						CLIENT: WMSRDC		LOG O	F B	ORING NUMBEI	R B-1		
$\mid G$	ìΕ	Co	nsult	tants		PROJECT NAME: Muskegon Lake	- Veterans Park	ENGIN			nts of M	lichigan	n, P.C.
					LOC	ATION: Muskegon,		.		UNCONFINED CO	OMPRESS	SIVE STRE	ENGTH
DEPTH (FT)	SAMPLE NO.	MPLE TYPE	SAMPLE DISTANCE	COVERY		DESCRIPT	ΓΙΟΝ OF MATERIAL		Dry Unit Weight	PLASTIC LIMIT (%) CC X———————————————————————————————————	WATER DNTENT (*	may be gradual. may be gradual.	O (%)
\boxtimes	SA	SA	SA	R	SUR	FACE ELEVATION	(ft)		٦	10 20			
					\$ 37 97 37 57	Topsoil - dark brown	1						
-	1	SS				1.0 Fill: sand with fly-as	h - black - medium dense - moist			10 8			
- 5	2	SS											
-	3	SS				5.0 Fine to medium sand (SP-SM)	d with silt - gray - very loose - wet			2 8			
10	4	SS								2			
01/22/1	5	SS				- Wood timber enco	untered from 14.0 feet to 18.0 feet			3°⊗		45 Ø	
- 20					2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		s - black - wet (Pt)						
- 25	7	SS				23.5 Fine to medium sand loose to medium der	d with silt and clay pockets - gray - nse - wet (SP-SM)	very		8			
DGXWWW 0004141	8	SS) 15 			
, LOC	The s	tratif	fica	tion	lines	represent the approx	ximate boundary lines between s	soil types	s: in	situ, the transition	n may be	e gradua	l.
WAT	ER LE	VEL:	6.	0 ft.	WS		BORING STARTED 11/7/2016	GEI OI		Allendale, M			
0 0 0 0	- 1 · -					OTINO	BORING COMPLETED 11/7/2016	ENTER		ABY			
NOR	THING				EA	STING	RIG/FOREMAN CME 55/Stearns (Mike)			CT NO. 4800	PAGE	E NO. 1 (OF 2

CLIENT: WMSRDC					LOG OF BORING NUMBER B-1												
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G	Ы	(0	nsul	tants		PROJECT NAME: Muskegon Lake - Veterans Park				ENGINEER GEI Consultants of Michigan, P.0							
	-		11301	lant.								СОМ	PRESSI		RENGTH		
F			ш			CATION: Muskegon,	Michigan			,		TOI 2	NS/FT ²	4	5		
DEPTH (FT) ELEVATION (FT)	느		S								ASTIC	1	ATER	1	Ŭ UID		
DEPTH (FT) ELEVATION		뛴	STA			DESCRIPT	TION OF MATERIAL		Dry Unit Weight			CON	TENT (%				
H K	Ž	SAMPLE TYPE		F		DEGOIGHT	ION OF WATERIAL		We	1	$_0 \times _{\bar{2}}$	 20	- ●	- — <u></u>	50		
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	SAMPLE NO	AM	SAMPLE DISTANCE	Ö	OLIF				ارار	⊗ STANDARD PENETRATION BLOWS/F							
		S	ဟ	œ	5UF	RFACE ELEVATION	(π)			1	0 2	20 T	30 -	40 :	50 6		
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-										/							
-						33.0				/							
-	9	SS				Lean clay with silt - o	gray - very soft (CL)			2							
35			Ш							Ø 0.25							
33																	
-										!							
-										1							
-										<u> </u>							
	10	SS	\vdash	П						 1							
Г				Н						⊗ ! 0.25							
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-	L.		L							:							
-	11	SS		Ш						3 0.25							
45			Ш	_						0.25							
45 																	
-						48.0	40.0										
_	12	SS				Fine to medium sand	d with silt - gray - very loose - wet			.2 ⊗							
						(SP-SM)				∞							
50						50.0											
-						End of Boring Boring advanced to	50.0 feet with hollow-stem auger										
-						Installed 2" diameter place	PVC casing to 48.5 feet and ground	ted in									
_						place											
55																	
F																	
	<u> </u>	<u> </u>	L	<u> </u>	<u> </u>	<u> </u>								<u> </u>	<u> </u>		
Т	he s	tratif	ica	tior	lines	represent the approx	ximate boundary lines between s	soil type	s: in	situ, th	e trans	sition i	may be	gradua	al.		
WATER NORTH	DIE/	/E1 ·	6	O f+	We		BORING STARTED	GEI C	FFIC	E							
VVAIE	IX LEV	v L L.	U.	.o il	. ۷۷3		11/7/2016 BORING COMPLETED	ENTE		All	endale		PROVE	D RY			
Noss						OTINO	11/7/2016			A	BY		HEP				
NORTH	HING				ΕA	ASTING	RIG/FOREMAN CME 55/Stearns (Mike)	GEI PI		CT NO. 4800			PAGE	NO. 2	OF 2		
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CLIENT:								LOG OF	BORING	NUMBE	R B	-2				
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	E	Со	nsult	tants	s	PROJECT NAME: Muskegon Lake - Veterans Park			ENGINEER GEI Consultants of Michigan,							
					100	CATION: Muskegon,				NFINED C	OMPRE	SSIVE				
l F	0.		兴			ATION. Muskegon,	Wilchigan		.	1 2	TONS/F 3	4	5			
DEPTH (FT) ELEVATION (FT)		SAMPLE TYPE	ISTANC	RECOVERY		DESCRIPT	TION OF MATERIAL	**************************************		ASTIC IIT (%) C	WATE ONTEN	R T (%)				
IF ₩	Z Щ	щ	Щ	ÆR				Ž	<u></u>	0 × -	30	40	. <u>≁</u> 50)		
	SAMPLE NO	MPL	MPL	8				= =	5		חבאובז		N DI O	WC/ET		
\boxtimes	SA	SA	SAI	뿞	SUF	RFACE ELEVATION	(ft)	ć	<u>کے ا</u> کے ا	0 20	RD PENETRATION BLOWS/ 20 30 40 50					
					1/ 1/1/ 1/	Topsoil - dark brown										
-	1	SS				1.0			1							
+						Fine to medium sand moist (SP-SM)	d with silt - gray - very loose to loos	se -	⊗ :							
+									1							
-	2	SS				- small roots at 3.5 fe			\4 ⊗							
— 5						- wet from 4.0 feet to	20.0 feet		4							
						80 80 80 80										
	3	SS							3 ⊗							
-		00	ļ.,													
-	4	SS							;6 ⊗							
10			\coprod													
									;							
2/16	_	00	ļ.,						i							
- 11/2	5	SS				- dark brown clay po	ckets from 13.5 feet to 20.0 feet		\$ 2							
DATA TEMPLATE.GDT 11/22/16			\perp													
¥ -																
EMP																
TAT									į							
	6	SS	<u> </u>													
2 2	6								^{1.5} ⊗							
^迈 世 20					25411	20.0					-					
<u> </u>						End of Boring	20.0 foot with hollow stom augor									
- MARC						Boring backfilled with	20.0 feet with hollow-stem auger h soil cuttings									
- -																
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∑ ⊝ —25																
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1414800 WMSRDC MUSKEGON LAKE - HEP - MARQUETTE.GPJ GEI																
7 JG	he e	tratif	fica.	tion	lines	represent the approx	ximate boundary lines between s	soil types.	in situ th	e transiti	on mar	he ar	adual			
						, торгозені іне арріо.	· · · · · · · · · · · · · · · · · · ·			io ii ai ioilli	on may	be gi	uuuai.	•		
WIDWEST BORING LOG	R LE\	/EL:	4.	.0 ft	. WS		BORING STARTED 11/7/2016	GEI OFI	Al	lendale, N		N. /==				
EST							BORING COMPLETED 11/7/2016	ENTERI		В	APPRO	OVED E	3Y			
NORTH	HING				E/	ASTING	RIG/FOREMAN CME 55/Stearns (Mike)		DJECT NO. 414800		PA	AGE NO	0. 1 0	F 1		
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