

CORE LABORATORIES, INC.
 Petroleum Reservoir Engineering
 DALLAS, TEXAS

MITCHINS & MARRS
 GREAT DISCOVERY # 2
 BONE MOUNTAIN FIELD
 DOUGLAS COUNTY, OREGON

DATE : 5-SEP-84
 FORMATION :
 DRLG. FLUID: WB
 LOCATION : SEC. 20-T30S/R9W

FILE NO : 13526
 LABORATORY: BAKERSFIELD
 ANALYSTS : DLK AB
 ELEVATION : 810' GR

SIDEWALL CORE ANALYSIS

| SEC IN | DEPTH | PERM MD(*) | POR % | OIL% PORE | WTR% PORE | D/W RATIO | SAMPLE WEIGHT | DESCRIPTION |
|--------|--------|------------|-------|-----------|-----------|-----------|---------------|-----------------------------------|
| 0.5 | 3296.0 | 80. | 22.6 | 0.0 | 86.5 | 0.00 | 3.67 | SD;GY,VF-MGR,SLTY,NO STN,NO FLU |
| 0.6 | 3360.0 | 0.2 | 8.2 | 0.0 | 50.0 | 0.00 | 2.37 | SH;GY,SLTY,NO STN,NO FLU |
| 0.4 | 3362.0 | 0.5 | 20.4 | 0.0 | 77.3 | 0.00 | 2.50 | SLT;GY,SHLY,SCALC,NO STN,NO FLU |
| 0.4 | 3364.0 | 1.5 | 13.8 | 0.0 | 79.4 | 0.00 | 5.96 | SAME |
| 0.6 | 3366.0 | 0.3 | 20.2 | 0.0 | 65.2 | 0.00 | 2.62 | SAME |
| 0.4 | 3368.0 | 0.2 | 22.6 | 0.0 | 53.8 | 0.00 | 2.50 | SAME |
| 0.4 | 3374.0 | 0.2 | 17.2 | 0.0 | 66.7 | 0.00 | 2.87 | SAME |
| | 3374.0 | | | | | | | SAME |
| 0.4 | 3376.0 | 0.1 | 10.3 | 1.1 | 54.9 | 0.02 | 2.20 | SH;GY,SLTY,CALC,NO STN,NO VIS FLU |
| | 3378.0 | | | | | | | SAME |
| | 3380.0 | | | | | | | SAME |

(*) PERMEABILITY VALUES FOR PERCUSSION TYPE SIDEWALL CORES DETERMINED EMPIRICALLY.

RECEIVED-PTLD
 OCT 26 1984

DEPT OF GEOLOGY

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| MEAS. DEPTH | DRIFT ANGLE | T.V.D. | HOLE BEARING | COURSE COORDINATES | | | TOTAL COORDINATES | | |
|-------------|-------------|---------|--------------|--------------------|-------|------|-------------------|-------|-------|
| | | | | NORTH | SOUTH | WEST | NORTH | SOUTH | WEST |
| 350 | 1.00 | -457.00 | N 71 E | 0.0 | | 0.0 | 0.0 | | 0.0 |
| 400 | 1.00 | -415.01 | N 54 E | 0.3 | | 0.6 | 0.3 | | 0.6 |
| 450 | 1.50 | -365.02 | N 55 E | 0.6 | | 0.9 | 1.0 | | 1.5 |
| 500 | 2.00 | -315.04 | N 58 E | 0.7 | | 1.3 | 1.7 | | 2.9 |
| 550 | 2.00 | -265.07 | N 71 E | 0.6 | | 1.6 | 2.3 | | 4.5 |
| 600 | 2.00 | -215.10 | N 71 E | 0.6 | | 1.6 | 2.9 | | 6.2 |
| 650 | 2.00 | -165.13 | N 71 E | 0.6 | | 1.6 | 3.4 | | 7.8 |
| 700 | 2.00 | -115.16 | N 74 E | 0.5 | | 1.7 | 4.0 | | 9.5 |
| 750 | 2.50 | -65.20 | N 75 E | 0.6 | | 1.9 | 4.5 | | 11.4 |
| 800 | 2.50 | -15.25 | N 74 E | 0.6 | | 2.1 | 5.1 | | 13.5 |
| 850 | 2.60 | 34.70 | N 71 E | 0.7 | | 2.1 | 5.7 | | 15.6 |
| 900 | 3.20 | 84.64 | N 69 E | 0.9 | | 2.4 | 6.6 | | 18.0 |
| 950 | 4.00 | 134.54 | N 68 E | 1.2 | | 2.9 | 7.8 | | 20.9 |
| 1000 | 4.00 | 184.42 | N 71 E | 1.2 | | 3.3 | 9.0 | | 24.2 |
| 1050 | 4.50 | 234.28 | N 68 E | 1.3 | | 3.5 | 10.3 | | 27.6 |
| 1100 | 4.80 | 284.11 | N 71 E | 1.4 | | 3.8 | 11.7 | | 31.4 |
| 1150 | 5.00 | 333.93 | N 71 E | 1.4 | | 4.0 | 13.1 | | 35.5 |
| 1200 | 5.00 | 383.74 | N 71 E | 1.4 | | 4.1 | 14.5 | | 39.6 |
| 1250 | 5.20 | 433.54 | N 71 E | 1.4 | | 4.2 | 16.0 | | 43.8 |
| 1300 | 5.20 | 483.34 | N 71 E | 1.5 | | 4.3 | 17.4 | | 48.1 |
| 1350 | 6.00 | 533.10 | N 71 E | 1.6 | | 4.6 | 19.0 | | 52.7 |
| 1400 | 6.00 | 582.82 | N 71 E | 1.7 | | 4.9 | 20.7 | | 57.6 |
| 1450 | 6.00 | 632.56 | N 71 E | 1.7 | | 4.9 | 22.4 | | 62.6 |
| 1500 | 6.00 | 682.27 | N 71 E | 1.7 | | 4.9 | 24.1 | | 67.5 |
| 1550 | 7.00 | 731.95 | N 71 E | 1.8 | | 5.4 | 26.0 | | 72.9 |
| 1600 | 7.00 | 781.58 | N 71 E | 2.0 | | 5.8 | 28.0 | | 78.6 |
| 1650 | 7.00 | 831.21 | N 71 E | 2.0 | | 5.8 | 29.9 | | 84.4 |
| 1700 | 7.00 | 880.83 | N 71 E | 2.0 | | 5.8 | 31.9 | | 90.1 |
| 1750 | 7.50 | 930.43 | N 71 E | 2.1 | | 6.0 | 34.0 | | 96.1 |
| 1800 | 8.00 | 979.98 | N 71 E | 2.2 | | 6.4 | 36.2 | | 102.5 |
| 1850 | 7.50 | 1029.52 | N 71 E | 2.2 | | 6.4 | 38.4 | | 108.9 |
| 1900 | 7.50 | 1079.09 | N 71 E | 2.1 | | 6.2 | 40.5 | | 115.0 |
| 1950 | 7.50 | 1128.67 | N 71 E | 2.1 | | 6.2 | 42.6 | | 121.2 |
| 2000 | 8.00 | 1178.21 | N 69 E | 2.3 | | 6.3 | 44.9 | | 127.5 |
| 2050 | 8.00 | 1227.72 | N 66 E | 2.7 | | 6.4 | 47.6 | | 134.0 |
| 2100 | 9.00 | 1277.17 | N 68 E | 2.9 | | 6.8 | 50.5 | | 140.8 |
| 2150 | 10.00 | 1326.49 | N 66 E | 3.2 | | 7.6 | 53.7 | | 148.4 |
| 2200 | 10.00 | 1375.73 | N 68 E | 3.4 | | 8.0 | 57.1 | | 156.3 |
| 2250 | 11.00 | 1424.89 | N 66 E | 3.5 | | 8.4 | 60.6 | | 164.7 |
| 2300 | 11.50 | 1473.93 | N 66 E | 4.0 | | 8.9 | 64.6 | | 173.6 |
| 2350 | 12.00 | 1522.88 | N 71 E | 3.7 | | 9.5 | 68.3 | | 183.1 |
| 2400 | 12.00 | 1571.79 | N 66 E | 3.9 | | 9.7 | 72.2 | | 192.8 |
| 2450 | 12.00 | 1620.69 | N 66 E | 4.2 | | 9.5 | 76.4 | | 202.3 |
| 2500 | 12.50 | 1669.55 | N 66 E | 4.3 | | 9.7 | 80.7 | | 212.0 |
| 2550 | 13.00 | 1718.32 | N 66 E | 4.5 | | 10.1 | 85.2 | | 222.1 |
| 2600 | 13.00 | 1767.04 | N 66 E | 4.6 | | 10.3 | 89.8 | | 232.3 |
| 2650 | 13.00 | 1815.76 | N 66 E | 4.6 | | 10.3 | 94.3 | | 242.6 |
| 2700 | 13.50 | 1864.43 | N 66 E | 4.7 | | 10.5 | 99.0 | | 253.1 |
| 2750 | 14.00 | 1912.99 | N 66 E | 4.8 | | 10.9 | 103.8 | | 263.9 |
| 2800 | 14.00 | 1961.51 | N 66 E | 4.9 | | 11.1 | 108.7 | | 275.0 |
| 2850 | 15.00 | 2009.91 | N 66 E | 5.1 | | 11.4 | 113.8 | | 286.4 |
| 2900 | 15.00 | 2058.21 | N 61 E | 5.8 | | 11.6 | 119.6 | | 298.0 |
| 2950 | 16.00 | 2106.39 | N 61 E | 6.5 | | 11.7 | 126.1 | | 309.7 |
| 3000 | 16.50 | 2154.39 | N 58 E | 7.1 | | 12.1 | 133.2 | | 321.7 |
| 3050 | 16.50 | 2202.33 | N 58 E | 7.5 | | 12.0 | 140.7 | | 333.8 |
| 3100 | 17.00 | 2250.21 | N 61 E | 7.3 | | 12.4 | 148.0 | | 346.2 |
| 3150 | 17.00 | 2298.03 | N 61 E | 7.1 | | 12.8 | 155.1 | | 359.0 |
| 3200 | 17.50 | 2345.78 | N 61 E | 7.2 | | 13.0 | 162.3 | | 371.9 |
| 3250 | 18.00 | 2393.40 | N 61 E | 7.4 | | 13.3 | 169.7 | | 385.0 |
| 3300 | 18.00 | 2440.95 | N 61 E | 7.5 | | 13.5 | 177.2 | | 398.3 |
| 3350 | 18.00 | 2488.50 | N 61 E | 7.5 | | 13.5 | 184.7 | | 412.0 |
| 3400 | 19.00 | 2535.92 | N 61 E | 7.7 | | 13.9 | 192.4 | | 426.2 |
| 3450 | 20.00 | 2583.05 | N 61 E | 8.1 | | 13.6 | 200.5 | | 440.8 |
| 3490 | 20.00 | 2620.64 | N 61 E | 6.6 | | 12.0 | 207.1 | | 452.7 |

TRUE VERTICAL DEPTH HAS BEEN CORRECTED TO SUBSEA USING KB= 815.00 FEET

HORIZONTAL DEPARTURE = 497.86 FEET AT NORTH 65 DEG. 25. MIN. EAST (GRID)

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