Executive Summary ROMP Site TR 12-1 Core and Two Monitor Wells

<u>Location</u> - ROMP Site TR 12-1 is located on the northwest corner of the intersection of Eisenhower Blvd. and Dana Shores Drive in Hillsborough County. TR 12-1 is located in Section 7, Township 29 South, Range 18 East and at latitude 28^o58'17", longitude 82^o32'50".

<u>Site Easement</u> - This site was obtained from the City of Tampa on May 12, 1976 for the sum of one dollar. The Perpetual Easement is 41.76 feet by 60 feet by 78.08 feet by 70.14 feet and adjoins the Temporary Construction Easement which is 40 feet by 102.3 feet by 46.76 feet by 78.08 feet. The Temporary Easement was obtained on May 12, 1976 for a period of 24 months and expired on May 11, 1978. These easements are recorded in 0.R. Book 3126, Pages 409 through 414 at the Hillsborough County Courthouse.

Reason for Coring - This site was cored so that the freshwater-saltwater interface and in particular, the 250 milligram per liter (mg/L) isochlor could be located.

Geology - This site is located on the Silver Bluff Terrace at an elevation of approximately 5 feet above mean sea level (MSL). Geologic information was obtained from wire line core samples from land surface datum (LSD) to 260 feet below LSD. The general geology of this site is as follows:

0-24' Sand 24'-39.5' Hawthorn Formation 39.5'-140' Tampa Limestone 140'-260' Suwannee Limestone

<u>Hydrogeology</u> - Since chloride concentrations were initially high at shallow depths and reached the 1400 milligram per liter (mg/L) at a depth of 260 feet very little hydrologic data was collected. This well penetrated the first

-1- FIELD OPERATIONS

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of two known artesian zones in this area, the Tampa-Suwannee artesian zone.

<u>Core Drilling</u> - This site was cored by the District owned and operated CME between June 22 and July 20, 1976 at a cost of \$ or \$ per foot.

Wireline core samples of 1 7/8 inch diameter were obtained from the surface to 260 feet below LSD. These samples were described by the field geologist on site and then boxed up for shipment to the Bureau of Geology for in-depth analysis.

Well Construction - Two wells have been installed at ROMP Site TR 12-1.

A. Well No. 1 - This well was constructed by the District owned Portadrill between September 22 and October 6, 1976 at a cost of \$ of \$ per foot.

This well is 128 feet deep and was constructed with 123 feet of 8 inch PVC casing and 30 feet of 12 inch PVC and 10 feet of 16 inch steel casing both of which were used as work casing. This well is finished off in the Suwannee Limestone.

B. Well No. 2 - This well was completed by the District's CME core rig on July 20, 1976 at a cost of \$ or \$ per foot.

This shallow well is 20 feet deep and is lined with 15 feet of 6 inch PVC and is located in the undifferentiated deposits.

Geophysical Logs - Electric, caliper, gamma, fluid resistivity, and temperature logs were run on the core hole.

Type of Monitor - The shallow well is designed as a water table monitor whereas the deeper well is designed to monitor the freshwater-saltwater interface.

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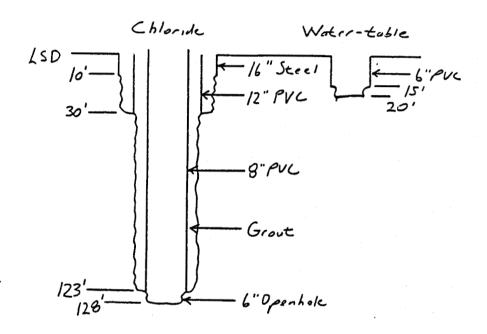
<u>Water Quality</u> - During the coring of this site, 19 water samples were obtained and analyzed for chlorides and conductivity.

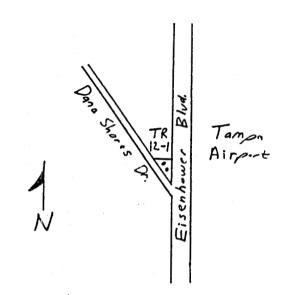
Chlorides ranged from 220 to 1440 mg/l from 40 to 254 feet below LSD. This rise in chloride levels was very constant and indicated that this entire location was void of potable water (chlorides exceed 250 mg/l maximum safe drinking water standard) unless it was treated.

<u>U.S.G.S. Notification</u> - The U.S.G.S. was notified on October 11, 1976, that these wells were complete and ready for monitoring.

As Built Well Diograms

Site Location





57, T29, R18 Hillsborough Co.

TR 12-1

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LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 31201 TOTAL DEPTH: 00260 FT.

SAMPLES - NONE

COUNTY - HILLSBORO

LOCATION: T.29S R.18E S.07

LAT = N 28D 58M 17

LON = W 82D 32M 50

COMPLETION DATE - N/A

OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 005 FT

OWNER/DRILLER: SWFWMD; ROMP SITE TR-12-1

WORKED BY: CODED AND ENTERED BY RICHARD GREEN 8/90 FROM A GEOLOGIST'S (PREEDOM) LOG PROVIDED BY THE DISTRICT. THIS SITE IS LOCATED ON THE NORTHWEST CORNER OF THE INTERSECTION OF EISENHOWER BLVD. AND DAN SHORES DRIVE IN HILLSBOROUGH COUNTY.

THIS IS ROMP TR 12-1 CORE.

SINCE THE FGS DID NOT HAVE A W# ASSIGNED TO THIS CORE, IT HAS BEEN ASSIGNED A 30,000 SERIES W# FOR THE PURPOSES OF DATA ENTRY.

0. - 24. UNDIFFERENTIATED SAND AND CLAY 24. - 39.5 HAWTHORN GROUP

39.5- 140. TAMPA MEMBER OF ARCADIA FM.

140. - 260. SUWANNEE LIMESTONE

- 5 SAND; MODERATE GRAY; RANGE: MEDIUM TO FINE;
- 5 10 SAND; ORANGE TO YELLOW; GRAIN SIZE: VERY FINE;
- 10 -24 SAND; ; QUESTIONABLE SAMPLE OF CLAYEY, CALCAREOUS SAND.
- 24 27 CALCILUTITE; CREAM TO TAN; POSSIBLY HIGH PERMEABILITY, VUGULAR; GRAIN TYPE: CALCILUTITE, SKELETAL; ACCESSORY MINERALS: CLAY- %, QUARTZ SAND-07%; OTHER FEATURES: FOSSILIFEROUS; FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS; CONTAINS SOME TANNISH CREAM CLAY AND MEDIUM QTZ SAND. ARCHAIAS, SORITES PRESENT. POROSITY IS SECONDARY, 2-5 MM OPENINGS CLOSELY SPACED.

27 - 34 CALCILUTITE; CREAM TO TAN;

GRAIN TYPE: CALCILUTITE, SKELETAL;

POOR INDURATION;

ACCESSORY MINERALS: QUARTZ SAND-10%, CLAY- %;

OTHER FEATURES: FOSSILIFEROUS;

FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;

TANNISH CREAM CLAY AND SAND AS ABOVE. FRIABLE, PUNKY. FOSSILS AS ABOVE.

- 34 39.5 NO SAMPLES
- 39.5- 44.5 CLAY; MODERATE GRAY TO CREAM; LOW PERMEABILITY; POOR INDURATION;

ACCESSORY MINERALS: QUARTZ SAND-50%, CLAY-50%;

OTHER FEATURES: CALCAREOUS;

50/50 STIFF CALCAREOUS CLAY AND FINE QTZ SAND.

44.5- 49 CALCILUTITE; ;

GRAIN TYPE: CALCILUTITE;

POOR INDURATION;

CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;

ACCESSORY MINERALS: LIMESTONE-30%, QUARTZ SAND-20%, CLAY- %;

OTHER FEATURES: CALCAREOUS;

MARL? CLAYEY MICRITE, CRUMBLY, WITH LIMESTONE PEBBLES AND FINE QTZ SAND AND CALCAREOUS

CLAY.

49 - 52 LIMESTONE; MODERATE GRAY TO CREAM;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

OTHER FEATURES: FOSSILIFEROUS;

FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;

PACKED BIOMICRITE. PELECYPOD SHELL HASH WITH ARCHAIAS COMMON.

52 - 52.5 AS ABOVE

PUNKY ZONE.

52.5- 53.5 AS ABOVE

AS 49-52'.

53.5- 54 CALCILUTITE; CREAM TO MODERATE GRAY; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: SKELETAL CAST, CALCILUTITE, SKELETAL;

ACCESSORY MINERALS: PYRITE-02%, QUARTZ SAND- %;

OTHER FEATURES: FOSSILIFEROUS;

FOSSILS: FOSSIL MOLDS, MOLLUSKS;

NUMEROUS MOLDS AND CASTS OF MOLLUSKS, ABUNDANT MEDIUM QTZ SAND. MINOR PYRITE CRYSTALS.

54 - 59 CALCILUTITE; CREAM TO MODERATE GRAY;
GRAIN TYPE: CALCILUTITE, SKELETAL;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND- %;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: MOLLUSKS;
CREAM, TAN AND GRAY MOTTLED TEXTURE. CONTAINS ABUNDANT QTZ SAND, GASTROPODS AND PELECYPODS.

- 59 60 CLAY; TAN TO MODERATE GRAY; LOW PERMEABILITY;

 SEDIMENTARY STRUCTURES: MOTTLED,

 ACCESSORY MINERALS: QUARTZ SAND-%;

 TAN SANDY CLAY, MOTTLED WITH GRAY WAXY CLAY. 50 % OF EACH.
- 60 64.5 CALCILUTITE; MODERATE GRAY TO CREAM; LOW PERMEABILITY;

 GRAIN TYPE: CALCILUTITE, SKELETAL;

 GOOD INDURATION;

 ACCESSORY MINERALS: PYRITE-02%;

 FOSSILS: MOLLUSKS;

 CONTAINS ONLY VERY FEW PELECYPODS AT MINOR ZONES. POROSITY IS MINOR BEING MM SIZE AT CM SPACING. PYRITE STREAKS IN MINOR ZONES.
- 64.5- 66 CLAY; MODERATE GRAY TO WHITE; LOW PERMEABILITY;
 SEDIMENTARY STRUCTURES: MOTTLED,
 ACCESSORY MINERALS: QUARTZ SAND-%;
 CLAY AND CLAYEY SAND.
- 66 70 SAME AS 60-64.5'.
- 70 76 LIMESTONE; ; POSSIBLY HIGH PERMEABILITY;
 GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
 ACCESSORY MINERALS: QUARTZ SAND- %;
 OTHER FEATURES: FOSSILIFEROUS;
 FOSSILS: MOLLUSKS;
 PACKED BIOMICRITE, PELECYPODS AND GASTROPODS, ABUNDANT QTZ SAND. EXTREMELY HIGH SECONDARY POROSITY.
- 76 84 CALCILUTITE; CREAM; LOW PERMEABILITY;
 GRAIN TYPE: CALCILUTITE, SKELETAL;
 OTHER FEATURES: FOSSILIFEROUS;
 FOSSILS: MOLLUSKS;
 MINOR POROSITY BEING MM SIZE PORES, FAIRLY WIDELY SPACED.
- 84 94 CALCILUTITE; WHITE;
 GRAIN TYPE: CALCILUTITE;
 ACCESSORY MINERALS: CLAY- %;
 OTHER FEATURES: CHALKY;
 FRIABLE, CONTAINS SOME WELL INTEGRATED CLAY.

- 94 97 LIMESTONE; CREAM; MOLDIC, POSSIBLY HIGH PERMEABILITY;
 GRAIN TYPE: CRYSTALS, BIOGENIC, CALCILUTITE;
 OTHER FEATURES: FOSSILIFEROUS;
 FOSSILS: FOSSIL MOLDS, MOLLUSKS;
 PACKED BIOMICRITE. ZONES OF SMALL CALCITE XLS. MOLLUSK MOLDS AND CASTS ABUNDANT. MOLDIC POROSITY VERY WELL DEVELOPED IN ZONES.
- 97 99 LIMESTONE; CREAM TO TAN;
 GRAIN TYPE: CALCILUTITE;
 GOOD INDURATION;
 OTHER FEATURES: WEATHERED;
 FRESH WATER LS. SHOWING VERY DEFINITE WEATHERING RIND ON CM SIZE PEBBLES. VERY WELL
 CEMENTED.
- 99 110 LIMESTONE; CREAM; LOW PERMEABILITY, VUGULAR;
 GRAIN TYPE: CALCILUTITE, SKELETAL;
 GOOD INDURATION;
 OTHER FEATURES: FOSSILIFEROUS;
 FOSSILS: MOLLUSKS;
 CONTAINS MOLLUSK MOLDS. POROSITY VERY ERRATIC WITH LARGE PORES VERY WIDELY SPACED, WITH MAJORITY OF ROCK BEING RELATIVELY NON-POROUS.
- 110 114 LIMESTONE; WHITE; POSSIBLY HIGH PERMEABILITY;
 GRAIN TYPE: CALCILUTITE, SKELETAL;
 POOR INDURATION;
 OTHER FEATURES: FOSSILIFEROUS;
 FOSSILS: FOSSIL MOLDS, MOLLUSKS;
 EXTREMELY POROUS. SOFT.
- 114 119 NO SAMPLES
- 119 129 LIMESTONE; MODERATE GRAY;
 MARL CONSISTING OF GRAY CLAY AND CALCAREOUS PEBBLES OR ZONES FROM CM TO MM SIZE.
- 129 135 NO SAMPLES
- 135 135.1 CHERT; DARK GRAY TO WHITE;

 ACCESSORY MINERALS: CALCILUTITE-50%;

 1" OF 50/50 MIX OF DK GRAY CHERT AND WHITE LS.
- 135.1- 138 CALCILUTITE; TAN;
 POOR INDURATION;
 ACCESSORY MINERALS: CLAY-%;

138 - 140 LIMESTONE; CREAM; POSSIBLY HIGH PERMEABILITY, VUGULAR;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

MODERATE INDURATION;

OTHER FEATURES: FOSSILIFEROUS;

FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;

PACKED BIOMICRITE. CONTAINS MANY MOLLUSKS AND ARCHAIAS. RARE SORITES?. POROSITY IS MM-CM

SIZE WITH CM SPACING.

140 - 140.1 CHERT; MODERATE BLUISH GRAY;

ONE INCH OF BLUE GRAY CHERT.

140.1- 142 LIMESTONE; MODERATE GRAY TO TAN; VUGULAR, POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

ACCESSORY MINERALS: SPAR- %:

OTHER FEATURES: FOSSILIFEROUS;

FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;

PACKED BIOMICRITE. ABUNDANT MOLLUSK SHELL HASH WITH RARE LARGE (CM) WELL PRESERVED ARCHAIAS. ABUNDANT SMALL SPAR IN VOIDS. VERY HIGH SECONDARY POROSITY. WELL DEVELOPED.

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GRAIN TYPE: CALCILUTITE, SKELETAL;

POOR INDURATION;

142 - 143 LIMESTONE; WHITE;

OTHER FEATURES: CHALKY;

FOSSILIFEROUS MICRITE. FRIABLE.

143 - 151 LIMESTONE; MODERATE GRAY TO TAN;

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;

ACCESSORY MINERALS: QUARTZ SAND- %;

OTHER FEATURES: FOSSILIFEROUS, COQUINA;

FOSSILS: BENTHIC FORAMINIFERA, OSTRACODS, MOLLUSKS;

FORAMINIFERAL PACKED BIOMICRITE. COMPOSITION IS GENERALLY MM SIZE POORLY PRESERVED FORAMS

AND OSTRACODES. ABUNDANT QTZ SAND.

151 - 184 CALCILUTITE; WHITE;

GRAIN TYPE: SKELETAL, CALCILUTITE;

OTHER FEATURES: CHALKY;

FOSSILS: MOLLUSKS;

184 - 225 LIMESTONE; ; POSSIBLY HIGH PERMEABILITY;

GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL;

POOR INDURATION;

OTHER FEATURES: FOSSILIFEROUS;

FOSSILS: BENTHIC FORAMINIFERA, OSTRACODS, MOLLUSKS;

MICRITE TO SPARSE FORAMINIFERAL BIOMICRITE. EXTREMELY PUNKY AND GRANULAR.

225 - 234 CALCILUTITE; LIGHT GRAY TO MODERATE GRAY;

GRAIN TYPE: CALCILUTITE, CRYSTALS;

GRAIN SIZE: VERY FINE; MODERATE INDURATION;

CEMENT TYPE(S): SPARRY CALCITE CEMENT;

ACCESSORY MINERALS: CLAY-05%;

OTHER FEATURES: HIGH RECRYSTALLIZATION;

MICRITE WITH MINOR GRAY WELL INTEGRATED CLAY. LT GRAY, FRIABLE, VERY FINE GRAINED EVEN

TEXTURE.

234 - 237 LIMESTONE; CREAM TO LIGHT TAN;

GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL;

GRAIN SIZE: FINE;

ACCESSORY MINERALS: QUARTZ SAND-%;

PACKED BIOMICRITE. FINE GRAINED IN PLACES. CONTAINS VERY MINOR QTZ SAND.

237 - 259 LIMESTONE; TAN;

GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;

GRAIN SIZE: VERY FINE; POOR INDURATION;

PACKED FORAMINIFERAL BIOMICRITE COMPOSED OF VERY FINE GRAINS. LOOSELY CEMENTED, FRIABLE.

BECOMES FINER WITH DEPTH.

259 - 260 LIMESTONE; ;

GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;

GRAIN SIZE: MEDIUM; MODERATE INDURATION;

OTHER FEATURES: FOSSILIFEROUS;

FOSSILS: OSTRACODS, BENTHIC FORAMINIFERA;

PACKED FORAMINIFERAL BIOMICRITE. HARDER THAN ABOVE. ABUNDANT MINUTE OSTRACODES.

260 TOTAL DEPTH