Executive Summary
ROMP Site 85 - Two Wells

Location - ROMP Site No. 85 is located along State Route 54 near Wesley Chapel in Pasco County. More specifically, it is located in Section 8, Township 26 South, Range 20 East and at latitude 28°14'25", longitude 82° 19'25".

Site Easement - The site was obtained from American General Enterprises, Inc. on July 22, 1976 for the sum of one dollar. The Perpetual Easement is 20 feet by 60 feet. A Temporary Construction Easement which was obtained for a period of 24 months was also executed on July 22, 1976 and contained an additional plot of land 40 feet by 60 feet which adjoins the land in the Perpetual Easement. The temporary easement expired on July 21, 1978.

Geology - The site is located to the west of the Brooksville Ridge and on the Wicomico Terrace at an elevation of approximately 100 feet above mean sea level. All geologic information was obtained from analyses of well cuttings during well construction. The generalized geology of this site is as follows: 0'-105' alternating layers of sand, clay and marl

105'-295' Tampa and Suwannee Limestone

295'-420' Ocala Group

420'-505' Avon Park Limestone.

Hydrogeology - The first groundwater was encountered at a depth of approximately 8 feet below land surface datum (LSD) and defines the water table at this site. The first major water level change occurred in the Tampa and Suwannee Limestone where water levels in this confined aquifer ranged from 29.8 feet to 31.0 feet below LSD. Another water level change was observed between 450-480 feet near the top of the Avon Park Limestone. At this point the water level varied in depth between 39.7 and [illegible] feet.

below LSD. This drop in water level indicates that a confining layer exists in the top of the Avon Park Limestone between a depth of 450 and 480 feet and that the artesian pressure in the lower aquifer is less than the artesian pressure above. The temperature log indicates that warmer water was first encountered at a depth of 420 feet. Between 420-450 feet, a temperature rise of 2 to 3 degrees occurred. This would indicate that a mixing of the two different artesian pressure heads takes place at a depth of between 420 and 450 feet in total depth and that the pressure changes at a depth of approximately 450 feet. No information on porosity and permeability or specific capacities are available since core samples were not obtained and no pumping tests were conducted.

Well Construction - Both wells were constructed by the District's Portadrill between May 29 and July 13, 1978 at a total cost of $25,873 or $32.14 per foot.

A. Well No. 1.

The deep or Avon Park well (505 feet) was constructed by mud circulation to a depth of 240 feet where the drilling was switched to reverse air. Reverse air was used from 240 to 505 feet so that water level changes could be noted. During construction, 18 feet of 16 inch and 86 feet of 14 inch steel casing was used as working casing and cemented in place. Then 450 feet of 8 inch Schedule 40 PVC casing was installed and was pressure grouted in place by Halliburton using a neat cement slurry. The well was then completed to a depth of 505 feet.

B. Well No. 2.

The shallow or Suwannee well (300 feet), was constructed by mud circulation to a depth of 180 feet where the drilling was switched to reverse air for the remainder of construction. During construction

(ROMP Site 85 - Executive Summary continued)

20 feet of 16 inch and 70 feet of 14 inch steel casing was used as work casing and grouted in place. When the borehole reached 160 feet, 8" Sch. 40 PVC was installed to the bottom of the bore and was stage grouted in place with a cement slurry by the Portadrill crew. The well was then completed at a depth of 300 feet and drilling was terminated.

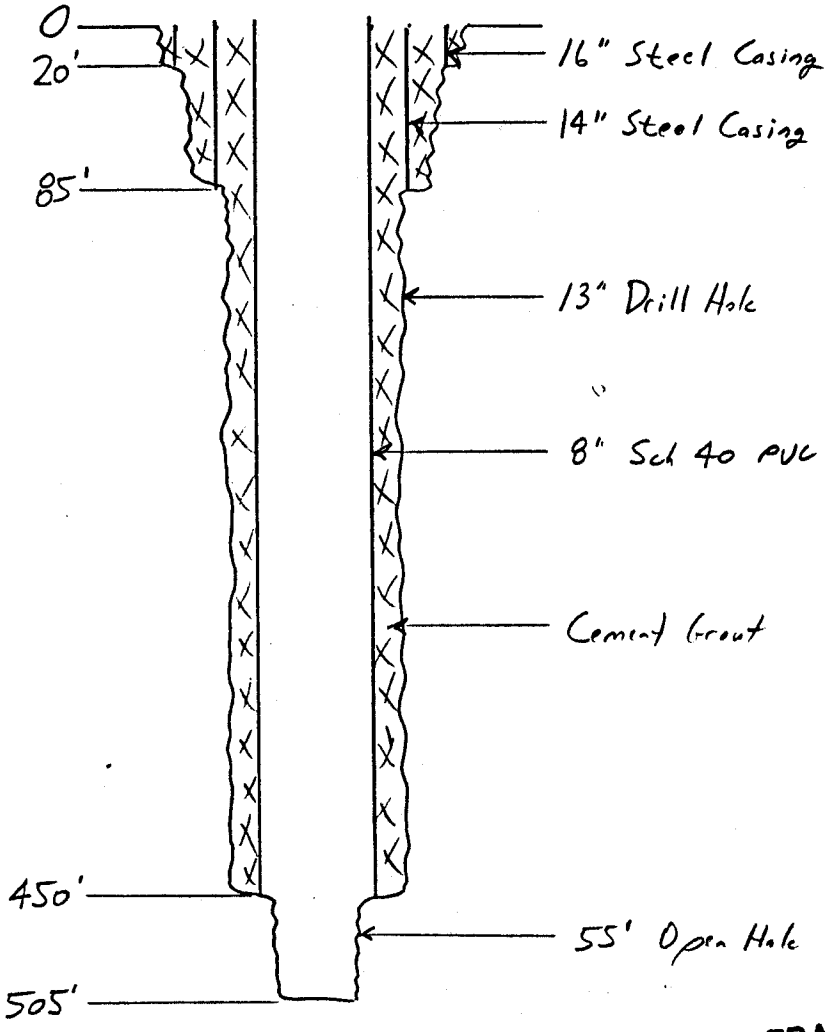
Geophysical Logs - Geophysical logs on the Avon Park well are available. Electric, caliper, gamma, fluid resistivity and temperature logs were made and are available in the files on ROMP Site 85 Well No. 1.

Type of Monitor - Both of these wells are designed to monitor potentiometric changes in the confined aquifers. The Avon Park well will monitor changes in the Avon Park Limestone while the Suwannee well will monitor changes in the Tampa and Suwannee Limestones.

Water Quality - No samples were obtained for analysis.

USGS Notification - SWFWMD Planning Section was notified on 2/13/79 that these wells were completed and they will contact the USGS and request that they install monitors on these wells.

# AS BUILT
# WELL DIAGRAM
# ROMP 85-1






II.B

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 14669
TOTAL DEPTH: 00505 FT. 450'
SAMPLES - NONE

COUNTY - PASCO
LOCATION: T.26S R.20E S.08
LAT = N 28D 14M 25
LON = W 82D 19M 25

COMPLETION DATE - N/A
ELEVATION - 100 FT
OTHER TYPES OF LOGS AVAILABLE - ELECTRIC, TEMPERATURE, GAMMA, FLUID CONDUCTI

OWNER/DRILLER: SWFWMD; ROMP SITE 85- TWO WELLS (85-1? W-14669?)

WORKED BY: CODED AND ENTERED BY RICHARD GREEN 8/90 FROM A GEOLOGIST'S (K. PREEDOM) LOG PROVIDED BY SWFWMD. DESCRIBED FROM CUTTINGS.

BELIEVED TO BE ROMP 85-1; SITE IS LOCATED ALONG S.R. 54 NEAR WESLEY CHAPEL IN PASCO COUNTY.

105-295' IS UNDIFFERENTIATED TAMPA AND SUWANNEE LIMESTONES.

| | | |
|---|---|---|
| 0. - | 105. | UNDIFFERENTIATED SAND AND CLAY |
| 105. - | 295. | TAMPA MEMBER OF ARCADIA FM. |
| 105. - | 295. | SUWANNEE LIMESTONE |
| 295. - | 420. | OCALA GROUP |
| 420. - | 505. | AVON PARK FM. |

| | | |
|---|---|---|
| 0 - | 5 | SAND; TAN;<br>GRAIN SIZE: MEDIUM; |
| 5 - | 10 | SAND; MODERATE GRAY;<br>GRAIN SIZE: MEDIUM; |
| 10 - | 15 | SAND; LIGHT BROWN;<br>GRAIN SIZE: MEDIUM; |
| 15 - | 20 | SAND; BROWN;<br>GRAIN SIZE: MEDIUM; |
| 20 - | 25 | SAND; TAN; RANGE: MEDIUM TO FINE;<br>PURPLISH CAST. |
| 25 - | 30 | AS ABOVE |
| 30 - | 35 | SAND; TAN TO BROWN; RANGE: MEDIUM TO FINE;<br>ACCESSORY MINERALS: CLAY-%; |
| 35 - | 40 | SAND; MODERATE GRAY;<br>GRAIN SIZE: MEDIUM;<br>CLAYEY. CONTAINS MM SIZE CEMENTED NODULES. |

40 - 45 SAND; YELLOW TO BROWN;
GRAIN SIZE: MEDIUM;

45 - 50 SAND; TAN TO GREENISH GRAY; LOW PERMEABILITY;
GRAIN SIZE: FINE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: LIMESTONE- %, CLAY-%;
TAN SAND MOTTLED WITH GREENISH GRAY CLAY CONTAINING ABUNDANT QTZ SAND, 1-3 MM CARBONATE GRANULES PRESENT.

50 - 55 AS ABOVE

55 - 60 AS ABOVE
SLIGHTLY MORE CLAY.

60 - 65 LIMESTONE; GREENISH GRAY TO WHITE; LOW PERMEABILITY;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-%;
MARL. CLAY, SANDY, GREENISH GRAY AND TAN. MICRITE, WHITE, CRUMBLY, 1-5MM SIZE GRANULES.

65 - 70 AS ABOVE
WITH MUCH MORE MICRITE.

70 - 75 AS ABOVE

75 - 80 AS ABOVE

80 - 85 AS ABOVE
CONTAINS SOME PELECYPODS 4-5MM SIZE.

85 - 90 CLAY; DARK GRAY TO TAN; LOW PERMEABILITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND- %, LIMESTONE-%;
INDURATED DARK GRAY CLAY WITH MINOR TAN STICKY CLAY. CONTAINS FINE QTZ SAND AND 3-4 MM CARBONATE GRANULES.

90 - 95 LIMESTONE; TAN TO WHITE; LOW PERMEABILITY;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: CALCILUTITE- %, CLAY- %, QUARTZ SAND-%;
MARL- CLAY, TASN STICKY, CONTAINS FINE QTZ SAND. MICRITE, WHITE, 1-4MM SIZE GRANULES
CONTAINS FINE QTZ SAND. CARBONATE MUD DISPERSED THROUGHOUT. RARE POCKETS OF GRAY INDURATED CLAY AS ABOVE.

95 - 100 SAND; BROWN TO MODERATE GRAY;
GRAIN SIZE: FINE; POOR INDURATION;
ACCESSORY MINERALS: CLAY-05%, LIMESTONE- %, PHOSPHATIC SAND-02%;
CONTAINS MINOR CLAY, CARBONATE GRANULES (1-2MM).

100 - 105 LIMESTONE; WHITE TO TAN; LOW PERMEABILITY;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: CLAY- %, QUARTZ SAND-%;
MARL. MICRITE, WHITE, 1-2 MM SIZE GRANULES= 75% OF MATERIAL. CLAY, TAN, CONTAINS QTZ SAND.
CLAY, WHITE, CALCAREOUS.

105 - 110 LIMESTONE; CREAM TO WHITE;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
ACCESSORY MINERALS: CLAY-05%;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS;
BIOMICRITE, VERY GRANULAR. MINOR WHITE CLAY.

110 - 115 AS ABOVE

115 - 120 AS ABOVE

120 - 125 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
ACCESSORY MINERALS: CLAY-%;
BIOMICRITE, GRANULAR. CONTAINS GRAY, STICKY CLAY.

125 - 130 AS ABOVE

130 - 135 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
POOR INDURATION;
FOSSILS: MOLLUSKS;
BIOMICRITE, FRIABLE, GRANULAR.

135 - 140 AS ABOVE

140 - 145 AS ABOVE

145 - 150 AS ABOVE

150 - 155 LIMESTONE; CREAM TO MODERATE GRAY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
POOR INDURATION;
ACCESSORY MINERALS: CLAY-05%;
BIOMICRITE, FRIABLE, GRANULAR, MINOR GRAY CLAY.

155 - 160 LIMESTONE; ;
SAME AS 130-135'.

160 - 165 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
MODERATE INDURATION;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: ECHINOID, MOLLUSKS;
BIOMICRITE, SOMEWHAT FRIABLE.

165 - 170 AS ABOVE

170 - 175 AS ABOVE

175 - 180 AS ABOVE

180 - 185 AS ABOVE

185 - 190 AS ABOVE

190 - 195 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
GRAIN SIZE: FINE; POOR INDURATION;
ACCESSORY MINERALS: SPAR- %;
FOSSILS: MOLLUSKS;
SLIGHTLY SPARRY IN PLACES, FRIABLE, BIOMICRITE.

195 - 200 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
ACCESSORY MINERALS: SPAR-05%;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: MOLLUSKS;
BIOMICRITE, GRAINY. MINOR SPAR. VARIOUS INVERTEBRATES.

200 - 205 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;
POOR INDURATION;
ACCESSORY MINERALS: QUARTZ SAND-%;
SPARRY BIOMICRITE. FRIABLE, GRAINY. ABUNDANT FINE QTZ SAND.

205 - 210 AS ABOVE

210 - 215 LIMESTONE; MODERATE GRAY;
GRAIN TYPE: CALCILUTITE, CRYSTALS;
ACCESSORY MINERALS: CLAY- %, QUARTZ SAND-%;
SPARRY MICRITE. CONTAINS SOME GRAY CLAY AND ABUNDANT QTZ SAND.

215 - 220 LIMESTONE; CREAM TO MODERATE GRAY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
ACCESSORY MINERALS: QUARTZ SAND- %, CLAY- %;
FOSSILS: MOLLUSKS;
BIOMICRITE. CONTAINS SOME GRAY CLAY, ABUNDANT QTZ SAND, MOLLUSK FRAGMENTS.

220 - 225 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
POOR INDURATION;
ACCESSORY MINERALS: SPAR-01%;
FOSSILS: MOLLUSKS;
SPARSE BIOMICRITE, GRAINY, FRIABLE, CONTAINS RARE SPAR FRAGMENTS AND GASTROPODS.

225 - 230 LIMESTONE; MODERATE GRAY TO CREAM;
GRAIN TYPE: CALCILUTITE, CRYSTALS;
ACCESSORY MINERALS: CLAY-05%;
SPARRY MICRITE, GRAINY. MINOR CLAY FRACTION.

230 - 235 LIMESTONE; CREAM;
GRAIN TYPE: CALCILUTITE, CRYSTALS;
POOR INDURATION;
ACCESSORY MINERALS: SPAR-05%;
GRAINY, FRIABLE. MINOR SPAR.

235 - 240 NO SAMPLES

240 - 245 LIMESTONE; LIGHT BROWN TO CREAM; POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: CRYSTALS, CALCILUTITE;
POOR INDURATION;
ACCESSORY MINERALS: QUARTZ SAND-15%;
SPARRY MICRITE. LT BROWN AND CREAM GRAINS THAT ARE BARELY LITHIFIED. CUTTINGS ARE CARBONATE SAND SHOWING LITTLE CEMENTATION.

245 - 250 AS ABOVE

250 - 255 AS ABOVE
SAME WITH MINOR GRAY INDURATED CLAY.

255 - 260 AS ABOVE

260 - 265 AS ABOVE

265 - 265 AS ABOVE

265 - 270 LIMESTONE; CREAM;
GRAIN TYPE: CALCILUTITE, CRYSTALS;
GRAIN SIZE: FINE; POOR INDURATION;
SPARRY MICRITE. CUTTINGS ARE VF CARBONATE SAND.

270 - 275 AS ABOVE

275 - 280 AS ABOVE
WITH THIN LENSES OF CEMENTED GRAINS.

280 - 285 AS ABOVE

285 - 290 AS ABOVE

290 - 295 LIMESTONE; CREAM;
GRAIN TYPE: CALCILUTITE, CRYSTALS;
SPARRY MICRITE. GRAINY.

295 - 300 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;
SPARSE BIOMICRITE. SOMEWHAT GRAINY. RARE MOLLUSKS FRAGMENTS WITH LEPIDOCYCLINA.

300 - 305 AS ABOVE

305 - 310 AS ABOVE

310 - 315 AS ABOVE

315 - 320 AS ABOVE

320 - 325 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
FOSSILS: BENTHIC FORAMINIFERA;
PACKED BIOMICRITE, ABUNDANT NUMMULITES AND SOME LEPS. (NUMMULITES VANDERSTOKI HEMICYTHERE ZONE).

325 - 330 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
GRAIN SIZE: VERY FINE;
FOSSILS: BENTHIC FORAMINIFERA;
SPARSE BIOMICRITE. CONTAINS NUMMULITES AND LEPS.

330 - 335 AS ABOVE

335 - 340 AS ABOVE

340 - 345 AS ABOVE
BETTER LITHIFIED THAN ABOVE.

345 - 350 AS ABOVE

350 - 355 AS ABOVE

355 - 360 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
FOSSILS: BENTHIC FORAMINIFERA;
PACKED BIOMICRITE, ABUNDANT NUMMULITES AND FORAMS.

360 - 365 LIMESTONE; ;
GRAIN TYPE: SKELETAL;
OTHER FEATURES: COQUINA;
FOSSILS: BENTHIC FORAMINIFERA;
LEPIDOCYCLINA COQUINA. WELL PRESERVED.

365 - 370 AS ABOVE

370 - 375 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID;
PACKED BIOMICRITE. CONTAINS NUMMULITES, LEPS, AND VARIOUS OTHER FOSSILS.

375 - 380 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;
FOSSILS: BENTHIC FORAMINIFERA;
SPARSE BIOMICRITE. FEW FORAMS. SLIGHTLY SPARRRY.

380 - 385 AS ABOVE

385 - 390 AS ABOVE

390 - 395 LIMESTONE; CREAM;
GRAIN TYPE: CALCILUTITE, CRYSTALS;
GRAIN SIZE: VERY FINE;
ACCESSORY MINERALS: SPAR-05%, QUARTZ SAND-05%;

395 - 400 LIMESTONE; ;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID;
SPARSE BIOMICRITE. SAME AS ABOVE WITH FEW LARGER FORAMS AND ECHINOID FRAGMENTS.

400 - 405 AS ABOVE

405 - 410 LIMESTONE; ;
SAME AS 390-95' WITH SOMEWHAT MORE CALCITE RECRYSTALLIZATION.

410 - 415 LIMESTONE; CREAM;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, ECHINOID;
BIOMICRITE. SOMEWHAT SPARRY. NUMMULITES.

415 - 420 LIMESTONE; CREAM TO LIGHT BROWN;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
MODERATE INDURATION;
ACCESSORY MINERALS: PYRITE-05%, SHELL-05%;
FOSSILS: MOLLUSKS;
BIOMICRITE. MORE LITHIFIED THAN ABOVE. MINOR PYRITE, AND MOLLUSKS.

420 - 425 LIMESTONE; LIGHT BROWN;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
ACCESSORY MINERALS: PYRITE-02%;
FOSSILS: BENTHIC FORAMINIFERA, CORAL;
BIOMICRITE. DICTYOCONUS COOKI AND OTHER FORAMS.

425 - 430 AS ABOVE
BUT CREAM COLOR.

430 - 435 LIMESTONE; CREAM TO TAN;
GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE;
ACCESSORY MINERALS: SPAR- %;
FOSSILS: BENTHIC FORAMINIFERA;
POORLY WASHED BIOSPARITE. CREAM MICRITE AND BROWN SPARITE. DICTYOCONUS COOKI, NUMMULITES, LEPS, AND OTHER FORAMS.

435 - 440 NO SAMPLES

440 - 445 LIMESTONE; LIGHT BROWN;
GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;
POORLY WASHED BIOSPARITE. SMALL GASTROPODS AND VARIOUS FORAMS.

445 - 450 AS ABOVE

450 TOTAL DEPTH