### **CONTENTS** SHEET NO.

2

3

4-7

**DESCRIPTION** 

LEGEND (SOIL & ROCK)

SITE PLAN AND PROFILE

TITLE SHEET

BORE LOGS

R 59871 

> m ら 4 PROJEC

 $\sim$ 

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS** GEOTECHNICAL ENGINEERING UNIT

# **STRUCTURE** SUBSURFACE INVESTIGATION

COUNTY \_ROBESON

PROJECT DESCRIPTION <u>I-95 IMPROVEMENTS FROM</u> NORTH OF SR 1758 (McDUFFIE CROSSING RD.) TO NORTH OF SR 1723 (PARKTON TOBEMORY RD.) SITE DESCRIPTION NOISEWALL NW19 ON -L-(I-95) BETWEEN -L- STA. 884 + 25.27 76.5' RT (-NW19- STA. 10+30.00) AND -L- STA. 897+45.27 76.5' RT (-NW19 - STA. 23 + 50.00)

# REFERENCE

STATE STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C. <b>I–5987B</b>	1	7

### 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 SOLT TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL ENGINEERING UNIT AT (1991) 707-8050. THE SUBSURFACE PLANS AND REPORTS, FIELD BORING LOGS, ROCK CORES AND SOIL TEST DATA ARE NOT PART OF THE CONTRACT.

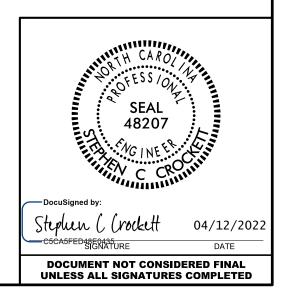
GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORNICS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU UN-FLACED 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 RELIVESTIGATIONS AND REAS RECORDED AT THE TIME OF THE INVESTIGATION. THES WATER LEVELS OR SOL MOISTURE CONDITIONS MAY LARY CONSIDERABLY WITH THE ACCORDING TO CLIMATIC CONDITIONS NICLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

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

- NOTES: 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. 2.

Ρ	FR	SO	NN	FL

MID ATLANTIC
LANE, R.W.
INVESTIGATED BY GOODNIGHT, D.J.
DRAWN BYHILL, M.J.
CHECKED BY
SUBMITTED BY
DATE APRIL 2022

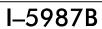


# NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS GEOTECHNICAL ENGINEERING UNIT SUBSURFACE INVESTIGATION

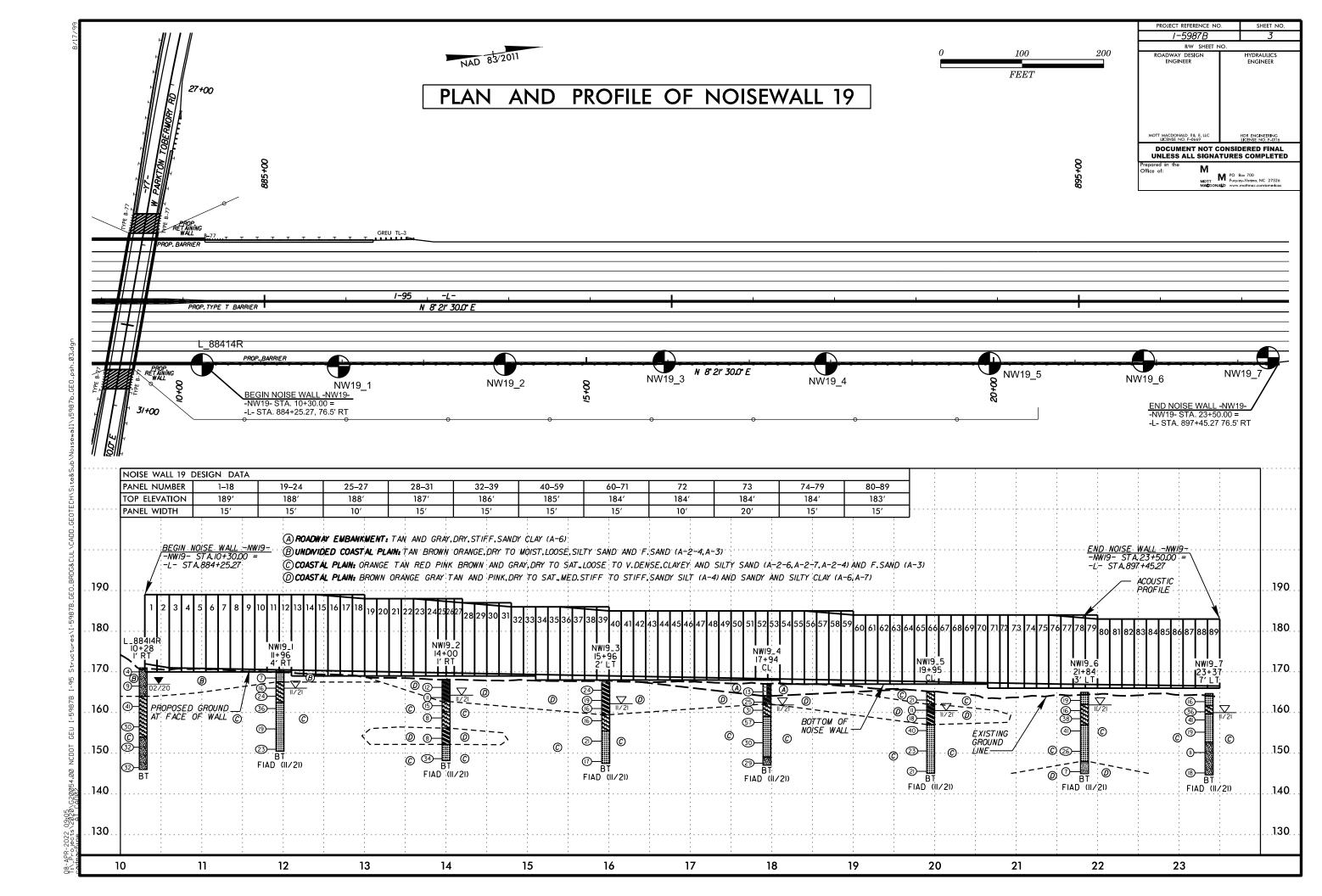
SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

SOIL DESCRIPTION	GRADATION	ROCK DESCRIPTION	TERMS AND DEFINITIONS
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT CAN BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER FOOT	WELL GRADED - INDICATES A GOOD REPRESENTATION OF PARTICLE SIZES FROM FINE TO COARSE.	HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTED. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL.	ALLUVIUM (ALLUV.) - SOILS THAT HAVE BEEN TRANSPORTED BY WATER.
ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM D1586). SOIL CLASSIFICATION	UNIFORMLY GRADED - INDICATES THAT SOIL PARTICLES ARE ALL APPROXIMATELY THE SAME SIZE. GAP-GRADED - INDICATES A MIXTURE OF UNIFORM PARTICLE SIZES OF TWO OR MORE SIZES.	SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EQUAL TO OR LESS THAN 0.1 FOOT PER 60	AQUIFER - A WATER BEARING FORMATION OR STRATA.
IS BASED ON THE AASHTO SYSTEM. BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERTINENT FACTORS SUCH	ANGULARITY OF GRAINS	BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK IS OFTEN REPRESENTED BY A ZONE OF WEATHERED ROCK.	ARENACEOUS - APPLIED TO ROCKS THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTAIN SAND.
AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE,	THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS:	ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS:	ARGILLACEOUS - APPLIED TO ALL ROCKS OR SUBSTANCES COMPOSED OF CLAY MINERALS, OR HAVING
VERY STIFF, GRAY, SILTY CLAY, MOIST WITH INTERBEDDED FINE SAND LAYERS, HIGHLY PLASTIC, A-7-6	ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.	WEATHERED NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT N VALUES >	A NOTABLE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, ETC.
SOIL LEGEND AND AASHTO CLASSIFICATION		ROCK (WR) 100 BLOWS PER FOOT IF TESTED.	ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT
GENERAL GRANULAR MATERIALS SILT-CLAY MATERIALS ORGANIC MATERIALS CLASS. (≤ 35% PASSING *200) (> 35% PASSING *200) ORGANIC MATERIALS	MINERAL NAMES SUCH AS QUARTZ, FELDSPAR, MICA, TALC, KAOLIN, ETC.	CRYSTALLINE FINE TO COARSE GRAIN IGNEOUS AND METAMORPHIC ROCK THAT	WHICH IT IS ENCOUNTERED, BUT WHICH DOES NOT NECESSARILY RISE TO OR ABOVE THE GROUND SURFACE.
	ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.	ROCK (CR) GNEISS, GABBRO, SCHIST, ETC.	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.
GROUP         A-1         A-3         A-2         A-4         A-5         A-6         A-7         A-1, A-2         A-4, A-5           CLASS.         A-1-a         A-1-b         A-2-4         A-2-5         A-2-6         A-2-7         A-7         A-1, A-2         A-4, A-5	COMPRESSIBILITY	NON-CRYSTALLINE FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTAL PLAIN	COLLUVIUM - ROCK FRAGMENTS MIXED WITH SOIL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM
A 2 1 2 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2	SLIGHTLY COMPRESSIBLE LL < 31	ROCK (NCR) SEDIMENTARY ROCK TYPE INCLUDES PHYLLITE, SLATE, SANDSTONE, ETC.	OF SLOPE.
SYMBOL	MODERATELY COMPRESSIBLE LL = 31 - 50	COASTAL PLAIN COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT MAY NOT YIELD	CORE RECOVERY (REC.) - TOTAL LENGTH OF ALL MATERIAL RECOVERED IN THE CORE BARREL DIVIDED
7. PASSING SILT-	HIGHLY COMPRESSIBLE LL > 50	SEDIMENTARY ROCK	BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
*18 58 MX *48 38 MX 58 MX 51 MN GRANULAR CLAY PEAT	PERCENTAGE OF MATERIAL	WEATHERING	DIKE - A TABULAR BODY OF IGNEOUS ROCK THAT CUTS ACROSS THE STRUCTURE OF ADJACENT
200 15 MX 25 MX 10 MX 35 MX 35 MX 35 MX 35 MX 35 MX 36 MN 36 MN 36 MN 36 MN 36 MN	GRANULAR SILT - CLAY ORGANIC MATERIAL SOILS OTHER MATERIAL	FRESH ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING. ROCK RINGS UNDER	ROCKS OR CUTS MASSIVE ROCK.
MATERIAL	TRACE OF ORGANIC MATTER 2 - 3% 3 - 5% TRACE 1 - 10%	HAMMER IF CRYSTALLINE.	DIP - THE ANGLE AT WHICH A STRATUM OR ANY PLANAR FEATURE IS INCLINED FROM THE HORIZONTAL.
PASSING #40 SOILS WITH	LITTLE ORGANIC MATTER 3 - 5% 5 - 12% LITTLE 10 - 20% MODERATELY ORGANIC 5 - 10% 12 - 20% SOME 20 - 35%	VERY SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY COATINGS IF OPEN,	DIP DIRECTION (DIP AZIMUTH) - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE
LL – – 40 MX 41 MN LITTLE OR PI 6 MX NP 10 MX 10 MX 11 MN 11 MN 10 MX 10 MX 11 MN 11 MN UNCONTRACTOR HIGHLY	HIGHLY ORGANIC > 10% > 20% HIGHLY 35% AND ABOVE	(V SLI.) CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY. ROCK RINGS UNDER HAMMER BLOWS IF OF A CRYSTALLINE NATURE.	LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
	GROUND WATER	SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO ROCK UP TO	FAULT - A FRACTURE OR FRACTURE ZONE ALONG WHICH THERE HAS BEEN DISPLACEMENT OF THE
USUAL TYPES STONE FRAGS. CHE OT A TO CANER O	✓ WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING	(SLI.) 1 INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONAL FELDSPAR	SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
DE MAIDE GRAVELAND FINE SILIY UR LLAYEY SILIY LLAYEY MAITER		CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMER BLOWS.	FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES.
MATERIALS SAND SAND GRAVEL AND SAND SOILS SOILS	▼STATIC WATER LEVEL AFTER <u>24</u> HOURS	MODERATE SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECTS. IN	FLOAT - ROCK FRAGMENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM
GEN, RATING EXCELLENT TO GOOD FAIR TO POOR POOR UNSUITABLE	$\nabla PW$ PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA	(MOD.) GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLAY. ROCK HAS DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH AS COMPARED	PARENT MATERIAL.
AS SUBURAUE PUUR	O→MG→ SPRING OR SEEP	WITH FRESH ROCK.	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
PI OF A-7-5 SUBGROUP IS $\leq$ LL - 30 ; PI OF A-7-6 SUBGROUP IS > LL - 30		MODERATELY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL FELDSPARS DULL	FORMATION (FM.) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD.
CONSISTENCY OR DENSENESS	MISCELLANEOUS SYMBOLS	SEVERE AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE LOSS OF STRENGTH	
PRIMARY SOIL TYPE COMPACTNESS OR PENETRATION RESISTENCE COMPRESSIVE STRENGTH	ROADWAY EMBANKMENT (RE) 25/025 DIP & DIP DIRECTION	(MOD. SEV.) AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND WHEN STRUCK. IF TESTED, WOULD YIELD SPT REFUSAL	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
PRIMARY SOIL TYPE CONSISTENCY PENETRATION RESISTENCE COMPRESSIVE STRENGTH (N-VALUE) (TONS/FT <sup>2</sup> )	WITH SOIL DESCRIPTION OF ROCK STRUCTURES	SEVERE ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC CLEAR AND EVIDENT BUT	LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT.
VERY LOOSE < 4		(SEV.) REDUCED IN STRENGTH TO STRONG SOIL. IN GRANITOID ROCKS ALL FELDSPARS ARE KAOLINIZED	LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS.
GENERALLY LOOSE 4 TO 10 GRANULAR LOOSE 10 10	SOIL SYMBOL	TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF	MOTTLED (MOT.) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS
MATERIAL MEDIUM DENSE 10 TU 30 N/A	ARTIFICIAL FILL (AF) OTHER OUGER BORING CONE PENETROMETER	VERY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS ARE DISCERNIBLE	USUALLY INDICATES POOR AERATION AND LACK OF GOOD DRAINAGE.
(NON-COHESIVE) VERY DENSE > 50		SEVERE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS OF STRONG ROCK	PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE
VERY SOFT < 2 < 0.25		(V SEV.) REMAINING. SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT ONLY MINOR	OF AN INTERVENING IMPERVIOUS STRATUM.
GENERALLY SOFT 2 TO 4 0.25 TO 0.5		VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. <u>IF TESTED, WOULD YIELD SPT N VALUES &lt; 100 BPF</u>	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
SILT-CLAY         MEDIUM STIFF         4 TO 8         0.5 TO 1.0           MATERIAL         STIFF         8 TO 15         1 TO 2		COMPLETE ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE, OR DISCERNIBLE ONLY IN SMALL AND SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS. SAPROLITE IS	ROCK QUALITY DESIGNATION (ROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF
(COHESIVE) VERY STIFF 15 TO 30 2 TO 4		ALSO AN EXAMPLE.	ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
HARD > 30 > 4	INSTALLATION	ROCK HARDNESS	SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT
TEXTURE OR GRAIN SIZE	RECOMMENDATION SYMBOLS	VERY HARD CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMENS REQUIRES	ROCK.
U.S. STD. SIEVE SIZE 4 10 40 60 200 270	UNDERCUT UNCLASSIFIED EXCAVATION -	SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK.	SILL - AN INTRUSIVE BODY OF IGNEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND
OPENING (MM) 4.76 2.00 0.42 0.25 0.075 0.053	LICED IN THE TOP 2 FEET OF	HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER BLOWS REQUIRED	RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO
BOULDER COBBLE GRAVEL COARSE FINE SILT CLAY	SHALLOW UNCLASSIFIED EXCAVATION - UNCLASSIFIED EXCAVATION - EMBANKMENT OR BACKFILL	TO DETACH HAND SPECIMEN.	THE BEDDING OR SCHISTOSITY OF THE INTRUDED ROCKS.
(BLDR,) (COB.) (GR.) (CSE. SD.) (F SD.) (SL.)	ABBREVIATIONS	MODERATELY CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DEEP CAN BE	<u>SLICKENSIDE</u> - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE.
		HARD EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK, HAND SPECIMENS CAN BE DETACHED BY MODERATE BLOWS.	
GRAIN MM 305 75 2.0 0.25 0.05 0.005 SIZE IN. 12 3	AR - AUGER REFUSAL MED MEDIUM VST - VANE SHEAR TEST BT - BORING TERMINATED MICA MICACEOUS WEA WEATHERED	MEDIUM CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE OR PICK POINT.	STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL
	CLCLAY MODMODERATELY $\gamma$ -UNIT WEIGHT	HARD CAN BE EXCAVATED IN SMALL CHIPS TO PEICES 1 INCH MAXIMUM SIZE BY HARD BLOWS OF THE	WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL
SOIL MOISTURE - CORRELATION OF TERMS	CPT - CONE PENETRATION TEST NP - NON PLASTIC $\gamma_{ m d}$ - DRY UNIT WEIGHT	POINT OF A GEOLOGIST'S PICK.	TO OR LESS THAN 0.1 FOOT PER 60 BLOWS.
SOIL MOISTURE SCALE FIELD MOISTURE (ATTERBERG LIMITS) DESCRIPTION GUIDE FOR FIELD MOISTURE DESCRIPTION	CSE COARSE ORG ORGANIC DMT - DILATOMETER TEST PMT - PRESSUREMETER TEST <u>SAMPLE ABBREVIATIONS</u>	SOFT CAN BE GROVED OR GOUGED READILY BY KNIFE OR PICK, CAN BE EXCAVATED IN FRAGMENTS	STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE.
	DPT - DYNAMIC PENETRATION TEST SAP SAPROLITIC S - BULK	FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POINT. SMALL, THIN PIECES CAN BE BROKEN BY FINGER PRESSURE.	
- SATURATED - USUALLY LIQUID; VERY WET, USUALLY (SAT.) FROM BELOW THE GROUND WATER TABLE	e - VOID RATIO SD SAND, SANDY SS - SPLIT SPOON	VERY CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK, PIECES 1 INCH	STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY
	F - FINE SL SILT, SILTY ST - SHELBY TUBE FOSS FOSSILIFEROUS SLI SLIGHTLY RS - ROCK	SOFT OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCHED READILY BY	THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE.
PLASTIC SEMISOLIDA PEOLITRES DEVING TO	FRAC FRACTURED, FRACTURES TCR - TRICONE REFUSAL RT - RECOMPACTED TRIAXIAL	FINGERNAIL.	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
(PI) - WEI - (W) ATTAIN OPTIMUM MOISTURE	FRAGS FRAGMENTS W - MOISTURE CONTENT CBR - CALIFORNIA BEARING	FRACTURE SPACING BEDDING	BENCH MARK: ELEVATIONS TAKEN FROM 15987_LS_TIN2.TIN
	HI HIGHLY V - VERY RATIO	TERM SPACING TERM THICKNESS VERY WIDE MORE THAN 10 FEET VERY THICKLY BEDDED 4 FEET	DATED 05/21
OM _ OPTIMUM MOISTURE - MOIST - (M) SOLID; AT OR NEAR OPTIMUM MOISTURE	EQUIPMENT USED ON SUBJECT PROJECT	VERY WIDE MORE THAN 10 FEET VERY THICKLY BEDDED 4 FEET WIDE 3 TO 10 FEET THICKLY BEDDED 1.5 - 4 FEET	ELEVATION: FEET
SL SHRINKAGE LIMIT	DRILL UNITS: ADVANCING TOOLS: HAMMER TYPE:	MODERATELY CLOSE 1 TO 3 FEET THINLY BEDDED 0.16 - 1.5 FEET	NOTES:
REQUIRES ADDITIONAL WATER TO	X CME-45C CLAY BITS X AUTOMATIC MANUAL	CLOSE 0.16 TO 1 FOOT VERY THINLY BEDDED 0.03 - 0.16 FEET VERY CLOSE LESS THAN 0.16 FEET THICKLY LAMINATED 0.008 - 0.03 FEET	FIAD - FILLED IMMEDIATELY AFTER DRILLING
- DRY - (D) ATTAIN OPTIMUM MOISTURE	X CME-55 6' CONTINUOUS FLIGHT AUGER CORE SIZE:	THINLY LAMINATED < 0.008 FEET	
PLASTICITY	8' HOLLOW AUGERS	INDURATION	
		FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HEAT, PRESSURE, ETC.	
PLASTICITY INDEX (PI)         DRY STRENGTH           NON PLASTIC         0-5         VERY LOW	CME-550     HARD FACED FINGER BITS	DURBING WITH FINGED EDEES NUMEROUS CRAINS.	
SLIGHTLY PLASTIC 6-15 SLIGHT		FRIABLE GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE.	
MODERATELY PLASTIC 16-25 MEDIUM	CASING W/ ADVANCER POST HOLE DIGGER	MODERATELY INDURATED GRAINS CAN BE SEPARATED FROM SAMPLE WITH STEEL PROBE:	
HIGHLY PLASTIC 26 OR MORE HIGH	PORTABLE HOIST X TRICONE 2 15/16 STEEL TEETH HAND AUGER	MODERATELY INDURATED BREAKS EASILY WHEN HIT WITH HAMMER.	
COLOR	TRICONE TUNGCARB. SOUNDING ROD	INDURATED GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL PROBE:	
DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GRAY).		DIFFICULT TO BREAK WITH HAMMER.	
MODIFIERS SUCH AS LIGHT, DARK, STREAKED, ETC. ARE USED TO DESCRIBE APPEARANCE.		EXTREMELY INDURATED SHARP HAMMER BLOWS REQUIRED TO BREAK SAMPLE;	
	I LU / LU / LU / LU /	SAMPLE BREAKS ACROSS GRAINS.	DATE: 8-15-14

### PROJECT REFERENCE NO.



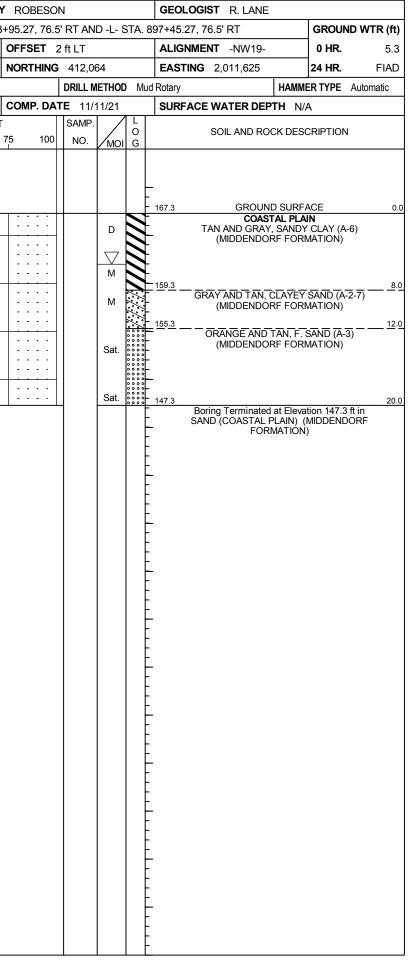
2



WPC	47533					<b>P</b> 1-5987		1	Y ROBES				GEOLOGIST B. PAINTER		MPC	<b>3</b> 47533	2 4 4				<b>P</b> 1-5987		COUNT	
											ן - חו	STA	397+45.27, 76.5' RT	GROUND WTR (ft)							19 ON -L-			
	NG NO.					TATION 1		1017.00	OFFSET		10 -L-	01A.	ALIGNMENT -NW19-	0 HR. N/A		ING NO.					TATION 1		01A. 000	OF
	ARELI					OTAL DEPT		t	NORTHIN		02		EASTING 2,011,546	<b>24 HR.</b> 4.0		LAR EL		_			OTAL DEP			NO
						CME-55 82%						D Mi	1	MER TYPE Automatic					= MID		CME-45C 91			
	LER R			2 10				20	COMP. DA							LER C								co
ELEV	DRIVE			ow co				PER FOO		SAMP.					ELEV		DEPTH		w co				PER FOOT	
(ft)	ELEV (ft)	(ft)	0.5ft	0.5ft	0.5ft	0 2	25	50	75 100	NO.	мо	O I G	SOIL AND ROCK DES	SCRIPTION DEPTH (ft)	(ft)	ELEV (ft)	(ft)	0.5ft		0.5ft	0			75
175		Ļ											_		175		Ļ							
	-	ŧ															ŧ							
170	171.0	0.0		1	3	<sub> </sub>							171.0 GROUND SURI		170		<u>+</u>					_	_	
	-	ŧ	'		3	• • · · · ·					M		UNDIVIDED COAST BROWN-ORANGE, CLAY TO COARSE SANI	'EY SILTY FINE	170	169.6	+ 1.0 +	3	4	3	· · · ·			. –
	167.5	+ 3.5 +	1	3	6	. <b>\</b>			·   · · · · ·			_	TO COARSE SANI	J (A-2-4)		167.1	3.5	7	7	9				.   .
165	-	ŧ							• • • • • •				- 164.0	7.0	165	165.1	5.5	7	9	15				+-
	- 162.5 -	8.5							· · · · · ·			//	ORANGE, CLAYEY FINE			162.1	+ - - 8.5		-			24		.   .
160	-	ŧ	15	19	22		<b>4</b> 1				M	///	SAND (A-2-6) (MIDE FORMATIO	DENDORF	160		+ 0.0	8	18	18		. 36		.   .
	-	ŧ					- 7							N)		-	ŧ					1		.   .
	157.5	<u>† 13.5</u> †	12	15	15		•30		·   · · · · · ·   · · · · ·		w	///				157.1	13.5	9	8	11				.   .
155	_	Ŧ				· · · · ·   · · · · ·			· · · · · ·			///	- 154.0	17.0	155		Ŧ					+		
	152.5	18.5	11	16	16								ORANGE-WHITE, SIL COARSE SAND (A-2-4)	TY FINE TO		152.1	T 18.5				1			.   .
150		Ŧ	''	10			<b>\$</b> 32				W		GRAVEL (MIDDENDORF				<u>I</u>	7	10	13		23		
	147.5 <sup>-</sup>	- 22 5															ŧ							
	147.5	23.5	7	15	17		<b>3</b> 2				W		146.0	25.0			ŧ							
	-	ŧ											Boring Terminated at Elev SILTY SAND (COAST	TAL PLAIN)		-	ŧ							
	-	ŧ											(MIDDENDORF FOR	RMATION)			ŧ							
	-	ŧ											-			-	ŧ							
	-	ŧ															ŧ							
	-	ŧ															ŧ							
		ŧ											-			-	ŧ							
	-	ŧ															ŧ							
	-	ŧ											-			-	ŧ							
	-	ŧ															ŧ							
	-	ŧ															ŧ							
	-	ŧ											-			-	ŧ							
	-	ŧ															ŧ							
	-	ŧ											-			-	ŧ							
	-	ŧ															ŧ							
	-	ŧ															ŧ							
	-	ŧ											-			-	ŧ							
	-	ŧ															ŧ							
	-	Ŧ											-			-	Ŧ							
	-	Ŧ															Ŧ							
	-	Ŧ															Ŧ							
	-	Ŧ											-				Ŧ							
	-	Ŧ															Ŧ							
		Ŧ			1								-			-	Ŧ							
	-	Ŧ			1												Ŧ							
		<u>+</u>															+							
			-		-						-				-				_					

UNT	<b>/</b> F	ROE	BESO	7	1			GE	EOLOGI	ST	R. LANE				
. 883	+95	.27	, 76.	5'	RT ANI	) -L- S	STA.	897+	45.27, 7	6.5'	RT		GROUN	ND W	TR (ft)
	OF	FS	ET ·	4	ft RT			AL	IGNME	NT	-NW19-		0 HR.		4.5
			HING		411,66	37		<u> </u>	STING				24 HR.		FIAD
				-	DRILL M		) N.A.	ud Rota		<u>_,c</u>	,012	НАММ	R TYPE	Autor	
	<u> </u>	NAF		-			, ivil	_	-	14/4				AULUI	naut
		1111	. DA	1	E 11/1 SAMP.	7	L	່ງວເ	JKFAUE	VVA	TER DEP	IN N/A	٩		
=00T	75		100		NO.	/	0			SOI	L AND ROO	CK DESC	RIPTION	1	
	, i		100		NO.	/моі	G								
								_							
								-							
								- 170.	6		GROUNI	) SURFA	ACE		0.0
	+:					D	0 0 0 0 0 0 0 0 0 0 0 0	-		U	NDIVIDED ( TAN, F.				
		:	::					<u> </u>	6						<u>3.0</u>
		-				$\sim$	/~/~	-			GE AND G	RAY, CL	AYEY SA		
	1		•••			М	/./.	<b>-</b>	-	-2-6)	) (MIDDEN	DOKF F	URMATIC	JN)	
· · ·		:	· ·			<b>C</b> .	<u> </u>	- <u>162.</u> -	6 — — T	AN C		RED, F.	SAND (A	-3)	<u> </u>
	:	-	•••			Sat.	0000	<u>-</u>		(M	IDDENDOF	RF FÓRN	ATION)	,	
		•	• •				0 0 0 0 0 0 0 0 0 0 0 0	-							
		:				Sat.	0 0 0 0 0 0 0 0 0 0 0 0	Ē							
	1	-				υαι.	0000	<b>-</b>							
 		:	· · ·				0 0 0 0 0 0 0 0 0 0 0 0	þ							
	:	:	::			Sat.	0000	- - 150.	6						20.0
				-					Bor	ing T		at Eleva	tion 150.6	ft in	
								F	SAN	чD (С	OASTAL F FORI	/LAIN) (I MATION)	VIIUUENL	UKF	
								-							
								-							
								L							
								L							
								F							
								F							
								-							
								F							
								F							
								F							
								F							
								È							
								F							
								L							
								F							
								F							
								L							
								F							
								F							
								F							
								-							
								L							
								F							
								-							
								F							
								F							
								-							
								F							
								È							

Image: construction of the second																		00											
DOBMIN N. Wrig_2         STATION 14-00         DEFET 118T         ALIGNMENT W150         OFR. 52         DORING NO. Wrig_3         TEATOR 15-06           COLLAR ELE V. 1028.1         TOTAL DEFT 400         MORTING 41100         ESTATION 15-06         Image: 200         DIRUS NO. Wrig_3         TEATOR 15-06           DRL ROMANDER PELDATE MODELLA CENTRE 0100         STATION 15-00         Image: 200         DIRUS NO. Wrig_3         TEATOR 15-06         DIRUS NO. Wrig_3         TEATOR 15-06           DRL ROMANDER PELDATE MODELLA CENTRE 0100         STATIONE 15-00         DIRUS NO. Wrig_3         TEATOR 15-06         DIRUS NO. Wrig_3         TEATOR 15-06           DRL ROMANDER PELDATE         TITLO         COMP DATE 111021         DIRUS NO. Wrig_3         TEATOR 15-06         DIRUS NO. Wrig_3         TEATOR 15-06           DRL ROMANDER PELDATE         TITLO 15-06         DIRUS NO. Wrig_3         TEATOR 15-06         DIRUS NO. Wrig_3         TEATOR 15-06         DIRUS NO. Wrig_3         TEATOR 15-06         DIRUS NO. Wrig_3         DIRUS NO. Wrig_3 <td< th=""><th>COUNTY</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>DGIST R. LANE</th><th>GEOL</th><th></th><th></th><th>N</th><th>OBESO</th><th>Y RO</th><th>COUNT</th><th></th><th><b>P</b> I-5987</th><th>TI</th><th></th><th></th><th>5.1.1</th><th>47533</th><th>WBS</th></td<>	COUNTY													DGIST R. LANE	GEOL			N	OBESO	Y RO	COUNT		<b>P</b> I-5987	TI			5.1.1	47533	WBS
COLLARELEV         193.31         TOTAL DEPTH 20.01         NORTHANG 41470         EASTING 2011.39         JAHR         FUC         COLLARELEV         193.31         TOTAL DEPTH 20.01           MBLLIRSDUMESTERDEL         MORELER CONSULTATE 400% 0228005         DBRLLER CONSULTATE 40% 022905         DBRLLER CONSULTATE 40% 024004	EN STA. 883	ETWEE	1-L- BE	19 0	LNW	SEWAL	NOIS	TION	RIPT	DESCR	SITE	)  [	GROUND WTR (ft)	7, 76.5' RT	<u>۸. 897+45.</u>	STA	ND -L-	5' RT AN	27, 76.5	3+95.2	STA. 883	TWEEN	19 ON -L- B	L NW	SEWAL	NOIS	IPTION	DESCR	SITE
DBLL BEOMES EFFORTE LONG® UNDER 40 202013         DBLL METRO MultiProcessor         HAMBER TYPE A MOVIE         DBLL BE CONDUCT         DE CONDUCT         DE COND		+96	N 15+	ΓΑΤΙΟ	S		_3	NW19	<b>)</b> . N	ing no	BOR	) E	<b>0 HR.</b> 3.9	<b>MENT</b> -NW19-	ALIG			1 ft RT	SET '	OFF		00	ATION 14	ST		9_2	NW19	NG NO.	BOR
DBLLER         Contract Date         START DATE         1111/21         COMP DATE NUM         START DATE         START         START DATE <th>) ft</th> <th><b>1</b> 20.0 f</th> <th>DEPTH</th> <th>OTAL</th> <th>т</th> <th></th> <th>7.3 ft</th> <th>. 16</th> <th>LEV.</th> <th>LAR EL</th> <th>COLI</th> <th></th> <th>24 HR. FIAD</th> <th><b>NG</b> 2,011,599</th> <th>EAST</th> <th></th> <th>370</th> <th>i 411,8</th> <th>RTHING</th> <th>NOR</th> <th></th> <th>20.0 ft</th> <th>TAL DEPTI</th> <th>т</th> <th></th> <th>8.3 ft</th> <th><b>EV.</b> 16</th> <th>AR EL</th> <th>COL</th>	) ft	<b>1</b> 20.0 f	DEPTH	OTAL	т		7.3 ft	. 16	LEV.	LAR EL	COLI		24 HR. FIAD	<b>NG</b> 2,011,599	EAST		370	i 411,8	RTHING	NOR		20.0 ft	TAL DEPTI	т		8.3 ft	<b>EV.</b> 16	AR EL	COL
Ency       EMP       Mode       SMP       Mode       SMP       SMP <t< th=""><th>2019</th><th>02/28/20<sup>-</sup></th><th>5C 91% (</th><th>CME-</th><th>606214</th><th>MID</th><th>./DATE</th><th>ER EFI</th><th>MME</th><th>RIG/HA</th><th>DRILL</th><th>] [</th><th>R TYPE Automatic</th><th>HAMME</th><th>Mud Rotary</th><th>DD N</th><th>METHC</th><th>DRILL</th><th></th><th></th><th></th><th>02/28/2019</th><th>CME-45C 91%</th><th>606214</th><th>E MID6</th><th>F./DATE</th><th>IMER EF</th><th>RIG/HAM</th><th>DRILL</th></t<>	2019	02/28/20 <sup>-</sup>	5C 91% (	CME-	606214	MID	./DATE	ER EFI	MME	RIG/HA	DRILL	] [	R TYPE Automatic	HAMME	Mud Rotary	DD N	METHC	DRILL				02/28/2019	CME-45C 91%	606214	E MID6	F./DATE	IMER EF	RIG/HAM	DRILL
Image: 100       Image: 100 <td>1/21</td> <td>11/11/:</td> <td>DATE</td> <td>FART</td> <td>S</td> <td></td> <td>Driller</td> <td>tract [</td> <td>Cont</td> <td>LER (</td> <td>DRIL</td> <td>1</td> <td>١</td> <td>CE WATER DEPTH N/A</td> <td>SURF</td> <td></td> <td>/11/21</td> <td>TE 11</td> <td>MP. DA</td> <td>COM</td> <td>1</td> <td>11/11/2</td> <td>ART DATE</td> <td>ST</td> <td></td> <td>Driller</td> <td>ontract</td> <td>LER C</td> <td>DRIL</td>	1/21	11/11/:	DATE	FART	S		Driller	tract [	Cont	LER (	DRIL	1	١	CE WATER DEPTH N/A	SURF		/11/21	TE 11	MP. DA	COM	1	11/11/2	ART DATE	ST		Driller	ontract	LER C	DRIL
m       m	/S PER FOOT	BLOWS	-		JNT	w cou	BLO	ЕРТН		DRIVE	ELEV	E					. 🗸	SAMP		T	PER FOOT	BLOWS F		INT	W COU	BLO	DEPTH		ELEV
1872         1         -	50	;	25	0	0.5ft	0.5ft	0.5ft	(ft)	(	(ft)	(ft)	ft)					Имс	NO.	100	75	60 	5	0 2	0.5ft	0.5ft		(ft)		(ft)
167.3       1.0       - </td <td></td>																													
1872         1         -											170																		170
165       6       7       8       16         162.8       5.5       5       6       7       8       16       165       168.8       3.5       6       8       11       165       161.8       5.5       6       8       11       161.8       5.5       6       8       11       161.8       5.5       6       8       11       161.8       5.5       6       8       11       161.8       5.5       4       7       9       161.8       5.5       4       7       9       161.8       5.5       4       7       9       161.8       5.5       4       7       9       161.8       5.5       6       8       11       1.5       161.8       5.5       6       8       11       1.5       161.8       5.5       7       10       1.5       1.5									Ŧ				CE 0.0	GROUND SURFA	- 168.3												F		
185       163       163       164       164       165       164       164       164       165       164       164       164       165       164       1	· · · · · ·	· · · · ·	· · · I	H.				10	, <b>†</b> -,	166.3			N ANDY CLAY	COASTAL PLAI BROWN AND ORANGE S			м							6	6	6	1.0	167.3	
102.102.0       5.8       8       7       100       102.4       7.8/2.007 (2007) (200	· · · · ·	 24	2		16	8	7		‡		165		RMATION)	(A-6) (MIDDENDORF FC								· · · ·	·		_	_	3.5	164.8-	165
100       1				:	11	8	6		+			5	5.5		162.8							· · · ·					- 5.5	162.8	
150       159.8       8.5				:	9	7	4	5.5	<u>+</u> *	161.8					160.3		W						· · • • 15	7	8	8	ŧ		400
155       154.8       13.5				+				85	± ,	158.8	160		(A-2-7)		<u>.</u>	<b>/</b> /~;/	М						- <i>j</i>	4	4	4	8.5	159.8-	160
155       154.8       13.5			<b>U</b> 10	11:	11	5	3	0.0	Ŧ	100.0			,	(MIDDENDORF FORM		/~ /~ .				.			• • • •				Ł		
101 0 = 10.0       3       2       6       68 · · · · · · · · · · · · · · · · · · ·			<b>1</b>						Ŧ		155		CLAY (A-7)	GRAY AND PINK, SANDY	<u>156.3</u>												125	151 0	155
150     149.8     18.5     12     16     18  .			• 1	1	12	9	8	13.5	<b>1</b>	153.8			,	(MIDDENDORF FORM	5		м						• <b>•</b> 8 • •	6	2	3	- 13.5	104.0-	
150     149.8     18.5     150     150     150       -     12     16     18          -     -           -     12     16     18         -           -          -		· · · · ·			12	5	0		Ŧ			0	$\overline{ND}$ (A-3) $   \frac{16.0}{16.0}$		152.3					-							ŧ		
Image: Second	· · · · ·		_ <u>i</u>						‡		150				,	000						· · · ·			- 10		18.5	149.8-	150
SAND (COASTAL PLAN) (MODENDORF PORMATION)		· · · ·		:	10	7	5	18.5		148.8		0	20.0	Boring Terminated at Elevat	148.3		Sat.	_	• • •	.	• • • •	• <b>•</b> 34	• • • •	18	16	12	<u>+</u>		
				<u> </u>					+				/IDDENDORF	SAND (COASTAL PLAIN) (N	E												ŧ		
				1					+					FORMATION)	F												Ł	-	
				1					+						F												ł		
				1					Ŧ						F												F		ł
				1					Ŧ						F												F	-	ı.
				1					‡						Ę												ŧ		
				1					Ŧ						-												ŧ		
				1					Ŧ						E												Ł		1
				1					Ŧ						F												F		
				1					Ŧ						F												F	-	
				1					‡						F												ŧ		
				1					‡						È.												ŧ		
				1					+						F												ŧ	-	ı.
				1					ł						E												Ł		1
				1					Ŧ						F												F		
				1					Ŧ						F												Ŧ	-	
				1					‡						È.												ţ		
				1					Ŧ						Ł												Ł		
				1					+						+												ł		l
				1					Ŧ						F												Ŧ		l
				1					‡						È.												ŧ	-	
				1					‡						È.												ţ		
				1					ŧ						Ł												Ł		
				1					+						-												ł	-	l
				1					Ŧ						F												Ŧ		l
				1					‡						F												ŧ		I
				1					‡						F												ŧ	-	
				1					ł						E												Ł		
									Ŧ						F												F		
				1					‡						F												Ŧ	-	
									‡						Ę												ŧ	· ·	
									<u>+</u>						<u> </u>												<u> </u>		



COLLAR ELEV.       167.1 ft       TOTAL DEPTH       20.0 ft       NORTHING       412,260       EASTING       2,011,656       24 HR.       FIAD       COLLAR ELEV.       165.1 ft       TOTAL DEPTH       20.0 ft       I         DRILL RIG/HAMMER EFF./DATE       MID606214 CME-45C 91% 02/28/2019       DRILL METHOD       Mud Rotary       HAMMER TYPE       Automatic       DRILL RIG/HAMMER EFF./DATE       MID606214 CME-45C 91% 02/28/2019         DRILL RC Contract Driller       START DATE       11/11/21       COMP. DATE       11/11/21       SURFACE WATER DEPTH       N/A       DRILLER       Contract Driller       START DATE       11/11/21       BLOWS PER FOOT       BLOWS PER FOO																												
BORING NO.         NW19_4         STATION         17+94         OFFSET         ALIGNMENT         AUGMENT         OHR.         52           COLLAR ELEV.         167.1         TOTAL DEPTH         20.0 ft         NORTHING         412,260         EASTING         2,011,656         24 HR.         FIAD           DBILLER Contract Onlier         STATION         19+95         Inteller         TOTAL DEPTH         20.0 ft         TOTAL DEPTH         20.0 ft         Inteller         STATION         19+95         Inteller         COLLAR ELEV.         165.1 ft         TOTAL DEPTH         20.0 ft         Inteller         State         10         Inteller         State         111/12/1         SUBFACE WATER DEPTH         NA           PRILER         COMP. DATE         111/11/21         SUBFACE         Sold AND ROCK DESCRIPTION         Perturb         PETH         BLOW SPER FOOT         Sold AND ROCK DESCRIPTION         Perturb																	1		WBS	47533	.1.1			TI	<b>P</b> I-5987		COUNT	ΥF
COLLAR ELEV.         167.1 ft         TOTAL DEPTH         20.0 ft         NORTHING         412.260         EASTING         24 HR.         FIAD           DRILL RIGHAMMER EFF.DATE         MIDB06214 CME-45C 91% 02282019         DRILL METHOD         Mud Rotary         HAMMER TYPE         Automatic           DRILL RIGHAMMER EFF.DATE         MIDB06214 CME-45C 91% 02282019         DRILL RIGHAMMER TYPE         Automatic           DRILL RIGHAMMER EFF.DATE         MIDB06214 CME-45C 91% 02282019         DRILL RIGHAMMER TYPE         Automatic           DRILL RIGHAMMER EFF.DATE         MIDB06214 CME-45C 91% 02282019         DATE         SIL AND ROCK DESCRIPTION         DRILL RIGHAMMER TYPE         Automatic           UPUT         BLOW COUNT         BLOW SPER FOOT         SAMP         L         SOIL AND ROCK DESCRIPTION         DEPTH (ft)         UPUT         BLOW COUNT         BLOW COUNT           166.1         1.0         4         6         7         SAMP         L         COSTA PARAMENT AVE CMARKENT         30           166.1         1.0         4         6         7         SAMP         MID         SAMP					SEWA		V19 ON -L-	BETWEE	N STA. 88			D -L- :	STA.	897+45	27, 76.5' RT		GROUND W	/TR (ft)					SEWA		/19 ON -L-	BETWEEN	N STA. 88	_
DRILL REGNAMMER EF./DATE         MID606214 CME-45C 91% 02282019         DRILL METHOD         MuR Refary         HAMMER TYPE         Automatic           DRILLAR Contract Driller         START DATE         11/11/21         COMP. DATE         11/11/21         SURFACE WATER DEPTH         N/A           DRILL RE Contract Driller         START DATE         11/11/21         COMP. DATE         11/11/21         SURFACE WATER DEPTH         N/A           IEEV         DEV         ELCW         COMP. DATE         11/11/21         SURFACE WATER DEPTH         N/A           166         10         0.58         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.56         0.25         50         7           166         1.0         4         6         7         100         167.1         GROUND SURFACE         0.0         165         166.1         1.0         11         12         1         166.1         1.0         11         12         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         0.0	BORI	NG NO.	NW1	9_4		s	TATION 1	7+94		OFFSET (	CL			_			0 HR.	5.2	BORI	NG NO.	NW1	9_5		S	TATION 1	9+95		OF
DRILLER         Contract Driller         START DATE         11/11/21         COMP. DATE         11/11/21         SUBFACE WATER DEPTH         N/A           ELEV         PRIVE (ft)         DEPTH         BLOW COUNT (ft)         BLOWS PER FOOT         SAMP.         SAMP.         SAMP.         SAMP.         SOIL AND ROCK DESCRIPTION (ft)         ELEV         DEPTH         BLOW COUNT (ft)         BLOWS PER FOOT         BLOW PER FOOT         BLOW PER FORMATION         BLOW PER FOO	COLL	AR ELI	<b>EV.</b> 16	67.1 ft		Т	OTAL DEP	<b>TH</b> 20.0	ft	NORTHING	412,2	60		EAS	<b>FING</b> 2,011,656		24 HR.	FIAD	COLL	AR ELE	<b>V.</b> 16	65.1 ft		Т	OTAL DEP	<b>FH</b> 20.01	ť	NC
ELEV         DEPTH ELEV         BLOW COUNT (ft)         BLOWS PER FOOT (ft)         SAMP. (ft)         L 0.5ft         SolL AND ROCK DESCRIPTION 0         ELEV. (ft)         DEPTH (ft)         BLOW COUNT (ft)         BLOWS PER FOOT (ft)         BLOWS PER FOOT (ft)         BLOWS PER FOOT (ft)         SolL AND ROCK DESCRIPTION 0         ELEV. (ft)         DEPTH (ft)         BLOW COUNT (ft)         BLOWS PER FOOT (ft)         BLOWS PER FOOT (ft)	DRILL	RIG/HAN	MMER EF	FF./DAT	e Mid	606214	4 CME-45C 91	% 02/28/20	19		DRILL N	IETHO	D Mi	ud Rotary		HAMM	ER TYPE Auto	matic	DRILL	RIG/HAM	MER EF	F./DATE	E MID	606214	CME-45C 91	% 02/28/201	9	
Chi       ELEV       Cit       Depth (h)       Depth (h)       Depth (h)       Cit       ELEV       Cit       ELEV       Cit       ELEV       Cit       ELEV       Cit       <	DRIL						TART DATI	E 11/11/2	21	COMP. DA			4.	SUR	ACE WATER DEP	TH N/	A		DRIL						TART DAT	E 11/11/2	21	CC
(10)       (11)       (10)       0.5ft       0.5ft       0       25       50       7       100       NO.       MOI       G       ELEV. (f)       DEPTH (f)       (10)       (11) <t< th=""><th>ELEV</th><th>DRIVE ELEV</th><th></th><th>'<u> </u></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th><b>! '</b>∕</th><th></th><th></th><th>SOIL AND RO</th><th>CK DES</th><th>CRIPTION</th><th></th><th></th><th>DRIVE ELEV</th><th></th><th>BLO</th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	ELEV	DRIVE ELEV		' <u> </u>								<b>! '</b> ∕			SOIL AND RO	CK DES	CRIPTION			DRIVE ELEV		BLO						
165         167.1         GRUND SURFACE         0.0           165         167.1         GRUND SURFACE         0.0           165         163.6         3.5         6         10         15           161.6         5.5         10         14         17         141.1         100           165         164.1         10         14         10         141.1         114.1         115           160         164.1         10         141.7         1152.6         3.1         1152.6         3.1         1152.6         3.1         1152.6         3.1         1152.6         3.1         1152.6         3.1         1152.6         3.1         1152.6         3.1         1152.6         3.1         111	(π)	(ft)	(π)	0.5ft	0.5ft	0.5ft	0	25	50	75 100	NO.	Имо	I G	ELEV.	ft)		D	DEPTH (ft)	(π)	(ft)	(π)	0.5ft	0.5ft	0.5ft	0	25	50	75 I
166.1         1.0         - </td <td></td>																												
166 1       10       4       6       7       7       7       7       7       8       1 <td>170</td> <td></td> <td>÷.</td> <td></td> <td>F</td> <td></td> <td></td> <td></td> <td></td> <td>170</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	170		÷.											F					170		_							
166       10		-	ŧ											- 167.1	GROUN	D SURF	ACE	0.0		4	-							
163.6       3.5	165	166.1	1.0	4	6	7								-	ROADWAY	EMBAN	KMENT		165	-	-							
161.6       5.5       6       10       13	105		- 3.5											164.1	(MIDDENDOF	RF FOR	MATION)	<u>3.0</u>	105	164.1	1.0	11	12	q				
160       10       14       17  .		161.6 ·	+ 5.5					25		 		$\Box$	Į.	162.1	TAN AND GRAY	, SANDY	′ CLAY (A-6)	<u>5.0</u>		161.6	- - 3.5				:::,/	21 · · · ·		:   :
158.6       8.5       25       26       31	160	-	ŧ	10	14	17		•31				м		150 1				J	160		-	4			<b>Q</b> 11		· · ·	·   ·
155       153.6       13.5       12       14       16       148.6       18.5       12       14       16       16.6       8.5       15       15       15       15       15       15       15       15       15       15       16       18.5       12       14       16       16       16       18.5       16       16       15       16       15       16 <td< td=""><td></td><td>158.6</td><td>+ 8.5 +</td><td>25</td><td>26</td><td>31</td><td><math>\left  \left  \begin{array}{c} \cdot \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \end{array} \right  \right </math></td><td></td><td></td><td> </td><td></td><td>Sat</td><td>• • • • • • • • • • • • • • • • • • •</td><td><u> </u></td><td>(MIDDENDOF)</td><td>RF FORI</td><td>MATION)</td><td>J</td><td></td><td>-</td><td>-</td><td>7</td><td>8</td><td>10</td><td></td><td>B</td><td></td><td>:   :</td></td<>		158.6	+ 8.5 +	25	26	31	$\left  \left  \begin{array}{c} \cdot \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \end{array} \right  \right $			 		Sat	• • • • • • • • • • • • • • • • • • •	<u> </u>	(MIDDENDOF)	RF FORI	MATION)	J		-	-	7	8	10		B		:   :
153.6       13.5	455	-	ŧ				11						0000						455	156.6	- 8.5	6	18	22				:   :
10       12       14       16  .	155	153.6	+ 13.5										0000	-					155	-	-							.   .
150       148.6       18.5       149.1       GRAY AND PINK, SILTY SAND (A-2-4)       18.0         148.6       18.5        1            Sat.       147.1       (MIDDENDORF FORMATION)       20.0       146.6       18.5       17       11       10          146.6       18.5                 Boring Terminated at Elevation 147.1 ft in SAND (COASTAL PLAIN) (MIDDENDORF       17       11       10			1	12	14	16	11	<b>\$</b> 30				Sat.	0000							151.6	- 13.5					1		:   :
148.6       18.5       7       22	150	-	ŧ					<u></u>					0000	-				10.0	150	-	-	8	11	12		23	· · ·	·   ·
-     - <td>-</td> <td>148.6</td> <td>+ 18.5</td> <td>5</td> <td>7</td> <td>22</td> <td>4 ::::</td> <td></td> <td></td> <td></td> <td></td> <td>Sat</td> <td>0000</td> <td>[</td> <td>GRAY AND PINK</td> <td></td> <td>SAND (A-2-4)</td> <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td>· · · · ·</td> <td></td> <td>·   ·</td>	-	148.6	+ 18.5	5	7	22	4 ::::					Sat	0000	[	GRAY AND PINK		SAND (A-2-4)			-	-					· · · · ·		·   ·
	-		<u>+</u>				1	<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>			-			147.1	Boring Terminated	at Eleva	tion 147.1 ft in			146.6	- 18.5	17	11	10				
		-	ŧ											-	SAND (COASTAL F	PLAIN) ( MATION	MIDDENDORF		-	_					<b>│</b>	21		
			ŧ											F			/			-	-							
			ŧ											Ł							-							
		-	ŧ											F							-							
		-	ŧ											F						-	-							
		-	ŧ											F						-	-							
			Ŧ											E						]	-							
		-	Ŧ											E						-	-							
			Ŧ											F						-	-							
		-	Ŧ											F						-	-							
		-	Ŧ											F						-	-							
			Ŧ											F						-	-							
			Ŧ											F						-	-							
		-	Ŧ											F						-	-							
		-	ŧ											F						1	-							
		-	ŧ											E-						4	-							
		-	ŧ											F						4	-							
		-	‡											F						-	-							
		-	ŧ											-						4	-							
			ŧ											F						4	-							
		-	ŧ											F						-	-							
			ŧ											F						-	-							
		•	ŧ											L							-							
		-	ŧ											F						-	-							
			Ŧ											F						-	-							
		-	Ŧ											F						1	-							
		-	Ŧ											F						1	-							
		-	Ŧ											F						4	-							
		-	t											Ē														

75       100       NO.       MOI       G       SOIL AND ROCK DESCRIPTION         100       MOI       G       SOIL AND ROCK DESCRIPTION         100       MOI       G       Integration of the second s	١T	<b>r</b> ROBESON	١			GEOLOGI	ST R. LANE				
NORTHING       412,459       EASTING       2,011,685       24 HR.       FIAD         DRILL METHOD       Mud Rotary       HAMMER TYPE       Automatic         COMP. DATE       11/11/21       SURFACE WATER DEPTH       N/A         DOT       SAMP.       L       0       SOIL AND ROCK DESCRIPTION         75       100       NO.       MOI       G       SOIL AND ROCK DESCRIPTION             BROWN, CLAYEY SAND (A-2-6)              BROWN, CLAYEY SAND (A-2-6) <th>383</th> <th>+95.27, 76.5'</th> <th>RT AN</th> <th>D -L- S</th> <th>STA. 89</th> <th>97+45.27, 7</th> <th>6.5' RT</th> <th></th> <th>GROUN</th> <th>ID WTR</th> <th>(ft)</th>	383	+95.27, 76.5'	RT AN	D -L- S	STA. 89	97+45.27, 7	6.5' RT		GROUN	ID WTR	(ft)
NORTHING       412,459       EASTING       2,011,685       24 HR.       FIAD         DRILL METHOD       Mud Rotary       HAMMER TYPE       Automatic         COMP. DATE       11/11/21       SURFACE WATER DEPTH       N/A         DOT       SAMP.       L       0       SOIL AND ROCK DESCRIPTION         75       100       NO.       MOI       G       SOIL AND ROCK DESCRIPTION             BROWN, CLAYEY SAND (A-2-6)              BROWN, CLAYEY SAND (A-2-6) <th></th> <th>OFFSET C</th> <th>Ľ</th> <th></th> <th></th> <th>ALIGNME</th> <th><b>NT</b> -NW19-</th> <th></th> <th>0 HR.</th> <th>2</th> <th>1.6</th>		OFFSET C	Ľ			ALIGNME	<b>NT</b> -NW19-		0 HR.	2	1.6
DRILL METHOD     Mud Rotary     HAMMER TYPE     Automatic       COMP. DATE     11/11/21     SURFACE WATER DEPTH     N/A       DOT     SAMP.     L     SOIL AND ROCK DESCRIPTION       75     100     NO.     MOI G       International Surface Water Depth       75     100     NO.       Moil G     SOIL AND ROCK DESCRIPTION       International Surface 0.0       COASTAL PLAIN       International Surface 0.0       Inter				59							
COMP. DATE         11/11/21         SURFACE WATER DEPTH         N/A           DOT         SAMP.         SOIL AND ROCK DESCRIPTION         SOIL AND ROCK DESCRIPTION           75         100         NO.         MOI G         SOIL AND ROCK DESCRIPTION           165.1         GROUND SURFACE         0.0           COASTAL PLAIN         Interference         0.0           Interference         Interference         0.0		1	-		N		2,011,000	ЦАММАГ			
OOT       SAMP.       L       O       SOIL AND ROCK DESCRIPTION         75       100       NO.       MOI       G       SOIL AND ROCK DESCRIPTION         75       100       NO.       MOI       G       SOIL AND ROCK DESCRIPTION         165.1       GROUND SURFACE       0.0         COASTAL PLAIN       BROWN, CLAYEY SAND (A-2-6)       0.0         162.1       GRAY AND BROWN, SANDY CLAY (A-6)       5.0         160.1       GRAY AND BROWN, SANDY CLAY (A-6)       5.0         160.1       GRAY AND ORANGE, CLAY (A-7)       5.0         167.1       M       157.1       MIDDENDORF FORMATION)       8.0         Sat.       Sat.       157.1       PINK RED GRAY AND TAN, F. SAND (A-3)       8.0         Sat.       Sat.       145.1       20.0         Sat.       145.1       20.0					, wuu					Automatic	,
75       100       NO.       MOI       G       SOIL AND ROCK DESCRIPTION         75       100       NO.       MOI       G       SOIL AND ROCK DESCRIPTION         165.1       GROUND SURFACE       0.0         COASTAL PLAIN       BROWN, CLAYEY SAND (A-2-6)         M       162.1       GRAY AND BROWN, SANDY CLAY (A-6)         160.1       GRAY AND BROWN, SANDY CLAY (A-6)         GRAY AND DRANGE, CLAY (A-7)       160.1         M       167.1         M       157.1         Sat.       157.1         Sat.       Sat.         Sat.       145.1         20.0       Boring Terminated at Elevation 145.1 ft in SAND (COASTAL PLAIN) (MIDDENDORF				⊓/21 		SURFACE	WAIER DEP	IN N/A	٩		
Image: Constrained of the second s				моі	0		SOIL AND ROO	CK DESC	RIPTION		
				M Sat. Sat.		162.1 160.1 157.1 PINI 145.1 Boi	COAST BROWN, CLA (MIDDENDOF AY AND BROW (MIDDENDOF GRAY AND OR (MIDDENDOF KRED GRAY AN (MIDDENDOF	TAL PLAI YEY SAN RF FORM N, SANE RF FORM ANGE, C RF FORM ND TAN, RF FORM RF FORM	N ID (A-2-6) (ATION) Y CLAY (ATION) LAY (A-7 (ATION) F. SAND (ATION) F. SAND (ATION) IATION) IATION	(A-6) 	0.0

																	,									
WBS	47533	3.1.1			TI	<b>P</b> I-5987		COUNTY	Y ROBESO	N			GEOI	LOGIST R. LAN	IE		WBS	<b>3</b> 47533	3.1.1			Т	<b>P</b> I-5987		COUNT	YR
SITE	DESCR			SEWAL	L NW	'19 ON -L- E	BETWEEN	STA. 883	+95.27, 76.5	' RT AN	D -L-	STA.	897+45.	27, 76.5' RT		GROUND WTR (ft)	SITE	DESCR			SEWA	LL NW	19 ON -L- E	BETWEEN	STA. 883	3+95.
BOR	ing no.	NW1	9_6		ST	TATION 21	1+84		OFFSET 3	3 ft LT			ALIG	NMENT -NW19	)-	0 HR. 3.1	BOR	ring no.	NW1	9_7		S	TATION 2	3+37		OFF
COL	LAR ELI	<b>EV.</b> 16	64.3 ft		т	OTAL DEPT	<b>H</b> 20.0 ft	:	NORTHING	412,6	46		EAST	<b>ING</b> 2,011,709		24 HR. FIAD	COL	LAR EL	<b>EV.</b> 16	63.5 ft		т	OTAL DEPT	<b>H</b> 20.0 ft		NOF
DRILL	RIG/HAN	IMER EF	F./DATI	E MID	506214	CME-45C 919	% 02/28/2019	9		DRILL N	IETHO	DM	lud Rotary		HAMME	ER TYPE Automatic	DRIL	L RIG/HAI	MMER EF	F./DAT	E MID	606214	CME-45C 91	% 02/28/2019	)	
DRIL	LER C	ontract	Driller		S	TART DATE	11/11/2	1	COMP. DA	<b>FE</b> 11/	11/21		SURF	ACE WATER DI	EPTH N/A	4	DRIL	LER C	Contract	Driller		S		<b>11/11/2</b>	1	CO
ELEV	DRIVE ELEV	DEPTH	BLC	W COL	JNT		BLOWS I	PER FOOT		SAMP.	▼/	L		SOIL AND F			ELEV	, DRIVE	DEPTH	BLC	ow co	UNT		BLOWS F	PER FOO	T
(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0 2	25 !	50	75 100	NO.	мо		ELEV. (f			DEPTH (f	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0 2	25 5	50	75
165		Ļ											164.2	GROU	JND SURFA	ACE 0.	165		L							
	163.3	1.0				· · · ŀ						0000	164.3	COA	ASTAL PLAI	IN		100 5	- 10							
	160.8	- 3.5	2	8	11		9					0000	<u> </u>	GRAY, F. SAN	DRMATION)	)3.		162.5	T 1.0 T	5	8	8	16			
160	158.8	+	4	7	9						м	/./.	Ę.		Y, CLAYEY	SAND (A-2-7)	160	160.0	<u> </u>	5	10	26				
	100.0	+ <u>5.5</u> +	14	18	20		• • • • • • • • • • • • • • • • • • •				м							158.0	5.5	18	20	21		· • • 36 ·		.   .
155	155.8	8.5	11	18	23		<del> </del>						<u>156.3</u>	TAN ORANGE	AND RED, F	=. SAND (A-3)8.	155	155.0	T 1 8.5					41		
	-	ŧ	''	10	23						Sat.	0000	<u></u>		ORF FORM			155.0	+ 0.5	6	8	11	· · · •	9 • • • •		
		ŧ											,_ ,_						‡				:: <b>:</b> /:	· · · · ·		
150	150.8	+ 13.5 +	9	12	14		<b>1</b> 26 <b></b>				Sat.	0000	<u> </u>				150	150.0	13.5	6	5	6				·   ·
		‡										0000	<u>147.3</u>			<u>17</u> .			‡	0	5	6	• • 11 •	· · · ·		
	145.8	- 18.5				/ .								GRAY, SANDY S	SILT (A-4) (I DRMATION)	MIDDENDORF			t				: : <b>`</b> ; :			
145		<u>+</u>	4	1	6	7				_	Sat.		144.3		,	20.	145	145.0	18.5	8	9	9	· · · ·			
		ŧ											Ł	Boring Terminat SILT (COASTAL	_ PLAIN) (N	AIDDENDORF			1							
		£											Ł	FC	ORMATÍON)	)			ŧ							
		Ŧ											E						Ŧ							
		Ŧ											F						Ŧ							
	-	Ŧ											F					-	Ŧ							
		ŧ											F						ŧ							
		ŧ											F						‡							
	-	‡											-					-	‡							
		ŧ											È						‡							
		ŧ											<u>-</u>					_	ŧ							
		ŧ											Ł						ŧ							
		ŧ											Ł						ł							
	-	Ŧ											F					-	Ŧ							
		Ŧ											F						Ŧ							
	-	ŧ											F						ŧ							
	-	ŧ											F					-	ŧ							
		‡											Ę						‡							
		ŧ											È.					-	ŧ							
N		ŧ											F						ŧ							
		ŧ											Ł						ŧ							
-	-	Ŧ											F					-	Ŧ							
5		Ŧ											F						Ŧ							
		ŧ											F						ŧ							
	-	ŧ											F					-	ŧ							
5		‡											Ę						‡							
	-	‡											F					-	‡							
		ŧ								1			F						ŧ							
100		Ŧ											F						f							
	-	Ŧ								1			F						Ŧ							
		ŧ											F						ŧ							
CLU C		‡											F						‡							
z	<u> </u>	L	1							1		<u> </u>	L					1	1	1	1					

ΙΝΤΥ	'RC	ЭB	ESC	DN					GEO	LOG	IST	R. LANE				
883	+95.2	27,	76.	5'	RT AN	D -L- S	STA.	89	97+45	.27, 7	76.5'	RT		GROUN	ID WTR	(ft)
	OFF	SE	т	7	ft LT				ALIG	INME	INT	-NW19-		0 HR.		4.7
	NOF	T	HINC	3	412,79	98			EAS	TING	2,0	11,728		24 HR.	FL	٩D
					DRILL M	ethod	M	ud	Rotary				HAMME	R TYPE	Automatio	;
	CON	1P	. DA	T	E 11/1	1/21			SUR	FACI	E WA	TER DEP	TH N/A	A		
оот					SAMP.		LО				SOI	L AND ROO	CK DESC	RIPTION	1	
	75 I		100		NO.	МОІ	G									
								L				000101		05		
				$\left  \right $			0 0 0 0 0 0 0 0 0 0 0 0	F	163.5				TAL PLAI	N		0.0
•••	-	-	•••			D	0000	Ē	160.5	~		F. SAND (A FORI	MATION)		/	3.0
	-	-		1		$\nabla$	//	E	158.5	ें GI	A YAF (M)	ND TAN, O		SAND (A MATION)	-2-7)	5.0
	-	-				Sat.	0000	F		OF		E, F. SAND		/IDDEND	ORF	
	+					Sat.	0000	F				1014				
	-					out.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F	1515							12.0
• •	-	-						F	<u>151.5</u>			RAY, SILT				<u>12.0</u>
			• •	1		Sat.		F			(M	IDDENDOF	KE FORM	(ATION)		
• •	-	-						E								
						Sat.		F	143.5							20.0
				-				Ē	140.0	Bo	oring T	erminated	at Elevat	ion 143.5	ft in	20.0
								E		34			MATION)		UKF	
								F								
								F								
								╞								
								F								
								E								
								F								
								F								
								╞								
								F								
								E								
								F								
								Ę								
								F								
								È								
								F								
								ŧ								
								ŧ								
								F								
								ŧ								
								F								
								F								
								F								
								F								
								F								
								F								
								F								
								F								
				_				-								