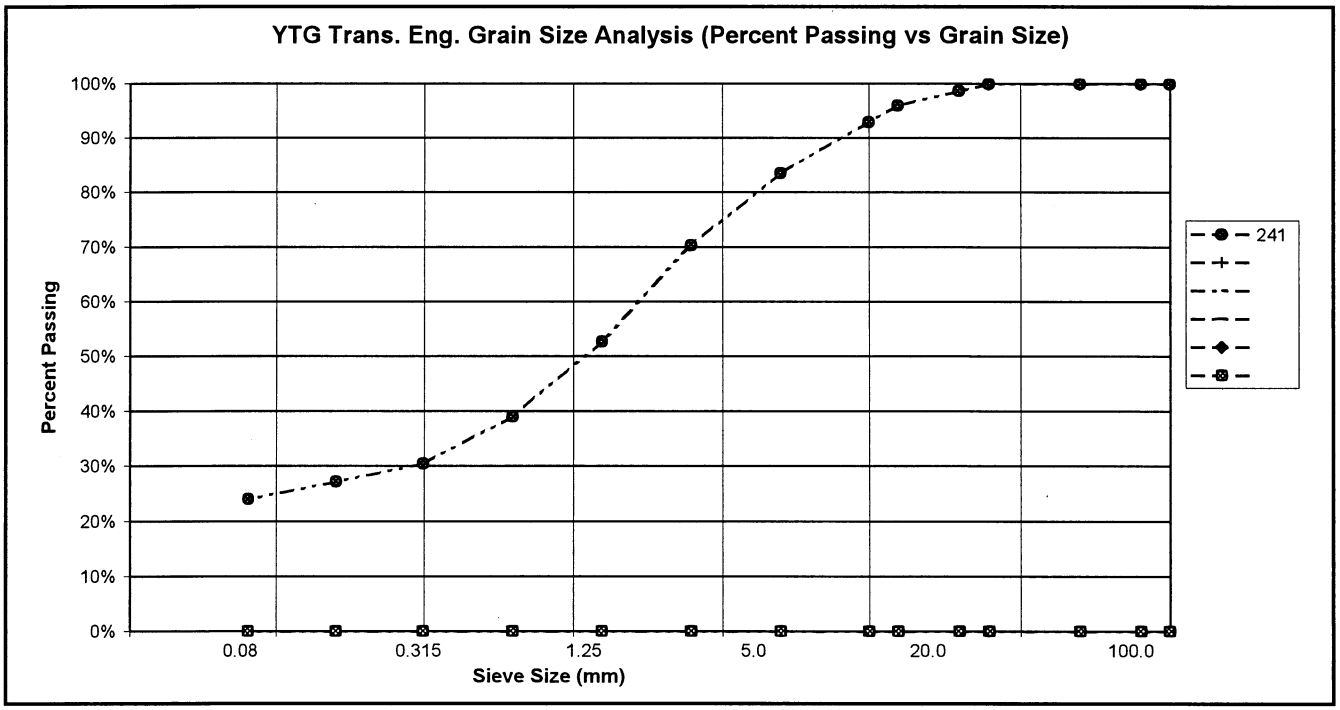
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-147
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+250 CL		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	239	240				
LAB NO:	751	752				
DEPTH:	1.8-2.0	4.3-4.5				
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%	100%				
20.0	100%	93%				
12.5	100%	89%				
10.0	99%	86%				
5.0	97%	75%				
2.5	95%	65%				
1.25	92%	57%				
0.630	91%	51%				
0.315	88%	45%				
0.160	76%	40%				
0.080	47%	33%				
M.C.(%):	17%	9%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	3	25				
% SAND:	50	43				
% FINES:	47	33				
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND WITH GRAVEL (SM)				



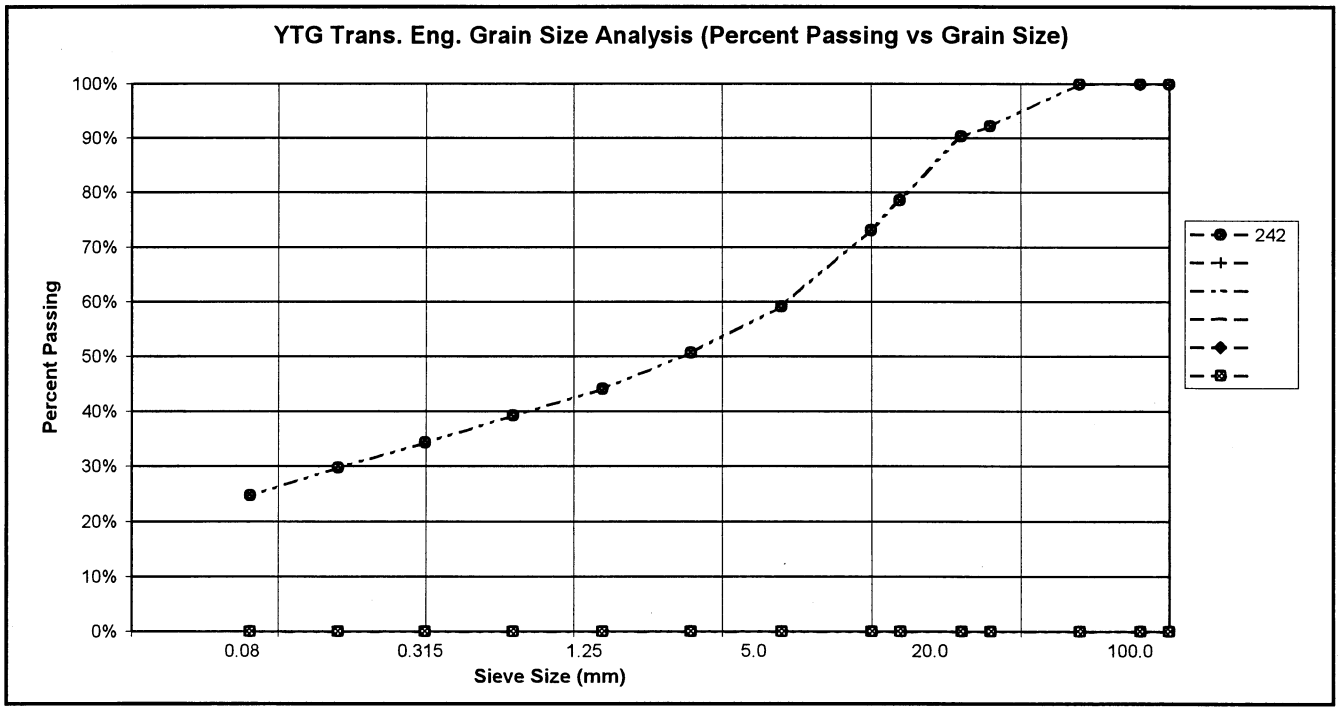
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-148
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+350 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	241					
LAB NO:	753					
DEPTH:	1.2-1.4					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	99%					
12.5	96%					
10.0	93%					
5.0	84%					
2.5	70%					
1.25	53%					
0.630	39%					
0.315	31%					
0.160	27%					
0.080	24%					
M.C.(%):	14%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	16					
% SAND:	60					
% FINES:	24					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



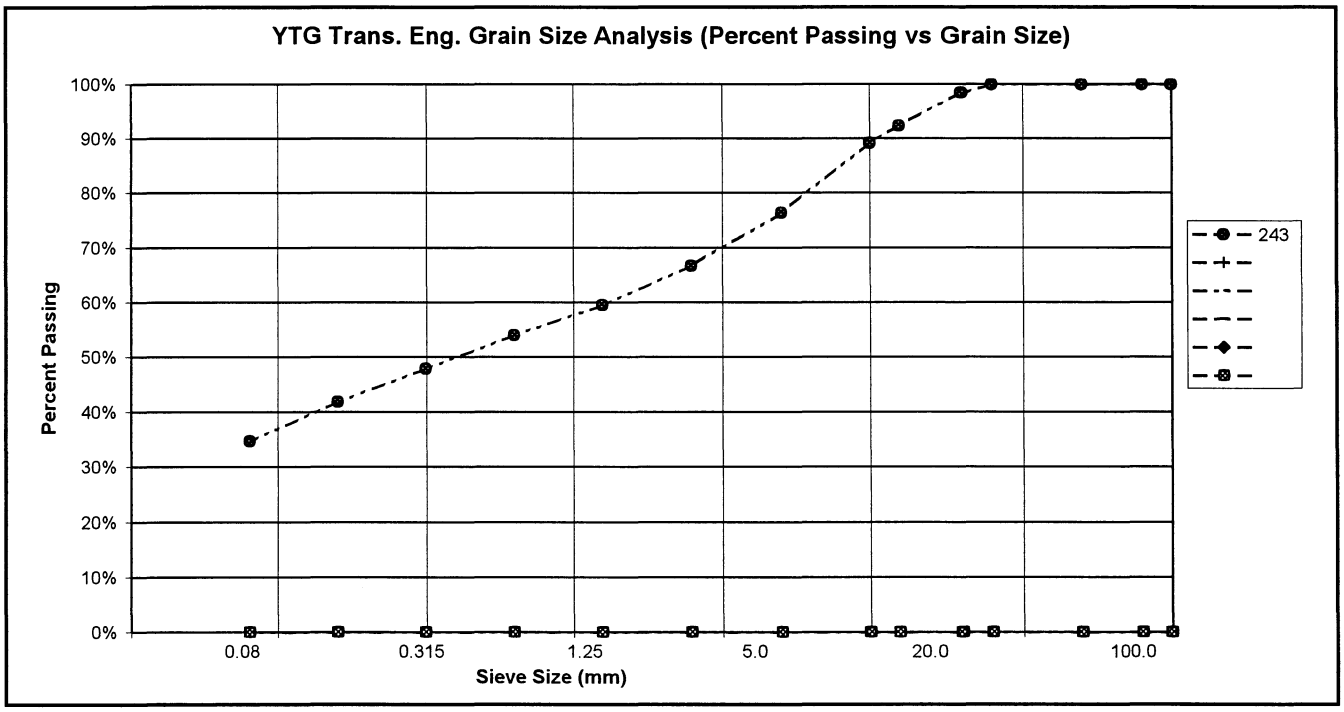
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-149
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+445 10M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	242					
LAB NO:	754					
DEPTH:	2.8-3.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	92%					
20.0	90%					
12.5	79%					
10.0	73%					
5.0	59%					
2.5	51%					
1.25	44%					
0.630	39%					
0.315	34%					
0.160	30%					
0.080	25%					
M.C.(%):	10%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	41					
% SAND:	34					
% FINES:	25					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



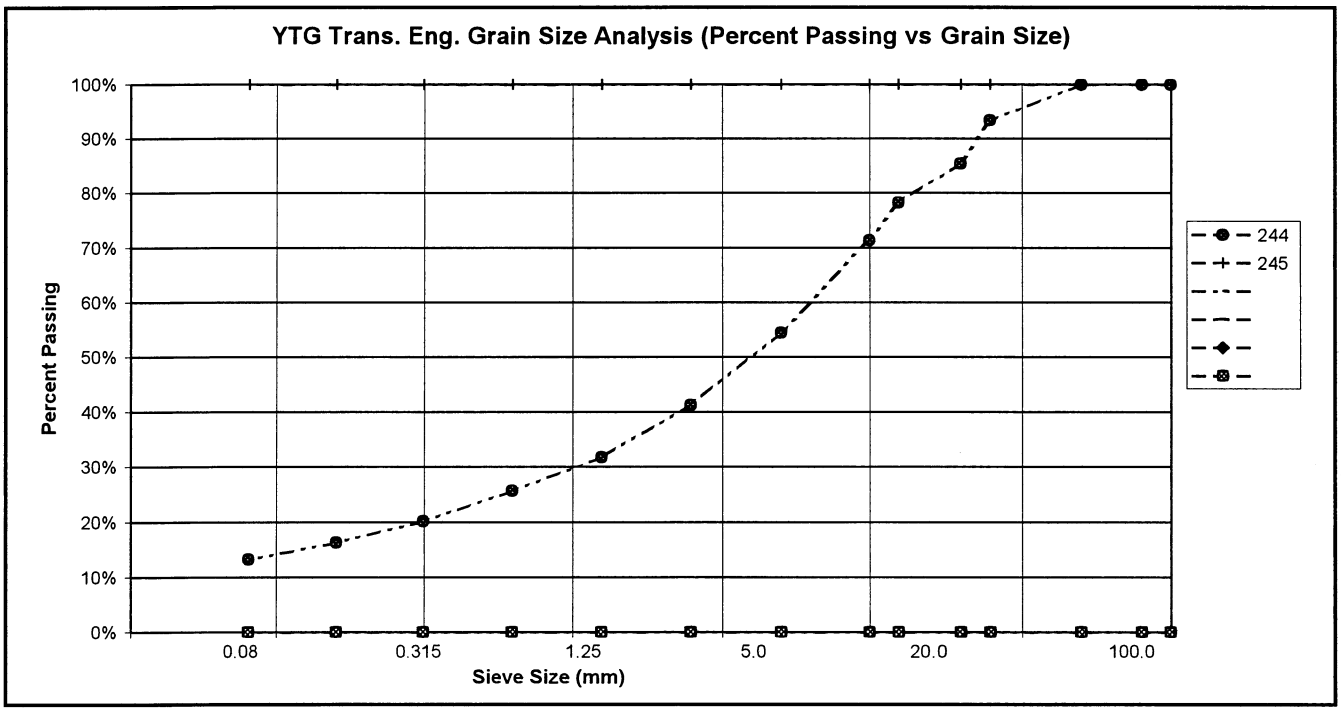
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 602-150	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1777+550 20M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/06/28	

FIELD NO:	243					
LAB NO:	755					
DEPTH:	2.8-3.0					
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	92%					
10.0	89%					
5.0	76%					
2.5	67%					
1.25	59%					
0.630	54%					
0.315	48%					
0.160	42%					
0.080	35%					
M.C.(%):	11%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	24					
% SAND:	42					
% FINES:	35					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



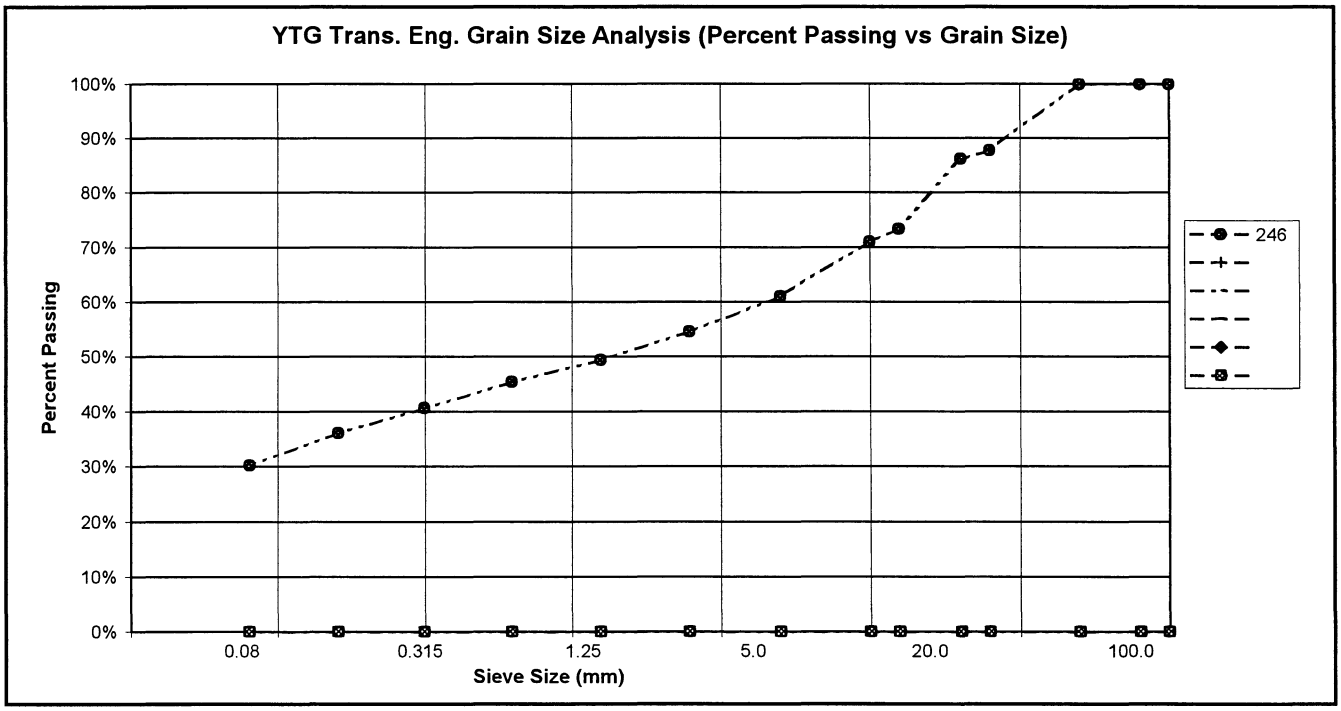
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-151
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+550		
LOGGED BY:	B.B.		DATE COMP: 2001/06/28

FIELD NO:	244	245				
LAB NO:	756	757				
DEPTH:	1.8-2.0	LOST				
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	93%	100%				
20.0	85%	100%				
12.5	78%	100%				
10.0	71%	100%				
5.0	54%	100%				
2.5	41%	100%				
1.25	32%	100%				
0.630	26%	100%				
0.315	20%	100%				
0.160	16%	100%				
0.080	13%	100%				
M.C.(%):	9%					
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	46	0				
% SAND:	41	0				
% FINES:	13	100				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	[illegible])				



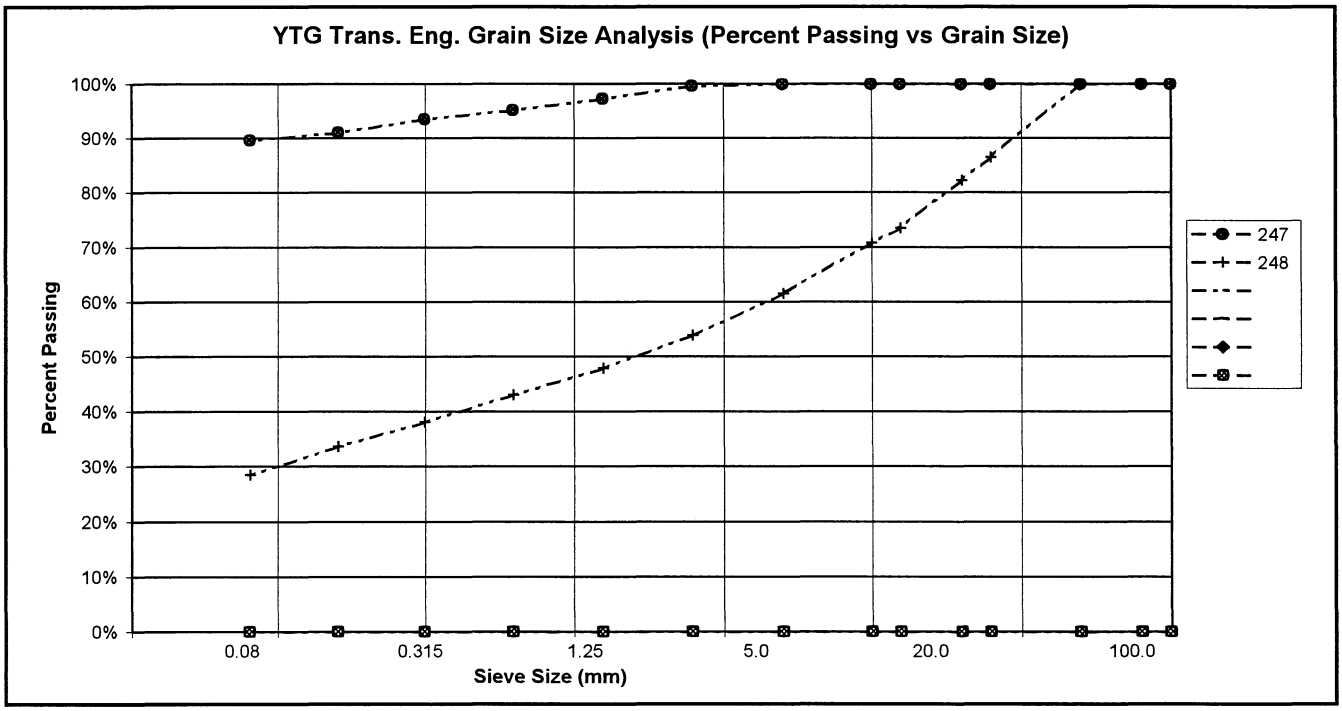
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 602-152	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1777+550 20M RT					
LOGGED BY:	B.B.				DATE COMP: 2001/06/28	

FIELD NO:	246					
LAB NO:	758					
DEPTH:	2.8-3.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	88%					
20.0	86%					
12.5	73%					
10.0	71%					
5.0	61%					
2.5	55%					
1.25	49%					
0.630	45%					
0.315	41%					
0.160	36%					
0.080	30%					
M.C.(%):	12%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	39					
% SAND:	31					
% FINES:	30					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



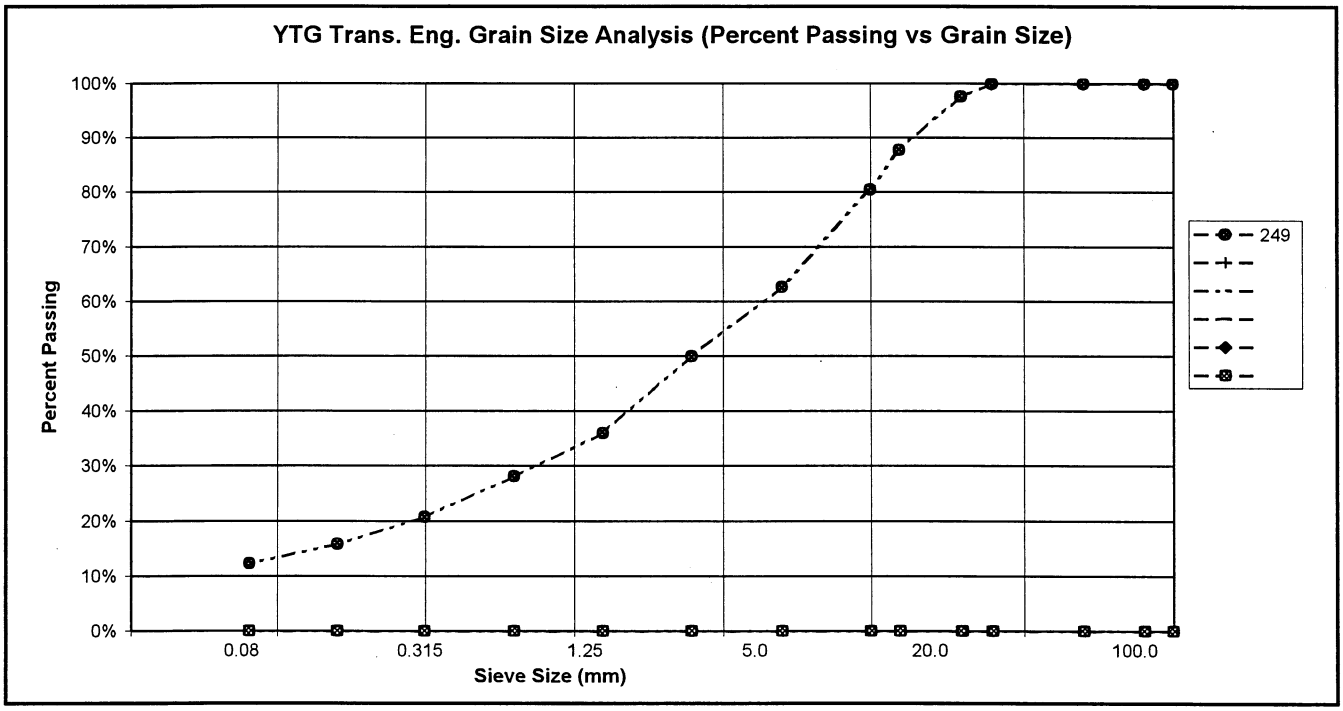
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-153
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+650 3M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/29

FIELD NO:	247	248				
LAB NO:	759	760				
DEPTH:	.8-1.0	3.8-4.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	86%				
20.0	100%	82%				
12.5	100%	73%				
10.0	100%	71%				
5.0	100%	61%				
2.5	100%	54%				
1.25	97%	48%				
0.630	95%	43%				
0.315	94%	38%				
0.160	91%	34%				
0.080	90%	29%				
M.C.(%):	123%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	39				
% SAND:	10	33				
% FINES:	90	29				
CLASSIFICATION	SILT (ML)	SILTY GRAVEL WITH SAND (GM)				



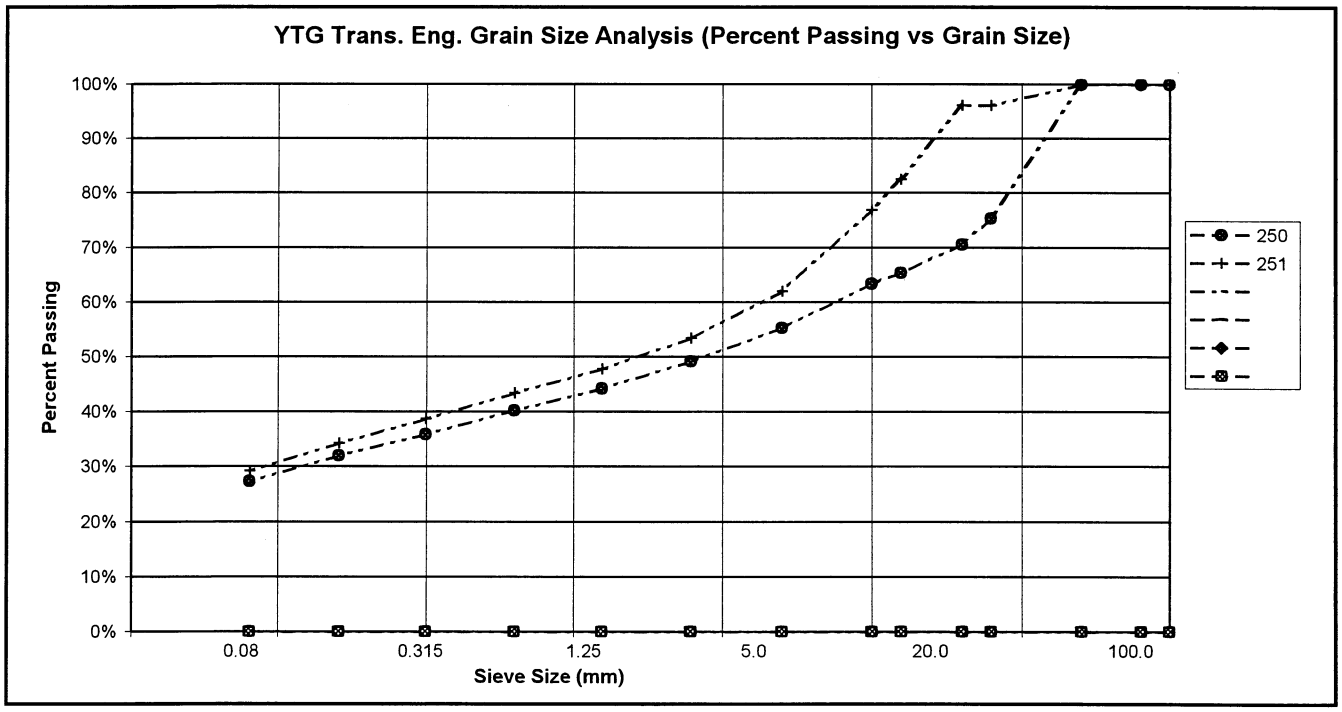
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-154
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+750 7M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/29

FIELD NO:	249					
LAB NO:	761					
DEPTH:	2.8-3.0					
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	88%					
10.0	80%					
5.0	63%					
2.5	50%					
1.25	36%					
0.630	28%					
0.315	21%					
0.160	16%					
0.080	12%					
M.C.(%):	10%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	37					
% SAND:	50					
% FINES:	12					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



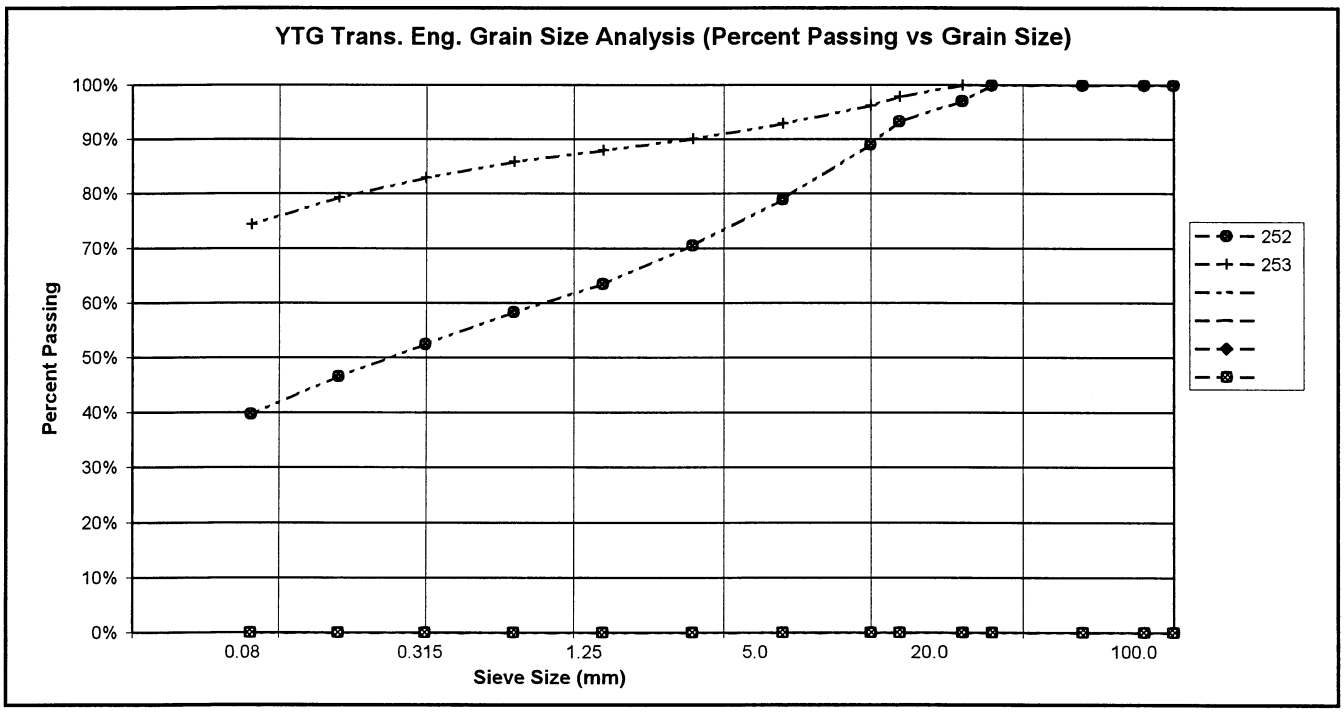
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-155
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+850 1M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/29

FIELD NO:	250	251				
LAB NO:	762	763				
DEPTH:	1.6-1.8	3.2-3.4				
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	75%	96%				
20.0	71%	96%				
12.5	65%	83%				
10.0	63%	77%				
5.0	55%	62%				
2.5	49%	53%				
1.25	44%	48%				
0.630	40%	43%				
0.315	36%	39%				
0.160	32%	34%				
0.080	27%	29%				
M.C.(%):	12%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	45	38				
% SAND:	28	33				
% FINES:	27	29				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)				



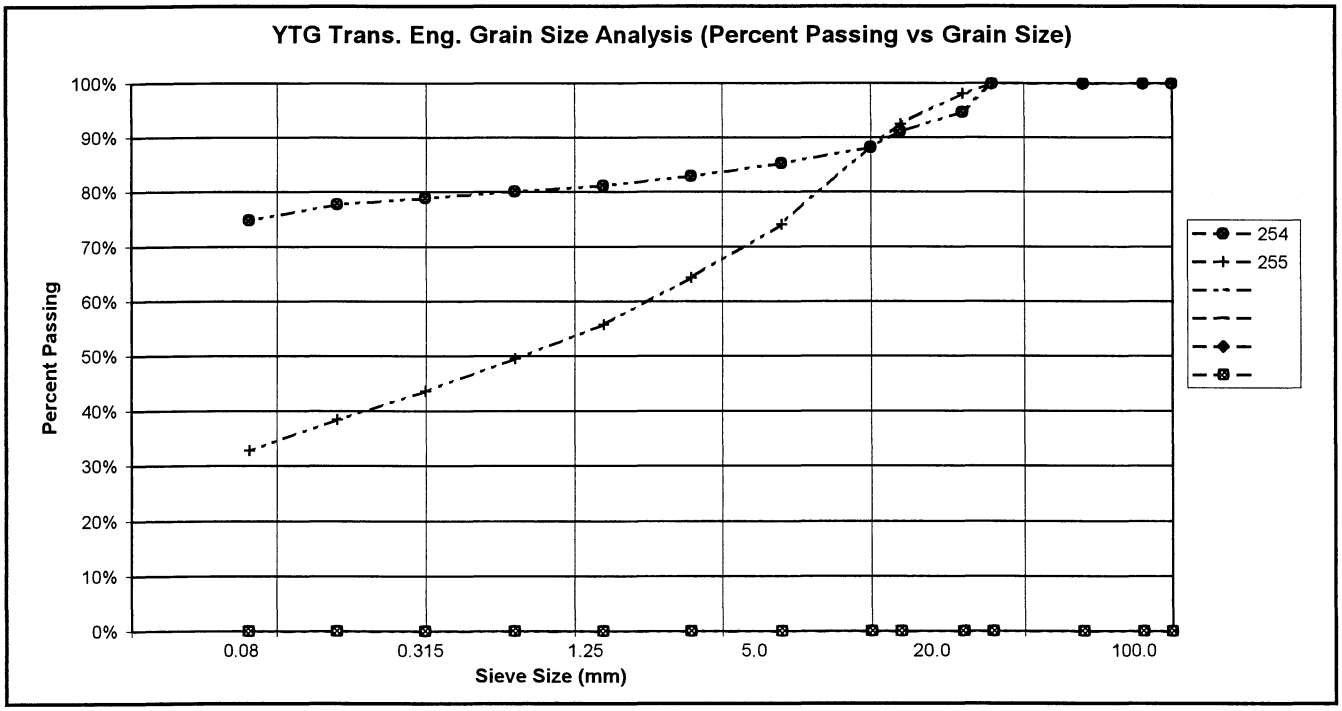
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-156
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+950		
LOGGED BY:	B.B.		DATE COMP: 2001/06/29

FIELD NO:	252	253				
LAB NO:	764	765				
DEPTH:	2.4-2.6	4.3-4.5				
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%	100%				
20.0	97%	100%				
12.5	93%	98%				
10.0	89%	96%				
5.0	79%	93%				
2.5	70%	90%				
1.25	63%	88%				
0.630	58%	86%				
0.315	52%	83%				
0.160	47%	79%				
0.080	40%	74%				
M.C.(%):	18%	18%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	21	7				
% SAND:	39	19				
% FINES:	40	74				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILT WITH SAND (ML)				



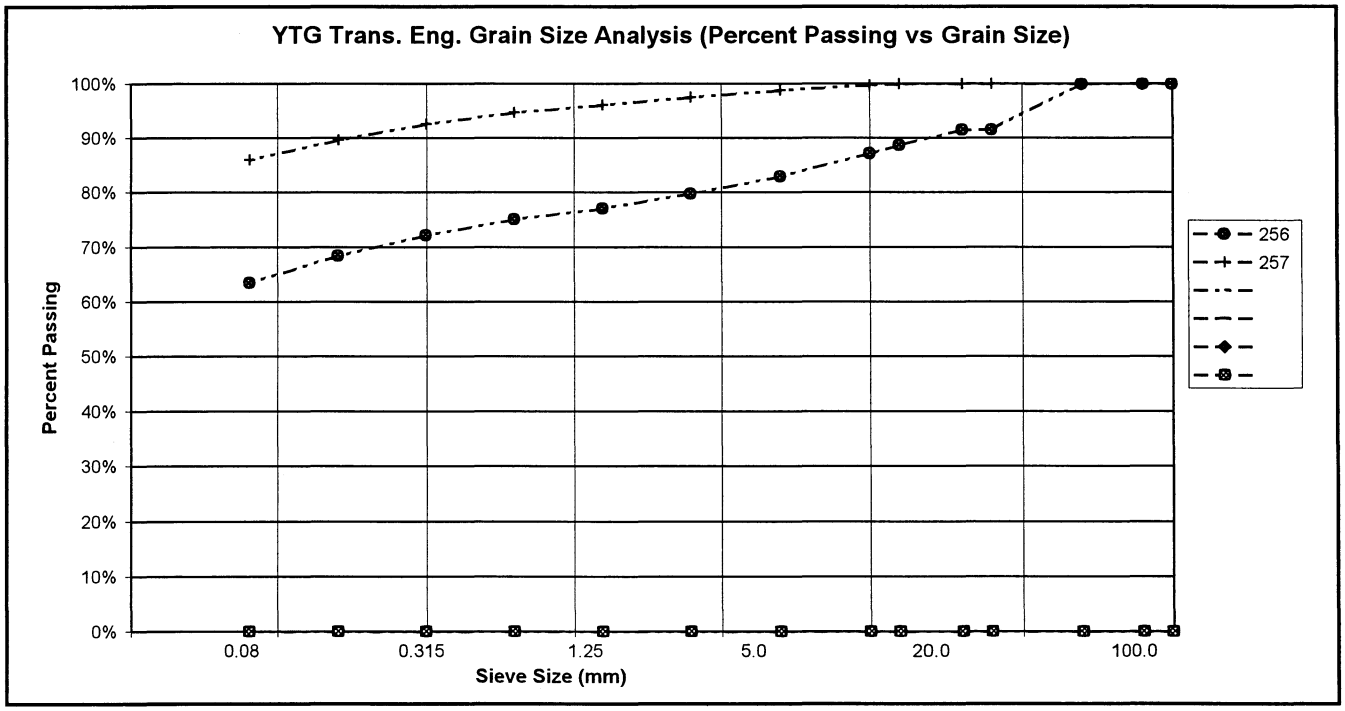
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-157
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+050		
LOGGED BY:	B.B.		DATE COMP: 2001/06/29

FIELD NO:	254	255				
LAB NO:	766	767				
DEPTH:	1.3-1.5	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	95%	98%				
12.5	91%	92%				
10.0	88%	88%				
5.0	85%	74%				
2.5	83%	64%				
1.25	81%	56%				
0.630	80%	50%				
0.315	79%	44%				
0.160	78%	39%				
0.080	75%	33%				
M.C.(%):	83%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	15	26				
% SAND:	10	41				
% FINES:	75	33				
CLASSIFICATION	SILT WITH GRAVEL (ML)	SILTY SAND WITH GRAVEL (SM)				



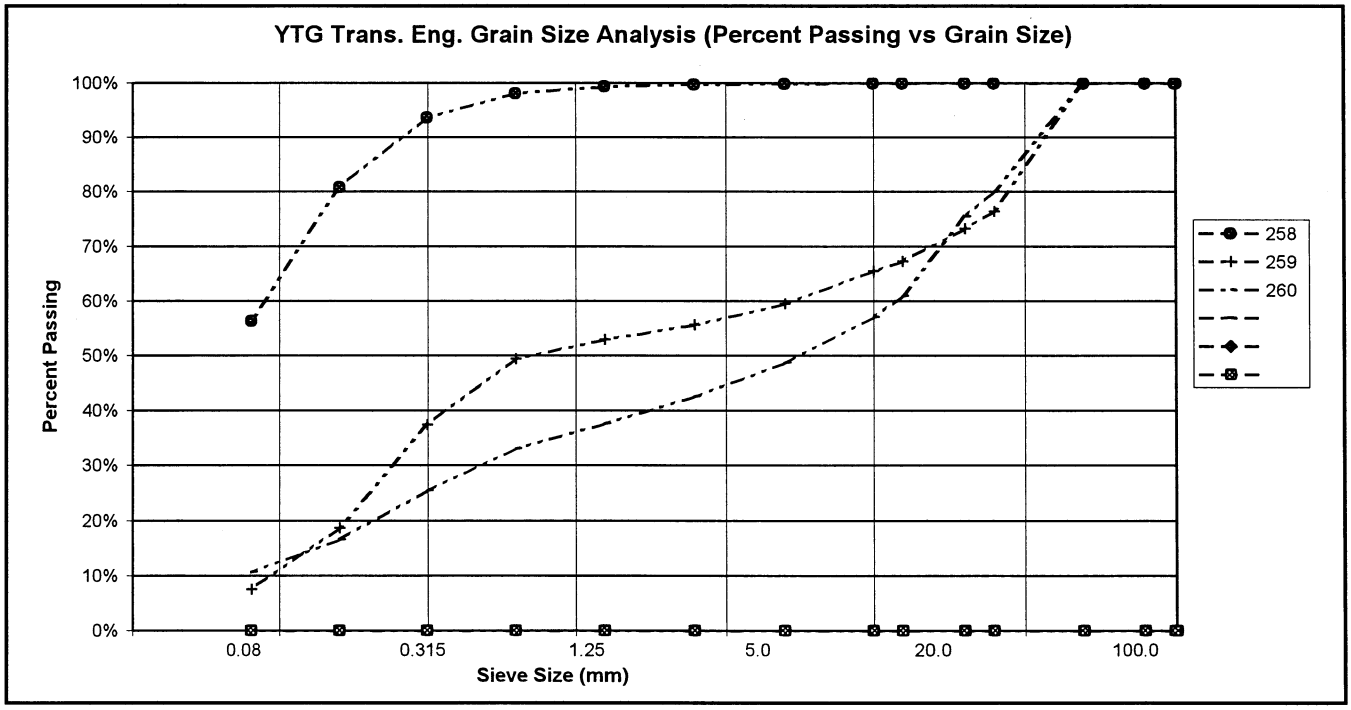
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-158
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+150 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/29

FIELD NO:	256	257				
LAB NO:	768	769				
DEPTH:	1.8-2.0	4.3-4.5				
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	92%	100%				
20.0	92%	100%				
12.5	89%	100%				
10.0	87%	100%				
5.0	83%	99%				
2.5	80%	98%				
1.25	77%	96%				
0.630	75%	95%				
0.315	72%	93%				
0.160	68%	90%				
0.080	63%	86%				
M.C.(%):	37%	25%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	17	1				
% SAND:	19	13				
% FINES:	63	86				
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SILT (ML)				



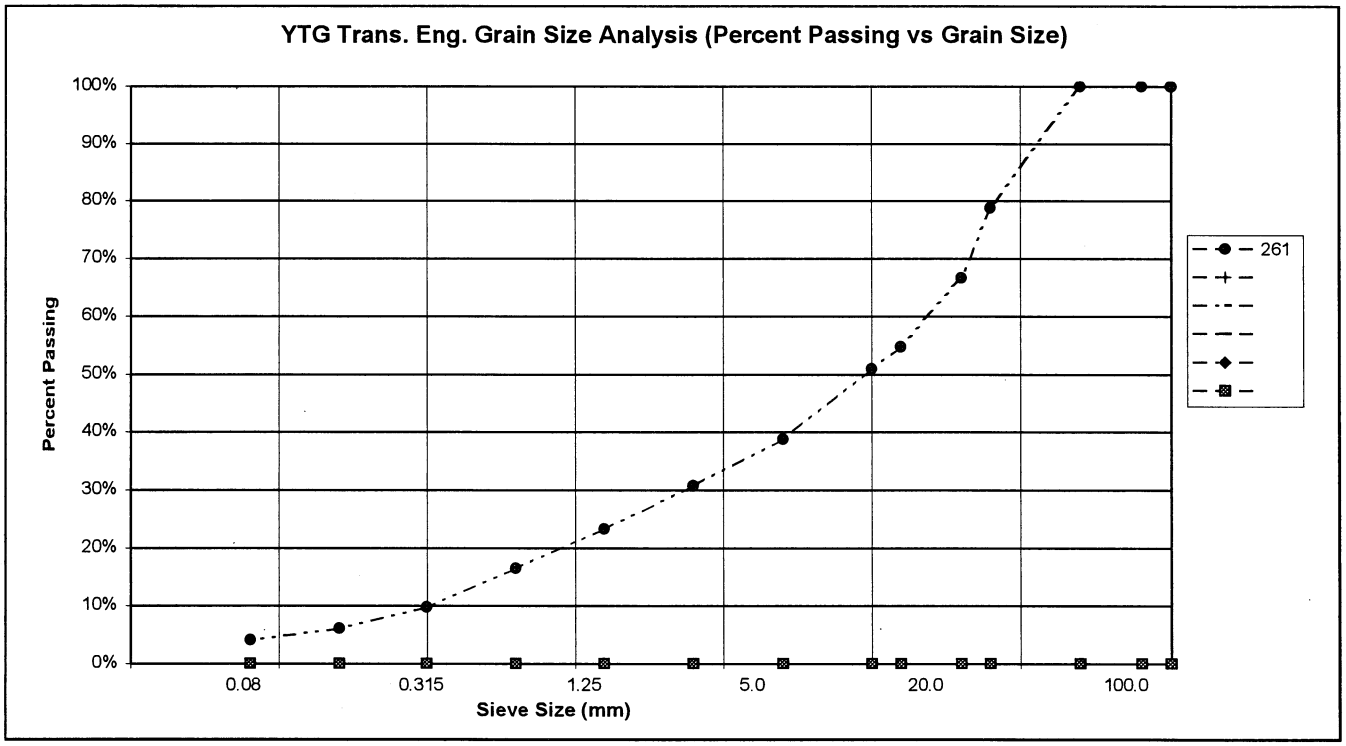
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 602-159
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+250 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/06/29

FIELD NO:	258	259	260			
LAB NO:	770	771	772			
DEPTH:	1.1-1.2	2.8-3.0	4.2-4.4			
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%	76%	80%			
20.0	100%	73%	75%			
12.5	100%	67%	61%			
10.0	100%	65%	57%			
5.0	100%	60%	49%			
2.5	100%	56%	43%			
1.25	99%	53%	38%			
0.630	98%	49%	33%			
0.315	94%	37%	25%			
0.160	81%	19%	16%			
0.080	56%	8%	11%			
M.C.(%):	18%	6%	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:	0	40	51			
% SAND:	44	52	38			
% FINES:	56	8	11			
CLASSIFICATION	SANDY SILT (ML)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



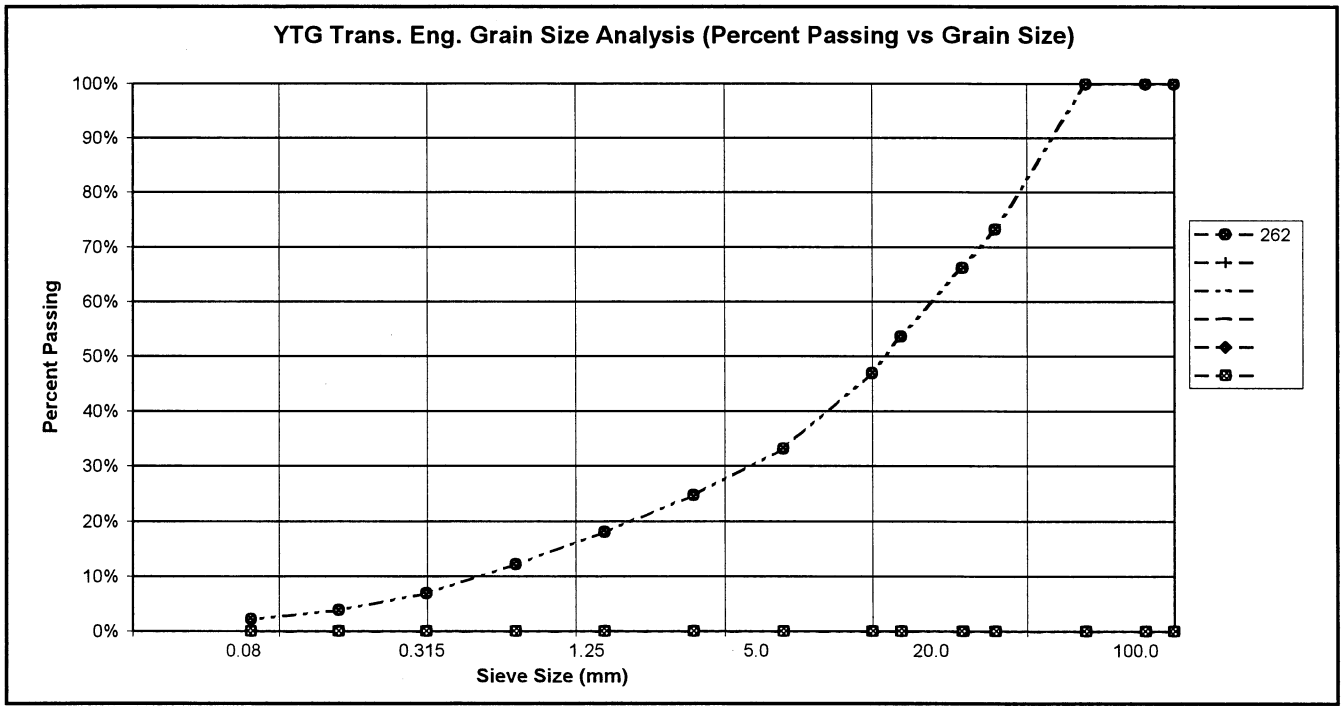
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-160	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1778+450 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/04	

FIELD NO:	261					
LAB NO:	830					
DEPTH:	1.1-1.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	79%					
20.0	67%					
12.5	55%					
10.0	51%					
5.0	39%					
2.5	31%					
1.25	23%					
0.630	17%					
0.315	10%					
0.160	6%					
0.080	4%					
M.C.(%):	3%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	61					
% SAND:	35					
% FINES:	4					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



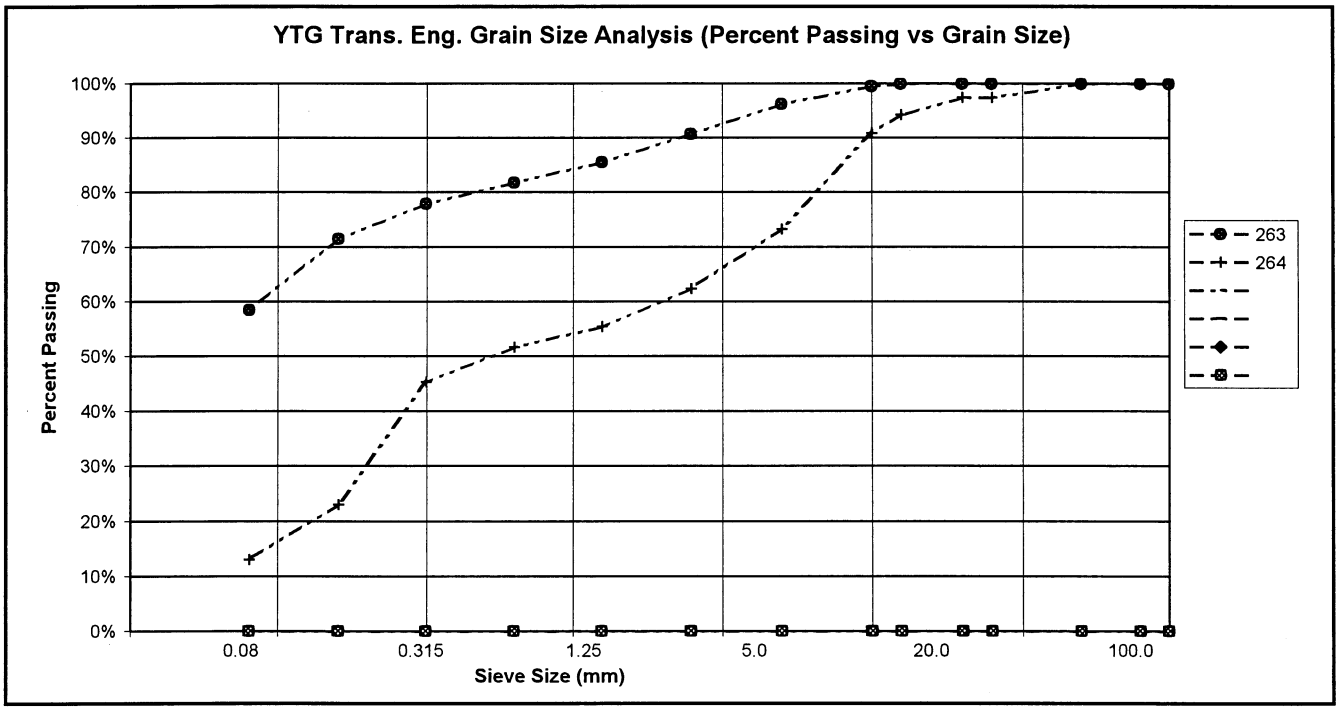
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-161	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1778+350 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/04	

FIELD NO:	262					
LAB NO:	831					
DEPTH:	1.1-1.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	73%					
20.0	66%					
12.5	54%					
10.0	47%					
5.0	33%					
2.5	25%					
1.25	18%					
0.630	12%					
0.315	7%					
0.160	4%					
0.080	2%					
M.C.(%):	3%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	67					
% SAND:	31					
% FINES:	2					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



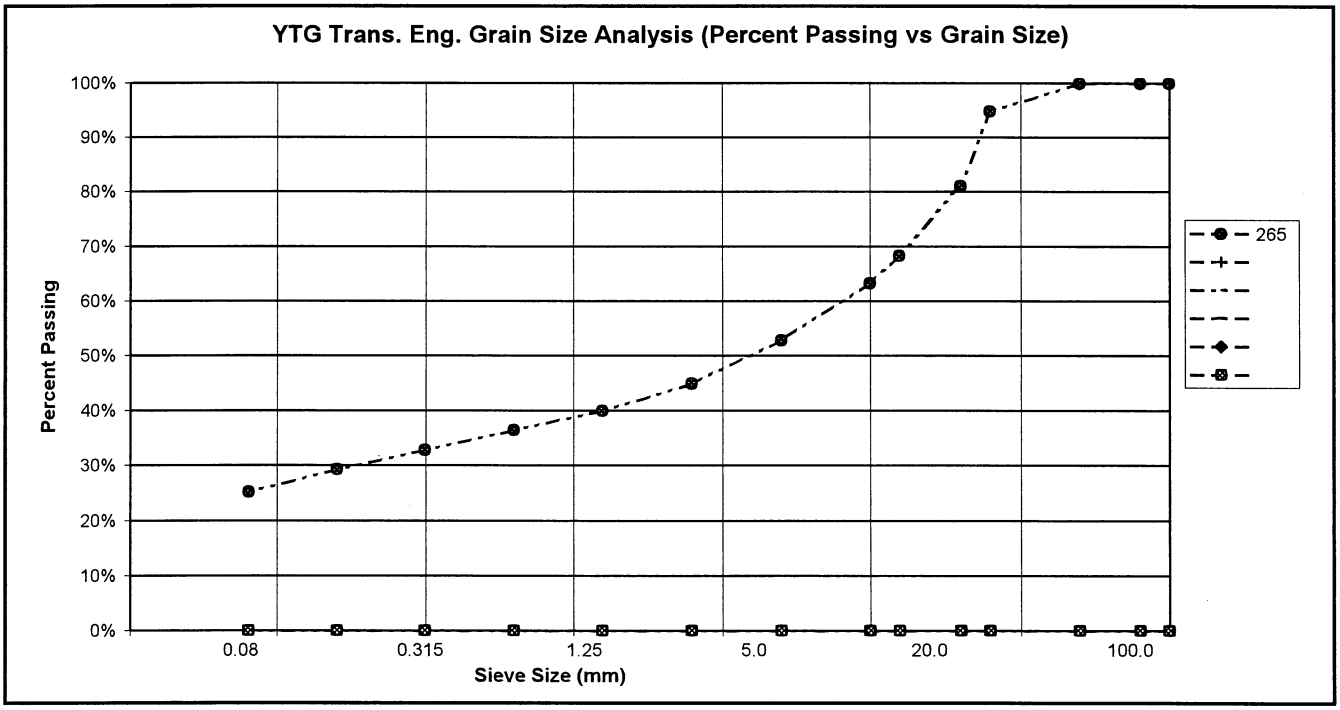
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-162
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+250 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/04

FIELD NO:	263	264				
LAB NO:	832	833				
DEPTH:	1.1-1.3	1.8-2.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	97%				
20.0	100%	97%				
12.5	100%	94%				
10.0	100%	91%				
5.0	96%	73%				
2.5	91%	62%				
1.25	86%	55%				
0.630	82%	52%				
0.315	78%	45%				
0.160	72%	23%				
0.080	58%	13%				
M.C.(%):	38%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	4	27				
% SAND:	38	60				
% FINES:	58	13				
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)				



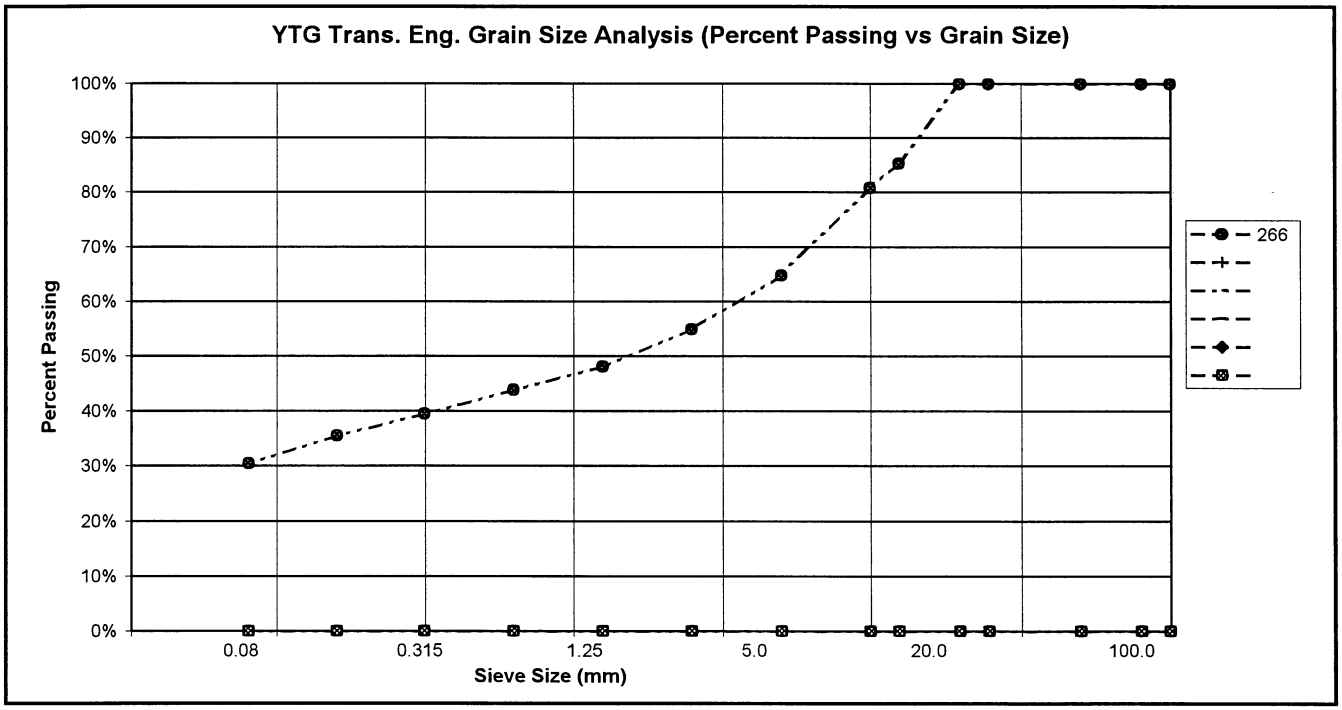
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-163	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1778+150 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/04	

FIELD NO:	265					
LAB NO:	834					
DEPTH:	2.8-3.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	95%					
20.0	81%					
12.5	68%					
10.0	63%					
5.0	53%					
2.5	45%					
1.25	40%					
0.630	37%					
0.315	33%					
0.160	29%					
0.080	25%					
M.C.(%):	10%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	47					
% SAND:	28					
% FINES:	25					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



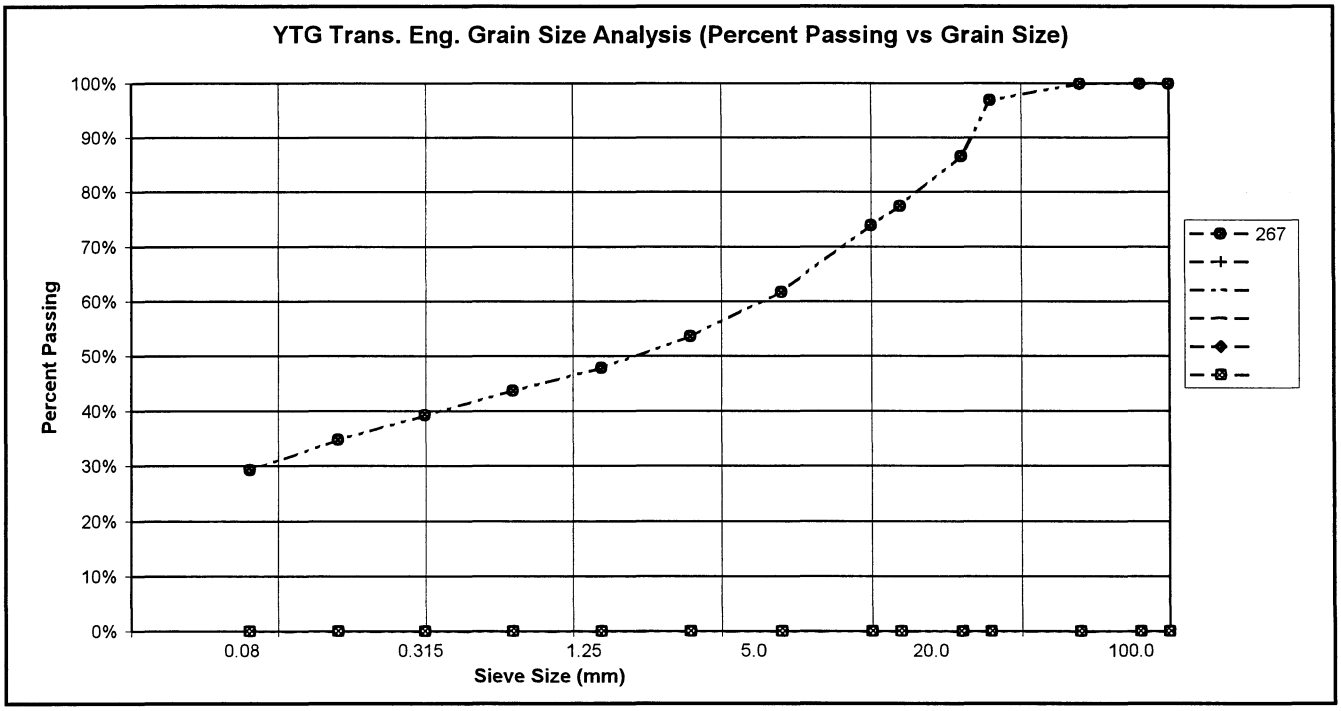
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-164	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1778+050 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/04	

FIELD NO:	266					
LAB NO:	835					
DEPTH:	2.8-3.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	85%					
10.0	81%					
5.0	65%					
2.5	55%					
1.25	48%					
0.630	44%					
0.315	40%					
0.160	36%					
0.080	31%					
M.C.(%):	12%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	35					
% SAND:	34					
% FINES:	31					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



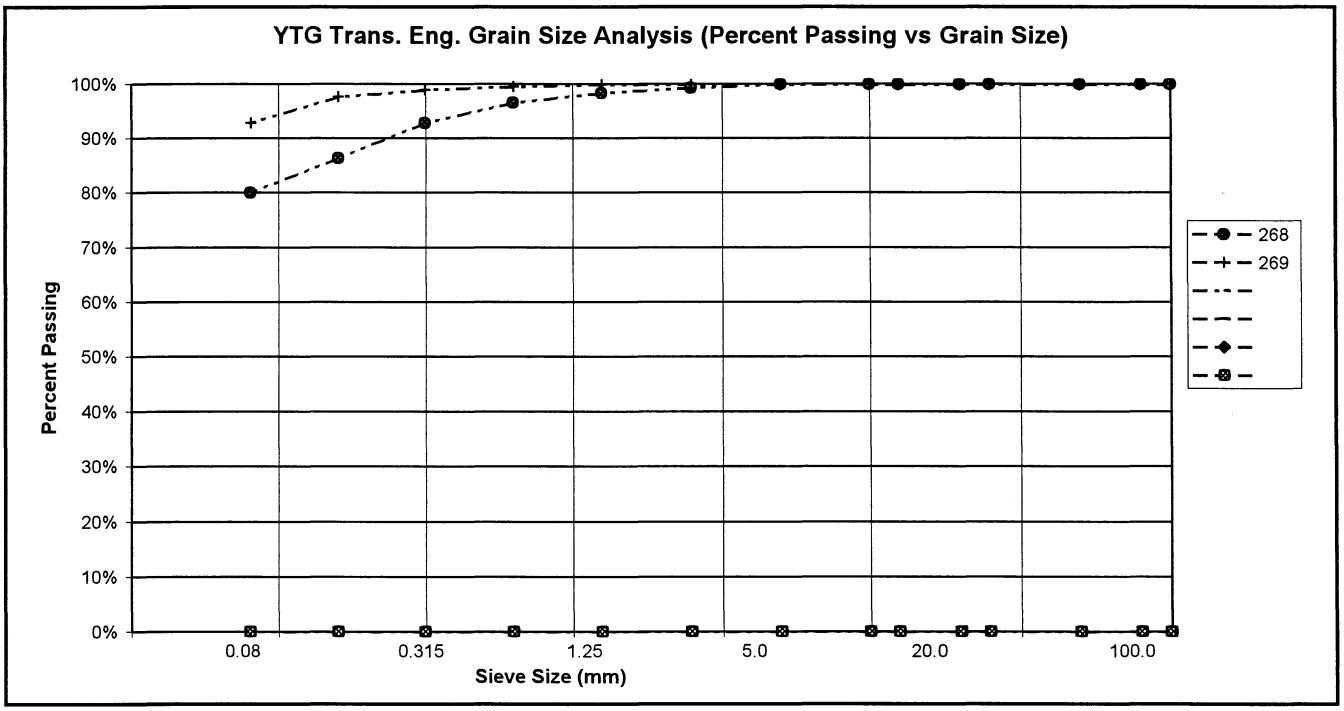
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-165	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1777+950 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/04	

FIELD NO:	267					
LAB NO:	836					
DEPTH:	2.8-3.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	97%					
20.0	87%					
12.5	77%					
10.0	74%					
5.0	62%					
2.5	54%					
1.25	48%					
0.630	44%					
0.315	39%					
0.160	35%					
0.080	29%					
M.C.(%):	16%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	38					
% SAND:	32					
% FINES:	29					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



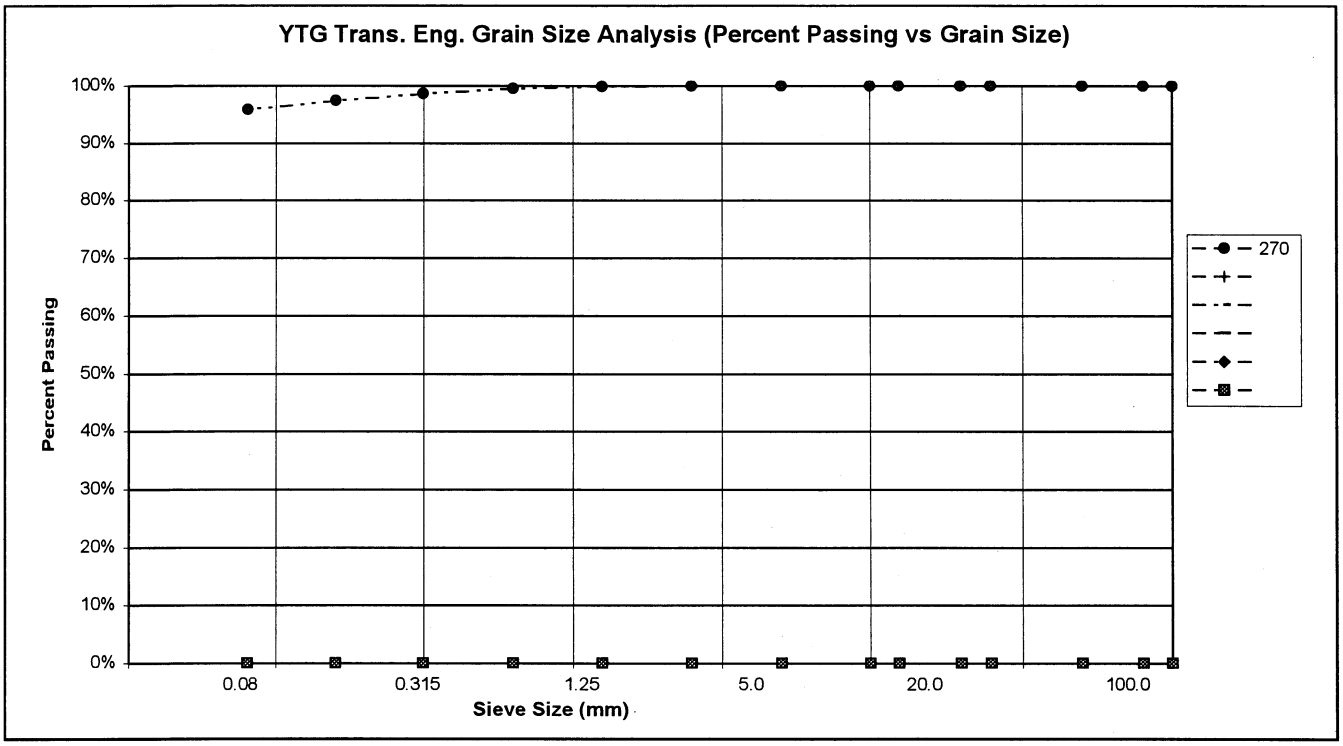
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-167
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+750 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/04

FIELD NO:	268	269				
LAB NO:	837	838				
DEPTH:	1.1-1.3	2.6-2.8				
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%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	100%	100%				
5.0	100%	100%				
2.5	99%	100%				
1.25	98%	100%				
0.630	97%	100%				
0.315	93%	99%				
0.160	86%	98%				
0.080	80%	93%				
M.C.(%):	75%	122%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	0				
% SAND:	20	7				
% FINES:	80	93				
CLASSIFICATION	SILT WITH SAND (ML)	SILT (ML)				



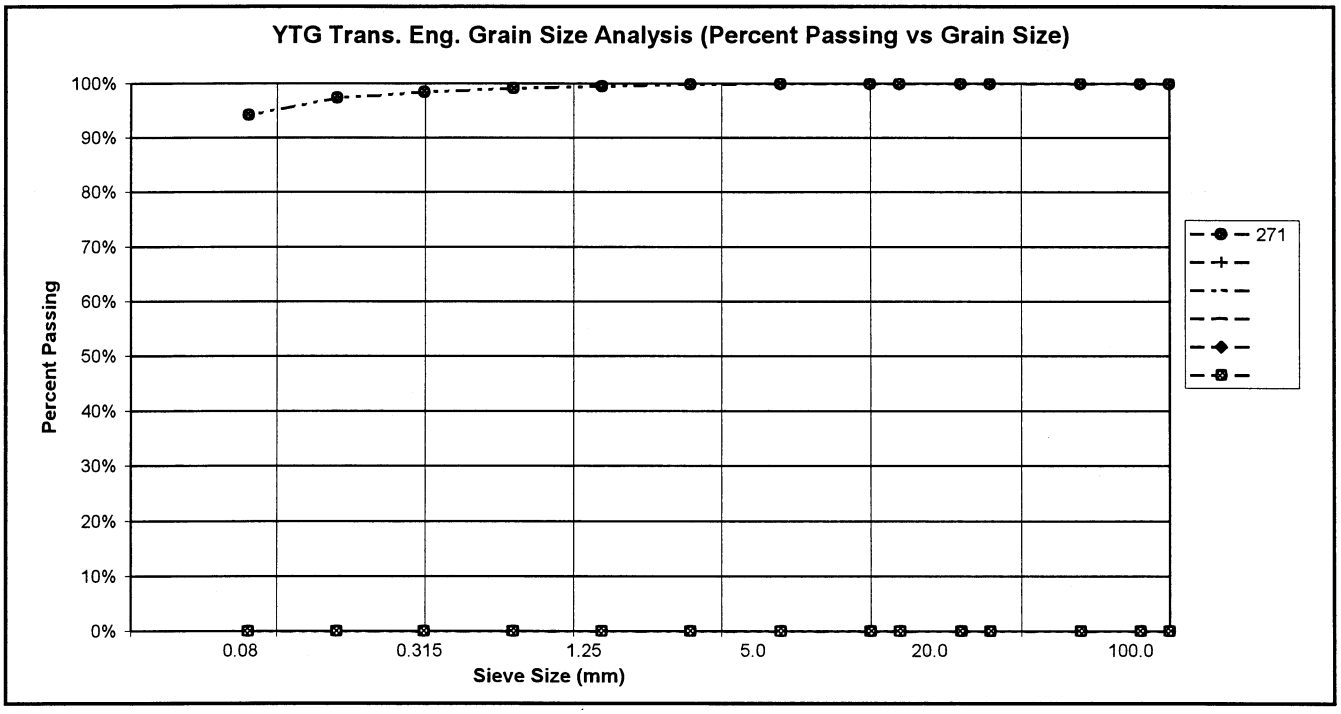
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-168	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1777+650 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/05	

FIELD NO:	270					
LAB NO:	839					
DEPTH:	1.2-1.3					
TYPE:	AUGER	AUGER	AUGER	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	100%					
1.25	100%					
0.630	100%					
0.315	99%					
0.160	97%					
0.080	96%					
M.C.(%):	93%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	0					
% SAND:	4					
% FINES:	96					
CLASSIFICATION	SILT (ML)					



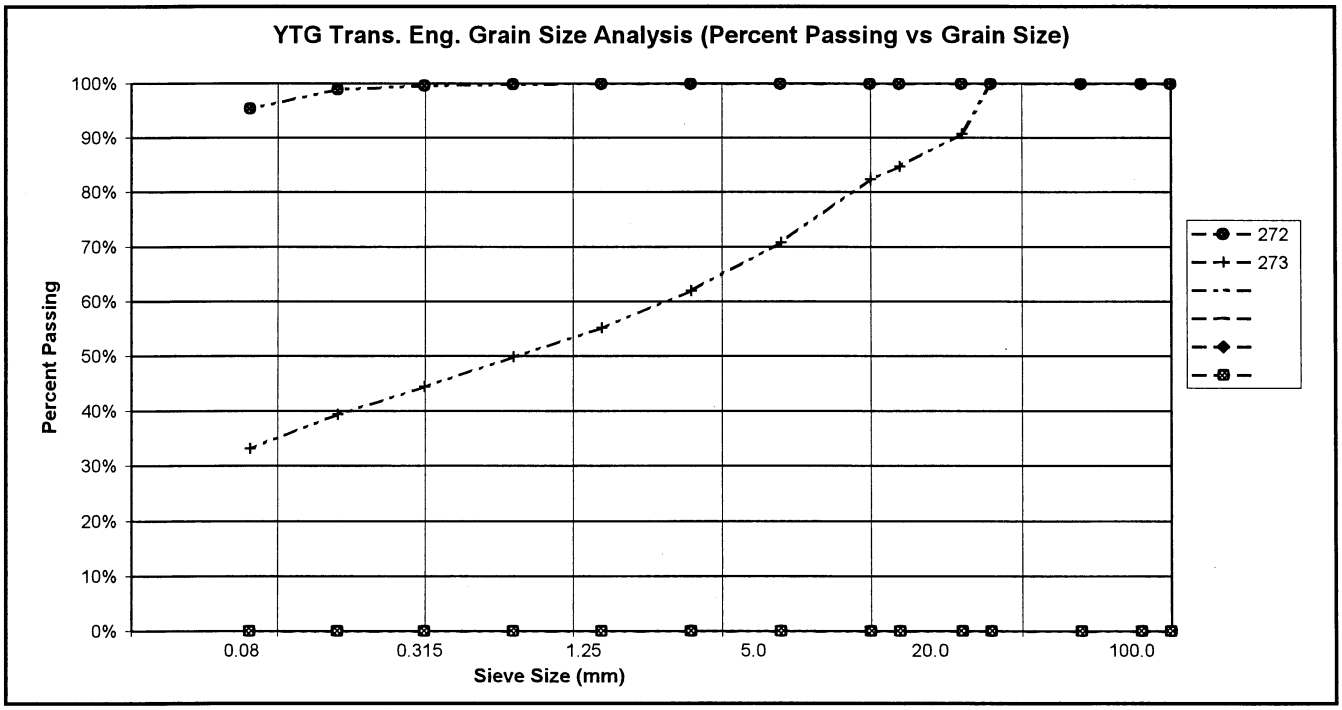
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-169	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1777+525 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/05	

FIELD NO:	271					
LAB NO:	840					
DEPTH:	1.0-1.2					
TYPE:	AUGER	AUGER	AUGER	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	100%					
1.25	100%					
0.630	99%					
0.315	99%					
0.160	97%					
0.080	94%					
M.C.(%):	39%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	0					
% SAND:	6					
% FINES:	94					
CLASSIFICATION	SILT (ML)					



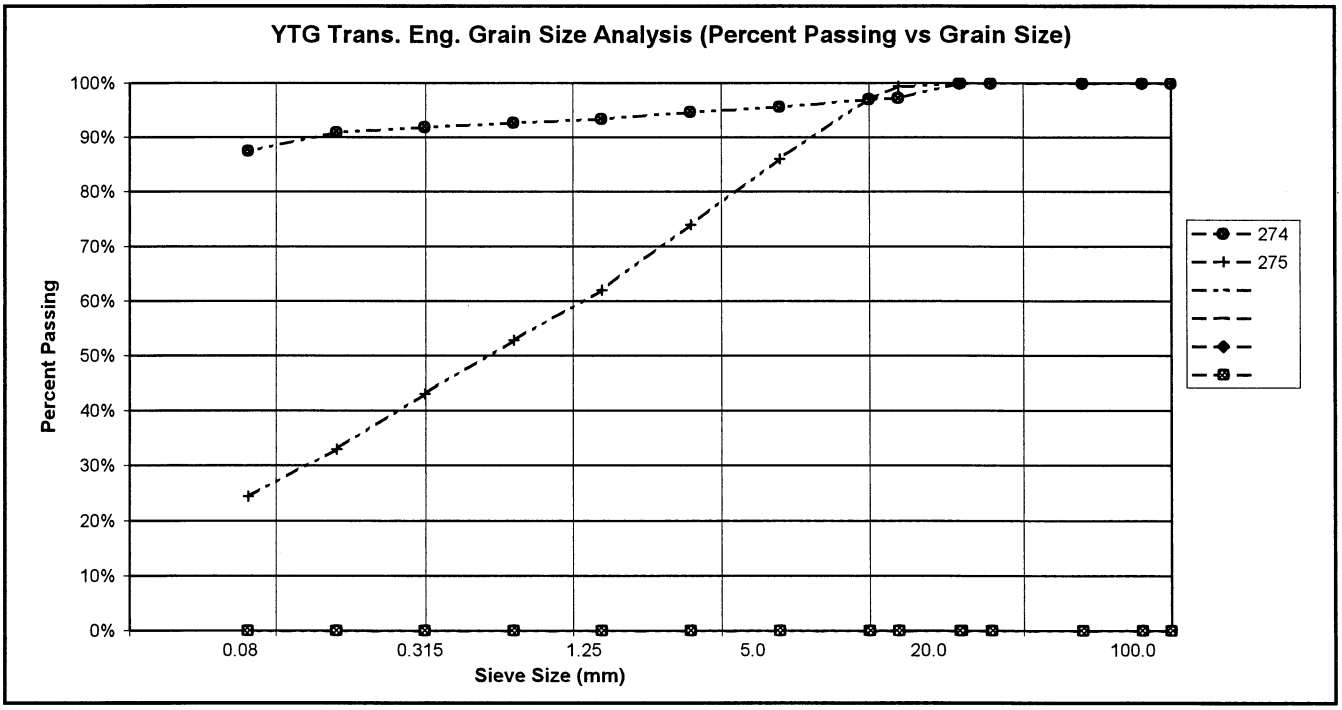
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-170
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+425 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/05

FIELD NO:	272	273				
LAB NO:	841	842				
DEPTH:	1.2-1.3	2.3-2.5				
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%	100%				
20.0	100%	91%				
12.5	100%	85%				
10.0	100%	82%				
5.0	100%	71%				
2.5	100%	62%				
1.25	100%	55%				
0.630	100%	50%				
0.315	100%	45%				
0.160	99%	39%				
0.080	95%	33%				
M.C.(%):	48%	17%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	29				
% SAND:	5	38				
% FINES:	95	33				
CLASSIFICATION	SILT (ML)	SILTY SAND WITH GRAVEL (SM)				



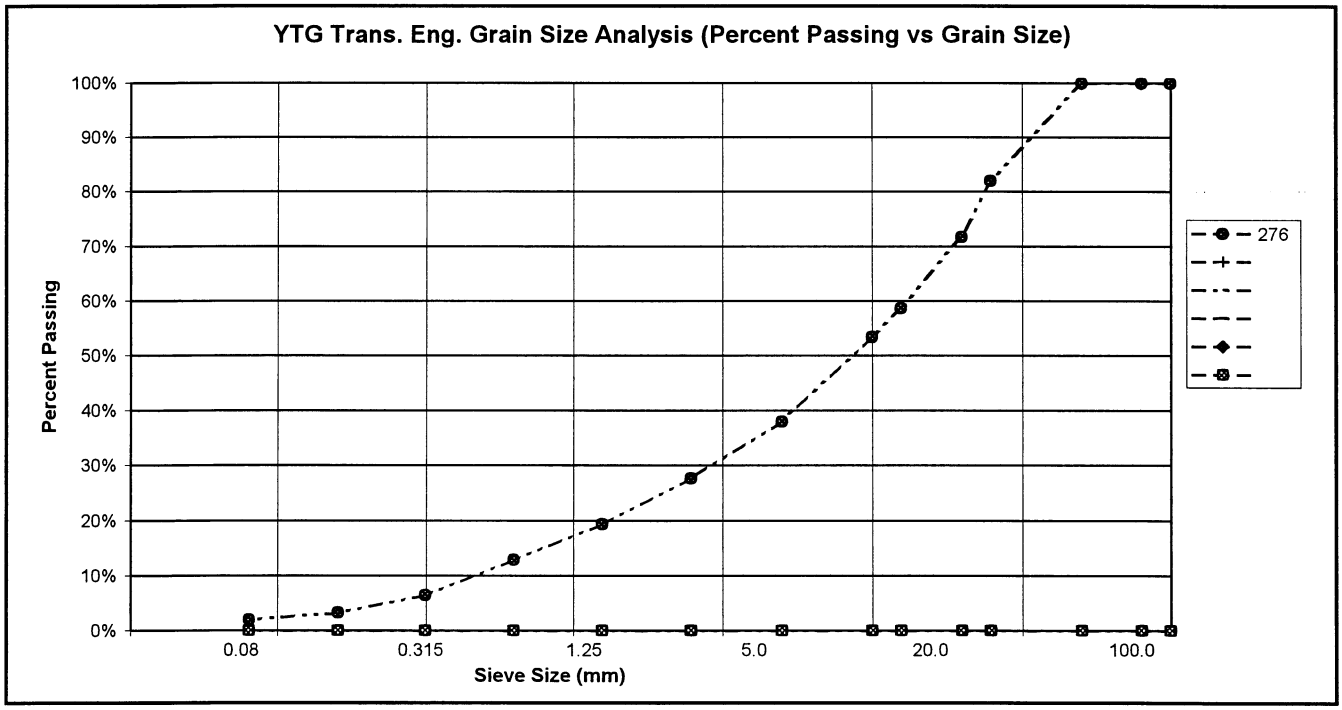
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-171
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+325 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/05

FIELD NO:	274	275				
LAB NO:	843	844				
DEPTH:	1.1-1.3	2.6-2.7				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	97%	99%				
10.0	97%	97%				
5.0	96%	86%				
2.5	95%	74%				
1.25	93%	62%				
0.630	93%	53%				
0.315	92%	43%				
0.160	91%	33%				
0.080	88%	24%				
M.C.(%):	32%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	4	14				
% SAND:	8	62				
% FINES:	88	24				
CLASSIFICATION	SILT (ML)	SILTY SAND (SM)				



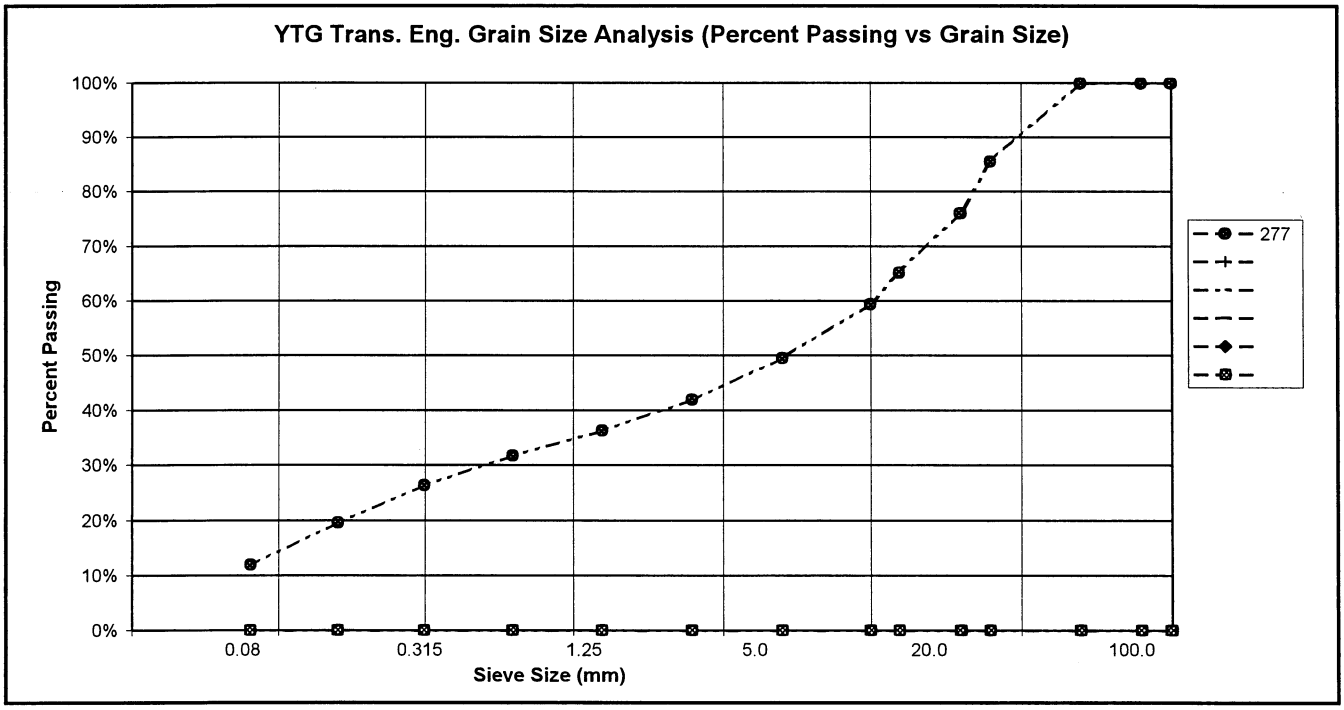
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-172	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1777+550 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/05	

FIELD NO:	276					
LAB NO:	845					
DEPTH:	1.1-1.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	82%					
20.0	72%					
12.5	59%					
10.0	53%					
5.0	38%					
2.5	28%					
1.25	19%					
0.630	13%					
0.315	6%					
0.160	3%					
0.080	2%					
M.C.(%):	2%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	62					
% SAND:	36					
% FINES:	2					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



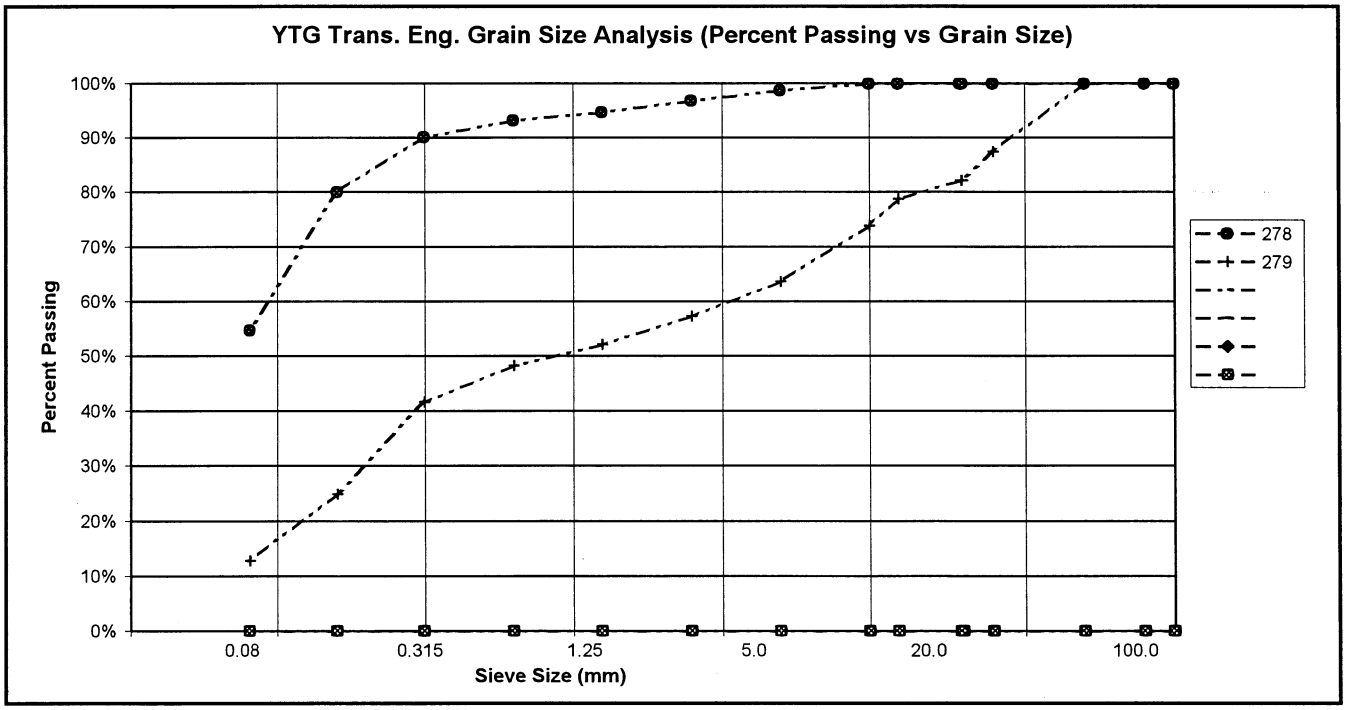
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-173	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1778+650 35M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/05	

FIELD NO:	277					
LAB NO:	846					
DEPTH:	1.0-1.1					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	86%					
20.0	76%					
12.5	65%					
10.0	59%					
5.0	49%					
2.5	42%					
1.25	36%					
0.630	32%					
0.315	26%					
0.160	20%					
0.080	12%					
M.C.(%):	6%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	51					
% SAND:	38					
% FINES:	12					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)					



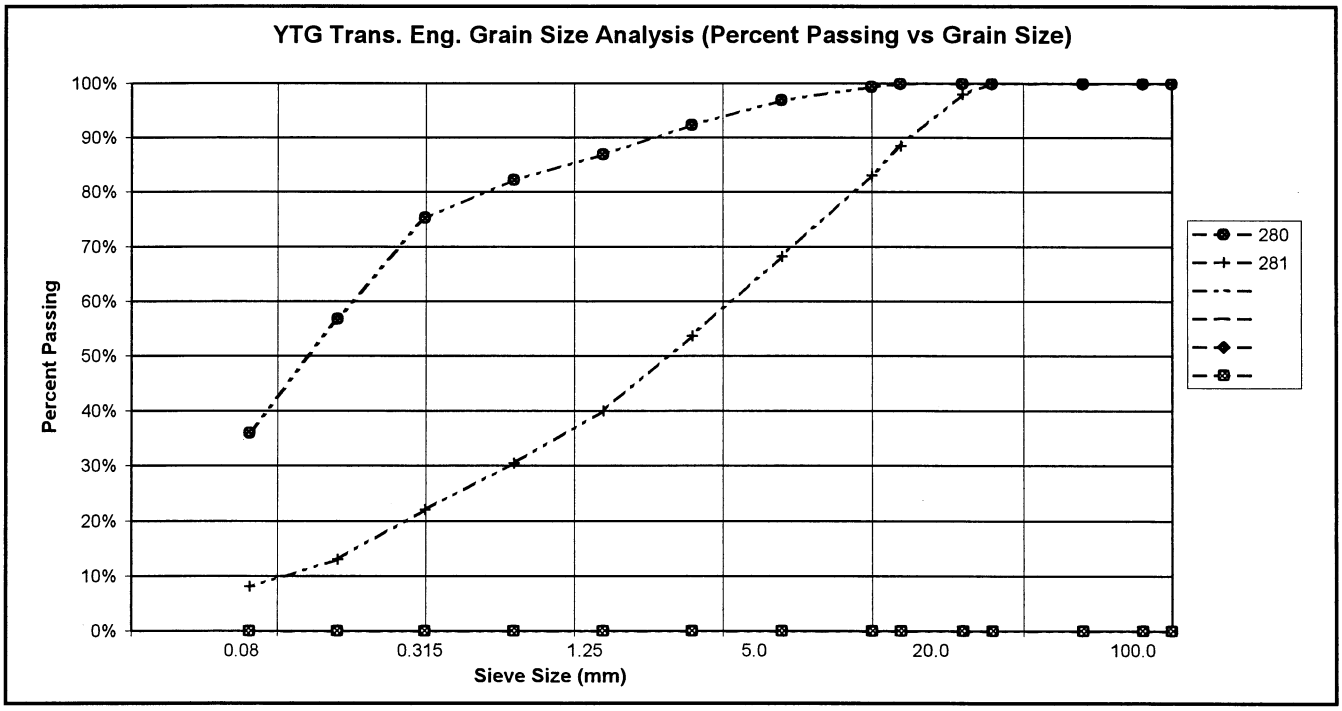
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-174
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1777+750 32M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/05

FIELD NO:	278	279				
LAB NO:	847	848				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	87%				
20.0	100%	82%				
12.5	100%	79%				
10.0	100%	74%				
5.0	99%	64%				
2.5	97%	57%				
1.25	95%	52%				
0.630	93%	48%				
0.315	90%	42%				
0.160	80%	25%				
0.080	55%	13%				
M.C.(%):	25%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	1	36				
% SAND:	44	51				
% FINES:	55	13				
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)				



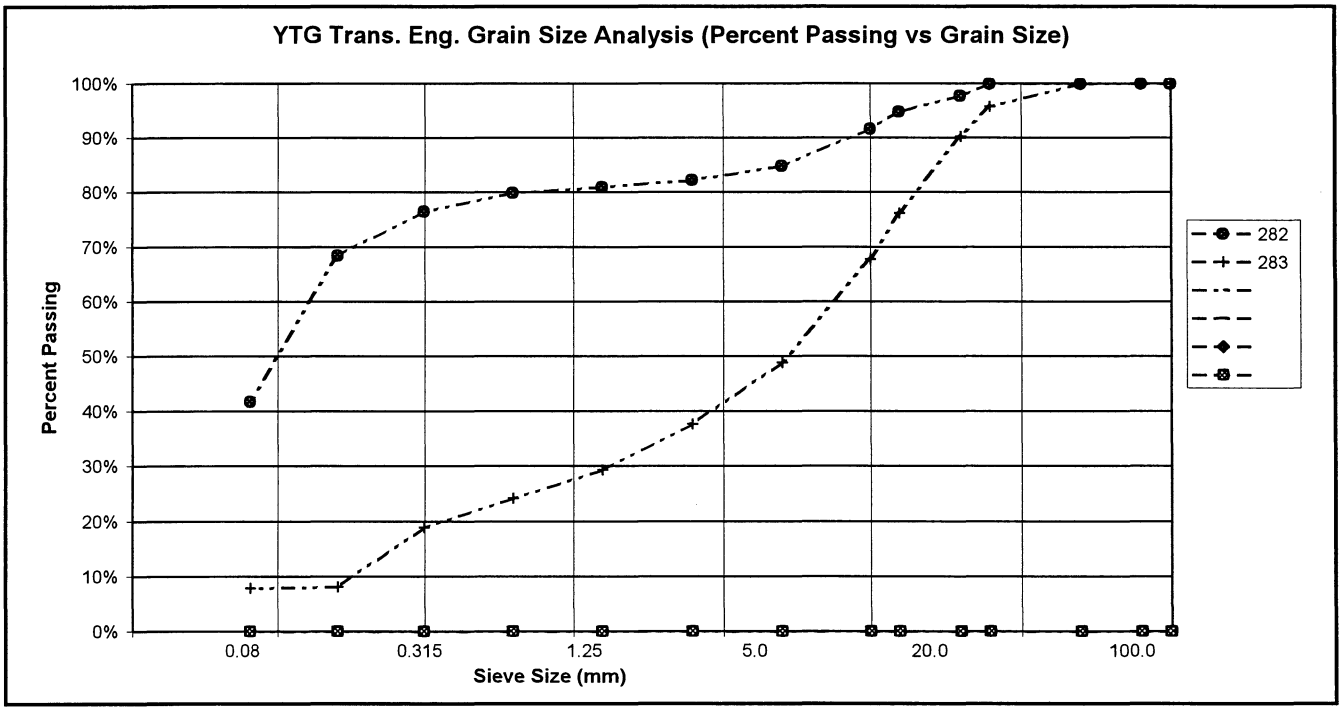
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-175
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+850 32M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/05

FIELD NO:	280	281				
LAB NO:	849	850				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	98%				
12.5	100%	88%				
10.0	99%	83%				
5.0	97%	68%				
2.5	92%	54%				
1.25	87%	40%				
0.630	82%	31%				
0.315	75%	22%				
0.160	57%	13%				
0.080	36%	8%				
M.C.(%):	21%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	3	32				
% SAND:	61	60				
% FINES:	36	8				
CLASSIFICATION	SILTY SAND (SM)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)				



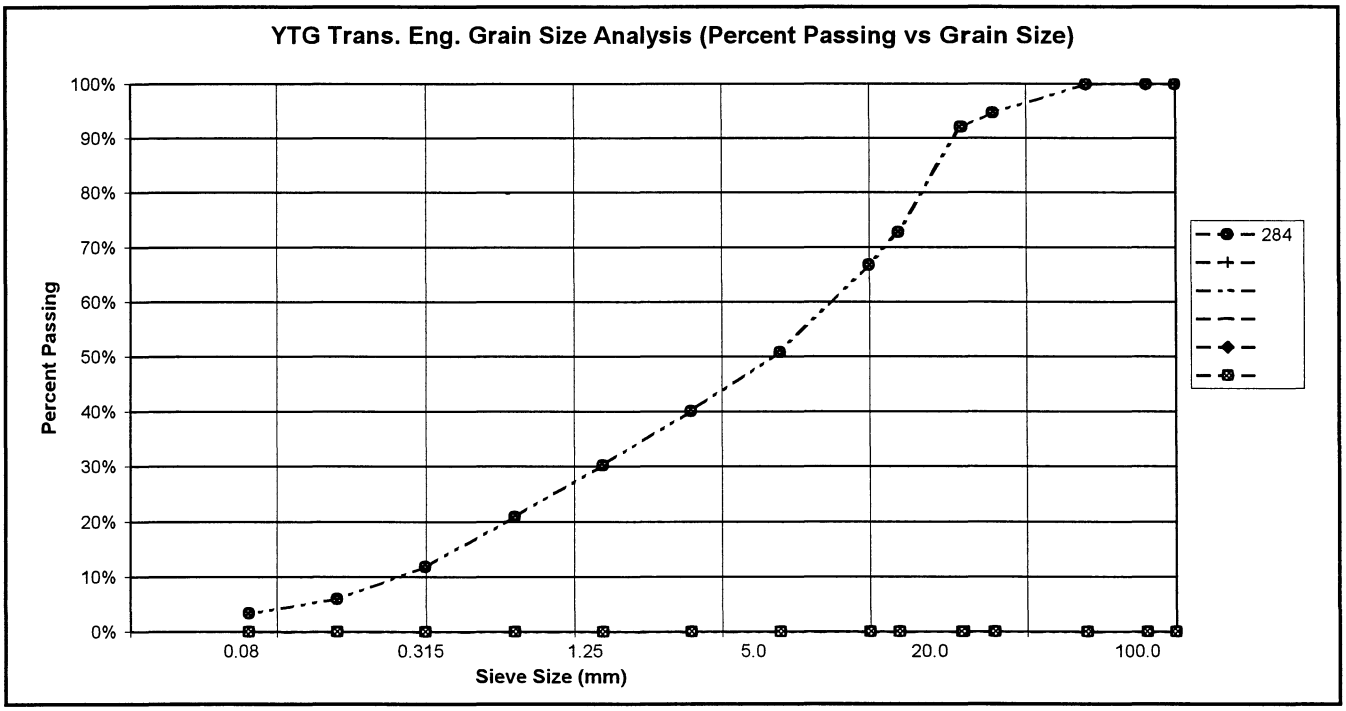
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-176
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+950 32M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/05

FIELD NO:	282	283				
LAB NO:	851	852				
DEPTH:	0.8-1.0	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	96%				
20.0	98%	90%				
12.5	95%	76%				
10.0	92%	68%				
5.0	85%	49%				
2.5	82%	38%				
1.25	81%	29%				
0.630	80%	24%				
0.315	77%	19%				
0.160	68%	8%				
0.080	42%	8%				
M.C.(%):	25%	7%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	15	51				
% SAND:	43	41				
% FINES:	42	8				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)				



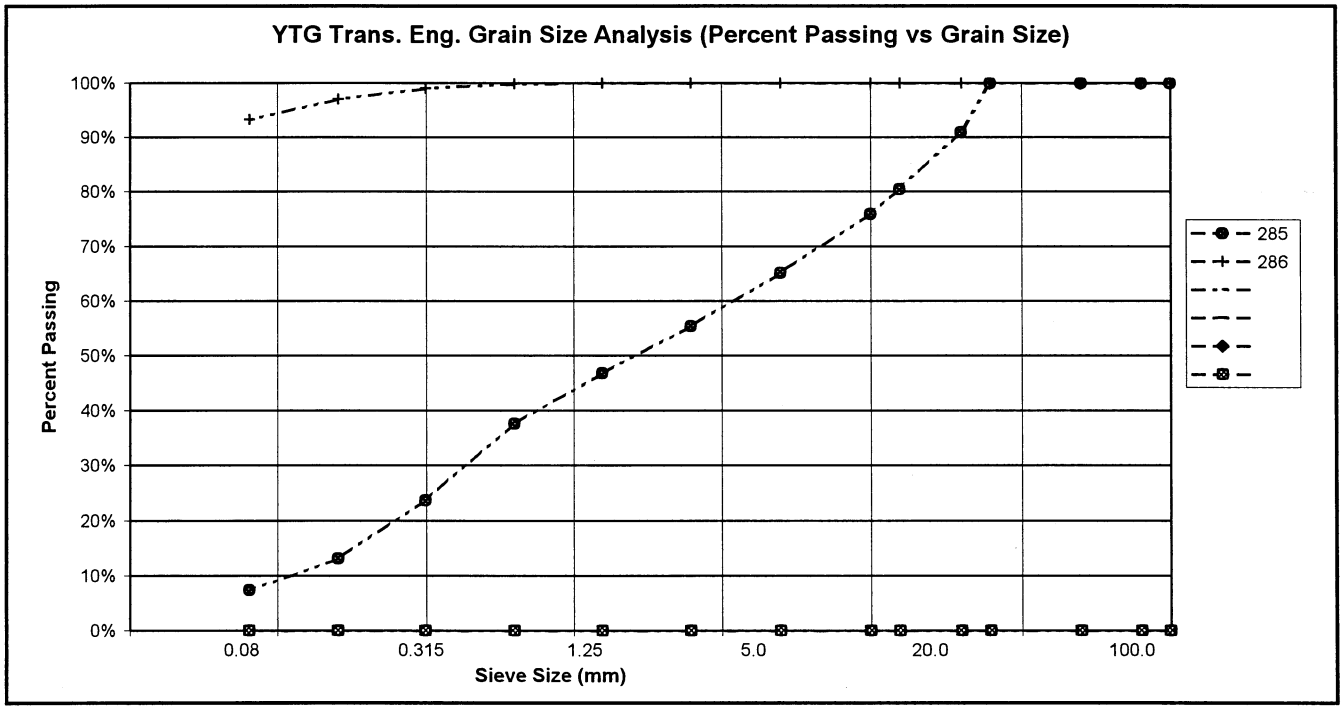
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 604-177	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1779+050 32M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/05	

FIELD NO:	284					
LAB NO:	853					
DEPTH:	1.1-1.3					
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	73%					
10.0	67%					
5.0	51%					
2.5	40%					
1.25	30%					
0.630	21%					
0.315	12%					
0.160	6%					
0.080	3%					
M.C.(%):	3%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	49					
% SAND:	47					
% FINES:	3					
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)					



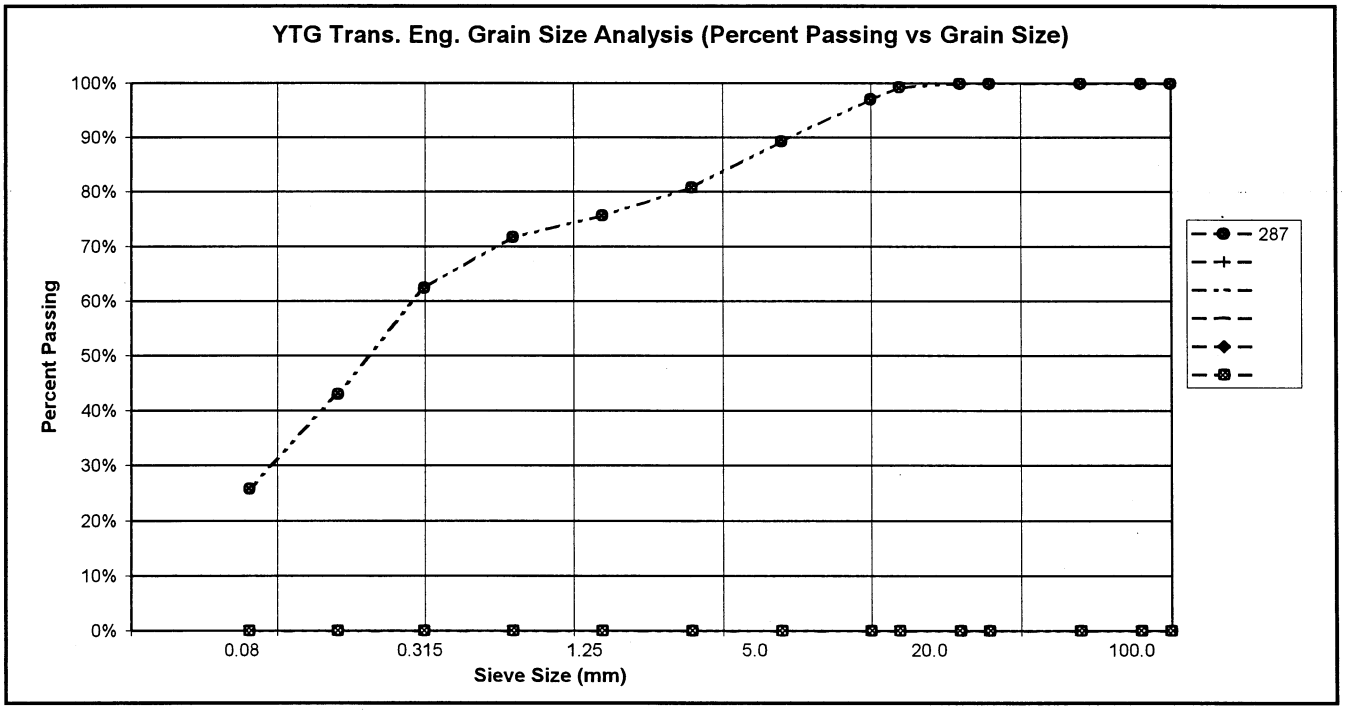
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-178
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+150 32M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/05

FIELD NO:	285	286				
LAB NO:	854	855				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	91%	100%				
12.5	81%	100%				
10.0	76%	100%				
5.0	65%	100%				
2.5	55%	100%				
1.25	47%	100%				
0.630	38%	100%				
0.315	24%	99%				
0.160	13%	97%				
0.080	7%	93%				
M.C.(%):	5%	75%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	35	0				
% SAND:	58	7				
% FINES:	7	93				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SILT (ML)				



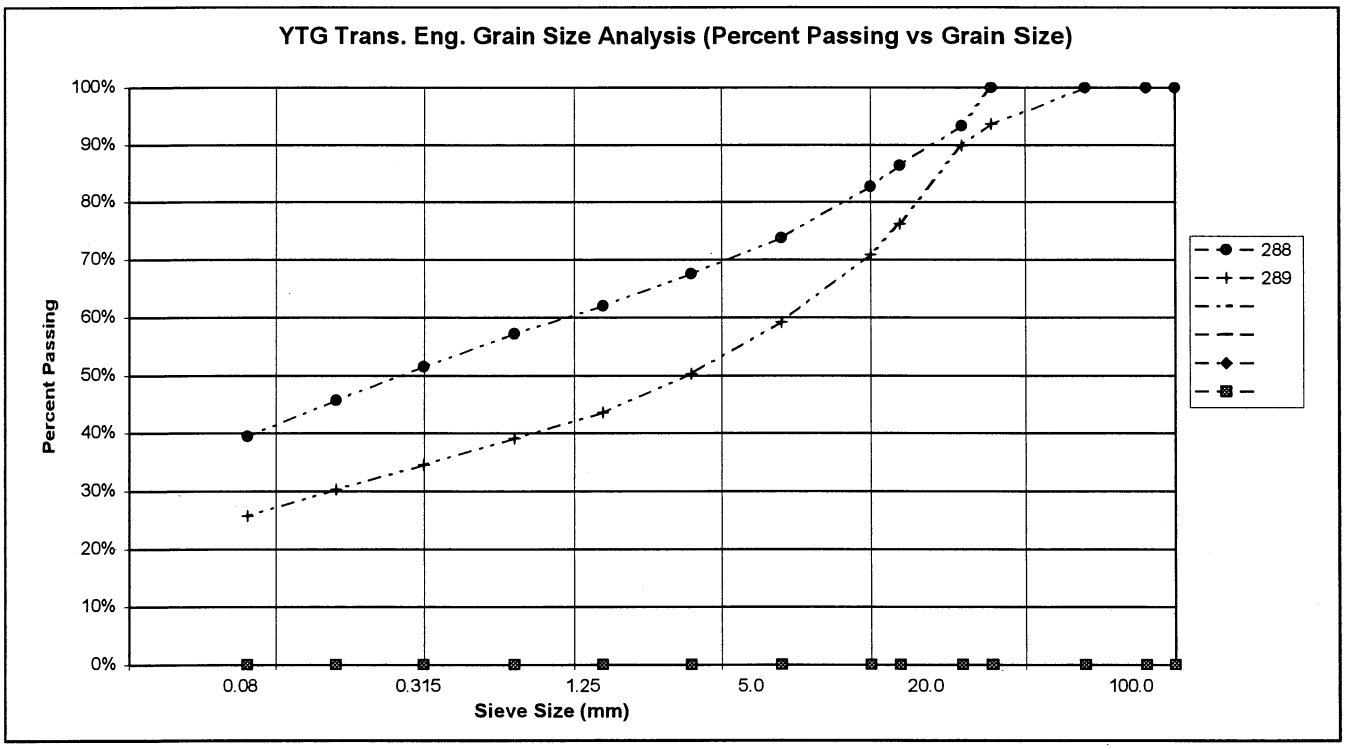
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-179
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+250 32M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/05

FIELD NO:	287					
LAB NO:	856					
DEPTH:	1.2-1.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	99%					
10.0	97%					
5.0	89%					
2.5	81%					
1.25	76%					
0.630	72%					
0.315	62%					
0.160	43%					
0.080	26%					
M.C.(%):	17%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	11					
% SAND:	63					
% FINES:	26					
CLASSIFICATION	SILTY SAND (SM)					



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 604-180
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+331 35M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/06

FIELD NO:	288	289				
LAB NO:	857	858				
DEPTH:	1.3-1.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	94%				
20.0	93%	90%				
12.5	86%	76%				
10.0	83%	71%				
5.0	74%	59%				
2.5	68%	50%				
1.25	62%	44%				
0.630	57%	39%				
0.315	52%	35%				
0.160	46%	30%				
0.080	40%	26%				
M.C.(%):	17%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	26	41				
% SAND:	34	34				
% FINES:	40	26				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY GRAVEL WITH SAND (GM)				

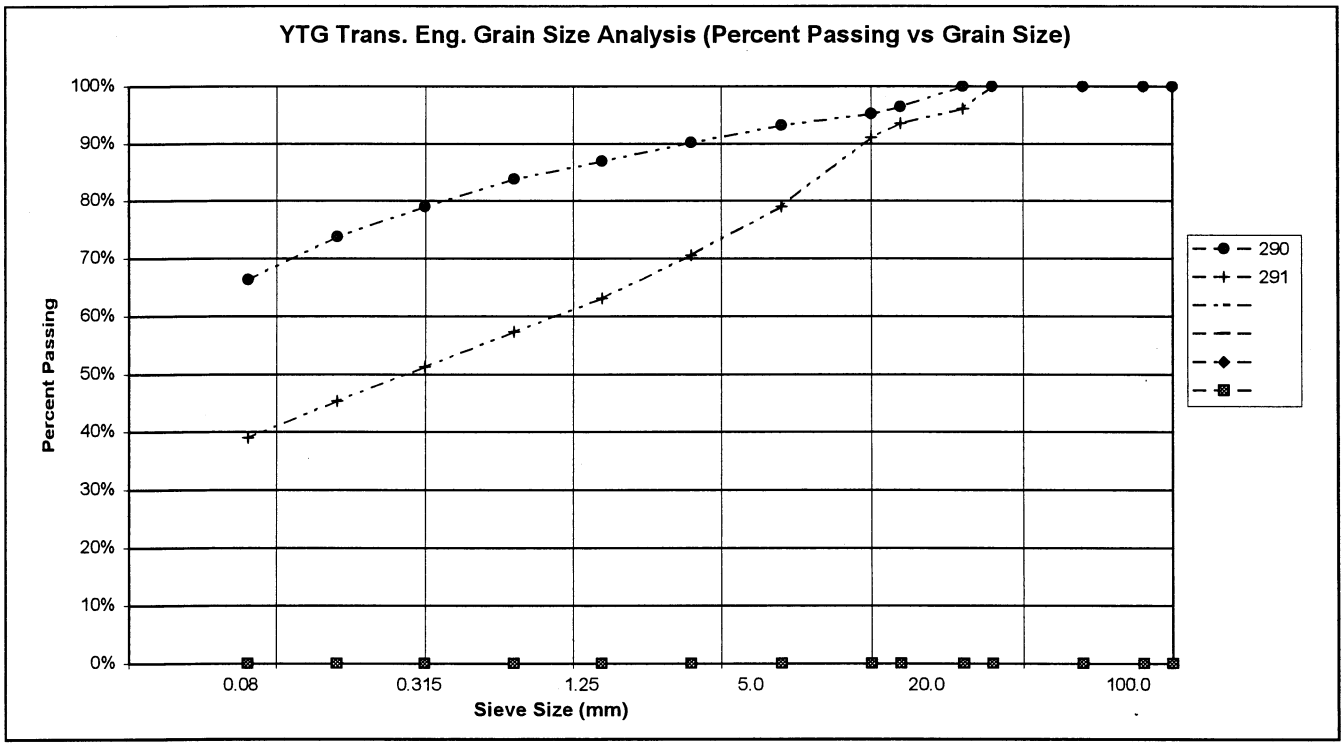


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1779+448 36M LT
LOGGED BY: B.B.

HOLE No.: 604-181

DATE COMP: 2001/07/06

FIELD NO:	290	291				
LAB NO:	859	860				
DEPTH:	1.2-1.4	2.6-2.7				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	96%				
12.5	96%	94%				
10.0	95%	91%				
5.0	93%	79%				
2.5	90%	71%				
1.25	87%	63%				
0.630	84%	57%				
0.315	79%	51%				
0.160	74%	45%				
0.080	66%	39%				
M.C.(%):	50%	15%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	7	21				
% SAND:	27	40				
% FINES:	66	39				
CLASSIFICATION	SANDY SILT (ML)	SILTY SAND WITH GRAVEL (SM)				

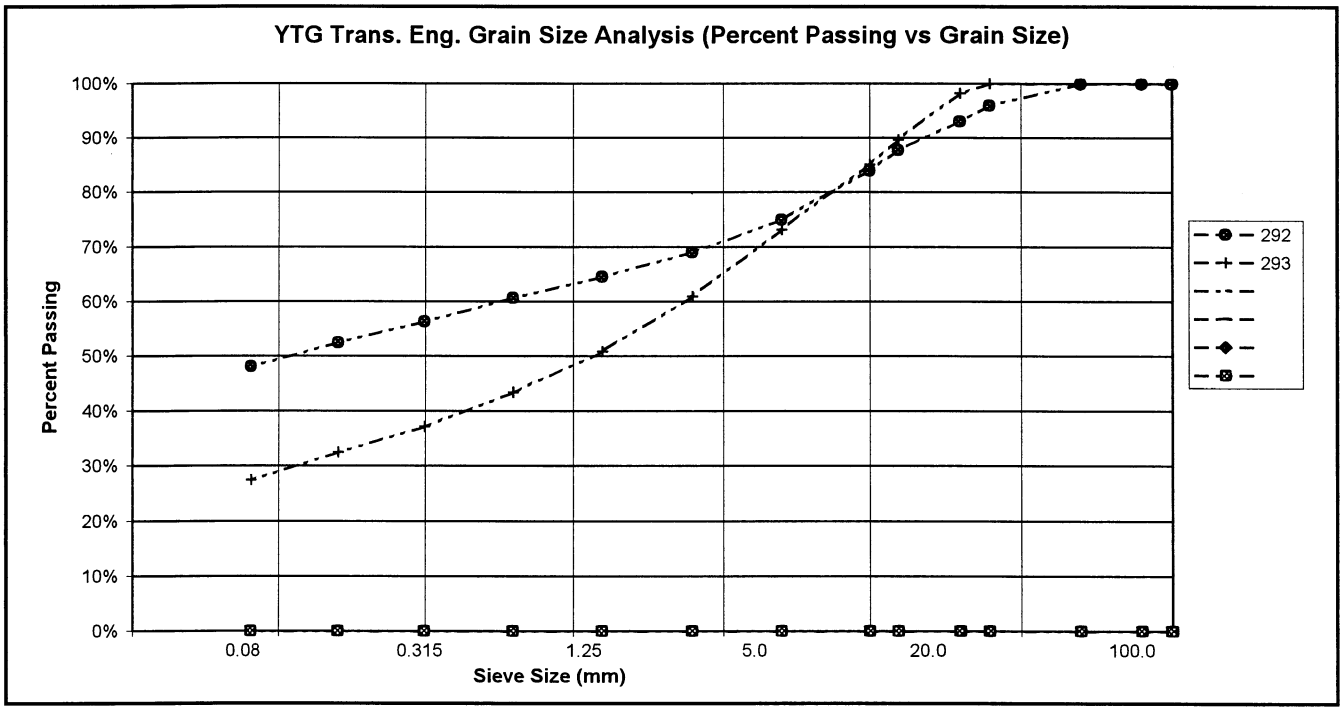


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1779+550 32M LT
LOGGED BY: B.B.

HOLE No.: 604-182

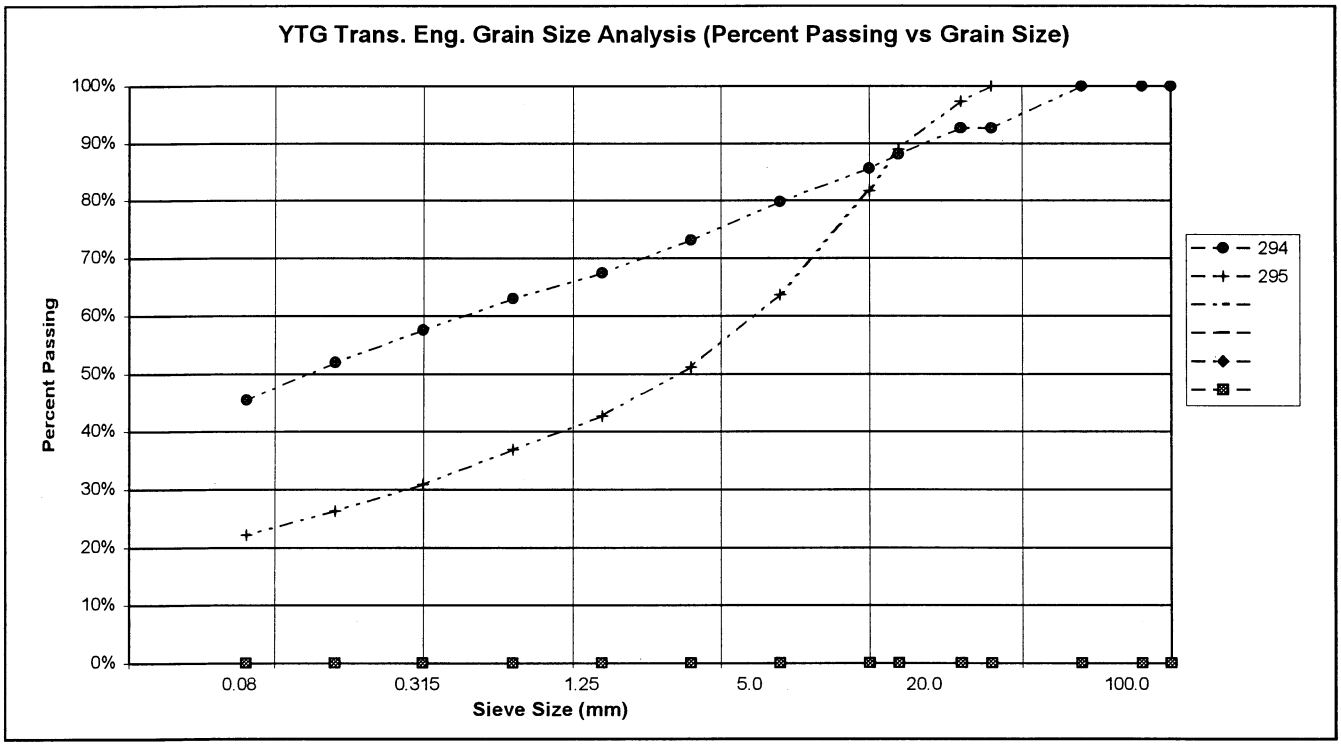
DATE COMP: 2001/07/06

FIELD NO:	292	293				
LAB NO:	861	862				
DEPTH:	1.6-1.7	2.6-2.7				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	96%	100%				
20.0	93%	98%				
12.5	88%	90%				
10.0	84%	85%				
5.0	75%	73%				
2.5	69%	61%				
1.25	65%	51%				
0.630	61%	43%				
0.315	56%	37%				
0.160	53%	32%				
0.080	48%	27%				
M.C.(%):	18%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	25	27				
% SAND:	27	46				
% FINES:	48	27				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



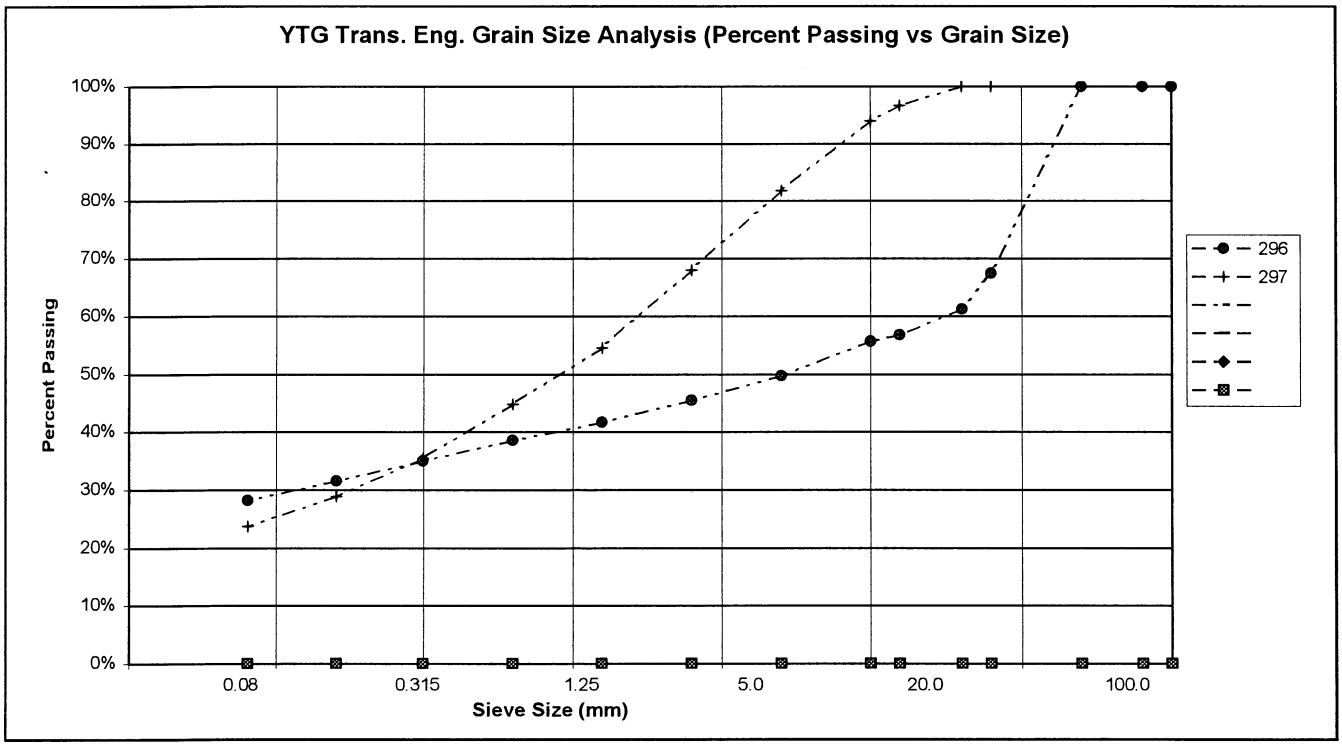
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-183
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+619 34m LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	294	295				
LAB NO:	863	864				
DEPTH:	1.2-1.3	2.7-2.8				
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	93%	100%				
20.0	93%	97%				
12.5	88%	89%				
10.0	86%	82%				
5.0	80%	64%				
2.5	73%	51%				
1.25	67%	43%				
0.630	63%	37%				
0.315	58%	31%				
0.160	52%	26%				
0.080	45%	22%				
M.C.(%):	17%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	20	36				
% SAND:	34	41				
% FINES:	45	22				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



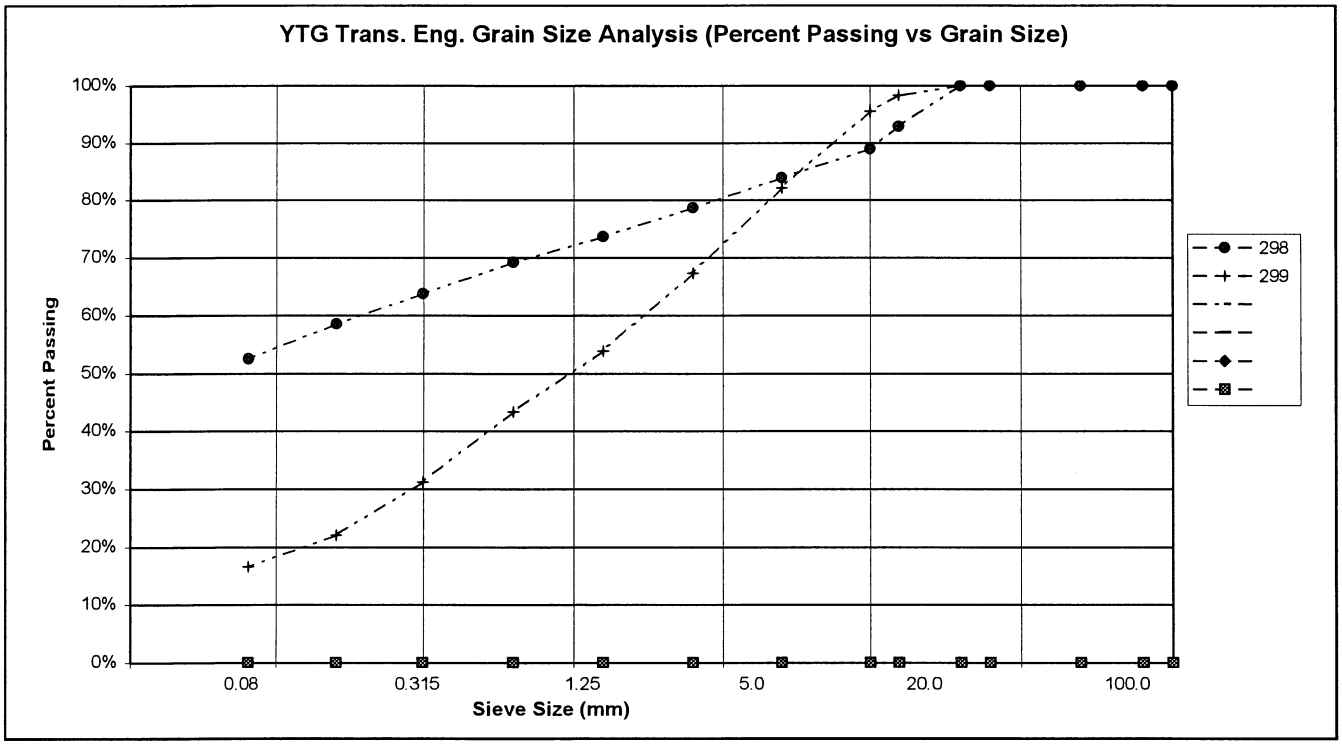
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-184
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+706 31m LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	296	297				
LAB NO:	865	866				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	67%	100%				
20.0	61%	100%				
12.5	57%	97%				
10.0	56%	94%				
5.0	50%	82%				
2.5	45%	68%				
1.25	42%	54%				
0.630	39%	45%				
0.315	35%	35%				
0.160	32%	29%				
0.080	28%	24%				
M.C.(%):	14%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	50	18				
% SAND:	22	58				
% FINES:	28	24				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)				



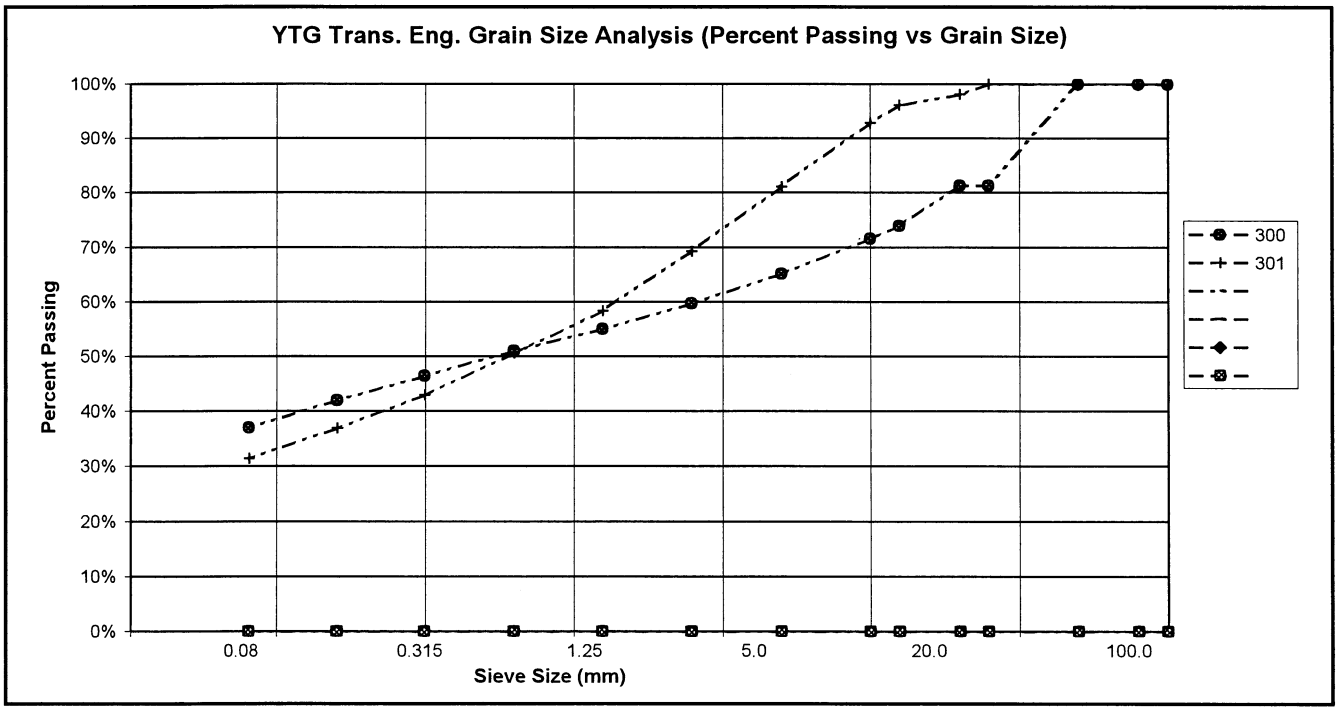
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-185
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+793 36m LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	298	299				
LAB NO:	867	868				
DEPTH:	1.2-1.3	2.0-2.2				
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%	100%				
20.0	100%	100%				
12.5	93%	98%				
10.0	89%	96%				
5.0	84%	82%				
2.5	79%	67%				
1.25	74%	54%				
0.630	69%	43%				
0.315	64%	31%				
0.160	59%	22%				
0.080	53%	17%				
M.C.(%):	24%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	16	18				
% SAND:	31	66				
% FINES:	53	17				
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SILTY SAND WITH GRAVEL (SM)				



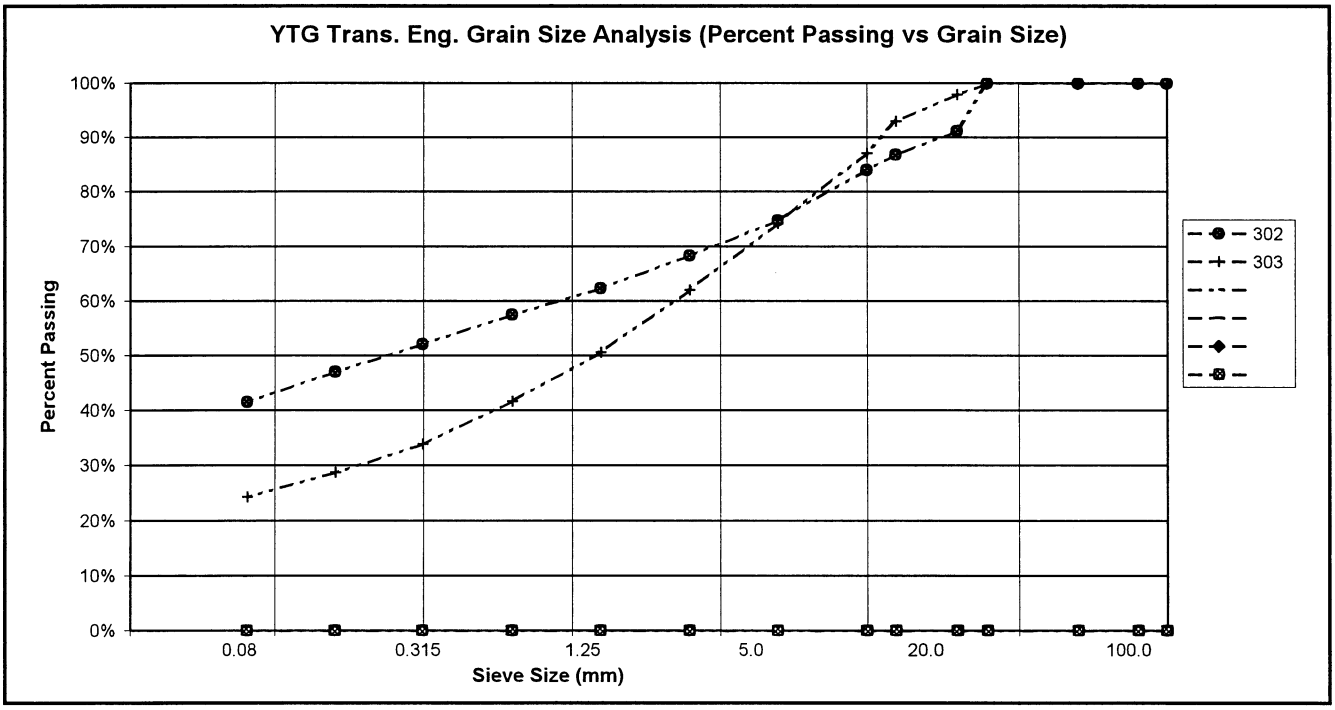
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-186
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+000 32M LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	300	301				
LAB NO:	869	870				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	81%	100%				
20.0	81%	98%				
12.5	74%	96%				
10.0	72%	93%				
5.0	65%	81%				
2.5	60%	69%				
1.25	55%	58%				
0.630	51%	51%				
0.315	46%	43%				
0.160	42%	37%				
0.080	37%	31%				
M.C.(%):	7%	9%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	35	19				
% SAND:	28	50				
% FINES:	37	31				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND WITH GRAVEL (SM)				



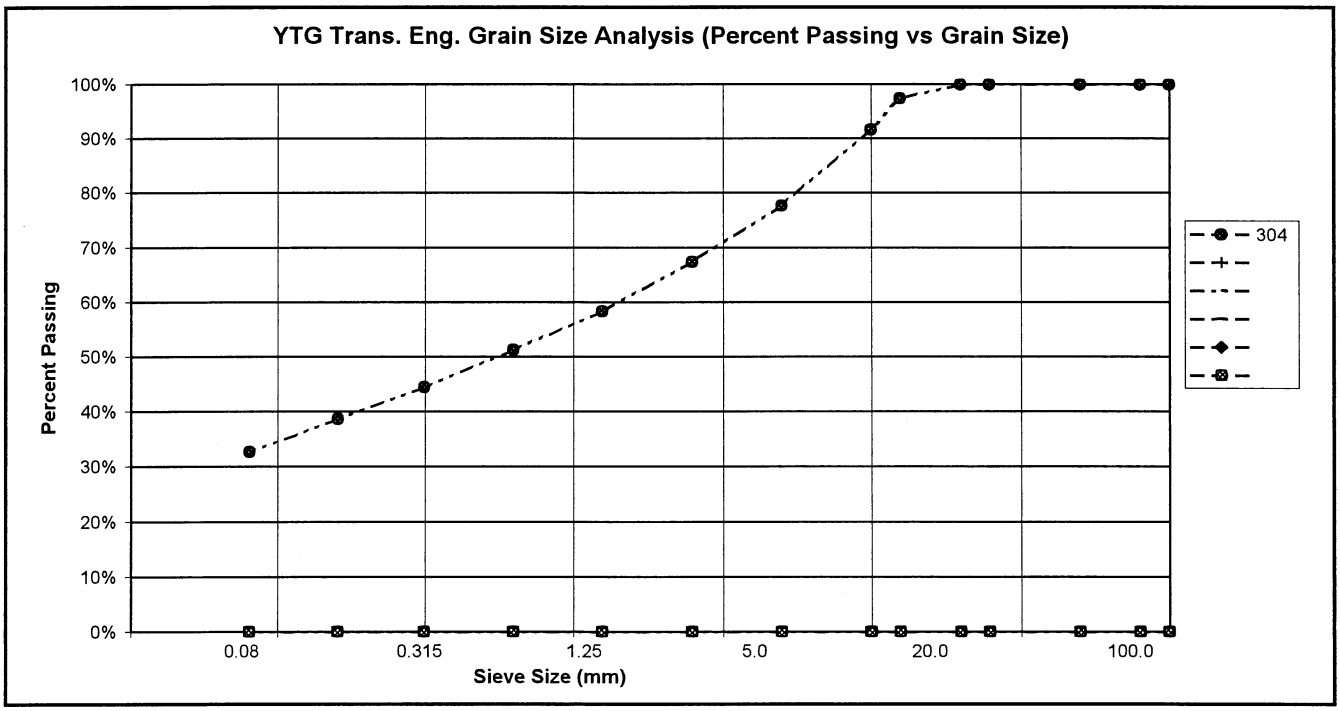
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-187
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+100 36M LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	302	303				
LAB NO:	871	872				
DEPTH:	0.8-1.0	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	91%	98%				
12.5	87%	93%				
10.0	84%	87%				
5.0	75%	74%				
2.5	68%	62%				
1.25	62%	51%				
0.630	57%	42%				
0.315	52%	34%				
0.160	47%	29%				
0.080	42%	24%				
M.C.(%):	8%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	25	26				
% SAND:	33	50				
% FINES:	42	24				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



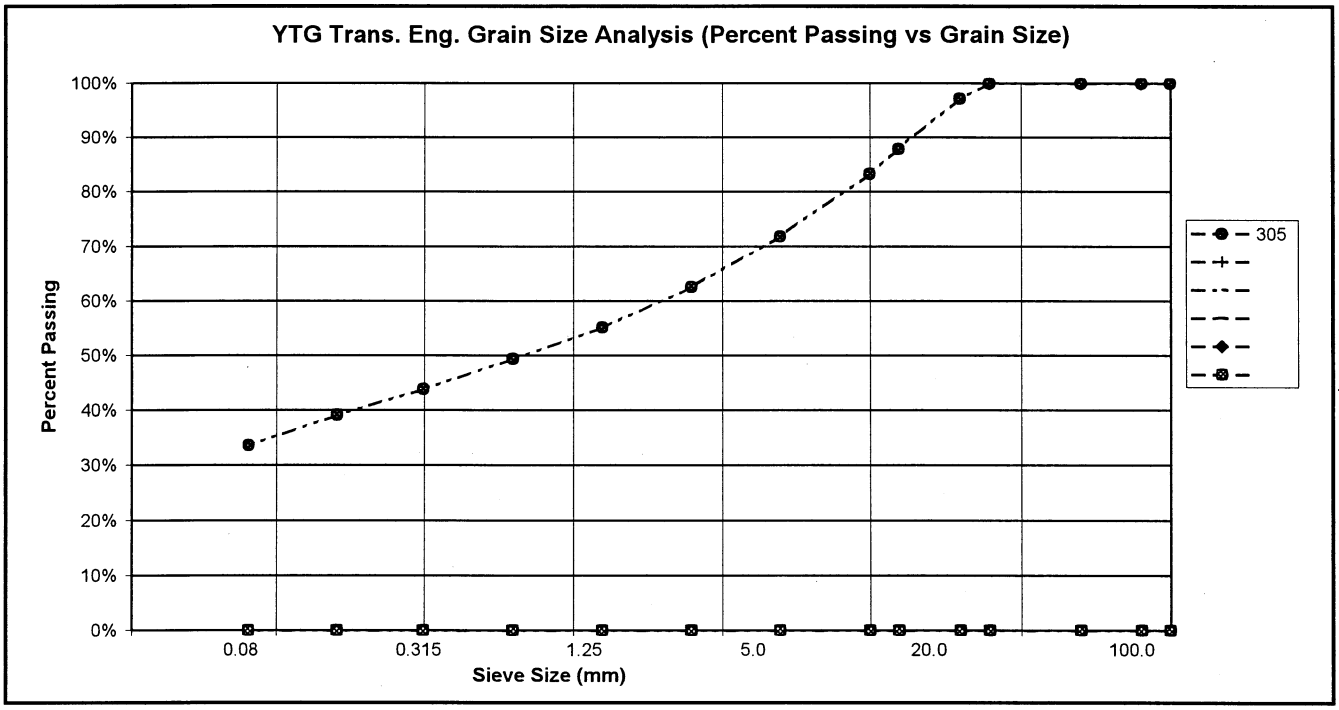
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-188
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+200 30M LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	304					
LAB NO:	873					
DEPTH:	2.7-2.9					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	97%					
10.0	92%					
5.0	78%					
2.5	67%					
1.25	58%					
0.630	51%					
0.315	44%					
0.160	39%					
0.080	33%					
M.C.(%):	11%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	22					
% SAND:	45					
% FINES:	33					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



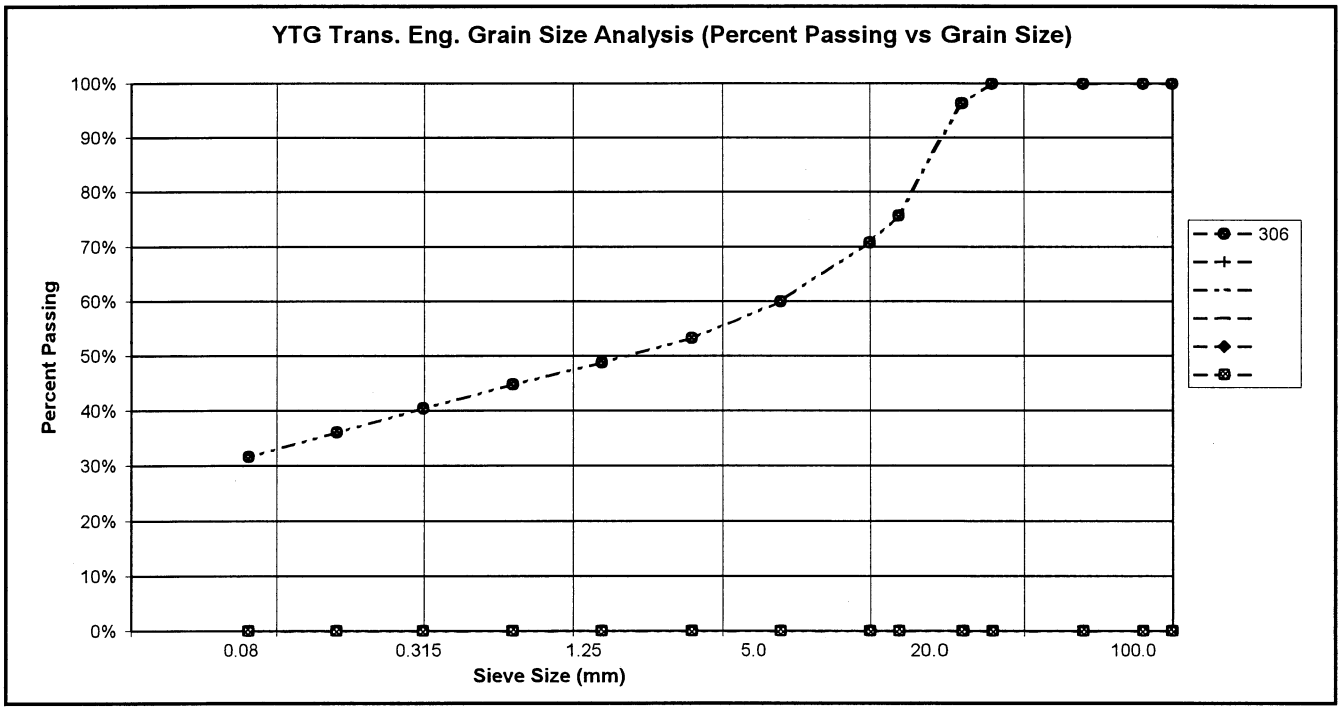
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 605-189	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1780+300 36M LT					
LOGGED BY:	B.B..				DATE COMP: 2001/07/09	

FIELD NO:	305					
LAB NO:	874					
DEPTH:	2.7-2.9					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	97%					
12.5	88%					
10.0	83%					
5.0	72%					
2.5	63%					
1.25	55%					
0.630	49%					
0.315	44%					
0.160	39%					
0.080	34%					
M.C.(%):	10%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	28					
% SAND:	38					
% FINES:	34					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



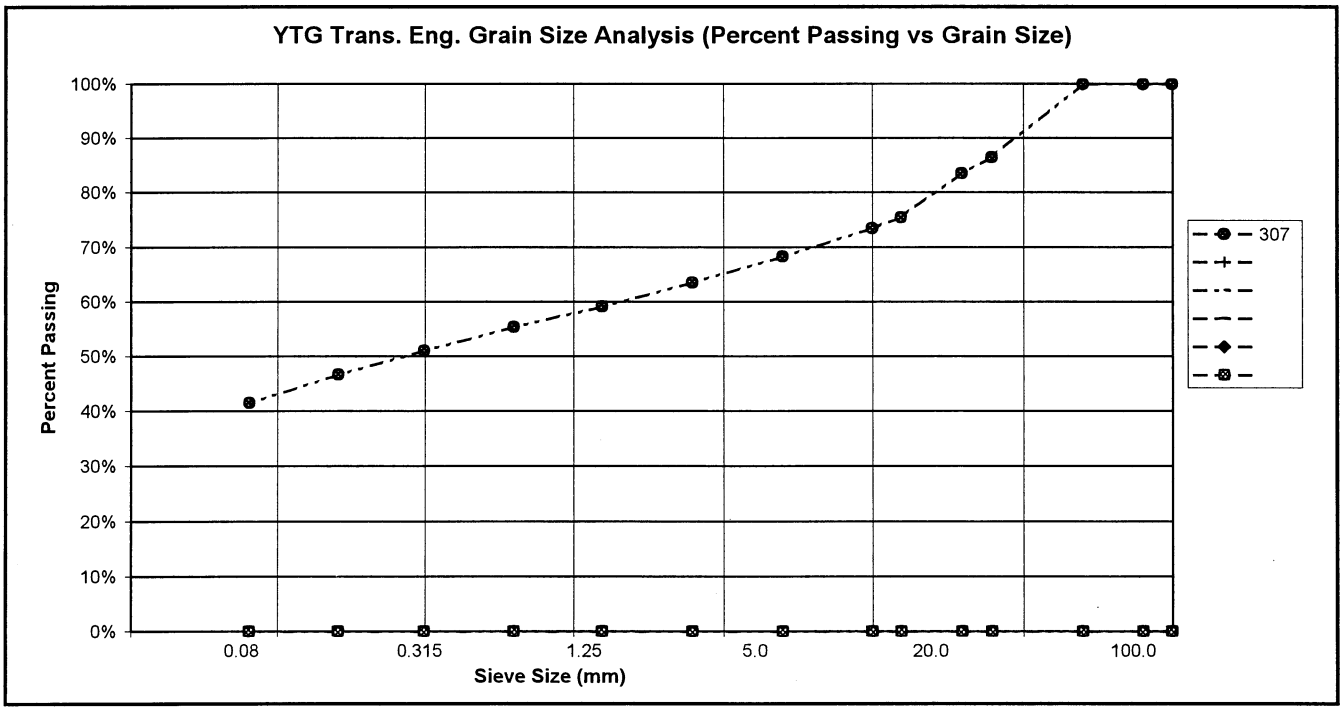
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-190
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+400 36M LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	306					
LAB NO:	875					
DEPTH:	1.0-1.2					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	96%					
12.5	76%					
10.0	71%					
5.0	60%					
2.5	53%					
1.25	49%					
0.630	45%					
0.315	40%					
0.160	36%					
0.080	32%					
M.C.(%):	14%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	40					
% SAND:	28					
% FINES:	32					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



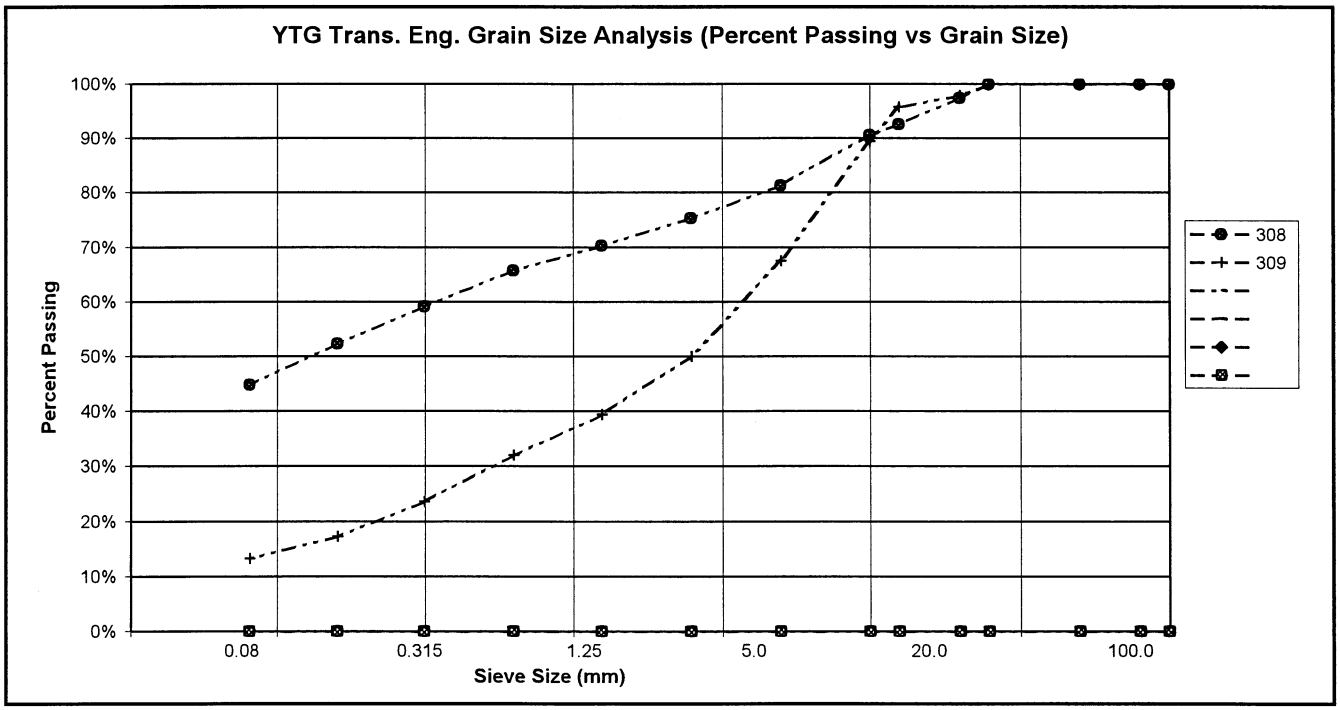
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-191
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+500 36M LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	307					
LAB NO:	876					
DEPTH:	1.0-1.1					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	87%					
20.0	84%					
12.5	75%					
10.0	73%					
5.0	68%					
2.5	63%					
1.25	59%					
0.630	55%					
0.315	51%					
0.160	47%					
0.080	42%					
M.C.(%):	33%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	32					
% SAND:	27					
% FINES:	42					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



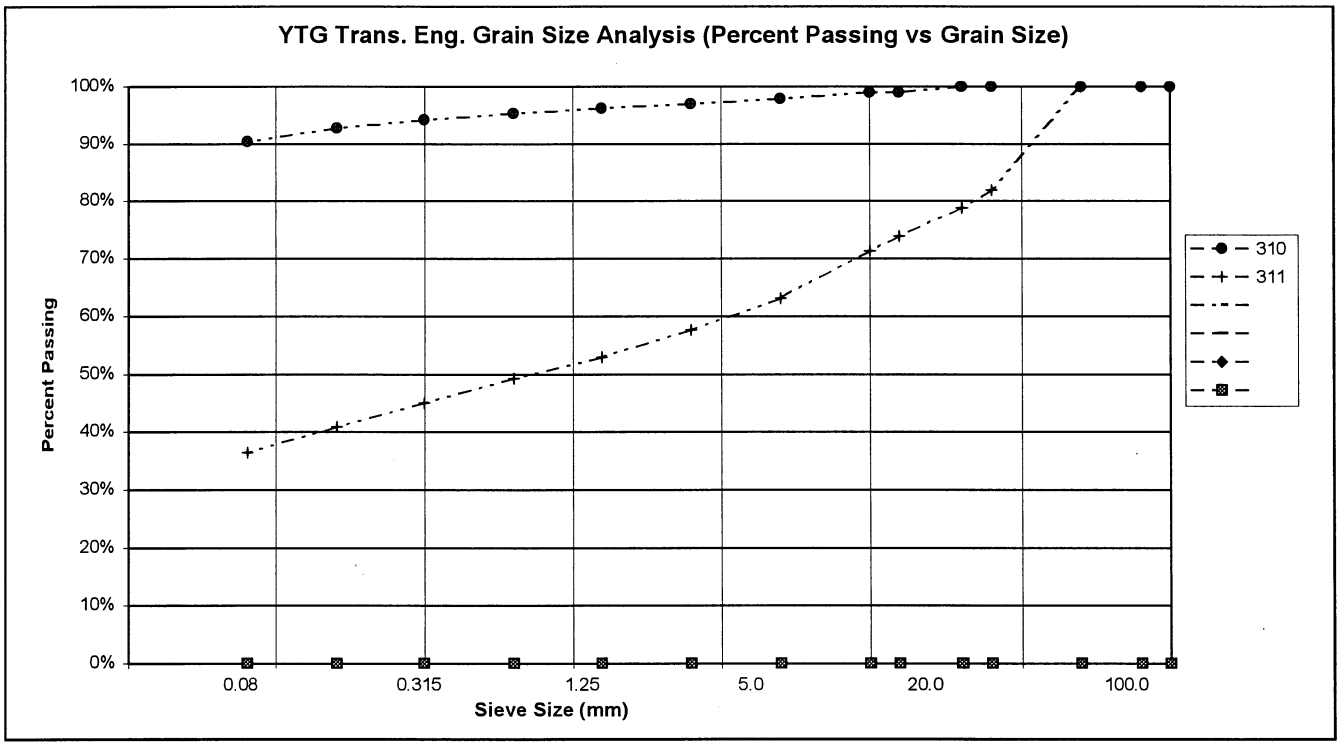
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-192
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+600 36M LT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	308	309				
LAB NO:	877	878				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	97%	98%				
12.5	93%	96%				
10.0	91%	89%				
5.0	81%	68%				
2.5	75%	50%				
1.25	70%	39%				
0.630	66%	32%				
0.315	59%	24%				
0.160	52%	17%				
0.080	45%	13%				
M.C.(%):	17%	6%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	19	32				
% SAND:	37	54				
% FINES:	45	13				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



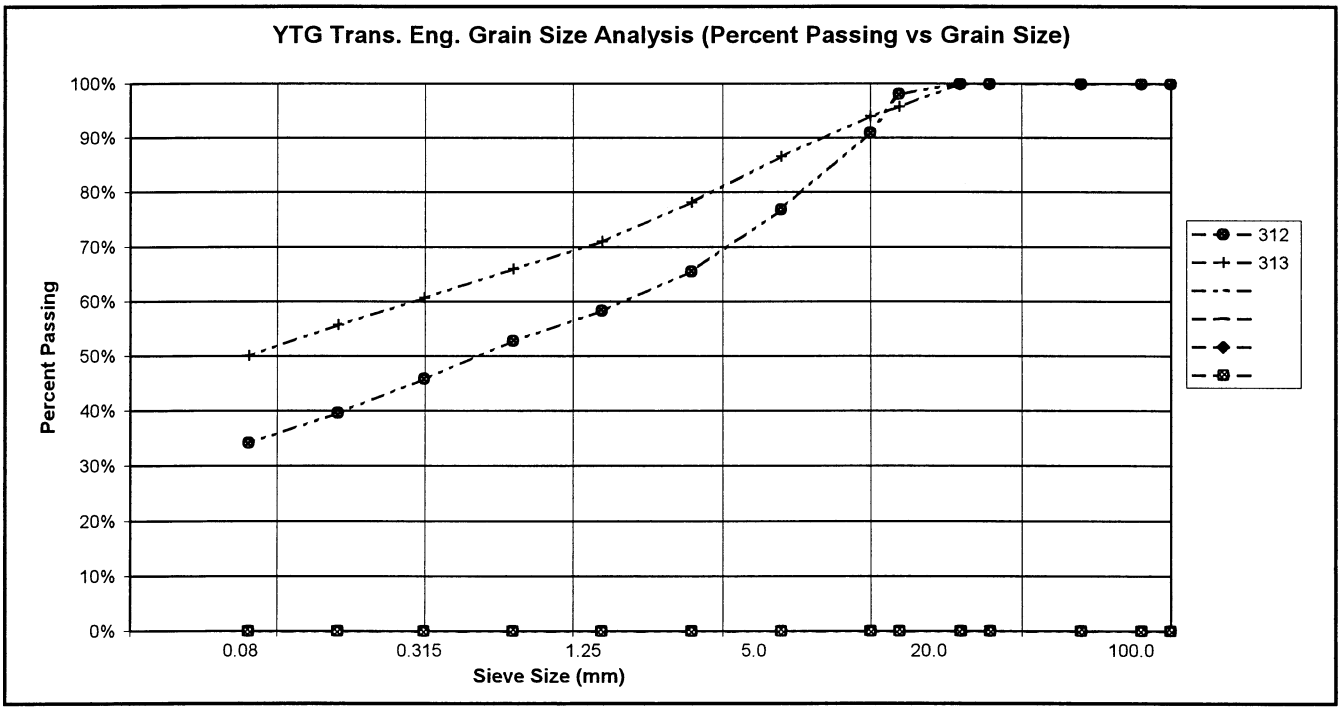
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-193
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+700 22M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	310	311				
LAB NO:	879	880				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	82%				
20.0	100%	79%				
12.5	99%	74%				
10.0	99%	71%				
5.0	98%	63%				
2.5	97%	58%				
1.25	96%	53%				
0.630	95%	49%				
0.315	94%	45%				
0.160	93%	41%				
0.080	90%	36%				
M.C.(%):	106%	14%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	2	37				
% SAND:	7	27				
% FINES:	90	36				
CLASSIFICATION	SILT (ML)	SILTY GRAVEL WITH SAND (GM)				



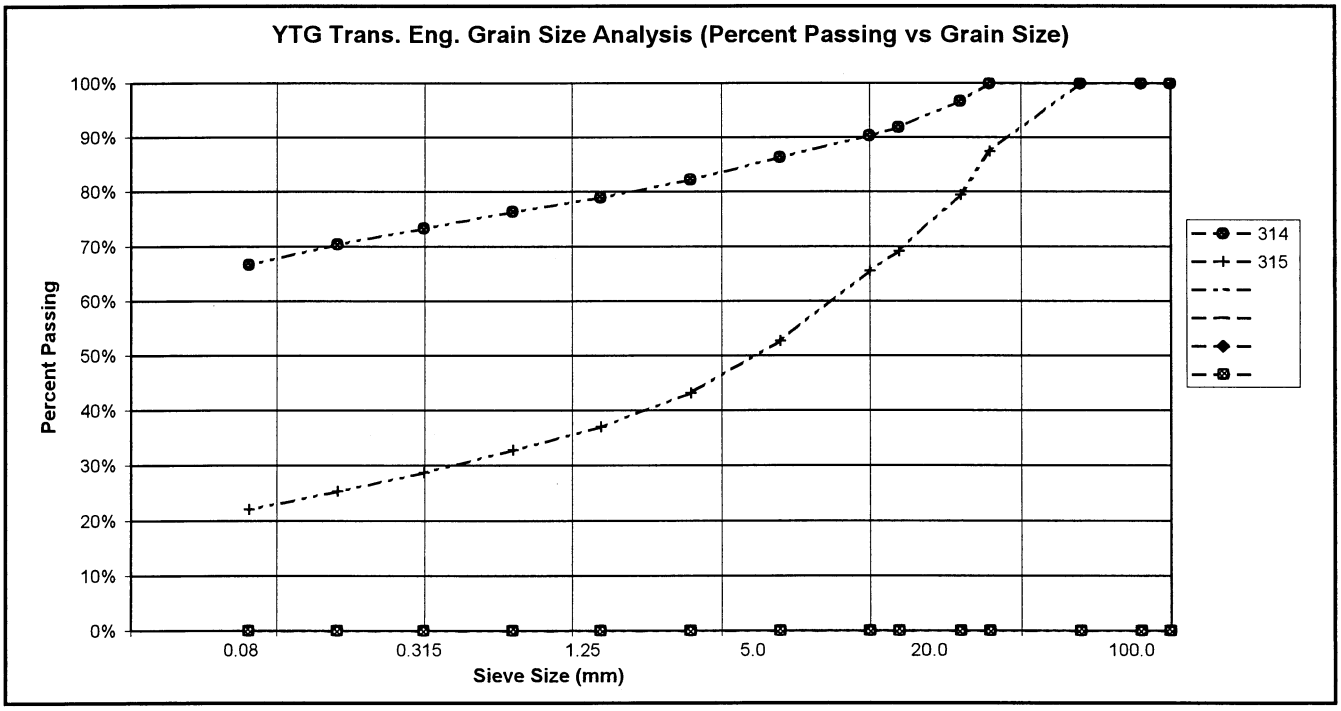
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-194
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+800 32M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/09

FIELD NO:	312	313				
LAB NO:	881	882				
DEPTH:	1.2-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	98%	96%				
10.0	91%	94%				
5.0	77%	87%				
2.5	65%	78%				
1.25	58%	71%				
0.630	53%	66%				
0.315	46%	61%				
0.160	40%	56%				
0.080	34%	50%				
M.C.(%):	18%	16%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	23	13				
% SAND:	43	36				
% FINES:	34	50				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)				



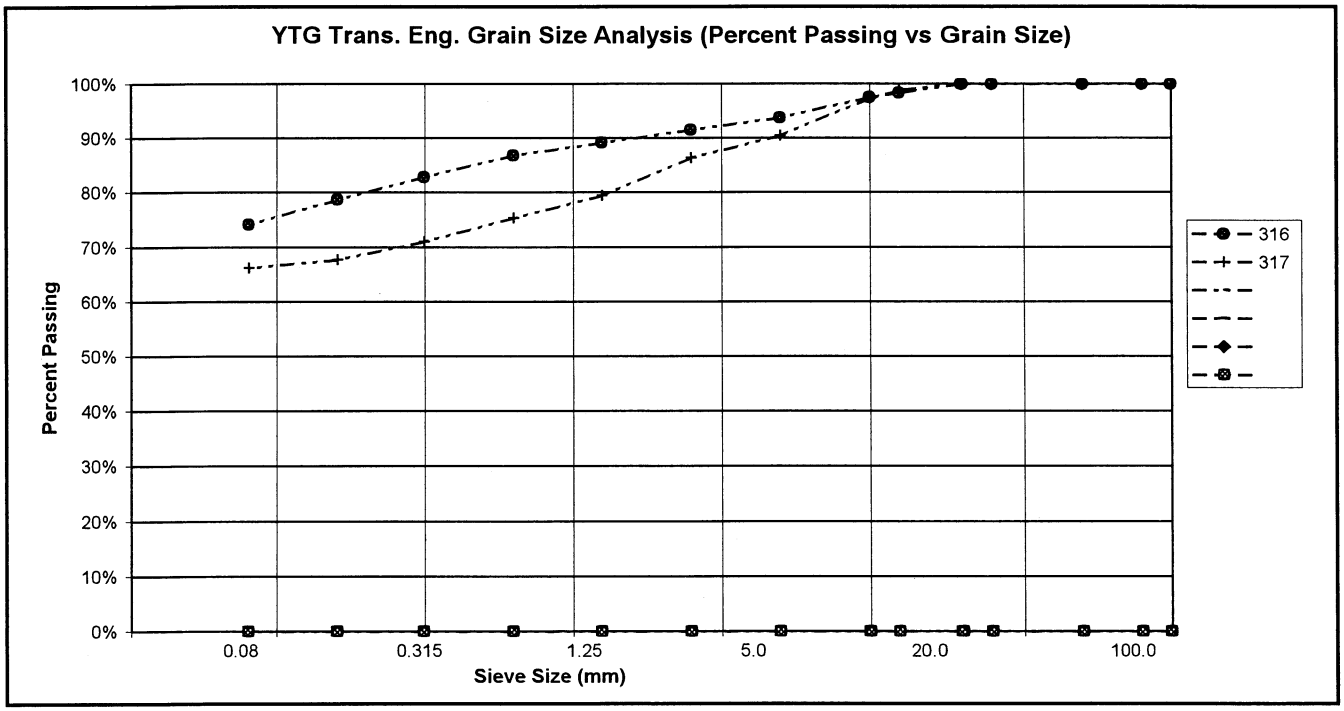
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-195
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1780+900 36M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	314	315				
LAB NO:	883	884				
DEPTH:	0.8-1.0	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	87%				
20.0	97%	79%				
12.5	92%	69%				
10.0	90%	65%				
5.0	86%	53%				
2.5	82%	43%				
1.25	79%	37%				
0.630	76%	33%				
0.315	73%	29%				
0.160	70%	25%				
0.080	67%	22%				
M.C.(%):	43%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	14	47				
% SAND:	20	31				
% FINES:	67	22				
CLASSIFICATION	SANDY SILT (ML)	SILTY GRAVEL WITH SAND (GM)				



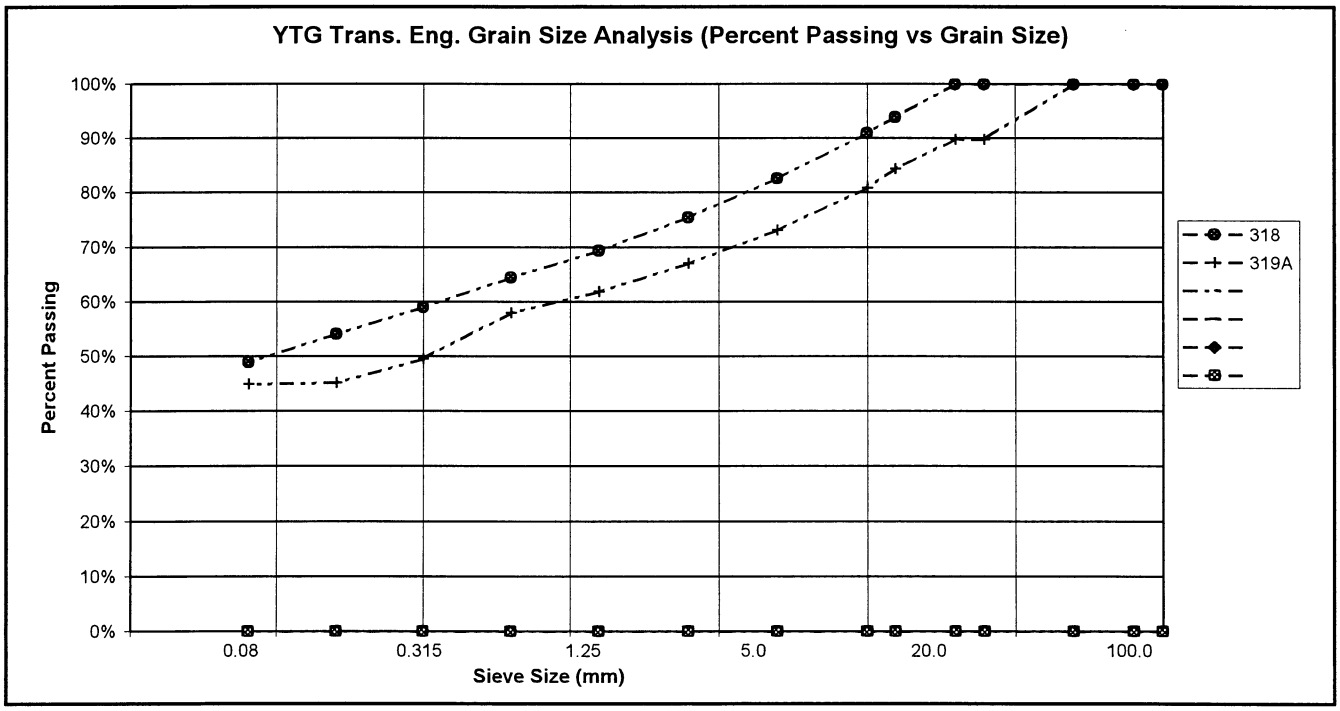
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-196
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1781+000 32M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	316	317				
LAB NO:	885	886				
DEPTH:	1.1-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	98%	99%				
10.0	98%	97%				
5.0	94%	91%				
2.5	92%	86%				
1.25	89%	79%				
0.630	87%	75%				
0.315	83%	71%				
0.160	79%	68%				
0.080	74%	66%				
M.C.(%):	22%	21%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	6	9				
% SAND:	20	24				
% FINES:	74	66				
CLASSIFICATION	SILT WITH SAND (ML)	SANDY SILT (ML)				



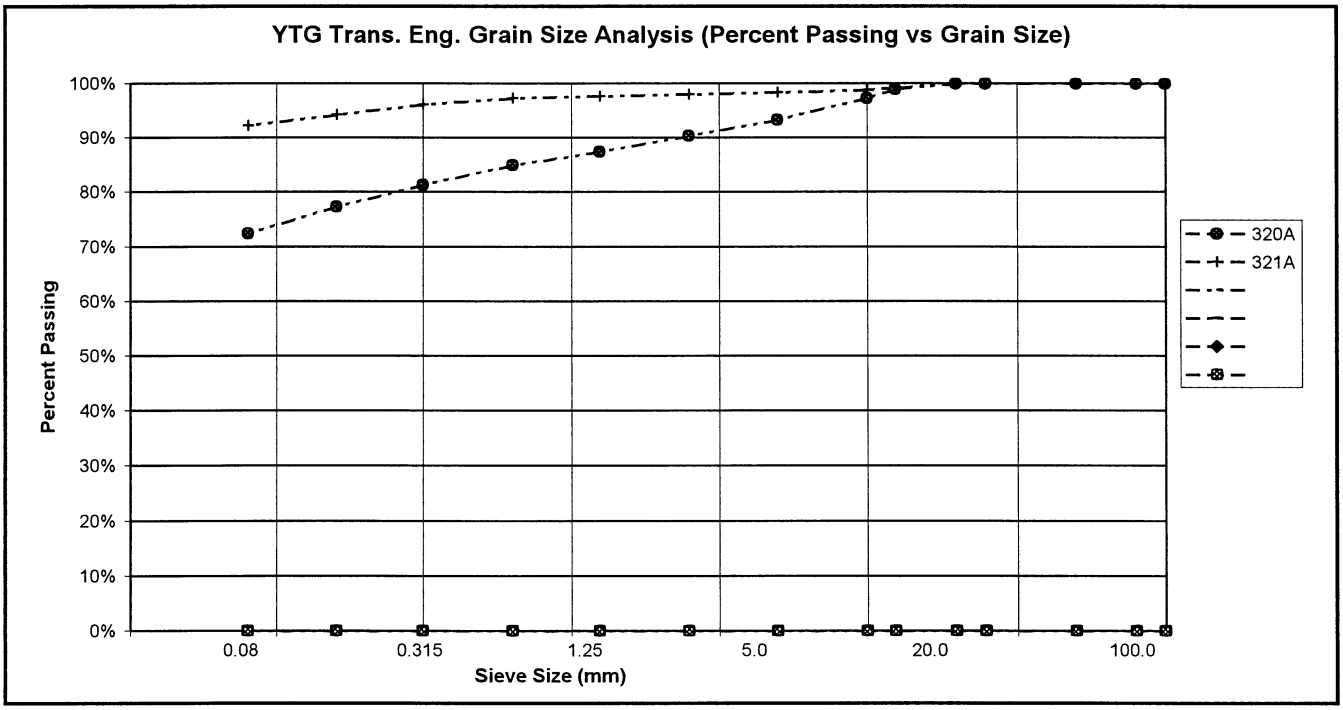
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-197
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1781+100 36M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	318	319A				
LAB NO:	887	888				
DEPTH:	1.1-1.3	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	90%				
20.0	100%	90%				
12.5	94%	84%				
10.0	91%	81%				
5.0	83%	73%				
2.5	75%	67%				
1.25	69%	62%				
0.630	64%	58%				
0.315	59%	50%				
0.160	54%	45%				
0.080	49%	45%				
M.C.(%):	38%	16%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	17	27				
% SAND:	34	28				
% FINES:	49	45				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



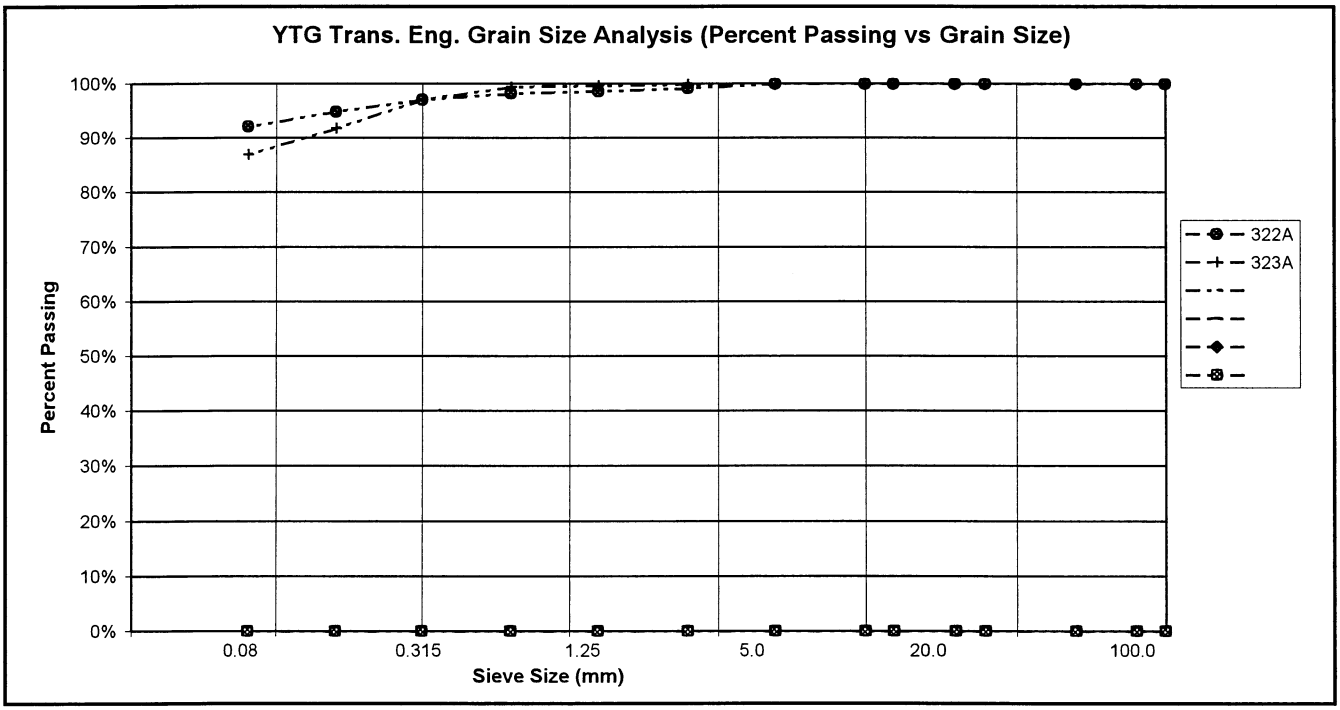
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-198
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1781+200 36M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	320A	321A				
LAB NO:	889	890				
DEPTH:	1.0-1.1	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	99%	99%				
10.0	97%	99%				
5.0	93%	98%				
2.5	90%	98%				
1.25	87%	98%				
0.630	85%	97%				
0.315	81%	96%				
0.160	77%	94%				
0.080	72%	92%				
M.C.(%):	39%	27%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	7	2				
% SAND:	21	6				
% FINES:	72	92				
CLASSIFICATION	SILT WITH SAND (ML)	SILT (ML)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-199
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1781+300 36M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	322A	323A				
LAB NO:	891	892				
DEPTH:	1.0-1.1	2.6-2.7				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	100%	100%				
5.0	100%	100%				
2.5	99%	100%				
1.25	99%	100%				
0.630	98%	99%				
0.315	97%	97%				
0.160	95%	92%				
0.080	92%	87%				
M.C.(%):	59%	30%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	0				
% SAND:	8	13				
% FINES:	92	87				
CLASSIFICATION	SILT (ML)	SILT (ML)				

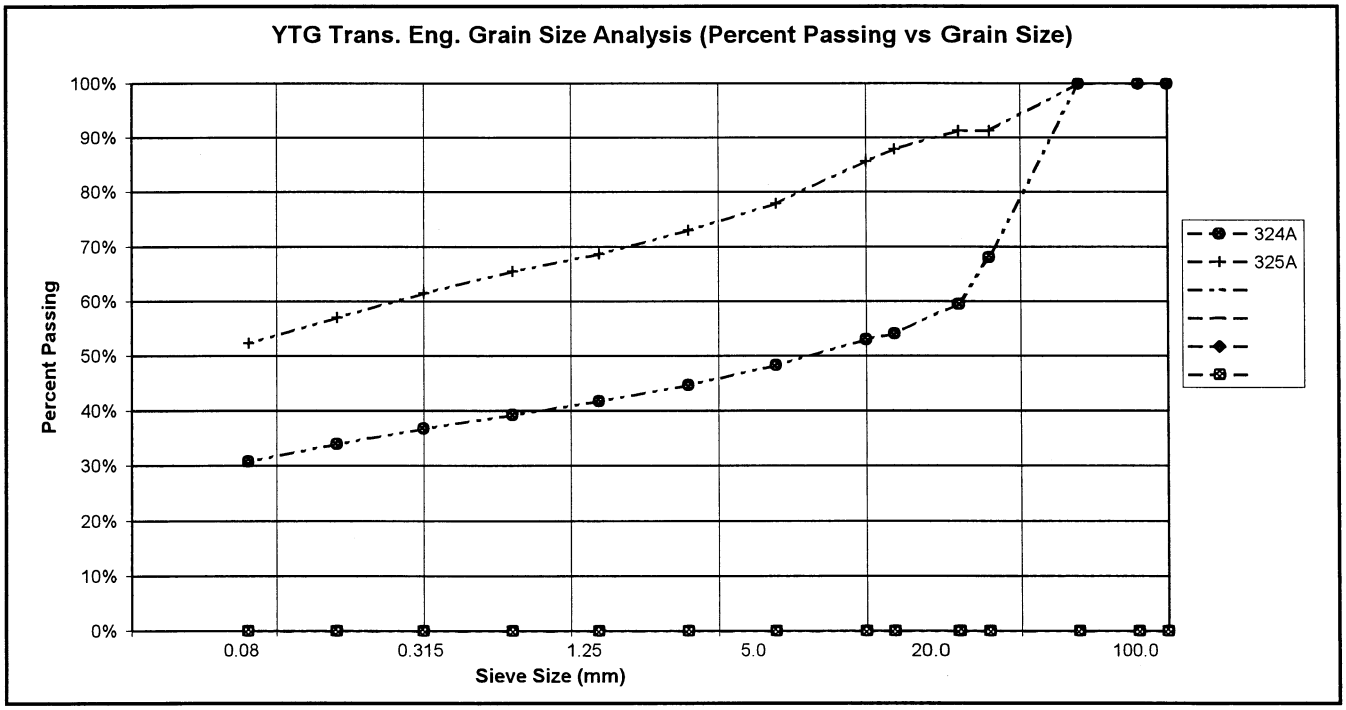


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1781+400 36M RT
LOGGED BY: B.B..

HOLE No.: 605-200

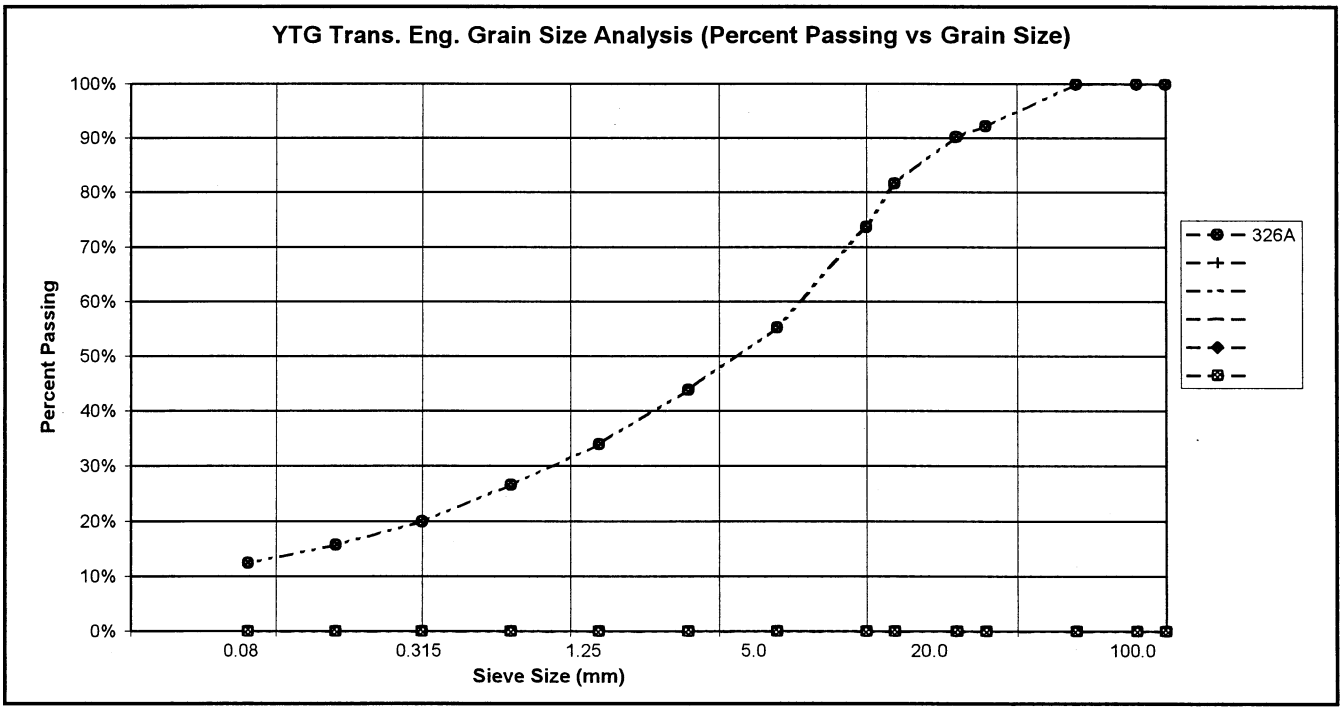
DATE COMP: 2001/07/10

FIELD NO:	324A	325A				
LAB NO:	893	894				
DEPTH:	1.3-1.4	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	68%	91%				
20.0	60%	91%				
12.5	54%	88%				
10.0	53%	86%				
5.0	48%	78%				
2.5	45%	73%				
1.25	42%	69%				
0.630	39%	65%				
0.315	37%	61%				
0.160	34%	57%				
0.080	31%	52%				
M.C.(%):	18%	23%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	52	22				
% SAND:	17	26				
% FINES:	31	52				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SANDY SILT WITH GRAVEL (ML)				



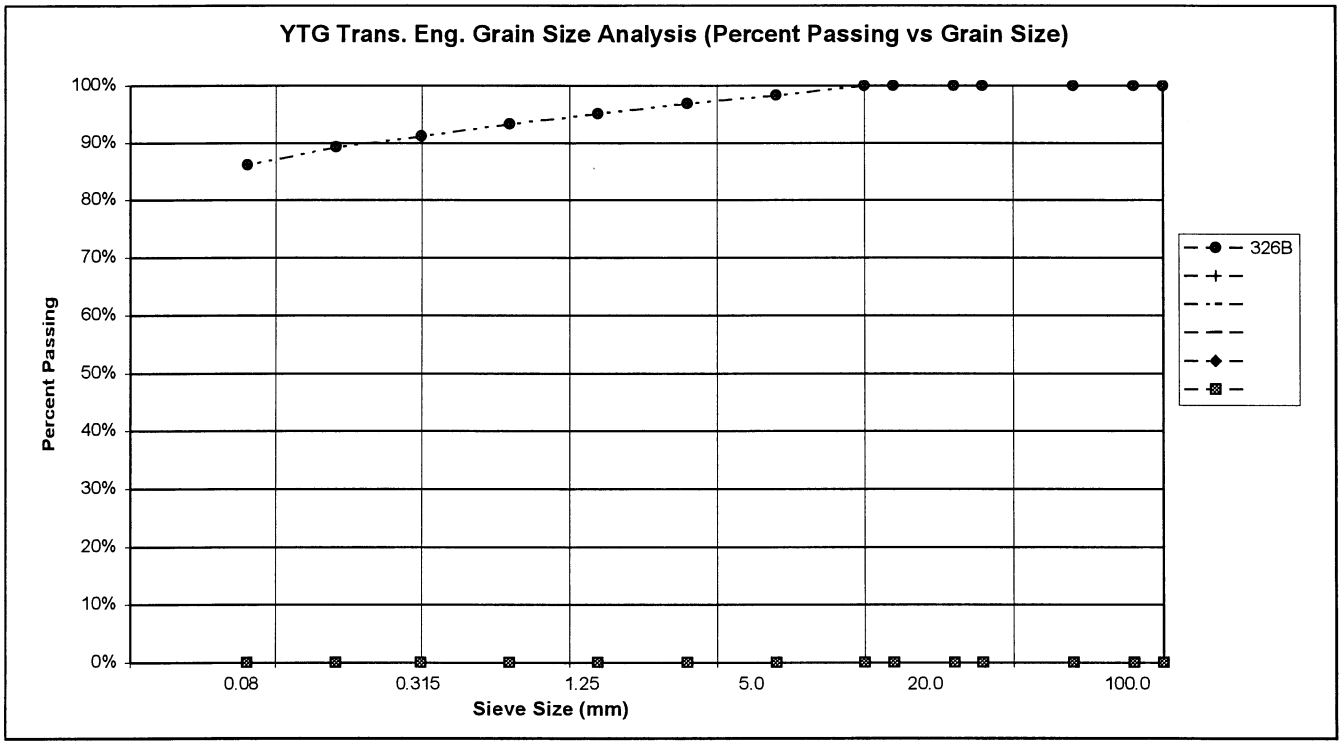
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-201
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1781+500 36M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	326A					
LAB NO:	895					
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	92%					
20.0	90%					
12.5	82%					
10.0	74%					
5.0	55%					
2.5	44%					
1.25	34%					
0.630	27%					
0.315	20%					
0.160	16%					
0.080	12%					
M.C.(%):	8%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	45					
% SAND:	43					
% FINES:	12					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 605-202	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1781+600 36M RT					
LOGGED BY:	B.B..				DATE COMP: 2001/07/10	

FIELD NO:	326B					
LAB NO:	896					
DEPTH:	2.5-2.7					
TYPE:	AUGER	AUGER	AUGER	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	98%					
2.5	97%					
1.25	95%					
0.630	93%					
0.315	91%					
0.160	89%					
0.080	86%					
M.C.(%):	59%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	2					
% SAND:	12					
% FINES:	86					
CLASSIFICATION	SILT (ML)					



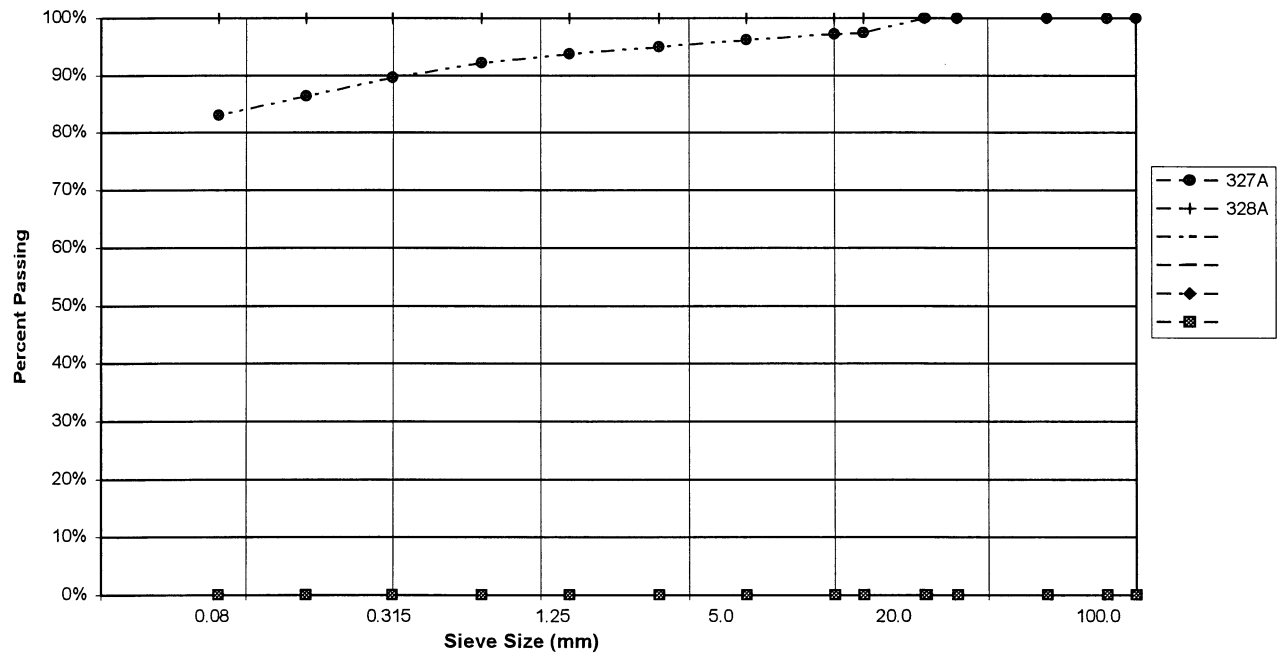
PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1781+700 36M RT
LOGGED BY: B.B..

HOLE No.: 605-203

DATE COMP: 2001/07/10

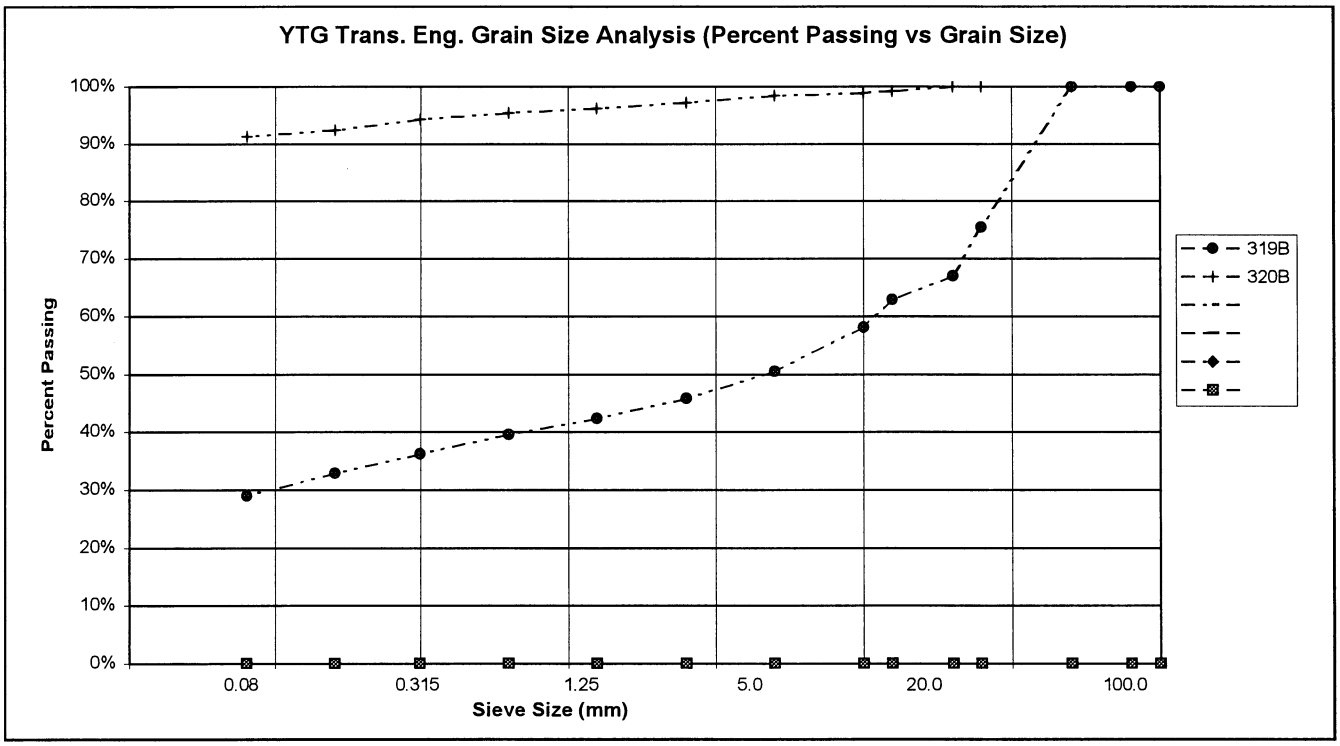
FIELD NO:	327A	328A				
LAB NO:	897	898				
DEPTH:	1.3-1.5	2.7-2.9 LOST				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	97%	100%				
10.0	97%	100%				
5.0	96%	100%				
2.5	95%	100%				
1.25	94%	100%				
0.630	92%	100%				
0.315	90%	100%				
0.160	86%	100%				
0.080	83%	100%				
M.C.(%):	63%	31%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	4	0				
% SAND:	13	0				
% FINES:	83	100				
CLASSIFICATION	SILT WITH SAND (ML)	[illegible]				

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



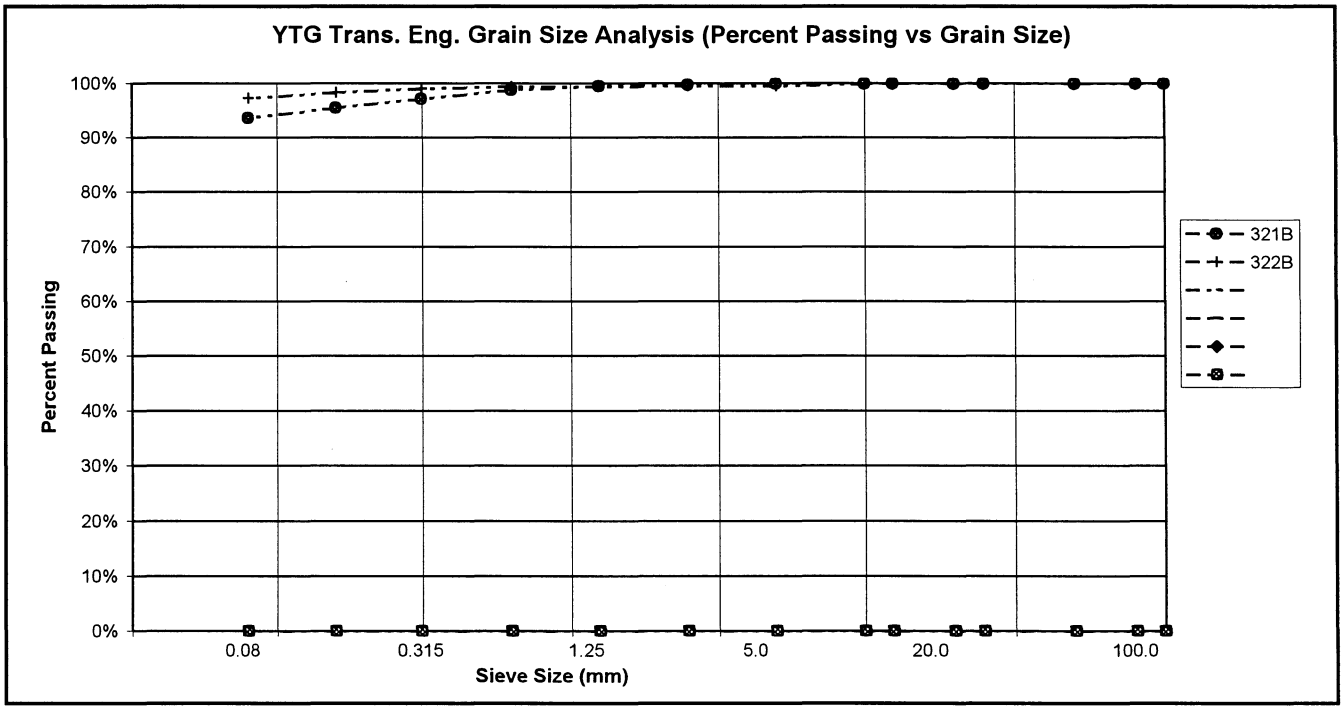
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-204
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1781+800 36M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	319B	320B				
LAB NO:	899	900				
DEPTH:	1.3-1.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	76%	100%				
20.0	67%	100%				
12.5	63%	99%				
10.0	58%	99%				
5.0	51%	98%				
2.5	46%	97%				
1.25	42%	96%				
0.630	40%	95%				
0.315	36%	94%				
0.160	33%	92%				
0.080	29%	91%				
M.C.(%):	34%	36%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	49	2				
% SAND:	22	7				
% FINES:	29	91				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILT (ML)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-205
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1781+900 32M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/10

FIELD NO:	321B	322B				
LAB NO:	901	902				
DEPTH:	1.3-1.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	100%	100%				
5.0	100%	100%				
2.5	100%	99%				
1.25	99%	99%				
0.630	99%	99%				
0.315	97%	99%				
0.160	96%	98%				
0.080	94%	97%				
M.C.(%):	28%	25%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	0				
% SAND:	6	2				
% FINES:	94	97				
CLASSIFICATION	SILT (ML)	SILT (ML)				

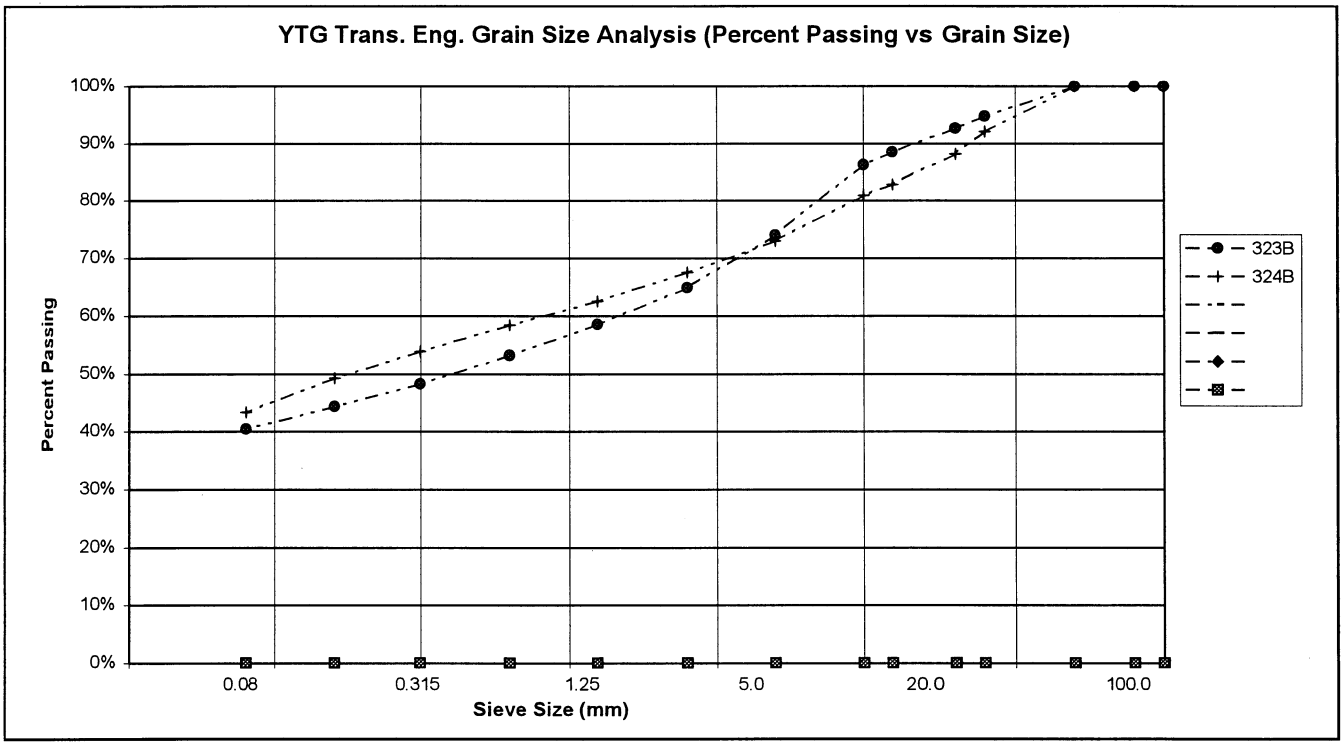


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1782+000 32M RT
LOGGED BY: B.B..

HOLE No.: 605-206

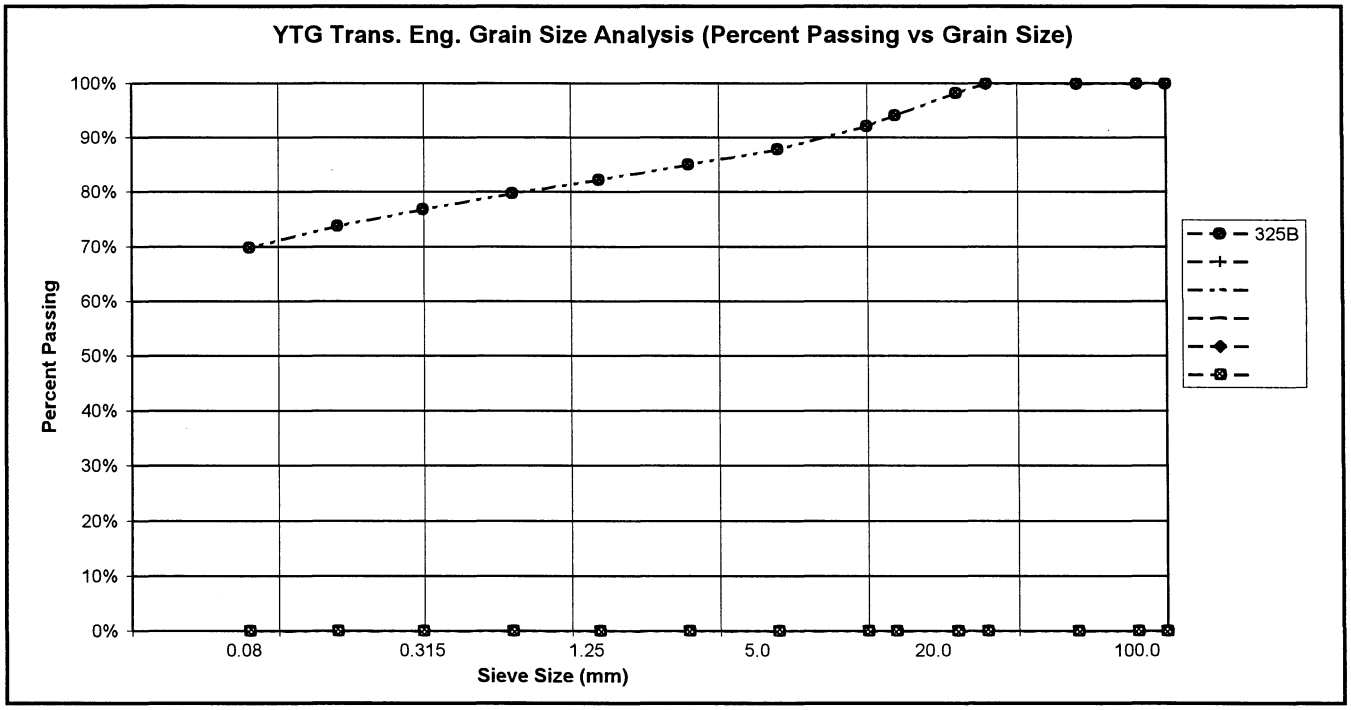
DATE COMP: 2001/07/11

FIELD NO:	323B	324B				
LAB NO:	903	904				
DEPTH:	1.5-1.7	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	95%	92%				
20.0	93%	88%				
12.5	89%	83%				
10.0	86%	81%				
5.0	74%	73%				
2.5	65%	68%				
1.25	59%	63%				
0.630	53%	58%				
0.315	48%	54%				
0.160	44%	49%				
0.080	40%	43%				
M.C.(%):	31%	22%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	26	27				
% SAND:	34	30				
% FINES:	40	43				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



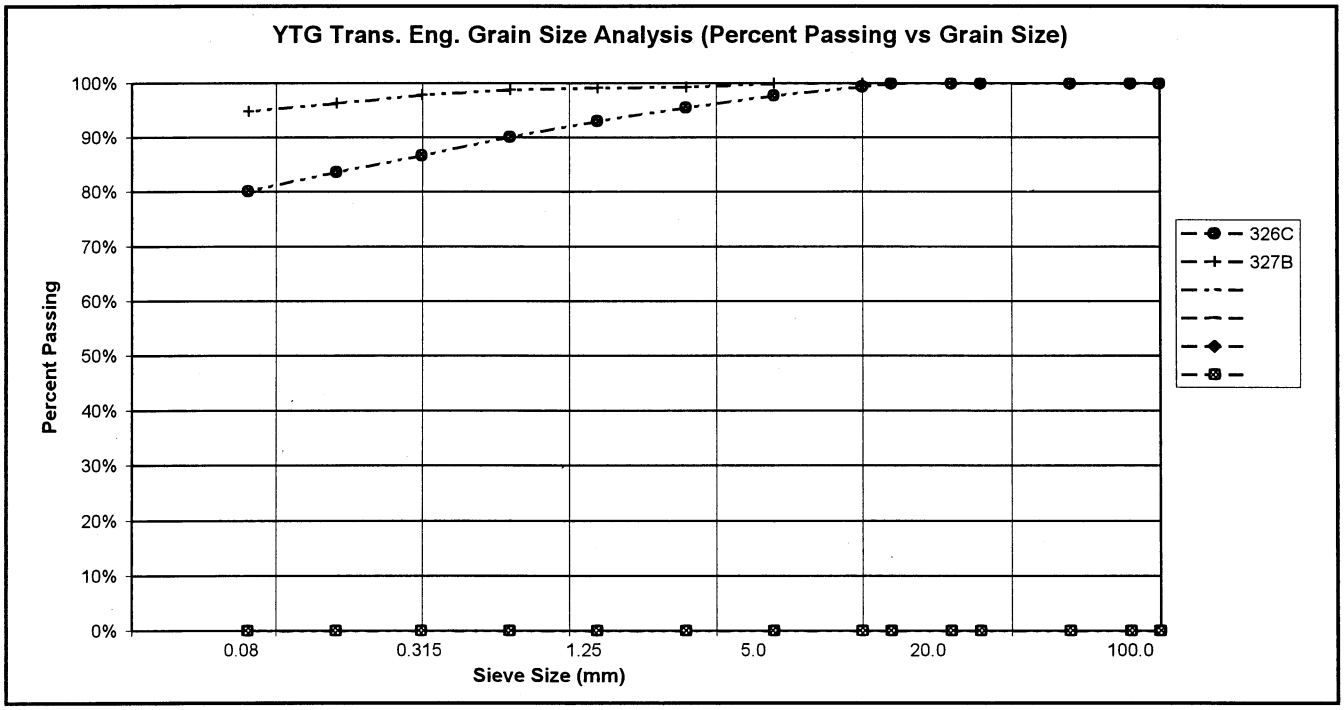
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 605-207
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1782+100 32M RT		
LOGGED BY:	B.B..		DATE COMP: 2001/07/11

FIELD NO:	325B					
LAB NO:	905					
DEPTH:	2.7-2.9					
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	94%					
10.0	92%					
5.0	88%					
2.5	85%					
1.25	82%					
0.630	80%					
0.315	77%					
0.160	74%					
0.080	70%					
M.C.(%):	43%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	12					
% SAND:	18					
% FINES:	70					
CLASSIFICATION	SANDY SILT (ML)					



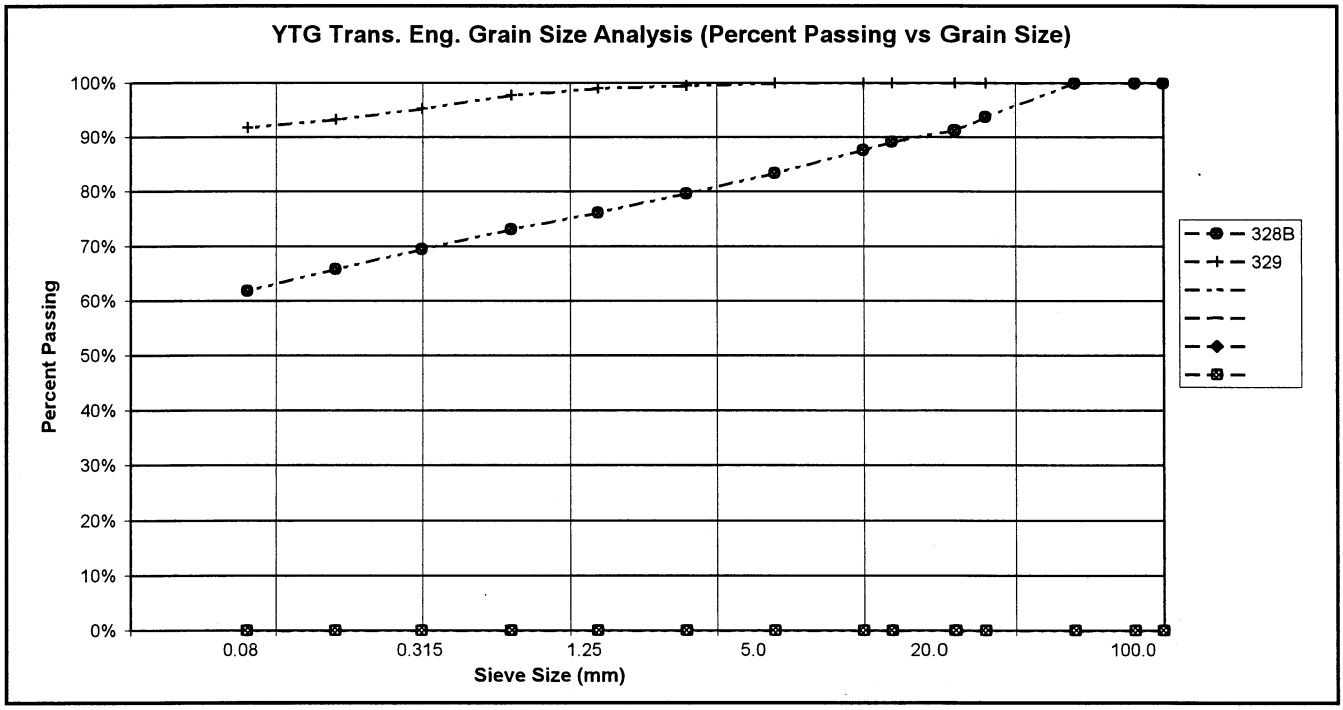
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-208
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1782+208 35M TR		
LOGGED BY:	B.B.		DATE COMP: 2001/07/11

FIELD NO:	326C	327B				
LAB NO:	906	907				
DEPTH:	2.3-2.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	99%	100%				
5.0	98%	100%				
2.5	96%	99%				
1.25	93%	99%				
0.630	90%	99%				
0.315	87%	98%				
0.160	84%	96%				
0.080	80%	95%				
M.C.(%):	49%	24%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	2	0				
% SAND:	18	5				
% FINES:	80	95				
CLASSIFICATION	SILT WITH SAND (ML)	SILT (ML)				



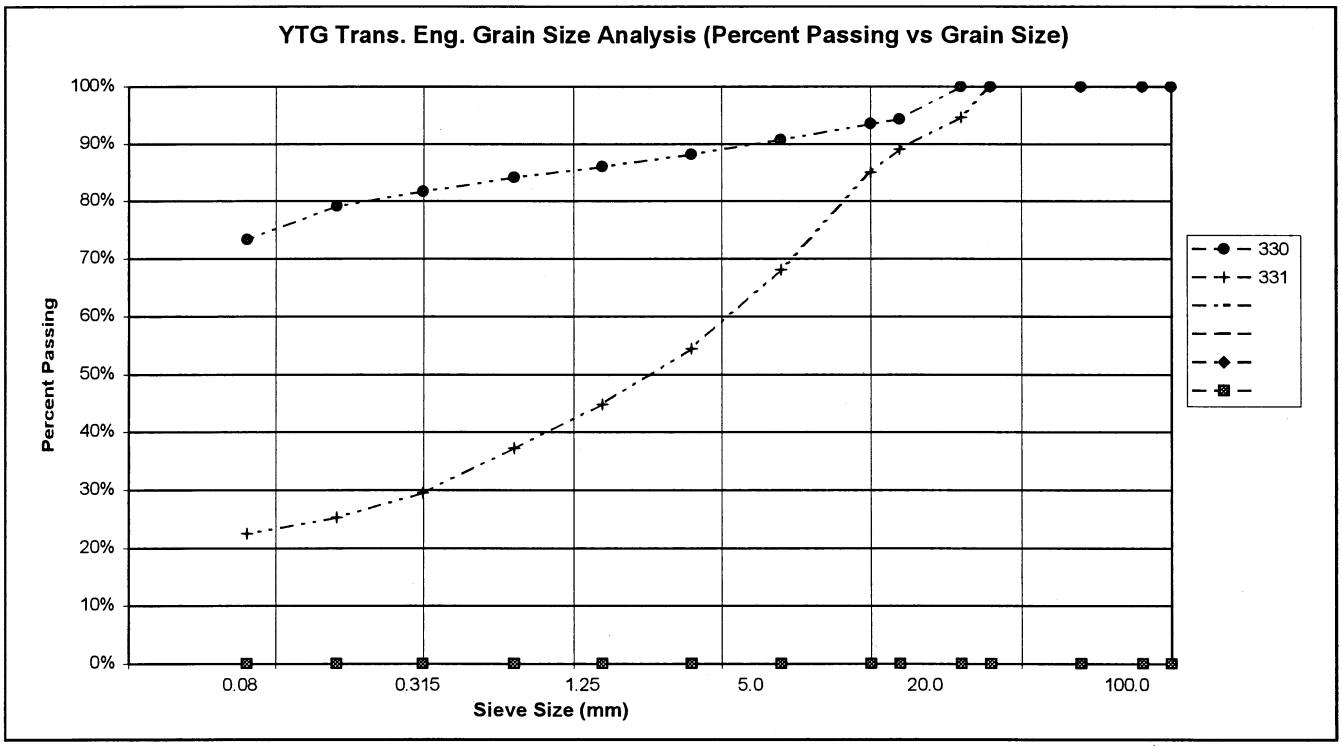
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-209
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	17872+296 33M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/11

FIELD NO:	328B	329				
LAB NO:	908	909				
DEPTH:	1.3-1.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	94%	100%				
20.0	91%	100%				
12.5	89%	100%				
10.0	88%	100%				
5.0	83%	100%				
2.5	80%	100%				
1.25	76%	99%				
0.630	73%	98%				
0.315	69%	95%				
0.160	66%	93%				
0.080	62%	92%				
M.C.(%):	30%	31%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	17	0				
% SAND:	22	8				
% FINES:	62	92				
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SILT (ML)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-210
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1782+403 36M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/11

FIELD NO:	330	331				
LAB NO:	910	911				
DEPTH:	1.3-1.5	27-29				
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%	100%				
20.0	100%	95%				
12.5	94%	89%				
10.0	93%	85%				
5.0	91%	68%				
2.5	88%	54%				
1.25	86%	45%				
0.630	84%	37%				
0.315	82%	30%				
0.160	79%	25%				
0.080	73%	23%				
M.C.(%):	64%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	9	32				
% SAND:	17	46				
% FINES:	73	23				
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)				

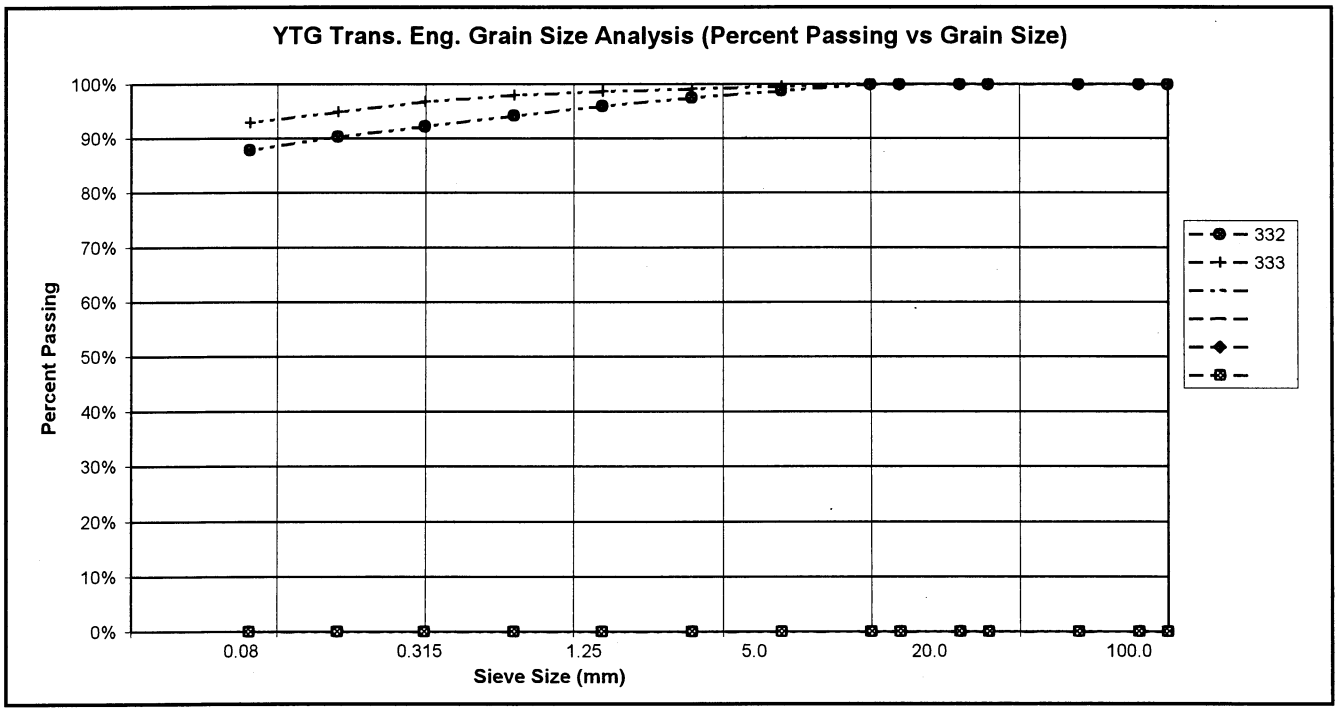


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1782+497 37M RT
LOGGED BY: B.B.

HOLE No.: 606-211

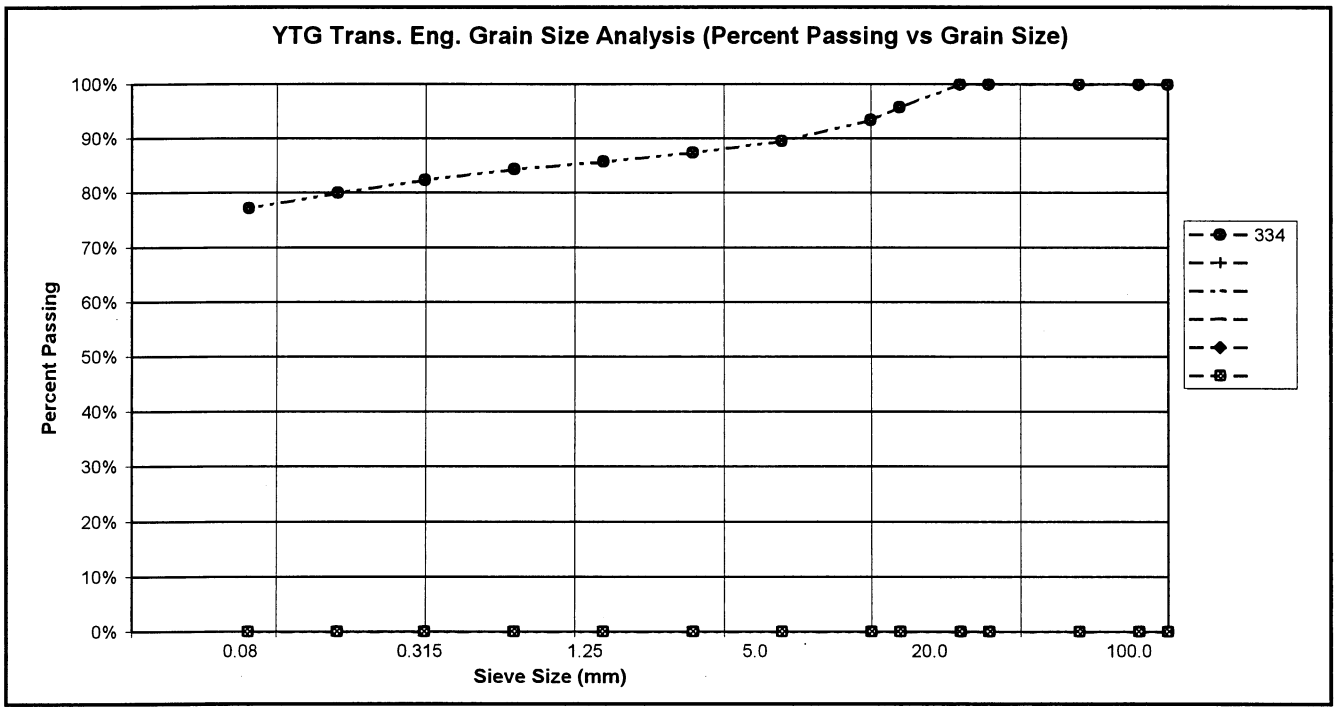
DATE COMP: 2001/07/11

FIELD NO:	332	333				
LAB NO:	912	913				
DEPTH:	1.3-1.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	100%	100%				
5.0	99%	100%				
2.5	98%	99%				
1.25	96%	99%				
0.630	94%	98%				
0.315	92%	97%				
0.160	90%	95%				
0.080	88%	93%				
M.C.(%):	36%	31%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	1	0				
% SAND:	11	7				
% FINES:	88	93				
CLASSIFICATION	SILT (ML)	SILT (ML)				



PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 606-212	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1782+595 35M RT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/11	

FIELD NO:	334					
LAB NO:	914					
DEPTH:	2.7-2.9					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	96%					
10.0	93%					
5.0	90%					
2.5	87%					
1.25	86%					
0.630	84%					
0.315	82%					
0.160	80%					
0.080	77%					
M.C.(%):	31%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	10					
% SAND:	12					
% FINES:	77					
CLASSIFICATION	SILT WITH SAND (ML)					

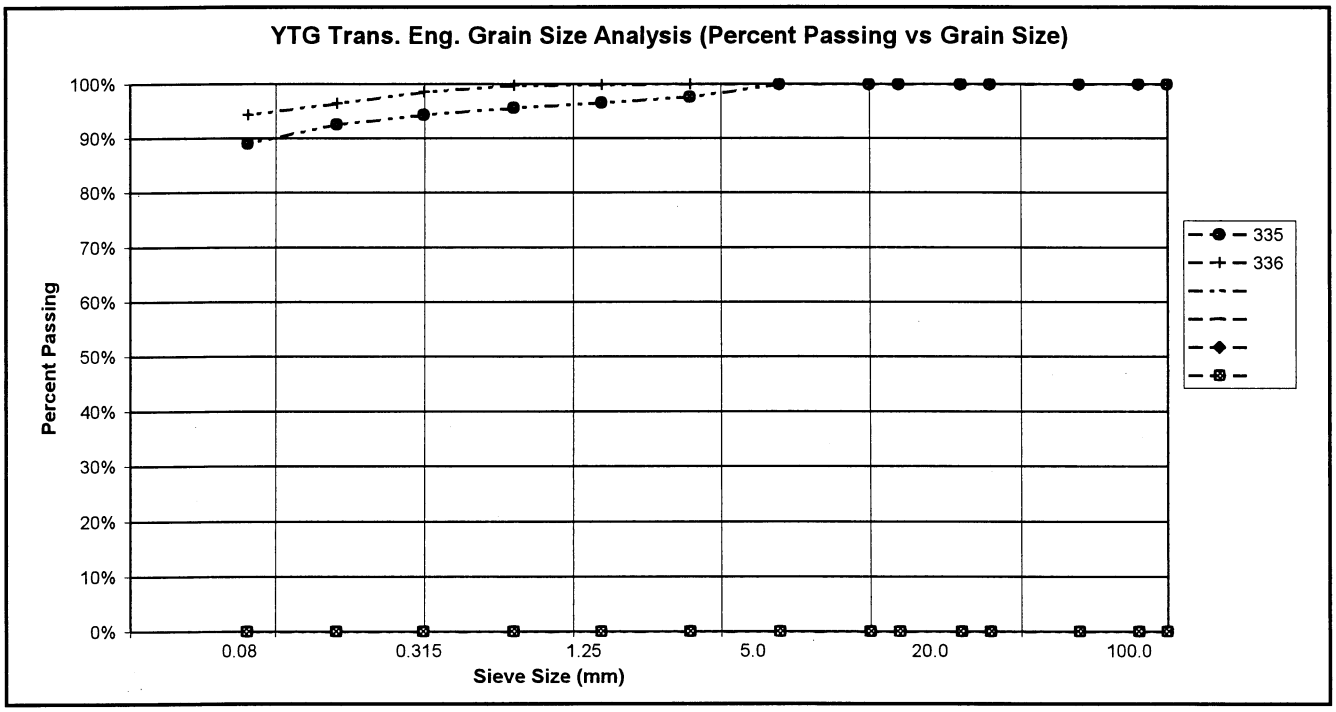


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1782+697 33M RT
LOGGED BY: B.B.

HOLE No.: 606-213

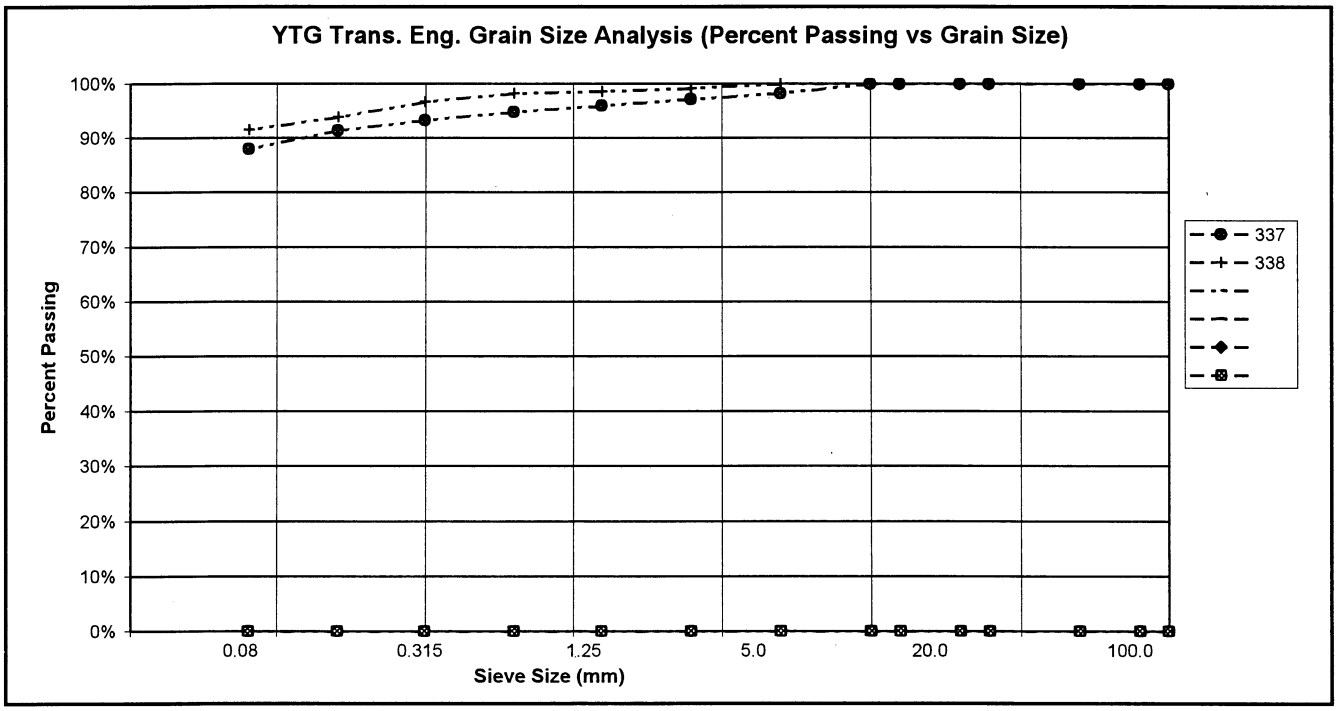
DATE COMP: 2001/07/11

FIELD NO:	335	336				
LAB NO:	915	916				
DEPTH:	1.5-1.7	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	100%	100%				
5.0	100%	100%				
2.5	98%	100%				
1.25	97%	100%				
0.630	96%	100%				
0.315	94%	99%				
0.160	93%	97%				
0.080	89%	94%				
M.C.(%):	45%	42%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	0				
% SAND:	11	6				
% FINES:	89	94				
CLASSIFICATION	SILT (ML)	SILT (ML)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-214
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1782+792 35M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/11

FIELD NO:	337	338				
LAB NO:	917	918				
DEPTH:	1.3-1.5	2.7-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	100%	100%				
5.0	98%	100%				
2.5	97%	99%				
1.25	96%	99%				
0.630	95%	98%				
0.315	93%	97%				
0.160	91%	94%				
0.080	88%	91%				
M.C.(%):	36%	37%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	2	0				
% SAND:	10	8				
% FINES:	88	91				
CLASSIFICATION	SILT (ML)	SILT (ML)				

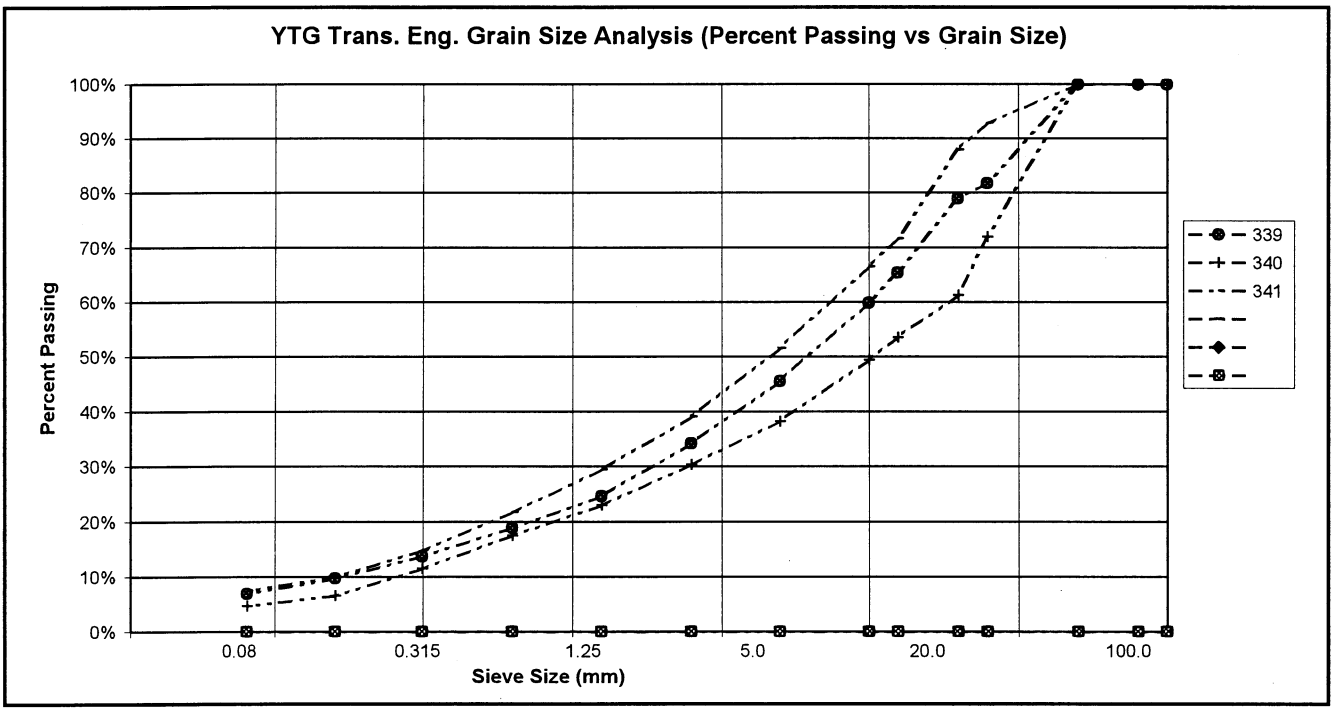


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1768-1788 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1778+349 6M LT
LOGGED BY: B.B.

HOLE No.: 606-215

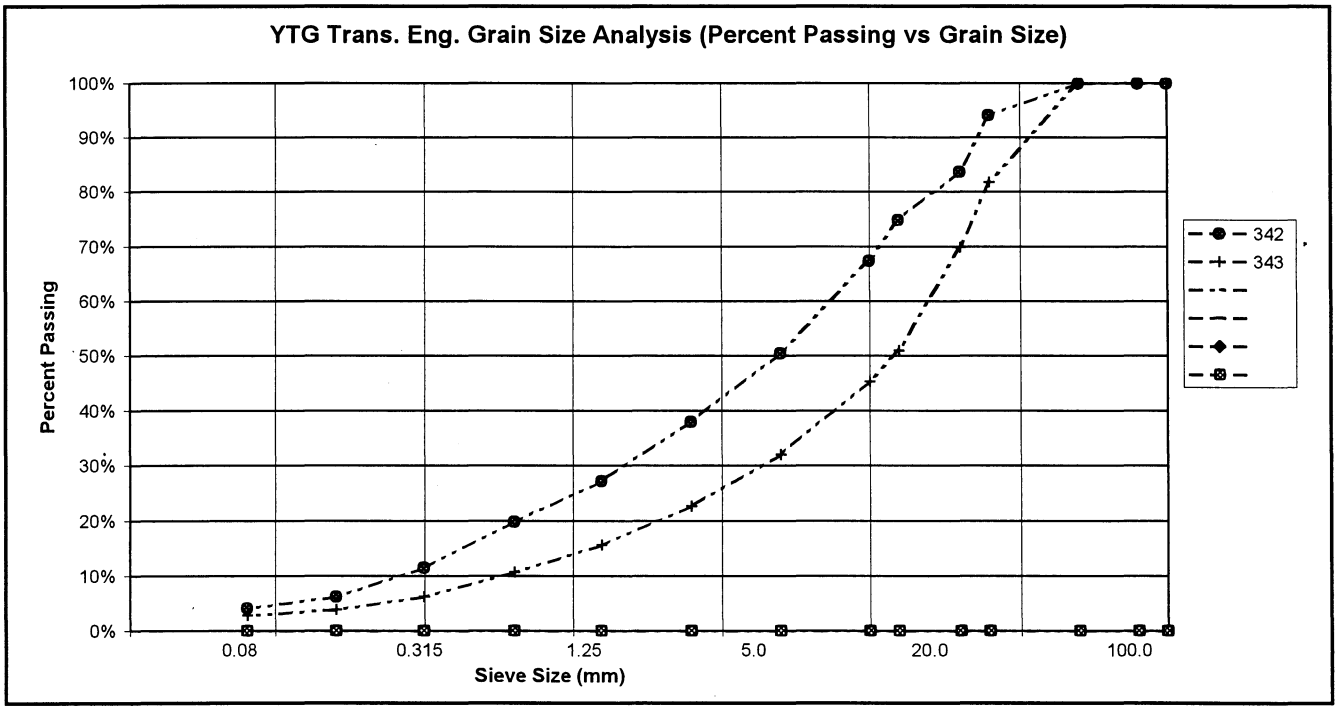
DATE COMP: 2001/07/12

FIELD NO:	339	340	341			
LAB NO:	919	920	921			
DEPTH:	1.3-1.5	2.8-3.0	4.2-4.3			
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	82%	72%	93%			
20.0	79%	61%	88%			
12.5	65%	54%	72%			
10.0	60%	49%	66%			
5.0	46%	38%	52%			
2.5	34%	30%	39%			
1.25	25%	23%	29%			
0.630	19%	17%	22%			
0.315	14%	11%	15%			
0.160	10%	7%	10%			
0.080	7%	5%	7%			
M.C.(%):	6%	5%	3%			
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:	54	62	48			
% SAND:	39	34	44			
% FINES:	7	5	7			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



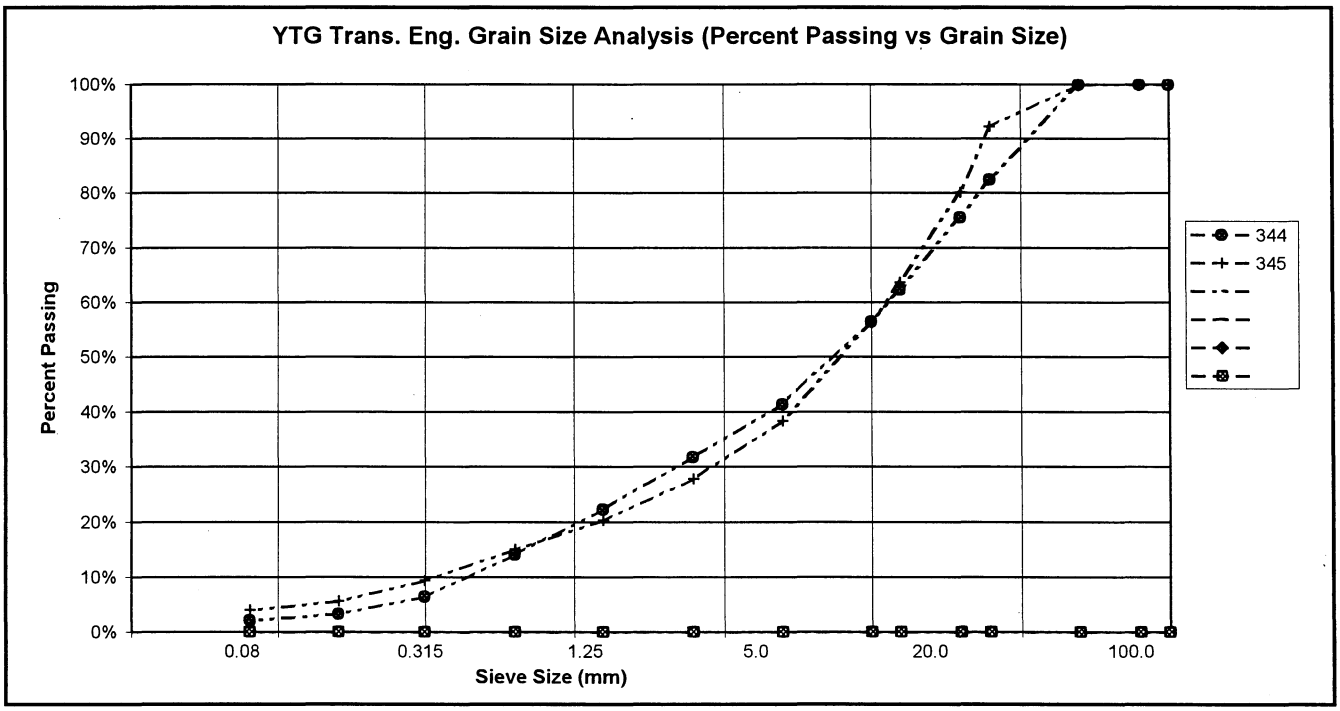
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-216
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+451 16M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	342	343				
LAB NO:	922	923				
DEPTH:	1.3-1.5	4.2-4.3				
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	94%	82%				
20.0	84%	70%				
12.5	75%	51%				
10.0	67%	45%				
5.0	50%	32%				
2.5	38%	23%				
1.25	27%	16%				
0.630	20%	11%				
0.315	12%	6%				
0.160	6%	4%				
0.080	4%	3%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	50	68				
% SAND:	46	29				
% FINES:	4	3				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



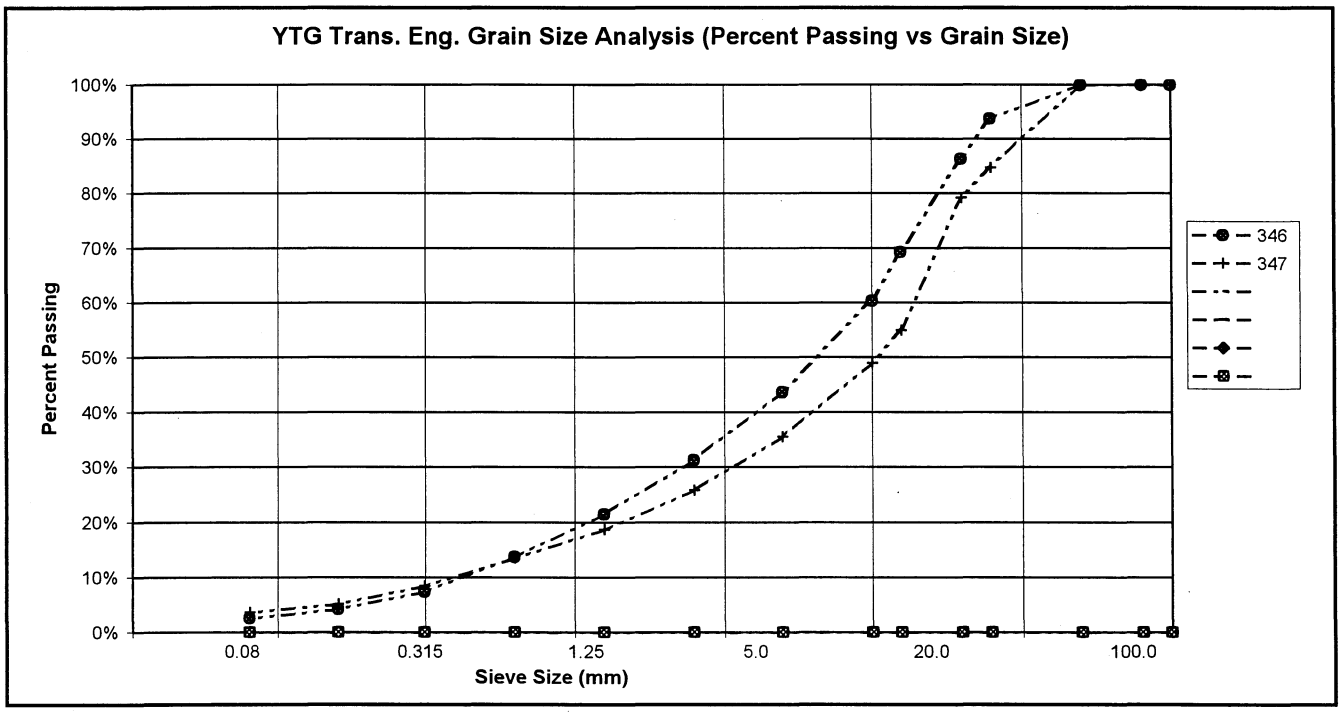
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-217
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+551 13M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	344	345				
LAB NO:	924	925				
DEPTH:	1.3-1.5	4.2-4.3				
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	83%	92%				
20.0	76%	80%				
12.5	62%	64%				
10.0	57%	56%				
5.0	41%	38%				
2.5	32%	28%				
1.25	22%	20%				
0.630	14%	15%				
0.315	6%	9%				
0.160	3%	6%				
0.080	2%	4%				
M.C.(%):	2%	5%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	59	62				
% SAND:	39	34				
% FINES:	2	4				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



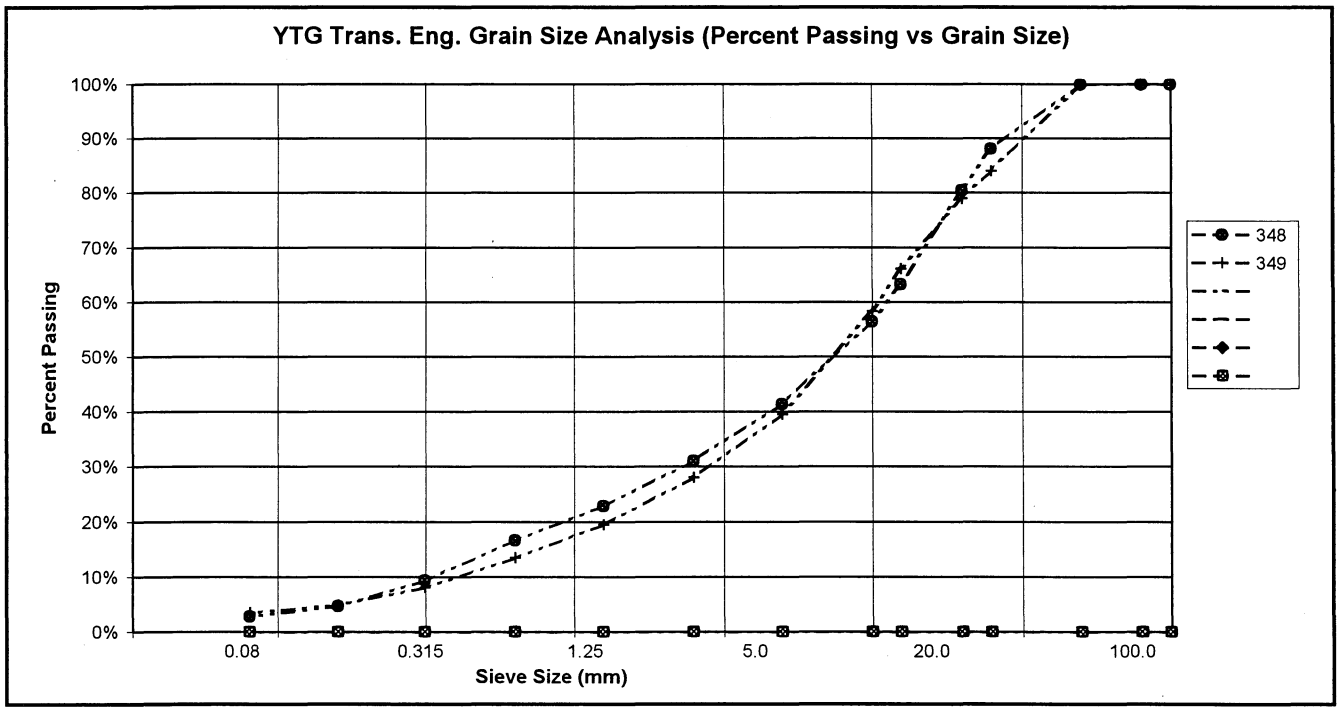
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-218
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+650 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	346	347				
LAB NO:	926	927				
DEPTH:	1.2-1.3	4.2-4.3				
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	94%	85%				
20.0	86%	79%				
12.5	69%	55%				
10.0	60%	49%				
5.0	44%	36%				
2.5	31%	26%				
1.25	22%	19%				
0.630	14%	14%				
0.315	7%	8%				
0.160	4%	5%				
0.080	3%	4%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	56	64				
% SAND:	41	32				
% FINES:	3	4				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



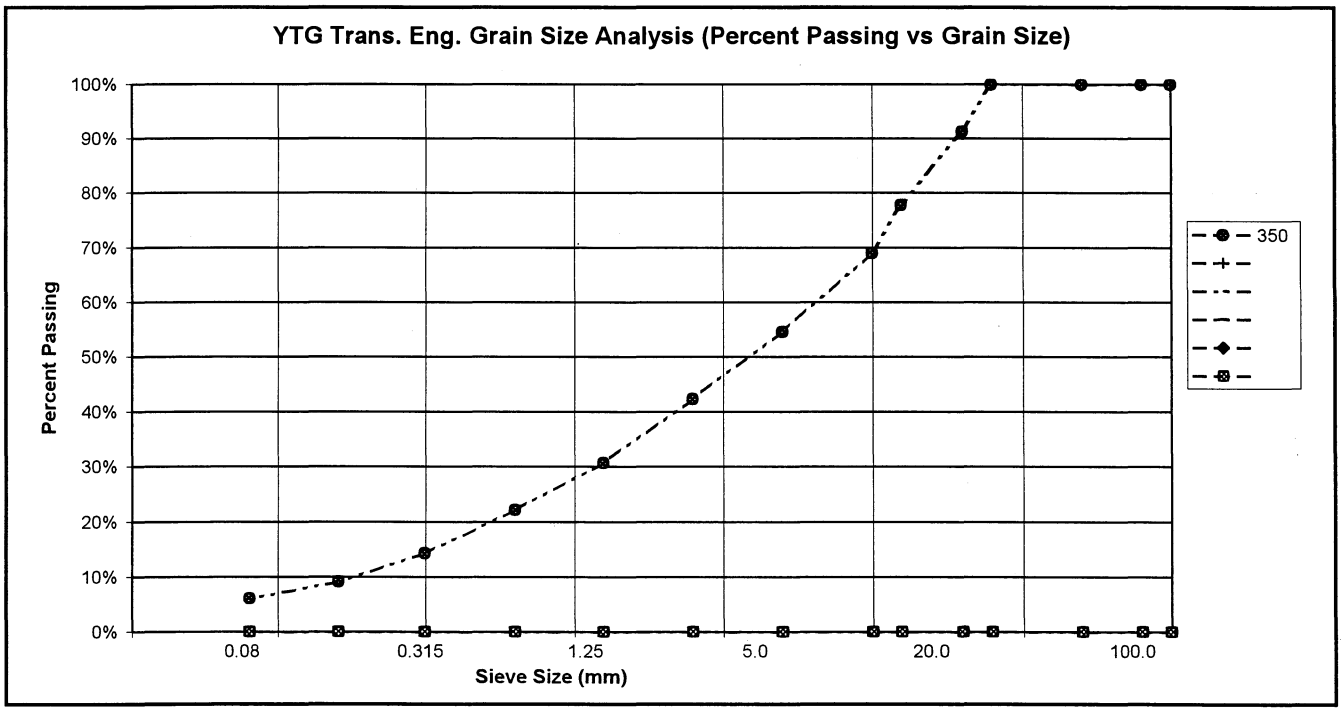
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-219
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+749 2M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	348	349				
LAB NO:	928	929				
DEPTH:	1.2-1.3	4.2-4.3				
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	88%	84%				
20.0	81%	79%				
12.5	63%	66%				
10.0	56%	58%				
5.0	41%	40%				
2.5	31%	28%				
1.25	23%	20%				
0.630	17%	14%				
0.315	9%	8%				
0.160	5%	5%				
0.080	3%	4%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	59	60				
% SAND:	39	36				
% FINES:	3	4				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



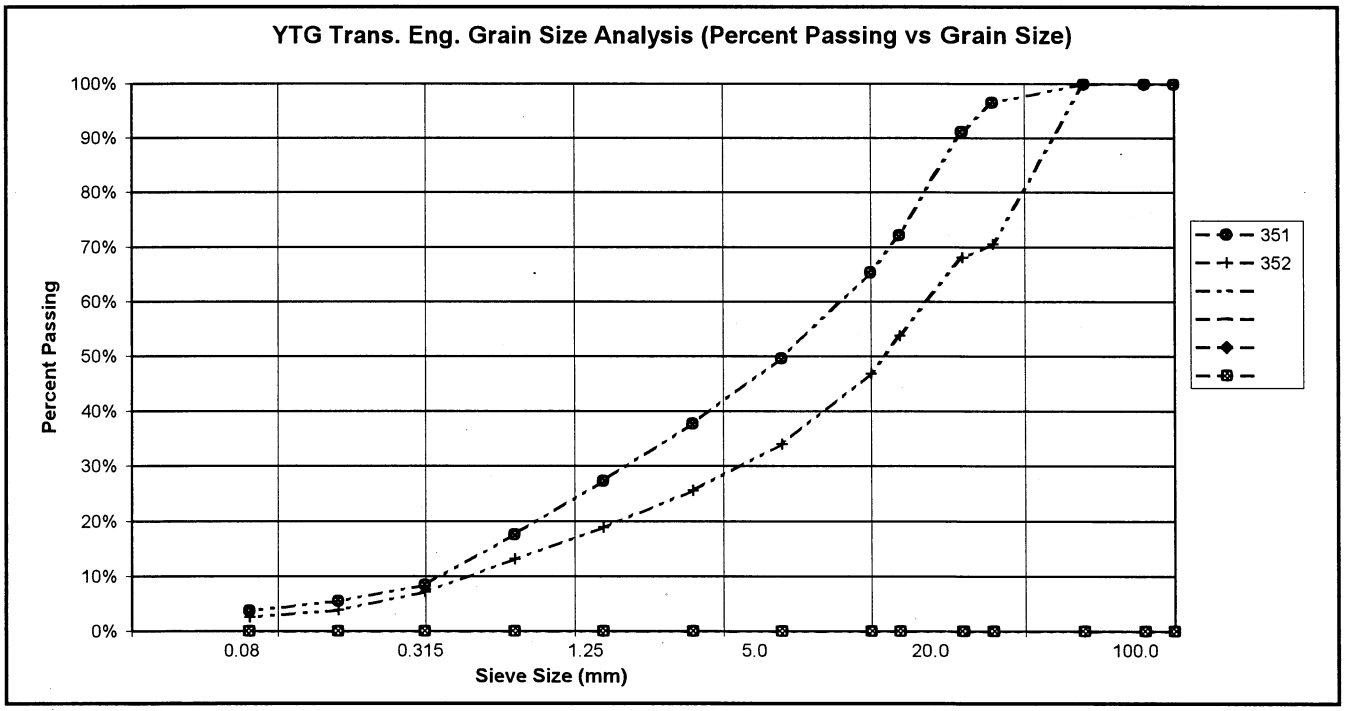
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 606-220	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1778+849 2M RT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/12	

FIELD NO:	350					
LAB NO:	930					
DEPTH:	4.2-4.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	91%					
12.5	78%					
10.0	69%					
5.0	55%					
2.5	42%					
1.25	31%					
0.630	22%					
0.315	14%					
0.160	9%					
0.080	6%					
M.C.(%):	3%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	45					
% SAND:	48					
% FINES:	6					
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)					



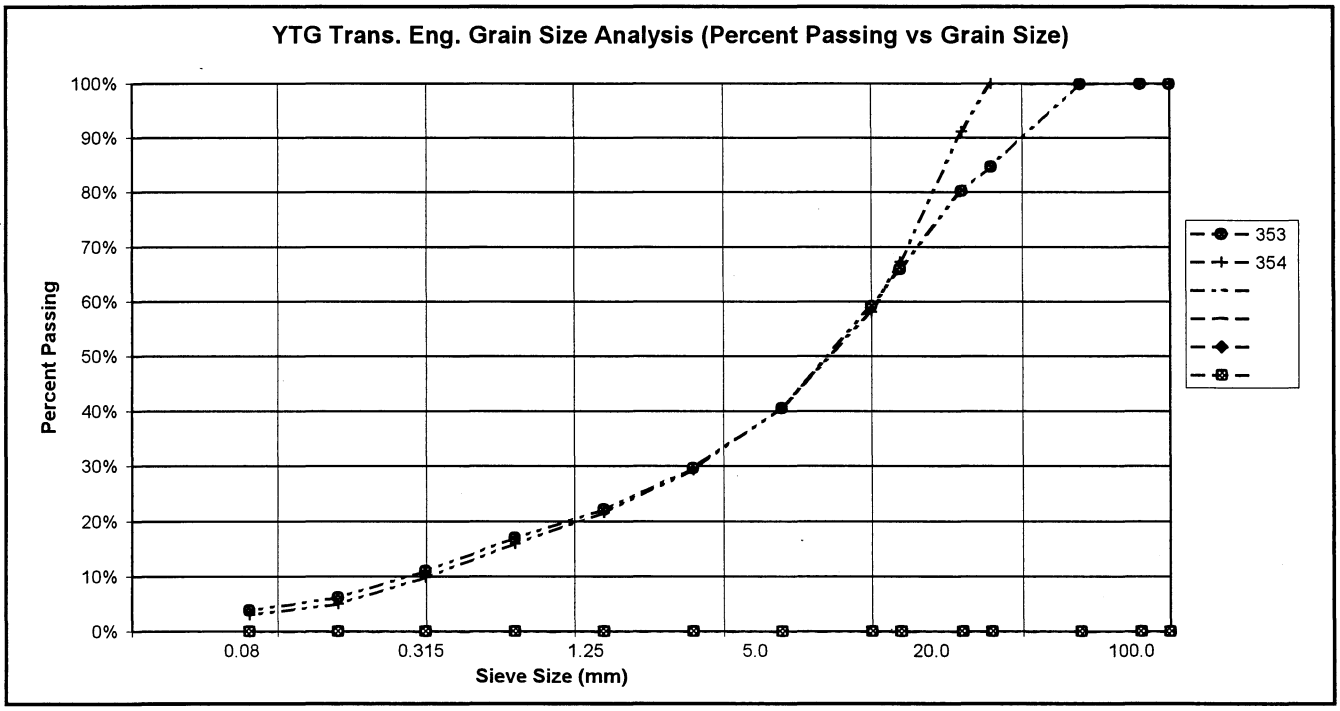
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-221
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1778+949 3M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	351	352				
LAB NO:	931	932				
DEPTH:	1.2-1.3	4.2-4.3				
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%	70%				
20.0	91%	68%				
12.5	72%	54%				
10.0	65%	47%				
5.0	50%	34%				
2.5	38%	26%				
1.25	27%	19%				
0.630	18%	13%				
0.315	8%	7%				
0.160	6%	4%				
0.080	4%	3%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	50	66				
% SAND:	46	32				
% FINES:	4	3				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)				



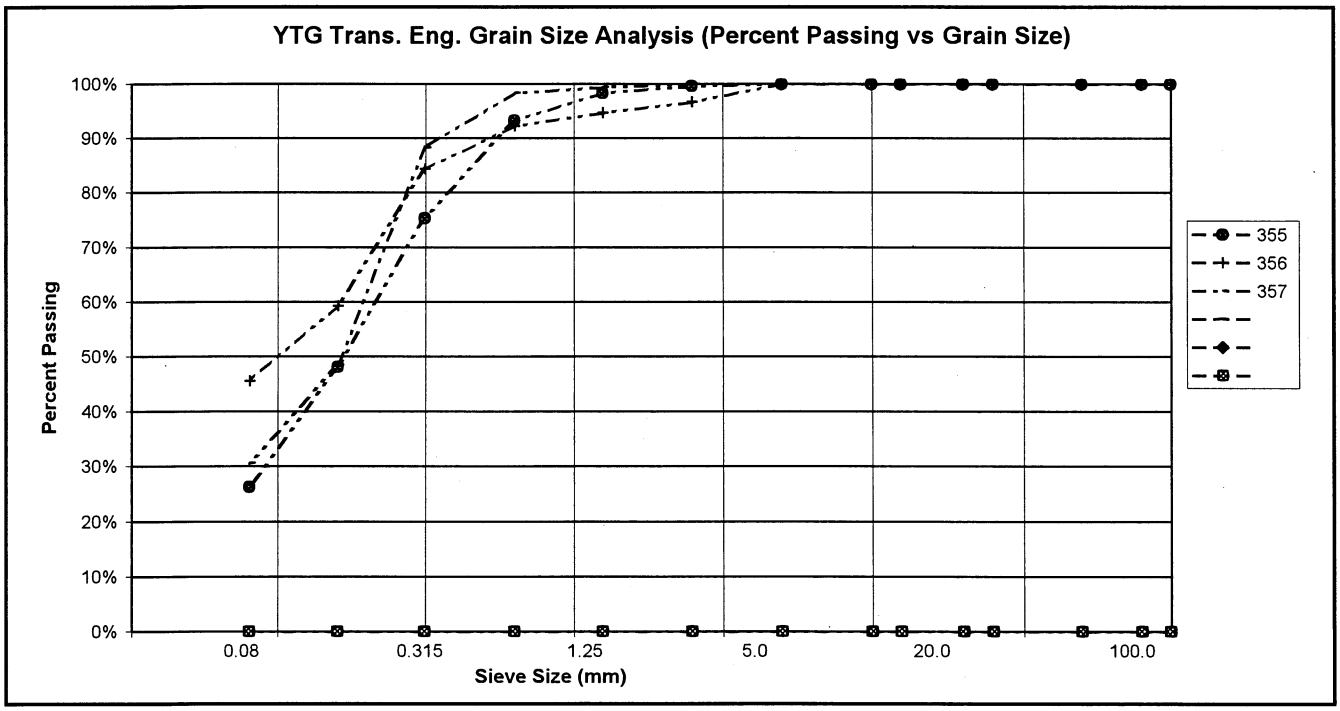
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-222
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+034 4M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	353	354				
LAB NO:	933	934				
DEPTH:	1.2-1.3	4.2-4.3				
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	85%	100%				
20.0	80%	91%				
12.5	66%	67%				
10.0	59%	58%				
5.0	41%	41%				
2.5	30%	29%				
1.25	22%	22%				
0.630	17%	16%				
0.315	11%	10%				
0.160	6%	5%				
0.080	4%	3%				
M.C.(%):	2%	2%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	59	59				
% SAND:	37	38				
% FINES:	4	3				
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)				



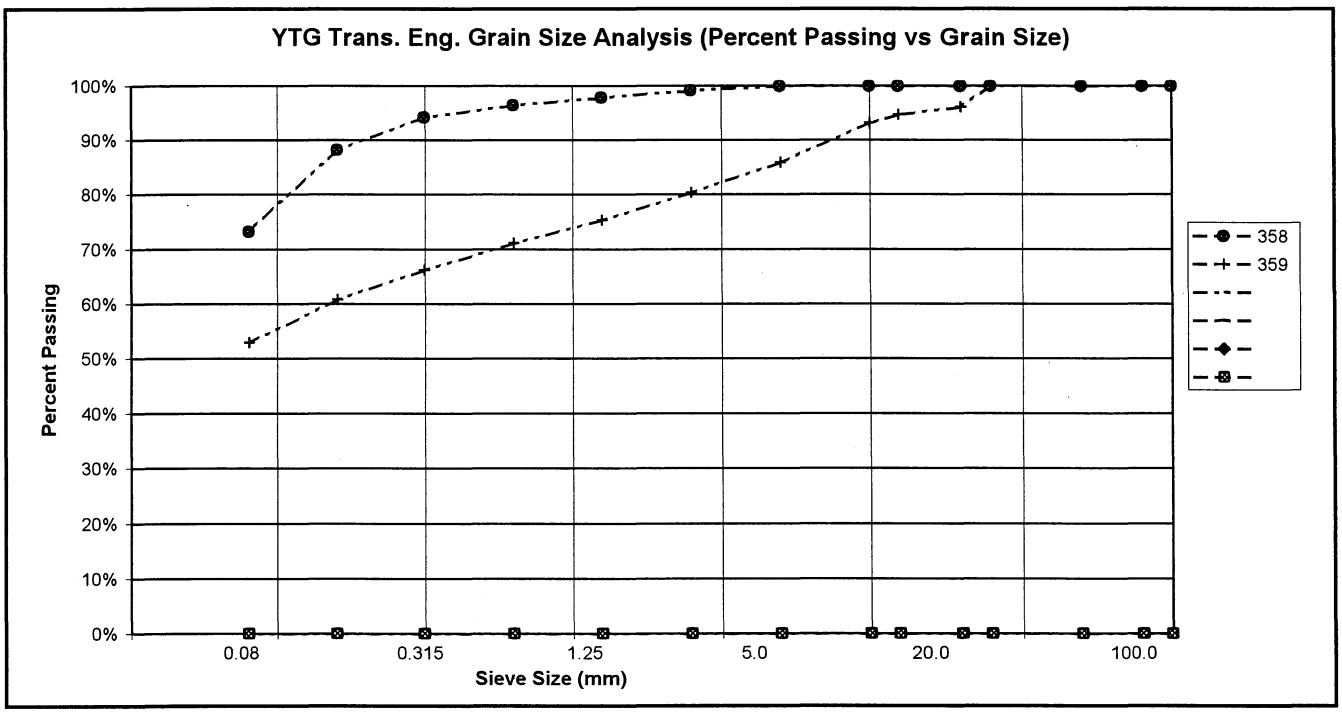
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-223
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+154 3M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	355	356	357			
LAB NO:	935	936	937			
DEPTH:	1.2-1.3	3.2-3.3	4.2-4.3			
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%	100%	100%			
12.5	100%	100%	100%			
10.0	100%	100%	100%			
5.0	100%	100%	100%			
2.5	100%	97%	100%			
1.25	98%	95%	99%			
0.630	93%	92%	98%			
0.315	75%	84%	88%			
0.160	48%	59%	48%			
0.080	26%	46%	31%			
M.C.(%):	13%	27%	45%			
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:	0	0	0			
% SAND:	74	54	69			
% FINES:	26	46	31			
CLASSIFICATION	SILTY SAND (SM)	SILTY SAND (SM)	SILTY SAND (SM)			



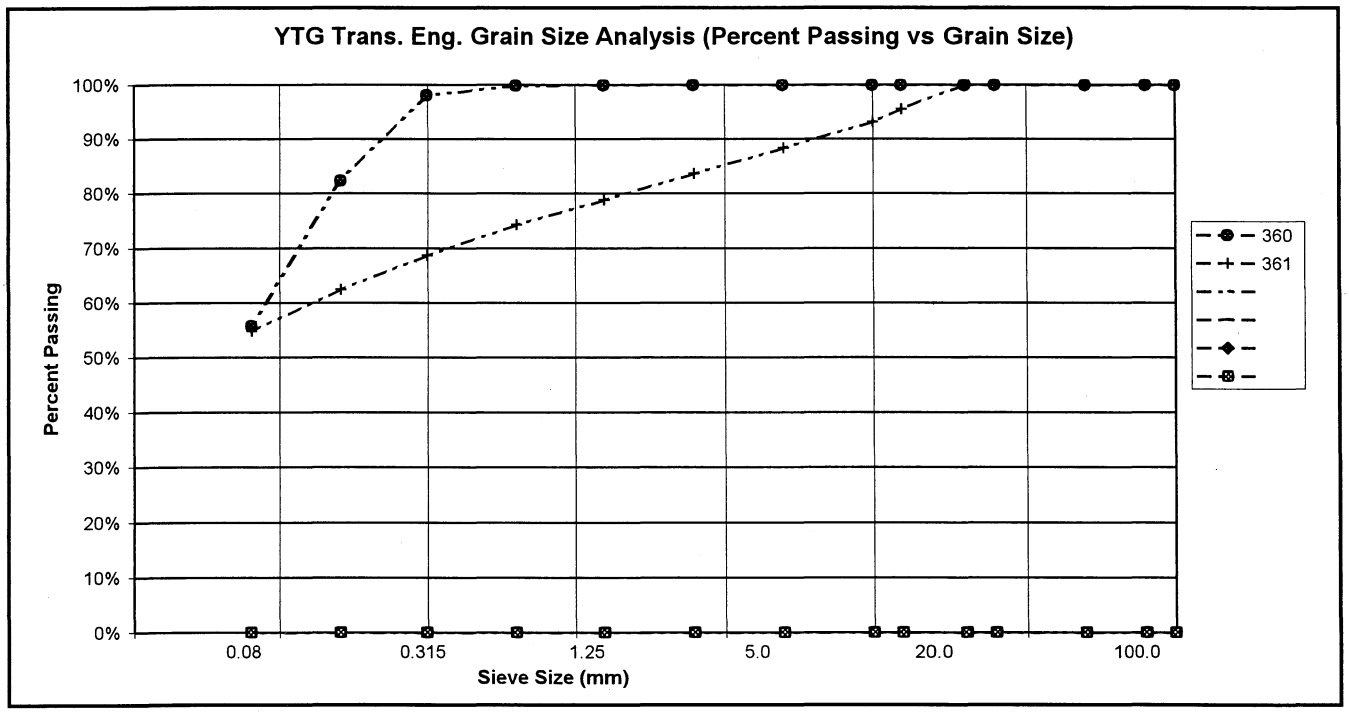
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-224
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+192 6M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	358	359				
LAB NO:	938	939				
DEPTH:	1.3-1.5	4.2-4.3				
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%	100%				
20.0	100%	96%				
12.5	100%	95%				
10.0	100%	93%				
5.0	100%	86%				
2.5	99%	80%				
1.25	98%	75%				
0.630	96%	71%				
0.315	94%	66%				
0.160	88%	61%				
0.080	73%	53%				
M.C.(%):	88%	20%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	14				
% SAND:	27	33				
% FINES:	73	53				
CLASSIFICATION	SILT WITH SAND (ML)	SANDY SILT (ML)				



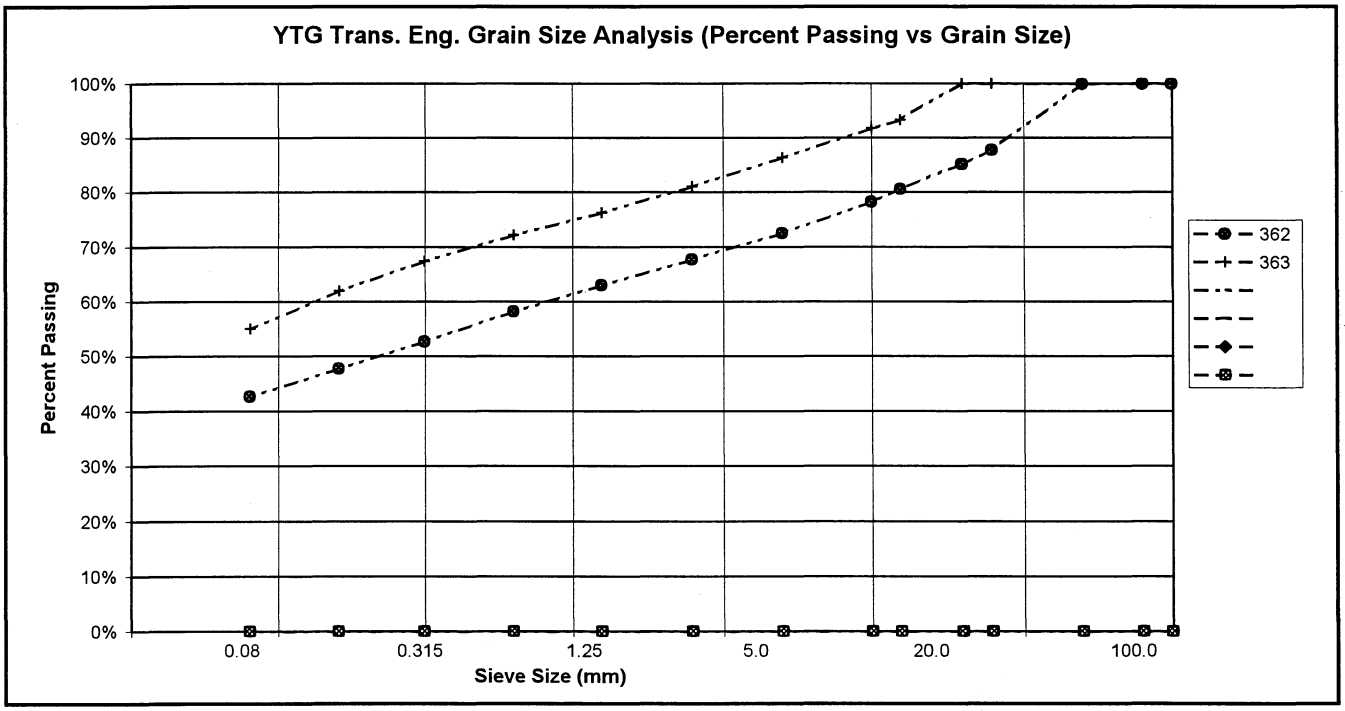
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-225
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+192 20M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	360	361				
LAB NO:	940	941				
DEPTH:	1.3-1.5	4.2-4.3				
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%	100%				
20.0	100%	100%				
12.5	100%	96%				
10.0	100%	93%				
5.0	100%	88%				
2.5	100%	84%				
1.25	100%	79%				
0.630	100%	74%				
0.315	98%	69%				
0.160	82%	62%				
0.080	56%	55%				
M.C.(%):	46%	38%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	12				
% SAND:	44	34				
% FINES:	56	55				
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)				



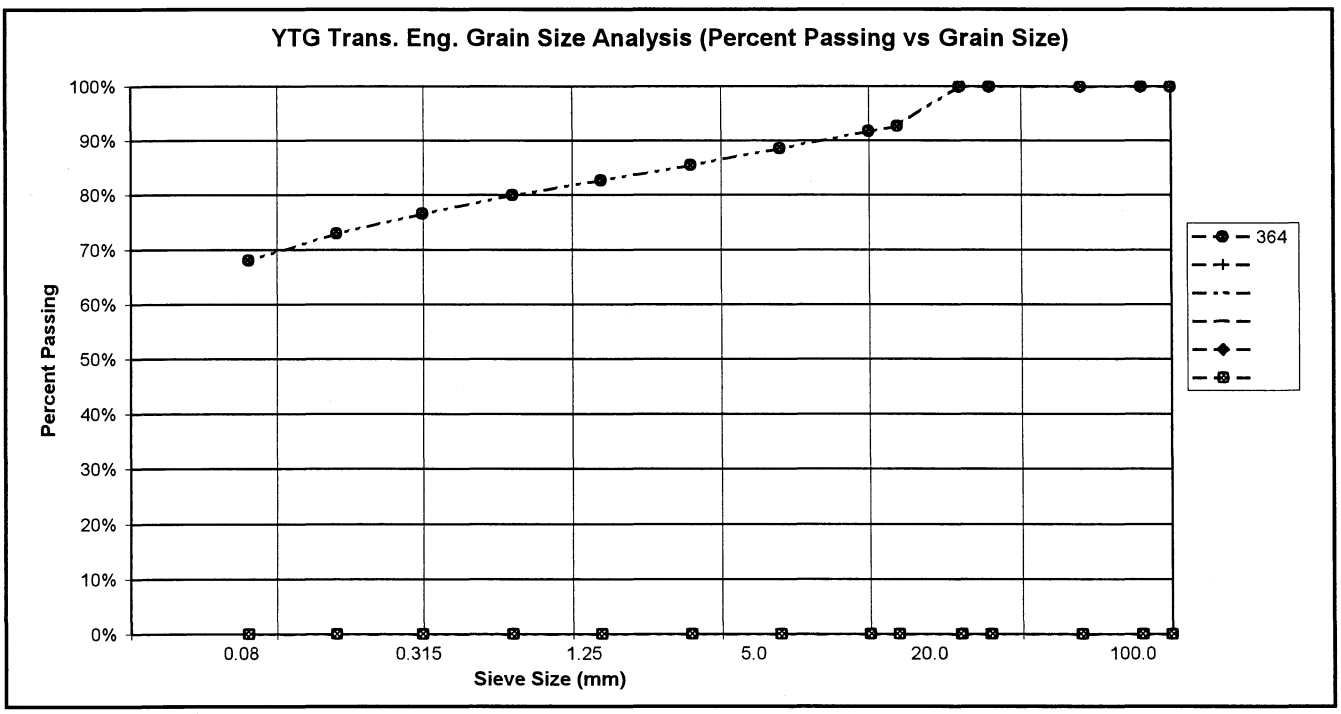
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-226
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+192 19M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/12

FIELD NO:	362	363				
LAB NO:	942	943				
DEPTH:	1.3-1.5	2.3-2.5				
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	88%	100%				
20.0	85%	100%				
12.5	81%	93%				
10.0	78%	92%				
5.0	72%	86%				
2.5	68%	81%				
1.25	63%	76%				
0.630	58%	72%				
0.315	53%	67%				
0.160	48%	62%				
0.080	43%	55%				
M.C.(%):	31%	14%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	28	14				
% SAND:	30	31				
% FINES:	43	55				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)				



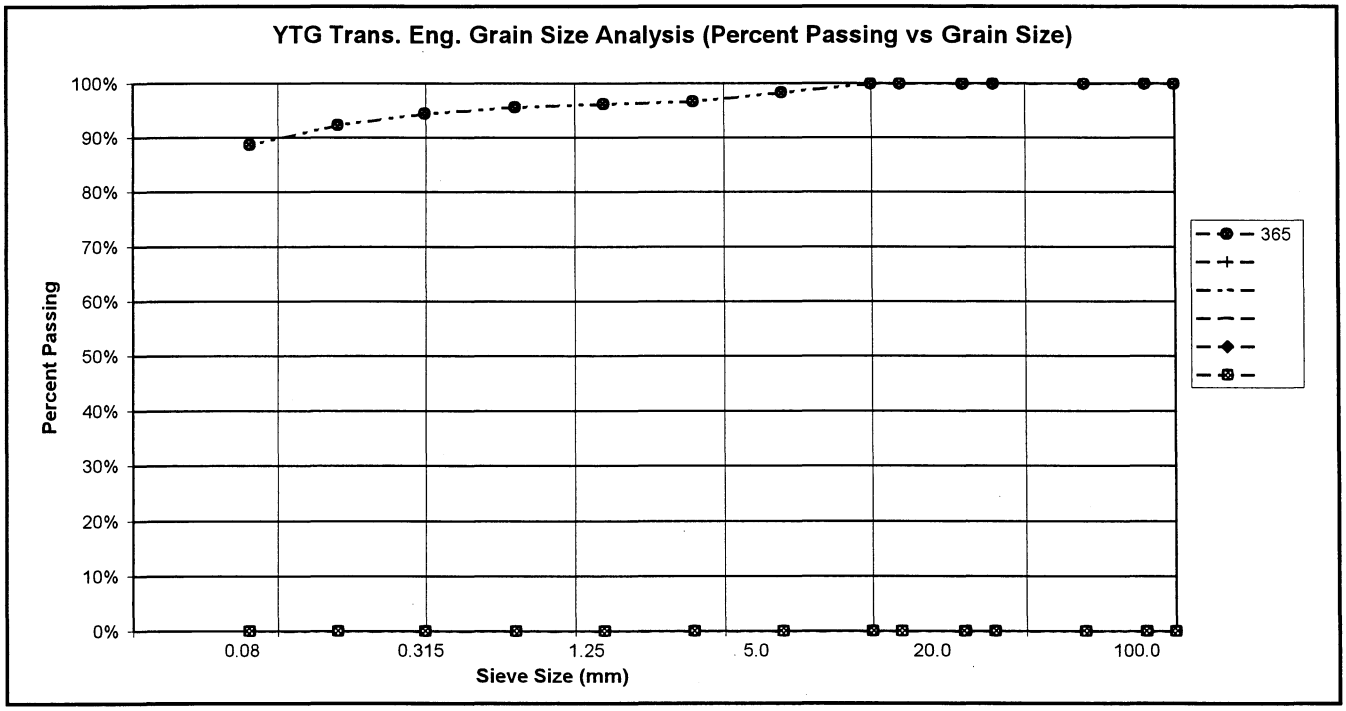
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 606-227
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1779+295 1M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/13

FIELD NO:	364					
LAB NO:	944					
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	100%					
12.5	93%					
10.0	92%					
5.0	89%					
2.5	86%					
1.25	83%					
0.630	80%					
0.315	77%					
0.160	73%					
0.080	68%					
M.C.(%):	40%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	11					
% SAND:	21					
% FINES:	68					
CLASSIFICATION	SANDY SILT (ML)					



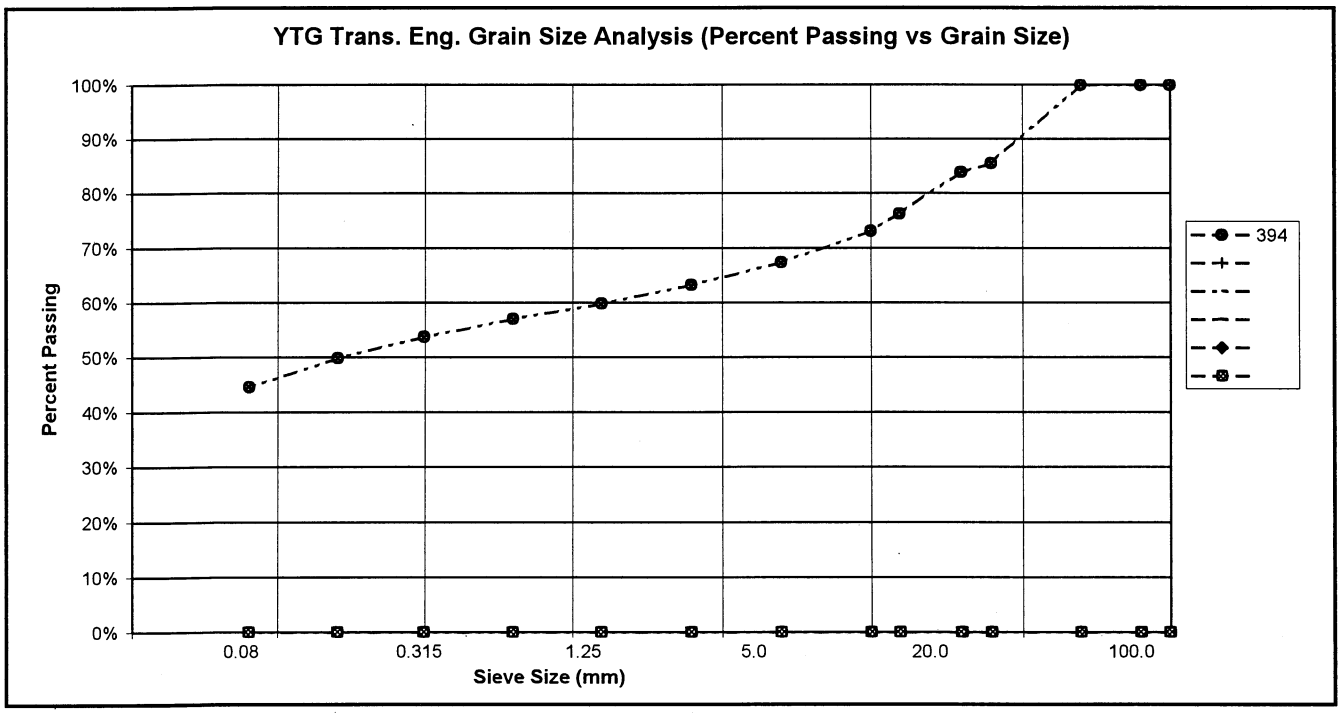
PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 606-228	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1768-1788 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	1779+295 20M LT					
LOGGED BY:	B.B.				DATE COMP: 2001/07/13	

FIELD NO:	365					
LAB NO:	945					
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	100%					
12.5	100%					
10.0	100%					
5.0	98%					
2.5	97%					
1.25	96%					
0.630	96%					
0.315	94%					
0.160	92%					
0.080	89%					
M.C.(%):	109%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	2					
% SAND:	10					
% FINES:	89					
CLASSIFICATION	SILT (ML)					



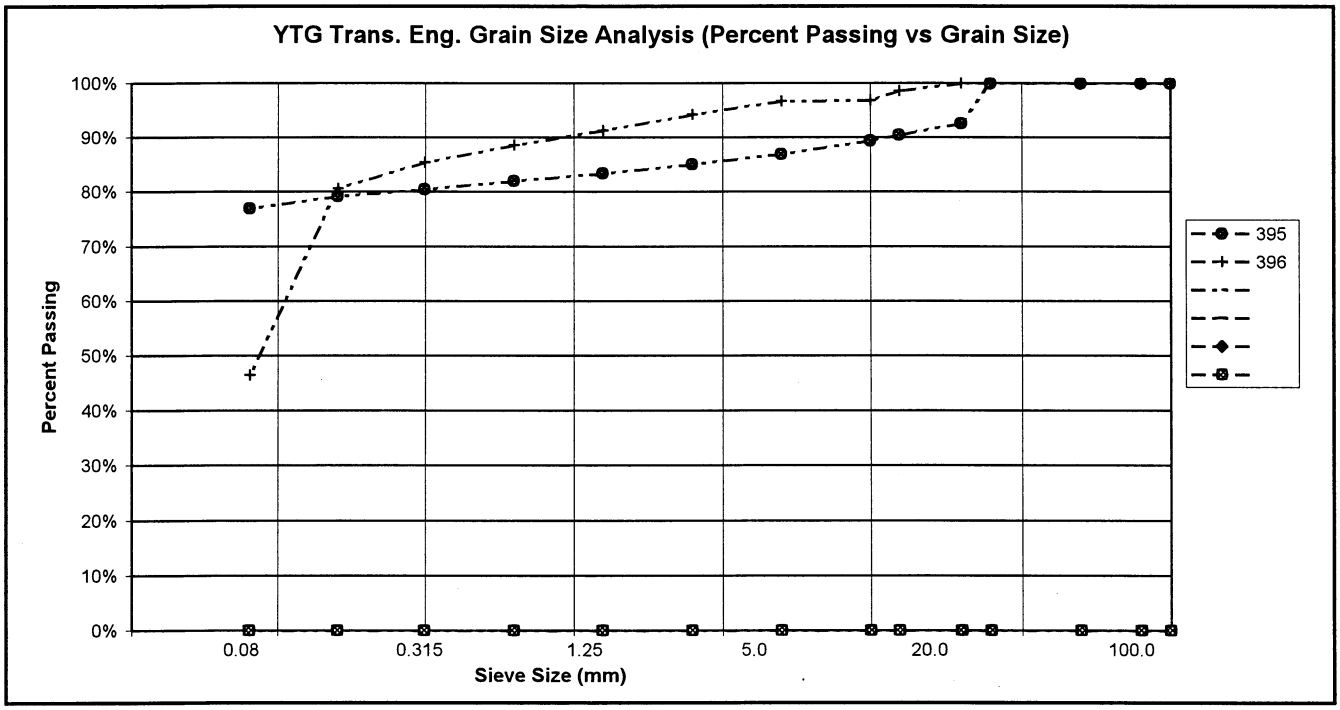
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-242
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	GPS		
LOGGED BY:	B.B.		DATE COMP: 2001/07/18

FIELD NO:	394					
LAB NO:	974					
DEPTH:	2.8-3.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	86%					
20.0	84%					
12.5	76%					
10.0	73%					
5.0	67%					
2.5	63%					
1.25	60%					
0.630	57%					
0.315	54%					
0.160	50%					
0.080	45%					
M.C.(%):	16%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	33					
% SAND:	23					
% FINES:	45					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



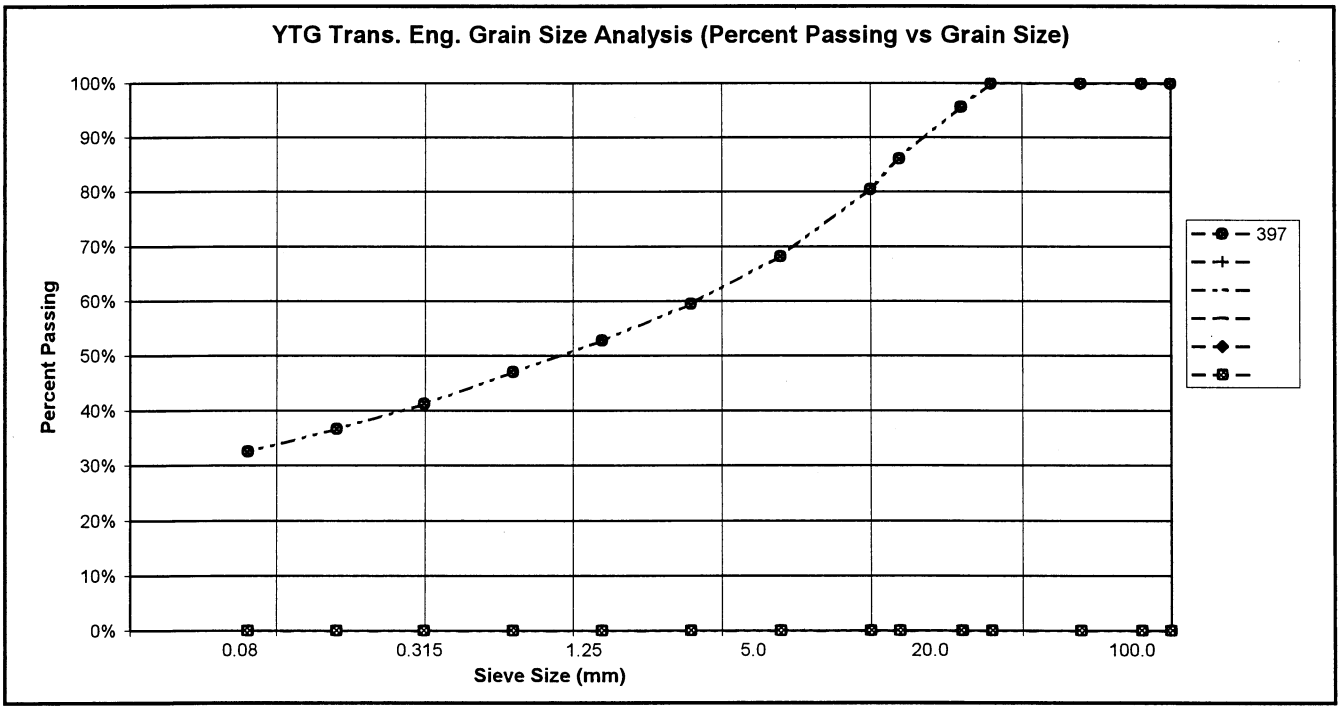
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-243
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1786+424 5M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/18

FIELD NO:	395	396				
LAB NO:	975	976				
DEPTH:	1.2-1.3	4.0-4.1				
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%	100%				
20.0	93%	100%				
12.5	90%	99%				
10.0	89%	97%				
5.0	87%	97%				
2.5	85%	94%				
1.25	83%	91%				
0.630	82%	89%				
0.315	81%	85%				
0.160	79%	81%				
0.080	77%	46%				
M.C.(%):	26%	14%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	13	3				
% SAND:	10	50				
% FINES:	77	46				
CLASSIFICATION	SILT WITH GRAVEL (ML)	SILTY SAND (SM)				



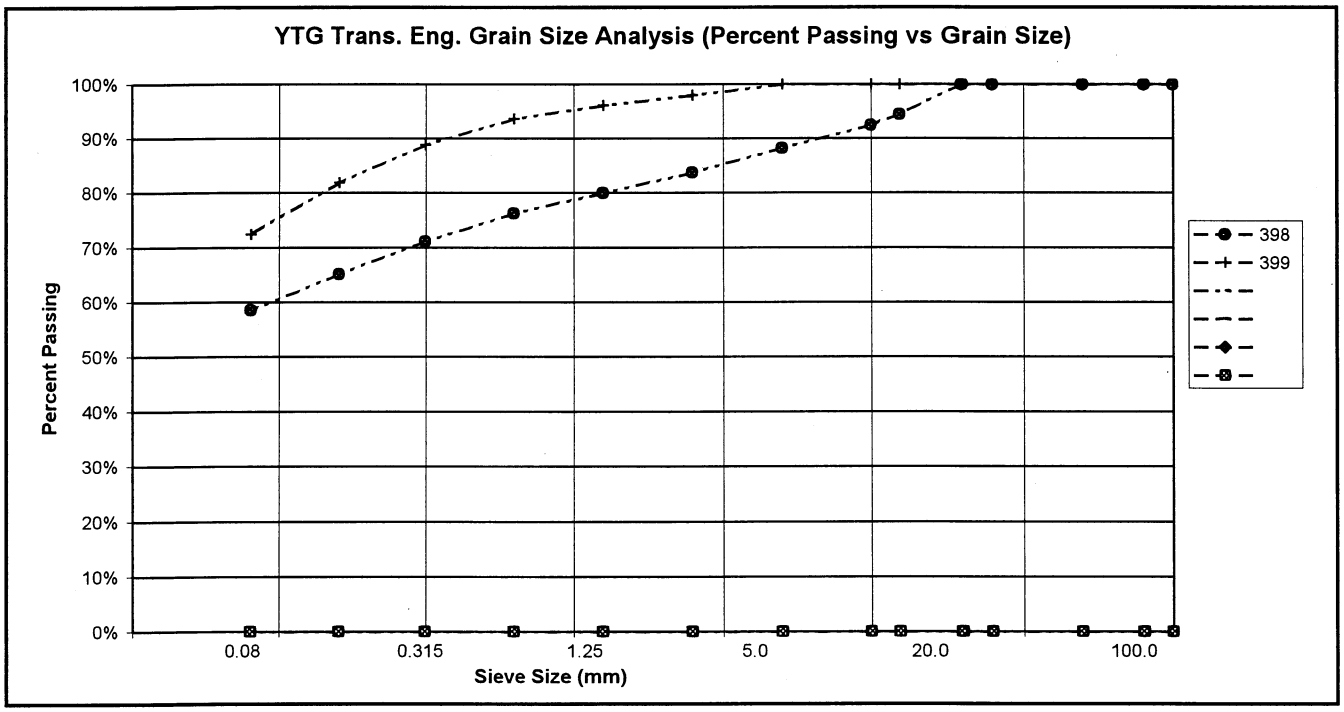
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-244
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1786+349 28M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/18

FIELD NO:	397					
LAB NO:	977					
DEPTH:	2.2-2.4					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	96%					
12.5	86%					
10.0	81%					
5.0	68%					
2.5	60%					
1.25	53%					
0.630	47%					
0.315	41%					
0.160	37%					
0.080	33%					
M.C.(%):	11%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	32					
% SAND:	36					
% FINES:	33					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



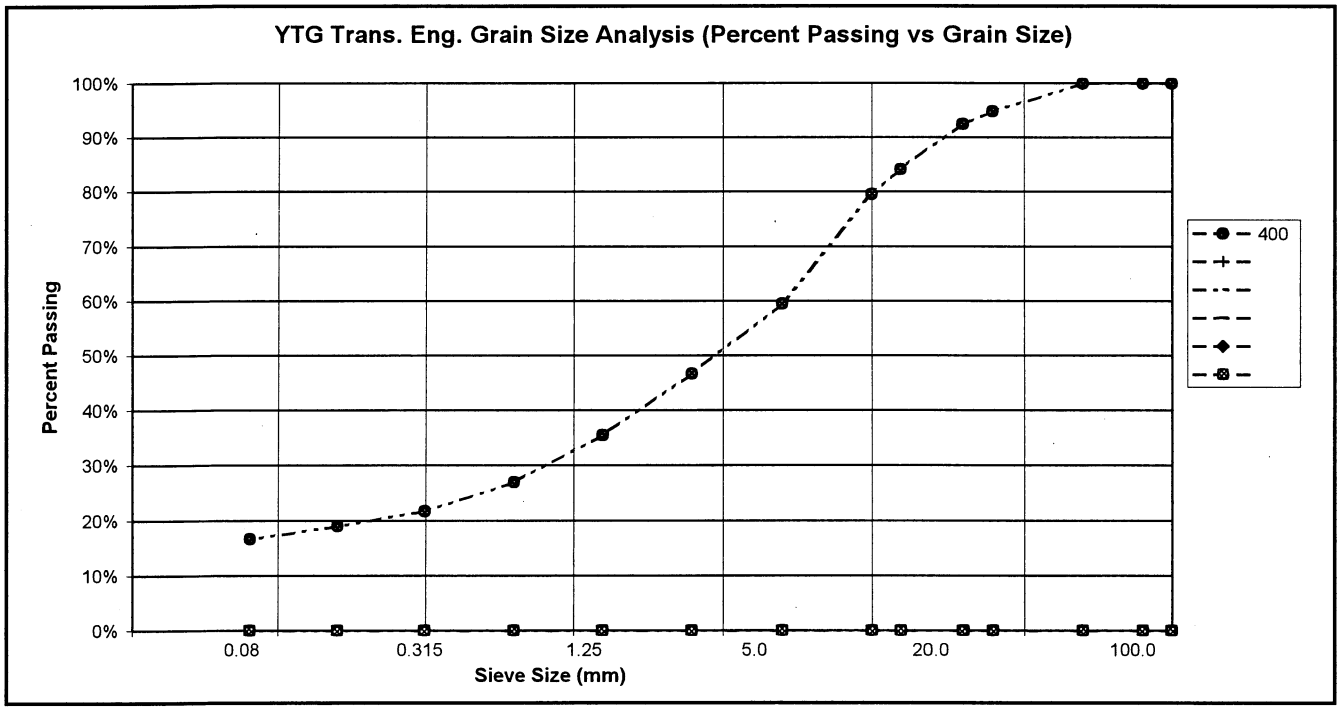
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-245
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1786+274 6M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/18

FIELD NO:	398	399				
LAB NO:	978	979				
DEPTH:	1.3-1.4	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	95%	100%				
10.0	92%	100%				
5.0	88%	100%				
2.5	84%	98%				
1.25	80%	96%				
0.630	76%	94%				
0.315	71%	89%				
0.160	65%	82%				
0.080	59%	72%				
M.C.(%):	18%	15%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	12	0				
% SAND:	30	28				
% FINES:	59	72				
CLASSIFICATION	SANDY SILT (ML)	SILT WITH SAND (ML)				



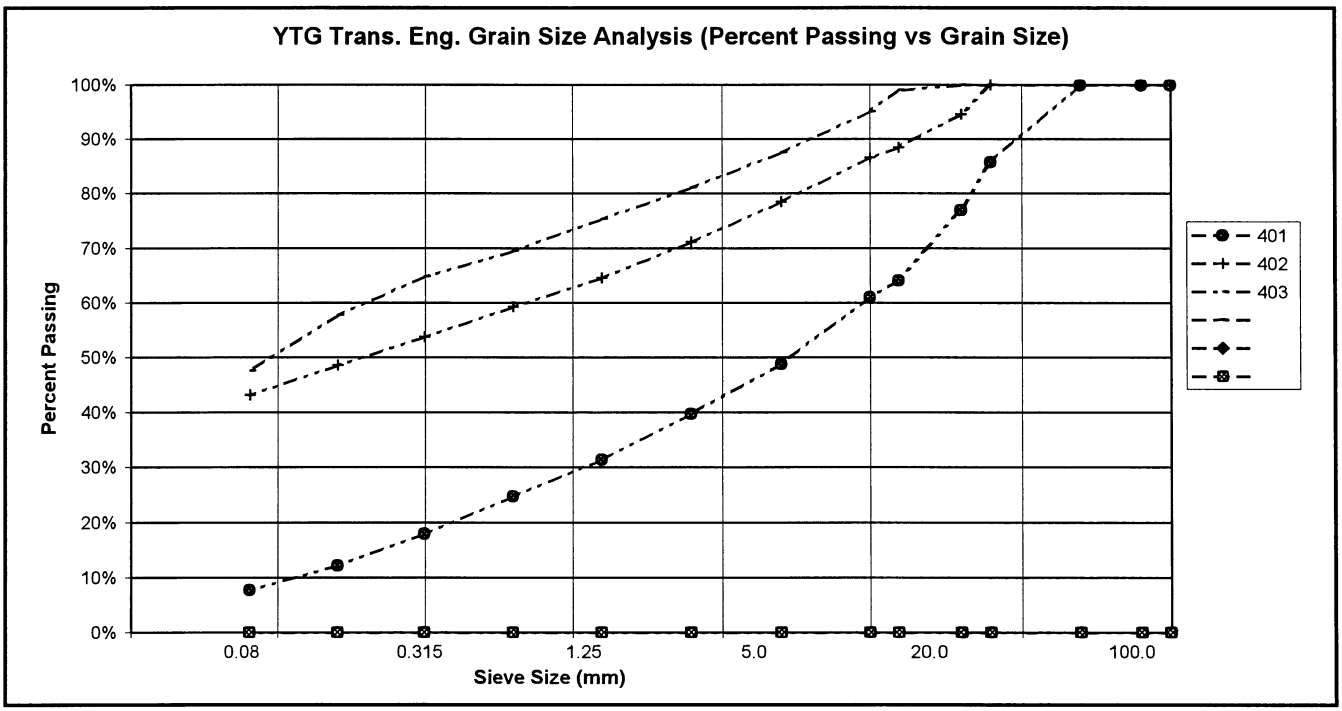
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-246
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1786+197 33M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/18

FIELD NO:	400					
LAB NO:	980					
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	95%					
20.0	93%					
12.5	84%					
10.0	80%					
5.0	60%					
2.5	47%					
1.25	36%					
0.630	27%					
0.315	22%					
0.160	19%					
0.080	17%					
M.C.(%):	5%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	40					
% SAND:	43					
% FINES:	17					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



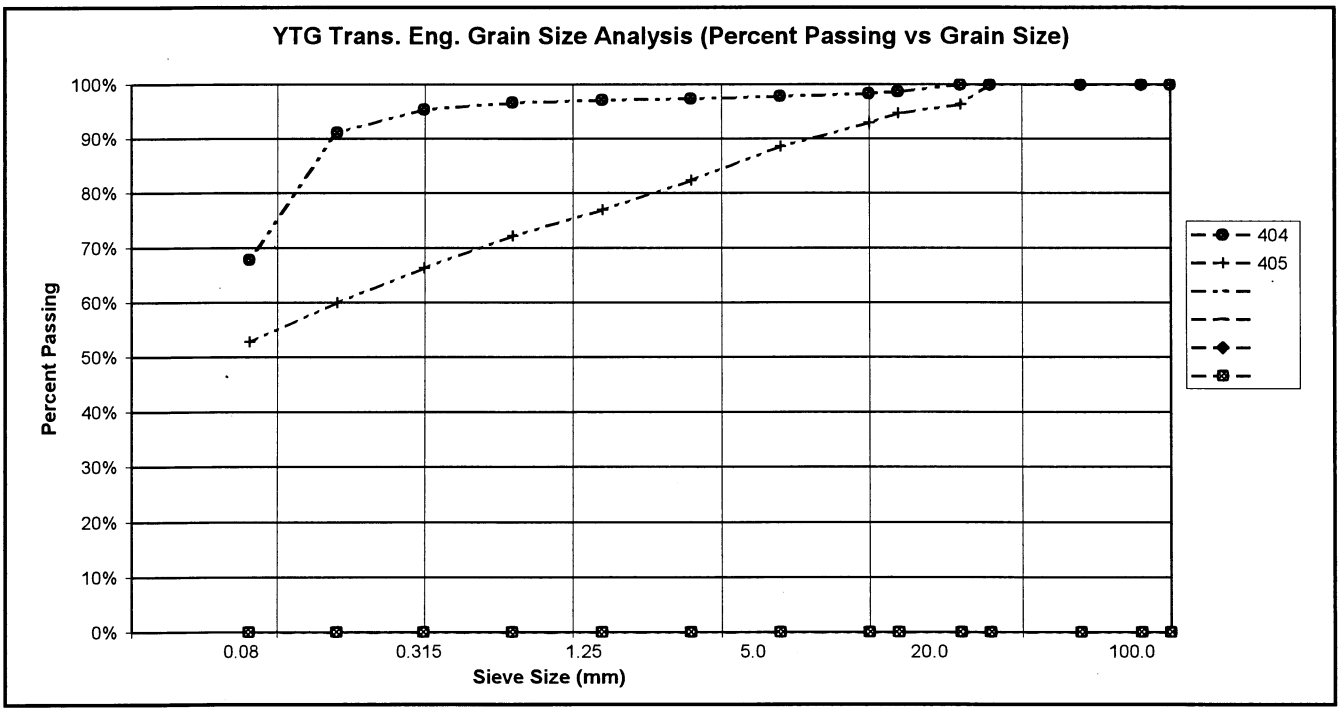
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-247
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1786+125 5M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	401	402	403			
LAB NO:	981	982	983			
DEPTH:	1.2-1.3	2.8-3.0	4.2-4.3			
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	86%	100%	100%			
20.0	77%	95%	100%			
12.5	64%	88%	99%			
10.0	61%	87%	95%			
5.0	49%	79%	88%			
2.5	40%	71%	81%			
1.25	31%	65%	75%			
0.630	25%	59%	69%			
0.315	18%	54%	65%			
0.160	12%	49%	58%			
0.080	8%	43%	48%			
M.C.(%):	5%	16%	13%			
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:	51	21	12			
% SAND:	41	35	40			
% FINES:	8	43	48			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)			



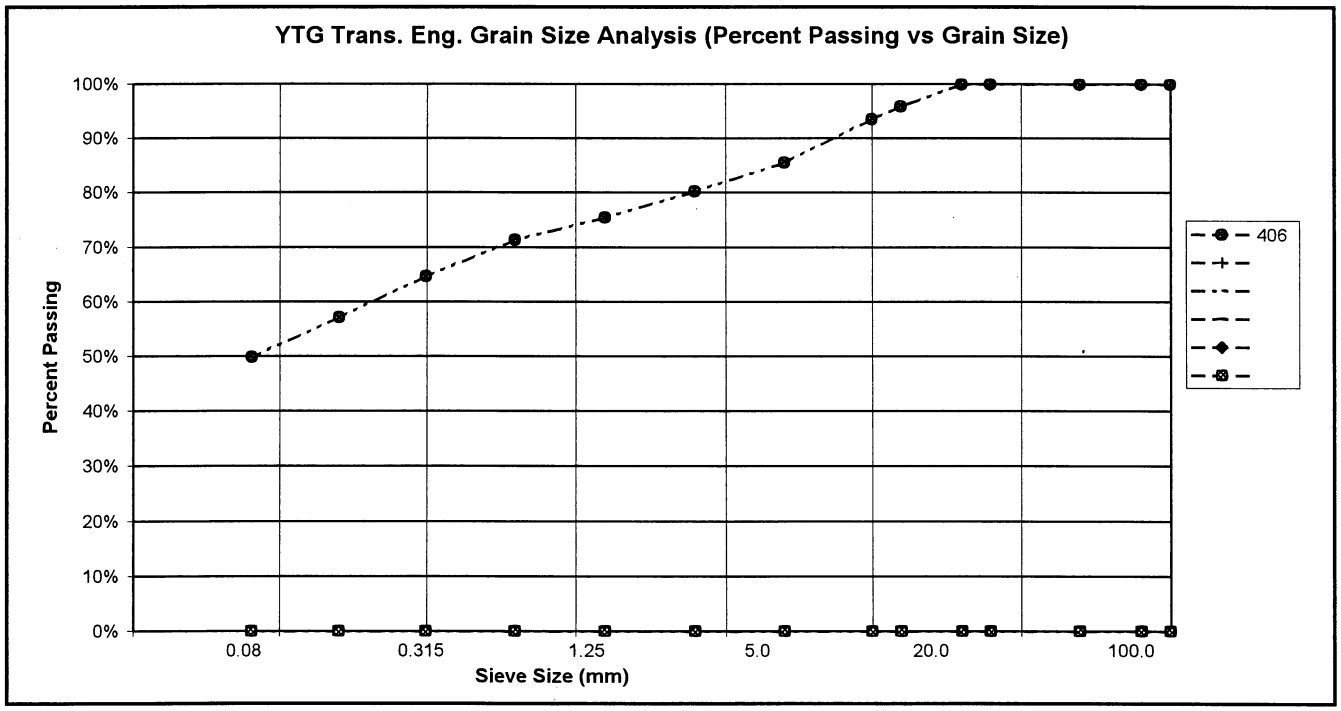
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-248
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1786+049 27M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	404	405				
LAB NO:	984	985				
DEPTH:	1.2-1.3	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	96%				
12.5	99%	95%				
10.0	98%	93%				
5.0	98%	89%				
2.5	97%	82%				
1.25	97%	77%				
0.630	97%	72%				
0.315	95%	66%				
0.160	91%	60%				
0.080	68%	53%				
M.C.(%):	13%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	2	11				
% SAND:	30	36				
% FINES:	68	53				
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)				



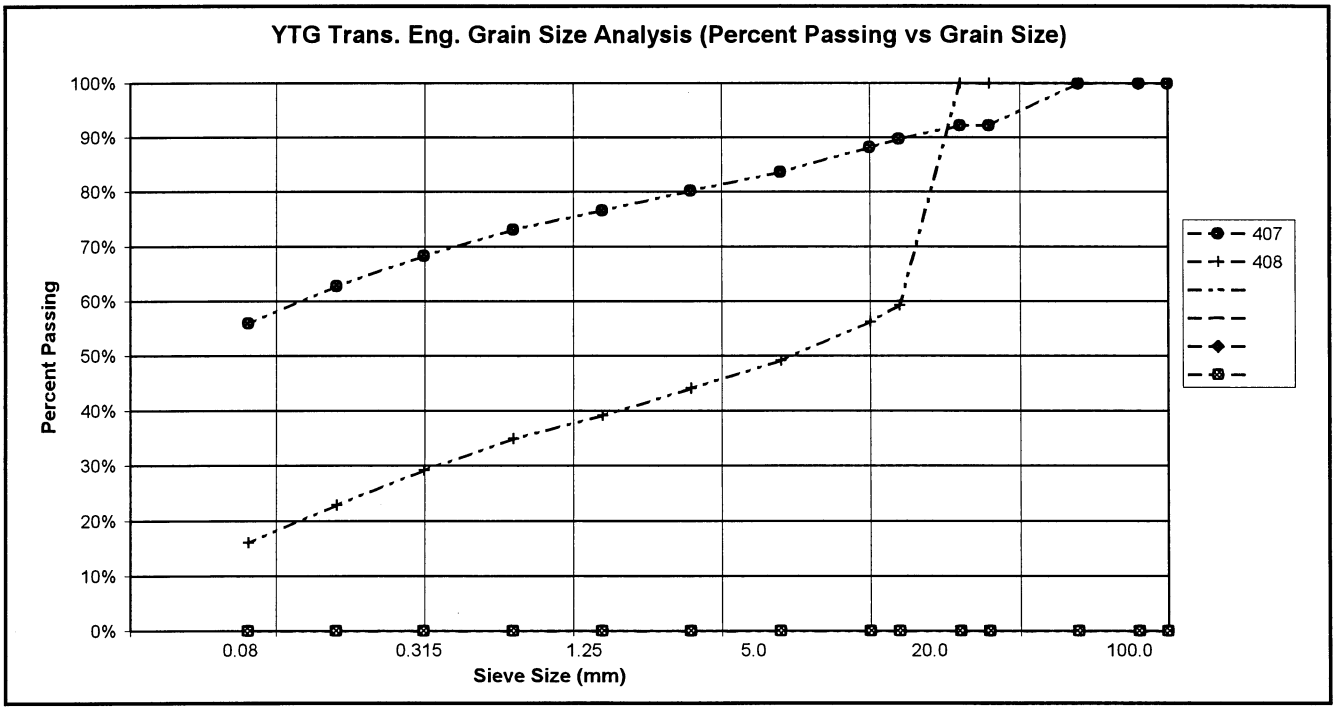
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-249
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+975 5M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	406					
LAB NO:	986					
DEPTH:	4.2-4.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	96%					
10.0	94%					
5.0	86%					
2.5	80%					
1.25	76%					
0.630	71%					
0.315	65%					
0.160	57%					
0.080	50%					
M.C.(%):	14%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	14					
% SAND:	36					
% FINES:	50					
CLASSIFICATION	SILTY SAND (SM)					



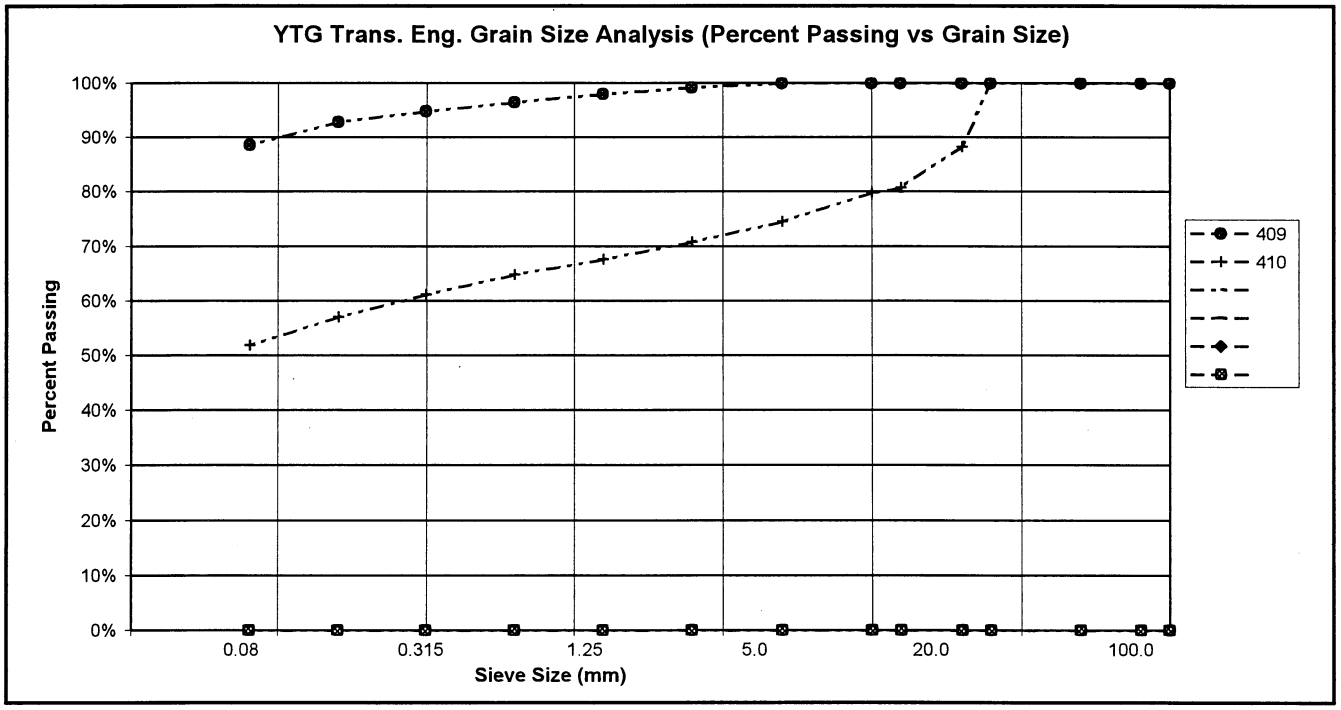
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-250
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+900 28M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	407	408				
LAB NO:	987	988				
DEPTH:	1.2-1.4	2.8-3.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	92%	100%				
20.0	92%	100%				
12.5	90%	59%				
10.0	88%	56%				
5.0	84%	49%				
2.5	80%	44%				
1.25	77%	39%				
0.630	73%	35%				
0.315	68%	29%				
0.160	63%	23%				
0.080	56%	16%				
M.C.(%):	20%	11%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	16	51				
% SAND:	28	33				
% FINES:	56	16				
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SILTY GRAVEL WITH SAND (GM)				



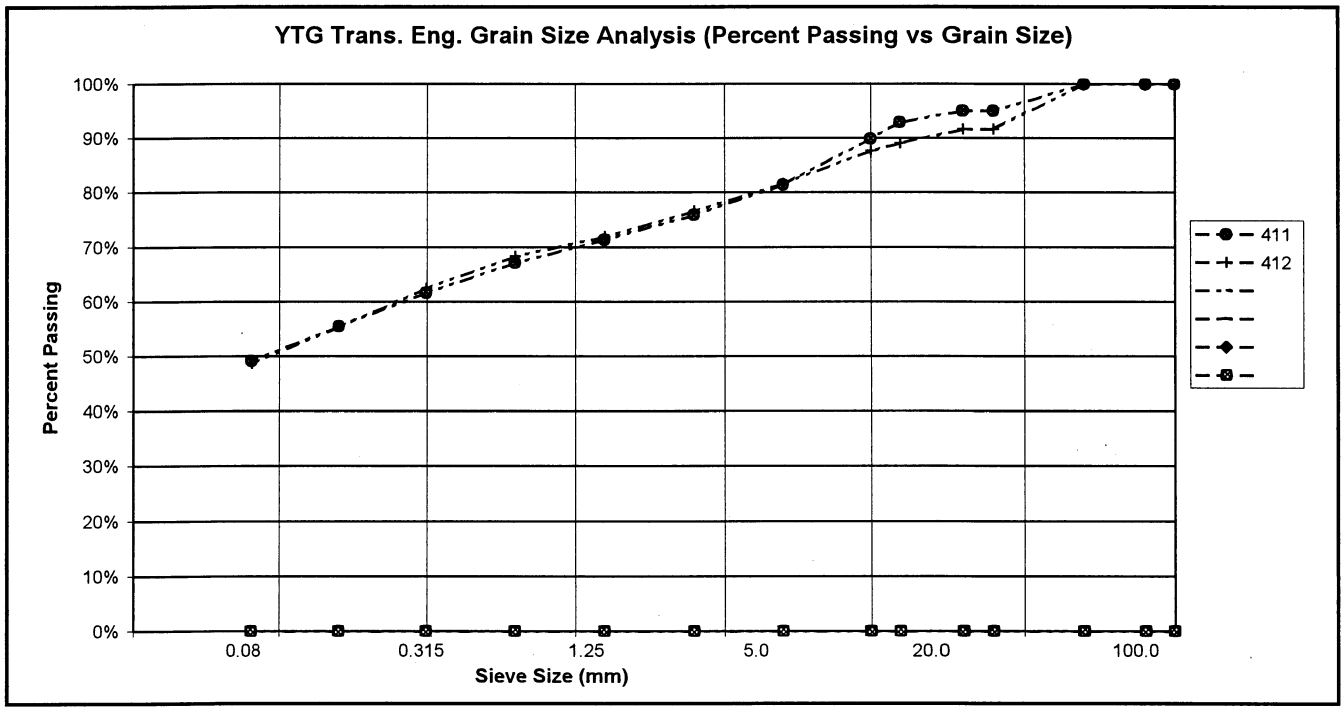
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-251
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+746 38M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	409	410				
LAB NO:	989	990				
DEPTH:	1.3-1.4	2.5-2.6				
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%	100%				
20.0	100%	88%				
12.5	100%	81%				
10.0	100%	80%				
5.0	100%	75%				
2.5	99%	71%				
1.25	98%	68%				
0.630	97%	65%				
0.315	95%	61%				
0.160	93%	57%				
0.080	89%	52%				
M.C.(%):	57%	25%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	25				
% SAND:	11	23				
% FINES:	89	52				
CLASSIFICATION	SILT (ML)	GRAVELLY SILT WITH SAND (ML)				



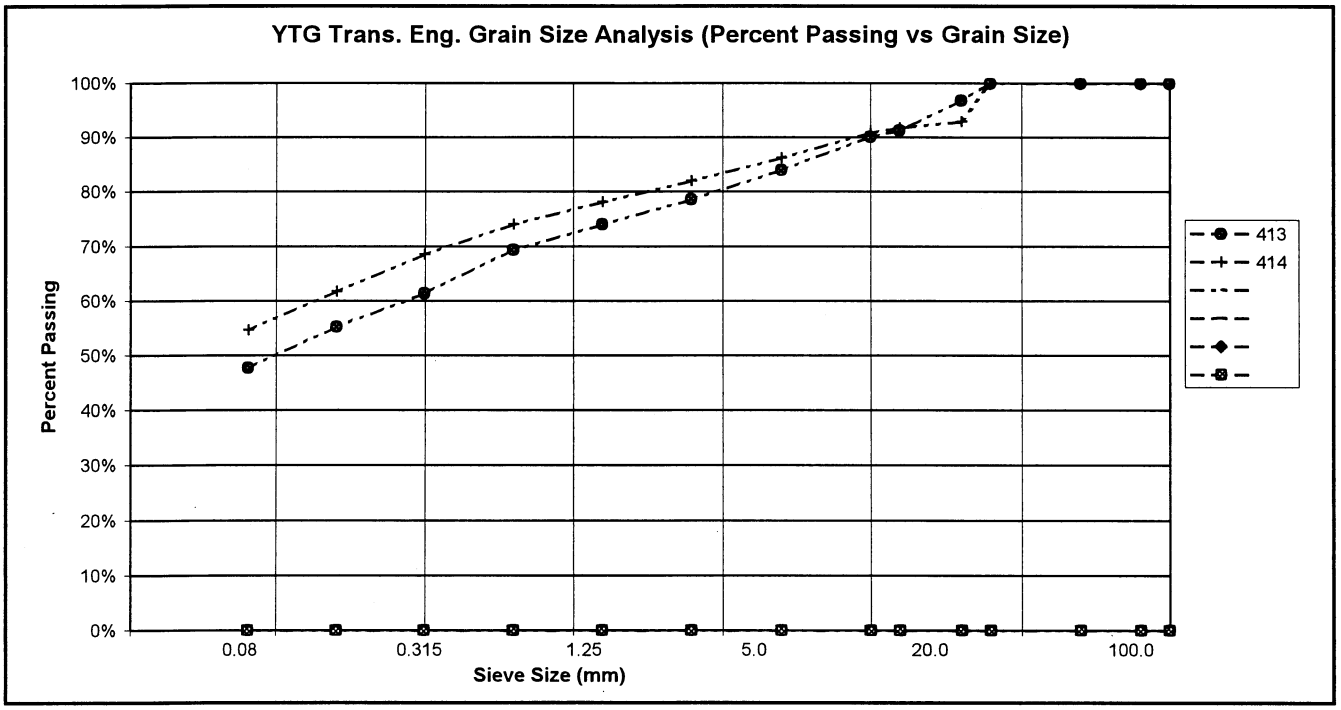
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-252
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+824 2M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	411	412				
LAB NO:	991	992				
DEPTH:	1.2-1.3	4.3-4.4				
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	95%	92%				
20.0	95%	92%				
12.5	93%	89%				
10.0	90%	88%				
5.0	81%	82%				
2.5	76%	77%				
1.25	71%	72%				
0.630	67%	68%				
0.315	62%	62%				
0.160	56%	55%				
0.080	49%	49%				
M.C.(%):	17%	13%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	19	18				
% SAND:	32	33				
% FINES:	49	49				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



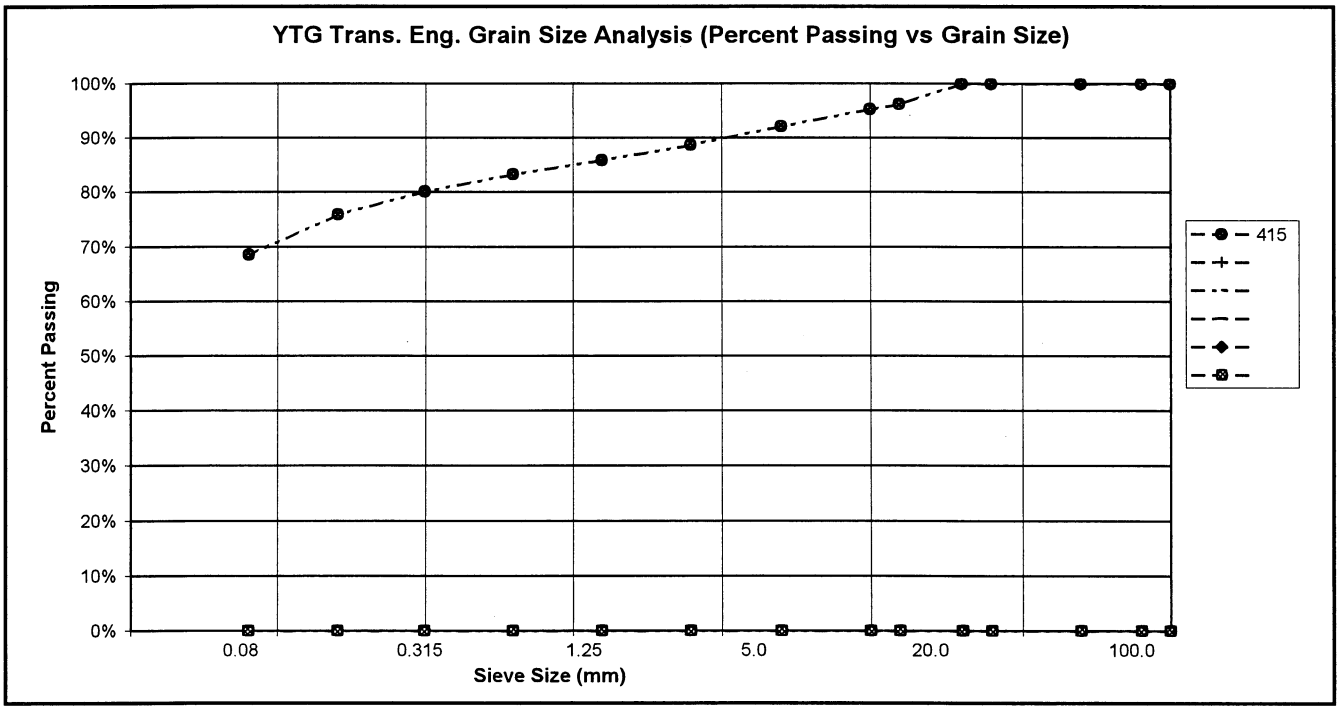
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-253
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+735 CL		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	413	414				
LAB NO:	993	994				
DEPTH:	1.3-1.4	2.8-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	97%	93%				
12.5	91%	92%				
10.0	90%	91%				
5.0	84%	86%				
2.5	79%	82%				
1.25	74%	78%				
0.630	69%	74%				
0.315	61%	69%				
0.160	55%	62%				
0.080	48%	55%				
M.C.(%):	14%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	16	14				
% SAND:	36	32				
% FINES:	48	55				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)				



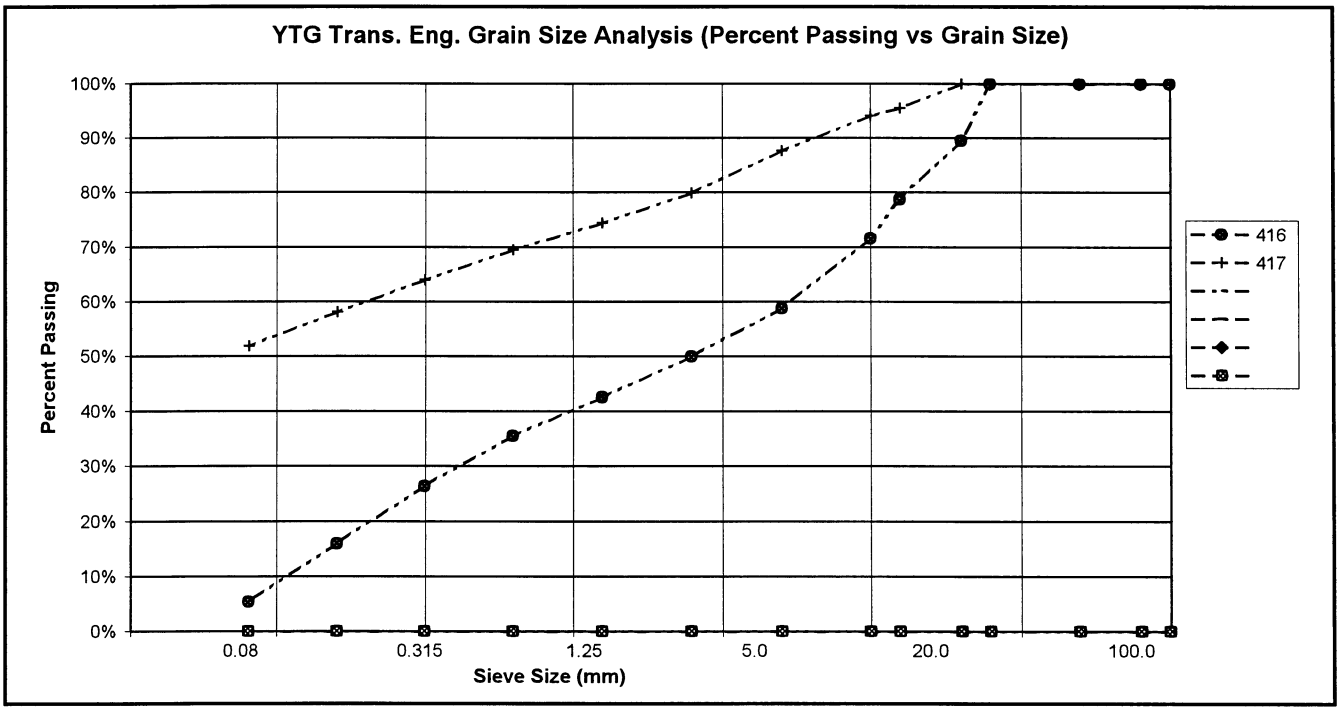
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-254
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+733 20M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	415					
LAB NO:	995					
DEPTH:	1.2-1.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	96%					
10.0	95%					
5.0	92%					
2.5	89%					
1.25	86%					
0.630	83%					
0.315	80%					
0.160	76%					
0.080	69%					
M.C.(%):	20%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	8					
% SAND:	24					
% FINES:	69					
CLASSIFICATION	SANDY SILT (ML)					



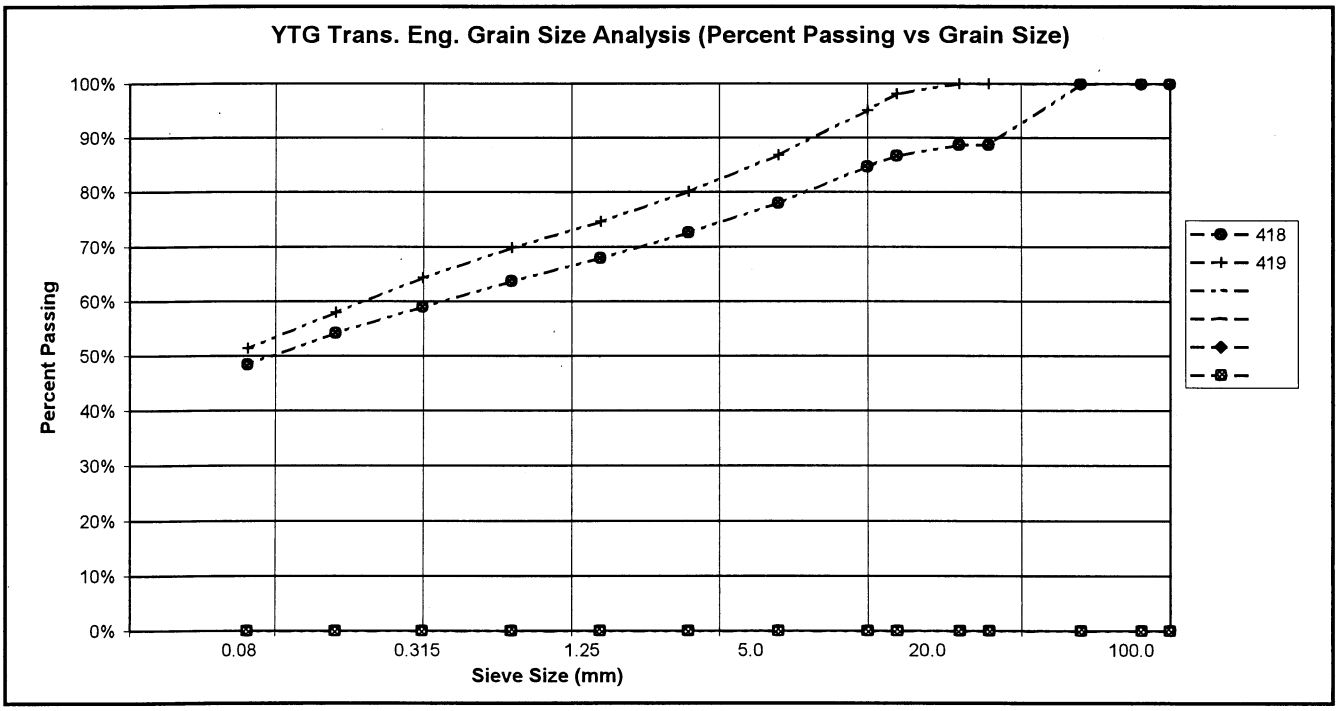
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-255
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+576 1M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	416	417				
LAB NO:	996	997				
DEPTH:	1.2-1.3	4.2-4.3				
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%	100%				
20.0	90%	100%				
12.5	79%	96%				
10.0	72%	94%				
5.0	59%	88%				
2.5	50%	80%				
1.25	43%	74%				
0.630	36%	69%				
0.315	26%	64%				
0.160	16%	58%				
0.080	5%	52%				
M.C.(%):	27%	13%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	41	12				
% SAND:	53	36				
% FINES:	5	52				
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	SANDY SILT (ML)				



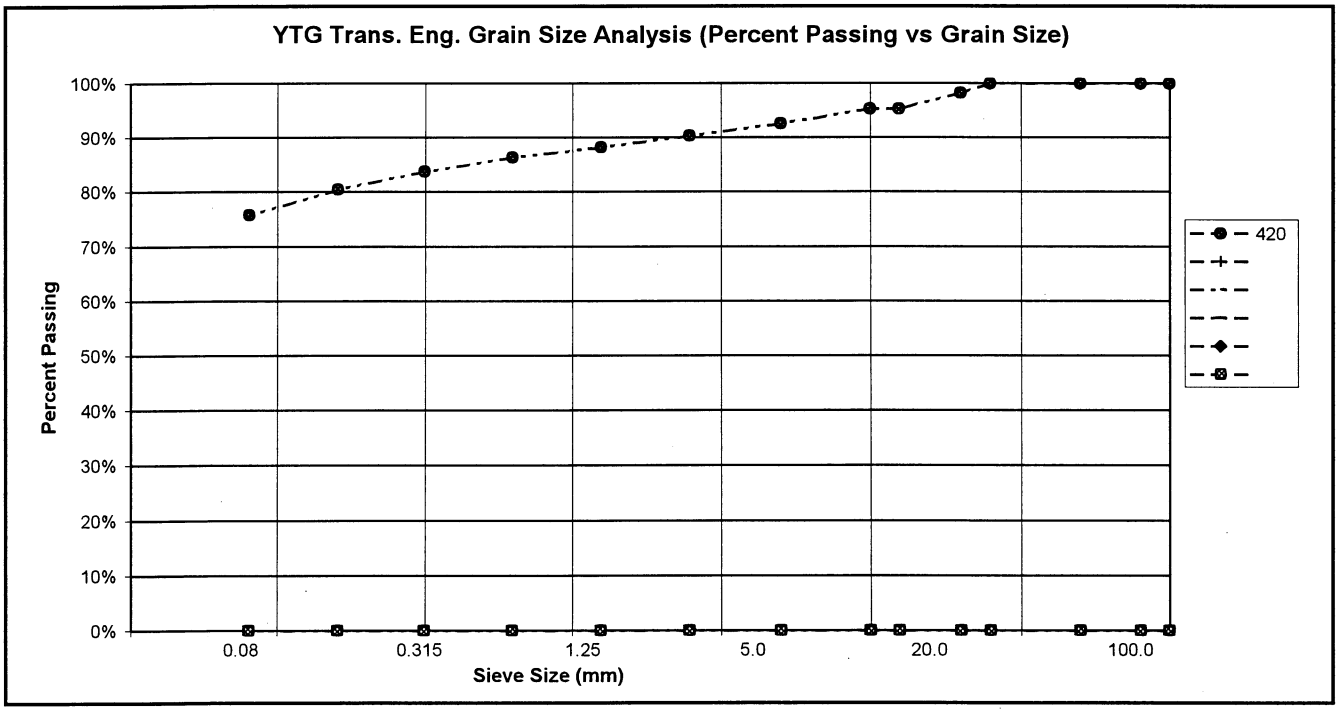
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-256
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+514 1M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/19

FIELD NO:	418	419				
LAB NO:	998	999				
DEPTH:	1.2-1.3	4.2-4.3				
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	89%	100%				
20.0	89%	100%				
12.5	87%	98%				
10.0	85%	95%				
5.0	78%	87%				
2.5	73%	80%				
1.25	68%	75%				
0.630	64%	70%				
0.315	59%	64%				
0.160	54%	58%				
0.080	48%	51%				
M.C.(%):	21%	15%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	22	13				
% SAND:	30	35				
% FINES:	48	51				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)				



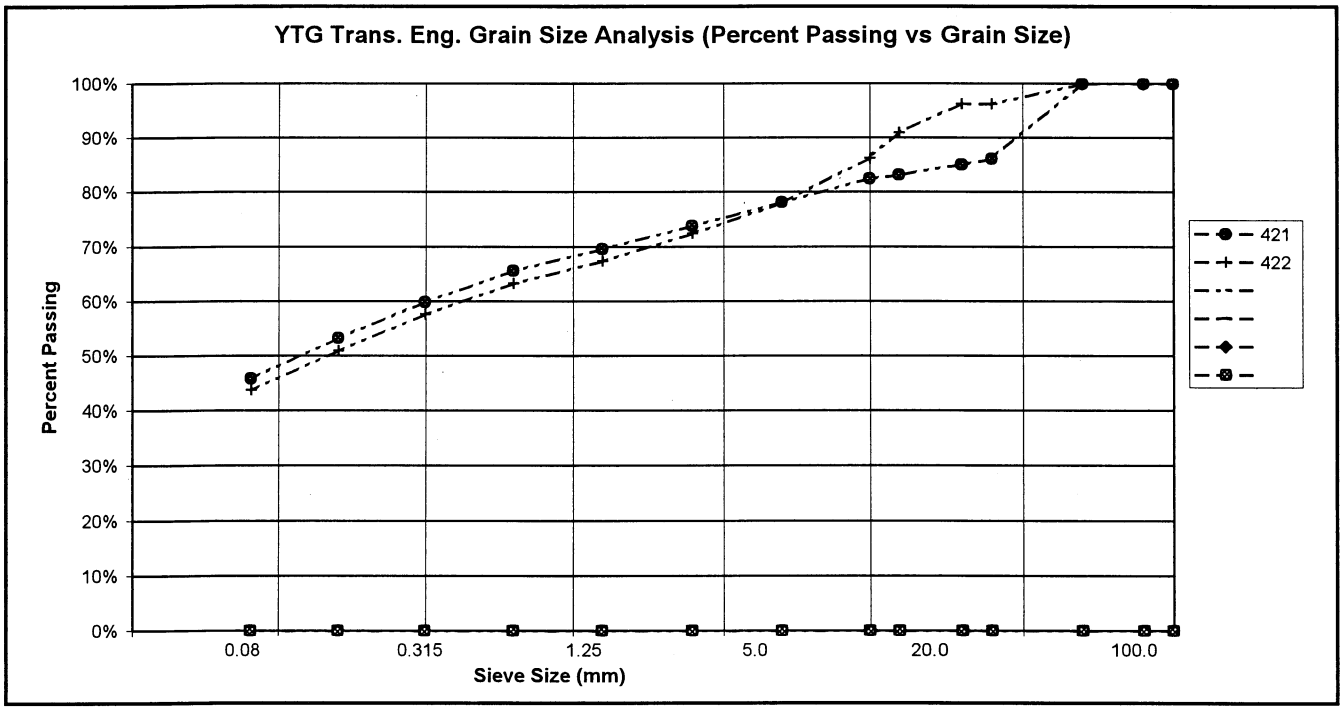
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-257
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+513 21M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	420					
LAB NO:	1000					
DEPTH:	2.5-2.7					
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	95%					
10.0	95%					
5.0	93%					
2.5	90%					
1.25	88%					
0.630	86%					
0.315	84%					
0.160	80%					
0.080	76%					
M.C.(%):	55%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	7					
% SAND:	17					
% FINES:	76					
CLASSIFICATION	SILT WITH SAND (ML)					



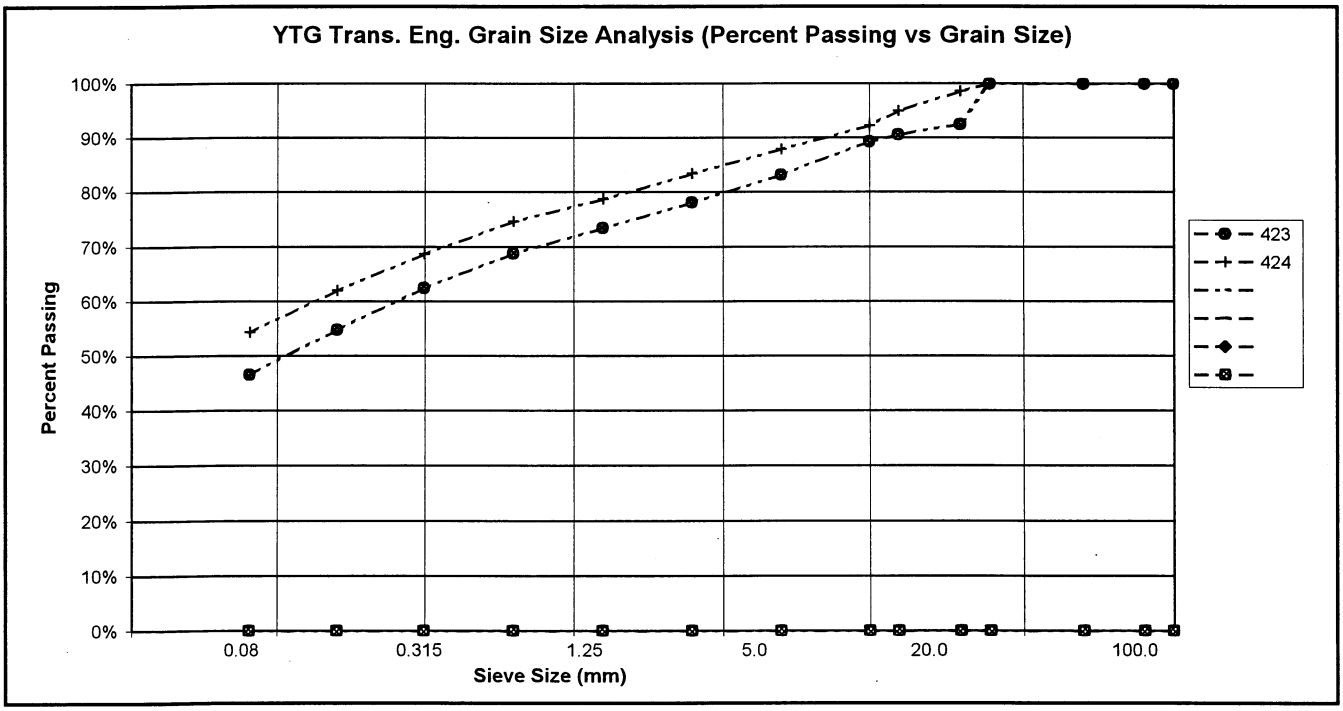
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-258
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+513 20m rt		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	421	422				
LAB NO:	1001	1002				
DEPTH:	1.2-1.3	2.7-2.8				
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	86%	96%				
20.0	85%	96%				
12.5	83%	91%				
10.0	82%	86%				
5.0	78%	78%				
2.5	74%	72%				
1.25	70%	67%				
0.630	66%	63%				
0.315	60%	58%				
0.160	53%	51%				
0.080	46%	44%				
M.C.(%):	13%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	22	22				
% SAND:	32	34				
% FINES:	46	44				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



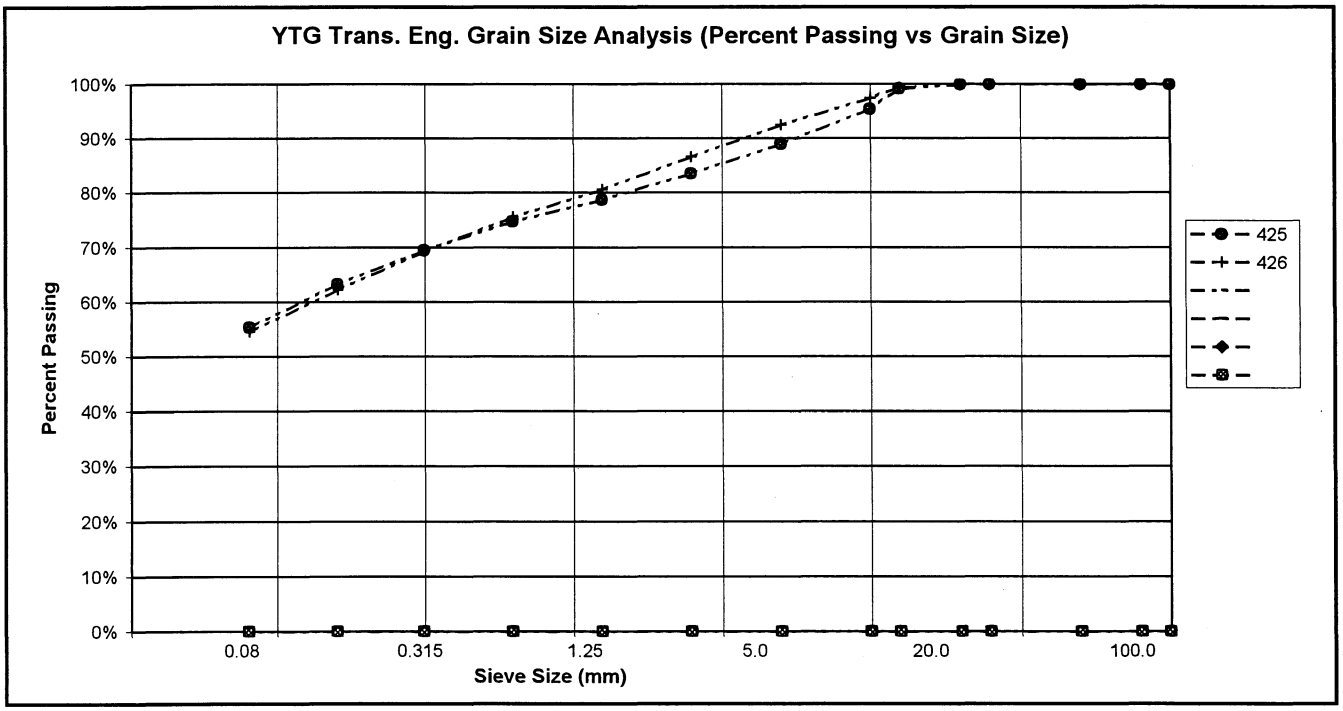
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-259
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+393 21M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	423	424				
LAB NO:	1003	1004				
DEPTH:	1.2-1.3	2.7-2.8				
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%	100%				
20.0	93%	99%				
12.5	91%	95%				
10.0	89%	92%				
5.0	83%	88%				
2.5	78%	83%				
1.25	73%	79%				
0.630	69%	75%				
0.315	62%	69%				
0.160	55%	62%				
0.080	47%	54%				
M.C.(%):	13%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	17	12				
% SAND:	37	34				
% FINES:	47	54				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)				



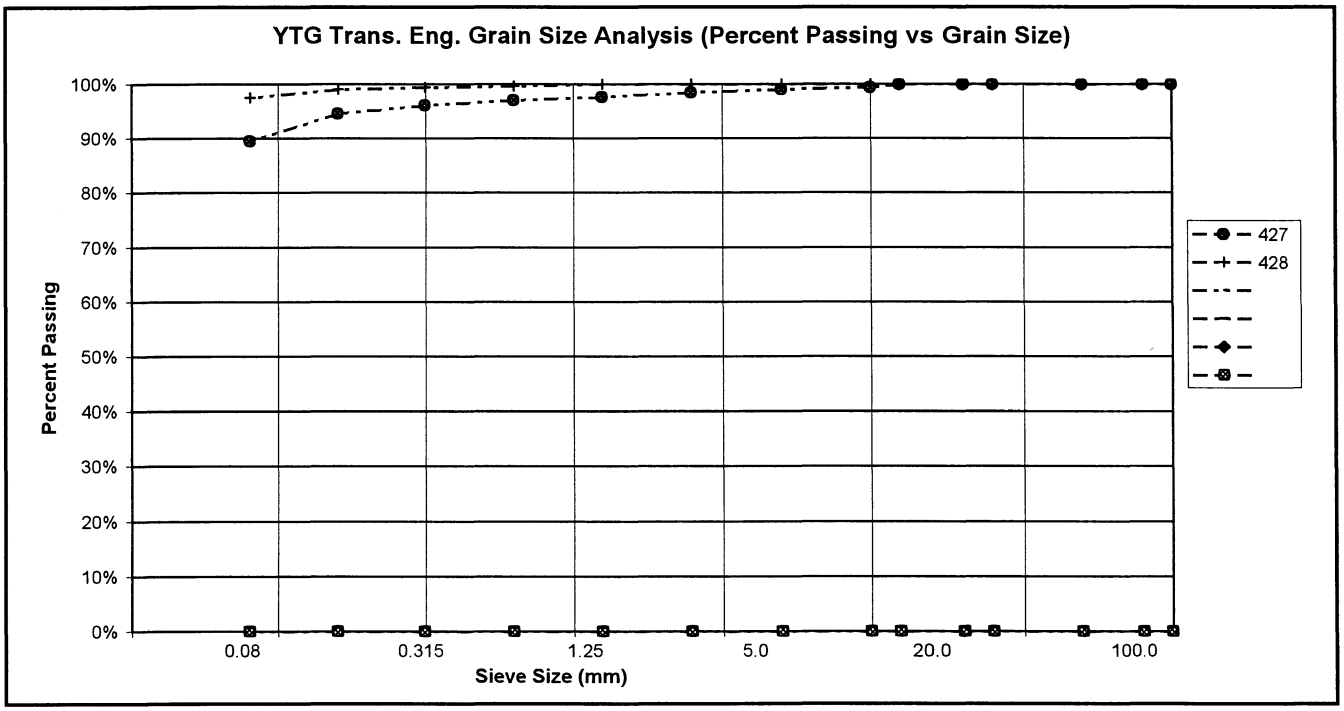
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-260
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+391 1M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	425	426				
LAB NO:	1005	1006				
DEPTH:	1.2-1.3	4.2-4.3				
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%	100%				
20.0	100%	100%				
12.5	99%	99%				
10.0	95%	97%				
5.0	89%	93%				
2.5	84%	87%				
1.25	79%	81%				
0.630	75%	76%				
0.315	69%	69%				
0.160	63%	62%				
0.080	55%	55%				
M.C.(%):	28%	16%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	11	7				
% SAND:	34	38				
% FINES:	55	55				
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)				



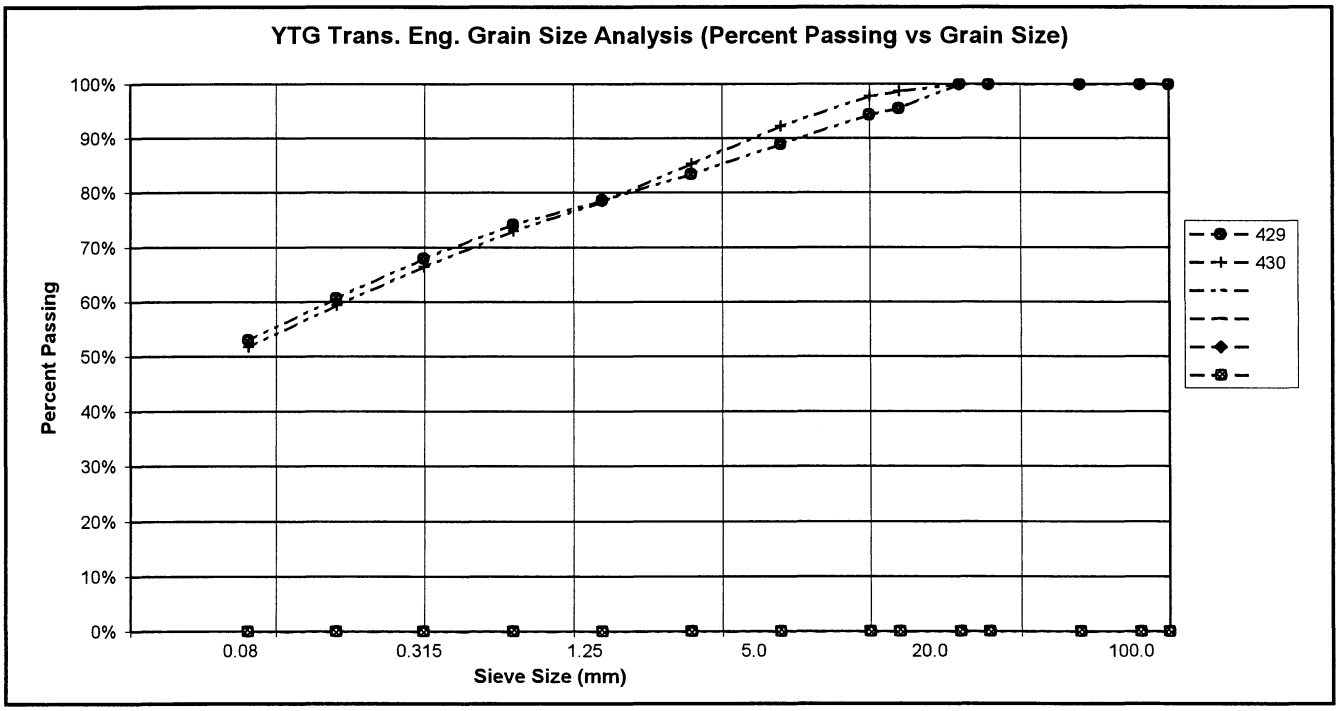
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-261
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+390 19M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	427	428				
LAB NO:	1007	1008				
DEPTH:	1.2-1.3	2.8-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	100%	100%				
12.5	100%	100%				
10.0	99%	100%				
5.0	99%	100%				
2.5	98%	100%				
1.25	98%	100%				
0.630	97%	100%				
0.315	96%	99%				
0.160	95%	99%				
0.080	90%	98%				
M.C.(%):	40%	50%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	1	0				
% SAND:	10	2				
% FINES:	90	98				
CLASSIFICATION	SILT (ML)	SILT (ML)				



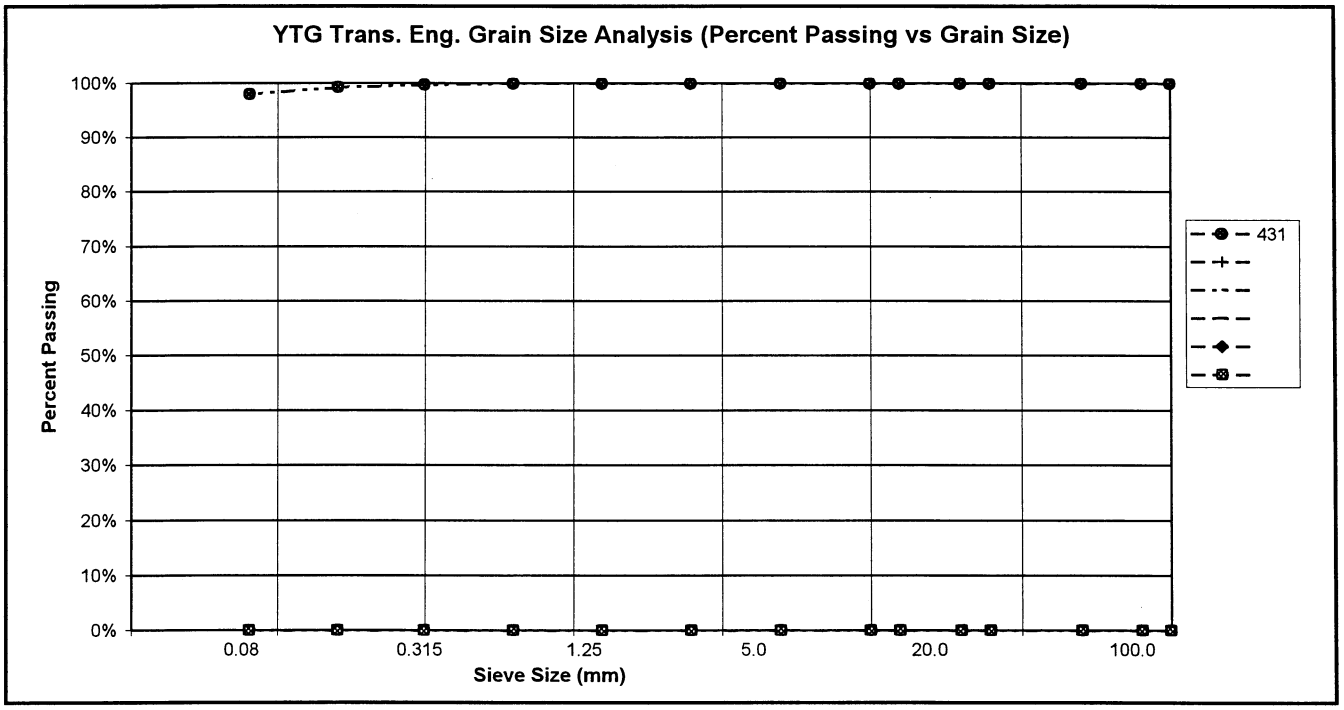
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-262
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+251 CL		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	429	430				
LAB NO:	1009	1010				
DEPTH:	1.2-1.3	4.2-4.3				
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%	100%				
20.0	100%	100%				
12.5	96%	99%				
10.0	94%	98%				
5.0	89%	92%				
2.5	83%	85%				
1.25	79%	78%				
0.630	74%	73%				
0.315	68%	66%				
0.160	61%	59%				
0.080	53%	52%				
M.C.(%):	19%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	11	8				
% SAND:	36	40				
% FINES:	53	52				
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)				



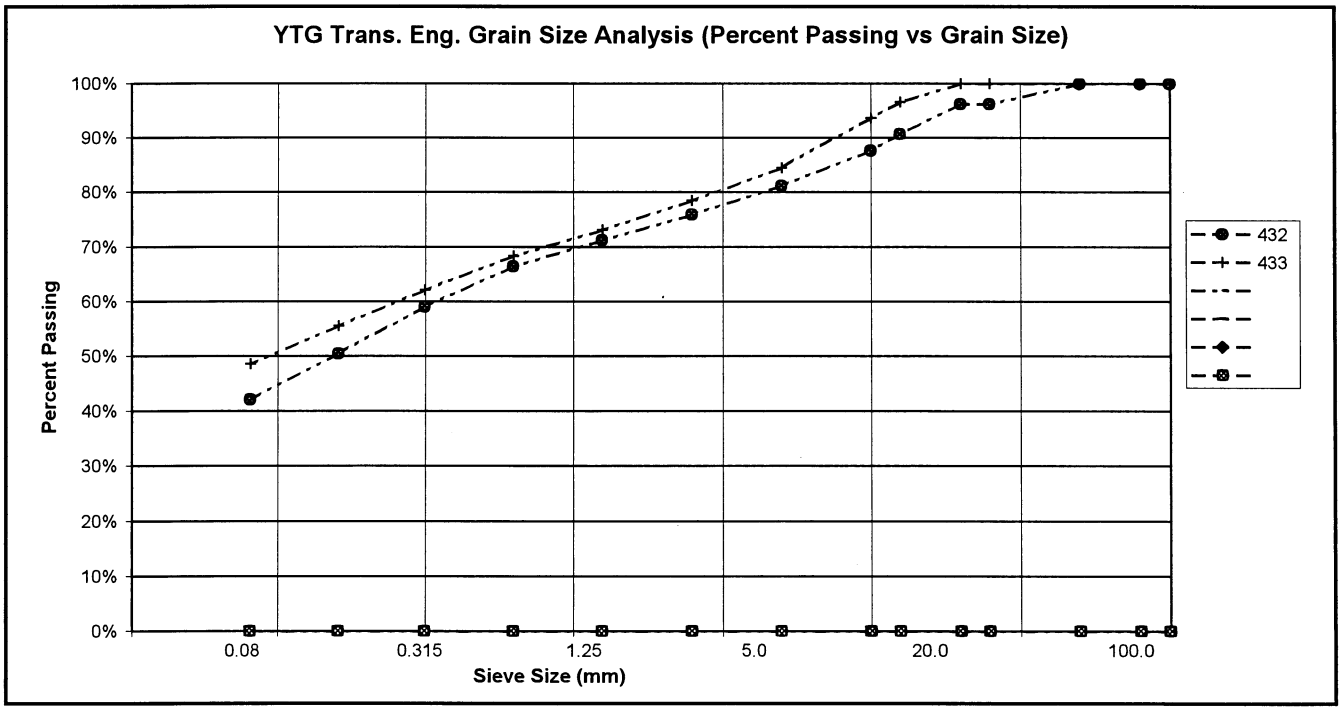
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-263
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+099 21M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	431					
LAB NO:	1011					
DEPTH:	1.8-1.9					
TYPE:	AUGER	AUGER	AUGER	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	100%					
1.25	100%					
0.630	100%					
0.315	100%					
0.160	99%					
0.080	98%					
M.C.(%):	98%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	0					
% SAND:	2					
% FINES:	98					
CLASSIFICATION	SILT (ML)					



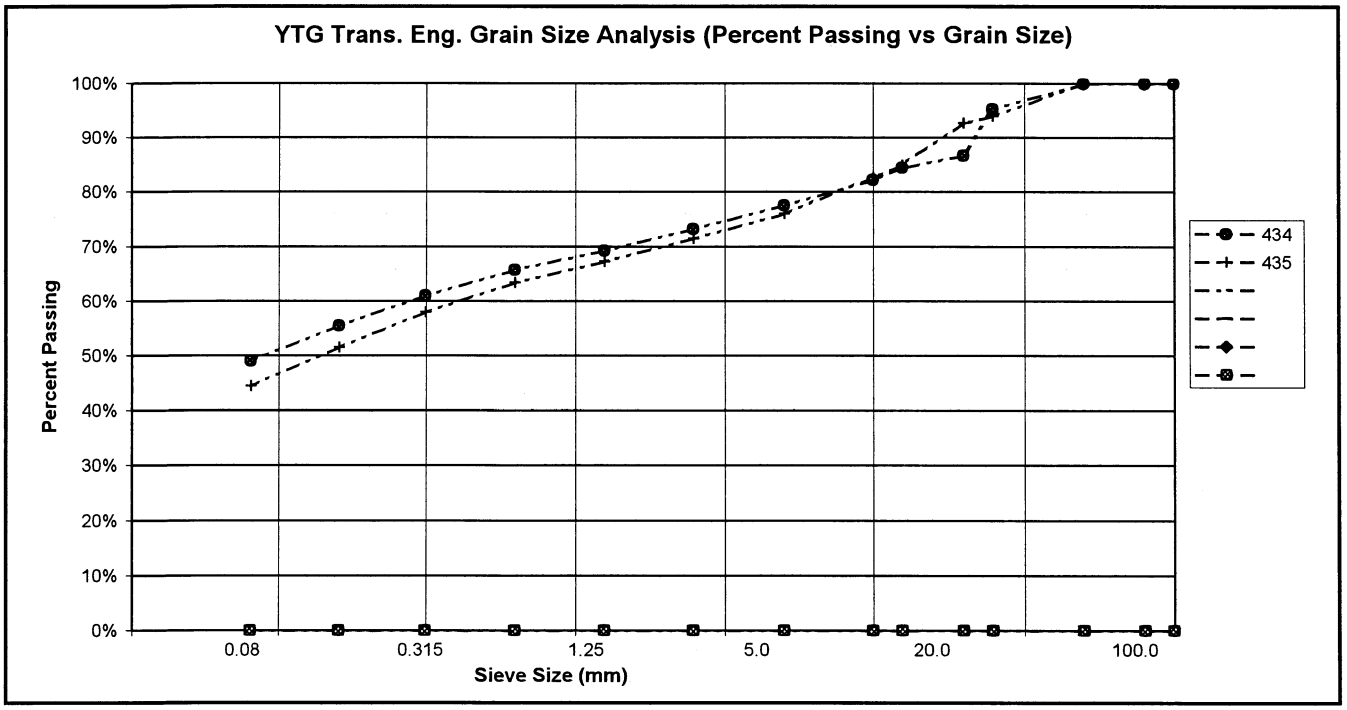
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-264
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+102 3M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	432	433				
LAB NO:	1012	1013				
DEPTH:	1.2-1.3	4.3-4.5				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	96%	100%				
20.0	96%	100%				
12.5	91%	97%				
10.0	88%	94%				
5.0	81%	85%				
2.5	76%	79%				
1.25	71%	73%				
0.630	66%	68%				
0.315	59%	62%				
0.160	50%	55%				
0.080	42%	49%				
M.C.(%):	15%	8%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	19	15				
% SAND:	39	36				
% FINES:	42	49				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



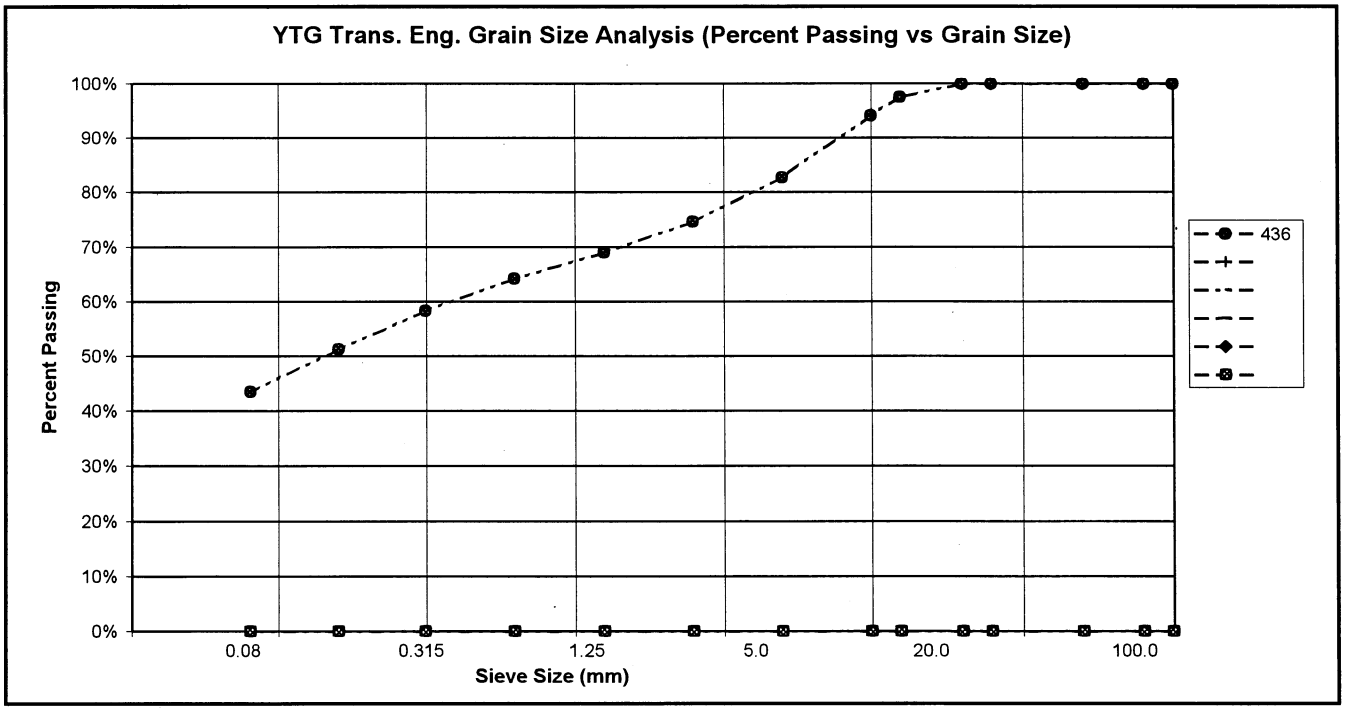
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 607-265
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1768-1788 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1785+111 15M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/20

FIELD NO:	434	435				
LAB NO:	1014	1015				
DEPTH:	1.2-1.3	2.7-2.8				
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	95%	94%				
20.0	87%	93%				
12.5	85%	85%				
10.0	82%	83%				
5.0	78%	76%				
2.5	73%	72%				
1.25	69%	67%				
0.630	66%	63%				
0.315	61%	58%				
0.160	56%	52%				
0.080	49%	45%				
M.C.(%):	12%	15%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	22	24				
% SAND:	28	32				
% FINES:	49	45				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				



PROJECT NUMBER:	092-202101-0361-1				HOLE No.: 608-266	
CLIENT:	ENGINEERING CAPITAL					
PROJECT NAME:	SHAKWAK SEG 11					
PROJECT LOCATION:	Km 1729.6-1787 A/H					
DRILL UNIT:	MOBILE B40 L					
HOLE LOCATION:	See GPS					
LOGGED BY:	B.B.				DATE COMP: 2001/07/23	

FIELD NO:	436					
LAB NO:	1016					
DEPTH:	4.2-4.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	98%					
10.0	94%					
5.0	83%					
2.5	75%					
1.25	69%					
0.630	64%					
0.315	58%					
0.160	51%					
0.080	44%					
M.C.(%):	54%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	17					
% SAND:	39					
% FINES:	44					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					

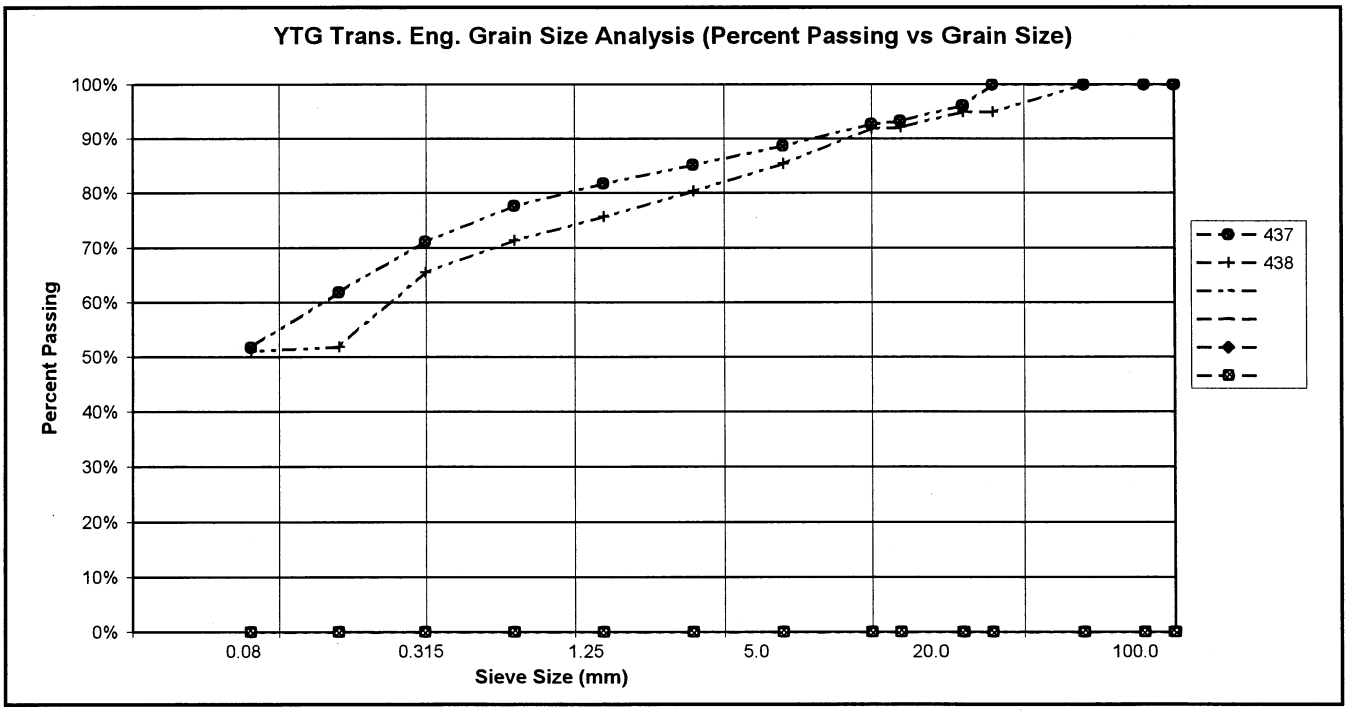


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See GPS
LOGGED BY: B.B.

HOLE No.: 608-267

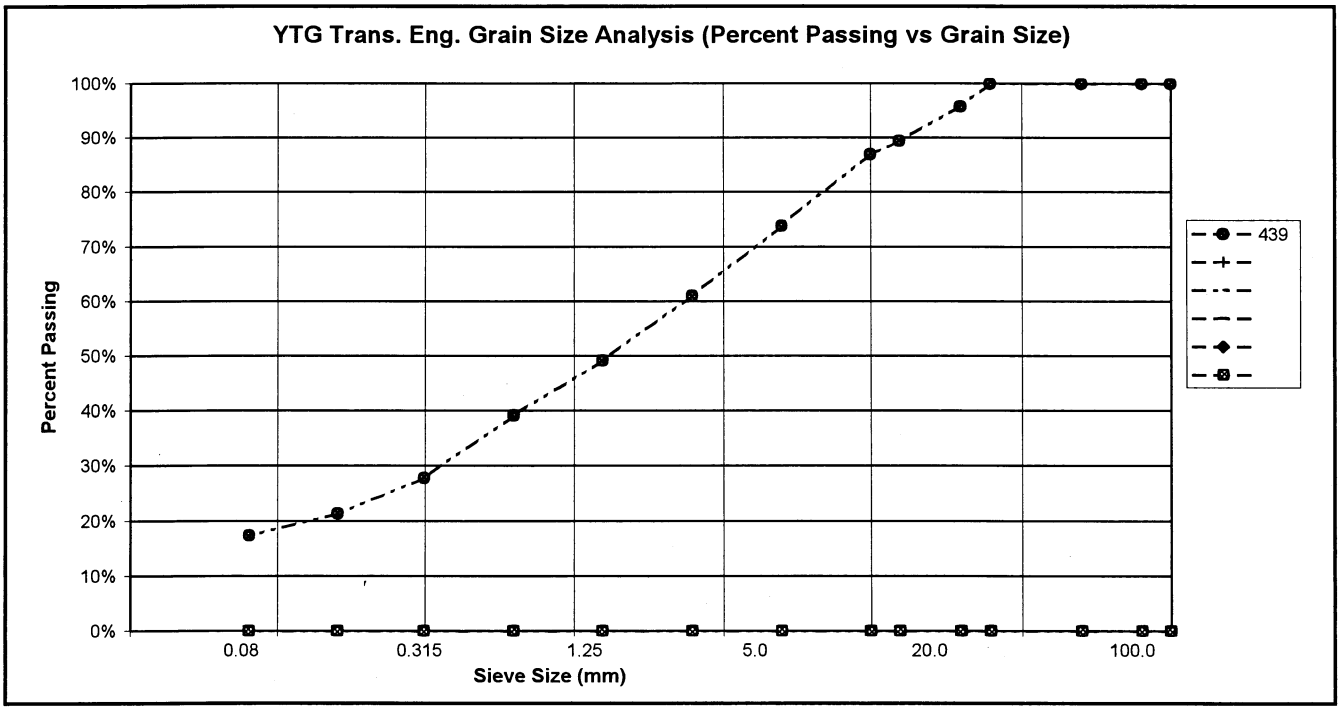
DATE COMP: 2001/07/23

FIELD NO:	437	438				
LAB NO:	1017	1018				
DEPTH:	1.3-1.4	4.2-4.3				
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%	95%				
20.0	96%	95%				
12.5	93%	92%				
10.0	93%	92%				
5.0	89%	85%				
2.5	85%	80%				
1.25	82%	76%				
0.630	78%	71%				
0.315	71%	66%				
0.160	62%	52%				
0.080	52%	51%				
M.C.(%):	23%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	11	15				
% SAND:	37	34				
% FINES:	52	51				
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)				



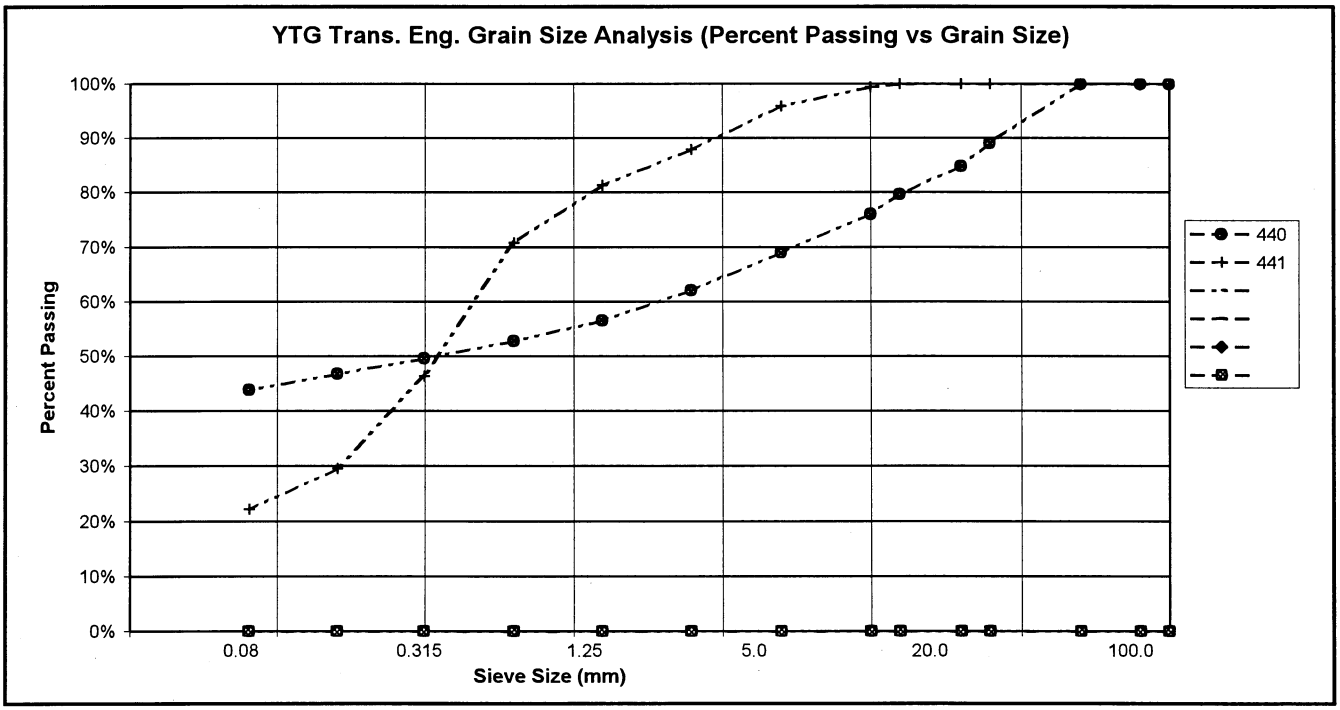
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-268
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See GPS		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	439					
LAB NO:	1019					
DEPTH:	2.7-2.8					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	96%					
12.5	89%					
10.0	87%					
5.0	74%					
2.5	61%					
1.25	49%					
0.630	39%					
0.315	28%					
0.160	21%					
0.080	17%					
M.C.(%):	8%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	26					
% SAND:	56					
% FINES:	17					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



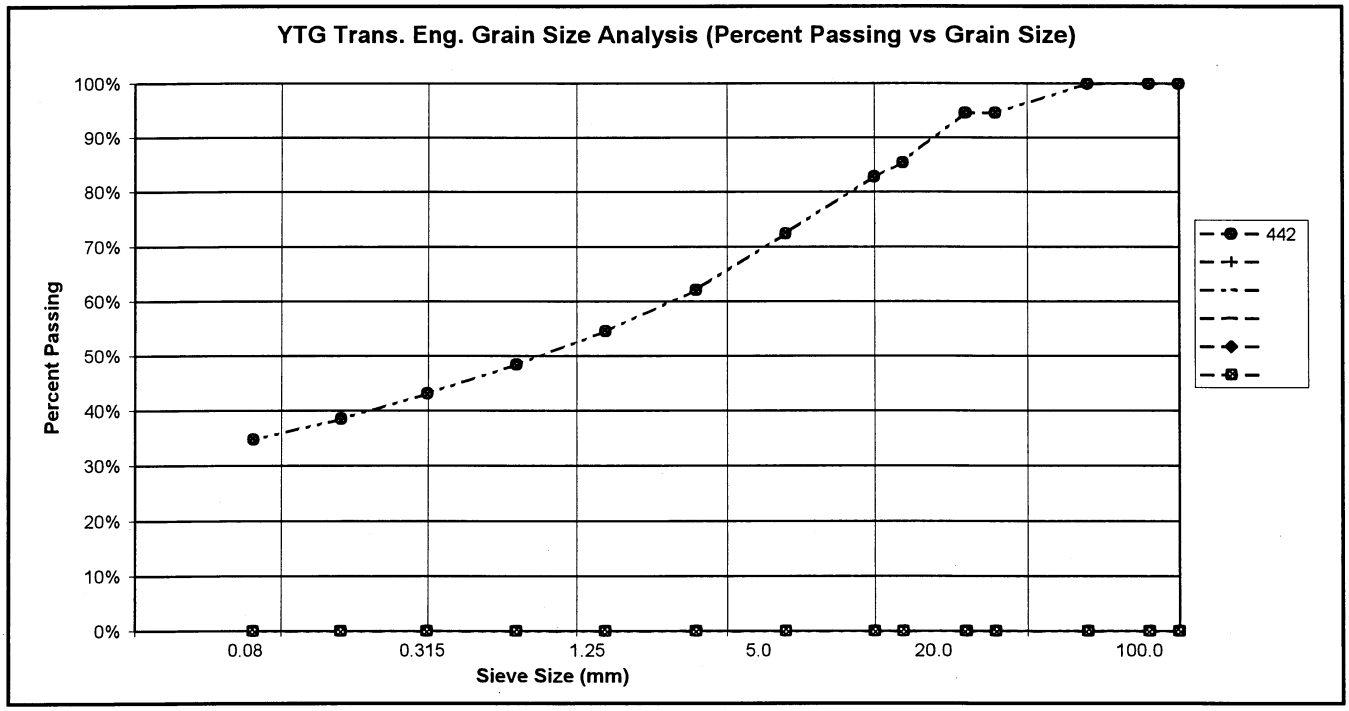
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-269
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See GPS		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	440	441				
LAB NO:	1020	1021				
DEPTH:	1.2-1.3	2.6-2.7				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	89%	100%				
20.0	85%	100%				
12.5	80%	100%				
10.0	76%	99%				
5.0	69%	96%				
2.5	62%	88%				
1.25	57%	81%				
0.630	53%	71%				
0.315	50%	46%				
0.160	47%	30%				
0.080	44%	22%				
M.C.(%):	24%	19%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	31	4				
% SAND:	25	74				
% FINES:	44	22				
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	SILTY SAND (SM)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-270
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	See GPS		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	442					
LAB NO:	1022					
DEPTH:	1.9-2.0					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	95%					
20.0	95%					
12.5	85%					
10.0	83%					
5.0	72%					
2.5	62%					
1.25	55%					
0.630	48%					
0.315	43%					
0.160	39%					
0.080	35%					
M.C.(%):	19%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	28					
% SAND:	38					
% FINES:	35					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					

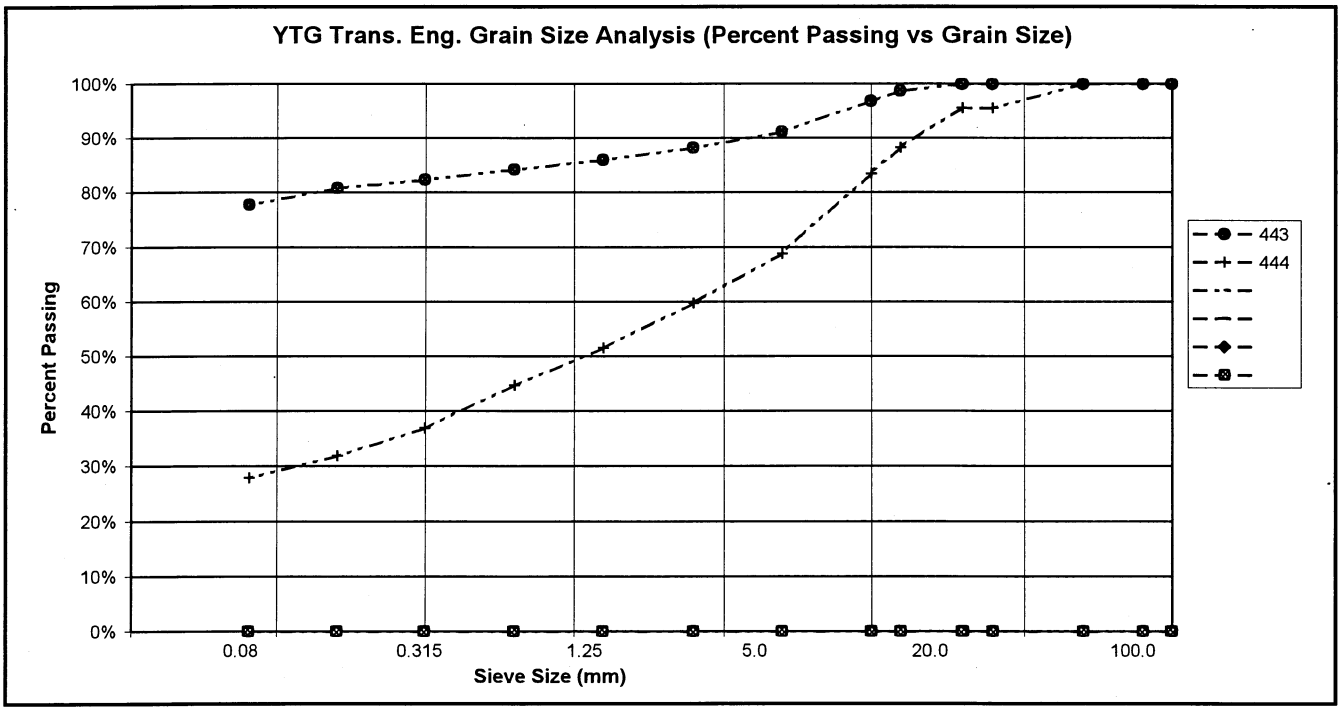


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: See GPS
LOGGED BY: B.B.

HOLE No.: 608-271

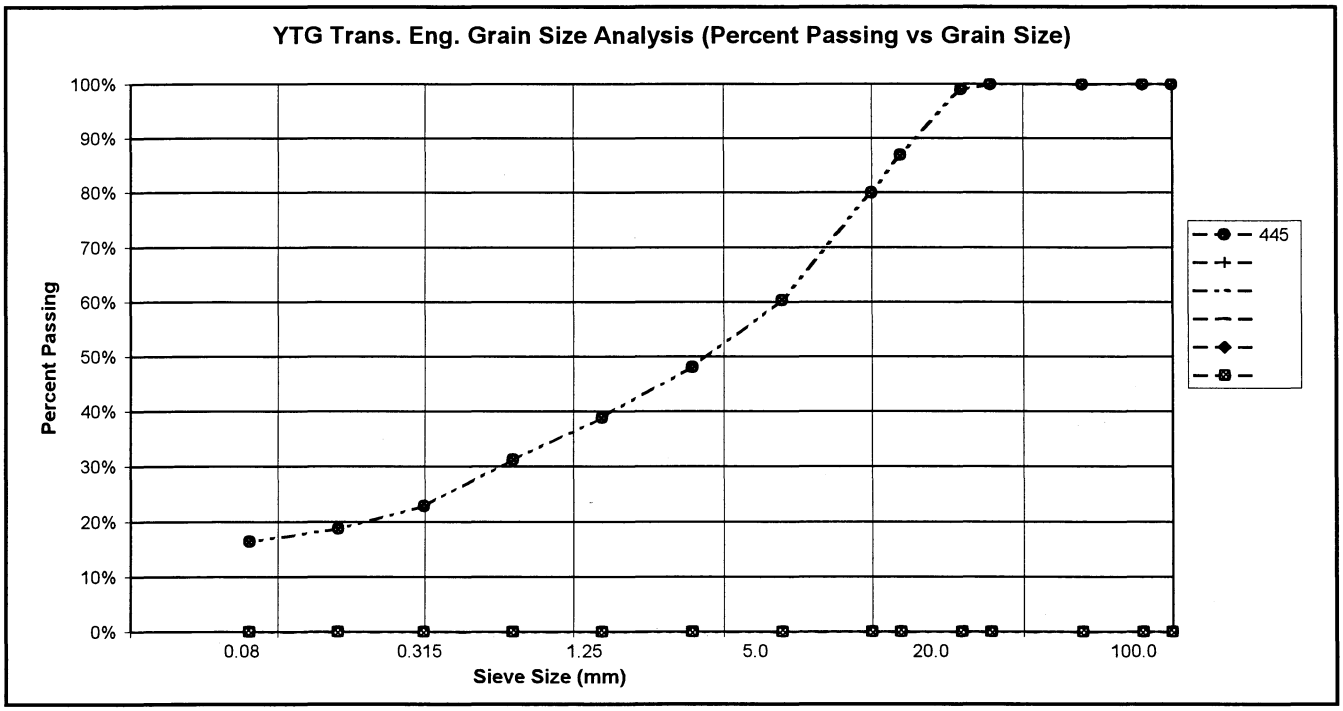
DATE COMP: 2001/07/23

FIELD NO:	443	444				
LAB NO:	1023	1024				
DEPTH:	1.4-1.5	2.8-2.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	95%				
20.0	100%	95%				
12.5	99%	88%				
10.0	97%	83%				
5.0	91%	69%				
2.5	88%	60%				
1.25	86%	52%				
0.630	84%	45%				
0.315	82%	37%				
0.160	81%	32%				
0.080	78%	28%				
M.C.(%):	33%	14%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	9	31				
% SAND:	13	41				
% FINES:	78	28				
CLASSIFICATION	SILT WITH SAND (ML)	SILTY SAND WITH GRAVEL (SM)				



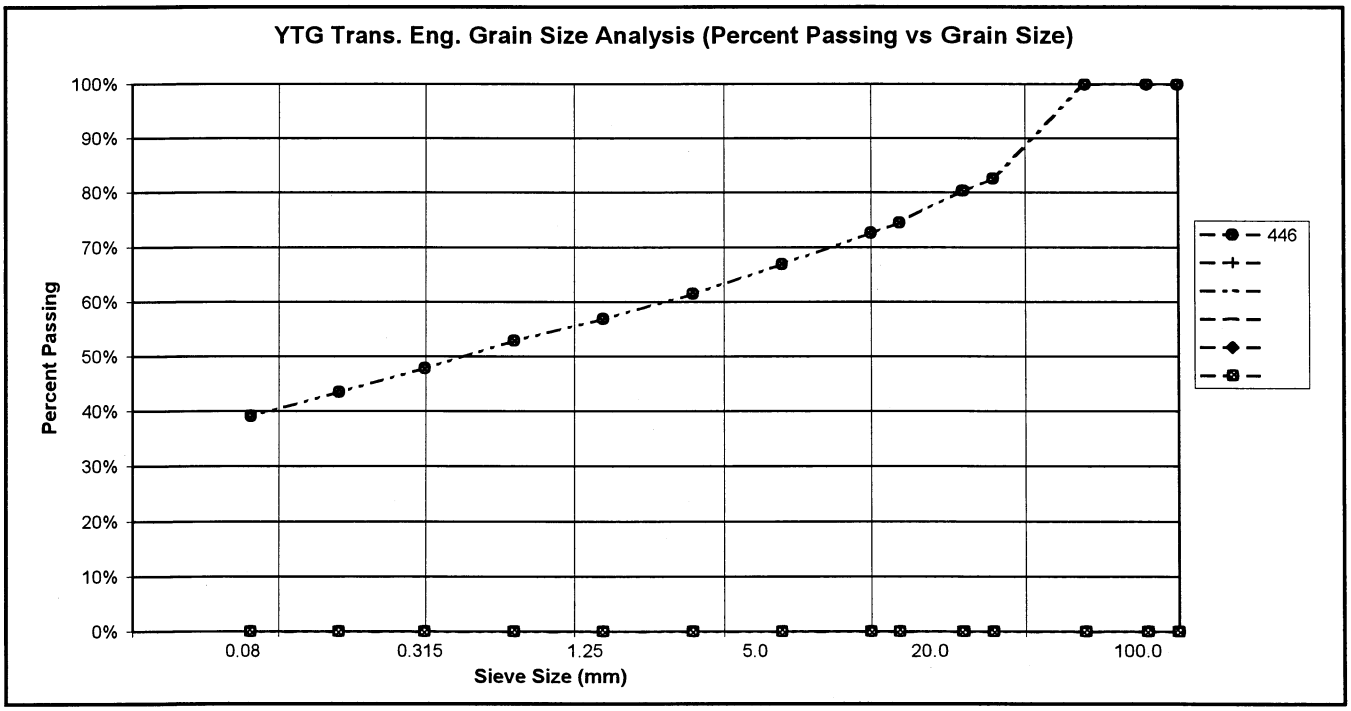
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-272
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1784+490		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	445					
LAB NO:	1025					
DEPTH:	4.2-4.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	99%					
12.5	87%					
10.0	80%					
5.0	60%					
2.5	48%					
1.25	39%					
0.630	31%					
0.315	23%					
0.160	19%					
0.080	16%					
M.C.(%):	21%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	40					
% SAND:	44					
% FINES:	16					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



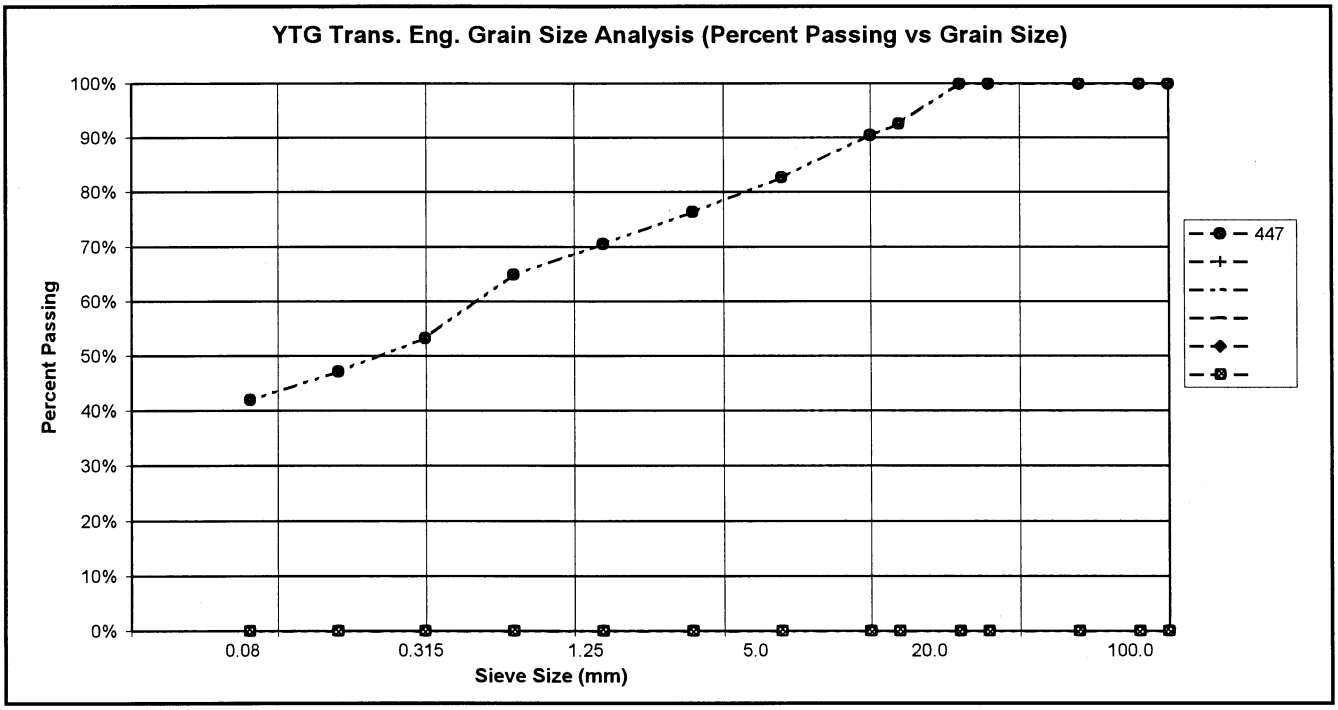
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-273
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1784+490 20M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	446					
LAB NO:	1026					
DEPTH:	2.7-2.9					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	83%					
20.0	80%					
12.5	75%					
10.0	73%					
5.0	67%					
2.5	62%					
1.25	57%					
0.630	53%					
0.315	48%					
0.160	44%					
0.080	39%					
M.C.(%):	17%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	33					
% SAND:	28					
% FINES:	39					
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)					



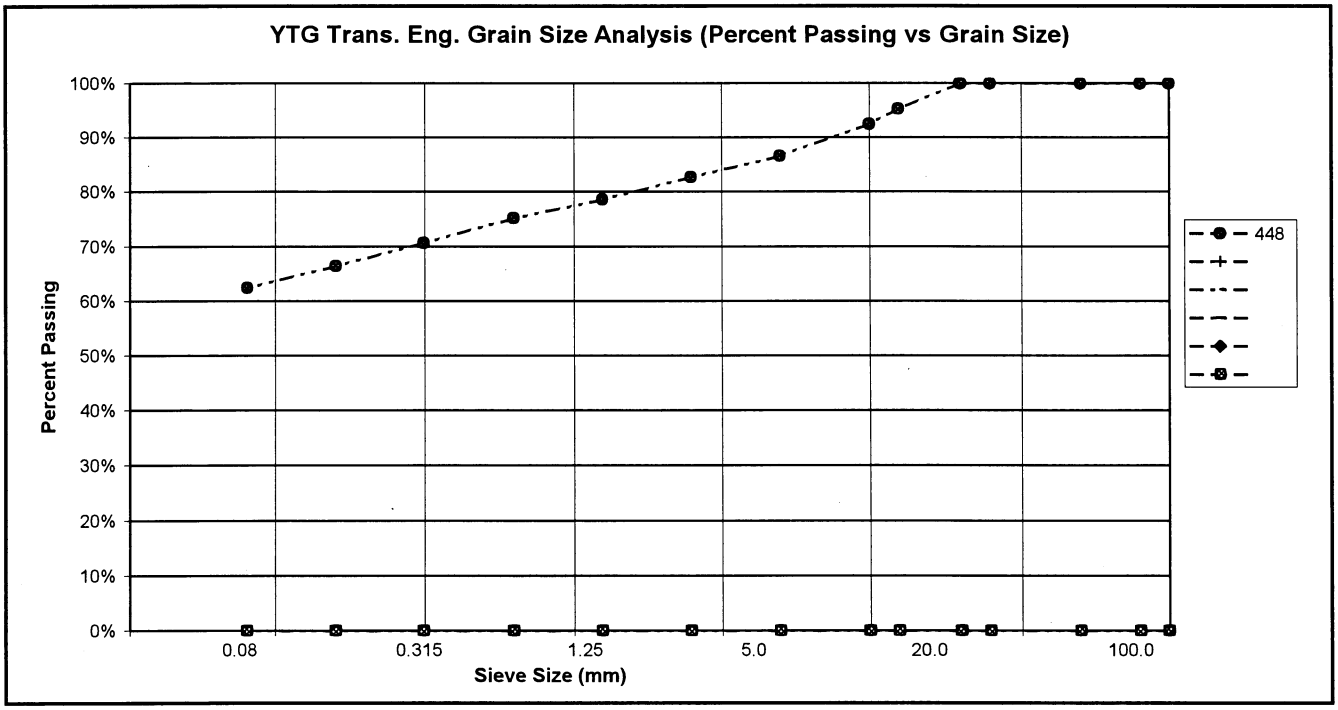
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-274
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1784+400 1M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	447					
LAB NO:	1027					
DEPTH:	4.3-4.4					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	93%					
10.0	90%					
5.0	83%					
2.5	76%					
1.25	70%					
0.630	65%					
0.315	53%					
0.160	47%					
0.080	42%					
M.C.(%):	41%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	17					
% SAND:	41					
% FINES:	42					
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)					



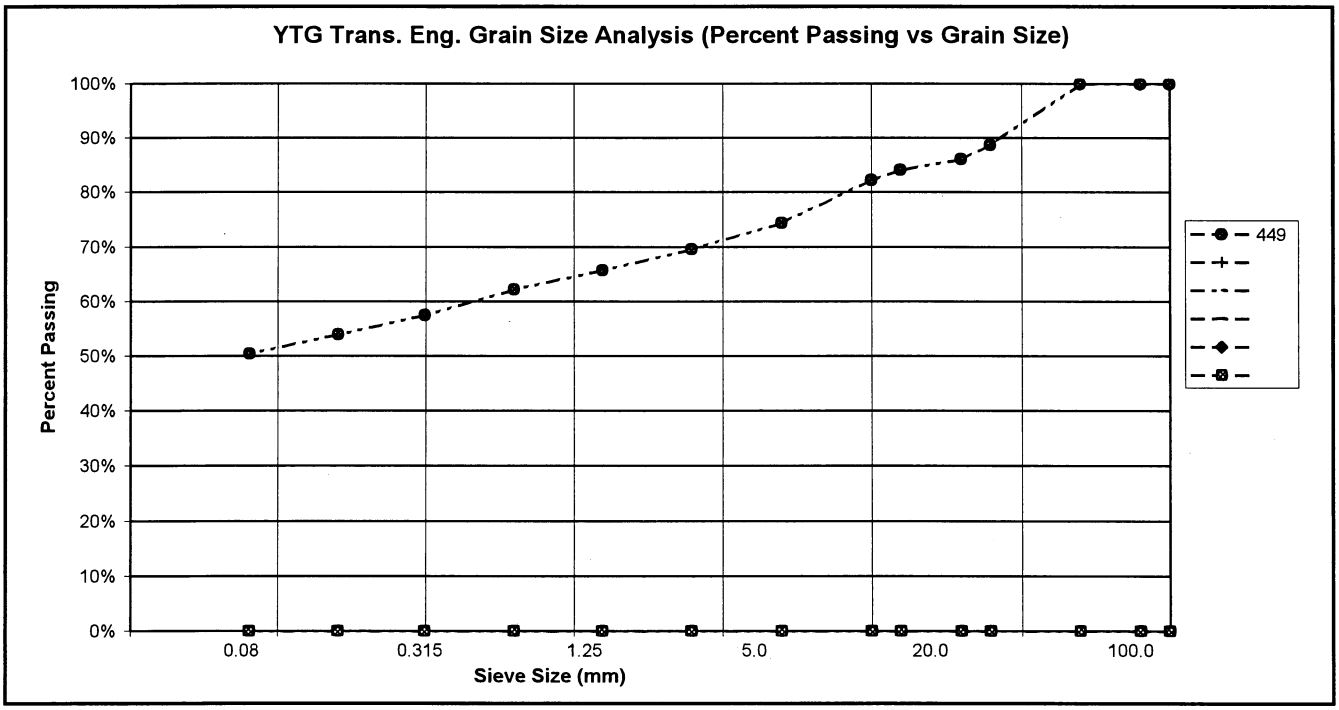
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-276
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1784+200 8M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	448					
LAB NO:	1028					
DEPTH:	3.2-3.3					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	100%					
20.0	100%					
12.5	95%					
10.0	92%					
5.0	87%					
2.5	83%					
1.25	79%					
0.630	75%					
0.315	71%					
0.160	66%					
0.080	62%					
M.C.(%):	49%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	13					
% SAND:	24					
% FINES:	62					
CLASSIFICATION	SANDY SILT (ML)					



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-277
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1784+125 7M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	449					
LAB NO:	1029					
DEPTH:	3.0-3.2					
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**					
100.0	100%					
80.0	100%					
50.0	100%					
25.0	89%					
20.0	86%					
12.5	84%					
10.0	82%					
5.0	74%					
2.5	70%					
1.25	66%					
0.630	62%					
0.315	57%					
0.160	54%					
0.080	50%					
M.C.(%):	40%					
LIQUID LIMIT:	0.0					
PLASTIC LIMIT:	0.0					
PLASTIC INDEX.:	0.0					
% GRAVEL:	26					
% SAND:	24					
% FINES:	50					
CLASSIFICATION	GRAVELLY SILT WITH SAND (ML)					

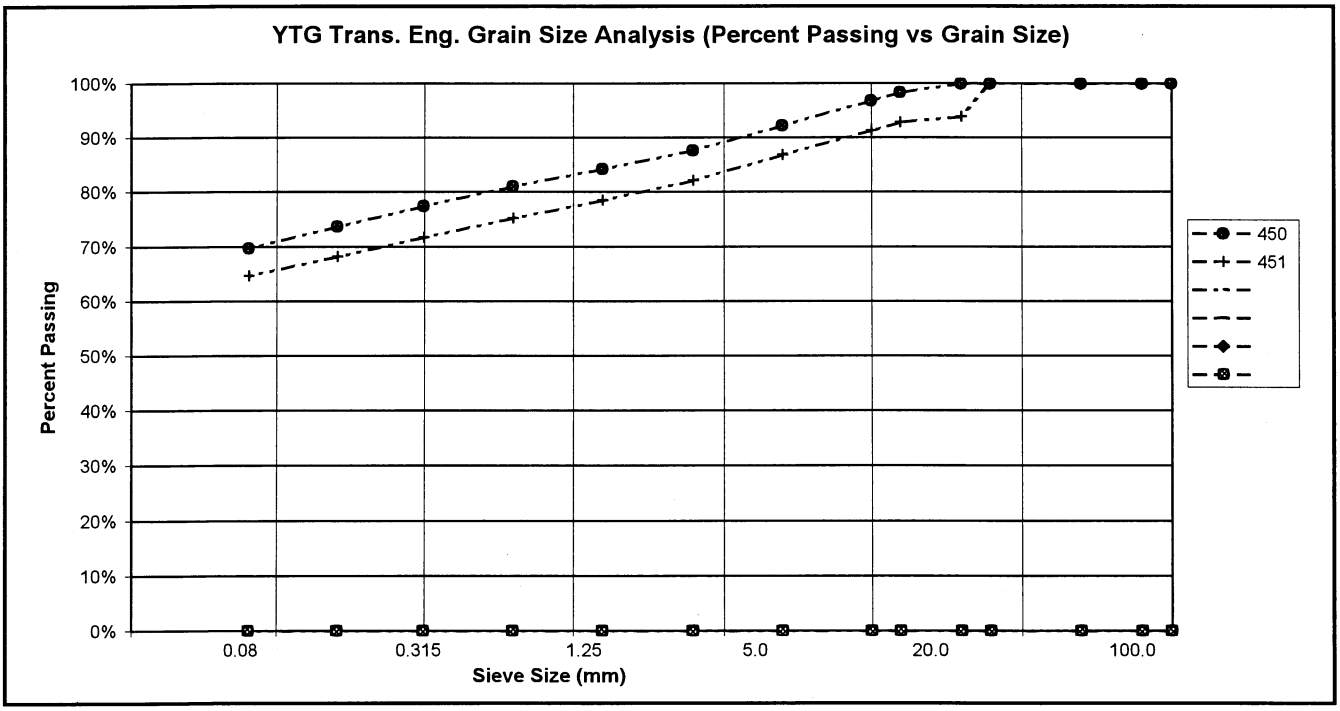


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1784+075
LOGGED BY: B.B.

HOLE No.: 608-278

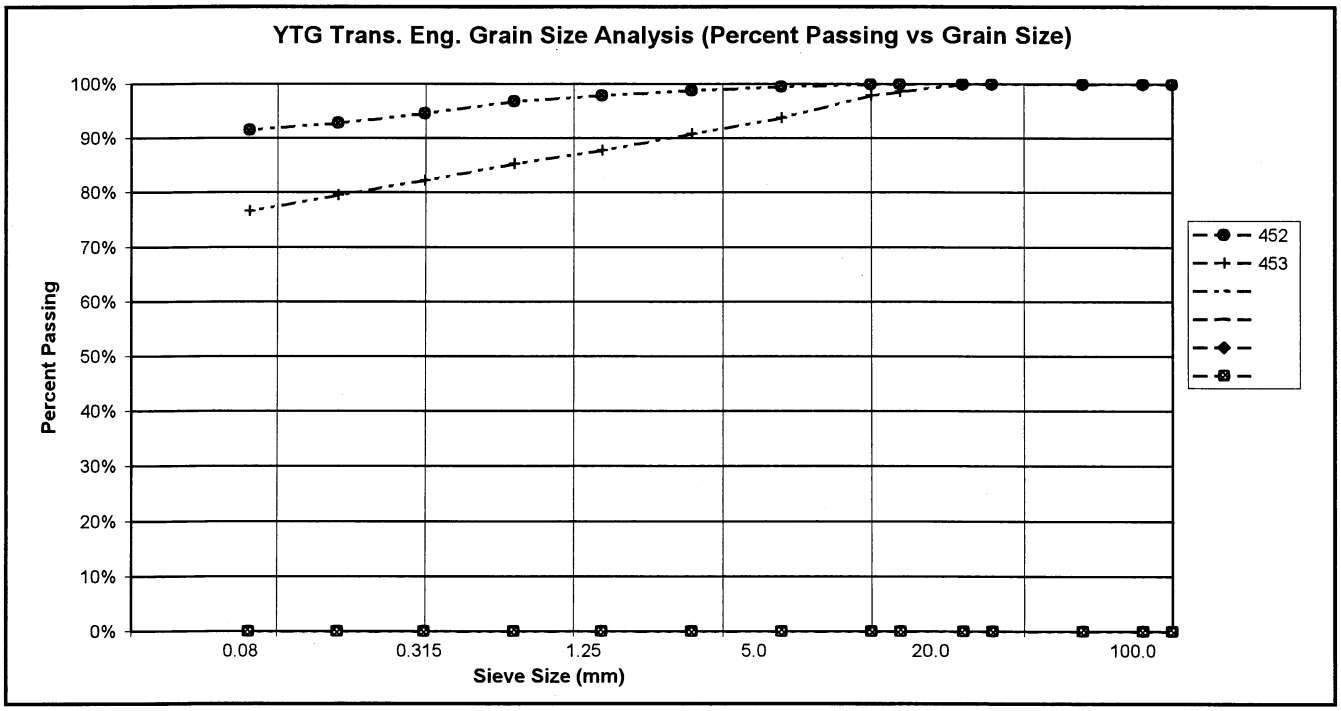
DATE COMP: 2001/07/23

FIELD NO:	450	451				
LAB NO:	1030	1031				
DEPTH:	1.9-2.0	5.6-5.8				
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%	100%				
20.0	100%	94%				
12.5	98%	93%				
10.0	97%	91%				
5.0	92%	87%				
2.5	88%	82%				
1.25	84%	79%				
0.630	81%	75%				
0.315	77%	72%				
0.160	74%	68%				
0.080	70%	65%				
M.C.(%):	35%	39%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	8	13				
% SAND:	23	22				
% FINES:	70	65				
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)				



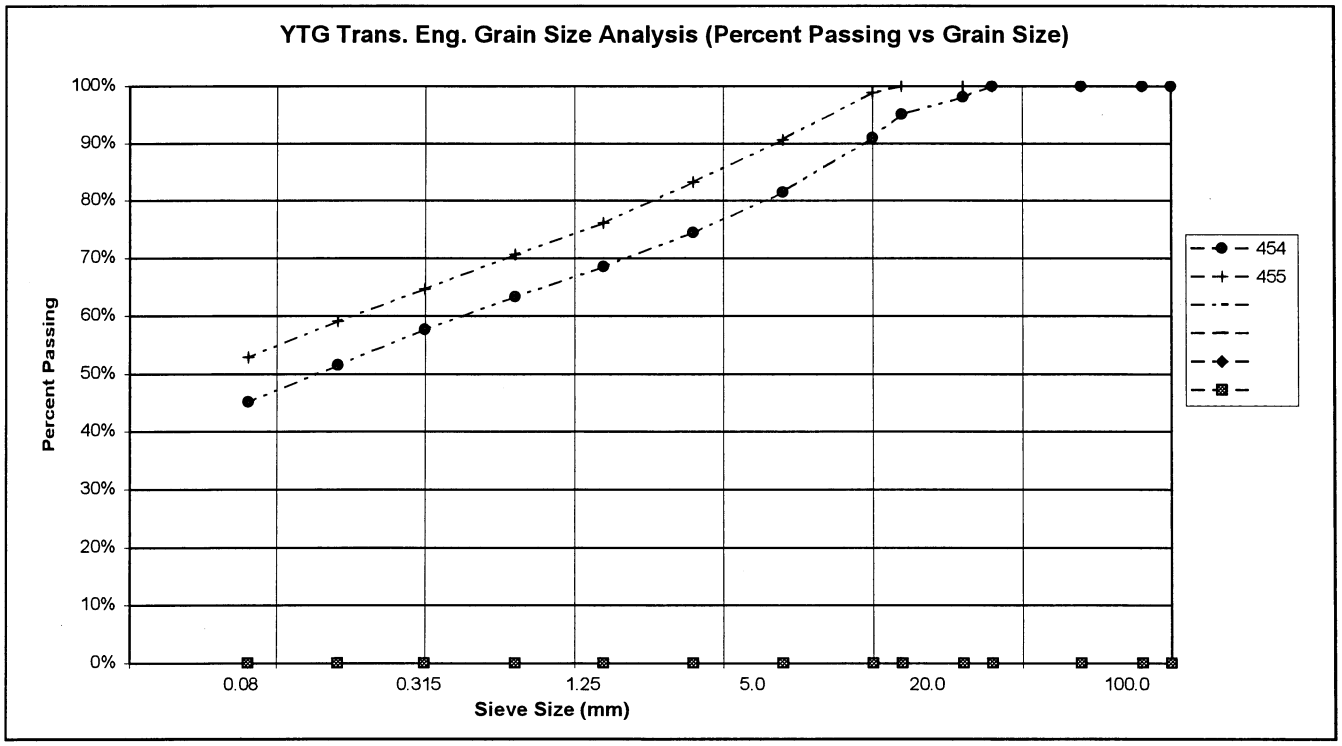
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-279
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+987 20M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/23

FIELD NO:	452	453				
LAB NO:	1032	1033				
DEPTH:	1.3-1.4	5.7-5.8				
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%	100%				
20.0	100%	100%				
12.5	100%	99%				
10.0	100%	98%				
5.0	100%	94%				
2.5	99%	91%				
1.25	98%	88%				
0.630	97%	85%				
0.315	95%	82%				
0.160	93%	80%				
0.080	92%	77%				
M.C.(%):	23%	17%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	0	6				
% SAND:	8	17				
% FINES:	92	77				
CLASSIFICATION	SILT (ML)	SILT WITH SAND (ML)				



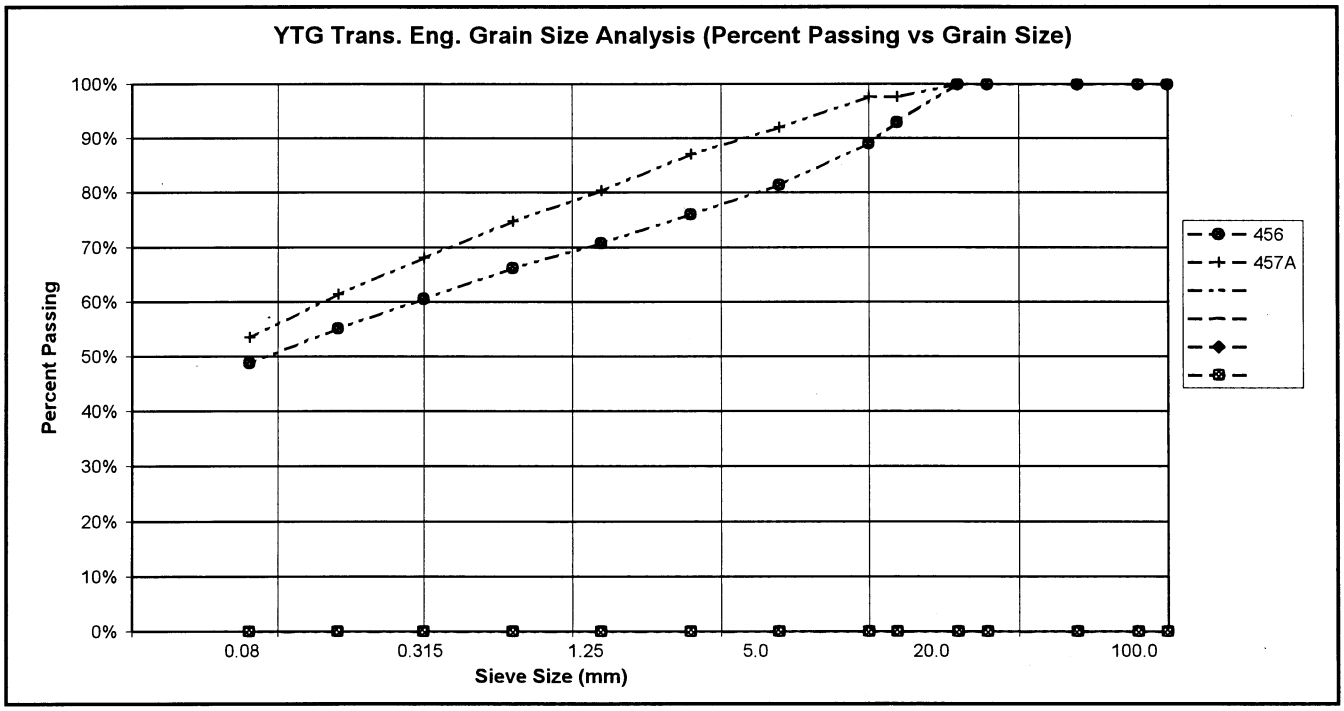
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-280
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+923 3MRT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/24

FIELD NO:	454	455				
LAB NO:	1034	1035				
DEPTH:	1.3-1.4	5.8-5.9				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	100%				
20.0	98%	100%				
12.5	95%	100%				
10.0	91%	99%				
5.0	81%	91%				
2.5	74%	83%				
1.25	69%	76%				
0.630	63%	71%				
0.315	58%	65%				
0.160	52%	59%				
0.080	45%	53%				
M.C.(%):	19%	12%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	19	9				
% SAND:	36	38				
% FINES:	45	53				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)				



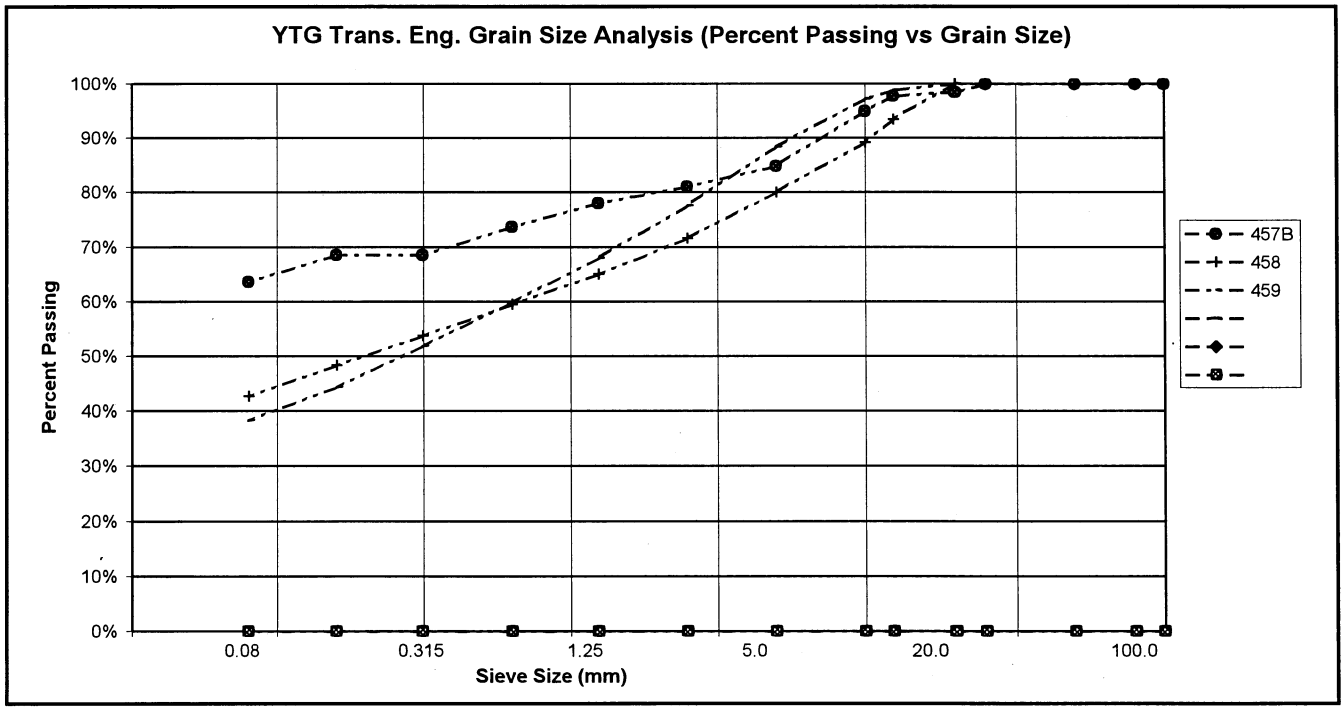
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-281
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+830 1M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/24

FIELD NO:	456	457A				
LAB NO:	1036	1037				
DEPTH:	1.2-1.3	5.7-5.8				
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%	100%				
20.0	100%	100%				
12.5	93%	98%				
10.0	89%	98%				
5.0	81%	92%				
2.5	76%	87%				
1.25	71%	80%				
0.630	66%	75%				
0.315	61%	68%				
0.160	55%	61%				
0.080	49%	54%				
M.C.(%):	13%	9%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	19	8				
% SAND:	33	38				
% FINES:	49	54				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SANDY SILT (ML)				



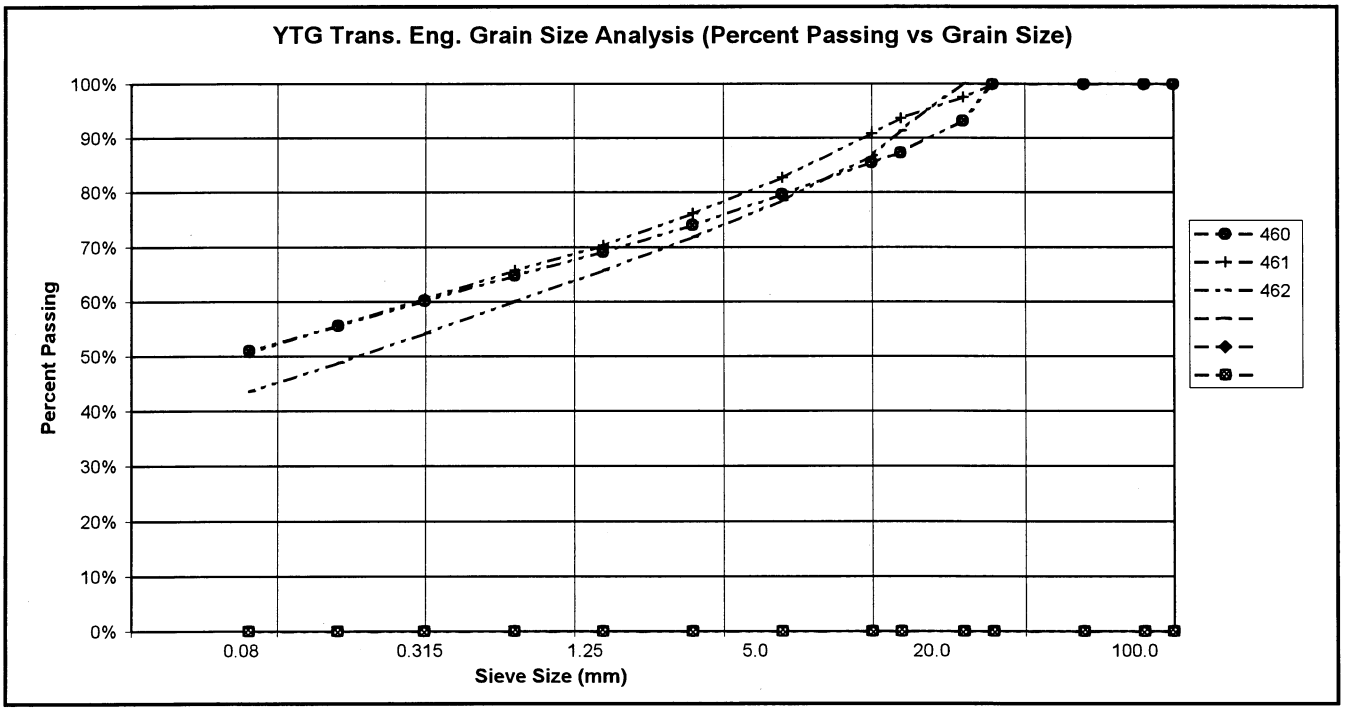
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-282
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+830 22RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/25

FIELD NO:	457B	458	459			
LAB NO:	1038	1039	1040			
DEPTH:	1.2-1.3	3.7-3.8	5.7-5.9			
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	98%	100%	100%			
12.5	98%	93%	99%			
10.0	95%	89%	97%			
5.0	85%	80%	88%			
2.5	81%	72%	78%			
1.25	78%	65%	68%			
0.630	74%	59%	60%			
0.315	69%	54%	52%			
0.160	69%	48%	44%			
0.080	64%	43%	38%			
M.C.(%):	16%	15%	15%			
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:	15	20	12			
% SAND:	21	37	50			
% FINES:	64	43	38			
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SILTY SAND WITH GRAVEL (SM)	SILTY SAND (SM)			



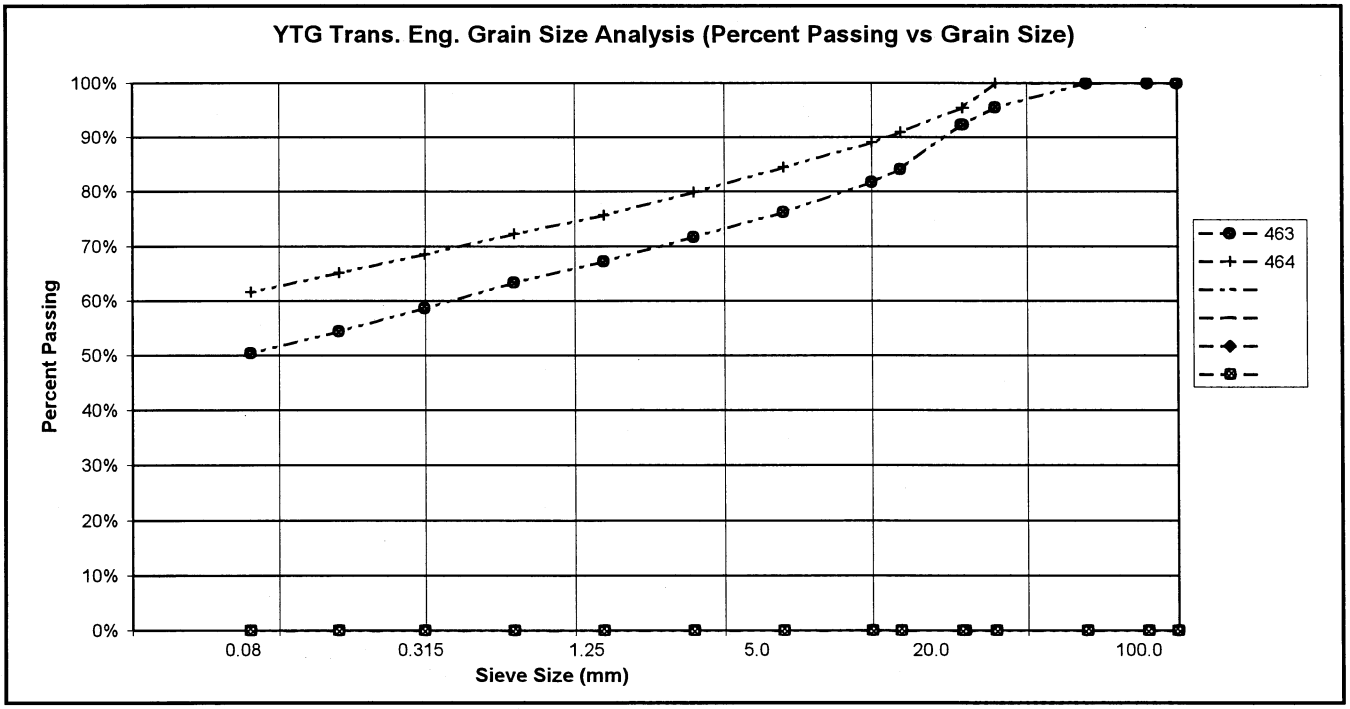
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-283
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+830 19M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/25

FIELD NO:	460	461	462			
LAB NO:	1041	1042	1043			
DEPTH:	1.2-1.3	2.7-2.8	5.7-5.9			
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	93%	98%	100%			
12.5	87%	94%	91%			
10.0	86%	91%	87%			
5.0	80%	83%	79%			
2.5	74%	76%	72%			
1.25	69%	70%	66%			
0.630	65%	66%	60%			
0.315	60%	61%	54%			
0.160	56%	56%	49%			
0.080	51%	51%	44%			
M.C.(%):	13%	13%	10%			
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:	20	17	21			
% SAND:	29	32	35			
% FINES:	51	51	44			
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SANDY SILT WITH GRAVEL (ML)	SILTY SAND WITH GRAVEL (SM)			



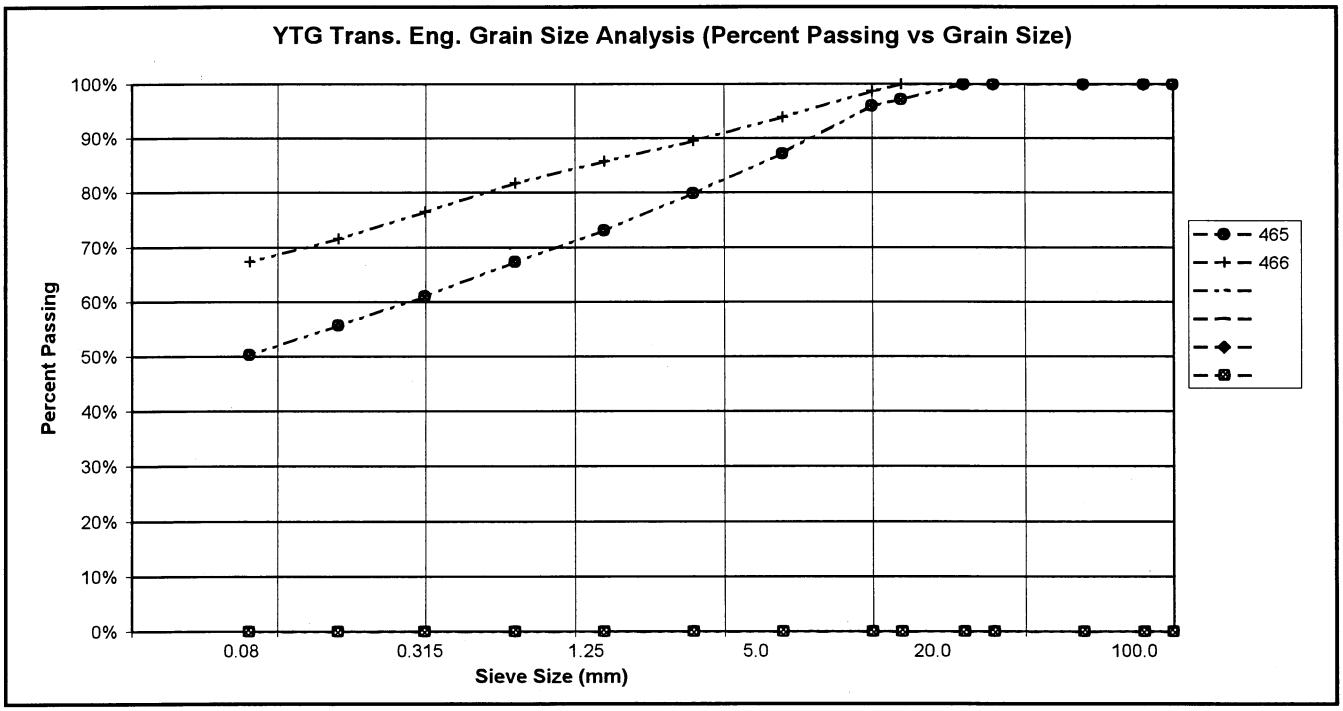
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-284
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+743		
LOGGED BY:	B.B.		DATE COMP: 2001/07/25

FIELD NO:	463	464				
LAB NO:	1044	1045				
DEPTH:	1.3-1.4	4.3-4.4				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	96%	100%				
20.0	92%	95%				
12.5	84%	91%				
10.0	82%	89%				
5.0	76%	85%				
2.5	72%	80%				
1.25	67%	76%				
0.630	63%	72%				
0.315	59%	69%				
0.160	55%	65%				
0.080	51%	62%				
M.C.(%):	24%	14%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	24	15				
% SAND:	26	23				
% FINES:	51	62				
CLASSIFICATION	SANDY SILT WITH GRAVEL (ML)	SANDY SILT WITH GRAVEL (ML)				



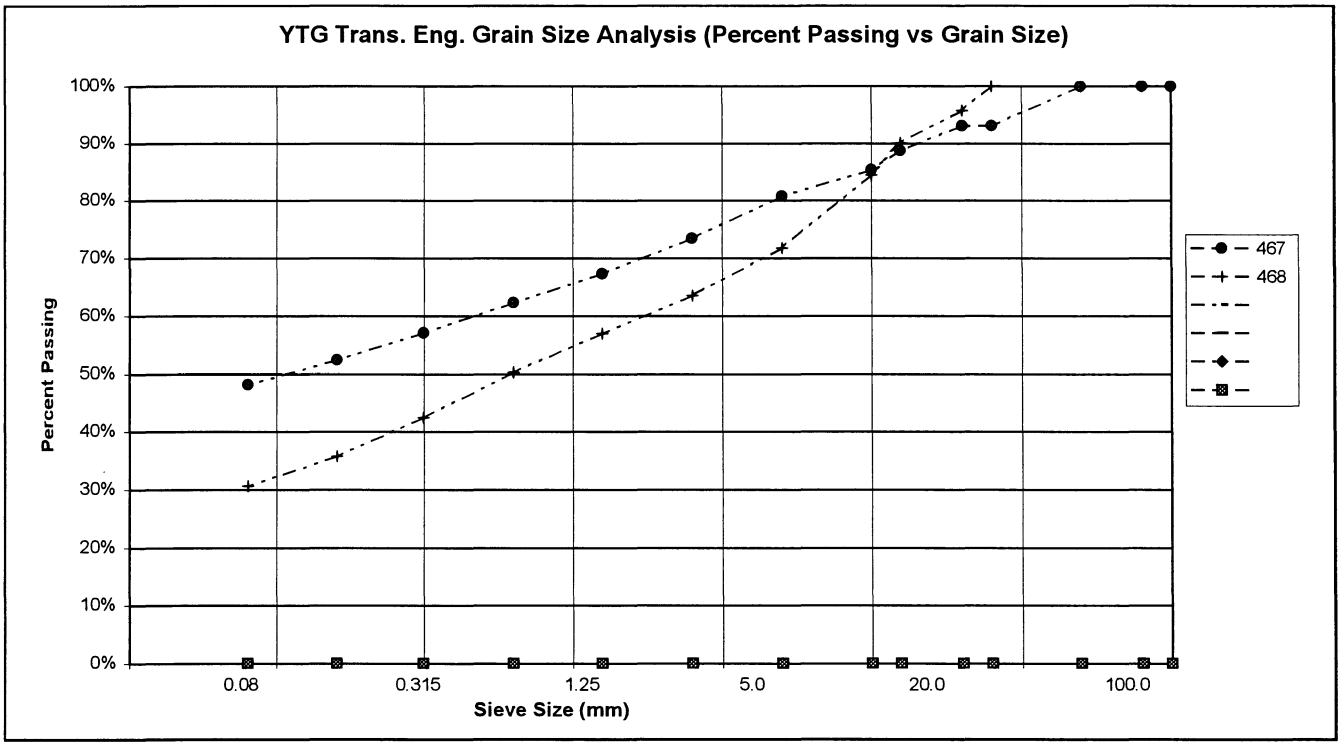
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-285
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+743 21M RT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/25

FIELD NO:	465	466				
LAB NO:	1046	1047				
DEPTH:	1.3-1.4	4.3-4.5				
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%	100%				
20.0	100%	100%				
12.5	97%	100%				
10.0	96%	99%				
5.0	87%	94%				
2.5	80%	90%				
1.25	73%	86%				
0.630	67%	82%				
0.315	61%	77%				
0.160	56%	72%				
0.080	50%	67%				
M.C.(%):	18%	17%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	13	6				
% SAND:	37	27				
% FINES:	50	67				
CLASSIFICATION	SANDY SILT (ML)	SANDY SILT (ML)				



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 608-286
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+745 20M LT		
LOGGED BY:	B.B.		DATE COMP: 2001/07/25

FIELD NO:	467	468				
LAB NO:	1048	1049				
DEPTH:	1.2-1.3	4.2-4.3				
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	93%	100%				
20.0	93%	96%				
12.5	89%	90%				
10.0	85%	84%				
5.0	81%	72%				
2.5	74%	63%				
1.25	67%	57%				
0.630	62%	50%				
0.315	57%	42%				
0.160	52%	36%				
0.080	48%	31%				
M.C.(%):	24%	10%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	19	28				
% SAND:	33	41				
% FINES:	48	31				
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	SILTY SAND WITH GRAVEL (SM)				

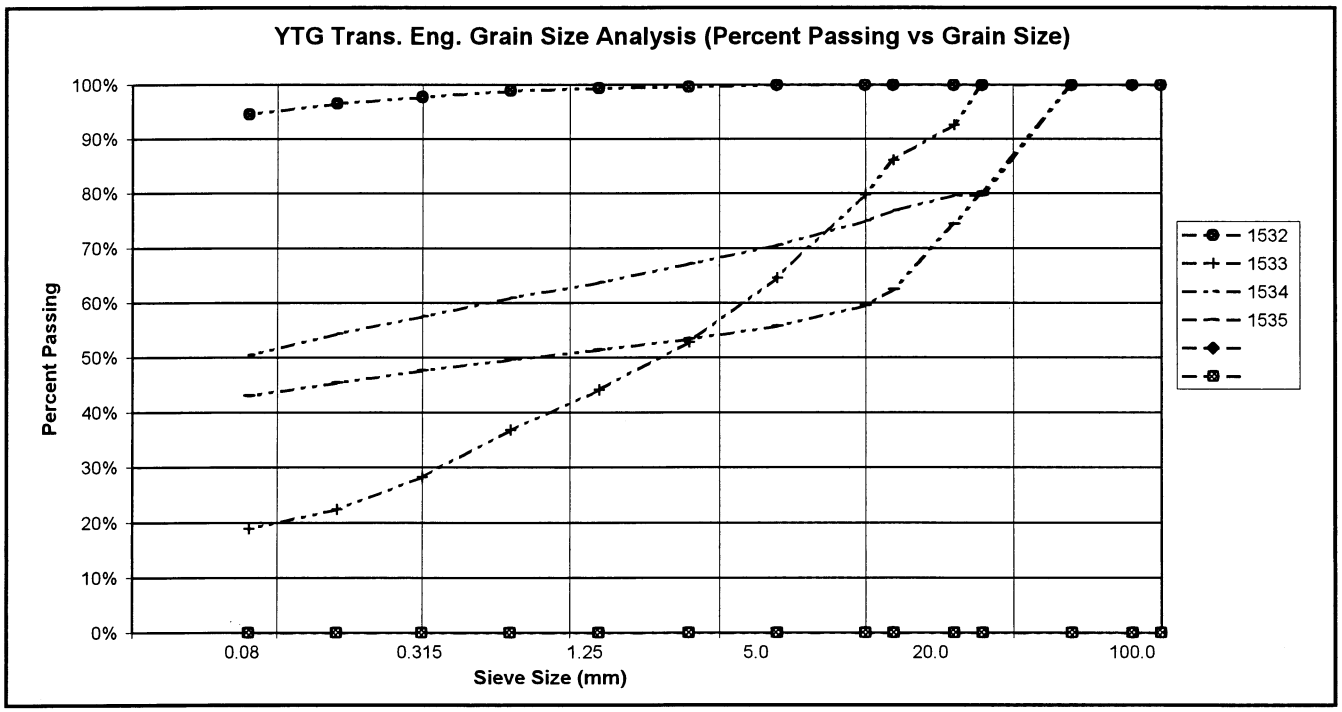


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1783+025 3M LT
LOGGED BY: G.C.

HOLE No.: 629-1687

DATE COMP: 2001/11/15

FIELD NO:	1532	1533	1534	1535		
LAB NO:	2421	2422	2423	2424		
DEPTH:	0.5-1.0	1.5-2.0	2.5-3.0	4.0-4.5		
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%	80%	80%		
20.0	100%	93%	80%	74%		
12.5	100%	86%	77%	62%		
10.0	100%	80%	75%	59%		
5.0	100%	65%	71%	56%		
2.5	100%	53%	67%	53%		
1.25	99%	44%	64%	51%		
0.630	99%	37%	61%	50%		
0.315	98%	28%	57%	48%		
0.160	97%	22%	54%	45%		
0.080	95%	19%	50%	43%		
M.C.(%):	31%	9%	16%	9%		
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:	0	35	29	44		
% SAND:	5	46	20	13		
% FINES:	95	19	50	43		
CLASSIFICATION	SILT (ML)	SILTY SAND WITH GRAVEL (SM)	GRAVELLY SILT WITH SAND (ML)	SILTY GRAVEL (GM)		

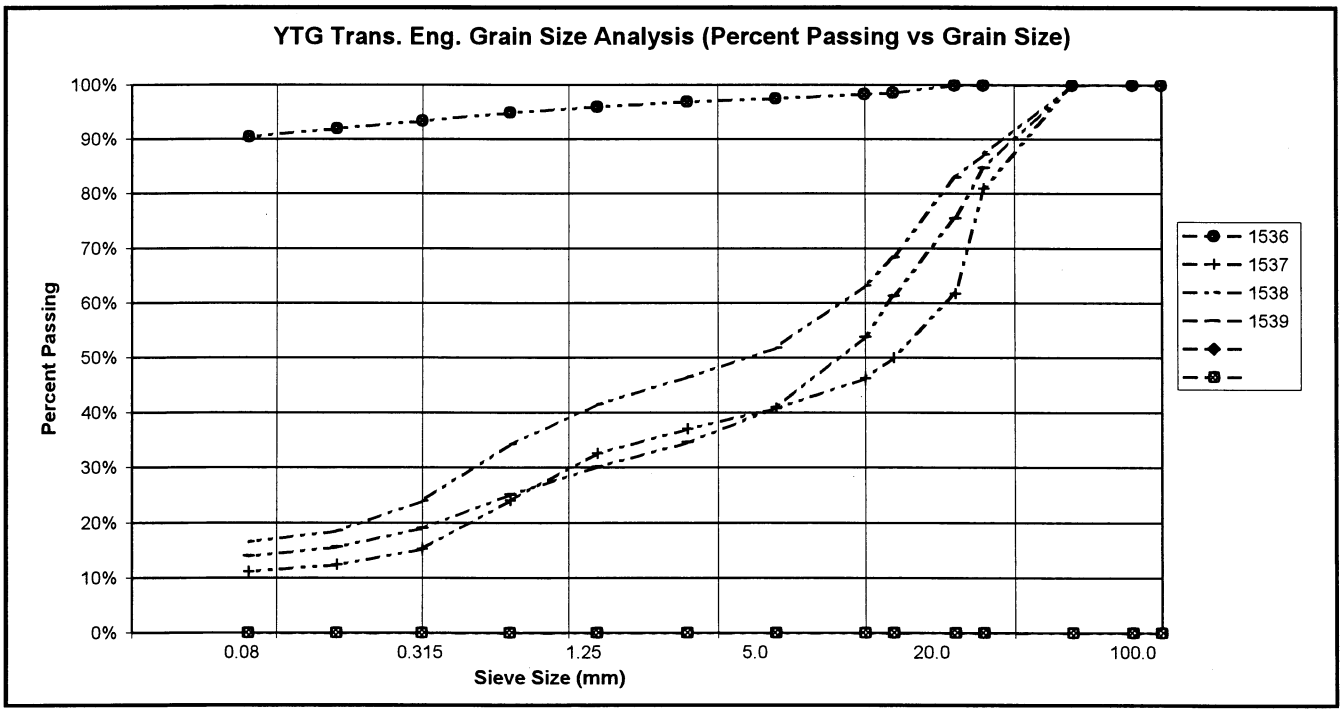


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1783+125 3M LT
LOGGED BY: G.C.

HOLE No.: 629-1688

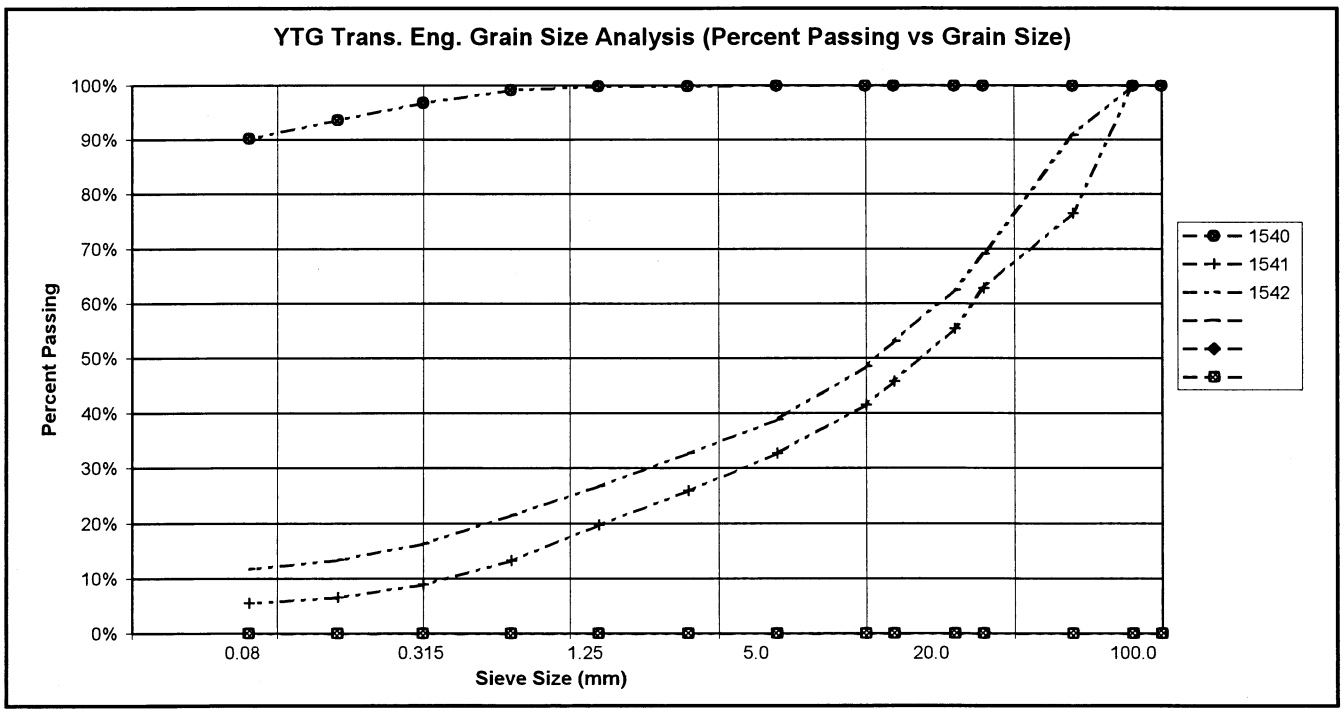
DATE COMP: 2001/11/15

FIELD NO:	1536	1537	1538	1539		
LAB NO:	2425	2426	2427	2428		
DEPTH:	0.5-1.0	1.5-2.0	2.5-3.0	4.0-4.5		
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%	81%	87%	85%		
20.0	100%	62%	83%	75%		
12.5	99%	50%	68%	61%		
10.0	98%	46%	63%	54%		
5.0	98%	41%	52%	41%		
2.5	97%	37%	46%	35%		
1.25	96%	33%	42%	30%		
0.630	95%	24%	34%	25%		
0.315	93%	15%	24%	19%		
0.160	92%	12%	19%	16%		
0.080	91%	11%	17%	14%		
M.C.(%):	20%	4%	5%	5%		
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:	2	59	48	59		
% SAND:	7	30	35	27		
% FINES:	91	11	17	14		
CLASSIFICATION	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILTY GRAVEL WITH SAND (GM)	SILTY GRAVEL WITH SAND (GM)		



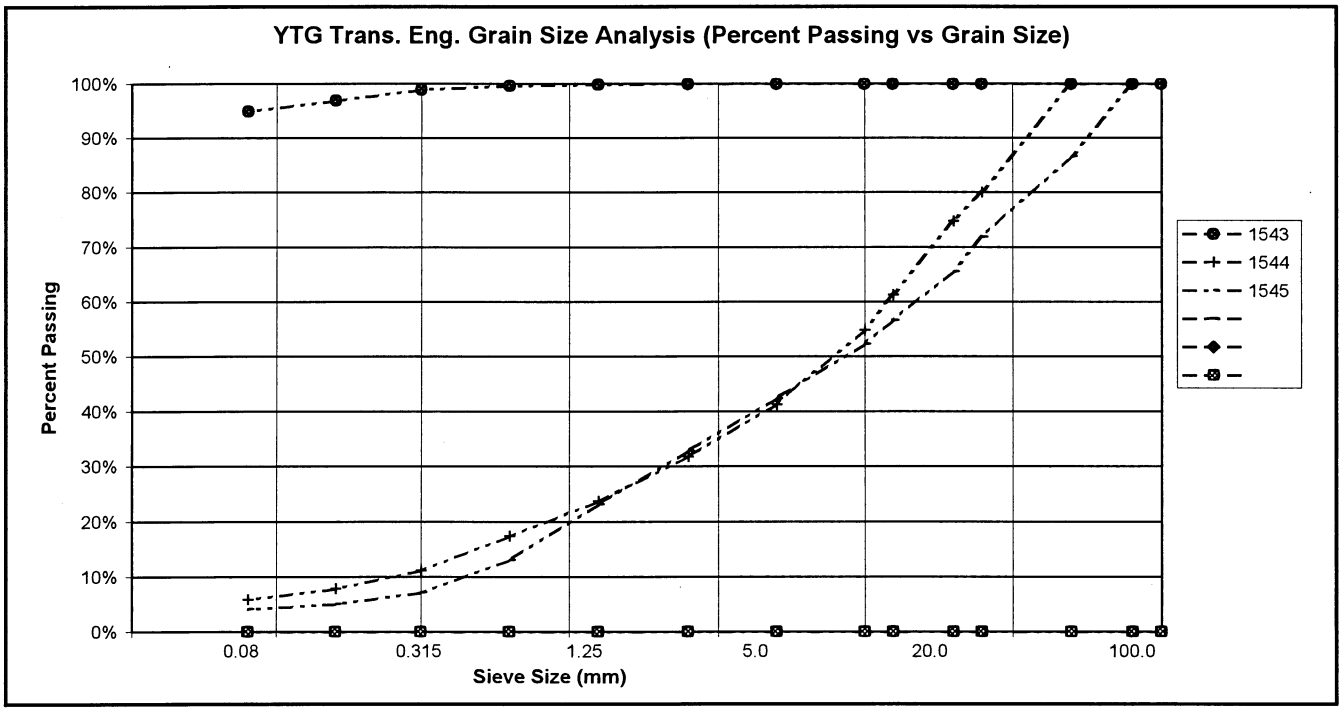
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1689
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+200 10M RT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1540	1541	1542			
LAB NO:	2429	2430	2431			
DEPTH:	0.5-0.8	1.5-2.0	2.5-3.0			
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%	77%	91%			
25.0	100%	63%	69%			
20.0	100%	55%	62%			
12.5	100%	46%	53%			
10.0	100%	42%	48%			
5.0	100%	33%	39%			
2.5	100%	26%	33%			
1.25	100%	20%	27%			
0.630	99%	13%	21%			
0.315	97%	9%	16%			
0.160	94%	7%	13%			
0.080	90%	5%	12%			
M.C.(%):	54%	5%	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:	0	67	61			
% SAND:	10	27	27			
% FINES:	90	5	12			
CLASSIFICATION	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



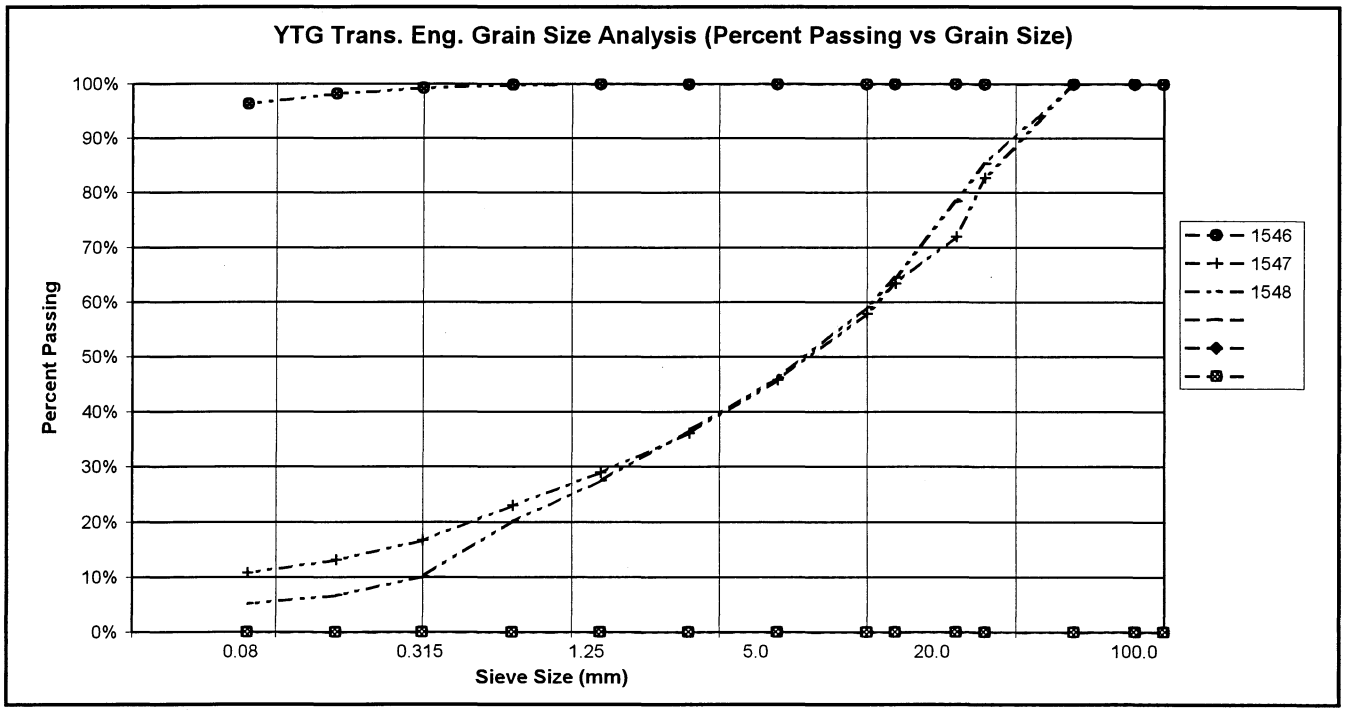
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1690
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+200 CENTRELINE		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1543	1544	1545			
LAB NO:	2432	2433	2434			
DEPTH:	0.5-1.0	1.5-2.0	2.5-3.0			
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%	87%			
25.0	100%	80%	72%			
20.0	100%	75%	66%			
12.5	100%	61%	57%			
10.0	100%	55%	52%			
5.0	100%	41%	42%			
2.5	100%	32%	33%			
1.25	100%	24%	23%			
0.630	100%	17%	13%			
0.315	99%	11%	7%			
0.160	97%	8%	5%			
0.080	95%	6%	4%			
M.C.(%):	53%	4%	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:	0	59	58			
% SAND:	5	35	38			
% FINES:	95	6	4			
CLASSIFICATION	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)			



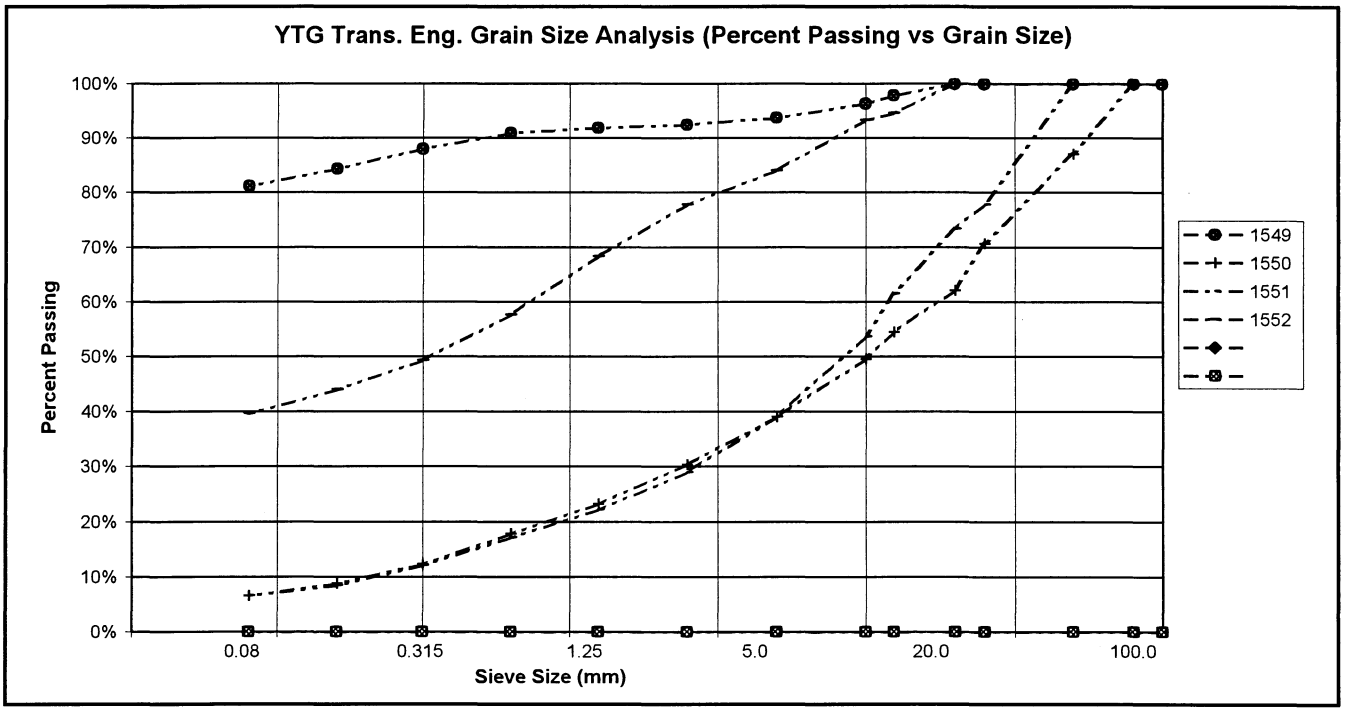
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1691
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+200 25M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1546	1547	1548			
LAB NO:	2435	2436	2437			
DEPTH:	0.5-1.0	1.6-2.0	2.5-3.0			
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%	83%	85%			
20.0	100%	72%	78%			
12.5	100%	63%	64%			
10.0	100%	58%	59%			
5.0	100%	46%	46%			
2.5	100%	36%	37%			
1.25	100%	29%	27%			
0.630	100%	23%	20%			
0.315	99%	17%	10%			
0.160	98%	13%	7%			
0.080	96%	11%	5%			
M.C.(%):	48%	7%	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:	0	54	54			
% SAND:	4	35	41			
% FINES:	96	11	5			
CLASSIFICATION	SILT (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			



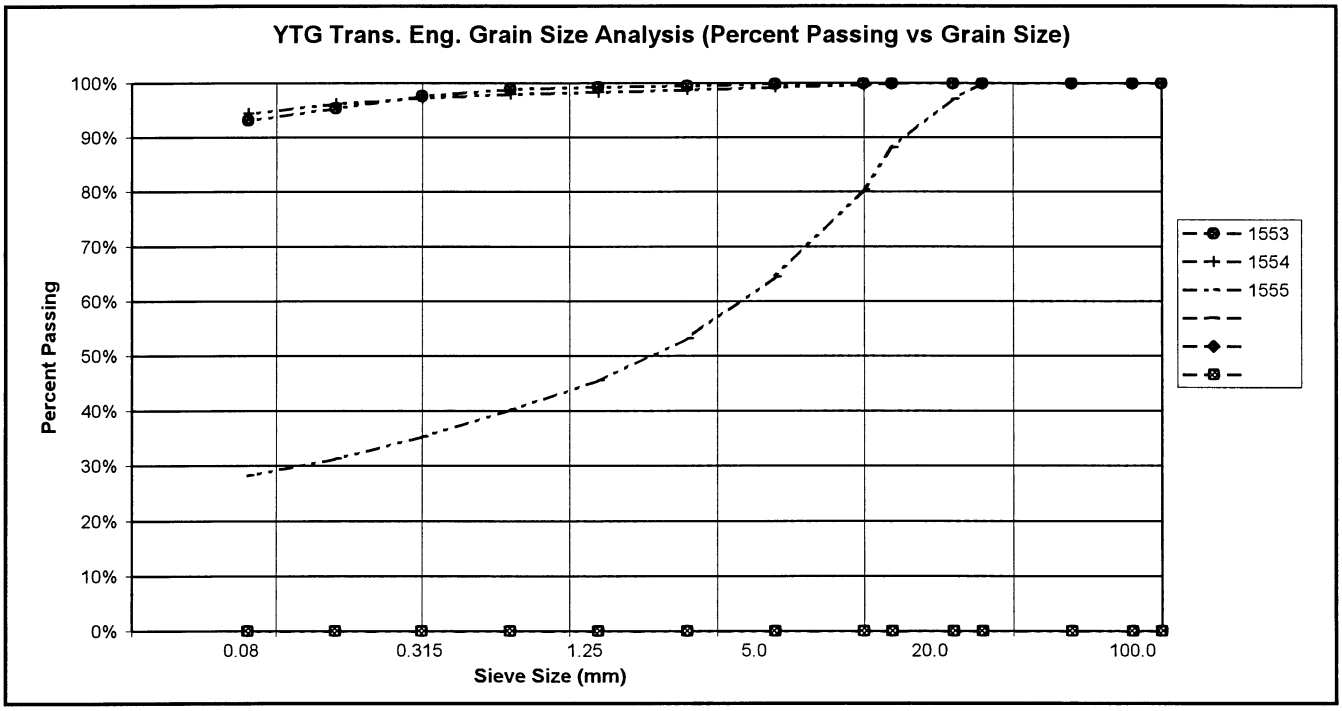
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1692
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+250 3M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1549	1550	1551	1552		
LAB NO:	2438	2439	2440	2441		
DEPTH:	0.4-0.8	1.5-2.0	2.5-3.0	4.0-4.5		
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%	87%	100%	100%		
25.0	100%	71%	78%	100%		
20.0	100%	62%	73%	100%		
12.5	98%	54%	62%	95%		
10.0	96%	49%	54%	93%		
5.0	94%	39%	39%	84%		
2.5	93%	30%	29%	78%		
1.25	92%	23%	22%	68%		
0.630	91%	18%	17%	58%		
0.315	88%	12%	12%	49%		
0.160	84%	9%	8%	44%		
0.080	81%	7%	7%	40%		
M.C.(%):	26%	4%	4%	13%		
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:	6	61	61	16		
% SAND:	12	33	33	44		
% FINES:	81	7	7	40		
CLASSIFICATION	SILT WITH SAND (ML)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)	SILTY SAND WITH GRAVEL (SM)		



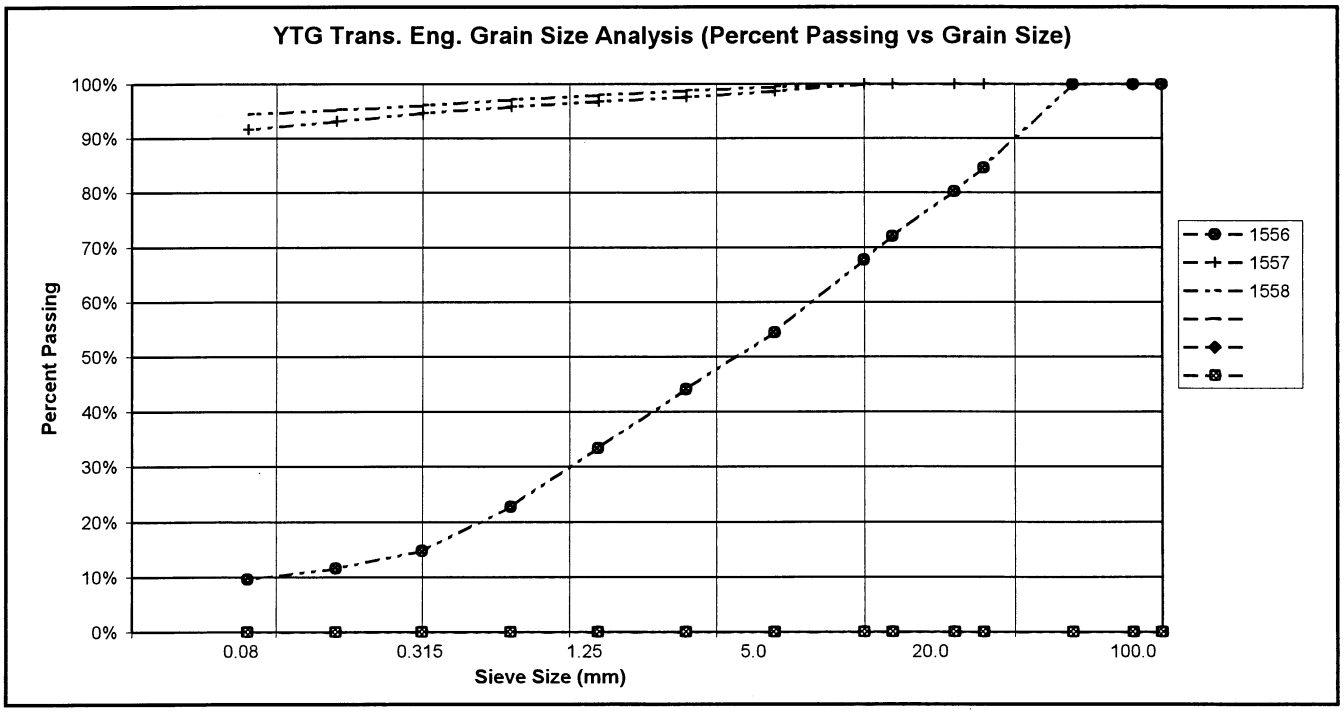
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1693
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+350 3M RT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1553	1554	1555			
LAB NO:	2442	2443	2444			
DEPTH:	0.5-1.0	1.5-2.0	2.5-3.0			
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%	100%	97%			
12.5	100%	100%	88%			
10.0	100%	100%	80%			
5.0	100%	99%	64%			
2.5	100%	99%	53%			
1.25	99%	98%	46%			
0.630	99%	98%	40%			
0.315	98%	97%	35%			
0.160	95%	96%	31%			
0.080	93%	95%	28%			
M.C.(%):	82%	30%	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:	0	1	36			
% SAND:	7	5	36			
% FINES:	93	95	28			
CLASSIFICATION	SILT (ML)	SILT (ML)	SILTY SAND WITH GRAVEL (SM)			



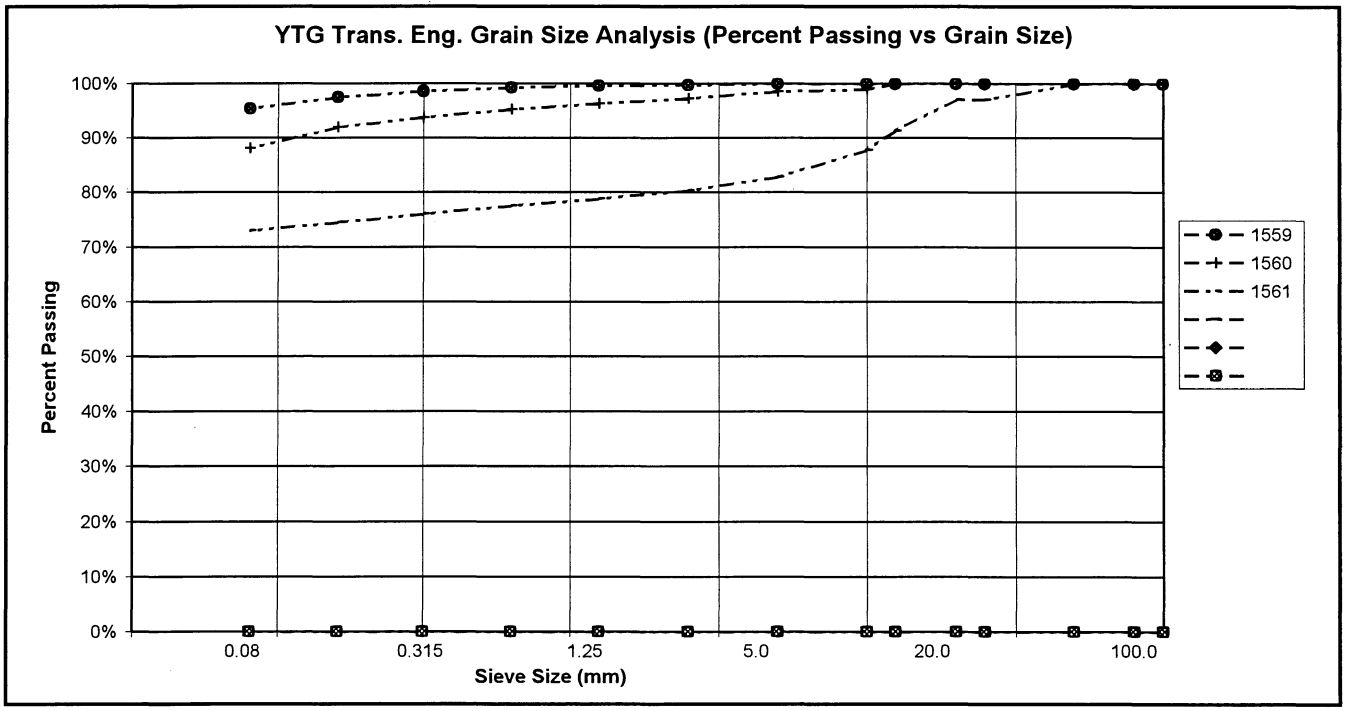
PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1694
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+450 3M RT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1556	1557	1558			
LAB NO:	2445	2446	2447			
DEPTH:	0.4-0.8	1.5-2.0	2.5-3.0			
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	85%	100%	100%			
20.0	80%	100%	100%			
12.5	72%	100%	100%			
10.0	68%	100%	100%			
5.0	54%	99%	100%			
2.5	44%	98%	99%			
1.25	33%	97%	98%			
0.630	23%	96%	97%			
0.315	15%	95%	96%			
0.160	12%	93%	95%			
0.080	10%	92%	94%			
M.C.(%):	3%	24%	21%			
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:	46	1	0			
% SAND:	45	7	5			
% FINES:	10	92	94			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILT (ML)	SILT (ML)			



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1695
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+550 3M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1559	1560	1561			
LAB NO:	2448	2449	2450			
DEPTH:	0.6-1.0	1.5-2.0	2.5-3.0			
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%	97%			
20.0	100%	100%	97%			
12.5	100%	100%	91%			
10.0	100%	99%	88%			
5.0	100%	99%	83%			
2.5	100%	97%	80%			
1.25	100%	96%	79%			
0.630	99%	95%	78%			
0.315	99%	94%	76%			
0.160	98%	92%	75%			
0.080	95%	88%	73%			
M.C.(%):	120%	82%	25%			
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:	0	1	17			
% SAND:	5	10	10			
% FINES:	95	88	73			
CLASSIFICATION	SILT (ML)	SILT (ML)	SILT WITH GRAVEL (ML)			

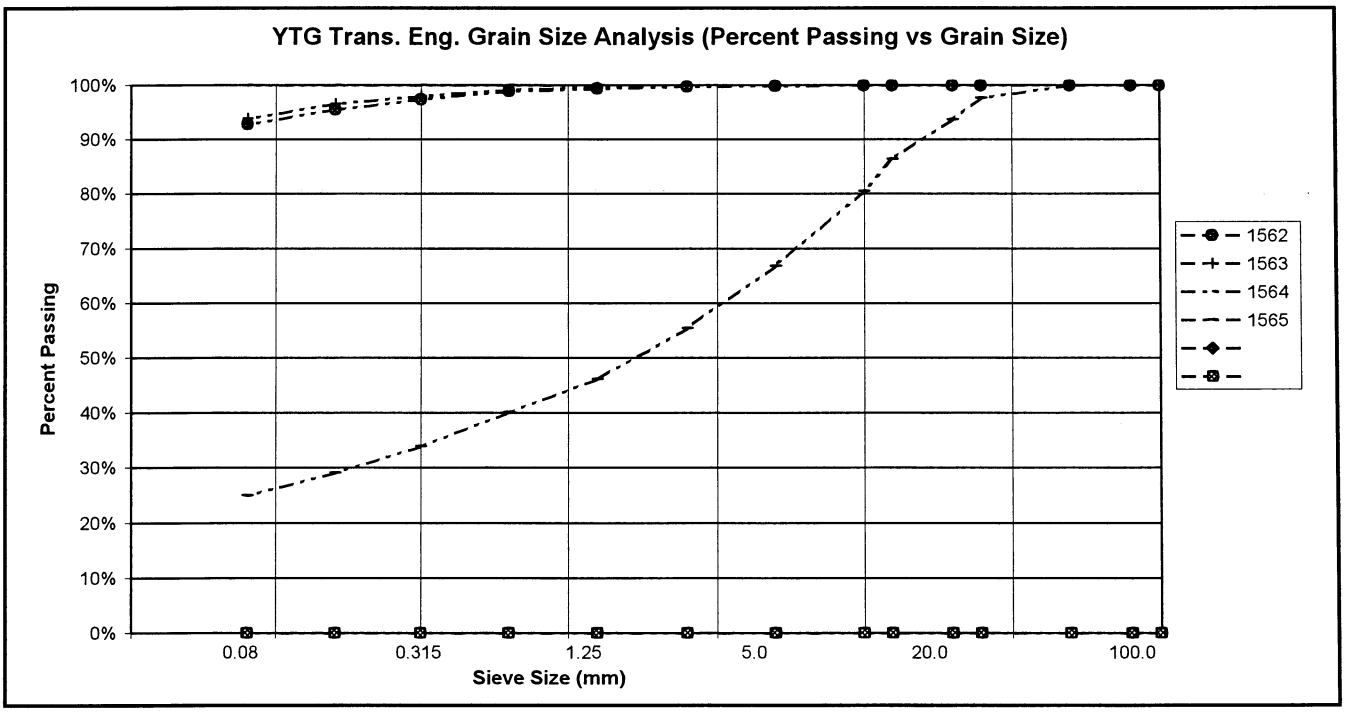


PROJECT NUMBER: 092-202101-0361-1
CLIENT: ENGINEERING CAPITAL
PROJECT NAME: SHAKWAK SEG 11
PROJECT LOCATION: Km 1729.6-1787 A/H
DRILL UNIT: MOBILE B40 L
HOLE LOCATION: 1783+625 3M LT
LOGGED BY: G.C.

HOLE No.: 629-1696

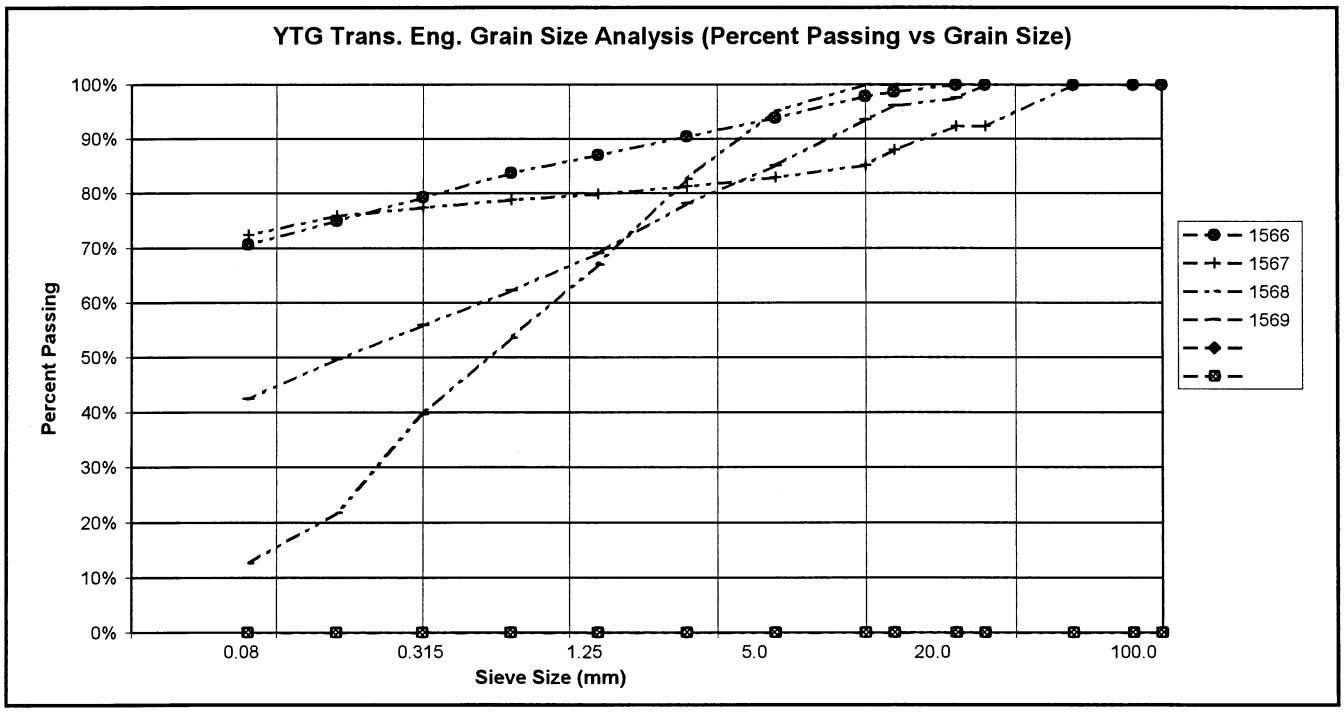
DATE COMP: 2001/11/15

FIELD NO:	1562	1563	1564	1565		
LAB NO:	2451	2452	LOST	2454		
DEPTH:	0.5-1.0	1.5-2.0	2.5-3.0	3.5-4.0		
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%	98%		
20.0	100%	100%	100%	94%		
12.5	100%	100%	100%	86%		
10.0	100%	100%	100%	81%		
5.0	100%	100%	100%	67%		
2.5	100%	100%	100%	55%		
1.25	99%	100%	100%	46%		
0.630	99%	99%	100%	40%		
0.315	97%	98%	100%	34%		
0.160	96%	97%	100%	29%		
0.080	93%	94%	100%	25%		
M.C.(%):	128%	76%	17%	14%		
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:	0	0	0	33		
% SAND:	7	6	0	42		
% FINES:	93	94	100	25		
CLASSIFICATION	SILT (ML)	SILT (ML)	~~SILT (ML)~~ LOST	SILTY SAND WITH GRAVEL (SM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1697
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+625 20M LT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1566	1567	1568	1569		
LAB NO:	2455	2456	2457	2458		
DEPTH:	0.5-1.0	1.5-2.0	2.5-3.0	4.0-6.0		
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%	92%	100%	100%		
20.0	100%	92%	100%	97%		
12.5	99%	88%	100%	96%		
10.0	98%	85%	100%	94%		
5.0	94%	83%	95%	85%		
2.5	91%	81%	83%	78%		
1.25	87%	80%	67%	69%		
0.630	84%	79%	53%	62%		
0.315	79%	77%	40%	56%		
0.160	75%	76%	22%	50%		
0.080	71%	72%	13%	43%		
M.C.(%):	21%	58%	13%	25%		
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:	6	17	5	15		
% SAND:	23	11	83	43		
% FINES:	71	72	13	43		
CLASSIFICATION	SILT WITH SAND (ML)	SILT WITH GRAVEL (ML)	SILTY SAND (SM)	SILTY SAND (SM)		



PROJECT NUMBER:	092-202101-0361-1		HOLE No.: 629-1698
CLIENT:	ENGINEERING CAPITAL		
PROJECT NAME:	SHAKWAK SEG 11		
PROJECT LOCATION:	Km 1729.6-1787 A/H		
DRILL UNIT:	MOBILE B40 L		
HOLE LOCATION:	1783+625 20M RT		
LOGGED BY:	G.C.		DATE COMP: 2001/11/15

FIELD NO:	1570	1571				
LAB NO:	2459	2460				
DEPTH:	0.5-1.0	1.5-2.0				
TYPE:	AUGER	AUGER	AUGER	AUGER		
SIEVE SIZE	**PERCENT PASSING**	**PERCENT PASSING**				
100.0	100%	100%				
80.0	100%	100%				
50.0	100%	100%				
25.0	100%	93%				
20.0	100%	90%				
12.5	100%	76%				
10.0	100%	69%				
5.0	98%	53%				
2.5	98%	43%				
1.25	100%	36%				
0.630	99%	32%				
0.315	99%	28%				
0.160	98%	23%				
0.080	96%	20%				
M.C.(%):	71%	16%				
LIQUID LIMIT:	0.0	0.0				
PLASTIC LIMIT:	0.0	0.0				
PLASTIC INDEX.:	0.0	0.0				
% GRAVEL:	2	47				
% SAND:	2	33				
% FINES:	96	20				
CLASSIFICATION	SILT (ML)	SILTY GRAVEL WITH SAND (GM)				

