MACTEC

BECHTEL PROJECT NO.: 25409	MACTEC PROJECT NO.: 6468-07-1950	COUNTY: Miami-Dade	GEOLOGIST: S. Lehman	
SITE DESCRIPTION: Turkey Point COL	DRILL MACHINE: CME-45C (RAL)	DRILLER: D. Rhodes/ K. Guy	GROUND WATER (ft)	
BORING NO.: B-734	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR.	NA
GROUND ELEV.: -0.6 ft (NAVD88)	NORTHING: 395,833 US ft (NAD83/90)	EASTING: 875,546 US ft (NAD83/90)	24 HR.	NA
TOTAL DEPTH: 130.0 ft	BORING DIAMETER: 4" to 39.6', 3" to 130.0'	CASING DEPTH: 4" to 39.6', 3" to 113.5'	HAMMER (ID):140 lb. Auto (MEC-12)	
DATE STARTED: 3/26/08	COMPLETED: 4/4/08	CORE SIZE: HQ3	BITS USED: 2 7/8" Roller Cone	

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
-75.4					Continued from previous page				
-77.2	76.6					RUN-11			LIMESTONE, boundstone, white (2.5YR8/1). hard, indurated, trace recrystallized calcite (Lower Fort Thompson Formation) *(continued)*
-82.2	81.6					RUN-12			81.6ft: moderately hard, moderately indurated, trace shell molds and casts
-87.2	86.6					RUN-13			86.6ft: few vugs, trace sand
-92.2	91.6					RUN-14			
-97.2	96.6					RUN-15			
-102.2	101.6					RUN-16			101.6ft: no recovery, possible soft, friable limestone with interbedded sand layers
-107.2	106.6								
-108.7	108.1	5	14	16	30	734-12			106.6ft: Switch sampling method to SPT 106.6ft: soft, friable to moderately indurated 108.1ft: Switch sampling method to coring
						RUN-17			108.1ft: moderately hard, moderately indurated to indurated, little sand
-112.2	111.6					RUN18			111.6ft: hard, indurated, few shell molds
-113.6									113.0
-117.2	116.6	9	9	8	17	734-13A&B			Silty SAND (SM), light gray (2.5Y7/2), medium dense, wet, fine grained sand with lenses of very soft, moderately indurated limestone (Tamiami Formation)
-124.1	123.5	11	5	5	10	734-14			123.5ft: greenish gray (10Y6/1), loose
-129.1	128.5	7	8	11	19	734-15			128.5ft: light greenish gray (10Y7/1), medium dense, cemented sand and shell fragments
-130.6									130.0 Boring Terminated at Elevation -130.6 ft

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

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SHEET 1 OF 2

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BORING NO.: B-734	DRILL METHOD: Mud Rotary/ Core	SAMPLE METHODS: SPT/Core	0 HR.	NA
GROUND ELEV.: -0.6 ft (NAVD88)	NORTHING: 395,833 US ft (NAD83/90)	EASTING: 875,546 US ft (NAD83/90)	24 HR.	NA
TOTAL DEPTH: 130.0 ft	CASING DEPTH: 4" to 39.6', 3" to 113.5'		HAMMER (ID): 140 lb. Auto (MEC-12)	
DATE STARTED: 3/26/08	COMPLETED: 4/4/08	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 @ 29.5 ft
-30.1	29.5	2.1	0:56 0:48 0:18/0.1	(1.9) 90%	(1.2) 57%	RUN-1	(14.6) 75%	(12.4) 64%		LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated (Upper Fort Thompson Formation) *(continued)* 29.5ft: few vugs, coralline
-32.2	31.6	5.0	1:14 0:49 1:23 0:44 1:10	(4.8) 96%	(4.2) 84%	RUN-2				
-37.2	36.6	5.0	0:32 0:08 0:46 2:40 4:46	(1.7) 34%	(1.2) 24%	RUN-3				36.6ft: trace recrystallized calcite 37.5 to 39.5ft: possible interbedded sand layers; based on recovery and drilling rates
-42.2	41.6	5.0	1:42 1:33 1:33 1:37 1:43	(4.9) 98%	(4.9) 98%	RUN-4				
-47.2	46.6	5.0	0:47 1:32 2:08 2:48 3:10	(2.0) 40%	(1.3) 26%	RUN-5				46.6ft: light gray (10YR7/1)
-49.6										49.0
-52.2	51.6	5.0	1:42 0:59 1:09 0:46 1:03	(4.7) 94%	(3.9) 78%	RUN-6	(24.6) 40%	(15.7) 26%		LIMESTONE, boundstone, white (2.5YR8/1), hard, indurated, trace recrystallized calcite (Lower Fort Thompson Formation) 51.6ft: moderately hard to hard, moderately indurated to indurated, trace vugs
-57.2	56.6	5.0	0:46 1:06 1:20 0:46 0:45	(3.5) 70%	(2.7) 54%	RUN-7				56.6ft: hard, indurated
-62.2	61.6	5.0	1:17 0:26 0:48 0:09 0:05	(1.9) 38%	(1.4) 28%	RUN-8				61.6ft: little sand Below 64.0ft: possible interbedded sand layers; based on recovery and drilling rates
-67.2	66.6		*N=21*			*734-11*				66.6ft: Switch sampling method to SPT
-68.7	68.1	3.5	0:27 1:56 0:21 0:08/0.5	(1.5) 43%	(1.5) 43%	RUN-9				66.6ft: soft 68.1ft: Switch sampling method to coring 68.1ft: hard, indurated
-72.2	71.6	5.0	1:00 1:09 0:58 0:25 2:20	(1.1) 22%	(0.0) 0%	RUN-10				
-77.2	76.6	5.0	1:02 0:08 0:15 0:12 2:00	(1.0) 20%	(0.0) 0%	RUN-11				
-82.2	81.6	5.0	0:42 0:53 0:58 0:54 0:46	(2.2) 44%	(1.3) 26%	RUN-12				81.6ft: moderately hard, moderately indurated, trace shell molds and casts
-87.2	86.6	5.0	1:02 0:39 0:25 0:40 0:26	(2.4) 48%	(1.7) 34%	RUN-13				86.6ft: few vugs, trace sand
-92.2	91.6	5.0	0:19 0:28 0:26 0:38 1:02	(2.0) 40%	(0.4) 8%	RUN-14				
-97.2	96.6	5.0	0:39 0:42 0:36 0:34 0:27	(0.6) 12%	(0.4) 8%	RUN-15				
-102.2	101.6	5.0	0:21 0:43	(0.0) 0%	(0.0) 0%	RUN-16				101.6ft: no recovery, possible soft, friable limestone with interbedded sand layers

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

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DATE STARTED: 3/26/08	COMPLETED: 4/4/08	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
-107.2	106.6		0:24 0:39 0:38 N=30			734-12				LIMESTONE, boundstone, white (2.5YR8/1), hard, indurated, trace recrystallized calcite (Lower Fort Thompson Formation) *(continued)* 106.6ft: Switch sampling method to SPT 106.6ft: soft, friable to moderately indurated 108.1ft: Switch sampling method to coring 108.1ft: moderately hard, moderately indurated to indurated, little sand
-108.7	108.1	3.5	0:58 0:33 0:47 0:09/0.5	(2.4) 69%	(2.0) 57%	RUN-17				
-112.2	111.6	5.0	0:39 0:17 0:18 0:29 0:19	(0.6) 12%	(0.0) 0%	RUN18	(0.0) 0%	(NA)		-113.6 111.6ft: hard, indurated, few shell molds 113.0 Silty SAND (SM), light gray (2.5Y7/2), medium dense, wet, fine grained sand with lenses of very soft, moderately indurated limestone (Tamiami Formation) -117.2 116.6 Coring Terminated at Elevation -117.2
-117.2	116.6									

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