



GEOTECHNICAL BORING LOG

Prepared By Tom Date 7-10-08

Checked By Tom Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: L. Bisson								
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros		GROUND WATER (ft)								
BORING NO.: B-603		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA							
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 397,018 US ft (NAD83/90)		EASTING: 876,697 US ft (NAD83/90)		24 HR.	NA							
TOTAL DEPTH: 151.2 ft		BORING DIAMETER: 4" to 15.0', 3" to 151.2'		CASING DEPTH: 4" to 15.0', 3" to 124.0'		HAMMER (ID): 140 lb. Auto (MEC-03)								
DATE STARTED: 2/14/08		COMPLETED: 2/21/08		CORE SIZE: HQ3		BITS USED: 4 1/4" Drag Bit & 2 15/16" Roller 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	
-1.4	0.0	WOH	WOH	WOH	Ground Surface							-1.4	0.0	
-3.9	2.5	WOH	3	10	SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA					603-1		MUCK, light gray (2.5Y7/2), to black (2.5Y2.5/1), very soft, wet, mostly organics, trace roots, trace shell fragments	-4.7	3.3
-6.4	5.0	10	8	8						603-2A&B		LIMESTONE, boundstone, white (2.5Y8.1), very soft, wet, moderately indurated, trace shell fragments (Miami Formation)		
-8.9	7.5	10	7	6						603-3		5.0ft: oolitic		
-11.4	10.0	5	9	10						603-4		7.5ft: mottled very dark gray (2.5Y3/1)		
-13.9	12.5	5	11	16						603-5		10.0ft: pale yellow (2.5Y8/2), to light brownish gray (2.5Y6/2), mottled light olive brown (2.5Y5/4), trace calcareous concretions		
-16.4	15.0	7	50/0.5							603-6		12.5ft: pale yellow (2.5Y8/2), to light gray (2.5Y7/2), soft		
-17.4	16.0									603-7		15.0ft: white (2.5Y8/1), mottled light gray (2.5Y7/1), hard, indurated		
-19.8	18.4									RUN-1		16.0ft: Switch sampling method to coring		
-24.8	23.4									RUN-2		16.0ft: light gray (2.5Y7/2), moderately hard, indurated, trace sand, shells, vugs, fossiliferous, locally interconnected vugs		
-29.8	28.4									RUN-3		18.4ft: trace recrystallized calcite	-24.8	23.4
-34.8	33.4									RUN-4		LIMESTONE, boundstone, white (2.5Y8/1), to light brownish gray (2.5Y6/2), moderately hard to hard, indurated, little recrystallized calcite, trace shell fragments, trace to few vugs (Upper Fort Thompson Formation)		
-39.8	38.4									RUN-5		25.9ft: loss of circulation		
-44.8	43.4									RUN-6		28.4ft: coralline		
-49.8	48.4									RUN-7		33.4ft: white (2.5Y8/1), hard		
-54.8	53.4									RUN-8		43.4ft: white (2.5Y8/1) to gray (2.5Y5/1), trace coralline		
-59.8	58.4									RUN-9		LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation)	-49.8	48.4
-64.8	63.4									RUN-10		53.4ft: medium hard, moderately indurated to friable		
-69.8	68.4									RUN-11		58.4ft: moderately hard, indurated, trace sand		
-74.8	73.4									RUN-12		63.4ft: soft to medium hard, friable to moderately indurated		
										RUN-13		68.4ft: moderately hard, indurated		
												73.4ft: soft to medium hard, friable to moderately indurated, trace coralline		

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL GDI 7/10/08



BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: L. Bisson
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-603	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.4 ft (NAVD88)	NORTHING: 397,018 US ft (NAD83/90)	EASTING: 876,697 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 151.2 ft	BORING DIAMETER: 4" to 15.0', 3" to 151.2'	CASING DEPTH: 4" to 15.0', 3" to 124.0'	HAMMER (ID): 140 lb. Auto (MEC-03)

DATE STARTED: 2/14/08 COMPLETED: 2/21/08 CORE SIZE: HQ3 BITS USED: 4 1/4" Drag Bit & 2 15/16" Roller 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			
-76.2					Continued from previous page							
-79.8	78.4											LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation) (continued)
-84.8	83.4											83.4ft: moderately hard, indurated
-89.8	88.4											88.4ft: medium hard
-94.8	93.4											93.4ft: moderately indurated
-99.8	98.4											98.4ft: moderately hard, indurated, few shells and shell molds
-104.8	103.4											103.4ft: hard, indurated
-109.8	108.4											108.4ft: moderately hard, moderately indurated
-114.8	113.4											
-121.9	120.5	6	12	10								116.4 - 115.0 Silty SAND (SM), light gray (5Y7/2), medium dense, moist, fine grained sand, little fines (Tamiami Formation)
-126.1	124.7	6	12	10								120.5ft: Switch sampling method to SPT Sandy SILT (ML), light gray (5Y7/2), very stiff, moist, fine to coarse sand, fine gravel
-133.1	131.7	4	5	6								124.7ft: greenish gray (10Y6/1), trace shells
-137.8	136.4	5	2	5								126.2ft: loss of circulation
-140.9	139.5	12	10	8								133.1 - 131.7 Silty SAND (SM), greenish gray (5GY6/1), medium dense, moist, fine to medium grained sand, fine gravel, trace shells
-146.1	144.7	7	9	10								136.4ft: loose, fine to coarse sand
-151.1	149.7											139.5ft: medium dense

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL GDT 7-10-08





BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: L. Bisson								
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros		GROUND WATER (ft)								
BORING NO.: B-603		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA								
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 397,018 US ft (NAD83/90)		EASTING: 876,697 US ft (NAD83/90)		24 HR. NA								
TOTAL DEPTH: 151.2 ft		BORING DIAMETER: 4" to 15.0', 3" to 151.2'		CASING DEPTH: 4" to 15.0', 3" to 124.0'		HAMMER (ID): 140 lb. Auto (MEC-03)								
DATE STARTED: 2/14/08		COMPLETED: 2/21/08		CORE SIZE: HQ3		BITS USED: 4 1/4" Drag Bit & 2 15/16" Roller Cone								
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
-151.0														Continued from previous page
		5	7	8	15					603-14				149.7ft: fine grained sand Boring Terminated at Elevation -152.6 ft

TURKEY POINT COL BORE TURKEY POINT GPJ TURKEY POINT COL.GDT 7/10/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade	GEOLOGIST: L. Bisson
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros	
BORING NO.: B-603		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core	
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 397,018 US ft (NAD83/90)		EASTING: 876,697 US ft (NAD83/90)	
TOTAL DEPTH: 151.2 ft		CASING DEPTH: 4" to 15.0', 3" to 124.0'			HAMMER (ID): 140 lb. Auto (MEC-03)
DATE STARTED: 2/14/08		COMPLETED: 2/21/08		CORE SIZE: HQ3	
CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)					

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 @ 16.0 ft
-17.4	16.0	2.4	0.27	(1.6)	(0.5)	RUN-1	(4.4)	(1.9)		LIMESTONE, boundstone, white (2.5Y8.1), very soft, wet, moderately indurated, trace shell fragments (Miami Formation) <i>(continued)</i>
-19.8	18.4		0.45	67%	21%		59%	26%		
		5.0	0.17/0.4	(2.8)	(1.4)	RUN-2				16.0ft: light gray (2.5Y7/2), moderately hard, indurated, trace sand, shells, vugs, fossiliferous, locally interconnected vugs
			0.06	56%	28%					18.4ft: trace recrystallized calcite
-24.8	23.4		0.52						-24.8	23.4
		5.0	0.22	(4.2)	(1.1)	RUN-3	(21.6)	(14.9)		LIMESTONE, boundstone, white (2.5Y8/1), to light brownish gray (2.5Y6/2), moderately hard to hard, indurated, little recrystallized calcite, trace shell fragments, trace to few vugs (Upper Fort Thompson Formation)
			0.13	84%	22%		86%	60%		
		5.0	0.13	(3.3)	(0.5)	RUN-4				25.9ft: loss of circulation
-29.8	28.4		0.49	66%	10%					28.4ft: coralline
		5.0	0.36	(5.0)	(4.7)	RUN-5				33.4ft: white (2.5Y8/1), hard
			0.16	100%	94%					
		5.0	0.38	(5.0)	(5.0)	RUN-6				43.4ft: white (2.5Y8/1) to gray (2.5Y5/1), trace coralline
			0.35	100%	100%					
-34.8	33.4		0.38	(4.1)	(3.6)	RUN-7				49.8
		5.0	0.40	(5.0)	(4.0)	RUN-8	(55.7)	(34.5)		LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation)
			0.48	100%	80%		84%	52%		
		5.0	0.45	(3.6)	(1.4)	RUN-9				53.4ft: medium hard, moderately indurated to friable
			0.59	72%	28%					
-39.8	38.4		1.04	(4.2)	(2.2)	RUN-10				58.4ft: moderately hard, indurated, trace sand
		5.0	0.10	84%	44%					
			1.02	(4.3)	(2.2)	RUN-11				63.4ft: soft to medium hard, friable to moderately indurated
		5.0	1.16	86%	44%					
			1.08	(3.4)	(1.1)	RUN-12				68.4ft: moderately hard, indurated
		5.0	1.47	68%	22%					
-44.8	43.4		0.26	(3.3)	(1.6)	RUN-13				73.4ft: soft to medium hard, friable to moderately indurated, trace coralline
			0.26	66%	32%					
		5.0	0.38	(4.0)	(2.7)	RUN-14				83.4ft: moderately hard, indurated
			0.38	80%	54%					
-49.8	48.4		0.44	(4.3)	(3.0)	RUN-15				88.4ft: medium hard
		5.0	0.38	86%	60%					
			1.04	(5.0)	(4.2)	RUN-16				
		5.0	0.27	100%	84%					
-54.8	53.4		0.29							
		5.0	0.26							
			0.21							
		5.0	0.18							
			0.11							
-59.8	58.4		0.10							
		5.0	0.26							
			1.20							
		5.0	1.19							
			0.53							
-64.8	63.4		0.25							
		5.0	0.29							
			0.26							
		5.0	0.39							
			0.06							
-69.8	68.4		0.10							
		5.0	0.16							
			0.53							
		5.0	0.48							
			2.01							
-74.8	73.4		1.18							
		5.0	0.26							
			1.04							
		5.0	0.38							
			1.18							
-79.8	78.4		1.34							
		5.0	1.09							
			0.58							
		5.0	0.28							
			0.44							
-84.8	83.4		0.38							
		5.0	0.27							
			0.12							
		5.0	0.20							
			0.41							
-89.8	88.4		0.58							
		5.0	1.16							
			0.58							

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 7 10/08



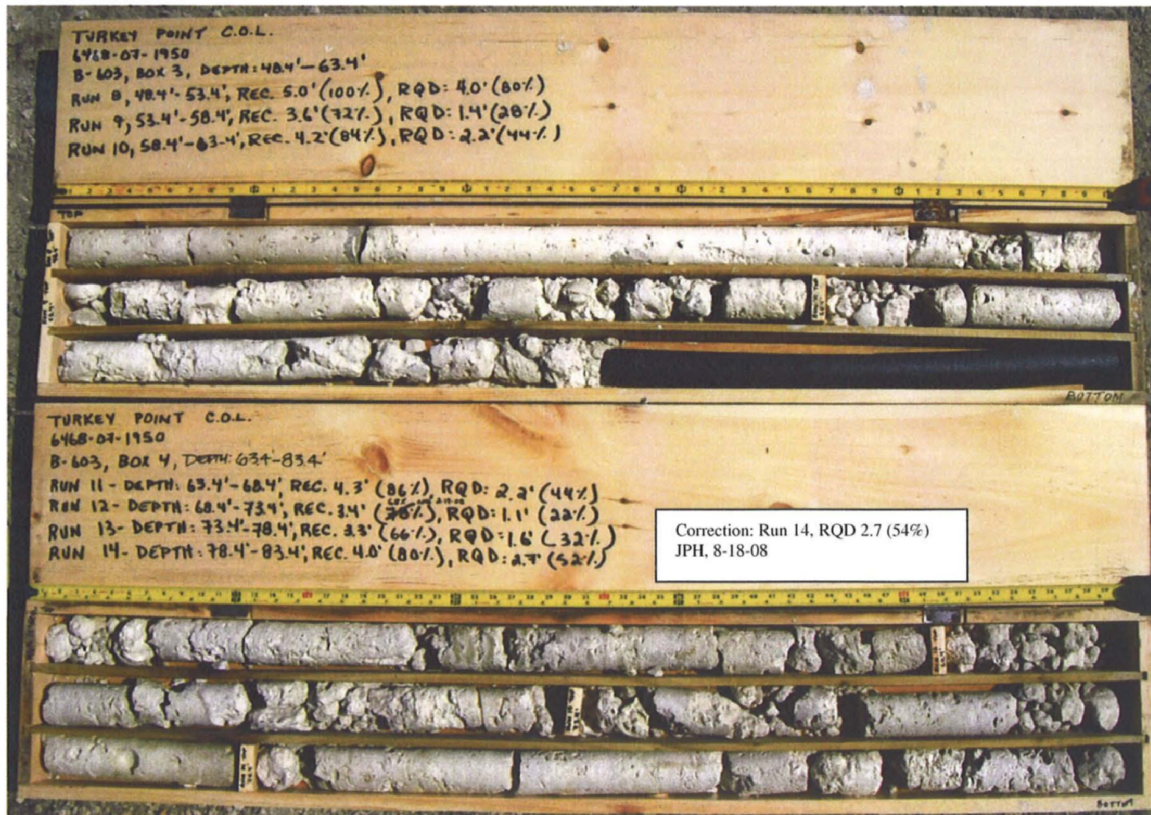
BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade	GEOLOGIST: L. Bisson
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros	
BORING NO.: B-603		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core	
GROUND ELEV.: -1.4 ft (NAVD88)		NORTHING: 397,018 US ft (NAD83/90)		EASTING: 876,697 US ft (NAD83/90)	
TOTAL DEPTH: 151.2 ft		CASING DEPTH: 4" to 15.0', 3" to 124.0'			HAMMER (ID): 140 lb. Auto (MEC-03)
DATE STARTED: 2/14/08		COMPLETED: 2/21/08		CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		SAMP. NO.	STRATA		L O G	DESCRIPTION AND REMARKS
				REC. (ft) %	ROD (ft) %		REC. (ft) %	ROD (ft) %		
			0.52 0.44 0.22							Continued from previous page
-94.8	93.4	5.0	0.40 0.28 0.22 0.18 0.26	(4.5) 90%	(3.2) 64%	RUN-17				LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, trace shells (Lower Fort Thompson Formation) (continued) 93.4ft: moderately indurated
-99.8	98.4	5.0	0.15 0.19 0.29 0.32 0.35	(4.4) 88%	(3.0) 60%	RUN-18				98.4ft: moderately hard, indurated, few shells and shell molds
-104.8	103.4	5.0	0.27 0.35 0.30 0.34 0.37	(5.0) 100%	(4.1) 82%	RUN-19				103.4ft: hard, indurated
-109.8	108.4	5.0	0.21 0.18 1.11 0.23 0.06	(4.0) 80%	(1.8) 36%	RUN-20				108.4ft: moderately hard, moderately indurated
-114.8	113.4	5.0	0.16 0.07 0.18 0.07	(1.0) 20%	(0.0) 0%	RUN-21	(0.0) 0%	(NA)		-116.4 Silty SAND (SM), light gray (5Y7/2), medium dense, moist, fine grained sand, little fines (Tamiami Formation) -119.8
-119.8	118.4									115.0 118.4 Coring Terminated at Elevation -152.6

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 7/10/08

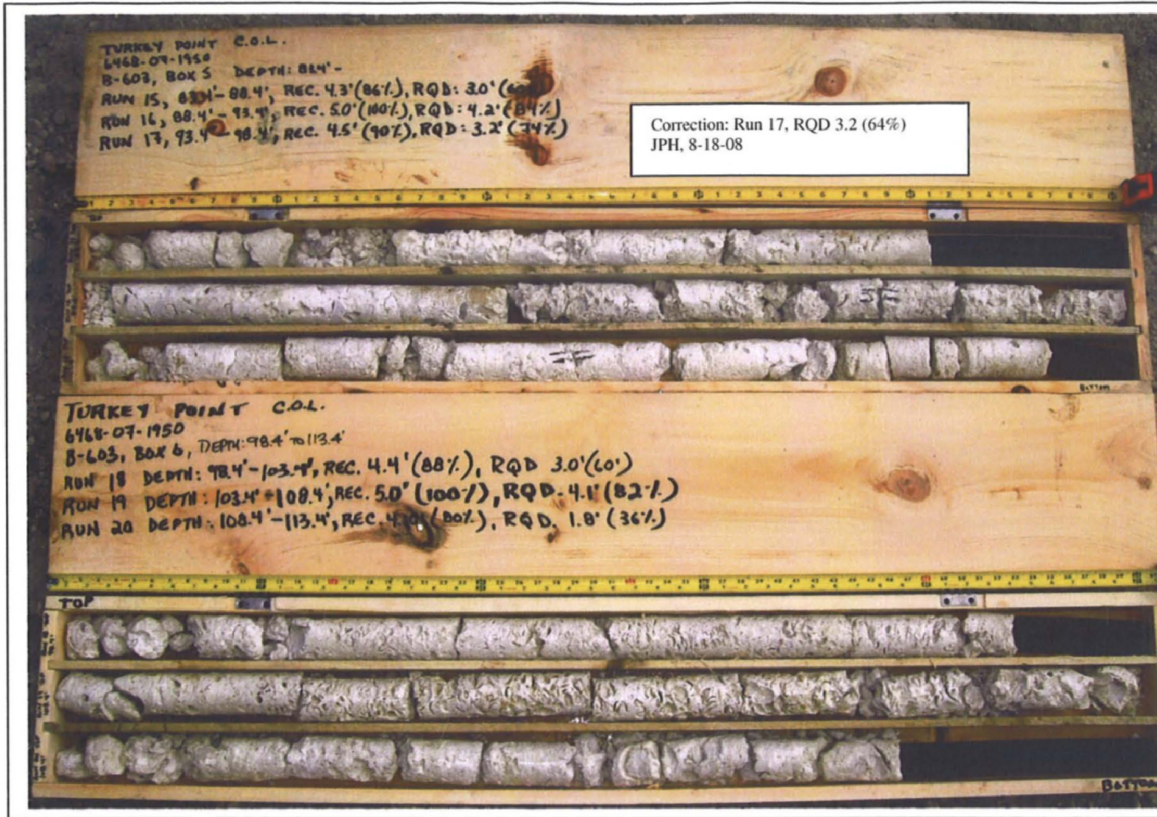


B-603 - Box 1  
B-603 - Box 2

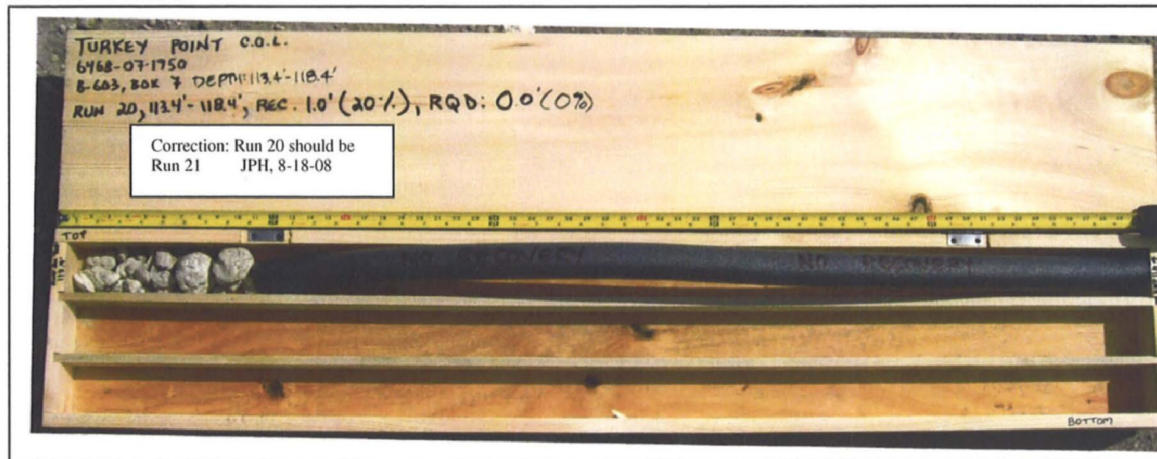


B-603 - Box 3  
B-603 - Box 4





B-603 – Box 5  
B-603 – Box 6



B-603 – Box 7



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: S. Woodham								
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550X (ATL)		DRILLER: P. Pitts/ R. Landeros		GROUND WATER (ft)								
BORING NO.: B-604(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA								
GROUND ELEV.: -1.5 ft (NAVD88)		NORTHING: 396,916 US ft (NAD83/90)		EASTING: 876,592 US ft (NAD83/90)		24 HR. NA								
TOTAL DEPTH: 165.0 ft		BORING DIAMETER: 5" to 29.0', 4" to 165.0'		CASING DEPTH: 4" to 29.0'		HAMMER (ID): 140 lb. Auto (MEC-05)								
DATE STARTED: 3/19/08		COMPLETED: 3/23/08		CORE SIZE: HQ3		BITS USED: 4 7/8" & 3 7/8" Roller Cones								
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	
-1.5					Ground Surface								0.0	
-1.5	0.0	WOH	WOH	WOH							604(DH)-1		MUCK, dark grayish brown (10YR4/2), very soft, moist, organics	-1.5
-5.0	3.5	5	11	13							604(DH)-2		LIMESTONE, boundstone, pale yellow (2.5Y8/3), soft, moist, some coarse grained sand, strong HCl reaction, oolitic (Miami Formation)	-4.5
-7.5	6.0	12	10	8							604(DH)-3		6.0ft: very soft	
-10.0	8.5	8	14	19							604(DH)-4		8.5ft: medium hard, wet	
-12.0	10.5	8	19	50/0.2							604(DH)-5		10.5ft: white (10YR8/1), hard, trace coarse grained sand	
-15.0	13.5	11	28	25							604(DH)-6		13.5ft: moderately hard	
-20.0	18.5	5	5	6							604(DH)-7		18.5ft: very soft	
-25.0	23.5	7	9	12							604(DH)-8		23.5ft: soft, few coarse grained sand, few shell fragments	-26.5
-30.0	28.5	5	1	2							604(DH)-9		LIMESTONE, boundstone, pale yellow (2.5Y8/2), very soft, wet, coarse grained sand, strong HCl reaction (Upper Fort Thompson Formation)	-25.0
-35.0	33.5												25.0ft: loss of circulation	
-35.4	33.9	50/0.4									604(DH)-10		33.5ft: white (10YR8/1), very dense	
-40.3	38.8										RUN-1		33.9ft: Switch sampling method to coring	
											RUN-2		33.9ft: hard, indurated, strong HCl reaction, fossiliferous, little vugs	
											RUN-3		38.8ft: moderately indurated	
-45.3	43.8													
-50.3	48.8													
-55.3	53.8										RUN-4		LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)	-50.3
											604(DH)-CS-01			
											604(DH)-CS-02			
											RUN-5		53.8ft: moderately hard to hard	48.8
-60.3	58.8										RUN-6		58.8ft: moderately hard, indurated	
-65.3	63.8										RUN-7			
-70.3	68.8										RUN-8		63.8ft: hard, trace coarse grained sand	
-75.3	73.8										RUN-9			

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade		GEOLOGIST: S. Woodham					
SITE DESCRIPTION: Turkey Point COL				DRILL MACHINE: CME-550X (ATL)		DRILLER: P. Pitts/ R. Landeros		GROUND WATER (ft)				
BORING NO.: B-604(DH)				DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR. NA				
GROUND ELEV.: -1.5 ft (NAVD88)		NORTHING: 396,916 US ft (NAD83/90)		EASTING: 876,592 US ft (NAD83/90)		24 HR. NA						
TOTAL DEPTH: 165.0 ft		BORING DIAMETER: 5" to 29.0', 4" to 165.0'		CASING DEPTH: 4" to 29.0'		HAMMER (ID):140 lb. Auto (MEC-05)						
DATE STARTED: 3/19/08		COMPLETED: 3/23/08		CORE SIZE: HQ3		BITS USED: 4 7/8" & 3 7/8" Roller Cones						
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			
-76.3					Continued from previous page							
-80.3	78.8											LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) (continued)
-85.3	83.8									RUN-10 604(DH)-CS-03		78.8 to 79.6ft: sand zone
-90.3	88.8									RUN-11		83.8 to 86.0ft: sand zone
-95.3	93.8									RUN-12		88.8ft: trace to few vugs
-100.3	98.8									RUN-13		
-105.3	103.8									RUN-14		98.8ft: shell molds and casts
-110.3	108.8									RUN-15		
-115.3	113.8									RUN-16		
-120.3	118.8	4	6	9						RUN-17		
-130.4	128.9	3	6	7						604(DH)-11		118.8ft: Silty SAND (SM), greenish gray (10Y6/1), medium dense, moist, some fines, fine grained sand, strong HCl reaction (Tamiami Formation) 118.8ft: Switch sampling method to SPT; no recovery
-140.0	138.5	7	7	8						604(DH)-12		128.9ft: no recovery
-150.0	148.5	5	7	9						604(DH)-13		138.5ft: fine to medium grained sand, fine gravel
										604(DH)-14		

TURKEY POINT BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5.30.08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950			COUNTY: Miami-Dade		GEOLOGIST: S. Woodham						
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550X (ATL)		DRILLER: P. Pitts/ R. Landeros			GROUND WATER (ft)					
BORING NO.: B-604(DH)			DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core			0 HR. NA					
GROUND ELEV.: -1.5 ft (NAVD88)		NORTHING: 396,916 US ft (NAD83/90)			EASTING: 876,592 US ft (NAD83/90)		24 HR. NA						
TOTAL DEPTH: 165.0 ft		BORING DIAMETER: 5" to 29.0', 4" to 165.0'			CASING DEPTH: 4" to 29.0'		HAMMER (ID): 140 lb. Auto (MEC-05)						
DATE STARTED: 3/19/08		COMPLETED: 3/23/08		CORE SIZE: HQ3		BITS USED: 4 7/8" & 3 7/8" Roller Cones							
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				
-151.1					Continued from previous page								
-165.0	163.5	4	6	10	16								Silty SAND (SM), greenish gray (10Y6/1), medium dense, moist, some fines, fine grained sand, strong HCl reaction (Tamiami Formation) (continued)
													Sandy SILT (ML), greenish gray (10Y6/1), very stiff, moist, fine grained sand, strong HCl reaction Boring Terminated at Elevation -166.5 ft

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5:30:08





BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: S. Woodham	
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550X (ATL)		DRILLER: P. Pitts/ R. Landeros		GROUND WATER (ft)	
BORING NO.: B-604(DH)		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA
GROUND ELEV.: -1.5 ft (NAVD88)		NORTHING: 396,916 US ft (NAD83/90)		EASTING: 876,592 US ft (NAD83/90)		24 HR.	NA
TOTAL DEPTH: 165.0 ft		CASING DEPTH: 4" to 29.0'				HAMMER (ID): 140 lb. Auto (MEC-05)	
DATE STARTED: 3/19/08		COMPLETED: 3/23/08		CORE SIZE: HQ3		CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)	

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 @ 33.9 ft
-35.4	33.9	4.9	0:55 1:02 1:05 1:16 1:00/0.9	(1.5) 31%	(1.3) 27%	RUN-1	(3.6) 24%	(1.8) 12%		LIMESTONE, boundstone, pale yellow (2.5Y8/2), very soft, wet, coarse grained sand, strong HCl reaction (Upper Fort Thompson Formation)
-40.3	38.8	5.0	1:02 2:05 1:55 2:12 0:50	(0.4) 8%	(0.0) 0%	RUN-2				25.0ft: loss of circulation (continued) 33.9ft: hard, indurated, strong HCl reaction, fossiliferous, little vugs 38.8ft: moderately indurated
-45.3	43.8	5.0	ND 2:03 2:53 3:39 2:30	(1.7) 34%	(0.5) 10%	RUN-3				
-50.3	48.8	5.0	0:59 1:29 1:08 0:45 0:30	(4.8) 96%	(4.8) 96%	RUN-4 604(DH)-CS-01 604(DH)-CS-02	(44.9) 68%	(27.2) 41%		LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation)
-55.3	53.8	5.0	0:28 0:29 0:36 0:29 0:28	(4.3) 86%	(2.7) 54%	RUN-5				53.8ft: moderately hard to hard
-60.3	58.8	5.0	0:31 0:35 0:52 0:37 0:25	(2.3) 46%	(0.3) 6%	RUN-6				58.8ft: moderately hard, indurated
-65.3	63.8	5.0	0:16 1:00 0:30 0:40 0:45	(3.5) 70%	(1.8) 36%	RUN-7				63.8ft: hard, trace coarse grained sand
-70.3	68.8	5.0	0:04 0:35 0:45 0:05 0:51	(1.9) 38%	(0.4) 8%	RUN-8				
-75.3	73.8	5.0	0:15 0:07 0:11 0:36 1:35	(1.8) 36%	(0.8) 16%	RUN-9				
-80.3	78.8	5.0	2:14 1:33 0:47 0:45 1:04	(3.6) 72%	(2.0) 40%	RUN-10 604(DH)-CS-03				78.8 to 79.6ft: sand zone
-85.3	83.8	5.0	0:59 0:37 1:42 1:20 2:30	(2.7) 54%	(0.0) 0%	RUN-11				83.8 to 86.0ft: sand zone
-90.3	88.8	5.0	0:04 0:21 0:43 0:59 0:22	(1.7) 34%	(0.6) 12%	RUN-12				88.8ft: trace to few vugs
-95.3	93.8	5.0	0:27 0:40 0:50 0:49 0:56	(4.7) 94%	(3.4) 68%	RUN-13				
-100.3	98.8	5.0	0:52 0:53 0:44 0:58 0:50	(5.0) 100%	(4.0) 80%	RUN-14				98.8ft: shell molds and casts
-105.3	103.8	5.0	0:52 1:05 0:55 1:03 0:55	(5.0) 100%	(4.4) 88%	RUN-15				
-110.3	108.8									

TURKEY POINT COL CORE TURKEY POINT COL GDT 5 30 08



BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550X (ATL)	DRILLER: P. Pitts/ R. Landeros	GROUND WATER (ft) 0 HR. NA 24 HR. NA
BORING NO.: B-604(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,916 US ft (NAD83/90)	EASTING: 876,592 US ft (NAD83/90)	
TOTAL DEPTH: 165.0 ft	CASING DEPTH: 4" to 29.0'	HAMMER (ID): 140 lb. Auto (MEC-05)	
DATE STARTED: 3/19/08	COMPLETED: 3/23/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

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) %		
										Continued from previous page
-115.3	113.8	5.0	1:12 0:58 1:04 1:02 2:00	(3.1) 62%	(1.5) 30%	RUN-16				LIMESTONE, boundstone, white (10YR8/1), hard, moderately indurated, trace vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) <i>(continued)</i>
-120.3	118.8	5.0	0:54 0:57 0:49 0:46 0:18	(0.5) 10%	(0.5) 10%	RUN-17	(0.0) 0%	(NA)		Silty SAND (SM), greenish gray (10Y6/1), medium dense, moist, some fines, fine grained sand, strong HCl reaction (Tamiami Formation)
										Coring Terminated at Elevation -120.3

TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08



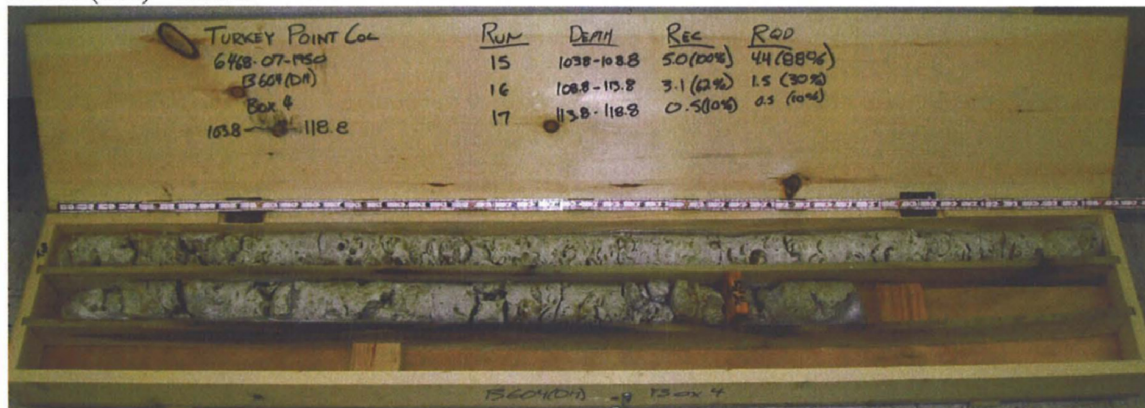
B-604 (DH) - Box 1



B-604 (DH) - Box 2



B-604 (DH) - Box 3



B-604 (DH) - Box 4

GEOTECHNICAL BORING LOG

Prepared By APX Date 8-19-08

Checked By SW Date 8/19/08



SHEET 1 OF 3

BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: B. Taylor/L. Bisson								
SITE DESCRIPTION: Turkey Point COL			DRILL MACHINE: CME-550 (ATL)			DRILLER: L. Carter/ J. Landeros		GROUND WATER (ft)						
BORING NO.: B-605			DRILL METHOD: Mud Rotary/ Core			SAMPLE METHODS: SPT/Core		0 HR. NA						
GROUND ELEV.: -1.7 ft (NAVD88)			NORTHING: 396,917 US ft (NAD83/90)			EASTING: 876,694 US ft (NAD83/90)		24 HR. NA						
TOTAL DEPTH: 201.0 ft		BORING DIAMETER: 4" to 36.0', 3" to 201.0'			CASING DEPTH: 4" to 36.0', 3" to 119.9'		HAMMER (ID): 140 lb. Auto (MEC-03)							
DATE STARTED: 2/23/08		COMPLETED: 2/27/08		CORE SIZE: HQ3		BITS USED: 3 7/8" and 2 15/16" Tricones								
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	
-1.7					Ground Surface								0.0	
-1.7	0.0	WOR	WOR	WOR							605-1		MUCK, very dark gray (10YR3/1), very soft, moist, mostly organics	0.0
-4.2	2.5										605-2			2.5
-6.7	5.0	2	6	8							605-3		LIMESTONE, boundstone, very pale brown (10YR8/2), very soft, moist, friable (Miami Formation)	
-9.2	7.5	7	7	8							605-4		5.0ft: white (10YR8/1), medium dense, trace shell fragments, oolitic	
-11.7	10.0	3	25	9							605-5		7.5ft: light gray (10YR7/2), medium hard	
-14.2	12.5	3	10	5							605-6		10.0ft: white (10YR8/1), very soft	
-16.7	15.0	3	6	9							605-7		15.0ft: light gray (10YR7/1), soft	
-21.7	20.0	8	13	10							605-8		20.0ft: very soft, trace calcite crystals	
-26.7	25.0	3	8	8							605-9			24.0
-31.7	30.0	5	22	28							605-10		LIMESTONE, boundstone, white (10YR8/1), moderately hard, moist, trace shell fragments (Upper Fort Thompson Formation)	
-37.9	35.0	16	13	4							605-11		30.0ft: very pale brown (10YR8/2), very soft, coralline	
-39.8	36.2	11	36	50/0.2							RUN-1		33.0ft: loss of circulation	
-44.8	38.1										RUN-2		35.0ft: white (10YR8/1), hard	
-49.8	43.1										RUN-3		36.2ft: Switch sampling method to coring	
-54.8	48.1										RUN-4		36.2ft: medium hard, moderately indurated, fossiliferous, few vugs	
-59.8	53.1										RUN-5		43.1ft: hard, moderately indurated, recrystallized calcite	
-64.8	58.1										RUN-6		48.1ft: LIMESTONE, boundstone, white (10YR8/1), hard, indurated, little vugs, some shells, trace recrystallized calcite in vugs (Lower Fort Thompson Formation)	48.1
-69.8	63.1										RUN-7		53.1ft: medium hard, moderately indurated	
-74.8	68.1										RUN-8		63.1ft: few vugs	
-75.6	73.1										RUN-9		68.1ft: mottled light gray (10YR7/1), some vugs, interbedded sand	
	73.9										RUN-10			

TURKEY POINT COL BORE: TURKEY POINT.GPJ TURKEY POINT COL.GDT 8/18/08



BECHTEL PROJECT NO.: 25409		MACTEC PROJECT NO.: 6468-07-1950		COUNTY: Miami-Dade		GEOLOGIST: B. Taylor/L. Bisson						
SITE DESCRIPTION: Turkey Point COL		DRILL MACHINE: CME-550 (ATL)		DRILLER: L. Carter/ J. Landeros		GROUND WATER (ft)						
BORING NO.: B-605		DRILL METHOD: Mud Rotary/ Core		SAMPLE METHODS: SPT/Core		0 HR.	NA					
GROUND ELEV.: -1.7 ft (NAVD88)		NORTHING: 396,917 US ft (NAD83/90)		EASTING: 876,694 US ft (NAD83/90)		24 HR.	NA					
TOTAL DEPTH: 201.0 ft		BORING DIAMETER: 4" to 36.0', 3" to 201.0'		CASING DEPTH: 4" to 36.0', 3" to 119.9'		HAMMER (ID): 140 lb. Auto (MEC-03)						
DATE STARTED: 2/23/08		COMPLETED: 2/27/08		CORE SIZE: HQ3		BITS USED: 3 7/8" and 2 15/16" Tricones						
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			
-76.5					Continued from previous page							
-80.6	78.9											73.9ft: hard, indurated, mostly vugs LIMESTONE, boundstone, white (10YR8/1), hard, indurated, little vugs, some shells, trace recrystallized calcite in vugs (Lower Fort Thompson Formation) (continued)
-85.6	83.9											83.9ft: moderately indurated
-90.6	88.9											88.9ft: moderately hard, indurated, few vugs
-94.6	92.9											92.9ft: trace vugs, trace sand
-95.6	93.9											
-100.6	98.9											
-105.6	103.9											103.9ft: hard, shell molds and casts
-110.6	108.9											108.9ft: moderately hard
-115.6	113.9											113.9ft: light gray (2.5Y7/2), hard
-116.7	115.0											Sandy SILT (ML), light gray (2.5Y7/1), very stiff, wet, fine to medium grained sand, strong HCl reaction (Tamiami Formation)
-121.6	119.9	9	8	11								119.9ft: Switch sampling method to SPT
-126.6	124.9	4	9	12								Silty SAND (SM), greenish gray (10Y5/1), medium dense, fine grained sand, strong HCl reaction
-131.6	129.9											129.9ft: No sample taken
-133.1	131.4	3	5	8								131.4ft: fine to medium grained sand, some loss of circulation
-136.6	134.9	9	15	22								134.9ft: dense, trace shell fragments
-141.6	139.9	8	12	19								
-146.6	144.9	7	10	14								144.9ft: medium dense

TURKEY POINT COL BORE TURKEY POINT.GPJ TURKEY POINT.COL.GDT 8:18 08