MACTEC

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-607	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,644 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 152.5 ft	CASING DEPTH: 4" to 16.0', 3" to 120.0'		HAMMER (ID): 140 lb. Auto (MEC-03)
DATE STARTED: 3/7/08	COMPLETED: 3/9/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN REC. (ft) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 16.0 ft
-17.5	16.0	2.3	1:54	(2.3)	(1.3)	RUN-1	(7.3)	(6.1)		LIMESTONE, boundstone, pale yellow (2.5Y8/2), soft, wet, trace fines, fossiliferous, strong HCl reaction, oolitic (Miami Formation) *(continued)*
-19.8	18.3		1:42	100%	57%		91%	76%		
		5.0	0:39/0.3	(5.0)	(4.8)	RUN-2				16.0ft: white (2.5Y8/1), hard, indurated, trace fines, fossiliferous, strong HCl reaction, locally inconnected vugs
			1:08	100%	96%					
			1:02							
			0:47							
			0:36							
-24.8	23.3		1:01							
		5.0	0:27	(3.8)	(3.3)	RUN-3				-25.5 — 24.0
			0:17	76%	66%		(23.2)	(21.5)		LIMESTONE, boundstone, very pale brown (10YR8/2), hard, indurated, fossiliferous, trace fines, strong HCl reaction, trace vugs (Upper Fort Thompson Formation)
			0:28			*607-CS-01*	98%	91%		
			0:28							
-29.8	28.3		0:35							
		5.0	0:43	(5.0)	(4.6)	RUN-4				
			0:58	100%	92%					
			1:02							
			1:03							
-34.8	33.3		0:59							
		5.0	0:49	(5.0)	(4.9)	RUN-5				33.3ft: white (2.5Y8/1), extremely indurated, recrystallized calcite, few vugs
			1:11	100%	98%	*607-CS-02*				
			1:01							
			1:32							
-39.8	38.3		1:48							
		5.0	1:28	(5.0)	(4.7)	RUN-6				38.3ft: indurated
			1:54	100%	94%					
			1:57			*607-CS-03*				
			1:36							
-44.8	43.3		0:56							
		5.0	0:30	(5.0)	(4.6)	RUN-7				43.3ft: moderately hard, trace sand
			1:33	100%	92%					
			1:28							
			2:39							45.9ft: gray (2.5Y6/1) to 47.7ft
-49.8	48.3		1:43							-49.2 — 47.7
		5.0	0:52	(5.0)	(4.5)	RUN-8	(53.4)	(36.3)		LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, fossiliferous, trace to few vugs, strong HCl reaction (Lower Fort Thompson Formation)
			1:07	100%	90%		79%	54%		
			1:25			*607-CS-04*				
			1:10							
-54.8	53.3		1:00							
		5.0	0:31	(3.1)	(3.0)	RUN-9				53.3ft: medium hard to hard
			0:40	62%	60%					
			0:48							
			0:16							
-59.8	58.3		1:52							
		5.0	1:02	(5.0)	(3.8)	RUN-10				58.3ft: hard, trace vugs
			0:53	100%	76%	*607-CS-05*				
			1:17							
			0:59							
-64.8	63.3		0:49							
		5.0	0:30	(3.0)	(0.7)	RUN-11				63.3ft: moderately hard, moderately indurated, sandy
			0:08	60%	14%					
			0:43							
			0:39							
-69.8	68.3		0:25							
		5.0	0:22	(3.0)	(0.8)	RUN-12				68.3ft: light gray (2.5Y7/2), indurated
			1:02	60%	16%					
			0:15							
			2:04							
-74.8	73.3		1:31							
		5.0	0:44	(1.7)	(0.4)	RUN-13				73.3ft: white (2.5Y8/1)
			1:09	34%	8%					
			0:48							
			1:09							
-79.8	78.3		1:56							
		2.0	1:08	(1.3)	(0.8)	RUN-14				78.3ft: moderately indurated
-81.8	80.3		1:09	65%	40%					
		3.0	1:08	(3.0)	(1.9)	RUN-15				80.3ft: hard, indurated, trace sand, few vugs
			1:48	100%	63%					
-84.8	83.3		1:09							
		5.0	0:44	(4.7)	(3.4)	RUN-16				
			0:34	94%	68%					
			1:42							
			1:42							
-89.8	88.3		1:09							
		5.0	0:58	(5.0)	(3.3)	RUN-17				88.3ft: moderately hard to hard
			0:51	100%	66%					

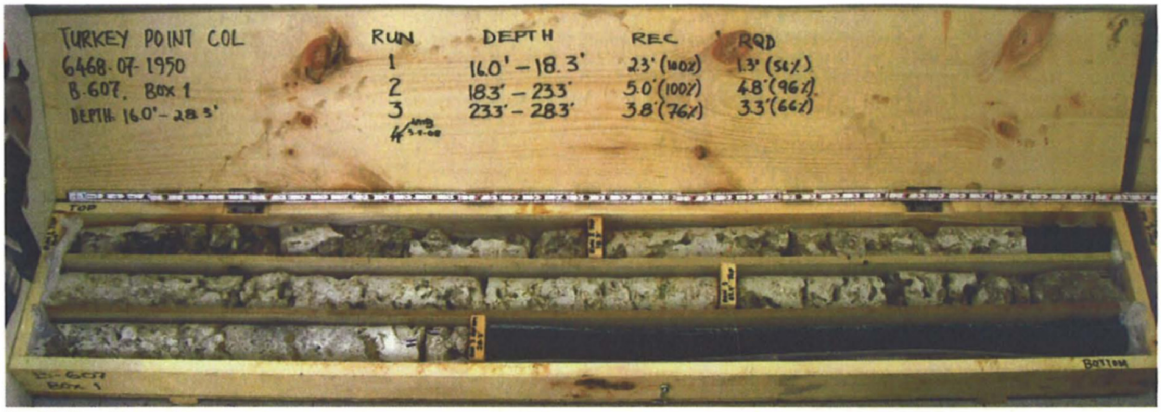
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 7/10/08

MACTEC

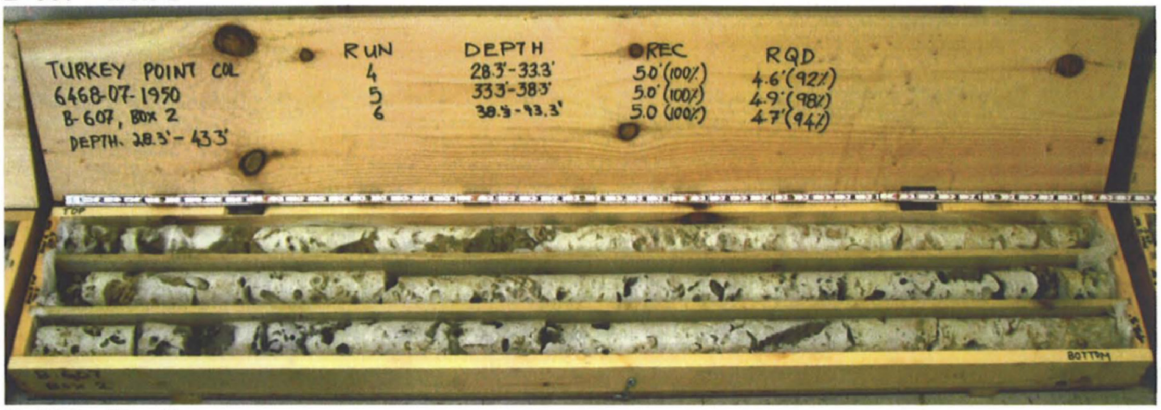
BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: L. Bisson
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-607	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,644 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 152.5 ft	CASING DEPTH: 4" to 16.0', 3" to 120.0'		HAMMER (ID): 140 lb. Auto (MEC-03)
DATE STARTED: 3/7/08	COMPLETED: 3/9/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN REC (ft) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Continued from previous page
-94.8	93.3		0:54 0:55 0:33							LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, fossiliferous, trace to few vugs, strong HCl reaction (Lower Fort Thompson Formation) *(continued)*
-99.8	98.3	5.0	0:19 0:50 1:07 1:40 1:39	(4.2) 84%	(3.7) 74%	RUN-18				
-104.8	103.3	5.0	0:40 1:50 1:45 1:58 0:58	(5.0) 100%	(3.5) 70%	RUN-19 *607-CS-06*				
-109.8	108.3	5.0	0:40 1:02 0:59 0:47 0:56	(5.0) 100%	(4.3) 86%	RUN-20				
-114.8	113.3	5.0	0:30 0:34 0:38 0:50 0:55	(3.8) 76%	(1.6) 32%	RUN-21				108.3ft: hard to soft, indurated to friable
-119.8	118.3	5.0	0:42 0:32 0:24 0:08 0:10	(0.0) 0%	(0.0) 0%	RUN-22	(0.0) 0%	(NA)		-116.5 115.0 Silty SAND (SM), light gray (2.5Y7/1), medium dense, wet, fine grained sand, strong HCl reaction, trace shell fragments (Tamiami Formation) -119.8 118.3
										Coring Terminated at Elevation -119.8

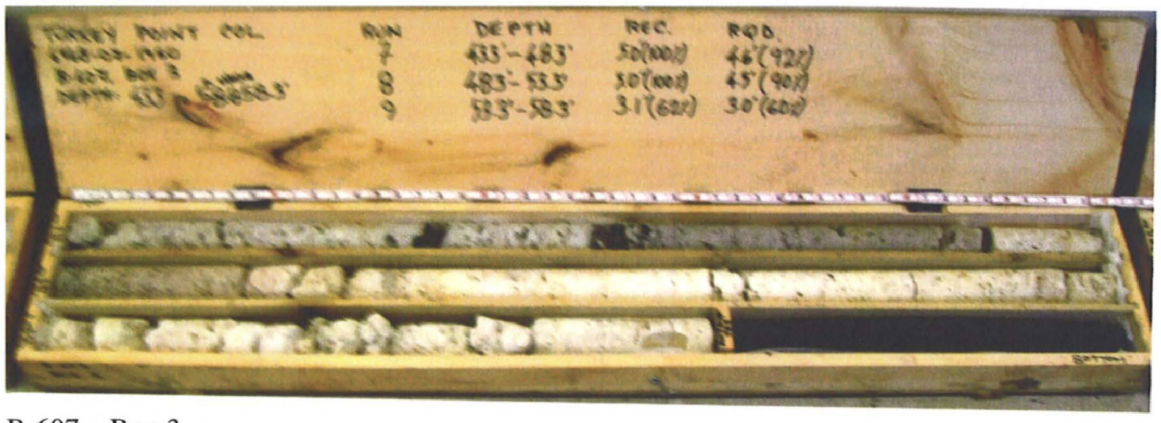
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 7/10/08



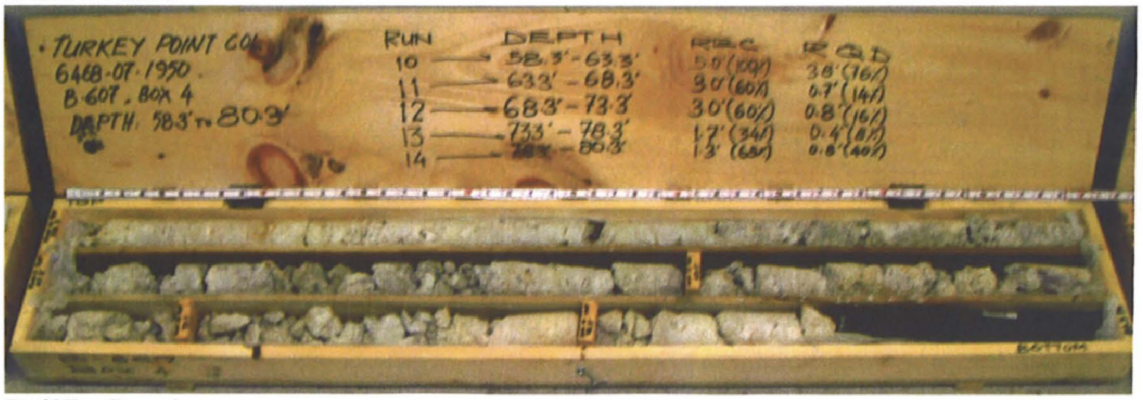
B-607 – Box 1



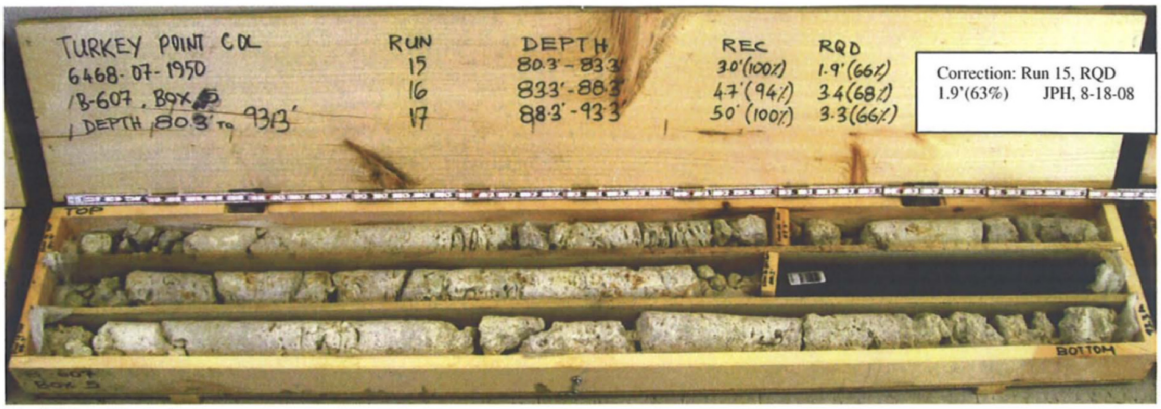
B-607 – Box 2



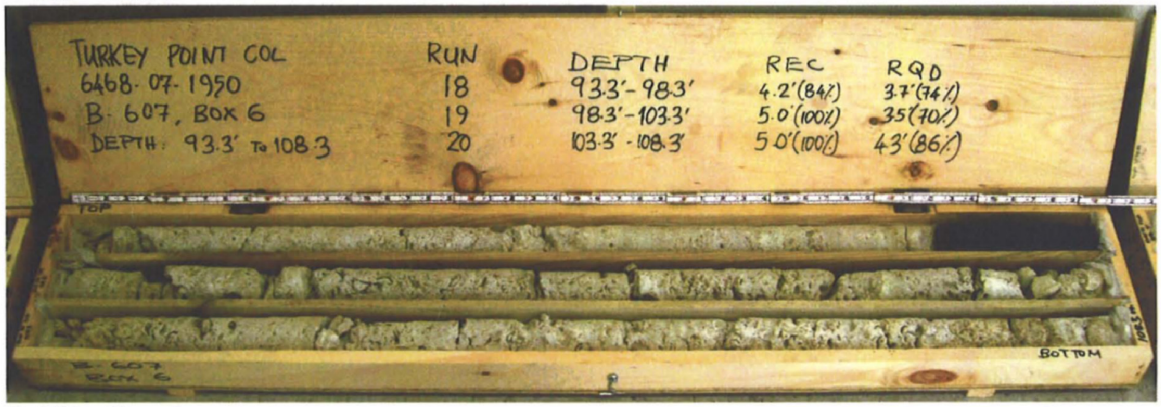
B-607 – Box 3



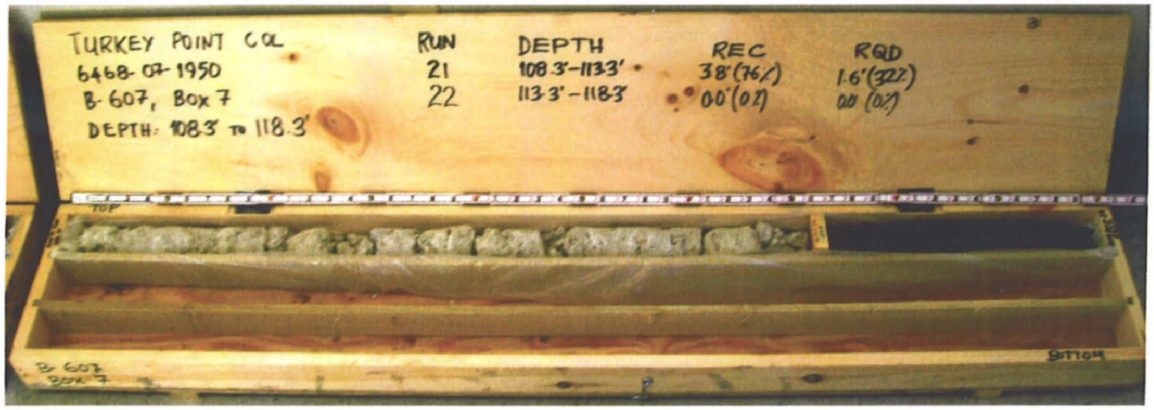
B-607 – Box 4



B-607 – Box 5



B-607 – Box 6



B-607 – Box 7

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 5-30-08
Checked By [illegible] Date 9-22-08

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Woodham/B. Taylor
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550X (ATL)	DRILLER: R. Landeros/ N. Rodriguez	GROUND WATER (ft)
BORING NO.: B-608(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,736 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 265.4 ft	BORING DIAMETER: 5" to 34.0', 4" to 265.4'	CASING DEPTH: 4" to 117.0'	HAMMER (ID):140 lb. Auto (MEC-05)
DATE STARTED: 3/25/08	COMPLETED: 4/2/08	CORE SIZE: HQ3	BITS USED: 4 7/8" & 3 7/8" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-1.5					Ground Surface				-1.5 / 0.0
-1.5	0.0	WOH	WOH	WOH	WOH 0	608(DH)-1			Muck; no recovery
-5.0	3.5								3.5ft: very dark brown (10YR2/2), very soft, wet, organics
-7.5	6.0	2	9	7	16	608(DH)-2A&B			-6.0 / 4.5 LIMESTONE, very pale yellow (10YR8/2), very soft, wet, strong HCl reaction, trace fines, oolitic (Miami Formation)
-10.0	8.5	6	7	6	13	608(DH)-3			
-12.0	10.5	12	12	2	14	608(DH)-4			8.5ft: light gray (7.5YR7/1)
-15.0	13.5	5	3	2	5	608(DH)-5			10.5ft: white (2.5Y8/1)
-20.0	18.5	10	7	10	17	608(DH)-6			
-25.0	23.5	24	25	10	35	608(DH)-7			18.5ft: medium hard
-30.0	28.5	18	10	7	17	608(DH)-8			23.5ft: very soft
-34.0	32.5	1	2	1	3	608(DH)-9			-27.5 / 26.0 LIMESTONE, boundstone, pale yellow (5Y8/3), very soft, wet, coarse grained sand, strong HCl reaction (Upper Fort Thompson Formation) 26.0ft: loss of circulation
-35.5	34.0	31	7	17	24	608(DH)-10			32.5ft: white (2.5Y8/1), soft
-38.8	37.3					RUN-1			34.0ft: Switch sampling method to coring 34.0ft: white (10YR8/1), hard, indurated, fossiliferous, strong HCl reaction, trace calcite recrystallization, coralline, little vugs
-43.8	42.3					RUN-2			
-48.8	47.3					608(DH)-CS-01 RUN-3 608(DH)-CS-02			42.3ft: white (10YR8/1) to gray (10YR6/1) at 44.4ft to 46.8ft -48.3 / 46.8
-53.8	52.3					RUN-4			LIMESTONE, boundstone, white (10YR8/1), moderately hard to hard, moderately indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation)
-58.8	57.3					RUN-5			52.3ft: trace vugs, trace recrystallized calcite, trace coarse grained sand
-63.8	62.3					RUN-6			57.3ft: few vugs, few coarse grained sand
-68.8	67.3					RUN-7			62.3ft: soft to moderately hard, friable to moderately indurated, some coarse grained sand
-73.8	72.3					RUN-8			67.3ft: moderately hard, moderately indurated, few vugs
						RUN-9			72.3ft: moderately hard to hard, moderately indurated, trace vugs

SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Woodham/B. Taylor
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550X (ATL)	DRILLER: R. Landeros/ N. Rodriguez	GROUND WATER (ft)
BORING NO.: B-608(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,736 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 265.4 ft	BORING DIAMETER: 5" to 34.0', 4" to 265.4'	CASING DEPTH: 4" to 117.0'	HAMMER (ID):140 lb. Auto (MEC-05)
DATE STARTED: 3/25/08	COMPLETED: 4/2/08	CORE SIZE: HQ3	BITS USED: 4 7/8" & 3 7/8" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-76.3					Continued from previous page				
-78.8	77.3					RUN-10			LIMESTONE, boundstone, white (10YR8/1), moderately hard to hard, moderately indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation) *(continued)* 77.3ft: moderately hard to hard, indurated, few vugs
-83.8	82.3					RUN-11			82.3ft: hard, indurated
-88.8	87.3					RUN-12			87.3ft: moderately hard, moderately indurated
-93.8	92.3					RUN-13			92.3ft: hard, indurated
-98.8	97.3					RUN-14			97.3ft: moderately hard to hard, few vugs, few to little shell molds and casts
-103.8	102.3					RUN-15			102.3 to 103.3ft: sand layer
-108.8	107.3					608(DH)-CS-03			
-113.8	112.3					RUN-16			
-116.5						RUN-17			115.0
-119.3	117.8	8	4	7	11	608(DH)-11			Silty SAND (SM), pale yellow (2.5Y8/2), medium dense, wet, fine to medium grained sand (Tamiami Formation) 117.8ft: Switch sampling method to SPT
-130.0	128.5	4	6	7	13	608(DH)-12			128.5ft: greenish gray (10Y6/1), moist, strong HCL reaction
-139.5	138.0	5	9	8	17	608(DH)-13			
-149.5	148.0	8	12	16	28	608(DH)-14			148.0

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Woodham/B. Taylor
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550X (ATL)	DRILLER: R. Landeros/ N. Rodriguez	GROUND WATER (ft)
BORING NO.: B-608(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,736 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 265.4 ft	BORING DIAMETER: 5" to 34.0', 4" to 265.4'	CASING DEPTH: 4" to 117.0'	HAMMER (ID):140 lb. Auto (MEC-05)
DATE STARTED: 3/25/08	COMPLETED: 4/2/08	CORE SIZE: HQ3	BITS USED: 4 7/8" & 3 7/8" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-151.1					Continued from previous page				
									POORLY GRADED SAND with silt (SP-SM), greenish gray (10Y6/1), medium dense, moist, strong HCL reaction, fine to medium grained sand, trace shell fragments *(continued)*
-159.5	158.0								
		4	8	10	18	608(DH)-15			
-169.5	168.0								
		5	8	10	18	608(DH)-16			168.0ft: dark greenish gray (5GY4/1), weak HCl reaction
-179.5	178.0								
		3	5	13	18	608(DH)-17			Sandy SILT (ML), dark greenish gray (5GY4/1), very stiff, moist, fine grained sand, strong HCl reaction
-189.5	188.0								
		3	4	9	13	608(DH)-18			188.0ft: weak HCl reaction
-199.5	198.0								
		3	5	7	12	608(DH)-19			
-209.5	208.0								
		5	4	9	13	608(DH)-20			208.0ft: strong HCl reaction
-219.5	218.0								
		7	11	11	22	608(DH)-21			

-179.5 — 178.0

-216.5 — 215.0

Silty SAND (SM), greenish gray (10Y6/1), medium dense, moist, fine grained sand, strong HCl reaction (Hawthorn Group)

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Woodham/B. Taylor
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550X (ATL)	DRILLER: R. Landeros/ N. Rodriguez	GROUND WATER (ft)
BORING NO.: B-608(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,736 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 265.4 ft	BORING DIAMETER: 5" to 34.0', 4" to 265.4'	CASING DEPTH: 4" to 117.0'	HAMMER (ID):140 lb. Auto (MEC-05)
DATE STARTED: 3/25/08	COMPLETED: 4/2/08	CORE SIZE: HQ3	BITS USED: 4 7/8" & 3 7/8" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-225.9					Continued from previous page				
-229.5	228.0								Silty SAND (SM), greenish gray (10Y6/1), medium dense, moist, fine grained sand, strong HCl reaction (Hawthorn Group) *(continued)* 228.0ft: very dense, fine to medium grained sand
		24	48	50/0.3	98/0.8	608(DH)-22			
-240.4	238.9								238.9ft: dark greenish gray (10Y4/1), dense, weak HCl reaction
		12	21	24	45	608(DH)-23			
-250.4	248.9								248.9ft: greenish gray (10Y5/1), very dense, fine to medium grained sand, trace shell fragments, strong HCl reaction
		19	27	27	54	608(DH)-24			
-265.4	263.9								263.9ft: dense
		12	21	27	48	608(DH)-25			
-266.9									265.4 Boring Terminated at Elevation -266.9 ft

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Woodham/B. Taylor
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550X (ATL)	DRILLER: R. Landeros/ N. Rodriguez	GROUND WATER (ft)
BORING NO.: B-608(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,736 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 265.4 ft	CASING DEPTH: 4" to 117.0'		HAMMER (ID): 140 lb. Auto (MEC-05)
DATE STARTED: 3/25/08	COMPLETED: 4/2/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN REC (ft) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Begin Coring @ 34.0 ft
-35.5	34.0	3.3	0:36 0:36 1:07 1:00/0.3	(2.6) 79%	(0.9) 27%	RUN-1	(12.1) 95%	(8.3) 65%		LIMESTONE, boundstone, pale yellow (5Y8/3), very soft, wet, coarse grained sand, strong HCl reaction (Upper Fort Thompson Formation)
-38.8	37.3	5.0	0:30 0:35 0:44 1:07 1:56	(5.0) 100%	(3.2) 64%	RUN-2 608(DH)-CS-01				26.0ft: loss of circulation *(continued)* 34.0ft: white (10YR8/1), hard, indurated, fossiliferous, strong HCl reaction, trace calcite recrystallization, coralline, little vugs
-43.8	42.3	5.0	1:03 1:08 0:38 0:44 1:06	(5.0) 100%	(4.7) 94%	RUN-3 608(DH)-CS-02				42.3ft: white (10YR8/1) to gray (10YR6/1) at 44.4ft to 46.8ft
-48.8	47.3	5.0	0:44 0:47 1:24 1:00 0:45	(5.0) 100%	(4.5) 90%	RUN-4	(47.6) 70%	(25.5) 37%		-48.3 46.8 LIMESTONE, boundstone, white (10YR8/1), moderately hard to hard, moderately indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation)
-53.8	52.3	5.0	1:20 1:15 0:57 0:56 0:54	(5.0) 100%	(3.9) 78%	RUN-5				52.3ft: trace vugs, trace recrystallized calcite, trace coarse grained sand
-58.8	57.3	5.0	0:26 0:26 0:36 0:17 0:14	(3.5) 70%	(1.2) 24%	RUN-6				57.3ft: few vugs, few coarse grained sand
-63.8	62.3	5.0	0:47 0:49 1:03 0:45 1:43	(2.8) 56%	(0.0) 0%	RUN-7				62.3ft: soft to moderately hard, friable to moderately indurated, some coarse grained sand
-68.8	67.3	5.0	1:10 1:02 0:37 0:59 0:25	(3.1) 62%	(1.9) 38%	RUN-8				67.3ft: moderately hard, moderately indurated, few vugs
-73.8	72.3	5.0	0:28 0:57 0:18 0:53 0:57	(3.4) 68%	(0.9) 18%	RUN-9				72.3ft: moderately hard to hard, moderately indurated, trace vugs
-78.8	77.3	5.0	1:06 0:39 0:36 0:31 0:37	(4.3) 86%	(3.0) 60%	RUN-10				77.3ft: moderately hard to hard, indurated, few vugs
-83.8	82.3	5.0	0:45 0:05 0:29 0:39 0:39	(0.3) 6%	(0.0) 0%	RUN-11				82.3ft: hard, indurated
-88.8	87.3	5.0	0:13 0:11 0:17 0:30 0:30	(1.1) 22%	(0.0) 0%	RUN-12				87.3ft: moderately hard, moderately indurated
-93.8	92.3	5.0	0:20 0:29 0:15 0:07 0:29	(3.6) 72%	(1.0) 20%	RUN-13				92.3ft: hard, indurated
-98.8	97.3	5.0	0:33 0:22 0:23 0:25 0:30	(4.8) 96%	(3.3) 66%	RUN-14				97.3ft: moderately hard to hard, few vugs, few to little shell molds and casts
-103.8	102.3	5.0	0:34 0:27 0:31 0:31 0:44	(5.0) 100%	(4.2) 84%	RUN-15 608(DH)-CS-03				102.3 to 103.3ft: sand layer
-108.8	107.3	5.0	0:26	(3.2)	(1.1)	RUN-16				

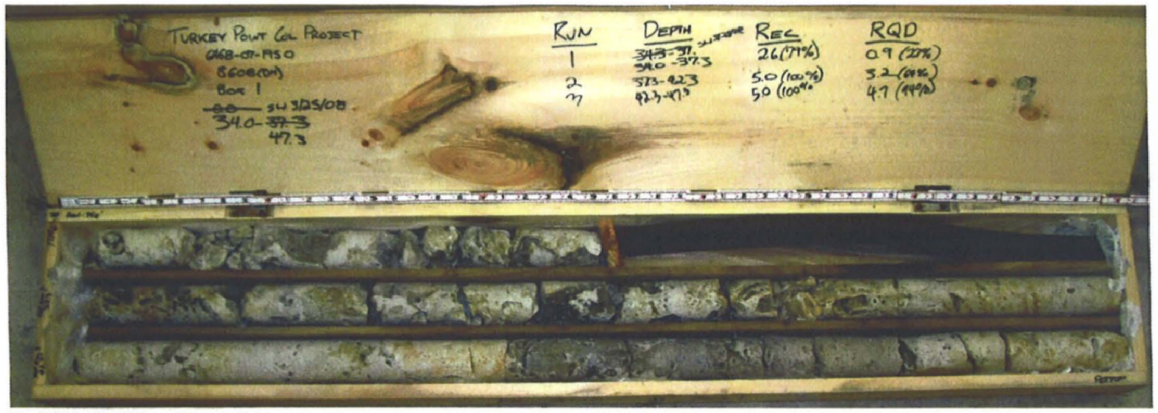
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Woodham/B. Taylor
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550X (ATL)	DRILLER: R. Landeros/ N. Rodriguez	GROUND WATER (ft)
BORING NO.: B-608(DH)	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,830 US ft (NAD83/90)	EASTING: 876,736 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 265.4 ft	CASING DEPTH: 4" to 117.0'		HAMMER (ID): 140 lb. Auto (MEC-05)
DATE STARTED: 3/25/08	COMPLETED: 4/2/08	CORE SIZE: HQ3	CORE BARREL TYPE: Triple Tube Wireline (Split inner liners)

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN REC (ft) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC (ft) %	STRATA RQD (ft) %	LOG	DESCRIPTION AND REMARKS
										Continued from previous page
-113.8	112.3		0:30 0:40 0:18 0:48	64%	22%					LIMESTONE, boundstone, white (10YR8/1), moderately hard to hard, moderately indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation) *(continued)*
		5.0	0:38 1:02 0:27 0:12 0:20	(2.0) 40%	(0.0) 0%	RUN-17				-116.5 — 115.0
-118.8	117.3						(0.0) 0%	(NA)		Silty SAND (SM), pale yellow (2.5Y8/2), medium dense, wet, fine to medium grained sand (Tamiami Formation) -118.8 — 117.3
										Coring Terminated at Elevation -118.8

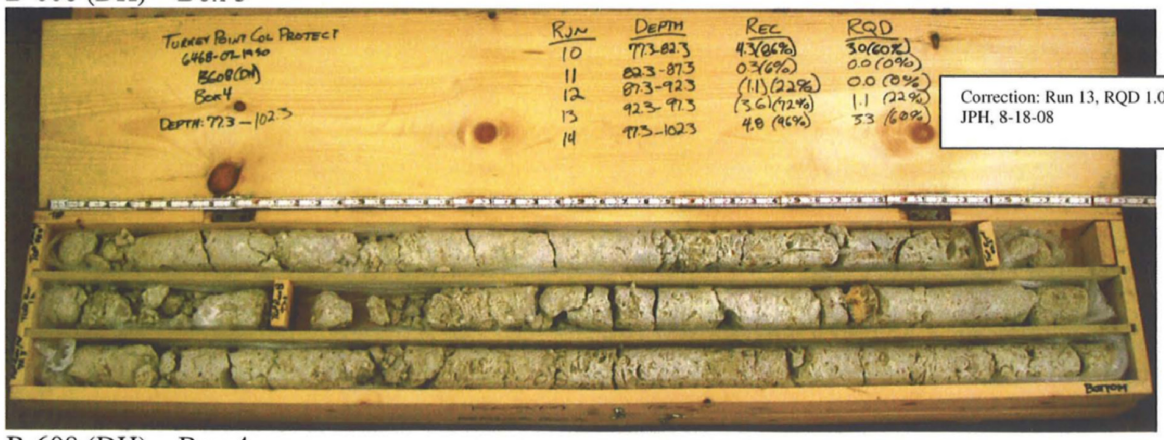
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08



B-608 (DH) – Box 1

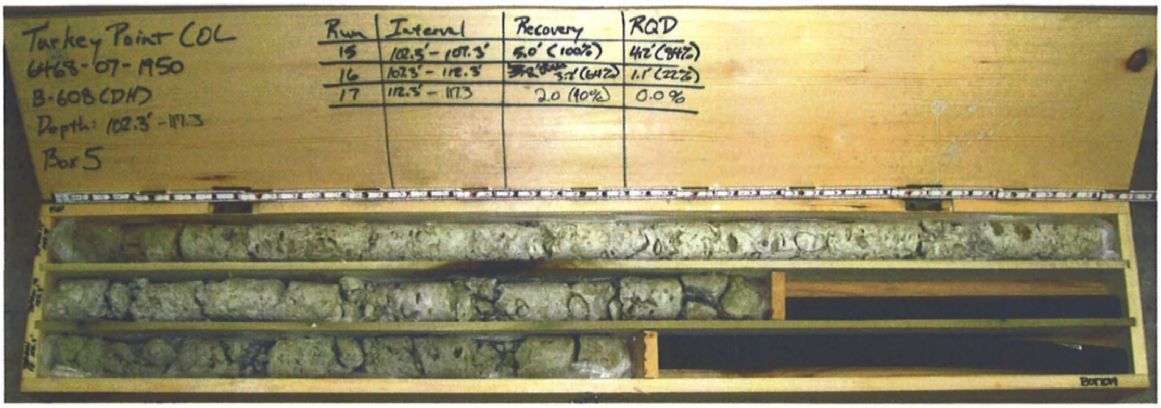
B-608 (DH) – Box 2

B-608 (DH) – Box 3



Correction: Run 13, RQD 1.0'(20%)
JPH, 8-18-08

B-608 (DH) – Box 4


Turkey Point COL
6468-07-1950
B-608 (DH)
Depth: 102.3' - 117.3
Box 5
Run | Interval | Recovery | RQD
15 | 102.5' - 107.3' | 5.0' (100%) | 4.2' (84%)
16 | 107.3' - 112.3' | 5.1' (102%) | 1.1' (22%)
17 | 112.3' - 117.3 | 2.0 (40%) | 0.0%

B-608 (DH) – Box 5

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 5-30-08
Checked By [illegible] Date [illegible]

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: H. Lyatuu
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-609	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,763 US ft (NAD83/90)	EASTING: 876,689 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.7 ft	BORING DIAMETER: 4" to 25.0', 3" to 150.7'	CASING DEPTH: 4" to 25.0', 3" to 125.0'	HAMMER (ID):140 lb. Auto (MEC-03)
DATE STARTED: 3/10/08	COMPLETED: 3/12/08	CORE SIZE: HQ3	BITS USED: 4" & 3" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-1.5					Ground Surface				-1.5 / 0.0
-1.5 / -4.0	0.0 / 2.5	WOR	WOR	WOR	WOR 0	609-1			MUCK, very pale brown (10Y3/4), to very dark gray (10YR3/1), very soft, wet, mostly organic, strong HCl reaction -3.5 / 2.0
-6.5	5.0	WOH	3	5	8	609-2			LIMESTONE, boundstone, white (2.5Y8/1), very soft, wet, strong HCl reaction, oolitic (Miami Formation)
-9.0	7.5	6	6	5	11	609-3			5.0ft: white (10YR8/1)
-11.5	10.0	2	2	3	5	609-4			7.5ft: fossiliferous
-14.0	12.5	3	10	19	29	609-5			10.0ft: soft
-16.5	15.0	9	16	20	36	609-6			12.5ft: white (2.5Y8/1), medium hard
-20.7	19.2	7	19	15	34	609-7			15.0ft: white (10Y8/1)
-25.7	24.2	5	16	14	30	609-8			19.2ft: white (2.5Y8/1), soft
-26.8	25.3	6	48	50/0.1	98/0.6	609-9			-25.5 / 24.0 LIMESTONE, boundstone, white (10YR8/1), hard, wet, fossiliferous, strong HCl reaction (Upper Fort Thompson Formation)
-29.6	28.1					RUN-1			25.3ft: Switch sampling method to coring
-34.6	33.1					RUN-2 609-CS-01 609-CS-02			25.3ft: white (7.5YR8/1), hard, indurated, fossiliferous, strong HCl reaction, coralline, few to little vugs
-39.6	38.1					RUN-3			33.1ft: white (10YR8/1)
-44.6	43.1					RUN-4			38.1ft: white (2.5Y8/1), recrystallized calcite
-49.6	48.1					RUN-5			43.1ft: white (2.5Y8/1), to gray (10YR6/1) from 46.1ft to 47.9ft
-54.6	53.1					RUN-6 609-CS-04			-49.4 / 47.9 LIMESTONE, boundstone, very pale brown (10YR8/3) to white (10YR8/1), hard, indurated, trace to few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) 48.1ft: white (10YR8/1), trace vugs
-59.6	58.1					RUN-7			
-64.6	63.1					RUN-8			
-65.6	64.1					RUN-9			
-66.1	64.6					RUN-10			
-69.6	68.1					RUN-11			
-73.6	72.1					RUN-12			
-74.6	73.1					RUN-13			
						RUN-14			

SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: H. Lyatuu
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-609	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,763 US ft (NAD83/90)	EASTING: 876,689 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.7 ft	BORING DIAMETER: 4" to 25.0', 3" to 150.7'	CASING DEPTH: 4" to 25.0', 3" to 125.0'	HAMMER (ID):140 lb. Auto (MEC-03)
DATE STARTED: 3/10/08	COMPLETED: 3/12/08	CORE SIZE: HQ3	BITS USED: 4" & 3" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-76.3					Continued from previous page				
-78.0	76.5								LIMESTONE, boundstone, very pale brown (10YR8/3) to white (10YR8/1), hard, indurated, trace to few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)* 76.5ft: white (2.5Y8/1)
-79.6	78.1					RUN-15			
						RUN-16			
						609-CS-06			
-84.6	83.1								
						RUN-17			
-89.6	88.1								
						RUN-18			88.1ft: white (10YR8/1), few vugs
-94.6	93.1								
						RUN-19			
-97.6	96.1								
-99.6	98.1					RUN-20			
-101.5	100.0					RUN-21			98.1ft: white (7.5YR8/1)
						RUN-22			100.1ft: white (2.5Y8/1), few vugs, little shell molds and casts
-104.6	103.1					609-CS-07			
						RUN-23			
-109.6	108.1								
						RUN-24			108.1ft: white (10YR8/1)
-113.6	112.1								
-114.6	113.1					RUN-25			-114.5 113.0
						RUN-26			Silty SAND (SM), light gray (7.5YR7/1), medium dense, wet, fine grained sand, strong HCl reaction (Tamiami Formation)
-120.8	119.3								
		3	6	12	18	609-10			119.3ft: Switch sampling method to SPT
-130.8	129.3								
		3	3	6	9	609-11			129.3ft: greenish gray (10Y6/1), loose
-140.7	139.2								
		9	9	10	19	609-12			139.2ft: medium dense, weak HCl reaction
-150.7	149.2								

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

MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: H. Lyatuu
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-550 (ATL)	DRILLER: L. Carter/ J. Landeros	GROUND WATER (ft)
BORING NO.: B-609	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR. NA
GROUND ELEV.: -1.5 ft (NAVD88)	NORTHING: 396,763 US ft (NAD83/90)	EASTING: 876,689 US ft (NAD83/90)	24 HR. NA
TOTAL DEPTH: 150.7 ft	BORING DIAMETER: 4" to 25.0', 3" to 150.7'	CASING DEPTH: 4" to 25.0', 3" to 125.0'	HAMMER (ID):140 lb. Auto (MEC-03)
DATE STARTED: 3/10/08	COMPLETED: 3/12/08	CORE SIZE: HQ3	BITS USED: 4" & 3" Roller Cones

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	▼ MOI	LOG	SOIL AND ROCK DESCRIPTION
-151.1					Continued from previous page				
		5	6	9	●15	609-13			-152.2 150.7
									Boring Terminated at Elevation -152.2 ft

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