

Location MW-5 (DEEP)		Date(s) Drilled 12/16/14		Drilling Contractor CASCADE		Bearing (Azimuth)	
Ground Surface Elevation (ft) 66.86 AMSL		Logged by A. KHALIL/141		Drill Rig Type ProSonic 600T		Plunge (Degrees) Vert	
Horizontal/Vertical Datum +36.71 806° -121.77460°		Reviewed by		Borehole Diameter (in) 12" -		Total Depth (ft)	
Sample Information				<div>CONFIDENTIAL DRAFT</div> <div>Subject to Revision</div> <div>MATERIAL DESCRIPTION</div> <div>SOIL COLOR</div>			
Geologic Unit							
Depth (ft)	Notes	Penetration (Grainic)	Type and No.	Blows per 6 in	Penetration (in)	Recovery (in)	

HAND-AGED TO 5' BGS	0						SAND (TOP SOIL): 95% SAND + 5% SILT; F-M; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; LOW DENSITY; MOIST; (QFM); ORGANIC	7.5 YR 2.5	1'
	1							Very DARK BROWN	
SHORT RPT 20' BGS	2								1'
	3						SAND: 100% SAND; F. w/ TRACE M; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST (Q.F.).	7.5 YR 4/6	
	4							STRONG BROWN	8'
	5								
	6								8'
	7						SAND: 100% SAND; MOW/TRACE F; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST; (Q.F.).	10 YR 4/4	
	8							YELLOWISH-BROWN	14'
	9								
SET 12" CONDUCTION CASING FROM 0-20' BGS	10								17'
	11						SAND: 100% SAND; F-M. w/TRACE C.; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST; (Q.F.).	10 YR 5/6	
CONT. w/ 10 5/4" COND CASING	12							YELLOWISH-BROWN	22'
	13								
	14								28'
	15						SAND w/ CLAY: 85% SAND; 10% CLAY; 5% SILT; F-M; POORLY GRADED; SUBANG-SUBRND; L-M PLASTICITY; L DENSITY; MOIST; (Q.F.). UNCONSOLIDATED;	7.5 YR 4/6	
STOP CORE 27' BGS ON 12/16/14	16							STRONG BROWN	
	17								22'
	18						CLAYEY SAND: 75% SAND; 20% CLAY; 5% SILT; F-M, POORLY GRADED, SUBANG-SUBRND; M. PLASTICITY; L DENSITY; MOIST; (Q.F.). UNCONSOLIDATED	7.5 YR 5/6	
	19							STRONG BROWN	22'
	20								
	21								28'
	22								
	23								28'
	24						SAND w/ SILT & TRACE CLAY: SAND: 85% SAND; 10% SILT; 5% CLAY; F-M; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MEDIUM PLASTICITY; L-M DENSITY; MOIST; (Q.F.).	10 YR 4/4	
	25							YELLOWISH BROWN	28'
	26								
	27								28'
	28								
	29								28'
	30						SAND: 100% SAND; VF-F GRAINED, POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST; (QFM).	10 YR 6/8	
								BROWNISH-YELLOW	

NOTE: SP (USCS) = POORLY GRADED = WELL SORTED

Location	MW-5 DEEP	Date(s) Drilled	12/17/14	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)	66ft AMSL	Logged by	A. KHALIGHI	Drill Rig Type	P.S. 600T	Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in)	12" → 10 3/4"	Total Depth (ft)	
				<b>CONFIDENTIAL DRAFT</b> Subject to Revision MATERIAL DESCRIPTION			
Depth (ft)	Notes	Sample Information					SOIL COLOR
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit

MGA SAMPLE 30'-31'

37'-27' CORE

47'-37' CORE

MGA SAMPLE 46'-47'

STOP ON 12/17/14

57'-47' CORE

67'-57' CORE

30									
31	X								
32									10 YR 6/8
33			SP						BROWNISH-YELLOW.
34									
35									
36									
37	X								← SAME AS ABOVE (SAND), MOIST-WET
38									
39									
40									
41									
42			SP						
43									SAND: 95% SAND + 5% SILT; VF-F; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST-WET (QFM).
44									
45									
46	X		SP						SAME AS ABOVE.
47	X								10 YR 4/6 DARK YELLOWISH-BROWN
48									
49									
50			SM						SILTY SAND; 20% SAND + 20% SILT; VF-F; POORLY GRADED; SUBANG-SUBRND; NON-PLASTIC; UNCONSOLIDATED; MOIST-WET (QFM).
51									10YR 4/1 DARK GRAY
52									
53			ML						SILT W/ CLAY & SAND: 60% SILT + 30% CLAY + 10% SAND; VF-F; POORLY GRADED; SUBANG-SUBRND; MEDIUM PLASTICITY; HIGH DENSITY; MOIST (QFM). "BLACK ASH SPOTS"
54									10YR 5/1 GRAY
55									
56			SM						SILTY SAND; 70% SAND + 30% SILT; VF-F; POORLY GRADED; SUBANG-SUBRND; NON-PLASTIC; UNCONSOL.; MOIST (QFM).
57			SP						10YR 3/1 VRY DARK GRAY
58									SAND; 100% SAND; VF-F; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST-WET; (QFM).
59			CL						10YR 3/4 DARK YELLOWISH-BROWN
60									CLAY: 65% CLAY + 30% SAND + 5% SILT; VF-F; POORLY GRADED; SUBANG-SUBRND; MEDIUM PLASTICITY; VRY DENSE, MOIST.
									CLAY W/ SAND/SILT: 90% CLAY + 5% SAND + 5% SILT; VF-F; POORLY GRADED; SUBANG-SUBRND; MED-HIGH PLASTICITY; VRY DENSE; MOIST.

FROM 0' TO 47' BGS, DRILLERS MISTAKENLY USED A 7-INCH DIAMETER CORE BARREL.

FROM 47' & DOWN, DRILLERS USED 6-INCH DIAMETER CORE BARREL.

NOTE: From 0'-47', SOIL INSIDE CORE BOXES ARE **NOT** REPRESENTATIVE WITH RESPECT TO DEPTH.



Location	MW-5 (DEEP)	Date(s) Drilled	12/18/14	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)	66 ft AMSL	Logged by	A. KHALIGHI	Drill Rig Type	GOOT	Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in)	12" → 10 3/4"	Total Depth (ft)	

Depth (ft)	Notes	Sample Information					Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)			

**CONFIDENTIAL DRAFT**

Subject to Revision

MATERIAL DESCRIPTION

SOIL COLOR

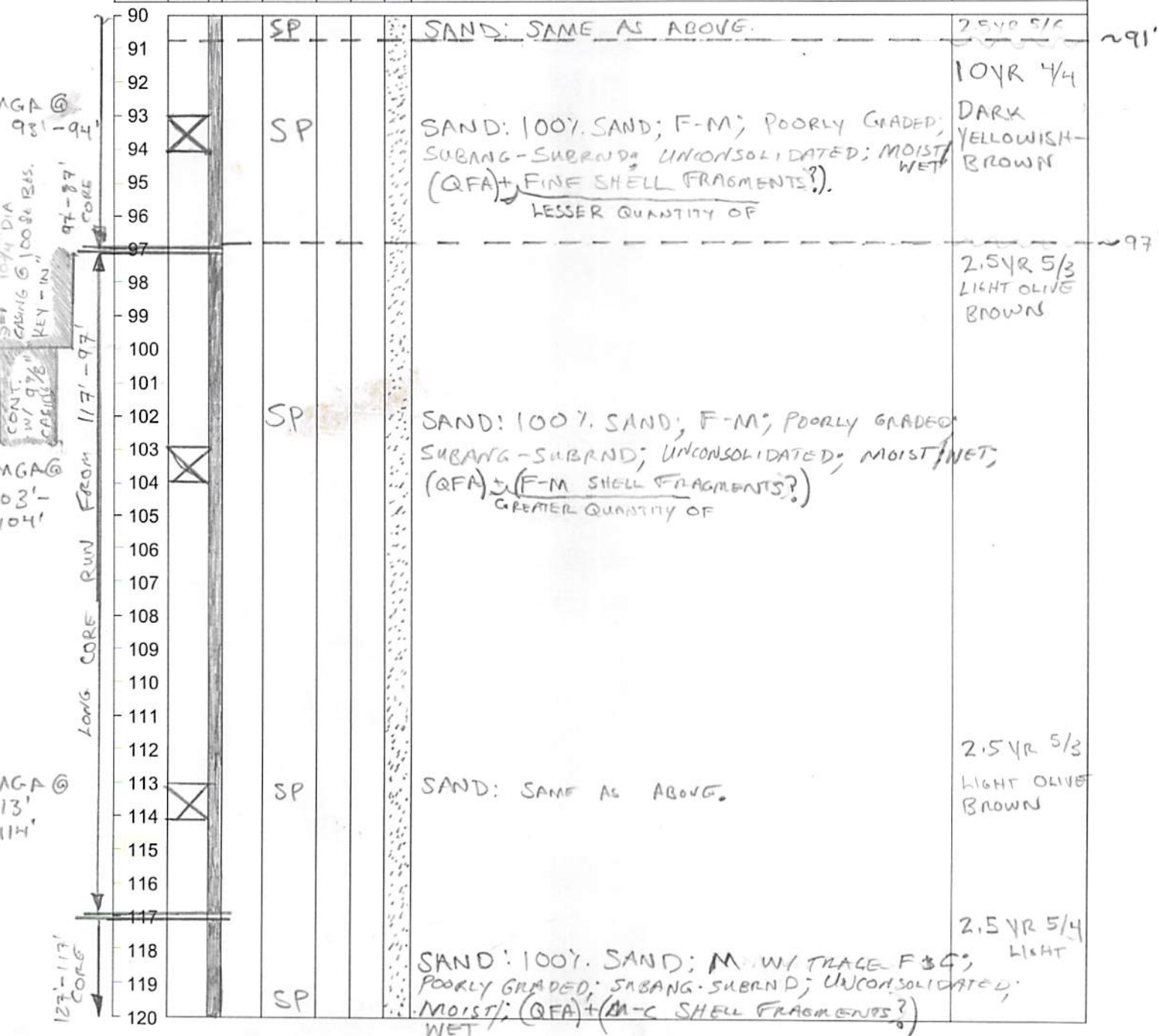
60			CL					SAME AS ABOVE	SAME AS ABOVE	60.5'
61			CL					CLAY w/ SILT; 75% CLAY + 25% SILT; MED-HIGH PLASTICITY; VERY DENSE; MOIST.	GLE 1 1/10	
62									DARK GREENISH-GRAY	
63										
64										61.5'
65										
66									GLE 4/5B	
67			CL					CLAY: 95% CLAY + 5% SILT; HIGH PLASTICITY; HIGH DENSITY; MOIST.	DARK BLUEISH-GRAY	
68										
69										
70										
71										
72			SP					SAND: 100% SAND; VF-F; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST-WET (QFM).	2.5YR 4/3	72'
73			SM						OLIVE BROWN	
74										
75			CL					SILTY SAND: 70% SAND + 30% SILT; VF-F; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; LOW DENSITY; MOIST (QFM); NON-PLASTIC	GLE 4/5B	73'
76									DARK BLUEISH-GRAY	
77	STOP ON 12-18-14									
78								CLAY w/ SILT; (74-76) → 70% CLAY + 30% SILT; (76-77) → 90% CLAY + 10% SILT	GLE 4/5B	74'
79									DARK BLUEISH-GRAY	
80			SM					SILTY SAND: M-H PLASTICITY; VERY DENSE; MOIST.		
81								80% SAND + 20% SILT; VF-F; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; NON-PLASTIC; MOIST; (QFA) + RED Fe-OXIDE STAINING.	2.5YR 4/3	79'
82									OLIVE BROWN	
83			SM					SILTY SAND w/ CLAY: 50% SAND + 30% SILT + 20% CLAY; SAME AS ABOVE BUT LOW PLASTICITY.		
84										
85								CLAY w/ SILT; 95% CLAY + 5% SILT; HIGH PLASTICITY; VERY DENSE; MOIST; HAS BLACK "ASH" SPOTTING; "BLUE CLAY".	GLE 13/5G	
86			CL						VERY DARK GREENISH-GRAY	
87										
88			SP					SAND: 100% SAND; F-M; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST; (QFA) + (FINE SAND SIZED SHELLS?)	2.5YR 5/6	
89									LIGHT OLIVE BROWN	
90										

4-DTW=72.5' BGS BASED ON GEOPHICAL SURVEY ON 1-9-15  
67'-57' CORE  
77'-67' CORE  
STOP ON 12-18-14  
87'-77' CORE  
97'-87' CORE



SHEET 4 OF 15

**CONFIDENTIAL DRAFT**  
Subject to Revision  
MATERIAL DESCRIPTION





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Core	Depth (ft)	Soil Type	Description	Notes
MGA 123'-124'	123	SP	SAND: 100% SAND; M W/ TRACE F&C; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; MOIST-WET; (QFA) + (F-C SHELL FRAGMENTS?); SATURATED. SAND SIZED	2.5 YR 5/4 LIGHT OLIVE BROWN
	124			
MGA 130'-131'	128	SP	SAND W/ GRAVEL & TRACE COBBLES; 70% SAND + 25% GRAVEL + 5% COBBLES; F-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; (QFMA) + (M-C SAND SIZED SEA SHELLS?); SATURATED.	2.5 YR 5/3 LIGHT OLIVE BROWN
	129			
	130	SP?	SAND W/ SILT & TRACE GRAVEL; 80% SAND + 15% SILT + 5% GRAVEL; F-C SAND; F-C GRAVEL; POORLY GRADED; UNCONSOL; (QFMA + F-M SAND SIZED SHELLS?); SATURATED	2.5 YR 5/6 LIGHT OLIVE BROWN
	131			
MGA 134'-135'	132	SP?	75% SAND + 20% GRAVEL + 5% COBBLES; M-C SAND; F-C SAND; POORLY GRADED; UNCONSOLIDATED; (QFMA) + (M-C SAND SIZED SHELL FRAGMENTS?); SATURATED.	2.5 YR 5/3 LIGHT OLIVE BROWN
	133			
	134	SW	SAND W/ TRACE GRAVEL; 97% SAND + 3% GRAVEL; F-C SAND; F-C GRAVEL; POTENTIALLY WELL GRADED?; UNCONSOLIDATED; (QFMA) + (M-C SAND SIZED SHELLS?); SAT.	2.5 YR 5/4 LIGHT OLIVE BROWN
	135			
MGA 140'-141'	136	SP		2.5 YR 7/4 OLIVE BROWN
	137			
	138			
	139			
MGA 143'-144'	140	SP		
	141			
	142			
	143			
MGA 147'-148'	144	SP		
	145			
	146			
	147			
MGA 149'-150'	148	SP		
	149			
	150			
	151			

Location	NW-5 DEEP	Date(s) Drilled	12-19-14	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)	466.4 AMSL	Logged by	A. KHALIGHI	Drill Rig Type	GOOT SONIC	Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in)	12" → 10 3/4" → 9 3/8"	Total Depth (ft)	

Depth (ft)	Notes	Sample Information					Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)			

**CONFIDENTIAL DRAFT**

Subject to Revision

MATERIAL DESCRIPTION

SOIL COLOR

150									
151								SAND; 100% SAND; F. GRAINED; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; (QFMA); MOIST-WET.	2.5YR 4/4 OLIVE BROWN
152			SP					↑ NO SHELLS VISIBLE HERE.	
153									
154									
155									
156			SP					SAND w/ GRAVEL & TRACE COBBLES: 80% SAND + 15% GRAVEL + 5% COBBLES; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; (QFMA) + (F-M SAND SIZED SHELL FRAGMENTS); MOIST TO WET.	2.5YR 4/4 OLIVE BROWN
157									
158									
159									
160									
161			SP					GRAVELLY SAND w/ COBBLES: 50% SAND + 40% GRAVEL + 10% COBBLES; C. SAND; F-C GRAVEL; POORLY GRADED; MOSTLY SUBANG-SUBRND w/ SOME ANG & RND GRAVEL/CB; UNCONSOLIDATED; (QFMA); SATURATED.	10YR 5/4 YELLOWISH-BROWN
162									
163									
164									
165			SP					GRAVELLY SAND w/ COBBLES; 65% SAND + 30% GRAVEL + 5% COBBLES; SAME AS ABOVE.	
166									
167									
168									
169								SAND; 100% SAND; F-M GRAINED; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED (QF); SATURATED.	2.5YR 6/4 LIGHT YELLOWISH-BROWN
170									
171									
172									
173									
174									
175									
176									
177			CH					SILTY CLAY: 80% CLAY + 20% SILT; M-H PLASTICITY; VERY DENSE; MOIST; HAS REDDISH FE-OXIDE STAINING.	2.5YR 5/3 LIGHT OLIVE BROWN
178			SP					SAND:	
179								100% SAND; M-C GRAINED; POORLY GRADED; SUBANG-SUBRND GRAINS; UNCONSOLIDATED; SATURATED; (QF+M. SHELLS)	2.5YR 5/4 LIGHT OLIVE BROWN
180			ML					CLAYEY SILT: 80% SILT + 20% CLAY; L-M PLASTICITY; L-M DENSITY; RED & BLACK STAINING.	2.5YR 5/2 GRAYISH-BROWN + MOIST

157'-147' CORE  
MGA 155-156  
MGA 161-162  
STOP ON 12-19-14  
167'-157' CORE  
MGA 171-172  
177'-167' CORE  
187'-177' CORE



Location	MW-5 (DEEP)	Date(s) Drilled	12-20-14	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)	7-66.86 AMSL	Logged by	A. KHALIL	Drill Rig Type	600T PROSONIC	Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in)	12.75 (10.75" to 9.75")	Total Depth (ft)	
<div> <div>Depth (ft)</div> <div>Notes</div> <div>Penetration (Graphic)</div> <div>Type and No.</div> <div>Blows per 6 in.</div> <div>Penetration (in)</div> <div>Recovery (in)</div> <div>Geologic Unit</div> </div>				<div> <div>CONFIDENTIAL DRAFT</div> <div>Subject to Revision</div> <div>MATERIAL DESCRIPTION</div> </div>			SOIL COLOR

180			ML			CLAYEY SILT; 80% SILT + 20% CLAY; L-M PLASTICITY; L-M DENSITY; HAS REDDISH FE-OXIDE STAINING & BLACK ASH SPOTS; MOIST.	2.5YR 5/2 GRAYISH-BRN	182'
181								
182			SP			GRAVELLY SAND w/ TRACE COBBLE; 80% SAND + 15% GRAVEL + 5% COBBLE; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBRND-SUBRND; UNCONSOLIDATED; (QF).	2.5YR 4/3 OLIVE BRN	
183								
184								
185								
186						SAME AS ABOVE: 70% SAND + 25% GRAVEL + 5% COBBLE.		
187								
188								
189			SP			SAME AS ABOVE; INCLUDES ONE 6" THICK POCKET OF CLAY; INCLUDES CLASTS OF GRAVEL SIZED COBBLE.		
190								
191								
192								
193			SC			CLAYEY SAND w/ GRAVEL & TRACE SILT; 55% SAND + 25% CLAY + 15% GRAVEL + 5% SILT; F-C SAND; F. GRAVEL; MED-POORLY GRADED; SUBRND-RND; (QFA); MOIST. [EM-C SAND FROM 197-198]	7.5YR 5/6 STRONG BROWN	192'
194								
195			SP			SAND w/ LOW-NON-PLASTIC; M-H CEMENTATION; TRACE GRAVEL; (QFA); MOIST. [EM-C SAND FROM 197-198]		
196								
197						95% SAND + 5% GRAVEL; F w/ TRACE MLC SAND; F. GRAVEL; POORLY GRADED; SUBRND-RND; UNCONSOLIDATED; (QF); MOIST-WET.	7.5YR 5/1 GRAY	194'
198								
199								
200			SP			GRAVELLY SAND w/ TRACE COBBLES; 65% SAND + 30% GRAVEL + 5% COBBLE; M-C w/ TRACE F. SAND; F-C GRAVEL; POORLY GRADED; SUBRND-RND; WEAKLY CEMENTED; (QFA); MOIST. INCLUDES CLUMPS OF CLAY & REDDISH FE-OXIDE STAINING.	10YR 5/2 GRAYISH-BROWN	198'
201								
202								
203								
204			SP			GRAVELLY SAND w/ TRACE COBBLES; 70% SAND + 25% GRAVEL + 5% COBBLES; C SAND; F-C GRAVEL; POORLY GRADED; SUBRND-RND; M. CEMENTATION; (QFA); MOIST TO WET.	10YR 4/6 DARK YELLOWISH-BROWN	~202.5'
205								
206								
207			SP			SAND w/ GRAVEL; 83% SAND + 10% GRAVEL + 2% COBBLES; M-C w/ TRACE F. SAND; F-C GRAVEL; POORLY GRADED; SUBRND-RND; UNCONSOLIDATED; (QFA); MOIST TO WET. (M-SAND SIZED SHELLS?)	10YR 5/2 GRAYISH-BROWN	206'
208								
209								
210						SAND w/ TRACE GRAVEL; 85% SAND + 10% GRAVEL + 5% COBBLES; SAME AS ABOVE (202.5' - 206').	10YR 5/2	~209'

NOTE: CHECK PRESENT IN MOST SAMPLES FROM 198' TO 215'

185'-186' MCA

187'-187' CORE

197'-197' CORE

207'-207' CORE

Location <b>MW-5D.</b>	Date(s) Drilled <b>12-20-14</b>	Drilling Contractor <b>Cascade Drilling</b>	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by <b>A. KIMLICH</b>	Drill Rig Type <b>600T SONIC</b>	Plunge (Degrees) <b>Vert</b>
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in)	Total Depth (ft)

Depth (ft)	Notes	Sample Information					Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)			

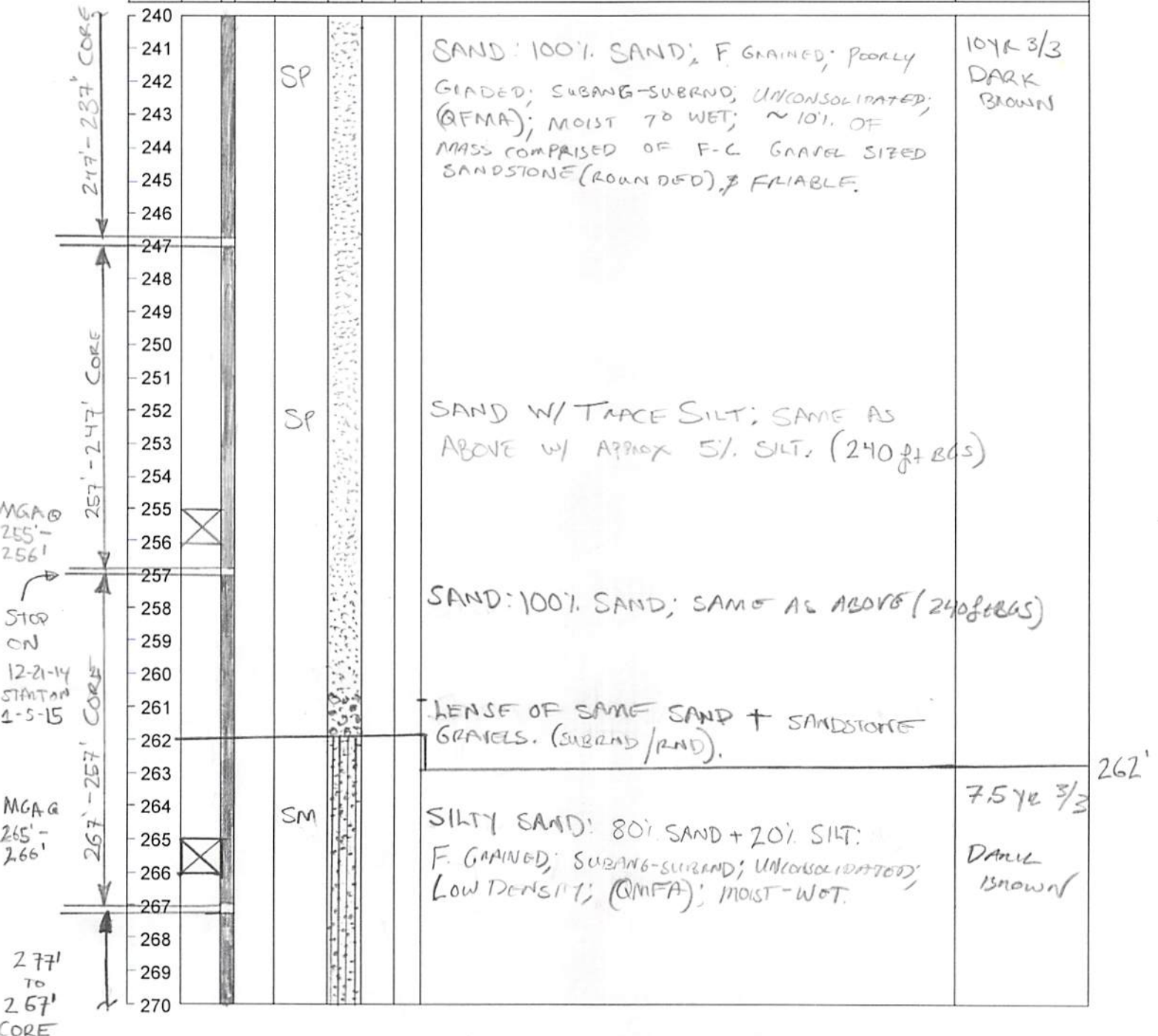
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210								SAND w/ TRACE GRAVEL: SAME AS ABOVE.	10YR 5/2	
			SP					SAND: 100% SAND; F GRAINED; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; (QFMA) MOIST-WET.	10YR 4/2	211'
211			SP							
212										
213										
214			SP					GRAVELY SAND w/ TRACE COBBLES; 70% SAND + 25% GRAVEL + 5% COBBLES; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBRND-RND; UNCONSOLIDATED; (QF), MOIST-WET.	2.5YR 5/2	212.5'
215										
216										
217								GRAVELY SAND w/ TRACE COBBLES: SAME AS ABOVE w/ CLUMPS OF CLAY.		
218			CH							217.5'
219								CLAY w/ TRACE SILT; 95% CLAY + 5% SILT; HIGH PLASTICITY; VERY DENSE; MOIST.	10YR 5/3 BROWN	
220			CH							219.5
221								SILTY CLAY w/ TRACE SAND; 60% CLAY + 30% SILT + 10% SAND; VF w/ TRACE C SAND; GAP GRADED SAND; M-H PLASTICITY; M DENSITY; MOIST.	10YR 4/3	
222										
223			MH					CLAYEY SILT w/ TRACE SAND & GRAVEL: 60% SILT + 30% CLAY + 75% SAND + 25% GRAVEL; F. 3 C. SAND (GAP GRADED); F. GRAVEL; SUBRND; M-H PLASTICITY; M-H DENSITY; MOIST.	2.5YR 5/3 LIGHT OLIVE BROWN	222'
224										
225										
226			SP							225.5'
227										
228										
229								SAND w/ TRACE GRAVEL: 85%-95% SAND + 15%-5% GRAVEL; F. w/ TRACE M-C SAND; F. GRAVEL; POORLY GRADED; SUBRND-RND; NON-LOW CEMENTATION; (QFA); MOIST-WET.	7.5YR 4/6 STRONG BROWN	
230			SP							227.5'
231										
232										
233										
234								SAND; 100% SAND; F. GRAINED; POORLY GRADED; SUBANG-SUBRND; UNCONSOLIDATED; (QFMA); MOIST.	10YR 3/3 DARK BROWN	
235										
236										
237										
238										
239										
240										

MGA @  
239'-240'



Location	MW-5D	Date(s) Drilled	12-21-14	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)	7/- 66 ft AMSL	Logged by	A. KHALIGHI	Drill Rig Type	600T Prosonic	Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in)		Total Depth (ft)	
				<b>CONFIDENTIAL DRAFT</b> Subject to Revision MATERIAL DESCRIPTION			
Depth (ft)	Notes	Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit
							SOIL COLOR



Location <b>MW-5 DEEP</b>	Date(s) Drilled <b>1-5-2015</b>	Drilling Contractor <b>Cascade Drilling</b>	Bearing (Azimuth)
Ground Surface Elevation (ft)	Logged by <b>A. KHAWGAI</b>	Drill Rig Type <b>600T Pro Sonic</b>	Plunge (Degrees) <b>Vert</b>
Horizontal/Vertical Datum	Reviewed by	Borehole Diameter (in)	Total Depth (ft)

Depth (ft)	Notes	Sample Information					Geologic Unit	CONFIDENTIAL DRAFT Subject to Revision MATERIAL DESCRIPTION	SOIL COLOR
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)			

MGA 276-277	270							SILTY SAND; 80% SAND + 20% SILT; F. GRAINED; SUBANG-SUBAND; UNCONSOLIDATED; LOW DENSITY; (QFMA); MOIST-WET	7.5 YR 3/2 DARK-BROWN w/ SOME GRAY SPOTS	~274'
	271									
	272		SM							
	273									
MGA 277-278	274							SAND w/ Fine SILT; 95% SAND + 5% SILT; VF-F SAND; SUBANG-SUBAND; UNCONSOLIDATED; LOW DENSITY; (QFMA); MOIST TO WET.	7.5 YR 3/2 DARK BROWN	~281'
	275		SP							
	276									
	277									
MGA 287-288	278							SILTY SAND; 85% SAND + 15% SILT; VF-F SAND; SUBANG-SUBAND; UNCONSOLID; LOW DENSITY; (QFMA); MOIST-WET.	7.5 YR 3/4 DARK BROWN	~284.5'
	279									
	280		SM							
	281									
MGA 287-288	282							SAND w/ Fine SILT; 95% SAND + 5% SILT; VF-F SAND; SUBANG-SUBAND; UNCONSOLID; (QFMA); MOIST-WET.	7.5 YR 3/3 DARK BROWN	~297'
	283		SP							
	284									
	285									
MGA 297-298	286							SAND w/ Fine SILT; 95% SAND + 5% SILT; SAME AS ABOVE.		
	287		SP							
	288									
	289									
MGA 297-298	290									
	291									
	292									
	293									
MGA 297-298	294									
	295		SP							
	296									
	297									
MGA 297-298	298									
	299									
	300									



Location: <b>MW-5 DEEP</b>	Date(s) Drilled: <b>1-5-2015</b>	Drilling Contractor: <b>Cascade Drilling</b>	Bearing (Azimuth):
Ground Surface Elevation (ft):	Logged by: <b>A. KHALIGHI</b>	Drill Rig Type: <b>600T Pro Sonic</b>	Plunge (Degrees): <b>Vert</b>
Horizontal/Vertical Datum:	Reviewed by:	Borehole 1 2" → 1 1/4" - 9 3/8" - 2"	Total Depth (ft):

Depth (ft)	Notes	Sample Information					Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)			

**CONFIDENTIAL DRAFT**  
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300									
301									
302									
303	X		SP					SAND W/ TRACE SILT; 95% SAND + 5% SILT; VF-F SAND; SUBGRD - SUBANG; UNCONSOLIDATED; (QMFA); MOIST-WET	7.5 YR 3/3 DARK BROWN
304									
305									
306									
307									
308									
309			CL					SANDY CLAY W/ TRACE SILT; 80% CLAY + 15% SAND + 5% SILT; VF-F SAND; SUBGRD - SUBANG; UNCONSOLIDATED; MED-HIGH PLASTICITY; LOW DENSITY (QMFA); MOIST.	5Y 5/4 OLIVE
310									
311									
312			SC					CLAYEY SAND W/ TRACE SILT; 60% SAND + 30% CLAY + 10% SILT; VF-F; SUBGRD - SUBANG; UNCONSOLIDATED; L. PLASTICITY; L. DENSITY; (QMFA); M-W.	5Y 4/4 OLIVE W/ GRAY SPOTTING
313									
314									
315			SP					SAND; 100% SAND; F GRAINED; SUBGRD - SUBANG; UNCONSOLIDATED; (QMFA); MOIST-WET.	7.5 YR 3/3 DARK BROWN
316									
317									
318									
319			SM					SILTY SAND W/ TRACE CLAY; 75% SAND + 15% SILT + 5% CLAY; F-M SAND; SUBGRD - SUBANG; POORLY GRADED; UNCONSOLIDATED; NONPLASTIC; LOW DENSITY; (QMFA); MOIST-WET.	2.5 YR 4/3 OLIVE BROWN
320									
321									
322			SP					GRAVELLY SAND W/ TRACE COBBLES; 80% SAND + 15% GRAVEL + 5% COBBLES; F-M SAND; F-C GRAVEL; SUBGRD - SUBANG; POORLY GRADED; UNCONSOLIDATED; (QMFA); CHESTNUT GRAVEL & COBBLES; SAND SIZED SHELL FRAGMENTS; MOIST-WET.	2.5 YR 3/2 VERY DARK GREENISH BROWN
323									
324									
325									
326									
327			SC					CLAYEY SAND W/ TRACE SILT; 75% SAND + 20% SILT + 5% SAND; F SAND; SUBGRD - SUBANG; POORLY GRADED; UNCONSOL; L. PLASTICITY; L. DENSITY; (QMFA); MOIST.	2.5 YR 5/3 LIGHT OLIVE BROWN
328									
329			CL					CLAY W/ TRACE SILT; 90% CLAY + 10% SILT; MEDIUM PLASTICITY; MEDIUM DENSITY; MOIST; INCLUDES GRAY/BLACK ASH SPOTTING.	4Y 1/1 DARK GREENISH GRAY
330			SM						

457-10 9 3/8"  
CASING 6  
300 ft BGS,  
CONT W/ 8"  
8"  
MCAO  
303' - 304'  
BGS

SHORT DRILL  
316' - 307' CORE

326' - 316' CORE

STOP  
ON  
1-5-15

START  
1-6-15

327-327' CORE

~3265'  
328'  
330'

Location	MW-5 Deep	Date(s) Drilled	1-6-2015	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)		Logged by	A. KHALIGHI	Drill Rig Type		Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole 12" → 10 3/4" → 9 3/8" → 8"		Total Depth (ft)	
Depth (ft)	Notes	Sample Information	<b>CONFIDENTIAL DRAFT</b> Subject to Revision MATERIAL DESCRIPTION				SOIL COLOR
		Penetration (Graphic)					
		Type and No.					
		Blows per 6 in.					
		Penetration (in)					
		Recovery (in)					
		Geologic Unit					

330						SILTY SAND; 65% SAND + 35% SILT; VF-FSAND; SUBANG-SUBSAND; POORLY GRADED; UNCONSOLIDATED; NON-PLASTIC; LOW DENSITY; MOIST	10YR 4/4 DARK YELLOWISH BROWN	330'
331		SM						
332						CLAYEY SILT W/ SAND; 60% SILT + 25% CLAY + 15% SAND; VF SAND; LOW PLASTICITY; MED DENSITY; MOIST; INCLUDES "SILTY CLAY" CLUMPS, GRAY	GLY 1 5/10Y GREENISH-GRAY	332'
333		ML						
334						SANDY CLAY; 60% CLAY + 40% SAND; F-M SAND; POORLY GRADED; SUBANG-SUBSAND; M. PLASTICITY; VERY DENSE; (QMFA); MOIST; NOTE: BETWEEN 334.5' & 340' SOME "CLAYEY SAND" CLUMPS EXIST.	GLY 1 2.5/10GY GREENISH-BLACK	334.5'
335		CL						
336								
337								
338								
339								
340						CLAYEY SAND W/ GRAVEL; 60% SAND + 30% CLAY + 10% GRAVEL; F-G SAND; FC GRAVEL; POORLY GRADED; SUBANG/SUBSAND; UNCONSOLIDATED; LOW PLASTICITY; (QMFA); DRY-MOIST. (INCLUDES CHERT GRAVEL)	5Y 4/4 OLIVE	340'
341		SC						
342								
343								
344						CLAYEY SILT W/ TRACE SAND; 60% SILT + 30% CLAY + 10% SAND; VF SAND; SUBANG-SUBSAND; L. PLASTICITY; VERY DENSE; DRY.	GLY 1 4/10Y DARK GREENISH-GRAY	344'
345		ML						
346								
347						CLAY WITH TRACE SILT & SAND; 90% CLAY + 5% SAND + 5% SILT; VF SAND; M-H PLASTICITY; VERY DENSE; DRY-MOIST	2.5Y 4/2 DARK GRAYISH BROWN	347'
348		CL						
349								
350								
351								
352								
353						SANDY CLAY W/ SILT; 50% CLAY + 35% SAND + 15% SILT; VF SAND; SUBANG/SUBSAND; LOW PLASTICITY; VERY DENSE; DRY.	GLY 1 4/10Y DARK GREENISH GRAY	353.5'
354		CL						
355								
356								
357								
358								
359								
360								

337'-327' CORE  
347'-337' CORE  
347'-347' CORE  
357'-357' CORE



Location MW-5 DEEP		Date(s) Drilled 1-6-14		Drilling Contractor Cascade Drilling		Bearing (Azimuth)	
Ground Surface Elevation (ft)		Logged by A. KHALIGHI		Drill Rig Type ProSonic 600T		Plunge (Degrees) Vert	
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in) 12" - 10 3/4" - 9 7/8"		Total Depth (ft)	
Depth (ft)	Notes	Sample Information				SOIL COLOR	
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)		
<div>CONFIDENTIAL DRAFT</div> <div>Subject to Revision</div> <div>MATERIAL DESCRIPTION</div>							

**CONFIDENTIAL DRAFT**  
Subject to Revision  
MATERIAL DESCRIPTION

360									
361									
362			CL						
363									
364									
365									
366			CL						
367									
368									
369									
370			CL						
371									
372									
373									
374									
375									
376			CL						
377									
378			CL						
379									
380									
381			ML						
382			MH						
383									
384			CL						
385									
386									
387									
388			CL						
389									
390									

SANDY CLAY w/ SILT: 50% CLAY + 35% SAND + 15% SILT; VF SAND; SUBANG-SUBRND; L-M PLASTICITY; Very DENSE; Dry.

CLAY 1

4/10Y

DARK GREENISH GRAY

~365'

SANDY CLAY w/ SILT: 50% CLAY + 45% SAND + 5% SILT; F. SAND; SUBANG-SUBRND; Low PLASTICITY; Very DENSE; Dry.

10YR 4/4

DARK YELLOWISH BROWN

~367.5'

CLAY: M-H PLASTICITY; Very DENSE; Dry to MOIST. INCLUDES SOME LIGHT GRAY SPOTS/PATCHES (2-3mm).

10YR 4/4

DARK YELLOWISH BROWN

~ 85% CLAY (SAME AS ABOVE + 15% SILT. From 371'-373'. SAME PROPERTIES / COLOR

CLAY: SAME AS ABOVE (369').

SANDY CLAY w/ SILT: 60% CLAY + 25% SAND + 15% SILT; VF SAND; POORLY GRADED; M. PLASTICITY; MOIST

10YR 4/6

DARK YELLOWISH BROWN

~377.5'

SANDY SILT w/ CLAY; 50% SILT + 25% SAND + 25% SILT; VF SAND; POORLY GRADED; M-H PLASTICITY; Low DENSITY; MOIST; INCLUDES CLAY CHUNKS ~ 381.5' TO 382.5' BGS.

10YR 3/6

DARK YELLOWISH BROWN

~380'

CLAY; MEDIUM TO HIGH PLASTICITY; VERY DENSE; Dry to MOIST.

2.5YR 5/3

LIGHT OLIVE BROWN

~383.5'

CLAY: SAME AS ABOVE.

Location	MW-5 DEEP	Date(s) Drilled	1-7-15	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)		Logged by	A KHALWATI	Drill Rig Type	ProSonic 600T	Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in)	2" - 10 3/4" - 9 7/8" - 8"	Total Depth (ft)	

Depth (ft)	Notes	Sample Information					Geologic Unit	MATERIAL DESCRIPTION	SOIL COLOR
		Penetration (Graphic)	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)			

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390			CL					CLAY: SAME AS ABOVE.	2.5YR 5/3
391			ML					SANDY SILT w/ CLAY: 50% SILT + 40% SAND + 10% CLAY: VF SAND; POORLY GRADED; NON-PLASTIC; L-AR DENSITY; MOIST; BORDERLINE "SM"	5YR 4/2
392			CH						DARK GRAYISH BROWN
393								SANDY CLAY: 75% CLAY + 25% SAND; F-M SAND; SUBANG/SUBAND; POORLY GRADED; HIGH PLASTICITY; VERY DENSE; (QMF); MOIST	2.5YR 3/3
394			SP						DARK OLIVE BROWN
395									
396			SP					GRAVELLY SAND: 85% SAND + 15% GRAVEL; M-C SAND; F-C GRAVEL; SUBANG-SUBAND SAND; SUBAND-END GRAVEL; POORLY GRADED; UNCONSOLIDATED; (QMF); INCLUDES CHEST GRAVEL; (SHELL FRAGMENTS OF SAND SIZE?) WET	COLEY 1 4/10
397			SP					SAND w/ <del>FAE</del> GRAVEL: SAME AS ABOVE w/ 10% GRAVEL.	DARK GREENISH GRAY
398									
399									
400									
401									10YR 3/3
402									DARK BROWN
403			SP					GRAVELLY SAND w/ TRAIL COBBLES; 70% SAND + 25% GRAVEL + 5% COBBLES; SAME AS ABOVE, WET.	10YR 3/3
404									DARK BROWN
405									
406									
407									
408									
409									
410									
411			SP					SAND: F-M GRAINED (90% F + 10% M) POORLY GRADED; SUBANG-SUBAND; UNCONSOLIDATED; (QFMA); TRACE (SAND SIZED SHELL FRAGMENTS?) WET.	10YR 3/6
412									Very DARK BROWN
413									
414									
415									
416									
417									
418			SP					SAND: SAME AS ABOVE.	10YR 3/6
419									
420									

397'-387' CORE  
MGA 400' to 401'  
407'-397' CORE  
MGA 410' to 411'  
417'-407' CORE  
427'-417' CORE



Location	MW-5 DEEP	Date(s) Drilled	1-7-15	Drilling Contractor	Cascade Drilling	Bearing (Azimuth)	
Ground Surface Elevation (ft)		Logged by	A. KHALIGHI	Drill Rig Type	PROSONIC 600T	Plunge (Degrees)	Vert
Horizontal/Vertical Datum		Reviewed by		Borehole Diameter (in)	12"-10 1/4"-9 3/8"-8"	Total Depth (ft)	

**CONFIDENTIAL DRAFT**  
Subject to Revision  
MATERIAL DESCRIPTION

SOIL COLOR

Depth (ft)	Notes	Penetration (Grain(s))	Type and No.	Blows per 6 in.	Penetration (in)	Recovery (in)	Geologic Unit		
420								SAND; SAME AS ABOVE.	10YR 3/6
421			SP					SAND W/ TRACE GRAVEL & COBBLES; 85% SAND + 10% GRAVEL + 5% COBBLES; F-C SAND; POORLY GRADED; SUBANG-SUBANG SAND; SUBANG-RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/2 GRAYISH-BROWN
422			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/2 GRAYISH-BROWN
423			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/2 GRAYISH-BROWN
424			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/2 GRAYISH-BROWN
425			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
426			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
427			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
428			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
429			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
430			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
431			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
432			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
433			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
434			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
435			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
436			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
437			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
438			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
439			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
440			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
441			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
442			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
443			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
444			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
445			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
446			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
447			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
448			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
449			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN
450			SP					SAND W/ TRACE GRAVEL; 95% SAND + 5% GRAVEL; M-C SAND; F-C GRAVEL; POORLY GRADED; SUBANG-SUBANG SAND; RND GRAVEL; UNCONSOLIDATED; (QMFMA); WET.	2.5YR 5/4 LIGHT OLIVE BROWN

\*E-LOG: ON 1-8-15; TEMP CASING; NO ANNULAR FILL

### TEMPORARY CASING DETAILS (SP/G)

4 in DIAM; SCH 80 PVC; 0.010 SLOT	0' - 430 ft BGS
ADDED H <sub>2</sub> O TO PREVENT SAND FROM CASING IN. TOTAL:	TO BE SET ON THURSDAY 1-8-15
(OPEN-DRILL + TEMP CASING)	200 GAL - 1/8/15
	1,100 GAL - 1/9/15
	2,300 GAL - 1/10/15
	2,500 GAL - 1/11/15
	400 GAL - 1/12/15
	200 GAL - 1/13/15

### OVER-DRILL:

0' - 150' BGS = 10 3/4"  
150' - 300' BGS = 9 3/8"  
300' - 430' BGS = 8"