# **CONTENTS**

<u>SHEET</u>	NO.
1	
2	
3	
4	
5-12	

450010

SF-

REFERENCE

**DESCRIPTION** TITLE SHEET LEGEND (SOIL & ROCK) SITE PLAN PROFILE BORE LOGS

# STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT** 

# **STRUCTURE** SUBSURFACE INVESTIGATION

COUNTY HERTFORD

PROJECT DESCRIPTION BRIDGE NUMBER 10 ON -L-(SR 1311) OVER MEHERRIN RIVER AT STA. 16+84

# P1.R003 R PROJEC

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SF-450010	1	12

#### **CAUTION NOTICE**

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WERE MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA AVAILABLE MAY BE REVEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1991 707-6800. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU UN-FLACE)TEST DATA CAN BE RELIED ON ONLY TO THE DECREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOLI MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOLI MOISTURE CONDITIONS MAY YARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOS NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERRETATIONS MADE, OR OPNION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONSTROST TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY IMINSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

NOTES:

- TES: THE INFORMATION CONTAINED HEREIN IS NOT IMPLIED OR GUARANTEED BY THE N.C. DEPARTMENT OF TRANSPORTATION AS ACCURATE NOR IS IT CONSIDERED PART OF THE PLANS, SPECIFICATIONS OR CONTRACT FOR THE PROJECT. BY HAVING REDUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAVES ANY CLAIMS FOR INCREASED COMPENSATION OR STETNSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE. 2.

PERSONNEL

S.N. ZIMARINO

T.W. MILLER

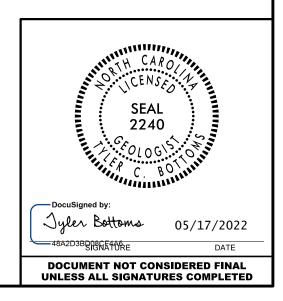
R.E. SMITH

D.G. PINTER

C.M. WALKER

INVESTIGATED BY \_\_\_\_\_. BOTTOMS DRAWN BY \_ T.W. MILLER CHECKED BY \_\_\_\_\_\_. D.N. ARGENBRIGHT SUBMITTED BY \_\_\_\_\_\_. ARGENBRIGHT

DATE <u>MAY</u> 2022



# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT SUBSURFACE INVESTIGATION

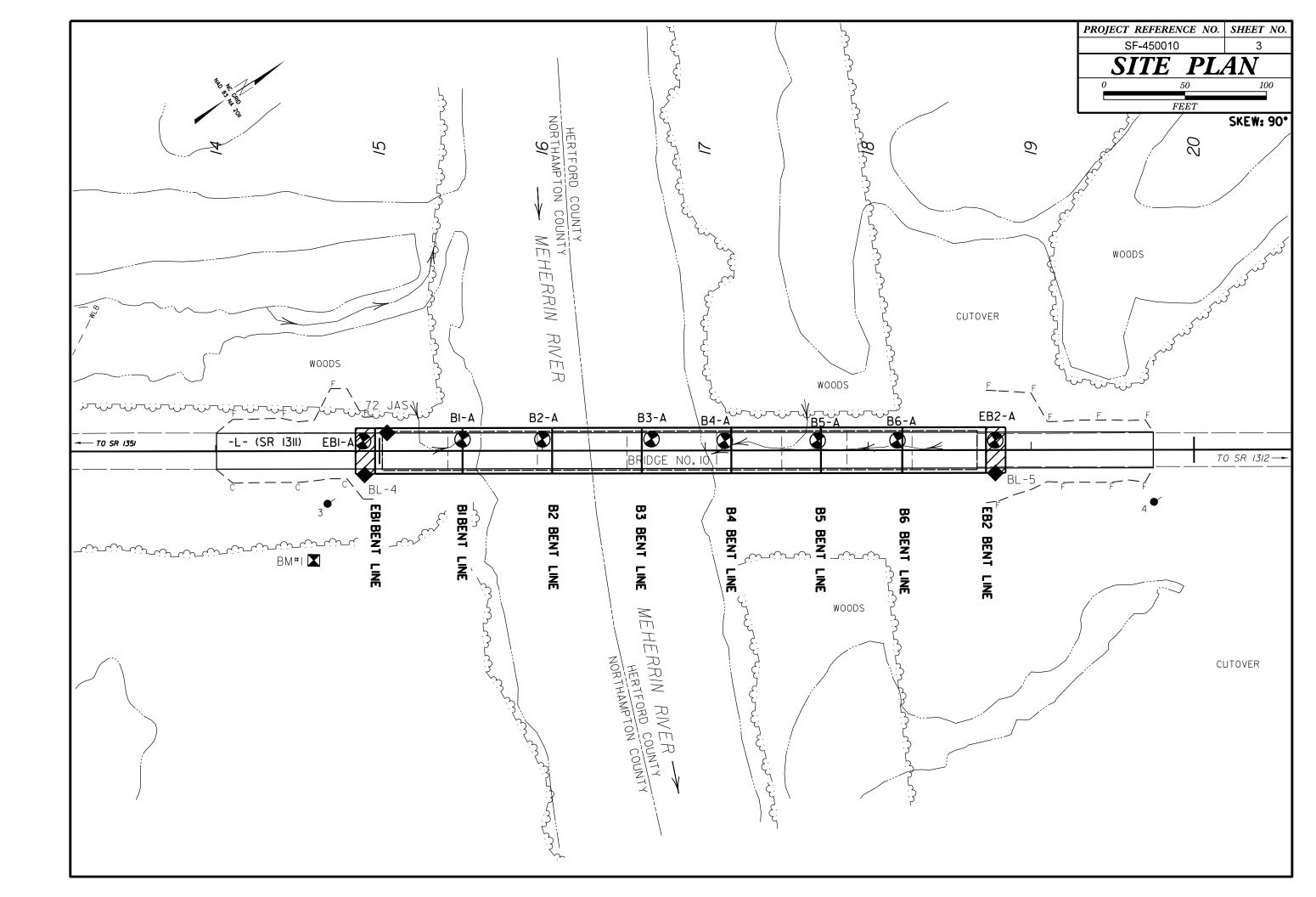
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

			SOIL D	ESCRIPT	ION				T		GF	RADATION						ROCK DE	SCRIPTION	
BE PENET ACCORDI IS B CONSISTE	TRATED WITH ING TO THE BASED ON TH ENCY, COLOR,	H A CONTINUC STANDARD PI HE AASHTO S TEXTURE,MO	ATED, SEMI-CON IUS FLIGHT POV ENETRATION TES YSTEM, BASIC D ISTURE, AASHTO	VER AUGER AN ST (AASHTO 1 DESCRIPTIONS CLASSIFICA1	ND YIELD LESS 206, ASTM DI GENERALLY IN ION, AND OTHE	5 THAN 100 1586), SOIO NCLUDE TH R PERTINE	Ø BLOWS PI L CLASSIFI HE FOLLOWI ENT FACTOF	ER FOOT CATION NG: RS SUCH	WELL GRADED - INDICAT UNIFORMLY GRADED - IN GAP-GRADED - INDICATE	NDICATE	S THAT SOIL	PARTICLES ARE AL	L APPROXIM ZES OF TWO	ATELY THE SAME SIZE.	ROCK LINE IN SPT REFUSAL BLOWS IN NO REPRESENTED	DICATES IS PENE N-COASTA BY A ZO	THE LEVEL TRATION B AL PLAIN D ONE OF WEA	_ AT WHICH NON-COA Y A SPLIT SPOON SA	WOULD YIELD SPT REFUSAL IF T STAL PLAIN MATERIAL WOULD Y AMPLER EQUAL TO OR LESS THA ANSITION BETWEEN SOIL AND R	YIELD AN Ø.
AS V	S MINERALO VERY STIFF.G	GICAL COMPO RAY,SILTY CLAY	SITION, ANGULAR MOIST WITH INT	ERBEDDED FIN	RE, PLASTICITY E SAND LAYERS	Y,ETC.FO <i>HIGHLY PLA</i>	R EXAMPLE ASTIC.A-7-6	•				SOIL GRAINS IS D	SIGNATED E	BY THE TERMS:	WEATHERED			3	YS: IN MATERIAL THAT WOULD YIELD	
			END AND	AASHTO	CLASSIFI	CATION	1		ANGULAR, SUBAN			ICAL COMPOS			ROCK (WR)			100 BLOWS PER FO		5 51 1
GENERAL CLASS.		GRANULAR MATE ≤ 35% PASSING			MATERIALS	OR	GANIC MATER	IALS	MINERAL NAM			Z, FELDSPAR, MICA, T		ETC.	CRYSTALLINE	i i			GRAIN IGNEOUS AND METAMORPHI REFUSAL IF TESTED. ROCK TYP	
GROUP	A-1	A-3	A-2		A-6 A-7	A-1, A-2	A-4, A-5		ARE USED IN	1 DESCP		N THEY ARE CONSID	ERED OF SI	GNIFICANCE.	ROCK (CR)		<u>IC.IC.</u>	GNEISS, GABBRO, SO	GRAIN METAMORPHIC AND NON-CO	OASTA
0	A-1-a A-1-b	A-2-4	-2-5 A-2-6 A-2-		A-7-5, A-7-6	A-3	A-6, A-7		SI IGI		OMPRESSIBLE	RESSIBILITY	LL < 31		NON-CRYSTAL			SEDIMENTARY ROCK	K THAT WOULD YEILD SPT REFU DES PHYLLITE, SLATE, SANDSTONE	JSAL
SYMBOL				<b>X</b>					MODE	RATELY	COMPRESSIBLE	LE	LL = 31 · LL > 50	- 50	COASTAL PLA SEDIMENTARY			COASTAL PLAIN SE	EDIMENTS CEMENTED INTO ROCK, CK TYPE INCLUDES LIMESTONE, S	, BUT
	50 MX					GRANULAR	SILT- CLAY	MUCK,				GE OF MATEF			(CP)	_		SHELL BEDS, ETC.	HERING	
	30 MX 50 MX 15 MX 25 MX		85 MX 35 MX 35 M	1X 36 MN 36 MI	N 36 MN 36 MN	SOILS	SOILS	PEAT	ORGANIC MATERIAL	_	GRANULAR SOILS	SILT - CLAY SOILS	OTHE	R MATERIAL	FRESH		ESH CRYSTA		TS MAY SHOW SLIGHT STAINING. F	
MATERIAL PASSING *40 LL PI	_ 6 MX		41 MN 40 MX 41 M 0 MX 11 MN 11 M				5 WITH LE OR	HIGHLY	TRACE OF ORGANIC MU LITTLE ORGANIC MATT MODERATELY ORGANIC HIGHLY ORGANIC	ATTER TER	2 - 3% 3 - 5% 5 - 10% > 10%	3 - 5% 5 - 12% 12 - 20% > 20%	TRACE LITTLE SOME HIGHLY	1 - 10% 10 - 20% 20 - 35% 35% AND ABOVE		HAMMER I ROCK GEN CRYSTALS	IF CRYSTAL NERALLY FR S ON A BRO	LINE. RESH, JOINTS STAINED, DKEN SPECIMEN FACE	SOME JOINTS MAY SHOW THIN CL SHINE BRIGHTLY. ROCK RINGS UND	LAY C
GROUP INDEX	0	0 0	4 MX				ERATE NTS OF	ORGANIC				UND WATER			SLIGHT		YSTALLINE I		AND DISCOLORATION EXTENDS INT	
USUAL TYPES S OF MAJOR MATERIALS	STONE FRAGS. GRAVEL, AND SAND		TY OR CLAYEY WEL AND SAND	SILTY SOILS	CLAYEY SOILS	ORC	GANIC TTER	SOILS				BORE HOLE IMMEDIA		DRILLING	(SLI.) MODERATE	1 INCH. O CRYSTALS	OPEN JOINTS S ARE DULL	S MAY CONTAIN CLAY. AND DISCOLORED. CF	IN GRANITOID ROCKS SOME OCCAS RYSTALLINE ROCKS RING UNDER HA SCOLORATION AND WEATHERING EF	SIONA
GEN. RATING AS SUBGRADE		EXCELLENT TO	GOOD	FAIR	to poor	Fair to Poor	POOR	UNSUITABLE		PERC	CHED WATER, S	SATURATED ZONE, OF		RING STRATA	(MOD.)	GRANITOI	ID ROCKS, MO	OST FELDSPARS ARE D	DULL AND DISCOLORED, SOME SHOW SHOWS SIGNIFICANT LOSS OF STRE	W CLA
			BGROUP IS ≤ LL			> LL - 30			- O-W-		ING OR SEEP					ALL ROCK	К ЕХСЕРТ О		R STAINED. IN GRANITOID ROCKS,	
			NSISTENC		STANDARD	RAN	GE OF UNC		<u> </u>		MISCELLA	NEOUS SYMBO	<u>ILS</u>		SEVERE (MOD. SEV.)				KAOLINIZATION. ROCK SHOWS SEVE ST'S PICK. ROCK GIVES "CLUNK" SO	
PRIMARY S		CONS	TNESS OR STENCY	PENETRATIO	N RESISTENCE (ALUE)	COMP	RESSIVE S (TONS/F)	STRENGTH	L ROADWAY EMB			OF ROCK STRU OF ROCK STRU		SLOPE INDICATOR	SEVERE (SEV.)	ALL ROCK REDUCED	K EXCEPT O IN STRENG	TH TO STRONG SOIL.	R STAINED. ROCK FABRIC CLEAR A IN GRANITOID ROCKS ALL FELDSPO	
GENERAL GRANULA	AR		DOSE M DENSE		FO 10/ TO 30/		N/A					VST PMT		INSTALLATION				OME FRAGMENTS OF S <u>TELD SPT N VALUES</u>	TRONG ROCK USUALLY REMAIN. > 100 BPF	
MATERIA (NON-CO		DE	NSE DENSE SOFT	>	TO 50 50		< 0.25		ARTIFICIAL FI	Y EMBA	алкмелт प	AUGER BORING	@ 。	CONE PENETROMETER TEST SOUNDING ROD	VERY SEVERE (V SEV.)	BUT MASS	S IS EFFEC	TIVELY REDUCED TO S	R STAINED. ROCK FABRIC ELEMEN' SOIL STATUS, WITH ONLY FRAGMEN F ROCK WEATHERED TO A DEGREE	NTS O
GENERAL SILT-CL MATERIA (COHESI)	AY AL	S MEDIU S	OFT M STIFF IFF STIFF	2 4 8	TO 4 TO 8 TO 15 TO 30		0.25 TO 0.5 TO 1 TO 2 2 TO 4	0.5 1.0					ill 🔶	TEST BORING WITH CORE	COMPLETE	ROCK RED SCATTERE	DUCED TO S ED CONCENT	OIL. ROCK FABRIC NO	AIN. <u>IF TESTED, WOULD YIELD SP</u> T DISCERNIBLE, OR DISCERNIBLE ( Y BE PRESENT AS DIKES OR STRI	ONLY
CORESIN	VE)	н	ARD	>	30		> 4	•	ALLUVIAL SOI			INSTALLATION		- SPT N-VALUE		ALSU AN	EXAMPLE.	воск н	ARDNESS	
			TEXTURE	OR GRAI	N SIZE				<b></b>			DATION SYMB			VERY HARD	CANNOT E	BE SCRATCH		RP PICK. BREAKING OF HAND SPEC	CIMEN
U.S. STD. SIE OPENING (MN			4 10 4.76 2.00	40 0.42	60 200 0.25 0.075						ICLASSIFIED E ISUITABLE WAS		ACCEPT است‴∗	SSIFIED EXCAVATION - ABLE, BUT NOT TO BE	HARD			IS OF THE GEOLOGIST	′S PICK. NLY WITH DIFFICULTY. HARD HAMM	
BOULDEF	R CO	BBLE	GRAVEL	COARSE	FINE		SILT	CLAY	SHALLOW UNDERCUT		CLASSIFIED E	XCAVATION - GRADABLE ROCK		N THE TOP 3 FEET OF (MENT OR BACKFILL	TIAND		CH HAND SP			
(BLDR.) GRAIN MM	(C	(OB.) 75	(GR.) 2.0	SAND (CSE. SD.)	SAND (F SD. 0.25		(SL.) 0.005	(CL.)	AR - AUGER REFUSAL		MED	REVIATIONS MEDIUM	VST	- VANE SHEAR TEST	MODERATELY HARD	EXCAVATE		BLOW OF A GEOLOGI	OUGES OR GROOVES TO 0.25 INCH ST'S PICK. HAND SPECIMENS CAN	
SIZE IN.		3							BT - BORING TERMINATED	J		<ul> <li>MICACEOUS</li> <li>MODERATELY</li> </ul>		- WEATHERED UNIT WEIGHT	MEDIUM HARD				DEEP BY FIRM PRESSURE OF KN PEICES 1 INCH MAXIMUM SIZE BY I	
	MOISTURE	SCALE	FIELD MC	DISTURE	GUIDE FOR F			SCRIPTION	CPT - CONE PENETRATION CSE COARSE		NP - M ORG	NON PLASTIC ORGANIC	Ϋ́d-	DRY UNIT WEIGHT	SOFT	POINT OF	F A GEOLOGI	IST'S PICK.	KNIFE OR PICK. CAN BE EXCAVATE	
	ERBERG LI	MITS)	- SATURA	TED -	USUALLY LIC	DUID; VERY	WET, USU	ALLY	DMT - DILATOMETER TES DPT - DYNAMIC PENETRA e - VOID RATIO		EST SAP	PRESSUREMETER TI SAPROLITIC SAND, SANDY	S - E	MPLE ABBREVIATIONS BULK SPLIT SPOON	VERY	PIECES C	CAN BE BROK	KEN BY FINGER PRESS	BY MODERATE BLOWS OF A PICK SURE. AVATED READILY WITH POINT OF	
LL _ PLASTIC		LIMIT	(SAT.)		FROM BELOW				F - FINE FOSS FOSSILIFEROUS FRAC FRACTURED, FRAC	TURES	SLI	SILT, SILTY SLIGHTLY TRICONE REFUSAL	RS -	SHELBY TUBE ROCK RECOMPACTED TRIAXIAL	SOFT	OR MORE FINGERNA	IN THICKNE AIL.	ESS CAN BE BROKEN I	BY FINGER PRESSURE. CAN BE SCF	RATCH
RANGE <			- WET -	(W)	ATTAIN OPTI				FRAGS FRAGMENTS HI HIGHLY		<i>w</i> - м V - VE	IOISTURE CONTENT	CBR	- CALIFORNIA BEARING RATIO	F TERM	RACTU	JRE SPA	ACING SPACING	BEDDII TERM	NG
ОМ		M MOISTURE	- MOIST	- (M)	SOLID; AT OF	r near oi	PTIMUM MC	DISTURE	EQU DRILL UNITS:		ENT USED	ON SUBJECT		-	VERY WIDE WIDE MODERATEI		3	THAN 10 FEET TO 10 FEET TO 3 FEET	VERY THICKLY BEDDED THICKLY BEDDED THINLY BEDDED	1 Ø.
32			- DRY -	(D)	REQUIRES AD			D	X CME-45C		CLAY BITS 6" CONTINUOU	S FLIGHT AUGER	CORE SIZ	TOMATIC MANUAL	CLOSE VERY CLOS	SE		16 TO 1 FOOT THAN 0.16 FEET	VERY THINLY BEDDED THICKLY LAMINATED THINLY LAMINATED	0.0 0.00 <
	1		PLA	STICITY							8 HOLLOW AU		□-в_	н					RATION	
	PLASTIC		PLAST	0-5 6-15	(PI)	DI	RY STRENC VERY LOW SLIGHT		CME-550		HARD FACED	DE INSERTS			FOR SEDIMEN		.KS, INDURA	RUBBING WITH	NING OF MATERIAL BY CEMENTIN FINGER FREES NUMEROUS GRAIN BY HAMMER DISINTEGRATES SAM	NS;
MOD	ERATELY PLASTI	LASTIC		16-25 6 OR MORE			MEDIUM					W∕ ADVANCER 2_ <sup>15</sup> ∕16•STEEL TEETH	P09	ST HOLE DIGGER	MODER	ATELY INC	IDURATED	GRAINS CAN BE	E SEPARATED FROM SAMPLE WIT Y WHEN HIT WITH HAMMER.	
			(	COLOR					1		TRICONE	* TUNGCARB.		JNDING ROD	INDURA	TED			IFFICULT TO SEPARATE WITH ST BREAK WITH HAMMER.	TEEL
			OR OR COLOR T, DARK, STREA								CORE BIT			NE SHEAR TEST	EXTRE	MELY INDU	URATED	SHARP HAMMER	BLOWS REQUIRED TO BREAK SA	AMPL

### project reference no. SF-450010

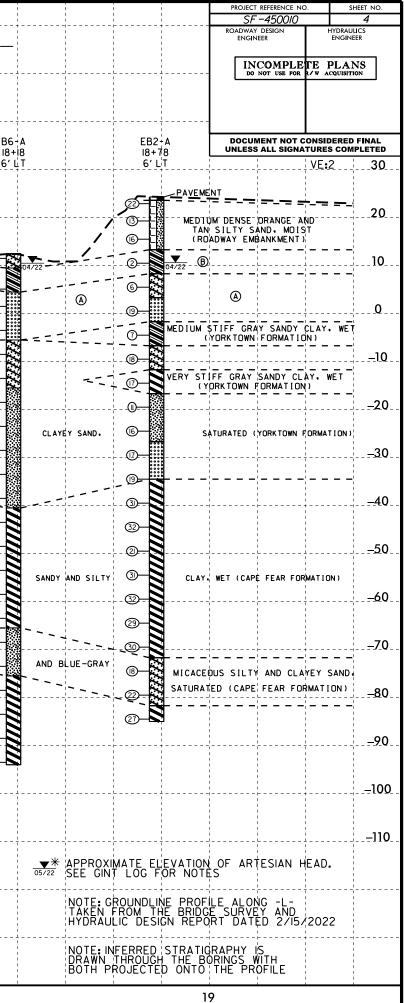


	TERMS AND DEFINITIONS
ED. AN INFERRED SPT REFUSAL.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.
I FOOT PER 60	AQUIFER - A WATER BEARING FORMATION OR STRATA.
IS OFTEN	ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
	ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING
N VALUES >	A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.
N VHLUES /	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT
ICK THAT	WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND
CLUDES GRANITE.	SURFACE.
	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.
AL PLAIN IF TESTED.	COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM
C.	OF SLOPE.
MAY NOT YIELD STONE, CEMENTED	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED
TONE, CEMENTED	BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
	DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT
RINGS UNDER	ROCKS OR CUTS MASSIVE ROCK.
	<u>DIP</u> - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.
OATINGS IF OPEN,	
AMMER BLOWS IF	DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE
ICK UP TO	SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
L FELDSPAR R BLOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
S. IN	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM
Y. ROCK HAS	PARENT MATERIAL.
AS COMPARED	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
ELDSPARS DULL	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.
OSS OF STRENGTH WHEN STRUCK.	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
WHEN STROCK.	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO
VIDENT BUT	LEDGE " A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE INICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.
ARE KAOLINIZED	LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.
	MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTTLING IN SOILS
	USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.
RE DISCERNIBLE F STRONG ROCK	PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE
ONLY MINOR	OF AN INTERVENING IMPERVIOUS STRATUM.
ALUES < 100 BPF	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
IN SMALL AND	ROCK QUALITY DESIGNATION (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF
5. SAPROLITE IS	ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE
	RUN AND EXPRESSED AS A PERCENTAGE.
	SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT
S REQUIRES	ROCK.
	SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND
LOWS REQUIRED	RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.
EEP CAN BE	<u>SLICKENSIDE</u> - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.
ETACHED	STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF
R PICK POINT.	A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL
BLOWS OF THE	WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL
	TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.
FRAGMENTS	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.
T. SMALL, THIN	
PIECES 1 INCH	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY
ED READILY BY	THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.
	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
	DENCH MARK. 72 IAS
THICKNESS	BENCH MARK: 72 JAS
4 FEET	<u>X=2543504.9830</u> Y=1015970.8858 ELEVATION: 25.17 FEET
.5 - 4 FEET	
16 - 1.5 FEET 13 - 0.16 FEET	NOTES:
08 - 0.03 FEET	
0.008 FEET	-
AT, PRESSURE, ETC.	
EEL PROBE:	
PROBE;	
·	
1	DATE: 8-15-14



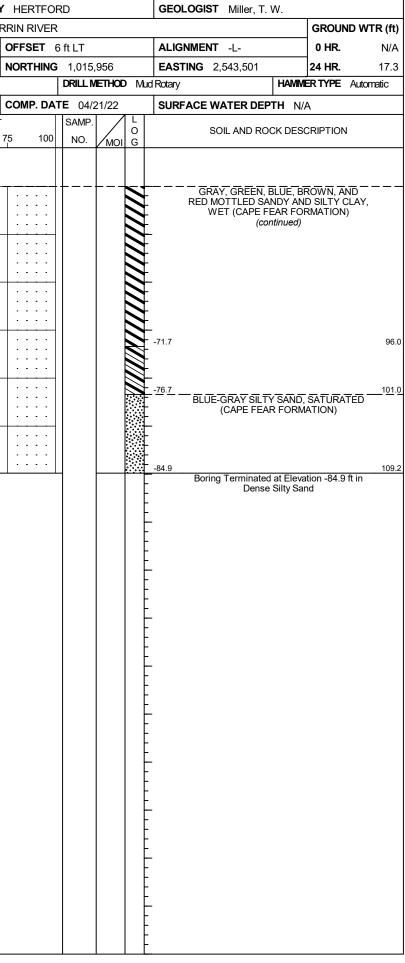
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_30		EBI-A 14+90 6' LT		BI-A I5+5I 7′ LT	B2-A I6+00 7′ LT		B3+A 16+∕67 71 ⊥ T 05/22	*	B4-A I7+I2 6' LT	B5-A I7+69 6' L T	
	-LOOSE-TAN-AND-ORANG SILTY SAND, MOIST (ROADWAY EMBANKMENT	SE©⊑∦` ') @⊑									
_10	VERY SOFT GRAY SILTY - CLAY, MOIST CALLUVIAL	,	<u>-</u>	- \ \		FACE 05/22		0			
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0	· · · · · · · · · · · · · · · · · · ·			3 <u></u>				() () ()		6	
10	VERY STIFF GRAY SAND AND SILTY CLAY, WET - (YORKTOWN-FORMATION				- <u>-</u>						·
				20-00	<u>®</u> —		<b>2</b> 6 <b>-</b> 0	l ()		23-0	
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	STIFF TO	32-	HARD GRAY.		3-1	BROWN, RED, TAN	3-	AND PURPLE	SILT AND		TTLED
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_100		               		<u>-</u>	29		39 <b></b>	44	'C	38-2	
	RY LOOSE TO MEDIUM DENS DWN SAND, SILTY SAND AN D WOOD FRACMENTS, MDIST	SE GRAY. TAN. ORANGE	E AND GRAVEL	I I I I I I I I I	37-		37-122				
	 		UVIAL) 	, , ,	·						·
B VE SA	RY SOFT TO MEDIUM STIFF NDY CLAY, MOIST TO WET	GRAY SILT AND (ALLUVIAL)									
© M	EDIUM DEN\$E TO DENSE GR REEN-GRAY MICACEOUS SAN ILTY SAND SATURATED (CA		·	 	·						

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MIDO	DD1 D000 1					010						050				MDC		000.4					0010	COUNT	~
-	BP1.R003.1 DESCRIPTION	ייחס			P SF-450							GEC	DLOGIST Miller, T. W.	000			BP1.R		ppip			P SF-450			
			JGE N		•	,								_	JND WTR (ft)					GE N			R 1311) OVI		-
	NG NO. EB1-			_	TATION 1		~					_		0 HR			NG NO.							<i>c</i> .	0
	AR ELEV. 24					<b>TH</b> 109.2	ft	NORTHING			<u> </u>		TING 2,543,501	24 HR			AR ELE						<b>PTH</b> 109.2	ft	N
	. RIG/HAMMER EF		E GFC					1	DRILLI						E Automatic					= GFC			%11/23/2021		—
DRIL	LER Walker, (					E 04/12/2		COMP. DA			<b>.</b>	SUR	FACE WATER DEPTH N	I/A			LER W						<b>FE</b> 04/12/2		C
ELEV (ft)	DRIVE ELEV (ft) DEPTH	BLC			0		PER FOOT		SAMP	17	Ō		SOIL AND ROCK DES	SCRIPTIC	DN	ELEV (ft)	DRIVE ELEV	DEPTH (ft)	BLO	W CO		0		PER FOO	
(11)	(ft) (II)	0.5π	0.5ft	0.5ft	0	25	50	75 100	NO.		I G	ELEV.	(ft)		DEPTH (ft)	(11)	(ft)	(14)	0.5π	0.5ft	0.5π	0	25	50	75
25												-24.3	GROUND SURF		0.0	-55							Mato	h Line	
	23.5 - 0.8	6	4	4								- 23.5	PAVEMENT ROADWAY EMBAN					-					:   <i> </i> ::::		:
20	20.3 + 4.0				: [ : : : :							-	TAN AND ORANGE SILTY		MOIST	-60	-58.4 -	82.7	8	10	15		25		:
	+	4	3	3	<b>6</b> ,						L	-				-00	+	-					· <u> </u>		.
	16.6 - 7.7				:\:::							-					-63.4	- - 87.7				· · · ·	:   :\. : :		:
15	+	4	5	5	10							-				-65	-	-	11	14	23				<u>·</u>
	t				./    /							13.3			<u>11.0</u>		1	-				· · ·	: //:::		:
	11.6 + 12.7	wон	WOH	1	<i> i</i> ::::							-	GRAY SILTY CLAY			-	-68.4	92.7	8	9	13		· / · · · ·		:
10	$\pm$											-				-70	-	-	Ŭ	Ŭ	10		<b>●</b> 22		+
	. Ŧ											8.3	ORANGE AND BROWN		AND, <u>16.0</u>			-							.
5	<u>6.6</u> + 17.7	3	3	4	7						-	-	MOIST TO SATUR	RATED		-75	-73.4 -	97.7	8	11	16		27		:
-	Ŧ				- <del> </del>							- 3.3			21.0		1	-							
	1.6 + 22.7				:៉ុ::						0000		GRAY SAND WITH SATURATE	GRAVEL	,		-78.4	- - 102.7				· · · ·	:   : X. : :		:
0	‡	6	6	6	12						0000	-	0, 11 01 01 11 2			-80	4	-	6	16	25		• • • • • • • • • • • • • • • • • • • •		
	ţ				· · · · · ·    · · · · · ·						000	-1.7			26.0		-	-				· · · ·	.   <b> </b> . .   <b> </b>		
	-3.4 - 27.7	16	11	13	``							4.4			28.7		-83.4	107.7	12	17	20		·   · ·  · ·		
-5	+						<u> </u>					-	COASTAL PL/ GRAY SILTY AND SAND					-			-		•37		
	-84 - 327											-6.7	(YORKTOWN FOR	MATION)	WEI 31.0		-	-							
-10	<u>-8.4</u> + 32.7 +	5	8	12		20						-					-	-							
	Ŧ											- - <u>-11.7</u>			36.0		-	-							
	-13.4 - 37.7			- 10	:::;			·   · · · · ·				-	BLUE-GRAY AND GREEN SILTY SAND, SATURATED	N MICACI D (YORK	EOUS TOWN		1	-							
-15	‡	8	7	10	<u> </u>	7						-	FORMATION				+	-							
	‡							·   · · · · ·				-					1	-							
	-18.4 + 42.7	5	8	9								-					+	-							
-20	+				<u>- · · · ·</u>							-					-	-							
	-23.4 + 47.7				: : : : :			.				-					1	-							
-25	<u></u>	5	7	9	10	6	· · · ·					-					_	-							
	Ŧ											-					-	-							
	-28.4 - 52.7	0	6	10				.				-					1	-							
-30	+	8	6	10	•1e	6						-					4	-							
	‡				/.							-					+	-							
25	-33.4 + 57.7	7	9	13		22						-					+	-							
-35	+				<del>  i</del>	•~~ 	· · · ·								61.0		4	-							
-30 -35 -40	-38.4 + 62.7				<i> </i> . 								GRAY, GREEN, BLUE, E		AND		1	-							
-40		5	7	9	<b>▲</b> 16	6						-	RED MOTTLED SANDY AN WET (CAPE FEAR FC				-	-							
	Ŧ					<u> </u>						-					-	-							
	-43.4 - 67.7	10	12	22		· [\					N	-					-	-							
	+		13	22		35						-					4	-							
	‡					/		·   · · · · ·				-					+	-							
50	<u>-48.4 + 72.7</u> +	7	10	15	: : : :	<b>1</b>						-					+	-							
-50	+					<u></u>						-					4	-							
	-53.4 + 77.7					\::::						-					1	-							
-55		10	12	20		<b>b</b> 32	<u> </u>				$\mathbf{N}$	-						-							
		-														·1		-							

#### SHEET 5 OF 12



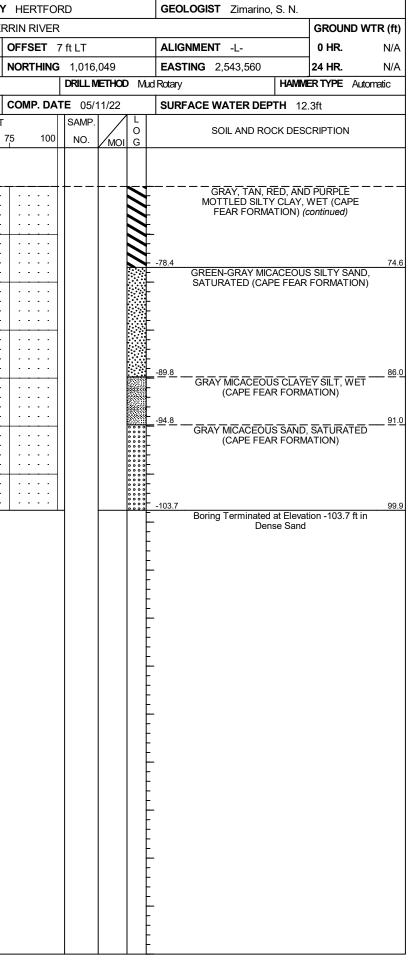
										UKE									-									
WBS	BP1.R0	003.1			TI	P SF-4	15001	0	COUNT	Y HERT	FOR	D			GE	OLOGIST Zimaring	, S. N.	1	_	<b>S</b> BP1.F	R003.1			TI	P SF-450	010	COUNT	۲Y
SITE	DESCRIF	PTION	BRI	DGE N	IO. 10 (	ON -L- (	SR 13	811) OVE	ER MEHE	RRIN RIV	/ER							GROUND WTR (f	) SIT	E DESCR	IPTION	BRID	DGE N	0. 10 0	ON -L- (SR	1311) OVE	ER MEHE	ΞR
BORI	NG NO.	B1-A			S	TATION	15+	51		OFFSET	<b>F</b> 7	ft LT			AL	IGNMENT -L-		0 HR. N/.	BO	ring no.	B1-A			ST	TATION 1	5+51		0
COLL		<b>V.</b> 5.0	) ft		т	OTAL D	EPTH	105.0	ft	NORTH	ING	1,016	6,008		EA	<b>STING</b> 2,543,534		24 HR. N/.		LAR EL	<b>EV.</b> 5.	0 ft		тс	DTAL DEP	<b>TH</b> 105.0	ft	N
DRILL	RIG/HAMI	VIER EF	F./DAT	E GFO	20075 C	ME-45C	87%11	/23/2021		1		DRILLI	METHO	DD M	lud Rota	ſy	HAMM	ER TYPE Automatic	DRI	L RIG/HAI	VIMER EF	F./DAT	E GFC	20075 C	ME-45C 87%	611/23/2021		_
DRIL	LER Wa	alker, C	C. M.		S	TART D	ATE	05/09/2	2	COMP.	DAT	E 05/	/10/22		SU	RFACE WATER DEI		3ft	DRI	LLER V	Valker, 0	C. M.		ST	ART DAT	E 05/09/2	22	0
				w co					PER FOO			SAMP							ELE	, DRIVE			w co				PER FOO	
(ft)	ELEV (ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	:	50	75 1	00	NO.	Имо	O I G	ELEV	SOIL AND RC	OCK DES	CRIPTION DEPTH	(ft)	ELEV (ft)	(ft)		0.5ft	0.5ft	0	25	50	7
10																			-70							Mate	ch Line	
	+														F					+	+		+	+		7	<u> </u>	.
	‡														Ę			5/00/22)		-73.5	+ + 78.5							
5	5.0	0.0	WOU	WOH	1						_			0.0.0	5.0' -			ACE	.0 -75		‡	8	8	13		21	· · ·	·
	±					•1· ·		· · · ·						0000		AL TAN SAND WITH	<b>LUVIAL</b> GRAVEL	, SATURATED			‡					1::::	· · · ·	
	±	4 7												0000	°⊢					-78.5	83.5	10	12	16				
0	0.3	. 4.7	2	2	1	<b>3</b>					-			0000					-80		ŧ				· · · · ·	<b>Q</b> 28	<u> </u>	-
	±	0 5								.	.			000	-2.0			7	.0	02 5	1					$ \dot{i} \cdot \cdot \cdot \rangle$	· · ·	
-5	-3.5 +	8.5	5	8	9	_```	<b>1</b> 7							0000 0000 0000	È				-85	-83.5	<u>+ 88.5</u> _	12	15	18		•33		
	Ŧ														<u>-6.0</u>			IN1	.0		Ŧ							
	-8.5 +	13.5					-  -  -			.	-				-	BLUE-GRAY MIC SATURATED (YO	ACEOUS	SILTY SAND,		-88.5	93.5							•
-10	ļ ļ		7	8	12		<b>•</b> 20				-				Ļ.	GATOIATED (TO			-90		ŧ	12	14	21		<u></u>	· · ·	•
	ļ						: j	· · · · · · · ·							• •						‡							
-15	-13.5 +	18.5	6	12	12			· · · ·							+				-95	-93.5	+ 98.5 +	14	16	19				
-15	+						··· <b>/</b>	4  			-				<u> </u>				-95		‡						· · · ·	
	-18.5 +	23.5					: <i>i</i>	· · · · ·							-					-98 5	+ + 103.5					<u>:</u> /:::		
-20			5	7	10		<b>•</b> 17				•				Ł					00.0	100.0	10	14	16		<b>●</b> 30		·
	±						·  ·														ŧ							
	-23.5	28.5	5	7	10		· · ·			.	-										ŧ							
-25	Ŧ				10		<b>●</b> 17				-				F					-	Ŧ							
	Ŧ						Ξ.Ύ			.					r F						Ŧ							
-30	-28.5 +	33.5	6	8	18			26							F						Ŧ							
	Ŧ						[				•				Ļ					-	ŧ							
	-33.5 +	38.5						· · · · · · · ·							ļ.						‡							
-35	- ‡		7	12	12		··•	4			-							41		_	‡							
	‡						: <u>;</u>  _	· · · · · · · ·			:				<u></u>	GRAY, TAN, AND	RED MO	TTLED SILTY			‡							
40	-38.5 +	43.5	7	9	10						:				ŧ	CLAY, WET (CAF	C FEAR	FURIVIA HUN)			‡							
-40	+						1				-				┢╴					-	‡							
	-43.5 +	48.5					:: `	\		.	:				ŧ						‡							
-45		- <del></del>	7	16	25			<u></u> 41			•				Ł						£							
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	-48.5	53.5		11	15			/			-				F						Ŧ							
-50	Ŧ		9	11	15			26			-				-					-	Ŧ							
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-55	-53.5 +	58.5	8	10	17		::	· · · · ·							ŧ						ŧ							
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	-58.5 +	63.5					::/	· · · · ·							ŧ						‡							
-60			6	8	12		20				-				<b>+</b>					-	‡							
	<u> </u>						::`\			.	:				ŧ						‡							
	-63.5 +	68.5	9	14	20			N: : :							ł						t							
-45 -50 -55 -60 -65	l 🕂		ľ								-				┢						ŧ							
	Ţ,	70 5													ł						f							
-70	<u>-68.5</u> +	73.5	8	12	17			29			:				Ŧ						Ŧ							
-70								20	1				-		L						L	I	I	· · · · ·				

#### SHEET 6 OF 12

HERTFOF	RD			GEOLO	<b>GIST</b> Zimarino,	S. N.			
RRIN RIVER							GROUN	ID WTI	R (ft)
OFFSET 7	' ft LT			ALIGNN	IENT -L-		0 HR.		N/A
NORTHING	1,016,	800		EASTIN	<b>G</b> 2,543,534		24 HR.		N/A
	DRILL M		) Muc	Rotary		HAMIME	RTYPE	Automa	atic
COMP. DAT	<b>E</b> 05/1	0/22		SURFAC	E WATER DEP	<b>TH</b> 0.8	ft		
	SAMP.		L O	•	SOIL AND ROO		RIPTION		
75 100	NO.	моі	G						
	<b> </b>		$ \downarrow $	-71.0					76.0
					GRAY CLAYEY SIL FORM		(CAPE F	EAR	_ 10.0
			×.						
			Į.						
			F						
+				-81.0					86.0
					GREEN-GRAY MIC ILTY SAND, SATU FORM		S SAND / (CAPE F	AND EAR	
· · · ·			E		FORM	/ATION)			
				-86.0					91.0
			00000						
+ • • • • • • •			00000						
· · · ·			00000						
			00000						
			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-100.0					105.0
	1		-		oring Terminated		ion -100.0	) ft in	100.0
			ļ		Dens	se Sand			
			F						
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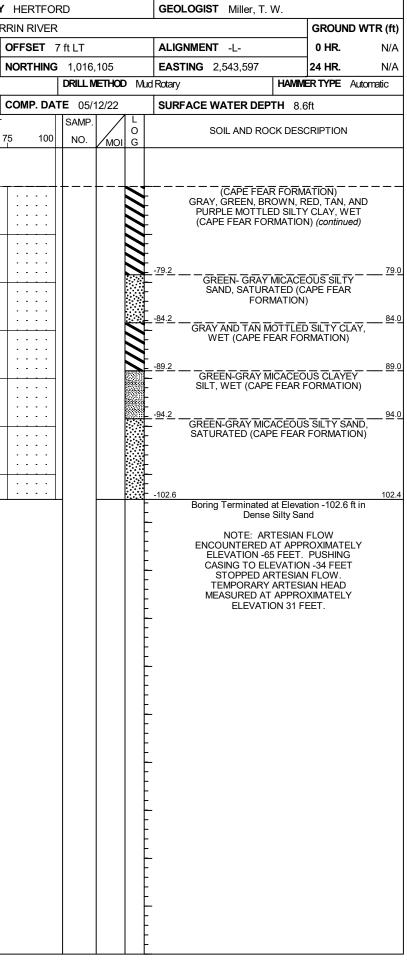
DBL.B.P.MAREPERANE         COUNT OF EARLY         PARAMET VER. AUXION         PARAMET VER. AUXION           DBL.B.P.MARE.P.C.M.E.         0.000         DEPART PARA         COUNT OF EARLY         PARAMET VER. AUXION           DBL.B.P.MARE.P.C.M.E.         0.000         DEPART PARA         COUNT OF EARLY         PARAMET VER. AUXION           DBL.B.P.MARE.P.C.M.E.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA         DEPART PARA           S.S.         DEPART								1																,		
DORDER ON: UNA     STATION     NUMBER     PTATION     NUMBER     PTATION     NUMBER     PTATION     NUMBER     PTATION     NUMBER     PTATION     NUMBER     PTATION													GEOLOGIST Zimarino,	S. N.	1											
COLLARE LIV	SITE	DESCR	RIPTION	BRII	DGE N	0.10	ON -L- (SR 1311) OV	ER MEHE	RRIN RIVEF	8			1			ft)	SITE	DESCR	IPTION	BRID	GE NC	). 10 C	)N -L- (SR 1	311) OVE	R MEHE	
DRL BOWWEETTONE         DRL BOWEETTONE         DRL BO															0 HR. N	/A						_				<u>_</u> 0
DBILLER PUICE D     DIARTO ANTE 65:02     COMPOSITION CONTRACT       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO ANTE 65:02     DIARTO ANTE 65:02       NN     DIARTO MUNICIPACIONE     DIARTO MUNICIPACIONE     DIARTO MUNICIPACIONE       NN     DIARTO MUNICIPACIONE     DIARTO MUNICIPACIONE     DIARTO MUNICIPACIONE </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>t</td> <td>NORTHING</td> <td></td> <td>N</td>								t	NORTHING																	N
naver Control (1) 1000 (2000) 1000 (2000) 1000 (2000) (200	DRILL	. RIG/HAI	VIMER EF	F./DAT	E GFO	20075 (	CME-45C 87% 11/23/2021			DRILL N	/IETHOD	M	ud Rotary	HAMM	ER TYPE Automatic		DRILL	. RIG/HAN	<b>IMER EF</b>	-F./DATE	GFO	0075 CN	√E-45C 87%1	1/23/2021		
III       IIII       IIII       IIII       IIII       IIII       IIII       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII						S	TART DATE 05/10/2	2	COMP. DA	<b>TE</b> 05/	11/22		SURFACE WATER DEP	<b>TH</b> 12	.3ft		DRIL	<b>LER</b> Pi	nter, D	. G.		ST	ART DATE	05/10/22	2	С
01       01       00       05       03       0.5       01       01       01       01	ELEV	DRIVE	DEPTH	BLC			4	PER FOO	T	SAMP.		L						DRIVE	DEPTH	BLO	w cou	NT		BLOWS F	PER FOO	π
3     3     3     5 <td>(ft)</td> <td></td> <td>(ft)</td> <td>0.5ft</td> <td>0.5ft</td> <td>0.5ft</td> <td>0 25</td> <td>50</td> <td>75 100</td> <td>NO.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>(ft)</td> <td>(ft)</td> <td>(ft)</td> <td>(ft)</td> <td>0.5ft</td> <td>0.5ft</td> <td>0.5ft</td> <td>0 25</td> <td>5 5</td> <td>50</td> <td>75</td>	(ft)		(ft)	0.5ft	0.5ft	0.5ft	0 25	50	75 100	NO.						(ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0 25	5 5	50	75
3     3     3     5 <td></td>																										
3     3     3     3     3     3     4 <td>10</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td>-70</td> <td></td> <td>L</td> <td></td> <td></td> <td></td> <td></td> <td>Matcl</td> <td>h Line</td> <td></td>	10												_				-70		L					Matcl	h Line	
s			ŧ									_	WATER SUF	R <u>FACE ((</u>	05/10/22)			-722-	68.4					1:::		:
3       -			Ŧ										-					-12.2		10	10	16		26		:
0	5	-	Ŧ									F	_				-75		F						+ • • •	-+
0.       3.0       3.			Ŧ									F	-					-77.2 -	73.4	7	10	14				
ab       ab       ab       bb       b       bb       bb	0		ŧ									ļ	-				-80	-	ŧ	'	10	14		24		
	0	-	ŧ									ļ	-				-00	-	F.					<u>`````````````````````````````````````</u>		
			‡									ļ			ACE	0.0		-82.2 -	- 78.4	17	20	23				:
a1         4.5         6         0         14         6         0         14         15         16         17         18         27         28.4         18         17         18         27         18         18         17         18         18         17         18         18         17         18 </td <td>-5</td> <td>-3.8</td> <td>+ 0.0</td> <td>3</td> <td>3</td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>AL</td> <td>LUVIAL</td> <td></td> <td>5.0</td> <td>-85</td> <td></td> <td>ŧ</td> <td></td> <td></td> <td></td> <td></td> <td>I.</td> <td>1</td> <td>·</td>	-5	-3.8	+ 0.0	3	3	5							AL	LUVIAL		5.0	-85		ŧ					I.	1	·
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-32 - 224 + 10 + 10 + 12 -322 - 284 + 7 + 14 + 19 -322 - 284 + 7 + 14 + 19 -322 - 334 + 8 + 13 - 20 -422 - 384 + 8 + 13 - 20 -422 - 384 + 8 + 13 - 20 -422 - 384 + 9 + 15 + 16 -55	-25	_	Ŧ								••••		-24.8		2	1.0		-	F							
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35       101       7       14       19       111       19       111       19       111       111       111       111       111       115       111       115       111       1111       111 <td>-30</td> <td>-</td> <td>‡</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>-  </td> <td>÷</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-30	-	‡								0		-					-	÷							
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#### SHEET 7 OF 12



SITE DESCRIPTION         BRIDGE NO. 10 ON -L- (SR 1311) OVER MEHERRIN RIVER         GROUND WTR (ft)         SITE DESCRIPTION         BRIDGE NO. 10 ON -L- (SR 1311) OVER MEHERRIN RIVER           BORING NO. B3-A         STATION 16+67         OFFSET 7 ft LT         ALIGNMENT -L-         0 HR. N/A           COLLAR ELEV0.2 ft         TOTAL DEPTH 102.4 ft         NORTHING 1.016,105         EASTING 2.543,597         24 HR. N/A         BORING NO. B3-A         STAT           DRILLRGHAMMER EFF.DATE         RF00074 OME55 92% (10/12/20         DRILLER/HOD MLd Rotay         HAMMER TYPE Automatic         DRILLER FILEV0.2 ft         TOTAL           DRILLER Pinter, D.G.         START DATE 05/10/22         COMP. DATE 05/12/22         SURFACE WATER DEPTH 8.6ft         DRILLER Pinter, D.G.         STAR           ELEV         DEPTH         BLOW COUNT         BLOWS PER FOOT         SOL AND ROCK DESCRIPTION         DRILLER Pinter, D.G.         STAR           10         0.51         0.5ft	F-450010 COUNTY - (SR 1311) OVER MEHERF DN 16+67 C . DEPTH 102.4 ft N
BORING NO.         B3:A         STATION 16+67         OFFSET 7 ft LT         ALIGNMENT -L-         0 HR.         NA           COLLAR ELEV.         0.2 ft         TOTAL DEPTH 102.4 ft         NORTHING 1.016.105         EASTING 2.543.597         24 HR.         N/A           DRILL RIGHAMMER EFF./DATE         RF00074 CME-55 92% 10/122020         DRILL METHOD         Mud Rotary         HAMMER TYPE         Automatic           DRILL RIGHAMMER EFF./DATE         START DATE         05/10/22         COMP. DATE         05/12/22         SURFACE WATER DEPTH 8.6ft         DRILL RIGHAMMER EFF./DATE         RF00074 CME-56           DRILL RV         0.5ft	<b>DN</b> 16+67 <b>C</b>
COLLAR ELEV.         0.2 ft         TOTAL DEPTH         102.4 ft         NORTHING         1,016,105         EASTING         2,343,597         24 HR.         N/A           DRILL RIGHAMMER EFF/DATE         RF00074 OME-55         92% 10/12/2020         DRILL METHOD         Mud Rodary         HAMMER TYPE         Automatic           DRILL RIGHAMMER EFF/DATE         RF00074 OME-55         92% 10/12/2020         COMP. DATE         05/12/22         SURFACE WATER DEPTH         8.6ft         DRILLER         Plinter, D. G.         START         DATE         05/10/22         SURFACE WATER DEPTH         8.6ft         DRILLER         Plinter, D. G.         START         DATE         05/10/22         SURFACE WATER DEPTH         8.6ft         DRILLER         Plinter, D. G.         START           ELEV         (ft)         0.5ft         0.5ft <th></th>	
DRILL RIGHAMMER EFF.DATE         RF00074 OVE-55         92% to 10/12/2020         DRILL METHOD         Mud Rotary         HAMMER TYPE         Automatic           DRILL RR         Pinter, D. G.         START DATE         05/10/22         COMP. DATE         05/12/22         SURFACE WATER DEPTH         8.6ft         DRILL RCHAMMER EFF.DATE         RF:00074 OVE-55           Lev         DRIVE         DEPTH         BLOW COUNT         BLOW SPER FOOT         SAMP.         No.         SOIL AND ROCK DESCRIPTION         DEPTH (ft)         BLOW COUNT         0.5ft         <	
DRILLER         Pinter, D. G.         START DATE         05/10/22         COMP. DATE         05/12/22         SURFACE WATER DEPTH         8.6ft         DRILLER         Pinter, D. G.         START           LEV         DRIVE ELEV         DEPTH (ft)         BLOW COUNT (ft)         BLOWS PER FOOT 0.5ft         0         25         50         75         100         NO.         MOI         G         SOIL AND ROCK DESCRIPTION (ft)         DEPTH (ft)         BLOW COUNT (ft)         BLOW COUNT 0.5ft         0.5ft         0.5ft </td <td>5 92% 10/12/2020</td>	5 92% 10/12/2020
LEV (ft)         DEPTH ELEV (ft)         BLOW COUNT (ft)         BLOWS PER FOOT 0.5ft         SAMP 0         Soll AND ROCK DESCRIPTION C         CUMPTER (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW SPER FOOT 0.5ft         SAMP 0         Soll AND ROCK DESCRIPTION C         L 0 C         Soll AND ROCK DESCRIPTION C         ELEV (ft)         DEPTH (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         COUNT (ft)         COUNT (ft)         BLOW COUNT (ft)         BLOW COUNT (ft)         COUNT (ft)         BLOW COUNT (ft)         ELEV (ft)         COUNT (ft)         COUN	<b>DATE</b> 05/10/22
(10)       (11)       0.5ft       0	BLOWS PER FOOT
10	25 50 75
5       -76.1       70.9       -71.1       70.9       -76.1       75.9         0       -0.2       GROUND SURFACE       0.0       -76.1       75.9       -76.1       75.9         -5       -78       76       -76       -76.1       75.9       -76.1       75.9         -78       76       2       9       10       11       19       24         -78       76       2       9       10       -77       9       13	
5       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       7.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       75.9       -76.1       76.9       -76.1       76.9       -76.1       76.9       -76.1       76.9       -76.1       76.9       -76.1       76.9       -76.1       76.9       -76.1       76.9       -76.1       76.9       -76.1       77.9       11.1       19.24       -76.1       -76.1       76.9       -76.1       77.9       11.1       19.24       -76.1       -76.1       77.9       13.1       -76.1       -76.1       79.13       -76.1       -76.1       79.13       -76.1       -76.1       -77.9       -77.9       13.1       -77.9       -77.9	Match Line
5       -75       -76       -75       -76       -76       -75       -76       -75       -76       -76       1	
0       .02       0.0       .02       0.0       .02       GROUND SURFACE       0.0        76.1       .75.9              5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
0       -0.2       GROUND SURFACE       0.0         -0.2       GROUND SURFACE       0.0         -0.2       GROUND SURFACE       0.0         -1.1       -0.2       GROUND SURFACE       0.0         -1.1       -0.2       GRAY SAND WITH WOOD FRAGMENTS       -80         -5       -5       -6       10       13         -5       -7.8       7.6       -9       10       11       19       24         -7.8       7.6       2       9       10       -10.2       GROUND SURFACE       4.0         -7.8       7.6       2       9       10       -10.2       -10.2       -10.2       -10.2       -10.2       -80.1       -80.1       -80.1       -80.9       -11       19       24       -11       19       24       -85       -86.1       -85.9       -86.1       -85.9       -86.1       -85.9       -86.1       -85.9       -9       -13       -13       -13       -14       -14       -14       -14       -14       -14       -14       -14       -14       -14       -85       -86.1       -85.9       -86.1       -85.9       -14       -14       -14       -14       -14       -14	· · ·   · · · ·   · · · · ·
-5 -6 -78 -7678 -78 -78 -78 -78 -78 -78 -78 -78 -	· · · · · · · · · · · · · · · · · · ·
-5 -6 -78 -7678 -78 -78 -78 -78 -78 -78 -78 -78 -	
-5       -5       -7.8       7.6       -7.8       7.6       -7.8       7.6       -7.8       86.6       -7.8       -7.8       9       10       11       19       24       11       11       19       24       11       11       19       24       11       11       19       11       11       1	· · · · · · · · · · · · · · · · · · ·
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-11.1 + 10.3     10     12     14     -11.1 + 30.3     7     12     15       -11.1 + 10.3     10     12     14     -11.1 + 30.3     7     12     15	· · · · • • · · · · · · · · · · · · · ·
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#### SHEET 8 OF 12



INTERDESPRING       SECRETION       SECRETION </th <th></th> <th>I</th> <th></th> <th></th> <th></th> <th></th>																					I				
DOMEND         EA         TATION         T12         OPPRET         BLT         PRET         No.         DOMEND         EAA         STATUN         T12         OPPRET         BLT         PRET         No.         DOMEND         EAA         STATUN         T12         OPPRET         No.         DOMEND         EAA         STATUN         T12         OPPRET         No.         DOMEND         EAA         STATUN         T01A         DEPRET         Statun         DEPRET         Statun         DEPRET         Statun         DEPRET         Statun         DEPRET         St												GE	OLOGIST Miller, T. W.											COUN	
OCLASE LEV. 10.2 IT         TOTAL DEPTH 102.2 IN SEC 1002.20         DATA         2.418.2				DGE N											. ,				BRID	GE N		-		ER MEH	ERR
DRUE Prever Autrie Traditionality (2000)         DRUE Prever Autrie Traditionality (2000)         DRUE Prever Autrie Autre Autrie Autre Autrie Autrie Autrie Autrie Autrie Autrie Autrie	BORING	<b>NO.</b> B4-A			S	TATION 17+	12		OFFSET	6 ft LT		ALI	GNMENT -L-	(	N/A N/A	BOR	ng no.	B4-A			ST	TATION 1	7+12		0
DBLEE         Prove 0         START DATE         OSUM2         COMP DATE         UNIX         SUBFACE WATER DEPTH MAA         DEALES         FORME         OF         SUBFACE         SUBFACE WATER DEPTH MAA           100         101         10								t	NORTHING					24	<b>HR.</b> 2.3									ft	N
Pipe/ Int       Bit Model (1)	DRILL RIG	HAMMER EF	F./DAT	E RFC	0074 (	CME-55 92% 10	/12/2020			DRILL	NETHOD	Mud Rotar	y HA	MIMER	TYPE Automatic	DRILL	RIG/HAMIN	ER EF	F./DATE	RFC	0074 C	ME-55 92%	10/12/2020		
00       00 <th< td=""><td>DRILLER</td><td>R Pinter, D</td><td>. G.</td><td></td><td>S</td><td>TART DATE</td><td>05/09/22</td><td></td><td>COMP. DA</td><td>TE 05/</td><td>10/22</td><td>SU</td><td>RFACE WATER DEPTH</td><td>N/A</td><td></td><td>DRIL</td><td>LER Pin</td><td>er, D.</td><td>. G.</td><td></td><td>ST</td><td>ART DATI</td><td>E 05/09/2</td><td>22</td><td>С</td></th<>	DRILLER	R Pinter, D	. G.		S	TART DATE	05/09/22		COMP. DA	TE 05/	10/22	SU	RFACE WATER DEPTH	N/A		DRIL	LER Pin	er, D.	. G.		ST	ART DATI	E 05/09/2	22	С
00       00 <th< td=""><td>ELEV DR</td><td></td><td>BLC</td><td>w cou</td><td>JNT</td><td></td><td>BLOWS PI</td><td>ER FOOT</td><td>-</td><td>SAMP.</td><td></td><td></td><td></td><td></td><td>DTION</td><td>ELEV</td><td></td><td>EPTH</td><td>BLO</td><td>w cou</td><td>UNT</td><td></td><td>BLOWS</td><td>PER FOC</td><td>л</td></th<>	ELEV DR		BLC	w cou	JNT		BLOWS PI	ER FOOT	-	SAMP.					DTION	ELEV		EPTH	BLO	w cou	UNT		BLOWS	PER FOC	л
10     10.5     0.0     WOT WORK     1     10.5     0.0     COUND SUFFACE     0.5       10     10.5     0.2     2     3     4     7     17	(ft)	· / / / / f+ )		0.5ft	0.5ft	0 25	50	0	75 100	NO.				JESCRI			ELEV (ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75
9.     -30.5     -30.6     WOT WORD     1																									
10     .05     .03     .04     WOILWOIL	15															-65							Mato	ch Line	
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1       2       3       4       1	10 10	0.5 + 0.0		WOH	1						803	- 10.5			Ξ 0.0	-70	+								·
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5       34       4       3       3       4       4       3       4       4       5       6       7       7       8       10		<u>.3 <del> </del> 3.2</u>	2	3	4												ļŦ		Ĭ	Ĩ		<b>●</b>	19		
1.0.       0.       3       3       3       4.       0.		, ‡							+ • • • •			5.5	SILTY SAND WITH WO	OD FR		-75	‡	oc				· · · · ·	+ • • • •	+ • • •	÷
0 1.13 1.17 3.13 1.17 4.13 4.13 4.13 4.17 4.13 4.17 4.13 4.17 4.13 4.17 4.13 4.17 4.13 4.13 4.17 4.13 4.13 4.17 4.13 4.13 4.17 4.13 4.1	3	<u>.8 + 6.7</u> +	3	3	3		· · · ·	· · · ·					SAT URAT				-76.3 +	86.7	6	8	12				:
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		$+_{117}$							+		000					-80	-813	91 7				· · · · ·	<u> </u>	+ · · ·	+
.5       .10   .		t	3	3	4										14.0		1		12	15	20		. •35	· · ·	-
-83       -107       6       7       9         -10       -113       217       7       8       10       -11         -113       217       7       8       10       -11       -11       -11         -15       -16       -16       -16       -16       -17	-5	Ŧ										<u></u>					Ŧ								
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-16       -7       9       10       -7       9       10       13       15       -7       15       15       -7       16       15       16       15       16	-10	‡														-90	1						<u>i: : : :</u>		÷
.15       .48.3       .62.7       4       5       8	-1	1.3 + 21.7	7	9	10		· · · ·										-91.3 -	101.7	10	13	15			· · ·	:
-15 -48.4 -27.		ł				· · · <b>/</b>											+						$ \gamma \cdots \rangle$		.
20 213 317 4 233 417 4 30 313 417 6 413 517 9 45 563 467 5 563 467 5 613 717 8 12 17 23 		. <del>-</del>				<i>!</i> -										-95	IŦ					· · · · ·		<u> </u>	
20 213 317 4 6 7 26 26 3 367 - 36 3 67 - 41 3 517 9 15 21 -46 3 567 8 12 14 -56 - -66 3 667 - -61 3 717 8 11 14 -56 - -66 - -61 3 717 8 11 14 -57 - -66 - -61 3 717 8 12 14 -57 - -66 - -76 -		6.3 <u>+ 26.7</u> +	4	5	8	<i>· · /· ·</i>	· · · ·	· · · · ·									-96.3 +	106.7	12	21	23			· · · 14 · · ·	
-213 317 4 6 7 -26	20	‡										<u>_</u>					+					•	· · ·		
-25       -263       367       5       10       11       1		1.3 + 31.7																							
.28       .367       5       10       11             .30                .30		÷	4	6	7	· ·•13	· · · ·										+								
-28.3       38.7	-25	Ŧ															+								
-30       -31.3       41.7       6       11       12         -35       -36.3       46.7       6       8       10         -41       51.7       9       15       21         -46       -46.3       56.7       8       12       14         -50       -51.3       61.7       9       15       21         -56.3       66.7       5       9       12       -25       -26         -60       -61.3       7.7       8       11       14       -22       -22         -61.3       7.7       8       12       14       -22       -23       -24         -56.3       66.7       5       9       12       -27       -26       -26         -61.3       -7       8       12       15       -27       -26       -26         -61.3       -7       8       12       15       -27       -26       -26       -26         -61.3       -7       8       12       15       -7       -7       -7       -7		6.3 - 36.7	5	10	11							F					Ŧ								
-30 -31.3 41.7 6 11 12 -35 -36.3 46.7 6 8 10 -40 -41.3 51.7 9 15 21 -45 -56.3 56.7 8 12 14 -55 -56.3 66.7 5 9 12 -61.3 71.7 8 12 15 -31.5 -1		Ŧ				<b>↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓</b>						\$ <del>1</del>					Ŧ								
-36     -36     11     12		‡										<u>_</u>					1								
-35       -36.3       46.7       6       8       10          GRAY, GREEN, FURPLE, BROWN, AND       RED MOTTLED BROWN, AND         -40                -41.3       51.7                 -46.3       56.7	-3	1.3 + 41.7 +	6	11	12	-   · · · · <b> </b>      · · · · • <b>≜</b> ∩:	 	· · · ·									1								
.36.3       46.7		±					·	· · · ·				- <u>33.6</u>					1								
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	-35	63 + 467							+				RED MOTTLED SILTY C	CLAY. V	VET (CAPE		+								
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			6	8	10	1	• • • •					1	FEAR FORM	ATION	)		ĮŦ								
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $		1.3 + 51.7		1.5			×		· · · ·			5					‡								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		‡	9	15	21		∑ <b>)</b> 36 ]	· · · · · · · ·				1					1								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-45	1					./					ł					1								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	-46	6.3 + 56.7	8	12	14				• • • •								<u> </u>								
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-5	<u>1.3 + 61.7</u> +	8	11	14		••••  25 ••••	· · · ·				5													
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	-6	1.3 71.7		10	15	\						5													
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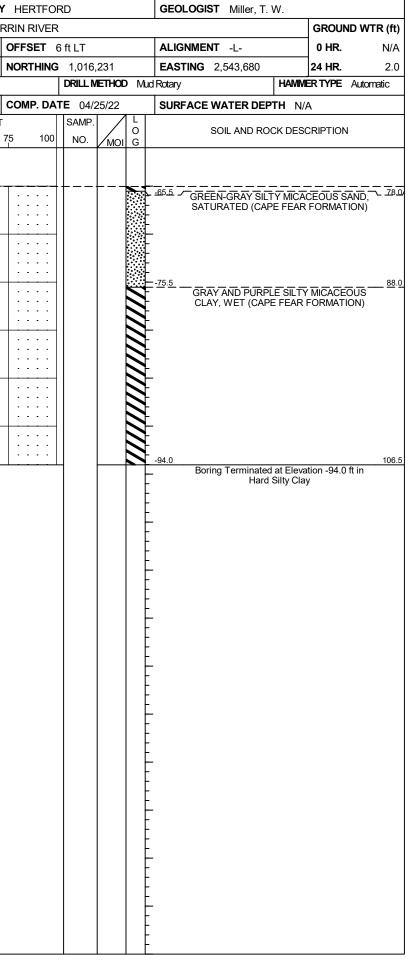
#### SHEET 9 OF 12

' HERTFORD		GEOLOGIST Miller, T. V	N		
RRIN RIVER				GROUN	ID WTR (ft)
OFFSET 6 ft LT		ALIGNMENT -L-		0 HR.	N/A
NORTHING 1,016,142		EASTING 2,543,622		24 HR.	2.3
DRILL METHOD	Mud	Rotary	HAMME	RTYPE	Automatic
COMP. DATE 05/10/22		SURFACE WATER DEPT	TH N/A	Ą	
75 100 NO. MOI	L O G	SOIL AND ROC	K DESC	RIPTION	
COMP. DATE 05/10/22 SAMP.		SURFACE WATER DEPT SOIL AND ROC SOIL AND ROC GREN-GRAY MICA SATURATED (CAPE -73.6 GRAY-GREEN MICA SATURATED (CAPE -78.6 GRAY-GREEN MICA SATURATED (CAPE -93.6 GRAY-GREEN MICA SATURATED (CAPE -93.6 GRAY-GREEN MICA SATURATED (CAPE -93.6 GRAY-GREEN MICA SATURATED (CAPE -97.8 Boring Terminated		CRIPTION CRIPTION SILTY S. FORMAT CLAY, WE ATION) SILTY S. FORMAT , AND RE WET (C/ DN) SILTY S. FORMAT	AND, ION) T
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WBS         BP1.R003.1         TIP         SF-450010         O           SITE DESCRIPTION         BRIDGE NO. 10 ON -L- (SR 1311) OVER         <										HERT		D				GEC	DLOGIS	ST Mill	ler, T. V	۷.			WBS BP1.R003.1						TIP         SF-450010         COUNTY           10         01							
																		-	ND WTR (ft)							D. 10 ON -L- (SR 1311) OVER MEHE										
	BORING NO. B5-A					_	STATION 17+69					_						ALIGNMENT -L- 0 HR. N/A									STATION 17+69				0					
		R ELEV.					TOTAL DEPTH         110.1 ft           0075 CME-45C 87% 11/23/2021						NORTHING 1,016,190 DRILL METHOD Mud					2,543,653 <b>24 HR.</b> 2.0 <b>HAMMER TYPE</b> Automatic					. <b>EV.</b> 1				OTAL D				NC					
					GFC													Mu							Automatic			MMER E		E GFO						C
DR		R Walke						ATE					COMP. DATE				22		SUR	RFACE	WATE	R DEPT	<b>H</b> N/.	Ą		DRIL		Nalker, (								
ELE (ft)		RIVE LEV (ft)	лн t)		W COU 0.5ft		0	2	BLC 5	WS P 5	PER FC	оот 7	5	100	SAMF	17		ŏ			SOIL AN	ND ROC	K DES	CRIPTION		ELEV (ft)		DEPTH		DW CO	UNT 0.5ft		25		50 PER FOC	
()	-	(ft) (1		0.511	0.511	0.51		2	.J	5	і —		J	100	NO.	+	NOI	G	ELEV.	(ft)					DEPTH (ft)	(,	(ft)	(,	0.51	0.51	0.51		25		<u> </u>	75
15																		E	•							-65	+	+		+			[	Ma /	tch Line	
l																		Ŀ	11.3		C	ROUND		ACE	0.0		-67.3	78.6	7	10	13		· · /			•
10		11.3 <u>† 0</u> 	0	2	2	6	· · ·	•••	• •	•••		•••		•				t	11.3			ALLI	JVIAL		0.0	-70		Ŧ					923	3		
ĺ		Ŧ					1												8.3	_		то	WET	CLAY, MC			-72.3	- - 83.6								·
ĺ		6.5 4	8	1	1	1		•••		• •	•••							E		GRA	Y AND T	TAN SAI SATU	ND AND RATED	SILTYS	AND,		-12.5	<u> </u>	8	12	15			27		
5	_	Ŧ		1	'	1	<b>4</b> 2	• •						-				Ē	4.3			0, 11 0			7.0	-75	-	Ŧ								
		<u>2.7 – 8</u>	6	5	5	5				•••				-			0000										-77.3	<u> </u>	13	14	19			1		
0		Ŧ		5	5	5		0 -					· · ·				0000									-80		Ŧ		14	19			33		-
		. <del>†</del> .					<u>.</u> į.										0000		•									ŧ						<u> </u>		
		- <u>2.3 + 13</u> +	.6	4	3	3	. <b>/</b> .   <b>↓</b> 6	· ·	· · ·	· · · ·	· · · ·		· · · · · ·	-			0000										-82.3	<u>+ 93.6</u> +	15	16	11			27		
-5		-					.Ţ.							-			0000		-5.7						17.0	-85		‡					· · /			·
		- <u>7.3</u> + 18	.6	_			: <u>`</u>	· ·	· · ·	•••	 	· · · ·	· · · ·							 BU		COAST		IN EOUS SA			-87.3	98.6						Ϋ́́Υ		:
10		‡		5	6	8	::\	14		•••		::	· · ·											FORMA		00		‡	12	14	17		::	<b>4</b> 31		
-10	'	+						- <b>}</b> -																		-90	-	‡						- <del> </del> -		<del>.</del>
	-	12.3 + 23	.6	10	10	13		: j		•••	· ·	· ·	· · ·														-92.3	+ 103.6	10	14	20		::			
-15	;	1												-				Ŀ								-95		1						<b>4</b> 34		•
		17.3 + 28	6					./. ./.	· ·	•••	· ·	•••	· · ·														-97.3	+ 108.6						• 4 •	.	
		17.5 1 20		6	7	8		15	· ·	•••			 	-													-97.0	-	14	17	21			· •		
-20	<u> </u>	Ŧ						· · ·						-				$\mathbb{F}$										Ŧ								
		22.3 - 33	.6	5	5	8		· ·					· · · ·	-				$\mathbb{F}$										Ŧ								
-25	;	Ŧ		Ŭ	Ŭ	0		13										F										Ŧ								
		Ŧ												•				F										Ŧ								
	-	27.3 <u>-</u> 38 -	.6	9	8	9		17	· · ·	•••																		Ŧ								
-30		-						. .						-				-										‡								
	_	<u>32.3 + 43</u>	.6	-	_			· · · ·	· · ·	•••	· · · ·	· · · ·	· · ·															‡								
-35		‡		1	8	9		<b>•</b> 17		· · · ·		::		-														‡								
-33	<u>'</u>	+																÷	- <u>35.7</u>						<u></u>			‡								
	-	37.3 + 48 +	.6	6	8	10		•   • • • 18	· · ·	· · · ·		::	· · · · · ·	:				S			OTTLED		CLAY,	WET (CA				‡								
-40		‡										· ·		-				1										‡								
		42.3 + 53	.6						`\ ·	· · · ·	 	· · · ·	· · ·	:				N										‡								
		1		11	16	23				<b>9</b> 39		: :		:				Z										t								
45	2	+						• •	·/		 			-				$\mathbf{z}$										+	1							
ĺ	-	47.3 <u>+ 5</u> 8	.6	9	11	13		· ·	1	· · ·	· · 	::	 	:				Z										±	1							
-50	)	Ŧ		-		-		¶	24	•••				-				Y										Ŧ								
<u>-45</u> -50		52.3 <del>-</del> 63						• •	\	• •	• •	• •		:				Y										£								
		<u></u>		10	12	17			<b>4</b> 29	•••	· · · ·		· · · ·	-				Y										Ŧ	1							
		+												-				Y										Ŧ	1							
	_	<u>57.3 + 68</u>	.6	9	11	16		· ·	:::	•••		· · ·		-				Y										Ŧ	1							
-60		‡		э	11	10			<b>Q</b> 27	· · · ·		::	· · ·	-				J										Ŧ	1							
-60		‡							1.	•••				•				3	•									Ŧ	1							
	-	<u>62.3 + 73</u>	.6	10	15	19		· ·	· `\`	•••				:				N										†	1							
-65		+								34 '				- 1														Ŧ				1				

HERTFOR	RD			GEOLOGIST Miller, T. V	,											
RRIN RIVER						GROUND WTR (ft)										
OFFSET 6	ft LT			ALIGNMENT -L-		0 HR.	N/A									
NORTHING	1,016,			EASTING 2,543,653		24 HR.	2.0									
	DRILL M	ETHOD	) Muc	d Rotary	Hamme	RTYPE	Automatic									
COMP. DAT	<b>E</b> 04/2	27/22		SURFACE WATER DEPT	'H N/A	λ										
75 100	SAMP.		L O	SOIL AND ROCK DESCRIPTION												
75 100	NO.	<u>/ MOI</u>	G													
<u> </u>	+						77.0									
				SATURATED (CAPE	E FEAR	FORMAT	, ION)									
				-70.7			82.0									
· · · ·				GREEN-GRAY S (CAPE FEAR			T									
				GRAY MICACEO		TY SAND	87.0									
				SATURATED (CAPE	FEAR	FORMAT	ÍON)									
· · · ·			-	-												
			-	02.2			94.6									
			N	-83.3 GRAY, RED, AND C			AY,									
				- WET (CAPE FE	AR FUF	MATION	)									
			N													
· · · · ·			N	-												
			N													
			N													
				GRAY MICACEC	บริราม	TY SAND	<u>107.0</u>									
				-98.8 SATURATED (CAPE			110.1									
				Boring Terminated a	at Elevat Silty San	tion -98.8 d	ft in									
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WBS	BP1.R003.1		TI	P SF-450	010	COUNT	Y HERTFO	RD			GEC	LOGIST Miller, T. W.			WBS BP1.R003.1						TIP SF-450010 COUNTY					
SITE DESCRIPTION BRIDGE NO. 10 ON -L- (SR 1311) OVER MEHER									र					GROUND WT	R (ft)	SITE	DESCR		BRID	DGE N	0. 10 0	10 ON -L- (SR 1311) OVER MEHEI				
BORI	BORING NO. B6-A STATION 18+18							OFFSET	6 ft LT			ALIC	ALIGNMENT -L- 0 HR.			BOR	NG NO.	B6-A			ST	STATION 18+18				
								NORTHING					EASTING 2,543,680 24 HR.			COL	AR EL	<b>EV.</b> 12	2.5 ft		тс	TOTAL DEPTH 106.5 ft				
DRILL	RIG/HAMMER EF	F./DATE	GFC	0075 C	ME-45C 87%	611/23/2021			DRILL	METHO	DМ	ud Rotary	Rotary HAMMER TYPE Automatic			DRILL	. RIG/HAI	VIMER E	FF./DATE	E GFC	20075 C	ME-45C 87%	11/23/2021			
	LER Walker, C			ST	FART DATI	E 04/21/2	22	COMP. DA	<b>TE</b> 04	/25/22		SUR	SURFACE WATER DEPTH N/A			DRIL	LER V	Valker,	С. М.		ST	START DATE 04/21/22				
ELEV	DRIVE ELEV DEPTH	BLO	N COL	JNT		BLOWS	PER FOO	T	SAMP	P. 💙/	L		SOIL AND ROCK DES			ELEV	DRIVE ELEV	DEPTH	BLO	W CO	UNT		BLOWS F	PER FOO	דע.	
(ft)	(ft) (ft)	0.5ft	0.5ft	0.5ft	0	25	50	75 100	NO.	мо		ELEV.			PTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25 5	50	75	
15																-65		L					Matc	h Line		
	+ 12.5 + 0.0											- - 12.5	GROUND SURF	ACE	0.0		67.5	+ 80.0					1::::	· · ·	:	
-		1	1	2	<b>•</b> 3						<i>.</i> ,,		ALLUVIAL TAN AND BROWN CLA		0.0		-07.5	1 00.0	7	8	12		20		:	
10	+				<del> </del>							9.5	MOIST TO SATUR	RATED	3.0	-70	-	Ŧ				i	\ <u></u>	· · · ·	+	
	Ŧ												GRAY SANDY CLA	Y, WET			-72.5	85.0	8	11	16					
5	<u>6.1 </u> 6.4	WOH	wон	wон								F.,				-75		Ŧ	°		10		<b>0</b> 27		:	
	Ŧ				$\mathbf{v}_{1}$							<u>4.5</u>	GRAY SAND, SATU	JRATED	<u>   8.0    </u>		-	Ŧ					1			
	2.5 + 10.0	5	5	6				 			0000	F					-77.5	<u>+ 90.0</u> +	6	11	21		32		.	
0	+										0000	-				-80	-	ŧ						· · ·	-+	
	-2.5 + 15.0							· · · · · · ·			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-					-82.5	+ + 95.0					/::::		:	
-5	+	3	3	6	<b>4</b> 9						0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F				-85		ŧ	8	7	10	. <b>€</b> 17	7		:	
-5	+				<u> </u>							- <u></u>	COASTAL PL	<u>an</u>	<u>18.0</u>	-05	-	ŧ								
	-7.5 + 20.0	5	7	9							//	F	BLUE-GRAY AND GREEN SILTY SAND, SATURATED	I CLAYEY AND			-87.5	+ 100.0	10	12	15			· · · ·	:	
-10	+			-	<b>•</b> • • • • • •						///	F	FORMATION	N)		-90	-	ŧ					<b>1</b> <sup>27</sup> · · ·		÷	
	-12.5 + 25.0				· · · \   · · · · \												02.5	+ + + 105.0						· · · ·		
	-12.5 20.0	10	11	13		24					~/~/	L					-92.0	 	12	14	20		•34			
-15	$\pm$					/ 					///	-15.5			28.0		-	Ŧ								
	-17.5 - 30.0	5	6	8	/.							-						Ŧ								
-20	Ŧ	5	0	0	<b>•</b> 14							F						Ŧ								
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	-22.5 + 35.0 +	4	6	9	↓ ↓ ↓ ↓ • ↓ ↓ ↓			 				F						Ŧ								
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	-27.5 + 40.0						· · · ·					F						ŧ								
-30	+	6	7	10		7						-						ŧ								
-30	+											-					-	ŧ								
	-32.5 + 45.0	4	6	11	· · · · · · · · ·	,		· · · · · ·				F						‡								
-35	+					<u> </u>		.				- -					_	‡								
	-37.5 + 50.0				'	\::::	· · · ·	·   · · · · ·				È					· ·	‡								
		4	7	20		27						F						‡								
-40	+					<u>  </u>	+					<u>-40.5</u>	GRAY, GREEN, RED, TAN		<u>53</u> .0		-	<b>†</b>								
	-42.5 55.0	9	12	15		<u>  ::::</u>						-	MOTTLED SILTY CLAY, FEAR FORMAT	WET (CAPE				t								
	<u>+</u>	3	<u>۲</u>	10		●27						-	FEAR FURMAT	iUN)				Ŧ								
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COLLAR ELEV. 24.3 ft       TOTAL DEPTH 109.3 ft       NORTHING 1,016,281       EASTING 2,543,712       24 HR.       13.7         DRILL RIGHAMMER EFF./DATE       GF00075 CWE-45C 87%11/23/2021       DRILL METHOD       Mud Rotary       HAMMER TYPE       Automatic       DRILL RIGHAMMER EFF./DATE       GF00075 CWE-45C 87%11/23/2021       NORTHING 1,016,281       EASTING 2,543,712       24 HR.       13.7       COLLAR ELEV. 24.3 ft       TOTAL DEPTH 109.3 ft       N         DRILL RIGHAMMER EFF./DATE       GF00075 CWE-45C 87%11/23/2021       DRILL METHOD       Mud Rotary       HAMMER TYPE       Automatic       DRILL RIGHAMMER EFF./DATE       GF00075 CWE-45C 87%11/23/2021         DRILLER       Walker, C. M.       START DATE       04/11/22       SURFACE WATER DEPTH       N/A       DRILLER       Walker, C. M.       START DATE       04/11/22       C         ELEV       DRIVE       DEPTH       BLOW COUNT       BLOW SPER FOOT       SOUL AND BOCK DESCRIPTION       ELEV       DRIVE       DEPTH       BLOW COUNT       BLOW SPER FOOT									-					1		ı ——													
BORRE DO. BLOA         STATION 110-71         OFFERT 101.1         ALLONDERT 1         OPR         NAL         STATION 110-72         OTTON 110-72         OTTON 110-72         OTTON 110-72         DECK 2002 ND 562/2         STATION 110-72         DECK 2002 ND 562/2         STATION 110-72         DECK 2002 ND 562/2         DECK 2002 ND							IP SF-450	0010	COUNT					GEO	LOGIST Miller, T. W.								TIP SF-450010						
COLLAR LEV.         24.16         TOTAL DEPTH 190.8         MORTHME 1.109.28         TOTAL DEPTH 190.8         TOTAL DEPTH	SITE DESCRIPTION BRIDGE NO. 10 ON -L- (5						ON -L- (SF	יס (1311 א	VER MEHE	RRIN RIVER						GROUND WTR (ft)					DGE N	-		R MEHE	RR				
DRL.BR.WHEEPFANE         COUND OLE-LICE	BORING NO. EB2-A						TATION	18+78							NMENT -L-	0 HR. N/A	BOR	ing no.	EB2-/	A		ST	ATION 18		0				
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Int       I	ELEV	DRIVE FL FV	DEPTH	BLC	w col	JNT		BLOWS	S PER FOO	T	SAMP.		L			CRIPTION		DRIVE	DEPTH	BLC	w co	UNT		BLOWS P	ER FOOT	ŗ			
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