



BORING NUMBER: Pontiac Trail B-1 PAGE 1 OF 1

CLIENT	City of Ann Arbor	PROJECT NAME Miscellaneous Geotechnical Services									
PROJEC	CT NUMBER _3122040060-2	PROJECT LOCATION Ann Arbor, Michigan									
DATE S	TARTED 11/28/12 COMPLETED 11/28/12	GROUNE	ELEVA1	TION _	N/A						
DRILLIN	G CONTRACTOR Stearns Drilling	GROUND WATER LEVELS:									
DRILLIN	G METHOD _4-1/4 inch Hollow Stem Auger	DURING DRILLING None									
LOGGE	D BY G. Geerlings CHECKED BY T. Marsik	AF	TER DRII	LLING	None						
NOTES	Boring backfilled with auger cuttings and patched.	CO	LLAPSE	DEPT	H <u>15' 6"</u>						
O DEPTH (ft)	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	A SPT N VALUE A 20 40 60 80 PL MC LL 20 40 60 80 □ FINES CONTENT (%) □ 20 40 60 80			
	5 inches ASPHALT PAVEMENT										
- - -	13 inches of dark brown moist silty fine to medium SAND gravel - (FILL) Brown moist fine to medium SAND with some silt and traggravel - (FILL)		SS 1	89	10-15-15 (30)			<u> </u>			
5	Dark brown moist sandy CLAY with silt and trace of grave	el - (FILL)	SS 2	17	6-8-9 (17)						
	Rubbelized ASPHALT with occasional clay seams and pi		SS 3	100	24-22-13 (35)						
10	Brown moist medium dense clayey fine SAND with trace and occasional clay seams - (SC) Brown moist dense fine to medium SAND with some silt,		SS 4	11	8-13-14 (27)			A			
 - 15 	gravel and occasional cobbles - (SP-SM)		SS 5	44	9-25-22 (47)						
- 20 	Brown moist dense to very dense fine SAND with silt, sor and occasional cobbles - (SM)	ne gravel	SS 6	56	12-17-22 (39)						
25	성실 사용		SS 7	100	38-47-22 (69)						
	Bottom of borehole at 25.0 feet.										

Boring performed 2' east of west edge of road, 61' north of address 3185 driveway $\,$

BORING NUMBER: Pontiac Trail B-2 PAGE 1 OF 1

CLIEN	NT _Ci	ty of Ann Arbor P	PROJECT NAME Miscellaneous Geotechnical Services									
PROJ	ECT N	IUMBER 3122040060-2 P	ROJEC	T LOCAT	ION _	Ann Arbor,	Michig	gan				
DATE	STAR	TED _10/11/12	ROUNE	ELEVA1	TION _	N/A						
DRILL	LING C	CONTRACTOR Stearns Drilling G	ROUNE	WATER	LEVE	LS:						
DRILL	ING N	IETHOD 2-1/4 inch HSA	DU	RING DR	ILLIN	3 None						
LOGG	SED B	Y G. Geerlings CHECKED BY T. Marsik	AF	TER DRII	LLING	None						
NOTE	S _Bo	ring backfilled with auger cuttings.	CC	LLAPSE	DEPT	H _15'6"						
O DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	20 PL 	PT N VAL 40 60 MC 40 60 S CONTE 40 60	80 LL 1 80 NT (%)	
_	7/1/2	12 inches of dark brown moist sandy TOPSOIL with traces o	f —									
 		Brown moist medium dense clayey fine to medium SAND wi and some gravel - (SC)	th silt	SS 1	100	7-7-7 (14)						
_		Brown moist hard sandy CLAY with silt, trace of gravel and frequent silt partings - (CL)		SS 2	100	7-9-8 (17)	4.5+	7	•			
 		Brown moist medium dense silty fine to coarse SAND with s	ome	SS 3	78	8-6-7 (13)	4.5+	9				
 10 		gravel and occasional cobbles - (SM)		SS 4	78	9-6-7 (13)						
 - 15 				SS 5	78	4-5-6 (11)						
 - 20 		Brown moist medium dense silty, clayey fine SAND with trac gravel - (SC-SM)	e of	SS 6	100	10-11-12 (23)						
- -		Brown moist medium dense silty fine SAND with traces of gr and clay - (SM)	avel	1 00		12-10-11						
25				SS 7	100	(21)			<u> </u>			
		Bottom of borehole at 25.0 feet.										

Boring performed 20' west of west edge of road, 40' north of center of Dhu Varren Road $\,$

BORING NUMBER: Pontiac Trail B-3 PAGE 1 OF 1

CTI and Associa										
	IUMBER 3122040060-2	PROJEC	T LOCAT	ION _	Ann Arbor,	Michig	gan			
DATE STAR		GROUNE		_						
DRILLING C	CONTRACTOR Stearns Drilling	GROUNE	WATER	LEVE	LS:					
DRILLING N	IETHOD 2-1/4 inch HSA	DU	RING DR	ILLING	3 13'					
LOGGED BY	Y G. Geerlings CHECKED BY T. Marsik	AF	TER DRI	LLING	None					
NOTES Bo	ring backfilled with auger cuttings and patched.	CC	LLAPSE	DEPT	H <u>16'6"</u>					
O DEPTH (ft) GRAPHIC LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	A SPT N VALUE A 20 40 60 80 PL MC LL 20 40 60 80 □ FINES CONTENT (%) □ 20 40 60 80		
	6 inches of ASPHALT PAVEMENT									
	18 inches of brown moist fine to medium SAND with some and clay - (FILL) Brown moist medium dense gravelly fine to coarse SAND	_	SS 1	100	16-11-7 (18)					
5	some clay and occasional clay lenses - (SP-SC)		SS 2	83	4-3-3 (6)			/		
	Brown moist hard CLAY with silt, traces of gravel and sand	d and	√ ss		2-3-5	-				
	occasional silt partings - (CL)		3	94	(8)	4.5+	13			
 10 	Brown moist dense fine SAND with some silt, trace of gravoccasional cobbles - (SP-SM)	vel and	SS 4	100	5-12-21 (33)	4.5+	21	• •		
	Brown wet dense sandy SILT - (ML)									
15			SS 5	100	12-14-18 (32)					
	Light brown moist dense to medium dense fine SAND with silt - (SP-SM)	some								
20	Sitt - (OI - Sivi)		SS 6	100	11-14-21 (35)			7		
 _ 25			SS 7	100	8-12-13 (25)			A		
	Bottom of borehole at 25.0 feet.									
	Paring performed 10' west of east ourh 20' south of Knigh	tobridao								

Boring performed 10' west of east curb, 20' south of Knightsbridge Circle

BORING NUMBER: Pontiac Trail B-4 PAGE 1 OF 1

CLIENT	City of Ann Arbor	PROJEC	INAME	Misce	laneous Geot	echnica	al Servic	ces			
PROJEC	T NUMBER 3122040060-2	PROJECT LOCATION Ann Arbor, Michigan									
DATE ST	ARTED _10/12/12	GROUNI	ELEVA [*]	TION _	N/A						
DRILLIN	CONTRACTOR Stearns Drilling	GROUNI	WATER	LEVE	LS:						
DRILLIN	METHOD 2-1/4 inch HSA	DURING DRILLING None									
LOGGED	BY G. Geerlings CHECKED BY T. Marsik	AFTER DRILLING None									
NOTES	Boring backfilled with auger cuttings.	COLLAPSE DEPTH None									
O DEPTH (ft)	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	A SPT N VALUE A 20 40 60 80 PL MC LL 20 40 60 80 □ FINES CONTENT (%) □ 20 40 60 80			
70	2 inches of dark brown TOPSOIL										
	Brown moist medium dense silty, sandy GRAVEL - (GM)		SS 1	94	8-9-12 (21)						
5	Brown moist hard CLAY with silt, traces of gravel and sand frequent silt partings - (CL)	and	SS 2	100	11-15-17 (32)	4.5+	7	• 1			
			SS 3	100	11-18-22 (40)	4.5+	9	•			
10			SS 4	100	13-21-33 (54)	4.5+	8	• •			
	Light brown moist dense to medium dense fine SAND with		√ ss	100	12-22-22	4.5+	8				
15 	silt - (SP-SM)	some	5	100	(44)	4.0		7			
20			SS 6	100	10-9-18 (27)						
25	Bottom of borehole at 25.0 feet.		SS 7	100	12-17-17 (34)			A			
	bollom of dorenole at 25.0 feet.										

Boring performed 15' west of west edge of road, 260' north of driveway to address 2735 Pontiac Trail

BORING NUMBER: Pontiac Trail B-5 PAGE 1 OF 1

CLIENT _C	ity of Ann Arbor	PROJECT NAME _Miscellaneous Geotechnical Services									
PROJECT	NUMBER 3122040060-2	PROJEC	T LOCAT	ION _	Ann Arbor,	Michi	gan				
DATE STA	RTED 11/29/12 COMPLETED 11/29/12	GROUNE	ELEVA1	TION _	N/A						
DRILLING	CONTRACTOR Stearns Drilling	GROUND WATER LEVELS:									
DRILLING	METHOD 4-1/4 inch Hollow Stem Auger	DURING DRILLING 13' 6"									
LOGGED E	Y G. Geerlings CHECKED BY T. Marsik	AFTER DRILLING 13'									
NOTES B	oring backfilled with auger cuttings.	COLLAPSE DEPTH 14'									
O DEPTH (ft)	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	20 40		0 0 %) □	
	6 inches of brown moist silty fine to medium SAND with gra	vel							: :		
	\ (FILL) Brown moist fine to medium SAND with some gravel and si (FILL)	t -	SS 1	89	6-7-3 (10)	0.75	17				
├ Ж	Brown moist CLAY with silt, traces of gravel and sand and occasional silt seams - (FILL)		\								
5	Brown moist silty fine SAND with trace of gravel and occasi clay lenses - (FILL)	onal	SS 2	83	3-5-5 (10)	-					
	Brown moist loose fine to medium SAND with some silt, tra gravel and occasional organic clay seams - (SP-SM/Poss. I Loss-on-Ignition (organic content) = 3.5%		SS 3	83	2-5-4 (9)		28	•			
10	Brown moist stiff CLAY with silt, traces of gravel and sand a occasional silt seams - (CL)	and	SS 4	100	2-3-4 (7)	1.25	21	†			
			X 4								
15	Brown wet very loose to medium dense fine to medium SAI some silt and occasional clay lenses - (SP-SM)	ND with	SS 5	78	1-0-0 (0)		4				
			√ ss	100	7-9-7	-					
_ 20			6	100	(16)			7			
	Gray wet loose clayey fine to medium SAND with trace of g and occasional clay seams - (SC)	ravel	SS 7	83	2-2-2 (4)			A			
	Bottom of borehole at 25.0 feet.										

Boring performed 4' east of east edge of road, 2 feet north of address 2672 driveway $\,$

BORING NUMBER: Pontiac Trail B-6 PAGE 1 OF 1

CLIENT	City	y of Ann Arbor PROJ	PROJECT NAME Miscellaneous Geotechnical Services								
PROJEC	CT NU	JMBER 3122040060-2 PROJ	IECT	LOCAT	ION _	Ann Arbor,	Michig	gan			
DATE S	TART	TED	JND	ELEVA	TION _	N/A					
DRILLIN	IG CC	ONTRACTOR Stearns Drilling GROU	JND	WATER	LEVE	LS:					
DRILLIN	IG ME	ETHOD 4-1/4 inch Hollow Stem Auger	DUR	RING DR	ILLING	None None					
LOGGE	D BY	G. Geerlings CHECKED BY T. Marsik	AFT	ER DRII	LLING	None					
NOTES	Bori	ing backfilled with auger cuttings.	COL	LAPSE	DEPT	H <u>17'</u>					
O DEPTH (ft)	POO LOG	MATERIAL DESCRIPTION		SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	A SPT N VALUE A 20 40 60 80 PL MC LL 20 40 60 80 □ FINES CONTENT (%) □ 20 40 60 80		
		6 inches of brown moist silty fine to medium SAND with gravel - (FILL)	\mathcal{A}								
		Brown moist loose fine to coarse SAND with some gravel and sil (SP-SM)	it -	SS 1	78	6-5-4 (9)			<u> </u>		
- 5		Brown moist loose fine to coarse SAND with some gravel and cla-(SP-SC)	ay /	SS 2	56	3-4-4 (8)			A		
 - 10		Brown moist loose fine SAND with some silt and trace of gravel (SP-SM)	- (SS 3	89 78	3-4-5 (9) 3-3-4 (7)			1		
		Brown moist medium dense fine to medium SAND with silt and some gravel - (SM)		SS 5	89	4-8-9 (17)					
20		Brown moist medium dense fine to medium SAND with some gravel, trace of silt and occasional cobbles - (SP)		SS 6	67	6-7-10 (17)					
25		Bottom of borehole at 25.0 feet.		SS 7	56	9-11-9 (20)					
		25.00 5. 55/5/10/0 41 20.0 1001.									

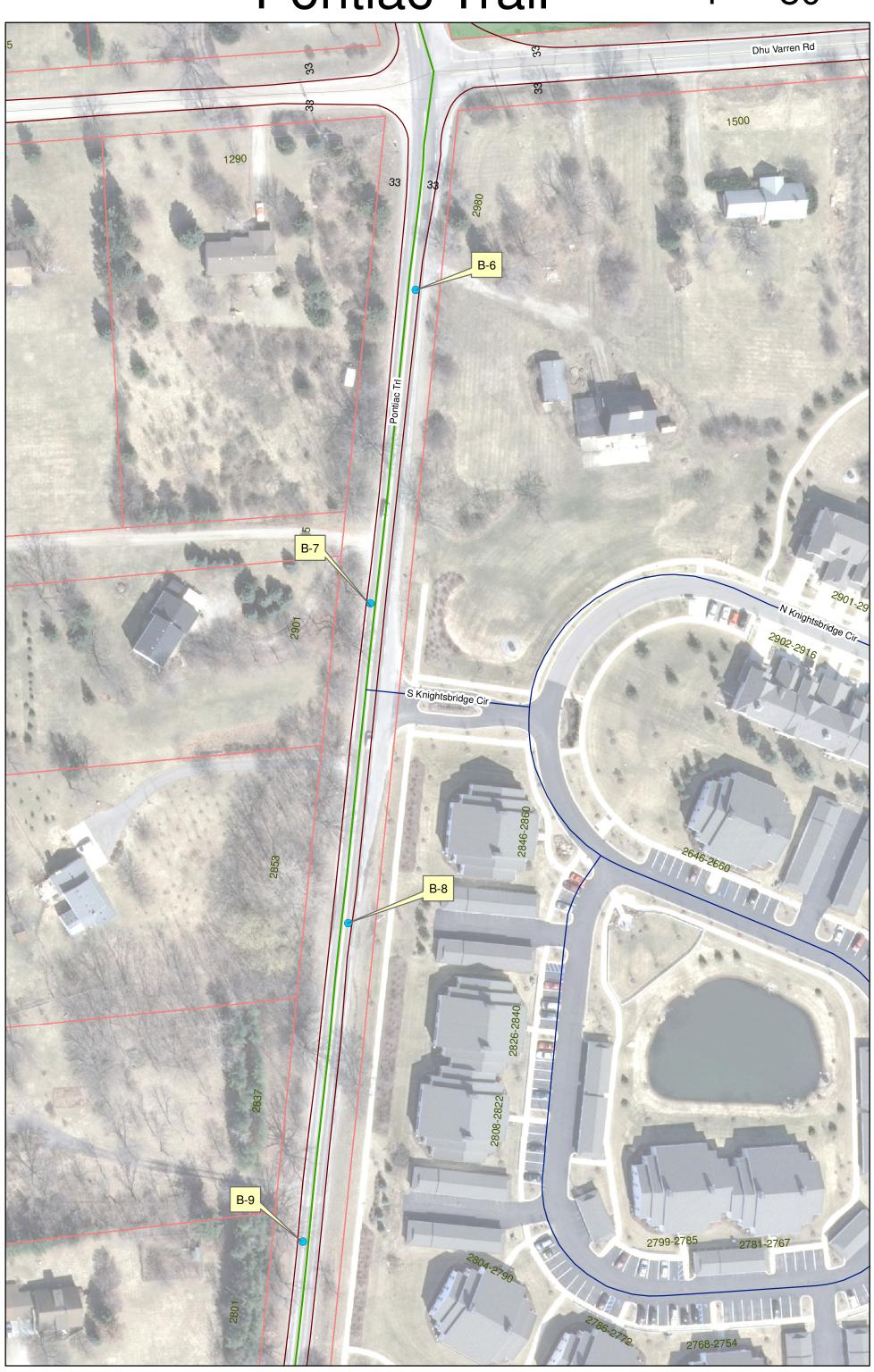
Boring performed 1' east of east edge of road, 65' south of address 2600 driveway $\,$

BORING NUMBER: Pontiac Trail B-7 PAGE 1 OF 1

	ociates, Inc.										
CLIENT	City of Ann Arbor										
PROJEC	T NUMBER _3122040060-2	PROJEC	T LOCAT	ION _	Ann Arbor,	Michi	gan				
DATE ST	ARTED 11/29/12 COMPLETED 11/29/12	GROUNE	ELEVAT	LION _	N/A						
DRILLING	CONTRACTOR Stearns Drilling	GROUND	WATER	LEVE	LS:						
DRILLING	METHOD 4-1/4 inch Hollow Stem Auger	DURING DRILLING None									
LOGGED	BY G. Geerlings CHECKED BY T. Marsik	AFTER DRILLING None									
NOTES	Boring backfilled with auger cuttings and patched.	CC	LLAPSE	DEPT	H 21' 6"						
o DEPTH (ft) GRAPHIC			SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	PL MC L 20 40 60	80 .L I 80		
	6 inches of ASPHALT PAVEMENT 6 inches of dark brown moist silty fine to medium SAND w	vith									
L 🐰	gravel - (FILL)		SS 1	89	6-9-7 (16)						
	12 inches of gray moist fine to coarse SAND and GRAVEI		/ \ '		(10)	1					
	Brown moist medium dense silty fine sand with traces of g and clay and occasional clay seams - (SM)	ıraveı	√ ss		4-5-7	1					
5			2	94	(12)						
	Brown moist loose silty fine SAND - (SM)		√ ss	100	3-5-5				:		
			3		(10)						
	校 校		ss		4-5-5	-					
10	사진 사항		4	89	(10)			 			
			,			1	İ				
	(名) 投										
	Brown moist to very moist loose sandy SILT - (ML)										
			1 00		4.4.4	-	25				
15	Light brown moist loose fine to medium SAND with some	gravol	SS 5	94	4-4-4 (8)						
	trace of silt and occasional silt lenses - (SP)	graver,				1					
	(현) (현)										
	Brown moist medium dense to loose fine to medium SANI) with	1 00		0.50	-					
20	some gravel and silt - (SP-SM)	J WILLI	SS 6	44	3-5-6 (11)			 			
	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					1					
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
t Tis			1			-					
25			SS 7	67	5-4-5 (9)						
	Bottom of borehole at 25.0 feet.		v V		\.' <i>\</i>	-			<u> </u>		
1		_									

Boring performed 11' west of east edge of road, 61' south of address 2520 driveway $\,$









1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT1 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/21/2011

Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
	LS	15 16	.25	ASPHALT (3")	4.7	94	
2.5-	LS	12	3	Medium Compact Moist Brown Gravelly Well Graded Sand With Some Clay-FILL		440	
5.0		6 9/4"	5	Medium Compact Moist Brown Clayey SAND With Trace Of Gravel & Clay Layers	5.8	112	
7.5				Bottom of Borehole at 5'			
10.0							
12.5							***************************************
15.0							
17.5	:						
20.0-							
22.5							:
-							

[&]quot;N" - Standard Penetration Resistance

SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H2O, % of dry weight d - Bulk Density, pof qu - Unconfined Compression, psf DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT1 Pontiac Trail



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT2 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/21/2011

Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	10 13 10	.38	ASPHALT (4 1/2") Medium Compact Moist Brown Gravelly Well Graded Sand With Some Clayey Seams-FILL	5.5	93	
5.0	L\$	4 9/5"	5		5.7	97	
7.5			A CONTRACTOR OF THE CONTRACTOR	Bottom of Borehole at 5'			
10.0							
12.5	T TOTAL PROPERTY OF THE PARTY O		THE PARTY OF THE P			•	
15.0							
17.5 -	1177 A 117 A			·			
20.0 —							
22.5							

Water Encountered: None

At Completion: None

Boring No. PT2 Pontiac Trail

[&]quot;N" - Standard Penetration Resistance SS -2").D. Split Spoon Sample LS - Sectional Liner Sample ST - Shelby Tube Sample AS - Auger Sample

w - H2O, % of dry weight d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT3 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

One

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/21/2011 Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5-	LS	15 11 11	.27	ASPHALT (3 1/4") Medium Compact Moist Brown Gravelly Well Graded Sand With Some Clay-FILL	7.1	99	
5.0	LS	4 5 6	4 5	Medium Compact Moist Brown Fine SAND Firm Moist Brown CLAY With Some Silt & Trace Of Gravel	15.5	103	
7.5—				Bottom of Borehole at 5'			
10.0							
12.5							
15.0 —							
17.5							
20.0							
22.5—							

[&]quot;N" - Standard Penetration Resistance
SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample

w - H2O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT3 Pontiac Trail

SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT4 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/21/2011

Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	6 7 5	.54 1.5 3	ASPHALT (6 1/2") Medium Compact Moist Brown Clayey Medium To Fine SAND With Trace Of Gravel	16.3	125	3300
5.0—	LS	6 7 7	5	Firm Moist Brown CLAY With Some Silt & Trace Of Gravel Medium Compact MOist Brown Medium SAND	5.6	104	
7.5 —				Bottom of Borehole at 5'			
10.0							
12.5			September 1				
15.0 -							
17.5-							
20.0-							
22.5		;					

[&]quot;N" - Standard Penetration Resistance

Water Encountered: None

At Completion: None

Boring No. PT4 Pontiac Trail

SS -2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H2O, % of dry weight d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-É-S-T-I-Ñ-G Fax (248) 588-6232

Boring No.: PT5 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

One

Client: City of Ann Arbor

Location: Ann Arbor, Michigan

Type of Rig: Truck

Drilled By: I. Mickle

Drilling Method: Solid Stem Augers

Ground Surface Elevation:

Started: 12/21/2011 Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	3 4 5	.29 3	ASPHALT (3 1/2") Loose Moist Brown Well Graded Sand With Some Gravel & Clay-FILL	14.3	124	1400
5.0	LS	6 8 9	5	Medium Compact Moist Brown Fine To Medium SAND With Trace Of Gravel	5.2	101	
7.5				Bottom of Borehole at 5'			
10.0							
12.5							TOTAL STATEMENT AND
15.0							
17.5-							
20.0—			111111111111111111111111111111111111111				
-							

[&]quot;N" - Standard Penetration Resistance
SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample

w - H2O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

Water Encountered: None

At Completion: None

Boring No. PT5 Pontiac Trail



Testing Engineers & Consultants, Inc. 1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT6 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

One

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	9 9 6	.60	ASPHALT (7 1/4") Medium Compact Moist Brown Well Graded Sand With Some	6.5	106	
5.0	LS	5 7 9	3 5	Gravel & Clay-Fil_L Medium Compact Moist Brown Medium SAND With Trace Of Gravel	4.6	112	
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5—							
20.0	W. W						
22.5-	177 THE BOOK OF TH						

[&]quot;N" - Standard Penetration Resistance SS - 2").D. Split Spoon Sample LS - Sectional Liner Sample ST - Shelby Tube Sample

AS - Auger Sample

w - H2O, % of dry weight d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT6 Pontiac Trail



Testing Engineers & Consultants, Inc. 1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT7 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	9 9 9	.58	ASPHALT (7") Medium Compact Moist Brown Well Graded Sand With Some Gravel & Clay-FILL	7.6	122	
5.0	L\$	5 6 6	4 5	Medium Compact Moist Brown Fine SAND With Trace Of Gravel	3.9	125	
7.5				Bottom of Borehole at 5'			
10.0—							
15.0							
17.5							
20.0							
22.5	· · · · · · · · · · · · · · · · · · ·						

"N" - Standard Penetration Resistance

SS -2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H2O, % of dry weight d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT7 Pontiac Trail



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT8 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	đ	qu
2.5	LS	9 10 6	.54	ASPHALT (6 1/2") Medium Compact Moist Brown Clayey SAND With Some Gravel & Pebbles	7.4	124	
5.0	LS	6 7 12	5	Bottom of Borehole at 5'	10.5	130	
7.5 —							
10.0							
12.5							
15.0— - - 17.5⊸							
20.0	The state of the s						
22.5	THE PROPERTY OF THE PROPERTY O						
_ - -							

[&]quot;N" - Standard Penetration Resistance
SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H2O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT8 Pontiac Trail



Testing Engineers & Consultants, Inc. 1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT9 Pontiac Trail

Job No.: 51989

Project: Miscellaneous Geotechnical Services, Bundle

One

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickle

Ground Surface Elevation:

Started: 12/7/2011

Completed: 12/7/2011

		,	Completed. (2/7/2011						
Depth (ft)	Sample Type	N	Strata Change	Soil Classification	W	d	qu		
2.5	LS	4 4 2/2"	.56 3.4	ASPHALT (6 3/4") Loose Moist Brown Clayey SAND With Some Gravel	12.5	109			
5.0~				On Possible Utility At 2.2'. Moved 3.5' North & Redrilled, Possible Utility At 3.4' Bottom of Borehole at 3.4'					
7.5 <i>-</i>									
10.0									
12.5 - - 12.5									
15.0									
17.5									
20.0									
22.5									

"N" - Standard Penetration Resistance SS - 2"),D. Split Spoon Sample LS - Sectional Liner Sample ST - Shelby Tube Sample AS - Auger Sample

w - H2O, % of dry weight d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push

Water Encountered:

At Completion:

Boring No. PT9 Pontiac Trail



Testing Engineers & Consultants, Inc. 1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT10 Pontiac Trail

Job No.:

Project: Miscellaneous Geotechnical Services, Bundle

Client: City of Ann Arbor

Type of Rig: Truck

Location: Ann Arbor, Michigan

Drilling Method: Solid Stem Augers

Drilled By: I. Mickie

Ground Surface Elevation:

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	7 5 4	.56 2 3	ASPHALT (6 3/4") Medium Compact Moist Brown Clayey Medium To Fine SAND With Trace Of Gravel	4.9	128	
5.0-	LS	7 8 9	5	Loose Moist Brown Clayey SAND With Trace Of Gravel Stiff Moist Brown CLAY With Some Silt & Trace Of Gravel	11.1	130	5600
7.5—				Bottom of Borehole at 5'			
10.0-							
12.5— - -				.*			
15.0							
17.5—							
20.0—							
22.5							

[&]quot;N" - Standard Penetration Resistance SS - 2").D. Split Spoon Sample LS - Sectional Liner Sample ST - Shelby Tube Sample AS - Auger Sample

w - H2O, % of dry weight

d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT10 Pontiac Trail



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT11 Pontiac Trail 51989

Job No.:

Project: Miscellaneous Geotechnical Services, Bundle

One

Client: City of Ann Arbor

Type of Rig: Truck

Drilling Method: Solid Stem Augers

Ground Surface Elevation:

Location: Ann Arbor, Michigan

Drilled By: I. Mickie

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	10 7 7 7 4/1"	.35 2.5 3.6	ASPHALT (4 1/4") Medium Compact Moist Dark Brown Clayey Medium To Fine SAND With Trace Of Gravel	4.3	120	
5.0		-01		Medium Compact Moist Brown Clayey SILT & Sand Bottom of Borehole at 5'			
7.5— 7.5—							
10.0							
12.5	To the second se						
15.0							
17.5	A control of the cont					***************************************	
20.0— - - - 22.5—				. :			
22.0							

"N" - Standard Penetration Resistance
SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample

w - H2O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push

SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

Water Encountered: None

At Completion: None

Boring No. PT11 Pontiac Trail



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT12 Pontiac Trail 51989

Job No.:

Project: Miscellaneous Geotechnical Services, Bundle

One

Client: City of Ann Arbor

Type of Rig: Truck

Drilling Method: Solid Stem Augers

Ground Surface Elevation:

Location: Ann Arbor, Michigan

Drilled By: I. Mickle

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	6 6 5	.63 1.3	ASPHALT (7 1/2") Moist Brown Gravelly Well Graded Sand With Some Clay-FILL	10.1	123	
5.0	LS	2 3 3	5	Medium Compact Moist Brown Clayey SILT & Sand Plastic Moist Variegated CLAY With Some Silt & Trace Of Sand	15.8	115	1400
7.5—			-	Bottom of Borehole at 5'			
10.0							
12.5							
15.0-							
17.5—				·			
20.0-							
22.5 - -							
-							

"N" - Standard Penetration Resistance
SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H2O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT12 Pontiac Trail



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT13 Pontiac Trail 51989

Job No.:

Project: Miscellaneous Geotechnical Services, Bundle

Client: City of Ann Arbor

Type of Rig: Truck

Drilling Method: Solid Stem Augers

Ground Surface Elevation:

Location: Ann Arbor, Michigan

Drilled By: I. Mickle

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	10 9 11	.48 .83	ASPHALT (5 3/4") Moist Brown Gravelly Well Graded Sand With Some Clay-FILL	10.6	103	
5.0	LS	4 6 6	5	Medium Compact Moist Brown Fine SAND Bottom of Borehole at 5'	3.6	105	
7.5							
10.0							
12.5							
15.0							
17.5					i		
20.0 — - - - 22.5 —							
22.5							

[&]quot;N" - Standard Penetration Resistance

S - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

w - H2O, % of dry weight

d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT13 Pontiac Trail



1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249 (248) 588-6200 or (313) T-E-S-T-I-N-G Fax (248) 588-6232

Boring No.: PT14 Pontiac Trail

Job No.:

Project: Miscellaneous Geotechnical Services, Bundle

One

Client: City of Ann Arbor

Type of Rig: Truck

Drilling Method: Solid Stem Augers

Ground Surface Elevation:

Location: Ann Arbor, Michigan

Drilled By: I. Mickle

Started: 12/7/2011

Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
2.5	LS	12 12 11	.38 .83	ASPHALT (4 1/2") Moist Brown Gravelly Well Graded Sand With Some Clay-FILL (5 1/2")	3.3	106	
5.0	LS	5 5 4	5	Medium Compact Moist Brown Fine SAND With Trace Of Gravel	6.7	107	
7.5				Loose Moist Brown Fine SAND With Silt Layers Bottom of Borehole at 5"			
10.0							
12.5				-			
15.0							
17.5—	The state of the s						
20.0-							
22.5— -					- TOTAL MANAGEMENT AND		1

"N" - Standard Penetration Resistance
SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample

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W - H2O, % of dry weight
d - Bulk Density, pcf
qu - Unconfined Compression, psf
DP - Direct Push

SS - 2").D. Split Spoon Sample
LS - Sectional Liner Sample
ST - Shelby Tube Sample
AS - Auger Sample

Water Encountered: None

At Completion: None

Boring No. PT14 Pontiac Trail