BORING NO. B-01

STATION 7+50, 5.9' RIGHT OF CL. SURVEY
(DRILLED MAY 14, 2015)

SURFACE ELEVATION - 748.90

LOOSE, BROWN, SILTY SAND WITH GRAVEL

747.90 — SS-1; N = 5; MC = 12.1%; RECOVERY = 18"
LL = NP; PI = NP; #200 = 33.3%

VERY LOOSE, BROWN, SILTY SAND

745.90

745.40 — SS-2; N = 4; MC = 15.9%; RECOVERY = 18"
LL = NP; PI = NP; #200 = 39.1%

743.90 — SS-3; N = 4; MC = 17.2%; RECOVERY = 18"
LL = NP; PI = NP; #200 = 46.3%

VERY SOFT TO SOFT, GRAY, SANDY SILTY CLAY

740.90

740.40 — SS-4; N = 2; MC = 18.9%; RECOVERY = 18"
LL = 23; PI = 7; #200 = 55.5%

735.90

735.40 — SS-5; N = 40; MC = 10.1%; RECOVERY = 18"
LL = 34; PI = 16; #200 = 73.3%

HARD, GRAY, LEAN CLAY WITH SAND

730.40 — SS-6; N = 18/6.0"; 29/6.0"; 50/4.5"; MC = 9.8%; RECOVERY = 16"
LL = 37; PI = 15; #200 = 80.2%

729.40

729.02 — TCP-1; TCP = 50/3.50"; 50/1.38"; RECOVERY = 0"

724.02 — TCP-2; TCP = 50/3.63"; 50/2.00"; RECOVERY = 0"

SOFT TO MODERATELY HARD, GRAY, WEATHERED SHALE

719.02 — TCP-3; TCP = 50/1.50"; 50/0.88"; RECOVERY = 0"

714.02 — TCP-4; TCP = 50/0.88"; 50/0.63"; RECOVERY = 0"

BOTTOM OF BORING - 708.58

709.02 — TCP-5; TCP = 50/3.75"; 50/1.50"; RECOVERY = 0"

BORING NO. B-02

STATION 8+10, 7.7' LEFT OF CL. SURVEY
(DRILLED MAY 14, 2015)

SURFACE ELEVATION - 749.30

MEDIUM DENSE, BROWN GRAY, CLAYEY SAND WITH GRAVEL

748.30 — SS-1; N = 12; MC = 8.6%; RECOVERY = 12"
LL = 22; PI = 7; #200 = 24.5%

746.30

DENSE, DARK BROWN, SILTY SAND

745.80 — SS-2; N = 26; MC = 13.9%; RECOVERY = 15"
LL = NP; PI = NP; #200 = 37.3%

744.30

744.30 — SS-3; N = 7; MC = 7.6%; RECOVERY = 4"
LL = 23; PI = 8; #200 = 26.3%

LOOSE, GRAY, CLAYEY SAND WITH GRAVEL

741.30

740.80 — SS-4; N = 4; MC = 11%; RECOVERY = 4"
LL = NP; PI = NP; #200 = 26.9%

VERY LOOSE, GRAY, SILTY SAND WITH GRAVEL

736.30

735.80 — SS-5; N = 4; MC = 16.7%; RECOVERY = 8"
LL = NP; PI = NP; #200 = 30.9%

VERY LOOSE, BROWN GRAY, SILTY SAND

732.30

730.80 — SS-6; N = 8; MC = 18.5%; RECOVERY = 16"
LL = 25; PI = 12; #200 = 51.6%

MEDIUM STIFF, DARK GRAY, SANDY LEAN CLAY

727.30

725.80 — SS-7; N = 32; MC = 10.4%; RECOVERY = 13"
LL = 40; PI = 18; #200 = 74.8%

HARD, GRAY, LEAN CLAY WITH SAND (SHALEY)

720.80 — SS-8; N = 50/6.0"; MC = 9%; RECOVERY = 6"
LL = 34; PI = 13; #200 = 62.4%

720.30

WELL CEMENTED, GRAY, WEATHERED LIMESTONE, RQD = N/A, MEDIUM TO HIGHLY JOINTED, THIN BEDDED

718.30

720.30 — TCP-1; TCP = 50/2.75"; 50/0.19"; RECOVERY = 0"

720.05 — DCD-1; RECOVERY = 21"

718.30 — DCD-2; RECOVERY = 48"

715.05 — DCD-3; RECOVERY = 48"

DARK GRAY, WEATHERED SHALE

710.05 — DCD-4; RECOVERY = 28"

705.05 — DCD-5; RECOVERY = 0"

BOTTOM OF BORING - 700.05

SITE GEOLOGY

THE SUBJECT BRIDGE IS LOCATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE ATOKA UNIT (PA). HOWEVER, BASED ON THE SUBSURFACE MATERIALS ENCOUNTERED DURING OUR DRILLING OPERATIONS, WE BELIEVE THE WAPANUCKA-SPRINGER UNIT (PWS) IS MOST LIKELY PRESENT. ACCORDING TO PUBLISHED MATERIALS (ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS, DIVISION TWO, 1966, OKLAHOMA HIGHWAY DEPARTMENT), THE WAPANUCKA-SPRINGER UNIT CONSISTS OF SHALE AND LIMESTONE. THE LIMESTONE IS ABOUT 550 FEET THICK IN WESTERN ATOKA COUNTY AND IS REFERRED TO AS THE WAPANUCKA LIMESTONE. IT IS GRAY AND PALE BROWN, FINE TO COARSE-GRAINED, MASSIVE BEDDED, AND LOCALLY CONTAINS AMOOTH DARK GRAY CHERT NODULES.

THE ATOKA UNIT CONSISTS DOMINANTLY OF SHALE ALTERNATING WITH SANDSTONES. THE SANDSTONES MAKE UP LESS THAN 25 PERCENT OF THE UNIT. THE BASAL ATOKA IS COMPOSED OF GRAY SHALE WITH THIN BEDS OF LIGHT GRAY SANDSTONE AND THIN LAYERS OF CHERT. NEAR THE BASE, THE UNIT CONTAINS A RELATIVELY HIGH PROPORTION OF SANDSTONE WHICH FORMS PROMINENT RIDGES. THE FIRST RIDGE-FORMING SANDSTONES OCCUR 300 TO 500 FEET ABOVE THE BASE. THE UPPER PORTION OF THE UNIT CONSISTS MOSTLY OF SILTY, MICACEOUS, GRAY TO BROWN SHALES, AND CONTAINS THE UPPERMOST SANDSTONE RIDGE FORMER WHICH OCCURS APPROXIMATELY 266 FEET BELOW THE TOP OF THE UNIT.

LEGEND

SS	= SPLIT SPOON SAMPLER	DCD	= DIAMOND CORE BARREL DRILLING
N	= NUMBER OF BLOWS PER 12 INCHES	UCS	= UNCONFINED COMPRESSIVE STRENGTH
MC	= MOISTURE CONTENT	DD	= DRY DENSITY
LL	= LIQUID LIMIT	RQD	= ROCK QUALITY DESIGNATION
PI	= PLASTICITY INDEX	▽	= WATER LEVEL WHILE DRILLING OR SAMPLING
#200	= PERCENT PASSING #200 SIEVE	▼	= WATER LEVEL AFTER DRILLING
TCP	= TEXAS CONE PENETROMETER	▽	= WATER LEVEL 24 HOURS AFTER DRILLING

SEISMIC CLASS AND SPECTRAL RESPONSE ACCELERATIONS

SITE CLASS	"D"
SEISMIC CATEGORY	A
A_s	0.087g
S_{DS}	0.189g
S_{D1}	0.101g
NOTE: FOR MORE INFORMATION ON THIS TABLE, SEE SECTION 4.3 OF THE GEOTECHNICAL REPORT	

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

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

NS-4005 OVER DOYAL CREEK — ATOKA COUNTY

FOUNDATION BORING LOGS
(SHEET NO. 1 OF 1)

STATE JOB NO. 29925(04) SHEET NO. B002

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