



BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: K. Lloyd	
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: D. White/O. Smith		FLUID LEVEL (ft)	
BORING NO.: M-14		DRILL METHOD: Mud Rotary		DRILL MACHINE: CME-55LC Track (RAL)		0 HR. ND	
GROUND ELEV.: 323.8 ft (NAVD88)		NORTHING: 3,909,452 US ft (NAD83)		EASTING: 11,686,111 US ft (NAD83)		24 HR. ND	
TOTAL DEPTH: 60.3 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08			ROD TYPE: AWJ	HAMMER (ID):140-lb. Auto (MEC-02)	
DATE STARTED: 9/24/09		COMPLETED: 9/24/09	HOLE DIA.: 3"	CASING DEPTH: 8.6 ft	CORE SIZE: NA	BITS USED: 2-7/8" Tri-Cone	

ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION			
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100		
323.8												Ground Surface	323.8	0.0	
															No sampling from 0.0 to 8.9 feet due to soft dig utility clearance by Dominion Personnel
314.9	8.9	5	5	5									314.9	8.9	RESIDUAL SOIL: Silty SAND (SM), brownish yellow (10YR 6/8), loose, moist, fine to coarse grained sand, little mica, few quartz rock fragments, relict rock fabric
312.5	11.3	4	5	6											11.3 ft: Medium dense
309.9	13.9	4	4	6											13.9 ft: Light yellowish brown (10YR 6/4), loose
304.9	18.9	5	8	9											18.9 ft: Brownish yellow (10YR 6/8), medium dense, few to little mica
300.0	23.8	7	7	7											23.8 ft: Brownish yellow (10YR 6/6), trace to few mica
295.0	28.8	7	11	13											28.8 ft: Brownish yellow (10YR 6/8)
290.0	33.8	4	5	6											33.8 ft: Light brownish gray (10YR 6/2), fine grained sand
285.0	38.8	6	8	7											38.8 ft: Light brownish gray (10YR 6/2) and grayish brown (10YR 5/2), little to some mica
280.0	43.8	4	6	7											43.8 ft: Grayish brown (10YR 5/2)
275.0	48.8	5	6	9											48.8 ft: Yellowish brown (10YR 5/6)
270.0	53.8	3	6	18											53.8 ft: Brownish yellow (10YR 6/8), fine to coarse grained sand
265.0	58.8	13	40	50											58.8 ft: Grayish brown (10YR 5/2), very dense, some mica, little quartz rock fragments Boring terminated at 60.3 feet.
															Boring closed by tremie method with cement-bentonite grout. No 24 HR fluid level because boring grouted same day boring drilled.

NORTH ANNA 3 BORE, NORTH ANNA 3 PROJECT.GPJ, NORTH ANNA 3.GDT, 12/4/09



BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: B. Mabie									
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: D. Rhodes/K. Guy		FLUID LEVEL (ft)									
BORING NO.: M-15		DRILL METHOD: Mud Rotary		DRILL MACHINE: CME-45C Track (RAL)		0 HR.	13.4								
GROUND ELEV.: 311.3 ft (NAVD88)		NORTHING: 3,909,531 US ft (NAD83)		EASTING: 11,686,166 US ft (NAD83)		24 HR.	NA								
TOTAL DEPTH: 60.0 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08		ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-12)									
DATE STARTED: 9/28/09		COMPLETED: 9/28/09		HOLE DIA.: 3"		CASING DEPTH: 9.0 ft									
CORE SIZE: NA		BITS USED: 2-7/8" Tri-Cone													
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION			
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100		
311.3					Ground Surface							311.3	0.0		
														No sampling from 0.0 to 8.5 feet due to soft dig utility clearance by Dominion Personnel	
302.8	8.5													8.5	
300.7	10.6	2	2	3						SS-1					RESIDUAL SOIL: Silty SAND (SM), pale brown (10YR 6/3), loose, moist, fine to coarse grained sand, few mica, relict rock fabric
298.6	12.7	2	3	3						SS-2					
296.1	15.2	2	3	4						SS-3					
292.8	18.5	3	3	3						SS-4					18.5 ft: Medium dense
287.8	23.5	5	4	7						SS-5					
282.8	28.5	8	7	8						SS-6					23.5 ft: Very pale brown (10YR 7/4), trace mica
277.8	33.5	7	8	10						SS-7					
272.8	38.5	13	10	12						SS-8					33.5 ft: Light yellowish brown (10YR 6/4)
267.8	43.5	13	16	13						SS-9					38.5 ft: Yellowish brown (10YR 5/6)
262.8	48.5	31	35	30						SS-10					43.5 ft: Very dense
259.3	52.0	48	52/0.4							SS-11					WEATHERED ROCK: Severely weathered BIOTITE QUARTZ GNEISS (Sampled as Well Graded SAND with Silt (SW-SM), yellowish brown (10YR 5/6), very dense, moist, fine to coarse grained sand, trace mica)
257.8	53.5	38	44	45						SS-12					RESIDUAL SOIL: Silty SAND (SM), yellowish brown (10YR 5/6), very dense, moist, fine to coarse grained sand, trace mica, relict rock fabric
252.8	58.5	23	24	36						SS-13					
															Boring terminated at 60.0 feet.
															Boring closed by tremie method with cement-bentonite grout.
															No 24 HR fluid level because boring grouted same day boring drilled.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09




BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: C. Baldwin									
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: P. Pitts/J. Tucker		FLUID LEVEL (ft)									
BORING NO.: M-16		DRILL METHOD: Mud Rotary/Rock Core		DRILL MACHINE: CME-55 Track (RAL)		0 HR. 18.0									
GROUND ELEV.: 284.6 ft (NAVD88)		NORTHING: 3,909,990 US ft (NAD83)		EASTING: 11,685,802 US ft (NAD83)		24 HR. NA									
TOTAL DEPTH: 61.9 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08		ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-21)									
DATE STARTED: 9/29/09		COMPLETED: 9/30/09		HOLE DIA.: 3"		CASING DEPTH: 8.9 ft									
CORE SIZE: NQ3		BITS USED: 2-7/8" Tri-Cone													
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION			
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100		
284.3					Ground Surface							284.3	0.0		
												283.8	0.5	ASPHALT (Roadway) to 0.5 ft. No sampling from 0.0 to 8.9 feet due to soft dig utility clearance by Dominion Personnel	
275.4	8.9	4	5	4						SS-1		275.4	8.9	RESIDUAL SOIL: Silty SAND (SM), light brown (7.5YR 6/4), loose, moist, fine to coarse grained sand, little mica, relict rock fabric	
272.7	11.6	3	3	5						SS-2					
270.3	14.0	4	3	3						SS-3					
265.3	19.0	4	4	7						SS-4				19.0 ft: Pinkish gray (7.5YR 6/2), medium dense, fine to medium grained sand	
260.3	24.0	5	5	7						SS-5				24.0 ft: Light brown (7.5YR 6/4)	
255.3	29.0	5	6	6						SS-6					
250.3	34.0	5	5	5						SS-7				34.0 ft: Yellowish red (5YR 5/8), loose, fine grained sand, some mica	
245.3	39.0	9	12	13						SS-8				39.0 ft: Light brown (7.5YR 6/4), medium dense, fine to medium grained sand, little mica	
240.3	44.0	12	19	21						SS-9				44.0 ft: Very pale brown (10YR 7/4), dense	
235.3	49.0	17	24	27						SS-10					
230.3	54.0	50/0.4								SS-11			232.3	52.0	WEATHERED ROCK: Severely weathered BIOTITE QUARTZ GNEISS (Sampled as Silty SAND (SM), reddish yellow (7.5YR 7/8), very dense, moist, fine to coarse grained sand, little mica)
225.3	59.0	50/0.1								SS-12			224.5	59.8	HARD ROCK: Brown and gray with trace orange staining, moderately weathered, moderately close fracturing, moderately hard, BIOTITE QUARTZ GNEISS Boring and coring terminated at 61.9 feet.
224.3	59.8	100/0.1								SS-13			222.4	61.9	
															Boring closed by tremie method with cement-bentonite grout. No 24 HR fluid level because boring grouted same day boring drilled.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.CDT 12/3/09



BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: C. Baldwin	
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: P. Pitts/J. Tucker		FLUID LEVEL (ft)	
BORING NO.: M-16		DRILL METHOD: Mud Rotary/Rock Core		DRILL MACHINE: CME-55 Track (RAL)		0 HR. 18.0	
GROUND ELEV.: 284.6 ft (NAVD88)		NORTHING: 3,909,990 US ft (NAD83)		EASTING: 11,685,802 US ft (NAD83)		24 HR. NA	
TOTAL DEPTH: 61.9 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08			HAMMER (ID): 140-lb. Auto (MEC-21)		
DATE STARTED: 9/29/09		COMPLETED: 9/30/09		CASING DEPTH: 8.9 ft		CORE BARREL TYPE: Wireline NQ3 Triple Tube, series 6 bit	

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 @ 59.9 ft
224.4	59.9	2.0	3:00	(2.0)	(2.0)	RUN 1	(2.0)	(2.0)		HARD ROCK: Brown and gray with trace orange staining, moderately weathered, moderately close fracturing, moderately hard, BIOTITE QUARTZ GNEISS (continued) (1 joint at 90°, tight with trace clay) Boring and coring terminated at 61.9 feet.  Boring closed by tremie method with cement-bentonite grout.  No 24 HR fluid level because boring grouted same day boring drilled.
222.4	61.9		3:05	100%	100%		100%	100%		

NORTH ANNA 3 CORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/3/09



M-16 - Box 1



BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: C. Baldwin							
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: P. Pitts/J. Tucker		FLUID LEVEL (ft)							
BORING NO.: M-17		DRILL METHOD: Mud Rotary/Rock Core		DRILL MACHINE: CME-55 Trailer (RAL)		0 HR. NA							
GROUND ELEV.: 306.2 ft (NAVD88)		NORTHING: 3,909,775 US ft (NAD83)		EASTING: 11,686,214 US ft (NAD83)		24 HR. 22.0							
TOTAL DEPTH: 151.9 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08		ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-425)							
DATE STARTED: 9/21/09		COMPLETED: 9/24/09		HOLE DIA.: 3"		CASING DEPTH: 82.1 ft							
CORE SIZE: NQ3		BITS USED: 2-7/8" Tri-Cone											
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100
306.2													Ground Surface
													306.2 ASPHALT (Roadway) to 0.5 ft. No sampling from 0.0 to 9.3 feet due to soft dig utility clearance by Dominion Personnel
	9.3	2	3	3									296.9 RESIDUAL SOIL: Lean CLAY with Sand (CL), strong brown (7.5YR 5/6), medium stiff, moist, fine to medium grained sand, relict rock fabric
	14.0	2	3	4									294.2 RESIDUAL SOIL: Sandy SILT (ML), Yellowish brown (10YR 5/4), medium stiff, moist, fine grained sand, little mica, relict rock fabric
	19.1	9	13	16									289.2 RESIDUAL SOIL: Silty SAND (SM), Brownish yellow (10YR 6/6), medium dense, moist, fine to coarse grained sand, little mica, relict rock fabric
	24.1	8	11	15									
	29.1	18	22	25									29.1 ft: Dense
	34.1	15	18	38									34.1 ft: Very pale brown (10YR 7/4), very dense
	39.1	7	10	15									39.1 ft: Olive yellow (5Y 6/6), medium dense, fine to medium grained sand
	44.1	7	11	24									44.1 ft: Dark gray (N 4/), dense
	49.1	15	28	20									49.1 ft: Light olive brown (2.5YR 5/4)
	54.1	50/0.3											254.2 WEATHERED ROCK: Severely weathered QUARTZ BIOTITE GNEISS (Sampled as Silty SAND (SM), reddish yellow (7.5YR 6/6) to light yellowish brown (2.5Y 6/3), very dense, moist, fine to medium grained sand, little mica, trace quartz rock fragments)
	59.1	50/0.4											
	64.1	50/0.2											
	69.1	15	28	72/0.3									
	74.1												

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: C. Baldwin								
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: P. Pitts/J. Tucker		FLUID LEVEL (ft)								
BORING NO.: M-17		DRILL METHOD: Mud Rotary/Rock Core		DRILL MACHINE: CME-55 Trailer (RAL)		0 HR. NA								
GROUND ELEV.: 306.2 ft (NAVD88)		NORTHING: 3,909,775 US ft (NAD83)		EASTING: 11,686,214 US ft (NAD83)		24 HR. 22.0								
TOTAL DEPTH: 151.9 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08		ROD TYPE: AWJ		HAMMER (ID):140-lb. Auto (MEC-425)								
DATE STARTED: 9/21/09		COMPLETED: 9/24/09		HOLE DIA.: 3"		CASING DEPTH: 82.1 ft								
				CORE SIZE: NQ3		BITS USED: 2-7/8" Tri-Cone								
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100	
231.4					Continued from previous page									
227.1	79.1	38	62/0.3							100/0.8	SS-14	WEATHERED ROCK: Severely weathered QUARTZ BIOTITE GNEISS (Sampled as Silty SAND (SM), reddish yellow (7.5YR 6/6) to light yellowish brown (2.5Y 6/3), very dense, moist, fine to medium grained sand, little mica, trace quartz rock fragments) (continued)		
		50/0.2								50/0.2	SS-15			
222.1	84.1	50/0.2								50/0.2	SS-16			
												221.9	84.3	HARD ROCK: Dark gray with orange staining, moderately severe to moderately weathered, very close to close fracturing, medium hard to hard, QUARTZ BIOTITE GNEISS
												214.3	91.9	HARD ROCK: Light to dark gray with orange staining, moderately weathered, very close to moderately close fracturing, moderately hard, QUARTZ BIOTITE GNEISS
												199.3	106.9	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS
												169.3	136.9	HARD ROCK: Dark gray, moderately severe to slightly weathered, very close to close fracturing, medium hard to hard, QUARTZ BIOTITE GNEISS
												164.3	141.9	HARD ROCK: Dark gray, very slightly weathered, close to wide fracturing, hard, QUARTZ BIOTITE GNEISS

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473			COUNTY: Louisa, VA		GEOLOGIST: C. Baldwin							
SITE DESCRIPTION: North Anna 3 Project Supplement 2					DRILLER: P. Pitts/J. Tucker			FLUID LEVEL (ft)						
BORING NO.: M-17		DRILL METHOD: Mud Rotary/Rock Core			DRILL MACHINE: CME-55 Trailer (RAL)			0 HR. NA						
GROUND ELEV.: 306.2 ft (NAVD88)		NORTHING: 3,909,775 US ft (NAD83)		EASTING: 11,686,214 US ft (NAD83)		24 HR. 22.0								
TOTAL DEPTH: 151.9 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08			ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-425)							
DATE STARTED: 9/21/09		COMPLETED: 9/24/09		HOLE DIA.: 3"	CASING DEPTH: 82.1 ft	CORE SIZE: NQ3	BITS USED: 2-7/8" Tri-Cone							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100	
156.6					Continued from previous page									
												154.3	151.9	Boring and coring terminated at 151.9 feet.  Boring closed by tremie method with cement-bentonite grout.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09





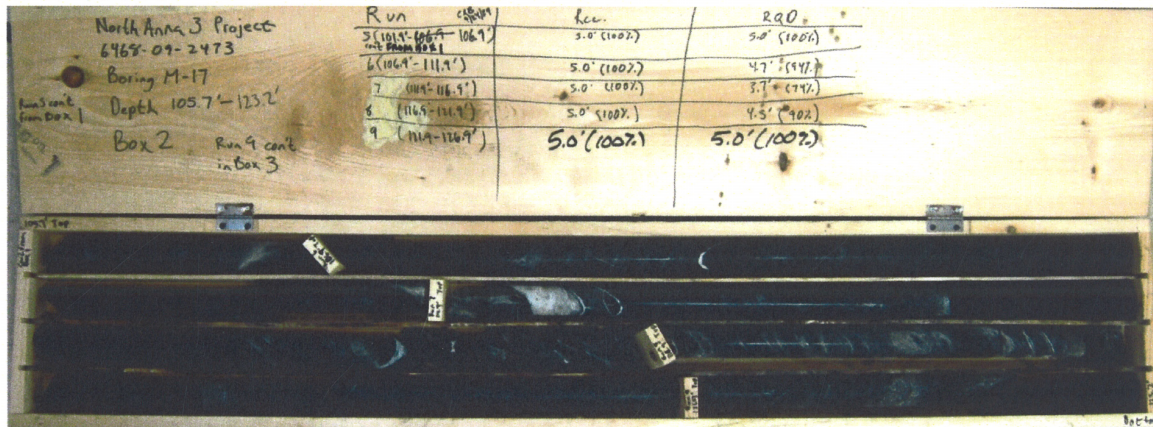
BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: C. Baldwin	
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: P. Pitts/J. Tucker		FLUID LEVEL (ft)	
BORING NO.: M-17		DRILL METHOD: Mud Rotary/Rock Core		DRILL MACHINE: CME-55 Trailer (RAL)		0 HR. NA	
GROUND ELEV.: 306.2 ft (NAVD88)		NORTHING: 3,909,775 US ft (NAD83)		EASTING: 11,686,214 US ft (NAD83)		24 HR. 22.0	
TOTAL DEPTH: 151.9 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08				HAMMER (ID): 140-lb. Auto (MEC-425)	
DATE STARTED: 9/21/09		COMPLETED: 9/24/09		CASING DEPTH: 82.1 ft		CORE BARREL TYPE: Wireline NQ3 Triple Tube, series 6 bit	

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 @ 84.3 ft
221.9	84.3	2.6	3:45/0.6	(2.6)	(2.0)	RUN 1	(5.6)	(3.7)	221.9	HARD ROCK: Dark gray with orange staining, moderately severe to moderately weathered, very close to close fracturing, medium hard to hard, QUARTZ BIOTITE GNEISS (2 joints at 0°, open with clay; 2 joints at 50°, tight with trace clay) (2 joints at 0°, tight; 3 joints at 30°, tight)
219.3	86.9	5.0	5:30 12:53	100%	77%		74%	49%		
		5.0	5:00 3:57 6:20 10:20	(3.0)	(1.7)	RUN 2			214.3	HARD ROCK: Light to dark gray with orange staining, moderately weathered, very close to moderately close fracturing, moderately hard, QUARTZ BIOTITE GNEISS (3 joints at 10°, tight to open; 7 joints at 30-40°, tight; 1 joint at 60°, tight) (3 joints at 30-40°, tight; 6 joints at 60-70°, tight to open)
214.3	91.9	5.0	5:11	60%	34%					
		5.0	5:45 3:42 3:30 3:13 5:15	(5.0)	(3.1)	RUN 3	(14.5)	(11.4)	209.3	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS (2 joints at 20°, tight; 1 joint at 40°, tight)
209.3	96.9	5.0	4:09 3:20 3:43 2:40 3:22	100%	62%		97%	76%		
		5.0	3:20 3:05 3:29 2:55 3:40	(4.5)	(3.3)	RUN 4			199.3	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS (2 joints at 20°, tight; 2 joints at 40°, tight)
204.3	101.9	5.0	3:05 2:46 2:38	90%	66%					
		5.0	3:32 3:05 2:48 2:46 2:38	(5.0)	(4.7)	RUN 5	(30.0)	(27.9)	194.3	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS (1 joint at 0°, tight; 1 joint at 20°, tight; 8 joints at 40-50°, tight)
199.3	106.9	5.0	3:30 3:23 3:50 3:35 4:00	100%	94%		100%	93%		
		5.0	3:55 3:15 3:57 3:05 2:30	(5.0)	(4.5)	RUN 6			189.3	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS (4 joints at 30°, tight)
189.3	116.9	5.0	3:12 3:57 2:40 2:54 3:12	100%	74%					
		5.0	3:12 3:57 2:40 2:54 3:12	(5.0)	(5.0)	RUN 7			184.3	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS (1 joint at 60°, tight)
184.3	121.9	5.0	3:00 3:04 2:55 2:52 2:31	100%	100%					
		5.0	3:00 3:04 2:55 2:52 2:31	(5.0)	(5.0)	RUN 8			179.3	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS (1 joint at 40°, tight)
179.3	126.9	5.0	2:40 3:00 3:08 3:17 2:56	100%	100%					
		5.0	2:40 3:00 3:08 3:17 2:56	(5.0)	(5.0)	RUN 9			174.3	HARD ROCK: Dark gray, moderately to very slightly weathered, very close to moderately close fracturing, hard, QUARTZ BIOTITE GNEISS (2 joints at 50°, tight)
174.3	131.9	5.0	3:18 2:32 1:00 2:39 3:33	70%	40%		(3.5)	(2.0)		
		5.0	3:18 2:32 1:00 2:39 3:33	(3.5)	(2.0)	RUN 10	(3.5)	(2.0)	169.3	HARD ROCK: Dark gray, moderately severe to slightly weathered, very close to close fracturing, medium hard to hard, QUARTZ BIOTITE GNEISS (2 joints at 30°, tight; 2 joints at 50°, tight)
169.3	136.9	5.0	3:42 3:41 3:20 3:00 2:05	70%	40%		70%	40%		
		5.0	3:42 3:41 3:20 3:00 2:05	(5.0)	(5.0)	RUN 11	(10.0)	(10.0)	164.3	HARD ROCK: Dark gray, very slightly weathered, close to wide fracturing, hard, QUARTZ BIOTITE GNEISS (1 joint at 30°, tight; 1 joint at 70°, tight)
164.3	141.9	5.0	2:57 3:20 2:53 2:50 2:24	100%	100%		100%	100%		
		5.0	2:57 3:20 2:53 2:50 2:24	(5.0)	(5.0)	RUN 12			159.3	HARD ROCK: Dark gray, very slightly weathered, close to wide fracturing, hard, QUARTZ BIOTITE GNEISS (No Joints)
159.3	146.9	5.0		100%	100%					
		5.0		(5.0)	(5.0)	RUN 13			154.3	Boring and coring terminated at 151.9 feet. Boring closed by tremie method with cement-bentonite grout.
154.3	151.9	5.0		100%	100%					

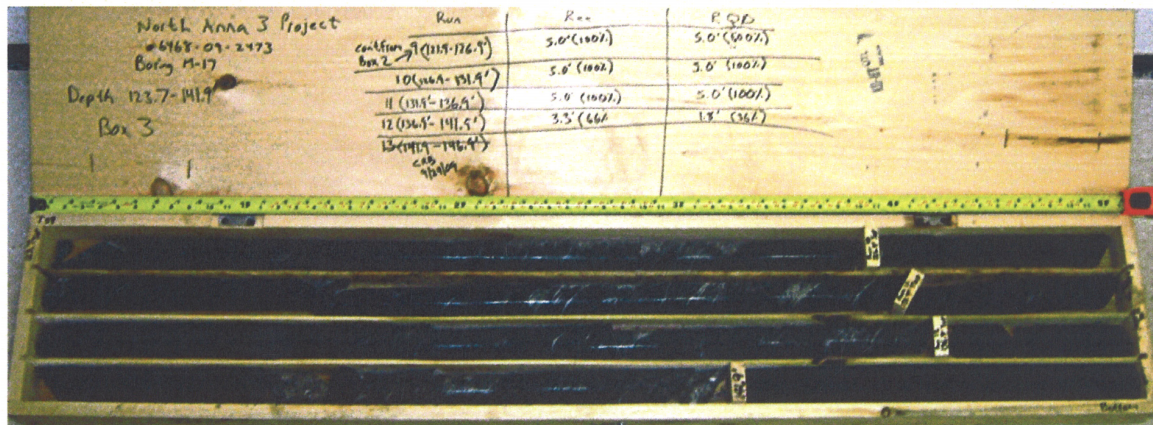
NORTH ANNA 3 CORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09



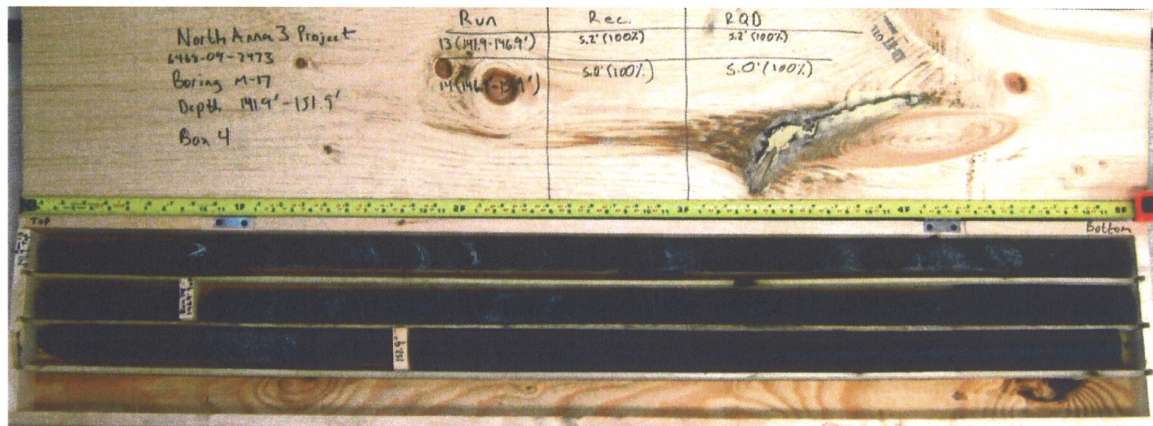
M-17 - Box 1



M-17 - Box 2



M-17 - Box 3



M-17 - Box 4



GEOTECHNICAL BORING LOG

Prepared By JJS Date 12/16/09

Checked By ML Date 12/16/09

SHEET 1 OF 1

BECHTEL PROJECT NO.: 25161		MACTEC PROJECT NO.: 6468-09-2473		COUNTY: Louisa, VA		GEOLOGIST: B. Mabie								
SITE DESCRIPTION: North Anna 3 Project Supplement 2				DRILLER: D. Rhodes/K. Guy		FLUID LEVEL (ft)								
BORING NO.: M-18		DRILL METHOD: Mud Rotary		DRILL MACHINE: CME-45C Track (RAL)		0 HR. 16.0								
GROUND ELEV.: 304.2 ft (NAVD88)		NORTHING: 3,909,608 US ft (NAD83)		EASTING: 11,686,214 US ft (NAD83)		24 HR. NA								
TOTAL DEPTH: 60.4 ft		SAMPLE METHODS: ASTM D 1586-08a; 2488-09a; 2113-08; 6032-08		ROD TYPE: AWJ		HAMMER (ID): 140-lb. Auto (MEC-12)								
DATE STARTED: 9/29/09		COMPLETED: 9/29/09		HOLE DIA.: 3"		CASING DEPTH: 9.0 ft								
CORE SIZE: NA		BITS USED: 2-7/8" Tri-Cone												
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100	
304.2					Ground Surface							304.2	0.0	
														No sampling from 0.0 to 8.7 feet due to soft dig utility clearance by Dominion Personnel
295.5	8.7													
293.5	10.7	2	2	2							SS-1		295.5	RESIDUAL SOIL: SILT (ML), strong brown (7.5YR 4/6), soft, moist, few mica, dark brown and black staining, relict rock fabric
291.4	12.8	2	1	3							SS-2			
288.9	15.3	2	2	2							SS-3			
285.7	18.5	1	2	3							SS-4		15.3 ft: Medium stiff	
280.7	23.5	2	2	3							SS-5		18.5 ft: Pale Yellow (2.5Y 7/4)	
275.7	28.5	2	3	4							SS-6		283.2	RESIDUAL SOIL: Elastic SILT (MH), yellow (2.5Y 7/6), medium stiff, moist, trace mica, orange and brown staining, relict rock fabric
270.7	33.5	2	3	4							SS-7		28.5 ft: Olive yellow (2.5Y 6/6)	
265.7	38.5	2	3	4							SS-8		33.5 ft: Light yellowish brown (2.5Y 6/4), little mica	
260.7	43.5	2	1	2							SS-9		38.5 ft: Soft	
255.7	48.5	3	6	6							SS-10		262.2	RESIDUAL SOIL: Silty SAND (SM), strong brown (7.5YR 5/6), medium dense, moist, fine to coarse grained sand, trace mica, relict rock fabric
250.7	53.5	5	3	4							SS-11		48.5 ft: Brownish yellow (10YR 6/4), loose	
245.7	58.5	4	5	6							SS-12		252.2	RESIDUAL SOIL: Sandy SILT (ML), strong brown (7.5YR 5/6), stiff, moist, trace mica, relict rock fabric
244.0	60.2	78	22/0.1								SS-13		247.2	WEATHERED ROCK: Severely weathered BIOTITE QUARTZ GNEISS (Sampled as Silty SAND (SM), brownish yellow (10YR 6/4), very dense, moist, fine to coarse grained sand, trace mica)
		50/0.2									SS-14		243.8	SAND (SM), brownish yellow (10YR 6/4), very dense, moist, fine to coarse grained sand, trace mica)
														Boring terminated at 60.4 feet.
														Boring closed by tremie method with cement-bentonite grout.
														No 24 HR fluid level because boring grouted same day boring drilled.

NORTH ANNA 3 BORE NORTH ANNA 3 PROJECT.GPJ NORTH ANNA 3.GDT 12/4/09