

SUBSURFACE EXPLORATION NOTES

1. EXPLORATION WAS PERFORMED DURING
2. AUGER BORINGS (AB) WERE MADE WITH A HAND AUGER.
3. AUGER BORINGS (AB) WERE MADE WITH A POWER AUGER USING A 100mm, 150mm & 200mm SPIRAL BIT.
4. DRILL HOLES (DH) WERE ACCOMPLISHED BY STANDARD PENETRATION TEST PROCEDURE (SPT) USING A 34.9mm ID SPLIT SPOON SAMPLER. SAMPLE SPOONS WERE ADVANCED BY A 63.5kg HAMMER FALLING 760mm. THESE HOLES WERE POWER AUGERED BETWEEN SAMPLES UNLESS OTHERWISE INDICATED. BLOW COUNTS SHOWN ARE FOR 150mm OF DRIVE UNLESS OTHERWISE INDICATED.

P - DENOTES PRESSED SHELBY TUBE SAMPLE

ROCK WAS CORED WITH AN SERIES CORE BIT.

TWR - TOP OF WEATHERED ROCK

RB - HOLE WAS ADVANCED BY ROCK BIT

HA - HAND AUGER

WH - WEIGHT OF HAMMER

5. BLOW COUNTS REQUIRED TO ADVANCE SAMPLE ARE SHOWN IN COLUMN (a), EXCEPT PERCENT CORE RECOVERY WHICH IS INDICATED WHERE ROCK WAS CORED.
7. COLUMN (b) SHOWS THE NATURAL WATER CONTENTS IN PER CENT OF DRY WEIGHT OF THOSE SAMPLES TESTED AND PERCENT RQD WHERE ROCK WAS CORED. RQD (ROCK QUALITY DESIGNATION IS A MODIFIED CORE RECOVERY PERCENTAGE IN WHICH ALL THE PIECES OF SOUND CORE OVER 4-INCHES (100-MM) LONG ARE SUMMED AND DIVIDED BY THE LENGTH OF THE CORE RUN. THE RQD IS AN INDEX OF ROCK QUALITY IN THAT PROBLEMATIC ROCK THAT IS HIGHLY WEATHERED, SOFT, FRACTURED, SHEARED, AND JOINTED IS COUNTED AGAINST THE ROCK MASS. THUS, IT IS SIMPLY A MEASUREMENT OF THE PERCENTAGE OF "GOOD" ROCK RECOVERED FROM AN INTERVAL OF A BOREHOLE (REFERENCE: STAGG, K.G. AND ZIENKIEWICZ, O.C., (1968), ROCK MECHANICS IN ENGINEERING PRACTICE, WILEY, N.Y., 442 PP.)

8. DEPTHS BELOW GROUND AND SOIL DESCRIPTIONS ARE SHOWN IN COLUMN (c).
9. SOIL DESCRIPTIONS ARE LABORATORY CLASSIFICATIONS BASED ON THE UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487/2488), EXCEPT THOSE INDICATED THUS (**), WHICH ARE FIELD INSPECTOR'S CLASSIFICATIONS. SOIL CLASSIFICATIONS SHOWN IN BRACKETS [] ARE BASED ON THE U.S. DEPARTMENT OF AGRICULTURE TRIANGULAR TEXTURAL CLASSIFICATION CHART.

THE ORGANIC TEST (ASTM D2974, METHOD "C"; OR LOSS ON IGNITION TEST (LOI) (ASSHTO-T-267) WAS USED TO EVALUATE AND DESCRIBE THE ORGANIC CONTENT OF SOILS FOR DESIGN AND CONSTRUCTION AS FOLLOWS:

<u>LOI</u>	<u>SOIL DESCRIPTION</u>
<12	INORGANIC
12 TO 24	ORGANIC
25 TO 60	VERY ORGANIC
>60	PEAT (Pt)

10. THE ROCK COLORS WITH LETTER/NUMBER DESIGNATION ARE IN ACCORDANCE WITH THE "ROCK COLOR CHART" DISTRIBUTED BY THE GEOLOGICAL SOCIETY OF AMERICA. THESE COLORS GIVEN ARE WHEN CORE IS WET.

ROCK CORE LOGGING ARE BASED ON GUIDLINES PROVIDED BY HQUSACE, AEG(S. AFRICA SECTION), AND SUPPLEMENTAL CRITERIA PROVIDED BY USACE - BALTIMORE DISTRICT.

11. BORINGS THRU WERE MONITORED WITH A COMBUSTIBLE GAS INDICATOR (CGI) WITH OXYGEN METER, AND EACH SAMPLE WAS SCREENED WITH A HNu METER. UNLESS OTHERWISE INDICATED, NO MEASUREABLE READINGS ABOVE BACKGROUND WERE OBTAINED IN THE FIELD.
12. GROUNDWATER DEPTHS ARE INDICATED ON THE LOGS AS \tilde{N} , \tilde{N} & \tilde{N} , AND ARE SHOWN IN COLUMN (d). PERTINENT DATA FOR THESE READINGS ARE SHOWN AT THE BOTTOM OF LOG UNDER GROUNDWATER DATA OR ADDITIONAL GROUNDWATER DATA. THE ACTUAL GROUNDWATER LEVEL MAY VARY DEPENDING UPON SEASONS AND AMOUNT OF RAINFALL.

NE - INDICATES GROUNDWATER NOT ENCOUNTERED

NT - INDICATES READING NOT TAKEN

13. ELEVATIONS SHOWN ON THE BORING LOGS ARE GROUND SURFACE ELEVATIONS AT THE TIME OF EXPLORATION. THEY WERE DETERMINED BY SURVEY BY ESTIMATION FROM TOPOGRAPHIC CONTOUR MAPS AND ARE DESIGNATED (\pm).
14. TEST PITS ARE DENOTED TP.
15. FOR LOCATIONS OF SUBSURFACE EXPLORATIONS SEE BORING LOCATION PLAN.