



MACTEC PROJECT NO.: 6468-06-1472		COUNTY Louisa, VA		GEOLOGIST S. Nicely	
SITE DESCRIPTION NORTH ANNA COL					GROUND WATER (ft)
BORING NO. B-913		DRILL METHOD: Mud Rotary/Core		SAMPLE METHODS: SPT/CORE	
COLLAR ELEV. 273.4 ft (NAVD88)		NORTHING 3,910,149 US ft (NAD83)		EASTING 11,686,115 US ft (NAD83)	
TOTAL DEPTH 100.9 ft		DRILL MACHINE CME 55 Truck		DRILLER: H. Meyerson	
DATE STARTED 10/30/06		COMPLETED 11/1/06		CORE BARREL TYPE: HQ 3 triple tube-wireline	
				HAMMER TYPE 140 lbs Auto	

ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	L O G	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80					100
273.4														Ground Surface
263.2	10.2													
261.4	12.0	2	1	3							913-1			No samples due to utility clearance operations -Soft dig/vac. truck excavation to 8.4 ft
		5	5	4							913-2			
254.9	18.5													
		8	6	8							913-3			
249.6	23.8	5	7	8							913-4			
244.6	28.8	9	11	12							913-5			
239.9	33.5	11	12	15							913-6			
234.9	38.5	11	15	18							913-7			
229.9	43.5	14	19	23							913-8			
224.9	48.5	24	31	49							913-9			
219.9	53.5	24	46	50/0.3							913-10			
215.5	57.9	50/0.0									913-11			

NORTH ANNA COL. GDT. 1/19/07



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COLLAR ELEV. 273.4 ft (NAVD88)		NORTHING 3,910,149		US ft (NAD83)		EASTING 11,686,115		US ft (NAD83)		24 HR. ND					
TOTAL DEPTH 100.9 ft		DRILL MACHINE CME 55 Truck				DRILLER: H. Meyerson				HAMMER TYPE 140 lbs Auto					
DATE STARTED 10/30/06			COMPLETED 11/1/06			CORE BARREL TYPE: HQ 3 triple tube-wireline									
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80					100	
198.6					Continued from previous page										
													197.9	75.9	Hard Rock: Light gray to gray, slightly weathered to fresh, wide to very wide fracturing, very hard, BIOTITE-QUARTZ GNEISS
													172.5	100.9	Boring and coring terminated at 100.9 ft in Hard Rock: Very hard, BIOTITE-QUARTZ GNEISS

NORTH ANNA COL CORE NORTH ANNA COL DATA REPORT REV0.GPJ NORTH ANNA COL GDT 1/19/07

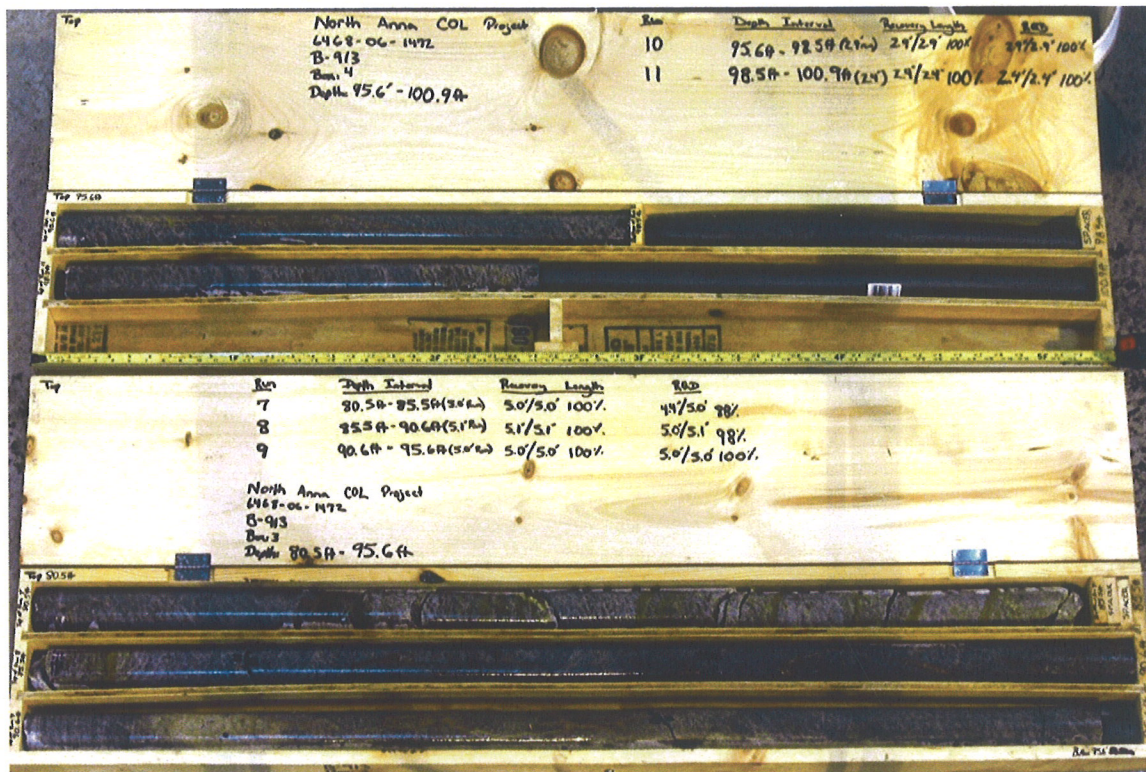


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SITE DESCRIPTION NORTH ANNA COL									GROUND WATER (ft)			
BORING NO. B-913			DRILL METHOD: Mud Rotary/Core			SAMPLE METHODS: SPT/CORE			0 HR. 8.1			
COLLAR ELEV. 273.4 ft (NAVD88)			NORTHING 3,910,149		US ft (NAD83)		EASTING 11,686,115		US ft (NAD83)		24 HR. ND	
TOTAL DEPTH 100.9 ft		DRILL MACHINE CME 55 Truck				DRILLER: H. Meyerson			HAMMER TYPE 140 lbs Auto			
DATE STARTED 10/30/06			COMPLETED 11/1/06			CORE BARREL TYPE: HQ 3 triple tube-wireline						
CORE SIZE HQ3			TOTAL RUN 43.0 ft									
ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		SAMP. NO.	STRATA		LOG	DESCRIPTION AND REMARKS		
				REC. (ft) %	RQD (ft) %		REC. (ft) %	RQD (ft) %				
Begin Coring @ 57.9 ft												
215.5	57.9	2.5	N=50/0.0 8:35	(2.5)	(2.5)	1				215.5	Hard Rock: Light gray to gray, moderately weathered to fresh, close to moderately close fracturing, very hard, BIOTITE-QUARTZ GNEISS	57.9
213.0	60.4		8:12	100%	100%							
		5.0	14:22/0.5 5:19 6:38 8:57 10:22 15:23	(5.0)	(4.8)	2					-No Joints (1 joint at 20°, 1 joint at 35° both with Fe stain)	
208.0	65.4		6:36 8:52 11:03/1.1	100%	96%						(1 joint at 15° with Fe stain)	
		3.1	7:45 4:25/1.1	(3.2)	(3.2)	3					(1 joint at 10° with Fe stain)	
204.9	68.5		4:25/1.1	103%	103%						(1 joint at 15° with clay and Fe stain)	
202.8	70.6	2.1	4:58 4:23 4:38 3:58 5:04/0.9	(2.0)	(2.0)	4						
		4.9	6:20 7:29 8:44 9:48 12:53	(4.8)	(4.6)	5						
197.9	75.5		6:11 4:21 6:21 3:56 3:59	(5.1)	(5.1)	6				197.9	Hard Rock: Light gray to gray, slightly weathered to fresh, wide to very wide fracturing, very hard, BIOTITE-QUARTZ GNEISS	75.5
		5.0	6:11 4:21 6:21 3:56 3:59	102%	102%						-No Joints	
192.9	80.5		6:11 4:21 6:21 3:56 3:59	(5.0)	(4.4)	7					(7 joints at 20-30° with Fe stain; Quartz vein from 82.9-83.0 ft with Fe stain; very close to close fracturing)	
		5.0	4:42 6:16 8:23 8:52 12:10/1.1	100%	88%							
187.9	85.5		4:53 5:55 6:44 5:30 6:42	(5.1)	(5.0)	8					-No Joints	
		5.1	6:20 8:11 12:07/0.9	100%	98%							
182.8	90.6		6:20 8:11 12:07/0.9	(5.0)	(5.0)	9					-Quartz vein from 91.3-91.8 ft with magnetite	
		5.0	5:29 6:12 2:18/0.4	100%	100%							
177.8	95.6		6:20 8:11 12:07/0.9	(2.9)	(2.9)	10					-No Joints	
		2.9	5:29 6:12 2:18/0.4	100%	100%							
174.9	98.5		5:29 6:12 2:18/0.4	(2.4)	(2.4)	11					-No Joints	
		2.4	5:29 6:12 2:18/0.4	100%	100%							
172.5	100.9									172.5	Coring terminated at 100.9 ft in Hard Rock: Very hard, BIOTITE-QUARTZ GNEISS	100.9

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B-913 - Box 1  
B-913 - Box 2



B-913 - Box 4  
B-913 - Box 3