The City of Winnipeg Bid Opportunity No. 189-2006

## GEOTECHNICAL REPORT -TEST HOLE LOGS

#### **TEST HOLE LOGS**

#### TABLE OF CONTENTS

#### TEST HOLE LOGS FOR DALY STREET NORTH

Test Hole Locations Test Hole Log for Test Hole #: TH1 Test Hole Log For Test Hole #: TH2 Test Hole Log for Test Hole #: TH3

#### TEST HOLE LOGS FOR ELGIN AVENUE W

Test Hole Locations Test Hole Log for Test Hole #: TH1 Test Hole Log For Test Hole #: TH2 Test Hole Log for Test Hole #: TH3

#### TEST HOLE LOGS FOR YALE AVENUE

Test Hole Locations Test Hole Log for Test Hole #: TH1 Test Hole Log For Test Hole #: TH2

#### TEST HOLE LOGS FOR MULVEY AVENUE

Test Hole Locations Test Hole Log for Test Hole #: TH1 Test Hole Log For Test Hole #: TH2 Test Hole Log for Test Hole #: TH3

#### TEST HOLE LOGS FOR GUELPH AVENUE

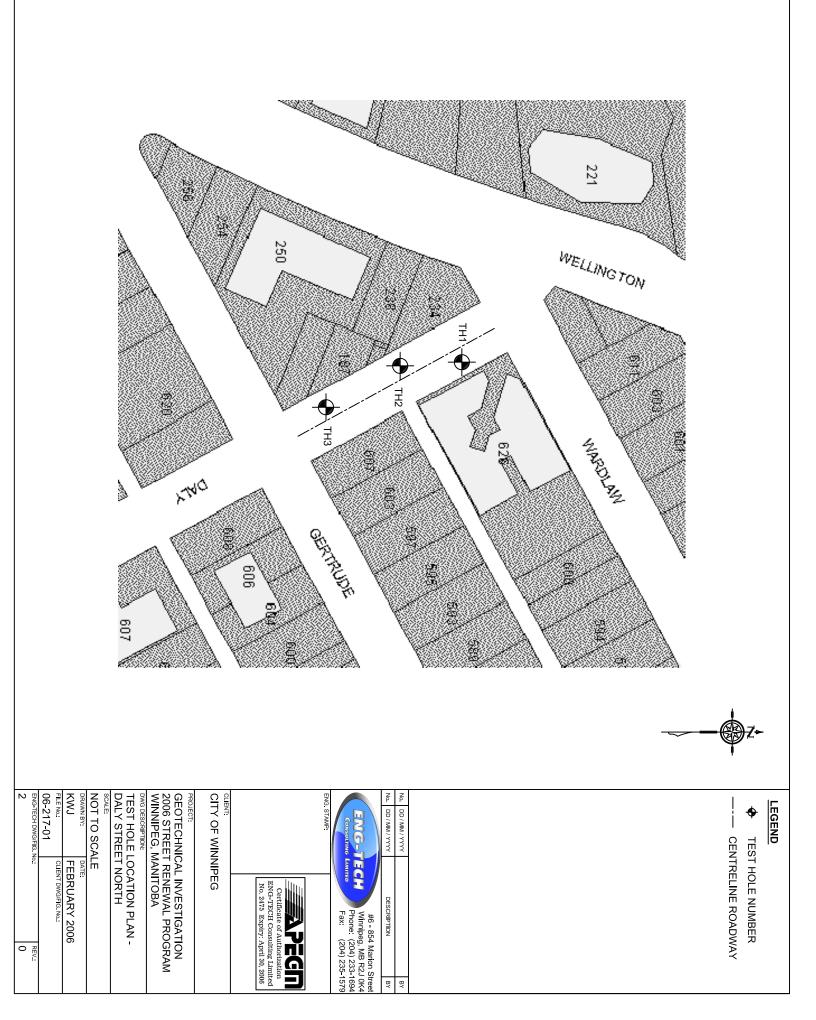
Test Hole Locations Test Hole Log for Test Hole #: TH1 Test Hole Log For Test Hole #: TH2 Test Hole Log for Test Hole #: TH3

#### TEST HOLE LOGS FOR BECKER AVENUE

Test Hole Locations Test Hole Log for Test Hole #: TH1 Test Hole Log For Test Hole #: TH2 Test Hole Log for Test Hole #: TH3

The test hole logs are provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in pavement structure and/or soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations may not become evident until construction commences.

# DALY STREET NORTH



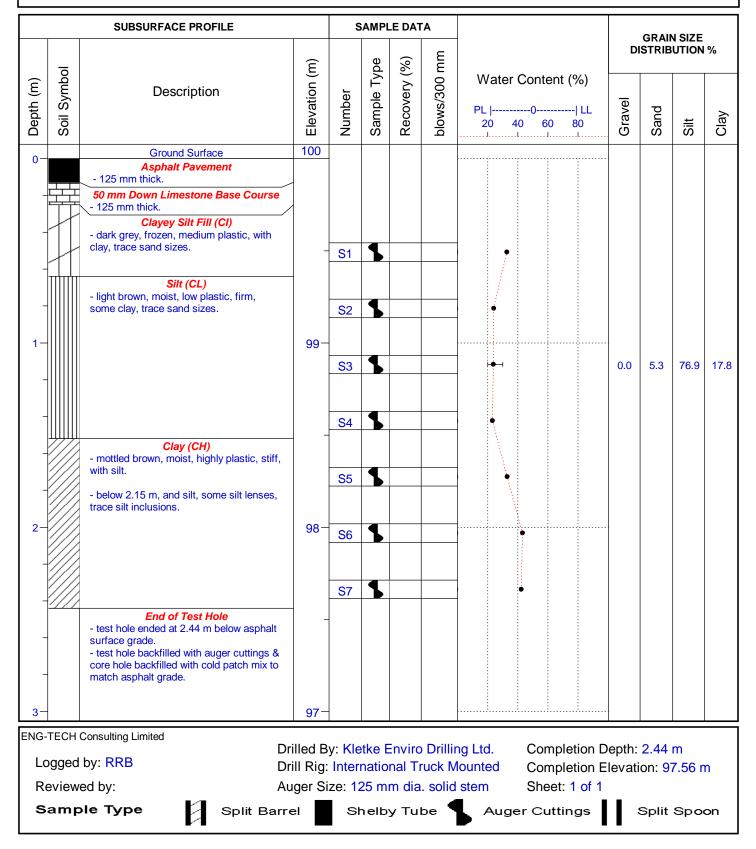
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Daly Street North, Winnipeg, Manitoba

Location: 1.80 m E of W curb & 23 m N of C. of Gerturde Ave.

### Test Hole #: TH1



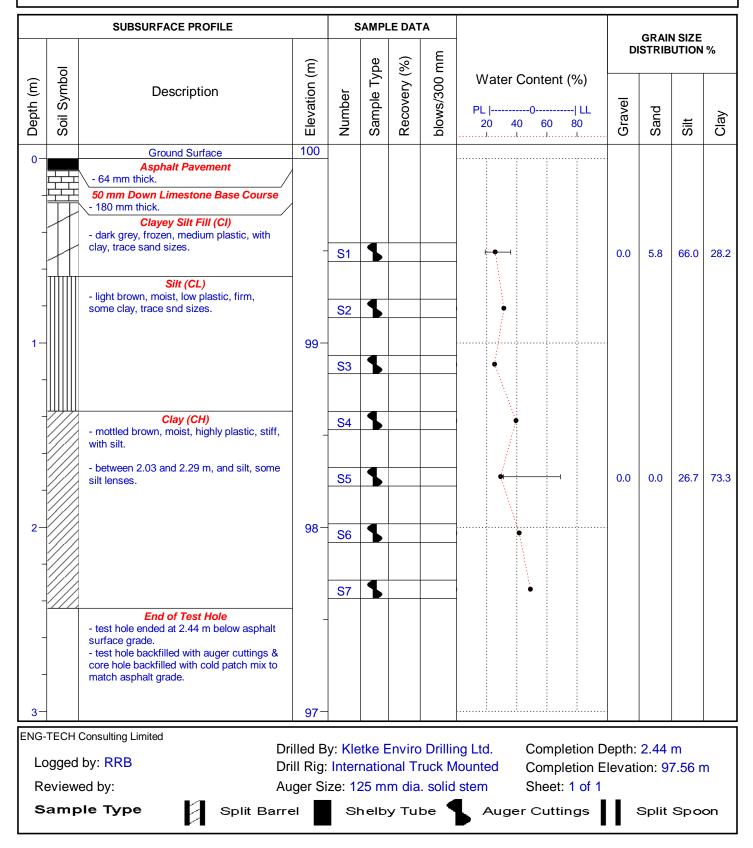
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Daly Street North, Winnipeg, Manitoba

Location: 2.13 m E of W curb & 52 m N of C. of Gertrude Ave.

### Test Hole #: TH2



GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

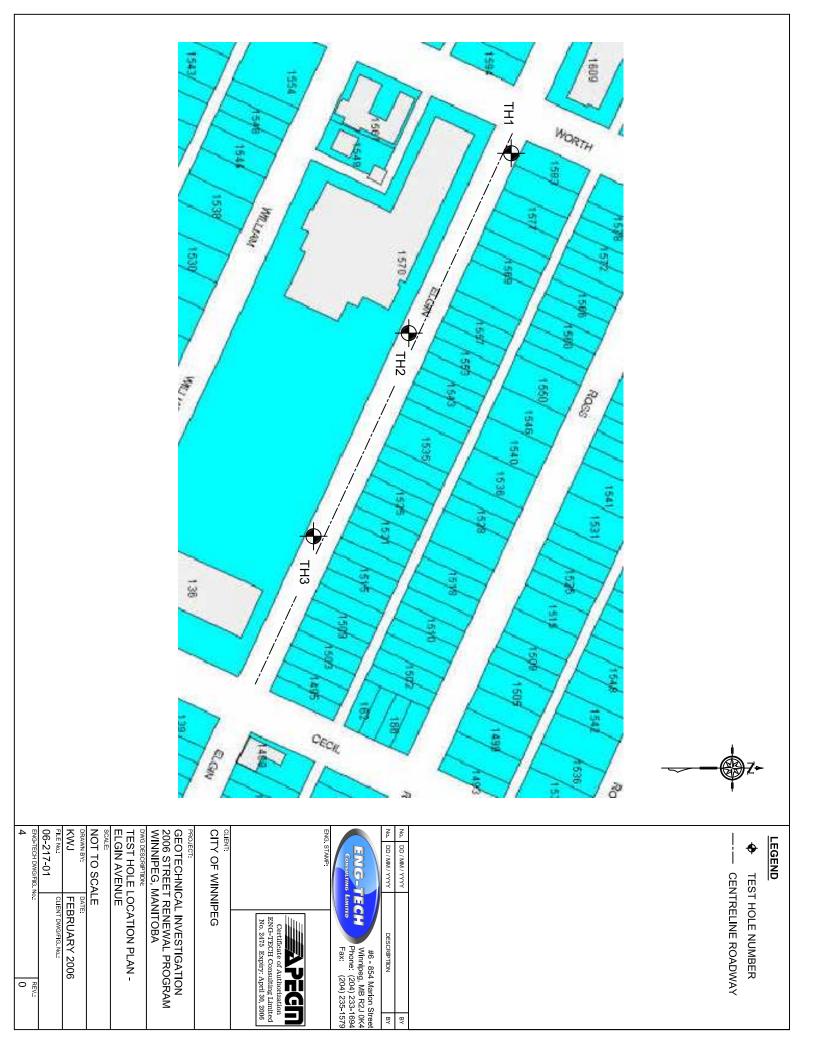
Project: Geotechnical Investigation - 2006 Street Renewal Program Site: Daly Street North, Winnipeg, Manitoba

Location: 1.68 m W of E curb & 28 m S of C. of Wardlaw Ave.

### Test Hole #: TH3

SUBSURFACE PROFILE				SAMPLE DATA			ΓA			<b>CD A</b>		
	-		(F		be	(%	mm		GRAIN SIZE DISTRIBUTION %			
Ē	d m	Description	) uo	5	P T	ery (	300	Water Content (%)				
Depth (m)	Soil Symbol	·	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	PL  0  LL	Gravel	Sand	t	ay
ď	Sc			٦٢	Sa	Re	plq	20 40 60 80	ū	Sa	Silt	Clay
0-		Ground Surface	100						-			
		Asphalt Pavement										
-		50 mm Down Limestone Base Course - 286 mm thick.										
		Silt (CL)										
		- light brown, moist, low plastic, firm, some clay, trace sand sizes.	-									
				S1	\$			•				
-												
1-			99-	<b>S</b> 2	5				.			
		Clay (CH) - mottled brown, moist, highly plastic, stiff,										
-		with silt, trace silt inclusions.		<b>S</b> 3	◀							
				- 55								
			_									
-				<b>S</b> 4	5							
-				S5	◀							
2-			98-	00				-				
-				<b>S</b> 6	5							
			_	S7	ſ			•				
-		End of Test Hole										
		- test hole ended at 2.54 m below asphalt surface grade.										
-		<ul> <li>test hole backfilled with cold patch mix to match asphalt grade.</li> </ul>										
3-			97-									
Ľ												
ENG-TECH Consulting Limited												
Logged by: RRBDrilled By: Kletke Enviro Drilling Ltd.Completion Depth: 2.54 mDrill Rig: International Truck MountedCompletion Elevation: 97.46 m												
Logged by: RRBDrill Rig: International Truck MountedCompletion Elevation: 97.46 mReviewed by:Auger Size: 125 mm dia. solid stemSheet: 1 of 1												
		<b>1</b> / <b>1</b>	_	-			-			Solit	Sno	
Sample Type Split Barrel Shelby Tube Auger Cuttings Split Spoon												

# **ELGIN AVENUE WEST**



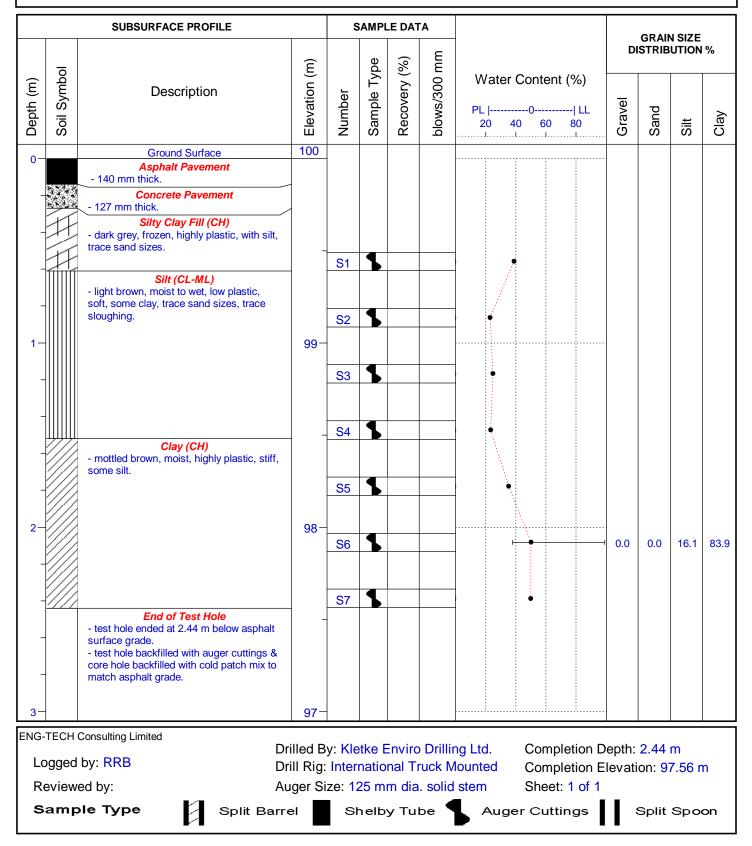
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Elgin Avenue, Winnipeg, Manitoba

Location: 1.98 m S of N curb & 17 m E of C. of Worth St.

#### Test Hole #: TH1



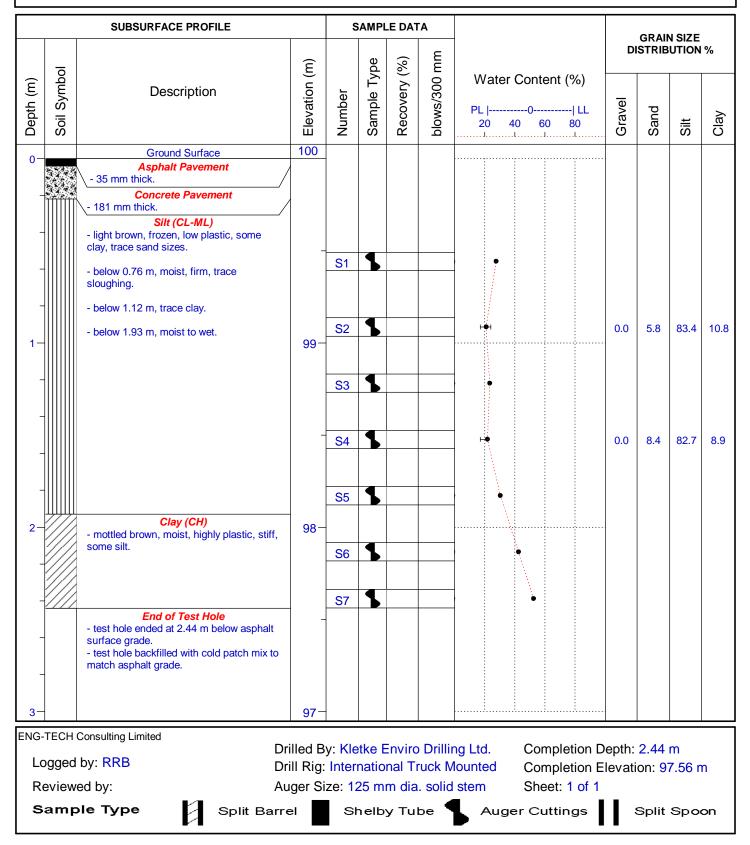
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Elgin Avenue, Winnipeg, Manitoba

Location: 2.69 m S of N curb & 104 m E of C. of Worth St.

### Test Hole #: TH2



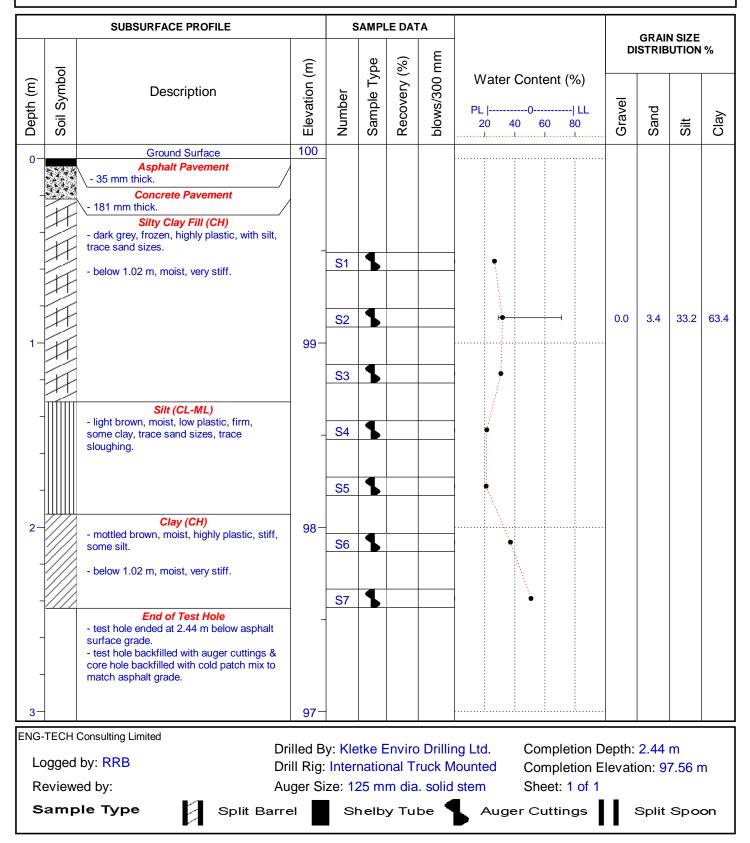
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

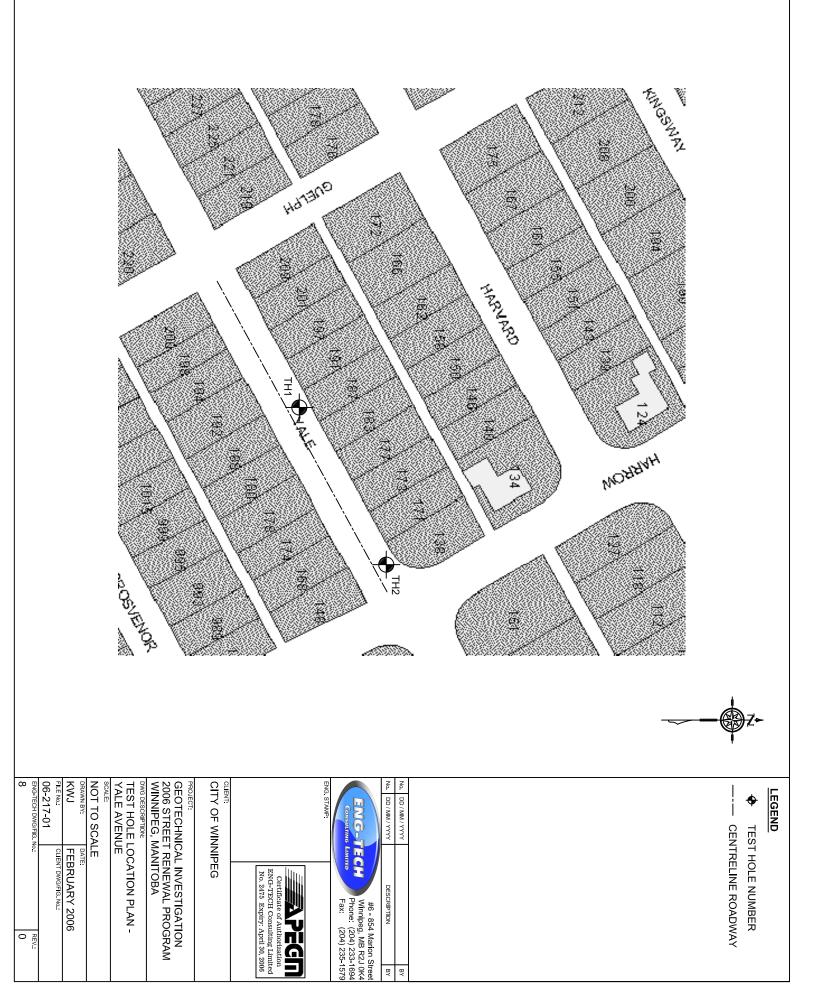
**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Elgin Avenue, Winnipeg, Manitoba

Location: 1.75 m N of S curb & 87 m W of C. of Cecil St.

#### Test Hole #: TH3



# YALE AVENUE



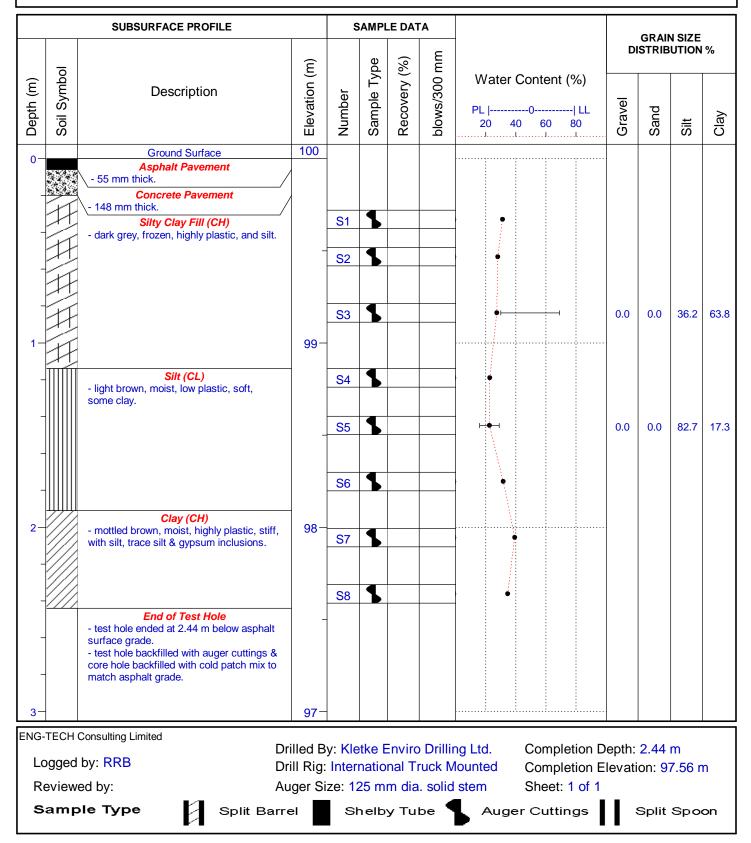
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Yale Avenue, Winnipeg, Manitoba

Location: 2.18 m S of N curb & 23.5 m W of C. of Harrow St.

### Test Hole #: TH1



GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

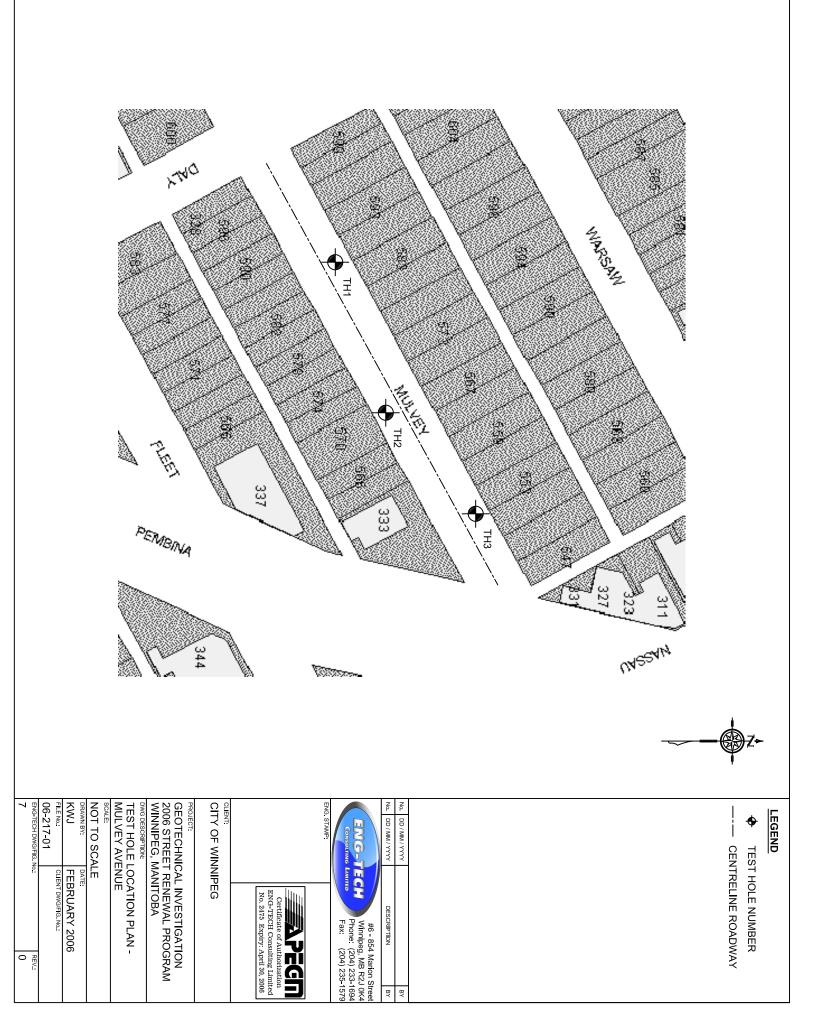
**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Yale Avenue, Winnipeg, Manitoba

Location: 1.96 m S of N curb & 93 m W of C. of Harrow St.

### Test Hole #: TH2

SUBSURFACE PROFILE			SAMPLE DATA			Α			GRAU			
			Ē		Ð	(9)	E		GRAIN SIZE DISTRIBUTION %			
(E	Symbol	Description	ion (n	ъ	e Typ	ery (9	300 n	Water Content (%)				
Depth (m)	Soil Sy		Elevation (m)	Numbe	Number Sample Type	Recovery (%)	blows/300 mm	PL  0  LL 20 40 60 80	Gravel	Sand	Silt	Clay
0-		Ground Surface	100									
		Asphalt Pavement										
-		Concrete Pavement		S1	◀			•				
-	H	Silty Clay Fill (CH) - dark grey, frozen, highly plastic, and silt.		01								
	Ħ	- dark grey, nozen, nigniy plastic, and site	-	S2	1			•				
-	T											
-				<b>S</b> 3	◀							
	$\mathcal{H}$	Clay (CH)	-	00								
1-		- mottled brown, moist, highly plastic, stiff, with silt, trace silt inclusions.	99-						-			
-		- below 1.78 m, trace silt inclusions.		S4								
-			_									
-				<b>S</b> 5								
-				<b>S</b> 6	\$				0.0	0.0	27.3	72.7
2-			98-									
-				S7	ſ			•				
-			-									
		End of Test Hole - test hole ended at 2.44 m below surface	-									
		asphalt grade. - test hole backfilled with auger cuttings &										
-		core hole backfilled with cold patch mix to match asphalt grade.										
3-	-		97-									
ENG-TECH Consulting Limited Drilled By: Kletke Enviro Drilling Ltd. Completion Depth: 2.44 m												
Logged by: RRB       Drill Rig: International Truck Mounted       Completion Depth. 2.44 m												
Reviewed by:     Auger Size: 125 mm dia. solid stem     Sheet: 1 of 1												
Sample Type Split Barrel Shelby Tube Auger Cuttings Split Spoon												

# **MULVEY AVENUE**



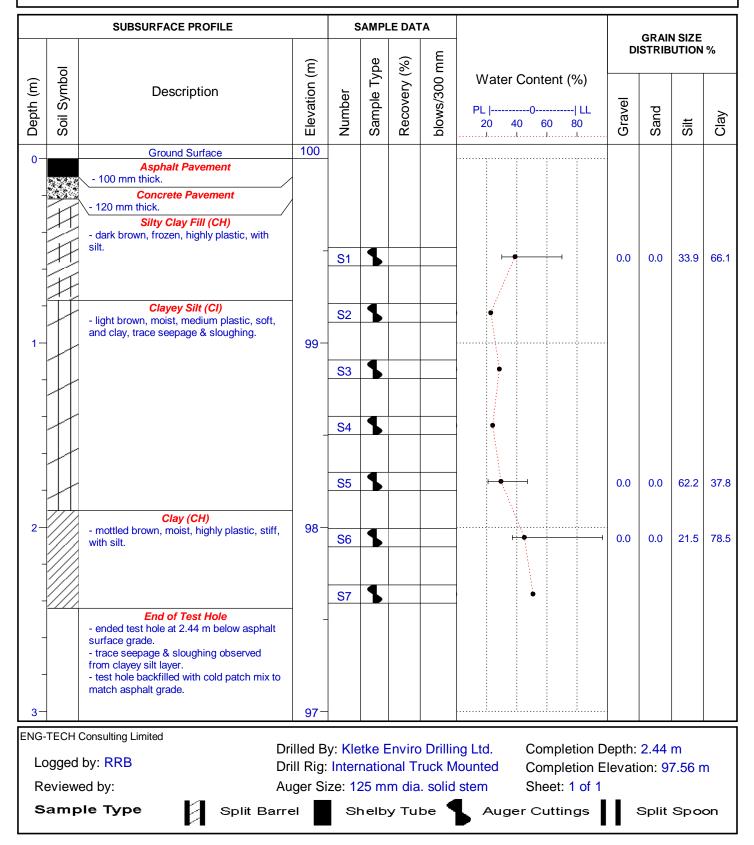
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Mulvey Avenue, Winnipeg, Manitoba

Location: 2.36 m S of N curb & 33 m W of E end of Mulvey Ave.

#### Test Hole #: TH1



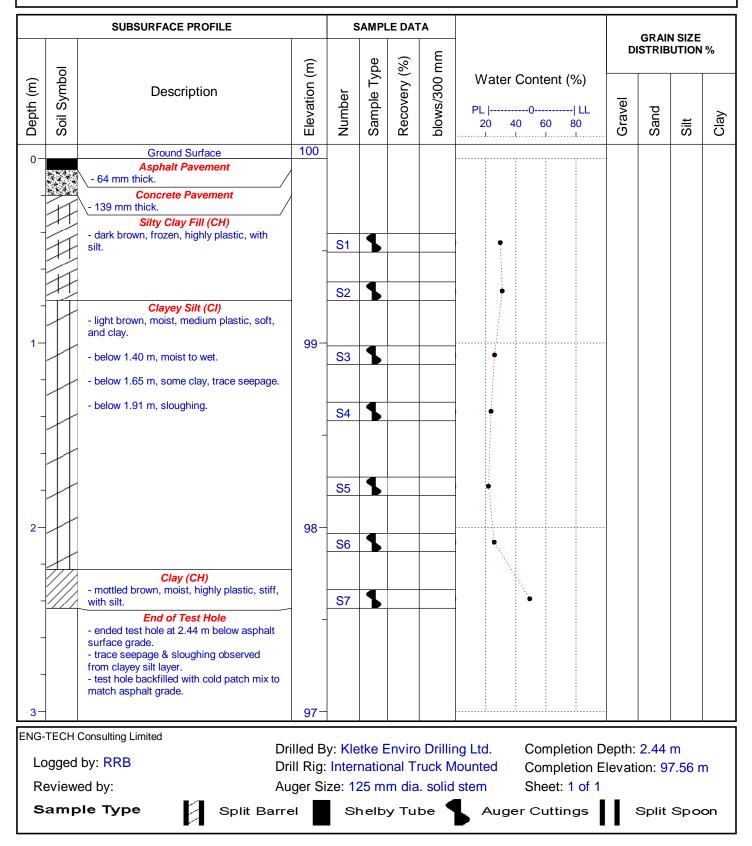
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Mulvey Avenue, Winnipeg, Manitoba

Location: 1.57 m N of S curb & 76 m S of E end of Mulvey Ave.

#### Test Hole #: TH2



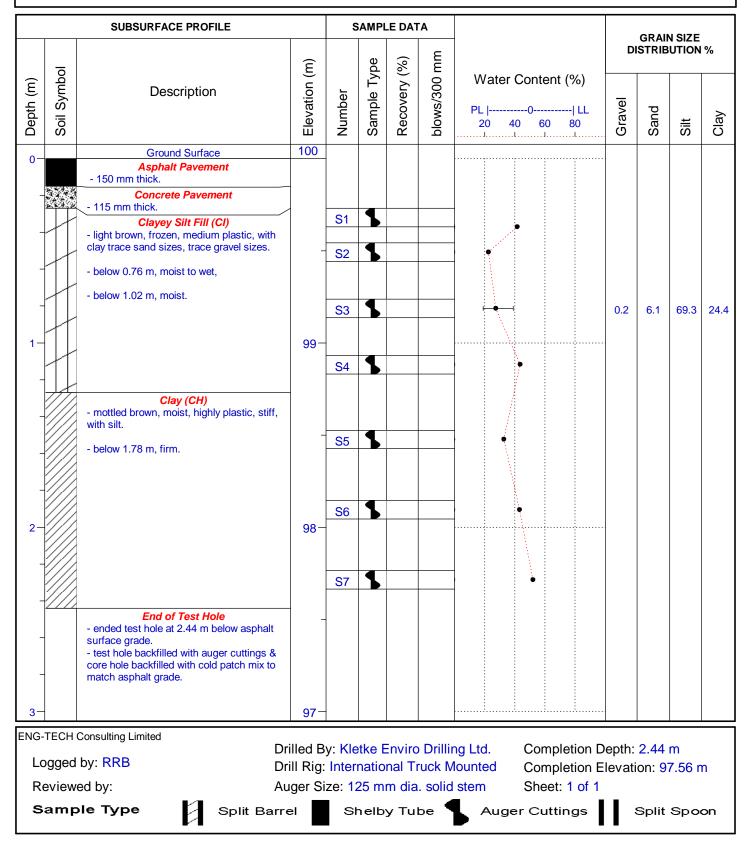
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

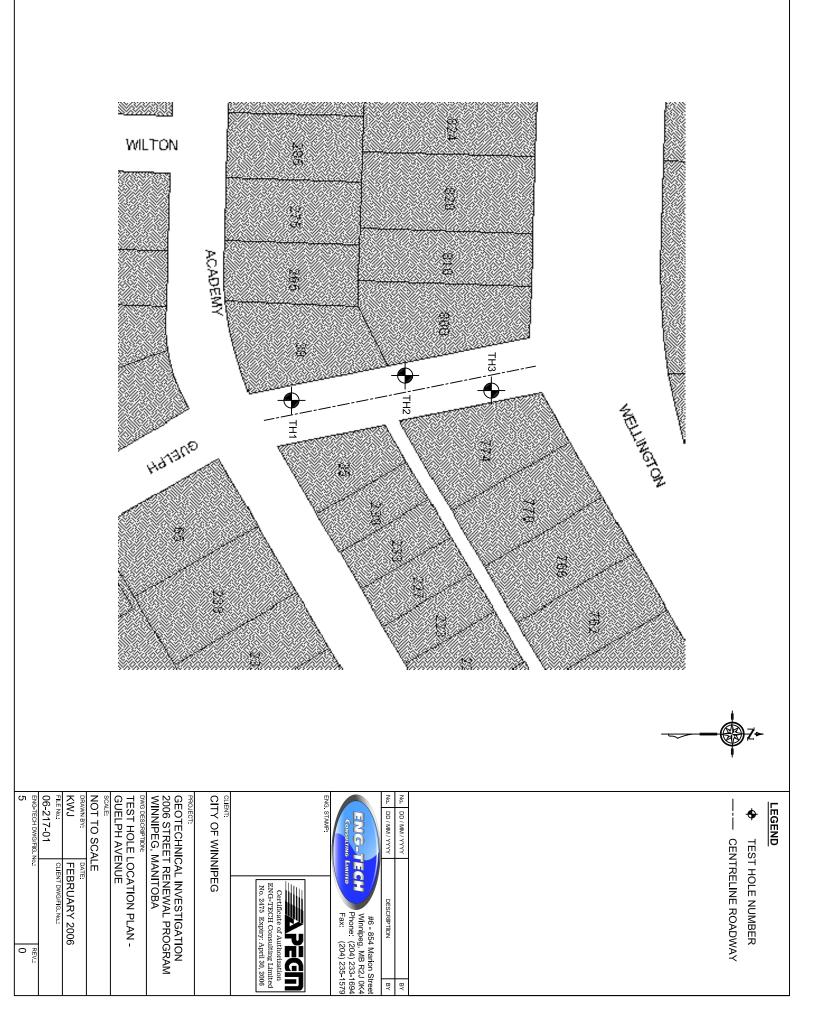
**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Mulvey Avenue, Winnipeg, Manitoba

Location: 1.98 m S of N curb & 58 m E of  $\,$  C. of Daly St. N.

### Test Hole #: TH3



# **GUELPH AVENUE**



GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Guelph Avenue, Winnipeg, Manitoba

### Test Hole #: TH1

File No: 06-217-01 Date Drilled: January 26, 2006 Grade Elevation: 100.0 m (local)

Location: 2.33 m W of E curb & 24 m S of C. of E bound lane of Academy RoWater Elevation: --

SUBSURFACE PROFILE				SAMPLE DATA						CRAI		
				Φ		6)	E		GRAIN SIZE DISTRIBUTION %			
Ē	lodn	Description	Elevation (m)		Sample Type	Recovery (%)	blows/300 mm	Water Content (%)				
Depth (m)	Soil Symbol	Description	vatio	Number	nple	ove	vs/3	PL  0  LL	vel	q		>
Dep	Soil		Eley	Nur	San	Rec	blov	20 40 60 80	Gravel	Sand	Silt	Clay
0-		Ground Surface	100	-								
		Asphalt Pavement - 30 mm thick.	1									
-	1.11.11.1	Concrete Pavement										
_		Organic Silty Clay (OL) - black, frozen, low plastic, and silt, trace										
		sand sizes.	-	S1	1			•				
-												
-		Clayey Silt (Cl)	-	S2	1			•				
	$\square$	- light brown, frozen, medium plastic, and clay.										
1-	$\mathbb{H}$	- below 1.37 m, moist, firm.	99-									
-		- below 1.73 m, moist to wet, soft.		<u>S</u> 3								
-	$\square$			<b>S</b> 4	5			•				
-			-									
				<b>S</b> 5								
-												
2-		Clay (CH)	98-									
2		- mottled brown, moist, highly plastic, very stiff, some silt.	90	S6	┣Ъ							
-												
				S7	5			•				
		End of Test Hole		-								
-		- test hole ended at 2.44 m below surface asphalt grade.										
		- test hole backfilled with auger cuttings & core hole backfilled with cold patch mix to										
_		match asphalt grade.										
3-			97-	-								
ENG-TECH Consulting Limited Drilled By: Kletke Enviro Drilling Ltd. Completion Depth: 2.44 m												
				-				Nounted Completion E				n
R	eview	ed by: A	uger Si	ze: 1	25 m	m dia	. solid					
Sample Type Split Barrel Shelby Tube Auger Cuttings Split Spoon												

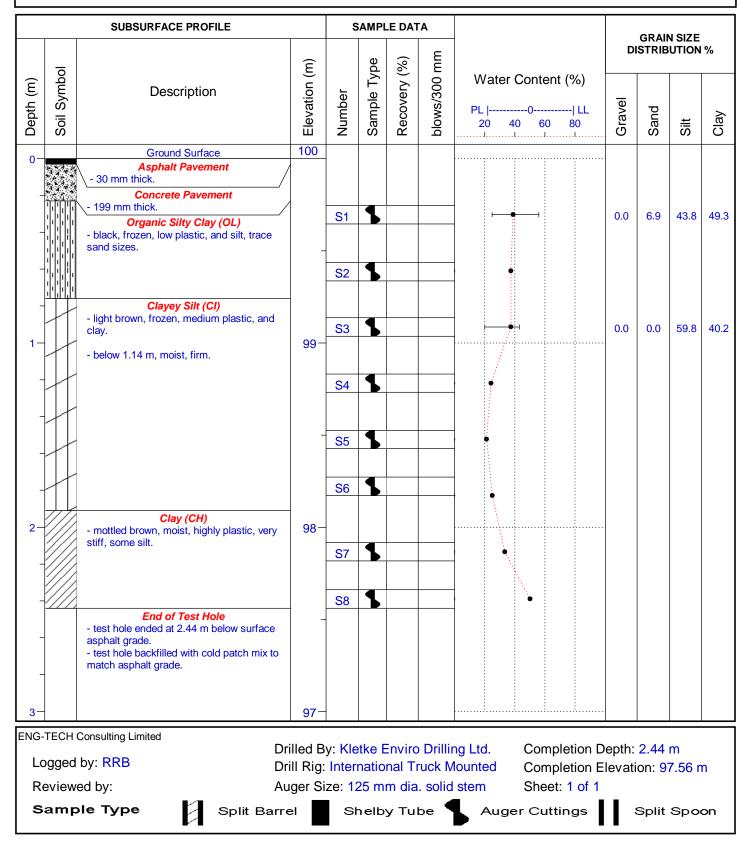
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Guelph Avenue, Winnipeg, Manitoba

Location: 2.21 m E of W curb & 57 m N of S end of Guelph Ave.

### Test Hole #: TH2



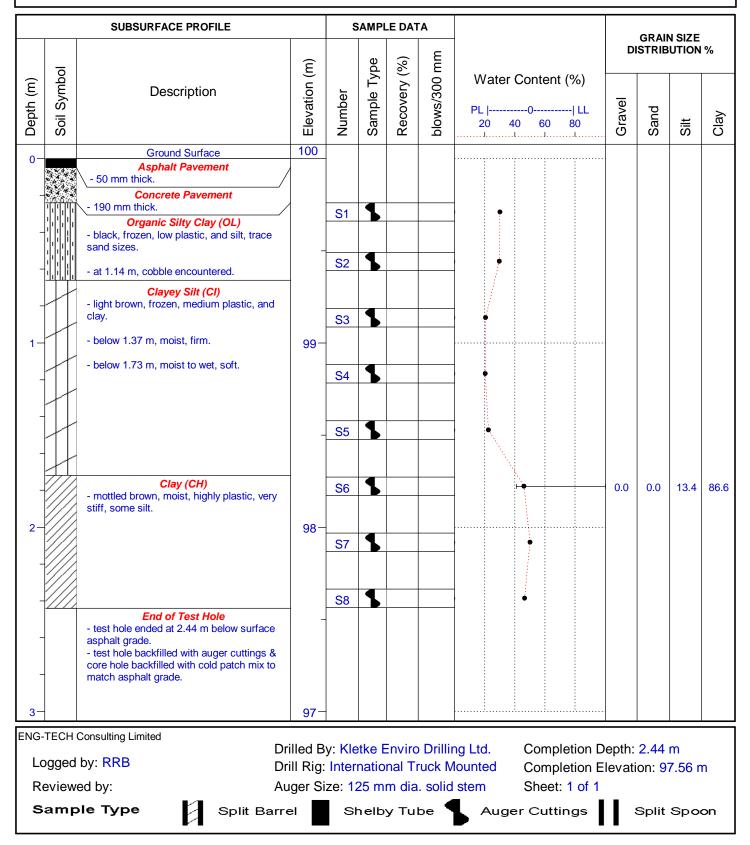
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

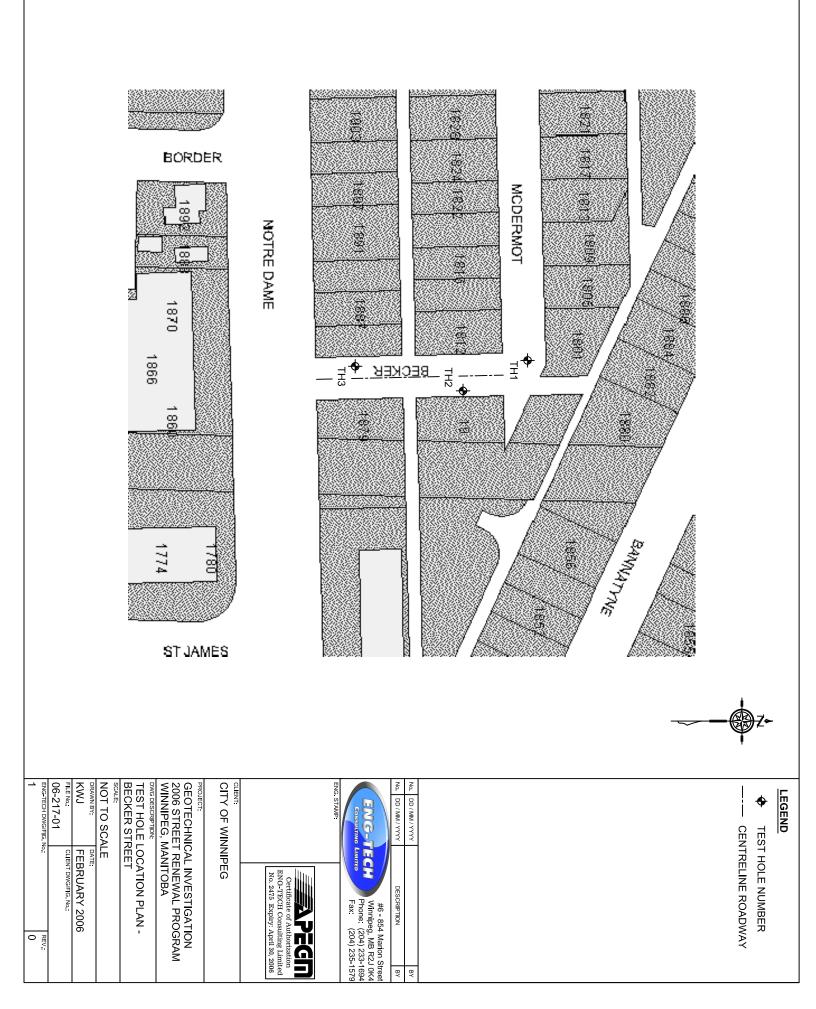
**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Guelph Avenue, Winnipeg, Manitoba

Location: 2.06 m E of W curb & 17 m N of S end of Guelph Ave.

#### Test Hole #: TH3



# **BECKER STREET**



GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

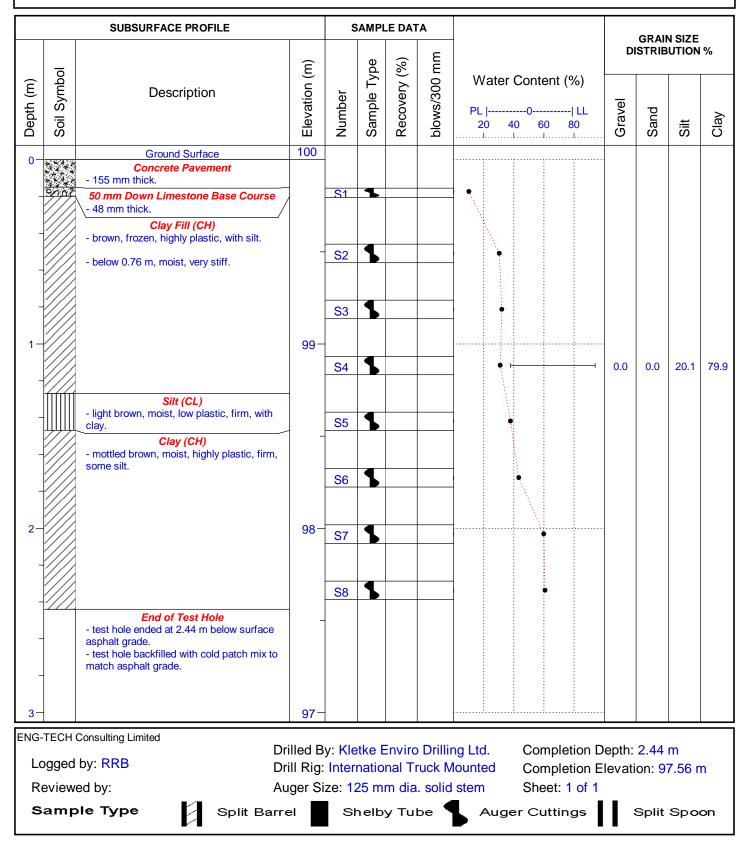
Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Becker Street, Winnipeg, Manitoba

### Test Hole #: TH1

File No: 06-217-01 Date Drilled: January 26, 2006 Grade Elevation: 100.0 m (local)

Location: 2.24 m E of W curb & 23 m N of C. of W b. I. of Notre Dame Ave. Water Elevation: --



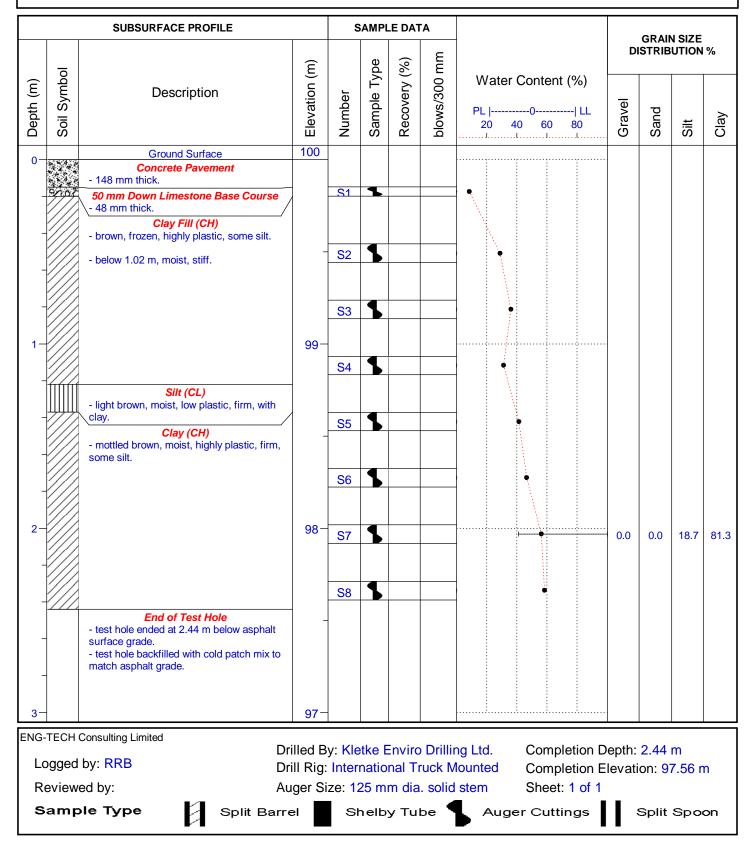
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Becker Street, Winnipeg, Manitoba

Location: 1.78 m W of E curb & 16 m S of C. of McDermot Ave. W.

#### Test Hole #: TH2



GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg

**Project:** Geotechnical Investigation - 2006 Street Renewal Program **Site:** Becker Street, Winnipeg, Manitoba

Location: 3 m E and 7 m S of fire hydrant on N end of Becker St.

#### Test Hole #: TH3

