BORING NO. B-1 Sta. 1034+19 Offset 74' Rt. of CRL

(Drilled March 24, 2014)

SITE GEOLOGY

ACCORDING TO THE "ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS - DIVISION EIGHT" FROM THE OKLAHOMA HIGHWAY DEPARTMENT, 1970, THE SITES OF THE PROPOSED EMBANKMENTS APPEAR TO BE LOCATED WITHIN THE VAMOOSA UNIT (PVM). A BRIEF DESCRIPTION OF THIS UNIT IS PROVIDED IN THE FOLLOWING PARAGRAPHS.

VAMOOSA UNIT (PVM): THIS UNIT CONSISTS MOSTLY OF SHALE WHICH CONTAINS LENSES OF MASSIVE SANDSTONE AND A FEW THIN LIMESTONES. THE SHALE IS GRAY, GRAYISH GREEN, BLUE-GRAY, OR MAROON, AND IS SILTY TO CLAYEY.

THE VAMOOSA IS IN ZONES RANGING UP TO 100 FEET IN THICKNESS. THE SANDSTONES ARE MOSTLY SOFT TO MODERATELY HARD, BROWN TO TAN, GENERALLY 10 FEET TO 25 FEET OR MORE THICK, AND LOCALLY UP TO ABOUT 100 FEET THICK. APPROXIMATELY 100 FEET ABOVE THE BASE OF THE UNIT, A 10- TO 15-FOOT BED OF HARD SANDSTONE IS PRESENT.

THE LAND SURFACE FORMED BY THIS UNIT IS FAIRLY RUGGED AND HILLY. THE SANDSTONES CAF THE HILLS AND FORM SCARPS, WITH THE SHALES FORMING THE STEEP SLOPES AND VALLEYS. THIS UNIT OUTCROPS IN OSAGE AND PAWNEE COUNTIES OF DIVISION EIGHT.

				835
				830
N EIGHT"				825
SCRIPTION	Surface Elevation	^{823.19}		
S OF	SIIty SAND (SM): brown to yellowish tan	-819.69	SS; N= 1, 2, 4; MC= 16.2%;	820
EN,	Clayey SAND trace of Sandstone Cobble	817.19 - L _{818.19}	LL= 18 PI= 3; #200= 46%; RECOVERY= 18" SHELBY TUBE; LL= 18 PI= 3; #200= 38%; RECOVERY= 17" SS: N= 4, 2, 3; MC= 13, 8%.	815
ARE OR MORE	(SC) : gray and brown, moist, loose	813.19	SS, N=4, 3, 3, MC= 13.6%, LL= 20 PI= 7; #200= 50%; RECOVERY= 18" SS: N=2 3, 3: MC= 14.6%:	
HE BASE		– 813.19	LL= 31 PI= 15; #200= 46%; RECOVERY= 18" SHELBY TUBE; LL= 32 PI= 15; #200= 84%; RECOVERY= 10"	810
NES CAP	Lean CLAY (CL): orange and gray, wet, soft	809.69	SS; N= 1, 2, 2; MC= 26.2%; LL= 32 PI= 15; #200= 90%; RECOVERY= 18"	805
LLTS.		└805.19 ⊻	SHELBY TUBE; MC= 27.1%; LL= 30 PI= 12; #200= 89%; UCS=260 psf;	
	- with sandstone fragments at 24.0 feet	799.19 - 799.69	RECOVERT = 28" SS; N=1, 2, 2; MC= 23.3%; U = 25 DF 9: #200 = 64%; DECOVEDY = 18"	800
	SIIty SAND (SM): gray, wet, medium dense	796.19 794.69	SS: N= 3, 6, 10: MC= 22.0%	795
	**Highly Weathered SHALE interbedded	793.19	LL= 18 PI= 3; #200= 38%; RECOVERY= 18" SS; N=9, 22, 50/4; RECOVERY= 12"	790
	with Sandstone Seams: gray, extremely weak	791.19 791.19 - 789.69	TCP; TCP=50/0.5, 50/0.5 SS; N=50/2; RECOVERY=2"	
		⊢789.19 - 784 19	TCP; TCP= 50/0.5, 50/0.25	785
		/04.19	TGF, TGF = 30/0.23, 30/0.23	780
		-779.19	TCP; TCP= 50/0.25, 50/0.25	
	**SHALE: gray, weak	-774 10		775
		114.15	TGF, TGF = 30/0.75, 30/0.25	770
		-769.19	TCP; TCP= 50/0.5, 50/0.25	
		-764 19		765
		104.19	101, 101 – 3010.3, 30/0.30	760
	Bottom of Boring	759.09 上759.19	TCP; TCP= 50/1, 50/0.13	
				755

NOTE: WATER LEVEL ELEVATIONS SHOWN WERE OBTAINED AT
TIME OF THE BORINGS WERE DRILLED AND MAY FLUCTUATE

= SPLIT SPOON SAMPLER = NUMBER OF BLOWS PER 12 INCHES

NUMBER OF BLOWS PER 12 INCHES
MOISTURE CONTENT
LIQUID LIMIT (NV=NO VALUE)
PLASTICITY INDEX (NP=NO PLASTICITY)
PERCENT PASSING #200 SIEVE
UNCONFINED COMPRESSIVE STRENGTH
TEXAS COMP PENETROMETER
WET CAVE IN

"IEAAS OUR PENETROMETER
"WET CAVE IN
"WATER LEVEL WHILE DRILLING OR SAMPLING
"WATER LEVEL AFTER DRILLING
"WATER LEVEL 24 HOURS AFTER DRILLING

LEGEND

SS N LL PI #200 UCS TCP WCI ▽

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THROUGHOUT THE YEAR. NOTE: SS DENOTES STANDARD PENETRATION TEST, AASHTO

D1586-84 TCP DENOTES TEXAS CONE PENETRATION TEST.

TO OBTAIN THE COMPLETE GEOTECHNICAL REPORT CONTACT THE BRIDGE DIVISION OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION AT (405) 521-2606

SH-99 OVER UNNAMED	CREEK	OSAGE COUNTY	Design	SBH	-
DRIDOL D			Detail	RM	EMH
FOU	NDATION REPORT		Check	SBH	-
			Squad: .		
NO. 5730 1170 X		NBI 04875	Engr		
STATE OF	DEPARTMENT (DF TRANS	POR	TAT	IÓN
OKLAHOMA	JOB PIECE NO. 24261(04)			SHEET NO.	106

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