

GEO TECHNICAL INVESTIGATIONS

**Highway Construction
km 1716.6 to 1723.6
Yukon, 2003-2004
Volume 3 of 3**

Yukon

Highways and Public Works
Transportation Engineering Branch

Geotechnical Services

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

ORIGINAL - Do Not Remove From File

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
km 1716.6 to 1723.6
YUKON, 2004-2005

ALASKA HIGHWAY #1

Highway Construction
Km 1716.6 to 1723.6
Alaska Highway #1
Yukon, 2004-2005
Volume 3 of 3

This Data Package prepared for project viewing:

February, 2004

Transportation Engineering Branch
Geotechnical Services
461 Range Road
Whitehorse, Yukon

CONTENTS

Volume 1 of 3

INTRODUCTION

Investigation notes, classification methods and legends.

CENTRELINE TESTING km 1716.6 to 1723.6, Alaska Highway

Subsurface Exploration and Test Report Sheets are provided.

The reports for the Centreline testing holes are arranged according to project location, starting at km 1716+900 and increasing to km 1723+725.

Laboratory Testing Result Sheets are provided.

The reports for the centreline holes are arranged according to test hole number, starting at 619-495 and increasing to 649-259.

2001	TEST HOLES 495 to 505	shown with prefix 619-
	TEST HOLES 506 to 521	shown with prefix 620-
	TEST HOLES 522 to 531	shown with prefix 621-
2003	TEST HOLES 221 to 245	shown with prefix 648-
	TEST HOLES 246 to 259	shown with prefix 649-

CONTENTS (continued)**Volume 2 of 3****GRANULAR SOURCE km 1719.5 RHS ALASKA HIGHWAY**

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

Auger Testing

2003 TEST HOLES 2766-2773 shown with prefix 656-

Test Pit Testing

2003 TEST PITS 2774 to 2784 & 2795 to 2797 shown with prefix 658-
TEST PITS 2798 to 2815 shown with prefix 659-
TEST PITS 2817 to 2830 shown with prefix 660-
TEST PITS 2831 to 2845 shown with prefix 661-
TEST PITS 2846 to 2851 shown with prefix 662-

CONTENTS (continued)

Volume 3 of 3

GRANULAR SOURCE km 1721.0 RHS ALASKA HIGHWAY

A production history and location plans are provided.

GRANULAR SOURCE km 1730.2 LHS ALASKA HIGHWAY

A production history, location plan, photographs, and subsurface exploration and testing report sheets are provided.

Auger Testing

2001	TEST HOLES 1926 to 1928	shown with prefix 623-
	TEST HOLES 1938 to 1941	shown with prefix 624-

Test Pit Testing

2002	TEST PITS 2460 to 2520	shown with prefix 638-
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HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION
km 1716.6 to 1723.6
YUKON, 2004-2005

ALASKA HIGHWAY #1

GRANULAR SOURCE TESTING
km 1721.0 RHS
ALASKA HIGHWAY

HISTORY OF AGGREGATE PRODUCTION

Alaska Highway Km 1721.0 RHS
Pit ID 115 G-08 (Congdon Creek)

Average Crusher Run Characteristics of Material Produced

File Number --- 2142-5-60 Contractor --- Loucheux Enterprises
Stockpile ID --- 1990-06 Commenced --- 90-06-15 Completed --- 90-06-18
Type of aggregate --- 20 mm B.S.T. Aggregate
Amount Produced --- 4,000 m³ No. of tests --- 25

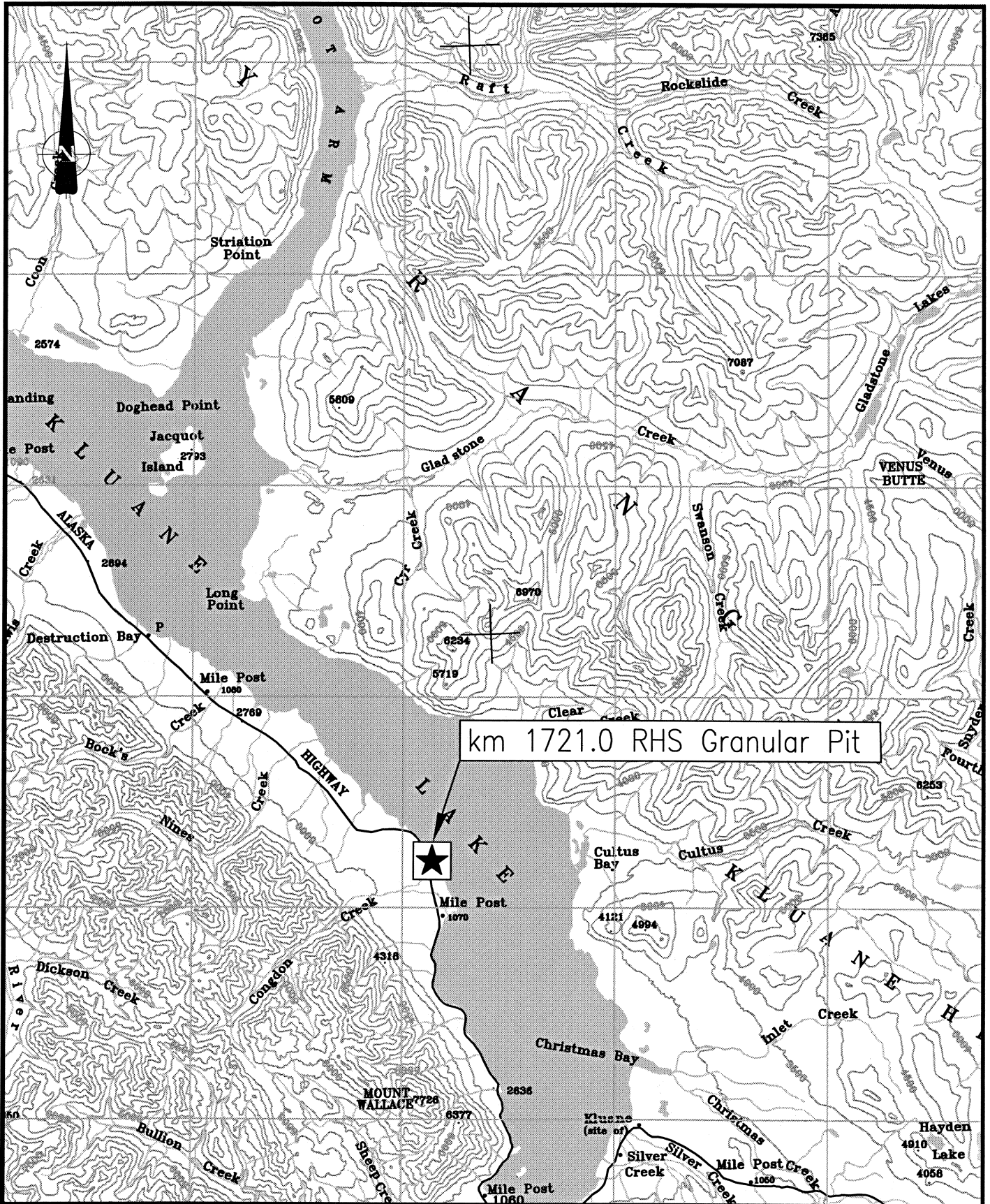
Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 100 82.8 -- 51.5 37.9 27.8 13.6 4.7
Moisture Content - 2.6 % Standard Proctor
Fracture - 61.2 % Kg/m³ @ % moisture
=====

File Number --- 2142-5-60 Contractor --- Loucheux Enterprises
Stockpile ID --- n/a Commenced --- 90-06-18 Completed --- 90-06-20
Type of aggregate --- Granular "A" Base Course
Amount Produced --- ± 4,800 m³ No. of tests --- 10

Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 99.9 86.1 -- 55.8 -- 30.2 14.7 5.0
Moisture Content - 3.0 % Standard Proctor
Fracture - 61.1 % Kg/m³ @ % moisture
=====

File Number --- 2145-21 Contractor --- Nuway Crushing Ltd.
Stockpile ID --- 1996-11 Commenced --- 96-10-22 Completed --- 96-10-26
Type of aggregate --- 20 mm B.S.T. Aggregate
Amount Produced --- 9,998 m³ No. of tests --- 47

Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 99.6 84.3 -- 54.7 41.1 30.7 15.0 5.3
Moisture Content - 3.0 % Standard Proctor
Fracture - 56.9 % Kg/m³ @ % moisture
=====



km 1721.0 RHS Granular Pit

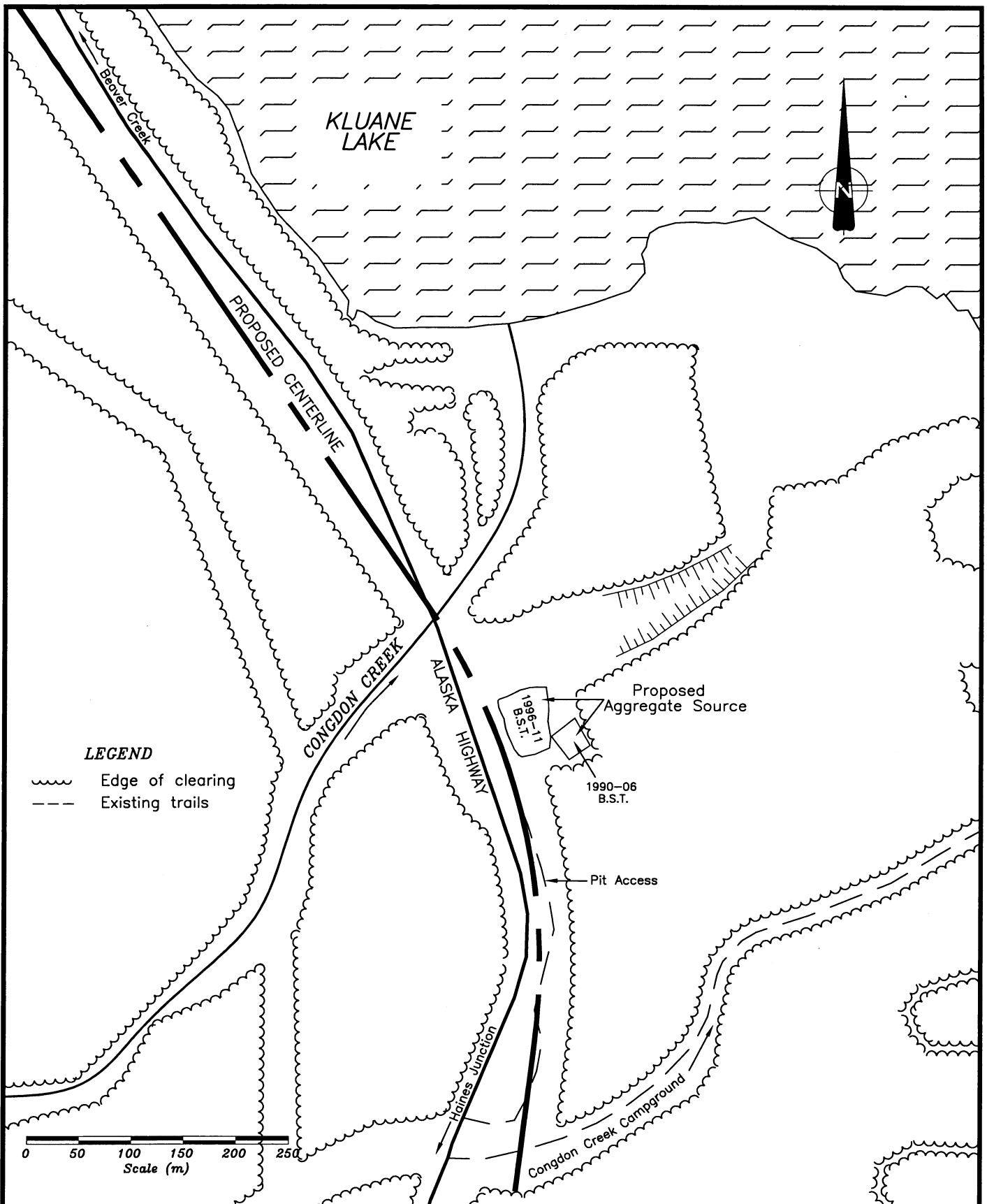
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KEY PLAN
 GRANULAR PIT
 RESERVE
 km 1721.0 R.H.S.
 (Congdon Creek)
 ALASKA HWY. YUKON

pit file:	115-G-08
quad:	115 G/02
drawn:	JJM
date:	2004-02-06
scale:	1: 250,000
drwg:	115g-08K



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SITE PLAN
GRANULAR PIT
km 1721.0 RHS
(Congdon Creek)
ALASKA HWY. YUKON

pit file:	115 G-08
revision:	2004-Proposed
drawn:	JJM
date:	2004-02-06
scale:	1: 5000
drwg:	115g-08S

HIGHWAY CONSTRUCTION

GEOTECHNICAL INVESTIGATION

km 1716.6 to 1723.6
YUKON, 2004-2005

ALASKA HIGHWAY #1

GRANULAR SOURCE TESTING
km 1730.2 LHS
ALASKA HIGHWAY

HISTORY OF AGGREGATE PRODUCTION

Name Highway Km 1730.2 LHS
Pit ID 115 G-21 (Nines Creek)

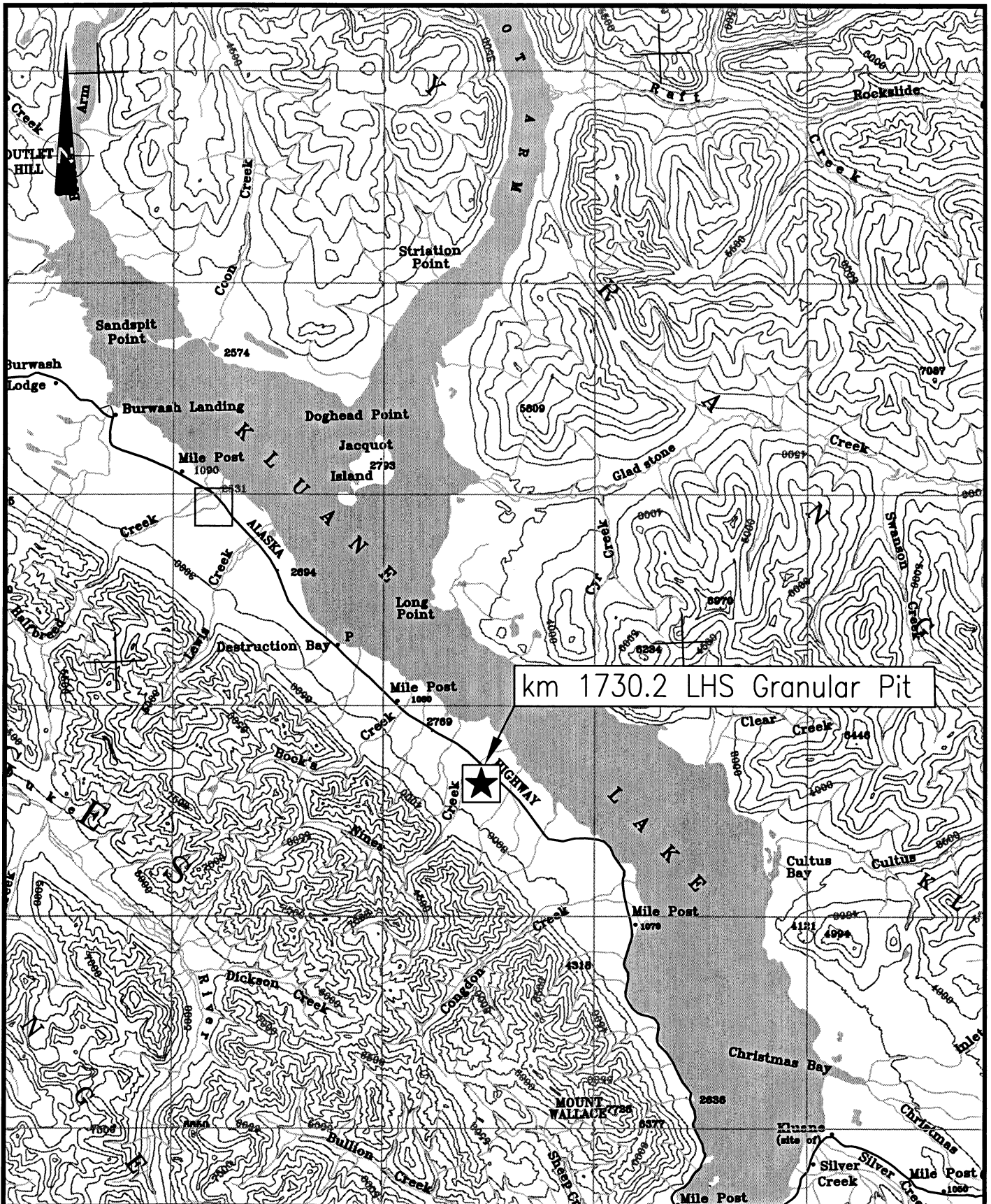
Average Crusher Run Characteristics of Material Produced

File Number --- 2550-22/01-35 Contractor --- GHV (Summit Aggregates)
Stockpile ID --- 2003-22 Commenced --- 03-06-01 Completed --- 03-06-16
Type of aggregate --- Granular "A" Base Course / B.S.T. Aggregate
Amount Produced --- $\pm 57,500 \text{ m}^3$ No. of tests --- 151

Sieve Size mm - 20.0 12.5 10.0 5.00 2.50 1.25 0.315 0.080
Percent Passing - 100 82.3 -- 48.2 34.9 23.9 10.4 4.8
Moisture Content - 2.9 % Standard Proctor
Fracture - 71.0 % 2200 Kg/m³ @ 8.1 % moisture

** Granular "A" and B.S.T. combined in one stockpile as material meet both specifications.

=====



km 1730.2 LHS Granular Pit

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Highways and Public Works

Transportation Engineering Branch

KEY PLAN
 GRANULAR PIT
 RESERVE
 km 1730.2 L.H.S.
 (Nines Creek)
 ALASKA HWY. YUKON

pit file: 115-G-21

quad: 115G/02

drawn: JJM

date: 2004-02-05

scale: 1: 250,000

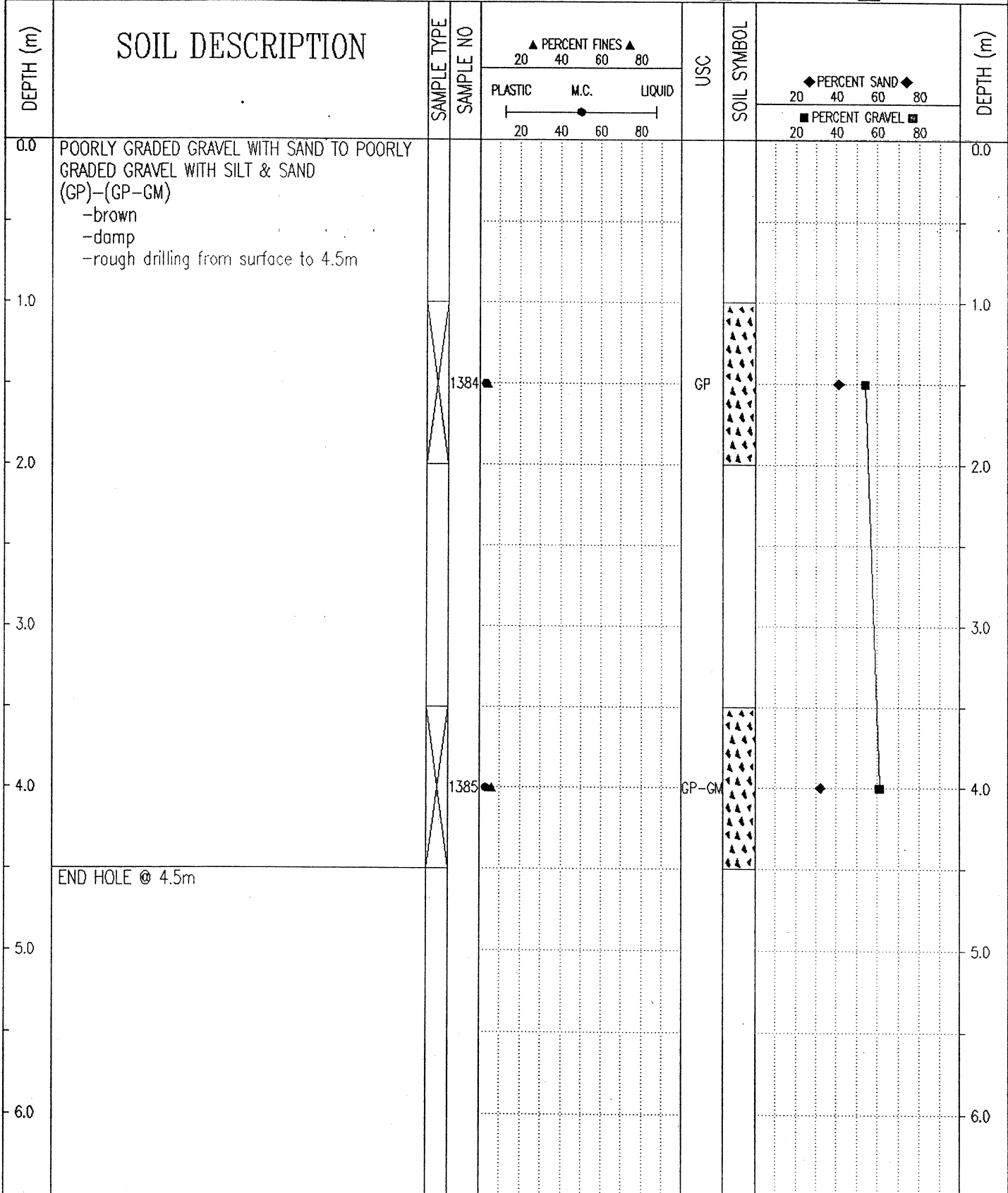
drwg: 115g-21K

Km 1730.2 LHS Alaska Highway #1
Pit Ident. 115 G-21 (Nines Creek)

Book # 623 & 624

Auger Hole Logs

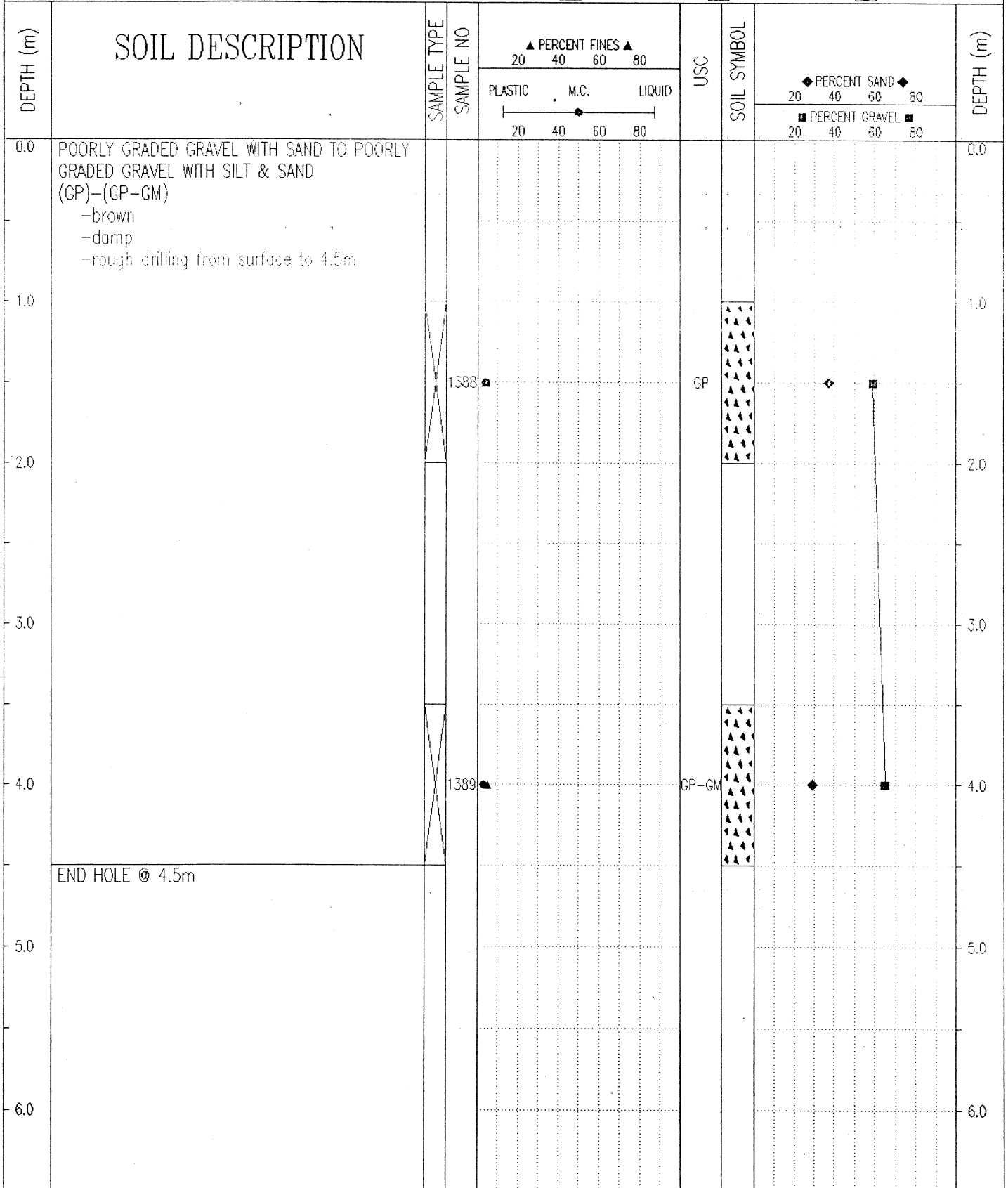
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 11	TEST PIT NO: 623-1926
ENGINEERING CAPITAL		NINES CREEK FAN LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/20
	Fig. No:	Page 1 of 1

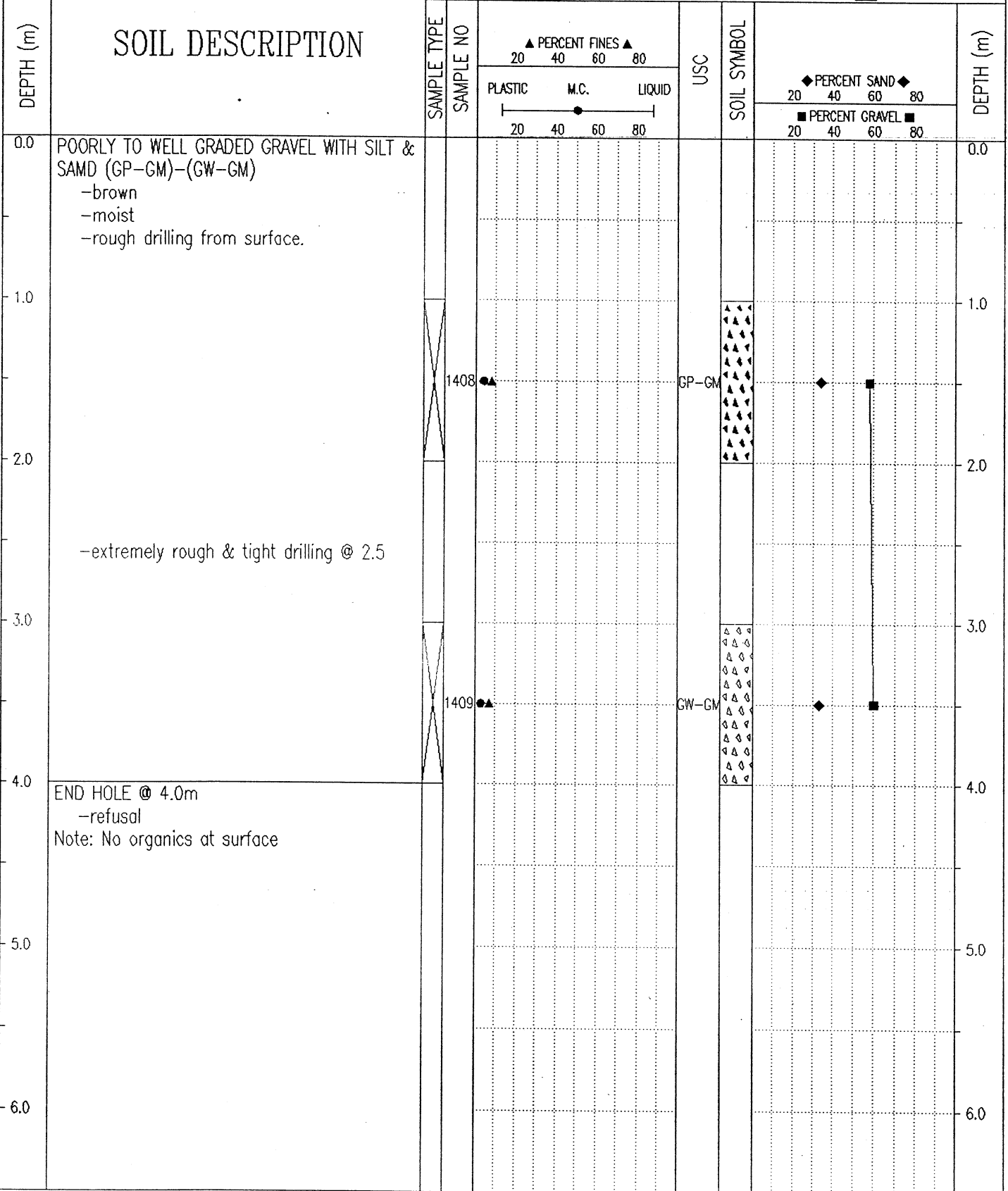
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 11		TEST PIT NO: 623-1927								
ENGINEERING CAPITAL		NINES CREEK FAN LHS		Project No: 092-202101-0361								
MOBILE B40L 6" AUGER		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE												
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GP-GM) -brown -damp -rough filling from surface to 4.5m											0.0
1.0												1.0
2.0			1386				GP					2.0
3.0												3.0
4.0			1387				GP-GM					4.0
5.0	END HOLE @ 4.5m											5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: G.C. REVIEWED BY: Fig. No:				COMPLETION DEPTH: 4.5 m COMPLETE: 01/09/20 Page 1 of 1				

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 623-1928
ENGINEERING CAPITAL	NINES CREEK FAN LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.
	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK
	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/20
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 11	TEST PIT NO: 624-1938
ENGINEERING CAPITAL		NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE			



Government of Yukon
 Transportation Engineering

LOGGED BY: G.C.

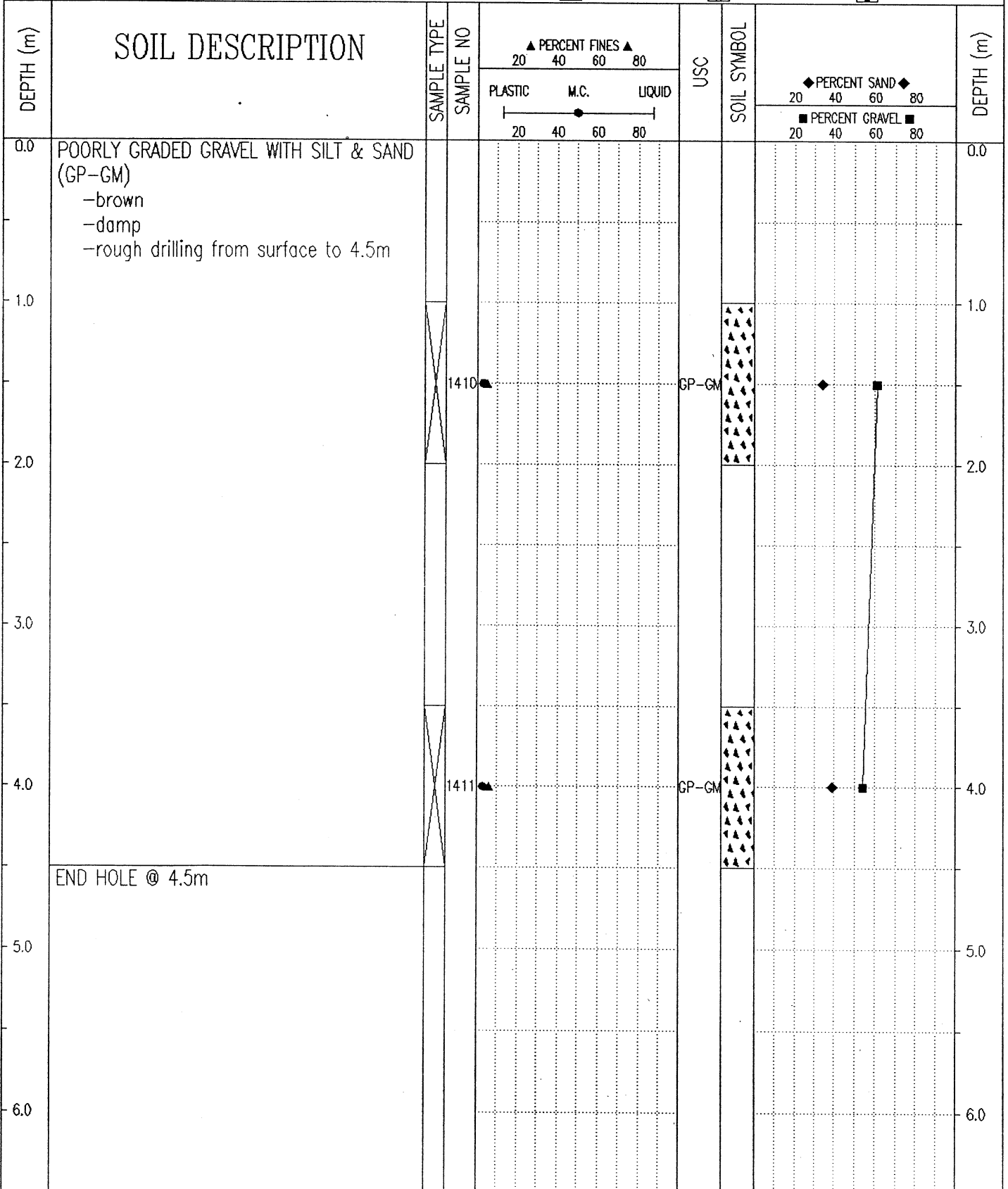
REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.0 m

COMPLETE: 01/09/21

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 11	TEST PIT NO: 624-1939
ENGINEERING CAPITAL		NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



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Transportation Engineering

LOGGED BY: G.C.

REVIEWED BY:

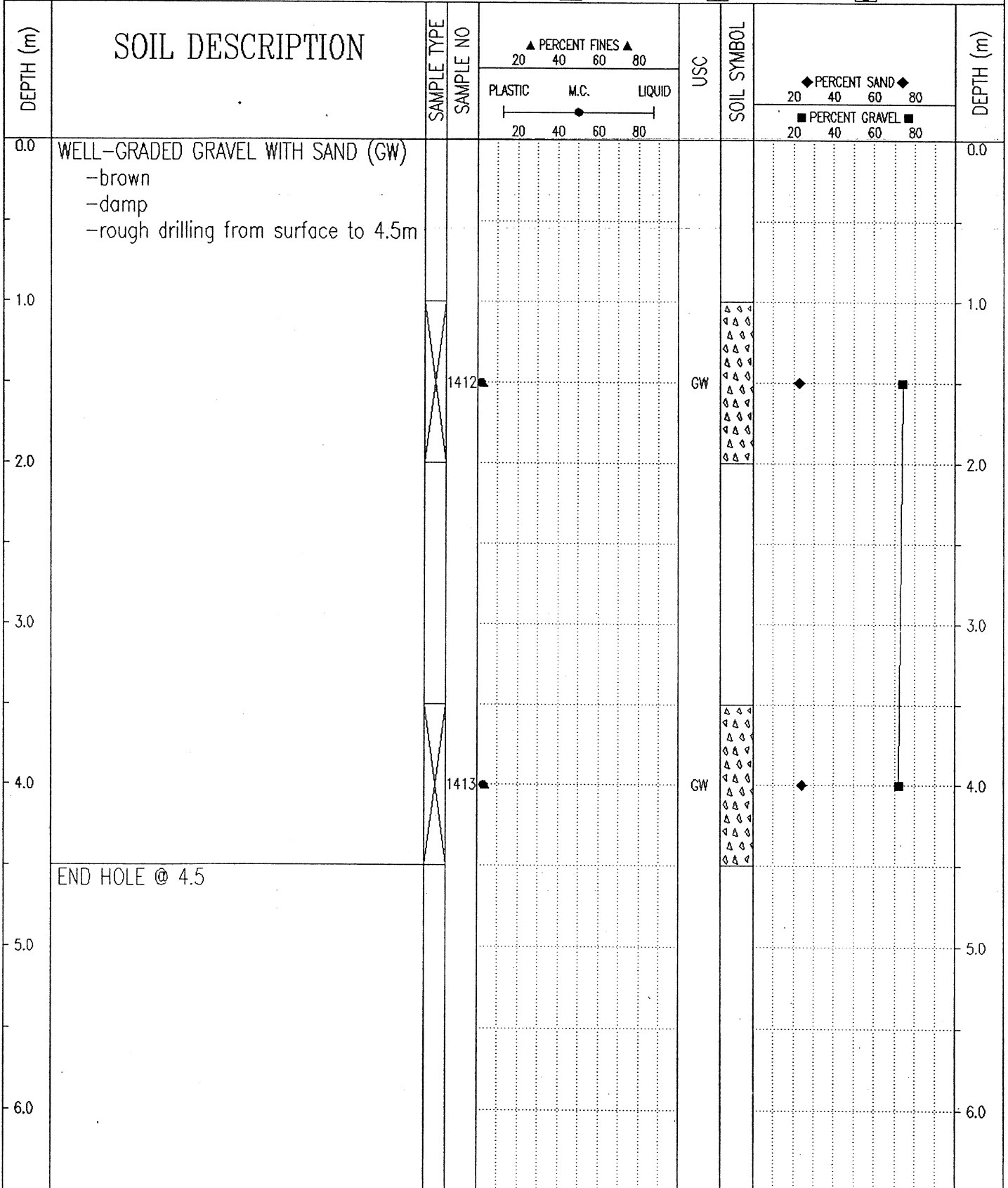
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COMPLETION DEPTH: 4.5 m

COMPLETE: 01/09/21

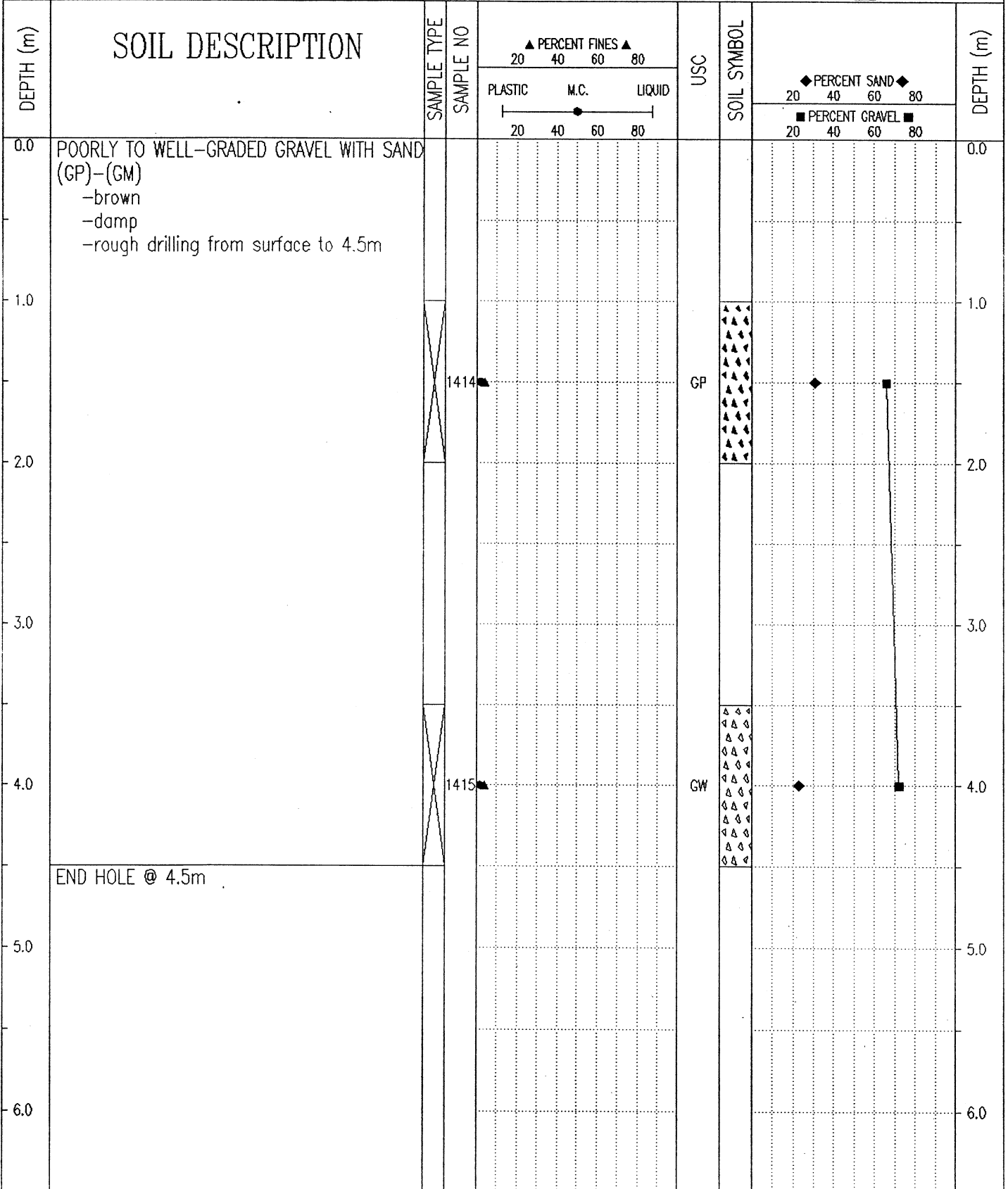
Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEG 11	TEST PIT NO: 624-1940
ENGINEERING CAPITAL		NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE			



Government of Yukon Transportation Engineering	LOGGED BY: G.C.	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 01/09/21
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEG 11	TEST PIT NO: 624-1941
ENGINEERING CAPITAL	NINES CREEK LHS	Project No: 092-202101-0361
MOBILE B40L 6" AUGER	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.
	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK
	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE



Government of Yukon
 Transportation Engineering

LOGGED BY: G.C.
 REVIEWED BY:
 Fig. No:

COMPLETION DEPTH: 4.5 m
 COMPLETE: 01/09/21

Km 1730.2 LHS Alaska Highway #1
Pit Ident. 115 G-21 (Nines Creek)

Book # 623 & 624

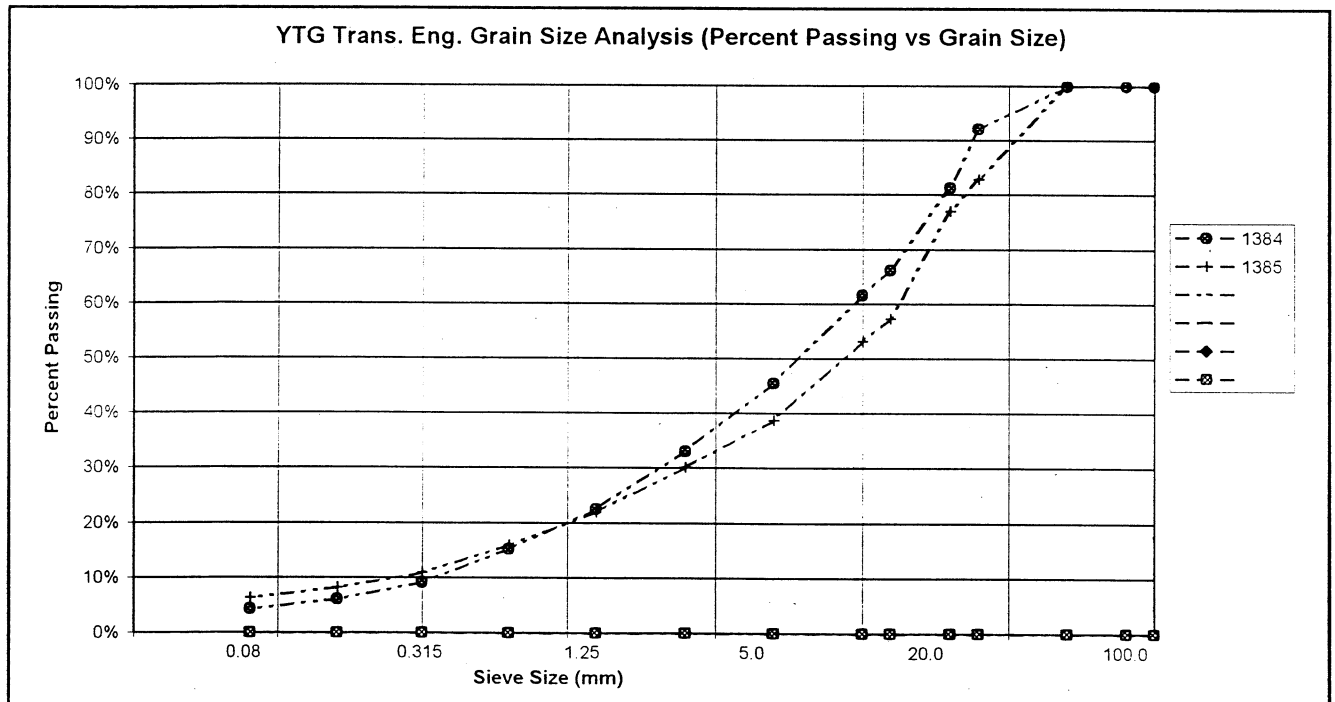
Auger Sample Results

PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: NINES CREEK CHANNEL
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: See Test Hole Log Sheet
 LOGGED BY: G.C.

HOLE No.: 623-1926

DATE COMP: 2001/09/20

FIELD NO:	1384	1385			
LAB NO:	2161	2162			
DEPTH:	1.0-2.0	3.5-4.5			
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%	83%			
20.0	81%	77%			
12.5	66%	57%			
10.0	62%	53%			
5.0	46%	39%			
2.5	33%	30%			
1.25	23%	22%			
0.630	15%	16%			
0.315	9%	11%			
0.160	6%	8%			
0.080	4%	6%			
M.C.(%):	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	54	61			
% SAND:	41	32			
% FINES:	4	6			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

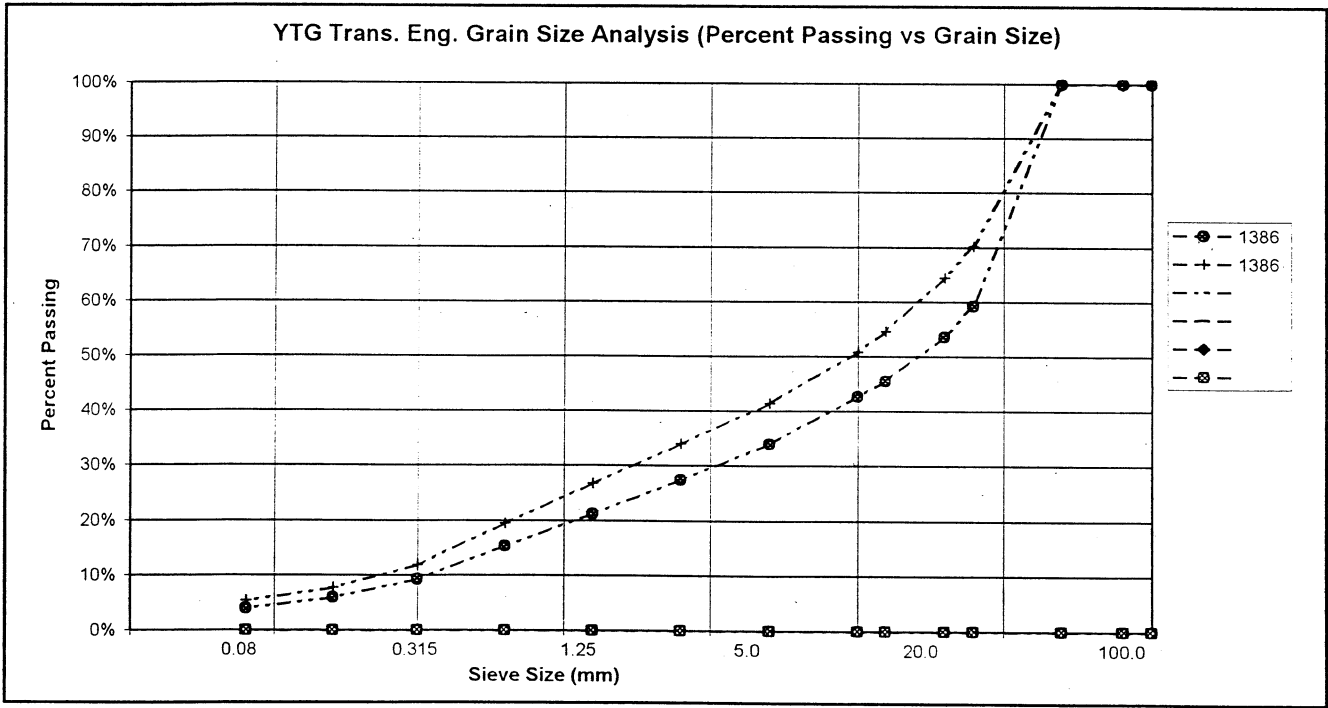


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: NINES CREEK CHANNEL
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: See Test Hole Log Sheet
 LOGGED BY: G.C.

HOLE No.: 623-1927

DATE COMP: 2001/09/20

FIELD NO:	1386	1386			
LAB NO:	2163	2164			
DEPTH:	1.0-2.0	3.5-4.5			
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	59%	70%			
20.0	54%	64%			
12.5	46%	55%			
10.0	43%	51%			
5.0	34%	41%			
2.5	28%	34%			
1.25	21%	27%			
0.630	15%	19%			
0.315	9%	12%			
0.160	6%	8%			
0.080	4%	5%			
M.C.(%):	4%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	66	59			
% SAND:	30	36			
% FINES:	4	5			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

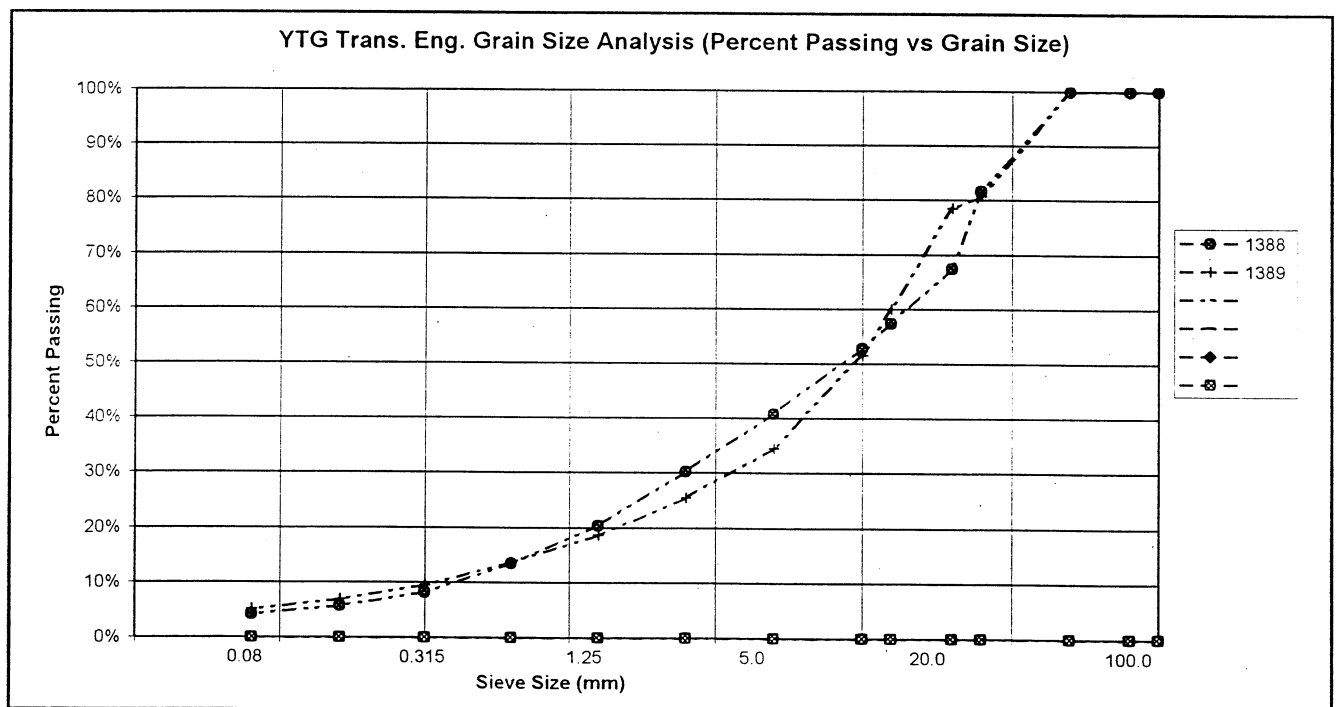


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: NINES CREEK CHANNEL
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: See Test Hole Log Sheet
 LOGGED BY: G.C.

HOLE No.: 623-1928

DATE COMP: 2001/09/20

FIELD NO:	1388	1389			
LAB NO:	2165	2166			
DEPTH:	1.0-2.0	3.5-4.5			
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	82%	81%			
20.0	67%	78%			
12.5	57%	60%			
10.0	53%	51%			
5.0	41%	35%			
2.5	30%	25%			
1.25	20%	19%			
0.630	14%	14%			
0.315	8%	9%			
0.160	6%	7%			
0.080	4%	5%			
M.C.(%):	4%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	59	65			
% SAND:	37	29			
% FINES:	4	5			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)			

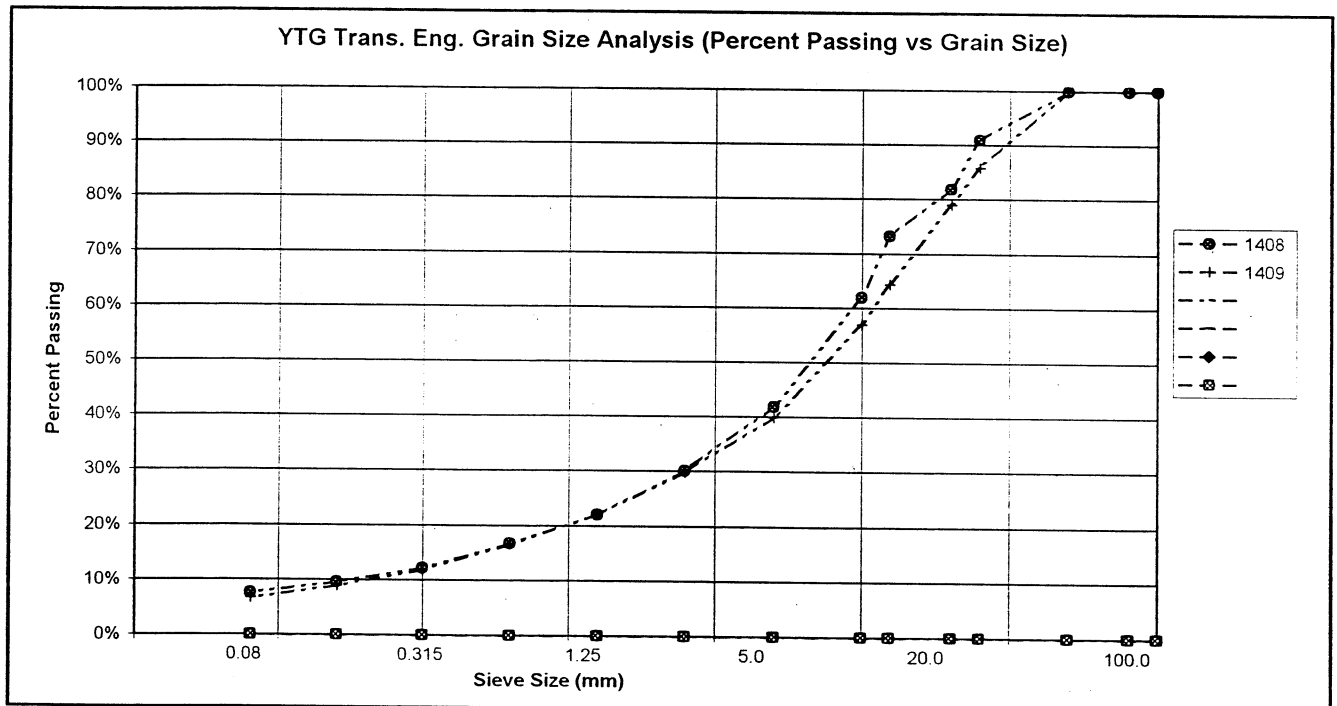


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: See Testhole Log Sheet
 LOGGED BY: G.C.

HOLE No.: 624-1938

DATE COMP: 2001/09/20

FIELD NO:	1408	1409			
LAB NO:	2185	2189			
DEPTH:	1.0-2.0	3.0-4.0			
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	91%	86%			
20.0	82%	79%			
12.5	73%	64%			
10.0	62%	57%			
5.0	42%	40%			
2.5	30%	30%			
1.25	22%	22%			
0.630	17%	17%			
0.315	12%	12%			
0.160	10%	9%			
0.080	8%	7%			
M.C.(%):	4%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	58	60			
% SAND:	34	33			
% FINES:	8	7			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SILT & SAND (GW-GM)			

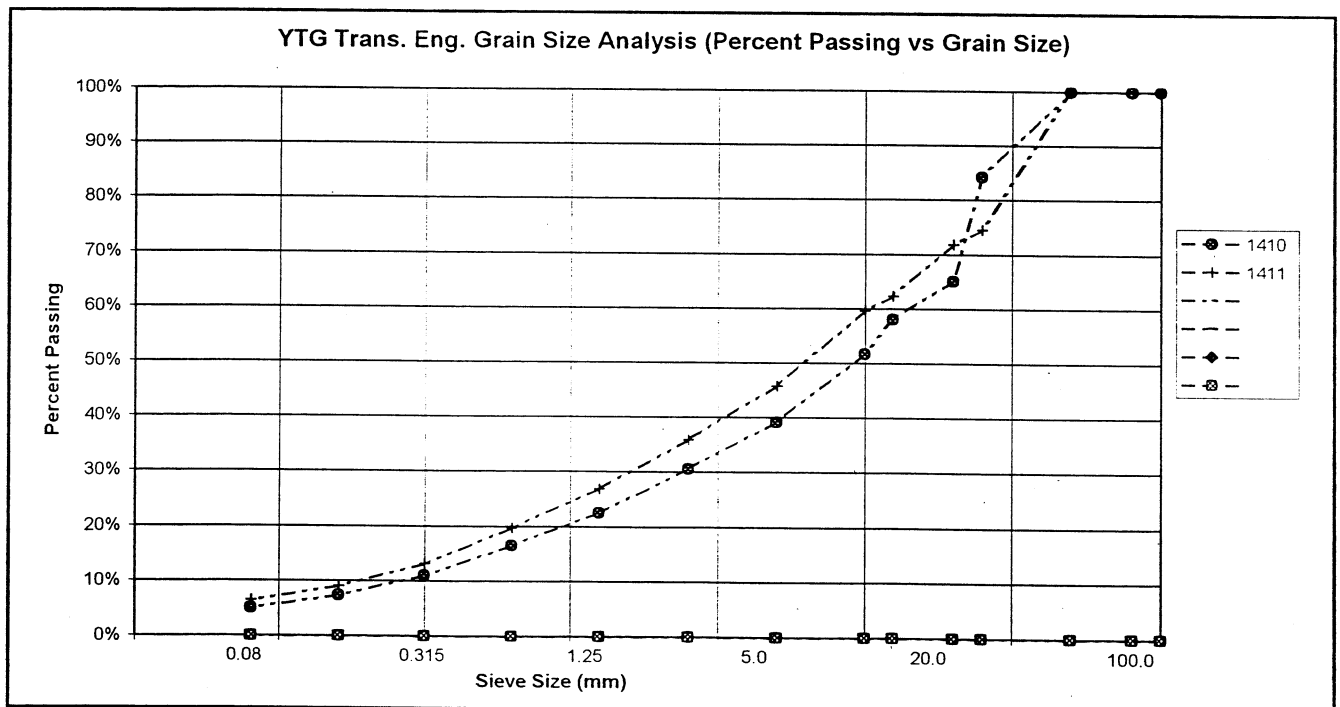


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: See Testhole Log Sheet
 LOGGED BY: G.C.

HOLE No.: 624-1939

DATE COMP: 2001/09/20

FIELD NO:	1410	1411			
LAB NO:	2190	2191			
DEPTH:	1.0-2.0	3.5-4.5			
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	84%	74%			
20.0	65%	72%			
12.5	58%	62%			
10.0	52%	60%			
5.0	39%	46%			
2.5	31%	36%			
1.25	23%	27%			
0.630	17%	20%			
0.315	11%	13%			
0.160	7%	9%			
0.080	5%	6%			
M.C.(%):	3%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	61	54			
% SAND:	34	39			
% FINES:	5	6			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (SP-SM)			

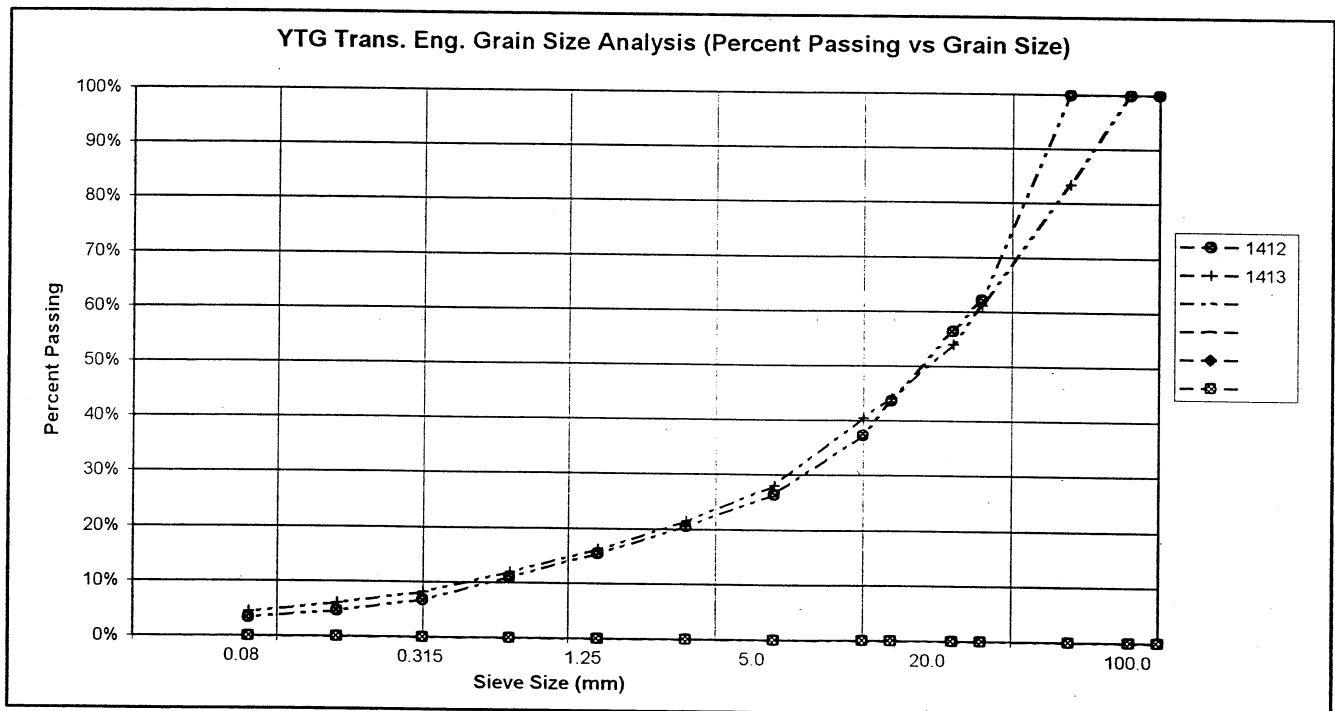


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: See Testhole Log Sheet
 LOGGED BY: G.C.

HOLE No.: 624-1940

DATE COMP: 2001/09/20

FIELD NO:	1412	1413			
LAB NO:	2192	2193			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	83%			
25.0	62%	61%			
20.0	56%	54%			
12.5	44%	44%			
10.0	37%	40%			
5.0	26%	28%			
2.5	21%	21%			
1.25	15%	16%			
0.630	11%	12%			
0.315	7%	8%			
0.160	5%	6%			
0.080	3%	4%			
M.C.(%)	2%	3%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	74	72			
% SAND:	23	24			
% FINES:	3	4			
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	WELL-GRADED GRAVEL WITH SAND (GW)			

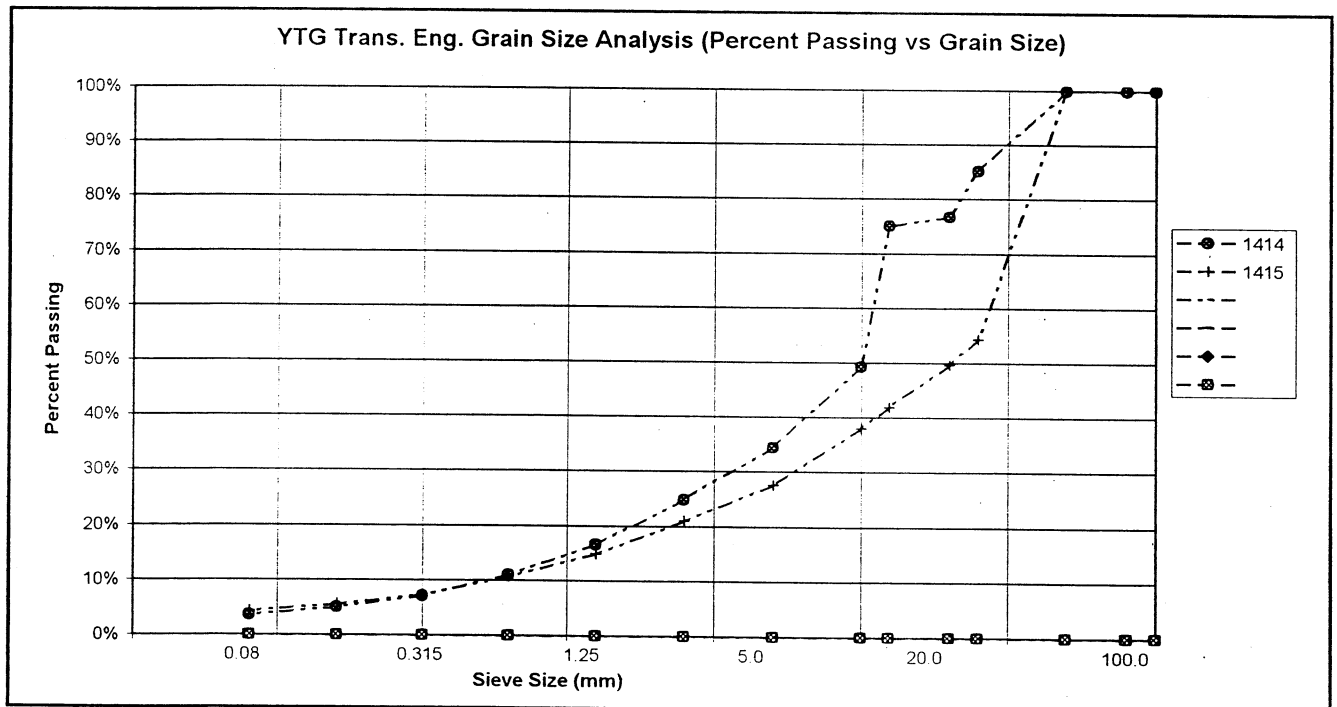


PROJECT NUMBER: 092-202101-0361-1
 CLIENT: ENGINEERING CAPITAL
 PROJECT NAME: SHAKWAK SEG 11
 PROJECT LOCATION: Km 1729.6-1787 A/H
 DRILL UNIT: MOBILE B40 L
 HOLE LOCATION: See Testhole Log Sheet
 LOGGED BY: G.C.

HOLE No.: 624-1941

DATE COMP: 2001/09/20

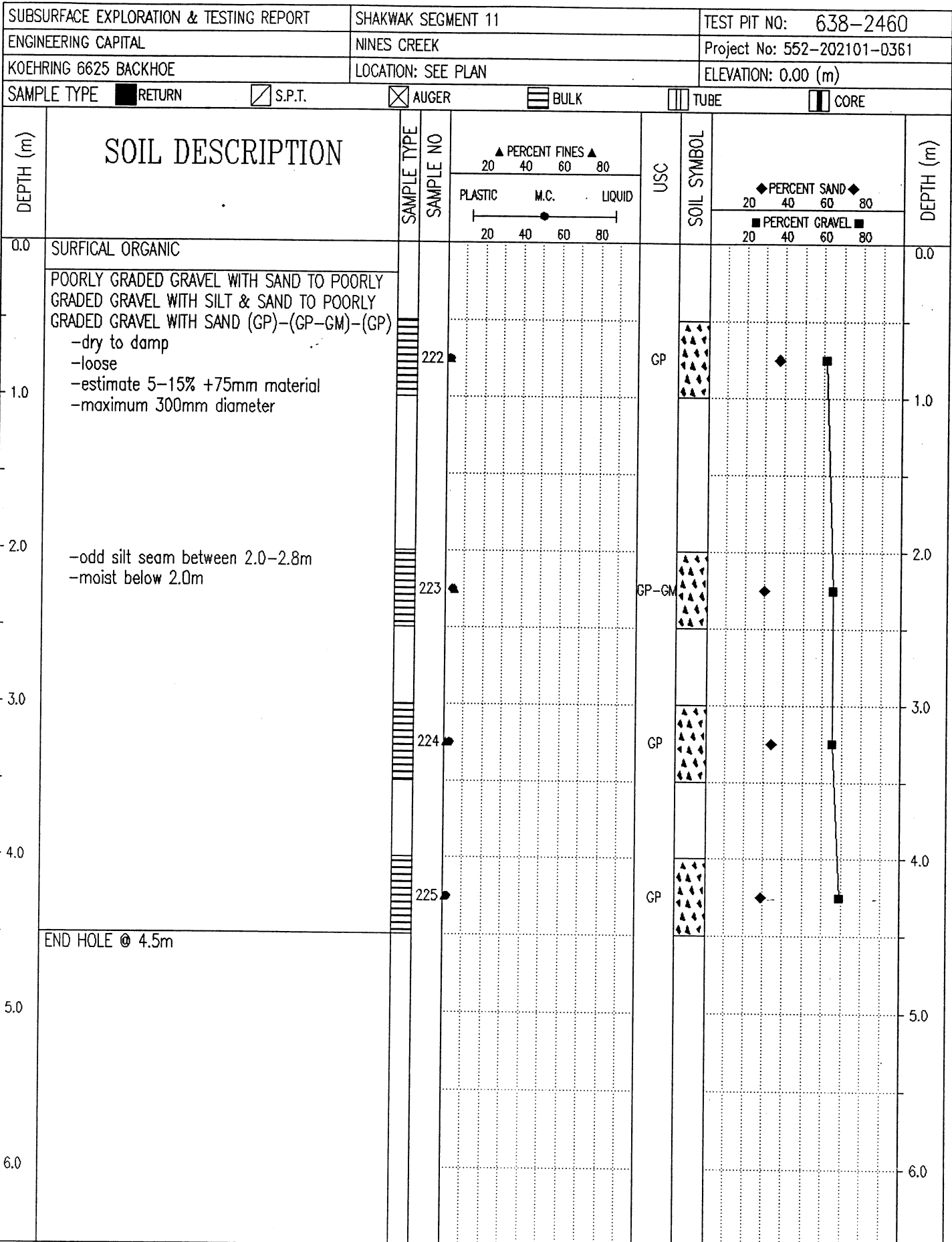
FIELD NO:	1414	1415			
LAB NO:	2194	2195			
DEPTH:	1.0-2.0	3.5-4.5			
TYPE:	AUGER	AUGER	AUGER	AUGER	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	85%	54%			
20.0	77%	50%			
12.5	75%	42%			
10.0	49%	38%			
5.0	34%	28%			
2.5	25%	21%			
1.25	17%	15%			
0.630	11%	11%			
0.315	7%	7%			
0.160	5%	6%			
0.080	4%	4%			
M.C.(%)	2%	2%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	66	72			
% SAND:	31	23			
% FINES:	4	4			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)			



Km 1730.2 LHS Alaska Highway #1
Pit Ident. 115 G-21 (Nines Creek)

Book # 638

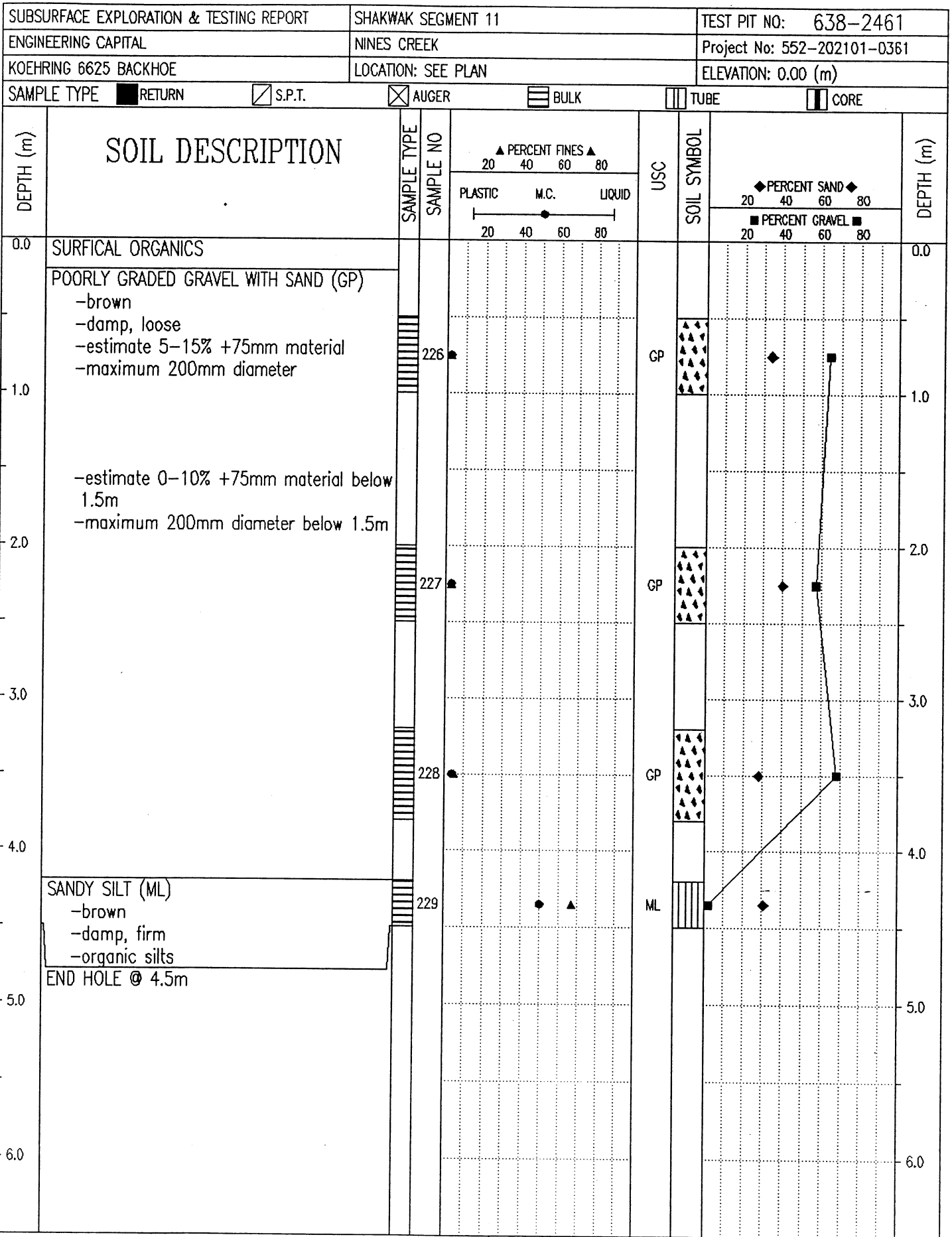
Test Pit Logs



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23



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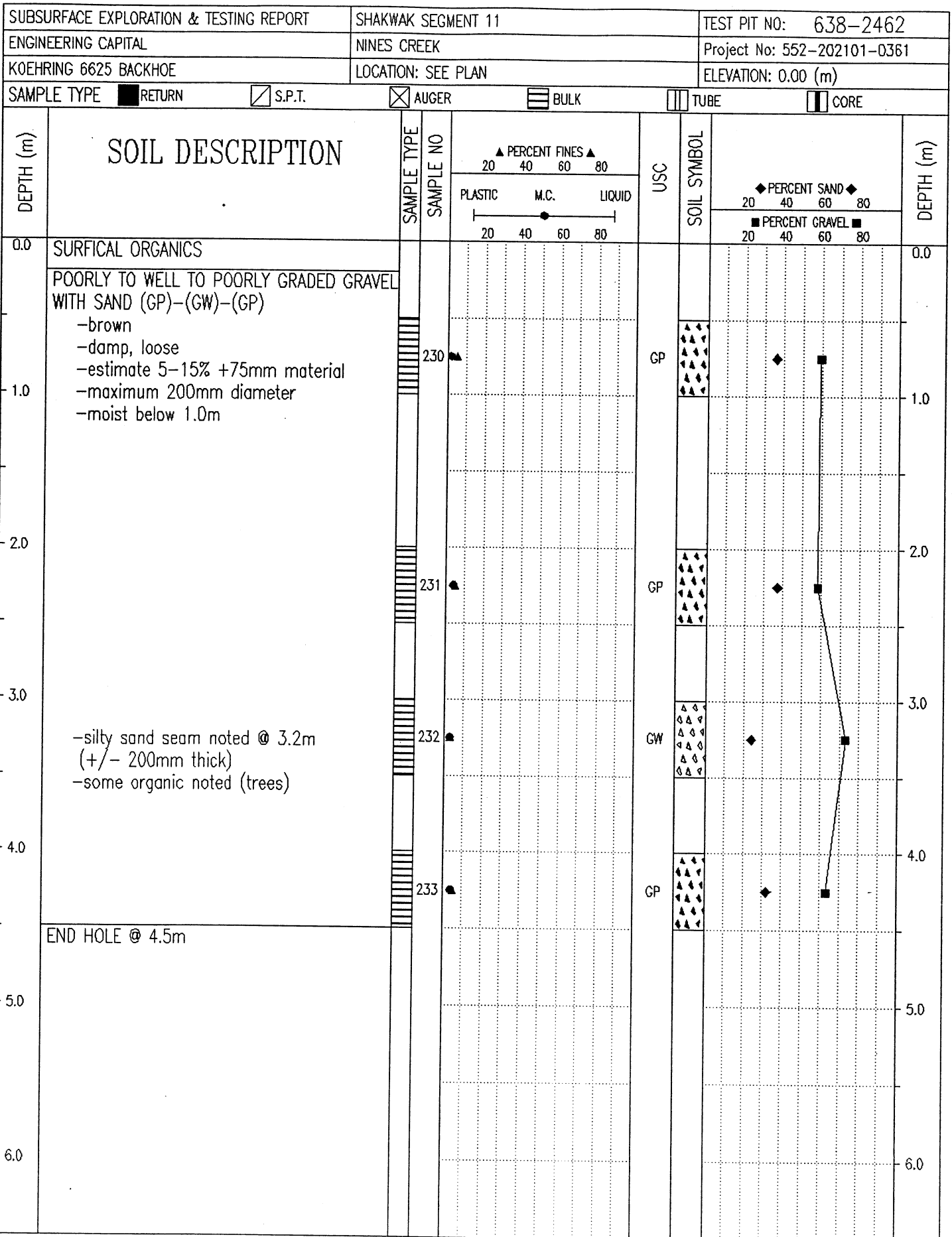
LOGGED BY: JRP

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.5 m

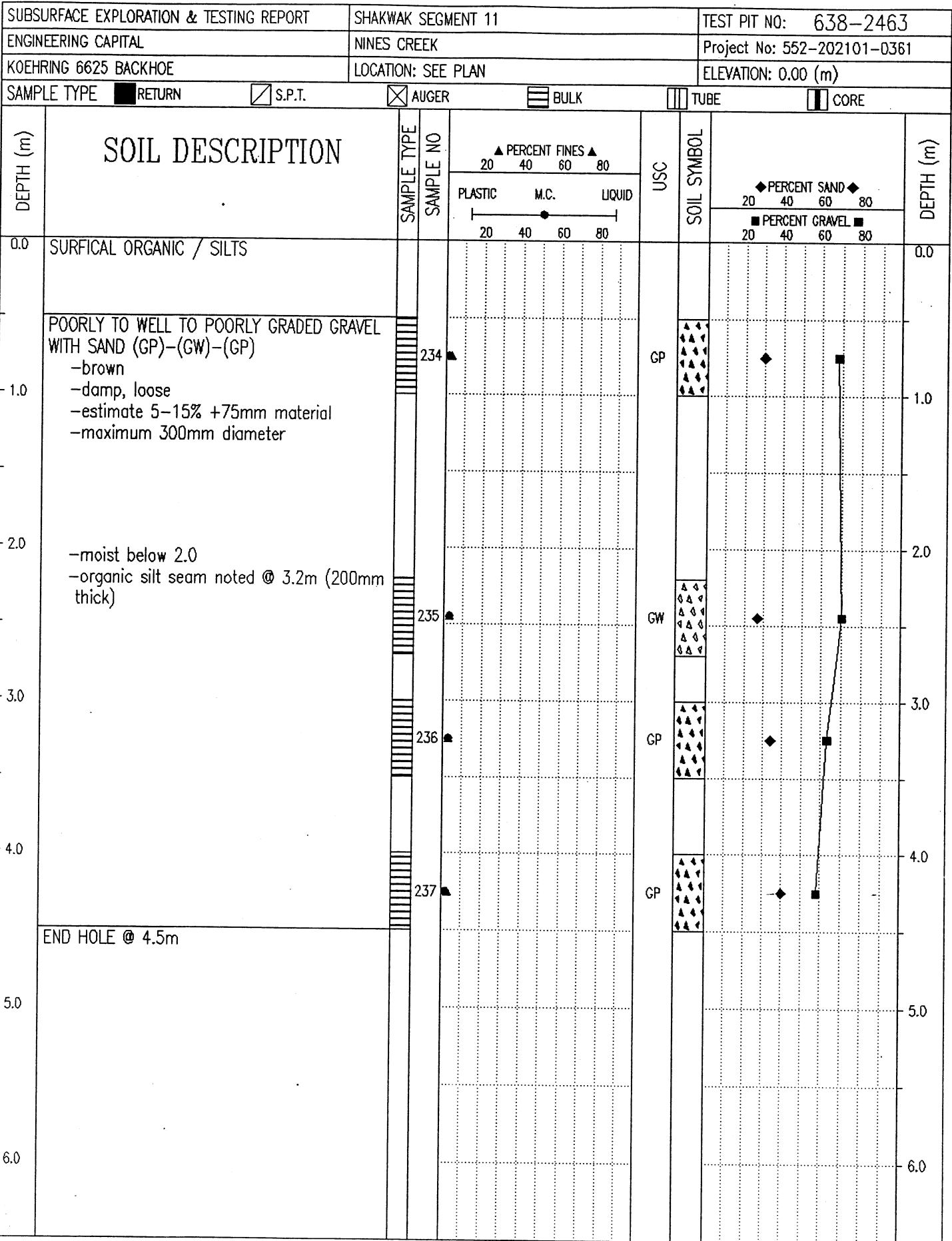
COMPLETE: 02/09/23



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

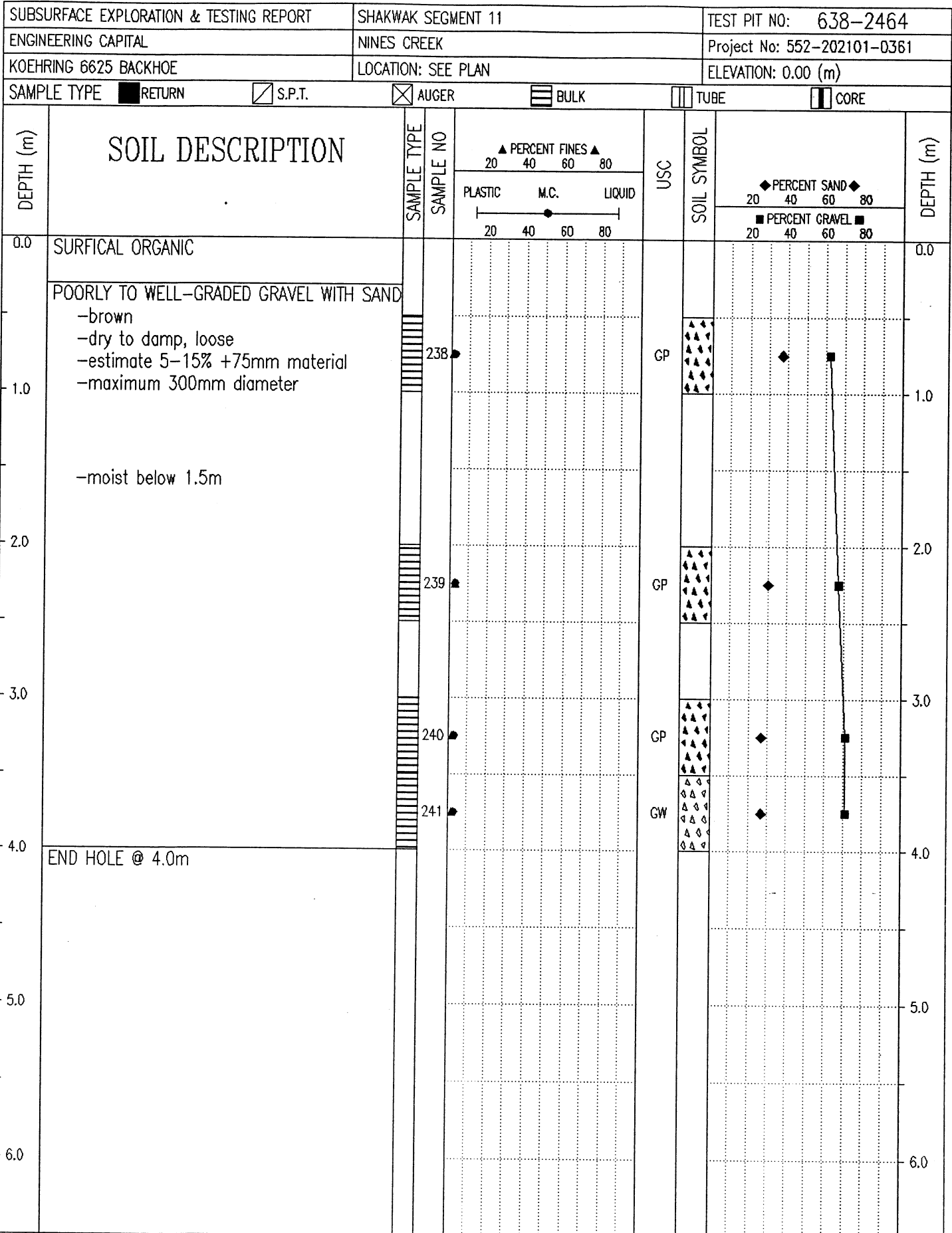
COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23



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Transportation Engineering

LOGGED BY: JRP
REVIEWED BY:
Fig. No:

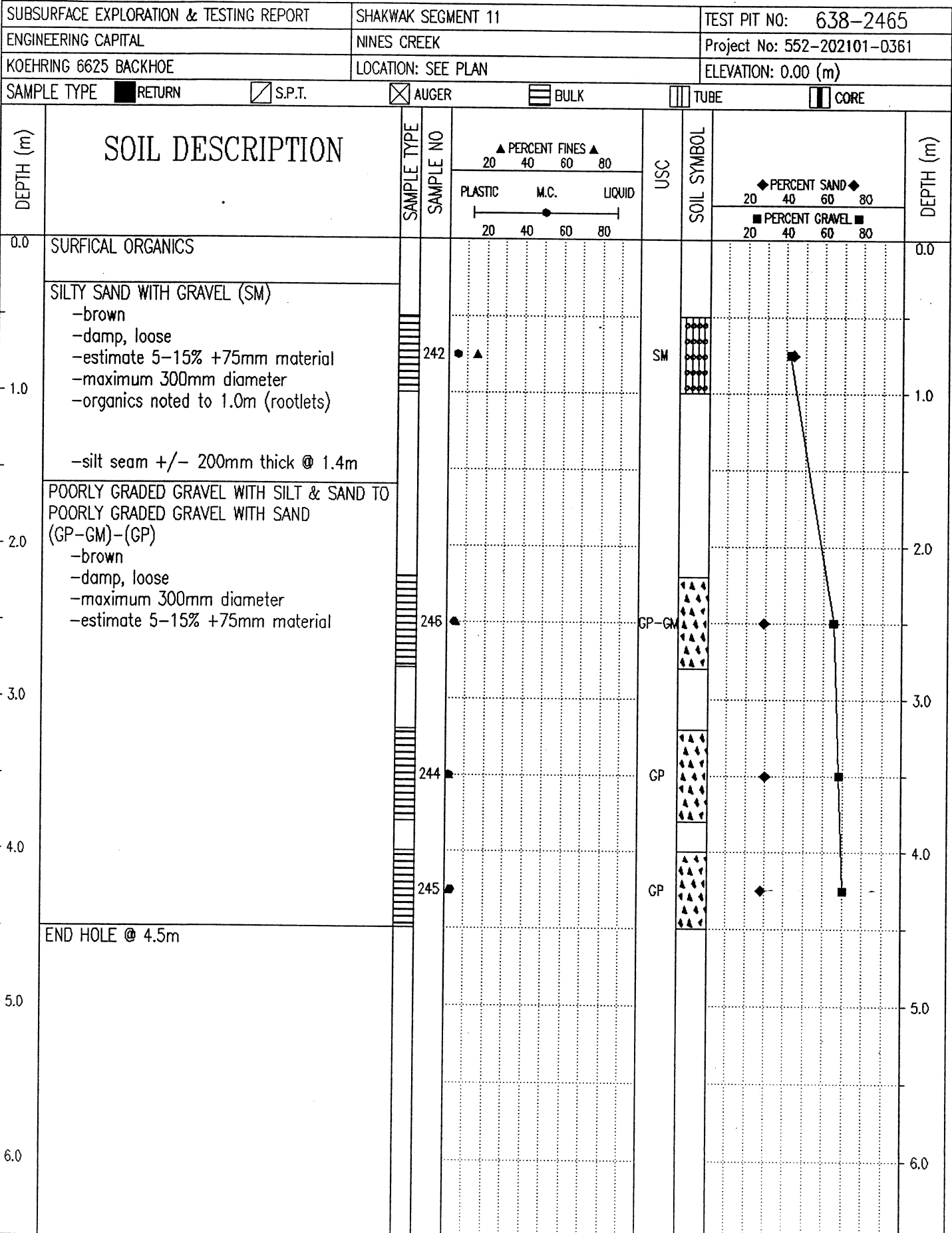
COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.0 m
COMPLETE: 02/09/23



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

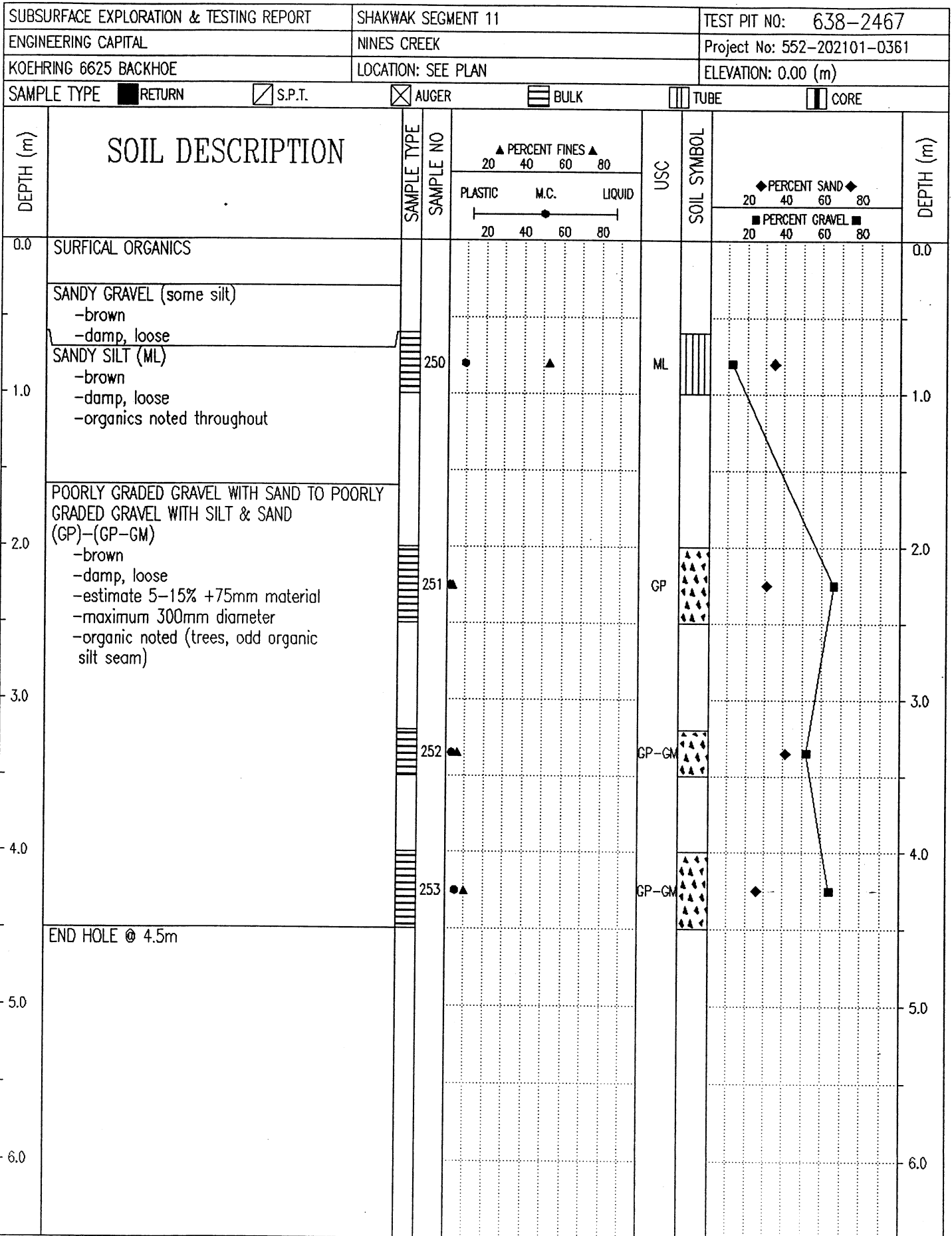
COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2466											
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361											
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)											
SAMPLE TYPE		RETURN		S.P.T.											
		AUGER		BULK											
		TUBE		CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	80	20	40	
0.0	SURFICAL ORGANICS													0.0	
0.0 - 4.5	POORLY TO WELL TO POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND (GP)-(GW)-(GP)-(GP-GM) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter -organics noted to 1.3m depth (rootlets)		246				GP							1.0	
			247				GW							2.0	
			248				GP							3.0	
			249				GP-GM							4.0	
4.5	END HOLE @ 4.5m													5.0	
6.0														6.0	

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REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23



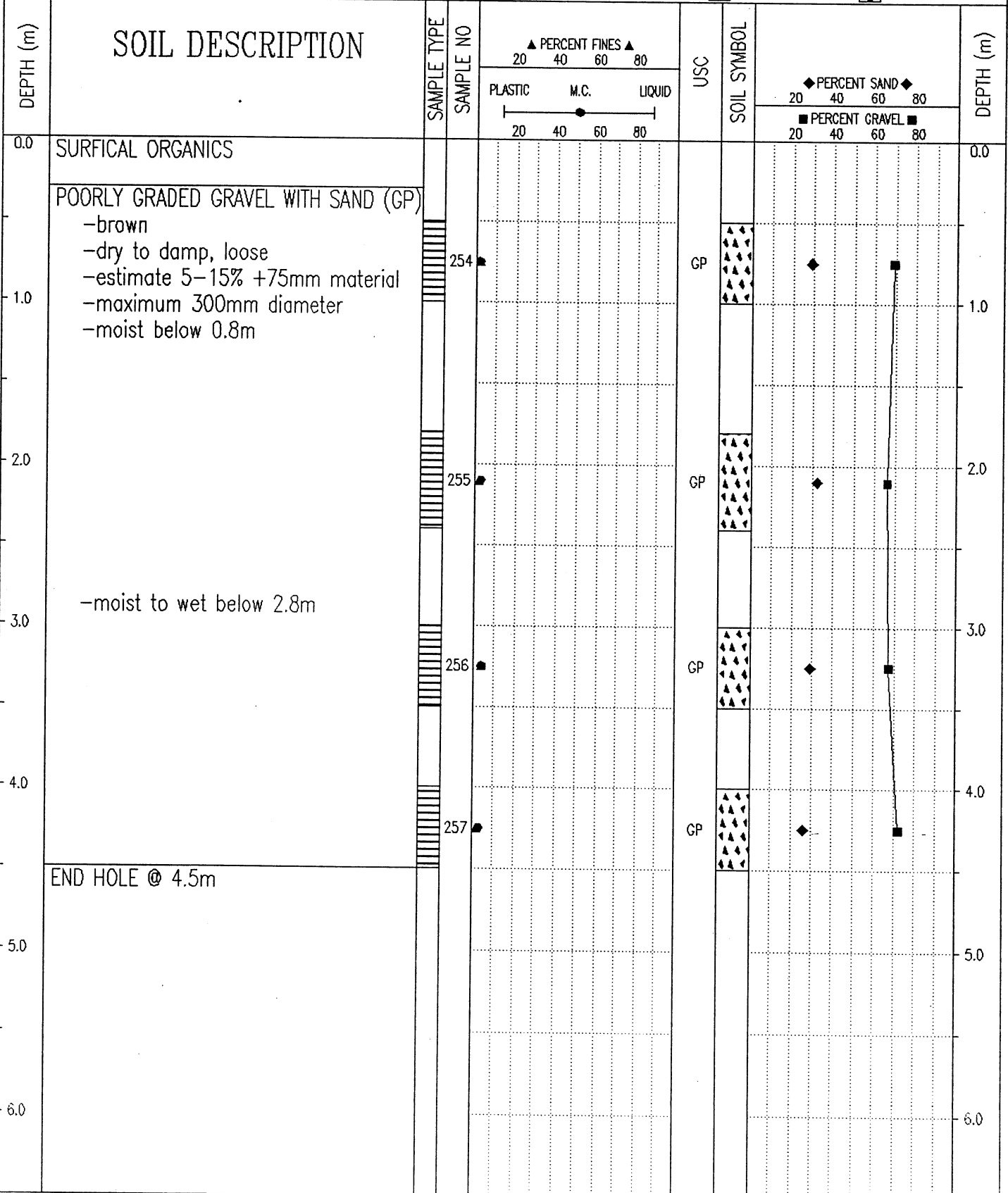
Government of Yukon
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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2468
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)

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



Government of Yukon Transportation Engineering	LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
	REVIEWED BY:	COMPLETE: 02/09/23
	Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2469							
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361							
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER							
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE							
				<input type="checkbox"/> CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	SURFICAL ORGANICS										0.0
0.0 - 1.0	SANDY GRAVEL -trace silt -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter										1.0
1.0 - 2.0	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM) -brown -damp, loose		258				SW-SM				2.0
2.0 - 3.0	POORLY GRADED GRAVEL WITH SAND TO SILTY GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SAND (GP)-(GM)-(GP) -brown -damp, loose -estimate 5-15% +75mm material -maximum 200mm diameter		259				GP				3.0
3.0 - 4.0											4.0
4.0 - 5.0	-organic silt seam @ 3.6m 300mm thick -tree encountered		260				GM				4.0
5.0 - 5.0	END HOLE @ 5.0m		261				GP				5.0
5.0 - 6.0											6.0

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Transportation Engineering

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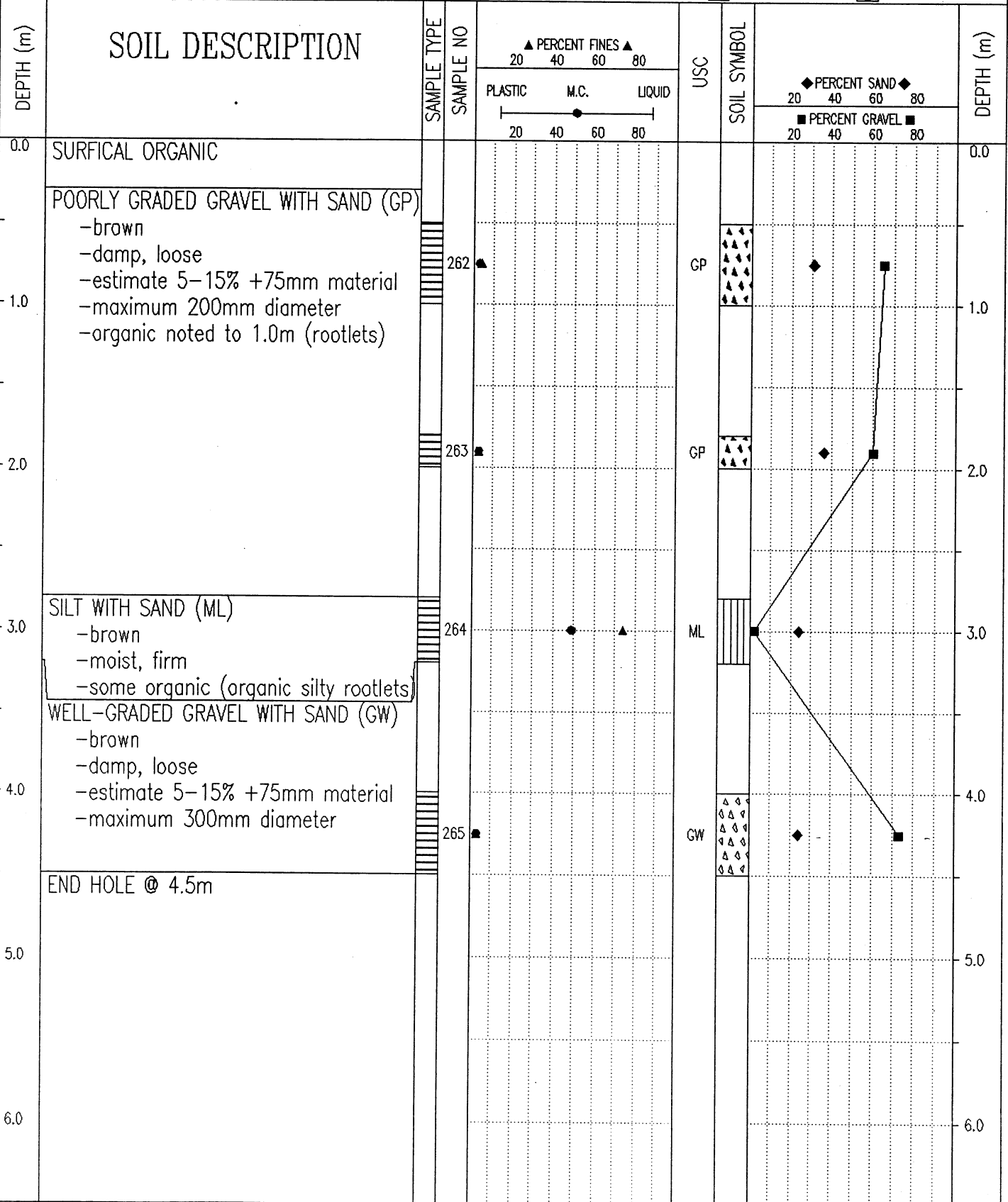
REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 5.0 m

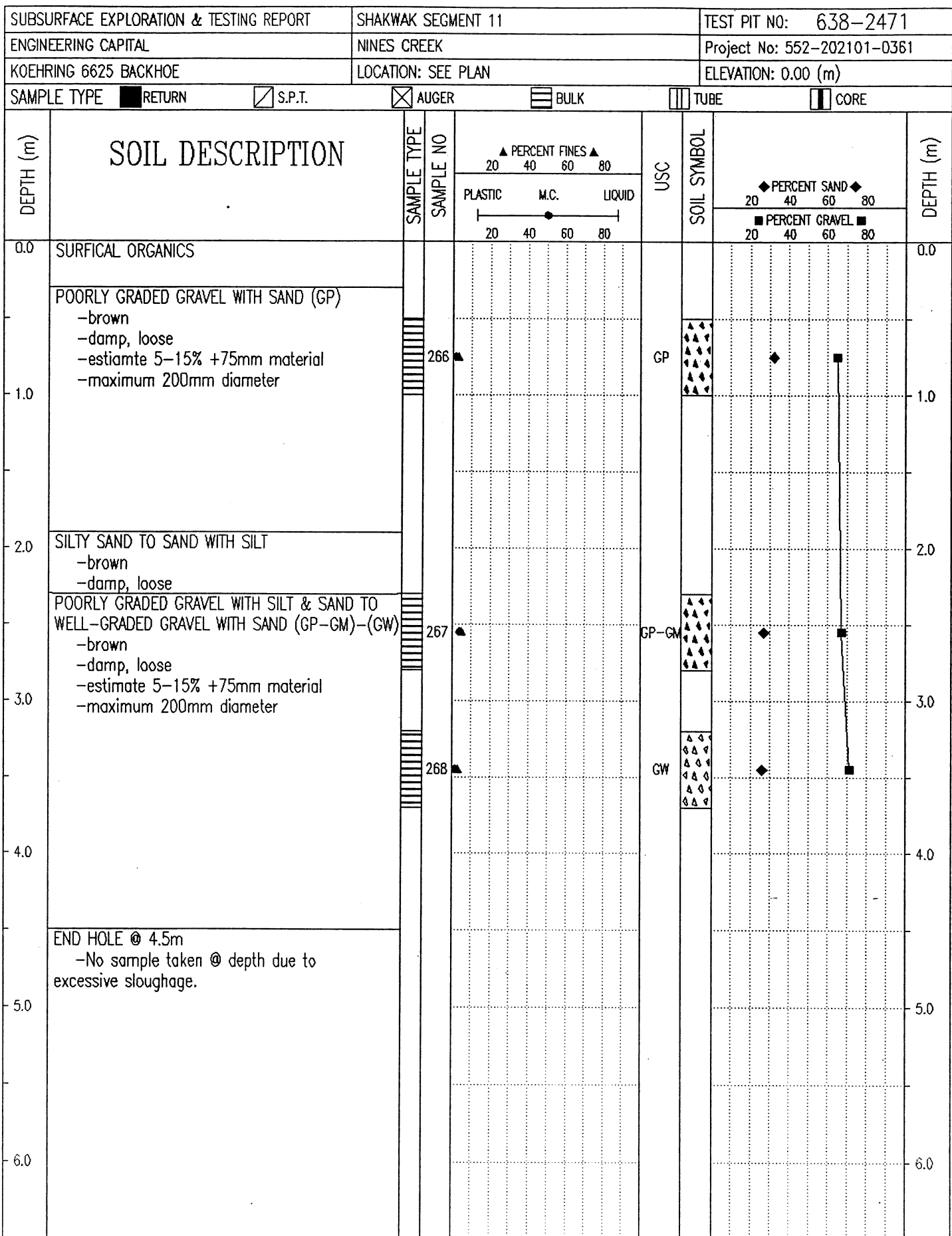
COMPLETE: 02/09/23

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2470
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



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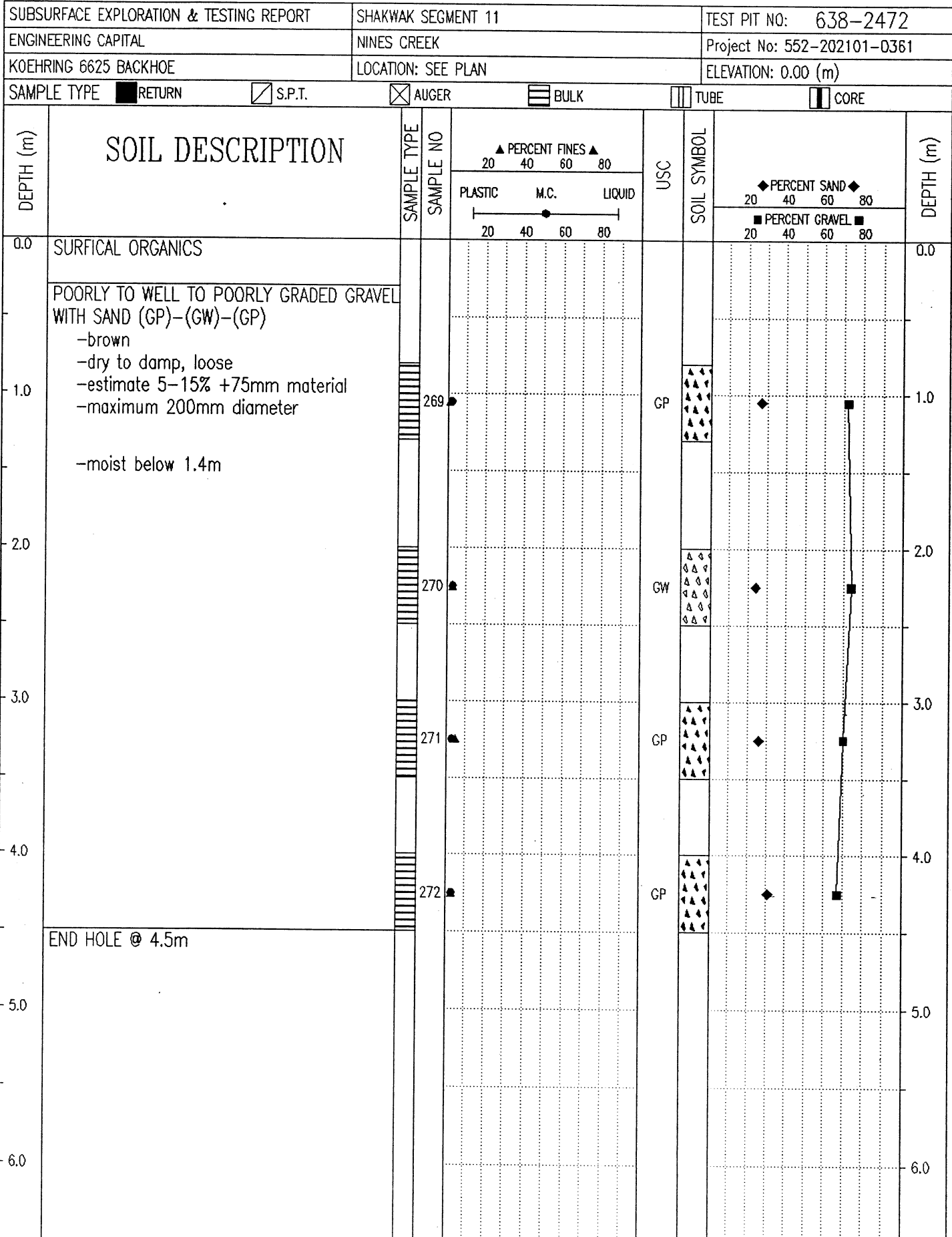
LOGGED BY: JRP	COMPLETION DEPTH: 4.5 m
REVIEWED BY:	COMPLETE: 02/09/23
Fig. No:	Page 1 of 1



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REVIEWED BY:
Fig. No:

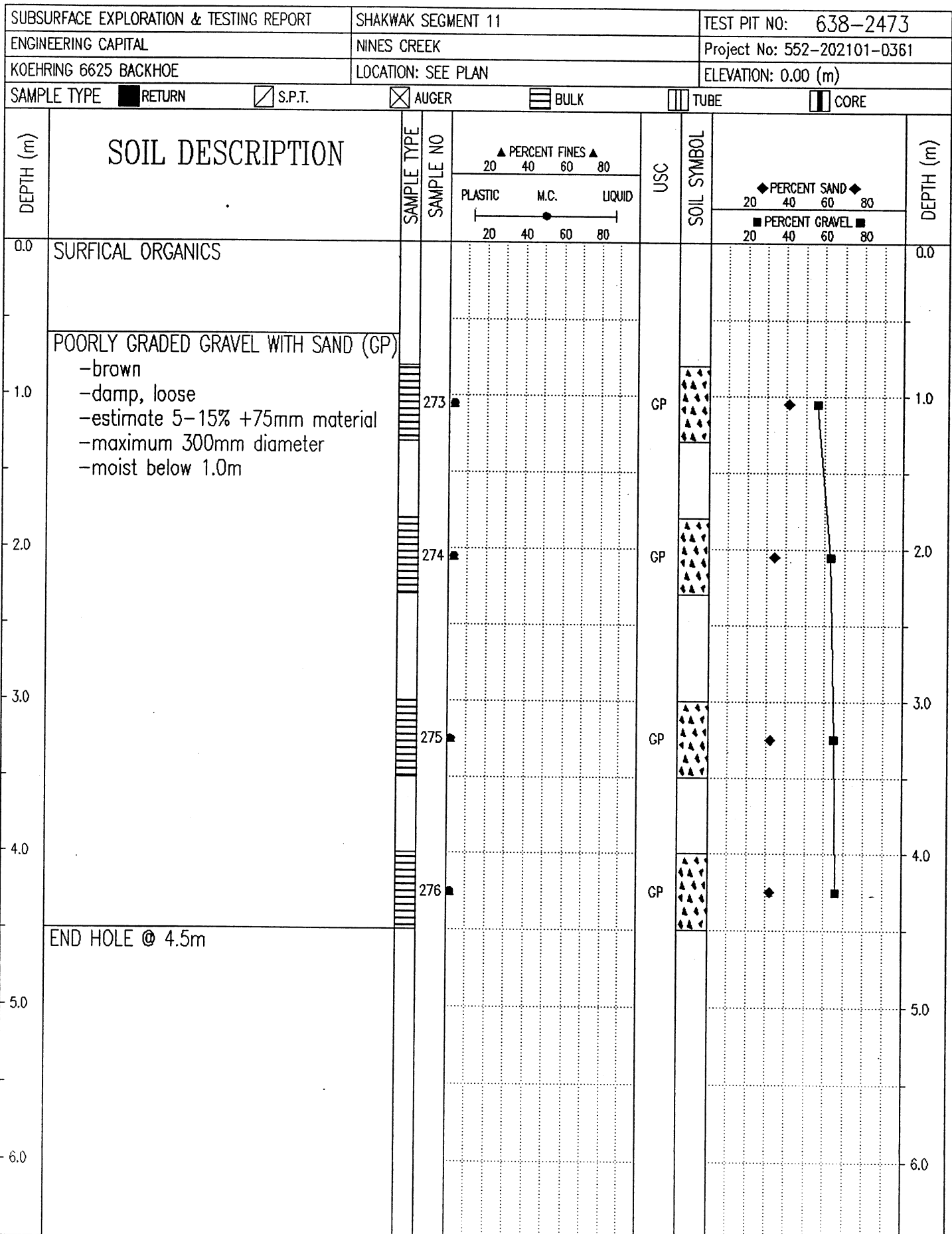
COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

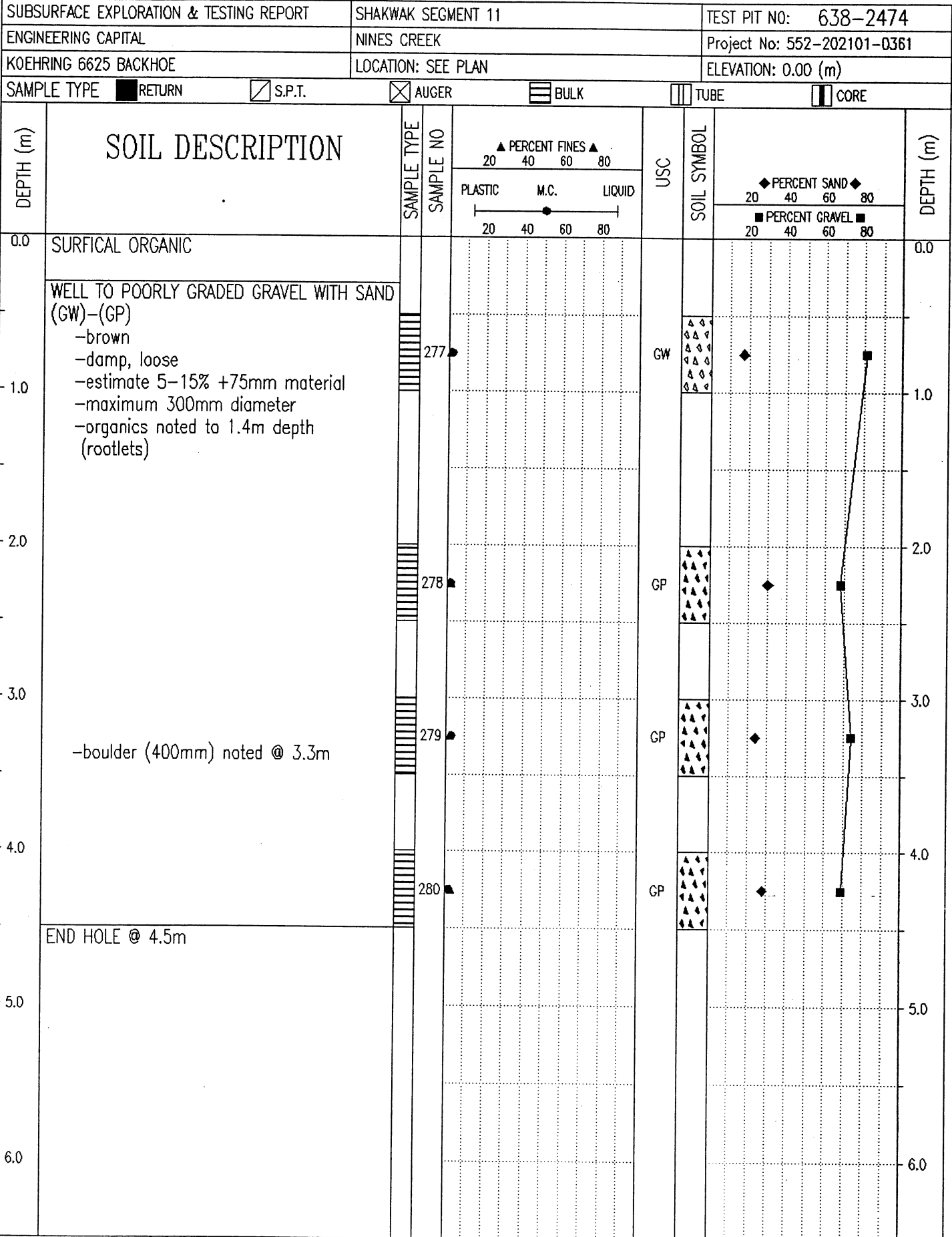
COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23



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Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23

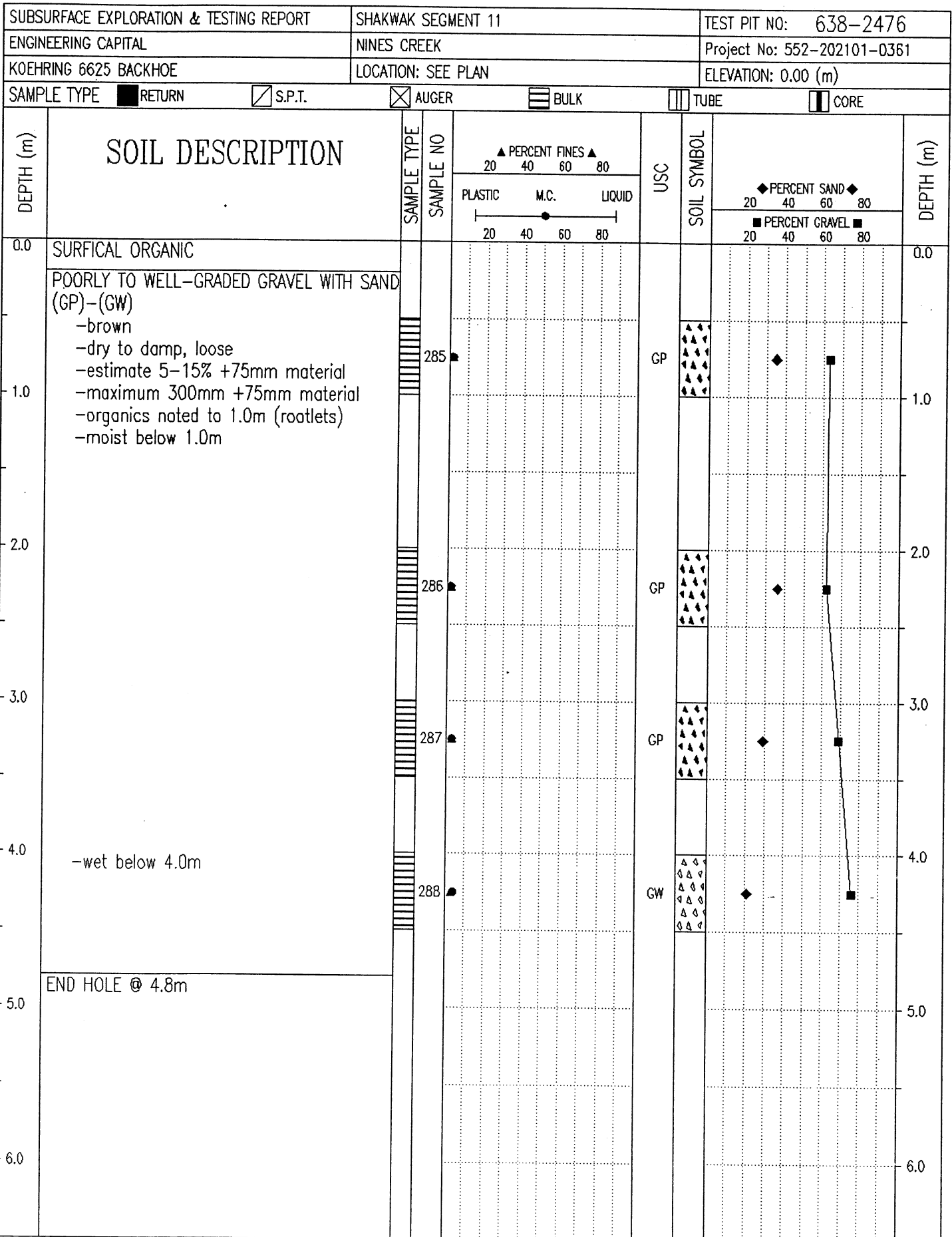
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2475			
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361			
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)			
SAMPLE TYPE		<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE

DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■		DEPTH (m)
				20	40	60			80	20	40	60	
0.0	SURFICAL ORGANIC											0.0	
0.0 - 1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -dry to damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter												
1.0			281				GP					1.0	
1.0 - 2.0	SILTY SAND -brown -damp, loose												
2.0			282				GP-GM					2.0	
2.0 - 3.0	POORLY GRADED GRAVEL WITH SILT & SAND TO WELL-GRADED GRAVEL WITH SAND (GP-GM)-(GW) -brown -damp, loose -estimate 5-15% +75mm material -maximum 300mm diameter												
3.0			283				GP-GM					3.0	
3.0 - 4.0	-moist below 3.0m												
4.0			284				GW					4.0	
4.0 - 4.5	END HOLE @ 4.5m												

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Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/23

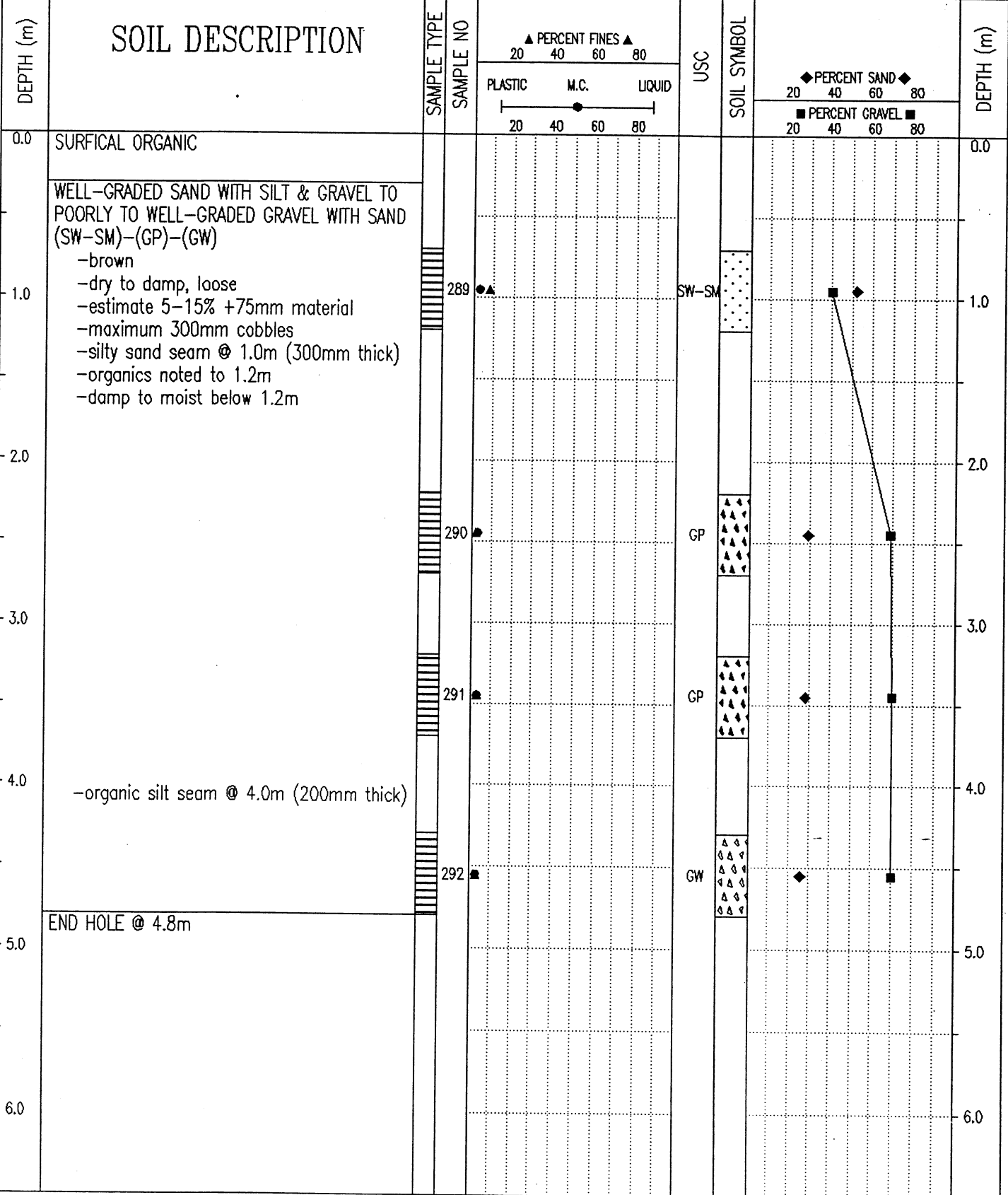


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REVIEWED BY:
Fig. No:

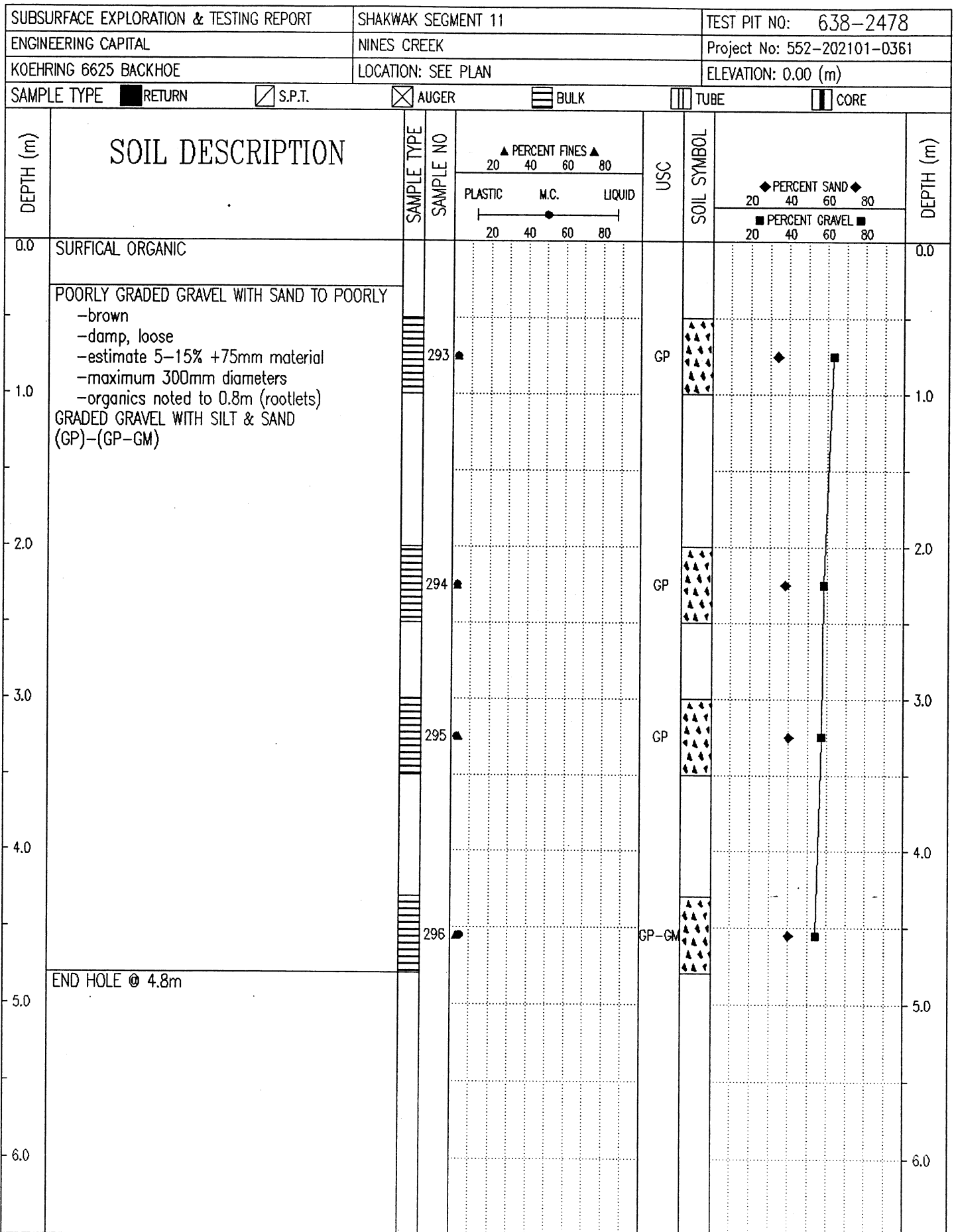
COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/23

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



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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/23
Fig. No:	Page 1 of 1



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REVIEWED BY:

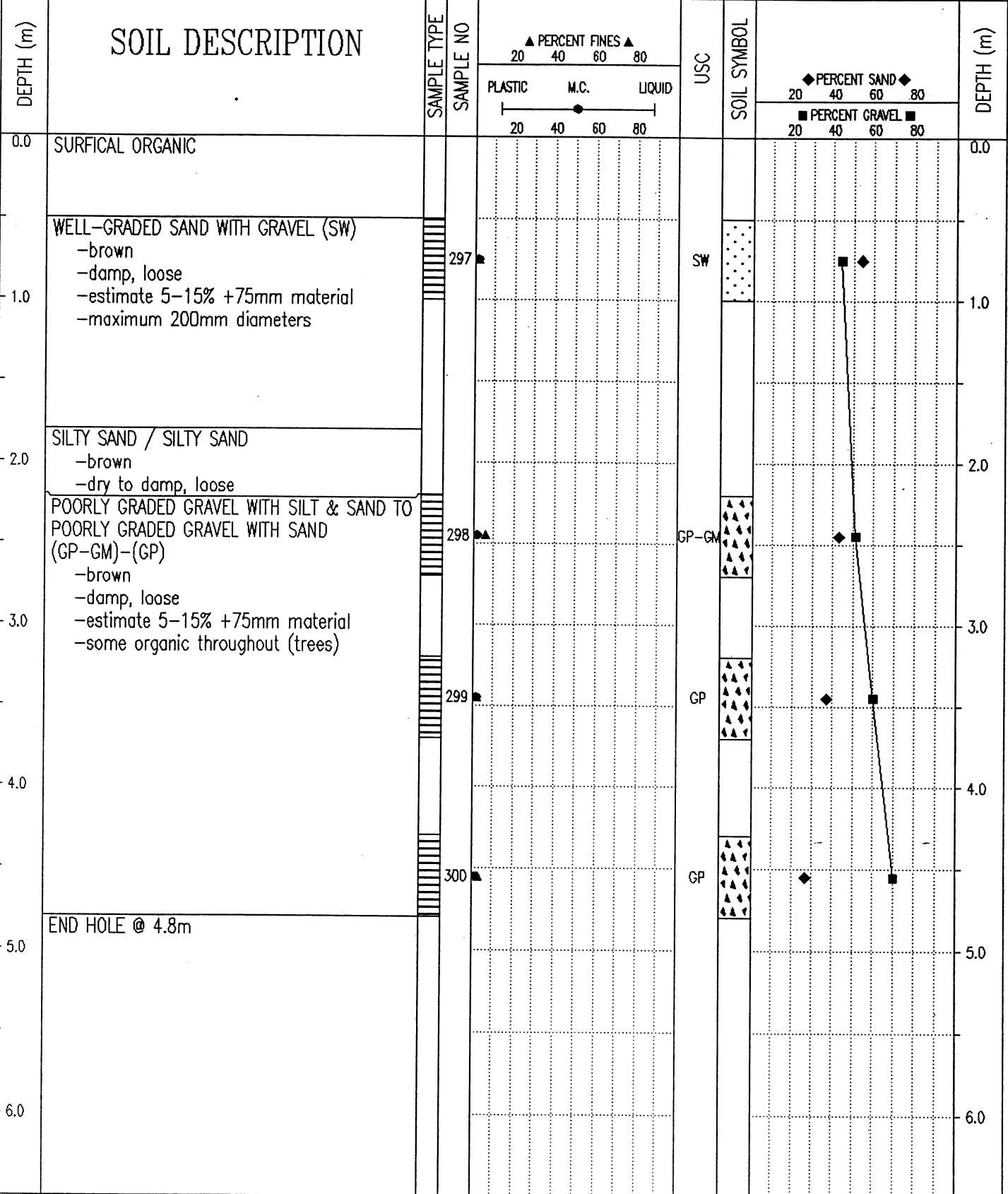
Fig. No:

COMPLETION DEPTH: 4.8 m

COMPLETE: 02/09/23

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



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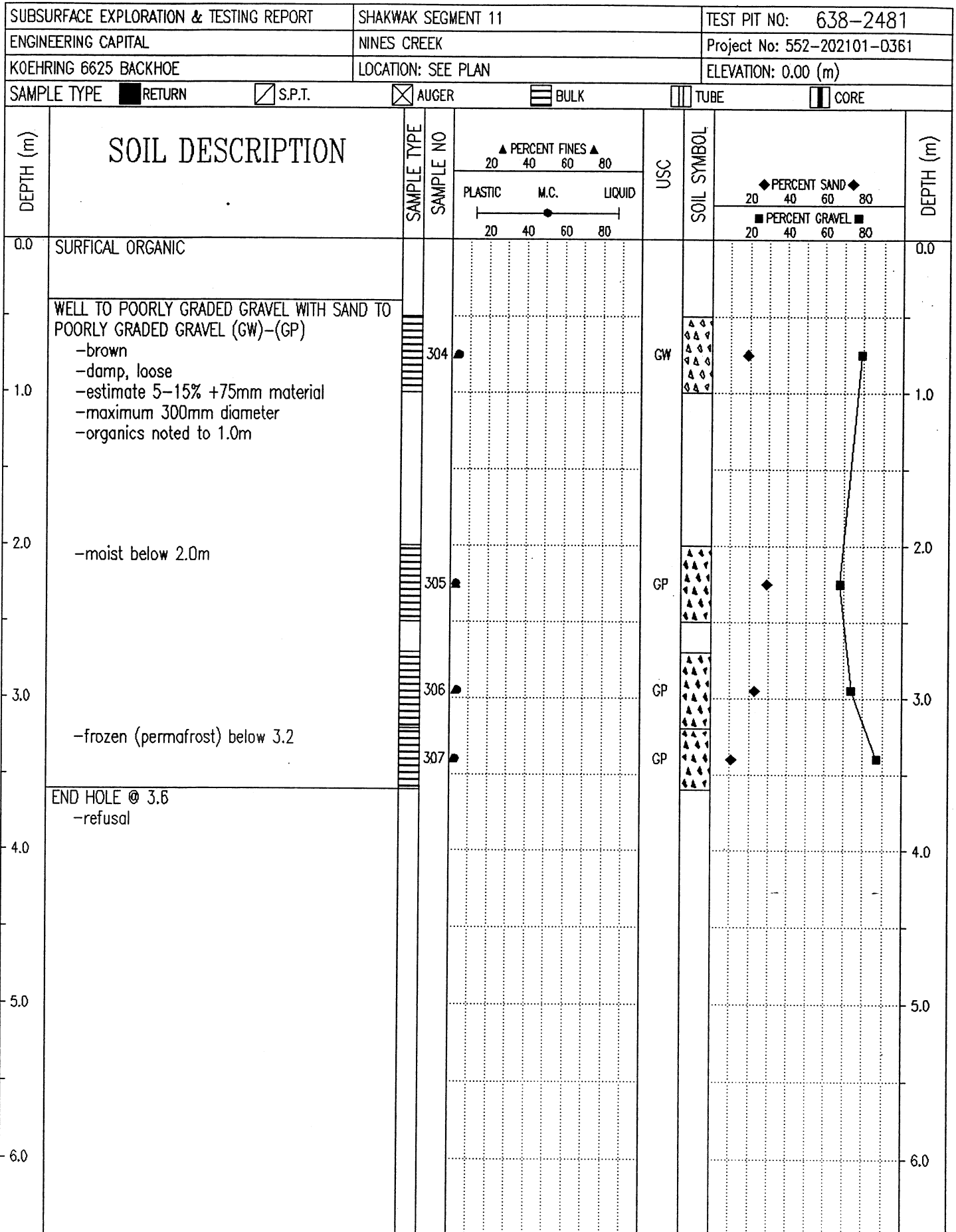
LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/23
Fig. No:	

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2480								
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361								
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
				<input type="checkbox"/> BULK								
				<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■	DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40		
0.0	SURFICAL ORGANIC											0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -maximum 300mm diameters -silty sand seam @ 1.2m +/- 300mm thick		301				GP					1.0
2.0	SILTY SAND (SM) -frozen (permafrost) -moved 2m north		302				SM					2.0
2.4	WELL-GRADED GRAVEL WITH SAND (GW) -frozen		303				GW					2.4
2.4	END HOLE @ 2.4m -permafrost. Note: moved 20m north, material was sandy gravel with trace silt 0.5m to 2.4m											2.4

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REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 2.4 m
COMPLETE: 02/09/23

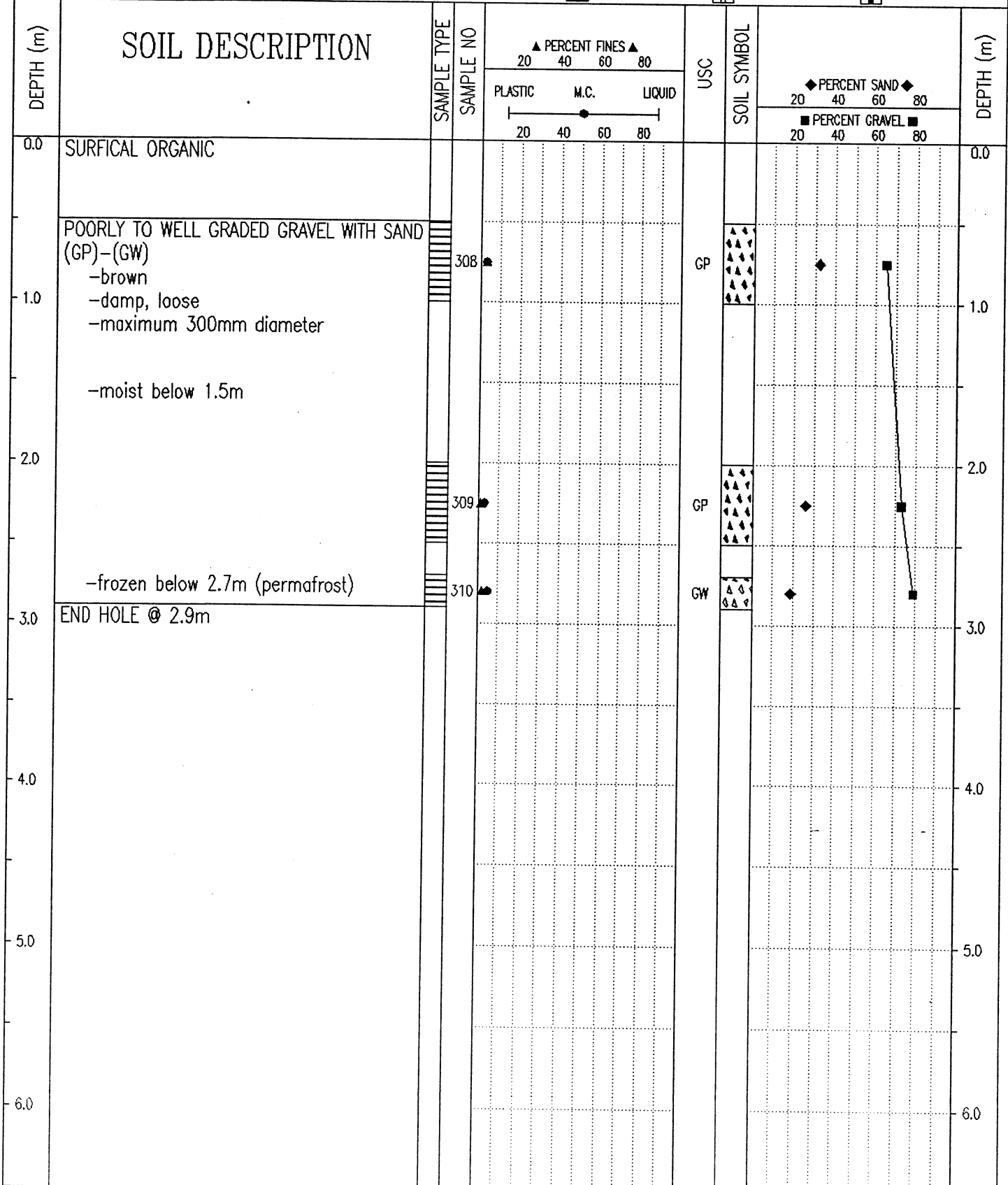


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Fig. No:

COMPLETION DEPTH: 3.6 m
COMPLETE: 02/09/24

SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2482
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.
	<input checked="" type="checkbox"/> AUGER	<input type="checkbox"/> BULK
	<input type="checkbox"/> TUBE	<input type="checkbox"/> CORE

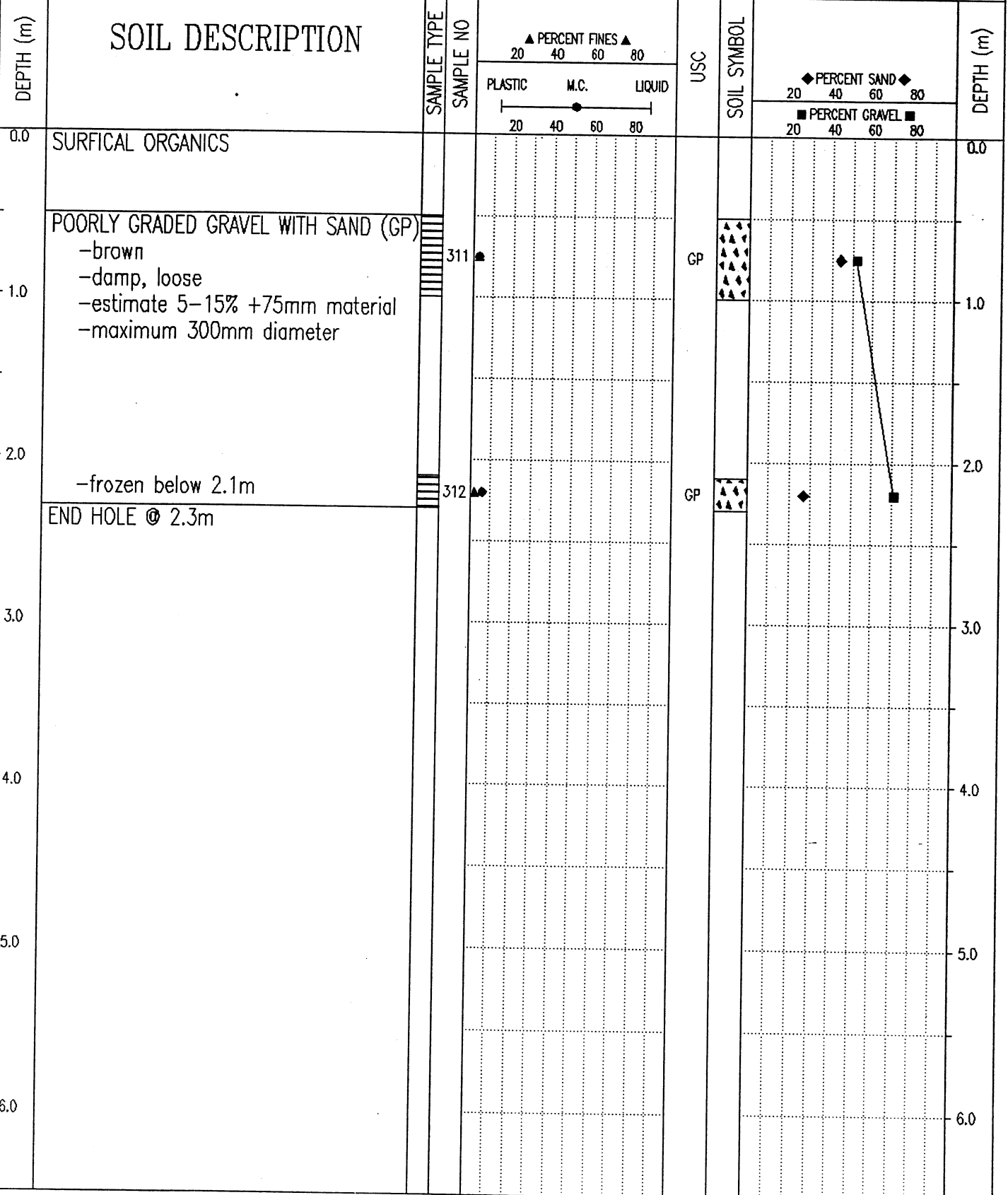


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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 2.9 m
COMPLETE: 02/09/24

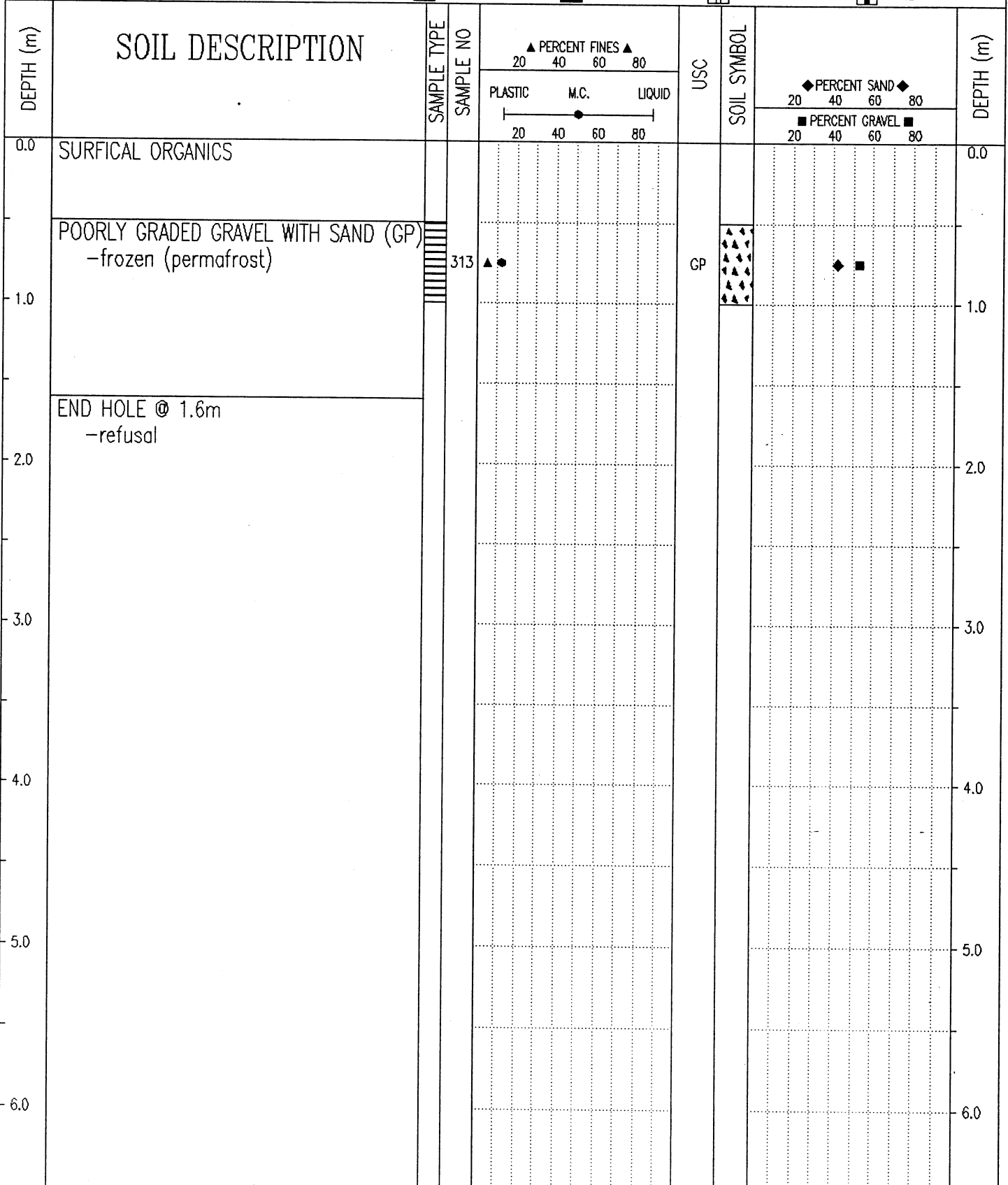
SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



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LOGGED BY: JRP	COMPLETION DEPTH: 2.3 m
REVIEWED BY:	COMPLETE: 02/09/24
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2484
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE

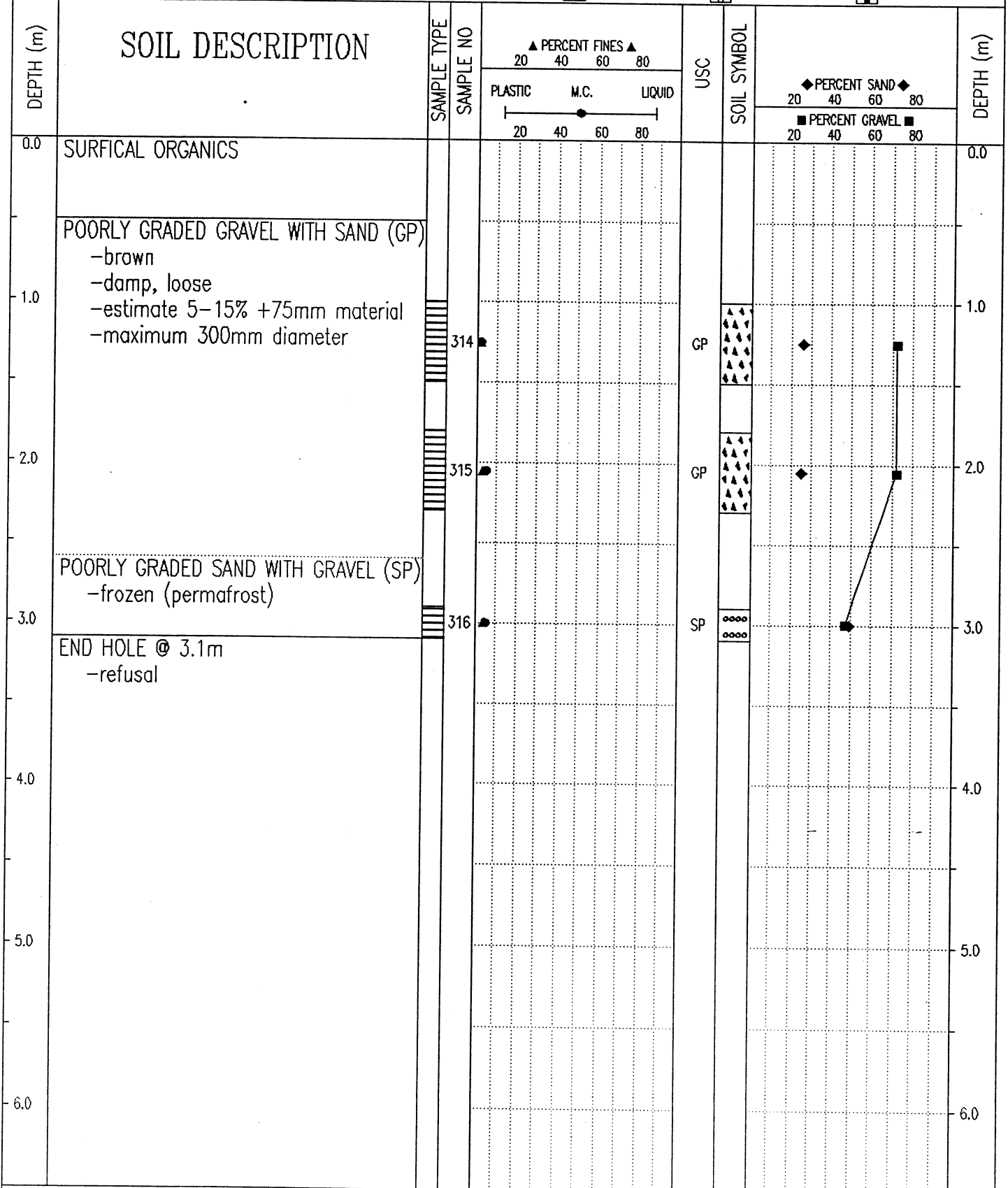


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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 1.6 m
COMPLETE: 02/09/24

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2485
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
			<input type="checkbox"/> BULK
			<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE

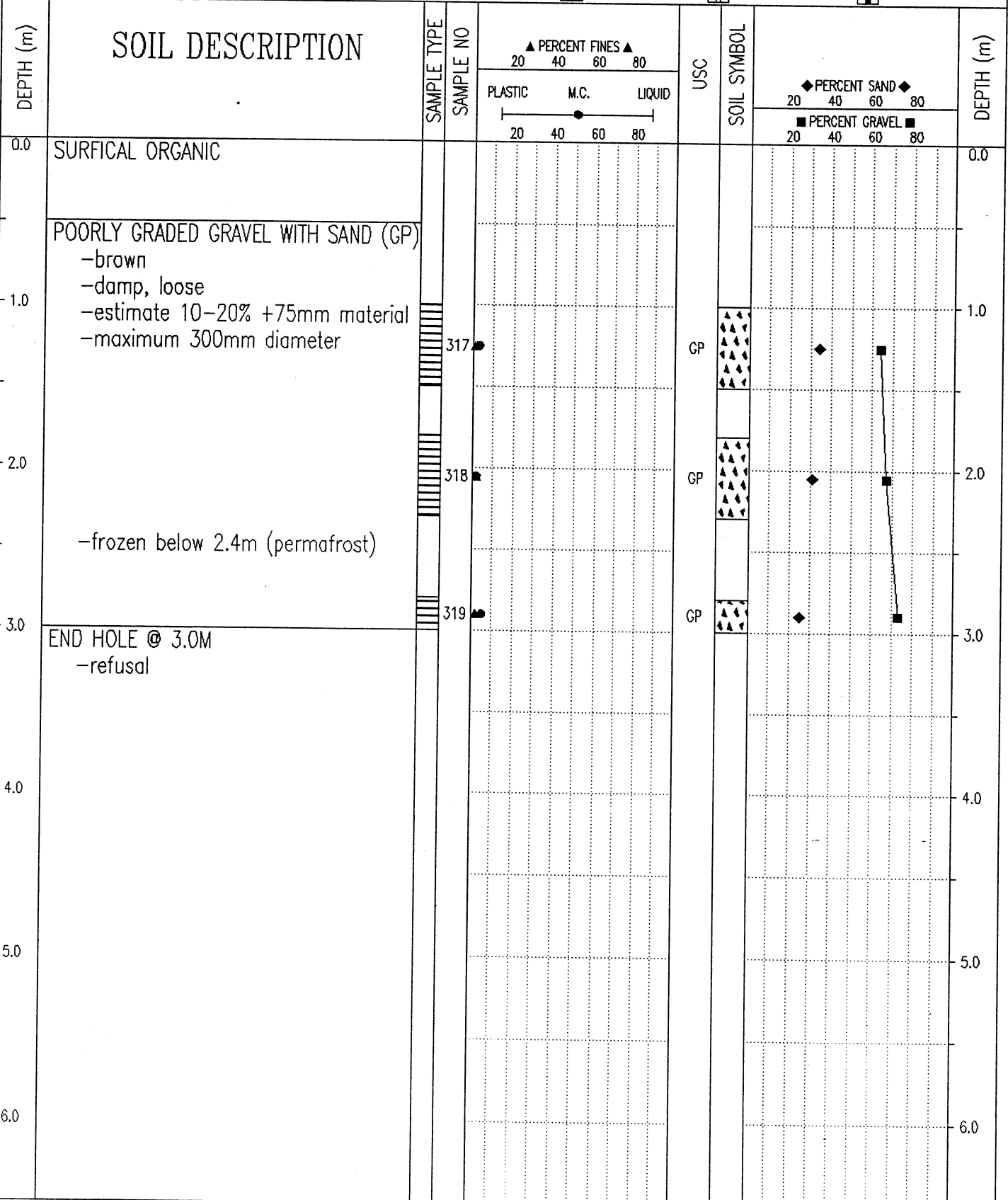


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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 3.1 m
COMPLETE: 02/09/24

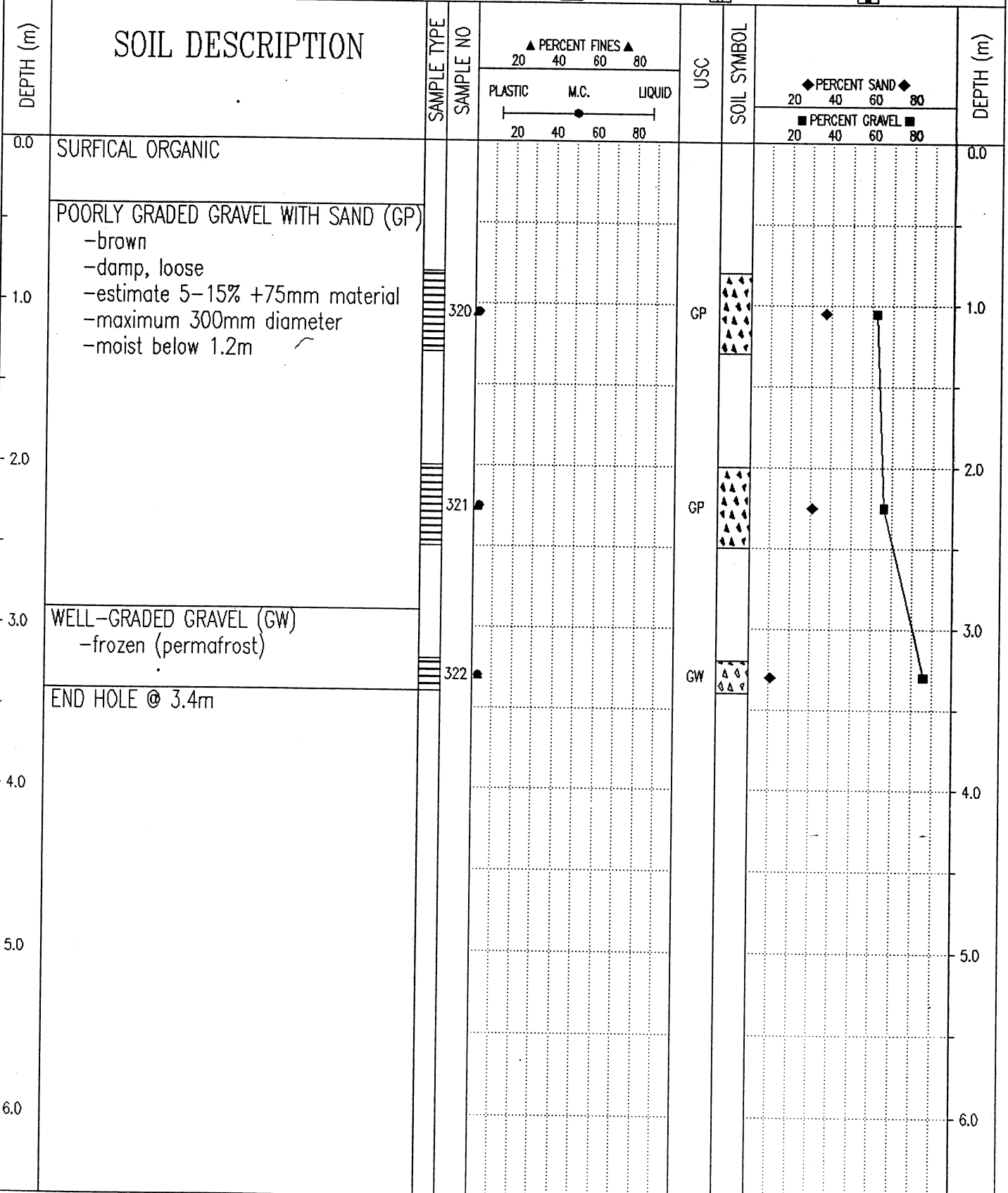
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2486
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
			<input type="checkbox"/> BULK
			<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



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LOGGED BY: JRP	COMPLETION DEPTH: 3.0 m
REVIEWED BY:	COMPLETE: 02/09/24
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2487
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
			<input type="checkbox"/> BULK
			<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



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Fig. No:

COMPLETION DEPTH: 3.4 m
COMPLETE: 02/09/24

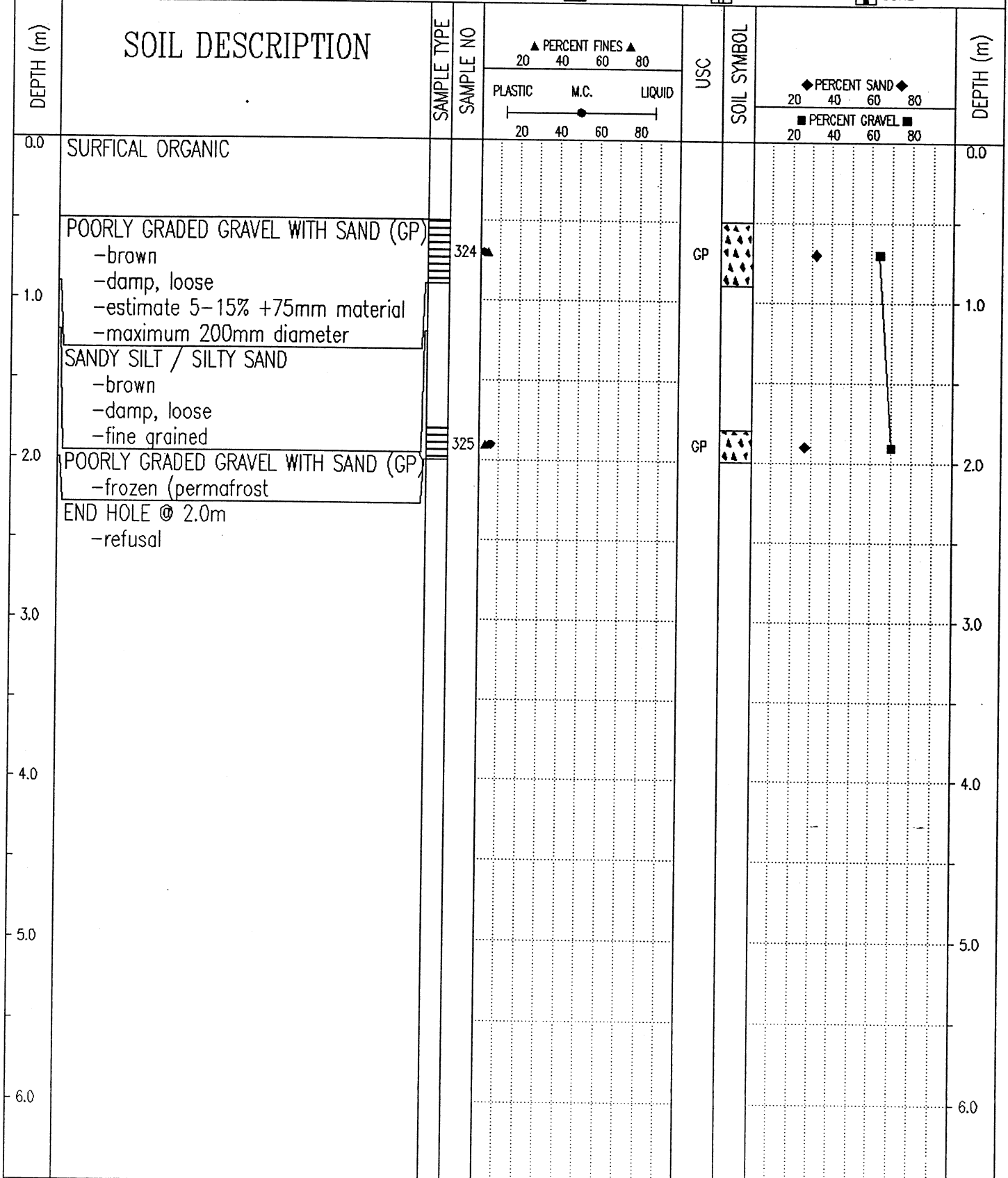
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2488								
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361								
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			DEPTH (m)
				PLASTIC	M.C.	LIQUID			PERCENT GRAVEL			
0.0	SURFICAL ORGANICS / SILTS										0.0	
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -frozen (permafrost)		323				GP	◆	■		1.0	
2.0	END HOLE @ 1.6m -refusal										2.0	
3.0											3.0	
4.0											4.0	
5.0											5.0	
6.0											6.0	

Government of Yukon
Transportation Engineering

LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 1.6 m
COMPLETE: 02/09/24

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

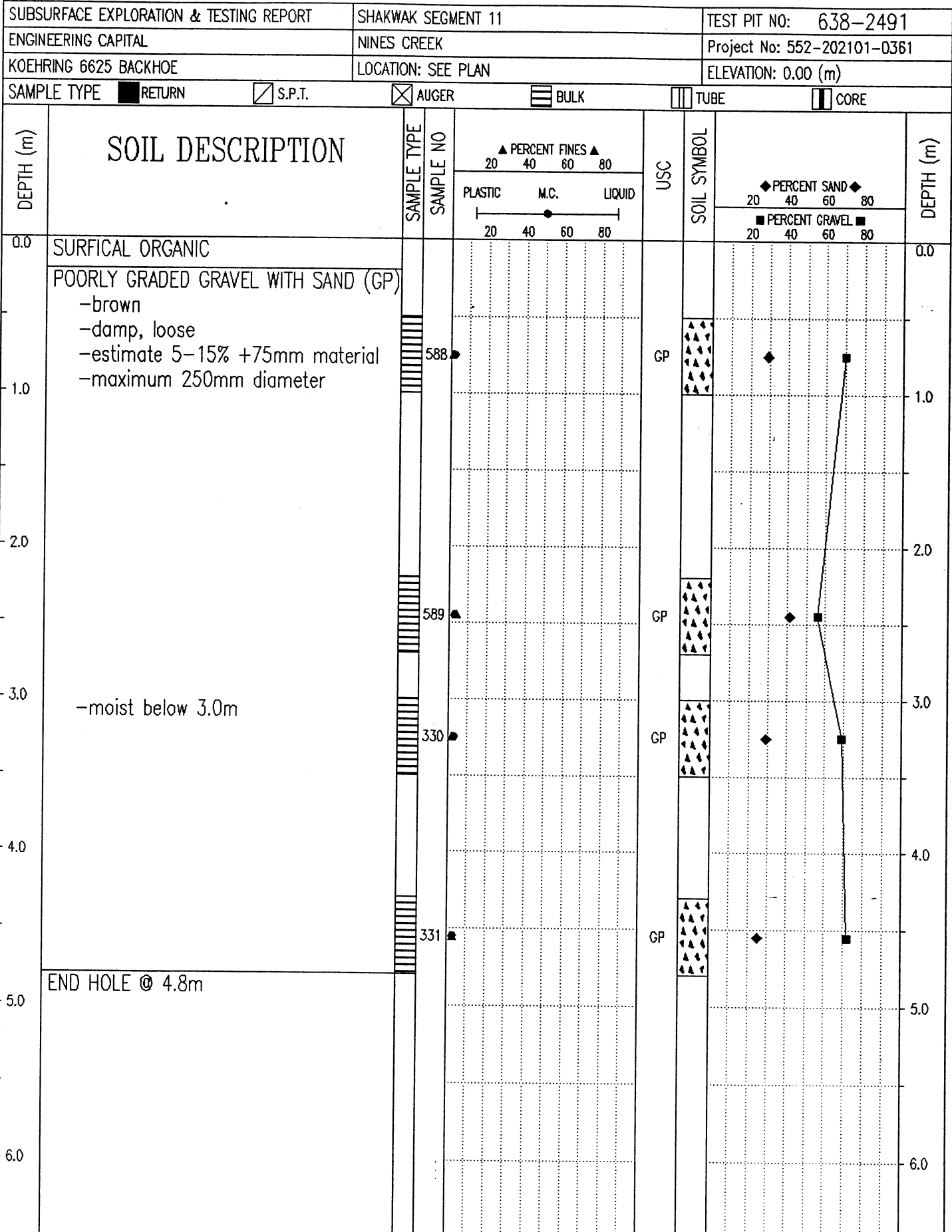


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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 2.0 m
COMPLETE: 02/09/24

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2490								
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361								
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	
0.0	SURFICAL ORGANIC											0.0
1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter -frozen below 1.4m		326				GP					1.0
2.0	END HOLE @ 2.1m -refusal		327				GP					2.0
3.0												3.0
4.0												4.0
5.0												5.0
6.0												6.0
Government of Yukon Transportation Engineering				LOGGED BY: JRP				COMPLETION DEPTH: 2.1 m				
				REVIEWED BY:				COMPLETE: 02/09/24				
				Fig. No:				Page 1 of 1				

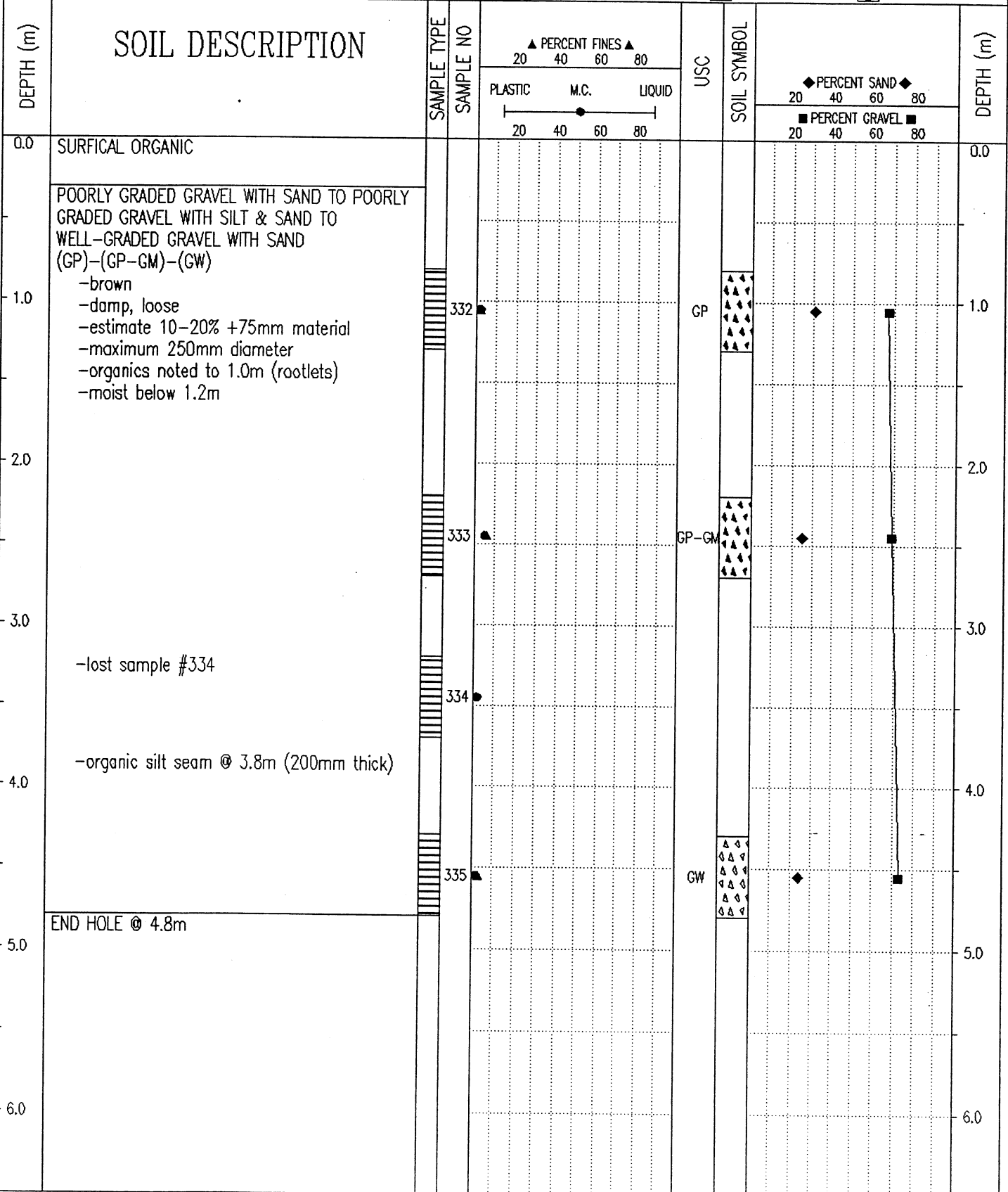


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Transportation Engineering

LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/24

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2492
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
			<input type="checkbox"/> BULK
			<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE

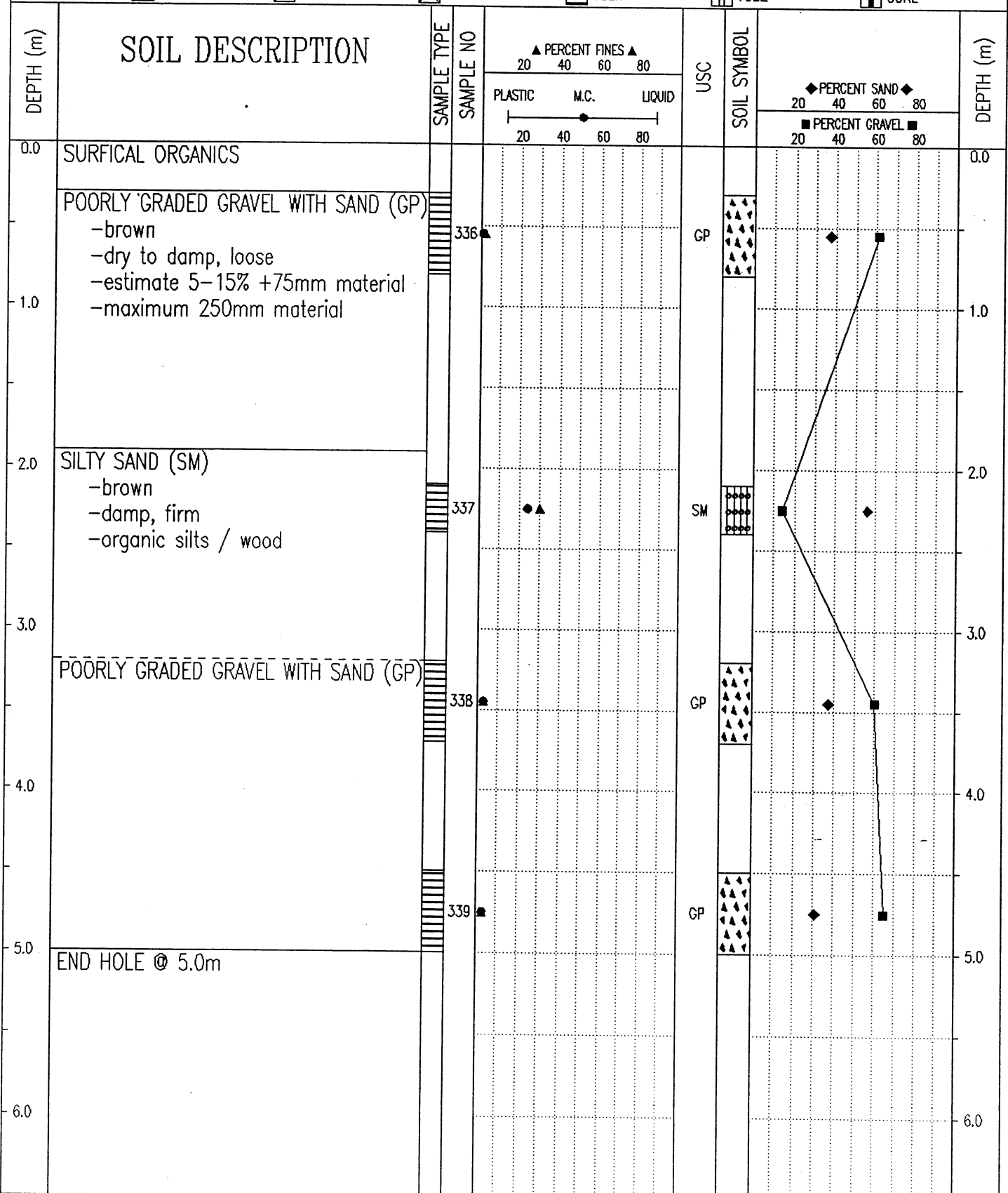


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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/24

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



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REVIEWED BY:
Fig. No:

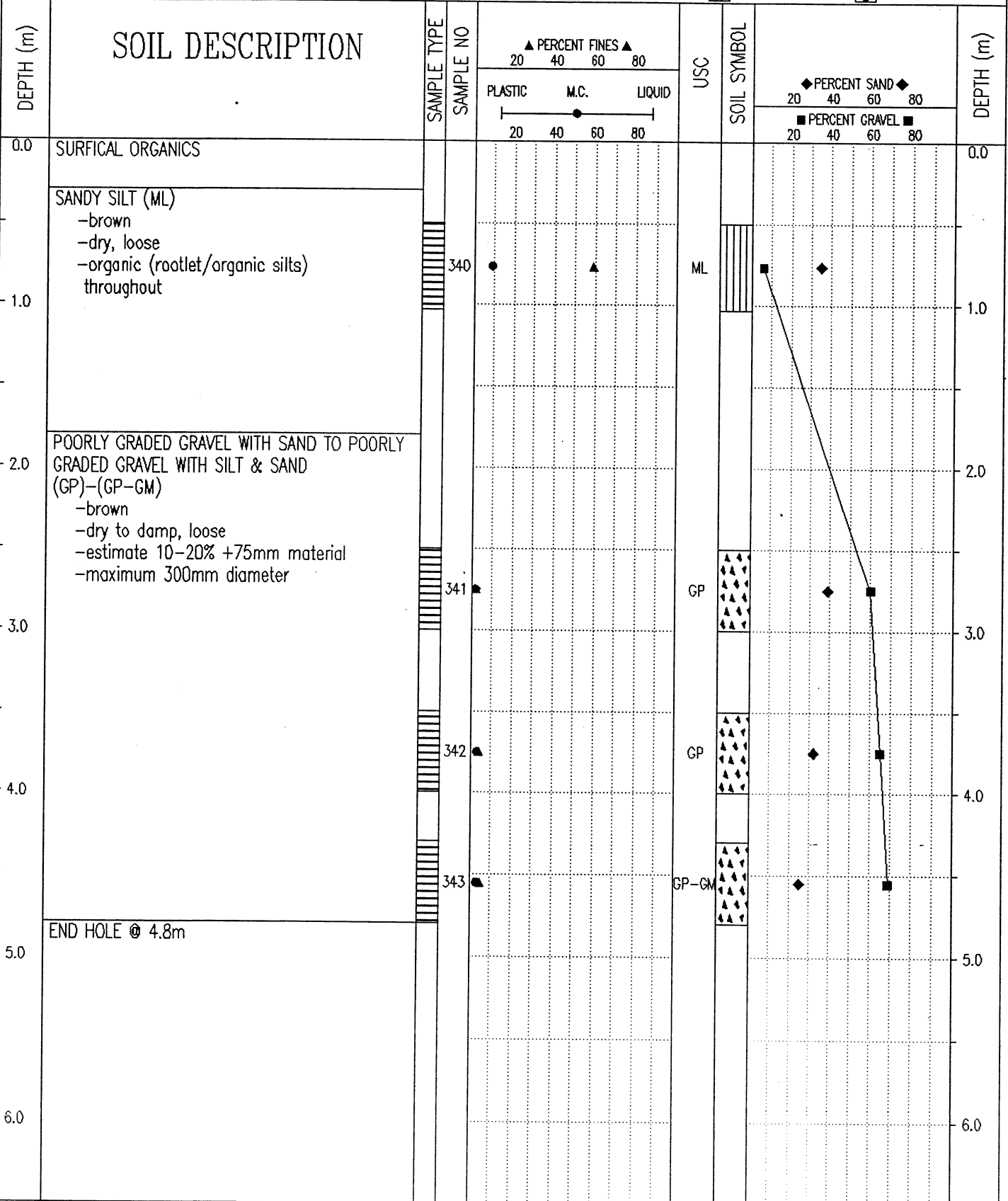
COMPLETION DEPTH: 5.0 m
COMPLETE: 02/09/25

SUBSURFACE EXPLORATION & TESTING REPORT SHAKWAK SEGMENT 11 TEST PIT NO: 638-2494

ENGINEERING CAPITAL NINES CREEK Project No: 552-202101-0361

KOEHRING 6625 BACKHOE LOCATION: SEE PLAN ELEVATION: 0.00 (m)

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

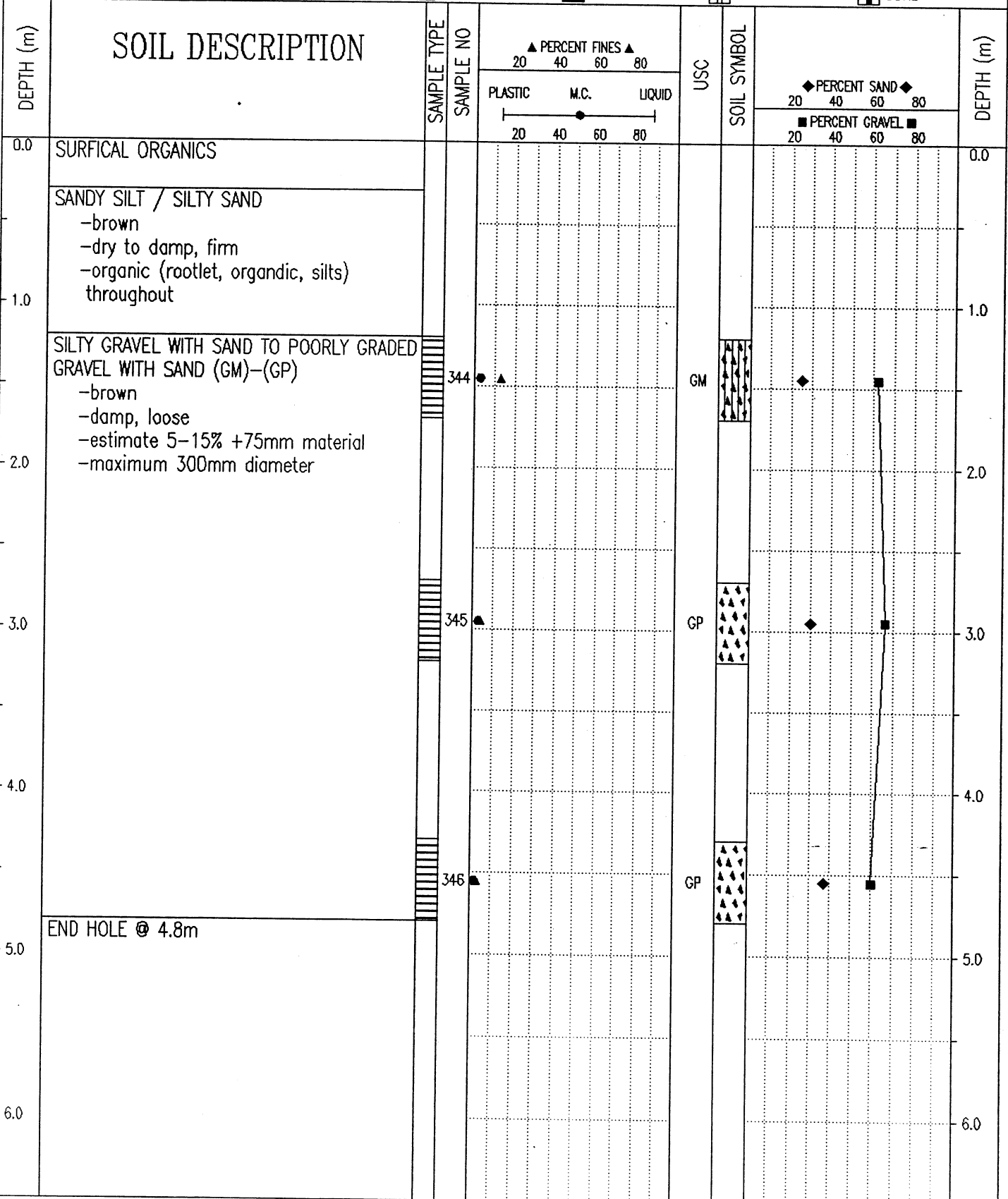


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LOGGED BY: JRP
 REVIEWED BY:
 Fig. No:

COMPLETION DEPTH: 4.8 m
 COMPLETE: 02/09/25

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2495
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE



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COMPLETION DEPTH: 4.8 m

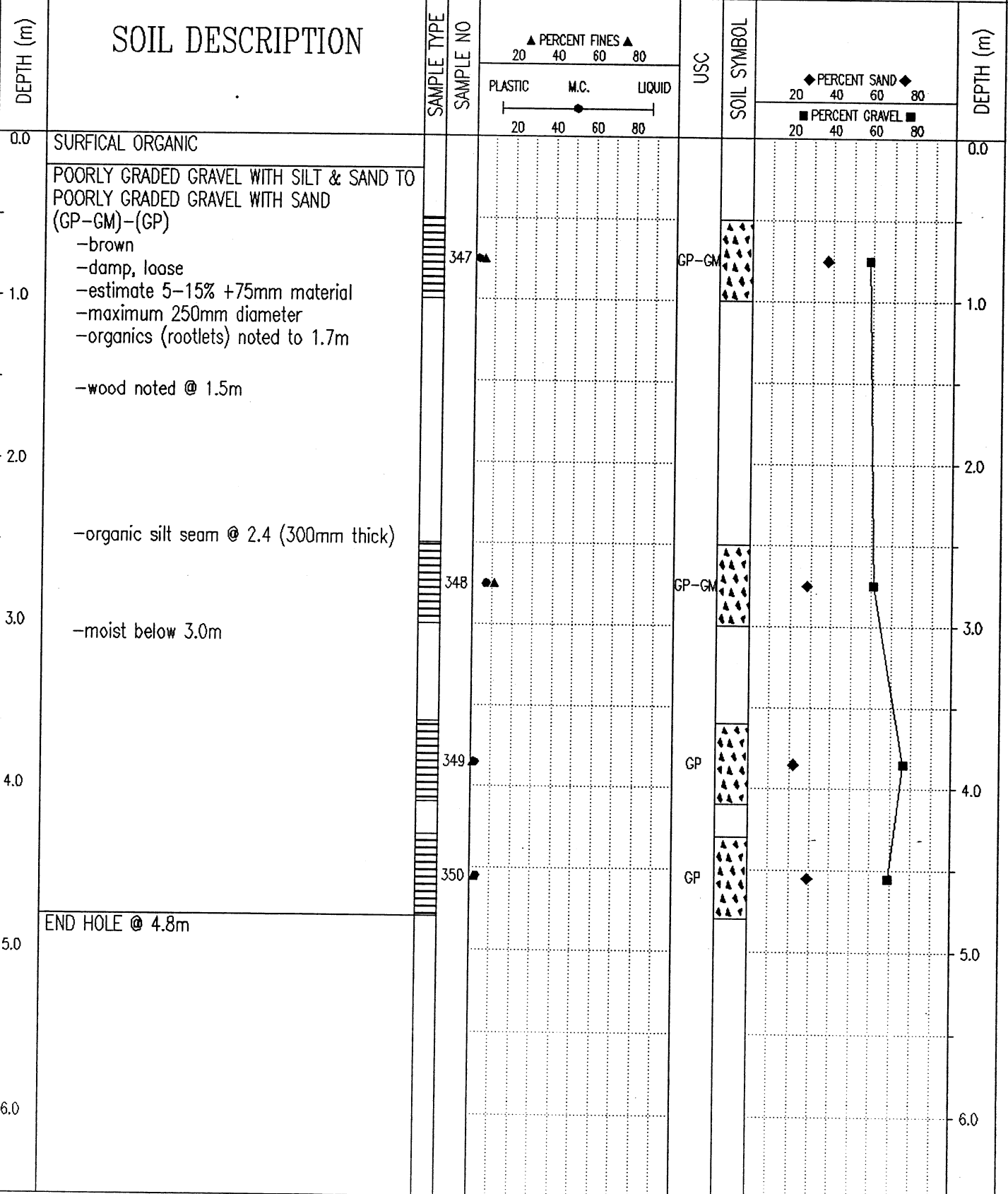
REVIEWED BY:

COMPLETE: 02/09/25

Fig. No:

Page 1 of 1

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



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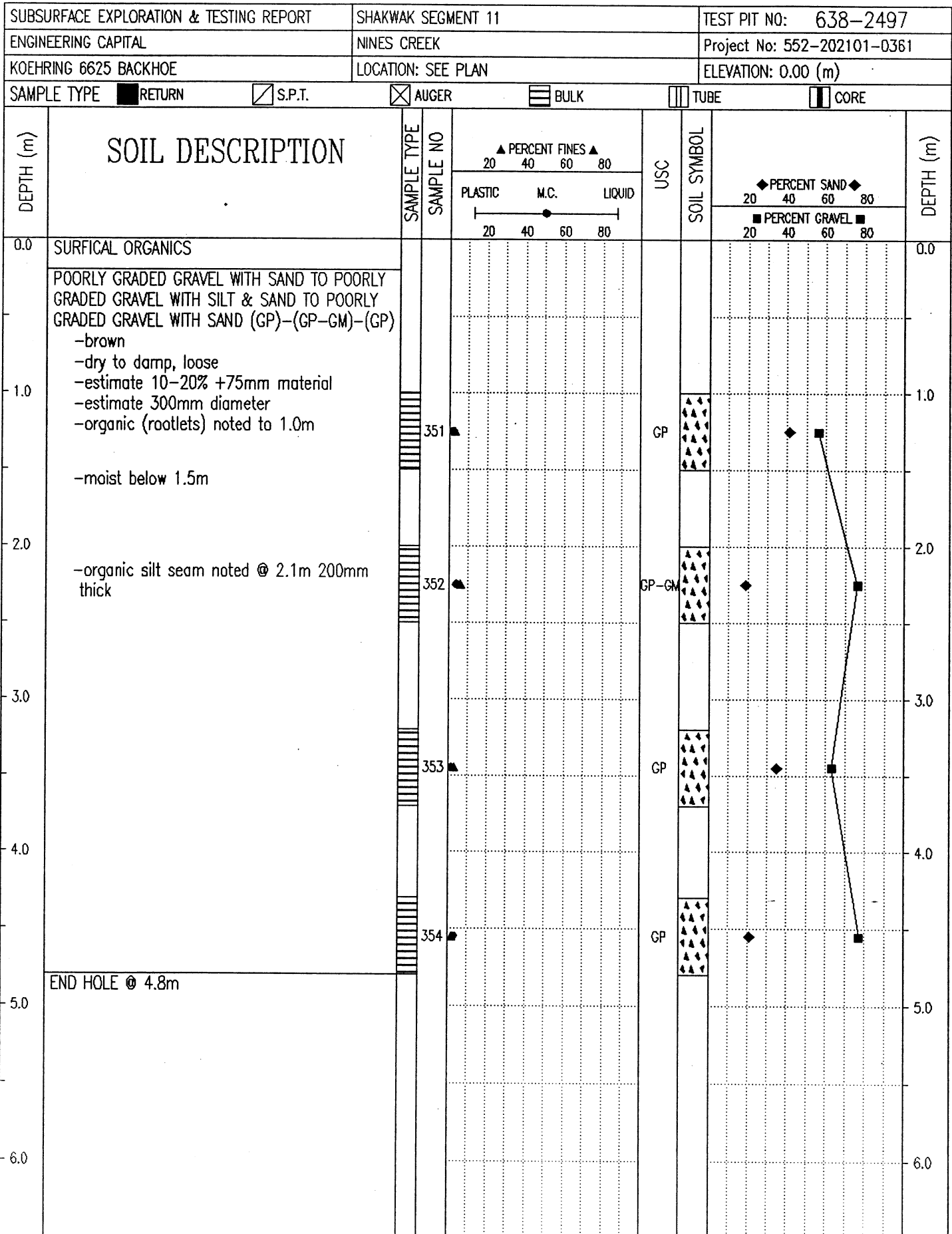
LOGGED BY: JRP

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.8 m

COMPLETE: 02/09/25

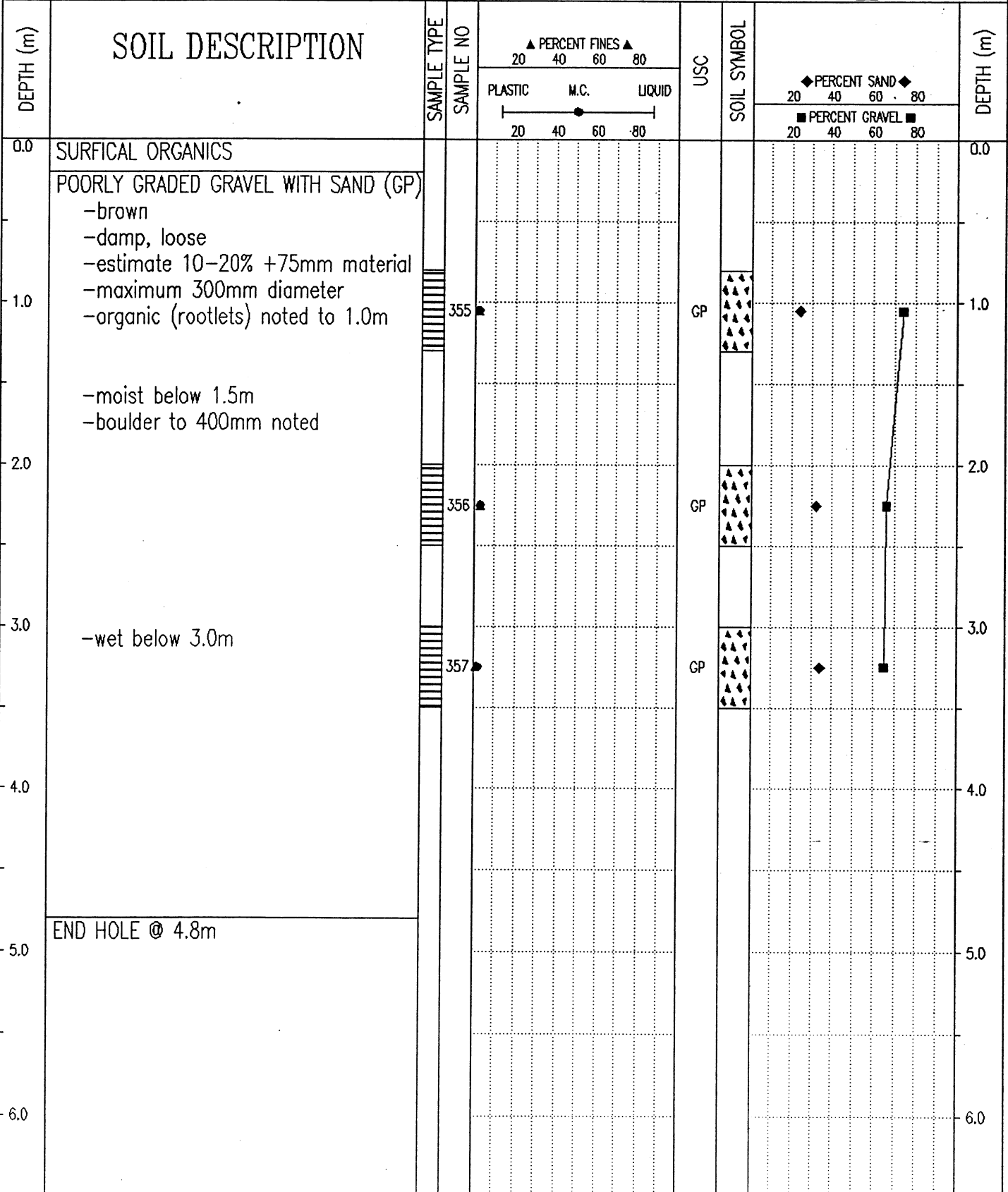


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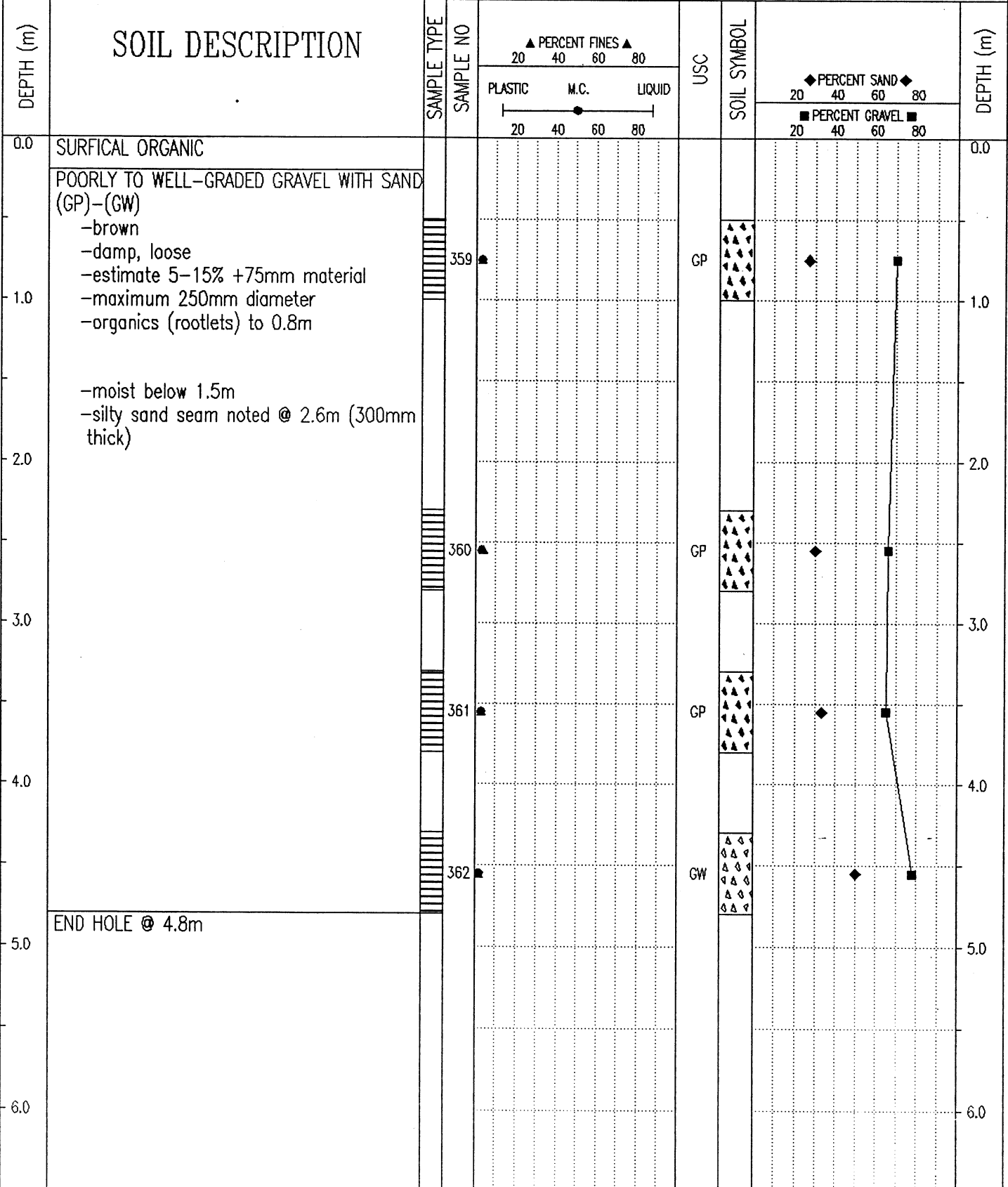
LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/25

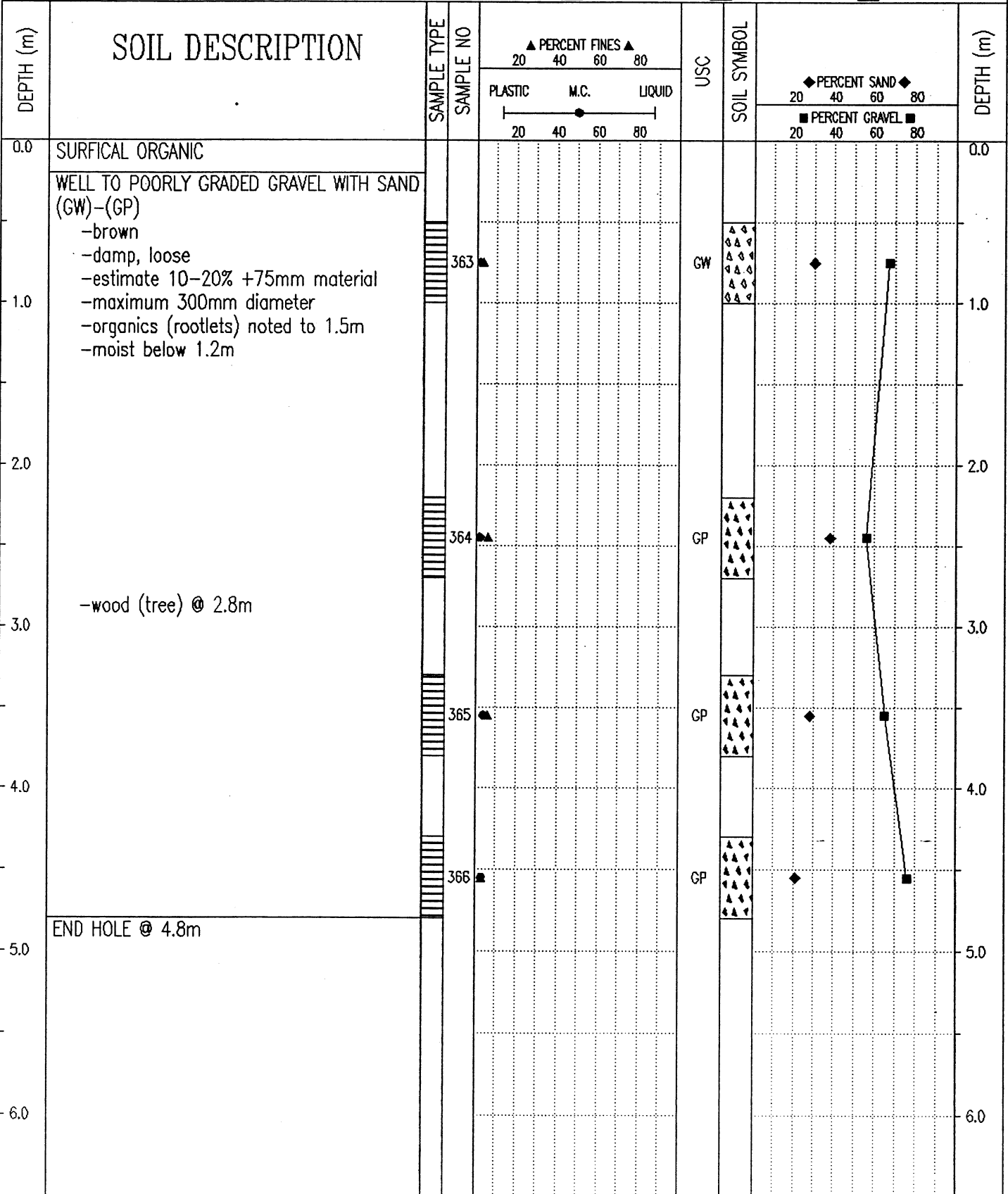
SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



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



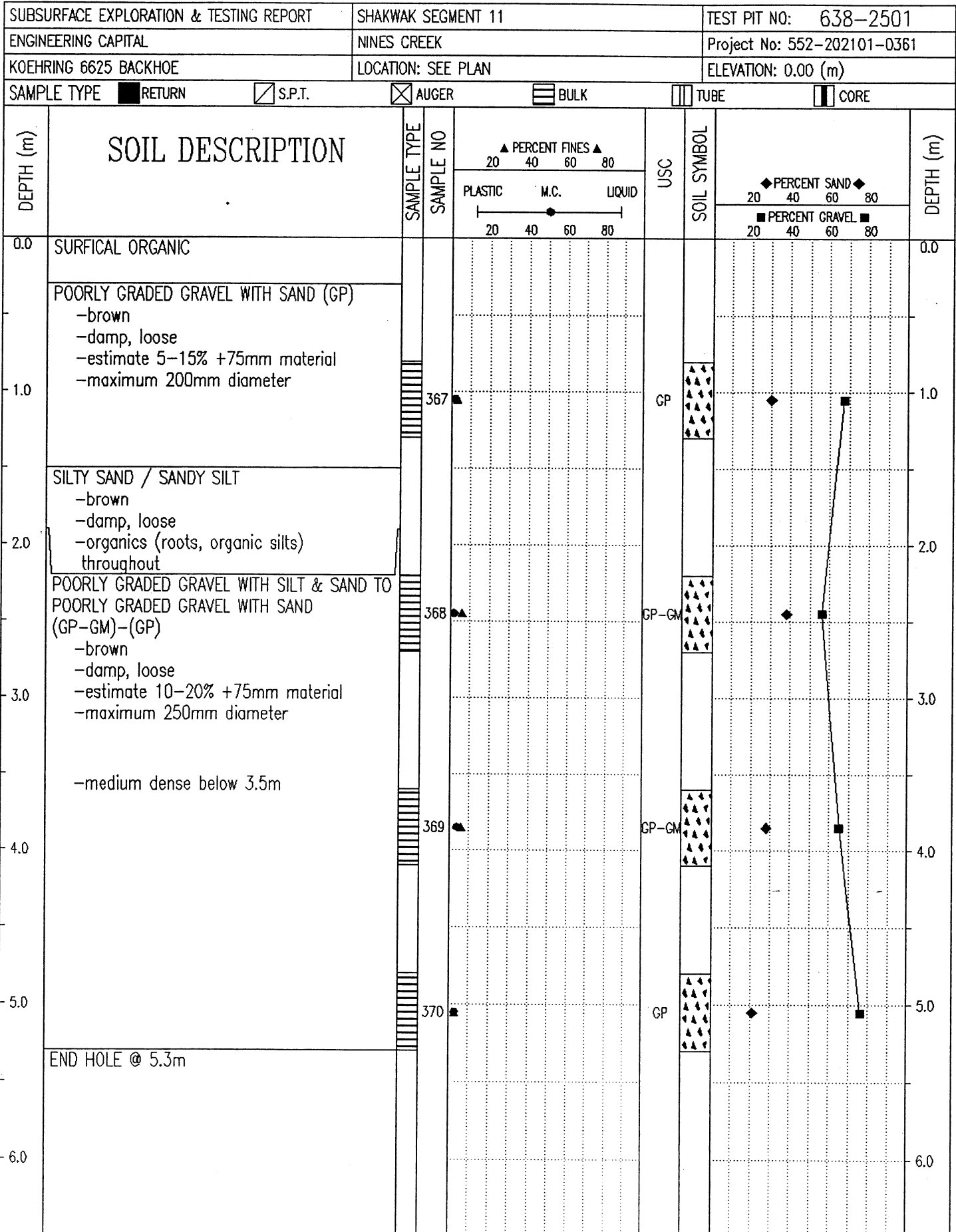
SAMPLE TYPE RETURN S.P.T. AUGER BULK TUBE CORE



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REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/25



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

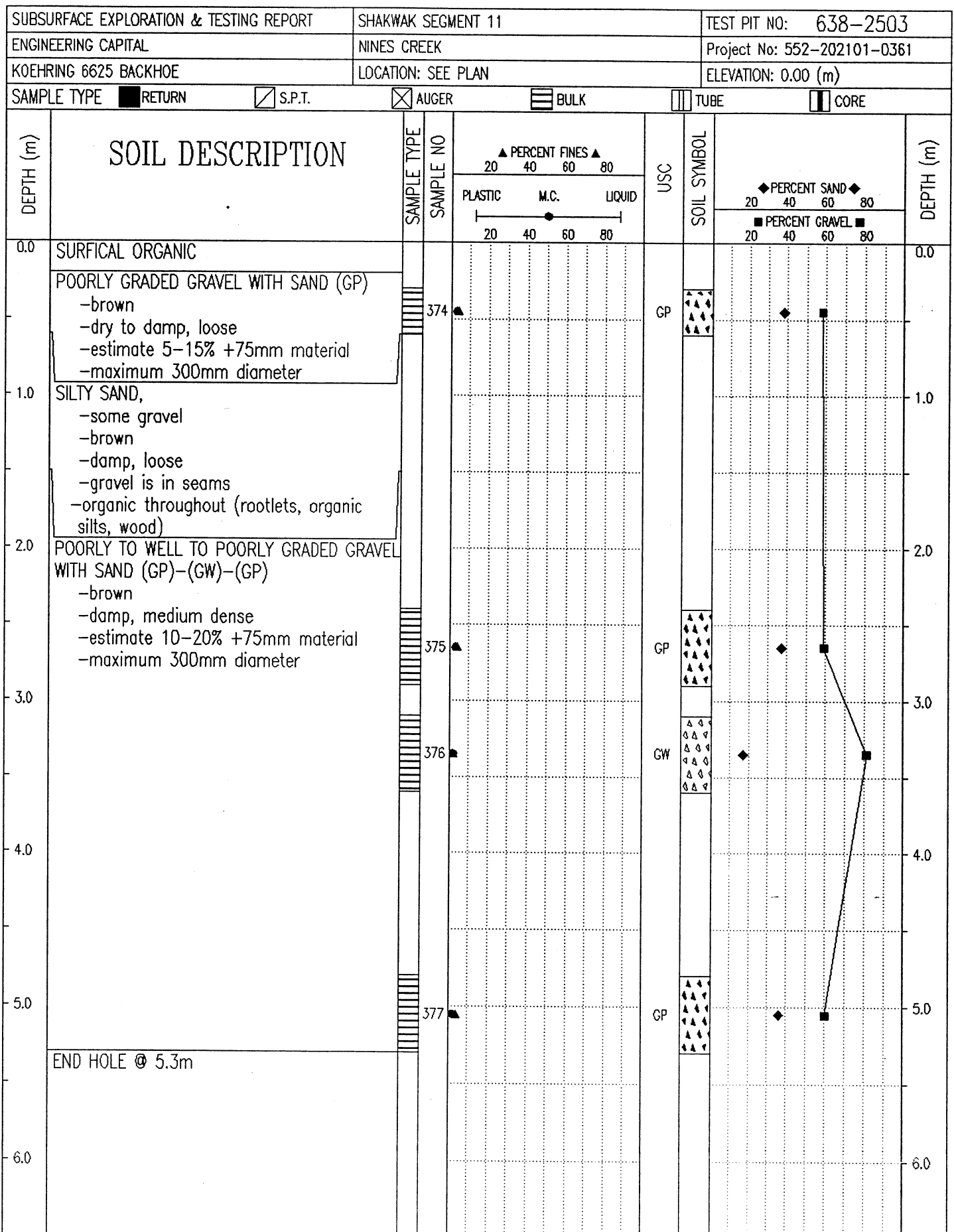
COMPLETION DEPTH: 5.3 m
COMPLETE: 02/09/25

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2502							
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361							
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)							
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER							
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE							
				<input type="checkbox"/> CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲			USC	SOIL SYMBOL	PERCENT SAND ◆		DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	
0.0	SURFICAL ORGANICS										0.0
0.0 - 1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 300mm material -frozen below 1.0m		371				GP				1.0
1.0 - 2.0	SILTY SAND / SANDY SILT -frozen										2.0
2.0 - 3.0	WELL-GRADED SAND WITH SILT & GRAVEL TO POORLY GRADED GRAVEL WITH SILT & SAND (SW-SM)-(GP-GM) -frozen		372				SW-SM				3.0
3.0 - 3.3	END HOLE @ 3.3m -refusal		373				GP-GM				3.0
3.3 - 4.0											4.0
4.0 - 5.0											5.0
5.0 - 6.0											6.0

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COMPLETION DEPTH: 3.3 m
COMPLETE: 02/09/25

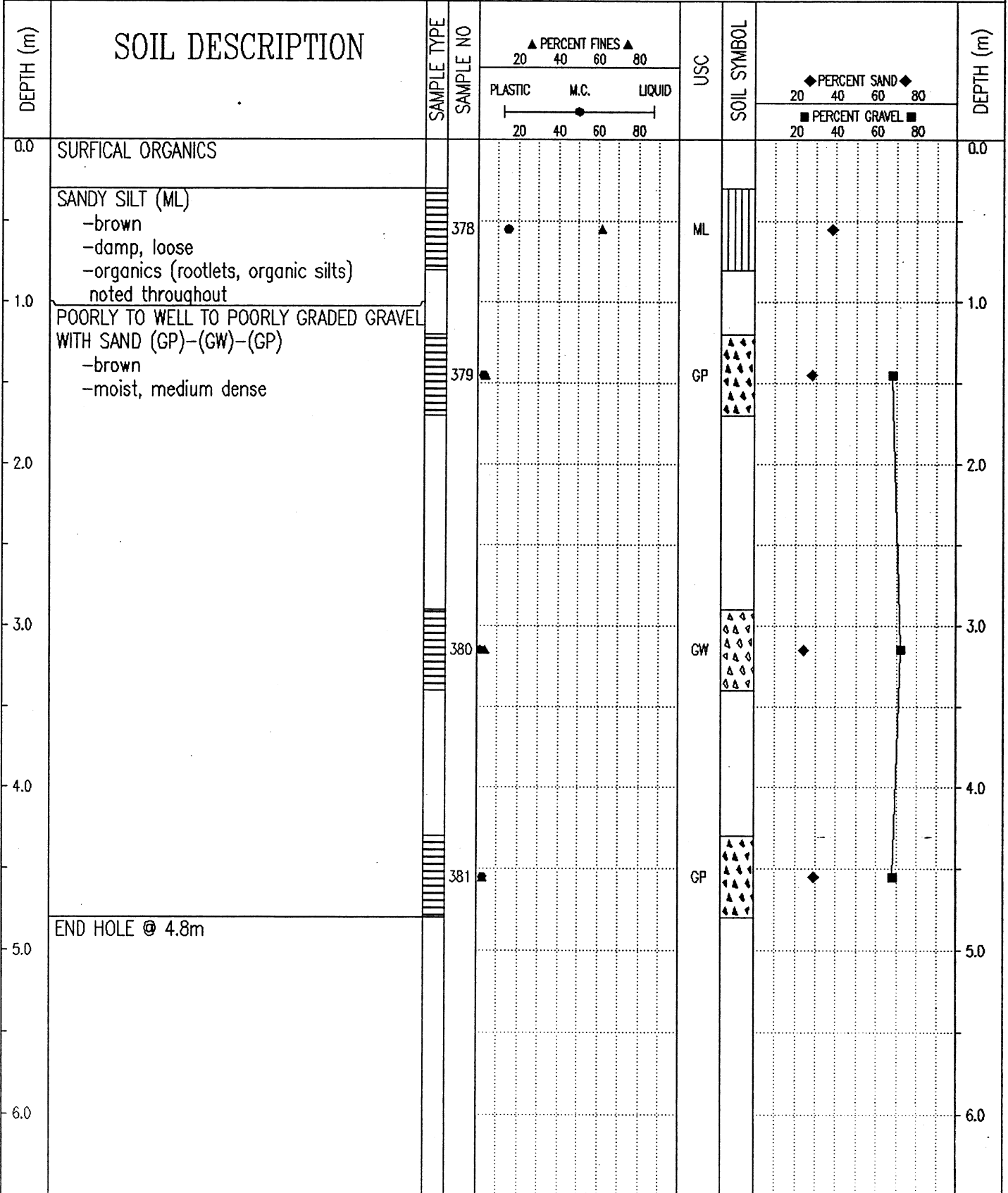


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REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 5.3 m
COMPLETE: 02/09/25

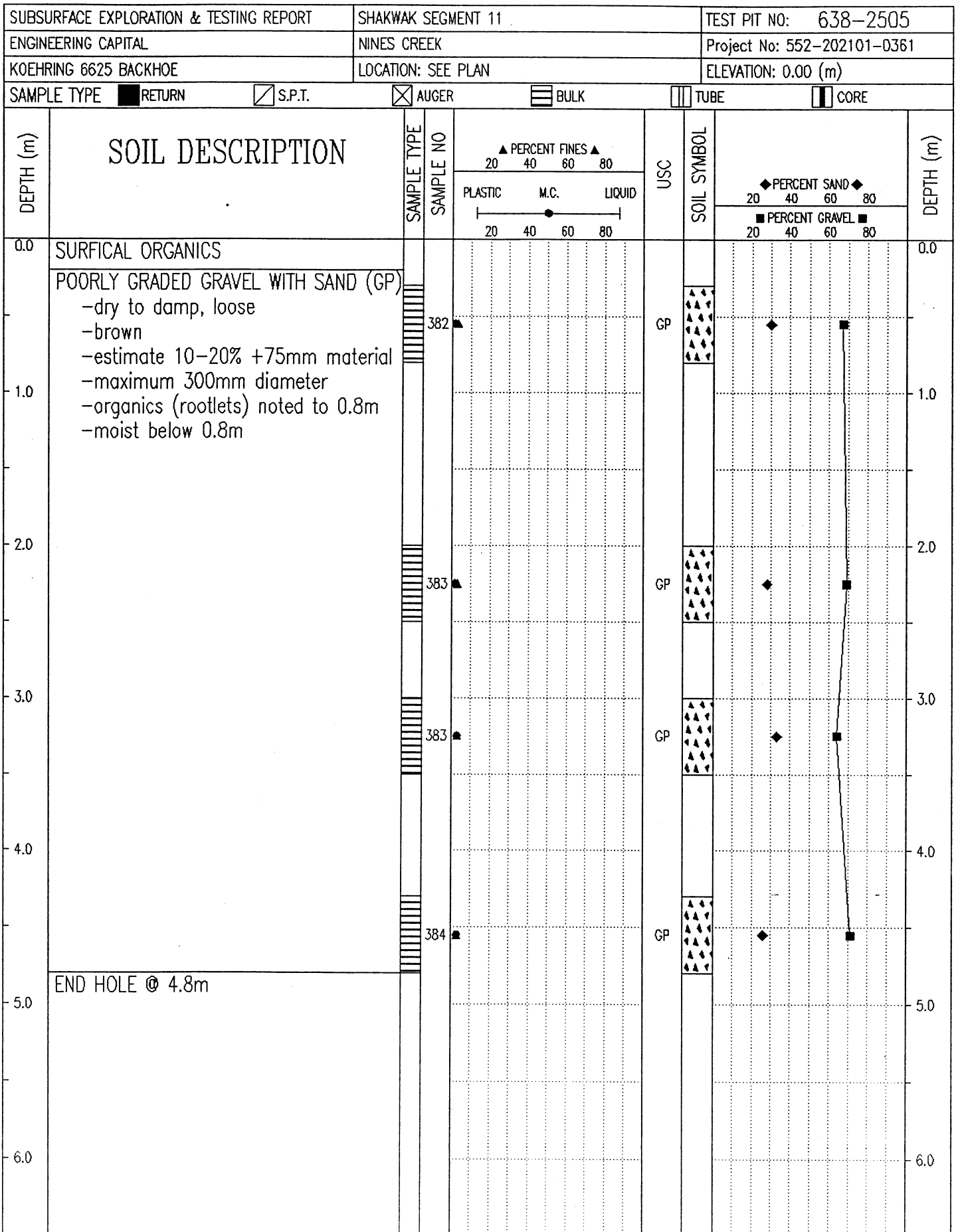
SUBSURFACE EXPLORATION & TESTING REPORT	SHAKWAK SEGMENT 11	TEST PIT NO: 638-2504
ENGINEERING CAPITAL	NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE	LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> S.P.T. <input checked="" type="checkbox"/> AUGER <input type="checkbox"/> BULK <input type="checkbox"/> TUBE <input type="checkbox"/> CORE		



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REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/25



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

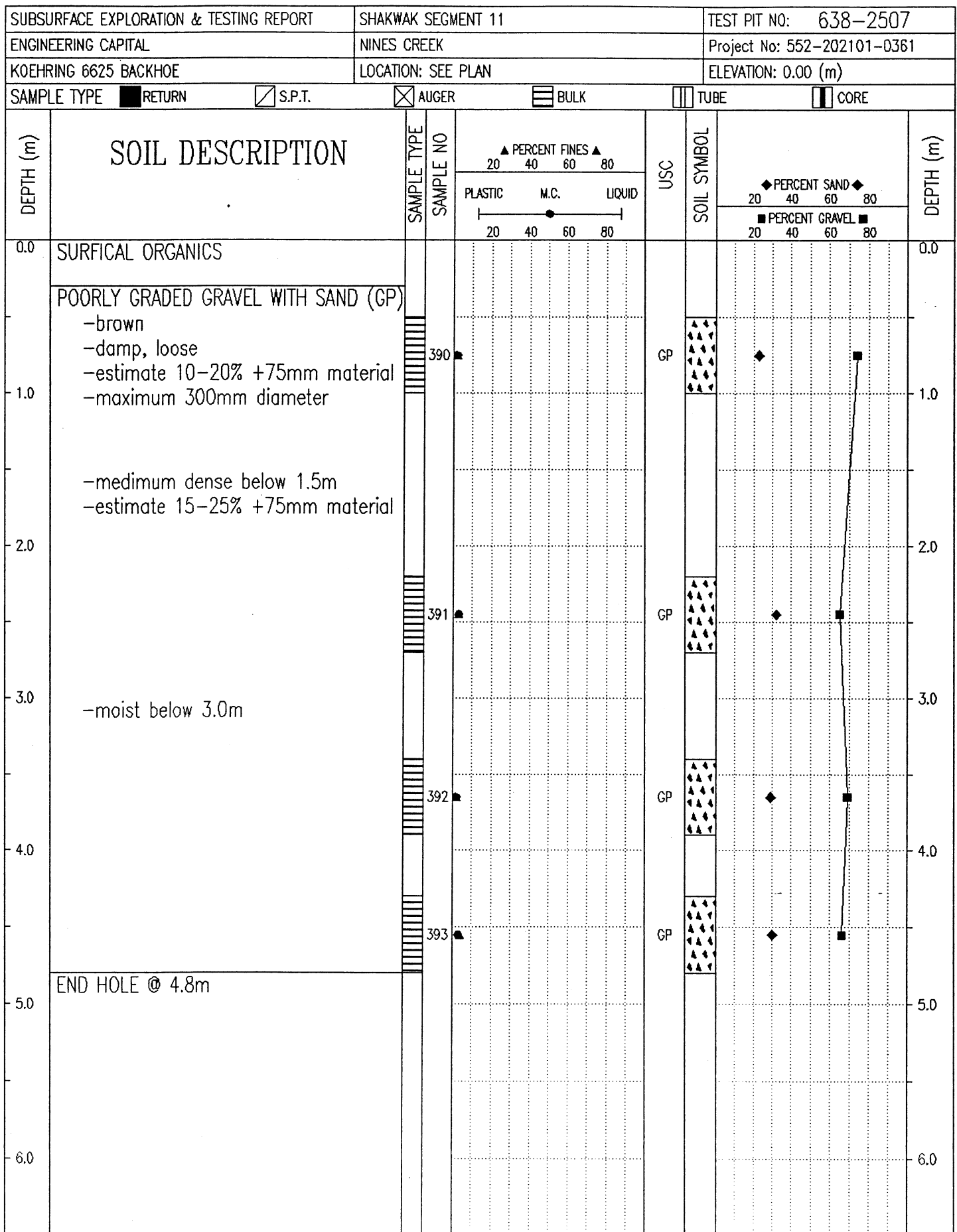
COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/26

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2506								
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361								
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)								
SAMPLE TYPE <input checked="" type="checkbox"/> RETURN		<input checked="" type="checkbox"/> S.P.T.		<input checked="" type="checkbox"/> AUGER								
		<input type="checkbox"/> BULK		<input type="checkbox"/> TUBE								
				<input type="checkbox"/> CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES ▲		USC	SOIL SYMBOL	PERCENT SAND ◆		PERCENT GRAVEL ■		DEPTH (m)
				PLASTIC	M.C.			LIQUID	20	40	60	
0.0	SURFICAL ORGANICS											0.0
0.0 - 4.5	POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY TO WELL-GRADED GRAVEL WITH SAND (GP-GM)-(GP)-(GW) -brown -dry to damp, loose -estimate 10-20% +75mm material -maximum 300mm diameter -organics to 0.8m (rootlets) -moist below 1.0m -organic silt seam noted @ 2.5m (+/- 200mm thick) -silty seam noted @ 3.8m +/-300mm thick END HOLE @ 4.5m											
			386				GP-GM					
			387				GP					
			388				GP					
			389				GW					

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Fig. No:

COMPLETION DEPTH: 4.5 m
COMPLETE: 02/09/26



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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/26

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2508							
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361							
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)							
SAMPLE TYPE		RETURN		S.P.T.							
		AUGER		BULK							
		TUBE		CORE							
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES		USC	SOIL SYMBOL	PERCENT SAND		PERCENT GRAVEL	DEPTH (m)
				PLASTIC	M.C.			LIQUID	20		
0.0	SURFICAL ORGANICS										0.0
0.0 - 1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -dry to damp, loose -estimate 5-10% +75mm material -maximum 200mm diameter		394				GP				
1.0 - 2.0	SILTY SAND / SANDY SILT -brown -damp, loose -organic noted throughout (rootlets, organic silts)										
2.0 - 3.0	WELL TO POORLY GRADED GRAVEL WITH SAND (GW)-(GP) -brown -damp, loose -estimate 15-25% +75mm material -maximum 300mm diameter		395				GW				
3.0 - 4.0			396				GP				
4.0 - 5.0	-one 0.4m boulder noted at 4.2m		397				GP				
5.0	END HOLE @ 4.8m										

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LOGGED BY: JRP

REVIEWED BY:

Fig. No:

COMPLETION DEPTH: 4.8 m

COMPLETE: 02/09/26

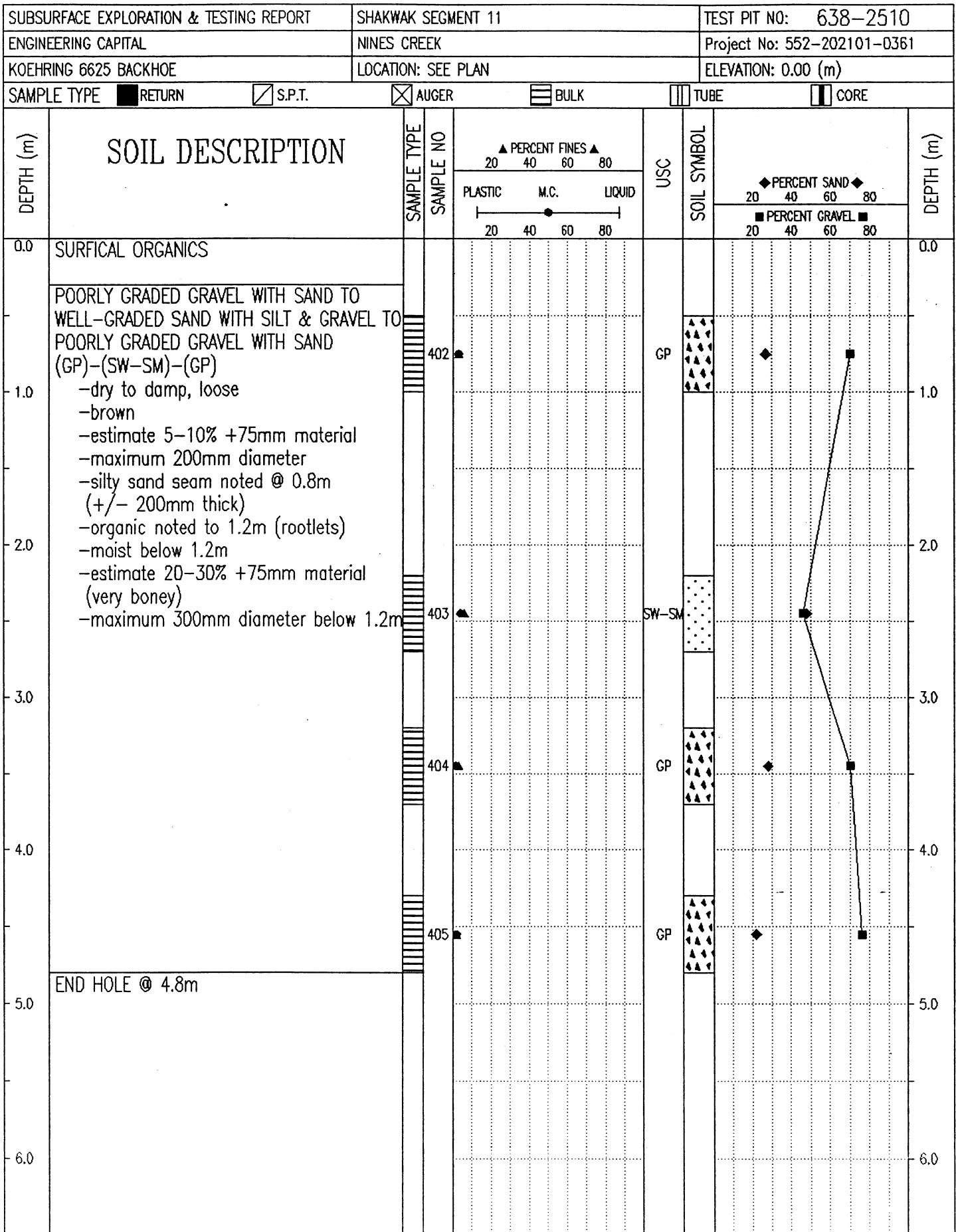
Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2509											
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361											
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)											
SAMPLE TYPE		RETURN		S.P.T.											
		AUGER		BULK											
				TUBE											
				CORE											
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES			USC	SOIL SYMBOL	PERCENT SAND			PERCENT GRAVEL			DEPTH (m)
				PLASTIC	M.C.	LIQUID			20	40	60	80	20	40	
0.0	SURFICAL ORGANICS													0.0	
0.0 - 4.8	POORLY GRADED GRAVEL WITH SAND TO POORLY GRADED GRAVEL WITH SILT & SAND TO POORLY GRADED GRAVEL WITH SAND (GP)-(GP-GM)-(GP) -brown -damp, loose -estimate 10-20% +75mm material -maximum 200mm diameter -organics (rootlets) noted to 0.8m -moist below 1.2m -maximum 300mm diameter below 1.20 -estimate 15-25% +75mm material below 3.0m -maximum 300mm diameter below 3.0m -one 0.4m boulder noted at 4.0m END HOLE @ 4.8m														
0.8			398					GP						0.8	
2.5			399					GP						2.5	
3.5			400					GP-GM						3.5	
4.5			401					GP						4.5	

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Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/26

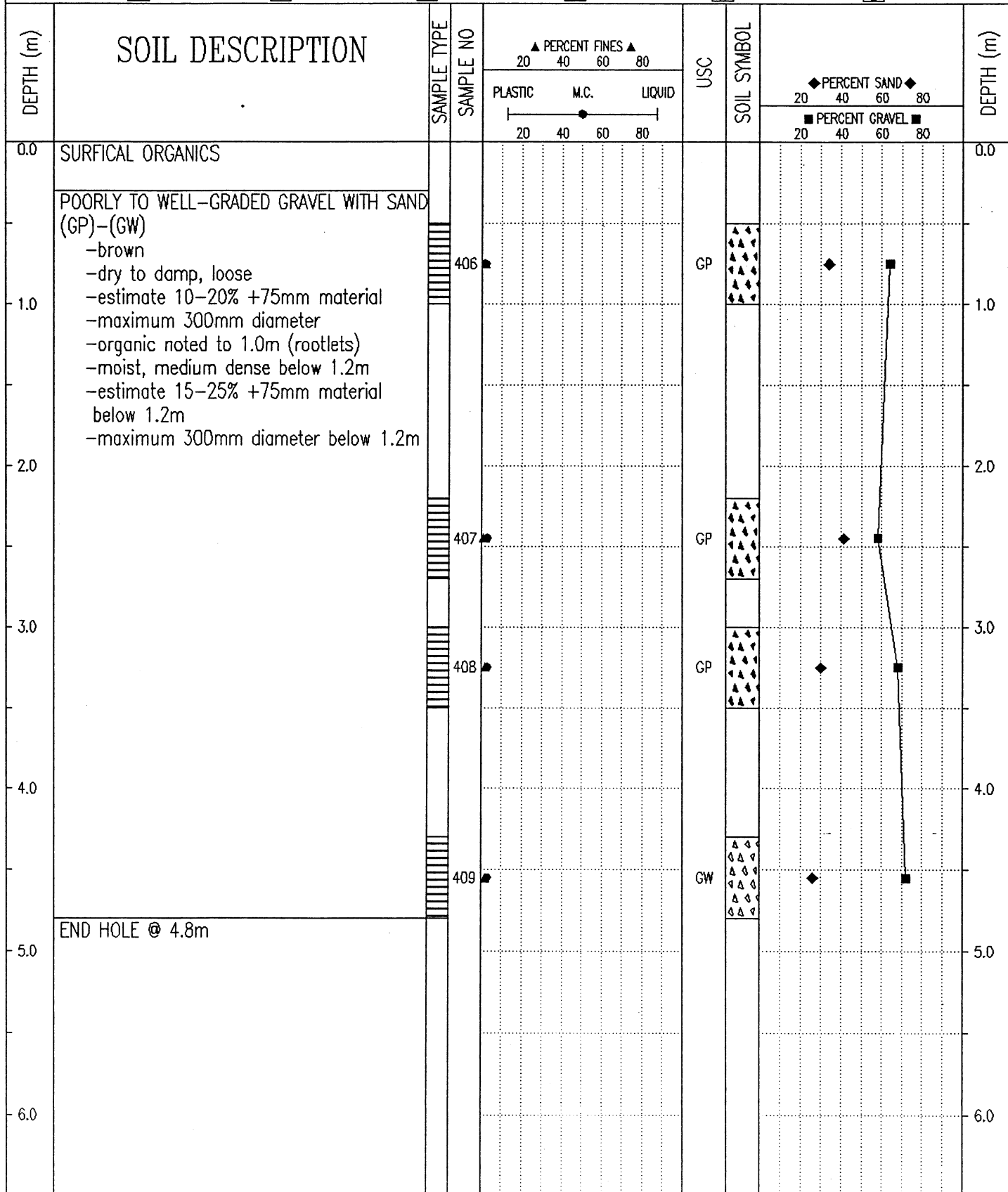


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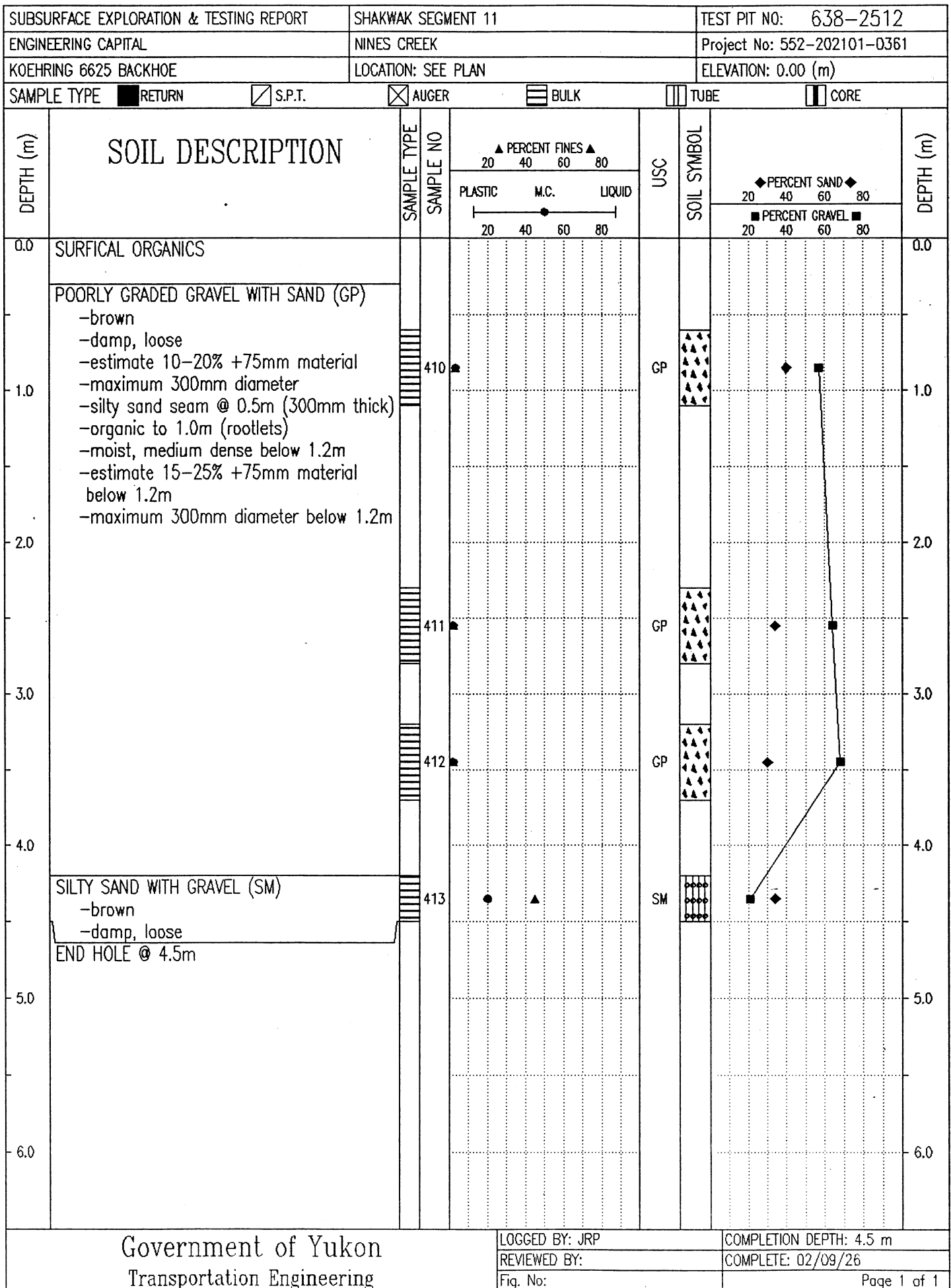
LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 4.8 m
COMPLETE: 02/09/26

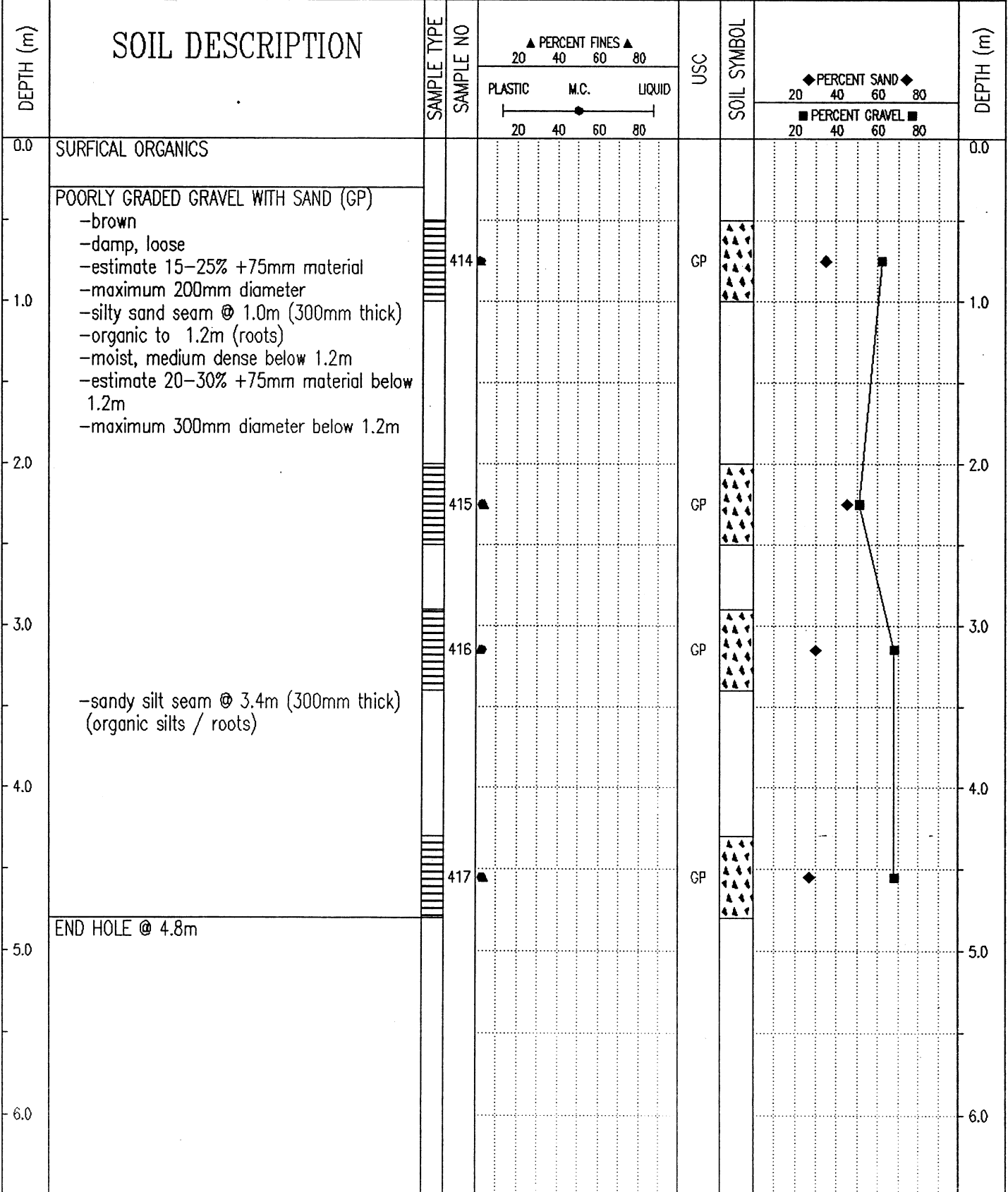
SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11	TEST PIT NO: 638-2511
ENGINEERING CAPITAL		NINES CREEK	Project No: 552-202101-0361
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN	ELEVATION: 0.00 (m)
SAMPLE TYPE	<input checked="" type="checkbox"/> RETURN	<input checked="" type="checkbox"/> S.P.T.	<input checked="" type="checkbox"/> AUGER
		<input type="checkbox"/> BULK	<input type="checkbox"/> TUBE
			<input type="checkbox"/> CORE

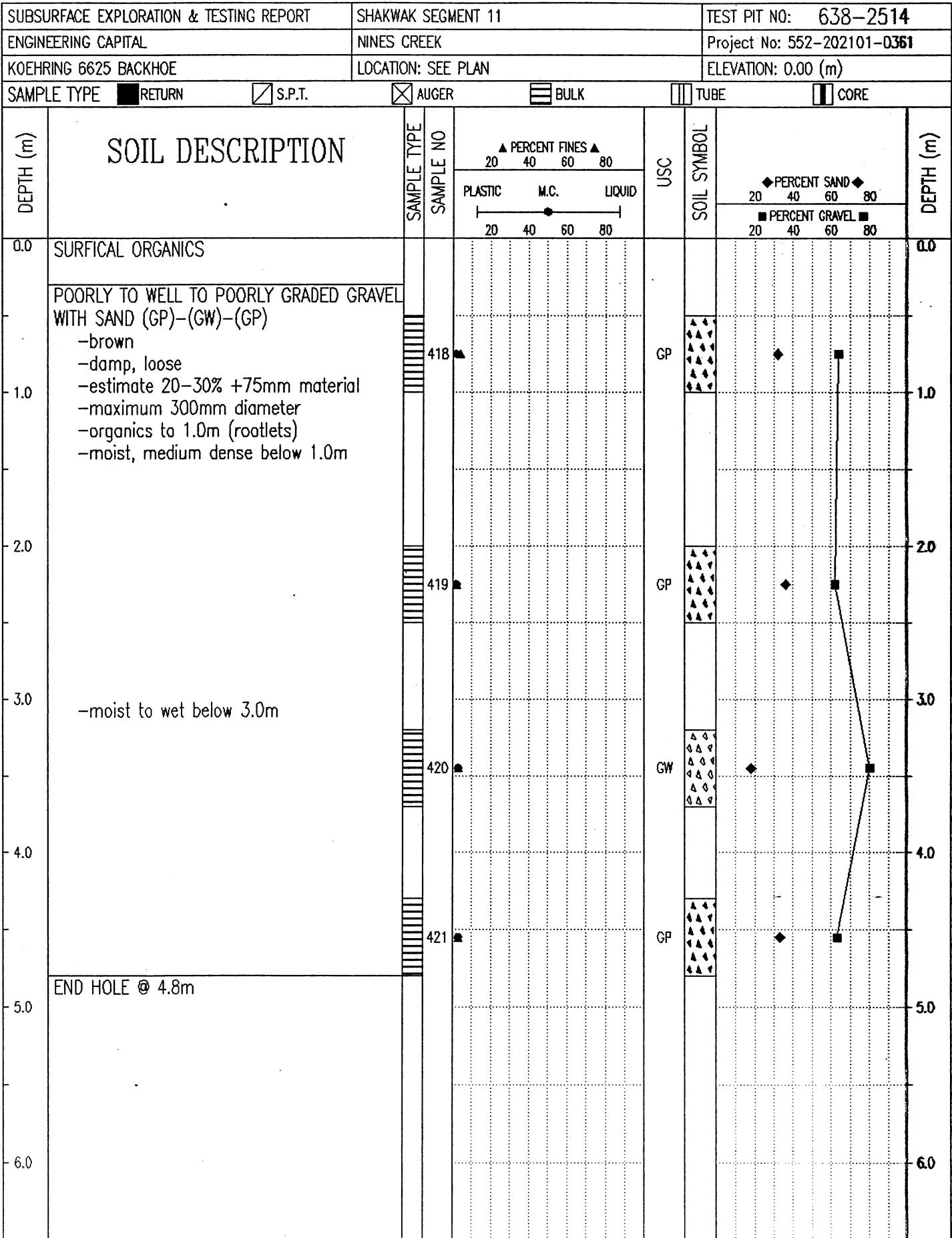


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	REVIEWED BY:	COMPLETE: 02/09/26
	Fig. No:	Page 1 of 1



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





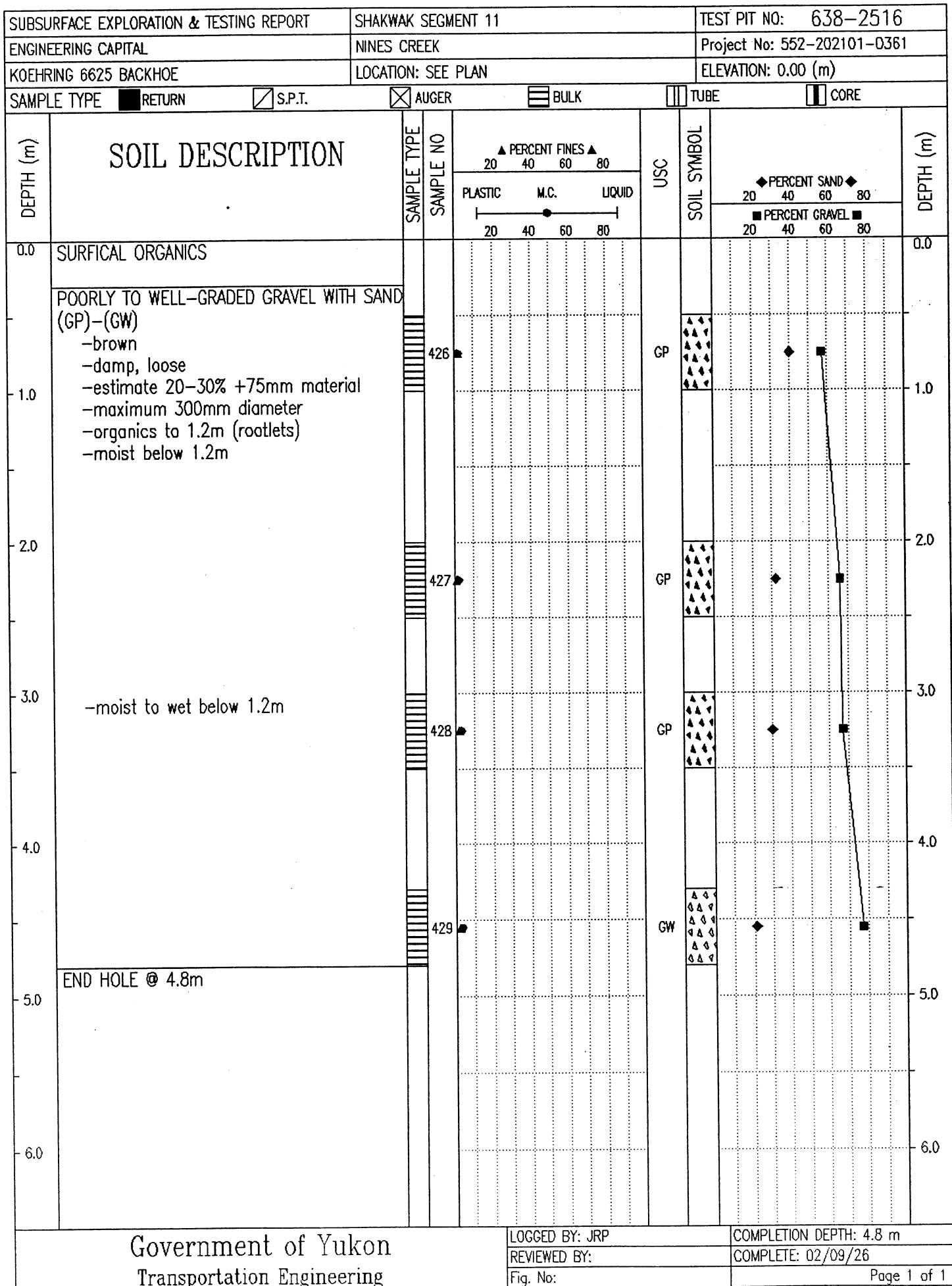
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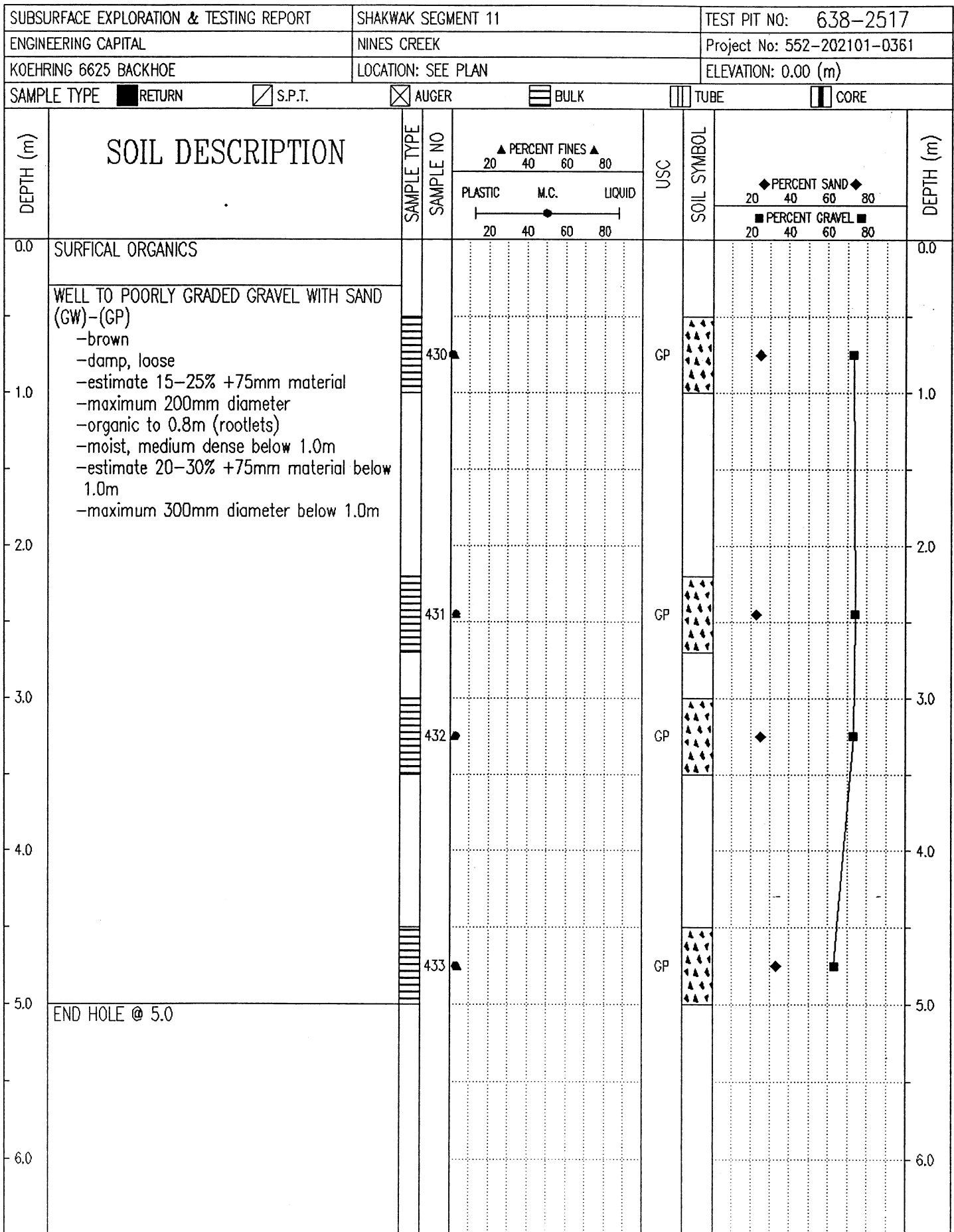
LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/26
Fig. No:	Page 1 of 1

SUBSURFACE EXPLORATION & TESTING REPORT		SHAKWAK SEGMENT 11		TEST PIT NO: 638-2515								
ENGINEERING CAPITAL		NINES CREEK		Project No: 552-202101-0361								
KOEHRING 6625 BACKHOE		LOCATION: SEE PLAN		ELEVATION: 0.00 (m)								
SAMPLE TYPE		RETURN		S.P.T.								
		AUGER		BULK								
		TUBE		CORE								
DEPTH (m)	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO	PERCENT FINES		USC	SOIL SYMBOL	PERCENT SAND		PERCENT GRAVEL		DEPTH (m)
				PLASTIC	M.C.			LIQUID	20	40	60	
0.0	SURFICAL ORGANICS											0.0
0.0 - 1.0	POORLY GRADED GRAVEL WITH SAND (GP) -brown -damp, loose -estimate, 20-30% +75mm material -maximum 300mm diameter -organics to 1.0m (rootlets) -moist, medium dense below 1.0m		422				GP					0.0 - 1.0
1.0 - 2.0			423				GP					1.0 - 2.0
2.0 - 3.0			424				GP					2.0 - 3.0
3.0 - 4.0			425				GP					3.0 - 4.0
4.0 - 5.0												4.0 - 5.0
5.0 - 6.0	END HOLE @ 4.8m											5.0 - 6.0

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LOGGED BY: JRP	COMPLETION DEPTH: 4.8 m
REVIEWED BY:	COMPLETE: 02/09/26
Fig. No:	Page 1 of 1

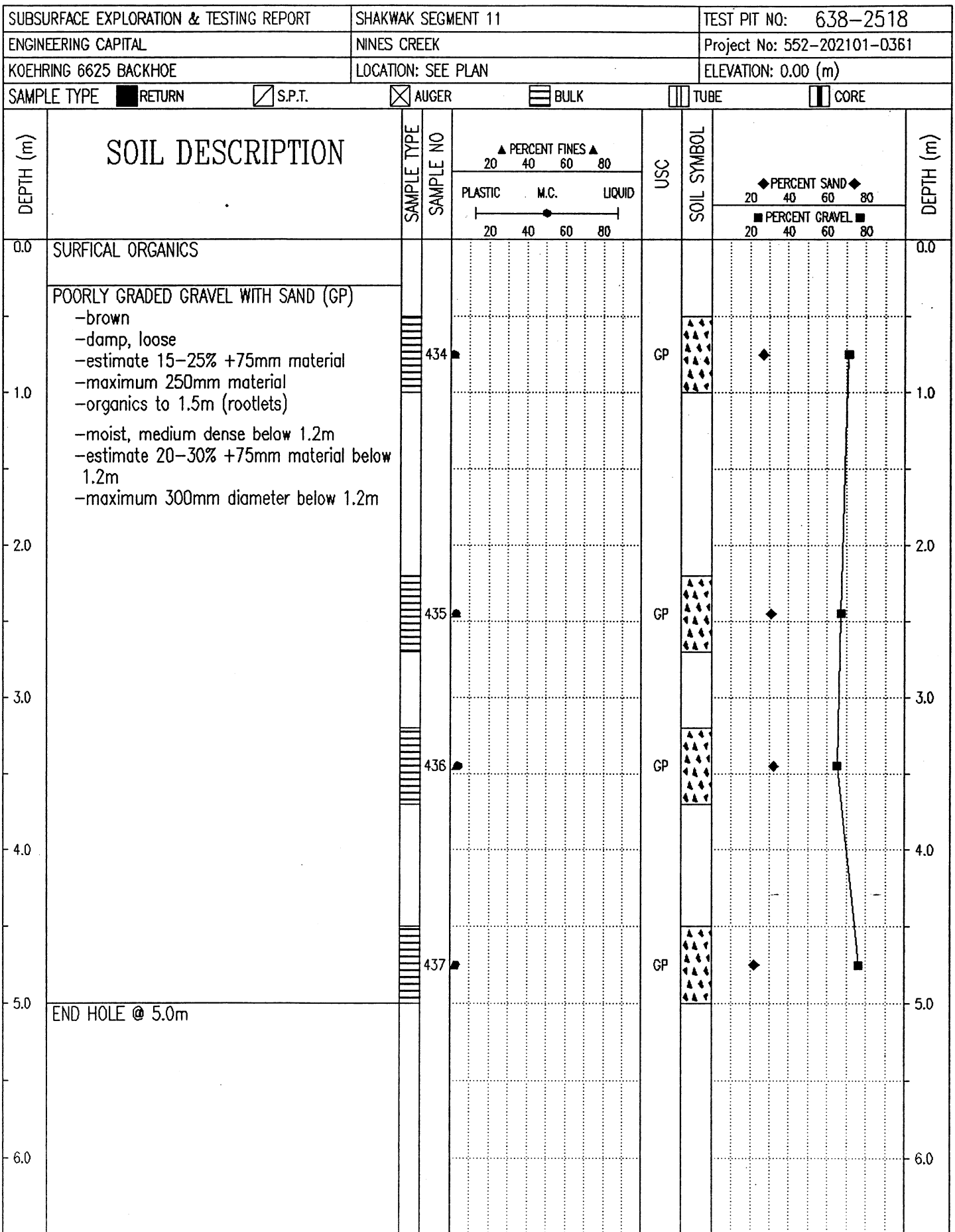




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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

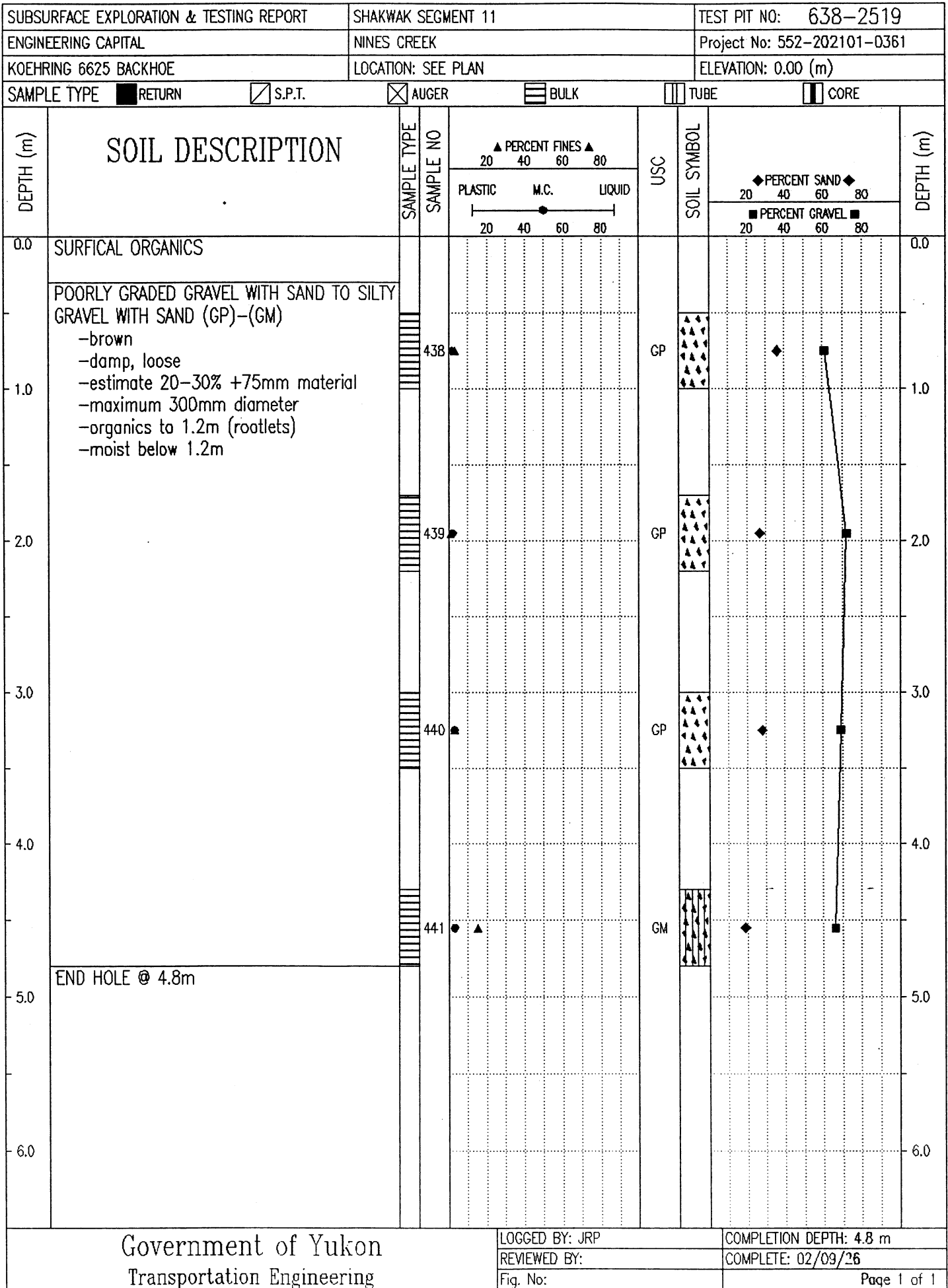
COMPLETION DEPTH: 5.0 m
COMPLETE: 02/09/26

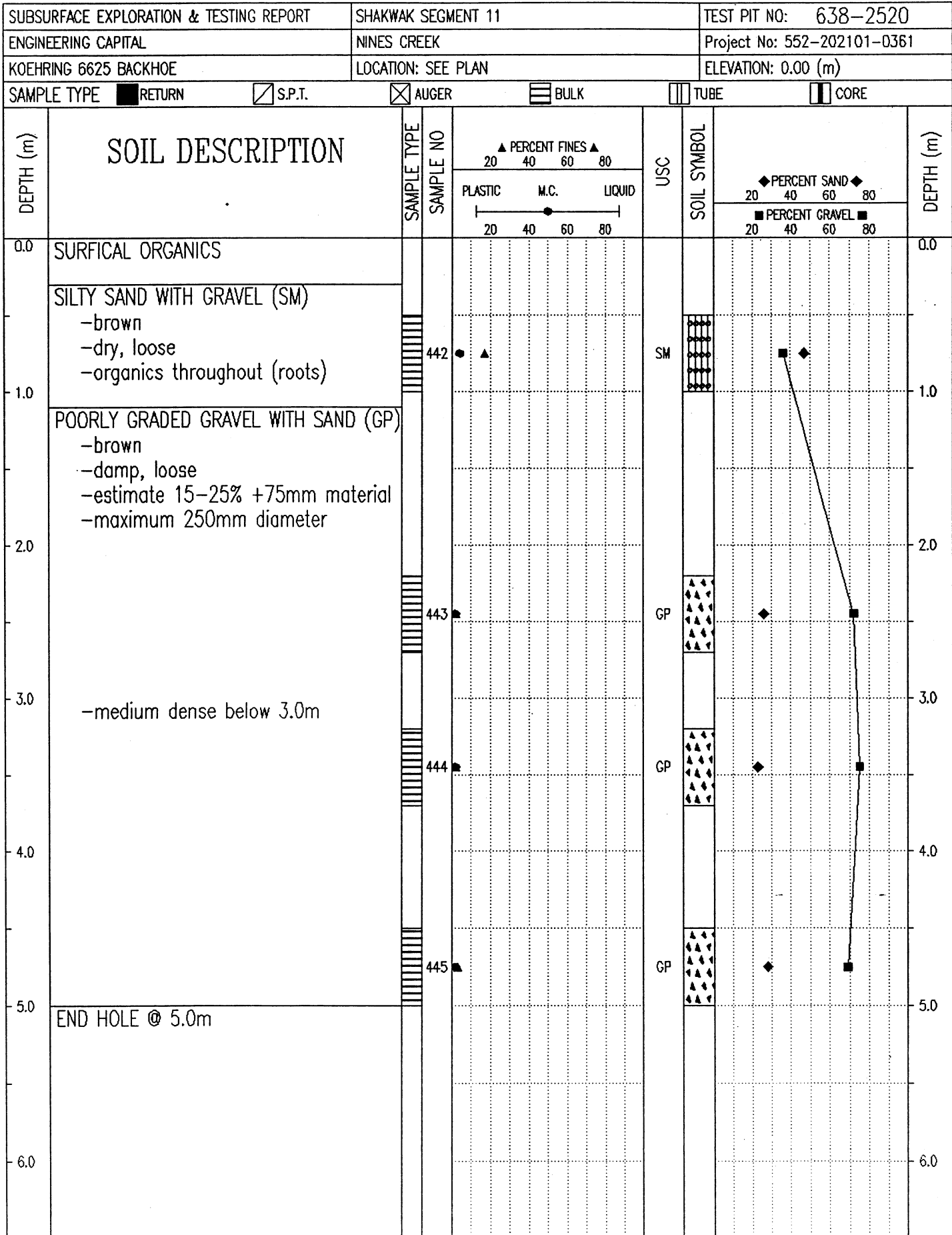


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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 5.0 m
COMPLETE: 02/09/26





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LOGGED BY: JRP
REVIEWED BY:
Fig. No:

COMPLETION DEPTH: 5.0 m
COMPLETE: 02/09/26

**Km 1730.2 LHS Alaska Highway #1
Pit Ident. 115 G-21 (Nines Creek)**

Book # 638

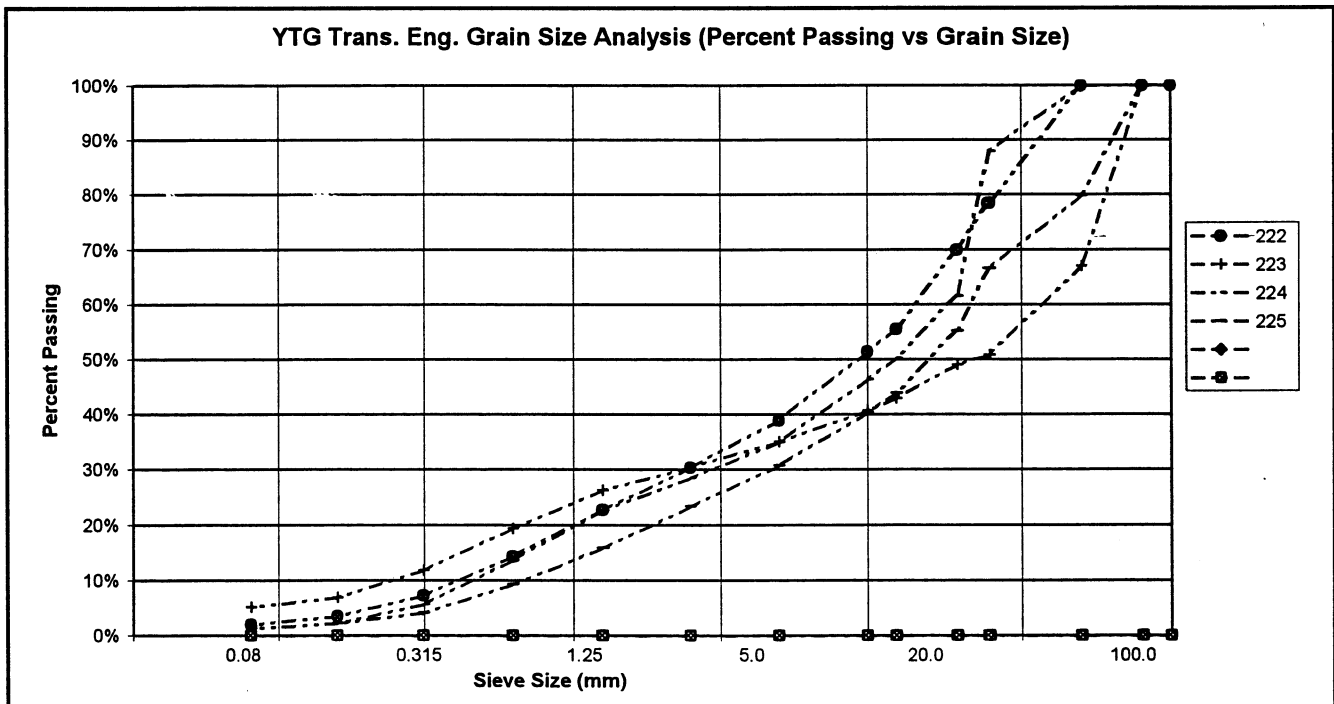
Pit Run Sample Results

PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2460

DATE COMP: SEPT 23/02

FIELD NO:	222	223	224	225		
LAB NO:	482	483	484	485		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	67%	100%	80%		
25.0	79%	51%	88%	67%		
20.0	70%	49%	62%	55%		
12.5	56%	43%	50%	44%		
10.0	51%	41%	46%	40%		
5.0	39%	35%	35%	31%		
2.5	30%	31%	29%	23%		
1.25	23%	26%	23%	16%		
0.630	14%	19%	14%	9%		
0.315	7%	12%	6%	4%		
0.160	4%	7%	2%	2%		
0.080	2%	5%	1%	1%		
M.C.(%)	2%	4%	3%	2%		
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:	61	65	65	69		
% SAND:	37	30	34	29		
% FINES:	2	5	1	1		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

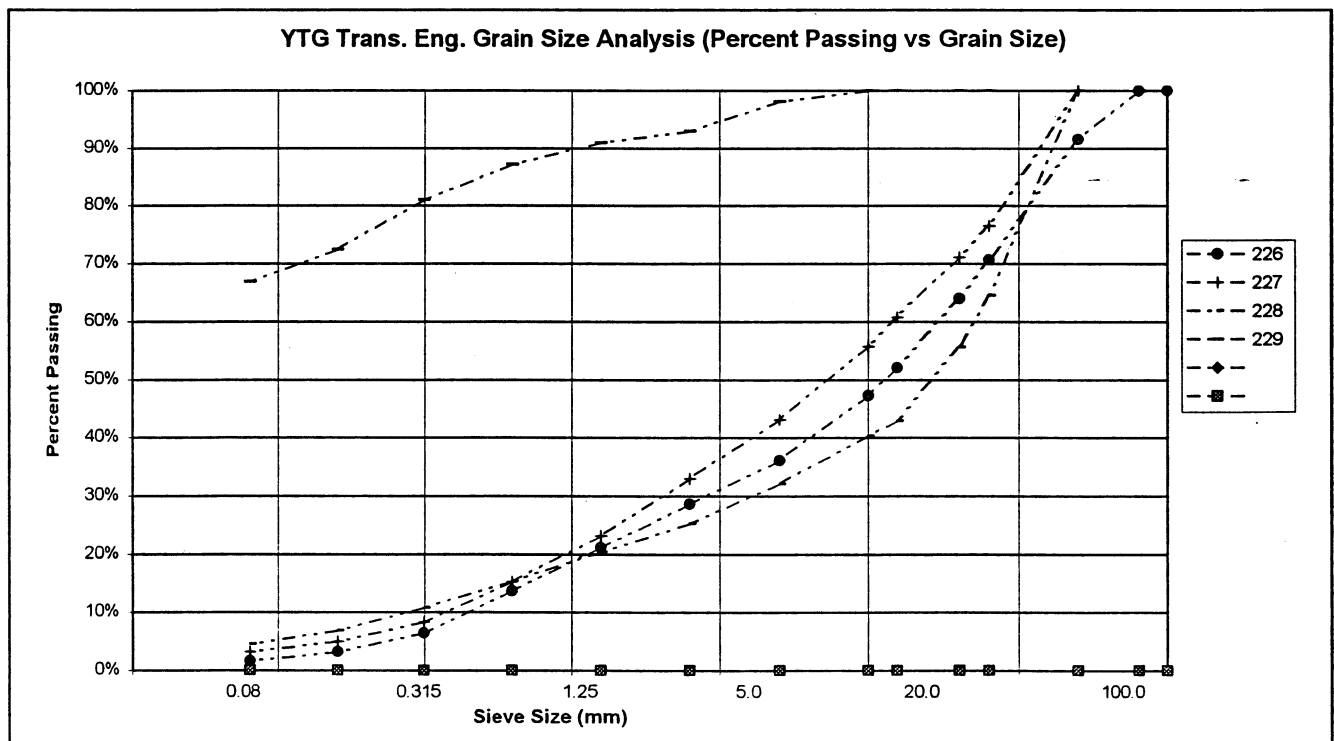


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2461

DATE COMP: SEPT 23/02

FIELD NO:	226	227	228	229		
LAB NO:	486	487	488	489		
DEPTH:	0.5-1.0	2.0-2.5	3.2-3.8	4.2-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	92%	100%	100%	100%		
25.0	71%	77%	65%	100%		
20.0	64%	71%	56%	100%		
12.5	52%	61%	43%	100%		
10.0	47%	56%	40%	100%		
5.0	36%	43%	32%	98%		
2.5	29%	33%	25%	93%		
1.25	21%	23%	20%	91%		
0.630	14%	15%	15%	87%		
0.315	7%	8%	11%	81%		
0.160	3%	5%	7%	72%		
0.080	2%	3%	5%	67%		
M.C.(%)	2%	3%	4%	50%		
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:	64	57	68	2		
% SAND:	34	40	28	31		
% FINES:	2	3	5	67		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SANDY SILT (ML)		

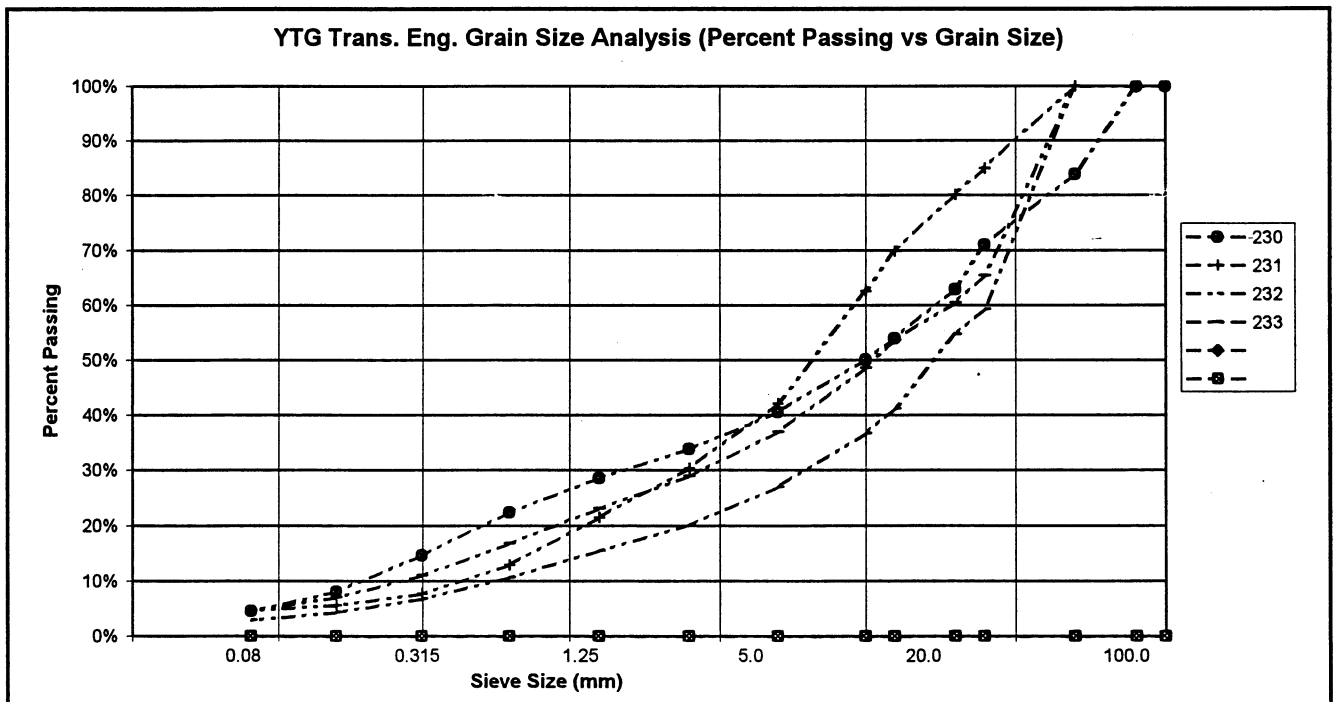


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2462

DATE COMP: SEPT 23/02

FIELD NO:	230	231	232	233		
LAB NO:	490	491	492	493		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	84%	100%	100%	100%		
25.0	71%	85%	59%	65%		
20.0	63%	80%	55%	60%		
12.5	54%	70%	41%	54%		
10.0	50%	63%	37%	49%		
5.0	41%	42%	27%	37%		
2.5	34%	30%	20%	29%		
1.25	29%	22%	15%	23%		
0.630	22%	13%	11%	17%		
0.315	15%	8%	7%	11%		
0.160	8%	6%	4%	7%		
0.080	5%	5%	3%	5%		
M.C.(%):	2%	4%	3%	4%		
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:	59	58	73	63		
% SAND:	36	37	24	32		
% FINES:	5	5	3	5		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		

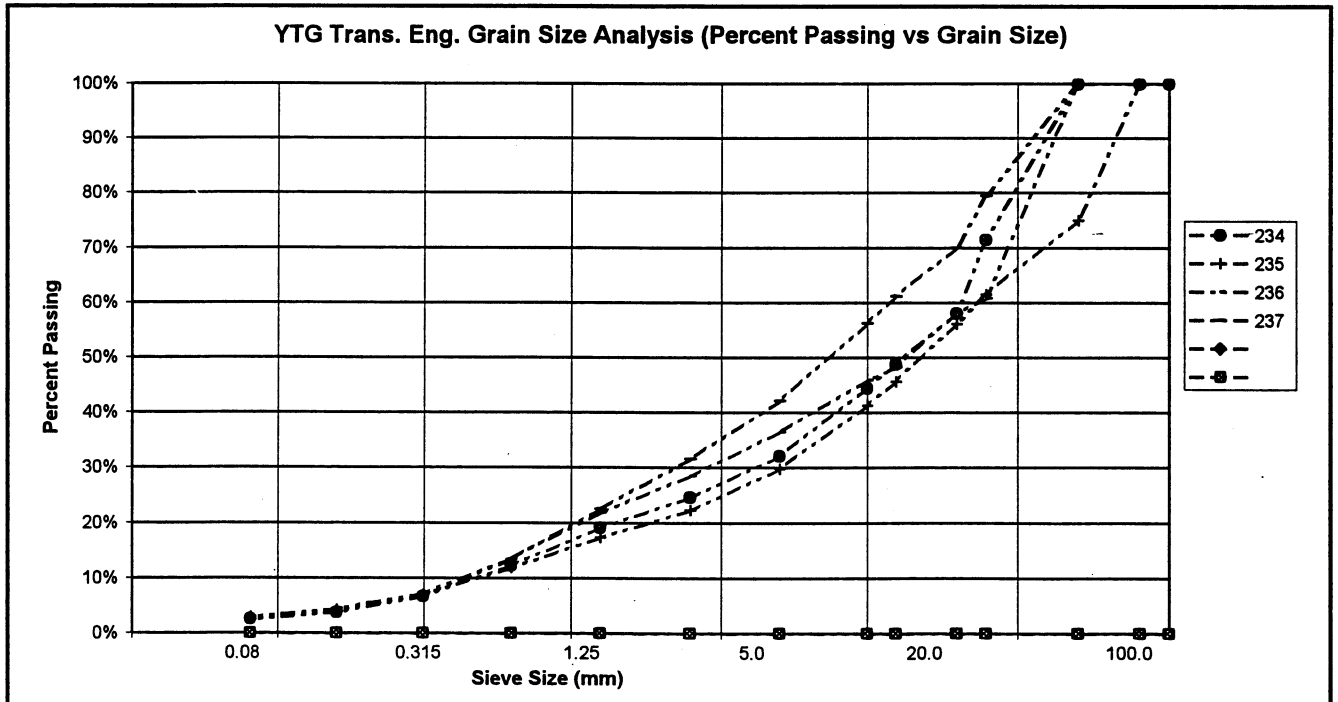


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2463

DATE COMP: SEPT 23/02

FIELD NO:	234	235	236	237		
LAB NO:	494	495	496	497		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	75%	100%	100%		
25.0	72%	61%	61%	79%		
20.0	58%	56%	58%	70%		
12.5	49%	46%	48%	61%		
10.0	44%	41%	46%	56%		
5.0	32%	30%	37%	42%		
2.5	25%	22%	28%	32%		
1.25	19%	17%	22%	23%		
0.630	12%	12%	14%	13%		
0.315	7%	7%	7%	7%		
0.160	4%	4%	4%	4%		
0.080	3%	3%	3%	3%		
M.C.(%)	2%	3%	3%	2%		
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:	68	70	63	58		
% SAND:	30	27	34	40		
% FINES:	3	3	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

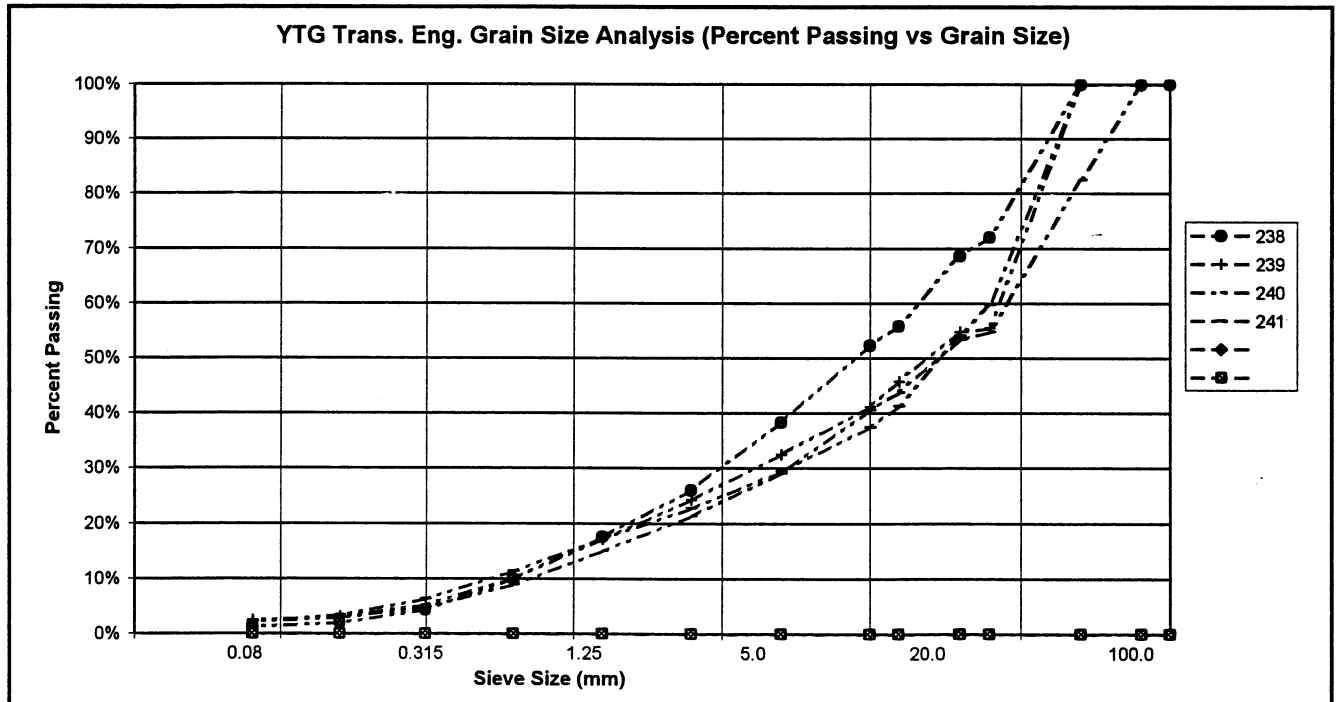


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2464

DATE COMP: SEPT 23/02

FIELD NO:	238	239	240	241		
LAB NO:	498	499	500	501		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	3.5-4.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	82%	100%		
25.0	72%	56%	55%	60%		
20.0	69%	55%	53%	54%		
12.5	56%	46%	44%	41%		
10.0	52%	41%	41%	37%		
5.0	38%	33%	29%	29%		
2.5	26%	24%	21%	23%		
1.25	18%	17%	15%	17%		
0.630	10%	10%	9%	11%		
0.315	4%	5%	5%	6%		
0.160	2%	3%	3%	3%		
0.080	1%	3%	2%	2%		
M.C.(%)	2%	3%	3%	3%		
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:	62	67	71	71		
% SAND:	37	30	27	27		
% FINES:	1	3	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

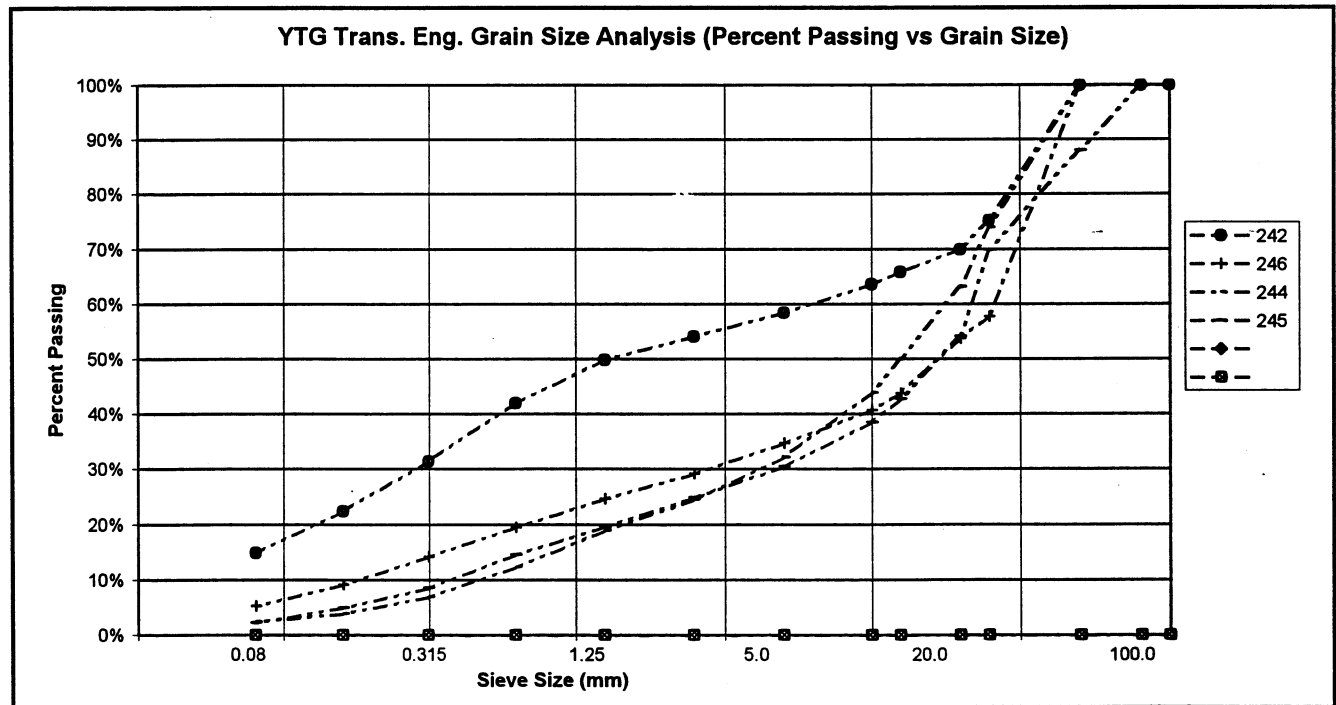


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2465

DATE COMP: SEPT 23/02

FIELD NO:	242	246	244	245		
LAB NO:	502	503	504	505		
DEPTH:	0.5-1.0	2.2-2.8	3.2-3.8	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	88%		
25.0	75%	58%	74%	70%		
20.0	70%	54%	63%	54%		
12.5	66%	44%	50%	43%		
10.0	64%	41%	44%	39%		
5.0	58%	35%	32%	30%		
2.5	54%	29%	25%	25%		
1.25	50%	25%	19%	20%		
0.630	42%	19%	12%	15%		
0.315	31%	14%	7%	9%		
0.160	22%	9%	4%	5%		
0.080	15%	5%	2%	2%		
M.C.(%):	5%	4%	2%	3%		
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:	42	65	68	70		
% SAND:	44	29	30	28		
% FINES:	15	5	2	2		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

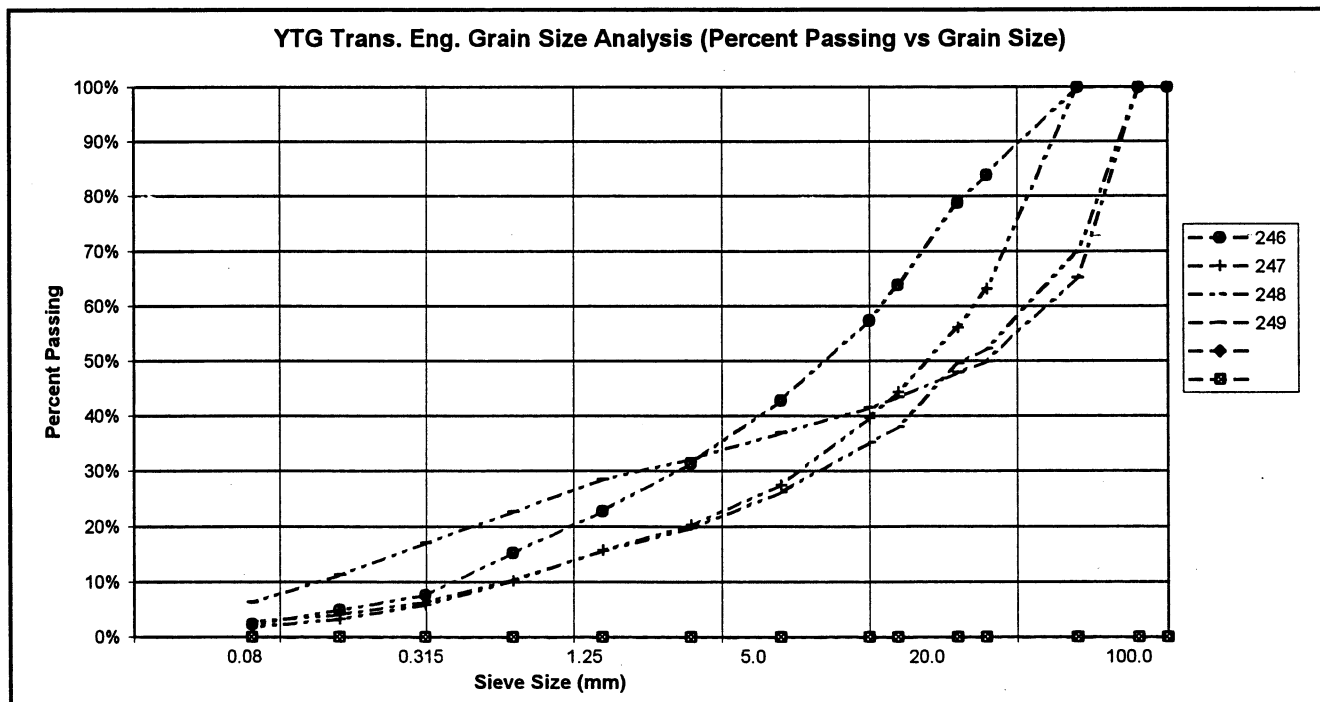


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2466

DATE COMP: SEPT 23/02

FIELD NO:	246	247	248	249		
LAB NO:	506	507	508	509		
DEPTH:	0.5-1.0	2.2-2.8	3.2-3.6	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	70%	65%		
25.0	84%	63%	52%	50%		
20.0	79%	56%	49%	48%		
12.5	64%	44%	38%	43%		
10.0	57%	40%	35%	42%		
5.0	43%	28%	26%	37%		
2.5	31%	20%	20%	32%		
1.25	23%	16%	16%	29%		
0.630	15%	10%	10%	23%		
0.315	8%	6%	6%	17%		
0.160	5%	3%	4%	11%		
0.080	2%	2%	3%	6%		
M.C.(%)	2%	2%	2%	4%		
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:	57	72	74	63		
% SAND:	40	26	23	31		
% FINES:	2	2	3	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

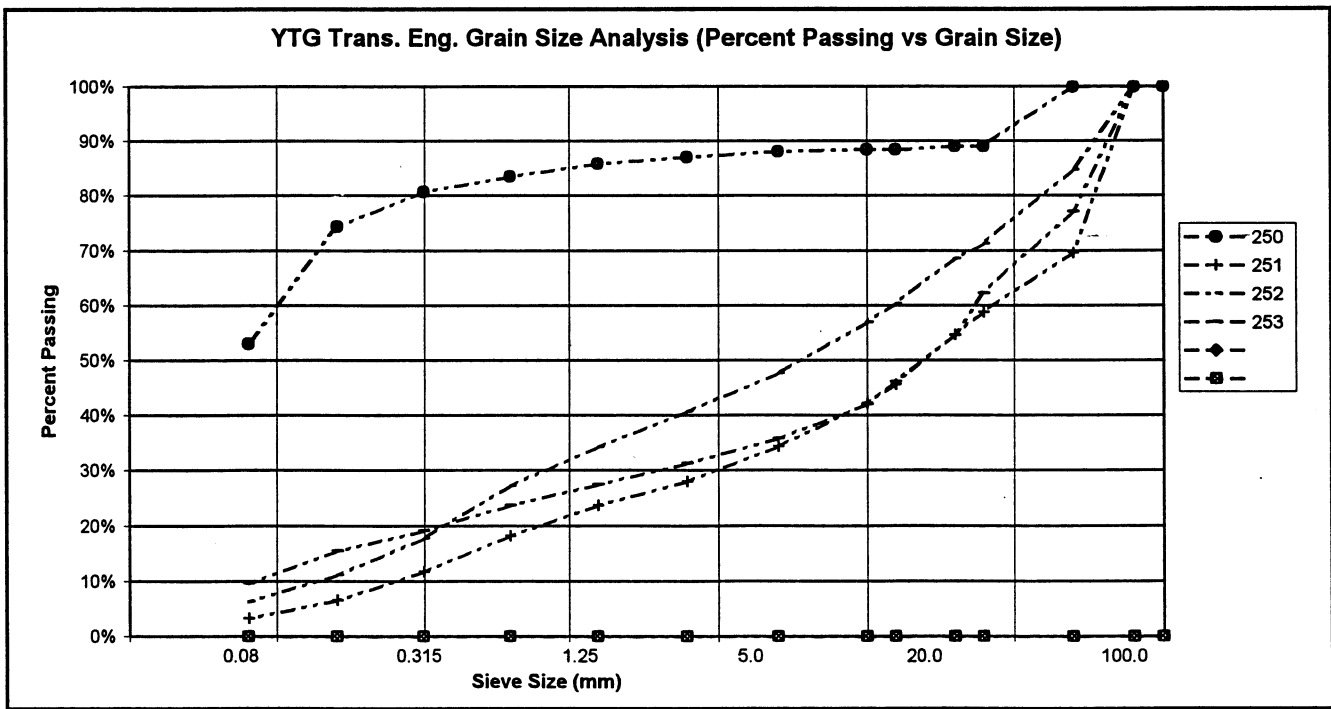


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2467

DATE COMP: SEPT 23/02

FIELD NO:	250	251	252	253		
LAB NO:	510	511	512	513		
DEPTH:	0.6-1.0	2.0-2.5	3.2-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
60.0	100%	70%	85%	77%		
25.0	89%	59%	71%	62%		
20.0	89%	55%	69%	55%		
12.5	89%	46%	60%	46%		
10.0	89%	42%	57%	42%		
5.0	88%	34%	48%	36%		
2.5	87%	28%	41%	31%		
1.25	86%	24%	34%	27%		
0.630	84%	18%	27%	24%		
0.315	81%	12%	18%	19%		
0.160	74%	7%	11%	16%		
0.080	53%	3%	6%	10%		
M.C.(%):	9%	2%	3%	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:	12	66	52	64		
% SAND:	35	31	41	26		
% FINES:	53	3	6	10		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

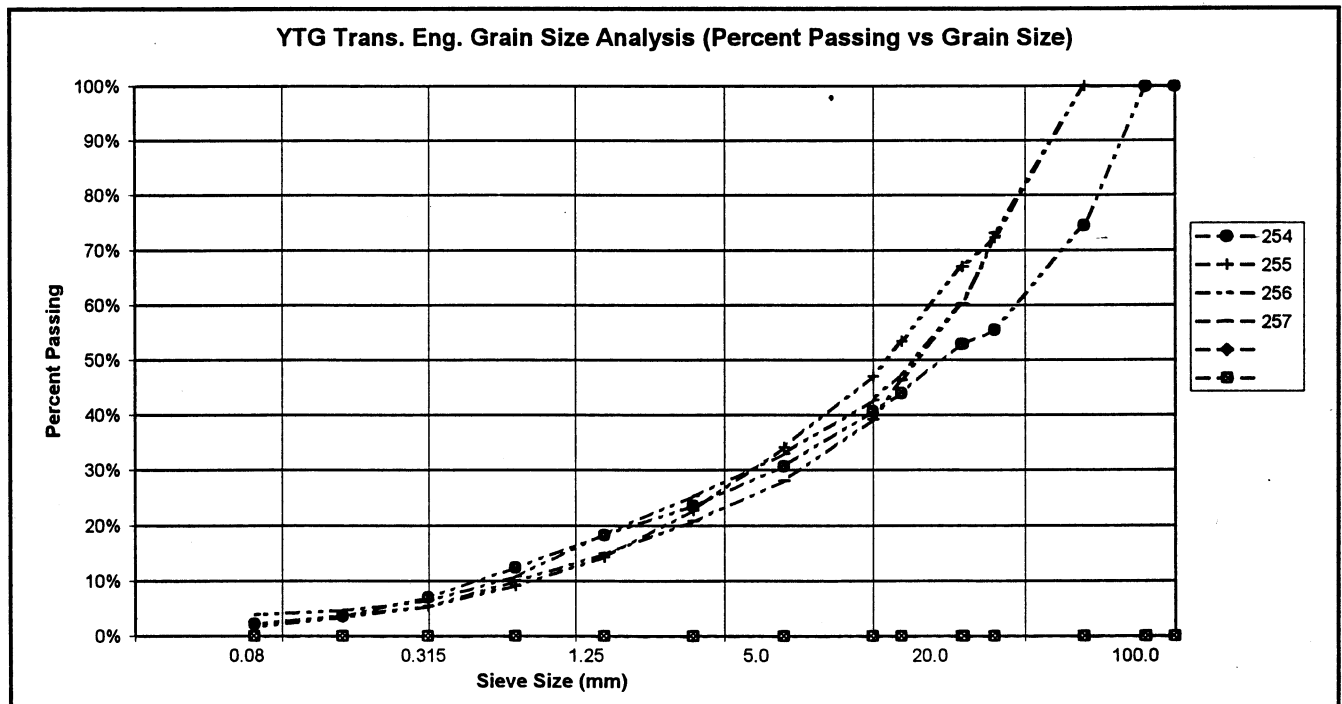


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2468

DATE COMP: SEPT 23/02

FIELD NO:	254	255	256	257		
LAB NO:	514	515	516	517		
DEPTH:	0.5-1.0	1.8-2.4	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	75%	100%	100%	100%		
25.0	56%	72%	72%	73%		
20.0	53%	67%	60%	60%		
12.5	44%	53%	47%	46%		
10.0	41%	47%	43%	39%		
5.0	31%	34%	33%	28%		
2.5	24%	23%	25%	21%		
1.25	18%	14%	19%	15%		
0.630	12%	9%	11%	10%		
0.315	7%	5%	6%	5%		
0.160	4%	3%	5%	4%		
0.080	2%	2%	4%	2%		
M.C.(%)	2%	3%	4%	3%		
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:	69	66	67	72		
% SAND:	29	32	29	26		
% FINES:	2	2	4	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

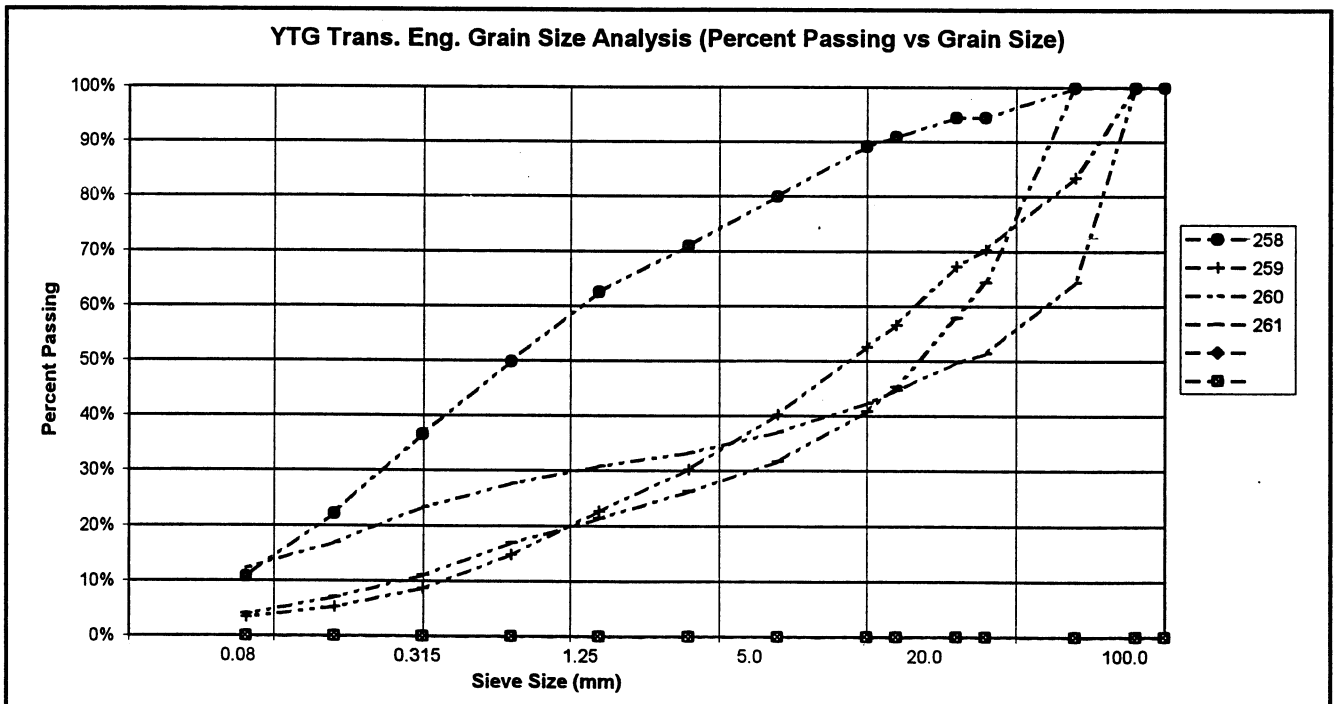


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2469

DATE COMP: SEPT 23/02

FIELD NO:	258	259	260	261		
LAB NO:	518	519	520	521		
DEPTH:	1.6-2.0	2.2-2.8	3.6-4.2	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	83%	64%	100%		
25.0	94%	70%	51%	64%		
20.0	94%	67%	50%	58%		
12.5	91%	57%	45%	45%		
10.0	89%	53%	42%	41%		
5.0	80%	40%	37%	32%		
2.5	71%	30%	33%	26%		
1.25	63%	23%	31%	21%		
0.630	50%	15%	28%	17%		
0.315	37%	9%	23%	11%		
0.160	22%	5%	17%	7%		
0.080	11%	3%	12%	4%		
M.C.(%):	4%	3%	12%	4%		
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:	20	60	63	68		
% SAND:	69	37	25	28		
% FINES:	11	3	12	4		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SAND (GP)		

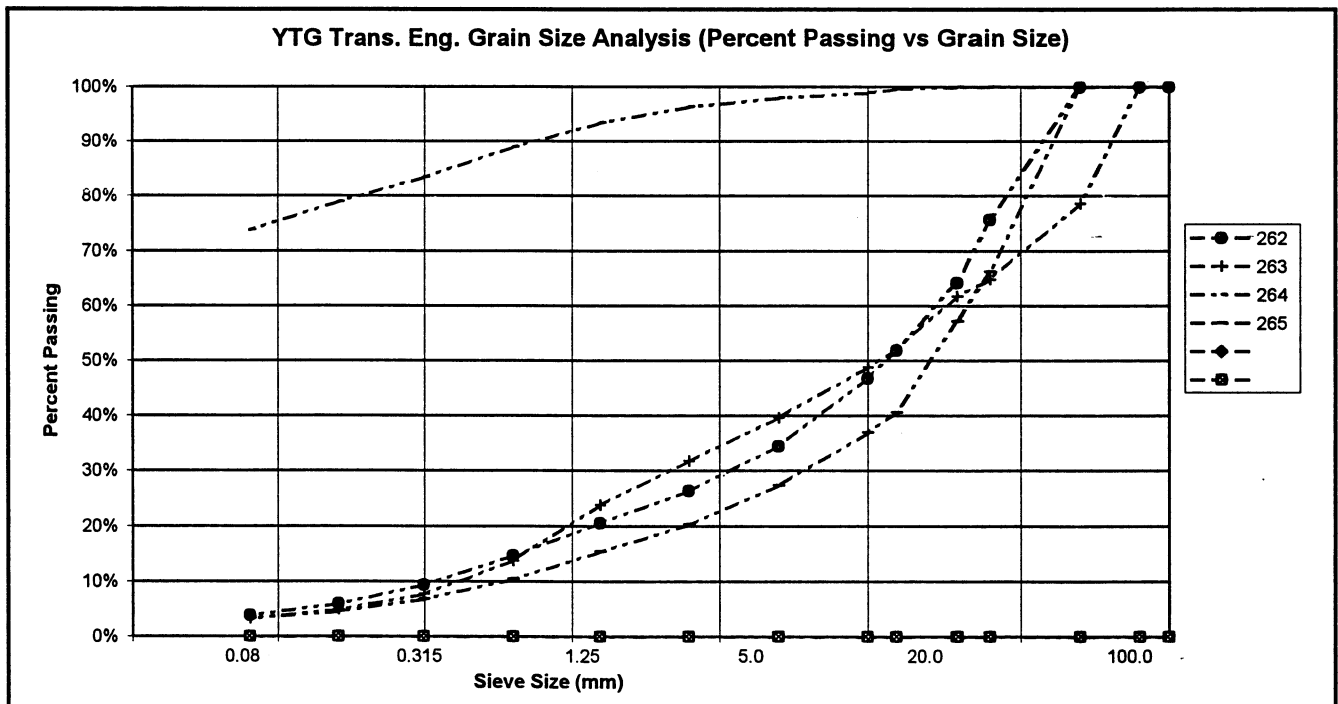


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2470

DATE COMP: SEPT 23/02

FIELD NO:	262	263	264	265		
LAB NO:	522	523	524	525		
DEPTH:	0.5-1.0	1.8-2.3	2.8-3.2	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	79%	100%	100%		
25.0	76%	65%	100%	66%		
20.0	64%	62%	100%	57%		
12.5	52%	52%	100%	41%		
10.0	47%	49%	99%	37%		
5.0	35%	40%	98%	27%		
2.5	26%	32%	96%	20%		
1.25	21%	24%	93%	15%		
0.630	15%	14%	89%	10%		
0.315	9%	8%	83%	7%		
0.160	6%	5%	79%	5%		
0.080	4%	3%	74%	3%		
M.C.(%):	3%	3%	49%	3%		
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:	65	60	2	73		
% SAND:	31	36	24	24		
% FINES:	4	3	74	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILT WITH SAND (ML)	WELL-GRADED GRAVEL WITH SAND (GW)		

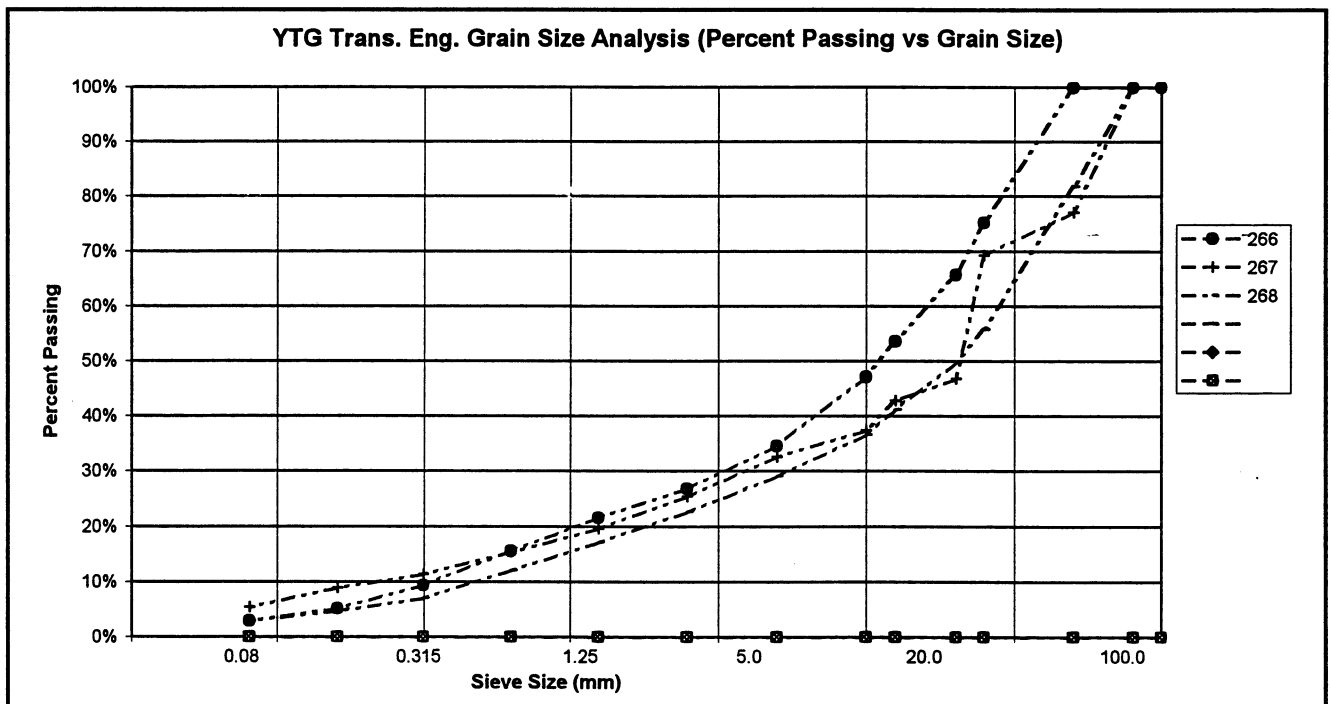


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2471

DATE COMP: SEPT 23/02

FIELD NO:	266	267	268		
LAB NO:	526	527	528		
DEPTH:	0.5-1.0	2.3-2.8	3.2-3.7		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	77%	82%		
25.0	75%	69%	56%		
20.0	66%	47%	50%		
12.5	54%	43%	41%		
10.0	47%	37%	37%		
5.0	35%	33%	29%		
2.5	27%	26%	23%		
1.25	22%	20%	17%		
0.630	16%	15%	12%		
0.315	9%	11%	7%		
0.160	5%	9%	5%		
0.080	3%	5%	3%		
M.C.(%):	2%	4%	2%		
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:	65	67	71		
% SAND:	32	27	26		
% FINES:	3	5	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SAND (GW)		

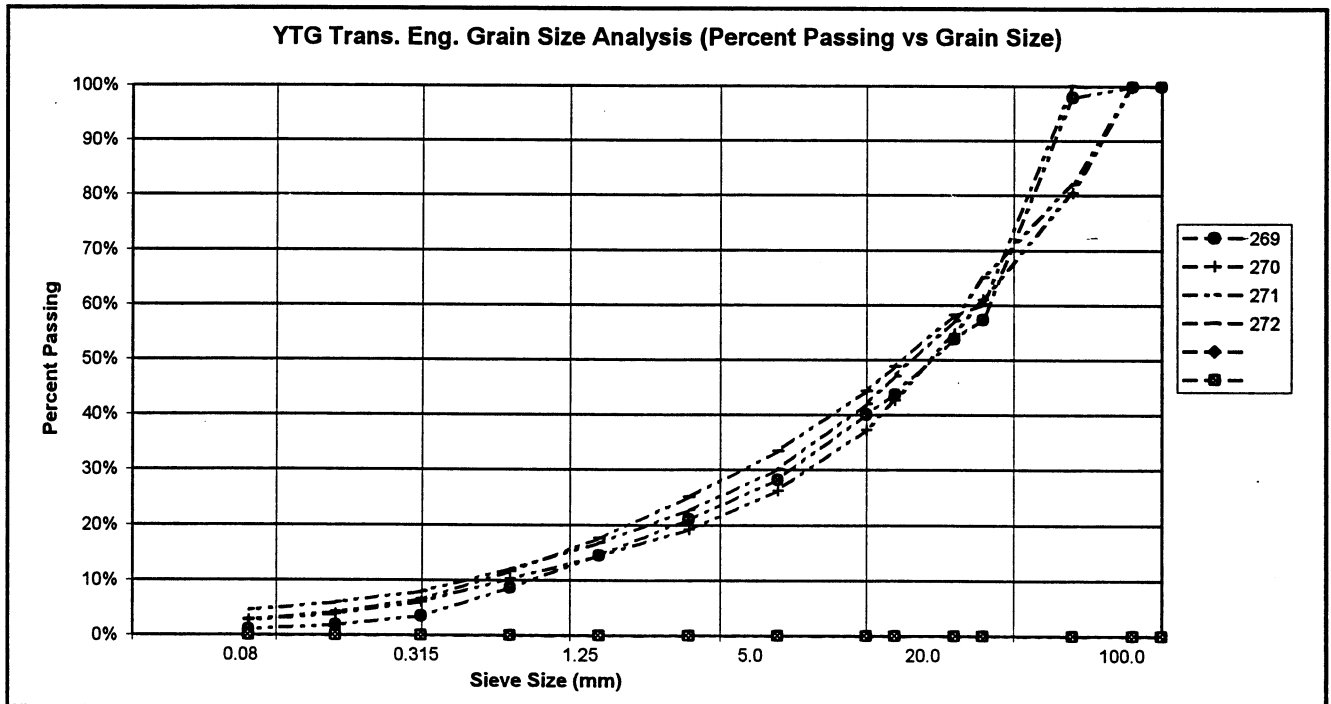


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2472

DATE COMP: SEPT 23/02

FIELD NO:	269	270	271	272		
LAB NO:	529	230	231	532		
DEPTH:	0.8-1.3	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	98%	81%	82%	100%		
25.0	57%	61%	65%	60%		
20.0	54%	55%	57%	58%		
12.5	44%	43%	47%	49%		
10.0	40%	37%	42%	44%		
5.0	28%	26%	30%	33%		
2.5	21%	19%	23%	25%		
1.25	15%	14%	17%	18%		
0.630	9%	10%	12%	12%		
0.315	4%	6%	8%	7%		
0.160	2%	4%	6%	4%		
0.080	1%	3%	5%	3%		
M.C.(%)	2%	3%	3%	3%		
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:	72	74	70	67		
% SAND:	27	24	26	31		
% FINES:	1	3	5	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

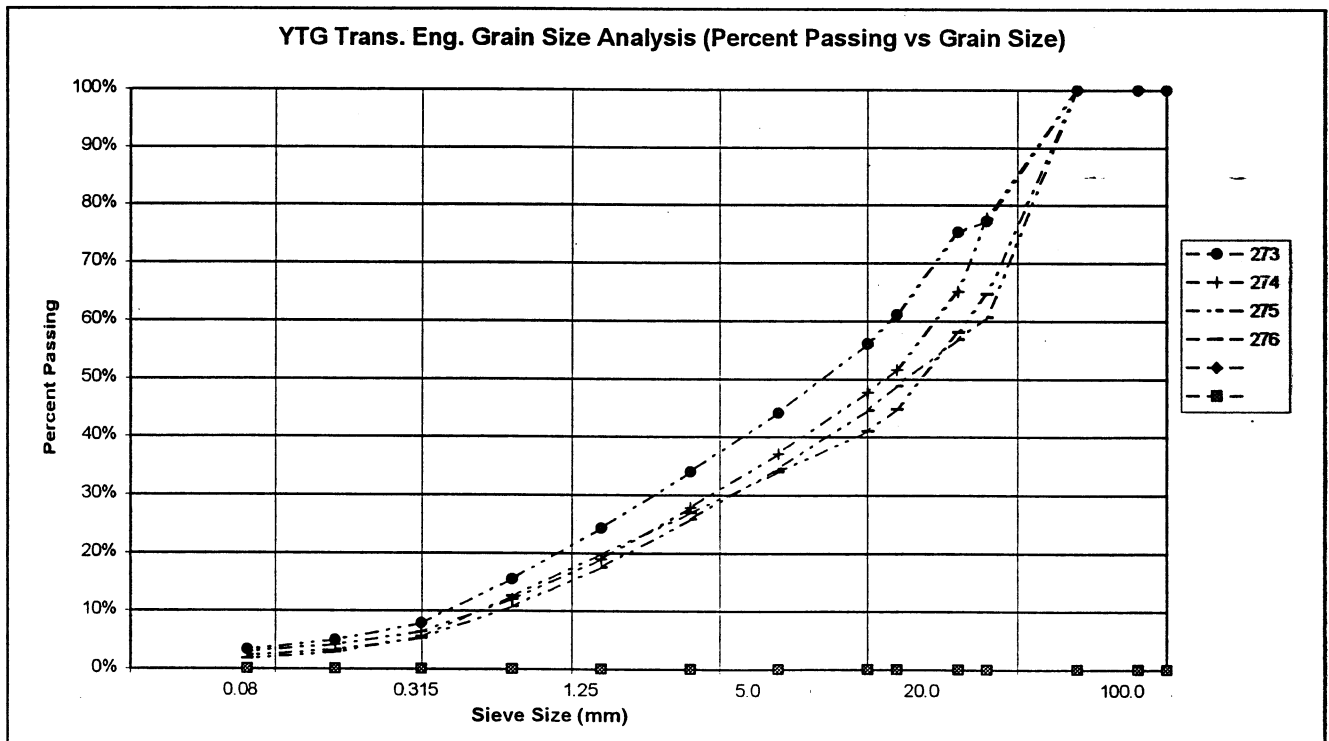


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2473

DATE COMP: SEPT 23/02

FIELD NO:	273	274	275	276		
LAB NO:	533	534	535	536		
DEPTH:	0.8-1.3	1.8-2.3	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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	77%	78%	61%	65%		
20.0	75%	65%	57%	58%		
12.5	61%	52%	49%	45%		
10.0	56%	48%	45%	41%		
5.0	44%	37%	35%	34%		
2.5	34%	28%	26%	27%		
1.25	24%	19%	18%	20%		
0.630	15%	12%	11%	13%		
0.315	8%	6%	5%	6%		
0.160	5%	4%	3%	3%		
0.080	3%	3%	2%	2%		
M.C.(%):	3%	3%	2%	2%		
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:	56	63	65	66		
% SAND:	41	34	32	32		
% FINES:	3	3	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

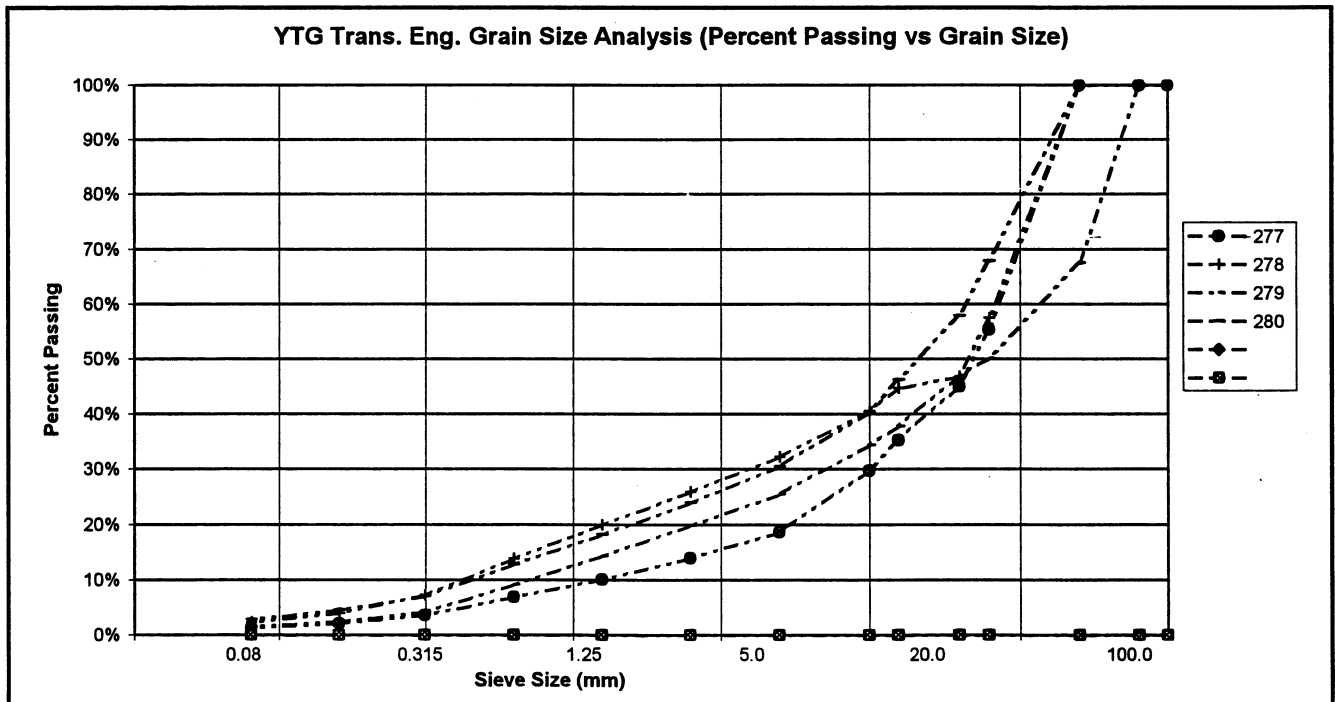


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2474

DATE COMP: SEPT 23/02

FIELD NO:	277	278	279	280		
LAB NO:	537	538	539	540		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	67%	100%		
25.0	55%	58%	50%	68%		
20.0	45%	47%	47%	58%		
12.5	35%	45%	38%	46%		
10.0	30%	41%	34%	40%		
5.0	19%	32%	26%	31%		
2.5	14%	26%	20%	24%		
1.25	10%	20%	14%	18%		
0.630	7%	14%	9%	13%		
0.315	4%	7%	4%	7%		
0.160	2%	4%	2%	5%		
0.080	1%	2%	2%	3%		
M.C.(%)	2%	2%	3%	2%		
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:	81	68	74	69		
% SAND:	17	30	24	28		
% FINES:	1	2	2	3		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

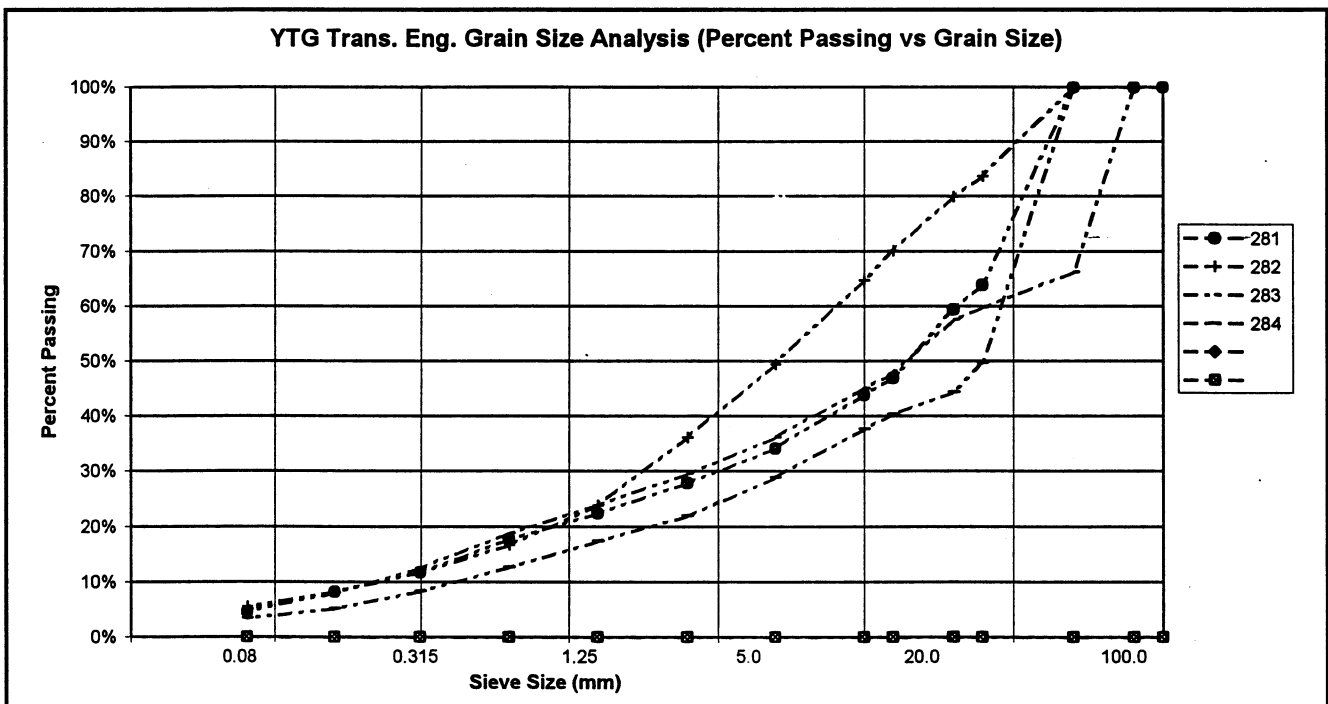


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2475

DATE COMP: SEPT 23/02

FIELD NO:	281	282	283	284		
LAB NO:	541	542	543	544		
DEPTH:	0.8-1.3	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	66%	100%		
25.0	64%	84%	60%	50%		
20.0	59%	80%	58%	44%		
12.5	47%	70%	48%	40%		
10.0	44%	65%	45%	38%		
5.0	34%	49%	36%	29%		
2.5	28%	36%	30%	22%		
1.25	22%	24%	24%	17%		
0.630	18%	17%	19%	13%		
0.315	12%	12%	13%	8%		
0.160	8%	8%	8%	5%		
0.080	5%	5%	5%	3%		
M.C.(%):	3%	3%	3%	3%		
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:	66	51	64	71		
% SAND:	30	44	31	25		
% FINES:	5	5	5	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	WELL-GRADED GRAVEL WITH SAND (GW)		

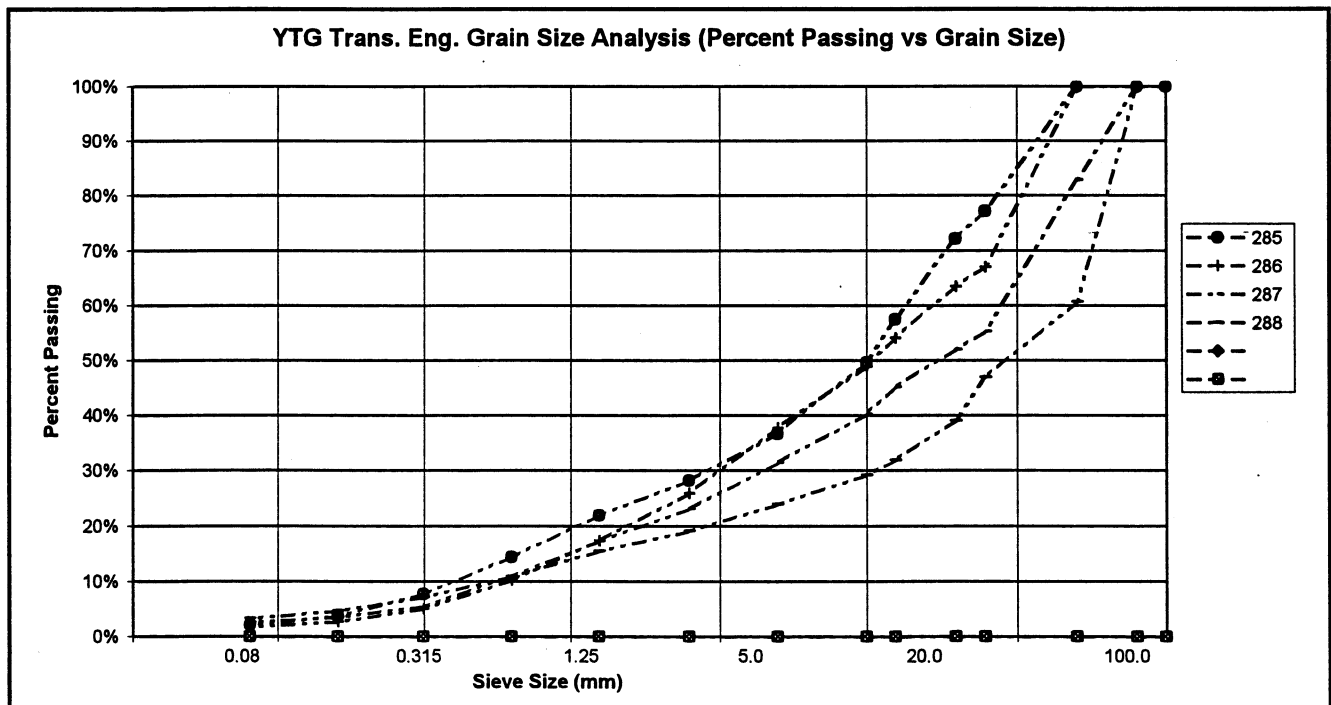


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2476

DATE COMP: SEPT 24/02

FIELD NO:	285	286	287	288		
LAB NO:	545	546	547	548		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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%	83%	61%		
25.0	77%	67%	55%	47%		
20.0	72%	63%	52%	39%		
12.5	57%	54%	45%	32%		
10.0	50%	49%	40%	29%		
5.0	37%	38%	31%	24%		
2.5	28%	26%	23%	19%		
1.25	22%	17%	17%	15%		
0.630	14%	10%	11%	11%		
0.315	8%	5%	6%	7%		
0.160	4%	3%	4%	5%		
0.080	2%	2%	3%	3%		
M.C.(%):	2%	2%	3%	4%		
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:	63	62	69	76		
% SAND:	35	36	29	21		
% FINES:	2	2	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

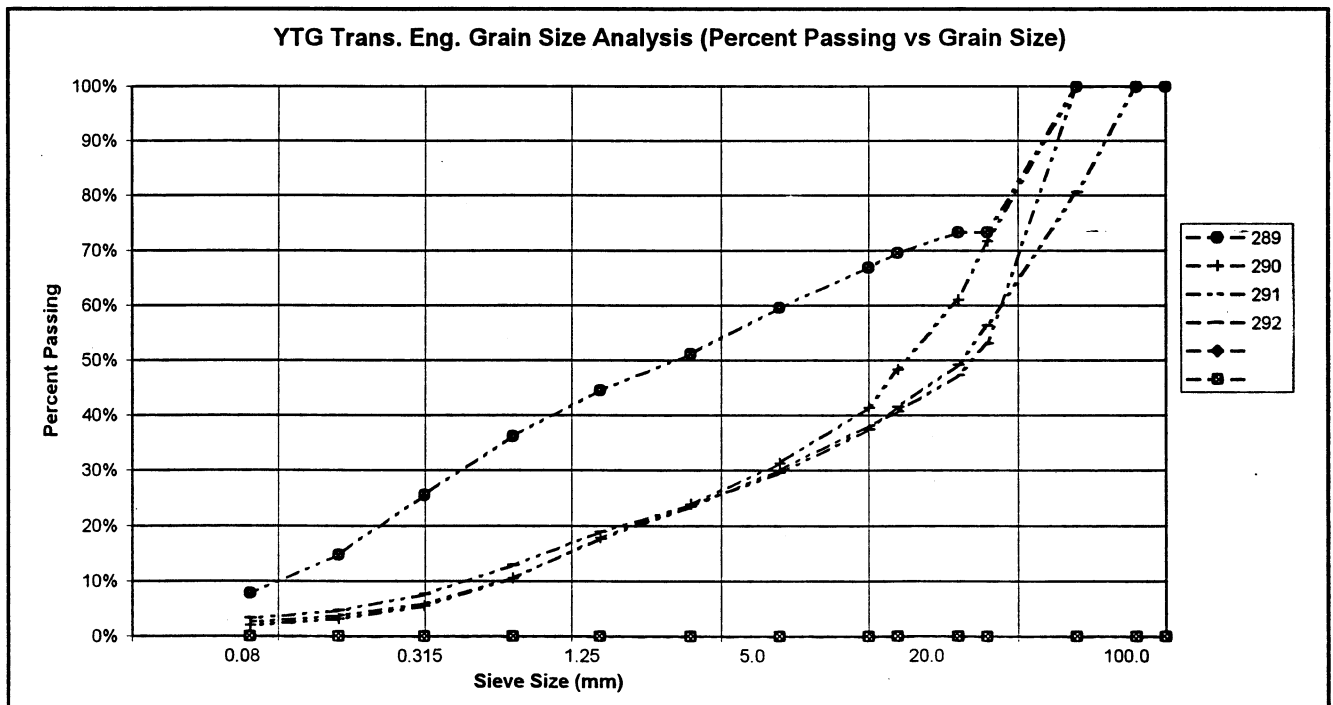


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2477

DATE COMP: SEPT 24/02

FIELD NO:	289	290	291	292		
LAB NO:	549	550	551	552		
DEPTH:	0.7-1.2	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	81%		
25.0	73%	72%	53%	56%		
20.0	73%	61%	47%	49%		
12.5	70%	48%	41%	42%		
10.0	67%	41%	38%	37%		
5.0	60%	31%	30%	30%		
2.5	51%	24%	23%	24%		
1.25	45%	18%	18%	19%		
0.630	36%	11%	11%	13%		
0.315	26%	5%	6%	8%		
0.160	15%	3%	4%	5%		
0.080	8%	2%	3%	3%		
M.C.(%)	3%	3%	3%	3%		
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:	40	69	70	70		
% SAND:	52	29	28	26		
% FINES:	8	2	3	3		
CLASSIFICATION	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

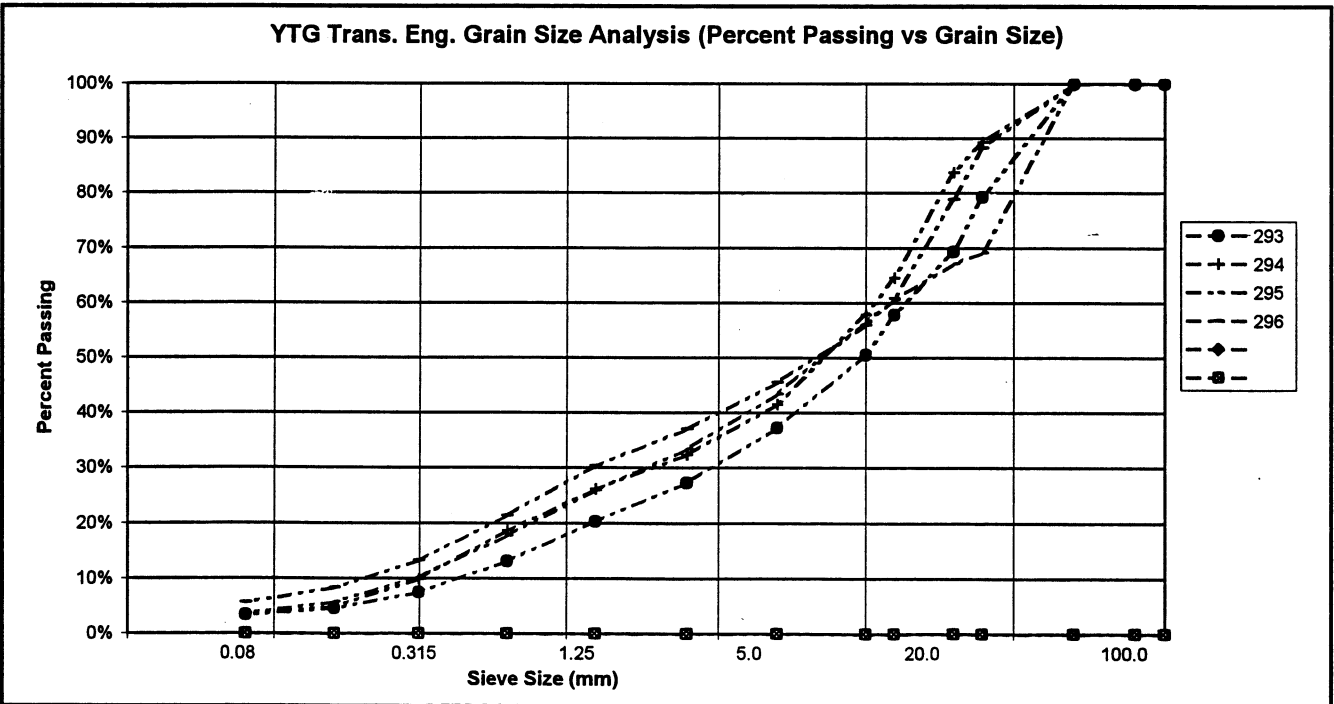


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2478

DATE COMP: SEPT 24/02

FIELD NO:	293	294	295	296		
LAB NO:	553	554	555	556		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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	79%	89%	69%	88%		
20.0	69%	84%	67%	79%		
12.5	58%	65%	61%	61%		
10.0	51%	58%	57%	56%		
5.0	37%	42%	43%	46%		
2.5	27%	32%	33%	37%		
1.25	20%	26%	26%	30%		
0.630	13%	19%	18%	21%		
0.315	7%	10%	10%	13%		
0.160	5%	5%	6%	8%		
0.080	3%	3%	4%	6%		
M.C.(%)	3%	3%	3%	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:	63	58	57	54		
% SAND:	34	38	40	40		
% FINES:	3	3	4	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

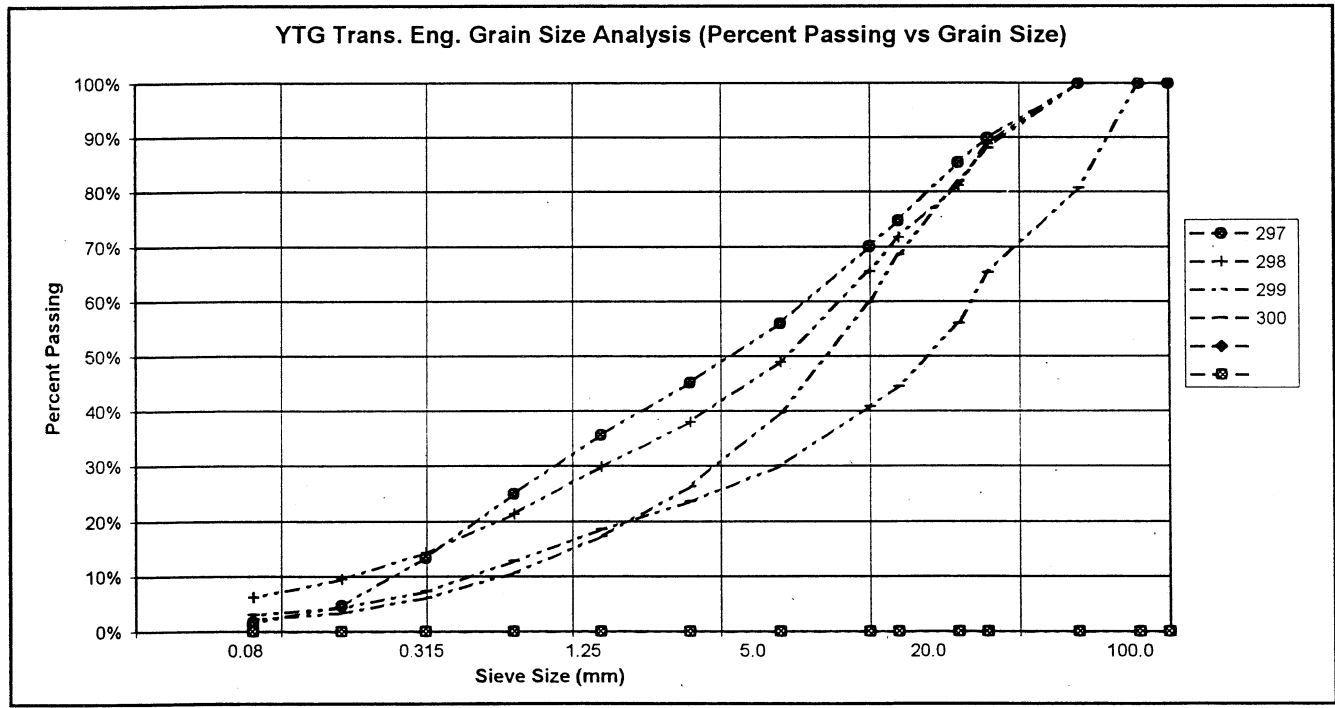


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2479

DATE COMP: SEPT 24/02

FIELD NO:	297	298	299	300
LAB NO:	557	558	559	560
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.3-4.8
TYPE:	BULK	BULK	BULK	BULK
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%	81%
25.0	90%	89%	88%	65%
20.0	85%	81%	82%	56%
12.5	75%	72%	68%	45%
10.0	70%	66%	60%	41%
5.0	56%	49%	40%	30%
2.5	45%	38%	26%	24%
1.25	36%	30%	17%	19%
0.630	25%	21%	11%	13%
0.315	13%	14%	6%	7%
0.160	5%	10%	3%	4%
0.080	2%	6%	2%	3%
M.C.(%)	2%	2%	2%	2%
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:	44	51	60	70
% SAND:	54	43	37	27
% FINES:	2	6	2	3
CLASSIFICATION	WELL-GRADED SAND WITH GRAVEL (SW)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)

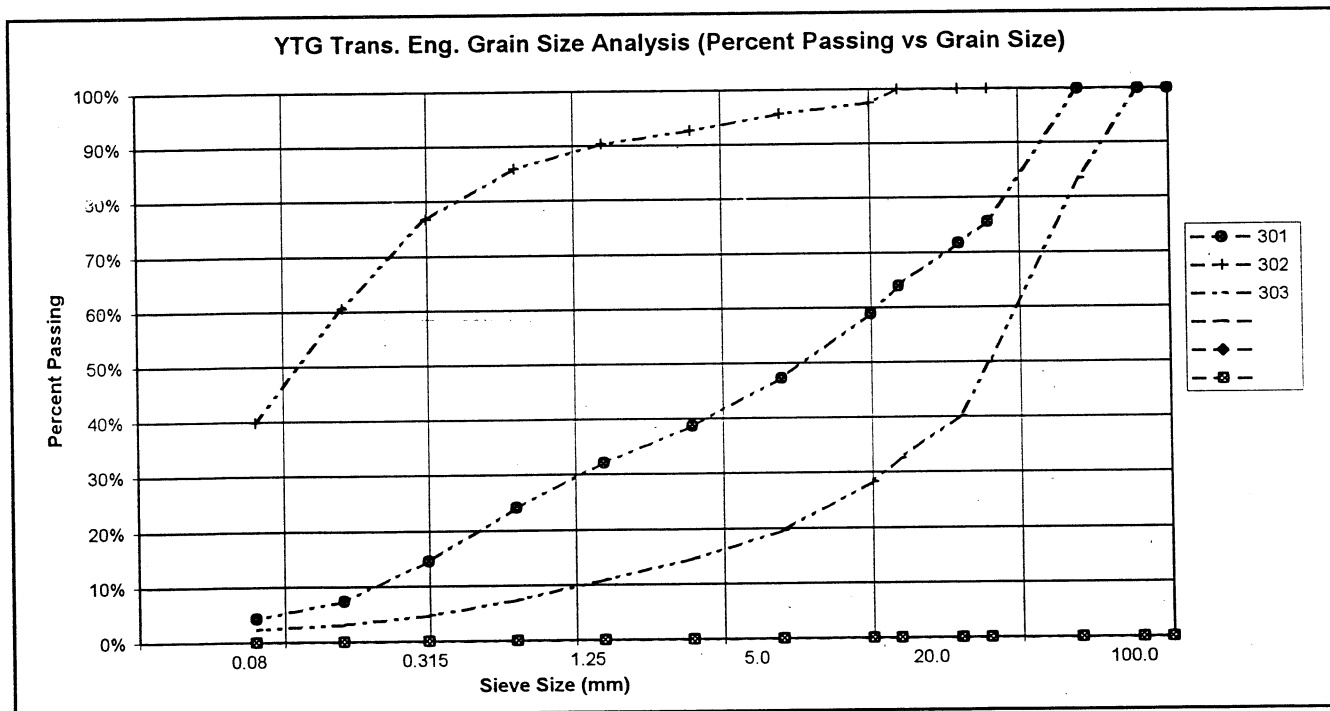


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2480

DATE COMP: SEPT 24/02

FIELD NO:	301	302	303		
LAB NO:	561	562	563		
DEPTH:	0.5-1.0	1.5-1.7	2.2-2.4		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	83%		
25.0	76%	100%	50%		
20.0	72%	100%	40%		
12.5	64%	100%	33%		
10.0	59%	98%	28%		
5.0	47%	96%	20%		
2.5	39%	93%	15%		
1.25	32%	90%	11%		
0.630	24%	86%	7%		
0.315	15%	77%	5%		
0.160	7%	61%	3%		
0.080	4%	40%	2%		
M.C.(%)	4%	43%	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:	53	4	80		
% SAND:	43	56	17		
% FINES:	4	40	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND (SM)	WELL-GRADED GRAVEL WITH SAND (GW)		

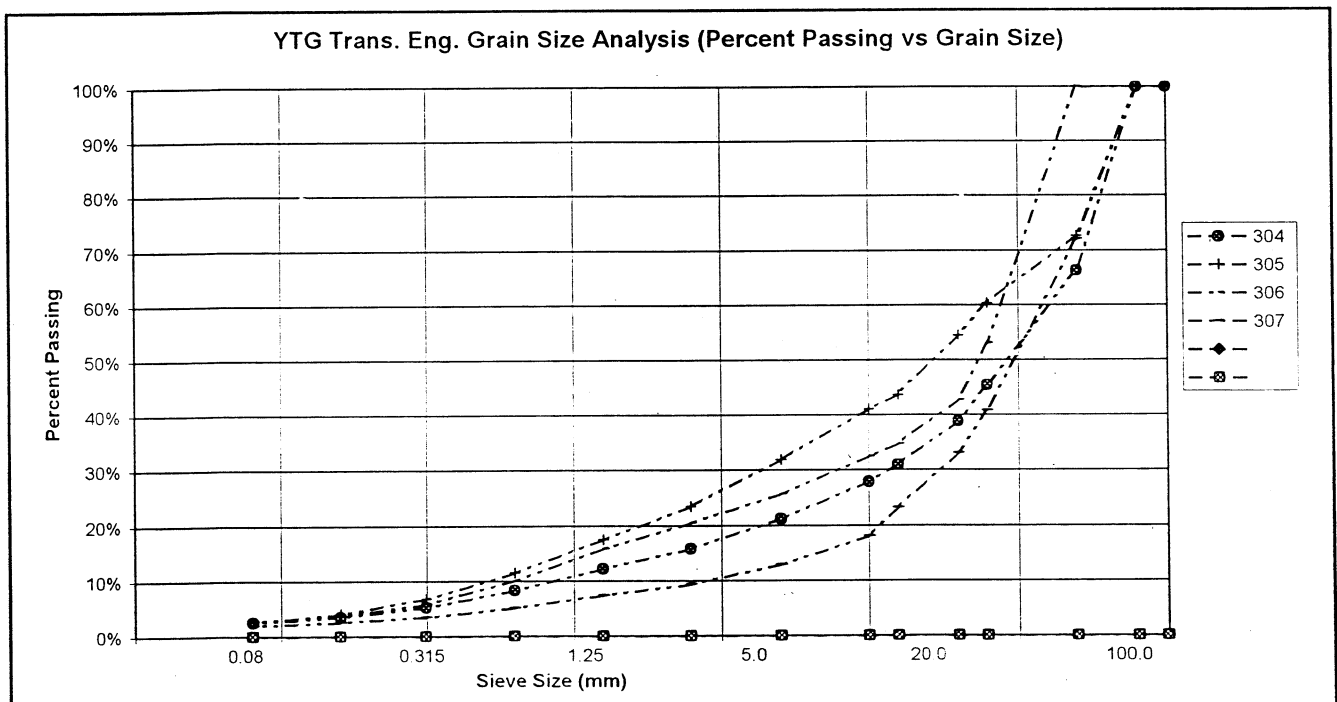


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2481

DATE COMP: SEPT 24/02

FIELD NO:	304	305	306	307		
LAB NO:	564	565	566	567		
DEPTH:	0.5-1.0	2.0-2.5	2.7-3.2	3.2-3.6		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	66%	73%	100%	72%		
25.0	45%	60%	53%	41%		
20.0	39%	54%	43%	33%		
12.5	31%	44%	35%	23%		
10.0	28%	41%	33%	18%		
5.0	21%	32%	26%	13%		
2.5	16%	23%	20%	9%		
1.25	12%	17%	16%	7%		
0.630	8%	12%	10%	5%		
0.315	5%	7%	6%	4%		
0.160	4%	4%	4%	3%		
0.080	3%	3%	3%	2%		
M.C.(%)	4%	3%	4%	3%		
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:	79	68	74	87		
% SAND:	19	29	23	11		
% FINES:	3	3	3	2		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL (GP)		

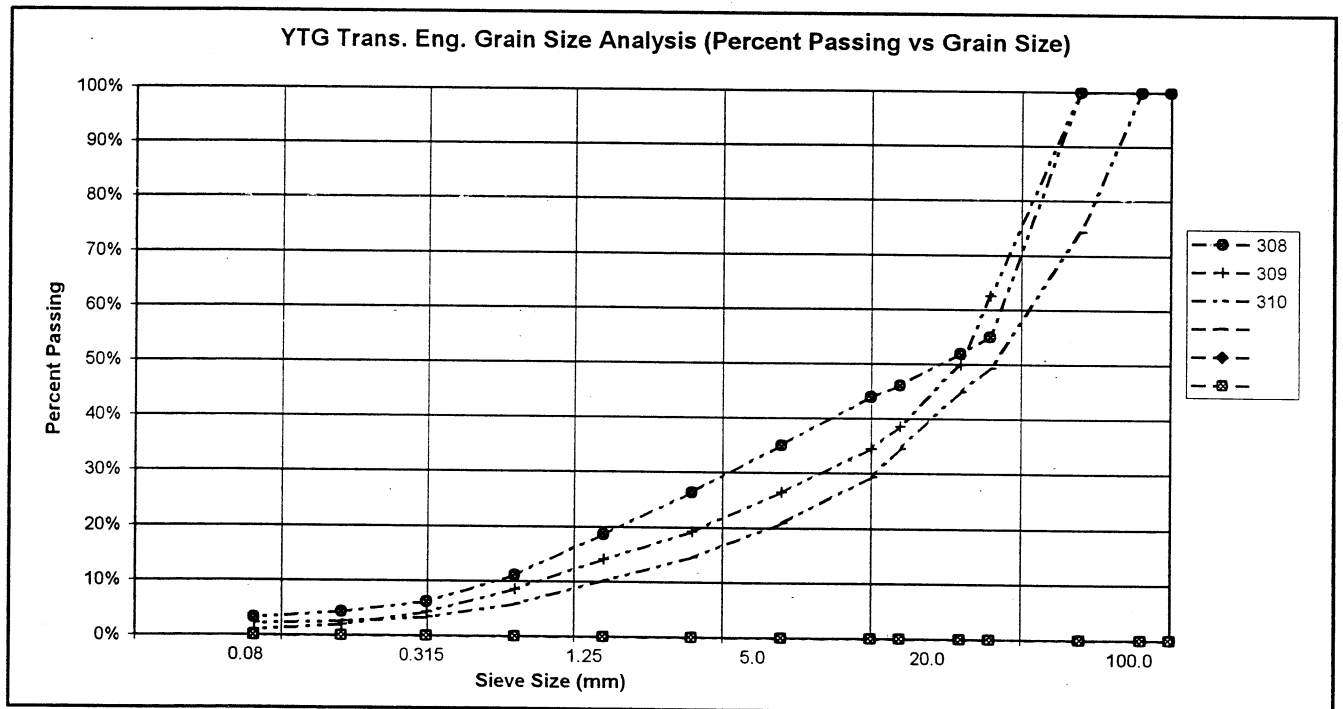


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2482

DATE COMP: SEPT 24/02

FIELD NO:	308	309	310		
LAB NO:	568	569	570		
DEPTH:	0.5-1.0	2.0-2.5	2.7-2.9		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	74%		
25.0	55%	63%	49%		
20.0	52%	50%	45%		
12.5	46%	39%	35%		
10.0	44%	34%	29%		
5.0	35%	27%	21%		
2.5	26%	19%	15%		
1.25	19%	14%	10%		
0.630	11%	9%	6%		
0.315	6%	4%	3%		
0.160	4%	2%	3%		
0.080	3%	1%	2%		
M.C.(%)	3%	3%	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:	65	73	79		
% SAND:	32	26	19		
% FINES:	3	1	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

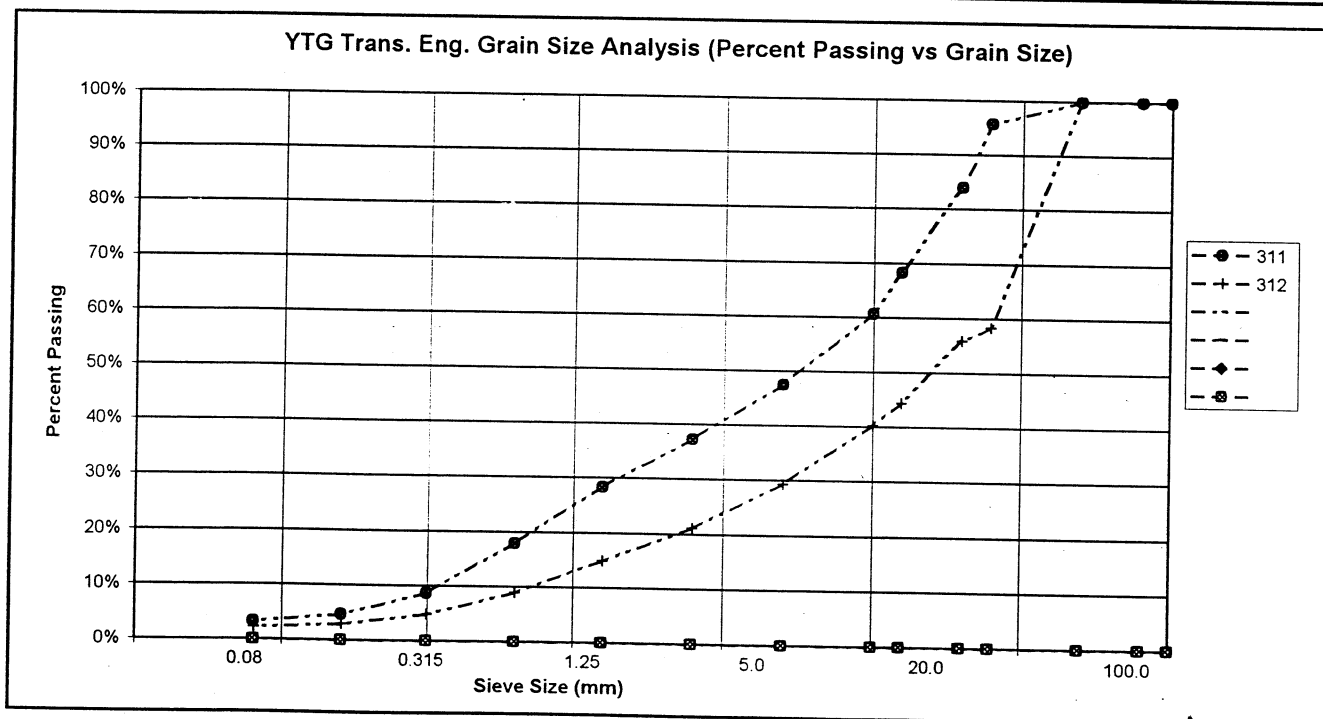


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2483

DATE COMP: SEPT 24/02

FIELD NO:	311	312			
LAB NO:	571	572			
DEPTH:	0.5-1.0	2.1-2.3			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	96%	58%			
20.0	84%	56%			
12.5	68%	44%			
10.0	61%	40%			
5.0	48%	29%			
2.5	37%	21%			
1.25	28%	15%			
0.630	18%	9%			
0.315	9%	5%			
0.160	5%	3%			
0.080	3%	2%			
M.C.(%)	3%	6%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX:	0.0	0.0			
% GRAVEL:	52	71			
% SAND:	44	27			
% FINES:	3	2			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

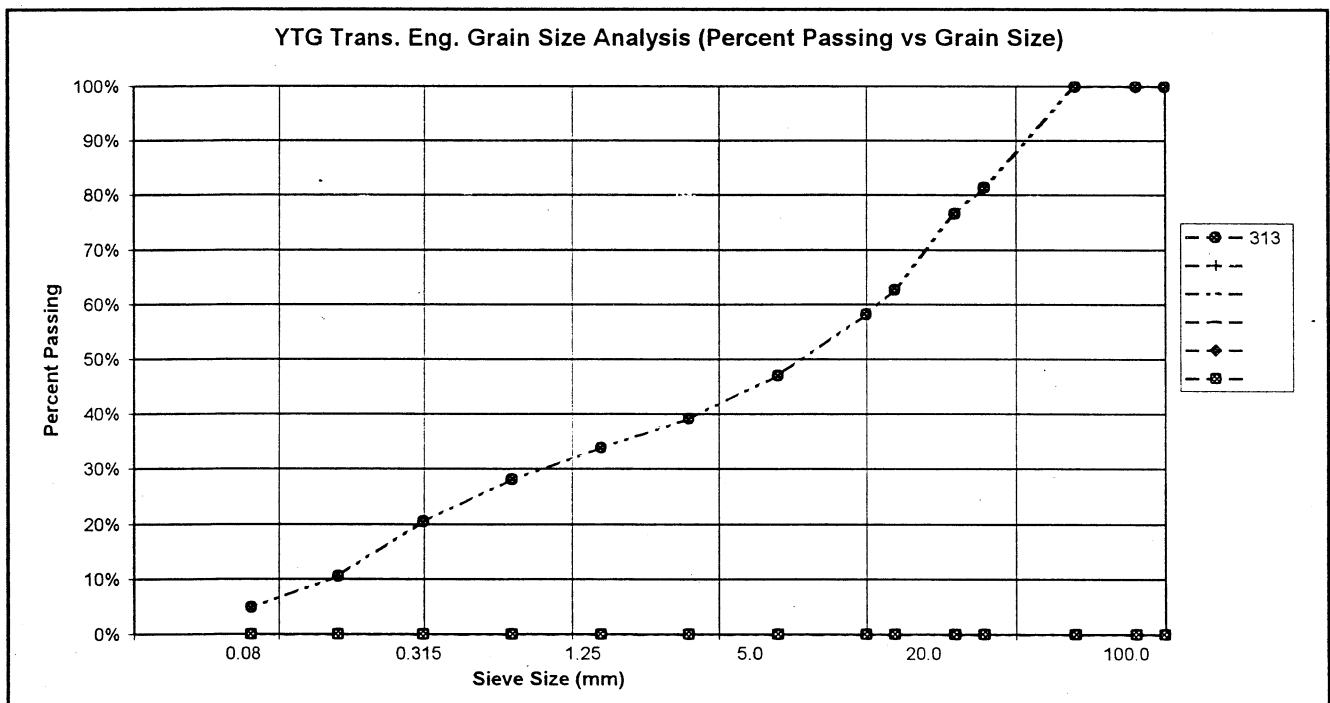


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2484

DATE COMP: SEPT 24/02

FIELD NO:	313				
LAB NO:	573				
DEPTH:	0.5-1.0				
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	81%				
20.0	77%				
12.5	63%				
10.0	58%				
5.0	47%				
2.5	39%				
1.25	34%				
0.630	28%				
0.315	21%				
0.160	11%				
0.080	5%				
M.C.(%)	12%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX:	0.0				
% GRAVEL:	53				
% SAND:	42				
% FINES:	5				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)				

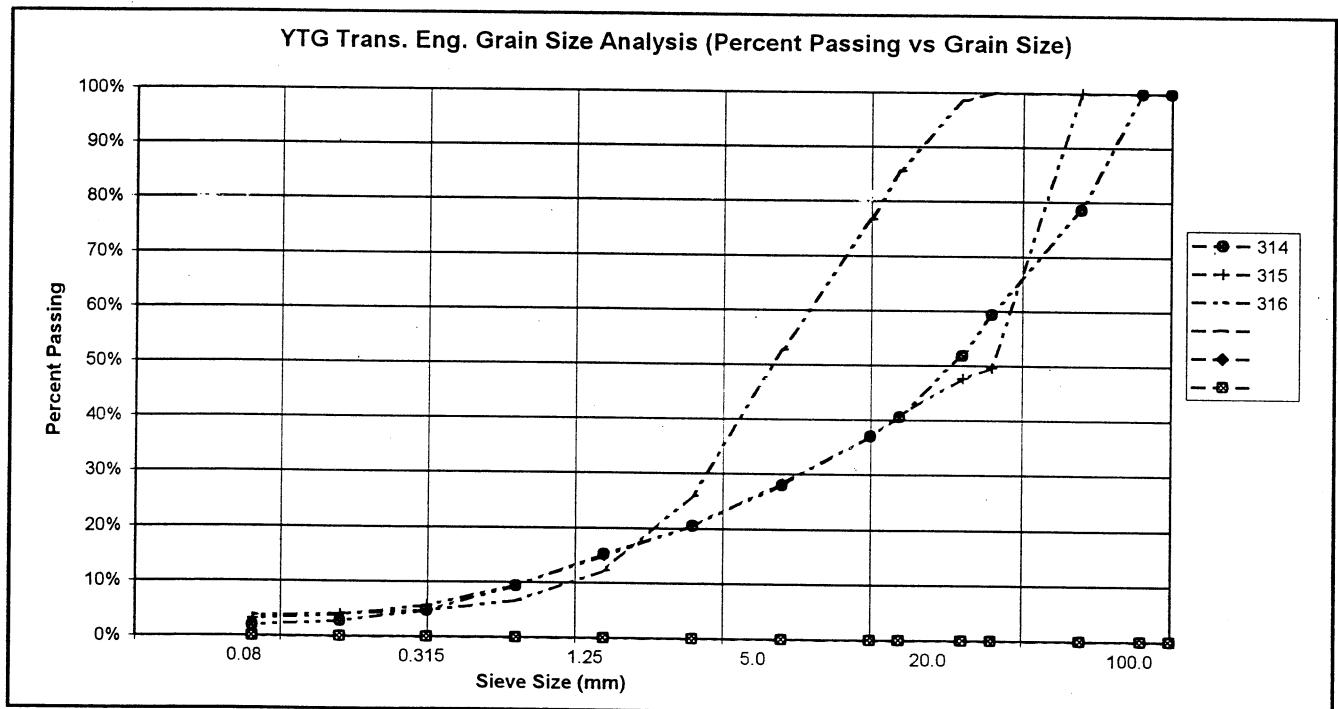


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2485

DATE COMP: SEPT 24/02

FIELD NO:	314	315	316		
LAB NO:	574	575	576		
DEPTH:	1.0-1.5	1.8-2.3	2.9-3.1		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	79%	100%	100%		
25.0	59%	50%	100%		
20.0	52%	48%	99%		
12.5	41%	41%	86%		
10.0	37%	37%	77%		
5.0	28%	28%	53%		
2.5	21%	21%	25%		
1.25	15%	15%	12%		
0.630	9%	9%	7%		
0.315	5%	6%	5%		
0.160	3%	4%	4%		
0.080	2%	3%	4%		
M.C.(%):	2%	5%	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:	72	72	47		
% SAND:	26	25	49		
% FINES:	2	3	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED SAND WITH GRAVEL (SP)		

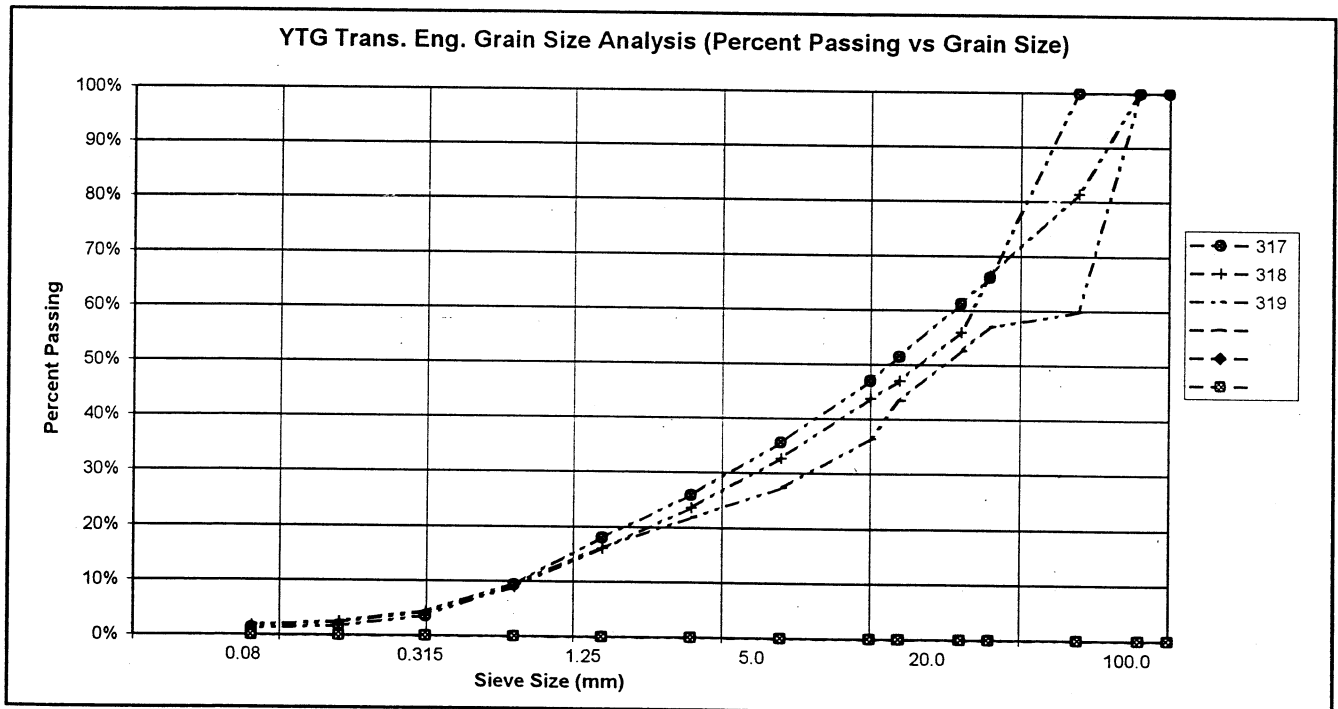


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2486

DATE COMP: SEPT 24/02

FIELD NO:	317	318	319		
LAB NO:	577	578	579		
DEPTH:	0.5-1.0	1.8-2.3	2.8-3.0		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	81%	60%		
25.0	66%	66%	57%		
20.0	61%	56%	53%		
12.5	52%	47%	43%		
10.0	47%	44%	36%		
5.0	36%	33%	27%		
2.5	26%	24%	22%		
1.25	18%	16%	16%		
0.630	9%	9%	10%		
0.315	4%	4%	5%		
0.160	2%	3%	3%		
0.080	1%	2%	2%		
M.C.(%):	3%	2%	5%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX.:	0.0	0.0	0.0		
% GRAVEL:	64	67	73		
% SAND:	34	31	25		
% FINES:	1	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

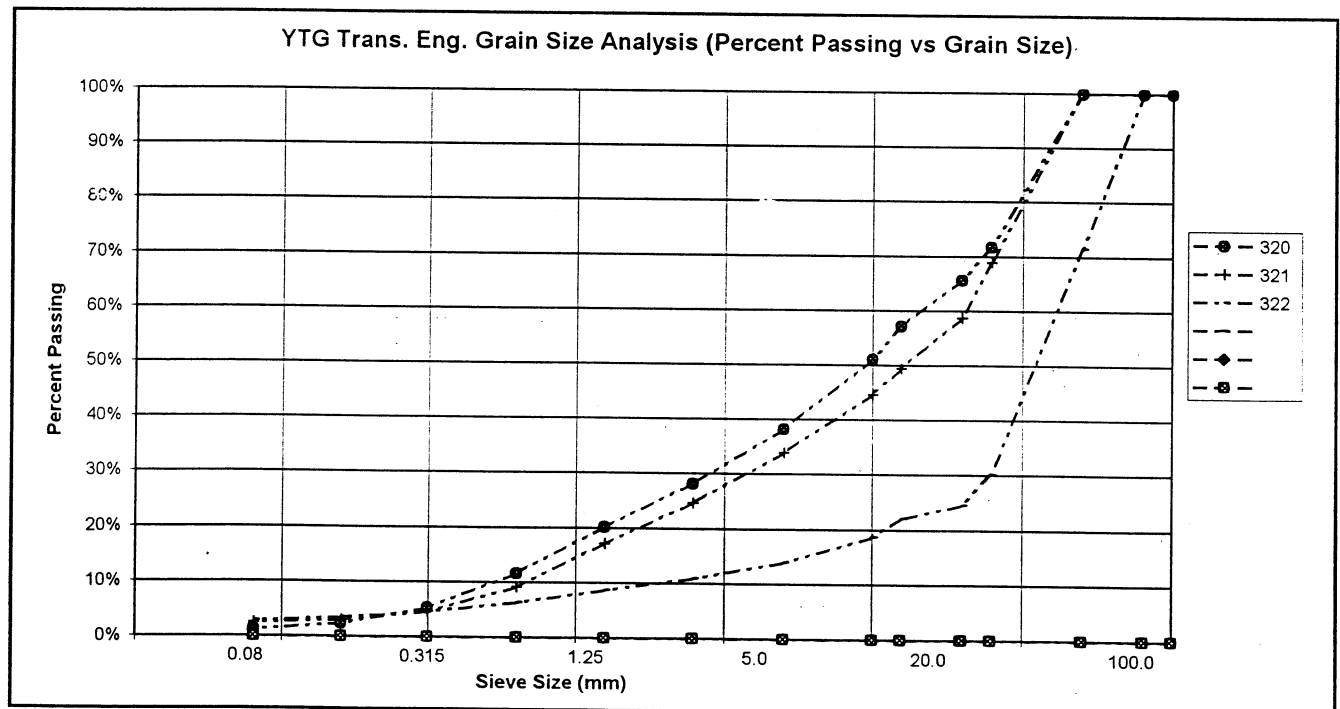


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2487

DATE COMP: SEPT 24/02

FIELD NO:	320	321	322		
LAB NO:	580	581	582		
DEPTH:	0.8-1.3	2.0-2.5	3.2-3.4		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	72%		
25.0	72%	69%	30%		
20.0	66%	59%	25%		
12.5	57%	49%	22%		
10.0	51%	45%	19%		
5.0	38%	34%	14%		
2.5	28%	25%	11%		
1.25	20%	17%	9%		
0.630	12%	9%	6%		
0.315	5%	5%	5%		
0.160	2%	3%	3%		
0.080	1%	2%	3%		
M.C.(%)	2%	3%	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:	62	66	86		
% SAND:	37	31	11		
% FINES:	1	2	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL (GW)		

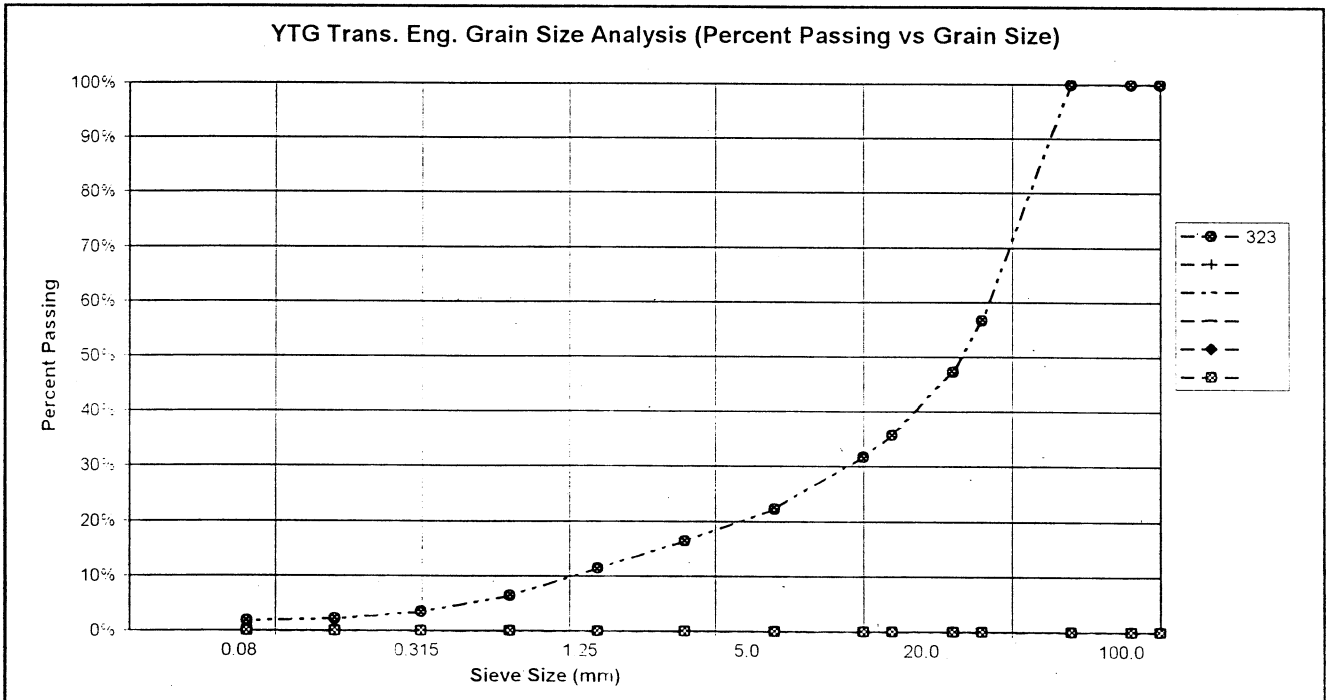


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2488

DATE COMP: SEPT 24/02

FIELD NO:	323				
LAB NO:	583				
DEPTH:	1.0-1.2				
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING				
100.0	100%				
80.0	100%				
50.0	100%				
25.0	57%				
20.0	47%				
12.5	36%				
10.0	32%				
5.0	22%				
2.5	16%				
1.25	11%				
0.630	6%				
0.315	3%				
0.160	2%				
0.080	2%				
M.C.(%)	4%				
LIQUID LIMIT:	0.0				
PLASTIC LIMIT:	0.0				
PLASTIC INDEX.:	0.0				
% GRAVEL:	78				
% SAND:	20				
% FINES:	2				
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)				

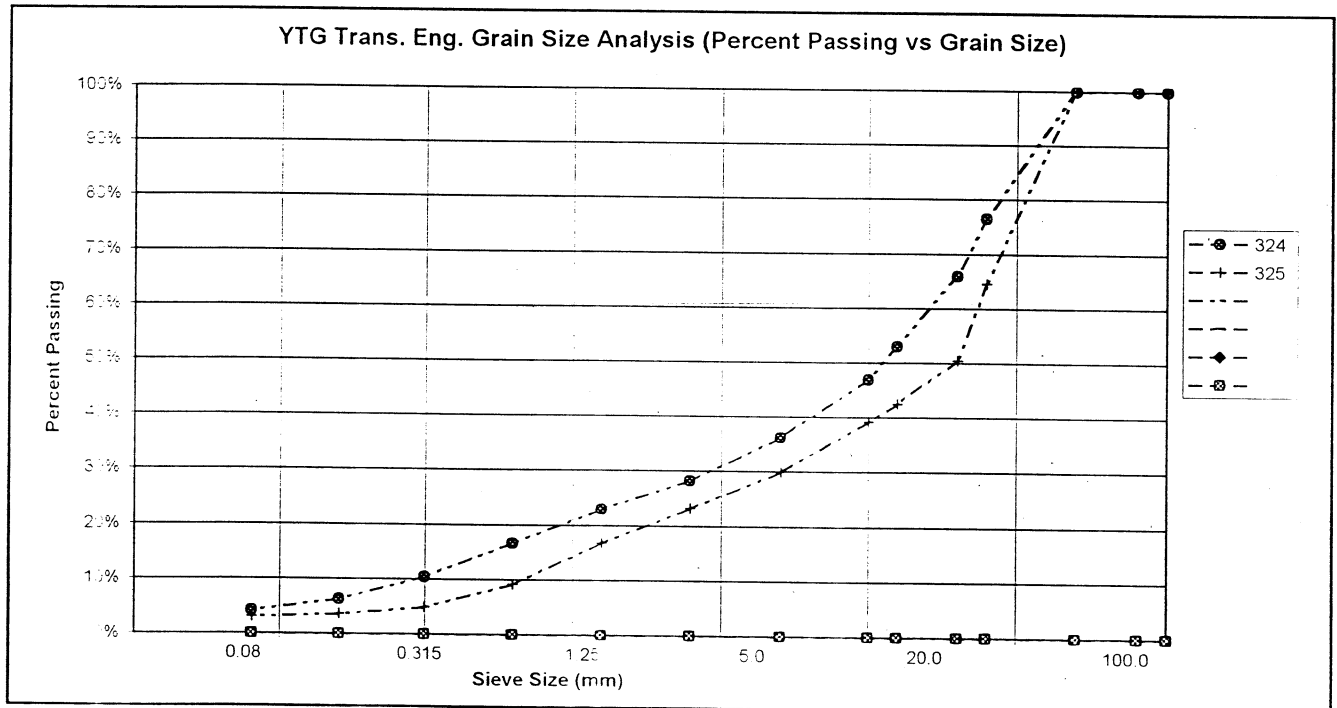


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS AH Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2489

DATE COMP: SEPT 24/02

FIELD NO:	324	325			
LAB NO:	584	585			
DEPTH:	0.5-0.9	1.8-2.0			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	100%			
25.0	77%	65%			
20.0	66%	50%			
12.5	53%	42%			
10.0	47%	39%			
5.0	36%	30%			
2.5	28%	23%			
1.25	23%	17%			
0.630	17%	9%			
0.315	10%	5%			
0.160	6%	4%			
0.080	4%	3%			
M.C.(%):	2%	6%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	64	70			
% SAND:	32	27			
% FINES:	4	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

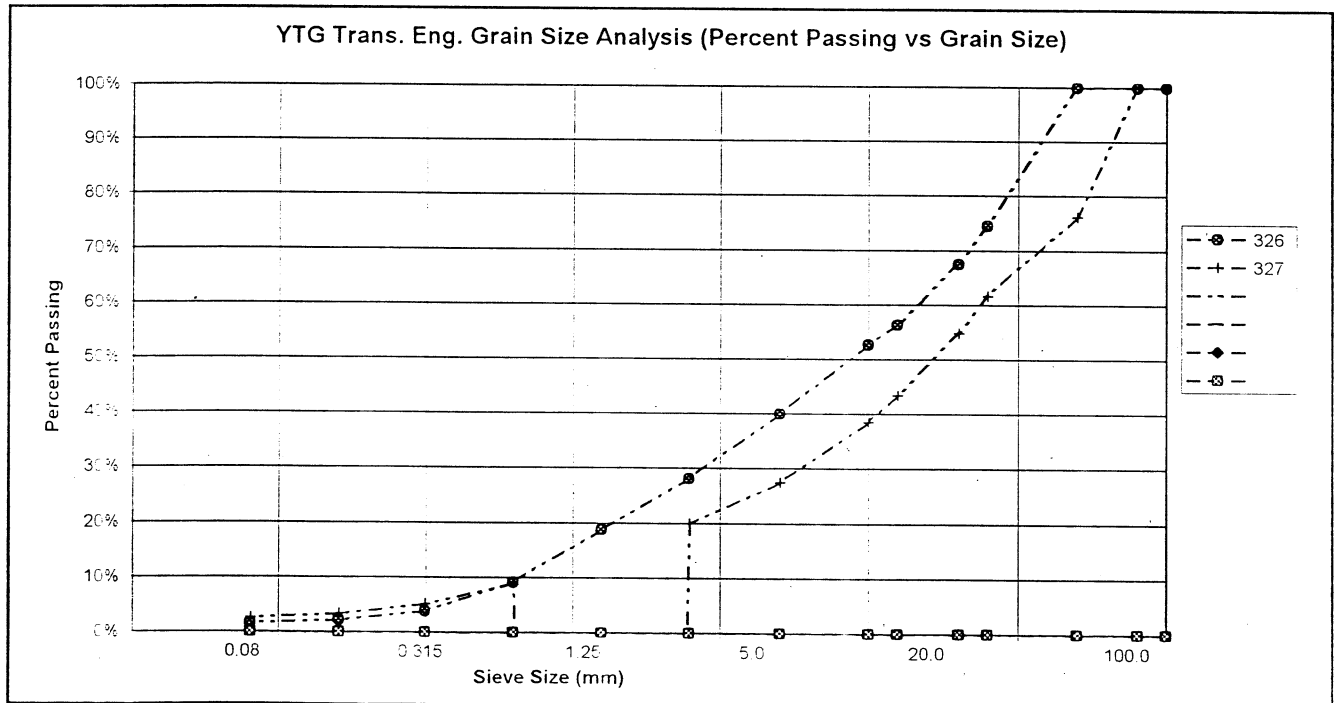


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2490

DATE COMP: SEPT 24/02

FIELD NO:	326	327			
LAB NO:	586	587			
DEPTH:	0.5-0.8	1.9-2.1			
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING			
100.0	100%	100%			
80.0	100%	100%			
50.0	100%	76%			
25.0	75%	62%			
20.0	67%	55%			
12.5	56%	43%			
10.0	53%	39%			
5.0	40%	28%			
2.5	28%	20%			
1.25	19%	-759%			
0.630	9%	9%			
0.315	4%	5%			
0.160	2%	3%			
0.080	2%	3%			
M.C.(%):	2%	5%			
LIQUID LIMIT:	0.0	0.0			
PLASTIC LIMIT:	0.0	0.0			
PLASTIC INDEX.:	0.0	0.0			
% GRAVEL:	60	72			
% SAND:	38	25			
% FINES:	2	3			
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)			

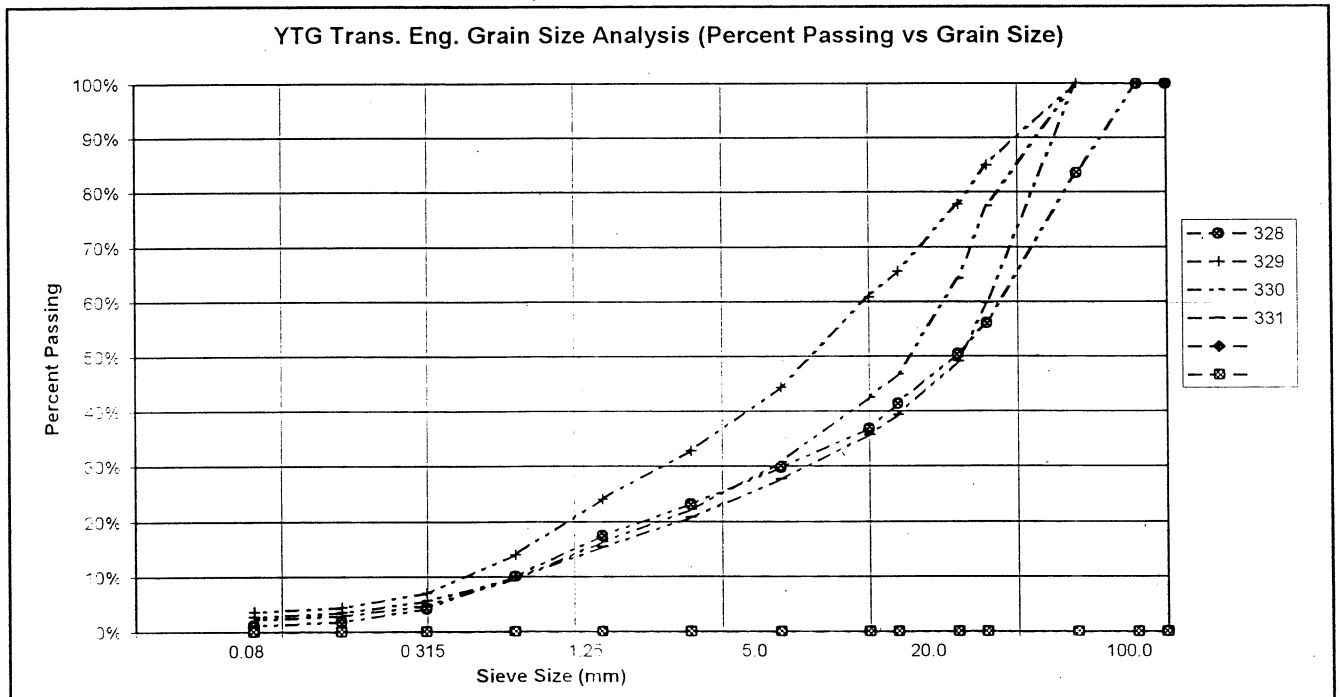


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2491

DATE COMP: SEPT 24/02

FIELD NO:	328	329	330	331		
LAB NO:	588	589	590	591		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	84%	100%	100%	100%		
25.0	56%	85%	77%	60%		
20.0	50%	78%	64%	49%		
12.5	41%	65%	47%	39%		
10.0	37%	61%	42%	36%		
5.0	30%	44%	31%	28%		
2.5	23%	33%	22%	21%		
1.25	17%	24%	16%	15%		
0.630	10%	14%	10%	10%		
0.315	4%	7%	5%	6%		
0.160	2%	5%	3%	4%		
0.080	1%	4%	2%	3%		
M.C.(%)	2%	3%	3%	3%		
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:	70	56	69	72		
% SAND:	29	41	29	25		
% FINES:	1	4	2	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP ₇)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

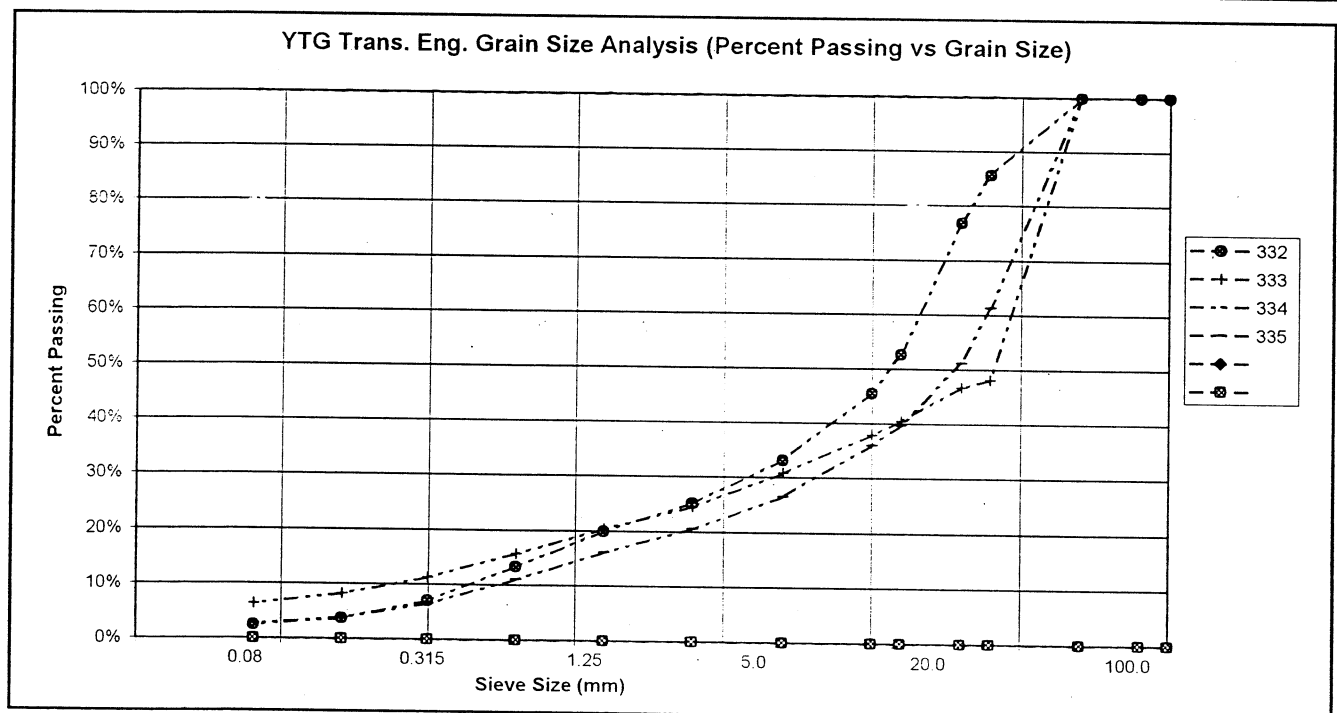


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2492

DATE COMP: SEPT 24/02

FIELD NO:	332	333	334	335		
LAB NO:	592	593	lost	595		
DEPTH:	0.8-1.3	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	86%	48%	100%	61%		
20.0	77%	47%	100%	51%		
12.5	53%	41%	100%	40%		
10.0	46%	38%	100%	36%		
5.0	33%	31%	100%	27%		
2.5	25%	25%	100%	21%		
1.25	20%	20%	100%	16%		
0.630	13%	16%	100%	11%		
0.315	7%	11%	100%	6%		
0.160	4%	8%	100%	4%		
0.080	2%	6%	100%	3%		
M.C.(%)	2%	5%	2%	2%		
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:	67	69	0	73		
% SAND:	31	25	0	24		
% FINES:	2	6	100	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	SILT- CL	WELL-GRADED GRAVEL WITH SAND (GW)		

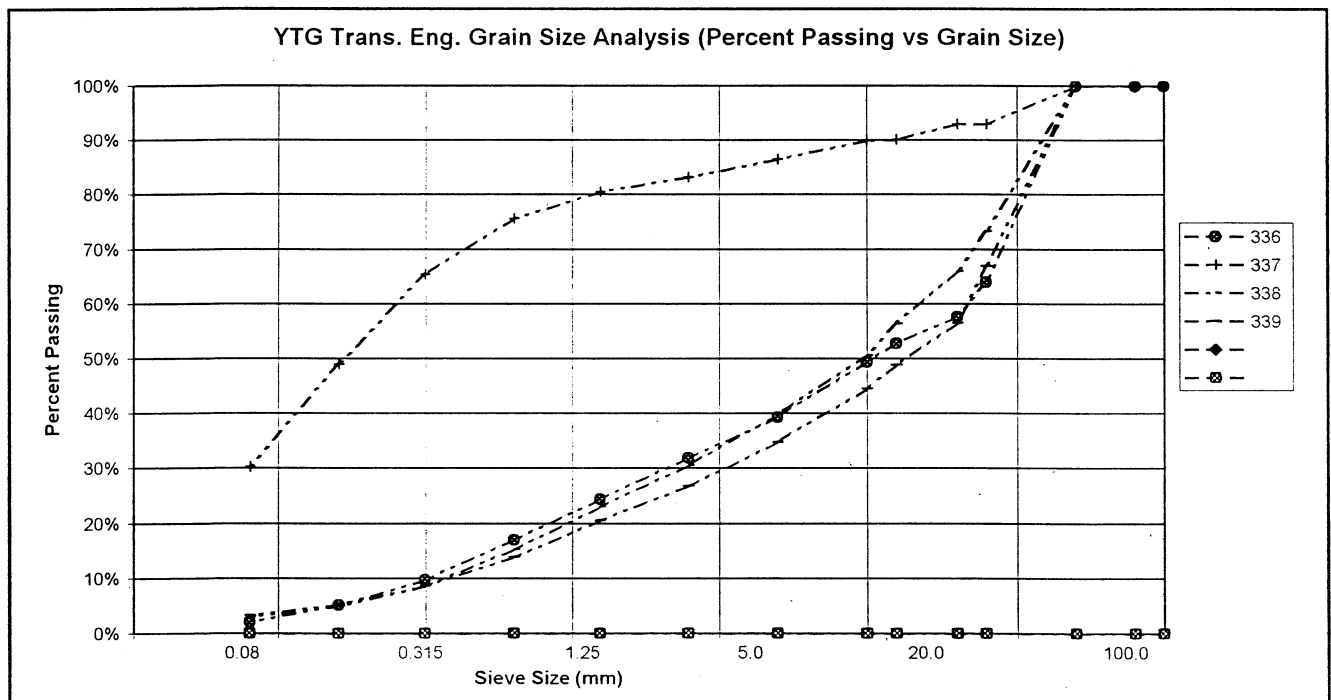


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS AVH Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2493

DATE COMP: SEPT 24/02

FIELD NO:	336	337	338	339		
LAB NO:	596	597	598	599		
DEPTH:	0.3-0.8	2.1-2.4	3.2-3.7	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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	64%	93%	73%	67%		
20.0	58%	93%	66%	56%		
12.5	53%	90%	56%	49%		
10.0	49%	90%	51%	45%		
5.0	39%	86%	40%	35%		
2.5	32%	83%	31%	27%		
1.25	24%	80%	23%	20%		
0.630	17%	76%	15%	14%		
0.315	10%	65%	9%	9%		
0.160	5%	49%	5%	5%		
0.080	2%	30%	3%	3%		
M.C.(%)	1%	24%	3%	3%		
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:	61	14	60	65		
% SAND:	37	56	37	31		
% FINES:	2	30	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND (SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

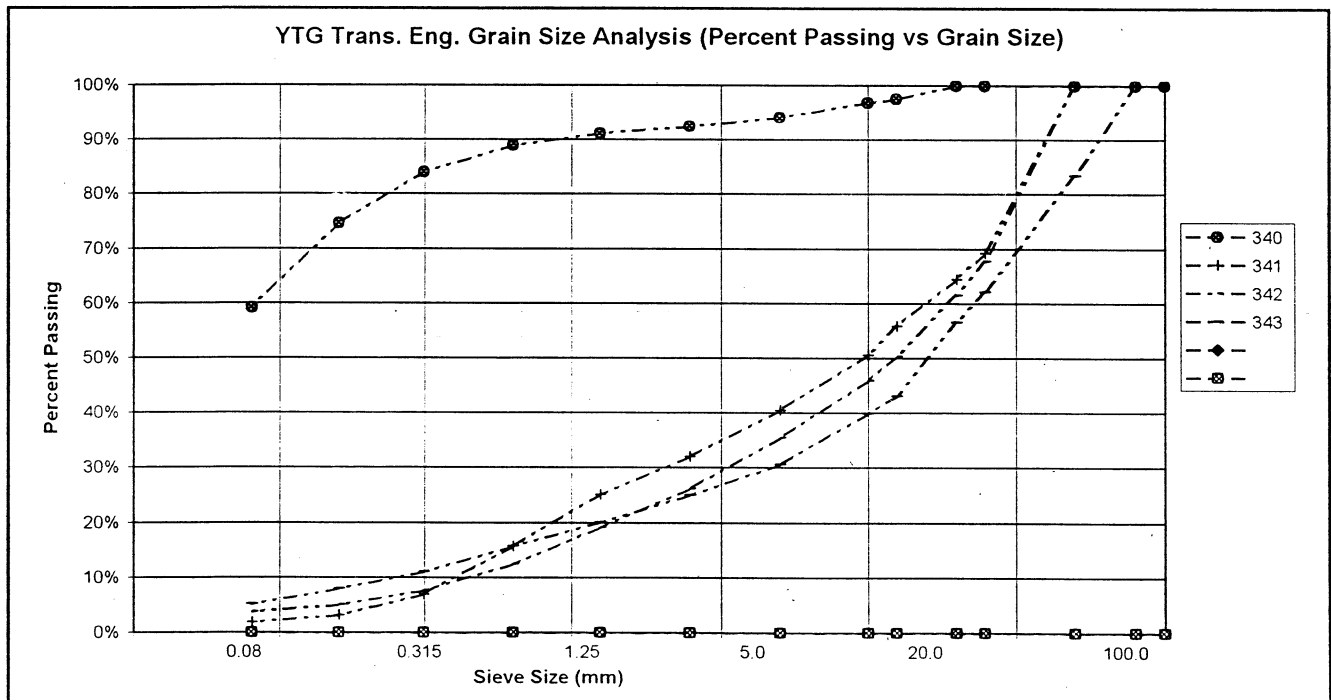


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2494

DATE COMP: SEPT 25/02

FIELD NO:	340	341	342	343		
LAB NO:	600	601	602	603		
DEPTH:	0.5-1.0	2.5-3.0	3.5-4.0	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	83%		
25.0	100%	69%	68%	62%		
20.0	100%	64%	61%	57%		
12.5	98%	56%	50%	43%		
10.0	97%	51%	46%	40%		
5.0	94%	40%	35%	31%		
2.5	93%	32%	26%	25%		
1.25	91%	25%	19%	20%		
0.630	89%	16%	12%	16%		
0.315	84%	7%	8%	11%		
0.160	75%	3%	5%	8%		
0.080	59%	2%	4%	5%		
M.C.(%)	9%	2%	3%	3%		
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	60	65	69		
% SAND:	35	39	32	25		
% FINES:	59	2	4	5		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

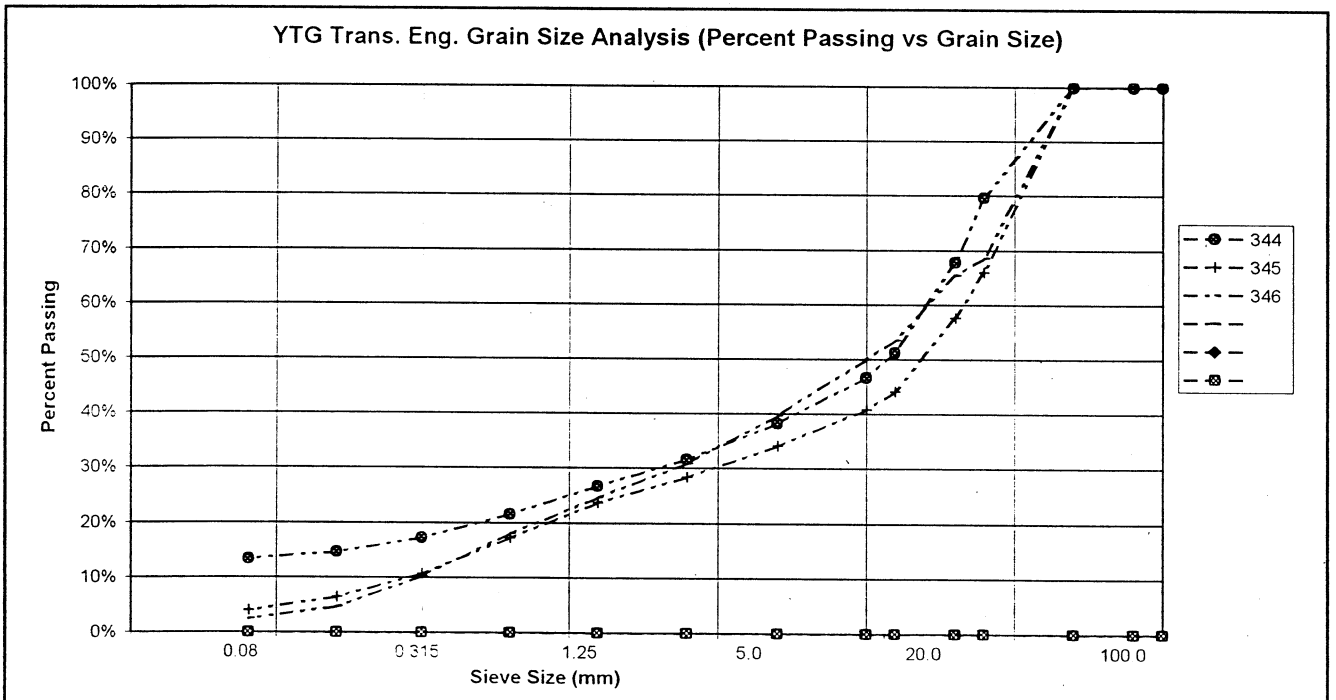


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2495

DATE COMP: SEPT 25/02

FIELD NO:	344	345	346		
LAB NO:	604	605	606		
DEPTH:	1.2-1.7	2.7-3.2	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	100%	100%	100%		
25.0	80%	66%	69%		
20.0	68%	58%	65%		
12.5	51%	44%	54%		
10.0	47%	41%	50%		
5.0	38%	34%	40%		
2.5	32%	28%	31%		
1.25	27%	24%	25%		
0.630	22%	17%	18%		
0.315	17%	11%	10%		
0.160	15%	6%	5%		
0.080	13%	4%	3%		
M.C.(%)	3%	3%	2%		
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:	62	66	60		
% SAND:	25	30	37		
% FINES:	13	4	3		
CLASSIFICATION	SILTY GRAVEL WITH SAND (GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

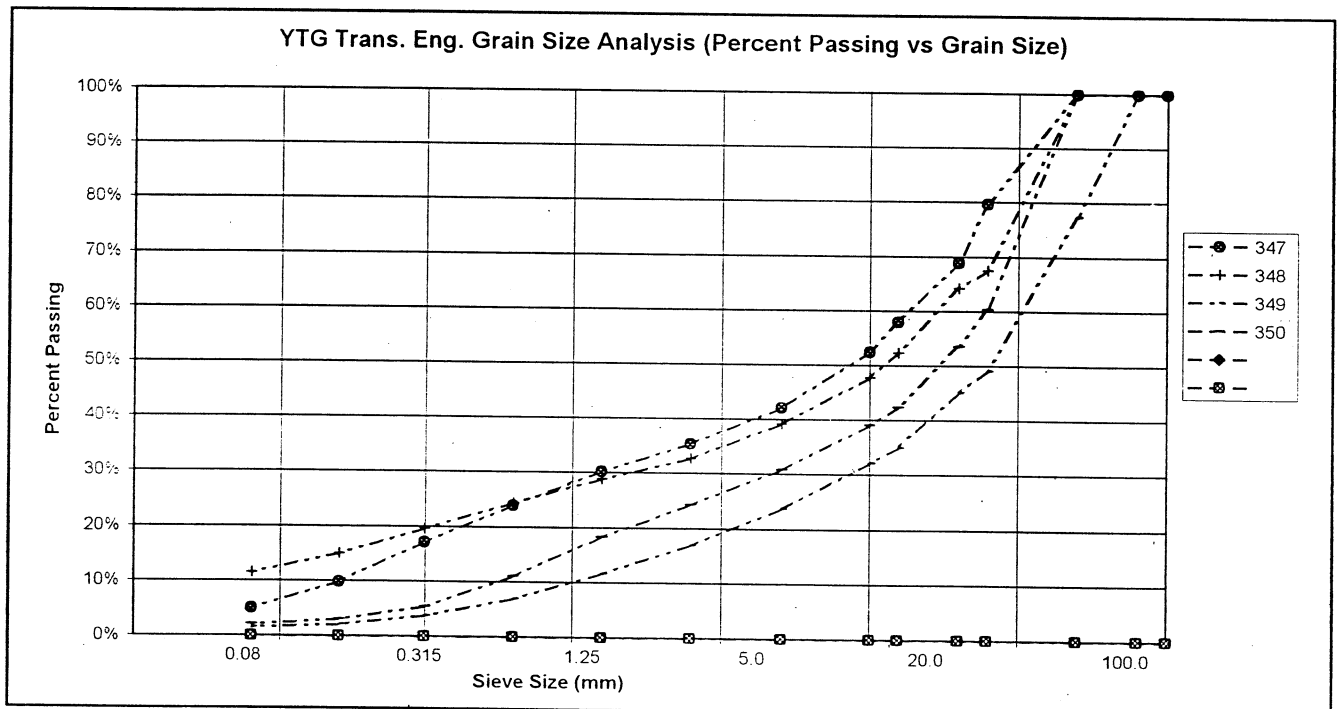


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2496

DATE COMP: SEPT 25/02

FIELD NO:	347	348	349	350		
LAB NO:	607	608	609	610		
DEPTH:	0.5-1.0	2.5-3.0	3.6-4.1	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	77%	100%		
25.0	80%	68%	49%	60%		
20.0	69%	64%	45%	54%		
12.5	58%	52%	35%	42%		
10.0	53%	48%	32%	39%		
5.0	42%	39%	24%	31%		
2.5	35%	33%	17%	24%		
1.25	30%	29%	12%	18%		
0.630	24%	24%	7%	11%		
0.315	17%	20%	4%	5%		
0.160	10%	15%	2%	3%		
0.080	5%	11%	1%	2%		
M.C.(%)	2%	7%	2%	3%		
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:	58	61	76	69		
% SAND:	37	28	22	29		
% FINES:	5	11	1	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

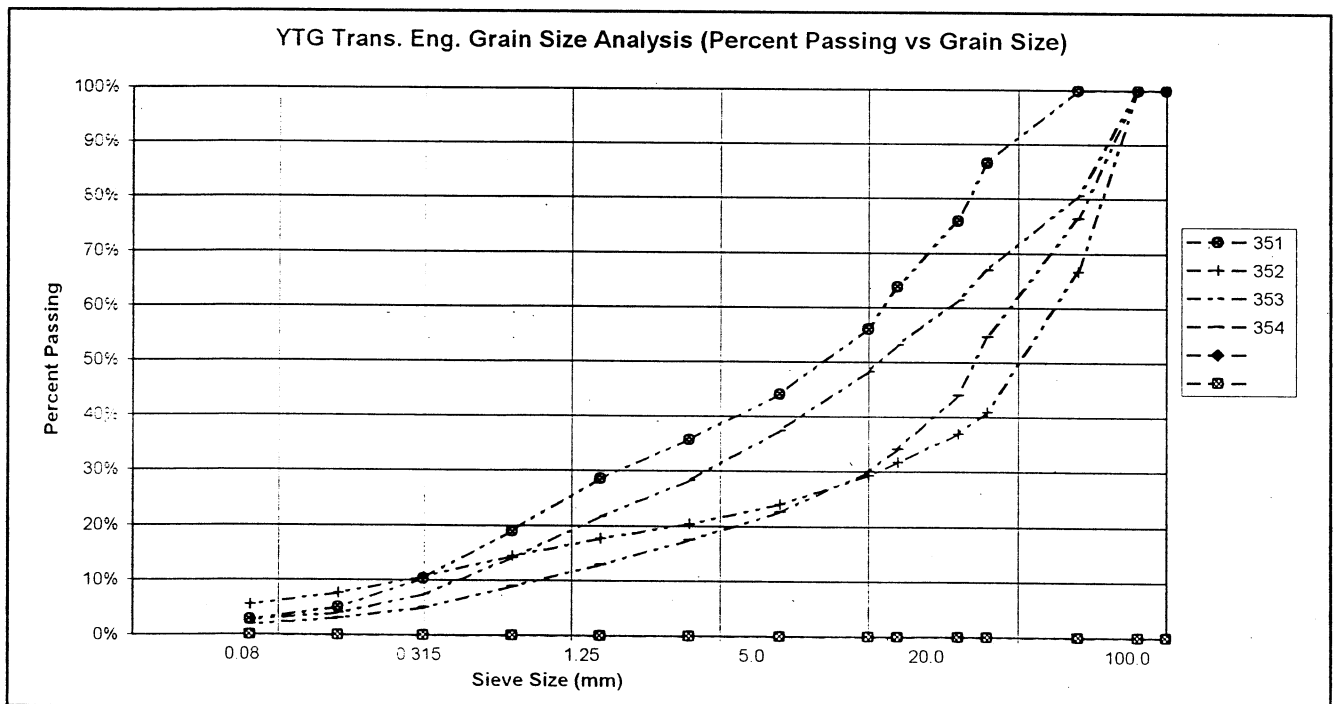


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2497

DATE COMP: SEPT 25/02

FIELD NO:	351	352	353	354		
LAB NO:	611	612	613	614		
DEPTH:	1.0-1.5	2.0-2.5	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	67%	81%	76%		
25.0	87%	41%	67%	55%		
20.0	76%	37%	61%	44%		
12.5	64%	32%	53%	34%		
10.0	56%	29%	48%	30%		
5.0	44%	24%	37%	23%		
2.5	36%	20%	28%	18%		
1.25	29%	18%	22%	13%		
0.630	19%	14%	14%	9%		
0.315	10%	11%	7%	5%		
0.160	5%	8%	4%	3%		
0.080	3%	6%	3%	2%		
M.C.(%)	2%	4%	2%	3%		
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:	56	76	63	77		
% SAND:	41	19	35	21		
% FINES:	3	6	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

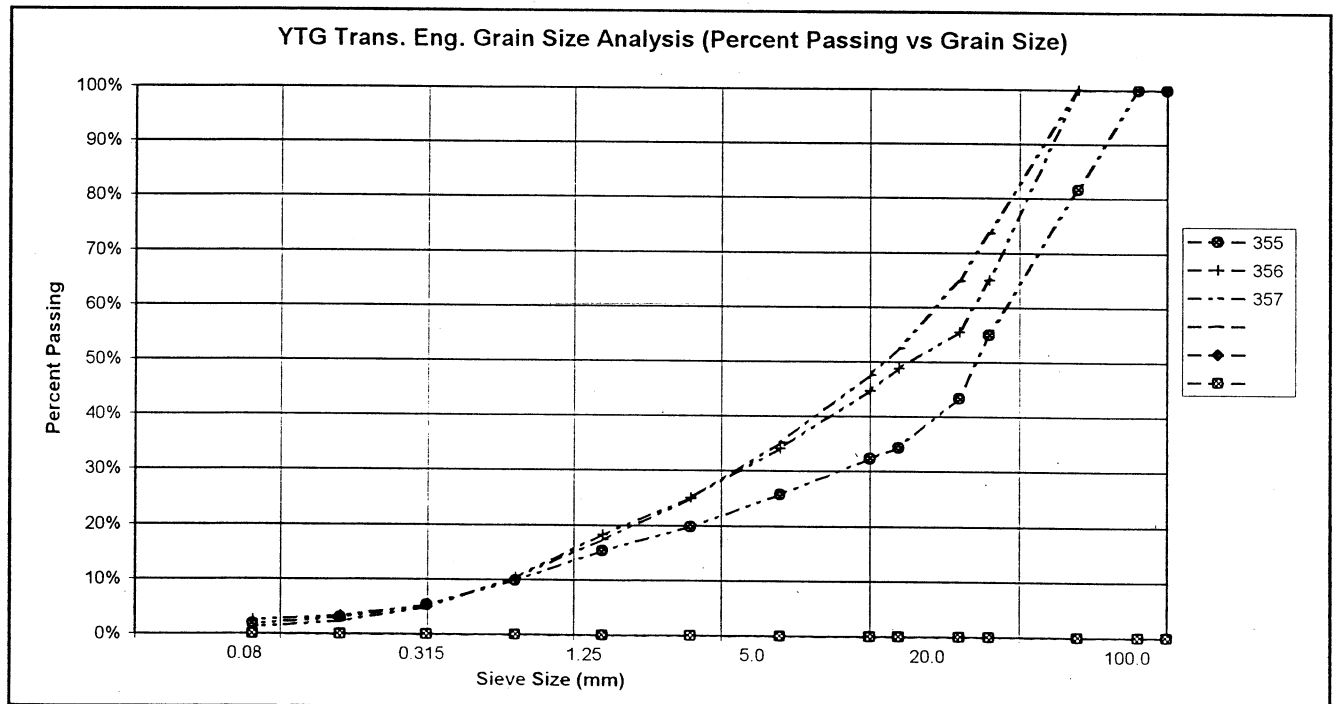


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2498

DATE COMP: SEPT 25/02

FIELD NO:	355	356	357		
LAB NO:	615	616	617		
DEPTH:	0.8-1.3	2.0-2.5	3.0-3.5		
TYPE:	BULK	BULK	BULK	BULK	
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%		
80.0	100%	100%	100%		
50.0	82%	100%	100%		
25.0	55%	65%	74%		
20.0	43%	56%	65%		
12.5	34%	49%	53%		
10.0	32%	45%	48%		
5.0	26%	34%	35%		
2.5	20%	25%	25%		
1.25	15%	18%	17%		
0.630	10%	10%	10%		
0.315	5%	5%	5%		
0.160	3%	3%	2%		
0.080	2%	3%	1%		
M.C.(%):	2%	3%	2%		
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:	74	66	65		
% SAND:	24	32	34		
% FINES:	2	3	1		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

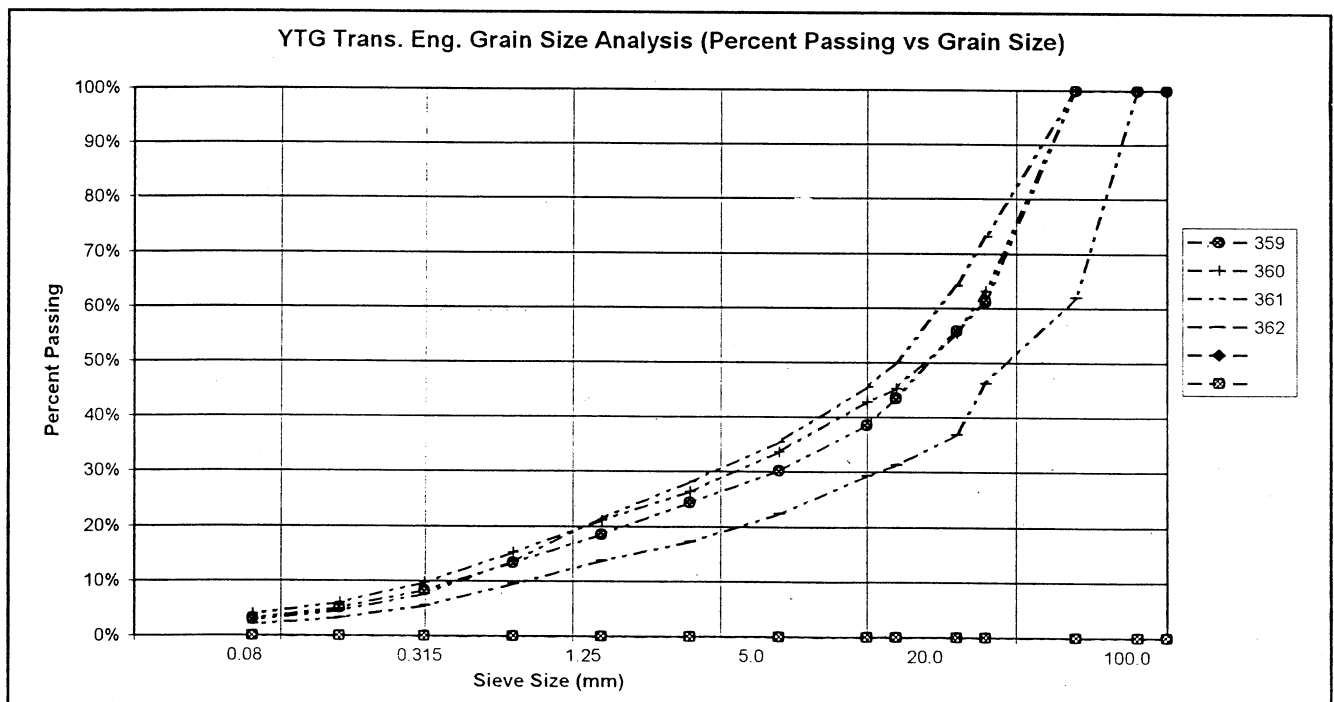


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2499

DATE COMP: SEPT 25/02

FIELD NO:	359	360	361	362		
LAB NO:	618	619	620	621		
DEPTH:	0.5-1.0	2.3-2.8	3.3-3.8	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	62%		
25.0	61%	63%	73%	46%		
20.0	56%	55%	64%	37%		
12.5	44%	45%	50%	31%		
10.0	39%	43%	46%	29%		
5.0	30%	34%	35%	22%		
2.5	24%	26%	28%	17%		
1.25	18%	21%	22%	14%		
0.630	13%	15%	14%	9%		
0.315	8%	10%	8%	6%		
0.160	5%	6%	5%	3%		
0.080	3%	4%	3%	2%		
M.C.(%)	3%	3%	3%	2%		
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:	70	66	65	78		
% SAND:	27	30	33	20		
% FINES:	3	4	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

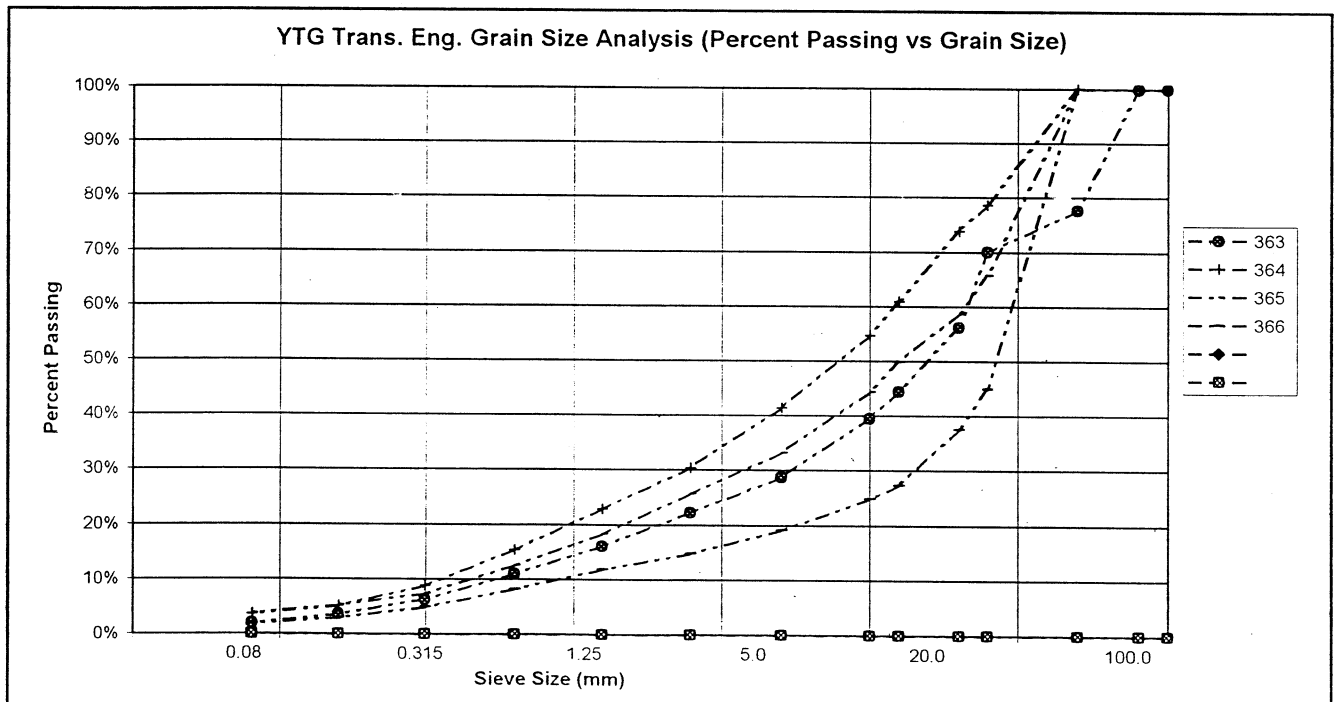


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2500

DATE COMP: SEPT 25/02

FIELD NO:	363	364	365	366		
LAB NO:	622	623	624	625		
DEPTH:	0.5-1.0	2.2-2.7	3.3-3.8	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	78%	100%	100%	100%		
25.0	70%	79%	66%	45%		
20.0	56%	74%	59%	38%		
12.5	45%	61%	50%	27%		
10.0	40%	55%	44%	25%		
5.0	29%	41%	33%	19%		
2.5	22%	30%	26%	15%		
1.25	16%	23%	18%	12%		
0.630	11%	15%	13%	8%		
0.315	6%	9%	7%	5%		
0.160	4%	5%	5%	3%		
0.080	2%	4%	4%	2%		
M.C.(%):	3%	3%	3%	2%		
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:	71	59	67	81		
% SAND:	27	38	29	17		
% FINES:	2	4	4	2		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

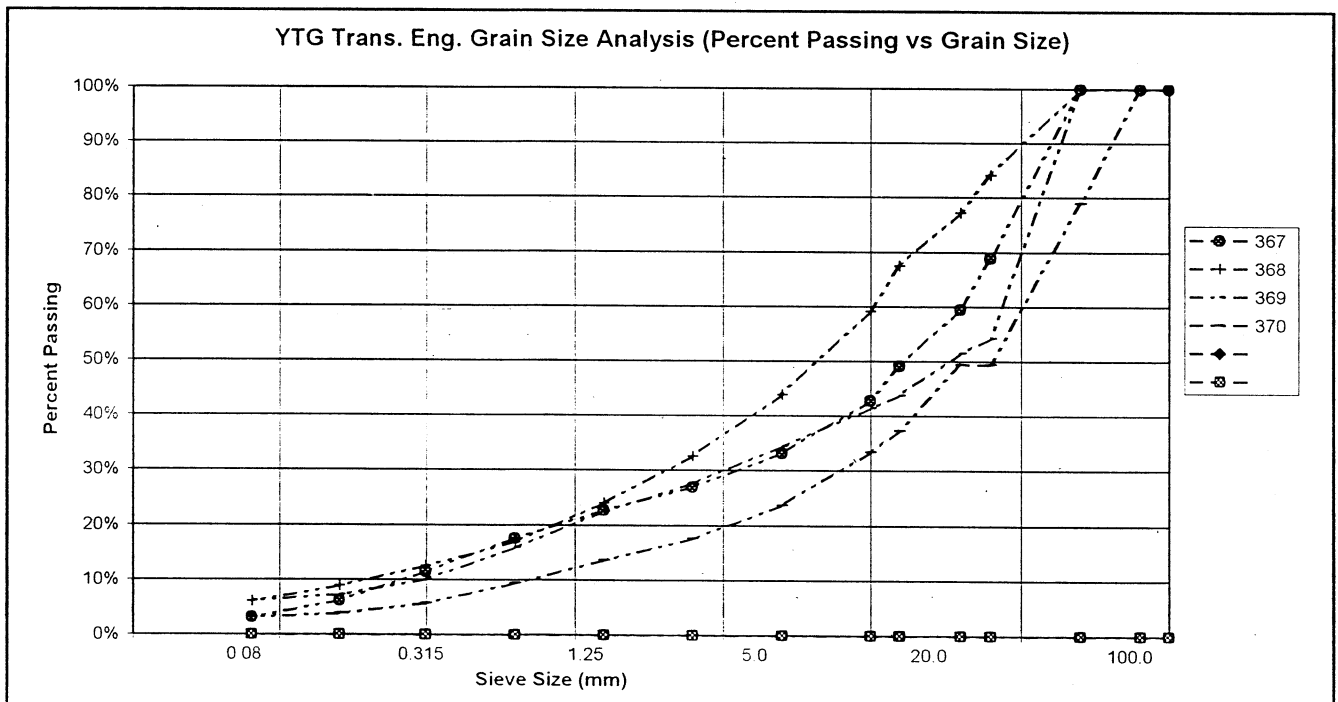


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2501

DATE COMP: SEPT 25/02

FIELD NO:	367	368	369	370		
LAB NO:	626	627	628	629		
DEPTH:	0.8-1.3	2.2-2.7	3.6-4.1	4.8-5.3		
TYPE:	BULK	BULK	BULK	BULK		
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%	79%		
25.0	69%	84%	54%	49%		
20.0	60%	77%	52%	49%		
12.5	49%	68%	44%	37%		
10.0	43%	59%	41%	33%		
5.0	33%	44%	35%	24%		
2.5	27%	33%	28%	18%		
1.25	23%	24%	22%	14%		
0.630	18%	17%	16%	9%		
0.315	12%	13%	10%	6%		
0.160	6%	9%	7%	4%		
0.080	3%	6%	6%	3%		
M.C.(%):	2%	2%	4%	3%		
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:	67	56	65	76		
% SAND:	30	38	28	21		
% FINES:	3	6	6	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)		

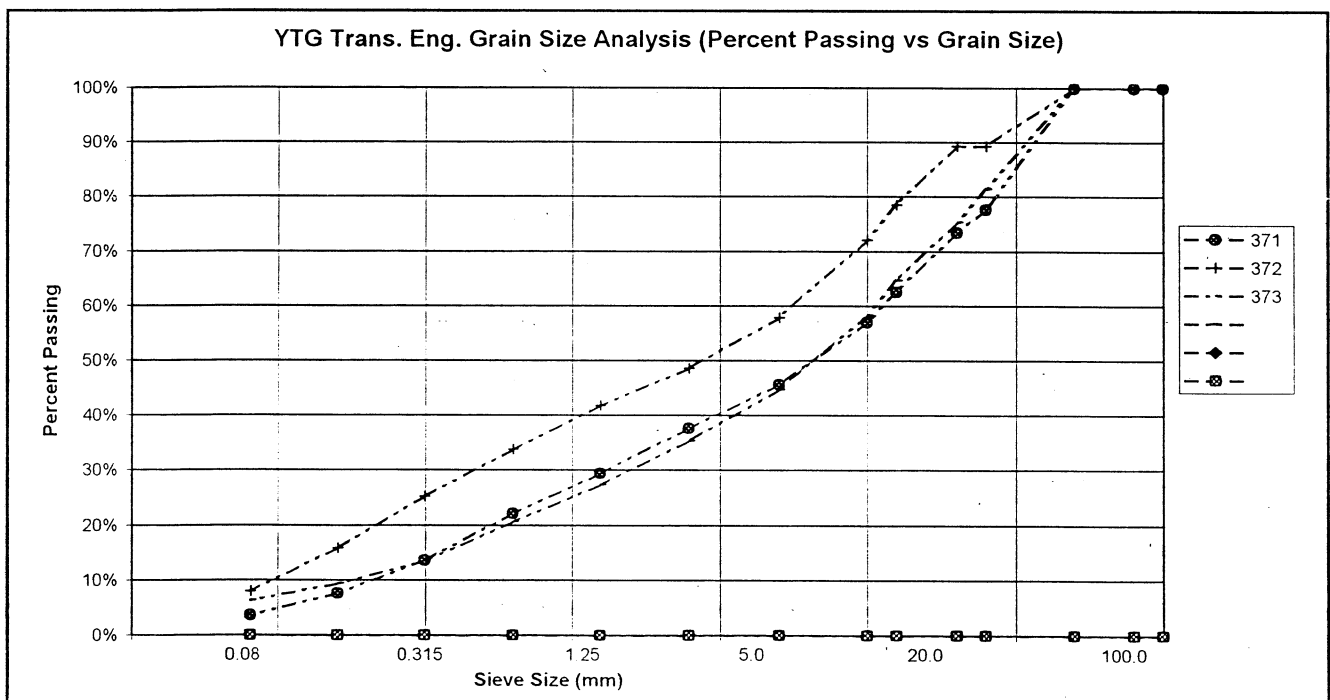


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2502

DATE COMP: SEPT 25/02

FIELD NO:	371	372	373		
LAB NO:	630	631	632		
DEPTH:	0.5-1.0	2.4-2.6	3.1-3.3		
TYPE:	BULK	BULK	BULK	BULK	
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	78%	89%	81%		
20.0	74%	89%	75%		
12.5	63%	79%	65%		
10.0	57%	72%	58%		
5.0	46%	58%	45%		
2.5	38%	49%	35%		
1.25	29%	42%	27%		
0.630	22%	34%	21%		
0.315	14%	25%	14%		
0.160	8%	16%	9%		
0.080	4%	8%	6%		
M.C.(%)	2%	5%	6%		
LIQUID LIMIT:	0.0	0.0	0.0		
PLASTIC LIMIT:	0.0	0.0	0.0		
PLASTIC INDEX:	0.0	0.0	0.0		
% GRAVEL:	54	42	55		
% SAND:	42	50	38		
% FINES:	4	8	6		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)		

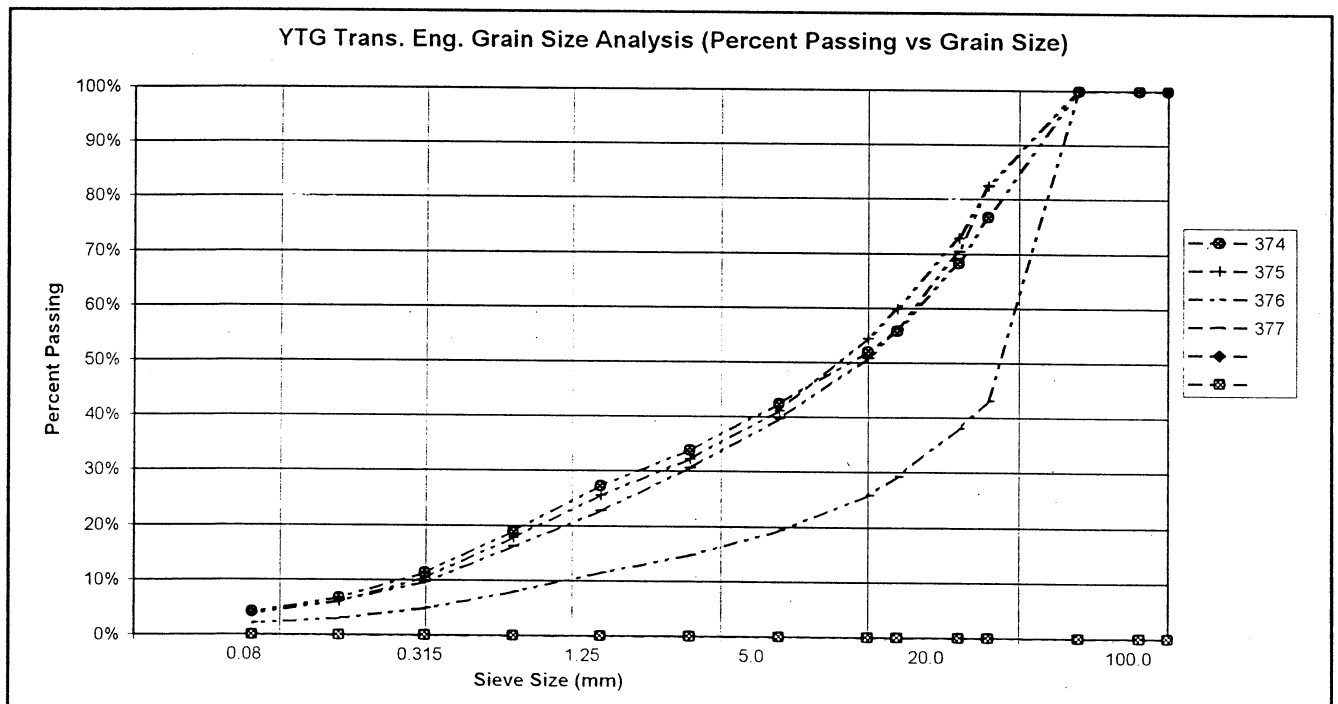


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2503

DATE COMP: SEPT 25/02

FIELD NO:	374	375	376	377		
LAB NO:	633	634	635	636		
DEPTH:	0.3-0.6	2.4-2.9	3.1-3.6	4.8-5.3		
TYPE:	BULK	BULK	BULK	BULK		
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	77%	82%	43%	83%		
20.0	68%	73%	38%	70%		
12.5	56%	60%	29%	56%		
10.0	52%	55%	26%	51%		
5.0	42%	41%	19%	40%		
2.5	34%	32%	15%	31%		
1.25	27%	26%	11%	23%		
0.630	19%	18%	8%	16%		
0.315	11%	10%	5%	10%		
0.160	7%	6%	3%	6%		
0.080	4%	4%	2%	4%		
M.C.(%):	3%	3%	2%	2%		
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:	58	59	81	60		
% SAND:	38	37	17	36		
% FINES:	4	4	2	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		

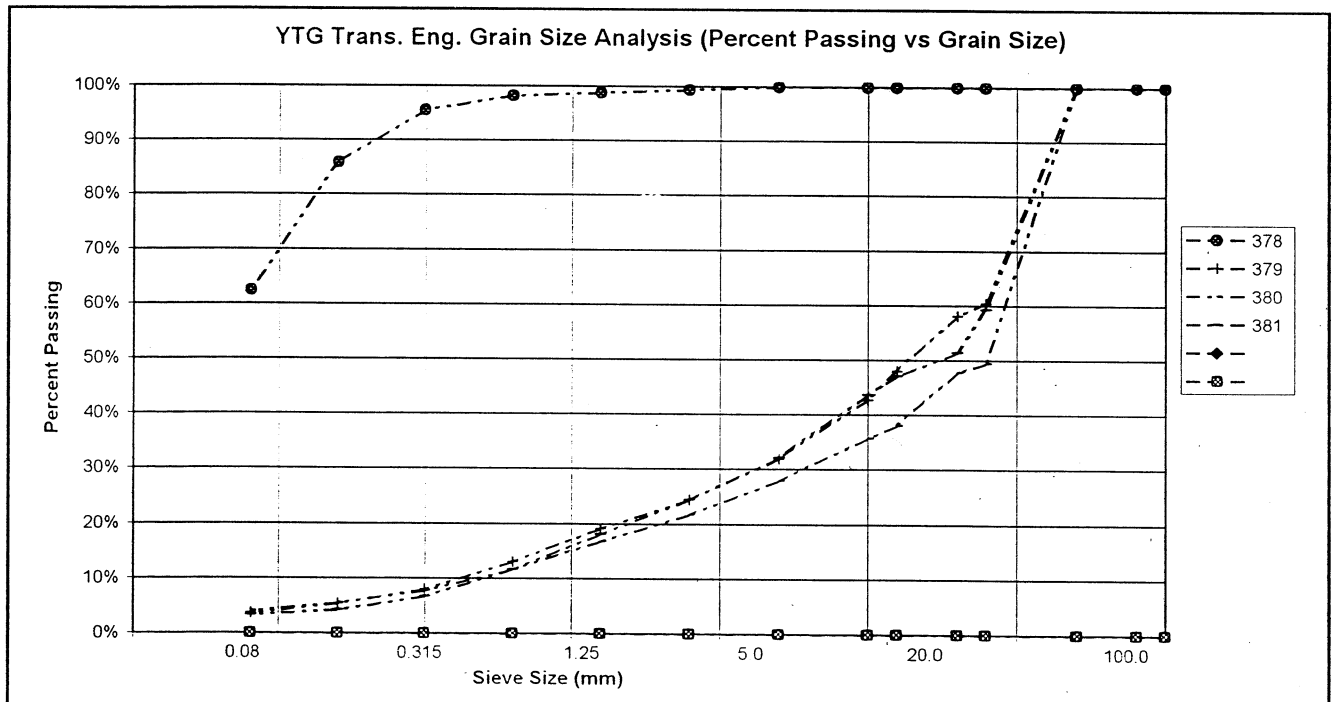


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2504

DATE COMP: SEPT 25/02

FIELD NO:	378	379	380	381		
LAB NO:	637	638	639	640		
DEPTH:	0.3-0.8	1.2-1.7	2.9-3.4	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	60%	49%	59%		
20.0	100%	58%	48%	51%		
12.5	100%	48%	38%	47%		
10.0	100%	43%	36%	44%		
5.0	100%	32%	28%	32%		
2.5	99%	24%	22%	24%		
1.25	99%	19%	17%	18%		
0.630	98%	13%	12%	12%		
0.315	96%	8%	8%	7%		
0.160	86%	5%	6%	4%		
0.080	62%	4%	4%	3%		
M.C.(%)	15%	3%	2%	3%		
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	68	72	68		
% SAND:	38	28	24	29		
% FINES:	62	4	4	3		
CLASSIFICATION	SANDY SILT (ML)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		

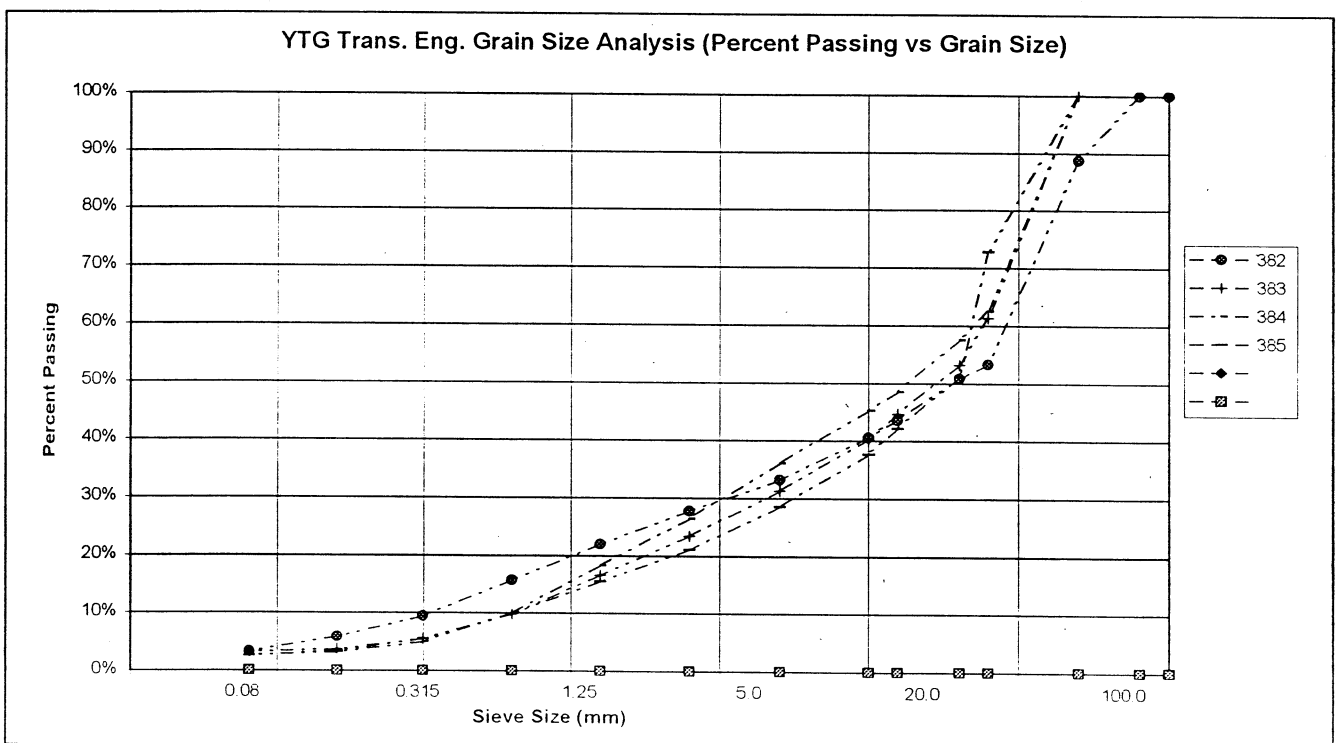


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2505

DATE COMP: SEPT 26/02

FIELD NO:	382	383	384	385		
LAB NO:	641	642	643	644		
DEPTH:	0.3-0.8	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	89%	100%	100%	100%		
25.0	53%	61%	63%	73%		
20.0	51%	53%	58%	51%		
12.5	44%	45%	48%	42%		
10.0	41%	40%	45%	38%		
5.0	33%	31%	36%	29%		
2.5	28%	23%	26%	21%		
1.25	22%	17%	18%	16%		
0.630	16%	10%	10%	10%		
0.315	10%	6%	5%	6%		
0.160	6%	4%	3%	3%		
0.080	3%	3%	3%	3%		
M.C.(%):	2%	2%	3%	3%		
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:	67	69	64	71		
% SAND:	30	28	33	26		
% FINES:	3	3	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

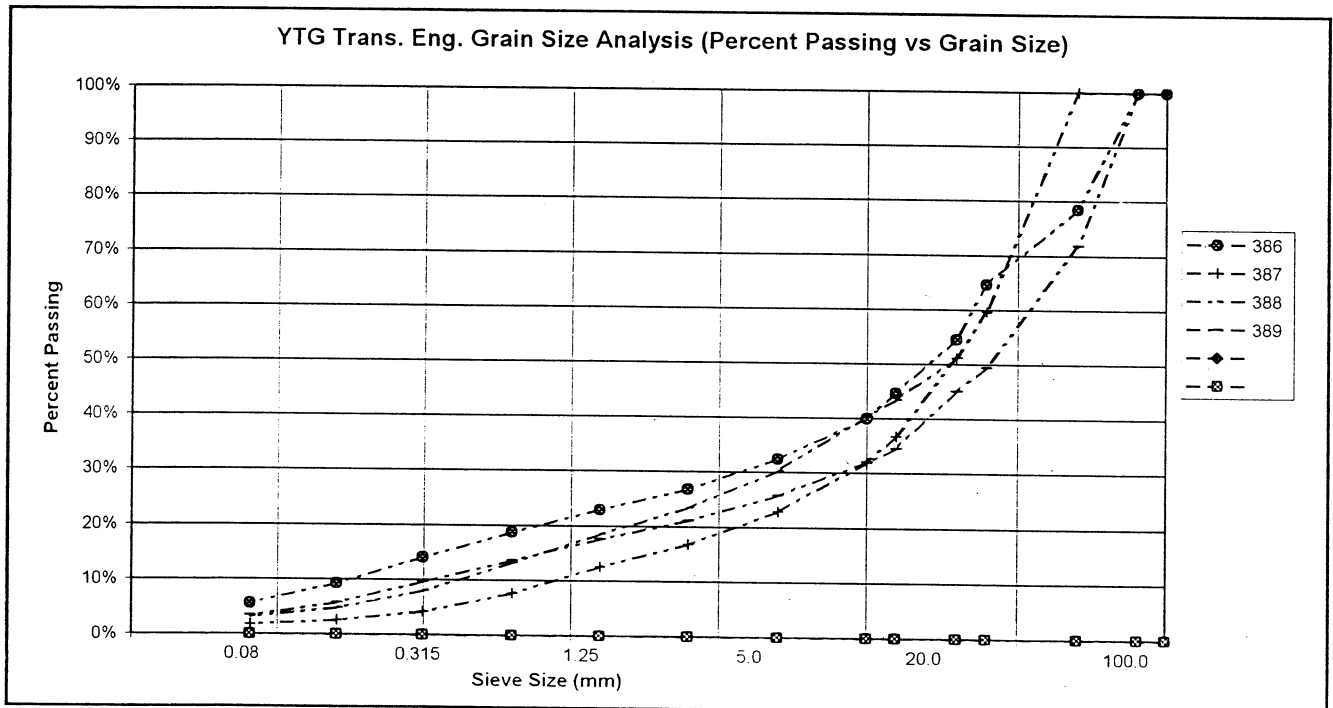


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2506

DATE COMP: SEPT 26/02

FIELD NO:	386	387	388	389		
LAB NO:	645	646	647	648		
DEPTH:	0.3-0.8	2.1-2.6	3.0-3.5	4.0-4.5		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	79%	100%	100%	72%		
25.0	65%	60%	60%	49%		
20.0	55%	51%	51%	45%		
12.5	45%	37%	43%	34%		
10.0	40%	32%	40%	32%		
5.0	33%	23%	30%	26%		
2.5	27%	17%	23%	21%		
1.25	23%	13%	19%	18%		
0.630	19%	8%	13%	14%		
0.315	14%	4%	8%	10%		
0.160	9%	3%	5%	6%		
0.080	6%	2%	3%	3%		
M.C.(%)	2%	2%	3%	3%		
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:	67	77	70	74		
% SAND:	27	21	27	22		
% FINES:	6	2	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

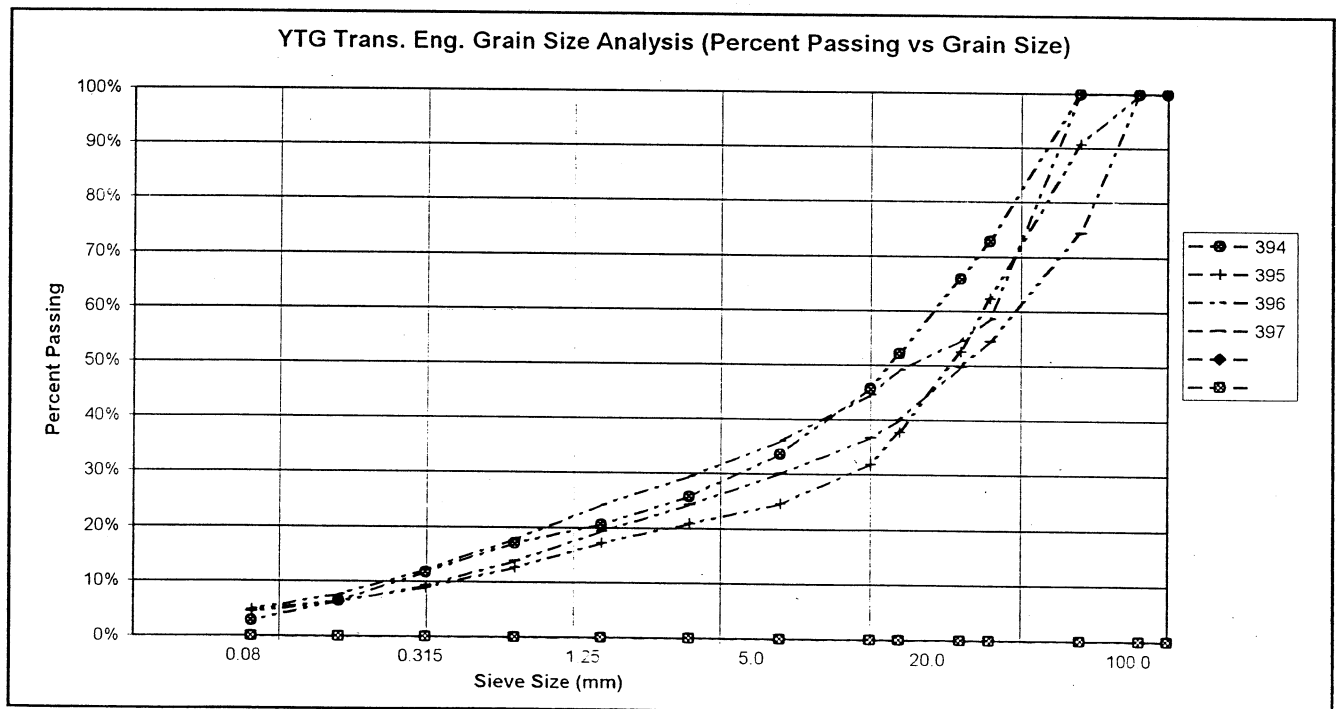


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2508

DATE COMP: SEPT 26/02

FIELD NO:	394	395	396	397		
LAB NO:	653	654	655	656		
DEPTH:	0.3-0.6	2.2-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	91%	100%	74%		
25.0	73%	62%	59%	54%		
20.0	66%	53%	55%	50%		
12.5	52%	38%	49%	40%		
10.0	46%	32%	45%	37%		
5.0	34%	25%	36%	30%		
2.5	26%	21%	29%	24%		
1.25	21%	17%	24%	19%		
0.630	17%	13%	18%	14%		
0.315	12%	9%	12%	9%		
0.160	6%	6%	8%	6%		
0.080	3%	5%	5%	4%		
M.C.(%)	2%	3%	3%	4%		
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:	66	75	64	70		
% SAND:	31	20	31	26		
% FINES:	3	5	5	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

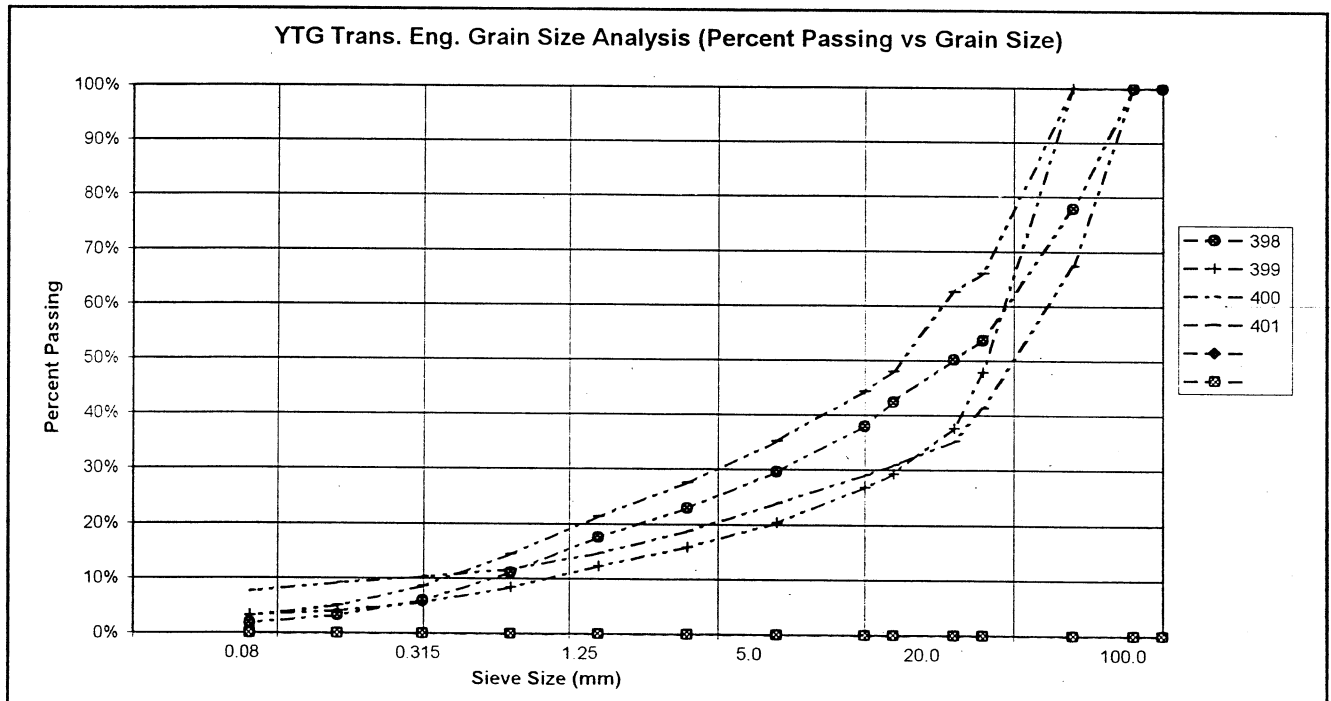


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granul Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2509

DATE COMP: SEPT 26/02

FIELD NO:	398	399	400	401		
LAB NO:	657	658	660	661		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	78%	100%	67%	100%		
25.0	54%	48%	41%	66%		
20.0	50%	38%	35%	63%		
12.5	43%	29%	31%	48%		
10.0	38%	27%	29%	44%		
5.0	30%	20%	24%	35%		
2.5	23%	16%	19%	28%		
1.25	18%	12%	15%	21%		
0.630	11%	8%	12%	14%		
0.315	6%	6%	10%	9%		
0.160	3%	4%	9%	5%		
0.080	2%	3%	8%	3%		
M.C.(%):	2%	3%	5%	3%		
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:	70	80	76	65		
% SAND:	28	17	16	32		
% FINES:	2	3	8	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SILT & SAND (GP-GM)	POORLY GRADED GRAVEL WITH SAND (GP)		

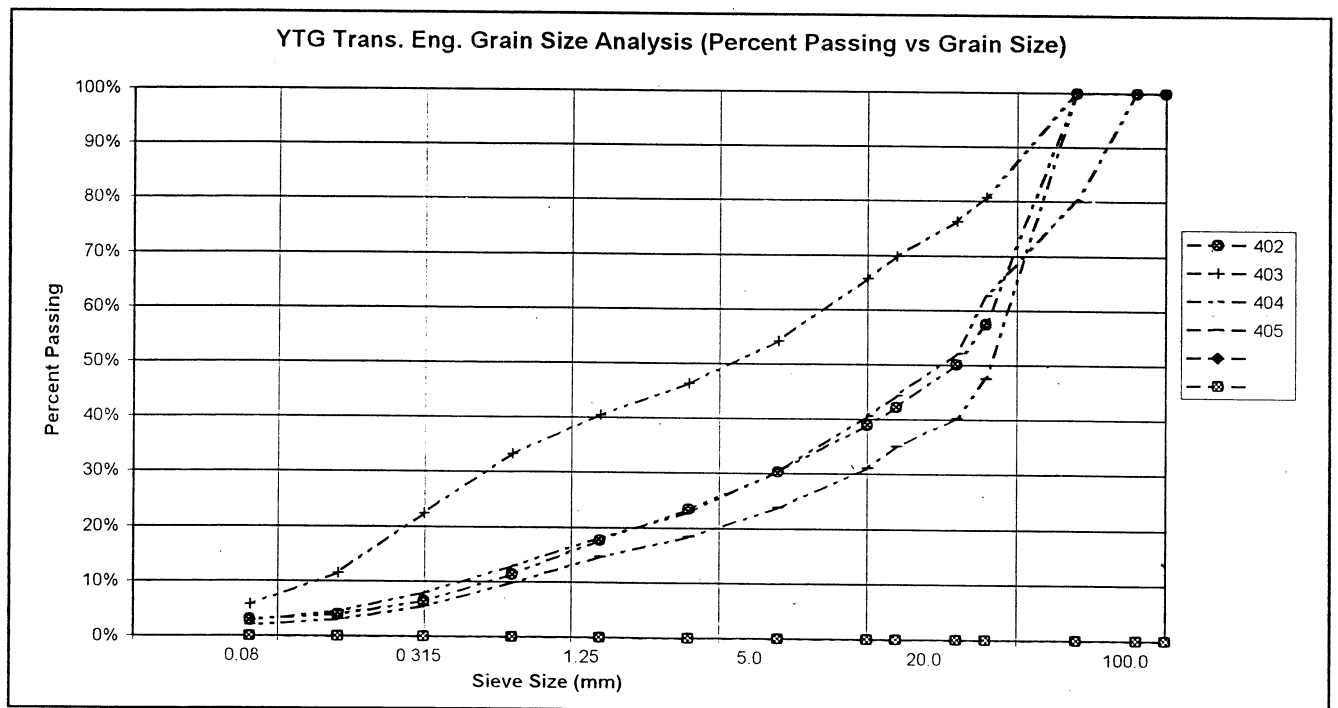


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2510

DATE COMP: SEPT 26/02

FIELD NO:	402	403	404	405		
LAB NO:	661	662	663	664		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	80%	100%		
25.0	58%	81%	63%	48%		
20.0	50%	76%	52%	40%		
12.5	42%	70%	44%	35%		
10.0	39%	66%	41%	31%		
5.0	30%	54%	30%	24%		
2.5	23%	46%	23%	18%		
1.25	18%	41%	18%	15%		
0.630	11%	33%	13%	10%		
0.315	6%	22%	8%	5%		
0.160	4%	11%	5%	3%		
0.080	3%	6%	3%	2%		
M.C.(%)	3%	4%	2%	2%		
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:	70	46	70	76		
% SAND:	27	48	28	22		
% FINES:	3	6	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED SAND WITH SILT & GRAVEL (SW-SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

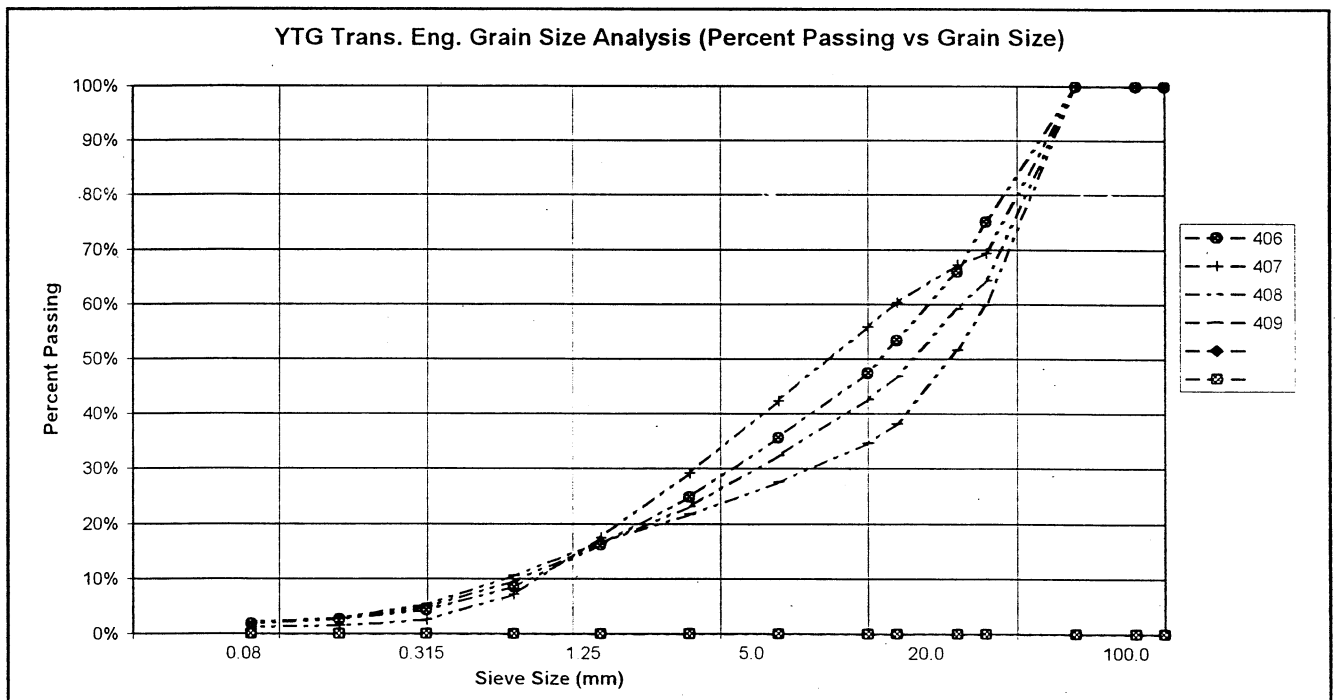


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2511

DATE COMP: SEPT 26/02

FIELD NO:	406	407	408	409		
LAB NO:	665	666	667	668		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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	75%	69%	64%	60%		
20.0	66%	67%	59%	52%		
12.5	53%	60%	47%	38%		
10.0	47%	56%	43%	35%		
5.0	36%	42%	32%	28%		
2.5	25%	29%	23%	22%		
1.25	16%	17%	16%	17%		
0.630	9%	7%	10%	11%		
0.315	4%	3%	5%	5%		
0.160	3%	1%	3%	3%		
0.080	2%	1%	2%	2%		
M.C.(%)	2%	3%	3%	3%		
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:	64	58	68	72		
% SAND:	34	41	30	26		
% FINES:	2	1	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

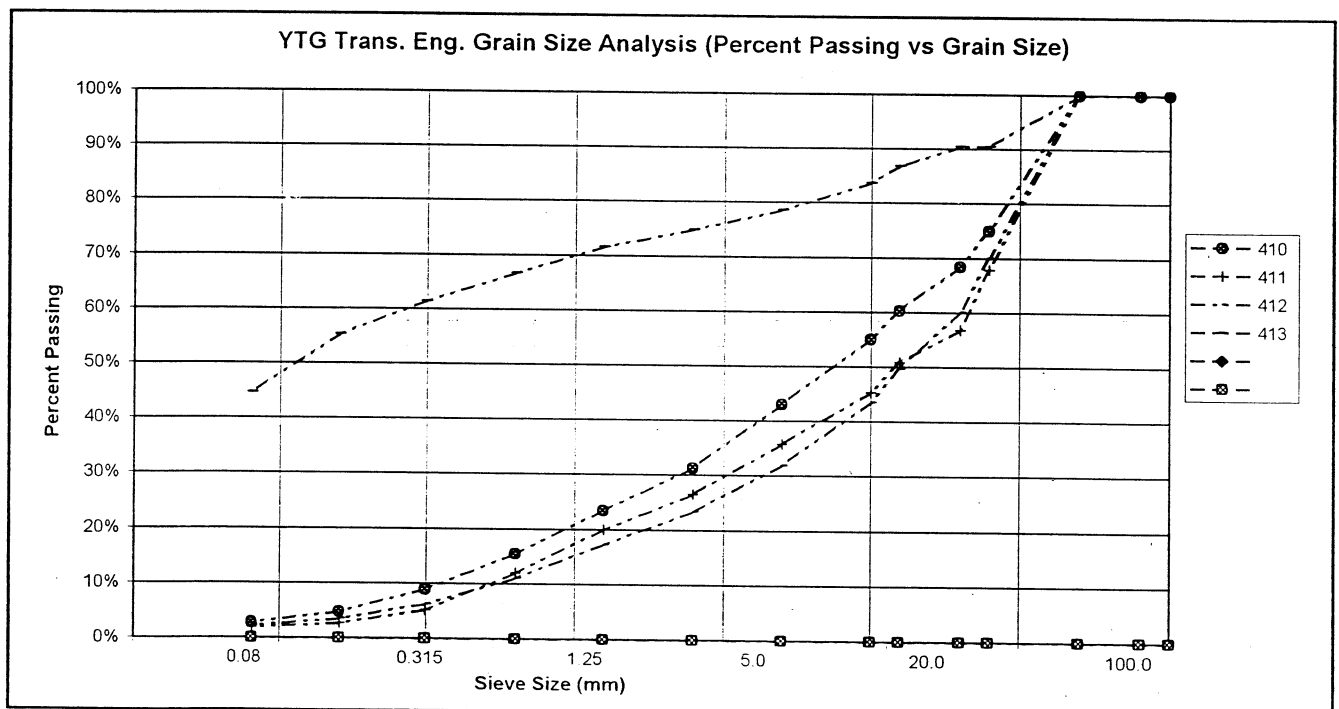


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2512

DATE COMP: SEPT 26/02

FIELD NO:	410	411	412	413		
LAB NO:	669	670	671	672		
DEPTH:	0.6-1.1	2.3-2.8	3.2-3.7	4.2-4.5		
TYPE:	BULK	BULK	BULK	BULK		
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	75%	68%	70%	91%		
20.0	68%	57%	60%	91%		
12.5	60%	51%	50%	87%		
10.0	55%	45%	44%	84%		
5.0	43%	36%	32%	79%		
2.5	31%	27%	23%	75%		
1.25	23%	20%	17%	72%		
0.630	16%	12%	11%	67%		
0.315	9%	5%	6%	61%		
0.160	5%	3%	4%	55%		
0.080	3%	2%	2%	45%		
M.C.(%):	3%	2%	2%	20%		
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:	57	64	68	21		
% SAND:	40	34	30	34		
% FINES:	3	2	2	45		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY SAND WITH GRAVEL (SM)		

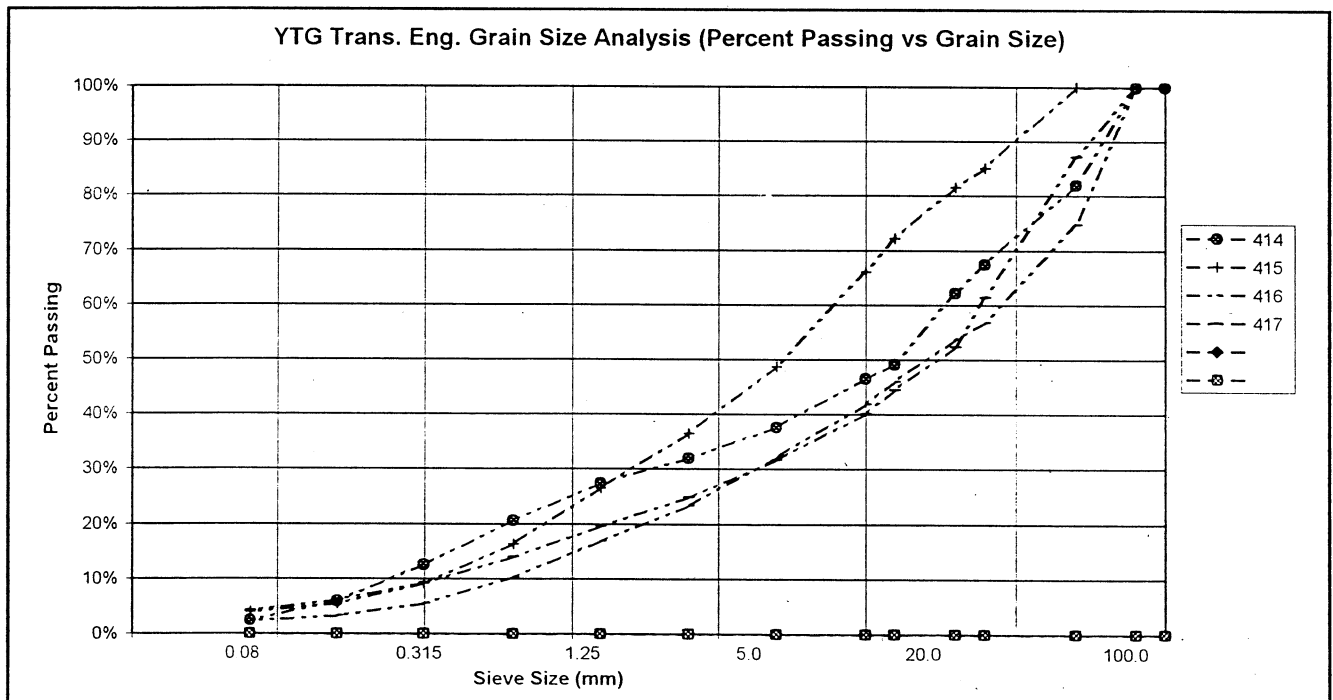


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2513

DATE COMP: SEPT 26/02

FIELD NO:	414	415	416	417		
LAB NO:	673	674	675	676		
DEPTH:	0.5-1.0	2.0-2.5	2.9-3.4	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	82%	100%	75%	87%		
25.0	67%	85%	57%	61%		
20.0	62%	82%	54%	52%		
12.5	49%	72%	46%	44%		
10.0	47%	66%	42%	40%		
5.0	38%	49%	32%	32%		
2.5	32%	36%	23%	25%		
1.25	27%	27%	17%	20%		
0.630	21%	16%	10%	14%		
0.315	13%	9%	6%	9%		
0.160	6%	6%	3%	6%		
0.080	2%	4%	2%	4%		
M.C.(%)	2%	3%	3%	3%		
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:	62	51	68	68		
% SAND:	35	45	30	27		
% FINES:	2	4	2	4		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

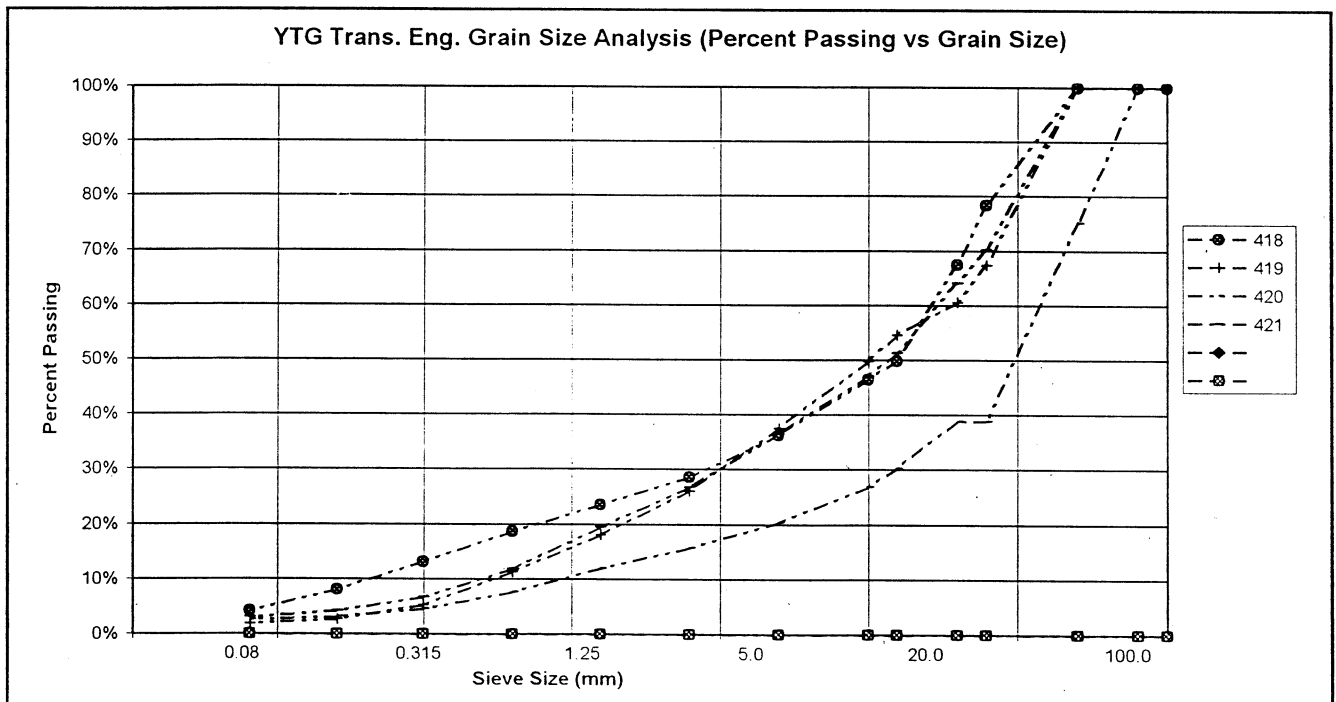


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2514

DATE COMP: SEPT 26/02

FIELD NO:	418	419	420	421		
LAB NO:	677	678	679	680		
DEPTH:	0.5-1.0	2.0-2.5	3.2-3.7	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	75%	100%		
25.0	78%	67%	39%	70%		
20.0	67%	61%	39%	64%		
12.5	50%	55%	30%	51%		
10.0	46%	50%	27%	47%		
5.0	36%	38%	20%	37%		
2.5	29%	26%	16%	27%		
1.25	24%	18%	12%	20%		
0.630	19%	11%	8%	12%		
0.315	13%	5%	5%	7%		
0.160	8%	3%	3%	4%		
0.080	4%	2%	3%	3%		
M.C.(%)	2%	2%	3%	3%		
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:	64	62	80	63		
% SAND:	32	36	18	33		
% FINES:	4	2	3	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)		

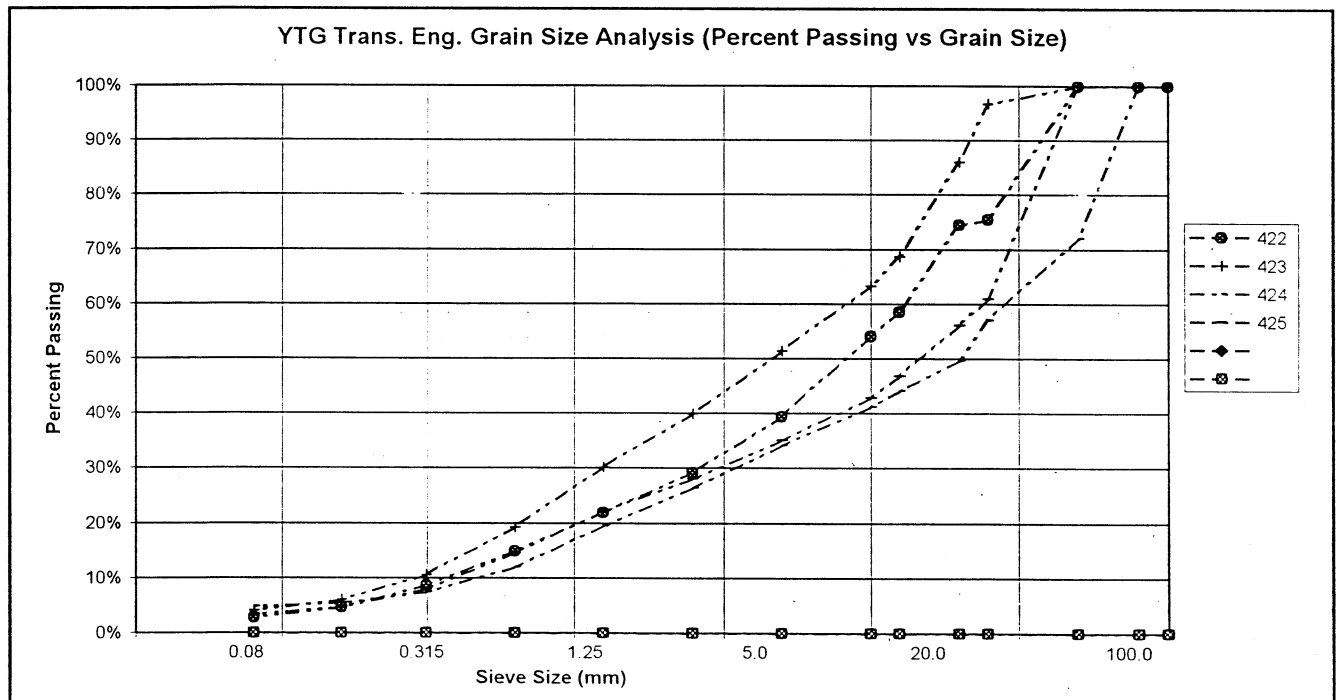


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2515

DATE COMP: SEPT 26/02

FIELD NO:	422	423	424	425		
LAB NO:	681	682	683	684		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	72%	100%		
25.0	76%	97%	57%	61%		
20.0	75%	86%	50%	56%		
12.5	59%	69%	44%	47%		
10.0	54%	63%	41%	43%		
5.0	39%	51%	34%	35%		
2.5	29%	40%	26%	28%		
1.25	22%	30%	19%	22%		
0.630	15%	19%	12%	15%		
0.315	9%	11%	7%	8%		
0.160	5%	6%	6%	5%		
0.080	3%	4%	5%	3%		
M.C.(%):	2%	3%	4%	3%		
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:	61	49	66	65		
% SAND:	37	47	29	32		
% FINES:	3	4	5	3		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

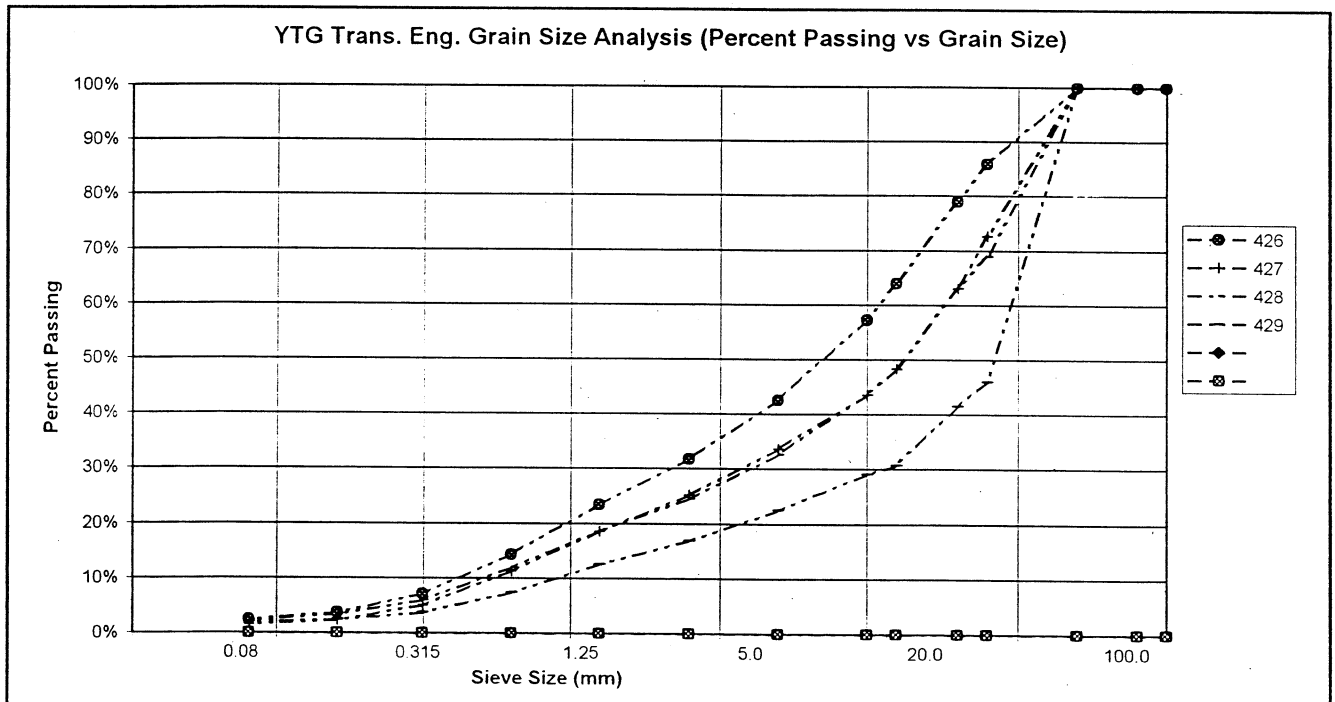


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2516

DATE COMP: SEPT 26/02

FIELD NO:	426	427	428	429		
LAB NO:	685	686	687	689		
DEPTH:	0.5-1.0	2.0-2.5	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
SIEVE SIZE	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING	PERCENT PASSING		
100.0	100%	100%	100%	100%		
80.0	100%	100%	100%	100%		
50.0	100%	100%	100%	100%		
25.0	86%	73%	69%	46%		
20.0	79%	63%	63%	42%		
12.5	64%	48%	48%	31%		
10.0	57%	44%	44%	29%		
5.0	43%	34%	33%	23%		
2.5	32%	25%	25%	17%		
1.25	24%	19%	19%	13%		
0.630	14%	11%	12%	7%		
0.315	7%	5%	6%	4%		
0.160	4%	2%	3%	2%		
0.080	2%	1%	2%	2%		
M.C.(%)	2%	2%	3%	3%		
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:	57	66	67	77		
% SAND:	40	32	30	21		
% FINES:	2	1	2	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	WELL-GRADED GRAVEL WITH SAND (GW)		

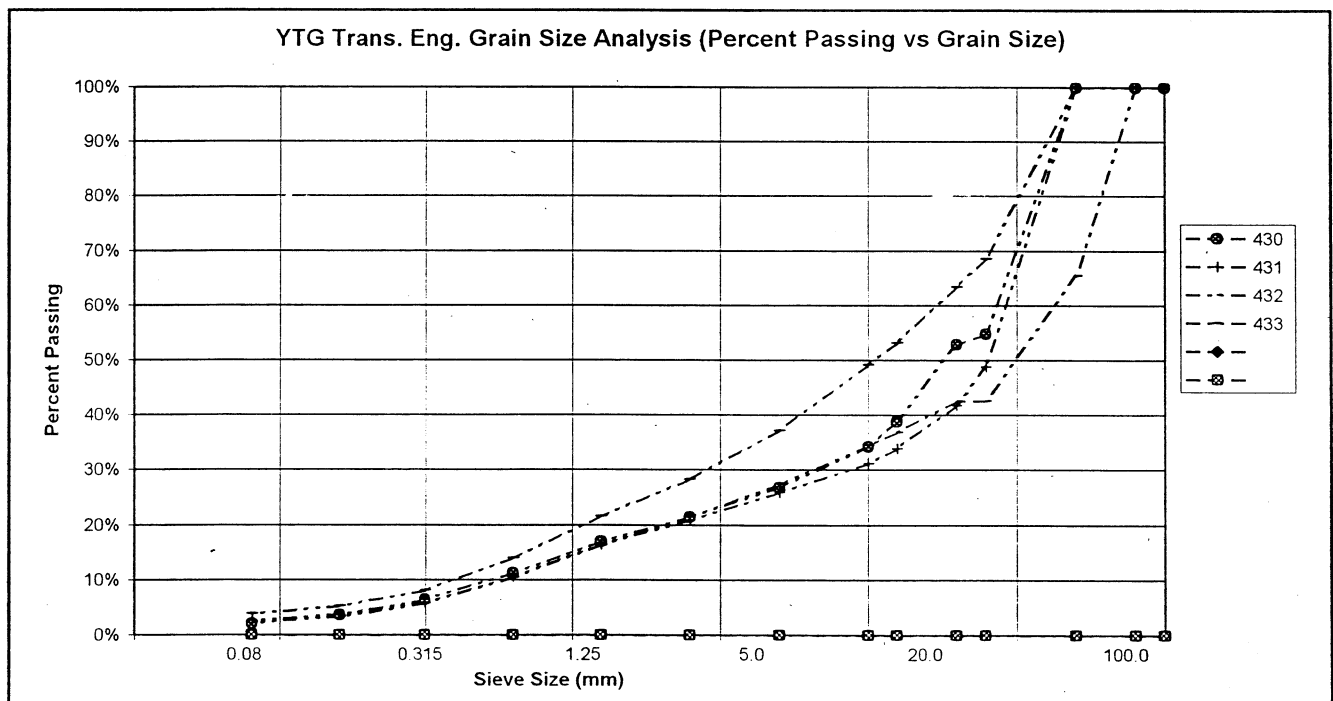


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2717

DATE COMP: SEPT 26/02

FIELD NO:	430	431	432	433		
LAB NO:	689	690	691	692		
DEPTH:	0.5-1.0	2.2-2.7	3.0-3.5	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	65%	100%		
25.0	55%	49%	43%	69%		
20.0	53%	42%	43%	63%		
12.5	39%	34%	37%	53%		
10.0	34%	31%	35%	49%		
5.0	27%	26%	27%	37%		
2.5	22%	21%	22%	28%		
1.25	17%	16%	16%	22%		
0.630	11%	11%	10%	14%		
0.315	6%	6%	6%	8%		
0.160	4%	4%	3%	5%		
0.080	2%	3%	2%	4%		
M.C.(%)	1%	3%	3%	3%		
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:	73	74	73	63		
% SAND:	25	23	25	33		
% FINES:	2	3	2	4		
CLASSIFICATION	WELL-GRADED GRAVEL WITH SAND (GW)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

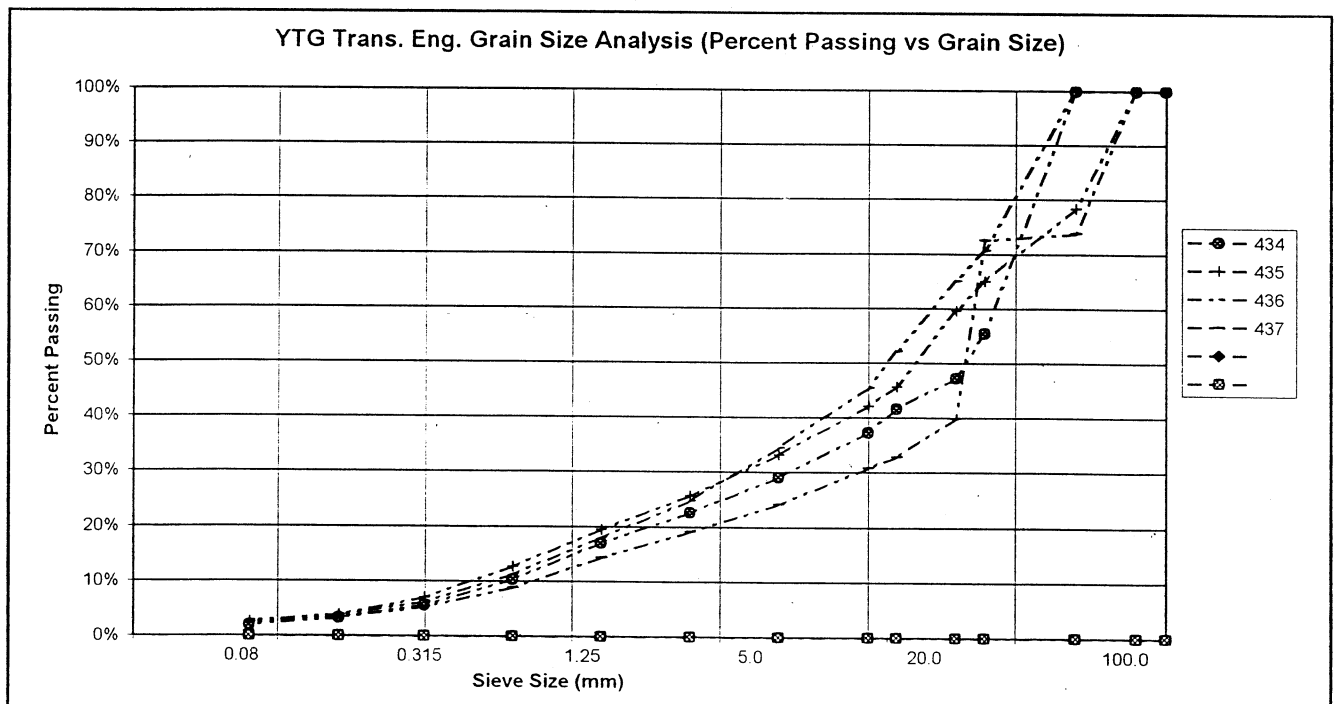


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2518

DATE COMP: SEPT 26/02

FIELD NO:	434	435	436	437		
LAB NO:	693	694	695	696		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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%	78%	100%	74%		
25.0	56%	65%	71%	73%		
20.0	47%	60%	65%	40%		
12.5	42%	46%	52%	33%		
10.0	37%	42%	45%	31%		
5.0	29%	33%	35%	24%		
2.5	23%	26%	25%	19%		
1.25	17%	20%	18%	14%		
0.630	10%	13%	11%	9%		
0.315	6%	7%	6%	5%		
0.160	3%	4%	4%	3%		
0.080	2%	3%	3%	2%		
M.C.(%):	2%	3%	4%	3%		
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:	71	67	65	76		
% SAND:	27	31	32	22		
% FINES:	2	3	3	2		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

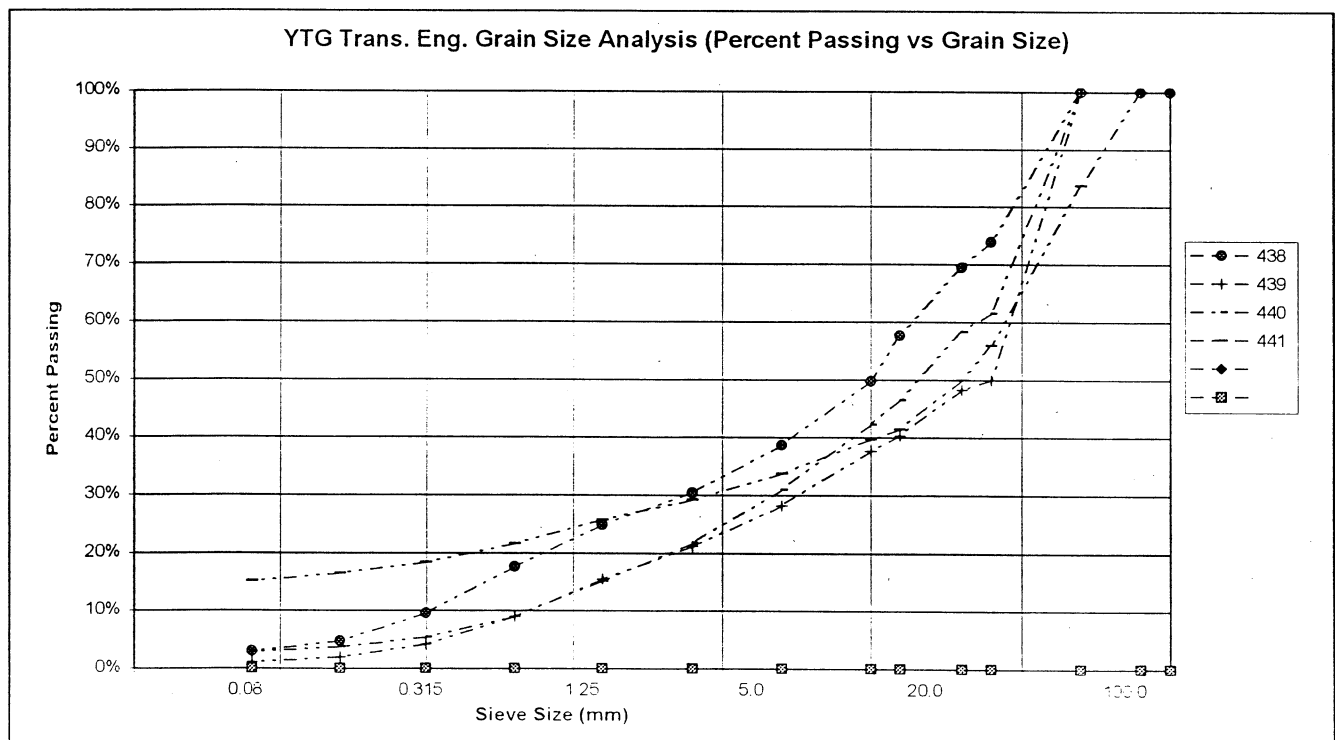


PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2519

DATE COMP: SEPT 26/02

FIELD NO:	438	439	440	441		
LAB NO:	697	698	699	700		
DEPTH:	0.5-1.0	1.7-2.2	3.0-3.5	4.3-4.8		
TYPE:	BULK	BULK	BULK	BULK		
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%	84%		
25.0	74%	50%	62%	56%		
20.0	69%	48%	58%	50%		
12.5	58%	40%	47%	41%		
10.0	50%	38%	42%	40%		
5.0	39%	28%	31%	34%		
2.5	30%	21%	22%	29%		
1.25	25%	16%	15%	26%		
0.630	18%	9%	9%	22%		
0.315	10%	4%	5%	18%		
0.160	5%	2%	4%	16%		
0.080	3%	1%	3%	15%		
M.C.(%)	2%	2%	3%	3%		
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:	61	72	69	66		
% SAND:	36	27	28	19		
% FINES:	3	1	3	15		
CLASSIFICATION	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	SILTY GRAVEL WITH SAND (GM)		



PROJECT NUMBER: 552-202101-0361-1
 CLIENT: Engineering Capital
 PROJECT NAME: Shakwak Granular Investigation
 PROJECT LOCATION: Km 1734.4 LHS A/H Pit # 115-G-21
 DRILL UNIT: Koehring 6625 Backhoe
 HOLE LOCATION: SEE PLAN
 LOGGED BY: JRP R.W.

HOLE No.: 638-2520

DATE COMP: SEPT 26/02

FIELD NO:	442	443	444	445		
LAB NO:	701	702	703	704		
DEPTH:	0.5-1.0	2.2-2.7	3.2-3.7	4.5-5.0		
TYPE:	BULK	BULK	BULK	BULK		
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	84%	63%	58%	68%		
20.0	81%	51%	51%	56%		
12.5	78%	41%	40%	44%		
10.0	74%	37%	35%	42%		
5.0	64%	28%	25%	31%		
2.5	57%	21%	17%	24%		
1.25	52%	15%	13%	18%		
0.630	46%	10%	9%	11%		
0.315	38%	5%	5%	6%		
0.160	28%	3%	3%	4%		
0.080	17%	2%	2%	3%		
M.C.(%)	4%	2%	2%	2%		
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:	36	72	75	69		
% SAND:	47	26	23	28		
% FINES:	17	2	2	3		
CLASSIFICATION	SILTY SAND WITH GRAVEL (SM)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)	POORLY GRADED GRAVEL WITH SAND (GP)		

