



MACTEC, Inc.
 MACTEC Engineering and Consulting
 MACTEC Development

Urgent, please hand deliver For Review / Comment Please Reply

TO:	Chris Hensley	DATE:	5/25/05
FIRM:	TVA	SUBJECT:	Field Borin Logs for Kingston Gypsum Stack NB-2, NB-21, NB-24, NB-39 and NB-41
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# PAGES:	5 + this cover sheet		
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MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. NB-2 PG. 1 OF 1

JOB NO. 3043051021 DRILLER J. BAILEY HOURS DRILLING _____ GROUND SURFACE ELEV. _____

JOB NAME TVA KINGSTON LOGGED BY C. LAWSON HOURS MOVING _____ DATE: 5/24 WEATHER: SUNNY

No. Depth	SAMPLING (SCALE)			SOIL DESCRIPTION	REMARKS
	1" S	2" S	3" S		
1 0-1.5	4	5	6	1.5' GRAVEL - 0.3' RD/TN/OR, SI. MOIST, SA, S: CLAY STIFF	CHERT - RES.
2 1.5-6.5	2	5	5	1.5' STIFF, RD/BR, MOIST, SA, S: CLAY	CHERT + SMOOTH STONE - RES.
3 10-11.5	3	5	7	1.5' STIFF, BR/AD, MOIST, SI. CLAY - RES (CH)	BLK OXD. STAINING
4 15-16.5	2	6	6	1.5' STIFF, TN/YL, MOIST, SI. CLAY	BLK OXD. STAINING - RES (CH)
5 20-21.5	50%			0.2' V. HARD, RD/BR, MOIST, SA SI. CLAY	ROCK FRAG. - RES.
6 25-26.5				A.R. @ 20.2'	

STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 8" AND 3RD 6" TO DRIVE 1.38" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 20.2'

BORING REFUSAL: 20.2'

WATER TOB DEPTH: NOT ENCOUNTERED

WATER 24 HR.: DEPTH: _____

SEEP LOSSES: _____

CAVE-IN DEPTHS: _____

CASING: SIZE _____ LENGTH _____

STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING		DEPTH
POWER AUGER	<u>3 1/4"</u>	<u>0</u> TO <u>20.2'</u>
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 <u>1</u> , <u>7-10'</u>	

MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. NG-21 PG. 1 OF 1

JOB NO. 3043051021 DRILLER J. BAILEY

RIG TYPE ATV HAMMER TYPE AUTO

JOB NAME TVA-KINGSTON LOGGED BY C. LAWSON

HOURS DRILLING _____ GROUND SURFACE ELEV. _____

HOURS MOVING _____ DATE: 5/25 WEATHER: P. CLOUDY

Depth	SAMPLING			SCALE	WD	RES	SOIL CLASSIFICATION	REMARKS
	NO	TIME	TYPE					
							ATTEMPT 7 SHELBY TUBES AT FOLLOWING INTERVALS AS REQUESTED BY PARSONS DURING TELEPHONE CONVERSATION ON 5-25-05 WITH GREG McNULTY OF PARSONS AND CHAD LAWSON OF MACTEC: 15-17, 18-20, 21-23, 30-32, 33-35, 36-38, 39-41	
							AUGER TO 15', BEGIN SHELBY TUBE SAMPLES.	
1	15-17	→	1	15 17	2.25'	PUSH 2.0'		
2	18-20	→	2	18 20	2.30'	PUSH 2.0' WATER @ 18.0'		
3	21-23	→	3	21 23	2.05'	PUSH 2.0'		
4	30-32	→	3	30 32	2.0'	PUSH 2.0'		
5	33-35	→	3	33 35	2.30'	PUSH 2.0'		
6	36-38	→	3	36 38	2.30'	PUSH 2.0'		
7	39-41	→	4	39 41	2.30'	PUSH 2.0'		

+STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-36" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 41.0'
BORING REFUSAL: 41.0'
WATER TOB DEPTH: 18.0'
WATER 24 HR.: DEPTH _____
WATER LOSSES _____
CAVE-IN DEPTHS _____
CASING: SIZE _____ LENGTH _____
STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING		DEPTH
POWER AUGER	<u>3 1/4"</u>	0 TO <u>41.0'</u>
HAND SHOP: W/MUD: W/WATER		TO _____
ROTARY DRILL: W/MUD: W/WATER		TO _____
DIAMOND CORE		TO _____
CORE SIZE		TO _____
UNDISTURBED SAMPLES	NO <u>7</u> SIZE <u>3"</u>	
BAG SAMPLES	NO _____	

MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. NB-24 PG. 1 OF 1

JOB NO. 3043051021 DRILLER J. BAILEY

RIG TYPE ATV HAMMER TYPE AUTO

JOB NAME TVA-KINSTON LOGGED BY C. LAWSON

HOURS DRILLING _____ GROUND SURFACE ELEV. _____

HOURS MOVING _____ DATE: 5/24 WEATHER: SUNNY

No. Depth	SAMPLING			SCALE	UD	REC	SPCL OBSERVATION	REMARKS
	1	2	3					
0 0-1.5	1	1	3				SOFT 1.0' TOPSOIL - 0.5' RD/BR, SL. MOIST, S. CLAY CHERT - RES.	
1 5-6.5	5	10	13				1.5' U. STIFF, RD/BR, SL. MOIST, S. CLAY CHERT - RES.	
1.01 9-10							0.8' PUSH 0.8', STOPPED, PULLED	
2 15-16.5							AR @ 12.5'	
2.02 19-21								
3 25-26.5								
3.03 26.5-28.5								
4 31.5-33.5								
4.04 33.5-36.5								

STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND, 6" AND 3RD 6" AND 3RD 6" TO DRIVE 1-38" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 12.5'
 BORING REFUSAL: 12.5'
 WATER TOB DEPTH NOT ENCOUNTERED
 WATER 24 HR.: DEPTH _____
 WATER LOSSES _____
 CAVE-IN DEPTHS _____
 CASING: SIZE _____ LENGTH _____
 STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER <u>3 1/4"</u>	<u>0</u> TO <u>12.5'</u>
HAND SHOP: W/MUD: W/WATER	_____ TO _____
ROTARY DRILL: W/MUD: W/WATER	_____ TO _____
DIAMOND CORE	_____ TO _____
CORE SIZE	_____ TO _____
UNDISTURBED SAMPLES NO. <u>1</u> SIZE <u>3"</u>	
BAG SAMPLES NO. _____	

MACTEC SOIL TEST BORING FIELD REPORT

BORING NO. NB-39 PG. 1 OF 1





JOB NO. 3043051021 DRILLER J. BAILEY

RIG TYPE ATV HAMMER TYPE AUTO

JOB NAME TVA-KINGSTON LOGGED BY C. LAWSON

HOURS DRILLING _____ GROUND SURFACE ELEV. _____

HOURS MOVING _____ DATE: 5/23 WEATHER: P. CLOUDY

No. Depth	SAMPLING			SPECIES	OD	PCD	SOIL DESCRIPTION	REMARKS
	1st 8"	2nd 8"	3rd 8"					
0 0-1.5	1	2	3				1.5 FIRM, BROWN, SL. MOIST, TOPSOIL - RES. GRASS COVERED ~ 2.0' T.S.	
1 1.5-6.5	1	2	2				1.5 SOFT, BROWN RED , RED BROWN, SL. MOIST, SI. CLAY - RES w/CHERT FRAGS	
UD 1 9-11	→						1.0' PUSH 1.2', STOPPED, SO PULLED	
2 15-16.5	3	5	7				1.5 STIFF, BROWN RED , RED BROWN, SL. MOIST, SI. CLAY w/CHERT FRAGS - RES	
PZ 19-21	→						1.65' PUSH 2.0', PULLED	
3 23.2-24.7	→						0 AR @ 23.2'	
3 25-26.5	→							
3 26.5-28.5	→							
4 28.5-33.5	→							
4 35-36.5	→							

+STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 6" AND 3RD 6" TO DRIVE 1-3/8" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 80 INCHES.

BORING TERMINATED: 23.2'

BORING REFUSAL: 23.2'

WATER TOB DEPTH: NOT ENCOUNTERED

WATER 24 HR.: DEPTH: " "

WATER LOSSES: _____

CAVE-IN DEPTHS: _____

CASING: SIZE _____ LENGTH _____

STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING	DEPTH
POWER AUGER	0 TO 23.2'
HAND SHOP: W/MUD: W/WATER	_____ TO _____
ROTARY DRILL: W/MUD: W/WATER	_____ TO _____
DIAMOND CORE	_____ TO _____
CORE SIZE	_____ TO _____
UNDISTURBED SAMPLES	NO <u>2</u> SIZE <u>3"</u>
BAG SAMPLES	NO <u>1</u> SIZE <u>5'-10'</u>

SOIL TEST BORING FIELD REPORT

BORING NO. NG-41 PG. 1 OF 1

JOB NO. 3043051021 DRILLER J. BAILEY

RIG TYPE ATV HAMMER TYPE AUTO

JOB NAME TVA-KINGSTON LOGGED BY C. LAWSON

HOURS DRILLING _____ GROUND SURFACE ELEV. _____

HOURS MOVING _____ DATE: 5/23 WEATHER: P. CLOUDY

Depth	SAMPLES			NO	REQ	SOIL DESCRIPTION	REMARKS
0-1.5	1	2	4		1.5'	FIRM, BROWN TO RED BROWN, SL. MOIST, SILTY CLAY - RES.	
1.5-6.5	6	6	7		0.5'	STIFF, Brown ^{RED BROWN} RED, SL. MOIST, SI. CLAY w/ ^{CHERT} LIMESTONE FRAGS - RES.	
10.19-11	→				1.1'	PUSHED 1.5', STOPPED, SO PULLED PUSHED 2.0'	
2-15-16.5	3	3	4		1.0'	FIRM, Brown ^{RED BROWN} RED, SL. MOIST, SI. CLAY w/ ^{CHERT} FRAGS - RES.	
2-19-21	→				1.25'	PUSHED 1.5', STOPPED, SO PULLED	
3-25-26.5	4	4	6		1.2'	STIFF, Brown ^{RED BROWN} RED, SL. MOIST, SI. CLAY w/ ^{CHERT} FRAGS - RES.	
3-26.5-28.5	→				1.5'	PUSHED 1.5', STOPPED, SO PULLED	
						A.R. @ 31.0'	
30-30-31.5	→						
40-30-31.5	→						

*STANDARD PENETRATION RESISTANCE IS SUM OF BLOWS FOR 2ND 8" AND 3RD 8" TO DRIVE 1-28" I.D., 2" O.D. SPLIT BARREL SAMPLER WITH 140 POUND HAMMER FALLING 30 INCHES.

BORING TERMINATED: 31.0'
 BORING REFUSAL: 31.0'
 WATER TOB DEPTH: NOT ENCOUNTERED
 WATER 24 HR.: DEPTH: 11 1
 WATER LOSSES: _____
 CASING DEPTHS: _____
 CASING: SIZE _____ LENGTH _____
 STANDBY TIME _____ BORING LAYOUT _____

METHOD OF ADVANCING BORING		DEPTH
POWER AUGER	<u>3 1/4"</u>	<u>0</u> TO <u>31.0'</u>
HAND SHOP: W/MUD: W/WATER		TO _____
ROTARY DRILL: W/MUD: W/WATER		TO _____
DIAMOND CORE		TO _____
CORE SIZE		TO _____
UNDISTURBED SAMPLES	NO <u>3</u> SIZE <u>3"</u>	
BAG SAMPLES	NO <u>1</u> SIZE <u>2-10"</u>	