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TO:	CHRIS HENSLEY	DATE:	5/11/05
FIRM:	TVA	SUBJECT:	FIELD BORING LOG for NB-77.
FAX:	1-423-751-7094		
TEL:			
# PAGES:	2 + this cover sheet		
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FROM:	MACTEC	COMMENTS:	
OFF/DEPT:	Knoxville		
FAX:	865-588-8026		
TEL:	865-588-8544		
HARDCOPY:			
ADDRESS:	1725 Louisville Drive		
	Knoxville, TN 37921		

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# MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. NB-77 PG. 1 OF 2

RIG TYPE CME 550 HAMMER TYPE AUTO

BORING NO. 3043051021 DRILLER M. Burnett HOURS DRILLING \_\_\_\_\_ GROUND SURFACE ELEV. \_\_\_\_\_  
JOB NAME TVA KINGSTON LOGGED BY J. Mason HOURS MOVING \_\_\_\_\_ DATE: 5/10/05 WEATHER: \_\_\_\_\_

No. Log	Blows	Penetration	Soil Description
1 9/1.5 14:01	4 4 5	1.2	0.0 to 0.45 ft.: Topsoil 0.45 to 1.2 ft.: S&A 54R516 yellowish red, very silty CLAY. Dry to slightly moist.
2 4/5.5 14:06	2 5 7	0.6	Stiff, mottled (54R516 yellowish red, 2.5' 6/6 olive yellow) slightly clayey, sandy to gravelly, SILT. Coarse elastic matl. ranges from coarse sand to coarse gravel. Slightly moist.
3 9/10.5 14:12	5 5 5	1.3	9.0 to 9.7 ft.: S&A 54R516 yellowish red, slightly clayey, sandy SILT. Slightly moist. 9.7 to 10.3 ft.: Stiff, 104R618 brownish yellow, very silty CLAY, with about 20% of sample comprised of white, very severely weathered chert fragments. Slightly moist.
Auger reduced solidity @ 13.0'. Rig pulled forward approx. 5' in order to sample deeper.			
4 4/15.5 14:47	3 5 5	1.5	S&A, 104R518 yellowish brown to 104R516 very dark gray, very silty CLAY with 1 mm to 3 cm white to buff weathered chert throughout. Slightly moist.
5 13/20.5 14:53	4 4 4	1.1	12.0 to 12.5 ft.: Same as above, except from 12.5 to 20.1 ft.: F&C, 7.54R518 strong brown, gravelly, very silty CLAY. Fine to medium angular quartz gravel. One gravel fragment (1cm) had a subround appearance. Moist.

\*STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 8" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 167.6'  
 BORING REFUSAL: 32.3'  
 WATER TOB DEPTH \_\_\_\_\_  
 WATER 24 HR.: DEPTH \_\_\_\_\_  
 WATER LOSSES \_\_\_\_\_  
 CAVE-IN DEPTHS \_\_\_\_\_  
 CASING: SIZE \_\_\_\_\_ LENGTH \_\_\_\_\_  
 STANDBY TIME \_\_\_\_\_ BORING LAYOUT \_\_\_\_\_

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	TO _____
HAND SHOP: W/MUD: W/WATER	TO _____
ROTARY DRILL: W/MUD: W/WATER	TO _____
DIAMOND CORE	TO _____
CORE SIZE	TO _____
UNDISTURBED SAMPLES NO. _____ SIZE _____	
BAG SAMPLES NO. _____	



SOIL TEST BORING FIELD REPORT

BORING NO. NE-77

PG. 2 OF 2

RIG TYPE COMET 550 HAMMER TYPE AUTO

OB NO. 3043051021

DRILLER M. Burnett

HOURS DRILLING \_\_\_\_\_

GROUND SURFACE ELEV \_\_\_\_\_

OB NAME TVA KINGSTON

LOGGED BY L. Mason

HOURS MOVING \_\_\_\_\_

DATE 6/10/05 WEATHER \_\_\_\_\_

DEPTH (ft)	NO. SAMPLES	TESTS	DESCRIPTION
6.25 to 15.00	3, 2, 3	A9	Firm, 7.5% to 5.8 strong brown, very silty clay with 1 mm to 2 mm angular gtz gravel throughout (about 7%) Moist.
7.25 to 15.07	2, 3, 9	A9	Same as above except stiff, gravel size and content increase with depth.

Auger refusal @ approximately 32.3 feet. Drillers prepared install the casing to 36.3 ft.

31.32 to 64.53 ft: **DOLOMITE**. 542611 light brownish gray to brownish gray, with an often mottled appearance. Fine grained. Dolomite may tend to be cherty. Recovered core is indurated. Distinct bedding features were not observed. Weathering ranges from slight (recovered core) to complete (voids as denoted below). Recovered rock is hard. The dolomite is extremely fractured throughout and most fractures are healed with white dolomite. There appear to be two prevailing sets of fractures: one set at from 5° to 10° apparent dip, with an average spacing of one foot, and a second set that dips from about 30° to 40°, and is roughly orthogonal to the first.

44.3 to 50.93 ft: Cavity.  
58.5 to 63.3 ft: Cavity.

• Run 1 from 31.32 to 39.53 ft; ran 8.21 ft, recovered 9.21 ft. (100%)  
RQD = 7.05/8.21 = 86%. Run time: 17:50 - 18:30

• Run 2 from 39.53 to 49.53 ft; ran 10.0 ft, recovered 4.2 ft. (42%)  
3.9/10.0 = 39%. Run time: 10:57 - 11:21.

• Run 3 from 49.53 to 59.53 ft; ran 10.0 ft, recovered 5.81 ft. (58%)  
4.4/10.0 = 44%. Run time: 12:00 - 12:16

• Run 4 from 59.53 to 64.53 ft; ran 5.0 ft, recovered 0. RQD = 0. Run time: 12:40 - 12:45.

BORING TERMINATED: 64.5'  
 BORING REFUSAL: 32.3' (Auger refusal)  
 WATER TOB DEPTH \_\_\_\_\_  
 WATER 24 HR.: DEPTH \_\_\_\_\_  
 WATER LOSSES \_\_\_\_\_  
 DIVE-IN DEPTHS \_\_\_\_\_  
 CASING: SIZE \_\_\_\_\_ LENGTH \_\_\_\_\_  
 STANDBY TIME \_\_\_\_\_ BORING LAYOUT \_\_\_\_\_

METHOD OF ADVANCING BORING

POWER AUGER	_____
HAND SHOP: W/MUD: W/WATER	_____
ROTARY DRILL: W/MUD: W/WATER	_____
DIAMOND CORE	_____
CORE SIZE	_____
UNDISTURBED SAMPLES	NO _____ SIZE _____
BAG SAMPLES	NO _____

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