CONTENTS

5606

Ŕ

REFERENCE

<u>SHEET NO.</u>	DESCRIPTION
I.	TITLE SHEET
2	LEGEND (SOIL & ROCK)
3	SITE PLAN
4	PROFILE
5-8	BORE LOG(S)
9	SOIL TEST RESULTS
10	SITE PHOTO

STATE OF NORTH CAROLINA

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

STRUCTURE SUBSURFACE INVESTIGATION

COUNTY PERQUIMANS

PROJECT DESCRIPTION BRIDGE NO. 11 ON SR 1338 OVER RACCOON CREEK

STATE PROJECT REFERENCE NO. STATE TOTAL SHEETS NO. 10 N.C **B-5606** 1

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 BIDDER OF 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 WARANT 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 INVESTIGATION AS HE DEEMS NECESSARY TO SATISY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THE PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OF FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDENTIONS OF CONTANT THE SIDE 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.

PERSONNEL

J.R. SWARTLEY

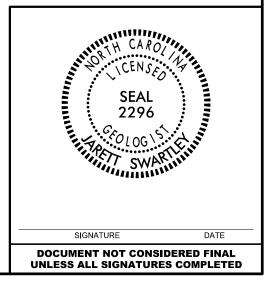
T.J. WHITE

K.S. HARDEE

D.L. MOSS

INVESTIGATED BY ______. SWARTLEY DRAWN BY _J.R. SWARTLEY CHECKED BY _____S.S. LANEY SUBMITTED BY ______S.S. LANEY DATE AUGUST 2017





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

SOIL AND ROCK LEGEND, TERMS, SYMBOLS, AND ABBREVIATIONS

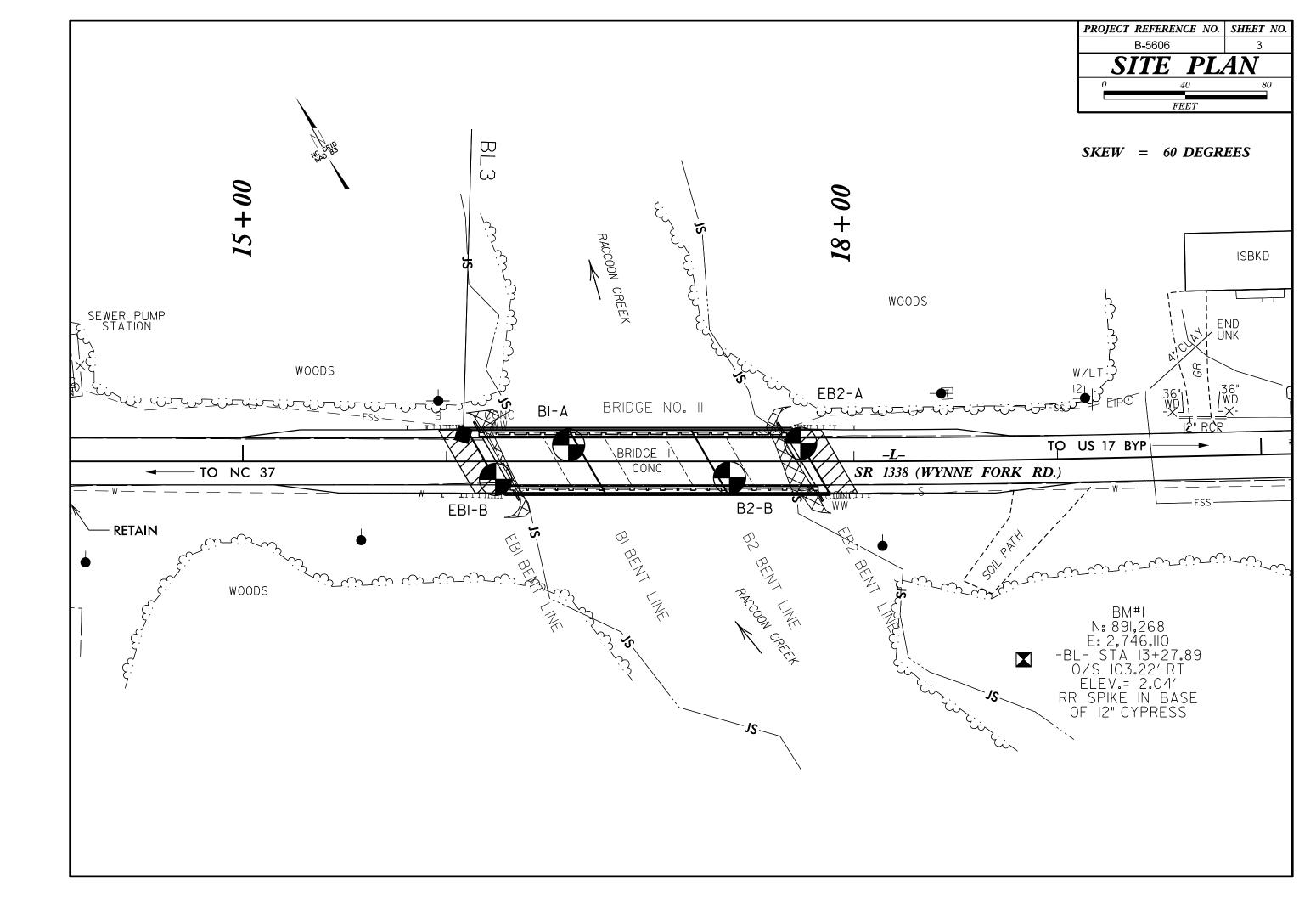
SOIL DESCRIPTION	GRADATION	ROCK DESCRIPTION
SOIL IS CONSIDERED UNCONSOLIDATED, SEMI-CONSOLIDATED, OR WEATHERED EARTH MATERIALS THAT BE PENETRATED WITH A CONTINUOUS FLIGHT POWER AUGER AND YIELD LESS THAN 100 BLOWS PER F ACCORDING TO THE STANDARD PENETRATION TEST (AASHTO T 206, ASTM DI586). SOIL CLASSIFICATI IS BASED ON THE AASHTO SYSTEM, BASIC DESCRIPTIONS GENERALLY INCLUDE THE FOLLOWING: CONSISTENCY, COLOR, TEXTURE, MOISTURE, AASHTO CLASSIFICATION, AND OTHER PERINENT FACTORS S A MINERAD OLICAL, COMPARITION ADITY STOLUTIONE DI AGTIVITY ETC FOR EVANDE	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.	HARD ROCK IS NON-COASTAL PLAIN MATERIAL THAT WOULD YIELD SPT REFUSAL IF TESTE ROCK LINE INDICATES THE LEVEL AT WHICH NON-COASTAL PLAIN MATERIAL WOULD YIELD SPT REFUSAL IS PENETRATION BY A SPLIT SPOON SAMPLER EOUAL TO OR LESS THAN 0.1 BLOWS IN NON-COASTAL PLAIN MATERIAL. THE TRANSITION BETWEEN SOIL AND ROCK REPRESENTED BY A ZONE OF WEATHERED ROCK. ROCK MATERIALS ARE TYPICALLY DIVIDED AS FOLLOWS;
AS MINERALOGICAL COMPOSITION, ANGULARITY, STRUCTURE, PLASTICITY, ETC. FOR EXAMPLE, VERY STIFF.GRAY.SILTY CLAY.MOIST WITH INTERBEDDED FINE SAND LAYERS.HIGHLY PLASTIC.A-7-6	THE ANGULARITY OR ROUNDNESS OF SOIL GRAINS IS DESIGNATED BY THE TERMS: ANGULAR, SUBANGULAR, SUBROUNDED, OR ROUNDED.	WEATHERED
SOIL LEGEND AND AASHTO CLASSIFICATION	MINERALOGICAL COMPOSITION	ROCK (WR) 100 BLOWS PER FOOT IF TESTED.
GENERAL GRANULAR MATERIALS SILT-CLAY MATERIALS ORCANIC MATERIALS CLASS. (≤ 35% PASSING 2800) (> 35% PASSING 2800) (> 35% PASSING 2800) ORCANIC MATERIALS GROUP A-1 A-3 A-2 A-4 A-5 A-6 A-7 A-1, A-2 A-4, A-5	MINERAL NAMES SUCH AS QUARTZ, FELOSPAR, MICA, TALC, KAQLIN, ETC. ARE USED IN DESCRIPTIONS WHEN THEY ARE CONSIDERED OF SIGNIFICANCE.	CRYSTALLINE ROCK (CR) FINE TO COARSE GRAIN IONEOUS AND METAMORPHIC RC WOULD YELD SPT REFUSAL IF TESTED. ROCK TYPE IN ONEISS, GABBRO, SCHIST, ETC.
CLASS. A-1-0 A-1-b A-2-4 A-2-5 A-2-6 A-2-7 A-75 A-3 A-6, A-7	COMPRESSIBILITY	NON-CRYSTALLINE FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTA ROCK (NCR) FINE TO COARSE GRAIN METAMORPHIC AND NON-COASTA SEDIMENTARY ROCK THAT WOULD YELLD SPT REFUSAL
SYMBOL 000000000000000000000000000000000000	SLIGHTLY COMPRESSIBLE LL < 31 MODERATELY COMPRESSIBLE LL = 31 - 50 HIGHLY COMPRESSIBLE LL > 50	COASTAL PLAIN COASTAL PLAIN SEDIMENTS CEMENTED INTO ROCK, BUT SEDIMENTARY ROCK STAL SPLAIN SEDIMENTS CEMENTED INTO ROCK, BUT
*10 50 MX GRANULAR CLAY		
*40 30 MX 50 MX 51 MN *200 15 MX 25 MX 10 MX 35 MX 35 MX 35 MX 35 MX 36 MN 36 MN 36 MN 36 MN 56 MN	GRANULAR SILT - CLAY ORGANIC MATERIAL SOILS OTHER MATERIAL	FRESH ROCK FRESH, CRYSTALS BRIGHT, FEW JOINTS MAY SHOW SLIGHT STAINING, ROCK
MATERIAL PASSING *40 LL 40 MX 41 MN 40 MX 41 MN 40 MX 41 MN 40 MX 41 MN 50ILS WITH PI 6 MX NP 10 MX 18 MX 11 MN 11 MN 10 MX 10 MX 11 MN 11 MN 11 MN MODERATE	TRACE OF ORGANIC MATTER 2 - 3% 3 - 5% TRACE 1 - 10% LITILE ORGANIC MATTER 3 - 5% 5 - 12% LITILE 10 - 20% MODERATELY ORGANIC 5 - 10% 12 - 20% SOME 20 - 35% HIGHLY ORGANIC 5 - 10% 12 - 20% SOME 20 - 35%	HAMMER IF CRYSTALLINE. VERY SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED, SOME JOINTS MAY SHOW THIN CLAY C (V SLI.) CRYSTALS ON A BROKEN SPECIMEN FACE SHINE BRIGHTLY, ROCK RINGS UNDER H OF A CRYSTALLINE NATURE.
	S S WATER LEVEL IN BORE HOLE IMMEDIATELY AFTER DRILLING	SLIGHT ROCK GENERALLY FRESH, JOINTS STAINED AND DISCOLORATION EXTENDS INTO RC (SLI.) I INCH. OPEN JOINTS MAY CONTAIN CLAY. IN GRANITOID ROCKS SOME OCCASIONA CRYSTALS ARE DULL AND DISCOLORED. CRYSTALLINE ROCKS RING UNDER HAMMEN
MATERIALS SANU	ABLE STATIC WATER LEVEL AFTER <u>24</u> HOURS VPW PERCHED WATER, SATURATED ZONE, OR WATER BEARING STRATA	MODERATE SIGNIFICANT PORTIONS OF ROCK SHOW DISCOLORATION AND WEATHERING EFFECT (MOD.) GRANITOID ROCKS, MOST FELDSPARS ARE DULL AND DISCOLORED, SOME SHOW CLA DULL SOUND UNDER HAMMER BLOWS AND SHOWS SIGNIFICANT LOSS OF STRENGTH
PI OF A-7-5 SUBGROUP IS ≤ LL - 30 ;PI OF A-7-6 SUBGROUP IS > LL - 30		WITH FRESH ROCK. MODERATELY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. IN GRANITOID ROCKS, ALL P
CONSISTENCY OR DENSENESS	MISCELLANEOUS SYMBOLS	SEVERE AND DISCOLORED AND A MAJORITY SHOW KAOLINIZATION. ROCK SHOWS SEVERE L (MOD.SEV.) AND CAN BE EXCAVATED WITH A GEOLOGIST'S PICK. ROCK GIVES "CLUNK" SOUND
PRIMARY SOIL TYPE COMPACTNESS OR CONSISTENCY RANGE OF STANDARD PENETRATION RESISTENCE (N-VALUE) RANGE OF UNCONF COMPRESSIVE STRE (N-VALUE) PRIMARY SOIL TYPE VERY LOOSE < 4	TH ROADWAY EMBANKMENT (RE) 25/025 DIP & DIP DIRECTION WITH SOIL DESCRIPTION OF ROCK STRUCTURES	IF TESTED, WOULD YIELD SPT REFUSAL SEVERE ALL ROCK EXCEPT OUARTZ DISCOLORED OR STAINED, ROCK FABRIC CLEAR AND E (SEV.) REDUCED IN STRENGTH TO STRONG SOIL, IN GRANITOID ROCKS ALL FELDSPARS A
GRANULAR LOOSE 4 TO 10 GRANULAR MEDIUM DENSE 10 TO 30		TO SOME EXTENT. SOME FRAGMENTS OF STRONG ROCK USUALLY REMAIN. IF TESTED, WOULD YIELD SPT N VALUES > 100 BPF
MATERIAL (NDN-COHESIVE) DENSE VERY DENSE 30 10 50 VERY SOFT < 2	ARTIFICIAL FILL (AF) OTHER THAN ROADWAY EMBANKMENT AUGER BORING CONE PENETROMETER TEST 	VERY ALL ROCK EXCEPT QUARTZ DISCOLORED OR STAINED. ROCK FABRIC ELEMENTS AF SEVERE BUT MASS IS EFFECTIVELY REDUCED TO SOIL STATUS, WITH ONLY FRAGMENTS O (V SEV.) REMAINING, SAPROLITE IS AN EXAMPLE OF ROCK WEATHERED TO A DEGREE THAT
GENERALLY SOFT 2 TO 4 0.25 TO 0.5 SILT-CLAY MEDIUM STIFF 4 TO 8 0.5 TO 1.0 MATERIAL STIFF 8 TO 15 1 TO 2 (COMESIVE) VERY STIFF 15 TO 30 2 TO 4		VESTIGES OF ORIGINAL ROCK FABRIC REMAIN. <u>IF TESTED, WOULD YIELD SPT N N</u> COMPLETE ROCK REDUCED TO SOIL. ROCK FABRIC NOT DISCERNIBLE. OR DISCERNIBLE ONLY SCATTERED CONCENTRATIONS. QUARTZ MAY BE PRESENT AS DIKES OR STRINGERS ALSO AN EXAMPLE.
HARD > 30 > 4	TIZZONE TEL IN STALLATION - SPT N-VALUE	ROCK HARDNESS
TEXTURE OR GRAIN SIZE		VERY HARD CANNOT BE SCRATCHED BY KNIFE OR SHARP PICK. BREAKING OF HAND SPECIMEN
U.S. STD. SIEVE SIZE 4 10 40 60 200 270 OPENING (MM) 4.76 2.00 0.42 0.25 0.075 0.053	UNDERCUT UNCLASSIFIED EXCAVATION - UNCLASSIFIED EXCAVATION - UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE	SEVERAL HARD BLOWS OF THE GEOLOGIST'S PICK. HARD CAN BE SCRATCHED BY KNIFE OR PICK ONLY WITH DIFFICULTY. HARD HAMMER B
	SHALLOW UNCLASSIFIED EXCAVATION - USED IN THE TOP 3 FEET OF EMBANKMENT OR BACKFILL	TO DETACH HAND SPECIMEN.
Object Coole Control SAND SAND SAND Control CE (BLDR.) (COB.) (COB.) (CAP.) (CSE. SD.) (F SD.) (SL.) (CSE. GRAIN MM 305 75 2.0 0.25 0.065 0.005		MODERATELY CAN BE SCRATCHED BY KNIFE OR PICK. GOUGES OR GROOVES TO 0.25 INCHES DI HARD EXCAVATED BY HARD BLOW OF A GEOLOGIST'S PICK. HAND SPECIMENS CAN BE D BY MODERATE BLOWS.
SIZE IN. 12 3	BT - BORING TERMINATED MICA MICACEOUS WEA WEATHERED CL CLAY MOD MODERATELY γ - UNIT WEIGHT	MEDIUM CAN BE GROOVED OR GOUGED 0.05 INCHES DEEP BY FIRM PRESSURE OF KNIFE O HARD CAN BE EXCAVATED IN SMALL CHIPS TO PEICES I INCH MAXIMUM SIZE BY HARD
SOIL MOISTURE - CORRELATION OF TERMS	CPT - CONE PENETRATION TEST NP - NON PLASTIC $\dot{\gamma}_{ m d}$ - DRY UNIT WEIGHT	POINT OF A GEOLOGIST'S PICK.
SOIL MOISTURE SCALE FIELD MOISTURE GUIDE FOR FIELD MOISTURE DESCRIPTION GUIDE FOR FIELD MOISTURE DESCRIPTION	DPT - DYNAMIC PENETRATION TEST SAP SAPROLITIC S - BULK	SOFT CAN BE GROVED OR GOUGED READLY BY KNIFE OR PICK. CAN BE EXCAVATED IN FROM CHIPS TO SEVERAL INCHES IN SIZE BY MODERATE BLOWS OF A PICK POIN PIECES CAN BE BROKEN BY FINGER PRESSURE.
- SATURATED - USUALLY LIQUID; VERY WET, USUALLY (SAT.) FROM BELOW THE GROUND WATER T PLASTIC	FOSS FOSSILIFEROUS SLI SLIGHTLY RS - ROCK	VERY CAN BE CARVED WITH KNIFE. CAN BE EXCAVATED READILY WITH POINT OF PICK. SOFT OR MORE IN THICKNESS CAN BE BROKEN BY FINGER PRESSURE. CAN BE SCRATCH FINGERMAIL.
RANGE - WET - (W) SEMISULU; REQUIRES DRYING TO	FRAC FRACTURED, FRACTURES TCR - TRICONE REFUSAL RT - RECOMPACTED TRIAXIAL FRAGS FRAGMENTS w - MOISTURE CONTENT CBR - CALIFORNIA BEARING	FRACTURE SPACING BEDDING
	HI HIGHLY V - VERY RATIO EQUIPMENT USED ON SUBJECT PROJECT	T <u>ERM</u> <u>SPACING</u> <u>TERM</u> VERY WIDE MORE THAN 10 FEET VERY THICKLY BEDDED
OM OPTIMUM MOISTURE - MOIST - (M) SOLID; AT OR NEAR OPTIMUM MOISTU SL SHRINKAGE LIMIT	DRILL UNITS: ADVANCING TOOLS: HAMMER TYPE: CME-45C CLAY BITS X AUTOMATIC MANUAL	WIDE 3 TO 10 FEET THICKLY BEDDED 1 MODERATELY CLOSE 1 TO 3 FEET THINLY BEDDED 0. CLOSE 0.16 TO 1 FOOT VERY THINLY BEDDED 0.0
- DRY - (D) REQUIRES ADDITIONAL WATER TO ATTAIN OPTIMUM MOISTURE	6' CONTINUOUS FLIGHT AUGER	VERY CLOSE LESS THAN 0.16 FEET THICKLY LAMINATED 0.00 THINLY LAMINATED <
PLASTICITY	СМЕ-55 СМЕ-55 С 8* HOLLOW AUGERS СОЛЕ 51261	INDURATION
PLASTICITY INDEX (PI) DRY STRENGTH	CME-550 HARD FACED FINGER BITS -N	FOR SEDIMENTARY ROCKS, INDURATION IS THE HARDENING OF MATERIAL BY CEMENTING, HE
NON PLASTIC 0-5 VERY LOW SLIGHTLY PLASTIC 6-15 SLIGHT MODERATELY PLASTIC 16-25 MEDIUM	VANE SHEAR TEST TUNGCARBIDE INSERTS HAND TOOLS:	FRIABLE RUBBING WITH FINGER FREES NUMEROUS GRAINS; GENTLE BLOW BY HAMMER DISINTEGRATES SAMPLE. GRAINS CAN BE SEPARATED FROM SAMPLE WITH SI
HIGHLY PLASTIC 26 OR MORE HIGH	PORTABLE HOIST X TRICONE 2 15/6 STEEL TEETH HAND AUGER	MODERATELY INDURATED BREAKS EASILY WHEN HIT WITH HAMMER.
COLOR DESCRIPTIONS MAY INCLUDE COLOR OR COLOR COMBINATIONS (TAN, RED, YELLOW-BROWN, BLUE-GF	X CME-550X TRICONE TRICONE SOUNDING ROD	INDURATED GRAINS ARE DIFFICULT TO SEPARATE WITH STEEL 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 SAMPLI SAMPLE BREAKS ACROSS GRAINS.

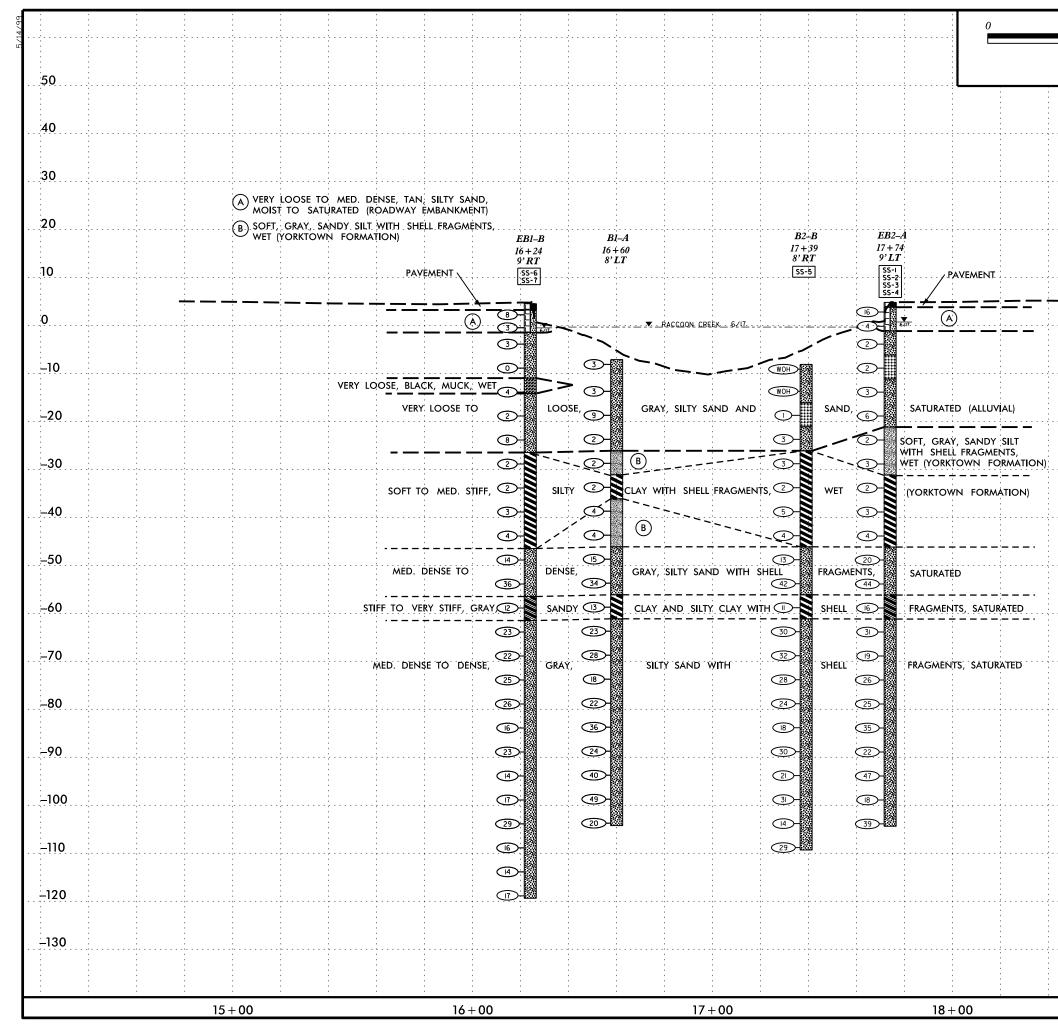
PROJECT REFERENCE NO.



2

D_m. N. PREPRED STITUE Status D_m. N. PERPERD STITUE Status Address Address Address STITUE Address Address Address Address Status Address Add		
SPT TERSON. STOT FER BAD. STOT FER		TERMS AND DEFINITIONS
IS OFTEN APPLIED TO ALL ROCK THAT HAVE BEEN DERIVED FROM SAND OR THAT CONTANT SAND. N VALUES 3 ADDITIONAL CONTANT AND AND SAND SAND SAND SAND AND SAND AND SAND S	SPT REFUSAL.	
Interaction - APPCLED to Rucks from Harts BEAN LEHITED FRAM SAND OW HART LEMINARS, SANE, SANE, SANE, SLICK, SANE, SANE, SLICK, SLICKK, SLICK, SLICKK, SLICK, SLICK	FOOT PER 60	
N VALUES > A INTRALE PROPORTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, TC. ANTERNAL FORCEMUNE CONTRACTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, TC. ANTERNAL FORCEMUNE CONTRACTION OF CLAY IN THEIR COMPOSITION, SUCH AS SHALE, SLATE, TC. CRITMAT CRITMAT EDECONTERED, BUT WHICH DOES NOT NECESSABLY RISE TO DR ADDRY THE COULD ADDRY THE CONTRACTION OF CLAY IN SLOPE OR AT BOTTOM OF FIGURE COMPOSITION, SUCH AS SHALE, SLATER, S	10 0. 12.1	
N VALUES 0 Anticles 0 AVEC THAT ANTICLES 0 VECTOR SUBSCREATE, LOSS GRANTE, FRAIN T STEEL FRAIN T STEEL SUBSCREATE, TARAN SUBSCREATE, SUBSCREATE, FRAIN CHARTAN SUBSCREATE, SUBSCREATE, FRAIN CHARTAN SUBSCREATE, SUBSCREATE, FRAIN CHARTAN SUBSCREATE, SUBSCREATE, FRAIN SUBSCREATE, FRAIN SUBSCREATE, FRAIN SUBSCREATE, FRAINGER SUBSCREATE, SUBSCREATE, A RECOMPARY RECC. TOTAL LENTH OF CARE RAW AND EXPRESSED AS A FRECHTAGE, SUBSCREATE, A RECOMPARY RECC. TOTAL LENTH OF CARE RAW AND EXPRESSED AS A FRECHTAGE, SUBSCREATE, A RECOMPARY RECC. TOTAL LENTH OF CARE RAW AND EXPRESSED AS A FRECHTAGE, SUBSCREATE, A RECOMPARY RECC. TOTAL LENTH OF CARE RAW AND EXPRESSED AS A FRECHTAGE, SUBSCREATE, A RECOMPARY RECC. TOTAL LENTH OF CARE RAW AND EXPRESSED AS A FRECHTAGE, SUBSCREATE, A RECOMPARY RECC. TOTAL LENTH OF CARE RAW AND EXPRESSED AS A FRECHTAGE, SUBSCREATE, A RECOMPARY RECC. TOTAL		
SUBJECT CONNITE. SUBJECT CONTINUEL SUBJECT CONTINUEL CONTINUE OF CONTINUE OF CALCUM CARDONATE. CHARMED CONTINUELD CHARMED CONTINUELD CONTINUELD WITH SOLL DEPOSITED BY GRAVITY ON SLOPE OR AT BOTTOM OF SUBJECT ON CONTINUELD CONTINUELD CONTR. CONTINUE OF CONTINUELD CONTR. CONTINUE CONTR. C		ARTESIAN - GROUND WATER THAT IS UNDER SUFFICIENT PRESSURE TO RISE ABOVE THE LEVEL AT
L PLAN I ESSEEL I ESSEEL	CLUDES GRANITE.	
OF SOFE: OF SOFE: TWO, KUMANTED OF SOFE: <	AL PLAIN	CALCAREOUS (CALC.) - SOILS THAT CONTAIN APPRECIABLE AMOUNTS OF CALCIUM CARBONATE.
Tote, CEMENTED Image: A rabula AP BDD OF LOREON FROM THAT UITS AROUND SERVICES AROUND STRUCTURE OF ADJACENT MONS TO CALLENGT AND THE ADJACENT MONS TO CALLENGT AROUND STRUCTURE OF ADJACENT MONS TO CALLENGT AROUND STRUCTURE OF ADJACENT MONS TO CALLENGT ADJACENT AND THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THAT CAN BE RECONTIZED AND TRACED IN THE ADJACENT AND THE ADJACENT A	IF TESTED. C.	
NOS LINGER NOS LINGER NOS LINGER NOS LINGER NOS LINGER ATINOS IF OPEN ATINO A	TONE, CEMENTED	BY TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE.
HATINGS IF OPEN. MARCH BLOWS IF IDE OBECTION OID AZIMUTHO - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE IDE OBECTION OID AZIMUTHO - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE IDE OBECTION OID AZIMUTHO - THE DIRECTION OR BEARING OF THE HORIZONTAL TRACE OF THE SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE. ISLUES - A PROFENT OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. I, N M, NOCK NAS AS COMPARED LLOST ALON FRACTURES ONE ADIO WHICH THERE HORIZON. MORNING IN PARCINE ON SUBFACE MERA THEIR DRIGHNAL POSITION AND DISLOGOD FROM PARENT MATERIAL. SIDES TRENTIN MORNING THE LLOST AND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD - THE LLOST AND THE LLOST ADIA DISDRETING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECOGNIZED AND TRACED IN THE FIELD - THE LLE RITURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS DOCUMPARED TO TITS LATERAL EXTENT. LENS - A BODY OF SOLL OR ROCK THAT THINS DUT IN ONE OR MORE DIRECTIONS. MOTILED AND L- RECOLUMELY MARKED WITH SPOTS OF DIFFERENT COLORS, NOTLING IN SOLLS USAMULY INOCIASTS POOR AREATION AND LACK OF GOOD GRAINAGE. PERCHEM WATER - WATER MAINARDE ADDO FOR COL GUADUA WATER LEVEL BY THE PRESENCE AND MERT - WATER MAINTARD ADDOL SAMPOLITE IS STRUCTOR - MATERIAL WATER WATER WITH AND LACK OF GOOD GRAINAGE. FROUMERS SAMPOLITE IS SAMPOLITE IS SAMP	RINGS UNDER	ROCKS OR CUTS MASSIVE ROCK.
MMER BLOWS IF IDECTION OF ADMINISTIC THE DIRECTION OF BEACING OF THE MALLXANTAL THACE OF THE ILINE OF DIRECTION OF ADMINISTIC THE THAT CAN BE DEED DISPLACEMENT OF THE SIDES RELITIVE TO ME AND/OKINES FROM MARKING OF THE MARLXANTAL THACE OF THE SIDES RELITIVE TO ME AND/OKINES FROM MARKING OF SACED PARALLEL PLANES. IN FALL - A FRACTURE OR FRACTURE ZONE ALONG WICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELITIVE TO ME AND/OKINES FROM MARKING OF SACED PARALLEL PLANES. IN FLOOD FLAN FRACTURE OR FRACTURE ZONE ALONG WICH THERE HAS BEEN DISPLACEMENT OF THE SIDES RELITIVE TO ME AND/PARLE GEOLOGICU LINIT THAT CAN BE RECONALZED AND THACED IN THE FELDS ADD OF SOLL GEOLOGICU LINIT THAT CAN BE RECONALZED AND THACED IN THE FELDS ADD OF SOLL OR ROCK THAT THINS OUT IN ONE OF MORE DIRECTIONS. MUTLED MOTI - IMPROLUMELY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTILING IN SOLLS USUALLY INDICATES FOOR ARATION AND LACK OF GOOD GRAINAGE. EXECENTIBLE E DISCENTIBLE STROME ROCK DWX MINOR MURM MORE FALS ADD OF SOLL OR ROCK THAT THINS OUT IN ONE OF MORE DIRECTIONS. MUTLED MOTI - IMPROLUMELY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTILING IN SOLLS USUALLY INDICATES FOOR ARATION AND LACK OF GOOD GRAINAGE. EXECENTIBLE STROME ROCK DWX MINOR FALS ADD OF SOLL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MUTLED MOTI - INTRODUCES STRATU. EXECENTIBLE STROME ROCK DWX MINOR FALS ADD OF SOLL FORMED IN PLACE BY THE WASHERING OF ROCK. ROCK OWATER STRUME AND OR REFARCE THAN A HORES STRUMED OF TACK. STROME ROCK DWX MINOR FALS ADD OF SOLL FORMED IN PLACE BY THE WASHERING OF ROCK. ROCK OWATER STROME ROLK DWX MINOR STRUME TO COME READ AND AND AND/OKACE.<		
Fundamentary Sides Relative to ONE ANOTHER PARALLEL to THE FRACTURE. ELONS. FISSILE - A PROPERTY OF SPLITTING ALONG CLOSELY SPACED PARALLEL PLANES. IN FLOST - ROCK FRACMENTS ON SUFFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PARKIT MATERIAL. RACCOMPARED FLOST - AND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PLOST PLANL (PP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PLOST PLANL (PP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PLOST PLANL (PP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PLOST PLANL (PP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PLOST PLANL (PP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PLOST PLANL (PP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PLOST PLANL (PP) - LAND BORDERING A STREAM, BUILT OF STREAMENT BANG CLORES. NUMENT BUT RECENTRAL (PP) - LAND BORDERING A STREAMENT BANG CLORES. NOTTING THE REST DOR RELATIVE THE MAINTAINES OF THE ONDAL MORE MERCETONS. MOTILTO DEPOSITED STREAMENT AND LARGE OF THE MORMAL EQUIDA WATEN LEVEL BY THE PRESENCE OF GRAC MULTY DESCRIPTION TRUE AND AND STREAMENT BOLD STREAMENT. NOTALL STREAMENT ADDITION TO THE MERTING DEPOSITED A STREAMENT AND LARDES OF THE MAINTAINES OF THE MERCHANCE. STREAMENT ADDITY DESCHANDIN MOD - A MEASURE OF ROCK QUALITY DESCR	AMMER BLOWS IF	LINE OF DIP, MEASURED CLOCKWISE FROM NORTH.
I. N. PLOAT - ARCK FRAMEWENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM Y. ROCK MAS PLOAT - ARXK FRAMEWENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM Y. ROCK MAS PLOAT - ARXK FRAMEWENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM Y. ROCK MAS PLOAT - ARXK FRAMEWENTS ON SURFACE NEAR HULK OF SEDIMENTS DEPOSITED BY THE STREAM. PLOAT - ARXK FRAMEWENTS ON SURFACE NEAR THEIR ORIGINAL POSITION AND DISLODGED FROM PSEDIMENT DEPOSITION FRAMEWENT AND DISLODGED FROM DISL DEPOSITION FRAMEWENT Y. AND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. PORT DEPOSITION FRAMEWENT Y. AND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM. YOUNT BUT FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. YOUNT BUT FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. YOUNT BUT FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS SOLL COMPARED TO YOUNT BUT FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. YOUNT BUT FILED HAR AL EXTENT. YOUNT BUT THE STREAM AND ARE ALONG WHICH NO APPRECIABLE MOVEMENT HAS ONLY AND AND STREAM AND	CK UP TO L FELDSPAR	SIDES RELATIVE TO ONE ANOTHER PARALLEL TO THE FRACTURE.
Y. ROCK HAS AS COMPARED PARENT MATERIAL. FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM, FORMATION (FM) - A MAPPABLE CEOLOGIC UNIT THAT CAN BE RECIONZED AND TRACED IN THE FORMATION (FM) - A MAPPABLE CEOLOGIC UNIT THAT CAN BE RECIONZED AND TRACED IN THE FELD. USEN STREAMTH HEN STRUCK. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS DECURRED. LEDCE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO TIS LATERAL EXTENT. ENS. LESS - A BODY OF SOLID R ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOT) - IRREGULARLY MARKED WTH SPOTS OF DIFFERENT COLORS. MOTILING IN SOLIS USIALEY INDICATES FOOD REAFITION AND LACK OF GOOD DRAINAGE. LESS - A BODY OF SOLID OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTILED (MOT) - IRREGULARLY MARKED WTH SPOTS OF DIFFERENT COLORS. MOTILING IN SOLIS USIALEY AND REAST ONE OF AN INTERVENTION IMPERVIOUS STRATUM. LESS - CAB BUPF IN SMALL AND SARROLITE ISSUE CONTO OF IONEOUS STRATUM. RESISTING FOOL FORMED IN PLACE BY THE WEATHERING OF ROCK. RECUIRES IN SOURCES RESISTING FOOL FORMED IN PLACE BY THE WEATHERING OF ROCK. SULL - AN INTRUSIVE BODY OF IONEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS CHERAL EXTENT. THAT HAS BEENE MEMLACED PARALLEL TO THE ESODING OR SCHISTISTICT THE INTRUGED ROCKS. SILLC - AN INTRUSIVE BODY OF IONEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS ALTERAL EXTENT. THAT HAS BEENE MEMLACED PARALLEL TO THE ESODING OR SCHISTISTICT THE INTRUGED ROCKS.		
ELOSAMS DULL DSS OF STRUCK. FORMATION (FM) - A MAPPABLE GEOLOGIC UNIT THAT CAN BE RECORNIZED AND TRACED IN THE FIELD. UDEN BUT MEN STRUCK. JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE NIGGE OR ROUGETION OF ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTHED MOTJ - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOILS E DISCENNIBLE STERONG ROCK E OSCENNIBLE DISCHNIBLE PERCENDE WATER - VARTE MAINTAING BONDE THE NORMAL COMPARED TO THE DEMOTIAL INDICATES FOOR AERATION AND LACK OF GOOD DRAIMOGE. PERCENDE WATER - VARTE MAINTAING BONDE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ONLY MINOR ALLES CLOBE WATER - VARTE MAINTAING BONDE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ONLY MINOR ALLES CLOBE WATER - VARTE MAINTAING BONDE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ONLY MINOR ALLES CLOBE WATER - VARTE MAINTAING BONDE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ONLY MINOR ALLES CLOBE WATER - VARTE MAINTAING BORDE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ONLY MINOR ALLES CLOBE STATES EQUAL TO DE GREATER THAN A TICKES DIVIDED BY THE TOTAL LENGTH OF ROUK SECOMENTS EQUAL TO DE GREATER THAN A TICKES DIVIDED BY THE TOTAL LENGTH OF ROUK SECOMENTS EQUAL TO DE GREATER THAN A TICKES DIVIDED BY THE TOTAL LENGTH OF THE EDOLING OF SCHERED MON STRUCTURE APPERDIATELY UNIFORM THICKNESS AND THE BEDURED APPERSED AS A PERCENTAGE. SUBL - AN INFRUSIVE BODY OF IONEOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND THE BEDURED APPERSED AS A PERCENTAGE. SIGNATA AND EXPRESED AS A STRUATED SUDALE APPENTATION A FLATUEL TO THE LENGTH OF ST	S. IN NY. ROCK HAS	
LLDS-MACH JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. JEINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED. LEDGE - A SHELF-LIKE RIDGE OR REJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO JIENT BUT TIS LATERAL EXTENT. LENS - A BODY OF SOLL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTIFED MOTID - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTILING IN SOLLS DISOLT INDICATES POOR AEATION AND LACK OF GODD DRAINAGE. FEISDAR (MER) WHER - WATER HAINTAINED ADDRO THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENTS IMPROVIDES STATUM. RESIDUAL (FIGURARLY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTILING IN SOLLS MORE MARK - WATER - WATER HAINTAINED ADDRO THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENTS IMPROVIDES STATUM. RESIDUAL (FIGURARLY MARKED) WHER HAINTAINED ADDROCK NSMALL AND RESIDUAL COLORATION (ROD) - A MEASURE OF ROCK CULATITY DESCRIBED BY TOTAL LENGTH OF GAMPACITY DISTORMATION (ROD) - A MEASURE OF THE WEATHERING OF ROCK. REQUIRES SAPROLITE (SAPL) - RESIDUAL SOLL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT INVENTION ON COLOR SCHEDER STRUCTURE ON FARMED AND STRIATED SUPFACE THAT A RESULTS FROM FRICTION ALONG A FAULT ON THE BEDURED AD STRIATED SUPFACE THAT A RESULTS FROM FRICTION ALONG A FAULT ON COLOR SAMPLER STITUTION AND ADDRICE A PRETATION FOLLAND. INVERTION OF TRACE SCHEN SUPER SOLL SOLL SUPPORT AND STRUE AND STRIATED SUPPORT AND SAMPLER STRUCTURE OF ROCK SCHENE STRUCTURE SCHENCE OF ROCK OUNCLINT FROM AND ADDRICE A PRETATION OF I FOOT INT	HS LUMPARED	FLOOD PLAIN (FP) - LAND BORDERING A STREAM, BUILT OF SEDIMENTS DEPOSITED BY THE STREAM.
HEN STRUCK, JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS DCCURRED. LEDGE - A SHELF-LIKE RIDGE OR PROJECTION OF ROCK WHOSE THICKNESS IS SMALL COMPARED TO ITS LATERAL EXTENT. E KOULINZED E OISCERNIBLE STROM GROCK DULY MINOR MUNT MOR NUM MINOR REALES LIBBLE SARROLITE IS SARROLITE IS SARROLITE IS SARROLITE IS SARROLITE IS SARROLITE SAP, RESIDUAL SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. RECUIRES SILL - AN INTRUSIVE BODY OF INFOLOUS STRUCK OF APPROXIMATELY UNIFORM THICKNESS AND RECUIRES SILL - AN INTRUSIVE BODY OF INCLUS SUBACK OF APPROXIMATELY UNIFORM THICKNESS AND RELL - AN INTRUSIVE BODY OF INCLUS SUBACK OF APPROXIMATELY UNIFORM THICKNESS AND RECUIRES SIGNORY OF THE THOCK DISS	FELDSPARS DULL OSS OF STRENGTH	
VIDENT BUT RE KAQLINIZED LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTILED INDT2 - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTILING IN SOILS USUALLY INDICATES POOR AGENTION AND LACK OF GOOD DRAINAGE. PECHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE OF AN INTERVENING IMPERVIOUS STRATUM. RESIDUAL IRES, SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK. ROK OWALLY DESIGNATION (PROC) - A MEASURE OF ROCK QUALITY DESIGNATION (PROC) - A NOCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS EQUAL TO DIT IN TRUTCH BODY OF ICHOUS ROCK OF APPROXIMATELY UNFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BODING OR SCHISTOSITY OF THE INTRUDED ROCKS. SLICKENSIDE - POLISHED AND STRIFTED SUBFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STATA CORE DECUTERTION TEST IPET TRATION RESISTANCE USET IN UNFORM THICKNESS AND TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. STATA CORE DECUTERTION TEST IPET TRATION SERIES TO AS I PENETRATION OF I FOOT INTO SOIL HITCH BODING OR SCHISTOSTIATI AND EXPRESSED AS A PERCENTAGE. STATA CORE DECUTERTION TEST IPET TRATION SERIES AND SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1FOOT PER 60 BLOWS. STATA CORE DECUTERT STATEM AND EXPRESSED AS A PERCENTAGE. TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL ITS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. BENCH MARK: BL-3, N: 891496 E: 2745920 THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. MOTES: ALORS F	WHEN STRUCK.	JOINT - FRACTURE IN ROCK ALONG WHICH NO APPRECIABLE MOVEMENT HAS OCCURRED.
RE KAQLINIZED LENS - A BODY OF SOIL OR ROCK THAT THINS OUT IN ONE OR MORE DIRECTIONS. MOTTLED (MOLT) - IRRECULARLY MARKED WITH SPOTS OF DIFFERENT COLORS. MOTTLING IN SOLS USUBALLY INDICATES FOOR ACRATION AND LACK OF GOOD ORAINAGE. PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ORLY MINOR ALLES (JBB BPF) IN SMALL AND , SAPROLITE IS REDULAL, RES, SOLL - SOLL FORMED IN PLACE BY THE WEATHERING OF ROCK. RECUIRED SAPROLITE IS REQUIRES SILL - AN INTRUSIVE BODY OF IONEOUS ROCK OF APPROXIMATELY UNFORM THICKNESS AND RELATIVELY THIN COMPARED WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT. THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL WITH TIS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDING OR SCHOOL STOTICH THE INTRUDE DOLOXS. SILL KENDING PERCENTION TEST (PENETRATION CONTA SILLKENSTOOL PARTERE SPLIT SPOON SAMPLER, SPT HERUSAL IS PREATION COLLAL TO RELEAS 1 INCH RECOURD THE SILLKENSTOOF	WIDENT DUT	
MOTILED (MOTJ) - IRREGULARLY MARKED WITH SPOTS OF DIFFERENT COLORS, MOTILING IN SOILS USUALLY INDICATES POOR AERATION AND LACK OF GODD DRAINAGE. STRONG ROCK ONLY MINOR USUALLY INDICATES POOR AERATION AND LACK OF GODD DRAINAGE. STRONG ROCK ONLY MINOR NLLES (100 BPF INS MALL AND SAPROLITE IS RESIDUAL INCESSION (SECONDITION ROD) - A MEASURE OF PROC MULTIVY DESCRIBED BY TOTAL LENGTH OF ROCK SECONDITE (SAP) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SAPROLITE IS SAPROLITE IS SAPROLITE (SAP) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT ROCK. SOWS REQUIRED SILL - AN INTRUSIVE BODY OF IONEOUS 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. SULL - ROLK- SILL - AND INTRUSIVE BODY OF IONEOUS ROCK THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. SULC - SULFCENSE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS IN OR BPF) OF A 140 & INAME APPRESED AS A PERCENTACE. STANARD PENETRATION TEST (PENETRATION SERVERESED AS A PERCENTACE. STANDARD PENETRATION TEST (PENETRATION SERVERESED AS A PERCENTACE. STANDARD PENETRATION TEST (PENETRATION SERVERESED AS A PERCENTACE. STANDARD PENETRATION TE	ARE KAOLINIZED	
E DISCERNIBLE STROMG ROK OKLY MINOR RUKY MINOR RUK		
STRONG ROCK ONLY MINOR PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ONLY MINOR ONLY MINOR PERCHED WATER - WATER MAINTAINED ABOVE THE NORMAL GROUND WATER LEVEL BY THE PRESENCE ONLY MINOR ALUES < 100 BPF IN SMALL AND, SAPROLITE IS FOR CA QUALITY DESIGNATION (RDD) - A MEASURE OF ROCK QUALITY DESIGNED BY TOTAL LENGTH OF ROCK SCOMENTS BOUL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE (SAP.) SAPROLITE (SAP.) NOW S 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 INTRUDE ROCKS. SILCKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PERTRATION TEST IPENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS (N OR BPF) OF A 140 LB, HAMMER FALLING 30 INCHES REQUIRED TO PRODUCE A PENETRATION OF I FOOT INTO SOLL WITH A 2 INCH DUSIDE DIAMETER SPLIT SPROM SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. STRATAGE CORE RECOVERY (SRECL) - TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. STRATA CORE RECOVERY (SRECL) - TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SRED) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEMENTS WITH A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SRED) - SURFACE SOLLS USUALLY CONTAINING ORGANIC MAT		
IN SMALL AND SAPROLITE IS RECOURSES SAPROLITE IS RECOURSES SERVICES RECOURSES SERVICES S	F STRONG ROCK	
SAPROLITE IS Index doubling the device of approximately uniform the total length of core run and expressed as a percentage. SAPROLITE IS SAPROLITE SEQUAL TO OR OF AFTER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE RUN AND EXPRESSED AS A PERCENTAGE. SAPROLITE SOLUTION COUNT AND AND AND AND AND AND AND AND AND EXPRESSED AS A PERCENTAGE. SAPROLITE COUNT AND	ALUES < 100 BPF	RESIDUAL (RES.) SOIL - SOIL FORMED IN PLACE BY THE WEATHERING OF ROCK.
SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OF THE PARENT ROCK. 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. EP CAN BE TRACHED SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS IN OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REDUIRED TO PRODUCE A PENETRATION OF 1 FOOT INTO SOIL BLOWS OF THE UT A 12 INCH DUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. STRATA COCK QUALITY DESIGNATION (SRDD - A MEASURE OF ROCK QUALITY DESCRIBED BY THATA ROCK QUALITY DESIGNATION (SRDD - A MEASURE OF ROCK QUALITY DESCRIBED BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. IPPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. BENCH MARK: BL-3, N: 89I496 E: 2745920 ITHICKNESS A 4 FEET A 7 FEET 3 - 0.16 FEET 8 - 0.03 FEET 2.040 FEET AT, PRESSURE, ETC. EEL PROBE; PROBE; PROBE;	IN SMALL AND 5. SAPROLITE IS	ROCK SEGMENTS EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF CORE
SILL - AN INTRUSIVE BODY OF IOREOUS ROCK OF APPROXIMATELY UNIFORM THICKNESS AND RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO THE BEDDING ON SCHUSTOSITY OF THE INTRUDED ROCKS. EP CAN BE TRACHED SLICKENSIDE - POLISHED AND STRIATED SURFACE THAT RESULTS FROM FRICTION ALONG A FAULT OR SLIP PLANE. STANDARD PENETRATION TEST (PENETRATION RESISTANCE) (SPT) - NUMBER OF BLOWS IN OR BPF) OF A 140 LB. HAMMER FALLING 30 INCHES REDUIRED 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 0.1 FOOT PER 60 BLOWS. FRAGMENTS STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. PIECES 1 INCH EINCH ORCK SCOMENTS WITHIN A STRATUM EQUAL TO ON CREATER THAN 4 INCHES DIVIDED BY TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. THICKNESS 4 FEET ST. 4 FEET SUMFACE SOILS USUALLY CONTAINING ORGANIC MATTER. BENCH MARK: BL-3, N: 891496 E: 2745920 THICKNESS 4 JOTES: A 0.6 FEET ELEVATION: 4.23 FEET 0.008 FEET ELEVATION: 4.23 FEET 0.006 FEET ELEVATION: 4.23 FEET 0.007 ES; PROBE; PROBE; PROBE;		SAPROLITE (SAP.) - RESIDUAL SOIL THAT RETAINS THE RELIC STRUCTURE OR FABRIC OF THE PARENT
OR SLIP PLANE. OR SLIP PLANE. 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 WITH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. FRAGMENTS I. SMALL, THIN STRATA CORE RECOVERY (SREC.) - TOTAL LENGTH OF STRATA MATERIAL RECOVERED DIVIDED BY TOTAL LENGTH OF STRATA MAD EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATA MID EXPRESSED AS A PERCENTAGE. THICKNESS 4 FEET 5 - CA FEET 6 - 1.5 FEET 5 - 4 FEET 5 - 4 FEET 5 - 4 FEET 6 - 1.5 FEET 8 - 0.03 FEET 0.008 FEET AT, PRESSURE.ETC. EEL PROBE; PROBE; PROBE; ;	LOWS REQUIRED	RELATIVELY THIN COMPARED WITH ITS LATERAL EXTENT, THAT HAS BEEN EMPLACED PARALLEL TO
R 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 BLOWS OF THE NTH A 2 INCH OUTSIDE DIAMETER SPLIT SPOON SAMPLER. SPT REFUSAL IS PENETRATION EQUAL TO OR LESS THAN 0.1 FOOT PER 60 BLOWS. 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 (SRDD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL 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. TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. BENCH MARK: BL-3, N: 891496 E: 2745920 THICKNESS 4 FEET 5 - 4 FEET 6 - 1.5 FEET 3 - Ø.16 FEET 8 - Ø.020 FEET ØR086 FEET AT, PRESSURE, ETC. PROBE: PROBE: *	EEP CAN BE	
TOTAL LENGTH OF STRATUM AND EXPRESSED AS A PERCENTAGE. STRATA ROCK QUALITY DESIGNATION (SRQD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL ED READILY BY THE TOTAL LENGTH OF STRATA AND EXPRESSED AS A PERCENTAGE. TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. BENCH MARK: BL-3, N: 891496 E: 2745920 THICKNESS 4 FEET 5 - 4 FEET 6 - 1.5 FEET 3 - 0.16 FEET 4.0008 FEET AT, PRESSURE, ETC. EEL PROBE: ;	DR PICK POINT. BLOWS OF THE	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
PIECES 1 INCH ED READILY BY STRATA ROCK QUALITY DESIGNATION (SROD) - A MEASURE OF ROCK QUALITY DESCRIBED BY TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OP GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OP GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OP GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OP GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OP GREATER THAN 4 INCHES DIVIDED BY THE TOTAL LENGTH OF ROCK QUALITY CONTAINING ORGANIC MATTER. THICKNESS 4 FEET 5 - 4 FEET 5 - 4 FEET BENCH MARK: BL-3, N: 89I496 E: 2745920 THICKNESS 3 - 0.16 FEET 8 - 0.03 FEET 0.008 FEET NOTES: AT, PRESSURE, ETC. NOTES: PROBE; ; ;	FRAGMENTS	
IOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER. BENCH MARK: BL-3, N: 89I496 E: 2745920 INICKNESS 4 FEET 5 - 4 FEET 6 - 1.5 FEET 8 - 0.03 FEET 0.08 FEET 4.03 FEET 0.08 FEET 2.008 FEET PROBE: :	PIECES 1 INCH	LENGTH OF ROCK SEGMENTS WITHIN A STRATUM EQUAL TO OR GREATER THAN 4 INCHES DIVIDED BY
THICKNESS 4 FEET 5 - 4 FEET 6 - 1.5 FEET 3 - ØL6 FEET 8 - Ø.Ø3 FEET 0.008 FEET 4T. PRESSURE.ETC. EEL PROBE; PROBE; ;	LO NEMUILI DI	TOPSOIL (TS.) - SURFACE SOILS USUALLY CONTAINING ORGANIC MATTER.
4 FEET <u>ELEVATION: 4.23 FEET</u> 6 - 1.5 FEET 3 - 0.0.16 FEET 0.008 FEET AT, PRESSURE, ETC. EEL PROBE: ;	TUTOWERS	BENCH MARK: BL-3, N: 891496 E: 2745920
5 - 4 FEET <u>ELEVATION: 4.23 FEET</u> 5 - 0.15 FEET <u>NOTES:</u> 8 - 0.03 FEET <u>0.008 FEET</u> att, PRESSURE, ETC. EEL PROBE; PROBE; ;		
3 - 0.16 FEET NUIES: 9 - 0.03 FEET	.5 - 4 FEET	ELEVATION: 4.23 FEET
8 - 0,03 FEET 0,008 FEET AT. PRESSURE. ETC. EEL PROBE: PROBE: ;	3 - 0.16 FEET	NOTES:
EEL PROBE:	08 - 0.03 FEET 0.008 FEET	
EEL PROBE:		
PROBE:	AT, PRESSURE, ETC.	
PROBE:		
	EEL PROBE;	
	PROBE:	
DATE: 8-15-14	.	
		DATE: 8-15-14





_

40		80	PROJECT	REFERENCE	E NO .	SHEET NO.
FEET	T			B-5606		4
VE =	2:1			PROFILE AL	ONG -1	L-
		· · · · · · · · · · · · · · · · · · ·				
						30
						20
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
						10
						0
		· · · · · · · · · · · · · · · · · · ·				-10
						-20
		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		
						_30
						_40
						-50
						-60
						_70
		· · · · · · · · · · · · · · · · · · ·				-80
						-90
						-100
		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		
					, , , , , , , , , , , , , , , , , , , ,	-110
		· · · · · · · · · · · · · · · · · · ·				–120
		OF -L- C	ENTERLINE T	OUND SURFACE AKEN FROM EL		с
		TIN FILE 6/9/17. IN	'B5606_LS_TI	NL.TIN' DATED TIGRPAHY IS DR	AWN	–130
			h the borin He profile.	IGS WITH BOTH	PROJEC	TED
		19+00	<u>,</u> ו			

[RELUG		[]			
WBS 17BP.1.PE.1		PERQUIMANS	GEOLOGIST Swartley, J. R.			NTY PERQUIMANS	GEOLOGIST Swartley, J. R.
	0. 11 ON SR 1338 OVER RACCOON		GROUND WTR (ft)	SITE DESCRIPTION BRIDGE NO.			GROUND WTR (ft)
BORING NO. EB1-B	STATION 16+24 O	FFSET 9 ft RT	ALIGNMENT -L- 0 HR. N/A	BORING NO. EB1-B	STATION 16+24	OFFSET 9 ft RT	ALIGNMENT -L- 0 HR. N/A
COLLAR ELEV. 4.5 ft	TOTAL DEPTH 123.9 ft N	ORTHING 891,469	EASTING 2,745,924 24 HR. 5.0	COLLAR ELEV. 4.5 ft	TOTAL DEPTH 123.9 ft	NORTHING 891,469	EASTING 2,745,924 24 HR. 5.0
DRILL RIG/HAMMER EFF./DATE SME	9563 CME-550X 88% 08/10/2017	DRILL METHOD Mud	d Rotary HAMMER TYPE Automatic	DRILL RIG/HAMMER EFF./DATE SME9	563 CME-550X 88% 08/10/2017	DRILL METHOD	Mud Rotary HAMMER TYPE Automatic
DRILLER White, T.J.	START DATE 06/28/17 C	OMP. DATE 06/28/17	SURFACE WATER DEPTH N/A	DRILLER White, T.J.	START DATE 06/28/17	COMP. DATE 06/28/17	SURFACE WATER DEPTH N/A
ELEV DRIVE DEPTH BLOW COUN	T BLOWS PER FOOT	SAMP.	SOIL AND ROCK DESCRIPTION	ELEV DRIVE DEPTH BLOW COUNT	BLOWS PER FO	OT SAMP.	SOIL AND ROCK DESCRIPTION
(ft) ELEV (ft) 0.5ft 0.5ft 0	.5ft 0 25 50 75		ELEV. (ft) DEPTH (ft)	(ft) ELEV (ft) 0.5ft 0.5ft 0.5	5ft 0 25 50	75 100 NO. MOI G	SUL AND ROCK DESCRIPTION
5			4.5 GROUND SURFACE 0.0	-75	Match Line		
3.2 1.3		· · · ·	3.2 ROADWAY EMBANKMENT 1.3				GRAY, SILTY SAND WITH SHELL FRAGMENTS (continued)
	4	м	(PAVEMENT)	-77.9 82.4 9 12 14			
	$1 \downarrow^{\prime} \cdot \cdot \cdot \cdot \downarrow^{\prime} \cdot \cdot \cdot \cdot \cdot \cdot \downarrow^{\prime} \cdot \cdot$				• • • • • • • • • • • • • • • • • • •		
			- <u>1.5</u> 6.0_0.0_6.0_6				
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Sat.	GRAY, SILTY SAND		$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		
-7.9 12.4		· · · · ·		-87.9 92.4	$ \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot $		
-10 2 0		Sat.			2	Sat.	
			- <u>11.0</u>				
-12.9 + 17.4	$\frac{1}{3} \begin{vmatrix} v & \cdots & v \\ v & v & v \\ v & v & v \\ v & v & v$	· · · · · SS-6 129%	-14.2 18.7	-92.9 797.4 4 7 7	-		
-15			-14.2 18.7 GRAY, SILTY SAND	-95			
-17.9 22.4				-97.9 102.4		· · · · · ·	
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sat.			$\begin{array}{c c c c c c c c c c c c c c c c c c c $		
-20 -							
-22.9 27.4	<u> </u>			-102.9 107.4			
-25	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sat.		-105 8 9 20	0		
	1		-26.5 31.0				
-27.9 32.4	$- \left \begin{array}{c} I \\ I \\ I \\ I \end{array} \right \cdot \cdot \cdot \cdot \cdot \left \begin{array}{c} \cdot \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \end{array} \right \cdot \cdot \cdot \cdot \cdot \left \begin{array}{c} \cdot \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \cdot \end{array} \right $		GRAY, SILTY CLAY WITH SHELL	-107.9 112.4 7 5 1	$\frac{1}{1} \begin{vmatrix} \cdot \cdot \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \\ \cdot \cdot \\ \cdot \cdot \\ \cdot \cdot \end{vmatrix} \begin{vmatrix} \cdot \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \\ \cdot \cdot \cdot \end{vmatrix} \begin{vmatrix} \cdot \cdot \cdot \cdot \\ \cdot \cdot \cdot \\ \cdot \cdot \cdot \end{vmatrix}$		
30	• • • • • • • • • • • • • • • • • • • •		FRAGMENTS (YORKTOWN FORMATION)	-110 +	• • • • 16 • • • • • •		
-32.9 7 37.4			(,	-112.9 + 117.4			2- 3-
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		
-35				-115			
-37.9 42.4				-117.9 122.4			
	2 3				^U		119.4 123.9 Boring Terminated at Elevation -119.4 ft IN
							YORKTOWN FORMATION (SILTY SAND)
	3	· · · · · · · · · · · · · · · · · · ·					F
							F
-47.9 52.4			-46.5 GRAY, SILTY SAND WITH SHELL 51.0				F
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Sat.	FRAGMENTS				F
		····					F
	\mathbf{x}						t
	20	Sat.					Ł
			-56.5 GRAY, SANDY CLAY WITH SHELL 61.0				Ł
	7		GRAY, SANDY CLAY WITH SHELL FRAGMENTS				Ł
	· \		C4 E				F
			-61.5 GRAY, SILTY SAND WITH SHELL 66.0				F
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sat.	FRAGMENTS				F
							F
	<u> </u> · · · · · · · · · · · ·	· · · · ·					‡
		Sat.					<u>L</u>
							E
5 <u>-72.9 77.4</u> 7 10	15	Sat.					Ł
<u>z -75 T</u>							

																											-	
	17BP.					IP B-56					Y PERQU				GEOLOG	SIST Swartle	-			BS 17B					P B-5606		COUNT	
				DGE I					R RA									ROUND WTR (1	·				DGE			338 OVER	RACCO	
	NG NO.					TATION					OFFSET				ALIGNM			HR. N/		DRING N				_	TATION 1			OFFS
	AR ELE					OTAL DE					NORTHIN	,				3 2,745,963		HR. N/	_	OLLAR E						TH 97.1 f		NORT
				TE SI		3 CME-550				7					Iud Rotary			YPE Automatic					TE SI			88% 08/10/2		
							ATE				COMP. D					E WATER D	EPTH 7.3ft				- 1	1				E 06/28/1		
ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)		0.5ft	-	0	25	BLOWS	S PER 50		75 100	SAMP.	17		ELEV. (ft)	SOIL AND R	ROCK DESCRIF	TION DEPTH	(ft)		DEPTH	' 	OW CO 0.5ft	UNT 0.5ft	0		PER FOO ⁻ 50	T 75
-5		-													_				-8	5	+		+				h Line	
	-7.1 -	0.0	WOH	1	2								Sat.		7.1		JND SURFACE		0.0	-87.7	+ 80.6	6	12	12				· · · ·
-10	-	L				T									<u> </u>	GRAY	, SILTY SAND		-9	0	1		12	12		•24 · · ·		
	-12.7	5.6				<u> </u>		· · ·	: :	· · · ·										00.7	+ 85.6				: : : :		· · · ·	:
15		- 5.0	2	1	2	.		· · ·		· · · ·			Sat.		-						+ 00.0	7	15	25		· · · • 40	· · · ·	· · · ·
-15	_	-													-				-9	5	+					+\- \-	<u> </u>	
	-17.7	10.6	3	5	4	·\· · ·\· ·		· · ·		· · · ·					-					-97.7	<u>+ 90.6</u>	9	20	29		· · · · · ·		· · · ·
-20	-	-			.	. •9 .			• •				Sat.		-				-10	00	‡		20			· · · ·)	4 9	
	-22.7	15.6				<i> </i>		· · · · · ·		· · · ·					-					-102	+ 95.6					· / · · ·		· · · ·
-25	-22.1	- 13.0	1	1	1			· · · · · ·		· · · ·			Sat.		-					-102.		10	10	10		<u>20</u>		· · · · · ·
-23	-	-										-							9.0		‡				1			
	-27.7	20.6	1	1	1			· · · · · ·	· . 	· · · ·			w		-	GRAY, SANE	STAL PLAIN	HELL			‡				1			
-30	-	-							• •						-		AGMENTS	DN)			‡				1			
	-32.7	25.6						· · · · · ·	: :	· · · ·					<u>31.1</u>		Y CLAY WITH	HELL	<u>1.0</u>		ŧ				1			
-35		-	1	1	1		•••	· · · · · ·		· · · ·			w		-	FR	AGMENTS				‡				1			
-55	_	-																<u> 29</u>	9.0		ŧ				1			
	-37.7	30.6	1	2	2			· · · · · ·					w		-		AGMENTS	NELL			ŧ				1			
-40	-	-				♥ ⁴ · ·	•••	· · ·			+ • • • •				-						‡				1			
	-42.7	35.6				:::		· · · · · ·		· · · ·					-						ŧ				1			
-45	-	-	1	2	2] Ⅰ ¶ ● 4		· · · · · ·		· · · ·			w		-						‡				1			
	-	-				- \ -											SAND WITH		<u>9.0</u>		Ŧ				1			
	-47.7	40.6	4	6	9	: : \ `	15	· · · · · ·					Sat.		-	FR	AGMENTS				Ŧ				1			
-50	-	F					``		· ·						-						Ŧ				1			
	-52.7	- 5 45.6					: .	× · · ·							-						Ŧ				1			
-55	-	-	9	15	19			34	: :				Sat.		F						Ŧ				I			
	-	F					/					71		V	<u>-56.1</u>		Y CLAY WITH		<u>9.0</u>		Ŧ				1			
-60	-57.7	50.6	6	7	6		13	· · · · · · · · · · · · · · · · · · ·					w				AGMENTS				Ŧ				1			
-60	-	E					<u> </u>	· · · ·							- -61.1			5	1.0		Ŧ				I			
ک اد	-62.7	55.6					N		: :						 		SAND WITH S	HELL	·		Ŧ				I			
2 -65	-	E	9	9	14			3	: :				Sat.		E						Ŧ				I			
2	-	E										71			E						Ŧ				1			
	-67.7	60.6 [11	10	18			 28	. .	· · · ·			Sat.								Ŧ				1			
-70 -75	-	F					-/	· · · ·		· · · ·	+				<u> </u>						Ŧ				I			
	-72.7	65.6					:/			· · · ·											Ŧ				I			
-75	-	L	4	8	10		6 18				· · · ·		Sat.		-						Ŧ				I			
							Ì		. [-												Ŧ				I			
	77.7	70.6 	10	14	8			2	$\cdot \mid \cdot$				Sat.		L						Ŧ				1			
-80	_	F						<u></u>	<u> </u>						<u> </u>						\pm				I			
-80 -85 -85	-82.7	75.6	40					N		· · · ·					F						Ŧ				I			
-85	-		13	14	22			. •36					Sat.								Ŧ							
						•					•	•	•															

NT	PERQUI	MANS			GEOLOGIST Swartley,	J. R.		
:00	ON CREEK						GROUN	D WTR (ft)
	OFFSET 8	B ft LT			ALIGNMENT -L-		0 HR.	N/A
	NORTHING	8 891,4	67		EASTING 2,745,963		24 HR.	N/A
		DRILL N	IETHO	D Muc	d Rotary	HAMME	R TYPE	Automatic
	COMP. DA	TE 06/3	30/17		SURFACE WATER DEPT	TH 7.3	Bft	
от		SAMP.	$\left \right $	L	SOIL AND ROC			
	75 100	NO.	моі	G		IN DEGO		
		L	L					
· ·					GRAY, SILTY SA FRAGMENT	AND WIT S (conti	TH SHELL nued)	
· ·			Sat.					
	<u> </u>							
			Sat.	L				
•••								
•••			Sat.					
				F				
				Ē				
· ·		_	Sat.	Ē	-104.2 Roring Torminated at	t Elovati	n 104.24	97.1
				F	Boring Terminated a YORKTOWN FORM	ATION (SILTY SA	ND)
				F				
				I F				
				F				
				F				
				F				
				-				
				L				
				L				

										_		URI																				
		.1.PE.1					B-56					Y PEI		MANS				GEOLO	GIST Swa	rtley, J. R.	1			17BP					P B-560		COUN	
		RIPTION		IDGE						r Ra	4000										-	D WTR (ft)					DGE				ER RACCO	
BORI	NG NO	. B2-E	3				TION					OFFS	ET	8 ft RT				ALIGNM	ENT -L-		0 HR.	N/A		ING NO					TATION			OF
		EV 8							101.			NOR	HINC	3 891,4	115			EASTIN	G 2,746,0		24 HR.	N/A		LAR EL					OTAL DEF			NO
		MMER E	-	TE S							7			DRILL			Muc	d Rotary		HAMM	IER TYPE	Automatic					TE S		CME-550X			
		Vhite, T				STAI	rt da		06/27				P. DA	TE 06/				SURFAC	E WATER	DEPTH 7.	.8ft		DRIL	LER V		-			TART DAT			co
ELEV	DRIVE ELEV	DEPTH	BLO		_				BLOWS		R FOOT		400	SAMP.					SOIL ANI	O ROCK DES	CRIPTION		ELEV	DRIVE ELEV	DEPTH	·⊢					S PER FOO	
(ft)	(ft)	(ft)	0.5ft	0.5f	0.5f	t O)	25		50		75 I	100	NO.	/м	01 0	3	ELEV. (ft)				DEPTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft		25	50	75
-5	_	ł															┝						-85				├			Ma V	atch Line	- <u>-</u> -
	-8.1	Ŧ															F	-8.1	GR	OUND SURF	ACE	0.0		-87.8	+ + _{79.7}							
-10	-0.1	+ 0.0	WOH	WOF	I WOF	HÌ∳o)					• • •			Sat	t.	-			ALLUVIAL			-90		-	13	14	16		30	· · · · ·	
	-	ŧ															-		GRAT, S	ILTY SAND A	IND SAND			-	ŧ							
ŀ	-12.7	<u>† 4.6</u>	 woн	WOH	1 WOH	ਜੀ	· · ·	:	· · · · · ·	. .	· · · ·				Sat									-92.8	+ <u>84.7</u>	12	9	12				
-15	_	‡				- I P	J 	•		• •	· · · ·		•••				-	40.4					-95	-	‡	-	-				· · · · ·	· ·
	-17.7	+ + _{9.6}					· · · · · ·	:	· · · · · ·	: :	· · · ·		· · · ·			000	••• • •	-16.1				8.0		-97.8	+ - - 89.7					NI I I		: :
-20		‡	WOH	WOF	1 1	┨┡	1	:	· · · · · ·	· ·	· · · ·				Sat	t. 00							100	-97.0	+ ^{09.7}	10	11	20		 •31 .	· · · · ·	: :
-20	-	ŧ				ļ										0000	<u> </u>	-21.1				13.0	-100	-	ŧ							
ŀ	-22.7	14.6	3	2	1	-	· · ·	:	· · ·	: :	 													-102.8	94.7	6	5	9			· · · · ·	· · ·
-25	_	‡		_			3	•		• •			•••		Sat		Ŀ						-105	-	‡	ľ	Ŭ	Ŭ	. • • 14		· · · ·	• •
	07.0	+ 40 7					 	:	· · · · · ·	: :	 		· · · ·				3	-26.1		OASTAL PLA		<u> </u>		407.0	+				`		: : : :	
	-27.8	<u> </u>	1	2	1	┤╎	3	:	· · ·	: :					w				GRAY, SI	LTY CLAY WI	ITH SHELL S			-107.8	1 99.7 1	10	14	15		• • • • • • • • • • • • • • • • • • •		: :
-30	-	ŧ				H				. – .							ӡ		(YORK	TOWN FORM	(ATION)			-	ŧ							
	-32.8	24.7				_ ¦	· · ·	:	· · ·	: :	 						3								ŧ							
-35		ŧ	1				2	•		· ·					W		Ł							_	ŧ							
	•	ŧ						:		: :			· ·				£								ŧ				i i			
F	-37.8	<u> 29.7</u> 	1	2	3	-		:							l w		ł								ŧ							
-40	-	ŧ					<u> </u>	-		-							ł							-	Ŧ				i i			
	-42.8	34.7					• • •										E								Ŧ				i i			
-45		Ŧ	1	2	2	•	4.			. .					W		F								Ŧ				i i			
		Ŧ					.\											-46.1			ITH SHELL	<u> </u>			Ŧ							
ŀ	-47.8	<u>† 39.7</u>	3	5	8	-			· · ·						Sat		F		0.01,0	FRAGMENTS	3				Ŧ				i i			
-50	-	Ŧ						,. ►		· ·							F							-	Ŧ				i i			
	-52.8	+ + 44.7						.]`		. .	· · · · · · · · · ·				1		F								Ŧ				1			
-55		Ŧ	12	21	21		· · ·	:			· · · · ·				Sat	i.	F								Ŧ				1			
	-	Ŧ						•		. .						Ň	÷	- <u>56.1</u>				<u> </u>			Ŧ							
+	-57.8	+ 49.7	4	5	6	-	· · · ·	/			 			SS-5	l w					FRAGMENTS					Ŧ				i i			
-60	-	Ŧ													1		7	-61.1				53.0		-	Ŧ							
-60 -65 -70 -75	-62.8	† † 54.7						×.		. .								<u> </u>		TY SAND W		00.0			Ŧ				i i			
-65		+	11	14	16		· · · · · ·	:]	• 30 .	. .					Sat	t.	-			FRAGINIENTS	5				ŧ				i i			
	-	Ŧ							$\frac{1}{1}$								F							-	ŧ							
ŀ	-67.8	59.7	9	15	17		· · · · · ·		j.:		· · · ·				Set		-								ŧ							
-70	_	‡							•32 ·		· · · ·		•••		Sat		-							-	‡							
	72.8	+ + - 64.7					· · ·	:	<u> </u>	: :	· · · ·		· · · ·				-								ŧ				i i			
-75	-12.0	+ "	10	12	16		 	:	 28	: :	 				Sat	t.	+								‡				1			
-75	-	‡						- ¦		. .														-	‡							
ļ	-77.8	<u>+ 69.7</u>	6	11	13		 	:1	· · ·	: :	 		· · ·												‡				I			
-80	_	‡						· 🛉 2	4	· ·					Sat	[.	ł							-	‡				1			
		‡					 	<i>;</i>	· · ·	: :			· ·												‡							
	-82.8	<u> </u>	6	8	10		· · ·	/ . 18	· · ·	: :	 				Sat	t.									‡				I			
-85		L		1				<u>`</u>						1	I		ಿಂೆ										1					

NT	Y PERQUIN	MANS			GEOLOGIST Swartley,	J. R.		
:00	ON CREEK						GROUN	D WTR (ft)
	OFFSET 8	ft RT			ALIGNMENT -L-		0 HR.	N/A
	NORTHING	891,4	15		EASTING 2,746,025		24 HR.	N/A
			IETHO	D Mu	d Rotary	HAMME	ER TYPE	Automatic
	COMP. DAT				SURFACE WATER DEP	TH 7.8	Bft	
ОТ		SAMP.	/	L	1			
	75 100	NO.	моі	O G	SOIL AND ROC	K DESU	RIPTION	
•••					GRAY, SILTY S	AND WI⊺ ΓS <i>(conti</i>	TH SHELL (nued)	
•••			Sat.				,	
	<u> </u>							
			Sat.	Ŀ				
				E				
			Sat.	F				
	+			F				
•••			Sat.	F				
				F				
			Sat.	F	-109.3			101.2
	• • • •			-	Boring Terminated a YORKTOWN FORM	t Elevation	on -109.3 1	ft IN
				F			SILITSA	ND)
				F				
				F				
				-				
				-				
				-				
				E				

WBS	17BP	.1.PE.1			T	TIP B	8-5606		C	COUNT	Y PER	QUIN	IANS			GEOLOG	IST Swartley, J. R.			WBS	1 7BP	.1.PE.1			ТІ	P B-5606	6	COUN	ITY PE
SITE	DESCR	RIPTION	BR	DGE	NO. 1	1 ON	SR 13	38 OV	ER R	ACCO	ON CRE	EK						GROUN	D WTR (ft)	SITE	DESCF	RIPTION	BRI	DGE N	NO. 11	ON SR 1	338 OVEI	RACCO	DON CR
BOR	ING NO	. EB2-	A		s	STATI	ON 1	7+74			OFFSE	T 9	ft LT			ALIGNME	NT -L-	0 HR.	N/A	BOR	ING NO	. EB2-	-A		ST	TATION 1	7+74		OFFS
COL	LAR ELI	EV. 4.	8 ft		Т	OTAL	_ DEP1	FH 10	9.2 ft		NORT	HING	891,4	414		EASTING	2,746,064	24 HR.	4.1	COL	LAR EL	EV. 4.	8 ft		т	OTAL DEP	TH 109.	2 ft	NOR
DRILL	RIG/HA	MMER E	FF./DA	TE S	ME956	3 CME	E-550X	88% 08	/10/201	17			DRILL I	METH	IOD N	lud Rotary	HAMN	ER TYPE	Automatic	DRIL	L RIG/HA	MMER E	FF./DA	TE SN	/IE9563	CME-550X	88% 08/10)/2017	
DRIL	LER V	Vhite, T	.J.		s	START		06/2	26/17		COMP	DAT	E 06/	/26/1	7	SURFAC	E WATER DEPTH N	/A		DRIL	LER V	Vhite, T	.J.		ST	FART DAT	E 06/26	/17	СОМ
ELEV	DRIVE ELEV	DEPTH	BLC	ow co	UNT			BLOV	VS PE	R FOOT			SAMP.			•	SOIL AND ROCK DES			ELEV	DRIVE ELEV	DEPTH	BLC	W COL	JNT		BLOWS	6 PER FOC	TC
(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	2	25	50		75 I	100	NO.	Им		ELEV. (ft)			DEPTH (ft)	(ft)	(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	25	50	75
5		L														4.8	GROUND SURF		0.0	-75							Mat	tch Line	
	3.8	1.0	11	8	8	- :			•••					м		_ 3.8	ROADWAY EMBAN (PAVEMENT		1.0			Ł				: : : :			: .
	0.8	4.0										••					TAN, SILTY SA				-77.9	82.7	8	12	13		25		
0	-		3	2	2	│						_							6.0	-80		ł					N		
	-2.9	Ŧ 7.7] į:										-	TAN, SILTY SAND AN	- — — — — — JD SAND			-82.9	87.7					X · · ·		
-5		Ŧ	1	1	1	•2	· · · ·							Sat	t.	-	TAN, OLT TOAND A			-85		Ŧ	9	14	21		35		
	-	Ŧ													0000	-6.2			11.0		-	ŧ					1		
	-7.9	12.7	WOH	1	1		· · · ·			· · · · ·			SS-1	_ Sat	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-					-87.9	92.7	6	11	11				· · · ·
-10		‡				P ²		· ·	•••	· · · ·					L. 0000 0000 0000	-			16.0	-90		‡							· · · ·
	120	+ + 17.7				i:	· · · · · ·			· · · · ·					0000	11.2 -			16.0		02.0	+ 97.7							
-15	- 12.9	+ ''.'_	1	1	2	- . ∮ 3	· · · · · ·		· ·	· · · · ·				Sat	t.	-				-95	-92.9	- <i>3/./</i>	6	22	25			• • • • • • • • • •	· · · ·
-15	-	ŧ						1								-				-90	-	ŧ							
	-17.9	22.7	2	2	4	1 j	· · · · · ·	· · · ·		· · · · ·						-					-97.9	102.7	7	6	12			· · · · · · · ·	· · · ·
-20		t		2	4		6	· ·	• •		• • •	•		Sat	t.	-				-100		ŧ.	'	0	12	· · ·••(1	8	· · · ·	
		t				<u> </u>	· · ·			· · · ·						<u>-21.2</u>	COASTAL PLA	<u>м</u> — — — — —	<u></u>			<u>+</u>							· · · ·
	-22.9	<u> </u>	WOH	1	1		· · ·	· ·					SS-2	48%	6	-	GRAY, SANDY SILT W FRAGMENTS	ITH SHELL			-102.9	107.7 [9	14	25)	· · · ·
-25	-	ŧ				I I.		+						1							-	t					- -	<u> </u>	
	-27.9	32.7										•				-						Ŧ							
-30		Ŧ	1	1	2	●3								W		-						Ŧ							
	-	Ŧ				1										<u>31.2</u>	GRAY, SILTY CLAY W		<u> </u>		-	Ŧ							
	-32.9	37.7	1	1	1		· · ·						SS-3	56%		-	FRAGMENTS					Ŧ							
-35	-	Ŧ					· · ·	· ·								-					-	Ŧ							
	-37 9	42.7				i.	· · ·			· · · · ·						-						ŧ							
-40		+	1	2	1	- . ∳3	· · · · · ·			· · · · · · · ·				w		-						ŧ							
10	-	ŧ														-					-	ŧ							
	-42.9	47.7	1	2	2	- ¦:	· · ·			· · · · ·						-						‡							
-45	· -	‡					•••••	· ·	• •	· · · ·		•		w							-	‡							
	470	+ 52.7				:	х 			· · · · ·						<u> </u>	GRAY, SILTY SAND W	ITH SHELL	<u> </u>			‡							
50	-47.9	+ ^{52.7}	5	5	15	11:	· ·∖. · · Q 2	20		· · · · ·				Sat	t.	-	FRAGMENTS	6				‡							
-50	-	ŧ					· · · ·									-					-	ŧ							
	-52.9	57.7	10	21	23	:	· · ·			· · · ·						-						ŧ							
-55		t	18	21	23			· ·	• • • • • • • • • • • • • • • • • • • •			•	SS-4	Sat	t.	-					-	ŧ.							
		t					· · ·	1.				•				<u>56.2</u>	GRAY, SANDY CLAY W	ITH SHELL	<u>61.0</u>			ŧ							
	-57.9	<u> 62.7 </u>	5	7	9			1::						w		-	FRAGMENTS					t							
-60	-	ŧ						+			+	_							<u>66.0</u>		-	ŧ							
	-62.9	67.7							· ·								GRAY, SILTY SAND W FRAGMENTS	ITH SHELL				ŧ							
-65		Ī	9	13	18		· · ·	9 31						Sat	t.	-		•				Í							
	-	Ŧ						1								F					-	Ŧ							
	-67.9	72.7	7	8	11		· · · /			· · · · ·				Sat		-						Ŧ							
-70	-	‡					· · • • • • •	9	•••	· · · ·				Sat		-						ŧ							
	72 0	+				:	$\cdot \cdot \cdot \cdot$			· · · · ·						-						‡							
7-	-12.9	‡ <i>''`'</i>	10	11	15	11:	· · ·	• · ·	· ·	· · · ·				Sat	t.	-						‡							
-50 -55 -60 -65 -70		1			1								I	1								L	I						

ΥT	PERQUI	MANS			GEOLOGIST	Swartley, J. R.		
00	ON CREEK						GROUN	D WTR (ft)
	OFFSET 9	9 ft LT			ALIGNMENT	-L-	0 HR.	N/A
	NORTHING	891,4	14		EASTING 2,	746,064	24 HR.	4.1
		DRILL N	IETHO	D Mu	d Rotary	НАММ	ER TYPE	Automatic
	COMP. DA	TE 06/2	26/17		SURFACE WA	ATER DEPTH N/	A	
ОТ		SAMP.		L O	SO	IL AND ROCK DESC	RIPTION	
	75 100	NO.	моі					
		L				AY, SILTY SAND WI		
: :				+	GR	FRAGMENTS (cont	inued)	
· ·			Sat.	-				
				-				
· ·			Sat.					
			Sal.	Ē				
				F				
· ·			Sat.	F				
				-				
			Sat.	ļ				
			out.	_				
				F				
•••			Sat.	F				
				E				
			Sat.	E	-104.4			109.2
	-11				Boring	Ferminated at Elevati OWN FORMATION	on -104.4 f	
				E	TORICI			(0)
				E				
				-				
				F				
				F				
				F				
				F				
				E				
				E				
				[



SUMMARY OF LABORATOTY TEST DATA

Soil Classification and Gradation

				G A				~				~		-			Quality	Assurance	2
					ME, Inc. Rale	igh, 32(01 Sprir	ng Fores	st Road,	Raleigh	h, North	Carolin	na 2761		2		= 101		
	Project #:			6235-17-006				~							Report			7/2017	
	ject No.:			17BP.1.PE.1	l			County		Perquir				Date	Tested		7/17 -	7/28/17	
Federal I				N/A				TIP No	0.:	B-5606	5								
Project N					on SR 1338 over				A 11		D 1 1 1	NG							
Client Na	ame:				gineers and Cor	isultant		Client A			Raleigh		г /	$\langle 0 \rangle$					1
G 1	G ,			Sample	AASHTO		Tot	al % Pas	U			Mortar	Fractio	n (%)		DI	DI	Organic	
Sample	Station #:	Offert	A 1:	Depth	Classification	10	40	Sieve #	200	270	Coarse	Fine Sand	Silt	Class	LL	PL	PI	Content %	
No.			Alignment	. ,							Sand			Clay	10	0	ND	1	%
SS-1	17+74	9' LT	L	12.7 - 14.2		99	97	72	10.0	8.1	27	65	4	4	19	0	N.P.	ND	ND
SS-2	17+74	9' LT	L	27.7 - 29.2	A-4 (3)	93	87	86	53.5	39.9	7	50	21	22	36	26	10	ND	48.0
SS-3	17+74	9' LT	L	37.7 - 39.2	A-7-6 (5)	90	86	84	52.3	39.9	7	49	20	24	41	28	13	ND	55.
SS-4	17+74	9' LT	L	57.7 - 59.2	A-2-4 (0)	89	71	54	11.6	10.2	39	50	4	7	21	0	N.P.	ND	ND
SS-5	17+39	8' RT	L	49.7 - 51.2	A-7-6 (8)	99	89	69	51.4	48.4	30	21	22	27	42	20	22	ND	ND
SS-6	16+24	9' RT	L	17.4 - 18.7	A-2-5 (0)	89	83	78	31.0	29.0	12	55	22	11	53	48	5	20.5	129.
SS-7	16+24	9' RT	L	47.4 - 48.9	A-7-6 (7)	91	84	82	55.4	45.3	10	40	24	26	44	28	16	ND	49.3
•	s / Commen			ND=Not Deten															
			-	as Modified by t							etermining	÷							
				2 Plasticity Inde		1 0		D		O T265: I	Laboratory	Determin	ation of N	Moisture C	Content of	Soils			
AASHTO	M145: The	Classificat	tion of Soils an	d Soil Aggregat	te Mixtures for Hig	hway Co		1 Purposes											
		Mal	Krajan, ET		e v	E		5	04-01-07	/03		Jarett S	wartlev			Pro	ject Ma	nager	
			nician Name:			Signatur	е		Certification		Te	chnical Re	-	'v:		110	Position	-	
					This report shal	ll not be re	produced,	except in fu	ıll, without	the written			•	~					

Quality Assurance

SITE PHOTOGRAPH

Bridge No. 11 on -L- (SR 1338) over Raccoon Creek



SHEET 10 B-5606 Perquimans Co.