MACTEC



| | | | |
|---|---|---|---|
| BECHTEL PROJECT NO.: 25409 | MACTEC PROJECT NO.: 6468-07-1950 | COUNTY: Miami-Dade | GEOLOGIST: G. Pillappa |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-55 LC (RAL) | DRILLER: R. Banks/ J. Rosser | GROUND WATER (ft) |
| BORING NO.: B-712 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,082 US ft (NAD83/90) | EASTING: 876,022 US ft (NAD83/90) | 24 HR. NA |
| TOTAL DEPTH: 128.3 ft | BORING DIAMETER: 4" to 28.1', 3" to 128.3' | CASING DEPTH: 4" to 28.1', 3" to 122.0' | HAMMER (ID):140 lb. Auto (MEC-02) |
| DATE STARTED: 3/19/08 | COMPLETED: 3/21/08 | CORE SIZE: HQ3 | BITS USED: 2 7/8" Tricone |

| 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 |
|---|---|---|---|---|---|---|---|---|---|
| -75.9 | | | | | Continued from previous page | | | | |
| -77.9 | 76.8 | | | | | RUN-11 | | | LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)* |
| -82.9 | 81.8 | | | | | RUN-12 | | | |
| -87.9 | 86.8 | | | | | RUN-13 | | | |
| -92.9 | 91.8 | | | | | RUN-14 | | | |
| -97.9 | 96.8 | | | | | RUN-15 | | | 96.8ft: medium hard to hard, trace fine grained sand, few to little shell molds and casts |
| -102.9 | 101.8 | | | | | RUN-16 | | | 101.8ft: hard to medium hard |
| -107.9 | 106.8 | | | | | RUN-17 | | | 106.8ft: hard |
| -112.9 | 111.8 | | | | | RUN-18 | | | |
| -116.1 | 115.0 | | | | | | | | |
| -117.9 | 116.8 | | | | | RUN-19 | | | Silty SAND (SM), and interbedded LIMESTONE, boundstone, white (5Y8/1), hard indurated, fossiliferous, trace fine sand, strong HCl reaction (Tamiami Formation) |
| -127.9 | 126.8 | | | | | | | | 126.8ft: Switch sampling method to SPT |
| | | 8 | 6 | 9 | 15 | 712-10 | | | Silty SAND (SM), greenish gray (5/10Y), medium dense, wet, fine grained sand, weak HCl reaction |
| -129.4 | 128.3 | | | | | | | | Boring Terminated at Elevation -129.4 ft |

TURKEY POINT COL BORE 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: G. Pillappa | |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-55 LC (RAL) | DRILLER: R. Banks/ J. Rosser | GROUND WATER (ft) | |
| BORING NO.: B-712 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. | NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,082 US ft (NAD83/90) | EASTING: 876,022 US ft (NAD83/90) | 24 HR. | NA |
| TOTAL DEPTH: 128.3 ft | CASING DEPTH: 4" to 28.1', 3" to 122.0' | | HAMMER (ID): 140 lb. Auto (MEC-02) | |
| DATE STARTED: 3/19/08 | COMPLETED: 3/21/08 | CORE SIZE: HQ3 | CORE BARREL TYPE: Triple Tube Wireline (Split inner liners) | |

| ELEV. (ft) | DEPTH (ft) | RUN (ft) | DRILL RATE (Min/ft) | RUN REC. (ft) % | RUN RQD (ft) % | SAMP. NO. | STRATA REC. (ft) % | STRATA RQD (ft) % | LOG | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Begin Coring @ 30.5 ft |
| -31.6 | 30.5 | 0.5 | 1:40/0.5 | (0.3) 60% | (0.0) 0% | RUN-1 | (12.8) 63% | (5.9) 29% | | LIMESTONE, boundstone, white (10YR8/1), very soft, moist, strong HCl reaction, trace shell fragments (Upper Fort Thompson Formation) |
| -32.1 | 31.0 | 5.0 | 0:57 | | | RUN-2 | | | | 26.5ft: loss of circulation |
| -32.9 | 31.8 | | 0:50 0:52 0:58 | (2.0) 40% | (0.0) 0% | | | | | 29.0ft: hard |
| -37.9 | 36.8 | | 0:36 | | | | | | | 30.5ft: Switch sampling method to coring *(continued)* |
| | | 5.0 | 0:30 0:21 0:20 0:17 | (3.2) 64% | (1.5) 30% | RUN-3 | | | | 30.5ft: white, (5Y8/1), hard, indurated, strong HCl reaction, little vugs |
| -42.9 | 41.8 | | 0:25 | | | | | | | 31.8ft: fossiliferous, coralline, some vugs |
| | | 5.0 | 0:17 1:09 0:26 0:21 | (4.2) 84% | (3.1) 62% | RUN-4 | | | | 36.8ft: dark greenish gray (4/10Y), few vugs |
| -47.9 | 46.8 | | 0:29 | | | | | | | 41.8ft: pale yellow (2.5Y8/4) |
| | | 5.0 | 1:08 0:47 0:37 0:56 | (4.1) 82% | (2.3) 46% | RUN-5 | | | | 46.8ft: white (2.5Y8/1), to 48.4ft then gray (N5/) to 50.8ft |
| -52.9 | 51.8 | | 0:45 | | | | | | | -51.9 |
| | | 5.0 | 0:49 0:48 0:46 0:37 | (5.0) 100% | (5.0) 100% | RUN-6 | (40.8) 64% | (26.7) 42% | | 50.8 LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) |
| -57.9 | 56.8 | | 0:27 | | | | | | | 56.8ft: white (5Y8/1) |
| | | 5.0 | 0:32 0:10 0:19 0:12 | (1.6) 32% | (0.0) 0% | RUN-7 | | | | |
| -62.9 | 61.8 | | 0:48 | | | | | | | |
| | | 5.0 | 0:37 0:45 0:43 0:42 | (5.0) 100% | (3.9) 78% | RUN-8 | | | | |
| -67.9 | 66.8 | | 0:40 | | | | | | | 66.8ft: white (8/N) |
| | | 5.0 | 0:30 0:43 0:41 0:39 | (3.8) 76% | (3.3) 66% | RUN-9 | | | | |
| -72.9 | 71.8 | | 0:19 | | | | | | | 71.8ft: white (5Y8/1) |
| | | 5.0 | 0:30 0:28 0:23 0:31 | (2.0) 40% | (0.0) 0% | RUN-10 | | | | |
| -77.9 | 76.8 | | 0:14 | | | | | | | |
| | | 5.0 | 0:30 0:21 0:36 0:35 | (3.3) 66% | (1.9) 38% | RUN-11 | | | | |
| -82.9 | 81.8 | | 0:41 | | | | | | | |
| | | 5.0 | 0:25 0:22 0:17 0:23 | (1.1) 22% | (0.5) 10% | RUN-12 | | | | |
| -87.9 | 86.8 | | 0:16 | | | | | | | |
| | | 5.0 | 0:40 1:28 0:48 0:26 | (3.8) 76% | (2.3) 46% | RUN-13 | | | | |
| -92.9 | 91.8 | | 0:39 | | | | | | | |
| | | 5.0 | 0:27 0:27 0:17 0:15 | (2.1) 42% | (1.5) 30% | RUN-14 | | | | |
| -97.9 | 96.8 | | 0:11 | | | | | | | |
| | | 5.0 | 0:14 0:15 0:20 0:43 | (3.1) 62% | (2.2) 44% | RUN-15 | | | | 96.8ft: medium hard to hard, trace fine grained sand, few to little shell molds and casts |
| -102.9 | 101.8 | | 0:31 | | | | | | | |
| | | 5.0 | 0:15 0:25 0:28 | (3.5) 70% | (2.0) 40% | RUN-16 | | | | 101.8ft: hard to medium hard |

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

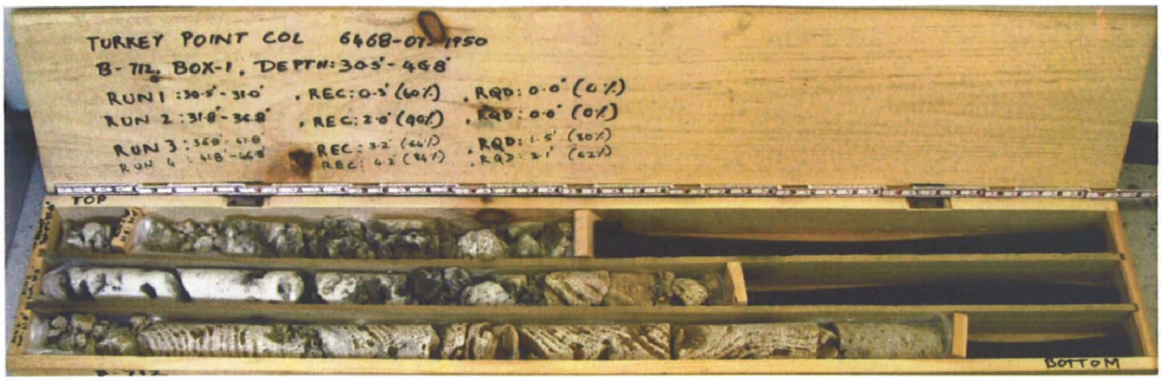
MACTEC



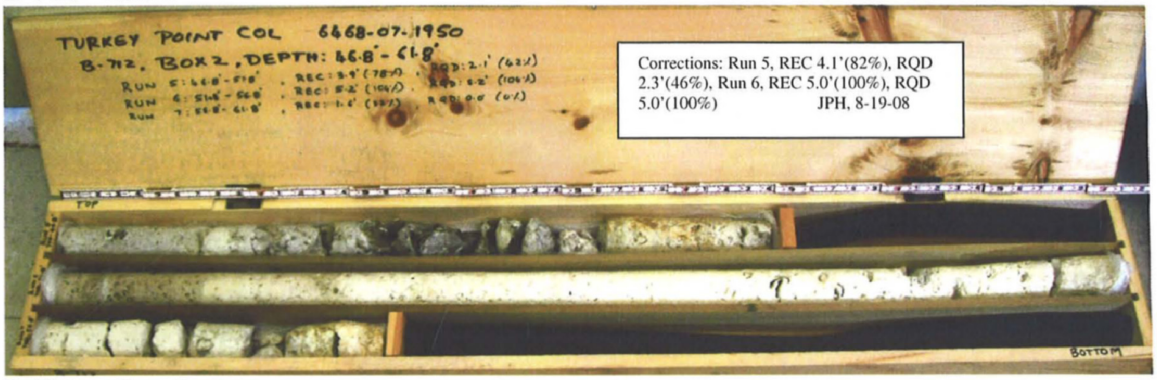
| | | | |
|---|---|---|---|
| BECHTEL PROJECT NO.: 25409 | MACTEC PROJECT NO.: 6468-07-1950 | COUNTY: Miami-Dade | GEOLOGIST: G. Pillappa |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-55 LC (RAL) | DRILLER: R. Banks/ J. Rosser | GROUND WATER (ft) |
| BORING NO.: B-712 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,082 US ft (NAD83/90) | EASTING: 876,022 US ft (NAD83/90) | 24 HR. NA |
| TOTAL DEPTH: 128.3 ft | CASING DEPTH: 4" to 28.1', 3" to 122.0' | | HAMMER (ID): 140 lb. Auto (MEC-02) |
| DATE STARTED: 3/19/08 | COMPLETED: 3/21/08 | CORE SIZE: HQ3 | CORE BARREL TYPE: Triple Tube Wireline (Split inner liners) |

| ELEV. (ft) | DEPTH (ft) | RUN (ft) | DRILL RATE (Min/ft) | RUN REC (ft) % | RUN RQD (ft) % | SAMP. NO. | STRATA REC. (ft) % | STRATA RQD (ft) % | LOG | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Continued from previous page |
| -107.9 | 106.8 | | 0:26<br>0:24 | | | | | | | LIMESTONE, boundstone, white (2.5Y8/1), hard, indurated, few vugs, fossiliferous, strong HCl reaction (Lower Fort Thompson Formation) *(continued)*<br>106.8ft: hard |
| | | 5.0 | 0:26<br>0:17<br>0:24<br>0:30 | (4.1)<br>82% | (3.1)<br>62% | RUN-17 | | | | |
| -112.9 | 111.8 | | 0:29 | | | | | | | |
| | | 5.0 | 0:38<br>0:21<br>0:35<br>0:26 | (1.4)<br>28% | (0.0)<br>0% | RUN-18 | | | | |
| -116.1 | 115.0 | | | | | | | | | |
| -117.9 | 116.8 | | 0:21 | | | | (0.8)<br>12% | (NA) | | Silty SAND (SM), and interbedded LIMESTONE, boundstone, white (5Y8/1), hard indurated, fossiliferous, trace fine sand, strong HCl reaction (Tamiami Formation) |
| | | 5.0 | 0:21<br>0:18<br>0:22<br>0:11 | (0.8)<br>16% | (0.0)<br>0% | RUN-19 | | | | |
| -122.9 | 121.8 | | 0:30 | | | | | | | |
| | | | | | | | | | | Coring Terminated at Elevation -122.9 |

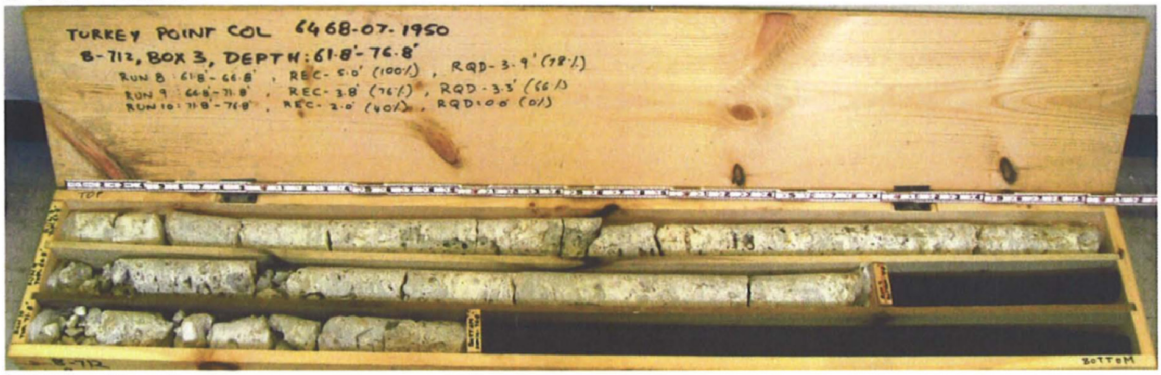
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 7/10/08



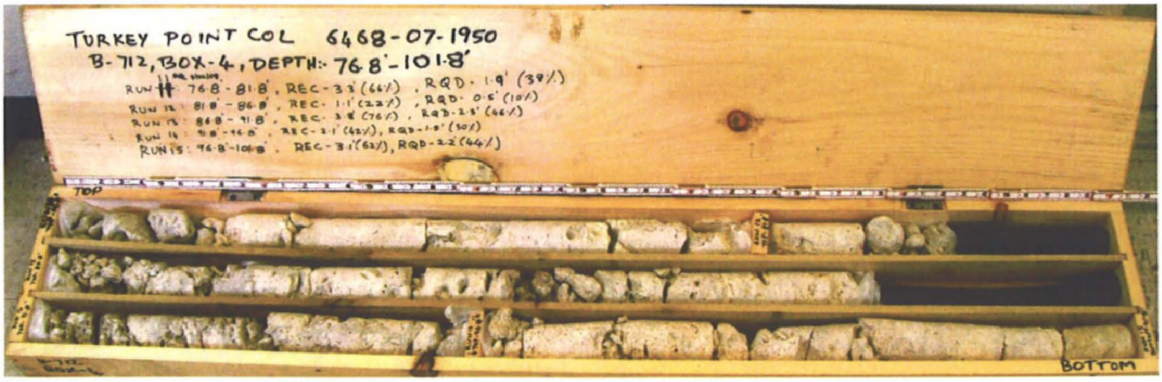

B-712 – Box 1



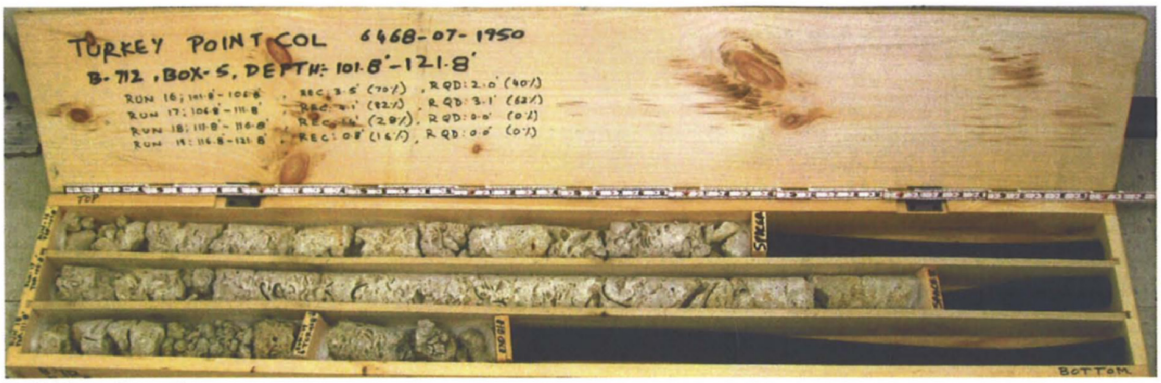

B-712 – Box 2




B-712 – Box 3




B-712 – Box 4


TURKEY POINT COL 6468-07-1950
B-712, BOX-5, DEPTH: 101.8'-121.8'
RUN 16; 101.8'-106.8' REC: 3.5' (70%) RQD: 2.0' (40%)
RUN 17; 106.8'-111.8' REC: 3.1' (62%) RQD: 3.1' (62%)
RUN 18; 111.8'-116.8' REC: 1.0' (20%) RQD: 0.0' (0%)
RUN 19; 116.8'-121.8' REC: 0.8' (16%) RQD: 0.0' (0%)
TOP
BOTTOM

B-712 – Box 5

MACTEC

GEOTECHNICAL BORING LOG

Prepared By [illegible] Date 5-30-08

Checked By [illegible] Date 5/30/08

SHEET 1 OF 3

| | | | |
|---|---|---|---|
| BECHTEL PROJECT NO.: 25409 | MACTEC PROJECT NO.: 6468-07-1950 | COUNTY: Miami-Dade | GEOLOGIST: O. Rodriguez/G. Pillappa |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-550 (ATL) | DRILLER: L. Carter/ J. Landeros | GROUND WATER (ft) |
| BORING NO.: B-713 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,179 US ft (NAD83/90) | EASTING: 875,959 US ft (NAD83/90) | 24 HR. NA |
| TOTAL DEPTH: 152.5 ft | BORING DIAMETER: 4" to 31.0', 3" to 152.5' | CASING DEPTH: 4" to 31.0', 3" to 118.4' | HAMMER (ID):140 lb. Auto (MEC-03) |
| DATE STARTED: 4/15/08 | COMPLETED: 4/19/08 | CORE SIZE: HQ3 | BITS USED: 2 15/16" 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 |
|---|---|---|---|---|---|---|---|---|---|
| -1.1 | | | | | Ground Surface | | | | |
| -1.1 | 0.0 | WOH | WOH | WOH | WOH 0 | 713-1 | | | -1.1 0.0 MUCK. dark grayish brown (10YR4/2), to pale brown (10YR6/3), very soft, wet, mostly organic |
| -4.1 | 3.0 | 31 | 37 | 30 | 67 SEE LEGEND FOR ROCK HARDNESS CRITERIA BASED ON SPT DATA | 713-2 | | | -3.6 2.5 LIMESTONE, boundstone, pale yellow (2.5Y8/2), hard, wet, trace to few fine to coarse sand, strong HCl reaction, oolitic (Miami Formation) |
| -6.1 | 5.0 | 7 | 8 | 7 | 15 | 713-3 | | | 5.0ft: very soft |
| -8.6 | 7.5 | 9 | 20 | 11 | 31 | 713-4 | | | 7.5ft: white (10YR8/1), to light gray (10YR7/2), medium hard |
| -11.1 | 10.0 | 5 | 15 | 11 | 26 | 713-5 | | | 10.0ft: white (10YR8/1), soft |
| -13.6 | 12.5 | 11 | 7 | 15 | 22 | 713-6 | | | 12.5ft: white (10YR8/1), to light gray (10YR7/1) |
| -16.1 | 15.0 | 7 | 20 | 50/0.4 | 70/0.9 | 713-7 | | | 15.0ft: white (10YR8/1), hard |
| -20.6 | 19.5 | 4 | 5 | 5 | 10 | 713-8 | | | 19.5ft: very soft |
| -25.8 | 24.7 | 3 | 2 | WOH | 2 | 713-9 | | | -25.1 24.0 LIMESTONE, boundstone, light gray (10YR7/2), very soft, moist, strong HCl reaction (Upper Fort Thompson Formation) |
| -30.7 | 29.6 | | | | | | | | 24.0ft: loss of circulation |
| -32.2 | 31.1 | 10 | 44 | 50/0.5 | 94/1.0 | 713-10 | | | 29.6ft: white (10YR8/1), hard |
| -34.3 | 33.2 | | | | | RUN-1 | | | 31.1ft: Switch sampling method to coring |
| -39.3 | 38.2 | | | | | RUN-2 | | | 31.1ft: hard, indurated, coralline, trace vugs, fossiliferous |
| -44.3 | 43.2 | | | | | RUN-3 | | | 38.2ft: white (10YR8/1), to pale yellow (5Y8/3), few vugs |
| -49.3 | 48.2 | | | | | RUN-4 | | | 43.2ft: white (10YR8/1) and pale brown (10YR8/2), to 46.4ft then gray (10YR6/2) |
| -54.3 | 53.2 | | | | | RUN-5 | | | -49.6 48.5 48.2ft: gray (10YR6/2) to 48.5ft LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation) |
| -59.3 | 58.2 | | | | | RUN-6 | | | 53.2ft: hard to moderately hard, indurated to moderately indurated |
| -64.3 | 63.2 | | | | | RUN-7 | | | 58.2ft: hard, indurated |
| -69.3 | 68.2 | | | | | RUN-8 | | | 63.2ft: medium hard to hard, friable to indurated |
| -74.3 | 73.2 | | | | | RUN-9 | | | 68.2ft: hard, indurated, no vugs, trace shell molds and casts |
| | | | | | | RUN-10 | | | |

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: O. Rodriguez/G. Pillappa |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-550 (ATL) | DRILLER: L. Carter/ J. Landeros | GROUND WATER (ft) |
| BORING NO.: B-713 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,179 US ft (NAD83/90) | EASTING: 875,959 US ft (NAD83/90) | 24 HR. NA |
| TOTAL DEPTH: 152.5 ft | BORING DIAMETER: 4" to 31.0', 3" to 152.5' | CASING DEPTH: 4" to 31.0', 3" to 118.4' | HAMMER (ID):140 lb. Auto (MEC-03) |
| DATE STARTED: 4/15/08 | COMPLETED: 4/19/08 | CORE SIZE: HQ3 | BITS USED: 2 15/16" 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 |
|---|---|---|---|---|---|---|---|---|---|
| -75.9 | | | | | Continued from previous page | | | | |
| -79.3 | 78.2 | | | | | RUN-11 | | | LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation) *(continued)*<br>78.2ft: soft to hard, friable to indurated, trace fine sand, few shell molds and casts |
| -84.3 | 83.2 | | | | | RUN-12 | | | 83.2ft: hard, indurated |
| -89.3 | 88.2 | | | | | RUN-13 | | | 88.2ft: hard to moderately hard, indurated to moderately indurated, trace vugs |
| -94.3 | 93.2 | | | | | RUN-14 | | | 93.2ft: hard, moderately indurated |
| -99.3 | 98.2 | | | | | RUN-15 | | | 98.2ft: indurated |
| -104.3 | 103.2 | | | | | RUN-16 | | | 103.2ft: little to some shell molds and casts |
| -109.3 | 108.2 | | | | | RUN-17 | | | 108.2ft: hard to moderately hard, moderately indurated, little vugs |
| -114.3 | 113.2 | | | | | RUN-18 | | | |
| -115.1 | 114.0 | | | | | | | | 113.2ft: moderately hard, moderately indurated to friable |
| -119.6 | 118.5 | 10 | 8 | 7 | 15 | 713-11 | | | POORLY GRADED SAND (SP), pale yellow (5Y8/2), medium dense, wet, strong HCl reaction, trace cemented sand (Tamiami Formation) |
| -130.6 | 129.5 | 6 | 3 | 4 | 7 | 713-12 | | | 129.5ft: Silty SAND (SM), pale yellow (5Y8/3), loose, wet, strong HCl reaction, trace cemented sand fragments |
| -140.6 | 139.5 | 8 | 7 | 8 | 15 | 713-13 | | | 139.5ft: greenish gray (10Y6/1), medium dense |
| -150.6 | 149.5 | | | | | | | | |

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: O. Rodriguez/G. Pillappa |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-550 (ATL) | DRILLER: L. Carter/ J. Landeros | GROUND WATER (ft) |
| BORING NO.: B-713 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,179 US ft (NAD83/90) | EASTING: 875,959 US ft (NAD83/90) | 24 HR. NA |
| TOTAL DEPTH: 152.5 ft | BORING DIAMETER: 4" to 31.0', 3" to 152.5' | CASING DEPTH: 4" to 31.0', 3" to 118.4' | HAMMER (ID):140 lb. Auto (MEC-03) |
| DATE STARTED: 4/15/08 | COMPLETED: 4/19/08 | CORE SIZE: HQ3 | BITS USED: 2 15/16" 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 |
|---|---|---|---|---|---|---|---|---|---|
| -150.7 | | | | | Continued from previous page | | | | |
| -152.1 | 151.0 | 12 | 20 | 20 | 40 | 713-14 | | | 149.5ft: light olive gray (5Y6/2), dense |
| | | 10 | 9 | 10 | 19 | 713-15 | | | 151.0ft: greenish gray (10Y6/1), medium dense |
| | | | | | | | | | -153.6 152.5 Boring Terminated at Elevation -153.6 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: O. Rodriguez/G. Pillappa | |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-550 (ATL) | DRILLER: L. Carter/ J. Landeros | GROUND WATER (ft) | |
| BORING NO.: B-713 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. | NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,179 US ft (NAD83/90) | EASTING: 875,959 US ft (NAD83/90) | 24 HR. | NA |
| TOTAL DEPTH: 152.5 ft | CASING DEPTH: 4" to 31.0', 3" to 118.4' | | HAMMER (ID): 140 lb. Auto (MEC-03) | |
| DATE STARTED: 4/15/08 | COMPLETED: 4/19/08 | 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 @ 31.1 ft |
| -32.2 | 31.1 | 2.1 | 0:54<br>0:45 | (2.1)<br>100% | (2.1)<br>100% | RUN-1 | (17.0)<br>98% | (15.5)<br>89% | | LIMESTONE, boundstone, light gray (10YR7/2), very soft, moist, strong HCl reaction (Upper Fort Thompson Formation) |
| -34.3 | 33.2 | 5.0 | 0:11/0.1<br>0:46<br>0:59<br>1:13<br>1:03 | (5.0)<br>100% | (5.0)<br>100% | RUN-2 | | | | 24.0ft: loss of circulation *(continued)*<br>31.1ft: hard, indurated, coralline, trace vugs, fossiliferous |
| -39.3 | 38.2 | 5.0 | 0:54<br>0:56<br>1:59<br>2:27<br>2:36 | (4.8)<br>96% | (4.2)<br>84% | RUN-3 | | | | 38.2ft: white (10YR8/1), to pale yellow (5Y8/3), few vugs |
| -44.3 | 43.2 | 5.0 | 1:59<br>1:22<br>2:44<br>2:57<br>2:30 | (4.8)<br>96% | (4.2)<br>84% | RUN-4 | | | | 43.2ft: white (10YR8/1) and pale brown (10YR8/2), to 46.4ft then gray (10YR6/2) |
| -49.3 | 48.2 | 5.0 | 1:35<br>1:11<br>2:08<br>2:31<br>1:50 | (4.7)<br>94% | (4.0)<br>80% | RUN-5 | (48.0)<br>73% | (24.0)<br>37% | -49.6 | 48.2ft: gray (10YR6/2) to 48.5ft 48.5<br>LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation) |
| -54.3 | 53.2 | 5.0 | 2:02<br>1:06<br>1:03<br>0:42<br>1:01 | (4.5)<br>90% | (3.0)<br>60% | RUN-6 | | | | 53.2ft: hard to moderately hard, indurated to moderately indurated |
| -59.3 | 58.2 | 5.0 | 0:33<br>0:41<br>1:59<br>1:00<br>0:50 | (4.7)<br>94% | (2.3)<br>46% | RUN-7 | | | | 58.2ft: hard, indurated |
| -64.3 | 63.2 | 5.0 | 1:00<br>0:45<br>2:23<br>1:36<br>2:57 | (4.3)<br>86% | (2.0)<br>40% | RUN-8 | | | | 63.2ft: medium hard to hard, friable to indurated |
| -69.3 | 68.2 | 5.0 | 1:07<br>2:51<br>1:08<br>1:28<br>1:30 | (2.1)<br>42% | (0.7)<br>14% | RUN-9 | | | | 68.2ft: hard, indurated, no vugs, trace shell molds and casts |
| -74.3 | 73.2 | 5.0 | 3:35<br>0:30<br>1:34<br>0:53<br>3:02 | (2.6)<br>52% | (0.0)<br>0% | RUN-10 | | | | |
| -79.3 | 78.2 | 5.0 | 1:49<br>1:04<br>0:51<br>1:04<br>1:39 | (3.6)<br>72% | (1.0)<br>20% | RUN-11 | | | | 78.2ft: soft to hard, friable to indurated, trace fine sand, few shell molds and casts |
| -84.3 | 83.2 | 5.0 | 2:15<br>1:29<br>0:16<br>0:53<br>2:02 | (4.0)<br>80% | (1.7)<br>34% | RUN-12 | | | | 83.2ft: hard, indurated |
| -89.3 | 88.2 | 5.0 | 4:19<br>1:43<br>0:57<br>0:59<br>0:24 | (3.4)<br>68% | (2.5)<br>50% | RUN-13 | | | | 88.2ft: hard to moderately hard, indurated to moderately indurated, trace vugs |
| -94.3 | 93.2 | 5.0 | 0:24<br>0:56<br>0:16<br>0:27<br>0:22 | (3.0)<br>60% | (1.2)<br>24% | RUN-14 | | | | 93.2ft: hard, moderately indurated |
| -99.3 | 98.2 | 5.0 | 0:39<br>0:16<br>0:29<br>1:10<br>1:27 | (3.6)<br>72% | (1.8)<br>36% | RUN-15 | | | | 98.2ft: indurated |
| -104.3 | 103.2 | 5.0 | 1:12<br>1:55<br>1:16 | (5.0)<br>100% | (3.3)<br>66% | RUN-16 | | | | 103.2ft: little to some shell molds and casts |

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

MACTEC



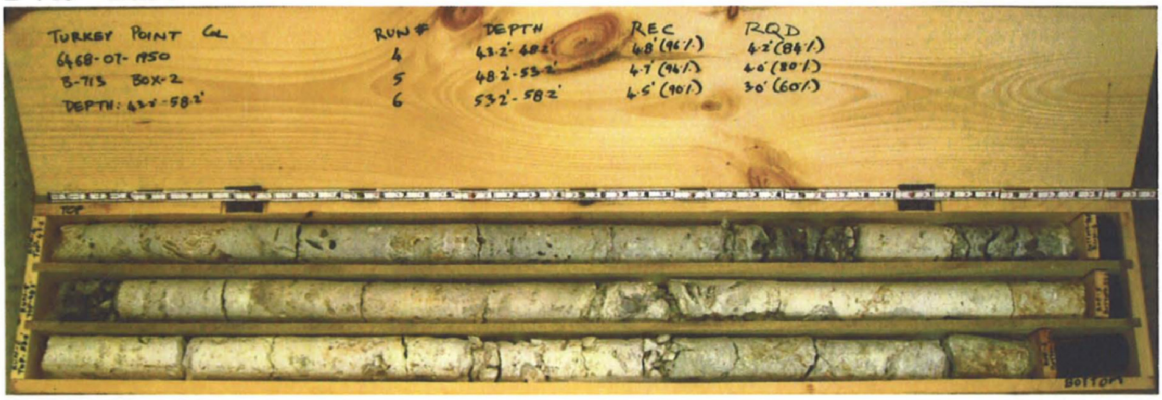
| | | | |
|---|---|---|---|
| BECHTEL PROJECT NO.: 25409 | MACTEC PROJECT NO.: 6468-07-1950 | COUNTY: Miami-Dade | GEOLOGIST: O. Rodriguez/G. Pillappa |
| SITE DESCRIPTION: Turkey Point COL | DRILL MACHINE: CME-550 (ATL) | DRILLER: L. Carter/ J. Landeros | GROUND WATER (ft) |
| BORING NO.: B-713 | DRILL METHOD: Mud Rotary/ Core | SAMPLE METHODS: SPT/Core | 0 HR. NA |
| GROUND ELEV.: -1.1 ft (NAVD88) | NORTHING: 397,179 US ft (NAD83/90) | EASTING: 875,959 US ft (NAD83/90) | 24 HR. NA |
| TOTAL DEPTH: 152.5 ft | CASING DEPTH: 4" to 31.0', 3" to 118.4' | | HAMMER (ID): 140 lb. Auto (MEC-03) |
| DATE STARTED: 4/15/08 | COMPLETED: 4/19/08 | 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 |
| -109.3 | 108.2 | | 0:54<br>1:15<br>1:08 | | | | | | | LIMESTONE, boundstone, white (10YR8/1), hard, indurated, fossiliferous, few vugs, strong HCl reaction (Lower Fort Thompson Formation) *(continued)* |
| | | 5.0 | 0:21<br>0:57<br>1:16<br>1:51<br>0:34 | (2.1)<br>42% | (0.5)<br>10% | RUN-17 | | | | 108.2ft: hard to moderately hard, moderately indurated, little vugs |
| -114.3 | 113.2 | | | | | | | | | |
| -115.1 | | 5.0 | 0:07<br>0:06<br>0:11<br>1:16 | (0.7)<br>14% | (0.0)<br>0% | RUN-18 | (0.0)<br>0% | (NA) | | 113.2ft: moderately hard, moderately indurated to friable 114.0<br>POORLY GRADED SAND (SP), pale yellow (5Y8/2), medium dense, wet, strong HCl reaction, trace cemented sand (Tamiami Formation) |
| -119.3 | 118.2 | | 0:56 | | | | | | | -119.3 118.2<br>Coring Terminated at Elevation -119.3 |

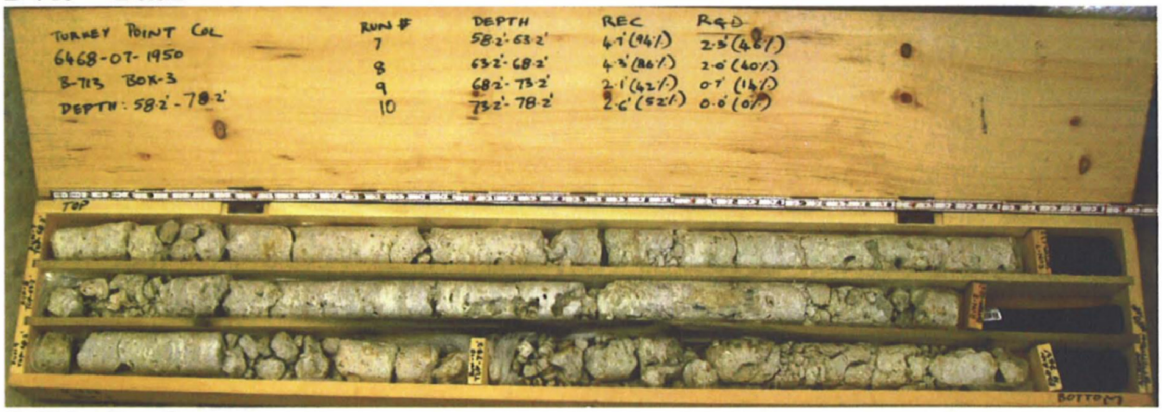
TURKEY POINT COL CORE TURKEY POINT.GPJ TURKEY POINT COL.GDT 5/30/08



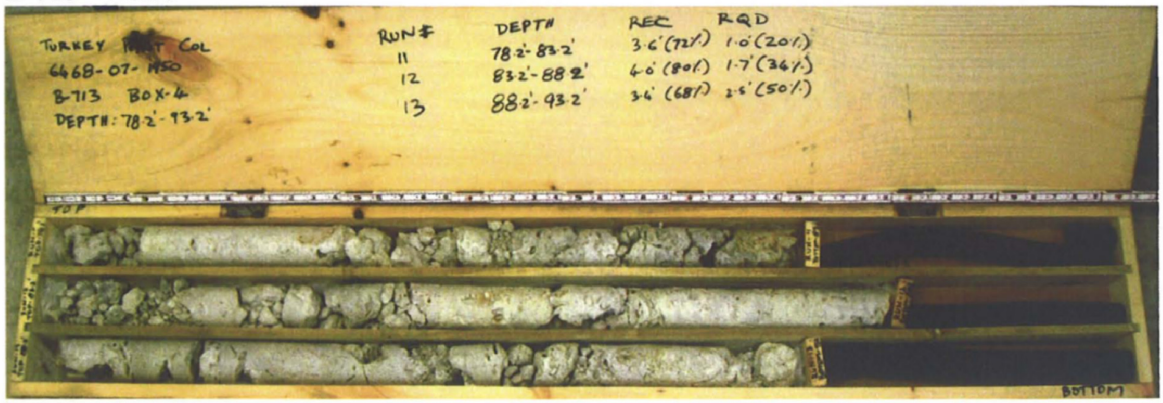

B-713 – Box 1



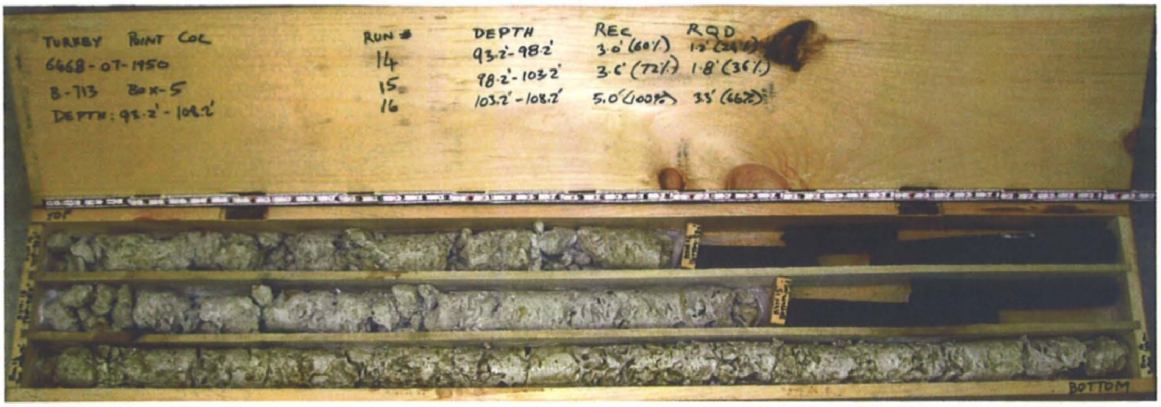

B-713 – Box 2



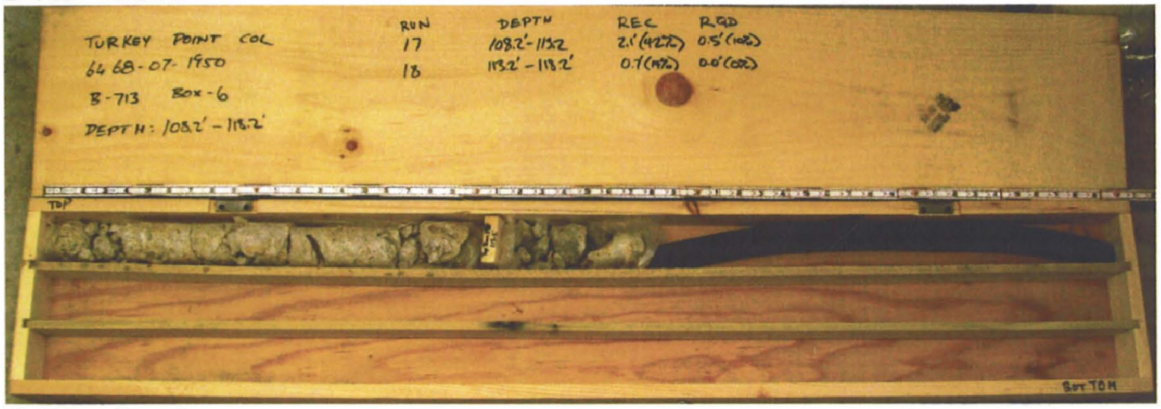

B-713 – Box 3




B-713 – Box 4




B-713 – Box 5




B-713 – Box 6