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# STATE OF NORTH CAROLINA

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

# **STRUCTURE** SUBSURFACE INVESTIGATION

COUNTY\_DAVIDSON

PROJECT DESCRIPTION REPLACE BRIDGES 164 AND 168 ON US 29/70 OVER NORFOLK SOUTHERN RAILWAY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5783	1	29

#### **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 SOLI TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT 1999 107-6860. 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 BORNICS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (IN-PLACE) TEST DATA CAN BE RELIED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE ONSERVED WATER LEVELS OR SOL MOISTURE CONDITIONS MOLATED IN THE SUBSURFACE RELIVES STRATA SOLL MOISTURE CONDITIONS TIGCATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOLL MOISTURE CONDITIONS MAY YARY CONSIDERABLY WITH THE ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIODER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBJURFACE 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 DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERRETATIONS MADE, OR OPHION OF THE DEPARTMENT AS TO THE TYPE OF WATERALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR SLAUTONED TO PERFORM INDEPENDENT SUBSURFACE INVESTIGATIONS AND MAKE INTERPRETATIONS AS NECESSARY TO CONFIRM CONDITIONS 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 ACULAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

- NOTES: I. 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. 2. BY HAVING REQUESTED THIS INFORMATION, THE CONTRACTOR SPECIFICALLY WAIVES ANY CLAIMS FOR INCREASED COMPENSATION OR EXTENSION OF TIME BASED ON DIFFERENCES BETWEEN THE CONDITIONS INDICATED HEREIN AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.
  - PERSONNEL

CG2 EXPLORATION

T. WENNER, P.G.

R. KRAL, P.E.

M. BREWER, P.E.

P. TOMASIC

INVESTIGATED BY \_\_\_\_\_CG2, PLLC

DRAWN BY \_\_\_\_\_ S. N. PATTERSON, G.I.T.

CHECKED BY <u>M. BREWER</u>, P.E.

SUBMITTED BY \_\_\_\_\_\_ CG2, PLLC

DATE NOVEMBER 2022



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

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

			SOIL D	ESCR	PTION	1					GRADATIO	N					ROCK (	DESCRIPTION
		UNCONSOLIDATE A CONTINUOUS									GOOD REPRESENTATION OF	F PARTICLE	SIZES FROM FINE TO COARSE.				AIN MATERIAL THA	T WOULD YIELD SPT REFUSAL IF TESTE COASTAL PLAIN MATERIAL WOULD YIELD
ACCORDIN	NG TO THE	STANDARD PENE	TRATION TES	ST (AASH	TO T 200	5, ASTM DI	586). SOIL CL	SSIFICATION					APPROXIMATELY THE SAME SIZE. S OF TWO OR MORE SIZES.	SPT REFUSA	AL IS PE	ENETRATION	BY A SPLIT SPOON	SAMPLER EQUAL TO OR LESS THAN 0.1
CONSISTEN	NCY. COLOR.	E AASHTO SYST TEXTURE, MOIST	URE, AASHTO	CLASSIF	ICATION.	AND OTHE	R PERTINENT	ACTORS SUCH			ANGULARITY OF			REPRESENTE	ED BY A	ZONE OF W	EATHERED ROCK.	TRANSITION BETWEEN SOIL AND ROCK
AS	MINERALO	GICAL COMPOSIT RAY, SILTY CLAY, MO	ION, ANGULAF	ITY, STR	UCTURE, F	PLASTICIT	, ETC. FOR EX	MPLE,			ROUNDNESS OF SOIL GRAIN	INS IS DES			RALS A	RE TYPICALL	Y DIVIDED AS FOL 쥐	
		DIL LEGEN							ANGULAR, SUB		R, SUBROUNDED, OR ROUNDED			WEATHERED ROCK (WR)				PLAIN MATERIAL THAT WOULD YIELD SP1 R FOOT IF TESTED.
GENERAL		GRANULAR MATERIA	LS	SILT	-CLAY MAT	ERIALS		MATERIALS			IINERALOGICAL CO			CRYSTALLIN		PP		E GRAIN IGNEOUS AND METAMORPHIC RO
CLASS.		≤ 35% PASSING #20		+	5% PASSING						UCH AS QUARTZ,FELDSPAR CRIPTIONS WHEN THEY ARE			ROCK (CR)	-		<pre>     WOULD YIELD S     GNEISS, GABBRO </pre>	PT REFUSAL IF TESTED. ROCK TYPE IN SCHIST, ETC.
GROUP CLASS. A	A-1 A-1-a A-1-b	A-3	A-2 5 A-2-6 A-2-		A-5 A-	-6 A-7 A-7-5 A-7 <u>-</u> 6		A-5 A-7			COMPRESSIBI			NON-CRYSTA	ALLINE		FINE TO COARS	E GRAIN METAMORPHIC AND NON-COASTA ROCK THAT WOULD YEILD SPT REFUSAL
						A-7-6					COMPRESSIBLE		LL < 31	ROCK (NCR)		====	ROCK TYPE INC	LUDES PHYLLITE, SLATE, SANDSTONE, ETC
00	888888888888888888888888888888888888888								MOI HIC	JERATEL HLY CO	Y COMPRESSIBLE MPRESSIBLE		LL = 31 - 50 LL > 50	COASTAL PL SEDIMENTAR				I SEDIMENTS CEMENTED INTO ROCK.BUT ROCK TYPE INCLUDES LIMESTONE.SANDS
% PASSING #10 56	ю мх							ILT- MUC			PERCENTAGE OF M	MATERI	4L	(CP)			SHELL BEDS, ET	
*40 36 *200 15	ØMX 50MX 5MX 25MX	51 MN 10 MX 35 MX 35 M	1X 35 MX 35 M	1 36 MN	SE MN SE	MN 36 MN		DILS PE4			GRANULAR SILT - CI SOILS SOILS	LAY	OTHER MATERIAL	55500				ATHERING
MATERIAL	5 114 25 114	10 114 33 114 33 1	1 00 1 M 00 1		30 111 30				ORGANIC MATERI TRACE OF ORGANIC				TRACE 1 - 10%	FRESH		ER IF CRYSTA		OINTS MAY SHOW SLIGHT STAINING. ROCK
PASSING #40							SOILS WIT		LITTLE ORGANIC MA MODERATELY ORGAN		3 - 5% 5 - 12 5 - 10% 12 - 20		LITTLE 10 - 20% SOME 20 - 35%	VERY SLIGHT	r Rock	GENERALLY F	RESH, JOINTS STAIN	ED, SOME JOINTS MAY SHOW THIN CLAY C
LL PI	- 6 MX		N 40 MX 41 M IX 11 MN 11 M				LITTLE OF	HIGH		C	> 10% > 20%		HIGHLY 35% AND ABOVE	(V SLI.)		TALS ON A BR CRYSTALLINE		CE SHINE BRIGHTLY. ROCK RINGS UNDER H
GROUP INDEX	0	0 0	4 MX	8 MX	12 MX 16	MX NO MX	MODERATE AMOUNTS O	ORGA			GROUND WAT	TER		SLIGHT				IED AND DISCOLORATION EXTENDS INTO RO
USUAL TYPES ST	TONE FRAGS.	FINE SILTY	OR CLAYEY	SIL	TV	CLAYEY	ORGANIC MATTER	SOI	°	WA'	TER LEVEL IN BORE HOLE	IMMEDIATI	LY AFTER DRILLING	(SLI.)	1 INCH	H. OPEN JOIN	IS MAY CONTAIN CL	AY. IN GRANITOID ROCKS SOME OCCASIONA CRYSTALLINE ROCKS RING UNDER HAMMER
OF MAJOR C MATERIALS	GRAVEL, AND SAND		AND SAND	SOI		SOILS	HATTEN		▼	ST	ATIC WATER LEVEL AFTER	<u>24</u> нс	URS	MODERATE				DISCOLORATION AND WEATHERING EFFECT
GEN. RATING							FAIR TO		√PW	PEF	CHED WATER, SATURATED 2	ZONE, OR V	ATER BEARING STRATA	(MOD.)	GRANI	TOID ROCKS,	MOST FELDSPARS AF	RE DULL AND DISCOLORED, SOME SHOW CLA
AS SUBGRADE		EXCELLENT TO GOO	D		FAIR TO PO	DOR	POOR	OOR UNSULT	ABLE		RING OR SEEP					FRESH ROCK.	HAMMER BLOWS AN	ID SHOWS SIGNIFICANT LOSS OF STRENGTH
	1	PI OF A-7-5 SUBGRI					> LL - 30		000-					MODERATELY			QUARTZ DISCOLORE	D OR STAINED. IN GRANITOID ROCKS, ALL F
			SISTENC								MISCELLANEOUS	<u>SYMBOL</u>	.S	SEVERE (MOD, SEV.)				DW KAOLINIZATION. ROCK SHOWS SEVERE L DGIST'S PICK. ROCK GIVES "CLUNK" SOUND "
PRIMARY SO	OIL TYPE	COMPACTN			GE OF STA	ANDARD SISTENCE		UNCONFINE		1BANKME	NT (RE) 25/025 DIP &	DIP DIREC	TION	1100. SE 1./			YIELD SPT REFUSAL	
		CONSIST			(N-VALUE	E)	(T(	NS/FT <sup>2</sup> )	WITH SOIL	JESCRIP		ICK STRUCT		SEVERE				O OR STAINED. ROCK FABRIC CLEAR AND E
GENERALI		VERY LO			< 4 4 TO 1	a			SOIL SYMBO	L		TEST BORIN	IG SLOPE INDICATOR INSTALLATION	(SEV.)				IL. IN GRANITOID ROCKS ALL FELDSPARS 4 F STRONG ROCK USUALLY REMAIN.
GRANULAI MATERIAL		MEDIUM (	DENSE		10 TO 3	30		N/A		FILL (A				2			YIELD SPT N VALUE	
(NON-COH		DENS VERY DE			30 TO 5	90				AY EMB		BORING	TEST	VERY SEVERE				D OR STAINED. ROCK FABRIC ELEMENTS AR TO SOIL STATUS, WITH ONLY FRAGMENTS OF
-		VERY S			< 2			0.25	INFERRED S	OIL BOL	INDARY CORE E	BORING	SOUNDING ROD	(V SEV.)	REMAI	INING. SAPROL	ITE IS AN EXAMPLE	OF ROCK WEATHERED TO A DEGREE THAT
GENERALI SILT-CLA		SOF MEDIUM			2 TO 4 4 TO 8			5 TO 0.5 TO 1.0	INFERRED R			ORING WELI	TEST BORING	COMPLETE				REMAIN. <u>IF TESTED, WOULD YIELD SPT N V</u> NOT DISCERNIBLE, OR DISCERNIBLE ONLY
MATERIAL	L	STIF	F		8 TO 1	5		TO 2		JCK LIN			- V WITH CORE	COMPLETE	SCATT	TERED CONCEM		MAY BE PRESENT AS DIKES OR STRINGERS
(COHESIV	(E)	VERY S			15 TO 3 > 30	30		TO 4 > 4	ALLUVIAL S	JIL BOU		LLATION	O- SPT N-VALUE		ALSO	AN EXAMPLE.		
		TE	XTURE	OR GF		SIZE					RECOMMENDATION	SYMBO	LS					HARDNESS
U.S. STD. SIE	VE SIZE		4 10	40	60	200	270				NCLASSIFIED EXCAVATION	- 📧	N UNCLASSIFIED EXCAVATION -	VERY HARD			HED BY KNIFE OR 9	SHARP PICK. BREAKING OF HAND SPECIMEN IST'S PICK.
OPENING (MM		4.	76 2.00	0.42							NSUITABLE WASTE	[ <u>*</u> _	ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3 FEET OF	HARD				ONLY WITH DIFFICULTY. HARD HAMMER B
BOULDER	R COI	BLE GR4	VEL	COARS SAND		FINE	SILT	CLAY	SHALLOW UNDERCUT		NCLASSIFIED EXCAVATION CCEPTABLE DEGRADABLE R	- 100K	EMBANKMENT OR BACKFILL			ETACH HAND S		
(BLDR.)	(C	0B.) (G	R.)	(CSE. S		SAND (F SD.	(SL.)	(CL.)			ABBREVIATIO	ONS		HARD HARD				. GOUGES OR GROOVES TO 0.25 INCHES DE OGIST'S PICK. HAND SPECIMENS CAN BE D
GRAIN MM		75	2.0		0.25	5	0.05	0.005	AR - AUGER REFUSAL		MED MEDIUM		VST - VANE SHEAR TEST			ODERATE BLO		
SIZE IN.	12	3							BT - BORING TERMINAT CL CLAY	ED	MICA MICACEOUS MOD MODERATEL		WEA WEATHERED $\gamma$ - UNIT WEIGHT	MEDIUM HARD				HES DEEP BY FIRM PRESSURE OF KNIFE O TO PEICES 1 INCH MAXIMUM SIZE BY HARD
		OIL MOIST			LATIO	IN OF	TERMS		CPT - CONE PENETRAT	ON TES	T NP - NON PLASTIC		$\gamma_{\rm d}$ - DRY UNIT WEIGHT			OF A GEOLO		
	MOISTURE : ERBERG LIN		FIELD MC DESCRI		GUI	DE FOR F	IELD MOISTU	E DESCRIPTI	ON CSE COARSE DMT - DILATOMETER T	EST	ORG ORGANIC PMT - PRESSUREM	METER TES	T SAMPLE ABBREVIATIONS	SOFT				BY KNIFE OR PICK. CAN BE EXCAVATED IN IZE BY MODERATE BLOWS OF A PICK POIN
									DPT - DYNAMIC PENET		TEST SAP SAPROLITIC	С	S - BULK				OKEN BY FINGER PR	
			- SATURA (SAT.)				UID; VERY WE THE GROUND		e - VOID RATIO E F - FINE		SD SAND, SANDY SL SILT, SILTY		SS - SPLIT SPOON ST - SHELBY TUBE	VERY				EXCAVATED READILY WITH POINT OF PICK.
PLASTIC		LIMIT							FOSS FOSSILIFEROUS		SLI SLIGHTLY		RS - ROCK	SOFT		URE IN THICK RNAIL.	NESS CAN BE BROKE	EN BY FINGER PRESSURE. CAN BE SCRATCH
RANGE <			- WET -	(W)			EQUIRES DRYI MUM MOISTUR		FRAC FRACTURED, FR FRAGS FRAGMENTS	ACTURES	S TCR - TRICONE RE W - MOISTURE CO		RT - RECOMPACTED TRIAXIAL CBR - CALIFORNIA BEARING		FRAC	TURE SP	ACING	BEDDING
(PI) PL _	PLASTI	CLIMIT _						•	HI HIGHLY		V - VERY		RATIO	TERM			SPACING	TERM
			- MOIST	- (M)	SOL	ID: AT OF	NEAR OPTIM	M MOISTURE		<u>NUIPM</u>	IENT USED ON SU	BJECT	PROJECT	VERY WI WIDE	DE		E THAN 10 FEET 3 TO 10 FEET	VERY THICKLY BEDDED THICKLY BEDDED 1.
		M MOISTURE AGE LIMIT							DRILL UNITS:	ADV	ANCING TOOLS:		HAMMER TYPE:	MODERAT	ELY CL	OSE	1 TO 3 FEET	THINLY BEDDED 0.1
			- DRY -				DITIONAL WA		CME-45C		CLAY BITS		X AUTOMATIC MANUAL	CLOSE VERY CL	.OSE		.16 TO 1 FOOT THAN 0.16 FEET	VERY THINLY BEDDED 0.0 THICKLY LAMINATED 0.00
			- DRT -		ATI	TAIN OPTI	MUM MOISTUR		CME-55		6'CONTINUOUS FLIGHT AL	JGER	CORE SIZE:					THINLY LAMINATED <
	-		PLA	STICI	ΤY					X	-		вн					URATION
			PLASTI	CITY IN	DEX (PI)			TRENGTH	CME-550		HARD FACED FINGER BITS	3	X-N Q	FOR SEDIME	NTARY	ROCKS, INDUR		DENING OF MATERIAL BY CEMENTING, HE
	PLASTIC	TIC		0-5 6-15				( LOW IGHT	VANE SHEAR TEST		TUNGCARBIDE INSERTS	ł	HAND TOOLS:	FRIA	8LE			TH FINGER FREES NUMEROUS GRAINS; DW BY HAMMER DISINTEGRATES SAMPLE.
MODE	ERATELY PL	ASTIC	-	16-25			ME	DIUM		X	CASING X W/ ADVANC	CER	POST HOLE DIGGER	HOOT		INDURATED	GRAINS CAN	BE SEPARATED FROM SAMPLE WITH ST
HIGH	LY PLASTI	L		S OR MC			ŀ	IGH	PORTABLE HOIST		TRICONE STEEL		HAND AUGER	MUDE	RHIELY	INDURATED	BREAKS EAS	SILY WHEN HIT WITH HAMMER.
			(	OLOR					X DIEDRICH D-50		-	CARB.	SOUNDING ROD	INDU	RATED			DIFFICULT TO SEPARATE WITH STEEL
		INCLUDE COLOR								'   X	CORE BIT		VANE SHEAR TEST	1				
MOE	DIFIERS SU	CH AS LIGHT.C	ARK, STREA	KED, ETC	.ARE US	ED TO DE	SCRIBE APPE	RANCE.		X	2-7/8 PDC BIT		□	EXTR	EMELY	INDURATED		MER BLOWS REQUIRED TO BREAK SAMPLE EAKS ACROSS GRAINS.

#### PROJECT REFERENCE NO.



2

	TERMS AND DEFINITIONS
ED. AN INFERRED SPT REFUSAL.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.
1 FOOT PER 60	AUUIFER - 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
T N VALUES >	A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.
	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND
CK THAT ICLUDES GRANITE,	WHICH IT IS ENCOUNTERED, BUT WHICH DUES NOT NECESSARILY RISE TO OR ABOVE THE GROUND 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
с.	OF SLOPE.
MAY NOT YIELD STONE, CEMENTED	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
RINGS UNDER	DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT ROCKS OR CUTS MASSIVE ROCK.
	$\overline{\text{DIP}}$ - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.
CATINGS IF OPEN, MAMMER BLOWS IF	DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
ock up to NL Feldspar	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
R BLOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
S. IN AY. ROCK HAS	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARENT MATERIAL.
AS COMPARED	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE
FELDSPARS DULL .OSS OF STRENGTH	FIELD.
WHEN STRUCK.	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO
EVIDENT BUT ARE KAOLINIZED	ITS LATERAL EXTENT.
	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	PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE
F ONLY MINOR	OF AN INTERVENING IMPERVIOUS STRATUM.
VALUES < 100 BPF	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
IN SMALL AND 5. SAPROLITE IS	ROCK QUALITY DESIGNATION (RQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
IS REQUIRES	SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK.
LOWS REQUIRED	SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.
EEP CAN BE	SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT
DETACHED	OR SLIP PLANE.
DR PICK POINT. BLOWS OF THE	STANDARD PENETRATION TEST (PENETRATION RESISTANCE)(SPI)- NUMBER OF BLOWS (N OR BPF)OF A 140 LB.HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF I FOOT INTO SOIL WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1FOOT 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.
	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL
PIECES 1 INCH	LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.
HED READILY BY	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
THICKNESS	BENCH MARK: B5783-2: N-788319.2227, E-1689384.5867
4 FEET	ELEVATION: 903.25 FEET
1.5 - 4 FEET 16 - 1.5 FEET	
03 - 0.16 FEET 08 - 0.03 FEET	NOTES:
0.008 FEET	F.I.A.D. = FILLED IMMEDIATELY AFTER DRILLING
	ROADWAY DESIGN AND SURVEY INFORMATION PROVIDED BY NCDOT
AT, PRESSURE, ETC.	CT = CORING TERMINATED
TEEL PROBE:	
PROBE:	
E;	

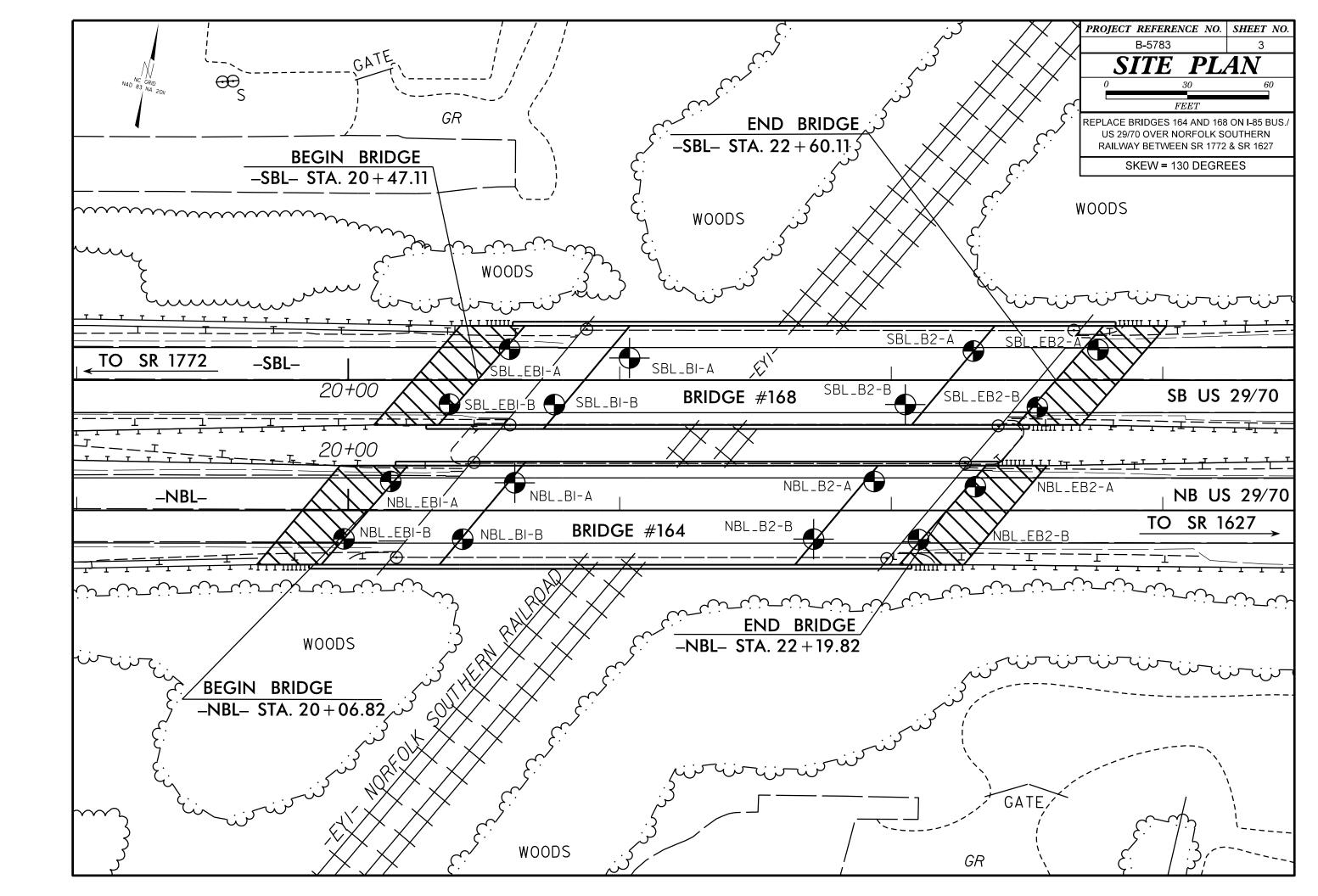
# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT SUBSURFACE INVESTIGATION

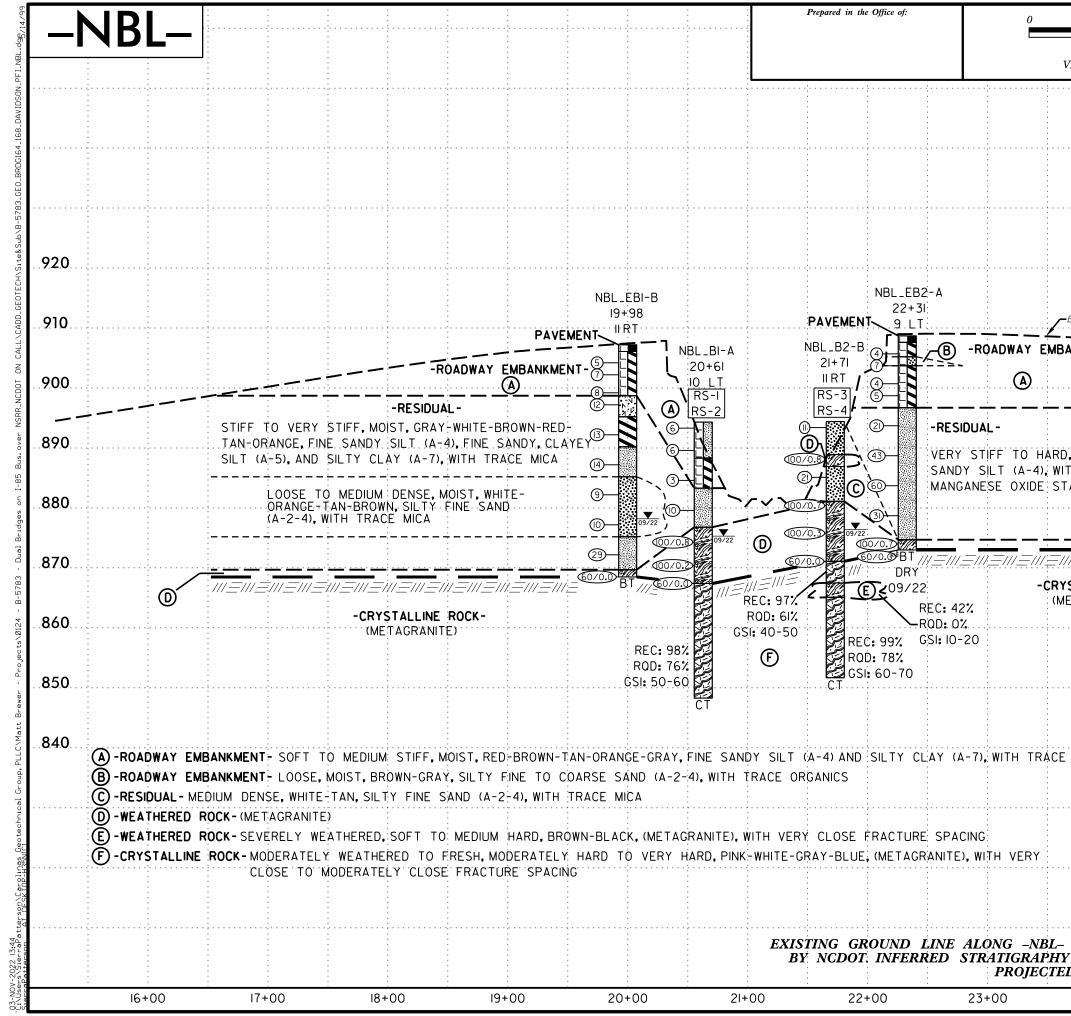
SUPPLEMENTAL LEGEND, GEOLOGICAL STRENGTH INDEX (GSI) TABLES FROM AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

AASHTO LRFD Figure 10.4.6.4–1 — Determination of GSI for Jointee	Rock Mass (Mar	inos and Hoek, 2	2000)			AASHTO LRFD Figure 10.4.6.4-2 — Determination of GSI for Tector
GEOLOGICAL STRENGTH INDEX (GSI)FOR JOINTED ROCKS (Hoek and Marinos,2000)	aces	q		S O O Q	у 0 0 0	GSIFOR HETEROGENEOUS ROCK MASSES SUCH AS FLYSCH (Marinos.P and Hoek E.,2000)
From the lithology, structure and surface conditions of the discontinuities, estimate the average value of GSI. Do not try to be too precise. Quoting a range from 33 to 37 is more realistic than stating that GSI = 35. Note that the table does not apply to structurally controlled failures. Where weak planar structural planes are present in an unfavorable orientation with respect to the excavation face, these will dominate the rock mass behaviour. The shear strength of surfaces in rocks that are prone to deterioration as a result of changes in moisture content will be reduced if water is present. When working with rocks in the fair to very poor categories, a shift to the right may be made for wet conditions. Water pressure is dealt with by effective stress analysis.	0D igh, fresh unweathered surf	<b>GOOD</b> Rough, slightly weathered, iron stained surfaces	<b>FAIR</b> Smooth, moderately weathered and altered surfaces	POOR Slickensided, highly weathered surfac with compact coatings or fillings or angular fragments	<b>VERY POOR</b> Slickensided, highly weathered surfac with soft clay coatings or fillings	From a description of the lithology, structure and surface conditions (particularly of the bedding planes), choose a box in the chart. Locate the position in the box that corresponds to the condition of the discontinuities and estimate the average value of GSI from the contours. Do not attempt to be too precise. Quoting a range from 33 to 37 is more realistic than giving GSI = 35. Note that the Hoek-Brown criterion does not apply to structurally controlled failures. Where unfavourably oriented continuous weak planar discontinuities are present, these will dominate the behaviour of the rock mass. The strength of some rock masses is reduced by the presence of groundwater and this can be allowed for by a slight shift to the right in the columns for fair, poor and very poor conditions. Water pressure does not change the value of GSI and it is dealt with by using effective stress analysis.
STRUCTURE	DE	CREASING S	JRFACE QU		~	COMPOSITION AND STRUCTURE
INTACT OR MASSIVE - intact rock specimens or massive in situ rock with few widely spaced discontinuities	90			N/A	N/A	A. Thick bedded, very blocky sandstone The effect of pelitic coatings on the bedding planes is minimized by the confinement of the rock mass. In shallow tunnels or slopes these bedding planes may cause structurally controlled instability.
BLOCKY - well interlocked un- disturbed rock mass consisting of cubical blocks formed by three intersecting discontinuity sets		70 60				B. Sand- stone with thin inter-
VERY BLOCKY - interlocked, partially disturbed mass with multi-faceted angular blocks formed by 4 or more joint sets BLOCKY/DISTURBED/SEAMY - folded with angular blocks		Ę	50			layers of siltstone
formed by many intersecting	·   /		40	30		<ul> <li>C, D, E, and G - may be more or less folded than illustrated but this does not change the strength. Tectonic deformation, faulting and loss of continuity moves these categories to F and H.</li> </ul>
discontinuity sets. Persistence of bedding planes or schistosity DISINTEGRATED - poorly inter- locked, heavily broken rock mass with mixture of angular and rounded rock pieces				20		G. Undisturbed silty or clayey shale with or without a few very thin sandstone layers
LAMINATED/SHEARED - Lack of blockiness due to close spacing of weak schistosity or shear planes	N/A	N/A			10	Into small rock pieces.

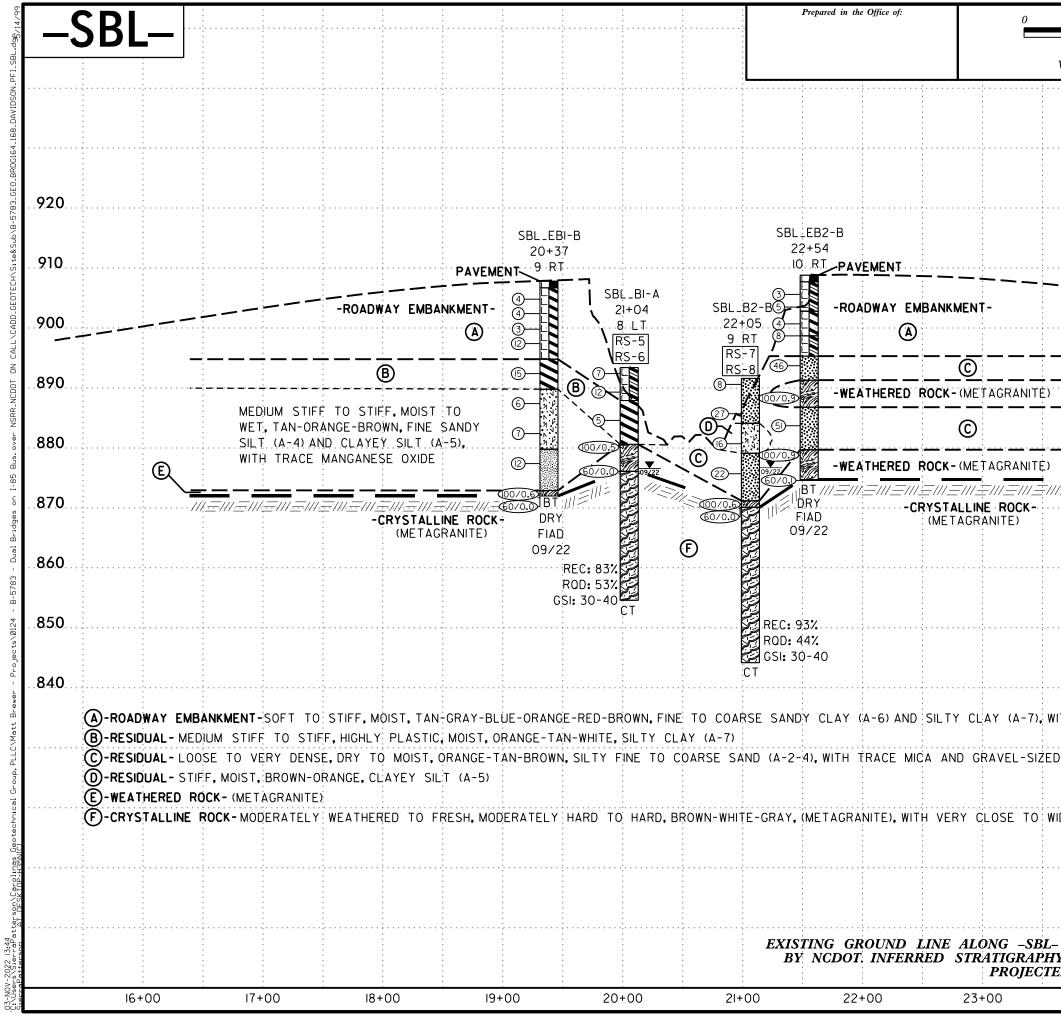
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7Ò 60 E. Weak siltstone or clayey shale with 50 С /в /E sandstone 40 layers formed, d/faulted, 30 ale or siltstone leformed forming an uc ture 20 formed silty forming a with pockets ers of 10 nsformed eces.





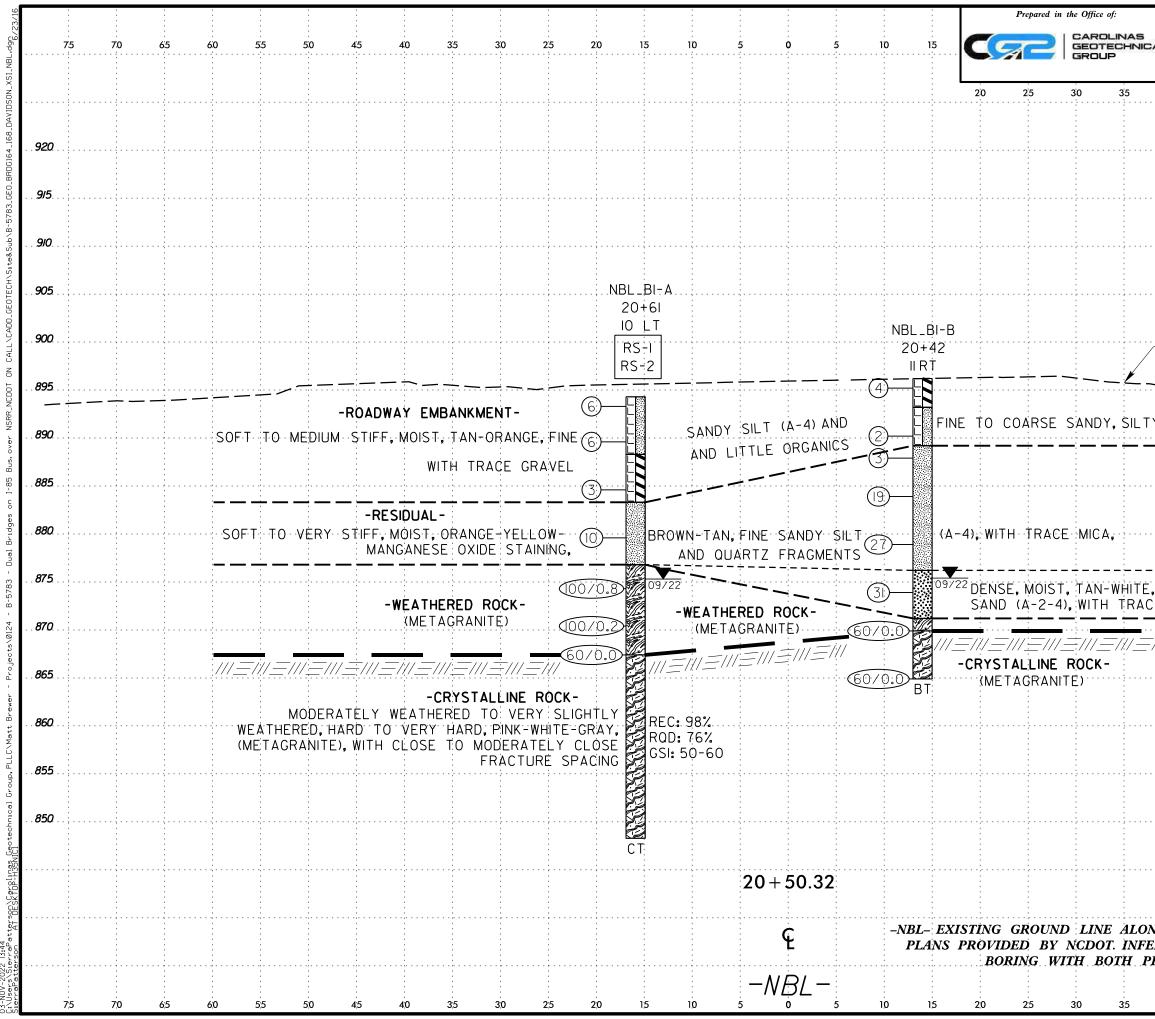
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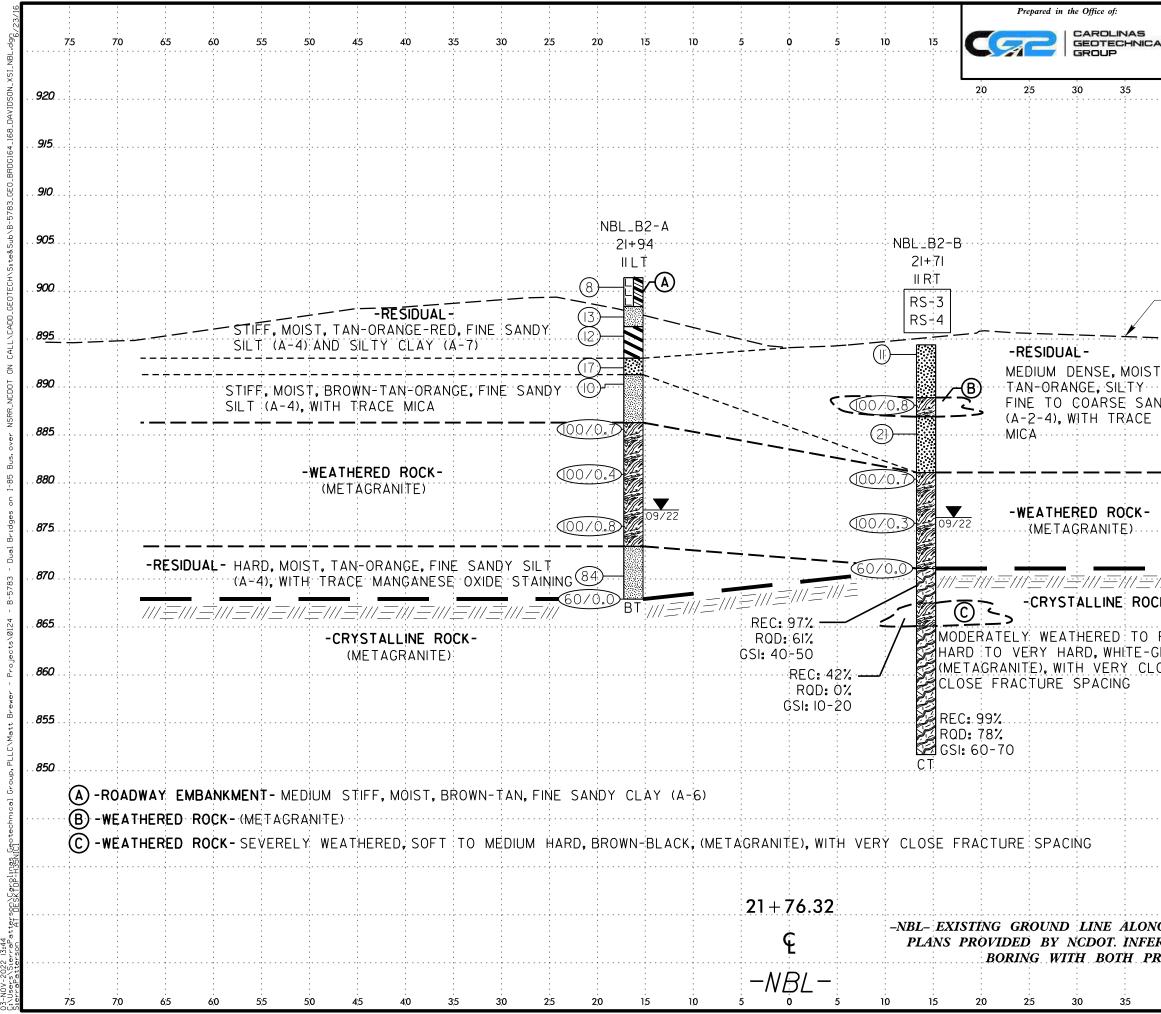
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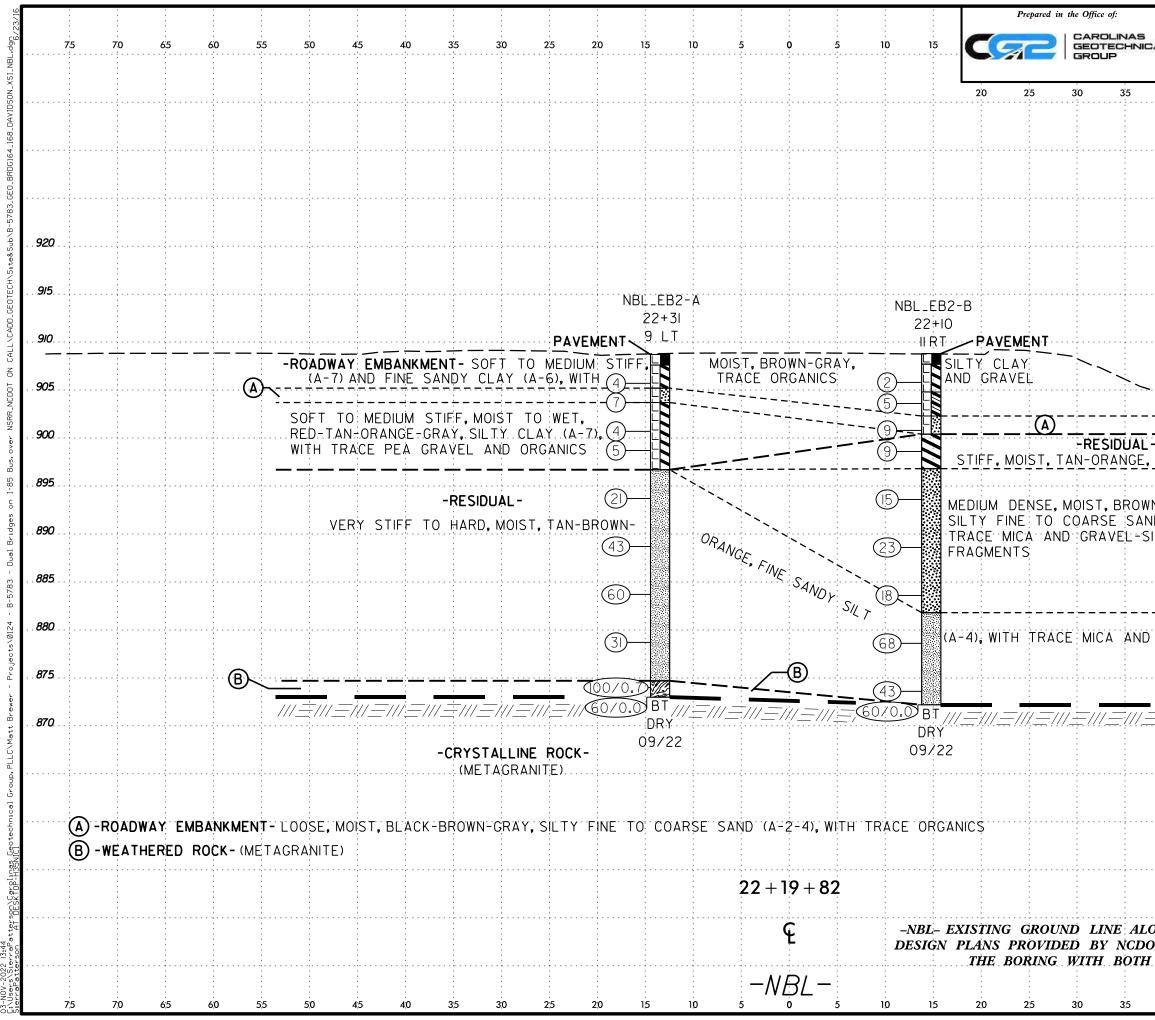
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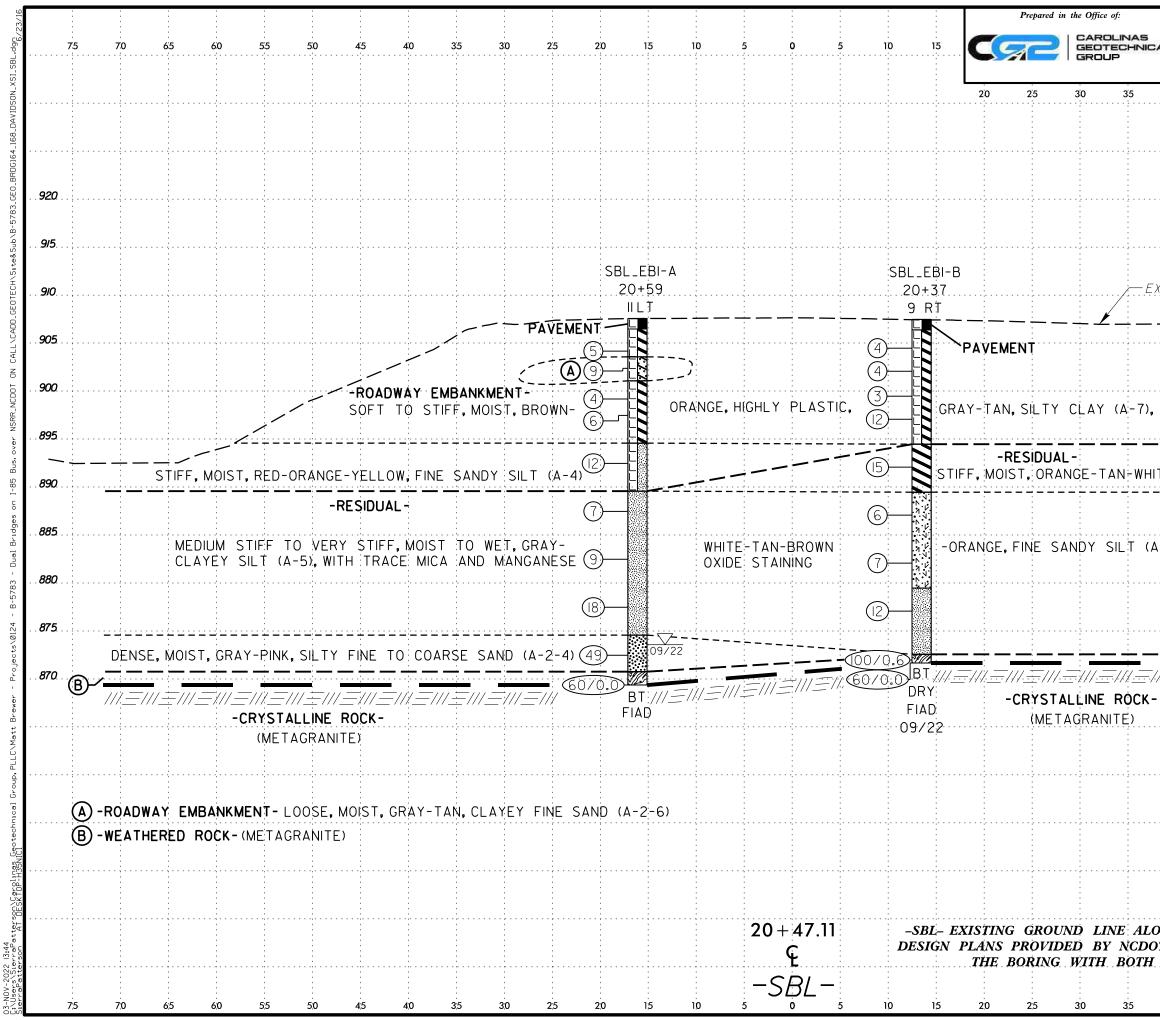
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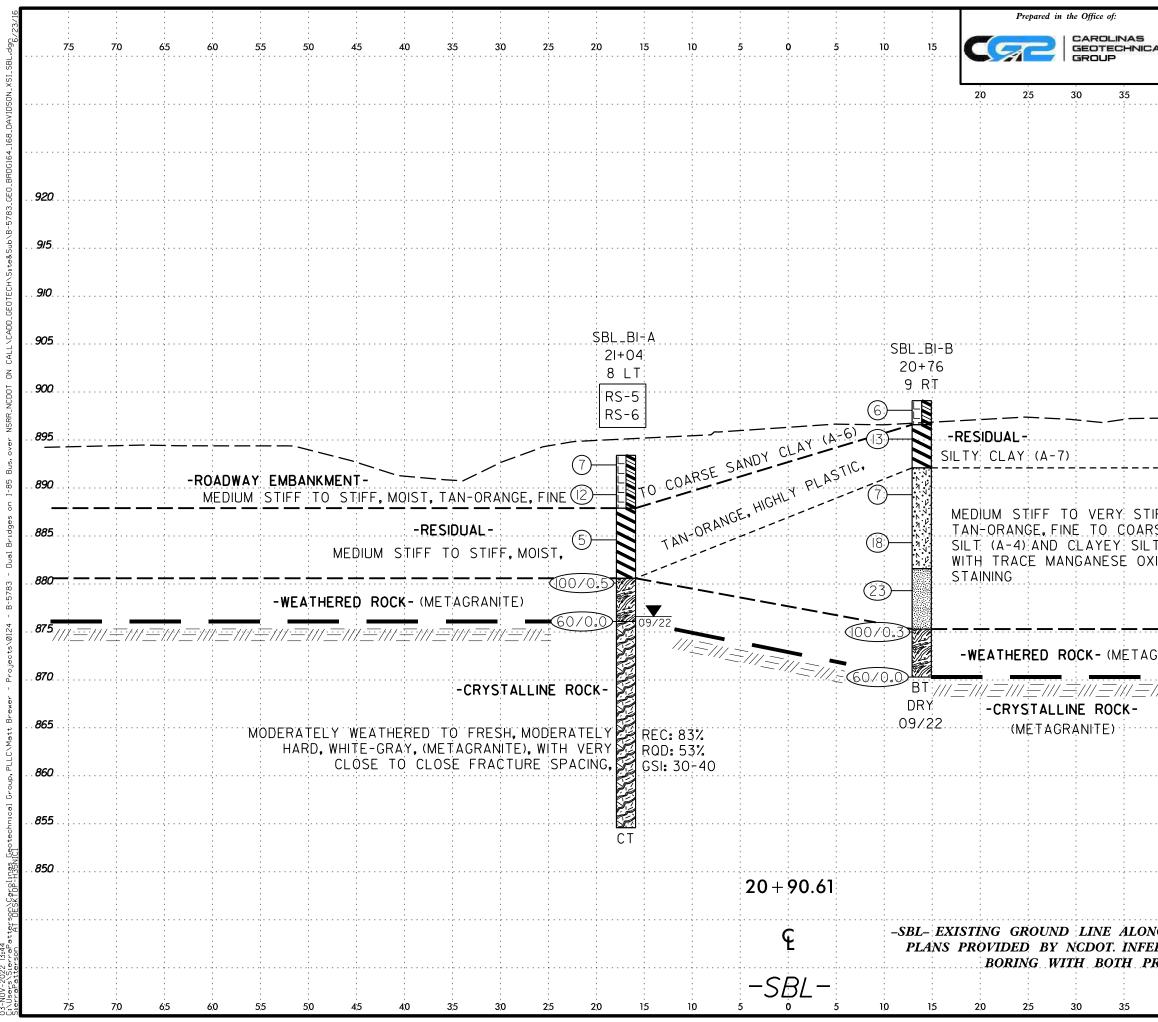
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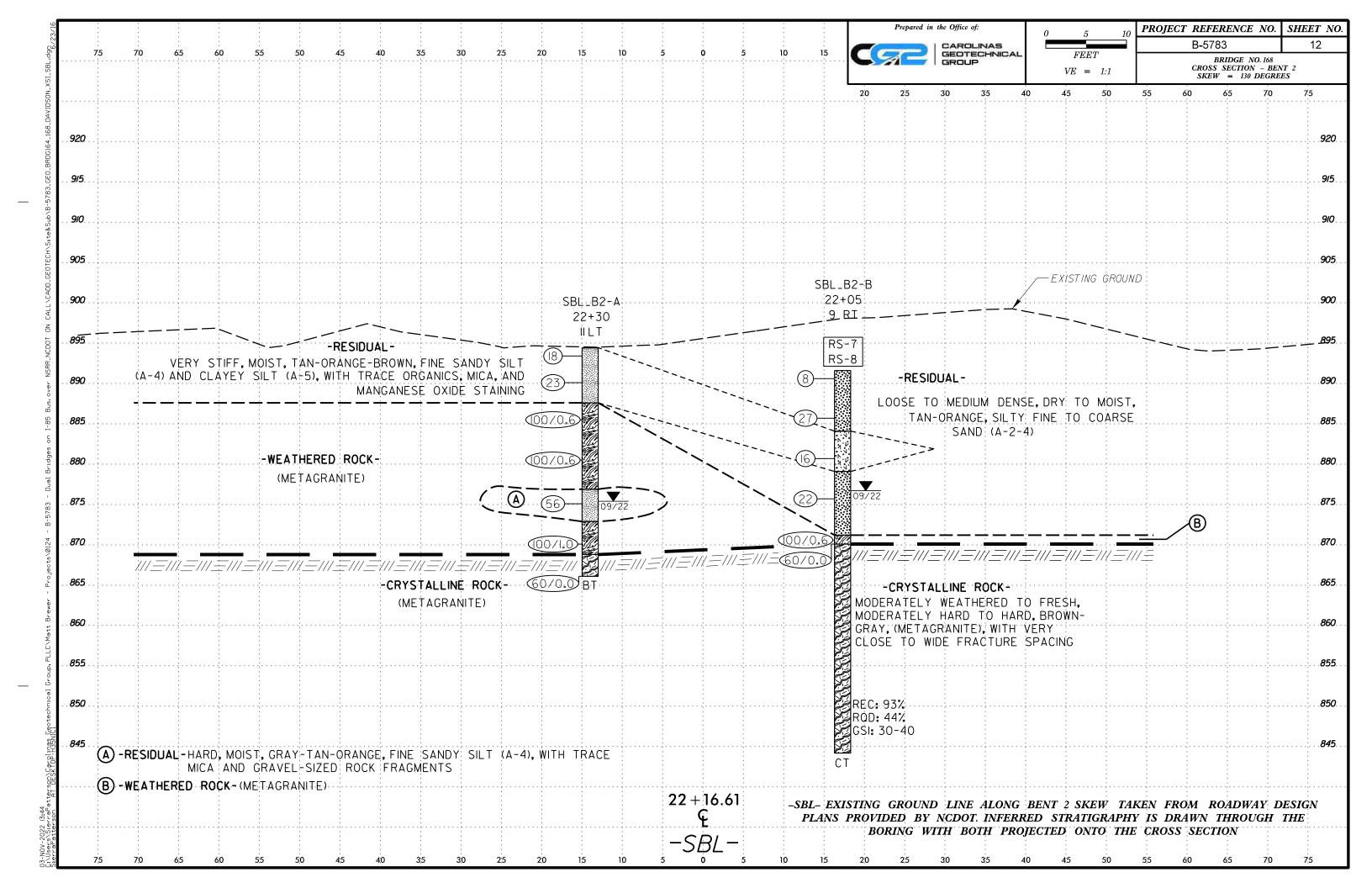
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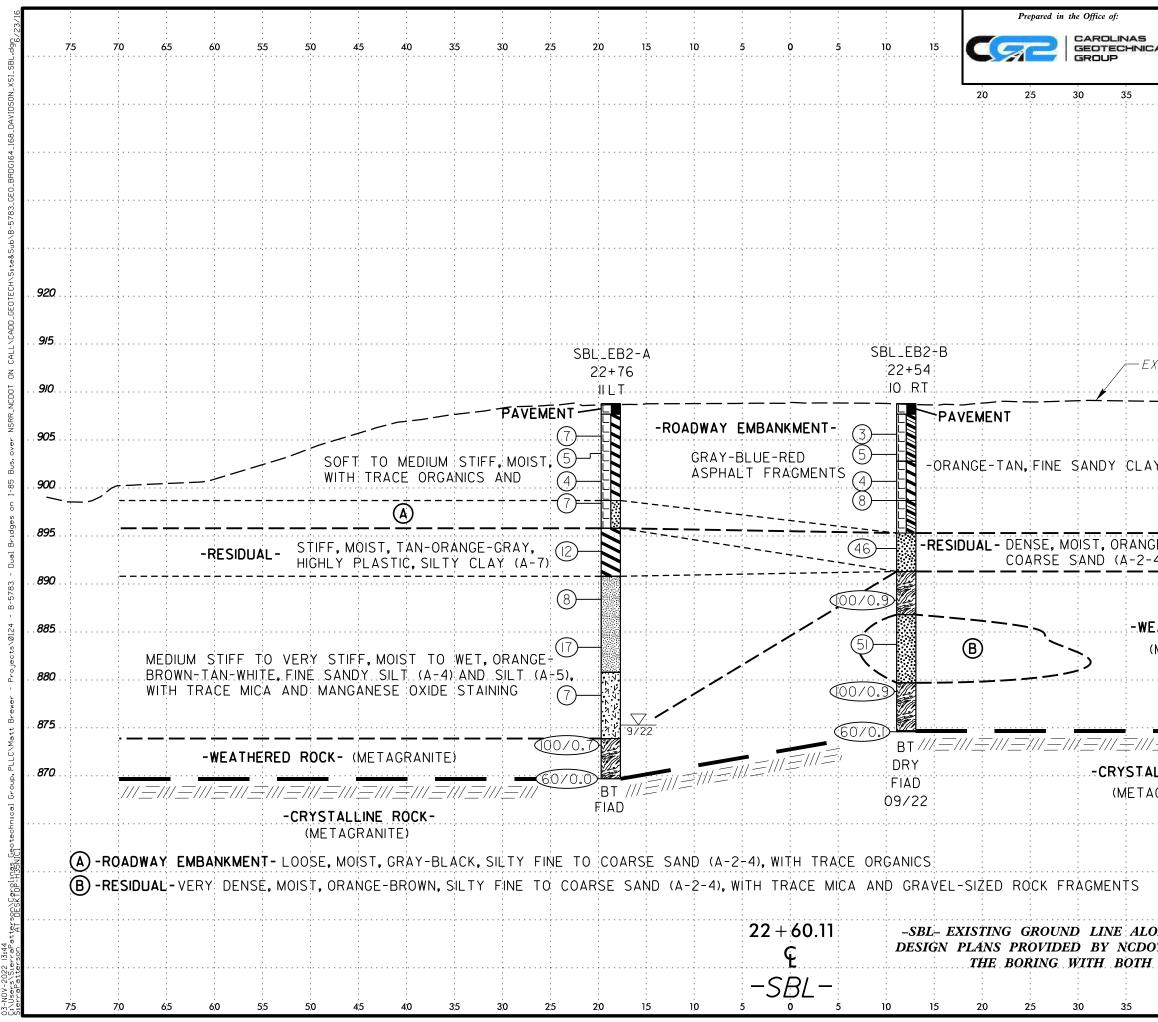


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//	///_//	// <u>=</u> ///	/_ <del></del> ///	=///_	=///_	<del>_</del> ,				
	NE RC	: )СК								
٩GR	ANITE									
			2 SKE STRATI							
			NTO I						5001	
4	0	45	50	55	60	6	5	70	Ż	5

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	45738	38.1.2 <b>TIP</b> B-5783 RIPTION Ü^]∣æ&∿ÁÓ¦ãâ*^•ÁrîÌ Áæ)åÁrîÌ							Y DAVIDS				GEC	LOGIST M. Brev	ver				45738					<b>P</b> B-5783		COUNT	
SITE	DESCR		NU^	] æ&^/	Ю́¦ãå*∧	∙Á≂ÎlÁæ)å/	á≂ÎÌÁį}ÁWÙ	ÁGJÐÍ€Á[ç⁄	^¦Á≂[¦-{ \ÂÙ[	`c@?¦}ÁÜ	Ĵæĵį, æ	Á				GROUND	WTR (ft)	SITE	DESCR	IPTION	I Ü^]	] æ&^/	ĺÓ¦ãå*∧	∙Á≂ÎlÁæ))åÁ	fî ì ⁄ţ } Ávù	ŚGJÐĨ€ÁĮÇ∕	∖¦ÁÞ[
BORI	NG NO.	NBL_	_EB1-	A	S	TATION	20+16		OFFSET	11 ft LT			ALIC	SNMENT -NBL-		0 HR.	31.0	BOR	ing no.	NBL	_EB1-E	3	S	TATION 1	9+98		OF
COLL	AR ELE	<b>V</b> . 90	07.5 ft		Т	OTAL DEP	<b>TH</b> 37.3	ft	NORTHING	<b>3</b> 788,3	338		EAS	<b>TING</b> 1,689,559		24 HR.	Dry	COL	LAR ELE	<b>V.</b> 90	)7.2 ft		Т	OTAL DEP	<b>TH</b> 38.7 f	t	NO
DRILL	RIG/HAM	MER EF	FF./DA1	C C	G20446	Diedrich D50	0 87% 05/10/2	2022		DRILL M	IETHO	D H	.S. Auger	s	HAMM	ER TYPE A	utomatic	DRILI	RIG/HAN	IMER EI	F./DAT	E C	G20446	Diedrich D50	87% 05/10/2	022	
DRIL	L <b>ER</b> C	. Odom	ı		S	TART DAT	<b>E</b> 08/31/2	22	COMP. DA	TE 08/	31/22		SUR	FACE WATER DEI	PTH N/	A		DRIL	LER C	. Odom	1		S	TART DATI	E 09/01/2	2	СС
ELEV	DRIVE ELEV	DEPTH	BLC	ow co	UNT		BLOWS	PER FOOT		SAMP.	$\mathbf{\nabla}$	L		SOIL AND RO				ELEV	DRIVE ELEV	DEPTH	BLO	w co	UNT		BLOWS	PER FOOT	
(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75 100	NO.	Имо		ELEV.				DEPTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75
910		L											L					910		_							
	-	L											907.5	GROUI	ND SURFA	CE	0.0		-	-							
	-												- 907.5 - 906.4	ROADWAY	EMBANK	MENT	0.0		-	-					· · · ·	· · · ·	
905	905.5	2.0	3	2	3			· · ·	· · · · · ·		м		-	Asphalt (0.4 ft) Medium Stiff, Tan			_	905	905.2	2.0	3	3	2				<u> </u>
	903.2	4.3	1	2	3		·   · · · · ·		· · · · · ·		м		F	(A-7), with					903.2	4.0	2	3	4	$\begin{bmatrix} \bullet 5 & \cdot & \cdot \\ \cdot & \cdot & \cdot \end{bmatrix}$			.   .
900	900.5 -	7.0							·   · · · · ·				<u>901.5</u>				<u>6.0</u>	900	900.2	- 7.0		-					.   .
300	898.2	9.3	2	2	3	<b>4</b> 5					м		-	Medium Stiff to Stif	f, Gray-Ora ₋AY (A-7)	nge-Tan, Silt	y	300	898.2	- 7.0	3	3	5				
	090.2	9.3	2	3	6	- 	·   · · · · ·		·   · · · · ·		м		-							- 9.0	4	5	7	 		· · · ·	•
895	-	ŧ.											<u>- 895.5</u>	Stiff, White-Tan-C	range Fin	- Sandy SILT	<u> </u>	895	-	-							•
	893.2	14.3					.						Ł		(A-4)				893.2	14.0			_				
	-	Ł	5	6	7	• • • 13					M		L 000 F				17.0		-	-	4	6	7	· .•13.			•
890	-	-					+ • • • •	+ • • •					<u>- 890.5</u>	Loose, White-Ye	llow-Orang	e, Silty Fine	<u>17.0</u>	890		-							+
	888.2	19.3	2	3	5	-   . <i>j</i>					м			SAND (A-2-	4), with tra	ce mica			888.2	19.0	6	6	8				.   .
885	-	F				· <b> </b> · · ·							F					885	-	-							
	883.2	24.3											-						883.2	- 24.0							.
		-	4	4	5	- · · · · · · · · · · · · · · · · · · ·	·   · · · · ·		· · · · · ·		м		-						-		3	4	5				
880	-	+						· · · ·	· · · · · ·			7. V	- <u>880.5</u>	Stiff, Orange-Brow	n, SILT (A	-5), with trace	<u> </u>	880	-	-							· -
	878.2	29.3	4	4	5	4 : <u>;</u> ::	·   · · · · ·	· · · ·	· · · · · ·		w	л. И.И. И. И.	-	, - 5	mica	- //			878.2	29.0	3	4	6				:  ·
075	-	+	-			. <b>●</b> 9	.   .	· · · ·	·   · · · · ·		$ \nabla$	- ^ V	<u> </u>					075	-	-		-	0				•   •
875		+					·   · · · ·	<u> </u>	<u>-  </u>			N N V	L					875	-	-						<u> </u>	+
	873.2	34.3	100/0.5	5		. '		+ $  -$	100/0.5				873.2		IERED RO		34.3		873.2	34.0	7	11	18		29		•
	870.2	37.3					.						870.2	White-Tan-Orar			37.3	870	-	-					<b>1</b>		•
	-	F	60/0.0						60/0.0				F	Boring Termin Penetration Test R	efusal at F	levation 870 2			868.5	- 38.7	00/0.0						<u> </u>
	-	ŧ											F	ft On Crystalline I	Rock (MET	AGRANITE)			-	-	60/0.0						
	-	+											È.						-	-							
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DAVIDSO	N		GEC	DLOGIST	M. Brewer			
Á≂[¦-{ \ÂÙ[˘₀	c@e¦}ÁÜæajjæê	Á					GROUN	D WTR (ft)
OFFSET 1	1 ft RT		ALIC	GNMENT	-NBL-		0 HR.	35.8
NORTHING	788,314				689,546		24 HR.	29.0
	DRILL METHO	<mark>л н</mark>	.S. Auge	,		Намм	ER TYPE	Automatic
COMP. DATI		. ۱۱. س			TER DEPTI			Automatic
	SAMP.	1 L T	306				4	
5 100	NO. MOI	O G	ELEV.		IL AND ROCK	DESC	RIPTION	DEPTH (1
	M M M M		907.2 906.1 - - - - - - - - - - - - - - - - - - -	Asph Medium S Stiff, Re		MBANK d Concre an-Oran -7) DUAL e, Fine S (A-5) a, Silty C	MENT ete (0.7 ft) ge, Silty Cl 	8. rey 12. 17.
	M M M		- <u>885.2</u> - - - - - - -	Loose, B	rown-Tan-Ora (A-2	ange, Sil 2-4)	ty Fine SA	
	М		875.2 - - - - - 869.7	Very Stiff	, Gray-Red, F with trac	ce mica		-4), 32.
60/0.0			- 868.5 - - - - - - - - - - - - - - - - - - -	Penetrat	WEATHER Gray, (MET/ ing Terminate ion Test Refu: crystalline Roc Not Hard drilling at at approximat	AGRAN ed with S sal at El k (MET. tes: encount	ITE) Standard evation 86 AGRANITE ered	
			- - - - -					

									DC	DRE		JG																					<u> </u>	UR	RE L	.00	3							
	45738.1.2				<b>P</b> B-578					DAVI					GE	OLOG	GIST F	R. Kra	ıl						15738.1.2					B-578			COUNT						GEOL	LOGIST	R. Kra	l		
SITE D	ESCRIPTIC	ON Ü	^] æ&^.					ÁGJÐÍ€					Jæj	æÁ						GRC		VTR (ft)	SIT	E DE	ESCRIPT	ION	Ü^]  a	æ&∧ÁÓ¦ã	ãå*^∙Á	ÁFÎIÁæ);	åÆÎÌÌ	Á;}Á∿ÙÁ(	Э₿€Ą́ç	^¦Áp[¦	¦-{ \ÂÙ[	`@0¦	}ÁÜæaj,	, ǽ Á	-				GROL	ND WTR (
BORIN	G NO. NB	BL_B1-A	4	S	TATION	20+6	1		(	OFFSE	<b>T</b> 10	) ft LT			AL	IGNME	ENT -	-NBL-		ОН	R.	N/A			<b>NO</b> . N				STA	ATION	20+6	61			SET				_		-NBL-		0 HR	N
COLLA	R ELEV.	894.3 f	ť	т	DTAL DE	PTH	46.0 f	ť	1	NORTH							<b>G</b> 1,68	89,604		24 H		19.0			R ELEV.							46.0 ft		NOF	RTHING						,689,604	1	24 HR	19
DRILL R	IG/HAMMER	EFF./DA	ATE C	G20446	Diedrich D	50 87%	05/10/2	022			1	DRILL I	/ETH(	DD S	PT Cor	e Boring	J		HAN	MMER TY	PE Au	tomatic	DRIL	LL RIC	g/hammei	R EFF./D	DATE	CG204	146 Died	drich D5	0 87%	05/10/202	2			DRIL	L METH	HOD SP	T Core Bo	oring		HAN	IMER TYPE	Automatic
	R C. Odo				FART DA					COMP.				2	SU	RFACE	E WAT	ER DE	EPTH	N/A			DRI	LLE	<b>R</b> C. Oc	lom			STA	ART DA	ΔTE	09/06/22	2	CON	MP. DA	TE (	09/07/2	22	SURF	ACE W	ATER D	EPTH	N/A	
ELEV (ft)	DRIVE ELEV (ft) (ft)		LOW CO	0.5ft	0	81 25	LOWS	PER F0	DOT 75	5		SAMP. NO.	1.7		ELEV	/. (ft)	SOIL	_ AND R	ROCK DE	SCRIPTIC		DEPTH (ft)	ELE			PTH R	UN	DRILL RATE	TOT F	TAL RU RUN C. RQD (ft) %	JN 19	9.1 ft MP. <u>S</u>	TRATA C. RQD ) (ft) %	L					DESCRIP		ND REMA	ARKS		
895															- 894.3	8		GROI	UND SUF	REACE		0.0	(ft) 867.3	37	(ft) (1		(								ELEV. (				Begin	n Coring	@ 26.9	ft		DEPTH
890 —	894.3 0.0 890.6 3.7 	, 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$										м		- 888.3	Me	RO edium Sti	OADWA Stiff, Tan (A-4), v n-Orange	AY EMBA n-Orange, with trace	NKMENT , Fine San	ndy SILT	6.0	865	5 80 )	67.4 + 26 + $63.3 + 3^{-}$ + + 58.3 + 36	1.0 5 5.0	5.0 5.0 5.0 5.0 5.0	:03/1.0	(5.0) 100%	)) (1.8) 6 44% )) (4.2) % 84%	RS		8) (14.6) % 76%		867.4 	F	Pink-Wł	hite-Gray	o Very Sli , (METAG f f Unit	ightly W GRANITI fracture RS-1: 31 It Weigh	E), with m spacing	Hard to \ oderately	/ery Hard, close to cl 753 ksf)	ose
005	+ + + 880.6 + 13.7	7		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							•		м				- <u> </u>	/n-Tan, F	<b>RESIDUA</b> Fine Sand trace mic	dy SILT (A	— — — \-4), with	<u> 11.0</u>	855		53.3 <u>4</u>	1.0	0.0 4 2 2	2:30/1.0 2:30/1.0 2:46/1.0 2:12/1 0	) (5.0) ) 100%	)) (4.3) % 86%							Un	confined	Uni	t Weigh	5.4-36.0' t: 173.4 pc ength: 15, 50-60		2,294 ksf)	
	+ + + 875.6 + 18.7	7										м •		- - - 876.8	3		WEAT	THERED	ROCK		17.5	850		48.3 + 46		5	::45/1.0 ::04/1.0 ::16/1.0 ::16/1.0 ::00/1.0		9) (4.3) % 86%							Dori	ing Torm	insted at				lline Rock	2	
	870.6 - 23.7	8												1		Brov	wn-Gray	ıy, (META	AGRANITE	E)				+ + + + + + + + + + + + + + + + + + + +										- -		БОП	ing reim	(f Hard	METAG <u>Not</u> drilling	RANITE)	red			
865	867.4 <u>+</u> 26.9 	9 60/0.1	0			· · · ·	· · · ·	· · · · · · · · ·		60,   	/0.0♥ - -				- 867.4 - - -	Ļ		(ME <sup>-</sup> F	TALLINE TAGRAN REC=98% RQD=76%	NITE) %		26.9													·  · · ·				ut up	provinia				
860 855	+ + + + + + + + + + + + + + + + + + + +					· · · · · ·		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			RS-1 RS-2						G	GSI=50-6	50																								
850					· · · · · · · · · · · · · · · · · · ·	· ·	· · · ·	· · · · · · · · · · · · · · · · · · ·	· · ·	· · · ·					- - - - - - - -	B				vation 848 TAGRANI		46.0													—									
															- - - -				<u>Notes:</u> illing enco oximately						+ + + + + + + + + + + + + + + + + + + +										- -									
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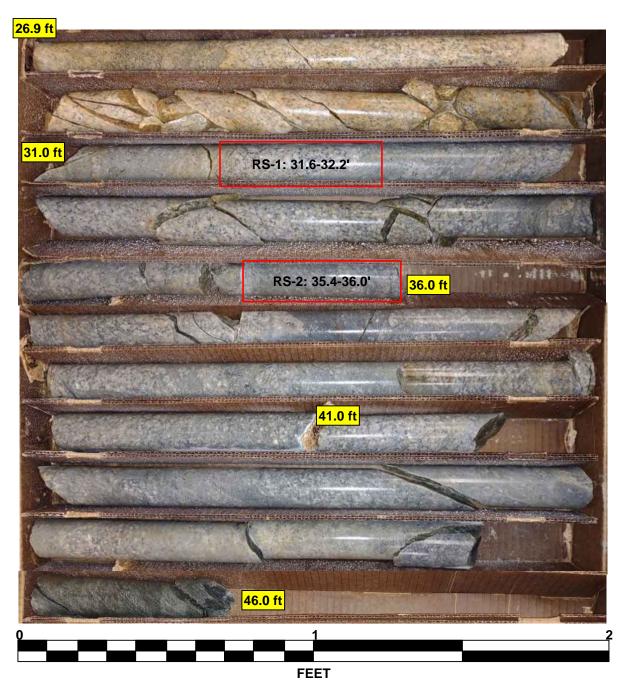
### GEOTECHNICAL BORING REPORT CORE LOG



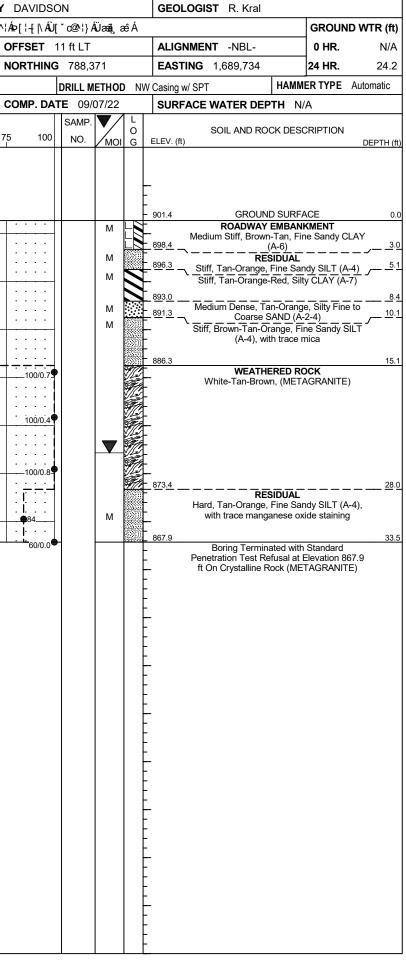
# FYd`UWY`6 f]X[Yg`% (`UbX`%, `cb`I G`& #\$`cj Yf`BcfZc`\_`Gci h\Yfb`FU]`k Um Davidson County, NC

Rock Core Photographs Boring: NBL\_B1-A

26.9 to 46.0 FeetÁ



									1	DUKE														-			<del></del>
	3S 45738.1.2 TIP B-5783 TE DESCRIPTION Ü^]  æ&∧ÁÓ¦ãá*^•Árî I Áegi à Árî Ì Ár, }Á∿Ù									Y DAVIDS				GEC	DLOGIST	M. Brew				45738					P B-5783		COUNTY
SITE	DESC	RIPTIO	N Ü^	] æ&^/	-				ÁGJÐÍ€Á[ç				æÁ					GROUND WTR (ft)									lÁGJÐİ€Á[ç^¦
BOR	ing no	. NBL	_B1-B		s	STATION	<b>1</b> 20+	+42		OFFSET	11 ft RT	-		ALIC	GNMENT	-NBL-	]	<b>0 HR.</b> N/A	BOR	ING NO.	NBL	_B2-A		S	TATION 2	21+94	(
COLI	LAR EL	EV. 89	96.2 ft		Т		DEPTH	<b>I</b> 31.3 f	t	NORTHIN	<b>G</b> 788,3	322		EAS	TING 1	,689,589		<b>24 HR.</b> 20.8	COL	LAR ELE	<b>V.</b> 90	01.4 ft		Т	OTAL DEP	<b>TH</b> 33.5 f	t I
DRILL	RIG/HA	MMER E	FF./DA	TE C	G2044	6 Diedrich	D50 87	7% 05/10/2	2022		DRILL	METHO	OD N	IW Casin	g w/ SPT			RTYPE Automatic	DRIL	RIG/HAN	IMER E	FF./DA1	TE C	G20446	Diedrich D50	87% 05/10/2	2022
DRIL	LER C	. Odon	n		s	START D	DATE	09/01/2	2	COMP. D	ATE 09/	/01/22	2	SUR	FACE W		, PTH N/A	۹	DRIL	LER C.	Odom	า		S	FART DAT	E 09/07/2	22 0
ELEV	DRIVE	DEPTH	BLC	ow co					PER FOOT	I	SAMP.	. 💙 /	1-						ELEV	DRIVE	DEPTH	BLC	w co	UNT		BLOWS I	PER FOOT
(ft)	ELEV (ft)	(ft)		0.5ft	0.5ft	0	25		50	75 100	NO.	мо	O DI G	ELE	V. (ft)	OIL AND RC	CK DESC	RIPTION	(ft)	ELEV (ft)	(ft)		0.5ft	0.5ft	0	25 5	50 7
												1															
900																			905								
900		ŧ												-					303	-	-						
		±												- 896.2		GROUN	D SURFA	CE or		901.4	-						
895	896.2	<u> </u>	WOH	2	2	4	•••					М		090.2		ROADWAY	EMBANK	MENT	900		- 0.0 -	2	3	5	 		
		Ŧ												893.2		ft, Tan-Oran — — — — —				898.3	3.1		-				
	891.2	5.0				į				.				-	Soft,	Tan-Orange,	Fine Sand	dy SILT (A-4)		896.3	5.1	7	7	6	<b>•</b> 13.		
890		I	2	1	1	<b>∮</b> 2			+ • • • •			М		- 889.2				7.0	895	-	-	3	5	7	<b>1</b> 2		+
	888.9	- 7.3	2	2	1			· · · · ·				м				RE	SIDUAL	— — — — — — — – e-Yellow, Fine		893.0		5	5	12	I I I İ İ		
005		‡					· · ·	· · · · ·		·   · · · · ·				È	Sa	andy SILT (A	<li>-4), with training</li>	ace mica,	890	891.3	10.1	6	4	6		7	
885	884.9 -	11.3	7	8	11	`	· 10		<u> </u>			м		-	man	iganese oxid fra	e staining, gments	and quartz	090		-				- <b>@</b> 10		
		ł					. <b>T</b> ij							L							-						
880	879.9 -	16.3					• • \							_					885	886.3	- 15.1	52	48/0.2	!	. !	· <del>-</del>	+
		+	8	11	16	] ::	· · •	27 · · ·				М		-							-						
		Ŧ								.				876.2				20.0		881.3	20.1						
875	874.9 -	21.3	6	11	20			<u> </u>	+ • • • •					-				ne to Coarse	880		-	100/0.4				+ • • • •	
		ŧ						●31 · · ·		.		М		F	0, 110	(, , _ , , , , , , , , , , , , , , , , ,	qua	in a magnitorito			-						· · · · ·
870		‡						!					477	871.2	-	WEATH	ERED RO	25.0		876.3	25.1	60	40/0.3	-			
070	869.9 -	26.3	60/0.0	)						60/0.0	•			869.9 -	<u>م</u>	(META	GRANITE	E)	0/5		-						
		ŧ						· · · · ·						È			AGRANITE			871.3	-						· · · · ·
865	. 864.9 -	31.3												_ 864.9		-		31.3	870	- 0/ 1.3	- 30.1	26	30	54			
		ł	60/0.0	)						60/0.0					B Penetr	oring Termin ation Test R	ated with s efusal at F	Standard levation 864.9		867.9	- 33.5						
		ł												-		Crystalline R				-	-	60/0.0					
	-	Ŧ												-		1	lotes:			-	-						
		ŧ												F		Hard drillir at approxi	ng encount	tered			-						
		ŧ												-		at approxi	mately 25.0	0 feet			-						
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## GEOTECHNICAL BORING REPORT CORE LOG

[				IP B-578					RE L											<u> </u>										RE L		,						
WBS 45738.		, , , , ,			DAVIDS		<i></i>	,	GEO	LOGIS	<b>T</b> M.E	Brewer					<b>3S</b> 4573					B-578				AVIDS		<i></i>		LOGIST	M. Brev							
SITE DESCRI							GJЀĄ́					έA							WTR (ft)				-	æ&^ÁÓ¦ä	-	-		AVUÁGJÐ €Á			-	}ÁÜæáj,æ <sup>°</sup> Á						OWTR (ft)
BORING NO.				TATION				_	FFSET					SNMEN				) hr.	N/A		RING NO	-	_		_	ATION			_	FSET					-NBL-		0 HR.	N/A
COLLAR ELE	<b>V</b> . 894	.4 ft	Т	OTAL DE	PTH	42.7 ft		N	ORTHIN					TING	1,689,7			4 HR.	18.0		LLAR EL					TAL DE			NC	RTHING					,689,716		24 HR.	18.0
DRILL RIG/HAMM		DATE C											PT Core B	-				TYPE A	utomatic		LL RIG/HA			E CG204	446 Die	edrich D50	87% 05/1	0/2022				L METHOD		-			ER TYPE	Automatic
DRILLER C.				TART DA					omp. DA				SUR	FACE V	VATER	DEPTH	N/A				ILLER (		۱		-	ART DA			CC	MP. DA	TE 0	9/02/22	SUR	FACE W	ATER DE	EPTH N/A	4	
ELEV DRIVE	DEPTH (ft)	BLOW C				BLOWS F			100		?. ▼∕	0			SOIL ANI	D ROCK I	DESCRI	PTION		co	RE SIZE					TAL RU												
(ft) (ft)	(11)	0.5ft 0.5f	11 0.511	0	25	5	50	75	100	NO.		I G	ELEV.	(ft)					DEPTH (ft	4		DEPTI		DRILL RATE		RUN C. RQD	SAMP. NO.	STRATA REC. RC (ft) (ft % %					DESCRI	PTION A	ND REMAF	RKS		
																				(ft)	/ (ft)	(ft)	(ft)	(Min/ft)	) (ft) %	(ft) %	NO.	% %	<u>% G</u>	ELEV.	(ft)							DEPTH (ft
895 894.4	- 0.0												- 894.4		GR	OUND S		Ξ	0.	871.		23.3	10	N=60/0 (	0 (1.8	(1.4)	RS-3	(3.5) (2	2)	971.1			Begi	n Coring	<u>(@ 23.3 ft</u> .INE ROCK	<u>t</u>		23.3
	-	2 5	6	<b>1</b> 1	1.   .						M		F				te-Tan, S	Silty Fine			869.2	23.3	5.0	03:43/0.9	9 95%	6 74%			%	- 07 1.1		Moderately to (METAGR	Slightly V	Veathered	d, Moderate	ely Hard, W	hite-Gray,	
890	-			:1:					· · · · ·				F		SAND (	A-2-4), w	ith trace	mica				‡		N=60/0.0 03:43/0.9 04:20/1.0 03:00/1.0 03:12/1.0 04:48/1.0 03:43/1.0 06:09/1.0	0 (3.5 0 70%	6) (1.3) 6 26%		(1.0) (0.	0)	- 867.5 -	٦		ANTL), W	RS-3: 23	-		spacing	26.9
888.9	5.5	45 55/0	3							1		977	888.9		W/F	ATHERE		<u>(</u>	5.5	865	5 864.2	+ 30.2		04.46/1.0				42% 09	6	865.1	_			nit Weigh	t: 162.4 pcf			29.3
886.1	_	40 00/0			·   ·	· · · · ·	+	· · ·   -   ·	100/0.8	<b>T</b>			<u>886.9</u>	Wh		ige-Tan, (	(METAG	RANITE)	7.	5		+				)) (4.3) % 86%	10-4	99% 78	%	F		Unconfi	ned Comp		0,	290 psi (330	J kst)	
885	- 0.0	12 14	7								м		-	Mee	dium De	RESIDI	te-Tan, S	Silty Fine		860		‡		04:18/1.0 03:36/1.0 03:22/1.0	.0	/0 00 /0				F					ED ROCK			
‡	-												F		SAND (	A-2-4), w	ith trace	mica			859.2	+ 35.2	50	04:12/1.0	<u>.0</u> 0 (5 0	)) (4.2)				F		Severely (META	Weathered	d, Mediun	n Hard to S	Soft, Brown- acture spac	Black, ing	
880 881.1	13.3	69 31/0	.2		!+-		+					977	881.1		WE	ATHERE		(	13.3	3		‡	0.0	08:20/1.0 15:54/1.0	0 1009	% 84%				F		Moderately	C	RYSTALL	INE ROCK	[		
	-									Ť			-	Tai	n-Orang	e-Gray, (l	METAG	RANITE)		855	5 854.2	+ 40.2		106.36/1 (	01					<u>-</u>	W	hite-Gray-Blu		GRANITE	E), with very			е
876.1	18.3								· · · · ·				F								851.7	1	2.5	07:03/1.0 07:03/1.0 08:47/1.0 11:04/1.0	0 (2.5	5) (1.4) % 56%		(1.0) (0. 42% 0? (13.3) (10 99% 78						spac RS-4: 29	0			
875	- 10	00/0.3							100/0.3	•			-								01.7	+ 42.7		11:04/1.( 15:29/0.	5					- 851.7	٦		Ur	nit Weigh	t: 165.9 pcf	f	001.0	42.7
╷ │ ╀	-								· · · · ·				871.1 867.5 865.1									Ŧ								-		Uncontine	e compre			650 psi (1,9	UO KSI)	
870 871.1	23.3	0/0.0							- 60/0.0	RS-3			871.1		CR	YSTALLI	NE ROCI	к	23.3	34		Ŧ								-		Boring Te	rminated a	GSI=6 at Elevatio	on 851.7 ft l	n Crystallin	e Rock	
	-								· · · · ·		1		-			METAGR						‡								-		-		(METAG	RANITE)	-		
	-								· · · · ·				- 867.5	٦		REC=9 RQD=6	97% 51%		26.9	11		Ŧ								-								
865	-									RS-4			865.1	⊣└──	14/5	GSI=40	)-50	,		34		Ŧ								-								
	-								· · · · ·		-1		F	E	Brown-B	lack, (ME	TAGRA	NITE)				Ŧ								-								
860	-				:   :								F			REC=4	12%					ŧ								-								
	-									11			-			RQD= GSI=10	0% )-20					‡								-								
ı   Ŧ	-								· · · · ·				F			YSTALLIN METAGR		K				‡								-								
855	-									-			-		(	REC=9	,					‡								F								
	-								· · · · ·				- - 851.7			RQD=7 GSI=60	78%		42.7	,		‡								-								
	-				•   •			••		+		-54-7	- 031.7	Borin	ig Termi	nated at E	Elevation	851.7 ft		11		ŧ								-								
	-												-	Ci	rystalline	e Rock (N	1ETAGR	ANITE)				‡								<u>-</u>								
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# FYd`UWY`6f]X[Yg`%(`UbX`%, cb`l G`& #\$`cj Yf`BcfZc`\_`Gci h Yfb`FU]`k Um Davidson County, NC`

23.3 ft RS-3: 23.5-24.1 25.2 ft RS-4: 29.4-29.8' 30.2 ft 35.2 ft 10 2 42.7 ft

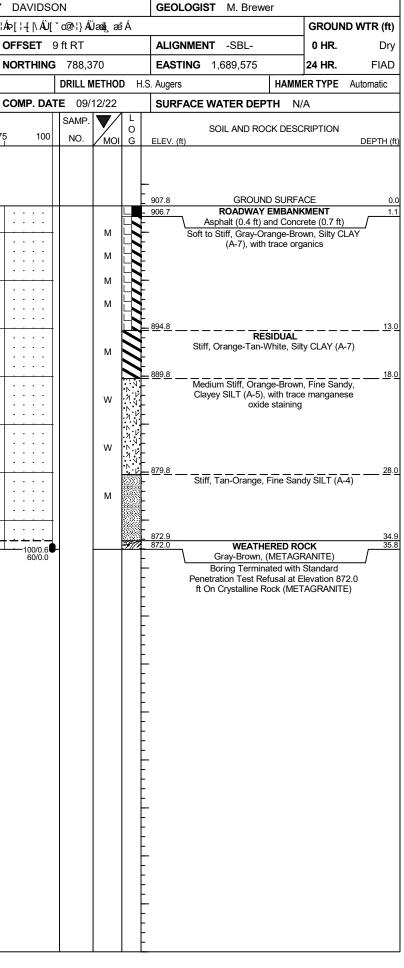
FEET

Rock Core Photographs Boring: NBL\_B2-B 23.3 to 42.7 FeetÁ

									URE L	.00																
	45738					IP B-5783			Y DAVIDS				GEO	LOGIST M. Brewer	1			45738					P B-5783		COUNT	
								AGJÐÍ€Á[ç⁄	\¦Á¤[¦-{ \ÁÙ  !		Jæđja	æÁ			GROUND WTR	· ·							∙Á∓ÎlÁæ)åÅ		JAGJÐÍ€Á[ç	1
	NG NO.					TATION 2			OFFSET				ALIG	NMENT -NBL-	0 HR.	Dry		ING NO.			3		TATION 2			OF
COLI	AR ELE	<b>V.</b> 90	)8.7 ft		Т	OTAL DEP	<b>TH</b> 35.7 1	ft	NORTHING	<b>G</b> 788,3	576		EAS	<b>FING</b> 1,689,771	24 HR.	Dry	COLI	LAR ELE	<b>V.</b> 90	)8.8 ft		Т	OTAL DEP	<b>TH</b> 36.6	ft	NC
DRILL	. RIG/HAI	IMER E	FF./DA	TE C	G20446	Diedrich D50	0 87% 05/10/2	2022		DRILL N	NETHC	)D H	H.S. Auger	B HAMM	ER TYPE Automa	tic	DRILL	RIG/HAN	IMER E	FF./DAT	E C	G20446	Diedrich D50	87% 05/10/	2022	
DRIL	LER C	. Odom				TART DAT	<b>E</b> 08/31/2	22	COMP. DA				SUR	FACE WATER DEPTH N	/A		DRIL	LER C	. Odom	1 		S	TART DAT	E 09/01/	22	CC
ELEV	DRIVE ELEV	DEPTH						PER FOOT		SAMP.	1.7	0		SOIL AND ROCK DESC	CRIPTION		ELEV	DRIVE ELEV	DEPTH			1			PER FOOT	
(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75 100	NO.	Имо	) G	ELEV. (	t)	DEPT	H (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75
910		-											L				910		-							
	-	-				<u> </u>							_ 908.7 - 907.6	GROUND SURFA	KMENT	0.0 1.1		-	-				<u>.</u>			-
905	906.7 -	- 2.0	2	2	2						м		905.2	Asphalt (0.4 ft) and Conc Soft, Brown-Gray, Silty C		3.5	905	906.8 -	- 2.0	1	1	1				
303	904.7 -	- 4.0 -	3	3	4			· · · ·	····	11	м		903.7	Loose, Brown-Gray, Silty Fi SAND (A-2-4), with trace	ine to Coarse	5.0	903	904.6 -	- 4.2 -	2	2	3	↓ <u>↓</u>	+	+ · · · ·	.
	- 901.7 -	- 7.0		<u> </u>		$\left  \begin{array}{c} T \\ T \\ T \\ T \\ T \\ T \\ T \\ T \\ T \\ T $							ţ	Soft to Medium Stiff, Red-Tar	n-Orange-Gray,		1	- 901.8 -	- 7.0							:
900	- 899.7 -	- - 9.0	2	1	3	<b>•</b> 4 · · ·		· · · ·			М		£	Silty CLAY (A-7), with trace p organics	bea gravel and		900	- 899.6 -	- - 9.2	2	4	5	. • • • • • • • • • • • • • • • • • • •	· · · ·	· · ·	·
	-		4	2	3	∳5` ∶ ∶					W		ţ				1	-	-	1	3	6	: <b>•</b> 9::		· · · ·	:
005	-	F					::::						<u> </u>	RESIDUAL		<u>12.0</u>	005	-	Ļ				: <u>`</u> . :		· · · ·	•
895	894.7 -	- 14.0 -	11	11	10			· · · · ·			м		-	Very Stiff to Hard, Orange- Sandy SILT (A-4), with tra-	-Brown, Fine ce mica and		895	894.6 -	- 14.2	5	7	8		<u> </u>		
1	-	-												manganese oxide st				-	-				· · ¶ <sup>15</sup>			
890	889.7 -	- - 19.0											L				890	- 889.6 -	- - 19.2				· · · · <u>`</u>			•
		-	30	24	19	$\left  \left  \begin{array}{c} \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot \end{array} \right  \right $		3			м							-	-	6	8	15		<b>●</b> 23		:
1	-	-																-	-							
885	884.7 -	- 24.0	50	36	G4Á		<u> </u>	+			м		L				885	884.6 -	- 24.2	14	10	8			<u> </u>	+
	-	_											Ł					-	_			Ũ	●1 	°		:
880	879.7 –	- 29.0											Ł				880	- 879.6 <del>-</del>	- 29.2							•
	- 019.1 -	- 29.0	26	19	12		•31				м		E					- 6/9.0	- <u>29.2</u> -	43	20	48				68
	-	_					: : :						i i					-	-							•
875	874.7 -	- 34.0	79	21/0.2	-							T	874.7	WEATHERED RO	)CK	34.0	875	874.6 -	- 34.2	31	15	28				-
I	873.0	35.7	60/0.0						- 100/0.7 60/0.0	5	<u> </u>		873.0	Brown, (METAGRA	NITE)	35.7		872.2	36.6		10	20		· · · •	43	•
ł	-	-											F	Boring Terminated with Penetration Test Refusal at E	Elevation 873.0			-	-	60/0.0						
l	-	F											F	ft On Crystalline Rock (MET	TAGRANITE)			-	-							
	-	[											F					-	-							
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	GEOLOGIST M. Brewer	
}ÁÜæajٍæêÁ		GROUND WTR (ft)
RT	ALIGNMENT -NBL-	0 HR. Dry
8,353	EASTING 1,689,754	24 HR. Dry
L METHOD H	.S. Augers HAMM	ER TYPE Automatic
9/01/22	SURFACE WATER DEPTH N/	A
IP. L 0 MOI G		RIPTION DEPTH (ft)
	- 908 8 GROUND SURFA	CE 0.0
	907.7 ROADWAY EMBANH	(MENT
мЦ	Soft, Brown, Sllty CLAY( A-	
	Medium Stiff, Gray-Brown, Fir	e Sandy CLAY
мЦ	Loose, Black-Gray, Silty Fine	SAND (A-2-4),
	- RESIDUAL Stiff Tan-Orange Silty C	HAY (A-7)
м	896.8 Medium Dense, Brown-Orang Fine to Coarse SAND (A-2	ge-White, Silty 4), with trace
	-	
M		
М		<u> </u>
м	- Hard, Tan-Brown-Urange, Fit (A-4), with trace n	ie Sandy SIL I nica
м	 - 872.2	36.6
	Boring Terminated with	Standard
	Penetration Test Refusal at E	levation 872.2
	RT 3,353 L METHOD H 19/01/22 IP. L 0 MOI G MOI G M M M M M M M M M M M M	A Jaai, aé Á RT ALIGNMENT -NBL- 3,353 EASTING 1,689,754 LMETHOD H.S. Augers HAMM 19/01/22 SURFACE WATER DEPTH N/ P O SOIL AND ROCK DESC 908.8 GROUND SURFA 908.8 GROUND SURFA 907.7 ROADWAY EMBANY Asphalt (0.4 ft) and Concr 904.8 OROUND SURFA 907.7 ROADWAY EMBANY Asphalt (0.4 ft) and Concr 904.8 GROUND SURFA 907.7 ROADWAY EMBANY Asphalt (0.4 ft) and Concr 904.8 GROUND SURFA 902.3 (A-6), with trace organics M O B Back-Gray, Silty Fine with trace organic M Bedium Dense, Brown-Orange, Silty C Medium Dense, Brown-Orange, Silty C M M Basis A Stiff, Tan-Orange, Silty C M M Basis A Stiff, Tan-Orange, Fire (A-4), with trace or M M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), with trace or M Basis A Stiff, Tan-Brown-Orange, Fire (A-4), WI Basis A

									URE L								·										
	<b>3</b> 45738					P B-5783			Y DAVIDS				GEO	LOGIST M.	Brewer	1		45738					P B-5			COUNT	
								ĴÁGJÐİ€Á[ç	^¦Á⊋[¦-{ ∖ÁÙ  T			êÁ				GROUND WTR (ft)		DESCR								GJÐİ€Á[ç	1
	ING NO					TATION 20			OFFSET	11 ft LT			ALIG	INMENT -SE	BL-	<b>0 HR.</b> 34.0		ING NO.			3		TATION				OF
COL	LAR ELI	<b>EV.</b> 90	07.9 ft		т	OTAL DEPT	<b>H</b> 38.2	ft	NORTHING	<b>3</b> 788,3	394		EAS	<b>TING</b> 1,689,		24 HR. FIAD		LAR ELE							35.8 ft		NC
DRIL	L RIG/HA	MMER E	FF./DA	TE C	G20446	Diedrich D50	87% 05/10/	2022	1	DRILL	METHO	DH	.S. Auger	s	HAMME	ER TYPE Automatic	DRILI	RIG/HAN	IMER EI	FF./DAT	E C	G20446	Diedrich	D50 87%	% 05/10/20	)22	
DRIL	LER C	C. Odom	ו 		S	TART DATE	09/12/	22	COMP. DA	TE 09/	/12/22	<b></b> _	SUR	FACE WATER	R DEPTH N/	A	DRIL	LER C	. Odom					DATE	09/12/22	2	C
ELEV	DRIVE ELEV	DEPTH						PER FOOT		SAMP.				SOIL AN	ND ROCK DESC	RIPTION	ELEV	DRIVE ELEV	DEPTH			1				PER FOOT	
(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0 2	25	50	75 100	NO.			ELEV. (			DEPTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	5	0	75
910		Ļ															910	_	-								
		<u>+</u>											907.9		ROUND SURFA			-	-							_	
	005 5	+ 24											906.8		DWAY EMBANK 0.4 ft) and Concr			- 905.8 -	- 2.0							· · · ·	
905	905.5	4 2.4	3	2	3	<b>4</b> 5				+	м		903.9		ff, Brown-Orange		905	-	-	3	2	2	<b>•</b> 4	· · · ·			+
		1 7.2	3	4	5	· •9 · · ·					м			Loose, Gray-T	<u>(A-7)</u> Tan, Clayey Fine	SAND (A-2-6)		903.4	4.4	2	1	3	<b>4</b>				•
900	900.5	7.4				1							<u>901.4</u>	Soft to M	ledium Stiff, High	nly Plastic,6.5	900	900.8 -	- 7.0	2	1	2					•
	898.8	9.1	2	2	2	<b>Q</b> 4				Ī	M		-	Gray	-Tan, Silty CLAY	( (A-7)		898.4	- 9.4				•3				
		Ŧ				•6					M		-					-	-	3	4	8	: ``	12			-
895		ŧ				- 1			• • • • • •	$\left  \right $		-N	894.9		ange-Yellow, Fin	<u> 13.0</u>	895	-	-				<u>.</u>	· ·			
	893.8	+ 14.1 +	5	5	7				· · · · · ·		м		-	Sull, Red-Ola	(A-4)			893.4	14.4	6	6	9			· · · · ·		.   .
890		ŧ											-			10.0	890	-	-				: :	/ I	· · · · · · · ·	· · · ·	•
090	888.8	- 19.1				<u></u>				†			<u>889.9</u>		RESIDUAL	<u> </u>	090	888.4	- 19.4								
		‡	2	3	4	•7 · ·			.   .		м		-	Gray-White-	lium Stiff to Very Tan-Orange, Fin	e Sandy SILT			-	2	3	3	6		· · · · ·	· · ·   · · ·	· .
885		±											-	(A	-4), with trace m	nica	885	-	-						 		·
	883.8	<u> </u>	4	4	5				·   · · · · ·		м		-					883.4	24.4	3	3	4		· ·	· · · ·		
		Ŧ				· · · ·							-					-	-	5	5	4					.   .
880	878.8	- 29.1					<u> </u>			$\left\{ \right\}$			_				880	_	-								+
	0/0.0	<u>+ 29.1</u>	6	5	13	18	3				м		-					878.4	- 29.4 -	4	4	8		12	· · · · ·		
875		Ŧ											874.9			<u>33.0</u>	875	-	-								
	873.8	34.1	7	14	35					†			-	Dense, Gra	ay-Pink, Silty Fin SAND (A-2-4)	e to Coarse		873.4	- - 34.4				<del></del>				. [
		ŧ	<i>'</i>	14	35			<b>4</b> 9	· · · · · ·		м		- 871.1		3AND (A-2-4)	36.8		872.0	35.8	11 60/0.0	66	34/0.1		÷ ÷ +	<u> </u>	- <u></u> · - ·	· <u> </u>
870	869.7 -	- 38.2				· · · ·			60/0.0			11	869.7		EATHERED RO (METAGRANITE	CK 38.2		-	-	00/0.0							
		‡	60/0.0						60/0.0				-	Boring T	Terminated with	Standard		-	-								
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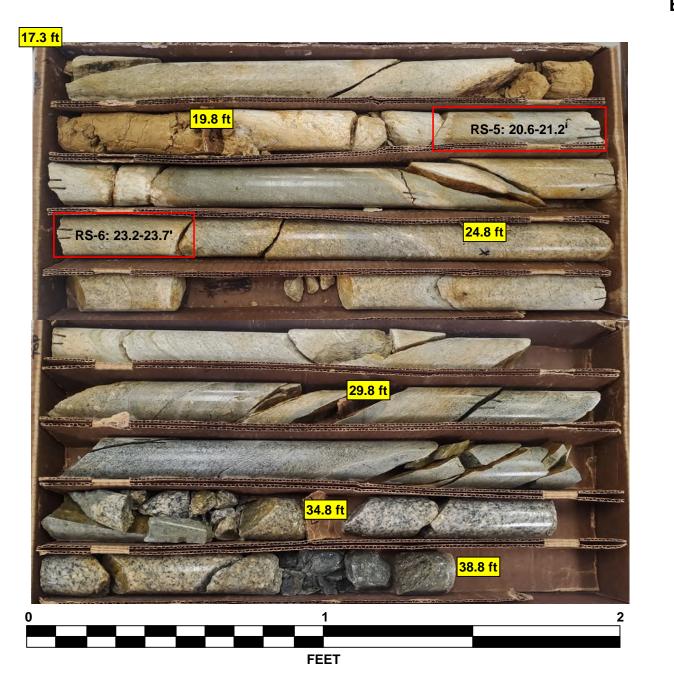
		BORE LOG		CORE LOG	
<b>WBS</b> 45738.1.2		NTY DAVIDSON	GEOLOGIST T. Wenner	<b>BS</b> 45738.1.2 <b>TIP</b> B-5783 <b>COUNTY</b> DAVIDSON	GEOLOGIST T. Wenner
SITE DESCRIPTION Ü^]   a&^ ÁÓ			GROUND WTR (ft)	TE DESCRIPTION Ü^] æ&∧ÁÓ¦ãå*^•ÁrĨIÁæ)åÁrĨÌÁ;}ÁNÙÁGJÐÍ€Á;ç^¦Á⊳[¦-[ \ÁÛ[čo@¦}/	
BORING NO. SBL_B1-A	STATION 21+04	OFFSET 8 ft LT	ALIGNMENT -SBL- 0 HR. N/A	DRING NO.         SBL_B1-A         STATION         21+04         OFFSET         8 ft LT	ALIGNMENT -SBL- 0 HR. N/A
COLLAR ELEV. 893.4 ft	TOTAL DEPTH 38.8 ft	<b>NORTHING</b> 788,399	<b>EASTING</b> 1,689,637 <b>24 HR.</b> 16.8	DLLAR ELEV.         893.4 ft         TOTAL DEPTH         38.8 ft         NORTHING         788,3	
DRILL RIG/HAMMER EFF./DATE CG	20446 Diedrich D50 87% 05/10/2022	DRILL METHOD	PT Core Boring HAMMER TYPE Automatic	ILL RIG/HAMMER EFF./DATE CG20446 Diedrich D50 87% 05/10/2022 DRILL I	METHOD SPT Core Boring HAMMER TYPE Automatic
DRILLER C. Odom	<b>START DATE</b> 09/08/22	COMP. DATE 09/08/22	SURFACE WATER DEPTH N/A	RILLER C. Odom START DATE 09/08/22 COMP. DATE 09/	V08/22         SURFACE WATER DEPTH         N/A
ELEV DRIVE DEPTH BLOW COUL			SOIL AND ROCK DESCRIPTION	DRE SIZE     NQ     TOTAL RUN     21.5 ft	
(ft) (ft) (ft) 0.5ft 0.5ft	0.5ft 0 25 50	75 100 NO. MOI G	ELEV. (ft) DEPTH (ft)	RUN ELEV (ft)         DEPTH (ft)         RUN (ft)         DRILL (ft)         RUN RATE (Min/ft)         CHUN REC.         ROD NO.         SAMP.         STRATA REC.         L ROD NO.         C (ft)         C (ft) <thc (ft)         C (ft)         C (f</thc 	DESCRIPTION AND REMARKS
				$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	DEPTH (ft)
895			_	14 5 876.1 17.3 2.5 <u>N=60/0.0</u> (2.5) (1.4) (17.9) (11.3) 2.5 <u>N=60/0.0</u> (2.5) (1.4)	Begin Coring @ 17.3 ft CRYSTALLINE ROCK 17.3
893.4 + 0.0 + 2 2	5	· ·   · · · ·   M L	- 893.4 GROUND SURFACE 0.0 ROADWAY EMBANKMENT		Moderately Weathered to Fresh, Moderately Hard, White-Grav,
890 890.3 3.1			Medium Stiff to Stiff, Tan-Orange, Fine to Coarse Sandy CLAY (A-6)	5.0 (14/0.5) (5.0) (3.9) 255/10 100% 78% RS-5	AGRANITE), with very close to moderately close fracture spacing, ely weathered seam from 19.3 to 20.2 feet, and soil seam from 26.8
	6		887.9 55	0 2:55/1.0 100% RS-5 severe 2:06/1.0 2:29/1.0 2:29/1.0 2:37/1.0 RS-6 868.6 24.8 3:38/1.0 KS 6	to 27.3 feet
			RESIDUAL	868.6 - 24.8 2:38/1.0 RS-6 - 5.0 3:42/1.0 (4.4) (3.3)	RS-5: 20.6-21.2' Unit Weight: 172.5 pcf
885.6 - 7.8 2 2	$3 \qquad 1  \cdots  \cdots  \cdots  \cdots  \cdots  \cdots  \cdots  \cdots  \cdots $	·· · · · · · · · · · · · · · · · · · ·	Medium Stiff, Tan-Orange, Highly Plastic, Silty CLAY (A-7)	5.0 3:42/1.0 (4.4) (3.3) - 2:41/1.0 88% 66% 3:15/1.0	Unconfined Compressive Strength: 4,820 psi (694 ksf)
	$\left  \begin{array}{c c} \bullet_{3} & \cdot & \cdot \\ \bullet_{3} & \cdot & \cdot \\ \bullet_{3} & \cdot & \cdot \\ \bullet_{3} & \cdot & \cdot \\ \bullet_{3} & \cdot & \cdot \\ \bullet_{3} & \cdot & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} & \cdot \\ \bullet_{3} $		<b>t</b>	5 5 63.6 - 29.8 5:56/1.0	RS-6: 23.2-23.7' Unit Weight: 167.1 pcf
880 - 12.8			880.612.8	5.0 2:12/1.0 (3.8) (1.9) 2:07/1.0 76% 38%	Unconfined Compressive Strength: 7,800 psi (1,123 ksf)
		100/0.5	- WEATHERED ROCK - Tan-Gray, (METAGRANITE)		GSI=30-40
				858.6 34.8 6:50/1.0 4:20/1.0 (2.2) (0.8)	
876.1 17.3 875 60/0.0		· · · · · 60/0.0	CRYSTALLINE ROCK	+         4.0         4:20/1.0         (2.2)         (0.8)           -         2:53/1.0         55%         20%           5:16/1.0         -         -         -	
			(METAGRANITE)	5 854.6 854.6 854.6	38.8 Boring Terminated at Elevation 854.6 ft In Crystalline Rock
		RS-5	REC=83%		(METAGRANITE)
			GSI=30-40		
865		· · · · · · ·			
		· · · · · · ·			
855			- 854.6 38.8		
			Boring Terminated at Elevation 854.6 ft In Crystalline Rock (METAGRANITE)		
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## GEOTECHNICAL BORING REPORT CORE LOG



# FYd`UWY`6f]X[Yg`%(`UbX`%, cb`l G`& #+\$`cj Yf`BcfZc`\_`Gci h Yfb`FU]`k Um Davidson County, NC`

Rock Core Photographs Boring: SBL\_B1-A



17.3 to 38.8 FeetÁ

											-					<u> </u>								1											
		38.1.2					P B-5							DAVID						GEOLOGIST	T. Weni	her				45738					IP B-57			COUN	
		CRIPTI			e&^ÁÓ						ÁGJÐÖ	)€/į́ç⁄	_				æąja	êÁ						D WTR (ft)					] æ&^/				_	lÁGJÐÍ€Á[o	;^¦Á
BOR	ING NO	<b>)</b> . SB	L_B1-E	З		S	ΓΑΤΙΟ	<b>N</b> 2	0+76	i			OF	FSET	9 ft I	RT				ALIGNMENT	-SBL-		0 HR.	N/A	BOR	NG NO.	SBL	B2-A		s	TATION	22+	·30		(
COL	LAR E	LEV.	899.1	ft		Т	OTAL I	DEPT	н :	28.8	ft		NC	ORTHIN	<b>IG</b> 7	88,3	77			EASTING 1	,689,613		24 HR.	Dry	COL	AR ELE	<b>EV.</b> 8	94.4 ft		Т	OTAL DE	EPTH	28.3	ft	N
DRILI	. RIG/H/	AMMER	eff./D <b>a</b>	ΛTE	CG20	)446 D	iedrich [	D50 87	7% 05	/10/20	22				DR	ILL M	IETHO	DD I	NW C	asing w/ SPT		HAMN	IER TYPE	Automatic	DRILL	RIG/HAN	IMER EF	F./DAT	e cg	20446 E	iedrich D5	0 87%	05/10/20	)22	
DRIL	LER	C. Odd	m			S	TART I	DATE	E 09	9/08/2	22		CC	OMP. D	ATE	09/	08/22	2		SURFACE W	ATER DE	PTH N	I/A		DRIL	LER C	. Odom	ı		s	TART DA	ATE	09/11/	22	C
ELEV	DRIV ELE\			LOW	COU	NT			BL	ows	PER	F00	T		SA	AMP.	$\mathbf{V}$			S			CRIPTION		ELEV	DRIVE ELEV	DEPTH	BLO	ow co	UNT			BLOWS	PER FO	тс
(ft)	(ft)		) 0.5	5ft C	).5ft	0.5ft	0	:	25		50		75	10	1 0	10.	м		G I	LEV. (ft)				DEPTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25		50	75 
900																			L.	99.1	CROU	ND SURF		0.0	895										
		1 <u>0.</u> (	2	2	3	3	<b>•</b> 6.		:								М				ROADWA	Y EMBAN an-Orange	<b>IKMENT</b> e, Fine Sanc			894.4	+ 0.0	3	6	12		<b>1</b> 8	· · · ·		
895	896.	1 <u>-</u> 3.(		Á	6	7		1 ●13	·				-				м		Ţ	<u> </u>		LAY (A-6) Esidual	)		890	891.1	3.3	12	13	10	-	2	3		
		ŧ						· · ·		· · · ·	.   -	· · · ·	•	· · · ·					Ľ.	92 1	C	_AY (A-7)		7.0		•	<b>†</b>					· ·   · ·	· · · ·	·	· +
890	890.3	3 <u>+ 8.8</u>	3 2	2	3	4	· /. 			· · ·		· ·					м	× ∠ ×	N. N. N.	Medi	Um Stiff to Claye	ery Stiff, SILT (A	Tan-Orango A-5)	e,	885	886.1	8.3	86	14/0.1	r			· · ·	· · · · ·	
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885	885.3	$\frac{3 + 13}{4}$	8 3	5	7	11		<u>`</u> .	<u> </u>	· · ·		· ·					м	1 1 1 1 1 1	× •						880		- 13.3	73	27/0.1	Ī			· · · ·		
		÷						- ŀ - ŀ	-		.   -	· · · · ·	-   -					۲ ۲	, , 	<u>81.6</u>			ILT (A-4), wi	<u> 17.5</u>		876.1	18.3						· · · ·	·   1	-
880	880.3	3 <u>† 18</u> . +	8	0	12	11			23.	· · ·		· · ·					М			tr	ace manga	nese oxic	te staining	m	875	-	F	18	27	29			· · · ·	<b>-----------</b>	
	075							· · ]	-	· · · ·	.   -	· · · ·	-   -	· · · ·						75.3				23.8			23.3						· · · ·	.	••
875	_ 8/5.3	3 <u>†</u> 23. -	8 100/	0.3					+ -		==	· <del></del>		100/0	-+ I					73.3		HERED R ETAGRA		23.0	870	-	÷	36	64/0.5						
	870 -	3 28.	8					· · · ·	-		.   -	· · · ·	-   -	60/0						70.3				28.8		866.1	28.3	60/0.0					· · ·		
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Image: Moline     Moline     Control     Contro     Contro     Control     Control <th>DAVIDSO</th> <th>N</th> <th></th> <th></th> <th>GEOLOGIS</th> <th><b>ST</b> M. Brewer</th> <th></th> <th></th> <th></th>	DAVIDSO	N			GEOLOGIS	<b>ST</b> M. Brewer			
NORTHING       788,425       EASTING       1,689,761       24 HR.       19.0         DRILL METHOD       NW Casing w/ SPT       HAMMER TYPE       Automatic         COMP. DATE       09/11/22       SURFACE WATER DEPTH       N/A         75       100       NO.       L       SOIL AND ROCK DESCRIPTION         75       100       NO.       L       SOIL AND ROCK DESCRIPTION         894.4       GROUND SURFACE       0.0         WOI G       ELEV. (t)       DEPTH (th         894.4       GROUND SURFACE       0.0         Very Stiff, Tan-Orange-Brown, Fine Sandy       SILT (A-4), with trace organics, mica, and manganese oxide staining         887.6       6.6         1000.6       Image: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe: Singe:	Á≂[¦-{ \ÂÙ[ĭ	c@e\}ÁÜa	æqijæî <i>l</i>	Á				GROUN	DWTR (ft)
DRILL METHOD       NW Casing w/ SPT       HAMMER TYPE       Automatic         COMP. DATE       09/11/22       SURFACE WATER DEPTH       N/A         75       100       SAMP.       0       SOIL AND ROCK DESCRIPTION         75       100       NO.       WOI G       ELEV. (ft)       DEPTH (ft         B89.4       GROUND SURFACE       0.0         Very Stiff, Tan-Orange-Brown, Fine Sandy         SILT (A-4), with trace organics, mica, and manganese oxide staining         Image: Stronge-Brown, Fine Sandy         Image: Stronge-Brown, Fine Sandy         Image: Stronge-Brown, Fine Sandy         SILT (A-4), with trace organics, mica, and manganese oxide staining         Image: Stronge-Brown, Fine Sandy         Image: Stronge-Brown, Fine Sandy SiLT         Image: Stronge-Brown, Fine Sandy SiLT         Image: Stronge-Brown, Fine Sandy SiLT         Image: St	OFFSET 1	1 ft LT			ALIGNMEN	IT -SBL-		0 HR.	N/A
DRILL METHOD       NW Casing w/ SPT       HAMMER TYPE       Automatic         COMP. DATE       09/11/22       SURFACE WATER DEPTH       N/A         75       100       SAMP.       0       SOIL AND ROCK DESCRIPTION         75       100       NO.       WOI G       ELEV. (ft)       DEPTH (ft         B89.4       GROUND SURFACE       0.0         Very Stiff, Tan-Orange-Brown, Fine Sandy         SILT (A-4), with trace organics, mica, and manganese oxide staining         Image: Stronge-Brown, Fine Sandy         Image: Stronge-Brown, Fine Sandy         Image: Stronge-Brown, Fine Sandy         SILT (A-4), with trace organics, mica, and manganese oxide staining         Image: Stronge-Brown, Fine Sandy         Image: Stronge-Brown, Fine Sandy SiLT         Image: Stronge-Brown, Fine Sandy SiLT         Image: Stronge-Brown, Fine Sandy SiLT         Image: St	NORTHING	788.42	25		EASTING	1.689.761		24 HR.	19.0
COMP. DATE       09/11/22       SURFACE WATER DEPTH       N/A         75       100       SAMP. NO.       NO.       SOIL AND ROCK DESCRIPTION ELEV. (ft)       DEPTH (ft SOIL AND ROCK DESCRIPTION ELEV. (ft)         894.4       GROUND SURFACE       0.0         894.4       GROUND SURFACE       0.0         894.4       GROUND SURFACE       0.0         1000.6       M       Very Stiff. Tan-Crange-Brown, Fine Sandy SILT (A-4), with trace organics, mica, and manganese oxide staining         1000.6       887.6       6.6         10000.6       887.6       6.6         10000.6       10000.6       10000.6         10000.6       10000.6       10000.6       10000.6         10000.6       887.9       RESIDUAL       17.5         10000.6       10000.6       10000.6       10000.6       10000.6         10000.6       10000.6       10000.6       10000.6       100000         10000.6       100000.6       100000       100000       100000         10000.6       1000000       1000000       1000000       1000000       1000000         10000.6       10000000       10000000       1000000000       1000000000000000000000000000000000000		-		NI		.,,.			
75       100       SAMP. NO.       NO.       MOI       G       SOIL AND ROCK DESCRIPTION ELEV. (ft)       DEPTH (ft)									ratomato
NO.       NO.       O       SOIL AND ROCK DESCRIPTION         600.0       G       ELEV. (ft)       DEPTH (ft         1000.6       M       Very Stiff, Tan-Orange-Brown, Fine Sandy       SILT (A-4), with trace organics, mica, and manganese oxide staining         1000.6       M       WEATHERED ROCK       6.6         1000.6       Tan-Orange-Brown, (METAGRANITE)       6.6         1000.6       M       WEATHERED ROCK       21.5         1000.6       M       WEATHERED ROCK       25.6         1000.6       M       B87.6       CRYSTALLINE ROCK         1000.6       M       B88.8       CRYSTALLINE ROCK         100/1.0       B88.8       CRYSTALLINE ROCK       25.6         100/1.0       B86.1       Boring Terminated with Standard       28.3         100/1.0       B86.1       Boring Terminated with Standard       28.3         100/1.0       B86.1       Softer drilling encountered       28.3         100/1.0       Hard drilling encountered       100/1.0       100/1.0	COMP. DAT			L	JUNFACE			1	
M RESIDUAL Very Stiff, Tan-Orrange-Brown, Fine Sandy SILT (A-4), with trace organics, mica, and manganese oxide staining 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.9 887.6 887.6 887.6 887.6 887.6 887.9 887.6 887.6 887.9 887.9 887.6 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.9 887.6 887.9 887.6 887.9 887.9 887.6 887.9 887.6 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	75 100		моі	-		SOIL AND ROC	K DESC	RIPTION	DEPTH (ft)
M RESIDUAL Very Stiff, Tan-Orrange-Brown, Fine Sandy SILT (A-4), with trace organics, mica, and manganese oxide staining 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.6 887.9 887.6 887.6 887.6 887.6 887.6 887.9 887.6 887.6 887.9 887.9 887.6 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.9 887.6 887.9 887.6 887.9 887.9 887.6 887.9 887.6 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.6 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 887.9 8.8 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9									
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M SILT (A-4), with trace organics, mica, and manganese oxide staining 887.6 WEATHERED ROCK Tan-Orange-Brown, (METAGRANITE) 876.9 876.9 876.9 876.9 877.9 M 877.9 M 877.9 M 877.9 CRYSTALLINE ROCK (METAGRANITE) 868.8 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 868.1 CRYSTALLINE ROCK (METAGRANITE) 866.1 CRYSTALLINE ROCK (METAGRANITE)			М		Verv			n, Fine Sa	ndy
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100/0.6       Tan-Orange-Brown, (METAGRANITE)         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0	· · · ·				- 887.6				6.8
100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/0.6       17.5         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0         100/1.0       100/1.0 <th></th> <th></th> <th></th> <th></th> <td>- - Ta</td> <td></td> <td></td> <td></td> <td>E)</td>					- - Ta				E)
876.9       17.5          RESIDUAL       17.5          Hard, Gray-Tan-Orange, Fine Sandy SILT       (A-4), with trace mice and gravel-sized rock fragments       21.5           WEATHERED ROCK       Gray-Tan-Orange-Brown, (METAGRANITE)       25.6            868.8       (CRYSTALLINE ROCK (METAGRANITE))       26.3               26.1       25.6 </th <th>100/0.6</th> <th></th> <th></th> <th></th> <th>-</th> <th>in orange bronn</th> <th>, (</th> <th></th> <th>_/</th>	100/0.6				-	in orange bronn	, (		_/
876.9       17.5          RESIDUAL       17.5          Hard, Gray-Tan-Orange, Fine Sandy SILT       (A-4), with trace mice and gravel-sized rock fragments       21.5           WEATHERED ROCK       Gray-Tan-Orange-Brown, (METAGRANITE)       25.6            868.8       (CRYSTALLINE ROCK (METAGRANITE))       26.3               26.1       25.6 </th <th></th> <th></th> <th></th> <th>۶D</th> <th></th> <th></th> <th></th> <th></th> <th></th>				۶D					
876.9       17.5          RESIDUAL       17.5          Hard, Gray-Tan-Orange, Fine Sandy SILT       (A-4), with trace mice and gravel-sized rock fragments       21.5           WEATHERED ROCK       Gray-Tan-Orange-Brown, (METAGRANITE)       25.6            868.8       (CRYSTALLINE ROCK (METAGRANITE))       26.3               26.1       25.6 </th <th>100/0 6</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	100/0 6								
RESIDUAL         Hard, Gray-Tan-Orange, Fine Sandy SILT         (A-4), with trace mica and gravel-sized rock         fragments         21.5         WEATHERED ROCK         Gray-Tan-Orange-Brown,         (METAGRANITE)         868.8         CRYSTALLINE ROCK         866.1         WETAGRANITE)         866.1         Boring Terminated with Standard         Penetration Test Refusal at Elevation 866.1         ft In Crystalline Rock (METAGRANITE)         Notes:         Softer drilling encountered         at approximately 17.5 feet         Hard drilling encountered         Very hard drilling encountered					-				
Hard, Gray-Tan-Orange, Fine Sandy SILT (A-4), with trace mica and gravel-sized rock fragments 21.5 WEATHERED ROCK Gray-Tan-Orange-Brown, (METAGRANITE) 25.6 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0				H	876.9				<u>17.5</u>
60/0.0       872.9       (A-4), With face finds and graves steed fock fragments       21.5         WEATHERED ROCK       Gray-Tan-Orange-Brown, (METAGRANITE)       25.6         60/0.0       868.8       (METAGRANITE)       28.3         60/0.0       Boring Terminated with Standard Penetration Test Refusal at Elevation 866.1 ft In Crystalline Rock (METAGRANITE)       28.3         80/0.0       Softer drilling encountered at approximately 17.5 feet       Hard drilling encountered at approximately 15.6 feet					_ Har	d, Gray-Tan-Ora	nge, Fin	e Sandy S	ILT
WEATHERED ROCK         Gray-Tan-Orange-Brown,         (METAGRANITE)         868.8         CRYSTALLINE ROCK         60/0.0         Boring Terminated with Standard         Penetration Test Refusal at Elevation 866.1         ft In Crystalline Rock (METAGRANITE)         Notes:         Softer drilling encountered         at approximately 17.5 feet         Hard drilling encountered         Very hard drilling encountered         Very hard drilling encountered			IVI		- (A-4) 872.9	, with trace mica frag	a and gra ments	vel-sized	rock21.5
100/1.0       868.8       (METAGRANITE)       25.6         CRYSTALLINE ROCK       866.1       (METAGRANITE)       28.3         60/0.0       Boring Terminated with Standard       28.3         Penetration Test Refusal at Elevation 866.1       ft In Crystalline Rock (METAGRANITE)       28.3         Notes:       Softer drilling encountered       4       4         Hard drilling encountered       4       4       4         Very hard drilling encountered       4       4       4						WEATHE	RED RO		
CRYSTALLINE ROCK (METAGRANITE) 28.3 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 60/0.0 6	100/1.0				868.8				25.6
60/0.0  Boring Terminated with Standard Penetration Test Refusal at Elevation 866.1  the Crystalline Rock (METAGRANITE)  Notes:  Softer drilling encountered at approximately 17.5 feet Hard drilling encountered at approximately 6.8 and 21.5 feet Very hard drilling encountered				P					20.0
Penetration Test Refusal at Elevation 866.1 ft In Crystalline Rock (METAGRANITE) Notes: Softer drilling encountered at approximately 17.5 feet Hard drilling encountered at approximately 6.8 and 21.5 feet Very hard drilling encountered	60/0.0	-			866.1	-		-	28.3
Softer drilling encountered at approximately 17.5 feet Hard drilling encountered at approximately 6.8 and 21.5 feet Very hard drilling encountered						tration Test Ref	usal at E	levation 8	
- at approximately 17.5 feet - Hard drilling encountered - at approximately 6.8 and 21.5 feet - Very hard drilling encountered					-	No	otes:		
- at approximately 6.8 and 21.5 feet					-				
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<b>WBS</b> 45738.1.2		ITY DAVIDSON	GEOLOGIST T. Wenner	WBS         45738.1.2         TIP         B-5783         COUNTY         DAVIDSON         GEOLOGIST         T. Wenner
SITE DESCRIPTION Ü^]  æ&^ÁŐ;			GROUND WTR (ft)	SITE DESCRIPTION R^]  æ&^ÁÓ¦ãå*^•ÁrĨ   Áæ) åÁrĨ Ì Á; } Á\ÙÁGJÐ €Á; ç^¦Á⊳[ ¦-{  \ÂÛ[ č œ}; } ÁÜæäj, æÂ Á GROUND WTR
BORING NO. SBL_B2-B	<b>STATION</b> 22+05	OFFSET 9 ft RT	ALIGNMENT -SBL- 0 HR. N/A	BORING NO.         SBL_B2-B         STATION         22+05         OFFSET         9 ft RT         ALIGNMENT         -SBL-         0 HR.         N
COLLAR ELEV. 891.6 ft	TOTAL DEPTH 47.4 ft	NORTHING 788,401	<b>EASTING</b> 1,689,740 <b>24 HR.</b> 14.9	COLLAR ELEV.         891.6 ft         TOTAL DEPTH         47.4 ft         NORTHING         788,401         EASTING         1,689,740         24 HR.         14
DRILL RIG/HAMMER EFF./DATE CG204	46 Diedrich D50 87% 05/10/2022	DRILL METHOD SP	Core Boring HAMMER TYPE Automatic	DRILL RIG/HAMMER EFF./DATE CG20446 Diedrich D50 87% 05/10/2022 DRILL METHOD SPT Core Boring HAMMER TYPE Automation
DRILLER C. Odom	START DATE 09/07/22	COMP. DATE 09/08/22	SURFACE WATER DEPTH N/A	DRILLER C. Odom START DATE 09/07/22 COMP. DATE 09/08/22 SURFACE WATER DEPTH N/A
ELEV DRIVE DEPTH BLOW COUN	IT BLOWS PER FO	OT SAMP.		CORE SIZE NQ TOTAL RUN 25.9 ft
(ft) ELEV (ft) 0.5ft 0.5ft (	0.5ft 0 25 50	75 100 NO. MOI G	SOIL AND ROCK DESCRIPTION ELEV. (ft) DEPTH (ft)	ELEV     RUN     DEPTH     RUN     DRILL     RUN     STRATA     L       (ft)
880	8 8 	D	- <u>891.6 GROUND SURFACE 0.0</u> <u>RESIDUAL</u> - Loose to Medium Dense, Tan-Orange, Silty Fine to Coarse SAND (A-2-4) <u>884.1</u> <u>Very Stiff, Brown-Orange, Clayey SILT (A-5)  <u>879.1</u> <u>Medium Dense, Tan-Orange, Silty Fine to Coarse SAND (A-2-4) </u></u>	8701         Begin Coring @ 21.5 ft           869:1         22.2         0.9         N=60/0.0         (0.0)         (0.0)         93%         (11.14/0.9)         (0.0)         (0.0)         93%         (11.5)         870.1         CRYSTALLINE ROCK           865         5.0         11:14/0.9         0%         (3.4)         (3.4)         (3.4)         (3.4)         (3.4)         (3.4)         (3.4)         (3.4)         (3.4)         (3.4)         (MetraGRANITE), with very close to wide fracture spacing           865         864.2         27.4         1:24/1.0         RS-7         RS-7         Unit Weight: 185.3 pcf         Unit Weight: 185.3 pcf           860         2:39/1.0         4.9         (1.3)         26%         RS-8         RS-8         Provide the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the standard the stand
875         20         13           871.7         19.9         37         6           870         870.1         21.5         60/0.0         6           865         60/0.0         6         6         6           865         6         6         6         6           865         6         6         6         6           865         6         6         6         6           860         6         6         6         6           855         6         6         6         6           855         6         6         6         6           850         6         6         6         6		RS-8	871.2 20.4 870.1 WEATHERED ROCK 21.5 Brown-Tan, (METAGRANITE) CRYSTALLINE ROCK (METAGRANITE) - REC=93% RQD=44% GSI=30-40	850         849.2         42.4         24.1/1.0           24.1/1.0         24.1/1.0         24.1/1.0           5.0         22.5/1.0         (4.8)         (2.4)           14.2/1.0         96%         48%         15.9/1.0         (4.8)           845         844.2         47.4         22.27/1.0         844.2           845         844.2         47.4         22.27/1.0         844.2
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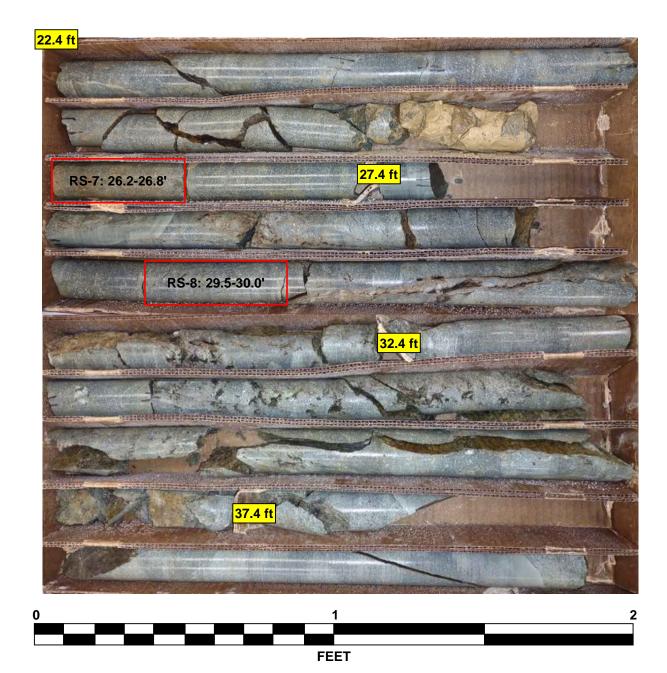
# GEOTECHNICAL BORING REPORT CORE LOG



# FYd`UWY`6f]X[Yg`%(`UbX`%, `cb`IG`& #\$`cjYf`BcfZc`\_`Gcih Yfb`FU]`kUm Davidson County, NC`

Rock Core Photographs<sup>-</sup> Boring: SBL\_B2-B<sup>-</sup>

21.5 to 47.4 FeetÁ

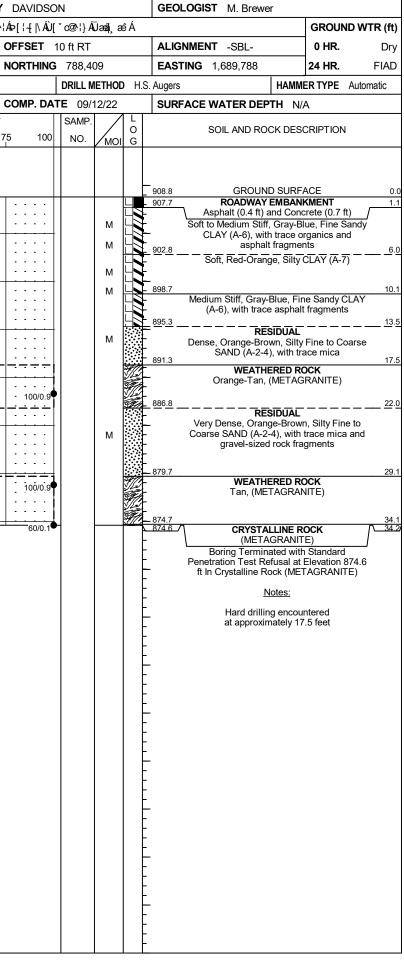






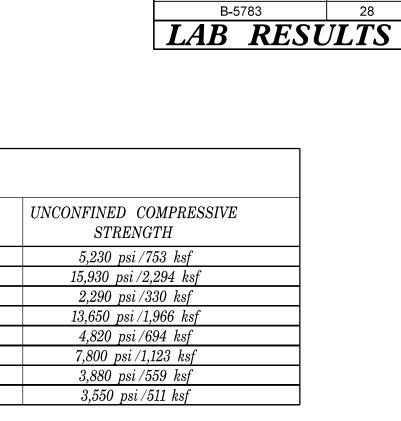


COLLAR ELV         SOB 8 /1         TOTAL DEFTH         39 /1         NOTE         NOT																										
BORRO NO. 301_02.2         TATION 2:7:1         OFFER 111.T         ALONMENT 59         PHR. 33.2         PHR. 33.2         DERIX 00.00. 301_02.2         TATION 2:7:4         OTAL DEFT 40.1         NOTAL DEFT 40.1														GE	OLOGIST M. Brewer											
COLLAR LEV. S05.1         TOTAL DEPTH 31.1         NORTH-00 756.43         LASTRO 1582.69         24.44         TOTAL DEPTH 32.71         NO	SITE	DESCR	RIPTION	N Ü^]	æ&∿Á	Ó¦ãå*∧∙	∙ÁFÎIÁæ))å.	ÁFÎÌÁ{}ÁWÙ	JÁGJÐİ€Á[ç	;^¦Á₽[¦{ \ÂÙ[	`o@?¦}Á	Üæđja	æÁ			GROUND WTR (ft)	SITE	DESCR	RIPTIO	N R^]	æ&∧Á	Ó¦ãå*^•	∙ÁFÎlÁæ))å	Á≂ÎÌÁį}Á∿Ù	lÁGJÐİ€Á[ç	^¦Á
DBILL RECOMMENDER FADIT:         DDIL METHOD / 16 / 4 / 4 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2	BOR	NG NO.	SBL_	EB2-A		ST	TATION :	22+76		OFFSET	11 ft LT			AL	IGNMENT -SBL-	0 HR. 33.5	BOR	ing no.	SBL_	EB2-B		S	TATION 2	22+54		0
DOBLER         C. Oxford         START DATE: Dirty: 1/2         DOWL DATE: Dirty: 1/2         DURACE WATERDETT: NA           100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100	COLI	AR ELE	<b>EV.</b> 90	8.8 ft		тс	OTAL DEP	<b>PTH</b> 39.1	ft	NORTHING	788,4	34		EA	<b>STING</b> 1,689,806	24 HR. FIAD	COL	LAR ELE	<b>EV.</b> 90	)8.8 ft		т	OTAL DEF	<b>PTH</b> 34.2 f	īt	N
Disc.       Disc.       Disc.       No.       No.       Source Preservoir       No.	DRILL	. RIG/HAM	IMER EF	F./DAT	E CG2	20446 Di	iedrich D50	87% 05/10/20	)22		DRILL N	IETHO	DH.	.S. Auge	ers HAMM	ER TYPE Automatic	DRILL	RIG/HAN	IMER EF	F./DATE	CG2	20446 D	iedrich D50	87% 05/10/20	22	-
Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc.       Disc. <thdisc.< th=""> <thdisc.< th=""> <thdi< th=""><th>DRIL</th><th>LER C.</th><th>. Odom</th><th></th><th></th><th>ST</th><th></th><th><b>FE</b> 09/11/2</th><th>22</th><th>COMP. DA</th><th>TE 09/</th><th>11/22</th><th></th><th>SU</th><th>RFACE WATER DEPTH N//</th><th>A</th><th>DRIL</th><th>LER C</th><th>. Odom</th><th></th><th></th><th>S</th><th>TART DAT</th><th>E 09/12/2</th><th>22</th><th>С</th></thdi<></thdisc.<></thdisc.<>	DRIL	LER C.	. Odom			ST		<b>FE</b> 09/11/2	22	COMP. DA	TE 09/	11/22		SU	RFACE WATER DEPTH N//	A	DRIL	LER C	. Odom			S	TART DAT	E 09/12/2	22	С
10       00       100       00       100       00       100       00       100       00       100       00       100       00       100       00       100       00       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100		DRIVE	1	BLC	w co					1			1 L							1	w co					
00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00         00<		ELEV			0.5ft	0.5ft	0	25	50	75 100	NO.	MO		ELE			(ft)	ELEV (ft)	(ft)		0.5ft	0.5ft	0	25	50	75
Image: Second Science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science of the second science									1																-	
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905       004 ± 22       2       3       3       2       1       2       1       2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 <td< td=""><td>910</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>908.8</td><td></td><td></td><td>910</td><td>-</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	910		-											908.8			910	-	-							
985       994       42       2       3       4       2       4       1       2       1       2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 <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>- 907.7 -</td> <td></td> <td></td> <td></td> <td></td> <td>- 22</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		-								· · · · ·				- 907.7 -					- 22							
900       901.7       2       2       3       3       2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 </td <td>905</td> <td>-</td> <td>-</td> <td>2</td> <td>3</td> <td>4</td> <td></td> <td>.  </td> <td></td> <td></td> <td></td> <td>м</td> <td></td> <td>-</td> <td>Soft to Medium Stiff, Red-Or</td> <td>ange-Tan, Silty</td> <td>905</td> <td>-</td> <td>-</td> <td>2</td> <td>1</td> <td>2</td> <td><b>4</b>3 • • •</td> <td></td> <td></td> <td></td>	905	-	-	2	3	4		.				м		-	Soft to Medium Stiff, Red-Or	ange-Tan, Silty	905	-	-	2	1	2	<b>4</b> 3 • • •			
000       001.7       7.7       2       2       2       3       4       7       3       4       7       3       4       7       3       4       7       3       4       7       3       4       7       3       5       7       1       2       1       7       1       2       1       7       1       2       1       7       1       2       1       7       1       2       1       7       1       2       1       7       1       2       1       7       1       2       1       7       1       2       1       7       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1		904.6-	- 4.2 -	2	2	3	<b>●</b> 5					м		F	CLAY (A-7), with trace	organics		904.5	<u>- 4.3</u>	3	3	2	<b>6</b> 5			
100       804 4       144       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -		- 901.7 -	7.1				l							F				901.7 -	7.1				I			
105       23       4       114       1       2       1       1       2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 </td <td>900</td> <td>-</td> <td>- 01</td> <td>2</td> <td>2</td> <td>2</td> <td><b>4</b></td> <td></td> <td></td> <td></td> <td></td> <td>M</td> <td></td> <td></td> <td></td> <td></td> <td>900</td> <td>- 899.7-</td> <td>9.1</td> <td></td> <td>1</td> <td>3</td> <td><b>4</b></td> <td></td> <td></td> <td><u> </u></td>	900	-	- 01	2	2	2	<b>4</b>					M					900	- 899.7-	9.1		1	3	<b>4</b>			<u> </u>
395       nB4.4       14.4       3       5       7       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12			 	2	3	4	7	.   .		·   · · · · ·		м		<u>- 898.7</u>	Loose, Grav-Black, Silty Fi	10.1 ine to Coarse		-	t i	2	1	7	. 8			·
001       204.4       144       5       7         800       680.4       104.4       5       7         801       802.4       104.4       5       7         802       803.4       104.4       5       7         803       804.4       24.4       6       7       10         803       804.4       24.4       6       7       10       10         803       804.4       14.4       12       21       25       10         803       804.4       14.4       12       22       1       10       10         804       14.4       12       22       5       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10       10 <td></td> <td>-</td> <td>Ł</td> <td></td> <td></td> <td></td> <td></td> <td>.  </td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>L 895.8</td> <td>SAND (A-2-4), with trac</td> <td>e organics</td> <td></td> <td></td> <td>Ł</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>:  </td>		-	Ł					.						L 895.8	SAND (A-2-4), with trac	e organics			Ł							:
800       804       104       3       3       5         804       104       3       3       5         804       244       0       7       100         800       804       244       0       7       100         800       804       244       0       7       100         800       804       244       0       7       100         800       804       244       2       2       5         800       804       7       100       100       100         800       804       7       100       100       100       100         800       804       7       100       100       100       100         800       804       7       100       100       100       100       100         801       804       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100 </td <td>895</td> <td>894.4</td> <td>14.4</td> <td></td> <td></td> <td></td> <td> -<u>'</u>-</td> <td>• • • • • •</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>F</td> <td>RESIDUAL</td> <td></td> <td>895</td> <td>894.7-</td> <td>- 14.1</td> <td>12</td> <td>21</td> <td>25</td> <td><u> </u></td> <td>7</td> <td>+ • • • •</td> <td>-</td>	895	894.4	14.4				- <u>'</u> -	• • • • • •						F	RESIDUAL		895	894.7-	- 14.1	12	21	25	<u> </u>	7	+ • • • •	-
680       n0.4       1.4       3       3       5       1		-	F	3	5							M		F	CLAY (A-7)	ily Flastic, Silty		-	F	12	21	20				
886             8844	800	-	-				1.1.1							890.8	3	18.0	800	-	ŧ							
885       884.4       44.4       6       7       100         880       879.4       2.2.4       2       5         875       874.4       34.4       12       36       600.2         870       800.0       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	090	889.4	19.4	3	3	5	<u> </u>			 				F	Tan-Orange-White, Fine Sa	ndv SILT (A-4).	090	889.7-	- 19.1	40	59	41/0.4				. 🕇
885       n64.4       24.4       8       7       10       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1 <t< td=""><td></td><td>-</td><td></td><td></td><td></td><td></td><td>. • 8 .</td><td>.   .  </td><td></td><td></td><td></td><td></td><td></td><td>L</td><td>with trace mica and mang</td><td>anese oxide</td><td></td><td>-</td><td><u>t</u></td><td></td><td></td><td></td><td></td><td></td><td></td><td>·</td></t<>		-					. • 8 .	.   .						L	with trace mica and mang	anese oxide		-	<u>t</u>							·
880       373.4       24       6       7       10       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	885	-	-				· · · · ·							Ł	Jan 19		885	- 004 7	24.1							.   T
800       a734       22.4       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -		884.4	<u>   24.4                                </u>	6	7	10						м		F				- 004.7	- 24.1	24	28	23			<b>9</b> 51 · · ·	·
880     879.4     2     2     5       875     47.4     34.4     12     36     64/02       870     860.7     39.1     2     800.8     879.7       870     860.7     39.1     2     2     5       980.8     7.39.1     2     870.7     39.1     2     28       870     860.7     39.1     20.0     20.0     20.0       980.8     7.39.1     28     20.0     28     20.0       980.7     39.1     20.0     20.0     20.0     20.0       980.8     7.39.1     28     20.0     28     20.0       980.8     7.39.1     28     20.0     28     28.7       980.8     7.39.1     28     20.0     28.7     30.1       980.8     7.00.0     28.7     29.1     28.7     30.1       99.0     28.7     39.1     28.7     30.1     28.7       90.0     28.7     29.1     28.7     30.1     28.7       90.0     28.7     29.1     28.7     30.1     28.7       90.0     28.7     29.1     28.7     28.7     28.7       10.0     29.7     29.1     28.7     28.7		-	F											F				-	F							-
875       37.4.4       3.4.4       12       36       64/0.2	880	879.4	294										7	<u>    880.8</u>	Medium Stiff, Orange-Brov	wn-Tan, SILT	880	879.7-	29.1							<u> </u>
875       874       34.4       12       36       64/0.2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1				2	2	5	. <b>/</b>	.		-   -		w	14					-	ŧ.	28	72/0.4					•
870       860.7       30.1       12       36       64/0.2       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1		-	L				·i · · ·	.					N V N V	Ł	g	,		-	Ł							
B70     B60 7     39.1       870     800.7     39.1       600.7     39.1       600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0     600.0         600.0         600.0         600.0         600.0         600.0         600.0         600.0         600.0         600.0         600.0 <td>875</td> <td>874.4</td> <td>34.4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><math>\vdash^{\vee}</math></td> <td>- ^ V</td> <td>- 873 (</td> <td>1</td> <td>34 9</td> <td>875</td> <td>874.7-</td> <td>- 34.1</td> <td>60/0 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td>	875	874.4	34.4									$\vdash^{\vee}$	- ^ V	- 873 (	1	34 9	875	874.7-	- 34.1	60/0 1						<u> </u>
870       969.7       39.1       30.1         969.7       39.1       600.0       600.0         1       600.0       1       1       1       1         1       1       1       1       1       1       1         1       1       1       1       1       1       1       1         1       1       1       1       1       1       1       1       1         1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1		-	F	12	36	64/0.2		·					T.		WEATHERED RC	DCK		-	F	00/0.1						
000 / 100           000 /         000 /         Boring Terminated with Standard         000 /           -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	070	-	-							1 1				1		-		-	ŧ							
Penetration Test Refusal at Elevation 869.7 t On Crystalline Rock (METAGRANITE)  t t t t t t t t t t t t t t t t t t	070	869.7-	- 39.1	60/0.0				.		60/0.0	•		CH 4	- 869.7 -	Boring Terminated with	Standard			ŧ.							
		-												Ł	Penetration Test Refusal at I	Elevation 869.7		-	Ł							
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				ROCH	K TEST RESULTS	
SAMPLE NO.	BORING	STATION	OFFSET	DEPTH INTERVAL	ROCK TYPE	UNIT WEIGHT (PCF)
RS-1	NBL_B1-A	20+61 -NBL-	10' LT	31.6 - 32.2'	METAGRANITE	176.5
RS-2	NBL_B1–A	20+61 -NBL-	10' LT	35.4 - 36.0'	METAGRANITE	173.4
RS-3	NBL_B2–B	21+71 -NBL-	11' RT	23.5 - 24.1'	METAGRANITE	162.4
RS-4	NBL_B2–B	21+71 -NBL-	11' RT	29.4 - 29.8'	METAGRANITE	165.9
RS-5	SBL_B1–A	21+04 -SBL-	8'LT	20.6 - 21.2'	METAGRANITE	172.5
RS-6	SBL_B1–A	21+04 -SBL-	8'LT	23.2 - 23.7'	METAGRANITE	167.1
RS-7	$SBL\_B2-B$	22+05 -SBL-	9' RT	26.2 - 26.8'	METAGRANITE	185.3
RS-8	SBL_B2-B	22+05 -SBL-	9' RT	29.5 - 30.0'	METAGRANITE	180.2

LAB TESTING PERFORMED BY NCDOT LAB CERT NO. 117-1104



PROJECT REFERENCE NO. SHEET NO.



PHOTO #1: END BENT 2 OF EXISTING BRIDGE 164 LOOKING WEST (DOWNSTATION)



PHOTO #3: END BENT 1 OF EXISTING BRIDGE 168 LOOKING EAST (UPSTATION)



PHOTO #2: END BENT 1 OF EXISTING BRIDGES 164 AND 168 LOOKING EAST (UPSTATION)



PHOTO #4: END BENT 1 OF EXISTING BRIDGE 164 LOOKING EAST (UPSTATION)

