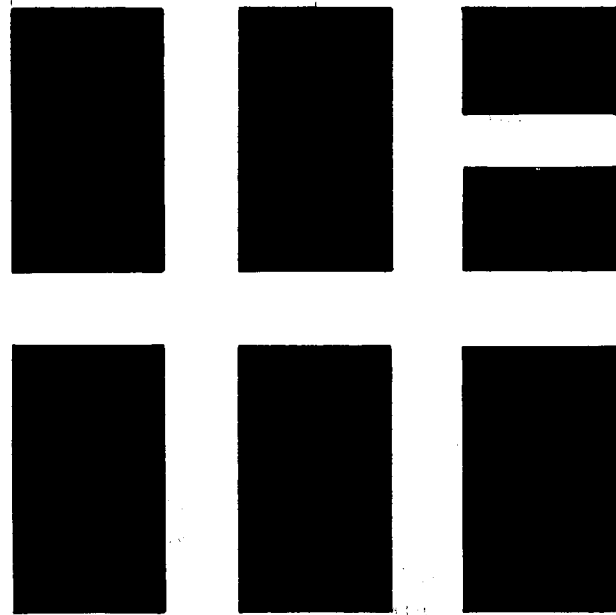


# Schlumberger Synergetic Log Systems



Computer Processed Interpretation

## CORIBAND

An Analysis Of Complex Lithology

# CORIBAND

## Analysis of Complex Lithology

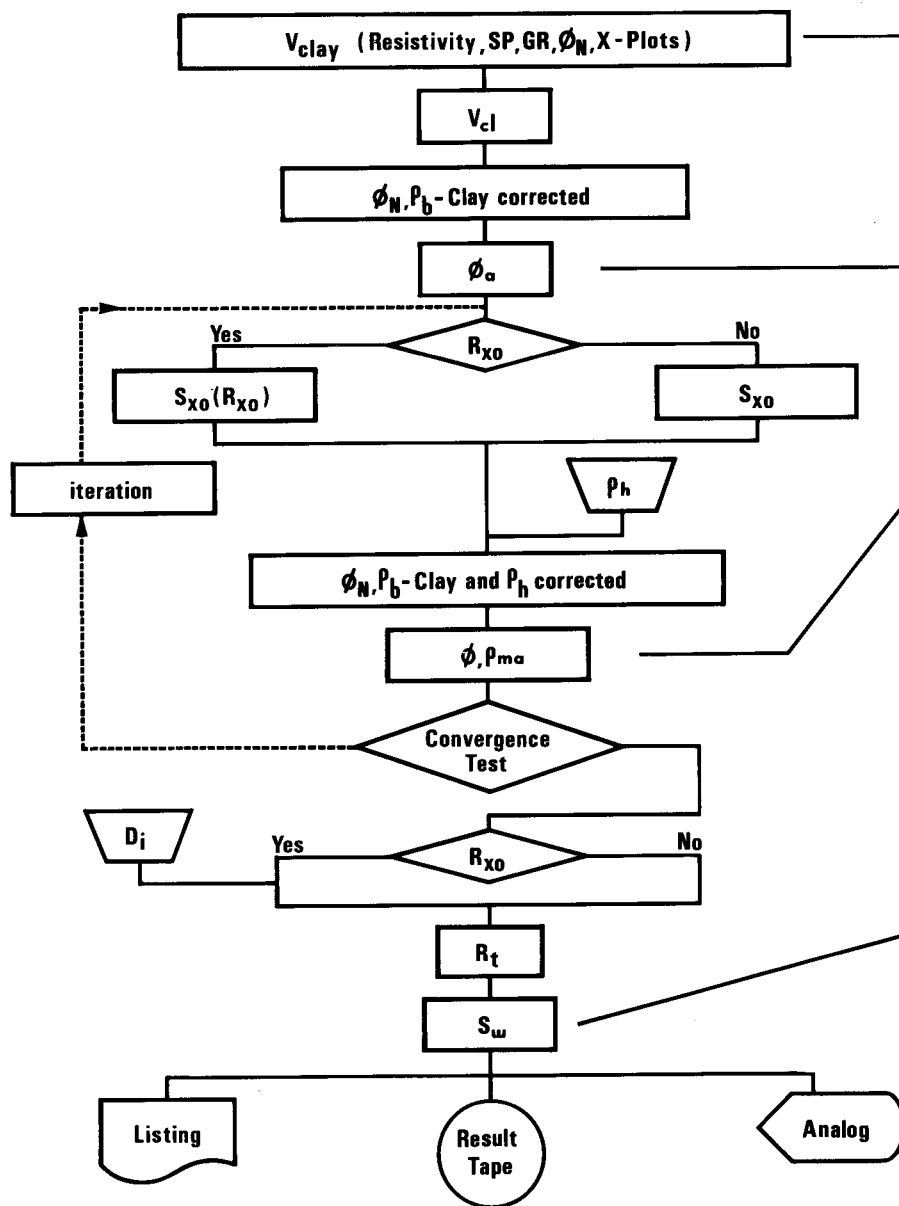
C O R I B A N D is a computer program which provides continuous computations of reservoir parameters through a zone of complex lithology. It corrects logging data for environmental effects and utilises all available information to provide the most probable solution for reservoir analysis.

Results are presented on a film coded for easy identification. A computer listing, providing a complete tabulation of reservoir parameters is also supplied. In addition, the raw log data, the normalized data and the computed results, are available in digital form on magnetic tape in a format compatible with your own computer (CERT tape).

The logging program for CORIBAND should include : a Deep Investigating Resistivity Log, a Microresistivity Log, a Formation Density Compensated Log, a Neutron Log (SNP or CNT) and a Borehole Compensated Sonic Log. And an SP and GR run in conjunction with the above logs.

Before being interpreted by the CORIBAND program : the log data are depth matched, corrected for environmental effects, and used to produce preliminary computations of porosity ( $\phi$ ), formation resistivity ( $R_t$ ), invasion diameter ( $d_i$ ),  $R_{wa}$  and  $R_{mfa}$ . This pre-interpretation pass also produces cross-plots which are used to determine parameters needed for the interpretation (e.g. clay characteristics, lithological model).

The pre-interpretation pass output is then used as input to the CORIBAND program. A flow chart with simplified explanation is shown below.



Lowest value of  $V_{clay}$  from various indicators is taken as final value.

This clay corrected value of porosity is used to calculate a first value of  $S_{xo}$  and  $\phi_h$ .  $\rho_h$  is then used with  $S_{xo}$  to compute the hydrocarbon effect on the neutron and density.

The new value of porosity thus obtained is used to get a better value of  $S_{xo}$ , and the hydrocarbon effect is recomputed.

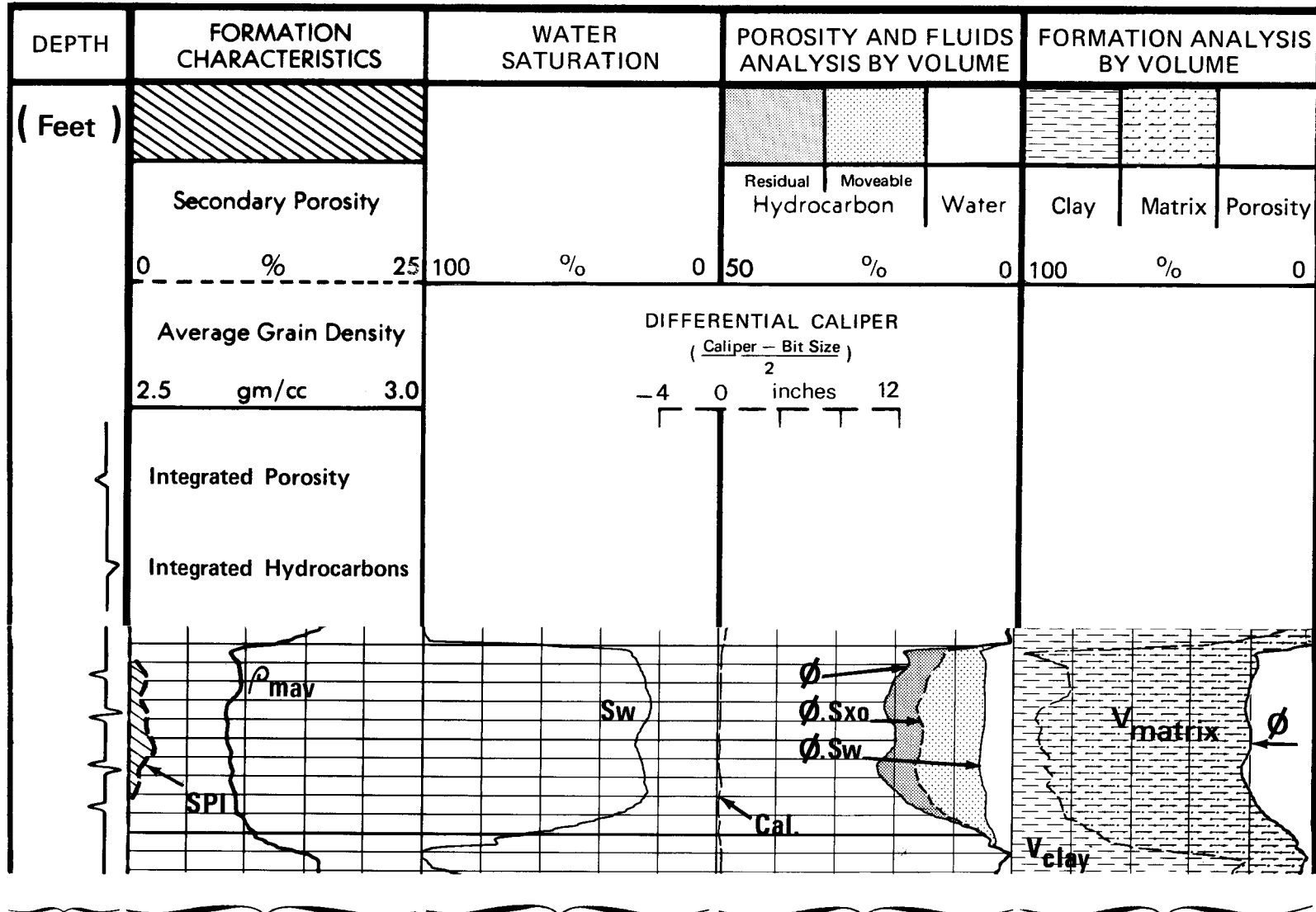
This iteration process continues until the new porosity differs from the previous value by less than 1 p.u.

Final computation of  $S_w$  using porosity corrected for clay and hydrocarbons,  $R_t$  corrected for invasion and  $V_{clay}$ .

# CORIBAND

Analysis of Complex Lithology

ANALOG PRESENTATION



Depth Track

Track I

Track II

Track III

Track IV

## Reservoir Inventory – Depth Track.

**Integrated porosity.** The distance between consecutive pips represents 1 foot of 100 % porosity, or 7758 barrels of pore volume per acre. When depths are expressed in meters, the integration gives a pip for every .2 meters of 100 % porosity which represents a pore volume of  $.2\text{m}^3/\text{m}^2$ .

**Integrated hydrocarbon.** The distance between consecutive pips represents 1 foot of hydrocarbon in place, or 7758 barrels of hydrocarbon per acre. In meters, the integration gives a pip for every .2 meters of hydrocarbon in place.

## Formation Characteristics – Track I.

- SPI – Secondary Porosity Index. ( $\text{SPI} = \phi_{\text{ND}} - \phi_{\text{S}}$ ). As the sonic responds mainly to intergranular porosity, while the Neutron and Density respond to total porosity, the presence of vugs or fractures is shown by the Neutron-Density porosity reading higher than the sonic porosity.
- $\rho_{\text{mav}}$  – Average Grain Density. The average density of all solids, clay included. This curve indicates lithology in case of a clean monomineral matrix e.g. limestone (= 2.71). For a clean dual mineral matrix the proportion of the two constituents can be computed if these are well defined.

## Water Saturation – Track II.

- $S_{\text{w}}$  – Water saturation in the uncontaminated zone.

## Porosity Analysis – Track III.

- $\phi$  – Formation porosity corrected for hydrocarbon and clay effect.
- $\phi.S_{\text{XO}}$  – Water filled porosity in the invaded zone. (plotted only when microresistivity log available)
- $\phi.S_{\text{w}}$  – Water filled porosity in the uncontaminated zone.  
The area between  $\phi.S_{\text{XO}}$  and  $\phi.S_{\text{w}}$  represents the moveable hydrocarbon.  
The area between  $\phi$  and  $\phi.S_{\text{w}}$  represents the total hydrocarbon.

## Bulk Volume Analysis – Track IV.

The total bulk volume is divided into  $\phi$ , porosity ;  $V_{\text{clay}}$ , percentage of clay ;  $V_{\text{matrix}}$ , percentage of non-clay matrix.

# CORIBAND

## Analysis of Complex Lithology

## TABULAR LISTING DATA

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 0517.0        | .0                   | 2.65                                | 94.2               | 98.2            | 28.6       | .0             | 1.7          | .5           | 281.14                     | 3.44  |
| 0518.0        | .0                   | 2.63                                | 96.3               | 98.9            | 28.3       | .0             | 1.0          | .3           | 277.70                     | 3.43  |
| 0519.0        | .0                   | 2.63                                | 90.0               | 96.9            | 28.7       | .0             | 2.9          | .9           | 274.28                     | 3.41  |
| 0520.0        | .0                   | 2.64                                | 85.8               | 95.5            | 30.0       | .0             | 4.3          | 1.4          | 270.87                     | 3.38  |
| 0521.0        | .0                   | 2.66                                | 87.2               | 96.0            | 30.6       | .0             | 3.9          | 1.2          | 267.50                     | 3.34  |
| 0522.0        | .0                   | 2.64                                | 69.9               | 96.9            | 29.9       | .0             | 3.0          | .9           | 264.18                     | 3.30  |
| 0523.0        | .0                   | 2.63                                | 92.6               | 97.7            | 29.0       | .0             | 2.1          | .7           | 260.89                     | 3.27  |
| 0524.0        | .0                   | 2.66                                | 92.5               | 97.7            | 29.8       | .0             | 2.2          | .7           | 257.62                     | 3.25  |
| 0525.0        | .0                   | 2.67                                | 96.3               | 96.9            | 29.4       | .0             | 1.1          | .3           | 254.37                     | 3.23  |

- Column 1 — Depth in feet or meters.
- Column 2 — Clay content in percentage of bulk volume.
- Column 3 — Average matrix density in gms/cc. including clay.
- Column 4, 5 — Water saturations in percentage of total porosity.
- Column 6, 7 — Porosity (total and secondary) in percentage of bulk volume.
- Column 8, 9 — Hydrocarbons (total and moved) in percentage of bulk volume.
- Column 10, 11 — Cumulative integrations of porosity and hydrocarbons in porosity-feet or porosity-meter and hydrocarbon-feet or hydrocarbon-meter from the bottom of the computed section.

# **CORIBAND**

**Analysis of Complex Lithology**

**CERT TAPE**

Tape containing the raw log data (depth matched), the data corrected for borehole environmental effects and the computed results of CORIBAND. Suitable for use in client computers.

## **Format Of CERT Tape**

7 track, BCD, even parity, 556 or 800 BPI. Physical blocks of 4000 characters, 10 depth levels per block, format of each level : (40 F 10.3), one level per 6" of borehole, word one at each level contains depth. A tape label is written in the first two blocks. This label identifies client, well and parameter contained in each word.

*For additional information please contact your local Schlumberger representative.*

CORIBAND

INPUT PARAMETERS

\*\*\*\*\*

\*\*\*\*\*

ZONE NO 3 FROM 10154.0 TO 10210.0

-----  
GENERAL PARAMETERS

RW = .025, RMP = .040, HYDROCARBON DENSITY = .600, TEMPERATURE = 250.000F

CLAY PARAMETERS

RESISTIVITY = .600, DELTA-T = 130.000, DENSITY = 2.340, NEUTRON = 36.000

\*\*\*\*\*

ZONE NO 2 FROM 10210.0 TO 10640.0

-----  
GENERAL PARAMETERS

RW = .025, RMP = .040, HYDROCARBON DENSITY = .600, TEMPERATURE = 250.000F

CLAY PARAMETERS

RESISTIVITY = .600, DELTA-T = 130.000, DENSITY = 2.340, NEUTRON = 36.000

\*\*\*\*\*

ZONE NO 1 FROM 10640.0 TO 11220.0

-----  
GENERAL PARAMETERS

RW = .025, RMP = .040, HYDROCARBON DENSITY = .600, TEMPERATURE = 250.000F

CLAY PARAMETERS

RESISTIVITY = .600, DELTA-T = 130.000, DENSITY = 2.340, NEUTRON = 36.000

\*\*\*\*\*



| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10155.0       | 94.8                 | 2.85                                | 100.0              | 100.0            | 1.8        | .0             | .0           | .0           | 203.01                     | 67.02 |
| 10156.0       | 97.6                 | 2.85                                | 100.0              | 100.0            | .0         | .0             | .0           | .0           | 203.00                     | 67.02 |
| 10157.0       | 97.8                 | 2.85                                | 100.0              | 100.0            | .8         | .0             | .0           | .0           | 203.00                     | 67.02 |
| 10158.0       | 98.0                 | 2.85                                | 100.0              | 100.0            | .7         | .0             | .0           | .0           | 202.99                     | 67.02 |
| 10159.0       | 93.9                 | 2.85                                | 100.0              | 100.0            | 2.1        | .0             | .0           | .0           | 202.97                     | 67.02 |
| 10160.0       | 100.0                | 2.85                                | 100.0              | 100.0            | .0         | .0             | .0           | .0           | 202.96                     | 67.02 |
| 10161.0       | 88.6                 | 2.85                                | 100.0              | 100.0            | 4.0        | .0             | .0           | .0           | 202.95                     | 67.02 |
| 10162.0       | 95.2                 | 2.85                                | 100.0              | 100.0            | 1.7        | .0             | .0           | .0           | 202.89                     | 67.02 |
| 10163.0       | 91.6                 | 2.85                                | 100.0              | 100.0            | 2.9        | .0             | .0           | .0           | 202.87                     | 67.02 |
| 10164.0       | 92.2                 | 2.85                                | 100.0              | 100.0            | 2.7        | .0             | .0           | .0           | 202.84                     | 67.02 |
| 10165.0       | 100.0                | 2.85                                | 100.0              | 100.0            | .0         | .0             | .0           | .0           | 202.83                     | 67.02 |
| 10166.0       | 88.8                 | 2.85                                | 100.0              | 100.0            | 3.9        | .0             | .0           | .0           | 202.83                     | 67.02 |
| 10167.0       | 69.8                 | 2.86                                | 85.3               | 89.2             | 8.4        | .0             | 1.2          | .3           | 202.77                     | 67.02 |
| 10168.0       | 69.7                 | 2.86                                | 75.2               | 84.5             | 9.5        | .0             | 2.3          | .9           | 202.69                     | 67.00 |
| 10169.0       | 67.9                 | 2.86                                | 93.2               | 98.6             | 5.4        | .0             | .4           | .3           | 202.60                     | 66.98 |
| 10170.0       | 73.4                 | 2.86                                | 93.4               | 98.7             | 6.1        | .0             | .4           | .3           | 202.54                     | 66.98 |
| 10171.0       | 68.0                 | 2.82                                | 82.2               | 96.2             | 10.2       | .0             | 1.8          | 1.4          | 202.48                     | 66.97 |
| 10172.0       | 72.3                 | 2.85                                | 84.6               | 96.7             | 9.7        | .0             | 1.5          | 1.2          | 202.37                     | 66.95 |
| 10173.0       | 80.8                 | 2.85                                | 89.8               | 97.9             | 6.7        | .0             | .7           | .5           | 202.28                     | 66.94 |
| 10174.0       | 79.0                 | 2.85                                | 86.0               | 97.0             | 7.4        | .0             | 1.0          | .8           | 202.21                     | 66.93 |
| 10175.0       | 76.1                 | 2.85                                | 84.7               | 89.6             | 8.4        | .0             | 1.3          | .4           | 202.13                     | 66.92 |
| 10176.0       | 76.2                 | 2.85                                | 83.4               | 87.7             | 8.3        | .0             | 1.4          | .4           | 202.05                     | 66.91 |
| 10177.0       | 66.7                 | 2.85                                | 76.6               | 94.8             | 11.6       | .0             | 2.7          | 2.1          | 201.97                     | 66.90 |
| 10178.0       | 75.0                 | 2.85                                | 85.1               | 96.8             | 8.8        | .0             | 1.3          | 1.0          | 201.85                     | 66.87 |
| 10179.0       | 72.8                 | 2.85                                | 85.6               | 89.1             | 9.5        | .0             | 1.4          | .3           | 201.76                     | 66.85 |
| 10180.0       | 76.2                 | 2.85                                | 88.1               | 90.4             | 8.3        | .0             | 1.0          | .2           | 201.66                     | 66.84 |
| 10181.0       | 68.5                 | 2.85                                | 82.3               | 95.7             | 11.0       | .0             | 1.9          | 1.5          | 201.56                     | 66.82 |
| 10182.0       | 83.6                 | 2.85                                | 91.8               | 91.8             | 5.7        | .0             | .5           | .0           | 201.47                     | 66.81 |
| 10183.0       | 75.3                 | 2.85                                | 79.7               | 79.7             | 8.6        | .0             | 1.8          | .0           | 201.41                     | 66.80 |
| 10184.0       | 64.8                 | 2.85                                | 68.8               | 74.8             | 12.3       | .0             | 3.8          | .7           | 201.32                     | 66.78 |
| 10185.0       | 61.2                 | 2.82                                | 86.6               | 90.5             | 6.4        | .0             | .9           | .2           | 201.23                     | 66.76 |
| 10186.0       | 57.0                 | 2.86                                | 72.9               | 85.1             | 9.6        | .0             | 2.6          | 1.2          | 201.15                     | 66.75 |
| 10187.0       | 59.7                 | 2.86                                | 79.8               | 95.6             | 8.0        | .0             | 1.6          | 1.3          | 201.06                     | 66.72 |
| 10188.0       | 61.7                 | 2.85                                | 100.0              | 100.0            | 3.8        | .0             | .0           | .0           | 200.99                     | 66.71 |
| 10189.0       | 61.7                 | 2.79                                | 95.5               | 96.8             | 5.7        | .0             | .3           | .1           | 200.93                     | 66.71 |
| 10190.0       | 71.6                 | 2.80                                | 99.2               | 99.2             | 3.4        | .0             | .0           | .0           | 200.87                     | 66.70 |
| 10191.0       | 62.6                 | 2.79                                | 100.0              | 100.0            | 3.9        | .0             | .0           | .0           | 200.84                     | 66.70 |
| 10192.0       | 65.4                 | 2.79                                | 100.0              | 100.0            | 2.6        | .0             | .0           | .0           | 200.80                     | 66.70 |
| 10193.0       | 59.8                 | 2.77                                | 100.0              | 100.0            | 1.4        | .0             | .0           | .0           | 200.77                     | 66.70 |
| 10194.0       | 57.3                 | 2.80                                | 100.0              | 100.0            | .9         | .0             | .0           | .0           | 200.76                     | 66.70 |
| 10195.0       | 58.1                 | 2.77                                | 100.0              | 100.0            | .0         | .0             | .0           | .0           | 200.76                     | 66.70 |
| 10196.0       | 57.8                 | 2.81                                | 100.0              | 100.0            | 1.8        | .0             | .0           | .0           | 200.75                     | 66.70 |
| 10197.0       | 53.7                 | 2.79                                | 100.0              | 100.0            | 3.2        | .0             | .0           | .0           | 200.74                     | 66.70 |
| 10198.0       | 56.6                 | 2.81                                | 100.0              | 100.0            | 3.6        | .0             | .0           | .0           | 200.70                     | 66.70 |
| 10199.0       | 61.5                 | 2.83                                | 100.0              | 100.0            | 2.6        | .0             | .0           | .0           | 200.66                     | 66.70 |
| 10200.0       | 62.4                 | 2.86                                | 100.0              | 100.0            | 3.6        | .0             | .0           | .0           | 200.63                     | 66.70 |
| 10201.0       | 61.3                 | 2.86                                | 100.0              | 100.0            | 6.1        | .0             | .0           | .0           | 200.59                     | 66.70 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10202.0       | 59.7                 | 2.85                                | 95.9               | 95.9            | 7.4        | .0             | .3           | .0           | 200.53                     | 66.70 |
| 10203.0       | 65.3                 | 2.86                                | 100.0              | 100.0           | 3.4        | .0             | .0           | .0           | 200.46                     | 66.70 |
| 10204.0       | 61.5                 | 2.80                                | 100.0              | 100.0           | 1.3        | .0             | .0           | .0           | 200.43                     | 66.70 |
| 10205.0       | 53.9                 | 2.77                                | 100.0              | 100.0           | 2.0        | .0             | .0           | .0           | 200.43                     | 66.70 |
| 10206.0       | 63.7                 | 2.78                                | 100.0              | 100.0           | .0         | .0             | .0           | .0           | 200.42                     | 66.70 |
| 10207.0       | 49.7                 | 2.77                                | 100.0              | 100.0           | 6.9        | .0             | .0           | .0           | 200.41                     | 66.70 |
| 10208.0       | 62.3                 | 2.79                                | 100.0              | 100.0           | 1.6        | .0             | .0           | .0           | 200.35                     | 66.70 |
| 10209.0       | 51.0                 | 2.77                                | 100.0              | 100.0           | 5.7        | .0             | .0           | .0           | 200.32                     | 66.70 |
| 10210.0       | 50.9                 | 2.77                                | 100.0              | 100.0           | 3.5        | .0             | .0           | .0           | 200.27                     | 66.70 |
| 10211.0       | 49.6                 | 2.77                                | 100.0              | 100.0           | 3.5        | .0             | .0           | .0           | 200.23                     | 66.70 |
| 10212.0       | 36.9                 | 2.75                                | 100.0              | 100.0           | 5.4        | .0             | .0           | .0           | 200.20                     | 66.70 |
| 10213.0       | 47.9                 | 2.77                                | 100.0              | 100.0           | 1.9        | .0             | .0           | .0           | 200.15                     | 66.70 |
| 10214.0       | 32.3                 | 2.74                                | 100.0              | 100.0           | 7.0        | .0             | .0           | .0           | 200.11                     | 66.70 |
| 10215.0       | 28.3                 | 2.74                                | 100.0              | 100.0           | 8.0        | .0             | .0           | .0           | 200.04                     | 66.70 |
| 10216.0       | 40.9                 | 2.75                                | 100.0              | 100.0           | 5.2        | .0             | .0           | .0           | 199.97                     | 66.70 |
| 10217.0       | 33.9                 | 2.74                                | 100.0              | 100.0           | 7.2        | .0             | .0           | .0           | 199.91                     | 66.70 |
| 10218.0       | 29.8                 | 2.74                                | 100.0              | 100.0           | 7.5        | .0             | .0           | .0           | 199.83                     | 66.70 |
| 10219.0       | 41.8                 | 2.76                                | 100.0              | 100.0           | 5.3        | .0             | .0           | .0           | 199.77                     | 66.70 |
| 10220.0       | 49.2                 | 2.77                                | 100.0              | 100.0           | 3.7        | .0             | .0           | .0           | 199.72                     | 66.70 |
| 10221.0       | 51.0                 | 2.77                                | 100.0              | 100.0           | 3.5        | .0             | .0           | .0           | 199.68                     | 66.70 |
| 10222.0       | 38.7                 | 2.75                                | 100.0              | 100.0           | 5.3        | .0             | .0           | .0           | 199.64                     | 66.70 |
| 10223.0       | 31.9                 | 2.74                                | 100.0              | 100.0           | 8.1        | .0             | .0           | .0           | 199.58                     | 66.70 |
| 10224.0       | 34.8                 | 2.74                                | 100.0              | 100.0           | 8.6        | .0             | .0           | .0           | 199.50                     | 66.70 |
| 10225.0       | 27.9                 | 2.73                                | 100.0              | 100.0           | 9.9        | .0             | .0           | .0           | 199.41                     | 66.70 |
| 10226.0       | 24.5                 | 2.73                                | 100.0              | 100.0           | 9.4        | .0             | .0           | .0           | 199.31                     | 66.70 |
| 10227.0       | 25.3                 | 2.73                                | 100.0              | 100.0           | 8.3        | .0             | .0           | .0           | 199.21                     | 66.70 |
| 10228.0       | 15.5                 | 2.72                                | 100.0              | 100.0           | 10.4       | .0             | .0           | .0           | 199.12                     | 66.70 |
| 10229.0       | 13.6                 | 2.72                                | 100.0              | 100.0           | 10.9       | .0             | .0           | .0           | 199.01                     | 66.70 |
| 10230.0       | 22.0                 | 2.73                                | 100.0              | 100.0           | 8.3        | .0             | .0           | .0           | 198.91                     | 66.70 |
| 10231.0       | 12.9                 | 2.71                                | 100.0              | 100.0           | 11.1       | .0             | .0           | .0           | 198.82                     | 66.70 |
| 10232.0       | 13.2                 | 2.72                                | 100.0              | 100.0           | 10.5       | .0             | .0           | .0           | 198.71                     | 66.70 |
| 10233.0       | 19.7                 | 2.72                                | 100.0              | 100.0           | 9.3        | .0             | .0           | .0           | 198.61                     | 66.70 |
| 10234.0       | 14.0                 | 2.72                                | 100.0              | 100.0           | 10.9       | .0             | .0           | .0           | 198.51                     | 66.70 |
| 10235.0       | 16.0                 | 2.72                                | 100.0              | 100.0           | 10.3       | .0             | .0           | .0           | 198.40                     | 66.70 |
| 10236.0       | 21.4                 | 2.73                                | 98.7               | 98.7            | 9.3        | .0             | .1           | .0           | 198.31                     | 66.70 |
| 10237.0       | 18.0                 | 2.73                                | 79.6               | 85.6            | 12.1       | .0             | 2.5          | .7           | 198.21                     | 66.69 |
| 10238.0       | 16.8                 | 2.73                                | 86.1               | 86.3            | 11.5       | .0             | 1.6          | .0           | 198.09                     | 66.67 |
| 10239.0       | 7.4                  | 2.72                                | 77.8               | 79.9            | 15.4       | .0             | 3.4          | .3           | 197.97                     | 66.65 |
| 10240.0       | 6.8                  | 2.71                                | 89.5               | 97.8            | 13.9       | .0             | 1.5          | 1.2          | 197.81                     | 66.62 |
| 10241.0       | 12.3                 | 2.71                                | 100.0              | 100.0           | 10.4       | .0             | .0           | .0           | 197.68                     | 66.61 |
| 10242.0       | 15.8                 | 2.72                                | 100.0              | 100.0           | 10.2       | .0             | .0           | .0           | 197.58                     | 66.61 |
| 10243.0       | .0                   | 2.69                                | 83.0               | 93.9            | 16.2       | .0             | 2.7          | 1.8          | 197.46                     | 66.61 |
| 10244.0       | 12.6                 | 2.72                                | 72.0               | 84.6            | 14.7       | .0             | 4.1          | 1.8          | 197.30                     | 66.57 |
| 10245.0       | 11.6                 | 2.73                                | 51.6               | 65.3            | 19.3       | .0             | 9.3          | 2.7          | 197.15                     | 66.53 |
| 10246.0       | .0                   | 2.71                                | 43.7               | 55.7            | 23.4       | .0             | 13.1         | 2.8          | 196.94                     | 66.42 |
| 10247.0       | 1.0                  | 2.73                                | 43.8               | 56.6            | 22.1       | .0             | 12.4         | 2.8          | 196.71                     | 66.29 |
| 10248.0       | 2.6                  | 2.73                                | 45.2               | 61.1            | 21.1       | .0             | 11.5         | 3.4          | 196.50                     | 66.17 |
| 10249.0       | .0                   | 2.72                                | 45.0               | 60.9            | 22.2       | .0             | 12.2         | 3.5          | 196.29                     | 66.05 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10250.0       | 6.4                  | 2.75                                | 46.8               | 61.4            | 21.3       | .0             | 11.3         | 3.1          | 196.07                     | 65.94 |
| 10251.0       | 5.1                  | 2.75                                | 45.8               | 57.7            | 22.8       | .0             | 12.4         | 2.7          | 195.86                     | 65.82 |
| 10252.0       | 5.8                  | 2.75                                | 49.5               | 60.0            | 21.4       | .0             | 10.8         | 2.2          | 195.63                     | 65.70 |
| 10253.0       | 7.2                  | 2.73                                | 57.5               | 65.9            | 18.5       | .0             | 7.8          | 1.5          | 195.42                     | 65.60 |
| 10254.0       | .2                   | 2.72                                | 57.4               | 65.9            | 20.1       | .0             | 8.6          | 1.7          | 195.23                     | 65.52 |
| 10255.0       | .0                   | 2.70                                | 58.2               | 70.7            | 19.9       | .0             | 8.3          | 2.5          | 195.03                     | 65.43 |
| 10256.0       | .0                   | 2.70                                | 61.1               | 78.7            | 19.0       | .0             | 7.4          | 3.4          | 194.83                     | 65.35 |
| 10257.0       | .0                   | 2.70                                | 53.7               | 74.2            | 21.2       | .0             | 9.8          | 4.4          | 194.64                     | 65.28 |
| 10258.0       | .0                   | 2.69                                | 46.5               | 63.5            | 24.2       | .0             | 13.0         | 4.1          | 194.42                     | 65.17 |
| 10259.0       | 5.7                  | 2.74                                | 44.7               | 56.5            | 23.9       | .0             | 13.2         | 2.8          | 194.18                     | 65.03 |
| 10260.0       | 5.8                  | 2.74                                | 47.2               | 64.8            | 21.8       | .0             | 11.5         | 3.8          | 193.94                     | 64.90 |
| 10261.0       | 6.0                  | 2.74                                | 45.4               | 67.1            | 21.6       | .0             | 11.8         | 4.7          | 193.73                     | 64.79 |
| 10262.0       | 10.0                 | 2.74                                | 39.4               | 60.4            | 23.7       | .0             | 14.3         | 5.0          | 193.51                     | 64.67 |
| 10263.0       | 6.7                  | 2.75                                | 34.4               | 57.3            | 26.5       | .0             | 17.4         | 6.1          | 193.26                     | 64.51 |
| 10264.0       | 4.1                  | 2.75                                | 30.5               | 55.9            | 28.5       | .0             | 19.8         | 7.2          | 192.99                     | 64.33 |
| 10265.0       | 6.0                  | 2.76                                | 28.4               | 50.2            | 28.2       | .0             | 20.2         | 8.4          | 192.70                     | 64.13 |
| 10266.0       | .0                   | 2.73                                | 25.4               | 56.0            | 30.8       | .0             | 23.0         | 9.5          | 192.41                     | 63.92 |
| 10267.0       | .0                   | 2.70                                | 23.7               | 58.7            | 30.9       | .0             | 23.6         | 10.8         | 192.11                     | 63.69 |
| 10268.0       | .0                   | 2.70                                | 21.7               | 59.9            | 32.0       | .0             | 25.0         | 12.2         | 191.80                     | 63.46 |
| 10269.0       | .7                   | 2.76                                | 19.4               | 53.0            | 34.5       | .0             | 27.8         | 11.6         | 191.47                     | 63.20 |
| 10270.0       | 1.2                  | 2.75                                | 21.0               | 53.6            | 32.8       | .0             | 25.9         | 10.7         | 191.13                     | 62.93 |
| 10271.0       | .0                   | 2.71                                | 22.5               | 58.0            | 30.8       | .0             | 23.9         | 10.9         | 190.81                     | 62.67 |
| 10272.0       | 1.9                  | 2.75                                | 22.1               | 56.0            | 31.4       | .0             | 24.5         | 10.7         | 190.50                     | 62.44 |
| 10273.0       | 1.9                  | 2.76                                | 23.5               | 55.3            | 31.1       | .0             | 23.8         | 9.9          | 190.19                     | 62.19 |
| 10274.0       | 1.9                  | 2.77                                | 25.2               | 54.5            | 30.6       | .0             | 22.9         | 9.0          | 189.88                     | 61.96 |
| 10275.0       | 3.8                  | 2.78                                | 26.5               | 53.4            | 29.7       | .0             | 21.8         | 8.0          | 189.57                     | 61.73 |
| 10276.0       | 5.0                  | 2.78                                | 27.6               | 53.1            | 28.4       | .0             | 20.6         | 7.2          | 189.28                     | 61.52 |
| 10277.0       | 2.9                  | 2.78                                | 27.5               | 56.5            | 28.7       | .0             | 20.8         | 8.3          | 189.00                     | 61.31 |
| 10278.0       | 3.4                  | 2.79                                | 26.6               | 59.9            | 28.3       | .0             | 20.7         | 9.4          | 188.71                     | 61.10 |
| 10279.0       | 2.3                  | 2.79                                | 24.6               | 55.8            | 29.5       | .0             | 22.2         | 9.2          | 188.43                     | 60.89 |
| 10280.0       | 1.4                  | 2.75                                | 24.3               | 59.3            | 29.2       | .0             | 22.2         | 10.2         | 188.13                     | 60.67 |
| 10281.0       | 1.6                  | 2.78                                | 22.5               | 56.2            | 30.2       | .0             | 23.4         | 10.2         | 187.84                     | 60.45 |
| 10282.0       | .0                   | 2.79                                | 22.4               | 50.3            | 30.7       | .0             | 23.8         | 8.6          | 187.54                     | 60.21 |
| 10283.0       | 1.7                  | 2.80                                | 25.6               | 46.7            | 28.6       | .0             | 21.3         | 6.0          | 187.23                     | 59.98 |
| 10284.0       | .0                   | 2.74                                | 31.3               | 44.8            | 24.8       | .0             | 17.1         | 3.4          | 186.96                     | 59.78 |
| 10285.0       | .0                   | 2.72                                | 34.6               | 50.6            | 24.2       | .0             | 15.8         | 3.9          | 186.71                     | 59.61 |
| 10286.0       | .0                   | 2.71                                | 36.8               | 70.6            | 24.3       | .0             | 15.4         | 8.2          | 186.47                     | 59.45 |
| 10287.0       | .0                   | 2.72                                | 33.8               | 60.7            | 27.0       | .0             | 17.9         | 7.3          | 186.22                     | 59.30 |
| 10288.0       | .6                   | 2.73                                | 34.4               | 57.4            | 27.0       | .0             | 17.7         | 6.2          | 185.95                     | 59.11 |
| 10289.0       | 3.4                  | 2.74                                | 35.9               | 66.0            | 24.6       | .0             | 15.7         | 7.4          | 185.68                     | 58.94 |
| 10290.0       | 6.4                  | 2.74                                | 30.2               | 63.8            | 26.4       | .0             | 18.4         | 8.9          | 185.43                     | 58.78 |
| 10291.0       | 3.9                  | 2.82                                | 24.5               | 53.9            | 32.0       | .0             | 24.2         | 9.4          | 185.15                     | 58.58 |
| 10292.0       | 2.6                  | 2.80                                | 25.5               | 55.7            | 31.5       | .0             | 23.5         | 9.5          | 184.83                     | 58.33 |
| 10293.0       | 3.5                  | 2.78                                | 26.7               | 57.8            | 30.9       | .0             | 22.7         | 9.6          | 184.52                     | 58.10 |
| 10294.0       | 2.5                  | 2.77                                | 27.3               | 58.3            | 31.2       | .0             | 22.7         | 9.7          | 184.21                     | 57.87 |
| 10295.0       | .8                   | 2.77                                | 28.0               | 60.7            | 31.6       | .0             | 22.8         | 10.4         | 183.90                     | 57.65 |
| 10296.0       | .0                   | 2.78                                | 26.3               | 60.6            | 33.2       | .0             | 24.5         | 11.4         | 183.58                     | 57.42 |
| 10297.0       | 1.9                  | 2.83                                | 25.2               | 57.2            | 34.5       | .0             | 25.8         | 11.1         | 183.24                     | 57.17 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10298.0       | 6.0                  | 2.83                                | 25.8               | 53.8            | 33.4       | .0             | 24.8         | 9.3          | 182.90                     | 56.91 |
| 10299.0       | 7.8                  | 2.76                                | 29.7               | 60.6            | 29.2       | .0             | 20.5         | 9.0          | 182.58                     | 56.68 |
| 10300.0       | 2.4                  | 2.78                                | 29.1               | 59.4            | 31.9       | .0             | 22.6         | 9.7          | 182.28                     | 56.47 |
| 10301.0       | .5                   | 2.83                                | 28.8               | 55.6            | 33.5       | .0             | 23.9         | 9.0          | 181.95                     | 56.24 |
| 10302.0       | 3.6                  | 2.80                                | 32.7               | 61.3            | 30.4       | .0             | 20.4         | 8.7          | 181.63                     | 56.01 |
| 10303.0       | 2.0                  | 2.73                                | 34.0               | 62.8            | 29.8       | .0             | 19.6         | 8.6          | 181.32                     | 55.80 |
| 10304.0       | 6.8                  | 2.74                                | 35.3               | 61.2            | 27.7       | .0             | 17.9         | 7.2          | 181.03                     | 55.61 |
| 10305.0       | 5.2                  | 2.74                                | 35.3               | 59.4            | 27.9       | .0             | 18.0         | 6.7          | 180.75                     | 55.43 |
| 10306.0       | .0                   | 2.70                                | 37.5               | 65.5            | 27.3       | .0             | 17.0         | 7.6          | 180.48                     | 55.26 |
| 10307.0       | .0                   | 2.74                                | 35.5               | 61.1            | 28.9       | .0             | 18.6         | 7.4          | 180.20                     | 55.08 |
| 10308.0       | 2.9                  | 2.77                                | 36.5               | 57.7            | 28.4       | .0             | 18.0         | 6.0          | 179.91                     | 54.90 |
| 10309.0       | 3.4                  | 2.77                                | 39.9               | 61.2            | 26.6       | .0             | 16.0         | 5.7          | 179.64                     | 54.72 |
| 10310.0       | 1.0                  | 2.72                                | 40.8               | 66.4            | 26.4       | .0             | 15.6         | 6.7          | 179.37                     | 54.57 |
| 10311.0       | .0                   | 2.74                                | 35.0               | 61.8            | 29.2       | .0             | 19.0         | 7.8          | 179.10                     | 54.40 |
| 10312.0       | .0                   | 2.75                                | 30.5               | 56.2            | 30.4       | .0             | 21.1         | 7.8          | 178.81                     | 54.21 |
| 10313.0       | .0                   | 2.73                                | 28.9               | 57.3            | 28.5       | .0             | 20.3         | 8.1          | 178.51                     | 54.00 |
| 10314.0       | .0                   | 2.71                                | 24.5               | 64.9            | 27.7       | .0             | 21.0         | 11.2         | 178.23                     | 53.80 |
| 10315.0       | .8                   | 2.75                                | 15.7               | 55.2            | 32.5       | .0             | 27.4         | 13.5         | 177.94                     | 53.58 |
| 10316.0       | .0                   | 2.74                                | 13.8               | 57.0            | 33.3       | .0             | 28.7         | 13.7         | 177.61                     | 53.30 |
| 10317.0       | .0                   | 2.70                                | 14.0               | 56.2            | 32.4       | .0             | 27.9         | 13.7         | 177.28                     | 53.01 |
| 10318.0       | .0                   | 2.72                                | 15.6               | 54.5            | 31.5       | .0             | 26.6         | 12.3         | 176.96                     | 52.74 |
| 10319.0       | .0                   | 2.74                                | 18.5               | 57.5            | 31.5       | .0             | 25.7         | 12.3         | 176.65                     | 52.48 |
| 10320.0       | .0                   | 2.79                                | 18.3               | 54.3            | 34.0       | .0             | 27.8         | 12.2         | 176.33                     | 52.22 |
| 10321.0       | .0                   | 2.76                                | 18.0               | 50.6            | 34.0       | .0             | 27.9         | 11.1         | 175.99                     | 51.93 |
| 10322.0       | .0                   | 2.77                                | 17.6               | 49.2            | 33.4       | .0             | 27.5         | 10.6         | 175.65                     | 51.66 |
| 10323.0       | .0                   | 2.74                                | 16.6               | 52.6            | 32.3       | .0             | 27.0         | 11.7         | 175.32                     | 51.39 |
| 10324.0       | 3.1                  | 2.82                                | 14.7               | 48.1            | 34.9       | .0             | 29.8         | 11.7         | 174.99                     | 51.11 |
| 10325.0       | 2.8                  | 2.83                                | 14.9               | 49.7            | 35.2       | .0             | 30.0         | 12.2         | 174.64                     | 50.81 |
| 10326.0       | 2.5                  | 2.80                                | 14.8               | 49.6            | 34.7       | .0             | 29.6         | 12.1         | 174.29                     | 50.52 |
| 10327.0       | 1.8                  | 2.84                                | 14.0               | 42.4            | 36.6       | .0             | 31.5         | 10.4         | 173.94                     | 50.21 |
| 10328.0       | .4                   | 2.82                                | 14.5               | 43.0            | 35.7       | .0             | 30.5         | 10.2         | 173.57                     | 49.90 |
| 10329.0       | .0                   | 2.79                                | 14.9               | 45.3            | 34.4       | .0             | 29.3         | 10.5         | 173.22                     | 49.59 |
| 10330.0       | .0                   | 2.76                                | 15.7               | 47.6            | 32.9       | .0             | 27.7         | 10.5         | 172.88                     | 49.31 |
| 10331.0       | .0                   | 2.73                                | 16.4               | 51.2            | 32.6       | .0             | 27.2         | 11.3         | 172.55                     | 49.03 |
| 10332.0       | 1.0                  | 2.78                                | 16.8               | 49.2            | 33.9       | .0             | 28.2         | 11.0         | 172.23                     | 48.76 |
| 10333.0       | 1.0                  | 2.82                                | 16.5               | 44.5            | 35.3       | .0             | 29.5         | 9.9          | 171.88                     | 48.47 |
| 10334.0       | 1.0                  | 2.81                                | 18.2               | 40.2            | 33.2       | .0             | 27.2         | 7.3          | 171.53                     | 48.18 |
| 10335.0       | .2                   | 2.77                                | 22.1               | 40.3            | 30.0       | .0             | 23.3         | 5.4          | 171.21                     | 47.92 |
| 10336.0       | .0                   | 2.75                                | 25.1               | 47.2            | 27.4       | .0             | 20.5         | 6.1          | 170.91                     | 47.69 |
| 10337.0       | .0                   | 2.73                                | 26.7               | 43.4            | 25.9       | .0             | 19.0         | 4.3          | 170.64                     | 47.49 |
| 10338.0       | 7.6                  | 2.78                                | 27.7               | 34.4            | 24.4       | .0             | 17.7         | 1.6          | 170.39                     | 47.31 |
| 10339.0       | 2.0                  | 2.79                                | 27.6               | 42.0            | 25.9       | .0             | 18.8         | 3.7          | 170.15                     | 47.13 |
| 10340.0       | 2.0                  | 2.75                                | 28.4               | 53.6            | 24.8       | .0             | 17.8         | 6.2          | 169.90                     | 46.95 |
| 10341.0       | .0                   | 2.73                                | 25.3               | 48.4            | 28.6       | .0             | 21.3         | 6.6          | 169.64                     | 46.77 |
| 10342.0       | 1.0                  | 2.75                                | 25.3               | 49.5            | 28.9       | .0             | 21.6         | 7.0          | 169.36                     | 46.56 |
| 10343.0       | .0                   | 2.72                                | 25.4               | 49.6            | 29.7       | .0             | 22.2         | 7.2          | 169.07                     | 46.34 |
| 10344.0       | .0                   | 2.70                                | 26.0               | 52.2            | 29.9       | .0             | 22.1         | 7.9          | 168.77                     | 46.12 |
| 10345.0       | 2.0                  | 2.75                                | 26.7               | 50.4            | 29.5       | .0             | 21.6         | 7.0          | 168.47                     | 45.90 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10346.0       | 3.1                  | 2.81                                | 25.5               | 47.0            | 31.2       | .0             | 23.3         | 6.7          | 168.17                     | 45.68 |
| 10347.0       | 6.1                  | 2.76                                | 28.7               | 54.7            | 27.4       | .0             | 19.5         | 7.1          | 167.87                     | 45.45 |
| 10348.0       | 2.3                  | 2.75                                | 29.5               | 52.9            | 27.9       | .0             | 19.7         | 6.5          | 167.59                     | 45.26 |
| 10349.0       | .0                   | 2.72                                | 29.0               | 49.4            | 29.5       | .0             | 20.9         | 6.0          | 167.31                     | 45.05 |
| 10350.0       | .0                   | 2.73                                | 29.6               | 54.4            | 28.9       | .0             | 20.3         | 7.2          | 167.01                     | 44.85 |
| 10351.0       | .0                   | 2.74                                | 27.7               | 54.9            | 29.9       | .0             | 21.6         | 8.1          | 166.73                     | 44.65 |
| 10352.0       | .0                   | 2.75                                | 24.6               | 48.8            | 31.9       | .0             | 24.1         | 7.7          | 166.43                     | 44.43 |
| 10353.0       | .0                   | 2.74                                | 25.0               | 45.6            | 29.2       | .0             | 21.9         | 6.0          | 166.11                     | 44.19 |
| 10354.0       | .0                   | 2.70                                | 27.1               | 49.5            | 25.5       | .0             | 18.6         | 5.7          | 165.83                     | 43.98 |
| 10355.0       | .0                   | 2.70                                | 28.8               | 59.0            | 24.0       | .0             | 17.1         | 7.2          | 165.58                     | 43.80 |
| 10356.0       | .0                   | 2.70                                | 27.5               | 56.1            | 26.0       | .0             | 18.9         | 7.4          | 165.34                     | 43.62 |
| 10357.0       | .0                   | 2.72                                | 30.6               | 56.4            | 25.6       | .0             | 17.8         | 6.6          | 165.07                     | 43.43 |
| 10358.0       | .0                   | 2.71                                | 35.0               | 60.4            | 24.4       | .0             | 15.8         | 6.2          | 164.82                     | 43.26 |
| 10359.0       | 2.2                  | 2.73                                | 38.1               | 62.6            | 23.3       | .0             | 14.4         | 5.7          | 164.58                     | 43.11 |
| 10360.0       | .0                   | 2.72                                | 35.5               | 60.6            | 25.5       | .0             | 16.4         | 6.4          | 164.34                     | 42.96 |
| 10361.0       | .0                   | 2.71                                | 36.0               | 59.6            | 25.5       | .0             | 16.3         | 6.0          | 164.09                     | 42.80 |
| 10362.0       | .0                   | 2.72                                | 36.0               | 57.7            | 26.3       | .0             | 16.8         | 5.7          | 163.83                     | 42.63 |
| 10363.0       | .0                   | 2.70                                | 40.4               | 64.8            | 24.5       | .0             | 14.6         | 6.0          | 163.57                     | 42.47 |
| 10364.0       | .0                   | 2.71                                | 44.2               | 72.2            | 23.8       | .0             | 13.3         | 6.6          | 163.33                     | 42.32 |
| 10365.0       | .0                   | 2.70                                | 44.7               | 70.4            | 25.3       | .0             | 14.0         | 6.5          | 163.09                     | 42.19 |
| 10366.0       | .9                   | 2.73                                | 42.3               | 60.0            | 27.9       | .0             | 16.1         | 4.9          | 162.83                     | 42.05 |
| 10367.0       | .0                   | 2.71                                | 46.8               | 61.4            | 26.2       | .0             | 13.9         | 3.8          | 162.55                     | 41.89 |
| 10368.0       | .2                   | 2.75                                | 47.2               | 61.9            | 25.6       | .0             | 13.5         | 3.8          | 162.29                     | 41.75 |
| 10369.0       | 2.0                  | 2.73                                | 50.1               | 62.3            | 23.5       | .0             | 11.8         | 2.9          | 162.05                     | 41.62 |
| 10370.0       | .0                   | 2.71                                | 55.9               | 65.5            | 21.4       | .0             | 9.5          | 2.1          | 161.81                     | 41.51 |
| 10371.0       | .0                   | 2.70                                | 60.8               | 71.4            | 19.7       | .0             | 7.7          | 2.1          | 161.60                     | 41.42 |
| 10372.0       | .0                   | 2.71                                | 57.8               | 71.5            | 20.5       | .0             | 8.7          | 2.3          | 161.40                     | 41.34 |
| 10373.0       | 1.8                  | 2.73                                | 52.5               | 67.4            | 22.0       | .0             | 10.4         | 3.3          | 161.20                     | 41.25 |
| 10374.0       | 1.9                  | 2.72                                | 51.2               | 64.9            | 22.5       | .0             | 11.0         | 3.1          | 160.97                     | 41.14 |
| 10375.0       | 5.4                  | 2.73                                | 53.9               | 66.5            | 20.7       | .0             | 9.5          | 2.6          | 160.76                     | 41.04 |
| 10376.0       | 4.2                  | 2.73                                | 53.9               | 67.0            | 20.9       | .0             | 9.6          | 2.7          | 160.55                     | 40.94 |
| 10377.0       | 1.6                  | 2.75                                | 52.3               | 64.7            | 22.0       | .0             | 10.5         | 2.7          | 160.34                     | 40.84 |
| 10378.0       | 3.5                  | 2.74                                | 55.9               | 66.7            | 20.7       | .0             | 9.1          | 2.2          | 160.12                     | 40.74 |
| 10379.0       | .0                   | 2.72                                | 49.7               | 60.0            | 24.2       | .0             | 12.2         | 2.5          | 159.90                     | 40.64 |
| 10380.0       | .0                   | 2.74                                | 42.1               | 58.1            | 28.8       | .0             | 16.7         | 4.6          | 159.65                     | 40.51 |
| 10381.0       | 2.6                  | 2.77                                | 42.4               | 59.7            | 28.6       | .0             | 16.5         | 5.0          | 159.35                     | 40.34 |
| 10382.0       | 2.4                  | 2.74                                | 49.1               | 62.2            | 24.9       | .0             | 12.7         | 3.3          | 159.08                     | 40.18 |
| 10383.0       | .0                   | 2.76                                | 47.9               | 57.8            | 26.0       | 1.7            | 13.6         | 2.6          | 158.83                     | 40.05 |
| 10384.0       | .0                   | 2.71                                | 50.4               | 63.8            | 24.6       | 2.1            | 12.2         | 3.3          | 158.57                     | 39.92 |
| 10385.0       | .0                   | 2.70                                | 49.8               | 66.0            | 24.6       | 1.6            | 12.4         | 4.0          | 158.33                     | 39.80 |
| 10386.0       | .0                   | 2.70                                | 49.8               | 64.5            | 24.2       | .0             | 12.1         | 3.6          | 158.08                     | 39.68 |
| 10387.0       | .0                   | 2.70                                | 48.8               | 65.3            | 24.3       | .4             | 12.4         | 4.0          | 157.84                     | 39.56 |
| 10388.0       | .0                   | 2.70                                | 44.4               | 64.4            | 26.2       | 2.4            | 14.6         | 5.3          | 157.59                     | 39.43 |
| 10389.0       | .0                   | 2.70                                | 40.5               | 61.5            | 28.2       | 2.9            | 16.8         | 5.9          | 157.32                     | 39.27 |
| 10390.0       | .0                   | 2.71                                | 39.8               | 62.4            | 28.8       | .9             | 17.3         | 6.5          | 157.04                     | 39.10 |
| 10391.0       | .5                   | 2.73                                | 39.8               | 62.3            | 29.0       | .0             | 17.5         | 6.5          | 156.75                     | 38.93 |
| 10392.0       | .0                   | 2.73                                | 41.7               | 60.9            | 28.2       | .0             | 16.5         | 5.4          | 156.46                     | 38.76 |
| 10393.0       | .0                   | 2.70                                | 46.1               | 64.3            | 26.0       | .9             | 14.0         | 4.8          | 156.19                     | 38.60 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10394.0       | .0                   | 2.69                                | 48.0               | 67.1             | 25.3       | 2.3            | 13.1         | 4.8          | 155.93                     | 38.46 |
| 10395.0       | .0                   | 2.69                                | 49.0               | 70.9             | 24.9       | .0             | 12.7         | 5.4          | 155.68                     | 38.33 |
| 10396.0       | .0                   | 2.71                                | 46.0               | 67.4             | 26.7       | .0             | 14.4         | 5.7          | 155.43                     | 38.20 |
| 10397.0       | .0                   | 2.73                                | 43.6               | 60.5             | 28.3       | .0             | 16.0         | 4.8          | 155.15                     | 38.05 |
| 10398.0       | .0                   | 2.73                                | 44.7               | 59.2             | 27.9       | .0             | 15.4         | 4.1          | 154.87                     | 37.89 |
| 10399.0       | .0                   | 2.72                                | 50.4               | 63.5             | 24.4       | .0             | 12.1         | 3.2          | 154.60                     | 37.75 |
| 10400.0       | .0                   | 2.71                                | 52.5               | 66.6             | 23.1       | 1.1            | 11.0         | 3.3          | 154.36                     | 37.63 |
| 10401.0       | .0                   | 2.71                                | 57.5               | 72.8             | 21.1       | .5             | 9.0          | 3.2          | 154.13                     | 37.52 |
| 10402.0       | .0                   | 2.70                                | 54.2               | 65.9             | 22.2       | .0             | 10.2         | 2.6          | 153.92                     | 37.43 |
| 10403.0       | 1.8                  | 2.73                                | 52.8               | 65.6             | 22.4       | .0             | 10.5         | 2.4          | 153.69                     | 37.33 |
| 10404.0       | 4.9                  | 2.75                                | 49.9               | 65.5             | 23.1       | .4             | 11.6         | 3.6          | 153.47                     | 37.22 |
| 10405.0       | 7.6                  | 2.75                                | 48.7               | 62.2             | 22.7       | .1             | 11.6         | 3.1          | 153.24                     | 37.10 |
| 10406.0       | 4.5                  | 2.75                                | 49.3               | 61.9             | 22.6       | .0             | 11.5         | 2.9          | 153.01                     | 36.99 |
| 10407.0       | 1.4                  | 2.74                                | 47.5               | 58.7             | 23.6       | .0             | 12.4         | 2.6          | 152.79                     | 36.88 |
| 10408.0       | .0                   | 2.73                                | 48.8               | 58.1             | 23.5       | .5             | 12.1         | 2.2          | 152.55                     | 36.75 |
| 10409.0       | 1.4                  | 2.73                                | 52.5               | 64.1             | 22.3       | .1             | 10.6         | 2.6          | 152.32                     | 36.64 |
| 10410.0       | 5.9                  | 2.72                                | 56.1               | 66.9             | 20.5       | .0             | 9.0          | 2.2          | 152.10                     | 36.54 |
| 10411.0       | 4.0                  | 2.73                                | 57.4               | 69.1             | 19.9       | .0             | 8.4          | 2.3          | 151.90                     | 36.45 |
| 10412.0       | .0                   | 2.73                                | 55.7               | 55.7             | 20.1       | .0             | 8.9          | .0           | 151.70                     | 36.36 |
| 10413.0       | .0                   | 2.69                                | 68.8               | 68.8             | 15.7       | 1.4            | 4.9          | .0           | 151.51                     | 36.28 |
| 10414.0       | .0                   | 2.70                                | 54.8               | 56.2             | 17.7       | 4.5            | 8.0          | .2           | 151.36                     | 36.24 |
| 10415.0       | .0                   | 2.75                                | 36.7               | 54.3             | 23.9       | 2.7            | 15.1         | 4.2          | 151.16                     | 36.14 |
| 10416.0       | .0                   | 2.76                                | 30.3               | 56.4             | 28.2       | .2             | 19.6         | 7.4          | 150.91                     | 35.97 |
| 10417.0       | .0                   | 2.79                                | 26.8               | 56.0             | 31.4       | .0             | 23.0         | 9.2          | 150.62                     | 35.76 |
| 10418.0       | .0                   | 2.77                                | 25.0               | 54.7             | 32.3       | .0             | 24.2         | 9.6          | 150.30                     | 35.53 |
| 10419.0       | 2.8                  | 2.77                                | 23.1               | 56.7             | 33.1       | .0             | 25.4         | 11.1         | 149.97                     | 35.28 |
| 10420.0       | .0                   | 2.71                                | 22.6               | 60.5             | 33.8       | .0             | 26.1         | 12.8         | 149.64                     | 35.03 |
| 10421.0       | .0                   | 2.69                                | 22.6               | 57.4             | 34.2       | .0             | 26.5         | 11.9         | 149.30                     | 34.76 |
| 10422.0       | .0                   | 2.75                                | 22.0               | 56.2             | 34.9       | .0             | 27.2         | 11.9         | 148.96                     | 34.50 |
| 10423.0       | .5                   | 2.80                                | 20.8               | 54.4             | 36.1       | .0             | 28.6         | 12.1         | 148.61                     | 34.22 |
| 10424.0       | .0                   | 2.83                                | 22.0               | 48.6             | 35.2       | .0             | 27.4         | 9.3          | 148.25                     | 33.94 |
| 10425.0       | .0                   | 2.75                                | 26.3               | 53.4             | 30.1       | .0             | 22.2         | 8.2          | 147.91                     | 33.68 |
| 10426.0       | .0                   | 2.70                                | 36.7               | 67.3             | 23.0       | .0             | 14.5         | 7.0          | 147.63                     | 33.48 |
| 10427.0       | .0                   | 2.72                                | 38.5               | 59.9             | 23.0       | .0             | 14.1         | 4.9          | 147.40                     | 33.33 |
| 10428.0       | 5.8                  | 2.72                                | 44.4               | 65.6             | 19.7       | .0             | 11.0         | 4.2          | 147.18                     | 33.20 |
| 10429.0       | 11.7                 | 2.73                                | 45.9               | 64.8             | 18.4       | .0             | 10.0         | 3.5          | 147.00                     | 33.10 |
| 10430.0       | 1.4                  | 2.72                                | 44.4               | 64.7             | 21.6       | .0             | 12.0         | 4.4          | 146.80                     | 33.00 |
| 10431.0       | 5.1                  | 2.71                                | 46.4               | 77.4             | 19.1       | .0             | 10.2         | 5.9          | 146.60                     | 32.88 |
| 10432.0       | 1.1                  | 2.70                                | 42.0               | 83.0             | 20.9       | .0             | 12.1         | 8.6          | 146.40                     | 32.77 |
| 10433.0       | 5.0                  | 2.71                                | 38.6               | 82.4             | 21.1       | .0             | 12.9         | 9.2          | 146.19                     | 32.65 |
| 10434.0       | 2.7                  | 2.74                                | 26.5               | 58.6             | 27.5       | .0             | 20.2         | 8.8          | 145.97                     | 32.50 |
| 10435.0       | .0                   | 2.75                                | 20.2               | 48.4             | 34.2       | .0             | 27.3         | 9.6          | 145.67                     | 32.28 |
| 10436.0       | 5.2                  | 2.78                                | 18.4               | 49.4             | 35.6       | .0             | 29.1         | 11.0         | 145.32                     | 32.00 |
| 10437.0       | 4.8                  | 2.77                                | 18.1               | 53.6             | 36.0       | .0             | 29.5         | 12.8         | 144.96                     | 31.71 |
| 10438.0       | 6.5                  | 2.76                                | 18.8               | 56.8             | 33.7       | .0             | 27.4         | 12.8         | 144.61                     | 31.42 |
| 10439.0       | .0                   | 2.73                                | 21.9               | 59.0             | 30.6       | .0             | 23.9         | 11.4         | 144.28                     | 31.15 |
| 10440.0       | .0                   | 2.72                                | 23.4               | 56.1             | 28.9       | .0             | 22.1         | 9.4          | 143.97                     | 30.92 |
| 10441.0       | .0                   | 2.70                                | 27.7               | 61.1             | 24.5       | .0             | 17.7         | 8.2          | 143.70                     | 30.70 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10442.0       | .0                   | 2.70                                | 35.4               | 69.5            | 20.1       | .0             | 13.0         | 6.8          | 143.46                     | 30.54 |
| 10443.0       | .0                   | 2.70                                | 36.1               | 62.5            | 20.7       | .0             | 13.2         | 5.5          | 143.26                     | 30.41 |
| 10444.0       | .0                   | 2.73                                | 35.5               | 54.9            | 22.2       | .0             | 14.3         | 4.3          | 143.05                     | 30.28 |
| 10445.0       | .0                   | 2.75                                | 40.2               | 56.7            | 20.7       | .0             | 12.4         | 3.4          | 142.83                     | 30.14 |
| 10446.0       | .0                   | 2.70                                | 37.7               | 52.4            | 22.7       | .0             | 14.2         | 3.3          | 142.62                     | 30.01 |
| 10447.0       | .0                   | 2.69                                | 32.7               | 48.5            | 26.3       | 2.6            | 17.7         | 4.2          | 142.39                     | 29.86 |
| 10448.0       | .0                   | 2.70                                | 30.3               | 46.5            | 28.2       | .0             | 19.6         | 4.6          | 142.12                     | 29.68 |
| 10449.0       | .0                   | 2.69                                | 30.9               | 51.4            | 27.0       | .0             | 18.7         | 5.5          | 141.83                     | 29.48 |
| 10450.0       | .0                   | 2.70                                | 29.1               | 54.5            | 27.5       | .0             | 19.5         | 7.0          | 141.56                     | 29.29 |
| 10451.0       | .0                   | 2.74                                | 26.7               | 51.6            | 28.7       | .0             | 21.0         | 7.1          | 141.29                     | 29.10 |
| 10452.0       | .0                   | 2.74                                | 24.1               | 48.8            | 30.3       | .0             | 23.0         | 7.5          | 141.00                     | 28.88 |
| 10453.0       | .0                   | 2.71                                | 22.5               | 51.5            | 30.9       | .0             | 24.0         | 9.0          | 140.69                     | 28.65 |
| 10454.0       | .0                   | 2.76                                | 19.3               | 50.4            | 34.6       | .0             | 27.9         | 10.8         | 140.38                     | 28.40 |
| 10455.0       | 2.5                  | 2.77                                | 18.4               | 49.3            | 35.2       | .0             | 28.7         | 10.9         | 140.03                     | 28.12 |
| 10456.0       | 1.4                  | 2.77                                | 17.7               | 48.0            | 36.1       | .0             | 29.7         | 10.9         | 139.67                     | 27.83 |
| 10457.0       | .0                   | 2.81                                | 17.4               | 49.1            | 35.0       | .0             | 28.9         | 11.1         | 139.32                     | 27.53 |
| 10458.0       | .0                   | 2.80                                | 17.3               | 41.8            | 34.3       | .0             | 28.4         | 8.4          | 138.97                     | 27.25 |
| 10459.0       | .0                   | 2.73                                | 18.6               | 45.0            | 33.0       | .0             | 26.9         | 8.7          | 138.63                     | 26.97 |
| 10460.0       | .0                   | 2.71                                | 18.5               | 57.6            | 32.1       | .0             | 26.2         | 12.5         | 138.30                     | 26.70 |
| 10461.0       | .0                   | 2.70                                | 20.0               | 66.7            | 30.4       | .0             | 24.3         | 14.2         | 137.98                     | 26.44 |
| 10462.0       | .8                   | 2.74                                | 19.0               | 60.2            | 32.9       | .0             | 26.6         | 13.6         | 137.68                     | 26.20 |
| 10463.0       | .0                   | 2.74                                | 18.5               | 59.0            | 34.5       | .0             | 28.1         | 14.0         | 137.34                     | 25.92 |
| 10464.0       | 1.4                  | 2.81                                | 17.9               | 55.6            | 35.4       | .0             | 29.1         | 13.4         | 136.99                     | 25.64 |
| 10465.0       | 1.5                  | 2.78                                | 18.6               | 54.5            | 34.5       | .0             | 28.1         | 12.4         | 136.64                     | 25.35 |
| 10466.0       | 1.4                  | 2.76                                | 19.9               | 57.2            | 33.2       | .0             | 26.6         | 12.4         | 136.30                     | 25.07 |
| 10467.0       | .5                   | 2.80                                | 19.5               | 54.6            | 33.6       | .0             | 27.0         | 11.8         | 135.97                     | 24.81 |
| 10468.0       | .0                   | 2.74                                | 21.8               | 52.9            | 30.8       | .0             | 24.0         | 9.5          | 135.63                     | 24.54 |
| 10469.0       | .0                   | 2.72                                | 27.5               | 53.4            | 27.8       | .0             | 20.2         | 7.2          | 135.33                     | 24.31 |
| 10470.0       | .2                   | 2.73                                | 35.6               | 57.0            | 25.1       | .0             | 16.2         | 5.4          | 135.06                     | 24.12 |
| 10471.0       | 8.7                  | 2.73                                | 41.8               | 67.8            | 21.0       | .0             | 12.2         | 5.4          | 134.82                     | 23.97 |
| 10472.0       | 5.1                  | 2.72                                | 42.0               | 69.1            | 22.5       | .0             | 13.0         | 6.1          | 134.61                     | 23.84 |
| 10473.0       | 2.2                  | 2.72                                | 45.2               | 63.5            | 23.0       | .0             | 12.6         | 4.2          | 134.38                     | 23.71 |
| 10474.0       | 7.7                  | 2.74                                | 45.4               | 67.1            | 21.0       | .0             | 11.5         | 4.6          | 134.16                     | 23.59 |
| 10475.0       | 3.5                  | 2.79                                | 39.8               | 62.9            | 24.2       | .0             | 14.6         | 5.6          | 133.94                     | 23.47 |
| 10476.0       | .8                   | 2.77                                | 38.4               | 62.5            | 25.5       | .0             | 15.7         | 6.1          | 133.69                     | 23.31 |
| 10477.0       | 1.8                  | 2.74                                | 44.3               | 71.5            | 21.9       | .0             | 12.2         | 6.0          | 133.44                     | 23.16 |
| 10478.0       | 3.6                  | 2.73                                | 52.9               | 74.2            | 18.1       | .0             | 8.5          | 3.8          | 133.23                     | 23.05 |
| 10479.0       | 1.1                  | 2.72                                | 53.1               | 64.2            | 18.3       | .0             | 8.6          | 2.0          | 133.05                     | 22.97 |
| 10480.0       | 3.6                  | 2.73                                | 54.0               | 62.9            | 17.5       | .0             | 8.1          | 1.6          | 132.87                     | 22.89 |
| 10481.0       | 3.2                  | 2.74                                | 45.4               | 58.7            | 20.6       | .0             | 11.2         | 2.7          | 132.69                     | 22.80 |
| 10482.0       | .0                   | 2.78                                | 36.1               | 52.9            | 26.0       | 3.4            | 16.6         | 4.4          | 132.47                     | 22.67 |
| 10483.0       | .0                   | 2.75                                | 31.1               | 45.8            | 29.4       | 3.4            | 20.3         | 4.3          | 132.20                     | 22.50 |
| 10484.0       | .0                   | 2.76                                | 31.9               | 45.0            | 27.7       | .6             | 18.8         | 3.6          | 131.91                     | 22.30 |
| 10485.0       | .0                   | 2.73                                | 36.4               | 54.3            | 23.6       | 3.3            | 15.0         | 4.2          | 131.65                     | 22.12 |
| 10486.0       | .0                   | 2.70                                | 45.3               | 72.0            | 18.7       | .0             | 10.2         | 5.0          | 131.42                     | 21.98 |
| 10487.0       | 2.1                  | 2.72                                | 38.1               | 63.1            | 20.8       | .0             | 12.9         | 5.2          | 131.24                     | 21.87 |
| 10488.0       | .0                   | 2.73                                | 33.7               | 55.1            | 23.2       | .0             | 15.4         | 5.0          | 131.02                     | 21.74 |
| 10489.0       | .0                   | 2.72                                | 35.4               | 57.0            | 21.7       | .4             | 14.0         | 4.7          | 130.79                     | 21.58 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | PBR-FT                     | HC-FT |
| 10490.0       | .0                   | 2.70                                | 37.1               | 55.5            | 19.9       | 1.2            | 12.5         | 3.7          | 130.58                     | 21.45 |
| 10491.0       | .0                   | 2.69                                | 41.4               | 62.9            | 17.8       | 1.9            | 10.4         | 3.8          | 130.38                     | 21.33 |
| 10492.0       | .0                   | 2.70                                | 36.7               | 70.2            | 19.9       | .0             | 12.6         | 6.7          | 130.20                     | 21.22 |
| 10493.0       | .0                   | 2.69                                | 28.4               | 71.8            | 25.4       | 1.3            | 18.2         | 11.0         | 129.99                     | 21.08 |
| 10494.0       | .6                   | 2.75                                | 21.1               | 63.3            | 33.8       | .0             | 26.7         | 14.2         | 129.72                     | 20.88 |
| 10495.0       | 3.5                  | 2.74                                | 19.1               | 63.7            | 36.2       | .0             | 29.3         | 16.2         | 129.37                     | 20.61 |
| 10496.0       | .1                   | 2.80                                | 16.9               | 59.2            | 39.9       | .0             | 33.2         | 16.9         | 129.00                     | 20.31 |
| 10497.0       | .0                   | 2.75                                | 15.6               | 54.8            | 39.8       | .0             | 33.6         | 15.6         | 128.60                     | 19.97 |
| 10498.0       | .0                   | 2.72                                | 14.2               | 53.7            | 38.5       | .0             | 33.0         | 15.2         | 128.21                     | 19.64 |
| 10499.0       | 3.9                  | 2.80                                | 12.9               | 53.2            | 38.4       | .0             | 33.5         | 15.5         | 127.82                     | 19.30 |
| 10500.0       | 1.6                  | 2.79                                | 12.8               | 54.8            | 38.7       | .0             | 33.7         | 16.2         | 127.44                     | 18.97 |
| 10501.0       | .0                   | 2.82                                | 13.8               | 53.9            | 39.1       | .0             | 33.7         | 15.7         | 127.05                     | 18.63 |
| 10502.0       | .0                   | 2.76                                | 15.6               | 57.2            | 38.4       | .0             | 32.4         | 16.0         | 126.66                     | 18.30 |
| 10503.0       | .0                   | 2.72                                | 18.1               | 62.7            | 36.3       | .0             | 29.7         | 16.2         | 126.28                     | 17.98 |
| 10504.0       | .6                   | 2.78                                | 19.8               | 61.6            | 35.4       | .0             | 28.4         | 14.8         | 125.92                     | 17.68 |
| 10505.0       | 1.1                  | 2.75                                | 24.2               | 61.9            | 31.3       | .0             | 23.7         | 11.8         | 125.57                     | 17.41 |
| 10506.0       | .0                   | 2.71                                | 28.5               | 63.4            | 27.6       | .0             | 19.7         | 9.6          | 125.27                     | 17.18 |
| 10507.0       | .4                   | 2.76                                | 28.4               | 57.2            | 28.4       | .0             | 20.3         | 8.2          | 125.00                     | 16.99 |
| 10508.0       | .0                   | 2.70                                | 33.0               | 58.6            | 25.9       | .7             | 17.4         | 6.6          | 124.72                     | 16.79 |
| 10509.0       | .0                   | 2.72                                | 36.3               | 62.5            | 24.7       | .4             | 15.7         | 6.5          | 124.46                     | 16.62 |
| 10510.0       | .0                   | 2.72                                | 39.4               | 65.5            | 23.9       | .0             | 14.4         | 6.2          | 124.22                     | 16.47 |
| 10511.0       | .0                   | 2.70                                | 47.1               | 67.9            | 21.0       | .3             | 11.1         | 4.4          | 123.98                     | 16.33 |
| 10512.0       | .0                   | 2.70                                | 55.6               | 69.6            | 18.9       | 1.4            | 8.4          | 2.7          | 123.78                     | 16.23 |
| 10513.0       | .0                   | 2.72                                | 57.4               | 69.3            | 18.9       | 2.1            | 8.1          | 2.3          | 123.59                     | 16.14 |
| 10514.0       | .0                   | 2.73                                | 56.4               | 70.3            | 19.5       | 2.7            | 8.5          | 2.7          | 123.40                     | 16.06 |
| 10515.0       | .0                   | 2.71                                | 62.6               | 74.0            | 18.5       | 1.8            | 6.9          | 2.1          | 123.21                     | 15.98 |
| 10516.0       | .0                   | 2.72                                | 62.9               | 73.1            | 18.9       | 1.8            | 7.0          | 1.9          | 123.02                     | 15.91 |
| 10517.0       | .0                   | 2.70                                | 64.1               | 76.9            | 18.9       | 2.3            | 6.8          | 2.4          | 122.83                     | 15.84 |
| 10518.0       | .0                   | 2.71                                | 67.7               | 79.5            | 18.3       | 1.2            | 5.9          | 2.2          | 122.64                     | 15.77 |
| 10519.0       | .0                   | 2.72                                | 64.3               | 73.7            | 19.2       | 1.5            | 6.9          | 1.8          | 122.46                     | 15.71 |
| 10520.0       | .0                   | 2.72                                | 66.2               | 74.4            | 18.7       | .9             | 6.3          | 1.5          | 122.26                     | 15.64 |
| 10521.0       | .0                   | 2.71                                | 75.6               | 79.6            | 16.5       | .6             | 4.0          | .7           | 122.08                     | 15.59 |
| 10522.0       | 1.3                  | 2.71                                | 75.1               | 78.0            | 16.0       | .8             | 4.0          | .5           | 121.92                     | 15.54 |
| 10523.0       | 1.1                  | 2.70                                | 76.7               | 87.5            | 15.4       | .8             | 3.6          | 1.7          | 121.76                     | 15.50 |
| 10524.0       | .0                   | 2.69                                | 73.1               | 88.7            | 15.6       | 3.2            | 4.2          | 2.4          | 121.60                     | 15.47 |
| 10525.0       | .0                   | 2.70                                | 56.5               | 66.1            | 18.9       | 3.8            | 8.2          | 1.8          | 121.44                     | 15.42 |
| 10526.0       | .0                   | 2.72                                | 49.9               | 58.9            | 20.8       | 1.7            | 10.4         | 1.9          | 121.25                     | 15.32 |
| 10527.0       | .0                   | 2.73                                | 55.2               | 65.1            | 19.8       | .6             | 8.9          | 2.0          | 121.04                     | 15.22 |
| 10528.0       | .0                   | 2.69                                | 75.5               | 82.1            | 16.1       | 1.6            | 3.9          | 1.1          | 120.85                     | 15.15 |
| 10529.0       | .0                   | 2.70                                | 75.5               | 79.7            | 17.0       | 1.3            | 4.2          | .7           | 120.69                     | 15.11 |
| 10530.0       | 1.6                  | 2.71                                | 75.3               | 83.7            | 17.7       | .0             | 4.4          | 1.5          | 120.52                     | 15.07 |
| 10531.0       | .0                   | 2.71                                | 71.3               | 87.8            | 19.0       | .0             | 5.5          | 3.1          | 120.33                     | 15.02 |
| 10532.0       | .0                   | 2.70                                | 78.0               | 94.8            | 17.0       | 1.1            | 3.7          | 2.9          | 120.14                     | 14.96 |
| 10533.0       | .0                   | 2.69                                | 89.0               | 97.7            | 14.3       | 1.6            | 1.6          | 1.2          | 119.98                     | 14.93 |
| 10534.0       | .0                   | 2.70                                | 86.0               | 92.0            | 13.6       | 1.1            | 1.9          | .8           | 119.84                     | 14.92 |
| 10535.0       | .0                   | 2.69                                | 89.2               | 94.3            | 12.4       | 2.1            | 1.3          | .6           | 119.71                     | 14.90 |
| 10536.0       | 1.1                  | 2.70                                | 93.5               | 93.5            | 11.7       | 1.7            | .8           | .0           | 119.59                     | 14.89 |
| 10537.0       | 3.0                  | 2.71                                | 100.0              | 100.0           | 11.2       | .6             | .0           | .0           | 119.48                     | 14.88 |



| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10538.0       | .0                   | 2.72                                | 84.8               | 84.8            | 14.9       | .6             | 2.3          | .0           | 119.35                     | 14.88 |
| 10539.0       | .0                   | 2.73                                | 80.2               | 80.2            | 16.7       | .3             | 3.3          | .0           | 119.20                     | 14.85 |
| 10540.0       | .0                   | 2.73                                | 75.6               | 86.2            | 18.3       | .3             | 4.5          | 1.9          | 119.03                     | 14.82 |
| 10541.0       | .0                   | 2.71                                | 70.3               | 85.4            | 18.8       | .9             | 5.6          | 2.8          | 118.84                     | 14.77 |
| 10542.0       | 1.3                  | 2.71                                | 76.1               | 93.2            | 16.4       | 1.4            | 3.9          | 2.8          | 118.66                     | 14.71 |
| 10543.0       | 1.2                  | 2.71                                | 80.8               | 91.6            | 14.7       | 1.4            | 2.8          | 1.6          | 118.50                     | 14.68 |
| 10544.0       | .0                   | 2.71                                | 81.2               | 85.7            | 14.6       | 1.9            | 2.7          | .7           | 118.35                     | 14.65 |
| 10545.0       | .0                   | 2.71                                | 76.7               | 81.9            | 15.6       | 1.2            | 3.6          | .8           | 118.21                     | 14.62 |
| 10546.0       | .0                   | 2.73                                | 62.2               | 72.9            | 19.2       | .3             | 7.2          | 2.1          | 118.04                     | 14.58 |
| 10547.0       | .0                   | 2.75                                | 53.3               | 69.4            | 22.4       | 1.0            | 10.5         | 3.6          | 117.84                     | 14.50 |
| 10548.0       | .0                   | 2.72                                | 54.9               | 74.9            | 21.1       | 1.6            | 9.5          | 4.2          | 117.62                     | 14.39 |
| 10549.0       | .0                   | 2.69                                | 61.5               | 80.7            | 18.3       | 1.9            | 7.1          | 3.5          | 117.42                     | 14.31 |
| 10550.0       | .0                   | 2.69                                | 61.7               | 79.3            | 17.6       | .0             | 6.8          | 3.1          | 117.24                     | 14.24 |
| 10551.0       | .0                   | 2.69                                | 52.3               | 70.4            | 19.8       | .0             | 9.4          | 3.6          | 117.06                     | 14.16 |
| 10552.0       | .0                   | 2.70                                | 45.0               | 63.8            | 22.4       | .0             | 12.3         | 4.2          | 116.85                     | 14.06 |
| 10553.0       | .0                   | 2.71                                | 38.1               | 59.1            | 25.6       | .0             | 15.8         | 5.4          | 116.62                     | 13.93 |
| 10554.0       | .0                   | 2.73                                | 34.5               | 60.5            | 27.1       | .0             | 17.7         | 7.0          | 116.36                     | 13.77 |
| 10555.0       | .0                   | 2.72                                | 33.7               | 62.7            | 27.3       | .0             | 18.1         | 7.9          | 116.09                     | 13.59 |
| 10556.0       | .0                   | 2.71                                | 39.3               | 62.3            | 24.4       | .0             | 14.8         | 5.6          | 115.82                     | 13.41 |
| 10557.0       | .0                   | 2.71                                | 46.1               | 60.1            | 22.1       | .0             | 11.9         | 3.1          | 115.58                     | 13.27 |
| 10558.0       | .0                   | 2.73                                | 54.6               | 66.6            | 20.2       | .5             | 9.2          | 2.4          | 115.36                     | 13.16 |
| 10559.0       | .0                   | 2.70                                | 71.6               | 83.9            | 17.0       | 1.8            | 4.8          | 2.1          | 115.17                     | 13.08 |
| 10560.0       | .0                   | 2.69                                | 78.3               | 89.2            | 16.2       | 2.6            | 3.5          | 1.8          | 115.01                     | 13.04 |
| 10561.0       | .0                   | 2.69                                | 87.2               | 88.6            | 15.3       | 2.2            | 2.0          | .2           | 114.85                     | 13.00 |
| 10562.0       | 1.7                  | 2.72                                | 85.9               | 85.9            | 15.5       | 1.3            | 2.2          | .0           | 114.70                     | 12.99 |
| 10563.0       | 1.2                  | 2.71                                | 80.6               | 87.3            | 16.7       | 1.1            | 3.2          | 1.1          | 114.54                     | 12.96 |
| 10564.0       | .0                   | 2.70                                | 88.0               | 94.1            | 15.8       | .5             | 1.9          | 1.0          | 114.37                     | 12.93 |
| 10565.0       | .0                   | 2.70                                | 91.9               | 92.8            | 15.2       | .7             | 1.2          | .1           | 114.22                     | 12.92 |
| 10566.0       | .5                   | 2.71                                | 88.2               | 88.2            | 15.7       | .9             | 1.9          | .0           | 114.06                     | 12.90 |
| 10567.0       | .0                   | 2.69                                | 79.2               | 83.7            | 17.3       | 2.2            | 3.6          | .8           | 113.91                     | 12.88 |
| 10568.0       | .5                   | 2.73                                | 63.4               | 73.5            | 20.9       | .8             | 7.7          | 2.1          | 113.73                     | 12.84 |
| 10569.0       | .0                   | 2.71                                | 57.6               | 70.7            | 22.7       | .0             | 9.6          | 3.0          | 113.51                     | 12.76 |
| 10570.0       | .0                   | 2.71                                | 50.6               | 67.3            | 24.4       | .0             | 12.1         | 4.1          | 113.28                     | 12.65 |
| 10571.0       | .0                   | 2.72                                | 45.6               | 64.9            | 25.9       | .0             | 14.1         | 5.0          | 113.03                     | 12.53 |
| 10572.0       | .0                   | 2.74                                | 43.8               | 65.3            | 26.5       | .0             | 14.9         | 5.7          | 112.77                     | 12.38 |
| 10573.0       | .1                   | 2.74                                | 43.8               | 65.5            | 26.0       | .0             | 14.6         | 5.6          | 112.50                     | 12.23 |
| 10574.0       | .0                   | 2.73                                | 41.8               | 61.6            | 26.8       | .0             | 15.6         | 5.3          | 112.24                     | 12.09 |
| 10575.0       | .0                   | 2.73                                | 42.1               | 59.9            | 26.3       | .0             | 15.2         | 4.7          | 111.98                     | 11.93 |
| 10576.0       | .0                   | 2.73                                | 40.6               | 54.7            | 27.5       | .0             | 16.3         | 3.9          | 111.71                     | 11.78 |
| 10577.0       | .0                   | 2.71                                | 39.0               | 55.4            | 28.9       | .0             | 17.6         | 4.7          | 111.43                     | 11.61 |
| 10578.0       | .2                   | 2.73                                | 38.3               | 59.8            | 29.7       | .0             | 18.3         | 6.4          | 111.15                     | 11.44 |
| 10579.0       | .3                   | 2.77                                | 37.1               | 59.5            | 31.1       | .0             | 19.5         | 7.0          | 110.84                     | 11.24 |
| 10580.0       | .0                   | 2.76                                | 38.3               | 60.6            | 30.2       | .1             | 18.6         | 6.7          | 110.53                     | 11.05 |
| 10581.0       | .8                   | 2.75                                | 41.4               | 60.6            | 28.1       | .0             | 16.5         | 5.4          | 110.23                     | 10.87 |
| 10582.0       | .0                   | 2.76                                | 40.9               | 58.0            | 29.2       | .0             | 17.3         | 5.0          | 109.96                     | 10.71 |
| 10583.0       | .0                   | 2.77                                | 40.0               | 59.2            | 30.7       | .0             | 18.4         | 5.9          | 109.66                     | 10.53 |
| 10584.0       | .0                   | 2.77                                | 39.8               | 58.7            | 31.9       | .0             | 19.2         | 6.0          | 109.35                     | 10.34 |
| 10585.0       | .0                   | 2.74                                | 41.3               | 58.6            | 31.8       | .5             | 18.7         | 5.5          | 109.03                     | 10.15 |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10586.0       | .6                   | 2.73                                | 43.7               | 62.3             | 30.6       | .0             | 17.2         | 5.7          | 108.71                     | 9.97  |
| 10587.0       | .0                   | 2.70                                | 43.3               | 64.0             | 30.6       | .0             | 17.4         | 6.3          | 108.41                     | 9.80  |
| 10588.0       | .1                   | 2.75                                | 42.4               | 60.8             | 30.9       | .0             | 17.8         | 5.7          | 108.10                     | 9.62  |
| 10589.0       | .0                   | 2.76                                | 44.9               | 61.8             | 29.4       | .0             | 16.2         | 5.0          | 107.80                     | 9.45  |
| 10590.0       | .0                   | 2.74                                | 47.8               | 64.8             | 28.3       | .2             | 14.8         | 4.8          | 107.51                     | 9.29  |
| 10591.0       | .0                   | 2.71                                | 51.9               | 68.5             | 27.0       | .0             | 13.0         | 4.5          | 107.23                     | 9.15  |
| 10592.0       | .0                   | 2.70                                | 57.0               | 70.9             | 25.5       | .5             | 11.0         | 3.6          | 106.96                     | 9.02  |
| 10593.0       | .0                   | 2.73                                | 64.6               | 71.1             | 23.3       | .1             | 8.2          | 1.5          | 106.71                     | 8.92  |
| 10594.0       | .0                   | 2.69                                | 69.9               | 69.9             | 21.8       | 2.0            | 6.6          | .0           | 106.48                     | 8.84  |
| 10595.0       | .0                   | 2.70                                | 74.5               | 74.5             | 20.6       | 2.1            | 5.3          | .0           | 106.27                     | 8.78  |
| 10596.0       | .0                   | 2.70                                | 76.1               | 80.2             | 20.4       | .7             | 4.9          | .8           | 106.06                     | 8.73  |
| 10597.0       | .0                   | 2.73                                | 72.1               | 78.4             | 21.8       | .0             | 6.1          | 1.4          | 105.86                     | 8.68  |
| 10598.0       | .0                   | 2.73                                | 70.6               | 74.3             | 23.0       | .0             | 6.7          | .8           | 105.63                     | 8.62  |
| 10599.0       | .0                   | 2.74                                | 71.2               | 73.9             | 23.7       | .0             | 6.8          | .6           | 105.40                     | 8.55  |
| 10600.0       | .0                   | 2.73                                | 74.3               | 79.1             | 23.6       | .4             | 6.1          | 1.1          | 105.16                     | 8.48  |
| 10601.0       | .0                   | 2.72                                | 78.8               | 88.0             | 22.5       | 1.3            | 4.8          | 2.1          | 104.93                     | 8.42  |
| 10602.0       | .0                   | 2.71                                | 85.4               | 89.7             | 20.4       | 1.6            | 3.0          | .9           | 104.71                     | 8.38  |
| 10603.0       | .0                   | 2.70                                | 89.7               | 89.7             | 18.9       | 2.2            | 1.9          | .0           | 104.51                     | 8.35  |
| 10604.0       | .0                   | 2.69                                | 98.5               | 98.5             | 16.9       | 2.6            | .2           | .0           | 104.33                     | 8.34  |
| 10605.0       | .0                   | 2.71                                | 91.8               | 91.8             | 17.6       | 1.8            | 1.4          | .0           | 104.16                     | 8.33  |
| 10606.0       | .0                   | 2.71                                | 85.8               | 89.3             | 19.2       | 1.6            | 2.7          | .7           | 103.98                     | 8.32  |
| 10607.0       | .0                   | 2.69                                | 88.5               | 96.5             | 19.2       | 1.1            | 2.2          | 1.5          | 103.79                     | 8.29  |
| 10608.0       | 1.1                  | 2.70                                | 90.0               | 97.9             | 19.0       | .9             | 1.9          | 1.5          | 103.59                     | 8.27  |
| 10609.0       | 2.1                  | 2.71                                | 88.8               | 97.1             | 19.3       | 1.4            | 2.2          | 1.6          | 103.40                     | 8.25  |
| 10610.0       | .9                   | 2.73                                | 84.8               | 92.6             | 20.5       | 1.8            | 3.1          | 1.6          | 103.21                     | 8.23  |
| 10611.0       | 1.0                  | 2.74                                | 80.7               | 90.3             | 21.4       | 1.7            | 4.1          | 2.0          | 103.00                     | 8.19  |
| 10612.0       | .2                   | 2.72                                | 84.8               | 96.0             | 20.5       | .6             | 3.1          | 2.3          | 102.79                     | 8.15  |
| 10613.0       | .0                   | 2.75                                | 92.1               | 95.7             | 19.3       | .2             | 1.5          | .7           | 102.58                     | 8.12  |
| 10614.0       | .0                   | 2.76                                | 91.9               | 91.9             | 19.6       | .9             | 1.6          | .0           | 102.39                     | 8.11  |
| 10615.0       | .0                   | 2.78                                | 80.8               | 82.9             | 22.4       | 1.9            | 4.3          | .5           | 102.19                     | 8.09  |
| 10616.0       | .0                   | 2.72                                | 81.6               | 93.2             | 22.2       | .5             | 4.1          | 2.6          | 101.97                     | 8.04  |
| 10617.0       | .0                   | 2.73                                | 76.8               | 88.7             | 22.5       | .0             | 5.2          | 2.7          | 101.74                     | 8.00  |
| 10618.0       | .4                   | 2.76                                | 85.7               | 94.1             | 19.4       | .0             | 2.8          | 1.6          | 101.53                     | 7.95  |
| 10619.0       | 1.1                  | 2.71                                | 98.4               | 99.7             | 16.7       | .0             | .3           | .2           | 101.34                     | 7.93  |
| 10620.0       | .0                   | 2.73                                | 88.5               | 88.9             | 19.0       | .4             | 2.2          | .1           | 101.17                     | 7.93  |
| 10621.0       | .0                   | 2.75                                | 81.9               | 87.1             | 21.8       | 1.1            | 4.0          | 1.1          | 100.97                     | 7.90  |
| 10622.0       | .0                   | 2.73                                | 86.1               | 91.7             | 23.4       | .9             | 3.2          | 1.3          | 100.75                     | 7.86  |
| 10623.0       | .0                   | 2.71                                | 88.9               | 94.5             | 24.3       | .1             | 2.7          | 1.4          | 100.51                     | 7.83  |
| 10624.0       | .0                   | 2.76                                | 85.1               | 88.2             | 26.2       | .8             | 3.9          | .8           | 100.26                     | 7.80  |
| 10625.0       | .0                   | 2.74                                | 83.6               | 87.6             | 26.2       | 1.3            | 4.3          | 1.1          | 100.00                     | 7.76  |
| 10626.0       | .6                   | 2.72                                | 84.8               | 94.6             | 23.8       | 1.1            | 3.6          | 2.3          | 99.74                      | 7.72  |
| 10627.0       | .4                   | 2.72                                | 88.4               | 93.1             | 21.0       | 1.5            | 2.4          | 1.0          | 99.51                      | 7.68  |
| 10628.0       | 8.8                  | 2.73                                | 97.4               | 97.4             | 16.1       | .5             | .4           | .0           | 99.31                      | 7.66  |
| 10629.0       | 8.8                  | 2.75                                | 72.5               | 72.5             | 19.6       | .3             | 5.4          | .0           | 99.14                      | 7.65  |
| 10630.0       | 3.5                  | 2.71                                | 62.9               | 80.4             | 23.4       | .3             | 8.7          | 4.1          | 98.94                      | 7.58  |
| 10631.0       | 6.5                  | 2.72                                | 71.9               | 84.3             | 20.4       | .7             | 5.7          | 2.5          | 98.71                      | 7.50  |
| 10632.0       | 1.2                  | 2.74                                | 67.6               | 72.9             | 22.3       | .8             | 7.2          | 1.2          | 98.50                      | 7.44  |
| 10633.0       | 5.5                  | 2.76                                | 63.6               | 71.9             | 21.9       | 1.1            | 8.0          | 1.8          | 98.28                      | 7.37  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | FOR-FT                     | HC-FT |
| 10634.0       | 13.4                 | 2.77                                | 71.1               | 80.2            | 17.5       | 1.1            | 5.0          | 1.6          | 98.07                      | 7.29  |
| 10635.0       | 14.9                 | 2.74                                | 91.4               | 91.4            | 12.8       | .0             | 1.1          | .0           | 97.91                      | 7.25  |
| 10636.0       | 2.9                  | 2.70                                | 99.9               | 100.0           | 13.0       | .0             | .0           | .0           | 97.78                      | 7.24  |
| 10637.0       | 3.9                  | 2.70                                | 95.3               | 99.0            | 12.0       | .0             | .6           | .4           | 97.66                      | 7.24  |
| 10638.0       | 6.7                  | 2.71                                | 85.2               | 96.9            | 11.8       | .0             | 1.7          | 1.4          | 97.54                      | 7.23  |
| 10639.0       | 6.1                  | 2.71                                | 82.5               | 95.2            | 12.3       | .0             | 2.2          | 1.6          | 97.42                      | 7.21  |
| 10640.0       | .0                   | 2.71                                | 76.7               | 87.6            | 14.7       | .0             | 3.4          | 1.6          | 97.29                      | 7.19  |
| 10641.0       | .5                   | 2.72                                | 72.4               | 82.0            | 15.6       | .0             | 4.3          | 1.5          | 97.14                      | 7.15  |
| 10642.0       | 1.6                  | 2.73                                | 68.6               | 80.9            | 16.3       | .0             | 5.1          | 2.0          | 96.98                      | 7.11  |
| 10643.0       | .0                   | 2.70                                | 77.0               | 79.9            | 15.1       | .0             | 3.5          | .4           | 96.82                      | 7.06  |
| 10644.0       | .0                   | 2.71                                | 84.3               | 84.3            | 14.0       | .0             | 2.2          | .0           | 96.67                      | 7.03  |
| 10645.0       | 3.4                  | 2.72                                | 91.1               | 92.6            | 12.1       | .0             | 1.1          | .2           | 96.55                      | 7.01  |
| 10646.0       | 8.0                  | 2.72                                | 100.0              | 100.0           | 9.1        | .0             | .0           | .0           | 96.44                      | 7.01  |
| 10647.0       | .0                   | 2.71                                | 100.0              | 100.0           | 11.5       | .0             | .0           | .0           | 96.34                      | 7.01  |
| 10648.0       | .0                   | 2.71                                | 100.0              | 100.0           | 11.2       | .0             | .0           | .0           | 96.23                      | 7.01  |
| 10649.0       | 5.6                  | 2.72                                | 99.9               | 100.0           | 10.6       | .0             | .0           | .0           | 96.12                      | 7.01  |
| 10650.0       | .0                   | 2.70                                | 100.0              | 100.0           | 11.5       | .0             | .0           | .0           | 96.01                      | 7.01  |
| 10651.0       | .0                   | 2.69                                | 100.0              | 100.0           | 11.5       | .0             | .0           | .0           | 95.90                      | 7.01  |
| 10652.0       | .0                   | 2.69                                | 100.0              | 100.0           | 11.9       | .0             | .0           | .0           | 95.78                      | 7.01  |
| 10653.0       | .0                   | 2.71                                | 100.0              | 100.0           | 11.7       | .0             | .0           | .0           | 95.66                      | 7.01  |
| 10654.0       | 3.2                  | 2.71                                | 100.0              | 100.0           | 11.0       | .0             | .0           | .0           | 95.55                      | 7.01  |
| 10655.0       | .0                   | 2.70                                | 95.7               | 99.1            | 12.7       | .0             | .5           | .4           | 95.43                      | 7.01  |
| 10656.0       | .0                   | 2.70                                | 99.6               | 99.9            | 12.0       | .0             | .0           | .0           | 95.31                      | 7.00  |
| 10657.0       | .5                   | 2.71                                | 100.0              | 100.0           | 10.4       | .0             | .0           | .0           | 95.19                      | 7.00  |
| 10658.0       | .0                   | 2.69                                | 100.0              | 100.0           | 10.4       | .0             | .0           | .0           | 95.08                      | 7.00  |
| 10659.0       | .0                   | 2.69                                | 100.0              | 100.0           | 8.6        | .0             | .0           | .0           | 94.98                      | 7.00  |
| 10660.0       | 1.1                  | 2.71                                | 100.0              | 100.0           | 11.6       | .0             | .0           | .0           | 94.90                      | 7.00  |
| 10661.0       | .0                   | 2.70                                | 87.8               | 87.8            | 14.1       | .0             | 1.7          | .0           | 94.77                      | 6.99  |
| 10662.0       | .0                   | 2.70                                | 91.8               | 98.3            | 14.0       | .0             | 1.1          | .9           | 94.63                      | 6.98  |
| 10663.0       | .0                   | 2.70                                | 96.1               | 99.2            | 13.3       | .0             | .5           | .4           | 94.49                      | 6.97  |
| 10664.0       | .0                   | 2.71                                | 95.2               | 99.0            | 13.0       | .0             | .6           | .5           | 94.36                      | 6.96  |
| 10665.0       | .0                   | 2.70                                | 96.6               | 99.3            | 12.7       | .0             | .4           | .3           | 94.23                      | 6.95  |
| 10666.0       | .0                   | 2.69                                | 100.0              | 100.0           | 12.3       | .0             | .0           | .0           | 94.10                      | 6.95  |
| 10667.0       | .0                   | 2.69                                | 90.5               | 92.9            | 13.3       | .0             | 1.3          | .3           | 93.98                      | 6.95  |
| 10668.0       | .0                   | 2.70                                | 92.4               | 98.4            | 12.7       | .0             | 1.0          | .8           | 93.84                      | 6.93  |
| 10669.0       | .0                   | 2.70                                | 95.6               | 95.6            | 12.1       | 1.7            | .5           | .0           | 93.72                      | 6.93  |
| 10670.0       | .0                   | 2.69                                | 100.0              | 100.0           | 10.1       | .0             | .0           | .0           | 93.60                      | 6.92  |
| 10671.0       | .0                   | 2.71                                | 100.0              | 100.0           | 9.9        | .0             | .0           | .0           | 93.51                      | 6.92  |
| 10672.0       | 12.0                 | 2.72                                | 100.0              | 100.0           | 8.9        | .0             | .0           | .0           | 93.41                      | 6.92  |
| 10673.0       | 13.4                 | 2.74                                | 100.0              | 100.0           | 7.9        | .7             | .0           | .0           | 93.33                      | 6.92  |
| 10674.0       | 1.0                  | 2.71                                | 100.0              | 100.0           | 10.5       | .0             | .0           | .0           | 93.25                      | 6.92  |
| 10675.0       | .7                   | 2.71                                | 100.0              | 100.0           | 9.6        | .0             | .0           | .0           | 93.14                      | 6.92  |
| 10676.0       | 3.6                  | 2.71                                | 100.0              | 100.0           | 7.6        | .0             | .0           | .0           | 93.05                      | 6.92  |
| 10677.0       | .0                   | 2.71                                | 100.0              | 100.0           | 8.0        | .0             | .0           | .0           | 92.97                      | 6.92  |
| 10678.0       | 5.2                  | 2.72                                | 100.0              | 100.0           | 5.9        | .0             | .0           | .0           | 92.89                      | 6.92  |
| 10679.0       | 9.6                  | 2.73                                | 100.0              | 100.0           | 4.2        | .0             | .0           | .0           | 92.84                      | 6.92  |
| 10680.0       | .0                   | 2.70                                | 100.0              | 100.0           | 6.6        | .0             | .0           | .0           | 92.80                      | 6.92  |
| 10681.0       | .0                   | 2.71                                | 100.0              | 100.0           | 5.9        | .0             | .0           | .0           | 92.73                      | 6.92  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADDED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10682.0       | .0                   | 2.69                                | 100.0              | 100.0            | 5.9        | .0             | .0           | .0           | 92.68                      | 6.92  |
| 10683.0       | .0                   | 2.70                                | 100.0              | 100.0            | 6.0        | .0             | .0           | .0           | 92.62                      | 6.92  |
| 10684.0       | 2.7                  | 2.71                                | 100.0              | 100.0            | 6.3        | .0             | .0           | .0           | 92.56                      | 6.92  |
| 10685.0       | 4.1                  | 2.73                                | 100.0              | 100.0            | 8.9        | .0             | .0           | .0           | 92.49                      | 6.92  |
| 10686.0       | 3.0                  | 2.74                                | 87.2               | 87.2             | 12.9       | .0             | 1.6          | .0           | 92.39                      | 6.92  |
| 10687.0       | 3.3                  | 2.73                                | 81.8               | 86.4             | 14.4       | 1.3            | 2.6          | .7           | 92.25                      | 6.90  |
| 10688.0       | 2.4                  | 2.72                                | 84.8               | 84.8             | 14.0       | 1.5            | 2.1          | .0           | 92.11                      | 6.88  |
| 10689.0       | 1.9                  | 2.73                                | 91.1               | 91.1             | 12.2       | 1.9            | 1.1          | .0           | 91.97                      | 6.86  |
| 10690.0       | .0                   | 2.71                                | 98.6               | 98.6             | 10.8       | 1.7            | .2           | .0           | 91.86                      | 6.85  |
| 10691.0       | .0                   | 2.69                                | 100.0              | 100.0            | 9.3        | .0             | .0           | .0           | 91.75                      | 6.85  |
| 10692.0       | .0                   | 2.71                                | 98.2               | 98.2             | 10.4       | .0             | .2           | .0           | 91.66                      | 6.85  |
| 10693.0       | .8                   | 2.72                                | 86.5               | 90.0             | 12.4       | .0             | 1.7          | .4           | 91.55                      | 6.84  |
| 10694.0       | .0                   | 2.72                                | 84.7               | 84.7             | 15.1       | .3             | 2.3          | .0           | 91.42                      | 6.83  |
| 10695.0       | 2.7                  | 2.72                                | 88.0               | 88.0             | 16.4       | .0             | 2.0          | .0           | 91.26                      | 6.80  |
| 10696.0       | 4.8                  | 2.73                                | 89.9               | 89.9             | 19.1       | .0             | 1.9          | .0           | 91.10                      | 6.78  |
| 10697.0       | .0                   | 2.72                                | 81.9               | 83.9             | 23.8       | .3             | 4.3          | .5           | 90.90                      | 6.76  |
| 10698.0       | .0                   | 2.71                                | 86.7               | 86.7             | 24.3       | 1.2            | 3.2          | .0           | 90.66                      | 6.72  |
| 10699.0       | .0                   | 2.74                                | 87.1               | 87.1             | 24.0       | 1.7            | 3.1          | .0           | 90.41                      | 6.69  |
| 10700.0       | 1.2                  | 2.76                                | 88.0               | 88.0             | 22.5       | 1.3            | 2.7          | .0           | 90.17                      | 6.65  |
| 10701.0       | .0                   | 2.74                                | 87.4               | 87.4             | 21.6       | .9             | 2.7          | .0           | 89.95                      | 6.62  |
| 10702.0       | .0                   | 2.71                                | 91.2               | 91.2             | 19.6       | .9             | 1.7          | .0           | 89.74                      | 6.60  |
| 10703.0       | .0                   | 2.74                                | 82.2               | 82.2             | 20.8       | 3.1            | 3.7          | .0           | 89.54                      | 6.58  |
| 10704.0       | .0                   | 2.73                                | 88.3               | 88.3             | 19.7       | 2.0            | 2.3          | .0           | 89.34                      | 6.55  |
| 10705.0       | .0                   | 2.72                                | 93.2               | 93.2             | 19.4       | 1.0            | 1.3          | .0           | 89.14                      | 6.53  |
| 10706.0       | .0                   | 2.71                                | 90.0               | 90.0             | 20.9       | 1.4            | 2.1          | .0           | 88.94                      | 6.51  |
| 10707.0       | .0                   | 2.71                                | 90.8               | 90.8             | 21.6       | 1.1            | 2.0          | .0           | 88.73                      | 6.49  |
| 10708.0       | .0                   | 2.74                                | 82.6               | 85.3             | 23.9       | .8             | 4.2          | .6           | 88.51                      | 6.47  |
| 10709.0       | .0                   | 2.76                                | 78.4               | 81.5             | 25.1       | .0             | 5.4          | .8           | 88.27                      | 6.42  |
| 10710.0       | .0                   | 2.71                                | 84.1               | 88.0             | 23.6       | .0             | 3.8          | .9           | 88.02                      | 6.37  |
| 10711.0       | .0                   | 2.71                                | 81.2               | 86.1             | 24.5       | .3             | 4.6          | 1.2          | 87.78                      | 6.33  |
| 10712.0       | .0                   | 2.71                                | 80.3               | 87.2             | 24.8       | .0             | 4.9          | 1.7          | 87.54                      | 6.28  |
| 10713.0       | .0                   | 2.71                                | 87.5               | 91.0             | 23.1       | .1             | 2.9          | .8           | 87.29                      | 6.24  |
| 10714.0       | .0                   | 2.72                                | 88.6               | 88.6             | 22.8       | 1.6            | 2.6          | .0           | 87.07                      | 6.22  |
| 10715.0       | .0                   | 2.74                                | 84.6               | 84.6             | 23.8       | 2.4            | 3.7          | .0           | 86.83                      | 6.18  |
| 10716.0       | .7                   | 2.74                                | 87.0               | 87.0             | 23.2       | 1.2            | 3.0          | .0           | 86.60                      | 6.15  |
| 10717.0       | .0                   | 2.72                                | 85.1               | 88.7             | 24.4       | 1.0            | 3.6          | .9           | 86.36                      | 6.12  |
| 10718.0       | .0                   | 2.70                                | 84.0               | 89.9             | 24.8       | 1.3            | 4.0          | 1.4          | 86.12                      | 6.08  |
| 10719.0       | .0                   | 2.71                                | 84.4               | 90.8             | 24.5       | .1             | 3.8          | 1.6          | 85.87                      | 6.04  |
| 10720.0       | .0                   | 2.74                                | 79.8               | 84.3             | 25.3       | .8             | 5.1          | 1.1          | 85.62                      | 6.00  |
| 10721.0       | .0                   | 2.73                                | 82.3               | 85.5             | 24.1       | .6             | 4.3          | .8           | 85.37                      | 5.95  |
| 10722.0       | .0                   | 2.71                                | 82.4               | 85.5             | 23.9       | 1.7            | 4.2          | .7           | 85.13                      | 5.91  |
| 10723.0       | .0                   | 2.73                                | 79.2               | 84.7             | 24.6       | .9             | 5.1          | 1.4          | 84.89                      | 5.87  |
| 10724.0       | .0                   | 2.75                                | 72.7               | 81.7             | 26.3       | .0             | 7.2          | 2.4          | 84.64                      | 5.81  |
| 10725.0       | .0                   | 2.74                                | 68.3               | 78.8             | 27.5       | .0             | 8.7          | 2.9          | 84.37                      | 5.73  |
| 10726.0       | .0                   | 2.73                                | 71.8               | 83.1             | 26.1       | .0             | 7.4          | 3.0          | 84.10                      | 5.65  |
| 10727.0       | 1.1                  | 2.74                                | 78.0               | 87.0             | 24.5       | .0             | 5.4          | 2.2          | 83.84                      | 5.58  |
| 10728.0       | 2.3                  | 2.73                                | 79.3               | 86.0             | 24.3       | .8             | 5.0          | 1.6          | 83.60                      | 5.52  |
| 10729.0       | 1.2                  | 2.73                                | 78.8               | 85.7             | 24.9       | .7             | 5.3          | 1.7          | 83.35                      | 5.47  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10730.0       | .0                   | 2.72                                | 81.3               | 85.4            | 24.7       | 1.0            | 4.6          | 1.0          | 83.10                      | 5.42  |
| 10731.0       | .0                   | 2.71                                | 84.0               | 89.3            | 23.9       | 1.0            | 3.8          | 1.3          | 82.86                      | 5.38  |
| 10732.0       | .0                   | 2.73                                | 84.1               | 89.7            | 23.7       | 1.8            | 3.8          | 1.3          | 82.62                      | 5.34  |
| 10733.0       | .0                   | 2.75                                | 87.5               | 87.6            | 23.2       | 2.0            | 2.9          | .0           | 82.38                      | 5.30  |
| 10734.0       | .0                   | 2.73                                | 89.2               | 89.2            | 23.2       | 2.2            | 2.5          | .0           | 82.16                      | 5.28  |
| 10735.0       | .0                   | 2.72                                | 86.9               | 87.4            | 24.4       | 2.0            | 3.2          | .1           | 81.12                      | 5.25  |
| 10736.0       | .0                   | 2.76                                | 84.8               | 86.3            | 25.9       | 1.7            | 3.9          | .4           | 81.67                      | 5.22  |
| 10737.0       | .0                   | 2.76                                | 85.3               | 86.3            | 26.7       | 1.8            | 3.9          | .3           | 81.41                      | 5.18  |
| 10738.0       | .0                   | 2.76                                | 84.2               | 87.3            | 26.8       | 1.9            | 4.2          | .8           | 81.15                      | 5.14  |
| 10739.0       | .0                   | 2.82                                | 77.6               | 80.0            | 28.4       | 3.3            | 6.4          | .7           | 80.87                      | 5.09  |
| 10740.0       | .0                   | 2.77                                | 84.3               | 85.4            | 25.6       | 2.0            | 4.0          | .3           | 80.59                      | 5.03  |
| 10741.0       | .0                   | 2.75                                | 86.9               | 86.9            | 24.1       | 2.1            | 3.2          | .0           | 80.34                      | 4.99  |
| 10742.0       | .0                   | 2.72                                | 89.1               | 89.1            | 22.7       | 2.1            | 2.5          | .0           | 80.11                      | 4.96  |
| 10743.0       | .0                   | 2.75                                | 87.9               | 88.4            | 22.4       | 1.7            | 2.7          | .1           | 79.88                      | 4.94  |
| 10744.0       | .0                   | 2.75                                | 90.0               | 90.0            | 21.9       | 1.4            | 2.2          | .0           | 79.66                      | 4.91  |
| 10745.0       | .0                   | 2.74                                | 88.0               | 88.0            | 22.3       | 2.1            | 2.7          | .0           | 79.44                      | 4.89  |
| 10746.0       | 3.3                  | 2.73                                | 99.6               | 99.6            | 19.3       | 1.1            | .1           | .0           | 79.23                      | 4.87  |
| 10747.0       | 3.1                  | 2.74                                | 94.6               | 94.6            | 20.2       | 1.6            | 1.1          | .0           | 79.03                      | 4.87  |
| 10748.0       | 2.8                  | 2.75                                | 90.2               | 90.4            | 21.0       | 2.0            | 2.0          | .0           | 78.83                      | 4.86  |
| 10749.0       | 1.3                  | 2.74                                | 85.9               | 90.5            | 22.1       | 2.1            | 3.1          | 1.0          | 78.62                      | 4.83  |
| 10750.0       | 1.8                  | 2.73                                | 87.0               | 92.2            | 21.6       | 1.8            | 2.8          | 1.1          | 78.40                      | 4.81  |
| 10751.0       | 1.6                  | 2.75                                | 84.4               | 87.8            | 22.0       | 2.0            | 3.4          | .8           | 78.18                      | 4.78  |
| 10752.0       | 3.2                  | 2.74                                | 88.5               | 90.7            | 20.6       | 2.1            | 2.4          | .5           | 77.96                      | 4.74  |
| 10753.0       | 2.9                  | 2.73                                | 96.0               | 96.6            | 19.2       | 1.3            | .8           | .1           | 77.76                      | 4.72  |
| 10754.0       | 1.4                  | 2.77                                | 92.5               | 93.0            | 20.2       | 1.3            | 1.5          | .1           | 77.57                      | 4.72  |
| 10755.0       | 1.3                  | 2.72                                | 96.1               | 97.9            | 19.7       | .9             | .8           | .4           | 77.37                      | 4.70  |
| 10756.0       | 1.3                  | 2.74                                | 88.6               | 88.6            | 21.3       | 2.0            | 2.4          | .0           | 77.17                      | 4.69  |
| 10757.0       | .0                   | 2.71                                | 92.6               | 92.6            | 20.7       | 2.0            | 1.5          | .0           | 76.95                      | 4.67  |
| 10758.0       | 1.3                  | 2.73                                | 94.1               | 94.1            | 20.0       | 2.0            | 1.2          | .0           | 76.74                      | 4.65  |
| 10759.0       | 1.6                  | 2.74                                | 93.5               | 93.5            | 20.1       | 2.1            | 1.3          | .0           | 76.55                      | 4.64  |
| 10760.0       | 2.3                  | 2.72                                | 94.2               | 94.8            | 19.9       | 1.7            | 1.1          | .1           | 76.35                      | 4.63  |
| 10761.0       | 2.9                  | 2.72                                | 94.4               | 96.9            | 19.9       | 1.5            | 1.1          | .5           | 76.15                      | 4.61  |
| 10762.0       | 1.6                  | 2.75                                | 88.0               | 88.1            | 21.5       | 2.0            | 2.6          | .0           | 75.94                      | 4.60  |
| 10763.0       | 2.1                  | 2.74                                | 91.3               | 91.3            | 20.7       | 2.0            | 1.8          | .0           | 75.73                      | 4.58  |
| 10764.0       | .0                   | 2.70                                | 92.3               | 92.3            | 21.0       | 2.6            | 1.6          | .0           | 75.52                      | 4.56  |
| 10765.0       | .0                   | 2.72                                | 92.5               | 92.5            | 21.1       | 2.0            | 1.6          | .0           | 75.31                      | 4.54  |
| 10766.0       | .0                   | 2.71                                | 90.2               | 90.2            | 21.9       | 2.8            | 2.1          | .0           | 75.10                      | 4.52  |
| 10767.0       | .0                   | 2.72                                | 90.3               | 91.8            | 22.2       | 2.1            | 2.2          | .4           | 74.88                      | 4.50  |
| 10768.0       | .0                   | 2.73                                | 86.6               | 86.6            | 23.1       | 1.8            | 3.1          | .0           | 74.65                      | 4.48  |
| 10769.0       | .0                   | 2.76                                | 84.7               | 84.7            | 23.3       | 2.5            | 3.6          | .0           | 74.42                      | 4.44  |
| 10770.0       | .0                   | 2.74                                | 84.6               | 84.6            | 22.7       | 3.2            | 3.5          | .0           | 74.18                      | 4.41  |
| 10771.0       | .0                   | 2.74                                | 84.3               | 84.7            | 22.3       | 2.9            | 3.5          | .1           | 73.96                      | 4.37  |
| 10772.0       | .0                   | 2.74                                | 85.9               | 86.9            | 21.7       | 2.6            | 3.0          | .2           | 73.74                      | 4.34  |
| 10773.0       | .0                   | 2.72                                | 94.5               | 97.5            | 20.3       | 1.5            | 1.1          | .6           | 73.53                      | 4.31  |
| 10774.0       | .0                   | 2.72                                | 93.6               | 97.7            | 20.9       | 1.1            | 1.3          | .8           | 73.32                      | 4.30  |
| 10775.0       | .0                   | 2.75                                | 88.4               | 89.3            | 22.5       | 1.9            | 2.6          | .2           | 73.11                      | 4.28  |
| 10776.0       | .0                   | 2.74                                | 90.2               | 90.9            | 22.5       | 2.1            | 2.2          | .2           | 72.88                      | 4.26  |
| 10777.0       | .0                   | 2.72                                | 88.0               | 90.7            | 22.9       | 2.6            | 2.7          | .6           | 72.66                      | 4.24  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10778.0       | .0                   | 2.75                                | 87.1               | 88.8             | 22.9       | 2.7            | 3.0          | .4           | 72.43                      | 4.21  |
| 10779.0       | .0                   | 2.74                                | 86.7               | 86.7             | 22.8       | 5.6            | 3.0          | .0           | 72.20                      | 4.18  |
| 10780.0       | .0                   | 2.76                                | 85.0               | 85.0             | 23.3       | 6.6            | 3.5          | .0           | 71.97                      | 4.15  |
| 10781.0       | .0                   | 2.77                                | 86.2               | 86.2             | 23.2       | 3.8            | 3.2          | .0           | 71.74                      | 4.11  |
| 10782.0       | .0                   | 2.77                                | 88.6               | 88.6             | 23.0       | 2.3            | 2.6          | .0           | 71.51                      | 4.08  |
| 10783.0       | .0                   | 2.73                                | 94.1               | 94.1             | 22.2       | 1.7            | 1.3          | .0           | 71.28                      | 4.06  |
| 10784.0       | .0                   | 2.70                                | 93.6               | 93.6             | 22.5       | 2.2            | 1.5          | .0           | 71.06                      | 4.05  |
| 10785.0       | .0                   | 2.70                                | 92.8               | 92.8             | 22.5       | 2.3            | 1.6          | .0           | 70.83                      | 4.03  |
| 10786.0       | .0                   | 2.72                                | 91.1               | 91.1             | 22.6       | 2.1            | 2.0          | .0           | 70.61                      | 4.01  |
| 10787.0       | .0                   | 2.77                                | 87.7               | 87.7             | 23.1       | 2.4            | 2.8          | .0           | 70.38                      | 3.99  |
| 10788.0       | .0                   | 2.76                                | 91.0               | 91.4             | 22.1       | 1.3            | 2.0          | .1           | 70.15                      | 3.97  |
| 10789.0       | .0                   | 2.74                                | 86.6               | 86.6             | 22.8       | 2.4            | 3.1          | .0           | 69.93                      | 3.94  |
| 10790.0       | .0                   | 2.76                                | 87.5               | 87.5             | 22.5       | 2.1            | 2.8          | .0           | 69.70                      | 3.92  |
| 10791.0       | .0                   | 2.75                                | 91.7               | 91.7             | 21.7       | 2.0            | 1.8          | .0           | 69.48                      | 3.89  |
| 10792.0       | .0                   | 2.72                                | 92.7               | 92.7             | 21.6       | 1.7            | 1.6          | .0           | 69.26                      | 3.87  |
| 10793.0       | .0                   | 2.73                                | 93.5               | 93.5             | 21.8       | 1.1            | 1.4          | .0           | 69.05                      | 3.86  |
| 10794.0       | .0                   | 2.70                                | 92.5               | 93.9             | 22.1       | 1.7            | 1.7          | .3           | 68.83                      | 3.84  |
| 10795.0       | .0                   | 2.74                                | 86.9               | 88.7             | 23.3       | 1.8            | 3.1          | .4           | 68.61                      | 3.82  |
| 10796.0       | .0                   | 2.77                                | 86.7               | 86.7             | 23.2       | 1.7            | 3.1          | .0           | 68.37                      | 3.79  |
| 10797.0       | .0                   | 2.73                                | 91.4               | 91.4             | 22.2       | 2.1            | 1.9          | .0           | 68.14                      | 3.77  |
| 10798.0       | .0                   | 2.77                                | 86.1               | 86.1             | 23.6       | 2.6            | 3.3          | .0           | 67.92                      | 3.74  |
| 10799.0       | .0                   | 2.73                                | 93.1               | 94.2             | 22.5       | 1.1            | 1.5          | .2           | 67.68                      | 3.71  |
| 10800.0       | .0                   | 2.71                                | 96.5               | 96.9             | 22.3       | .5             | .8           | .1           | 67.46                      | 3.70  |
| 10801.0       | .0                   | 2.70                                | 93.9               | 94.1             | 23.4       | 2.2            | 1.4          | .0           | 67.23                      | 3.69  |
| 10802.0       | .0                   | 2.73                                | 88.1               | 90.1             | 24.9       | 2.1            | 3.0          | .5           | 66.99                      | 3.67  |
| 10803.0       | .0                   | 2.75                                | 85.9               | 87.7             | 25.1       | 2.2            | 3.5          | .4           | 66.75                      | 3.64  |
| 10804.0       | .0                   | 2.76                                | 89.9               | 89.9             | 23.6       | 1.5            | 2.4          | .0           | 66.50                      | 3.61  |
| 10805.0       | .0                   | 2.75                                | 96.9               | 96.9             | 21.6       | .7             | .7           | .0           | 66.27                      | 3.59  |
| 10806.0       | .0                   | 2.74                                | 98.4               | 98.4             | 20.8       | .7             | .3           | .0           | 66.05                      | 3.59  |
| 10807.0       | .0                   | 2.76                                | 87.9               | 87.9             | 22.7       | 1.9            | 2.7          | .0           | 65.84                      | 3.58  |
| 10808.0       | .0                   | 2.72                                | 89.6               | 89.6             | 22.2       | 1.9            | 2.3          | .0           | 65.61                      | 3.55  |
| 10809.0       | .0                   | 2.73                                | 91.3               | 91.3             | 21.6       | 1.8            | 1.9          | .0           | 65.39                      | 3.52  |
| 10810.0       | .0                   | 2.70                                | 96.2               | 96.2             | 20.3       | 1.6            | .8           | .0           | 65.18                      | 3.51  |
| 10811.0       | .0                   | 2.69                                | 92.3               | 92.3             | 20.3       | 3.3            | 1.6          | .0           | 64.98                      | 3.50  |
| 10812.0       | .0                   | 2.69                                | 96.3               | 96.3             | 19.0       | 3.5            | .7           | .0           | 64.78                      | 3.49  |
| 10813.0       | .0                   | 2.69                                | 97.9               | 97.9             | 18.4       | 4.4            | .4           | .0           | 64.59                      | 3.48  |
| 10814.0       | .0                   | 2.69                                | 86.1               | 86.1             | 20.4       | 5.5            | 2.8          | .0           | 64.40                      | 3.47  |
| 10815.0       | .0                   | 2.71                                | 84.2               | 87.2             | 20.7       | 1.8            | 3.3          | .6           | 64.19                      | 3.44  |
| 10816.0       | 2.6                  | 2.74                                | 90.0               | 95.3             | 19.4       | 2.0            | 1.9          | 1.0          | 63.99                      | 3.41  |
| 10817.0       | 1.1                  | 2.75                                | 88.3               | 91.0             | 20.6       | 2.5            | 2.4          | .5           | 63.79                      | 3.39  |
| 10818.0       | .0                   | 2.76                                | 89.0               | 89.0             | 21.3       | 1.7            | 2.3          | .0           | 63.58                      | 3.36  |
| 10819.0       | .0                   | 2.71                                | 98.6               | 98.6             | 20.0       | 1.1            | .3           | .0           | 63.37                      | 3.34  |
| 10820.0       | .0                   | 2.69                                | 100.0              | 100.0            | 19.6       | 1.8            | .0           | .0           | 63.17                      | 3.34  |
| 10821.0       | .2                   | 2.72                                | 98.0               | 98.0             | 20.9       | 1.5            | .4           | .0           | 62.98                      | 3.34  |
| 10822.0       | .0                   | 2.72                                | 91.0               | 91.2             | 22.5       | 2.0            | 2.0          | .0           | 62.76                      | 3.33  |
| 10823.0       | .0                   | 2.76                                | 89.6               | 90.3             | 22.9       | 2.1            | 2.4          | .1           | 62.53                      | 3.31  |
| 10824.0       | .0                   | 2.75                                | 92.5               | 92.5             | 22.3       | 1.7            | 1.7          | .0           | 62.31                      | 3.29  |
| 10825.0       | .0                   | 2.71                                | 91.6               | 91.6             | 22.3       | 2.4            | 1.9          | .0           | 62.09                      | 3.28  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10826.0       | .0                   | 2.73                                | 92.6               | 92.6             | 22.0       | 1.8            | 1.6          | .0           | 61.86                      | 3.26  |
| 10827.0       | .0                   | 2.77                                | 90.5               | 90.5             | 22.5       | 1.9            | 2.1          | .0           | 61.64                      | 3.24  |
| 10828.0       | .0                   | 2.77                                | 92.0               | 92.0             | 22.0       | 1.0            | 1.8          | .0           | 61.42                      | 3.22  |
| 10829.0       | .0                   | 2.74                                | 93.4               | 93.4             | 22.0       | 1.4            | 1.4          | .0           | 61.20                      | 3.20  |
| 10830.0       | .0                   | 2.74                                | 92.6               | 92.6             | 22.6       | 2.0            | 1.7          | .0           | 60.98                      | 3.19  |
| 10831.0       | .0                   | 2.70                                | 94.9               | 94.9             | 22.4       | 2.9            | 1.1          | .0           | 60.76                      | 3.18  |
| 10832.0       | .0                   | 2.69                                | 90.5               | 90.5             | 23.3       | 3.2            | 2.2          | .0           | 60.53                      | 3.16  |
| 10833.0       | .0                   | 2.69                                | 89.7               | 91.4             | 22.6       | 2.3            | 2.3          | .4           | 60.30                      | 3.15  |
| 10834.0       | .0                   | 2.71                                | 91.4               | 91.4             | 20.8       | 1.2            | 1.8          | .0           | 60.08                      | 3.12  |
| 10835.0       | .0                   | 2.70                                | 92.4               | 92.4             | 19.0       | 3.3            | 1.4          | .0           | 59.88                      | 3.11  |
| 10836.0       | 2.0                  | 2.72                                | 100.0              | 100.0            | 16.1       | 2.0            | .0           | .0           | 59.69                      | 3.10  |
| 10837.0       | .0                   | 2.70                                | 100.0              | 100.0            | 17.5       | 2.7            | .0           | .0           | 59.53                      | 3.10  |
| 10838.0       | .0                   | 2.71                                | 93.1               | 93.1             | 19.6       | 1.4            | 1.4          | .0           | 59.35                      | 3.09  |
| 10839.0       | .0                   | 2.72                                | 93.6               | 98.2             | 21.0       | .3             | 1.3          | 1.0          | 59.15                      | 3.08  |
| 10840.0       | .0                   | 2.70                                | 97.5               | 97.5             | 22.0       | 1.6            | .6           | .0           | 58.94                      | 3.07  |
| 10841.0       | .0                   | 2.69                                | 98.5               | 99.7             | 22.1       | 1.7            | .3           | .3           | 58.72                      | 3.06  |
| 10842.0       | .0                   | 2.72                                | 91.0               | 92.6             | 23.5       | 1.1            | 2.1          | .4           | 58.49                      | 3.06  |
| 10843.0       | .0                   | 2.71                                | 93.0               | 94.9             | 22.4       | 1.9            | 1.6          | .4           | 58.26                      | 3.03  |
| 10844.0       | .0                   | 2.70                                | 93.1               | 95.8             | 21.7       | 2.3            | 1.5          | .6           | 58.04                      | 3.02  |
| 10845.0       | .0                   | 2.71                                | 92.9               | 93.4             | 21.4       | 1.8            | 1.5          | .1           | 57.82                      | 3.00  |
| 10846.0       | .0                   | 2.71                                | 90.5               | 90.5             | 21.3       | 2.3            | 2.0          | .0           | 57.61                      | 2.98  |
| 10847.0       | .0                   | 2.69                                | 93.3               | 93.4             | 20.9       | 3.3            | 1.4          | .0           | 57.39                      | 2.96  |
| 10848.0       | .0                   | 2.69                                | 87.0               | 89.0             | 22.7       | 4.3            | 3.0          | .5           | 57.18                      | 2.95  |
| 10849.0       | .0                   | 2.69                                | 88.2               | 91.3             | 23.0       | 3.6            | 2.7          | .7           | 56.95                      | 2.92  |
| 10850.0       | .0                   | 2.71                                | 89.0               | 91.9             | 23.1       | 2.1            | 2.5          | .7           | 56.72                      | 2.89  |
| 10851.0       | .2                   | 2.72                                | 91.7               | 93.8             | 22.4       | 1.6            | 1.9          | .5           | 56.49                      | 2.87  |
| 10852.0       | .0                   | 2.72                                | 90.3               | 90.9             | 22.4       | 2.1            | 2.2          | .1           | 56.26                      | 2.85  |
| 10853.0       | .0                   | 2.71                                | 92.5               | 92.5             | 21.9       | 2.1            | 1.6          | .0           | 56.04                      | 2.83  |
| 10854.0       | .0                   | 2.72                                | 94.2               | 94.2             | 21.8       | 1.9            | 1.3          | .0           | 55.82                      | 2.81  |
| 10855.0       | .0                   | 2.71                                | 94.9               | 94.9             | 22.3       | 1.6            | 1.1          | .0           | 55.60                      | 2.80  |
| 10856.0       | .0                   | 2.70                                | 92.7               | 92.7             | 23.4       | 2.9            | 1.7          | .0           | 55.38                      | 2.78  |
| 10857.0       | .0                   | 2.70                                | 94.9               | 94.9             | 23.3       | 1.6            | 1.2          | .0           | 55.14                      | 2.77  |
| 10858.0       | .0                   | 2.70                                | 95.0               | 95.0             | 23.4       | 2.2            | 1.2          | .0           | 54.91                      | 2.76  |
| 10859.0       | .0                   | 2.74                                | 92.8               | 92.8             | 23.9       | 2.8            | 1.7          | .0           | 54.67                      | 2.74  |
| 10860.0       | .0                   | 2.74                                | 97.1               | 97.1             | 23.2       | 1.8            | .7           | .0           | 54.44                      | 2.73  |
| 10861.0       | .0                   | 2.77                                | 89.2               | 89.2             | 25.5       | 1.9            | 2.8          | .0           | 54.20                      | 2.72  |
| 10862.0       | .0                   | 2.74                                | 90.2               | 90.5             | 25.7       | 1.8            | 2.5          | .1           | 53.95                      | 2.69  |
| 10863.0       | .0                   | 2.76                                | 90.8               | 90.8             | 26.0       | 1.3            | 2.4          | .0           | 53.69                      | 2.67  |
| 10864.0       | .0                   | 2.72                                | 96.6               | 96.6             | 24.5       | .9             | .8           | .0           | 53.43                      | 2.65  |
| 10865.0       | .0                   | 2.74                                | 91.2               | 91.2             | 25.7       | 2.3            | 2.2          | .0           | 53.18                      | 2.63  |
| 10866.0       | .0                   | 2.73                                | 92.2               | 92.2             | 25.0       | 2.1            | 1.9          | .0           | 52.93                      | 2.61  |
| 10867.0       | .0                   | 2.70                                | 93.6               | 93.6             | 24.3       | 1.6            | 1.5          | .0           | 52.68                      | 2.59  |
| 10868.0       | .0                   | 2.72                                | 92.5               | 92.9             | 24.0       | 1.3            | 1.8          | .1           | 52.44                      | 2.58  |
| 10869.0       | .0                   | 2.73                                | 89.6               | 89.6             | 24.2       | 1.9            | 2.5          | .0           | 52.20                      | 2.56  |
| 10870.0       | .0                   | 2.72                                | 89.3               | 89.3             | 23.7       | 1.8            | 2.5          | .0           | 51.96                      | 2.53  |
| 10871.0       | .0                   | 2.74                                | 87.9               | 87.9             | 24.0       | 1.7            | 2.9          | .0           | 51.72                      | 2.51  |
| 10872.0       | .0                   | 2.72                                | 92.2               | 92.2             | 23.2       | 1.1            | 1.8          | .0           | 51.48                      | 2.48  |
| 10873.0       | .0                   | 2.72                                | 91.2               | 91.9             | 23.8       | 1.3            | 2.1          | .2           | 51.25                      | 2.46  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10874.0       | .0                   | 2.72                                | 88.6               | 88.6             | 24.9       | 1.9            | 2.8          | .0           | 51.01                      | 2.44  |
| 10875.0       | .0                   | 2.70                                | 92.8               | 92.8             | 24.1       | 2.1            | 1.7          | .0           | 50.76                      | 2.42  |
| 10876.0       | .0                   | 2.69                                | 94.5               | 95.5             | 23.8       | 1.9            | 1.3          | .2           | 50.52                      | 2.40  |
| 10877.0       | .0                   | 2.71                                | 90.7               | 92.8             | 24.9       | 1.6            | 2.3          | .5           | 50.28                      | 2.38  |
| 10878.0       | .0                   | 2.71                                | 91.4               | 92.5             | 24.9       | 1.0            | 2.1          | .3           | 50.03                      | 2.36  |
| 10879.0       | .0                   | 2.73                                | 91.6               | 91.6             | 25.1       | 1.0            | 2.1          | .0           | 49.78                      | 2.34  |
| 10880.0       | .0                   | 2.70                                | 94.5               | 94.5             | 24.5       | 1.7            | 1.4          | .0           | 49.53                      | 2.32  |
| 10881.0       | .0                   | 2.71                                | 95.8               | 95.8             | 24.2       | 1.6            | 1.0          | .0           | 49.29                      | 2.31  |
| 10882.0       | .0                   | 2.72                                | 92.8               | 92.8             | 24.4       | 2.4            | 1.8          | .0           | 49.04                      | 2.29  |
| 10883.0       | .0                   | 2.74                                | 91.9               | 91.9             | 23.9       | 2.6            | 1.9          | .0           | 48.80                      | 2.27  |
| 10884.0       | .0                   | 2.71                                | 93.1               | 93.1             | 22.6       | 2.7            | 1.6          | .0           | 48.56                      | 2.26  |
| 10885.0       | .0                   | 2.74                                | 89.0               | 91.6             | 22.8       | 2.5            | 2.5          | .6           | 48.34                      | 2.24  |
| 10886.0       | 1.8                  | 2.74                                | 91.7               | 96.3             | 21.2       | 2.3            | 1.7          | 1.0          | 48.11                      | 2.21  |
| 10887.0       | 1.3                  | 2.71                                | 94.3               | 98.8             | 20.1       | 1.5            | 1.2          | .9           | 47.90                      | 2.20  |
| 10888.0       | .0                   | 2.72                                | 92.9               | 98.5             | 19.8       | 1.6            | 1.4          | 1.1          | 47.70                      | 2.19  |
| 10889.0       | .7                   | 2.72                                | 100.0              | 100.0            | 17.4       | 1.1            | .0           | .0           | 47.52                      | 2.18  |
| 10890.0       | .0                   | 2.72                                | 100.0              | 100.0            | 17.6       | 1.3            | .0           | .0           | 47.34                      | 2.18  |
| 10891.0       | .0                   | 2.71                                | 99.8               | 100.0            | 17.8       | .8             | .0           | .0           | 47.16                      | 2.18  |
| 10892.0       | .0                   | 2.71                                | 97.2               | 97.2             | 18.8       | .7             | .5           | .0           | 46.99                      | 2.18  |
| 10893.0       | .0                   | 2.72                                | 91.8               | 91.8             | 20.2       | 1.2            | 1.7          | .0           | 46.79                      | 2.17  |
| 10894.0       | .9                   | 2.72                                | 91.3               | 91.3             | 20.3       | 1.6            | 1.8          | .0           | 46.59                      | 2.15  |
| 10895.0       | .0                   | 2.72                                | 94.6               | 94.6             | 19.7       | 2.2            | 1.1          | .0           | 46.39                      | 2.13  |
| 10896.0       | .0                   | 2.71                                | 99.2               | 99.2             | 18.8       | 1.9            | .2           | .0           | 46.19                      | 2.12  |
| 10897.0       | .0                   | 2.70                                | 97.5               | 97.5             | 18.8       | 2.4            | .5           | .0           | 46.00                      | 2.12  |
| 10898.0       | .0                   | 2.70                                | 96.4               | 96.4             | 18.7       | 3.1            | .7           | .0           | 45.82                      | 2.12  |
| 10899.0       | .0                   | 2.71                                | 99.6               | 99.6             | 17.9       | 2.9            | .1           | .0           | 45.63                      | 2.11  |
| 10900.0       | .0                   | 2.72                                | 100.0              | 100.0            | 16.9       | 2.4            | .0           | .0           | 45.45                      | 2.11  |
| 10901.0       | .0                   | 2.73                                | 100.0              | 100.0            | 16.4       | 2.3            | .0           | .0           | 45.29                      | 2.11  |
| 10902.0       | 3.8                  | 2.73                                | 100.0              | 100.0            | 14.8       | 2.2            | .0           | .0           | 45.12                      | 2.11  |
| 10903.0       | 1.8                  | 2.73                                | 100.0              | 100.0            | 15.5       | 1.4            | .0           | .0           | 44.97                      | 2.11  |
| 10904.0       | .0                   | 2.72                                | 100.0              | 100.0            | 15.0       | 1.4            | .0           | .0           | 44.82                      | 2.11  |
| 10905.0       | .0                   | 2.73                                | 100.0              | 100.0            | 14.6       | 1.3            | .0           | .0           | 44.67                      | 2.11  |
| 10906.0       | .0                   | 2.74                                | 90.2               | 90.2             | 16.2       | 1.9            | 1.6          | .0           | 44.52                      | 2.11  |
| 10907.0       | .0                   | 2.75                                | 88.2               | 88.2             | 16.9       | 2.1            | 2.0          | .0           | 44.36                      | 2.09  |
| 10908.0       | .0                   | 2.72                                | 100.0              | 100.0            | 15.8       | 1.3            | .0           | .0           | 44.19                      | 2.08  |
| 10909.0       | .0                   | 2.70                                | 100.0              | 100.0            | 16.3       | 2.8            | .0           | .0           | 44.03                      | 2.08  |
| 10910.0       | .0                   | 2.71                                | 95.7               | 95.7             | 18.3       | 2.8            | .8           | .0           | 43.87                      | 2.08  |
| 10911.0       | .0                   | 2.72                                | 92.2               | 92.2             | 19.6       | 2.5            | 1.5          | .0           | 43.68                      | 2.06  |
| 10912.0       | .0                   | 2.75                                | 90.6               | 90.6             | 20.4       | 1.8            | 1.9          | .0           | 43.48                      | 2.05  |
| 10913.0       | .0                   | 2.73                                | 92.6               | 92.6             | 20.1       | 1.6            | 1.5          | .0           | 43.27                      | 2.03  |
| 10914.0       | .0                   | 2.73                                | 91.8               | 91.8             | 19.7       | 1.7            | 1.6          | .0           | 43.07                      | 2.01  |
| 10915.0       | .0                   | 2.73                                | 86.0               | 86.0             | 19.5       | 2.8            | 2.7          | .0           | 42.88                      | 1.99  |
| 10916.0       | .0                   | 2.70                                | 90.4               | 90.4             | 17.4       | 3.2            | 1.7          | .0           | 42.68                      | 1.97  |
| 10917.0       | .0                   | 2.69                                | 96.4               | 96.4             | 15.9       | 3.4            | .6           | .0           | 42.51                      | 1.95  |
| 10918.0       | .0                   | 2.73                                | 90.9               | 90.9             | 16.8       | 1.9            | 1.5          | .0           | 42.36                      | 1.95  |
| 10919.0       | .0                   | 2.75                                | 83.3               | 87.4             | 18.8       | 2.0            | 3.1          | .8           | 42.18                      | 1.93  |
| 10920.0       | .0                   | 2.75                                | 78.2               | 83.7             | 20.9       | 3.1            | 4.6          | 1.2          | 41.99                      | 1.89  |
| 10921.0       | .0                   | 2.77                                | 76.3               | 81.3             | 21.8       | 3.6            | 5.2          | 1.1          | 41.78                      | 1.84  |



| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADDED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10922.0       | .0                   | 2.74                                | 84.1               | 89.5             | 19.5       | 2.2            | 3.1          | 1.1          | 41.56                      | 1.80  |
| 10923.0       | .0                   | 2.72                                | 87.3               | 94.8             | 18.0       | 1.7            | 2.3          | 1.4          | 41.37                      | 1.77  |
| 10924.0       | .0                   | 2.73                                | 84.4               | 88.5             | 17.6       | 2.0            | 2.7          | .7           | 41.20                      | 1.75  |
| 10925.0       | .0                   | 2.72                                | 86.0               | 86.0             | 16.5       | 2.5            | 2.3          | .0           | 41.02                      | 1.72  |
| 10926.0       | .0                   | 2.71                                | 100.0              | 100.0            | 13.7       | 1.8            | .0           | .0           | 40.86                      | 1.70  |
| 10927.0       | .0                   | 2.70                                | 97.4               | 97.4             | 14.2       | 3.3            | .4           | .0           | 40.72                      | 1.70  |
| 10928.0       | .0                   | 2.73                                | 93.8               | 97.0             | 14.8       | 1.8            | .9           | .5           | 40.58                      | 1.69  |
| 10929.0       | .0                   | 2.74                                | 89.2               | 92.6             | 15.7       | 1.7            | 1.7          | .5           | 40.43                      | 1.68  |
| 10930.0       | .0                   | 2.71                                | 95.6               | 95.6             | 15.1       | 1.4            | .7           | .0           | 40.27                      | 1.67  |
| 10931.0       | .0                   | 2.71                                | 100.0              | 100.0            | 15.0       | 2.4            | .0           | .0           | 40.12                      | 1.66  |
| 10932.0       | .0                   | 2.71                                | 100.0              | 100.0            | 14.0       | 1.8            | .0           | .0           | 39.98                      | 1.66  |
| 10933.0       | .0                   | 2.71                                | 100.0              | 100.0            | 16.3       | 2.3            | .0           | .0           | 39.83                      | 1.66  |
| 10934.0       | .0                   | 2.72                                | 97.5               | 97.5             | 17.7       | 1.4            | .4           | .0           | 39.66                      | 1.66  |
| 10935.0       | .0                   | 2.70                                | 98.1               | 98.1             | 17.7       | 2.5            | .3           | .0           | 39.49                      | 1.65  |
| 10936.0       | .0                   | 2.69                                | 100.0              | 100.0            | 16.5       | 3.1            | .0           | .0           | 39.31                      | 1.65  |
| 10937.0       | .0                   | 2.70                                | 100.0              | 100.0            | 15.1       | 2.4            | .0           | .0           | 39.15                      | 1.65  |
| 10938.0       | .0                   | 2.72                                | 100.0              | 100.0            | 13.9       | 1.1            | .0           | .0           | 39.00                      | 1.65  |
| 10939.0       | .0                   | 2.73                                | 98.8               | 98.8             | 12.4       | .3             | .2           | .0           | 38.87                      | 1.65  |
| 10940.0       | .0                   | 2.72                                | 97.5               | 97.5             | 11.4       | .6             | .3           | .0           | 38.74                      | 1.64  |
| 10941.0       | .4                   | 2.71                                | 96.3               | 98.3             | 10.8       | .5             | .4           | .2           | 38.63                      | 1.64  |
| 10942.0       | .0                   | 2.74                                | 88.3               | 90.3             | 11.3       | .2             | 1.3          | .2           | 38.53                      | 1.64  |
| 10943.0       | .0                   | 2.73                                | 82.3               | 83.7             | 11.6       | 1.5            | 2.1          | .2           | 38.41                      | 1.62  |
| 10944.0       | .0                   | 2.72                                | 90.8               | 92.2             | 10.5       | .8             | 1.0          | .1           | 38.30                      | 1.60  |
| 10945.0       | .0                   | 2.71                                | 93.3               | 93.3             | 10.1       | .3             | .7           | .0           | 38.20                      | 1.60  |
| 10946.0       | .0                   | 2.70                                | 90.9               | 97.7             | 10.2       | 1.4            | .9           | .7           | 38.09                      | 1.59  |
| 10947.0       | .0                   | 2.71                                | 93.9               | 98.7             | 9.9        | .0             | .6           | .5           | 37.99                      | 1.58  |
| 10948.0       | .0                   | 2.72                                | 83.9               | 91.7             | 10.9       | .3             | 1.8          | .9           | 37.89                      | 1.57  |
| 10949.0       | .0                   | 2.73                                | 86.8               | 87.1             | 10.8       | 1.6            | 1.4          | .0           | 37.78                      | 1.55  |
| 10950.0       | .0                   | 2.72                                | 91.2               | 91.2             | 10.5       | .8             | .9           | .0           | 37.67                      | 1.54  |
| 10951.0       | .0                   | 2.72                                | 94.6               | 94.6             | 11.0       | .8             | .6           | .0           | 37.57                      | 1.53  |
| 10952.0       | .0                   | 2.70                                | 100.0              | 100.0            | 11.6       | 2.0            | .0           | .0           | 37.46                      | 1.53  |
| 10953.0       | .0                   | 2.69                                | 100.0              | 100.0            | 12.7       | 1.3            | .0           | .0           | 37.34                      | 1.53  |
| 10954.0       | .0                   | 2.70                                | 100.0              | 100.0            | 14.3       | .3             | .0           | .0           | 37.21                      | 1.53  |
| 10955.0       | .0                   | 2.69                                | 89.9               | 95.9             | 16.5       | 3.4            | 1.7          | 1.0          | 37.06                      | 1.53  |
| 10956.0       | .0                   | 2.70                                | 95.3               | 96.8             | 16.1       | 2.7            | .8           | .2           | 36.90                      | 1.51  |
| 10957.0       | .0                   | 2.70                                | 100.0              | 100.0            | 15.5       | 2.7            | .0           | .0           | 36.74                      | 1.51  |
| 10958.0       | .0                   | 2.70                                | 100.0              | 100.0            | 15.1       | .0             | .0           | .0           | 36.58                      | 1.51  |
| 10959.0       | .0                   | 2.70                                | 100.0              | 100.0            | 16.4       | .0             | .0           | .0           | 36.43                      | 1.51  |
| 10960.0       | .0                   | 2.71                                | 87.9               | 97.4             | 19.2       | 1.1            | 2.3          | 1.8          | 36.26                      | 1.50  |
| 10961.0       | .0                   | 2.72                                | 88.2               | 91.1             | 19.8       | 1.9            | 2.3          | .6           | 36.06                      | 1.47  |
| 10962.0       | 1.2                  | 2.73                                | 94.0               | 94.0             | 18.8       | 1.5            | 1.1          | .0           | 35.87                      | 1.45  |
| 10963.0       | .0                   | 2.73                                | 94.3               | 95.5             | 18.9       | .7             | 1.1          | .2           | 35.68                      | 1.44  |
| 10964.0       | .0                   | 2.73                                | 91.4               | 92.1             | 19.3       | 1.7            | 1.7          | .1           | 35.49                      | 1.43  |
| 10965.0       | .0                   | 2.72                                | 94.8               | 94.8             | 18.5       | 1.5            | 1.0          | .0           | 35.30                      | 1.42  |
| 10966.0       | .0                   | 2.69                                | 100.0              | 100.0            | 16.6       | 1.0            | .0           | .0           | 35.12                      | 1.41  |
| 10967.0       | .0                   | 2.70                                | 97.9               | 97.9             | 17.7       | 1.7            | .4           | .0           | 34.95                      | 1.41  |
| 10968.0       | .0                   | 2.70                                | 92.5               | 92.5             | 18.6       | 2.4            | 1.4          | .0           | 34.77                      | 1.40  |
| 10969.0       | .0                   | 2.70                                | 97.7               | 97.7             | 17.6       | 1.8            | .4           | .0           | 34.59                      | 1.39  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 10970.0       | .0                   | 2.72                                | 100.0              | 100.0            | 16.1       | .0             | .0           | .0           | 34.41                      | 1.39  |
| 10971.0       | .0                   | 2.72                                | 100.0              | 100.0            | 16.7       | .3             | .0           | .0           | 34.25                      | 1.39  |
| 10972.0       | .0                   | 2.69                                | 100.0              | 100.0            | 16.8       | 1.6            | .0           | .0           | 34.08                      | 1.39  |
| 10973.0       | .0                   | 2.71                                | 98.5               | 98.5             | 17.5       | 1.3            | .3           | .0           | 33.92                      | 1.39  |
| 10974.0       | .0                   | 2.76                                | 95.0               | 95.0             | 17.9       | 1.4            | .9           | .0           | 33.74                      | 1.38  |
| 10975.0       | .0                   | 2.74                                | 97.1               | 97.1             | 17.4       | 1.5            | .5           | .0           | 33.56                      | 1.38  |
| 10976.0       | .0                   | 2.73                                | 97.1               | 97.1             | 17.1       | 1.3            | .5           | .0           | 33.39                      | 1.37  |
| 10977.0       | .0                   | 2.70                                | 99.9               | 99.9             | 16.5       | 1.4            | .0           | .0           | 33.22                      | 1.37  |
| 10978.0       | .0                   | 2.70                                | 99.4               | 99.4             | 16.6       | 2.1            | .1           | .0           | 33.05                      | 1.37  |
| 10979.0       | .0                   | 2.72                                | 100.0              | 100.0            | 16.1       | .9             | .0           | .0           | 32.89                      | 1.37  |
| 10980.0       | .0                   | 2.73                                | 100.0              | 100.0            | 16.2       | .0             | .0           | .0           | 32.73                      | 1.37  |
| 10981.0       | .0                   | 2.71                                | 99.2               | 99.8             | 17.7       | .9             | .1           | .1           | 32.56                      | 1.37  |
| 10982.0       | .0                   | 2.69                                | 98.5               | 99.7             | 18.3       | 2.3            | .3           | .2           | 32.38                      | 1.36  |
| 10983.0       | .0                   | 2.70                                | 95.6               | 97.9             | 19.0       | 1.3            | .8           | .4           | 32.20                      | 1.36  |
| 10984.0       | .0                   | 2.69                                | 100.0              | 100.0            | 18.1       | 1.3            | .0           | .0           | 32.01                      | 1.35  |
| 10985.0       | .0                   | 2.69                                | 100.0              | 100.0            | 17.1       | 1.3            | .0           | .0           | 31.83                      | 1.35  |
| 10986.0       | .0                   | 2.70                                | 100.0              | 100.0            | 16.8       | .1             | .0           | .0           | 31.66                      | 1.35  |
| 10987.0       | .1                   | 2.71                                | 100.0              | 100.0            | 16.5       | .0             | .0           | .0           | 31.49                      | 1.35  |
| 10988.0       | .9                   | 2.72                                | 98.1               | 98.1             | 17.1       | .5             | .3           | .0           | 31.33                      | 1.35  |
| 10989.0       | 1.5                  | 2.73                                | 100.0              | 100.0            | 16.2       | .0             | .0           | .0           | 31.16                      | 1.35  |
| 10990.0       | .0                   | 2.72                                | 96.0               | 96.0             | 17.6       | .6             | .7           | .0           | 30.99                      | 1.35  |
| 10991.0       | .0                   | 2.73                                | 94.2               | 96.7             | 17.9       | .4             | 1.0          | .4           | 30.81                      | 1.34  |
| 10992.0       | .0                   | 2.72                                | 99.4               | 99.9             | 17.2       | .0             | .1           | .1           | 30.63                      | 1.33  |
| 10993.0       | .0                   | 2.70                                | 98.5               | 99.7             | 17.4       | .9             | .3           | .2           | 30.46                      | 1.33  |
| 10994.0       | .0                   | 2.70                                | 90.9               | 92.7             | 18.1       | 1.7            | 1.6          | .3           | 30.29                      | 1.32  |
| 10995.0       | .0                   | 2.71                                | 93.2               | 95.7             | 16.7       | .8             | 1.1          | .4           | 30.11                      | 1.31  |
| 10996.0       | .0                   | 2.70                                | 100.0              | 100.0            | 15.1       | 1.3            | .0           | .0           | 29.95                      | 1.30  |
| 10997.0       | .0                   | 2.71                                | 100.0              | 100.0            | 12.2       | .0             | .0           | .0           | 29.80                      | 1.30  |
| 10998.0       | 1.7                  | 2.74                                | 100.0              | 100.0            | 13.0       | .0             | .0           | .0           | 29.68                      | 1.30  |
| 10999.0       | .0                   | 2.74                                | 97.1               | 99.4             | 16.1       | .0             | .5           | .4           | 29.54                      | 1.30  |
| 11000.0       | .0                   | 2.69                                | 96.3               | 96.9             | 16.5       | 2.2            | .6           | .1           | 29.38                      | 1.29  |
| 11001.0       | .0                   | 2.69                                | 100.0              | 100.0            | 15.2       | 2.2            | .0           | .0           | 29.22                      | 1.29  |
| 11002.0       | .0                   | 2.69                                | 100.0              | 100.0            | 15.4       | 2.5            | .0           | .0           | 29.06                      | 1.29  |
| 11003.0       | 2.4                  | 2.72                                | 100.0              | 100.0            | 14.4       | .2             | .0           | .0           | 28.91                      | 1.29  |
| 11004.0       | .0                   | 2.76                                | 97.1               | 99.4             | 15.5       | .0             | .4           | .4           | 28.76                      | 1.29  |
| 11005.0       | .0                   | 2.74                                | 100.0              | 100.0            | 13.7       | .1             | .0           | .0           | 28.61                      | 1.29  |
| 11006.0       | .0                   | 2.70                                | 100.0              | 100.0            | 13.6       | 2.0            | .0           | .0           | 28.48                      | 1.29  |
| 11007.0       | .0                   | 2.70                                | 100.0              | 100.0            | 12.9       | 1.6            | .0           | .0           | 28.34                      | 1.29  |
| 11008.0       | .2                   | 2.74                                | 100.0              | 100.0            | 12.7       | .7             | .0           | .0           | 28.21                      | 1.29  |
| 11009.0       | .0                   | 2.72                                | 100.0              | 100.0            | 13.2       | .9             | .0           | .0           | 28.08                      | 1.29  |
| 11010.0       | 1.8                  | 2.72                                | 100.0              | 100.0            | 11.8       | .9             | .0           | .0           | 27.95                      | 1.29  |
| 11011.0       | .1                   | 2.71                                | 100.0              | 100.0            | 11.8       | .0             | .0           | .0           | 27.83                      | 1.29  |
| 11012.0       | .1                   | 2.71                                | 100.0              | 100.0            | 12.6       | .4             | .0           | .0           | 27.71                      | 1.29  |
| 11013.0       | 2.0                  | 2.71                                | 100.0              | 100.0            | 13.8       | 1.8            | .0           | .0           | 27.58                      | 1.29  |
| 11014.0       | .2                   | 2.72                                | 89.8               | 94.2             | 16.1       | 1.4            | 1.6          | .7           | 27.44                      | 1.28  |
| 11015.0       | .0                   | 2.71                                | 89.5               | 89.5             | 16.6       | 2.0            | 1.7          | .0           | 27.28                      | 1.27  |
| 11016.0       | .0                   | 2.71                                | 90.4               | 90.8             | 16.6       | 2.1            | 1.6          | .1           | 27.11                      | 1.25  |
| 11017.0       | .0                   | 2.71                                | 91.9               | 96.1             | 16.5       | 1.5            | 1.3          | .7           | 26.95                      | 1.23  |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 11018.0       | 1.1                  | 2.72                                | 88.5               | 94.6             | 16.6       | 1.8            | 1.9          | 1.0          | 26.78                      | 1.22  |
| 11019.0       | .0                   | 2.71                                | 87.8               | 91.2             | 16.5       | 1.4            | 2.0          | .6           | 26.61                      | 1.20  |
| 11020.0       | .0                   | 2.71                                | 96.6               | 96.6             | 15.0       | .8             | .5           | .0           | 26.45                      | 1.18  |
| 11021.0       | .0                   | 2.71                                | 100.0              | 100.0            | 14.0       | .7             | .0           | .0           | 26.31                      | 1.18  |
| 11022.0       | .0                   | 2.71                                | 94.0               | 97.3             | 14.4       | .5             | .9           | .5           | 26.17                      | 1.18  |
| 11023.0       | .0                   | 2.72                                | 86.7               | 96.0             | 15.2       | 1.0            | 2.0          | 1.4          | 26.02                      | 1.17  |
| 11024.0       | .0                   | 2.69                                | 89.6               | 97.8             | 14.9       | 2.0            | 1.6          | 1.2          | 25.87                      | 1.15  |
| 11025.0       | .0                   | 2.69                                | 91.9               | 98.3             | 14.6       | 2.1            | 1.2          | .9           | 25.72                      | 1.13  |
| 11026.0       | .0                   | 2.69                                | 91.7               | 98.3             | 14.6       | 2.2            | 1.2          | 1.0          | 25.57                      | 1.12  |
| 11027.0       | .0                   | 2.69                                | 89.4               | 97.8             | 14.9       | 2.5            | 1.6          | 1.3          | 25.43                      | 1.11  |
| 11028.0       | .0                   | 2.69                                | 93.1               | 98.6             | 14.5       | 1.8            | 1.0          | .8           | 25.28                      | 1.09  |
| 11029.0       | .0                   | 2.69                                | 95.5               | 99.1             | 14.3       | 1.1            | .6           | .5           | 25.13                      | 1.08  |
| 11030.0       | .0                   | 2.70                                | 96.9               | 99.4             | 14.1       | .2             | .4           | .3           | 24.99                      | 1.08  |
| 11031.0       | .0                   | 2.70                                | 92.3               | 98.4             | 14.7       | 1.4            | 1.1          | .9           | 24.85                      | 1.07  |
| 11032.0       | .0                   | 2.70                                | 92.9               | 98.5             | 14.6       | .9             | 1.0          | .8           | 24.70                      | 1.06  |
| 11033.0       | .0                   | 2.71                                | 93.6               | 98.7             | 14.6       | .6             | .9           | .7           | 24.56                      | 1.05  |
| 11034.0       | .0                   | 2.70                                | 92.7               | 95.4             | 14.8       | 1.3            | 1.1          | .4           | 24.41                      | 1.04  |
| 11035.0       | .0                   | 2.70                                | 89.1               | 92.0             | 15.4       | 1.5            | 1.7          | .4           | 24.26                      | 1.03  |
| 11036.0       | .0                   | 2.70                                | 91.2               | 91.3             | 15.1       | 1.1            | 1.3          | .0           | 24.11                      | 1.01  |
| 11037.0       | .0                   | 2.70                                | 90.5               | 90.5             | 15.2       | 1.5            | 1.4          | .0           | 23.96                      | 1.00  |
| 11038.0       | .0                   | 2.72                                | 94.4               | 96.8             | 14.6       | .4             | .8           | .3           | 23.80                      | .98   |
| 11039.0       | .8                   | 2.71                                | 100.0              | 100.0            | 13.4       | .0             | .0           | .0           | 23.66                      | .98   |
| 11040.0       | .0                   | 2.70                                | 95.7               | 99.1             | 14.6       | 1.1            | .6           | .5           | 23.52                      | .98   |
| 11041.0       | .0                   | 2.70                                | 91.8               | 98.3             | 15.3       | 1.9            | 1.3          | 1.0          | 23.38                      | .97   |
| 11042.0       | .0                   | 2.70                                | 92.4               | 98.2             | 15.5       | 1.7            | 1.2          | .9           | 23.22                      | .96   |
| 11043.0       | .0                   | 2.69                                | 92.4               | 98.3             | 15.7       | 2.2            | 1.2          | .9           | 23.07                      | .95   |
| 11044.0       | .0                   | 2.71                                | 91.9               | 98.3             | 15.8       | 1.1            | 1.3          | 1.0          | 22.91                      | .94   |
| 11045.0       | .0                   | 2.69                                | 94.6               | 98.9             | 15.4       | 1.7            | .8           | .7           | 22.75                      | .93   |
| 11046.0       | .0                   | 2.70                                | 98.9               | 99.8             | 14.8       | 1.1            | .2           | .1           | 22.60                      | .92   |
| 11047.0       | .0                   | 2.71                                | 100.0              | 100.0            | 14.2       | .0             | .0           | .0           | 22.45                      | .92   |
| 11048.0       | .0                   | 2.70                                | 100.0              | 100.0            | 14.2       | .0             | .0           | .0           | 22.31                      | .92   |
| 11049.0       | .0                   | 2.69                                | 99.8               | 100.0            | 14.7       | 1.2            | .0           | .0           | 22.17                      | .92   |
| 11050.0       | .0                   | 2.69                                | 95.7               | 99.1             | 15.4       | 1.9            | .7           | .5           | 22.02                      | .91   |
| 11051.0       | .0                   | 2.72                                | 99.0               | 99.8             | 14.8       | .0             | .2           | .1           | 21.87                      | .91   |
| 11052.0       | .0                   | 2.70                                | 96.1               | 99.2             | 15.1       | .8             | .6           | .5           | 21.72                      | .91   |
| 11053.0       | .0                   | 2.71                                | 99.9               | 100.0            | 14.5       | .3             | .0           | .0           | 21.57                      | .90   |
| 11054.0       | .0                   | 2.73                                | 99.7               | 99.9             | 14.4       | .1             | .0           | .0           | 21.43                      | .90   |
| 11055.0       | .0                   | 2.72                                | 95.8               | 99.1             | 14.8       | .4             | .6           | .5           | 21.28                      | .90   |
| 11056.0       | .0                   | 2.73                                | 98.9               | 99.8             | 14.5       | .0             | .2           | .1           | 21.13                      | .89   |
| 11057.0       | .0                   | 2.70                                | 100.0              | 100.0            | 14.3       | 1.6            | .0           | .0           | 20.99                      | .89   |
| 11058.0       | .0                   | 2.70                                | 100.0              | 100.0            | 14.7       | 1.2            | .0           | .0           | 20.84                      | .89   |
| 11059.0       | .0                   | 2.69                                | 100.0              | 100.0            | 15.1       | 1.1            | .0           | .0           | 20.69                      | .89   |
| 11060.0       | .0                   | 2.69                                | 94.8               | 97.3             | 16.1       | 2.2            | .8           | .4           | 20.54                      | .89   |
| 11061.0       | .0                   | 2.71                                | 95.9               | 97.3             | 16.3       | .6             | .7           | .2           | 20.38                      | .88   |
| 11062.0       | .0                   | 2.70                                | 95.3               | 97.5             | 16.2       | 1.5            | .8           | .4           | 20.22                      | .88   |
| 11063.0       | .0                   | 2.70                                | 94.0               | 94.0             | 15.9       | 1.4            | 1.0          | .0           | 20.06                      | .87   |
| 11064.0       | .3                   | 2.71                                | 100.0              | 100.0            | 14.2       | .5             | .0           | .0           | 19.90                      | .86   |
| 11065.0       | .0                   | 2.72                                | 100.0              | 100.0            | 12.9       | .6             | .0           | .0           | 19.76                      | .86   |

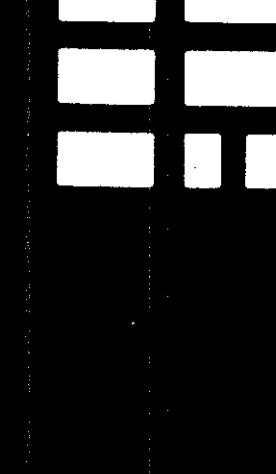
| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 11066.0       | .0                   | 2.71                                | 100.0              | 100.0            | 12.8       | 1.0            | .0           | .0           | 19.64                      | .86   |
| 11067.0       | .0                   | 2.70                                | 99.7               | 99.7             | 15.1       | 1.5            | .1           | .0           | 19.50                      | .86   |
| 11068.0       | .0                   | 2.71                                | 89.8               | 94.4             | 17.5       | 1.2            | 1.8          | .8           | 19.35                      | .86   |
| 11069.0       | .0                   | 2.71                                | 89.9               | 89.9             | 17.6       | 2.0            | 1.8          | .0           | 19.17                      | .84   |
| 11070.0       | .0                   | 2.72                                | 99.5               | 99.5             | 15.4       | 2.0            | .1           | .0           | 19.00                      | .82   |
| 11071.0       | .9                   | 2.73                                | 100.0              | 100.0            | 13.1       | 1.6            | .0           | .0           | 18.85                      | .82   |
| 11072.0       | .0                   | 2.73                                | 100.0              | 100.0            | 11.9       | .0             | .0           | .0           | 18.72                      | .82   |
| 11073.0       | .0                   | 2.70                                | 85.2               | 93.0             | 13.4       | 1.0            | 2.0          | 1.0          | 18.60                      | .82   |
| 11074.0       | .0                   | 2.74                                | 85.4               | 90.7             | 13.0       | 1.2            | 1.9          | .7           | 18.47                      | .80   |
| 11075.0       | .0                   | 2.74                                | 98.4               | 98.4             | 11.4       | .9             | .2           | .0           | 18.34                      | .79   |
| 11076.0       | .6                   | 2.74                                | 100.0              | 100.0            | 8.9        | .5             | .0           | .0           | 18.23                      | .78   |
| 11077.0       | 4.8                  | 2.72                                | 100.0              | 100.0            | 6.2        | 1.3            | .0           | .0           | 18.15                      | .78   |
| 11078.0       | 2.8                  | 2.75                                | 100.0              | 100.0            | 6.5        | .0             | .0           | .0           | 18.09                      | .78   |
| 11079.0       | .0                   | 2.75                                | 100.0              | 100.0            | 7.0        | .0             | .0           | .0           | 18.03                      | .78   |
| 11080.0       | .6                   | 2.76                                | 100.0              | 100.0            | 9.9        | .0             | .0           | .0           | 17.95                      | .78   |
| 11081.0       | .0                   | 2.69                                | 93.0               | 98.6             | 14.0       | .4             | 1.0          | .8           | 17.84                      | .78   |
| 11082.0       | .0                   | 2.70                                | 93.2               | 98.6             | 15.2       | .9             | 1.0          | .8           | 17.70                      | .78   |
| 11083.0       | .0                   | 2.71                                | 92.0               | 96.7             | 16.1       | .6             | 1.3          | .8           | 17.55                      | .76   |
| 11084.0       | .0                   | 2.72                                | 94.3               | 94.3             | 15.4       | 1.8            | .9           | .0           | 17.39                      | .75   |
| 11085.0       | .0                   | 2.71                                | 100.0              | 100.0            | 13.2       | 2.9            | .0           | .0           | 17.24                      | .75   |
| 11086.0       | 3.5                  | 2.72                                | 100.0              | 100.0            | 9.5        | 1.7            | .0           | .0           | 17.11                      | .75   |
| 11087.0       | .0                   | 2.71                                | 100.0              | 100.0            | 10.7       | .8             | .0           | .0           | 17.02                      | .75   |
| 11088.0       | .0                   | 2.70                                | 95.8               | 95.8             | 11.1       | 1.4            | .5           | .0           | 16.91                      | .75   |
| 11089.0       | .0                   | 2.69                                | 88.5               | 92.5             | 12.2       | 2.2            | 1.4          | .5           | 16.80                      | .74   |
| 11090.0       | .0                   | 2.70                                | 83.8               | 94.2             | 13.3       | 3.6            | 2.2          | 1.4          | 16.67                      | .72   |
| 11091.0       | .0                   | 2.69                                | 92.9               | 98.5             | 12.6       | 3.0            | .9           | .7           | 16.54                      | .70   |
| 11092.0       | .0                   | 2.69                                | 100.0              | 100.0            | 12.2       | 1.2            | .0           | .0           | 16.42                      | .70   |
| 11093.0       | .0                   | 2.70                                | 100.0              | 100.0            | 13.3       | .2             | .0           | .0           | 16.30                      | .70   |
| 11094.0       | .0                   | 2.70                                | 96.7               | 99.3             | 15.2       | .0             | .5           | .4           | 16.16                      | .70   |
| 11095.0       | .0                   | 2.70                                | 88.0               | 97.5             | 17.7       | 2.4            | 2.1          | 1.7          | 16.00                      | .69   |
| 11096.0       | .0                   | 2.70                                | 95.6               | 99.1             | 16.6       | 2.5            | .7           | .6           | 15.83                      | .67   |
| 11097.0       | .0                   | 2.70                                | 100.0              | 100.0            | 14.3       | 1.3            | .0           | .0           | 15.66                      | .67   |
| 11098.0       | 5.6                  | 2.72                                | 100.0              | 100.0            | 10.4       | 1.3            | .0           | .0           | 15.54                      | .67   |
| 11099.0       | .0                   | 2.71                                | 93.7               | 94.3             | 12.3       | .4             | .8           | .1           | 15.43                      | .67   |
| 11100.0       | 2.8                  | 2.73                                | 96.6               | 96.6             | 10.6       | 2.1            | .4           | .0           | 15.31                      | .66   |
| 11101.0       | .0                   | 2.72                                | 99.5               | 99.9             | 10.2       | .1             | .0           | .0           | 15.20                      | .66   |
| 11102.0       | .0                   | 2.71                                | 91.4               | 98.2             | 10.5       | .0             | .9           | .7           | 15.10                      | .65   |
| 11103.0       | .0                   | 2.71                                | 100.0              | 100.0            | 8.8        | .0             | .0           | .0           | 15.00                      | .65   |
| 11104.0       | .0                   | 2.70                                | 100.0              | 100.0            | 8.6        | .0             | .0           | .0           | 14.91                      | .65   |
| 11105.0       | .0                   | 2.69                                | 88.7               | 90.6             | 11.0       | 1.6            | 1.2          | .2           | 14.82                      | .65   |
| 11106.0       | .0                   | 2.69                                | 87.9               | 90.7             | 11.5       | 1.8            | 1.4          | .3           | 14.71                      | .64   |
| 11107.0       | .0                   | 2.71                                | 94.0               | 98.8             | 11.3       | .0             | .7           | .5           | 14.59                      | .62   |
| 11108.0       | .0                   | 2.70                                | 89.2               | 97.7             | 12.5       | 1.2            | 1.3          | 1.1          | 14.48                      | .61   |
| 11109.0       | .0                   | 2.71                                | 100.0              | 100.0            | 12.7       | .8             | .0           | .0           | 14.35                      | .60   |
| 11110.0       | .0                   | 2.70                                | 100.0              | 100.0            | 14.1       | 1.5            | .0           | .0           | 14.22                      | .60   |
| 11111.0       | .0                   | 2.69                                | 97.0               | 99.4             | 16.3       | 1.7            | .5           | .4           | 14.07                      | .60   |
| 11112.0       | 1.0                  | 2.71                                | 98.2               | 99.6             | 17.0       | .0             | .3           | .2           | 13.91                      | .60   |
| 11113.0       | .0                   | 2.72                                | 96.7               | 99.3             | 18.1       | .0             | .6           | .5           | 13.74                      | .59   |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 11114.0       | .0                   | 2.70                                | 97.0               | 99.1            | 18.0       | 1.0            | .5           | .4           | 13.55                      | .59   |
| 11115.0       | .0                   | 2.71                                | 100.0              | 100.0           | 16.8       | .2             | .0           | .0           | 13.38                      | .58   |
| 11116.0       | .0                   | 2.70                                | 100.0              | 100.0           | 16.9       | 1.6            | .0           | .0           | 13.21                      | .58   |
| 11117.0       | .0                   | 2.69                                | 98.4               | 99.7            | 16.9       | 2.0            | .3           | .2           | 13.04                      | .58   |
| 11118.0       | .0                   | 2.69                                | 97.4               | 99.5            | 16.3       | 1.6            | .4           | .3           | 12.87                      | .58   |
| 11119.0       | .0                   | 2.69                                | 98.7               | 99.7            | 14.9       | 2.3            | .2           | .2           | 12.71                      | .58   |
| 11120.0       | .0                   | 2.71                                | 100.0              | 100.0           | 12.8       | .4             | .0           | .0           | 12.57                      | .57   |
| 11121.0       | 5.7                  | 2.72                                | 100.0              | 100.0           | 8.6        | .5             | .0           | .0           | 12.45                      | .57   |
| 11122.0       | 2.9                  | 2.71                                | 100.0              | 100.0           | 9.0        | .0             | .0           | .0           | 12.37                      | .57   |
| 11123.0       | 1.3                  | 2.71                                | 100.0              | 100.0           | 9.4        | .0             | .0           | .0           | 12.27                      | .57   |
| 11124.0       | .0                   | 2.69                                | 100.0              | 100.0           | 9.2        | 1.8            | .0           | .0           | 12.18                      | .57   |
| 11125.0       | .0                   | 2.69                                | 91.3               | 91.3            | 10.2       | 3.7            | .9           | .0           | 12.09                      | .57   |
| 11126.0       | .0                   | 2.70                                | 96.5               | 96.5            | 9.7        | 1.6            | .3           | .0           | 11.99                      | .57   |
| 11127.0       | .0                   | 2.70                                | 95.8               | 99.2            | 9.9        | .7             | .4           | .3           | 11.89                      | .56   |
| 11128.0       | .0                   | 2.70                                | 100.0              | 100.0           | 9.6        | .0             | .0           | .0           | 11.79                      | .56   |
| 11129.0       | .0                   | 2.70                                | 89.4               | 89.4            | 11.1       | 2.5            | 1.2          | .0           | 11.69                      | .56   |
| 11130.0       | .0                   | 2.72                                | 81.6               | 89.2            | 12.0       | .1             | 2.2          | .9           | 11.58                      | .54   |
| 11131.0       | .0                   | 2.71                                | 86.9               | 97.2            | 11.5       | .6             | 1.5          | 1.2          | 11.46                      | .52   |
| 11132.0       | .0                   | 2.69                                | 100.0              | 100.0           | 10.3       | 2.1            | .0           | .0           | 11.35                      | .51   |
| 11133.0       | .0                   | 2.69                                | 100.0              | 100.0           | 10.7       | 2.5            | .0           | .0           | 11.25                      | .51   |
| 11134.0       | .0                   | 2.69                                | 99.3               | 99.3            | 12.8       | 2.2            | .1           | .0           | 11.13                      | .51   |
| 11135.0       | .0                   | 2.71                                | 100.0              | 100.0           | 13.4       | .0             | .0           | .0           | 11.00                      | .51   |
| 11136.0       | .0                   | 2.70                                | 94.5               | 98.9            | 14.9       | 1.9            | .8           | .7           | 10.86                      | .51   |
| 11137.0       | .0                   | 2.69                                | 97.9               | 99.6            | 13.9       | 2.7            | .3           | .2           | 10.72                      | .50   |
| 11138.0       | .0                   | 2.69                                | 100.0              | 100.0           | 11.8       | 3.6            | .0           | .0           | 10.58                      | .50   |
| 11139.0       | .0                   | 2.70                                | 100.0              | 100.0           | 9.7        | .0             | .0           | .0           | 10.47                      | .50   |
| 11140.0       | .4                   | 2.71                                | 100.0              | 100.0           | 9.8        | .0             | .0           | .0           | 10.37                      | .50   |
| 11141.0       | .0                   | 2.70                                | 100.0              | 100.0           | 9.5        | 1.1            | .0           | .0           | 10.28                      | .50   |
| 11142.0       | .0                   | 2.70                                | 100.0              | 100.0           | 9.9        | .0             | .0           | .0           | 10.18                      | .50   |
| 11143.0       | .0                   | 2.71                                | 87.6               | 87.6            | 11.6       | .1             | 1.4          | .0           | 10.08                      | .50   |
| 11144.0       | .0                   | 2.71                                | 79.1               | 79.1            | 12.7       | .9             | 2.7          | .0           | 9.96                       | .48   |
| 11145.0       | .0                   | 2.71                                | 100.0              | 100.0           | 10.1       | .6             | .0           | .0           | 9.84                       | .46   |
| 11146.0       | 3.2                  | 2.73                                | 100.0              | 100.0           | 7.9        | .5             | .0           | .0           | 9.74                       | .46   |
| 11147.0       | 1.4                  | 2.72                                | 100.0              | 100.0           | 8.4        | .9             | .0           | .0           | 9.66                       | .46   |
| 11148.0       | .0                   | 2.69                                | 100.0              | 100.0           | 9.2        | 1.4            | .0           | .0           | 9.58                       | .46   |
| 11149.0       | .0                   | 2.69                                | 90.5               | 90.5            | 11.7       | 2.6            | 1.1          | .0           | 9.48                       | .46   |
| 11150.0       | .0                   | 2.69                                | 82.5               | 82.5            | 13.0       | 2.8            | 2.3          | .0           | 9.36                       | .44   |
| 11151.0       | 2.1                  | 2.72                                | 94.0               | 98.8            | 11.5       | .4             | .7           | .5           | 9.23                       | .42   |
| 11152.0       | .0                   | 2.71                                | 91.3               | 98.2            | 12.0       | .2             | 1.0          | .8           | 9.12                       | .42   |
| 11153.0       | .0                   | 2.71                                | 85.6               | 91.8            | 12.3       | .8             | 1.8          | .8           | 9.00                       | .40   |
| 11154.0       | 3.5                  | 2.72                                | 100.0              | 100.0           | 10.0       | 1.5            | .0           | .0           | 8.88                       | .39   |
| 11155.0       | .0                   | 2.70                                | 100.0              | 100.0           | 10.5       | 2.5            | .0           | .0           | 8.78                       | .39   |
| 11156.0       | .0                   | 2.69                                | 100.0              | 100.0           | 10.2       | .4             | .0           | .0           | 8.67                       | .39   |
| 11157.0       | .0                   | 2.69                                | 94.4               | 94.4            | 12.2       | 1.1            | .7           | .0           | 8.57                       | .39   |
| 11158.0       | .0                   | 2.70                                | 87.7               | 87.7            | 13.3       | 2.3            | 1.6          | .0           | 8.44                       | .38   |
| 11159.0       | .0                   | 2.70                                | 100.0              | 100.0           | 11.6       | 1.5            | .0           | .0           | 8.31                       | .37   |
| 11160.0       | .0                   | 2.69                                | 100.0              | 100.0           | 11.6       | 2.5            | .0           | .0           | 8.19                       | .37   |
| 11161.0       | .0                   | 2.70                                | 100.0              | 100.0           | 11.4       | 1.2            | .0           | .0           | 8.08                       | .37   |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                  | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|------------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADIED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | POR-FT                     | HC-FT |
| 11162.0       | 2.1                  | 2.72                                | 100.0              | 100.0            | 9.7        | .2             | .0           | .0           | 7.97                       | .37   |
| 11163.0       | 3.9                  | 2.75                                | 100.0              | 100.0            | 8.5        | .0             | .0           | .0           | 7.88                       | .37   |
| 11164.0       | 3.0                  | 2.75                                | 100.0              | 100.0            | 9.1        | .0             | .0           | .0           | 7.79                       | .37   |
| 11165.0       | .2                   | 2.76                                | 79.9               | 81.9             | 12.3       | .8             | 2.5          | .2           | 7.70                       | .36   |
| 11166.0       | .0                   | 2.74                                | 82.6               | 82.6             | 11.9       | .8             | 2.1          | .0           | 7.57                       | .34   |
| 11167.0       | 1.6                  | 2.73                                | 100.0              | 100.0            | 9.5        | .0             | .0           | .0           | 7.46                       | .32   |
| 11168.0       | 3.6                  | 2.72                                | 95.0               | 96.5             | 9.3        | .9             | .5           | .1           | 7.36                       | .32   |
| 11169.0       | .4                   | 2.71                                | 95.7               | 98.2             | 9.8        | .6             | .4           | .2           | 7.27                       | .31   |
| 11170.0       | 1.7                  | 2.71                                | 100.0              | 100.0            | 9.0        | .0             | .0           | .0           | 7.17                       | .31   |
| 11171.0       | 3.7                  | 2.72                                | 90.1               | 93.1             | 9.7        | 1.1            | 1.0          | .3           | 7.08                       | .31   |
| 11172.0       | .2                   | 2.73                                | 74.5               | 80.0             | 12.1       | 2.0            | 3.1          | .7           | 6.97                       | .29   |
| 11173.0       | .1                   | 2.74                                | 78.2               | 78.2             | 11.8       | 1.0            | 2.6          | .0           | 6.85                       | .26   |
| 11174.0       | 2.1                  | 2.75                                | 86.9               | 86.9             | 11.0       | 1.3            | 1.4          | .0           | 6.74                       | .24   |
| 11175.0       | .8                   | 2.73                                | 100.0              | 100.0            | 10.9       | .5             | .0           | .0           | 6.63                       | .23   |
| 11176.0       | .0                   | 2.72                                | 100.0              | 100.0            | 12.7       | .0             | .0           | .0           | 6.52                       | .23   |
| 11177.0       | .0                   | 2.74                                | 99.3               | 99.3             | 15.5       | .0             | .1           | .0           | 6.38                       | .23   |
| 11178.0       | .0                   | 2.73                                | 96.5               | 96.5             | 18.7       | .0             | .7           | .0           | 6.22                       | .23   |
| 11179.0       | .0                   | 2.71                                | 97.7               | 97.7             | 20.6       | .0             | .5           | .0           | 6.02                       | .22   |
| 11180.0       | .0                   | 2.72                                | 100.0              | 100.0            | 21.9       | .0             | .0           | .0           | 5.82                       | .22   |
| 11181.0       | .0                   | 2.69                                | 100.0              | 100.0            | 22.1       | .2             | .0           | .0           | 5.60                       | .22   |
| 11182.0       | .0                   | 2.71                                | 100.0              | 100.0            | 23.3       | .0             | .0           | .0           | 5.37                       | .22   |
| 11183.0       | .0                   | 2.74                                | 100.0              | 100.0            | 23.5       | .0             | .0           | .0           | 5.14                       | .22   |
| 11184.0       | .0                   | 2.70                                | 100.0              | 100.0            | 23.3       | 1.9            | .0           | .0           | 4.91                       | .22   |
| 11185.0       | .0                   | 2.69                                | 99.3               | 99.9             | 21.3       | 2.6            | .2           | .1           | 4.68                       | .21   |
| 11186.0       | .0                   | 2.69                                | 100.0              | 100.0            | 17.4       | 2.6            | .0           | .0           | 4.47                       | .21   |
| 11187.0       | 1.5                  | 2.71                                | 100.0              | 100.0            | 12.5       | .0             | .0           | .0           | 4.31                       | .21   |
| 11188.0       | .2                   | 2.71                                | 100.0              | 100.0            | 12.6       | 1.2            | .0           | .0           | 4.19                       | .21   |
| 11189.0       | .0                   | 2.71                                | 90.4               | 90.4             | 14.1       | .4             | 1.4          | .0           | 4.06                       | .21   |
| 11190.0       | .0                   | 2.70                                | 90.7               | 98.1             | 14.8       | 1.9            | 1.4          | 1.1          | 3.92                       | .19   |
| 11191.0       | .0                   | 2.69                                | 98.3               | 99.7             | 14.8       | 1.8            | .3           | .2           | 3.77                       | .18   |
| 11192.0       | .0                   | 2.69                                | 100.0              | 100.0            | 14.7       | 2.0            | .0           | .0           | 3.62                       | .18   |
| 11193.0       | .0                   | 2.69                                | 100.0              | 100.0            | 14.5       | 2.0            | .0           | .0           | 3.48                       | .18   |
| 11194.0       | .0                   | 2.69                                | 100.0              | 100.0            | 14.7       | 2.9            | .0           | .0           | 3.33                       | .18   |
| 11195.0       | .0                   | 2.69                                | 97.9               | 97.9             | 15.6       | 3.0            | .3           | .0           | 3.18                       | .18   |
| 11196.0       | 1.7                  | 2.72                                | 97.2               | 99.4             | 14.6       | 1.4            | .4           | .3           | 3.03                       | .18   |
| 11197.0       | .0                   | 2.70                                | 97.3               | 99.5             | 14.0       | 2.4            | .4           | .3           | 2.88                       | .17   |
| 11198.0       | .0                   | 2.71                                | 98.5               | 99.7             | 12.6       | 1.8            | .2           | .1           | 2.74                       | .17   |
| 11199.0       | .3                   | 2.71                                | 100.0              | 100.0            | 11.0       | 1.3            | .0           | .0           | 2.62                       | .17   |
| 11200.0       | .0                   | 2.71                                | 87.6               | 87.6             | 12.5       | 2.2            | 1.6          | .0           | 2.51                       | .17   |
| 11201.0       | .0                   | 2.70                                | 87.9               | 87.9             | 12.7       | 2.7            | 1.5          | .0           | 2.38                       | .15   |
| 11202.0       | .0                   | 2.71                                | 87.1               | 87.1             | 13.2       | 1.7            | 1.7          | .0           | 2.25                       | .13   |
| 11203.0       | .0                   | 2.72                                | 84.1               | 84.1             | 13.6       | 2.0            | 2.2          | .0           | 2.12                       | .11   |
| 11204.0       | .3                   | 2.72                                | 90.1               | 90.1             | 12.7       | 1.4            | 1.3          | .0           | 1.99                       | .09   |
| 11205.0       | .0                   | 2.73                                | 89.7               | 89.7             | 12.6       | 1.2            | 1.3          | .0           | 1.86                       | .08   |
| 11206.0       | .7                   | 2.75                                | 90.8               | 90.8             | 12.2       | 1.4            | 1.1          | .0           | 1.74                       | .07   |
| 11207.0       | 1.4                  | 2.73                                | 97.4               | 97.4             | 11.9       | 1.7            | .3           | .0           | 1.62                       | .06   |
| 11208.0       | .0                   | 2.70                                | 94.0               | 94.0             | 13.0       | 2.4            | .8           | .0           | 1.49                       | .06   |
| 11209.0       | .0                   | 2.73                                | 90.8               | 90.8             | 13.8       | 1.4            | 1.3          | .0           | 1.36                       | .05   |

| DEPTH<br>FEET | CLAY<br>CONTENT<br>% | AVERAGE<br>MATRIX DENSITY<br>GMS/CC | WATER SATURATIONS  |                 | POROSITY   |                | HYDROCARBONS |              | CUMULATIVE<br>INTEGRATIONS |       |
|---------------|----------------------|-------------------------------------|--------------------|-----------------|------------|----------------|--------------|--------------|----------------------------|-------|
|               |                      |                                     | VIRGIN<br>ZONE (%) | INVADED<br>ZONE | TOTAL<br>% | SECONDARY<br>% | TOTAL<br>%   | MOVABLE<br>% | PO-FT                      | HC-FT |
| 11210.0       | .0                   | 2.72                                | 86.3               | 88.0            | 14.9       | 2.1            | 2.0          | .3           | 1.22                       | .03   |
| 11211.0       | .0                   | 2.71                                | 95.6               | 96.4            | 14.2       | 1.3            | .6           | .1           | 1.07                       | .02   |
| 11212.0       | .0                   | 2.73                                | 100.0              | 100.0           | 13.0       | .0             | .0           | .0           | .93                        | .01   |
| 11213.0       | .0                   | 2.71                                | 100.0              | 100.0           | 13.6       | .3             | .0           | .0           | .80                        | .01   |
| 11214.0       | .0                   | 2.70                                | 92.9               | 98.5            | 14.3       | 2.0            | 1.0          | .8           | .66                        | .01   |
| 11215.0       | .0                   | 2.71                                | 100.0              | 100.0           | 12.9       | .3             | .0           | .0           | .52                        | .00   |
| 11216.0       | .0                   | 2.75                                | 100.0              | 100.0           | 11.9       | .0             | .0           | .0           | .40                        | .00   |
| 11217.0       | 2.1                  | 2.73                                | 100.0              | 100.0           | 11.1       | 1.2            | .0           | .0           | .28                        | .00   |
| 11218.0       | .0                   | 2.70                                | 100.0              | 100.0           | 11.3       | 1.2            | .0           | .0           | .17                        | .00   |
| 11219.0       | .3                   | 2.73                                | 99.9               | 99.9            | 11.1       | .3             | .0           | .0           | .06                        | .00   |

# Schlumberger Synergetic Log Systems



## Computer Processed Interpretation

Using the following logs: **IES, LL7, MLL, BHC, FDC, SNP**

COMPANY **PHILLIPS PETROLEUM COMPANY**

WELL **2/4-3X**

FIELD **EKOFISK**

COUNTRY **NORWAY** STATE **NORTH SEA**

DATE PROCESSED **JAN 8, 74** JOB REFERENCE **NO. CP1 1660**

LOCATION **N. 56° 30' 47.89" E. 03° 12' 39.48"**

ELEV. **KB 891** DF **87.51** GI **-2331**

The well name, location and borehole reference data were furnished by the customer.

### This SYNERGETIC LOG presentation was computed using CORIBAND Analysis of Complex Lithologies

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Clause 7 of our General Terms and Conditions as set out in our current Price Schedule.

|                  |                           |                                 |                    |
|------------------|---------------------------|---------------------------------|--------------------|
| Field Recording  | Engineer: <b>ODD</b>      | Location: <b>NRT</b>            | Analyst: <b>PF</b> |
| Office Recording | Comp. Center: <b>CLIC</b> | Program No: <b>08-BC-11</b>     | BHT: <b>250</b>    |
| Mud Measurements | Rm: <b>0.36</b>           | @ <b>65</b> °F Rmf: <b>0.22</b> | @ <b>55</b> °F     |

#### COMPUTATION PARAMETERS

|                        |      |     |     |      |      |      |    |      |
|------------------------|------|-----|-----|------|------|------|----|------|
| Depth Interval From To | Rw   | Rmf | Rcl | Δtcl | ØNcl | ρbcl | ρh | T° F |
| 11220 10154            | .026 | .04 | .6  | 130. | 36.  | 2.34 | .6 | 250. |

Remarks **LOGS RECORDED IN JULY 1970**  
**RW FROM X-PLOTS**

Integrated Porosity or Hydrocarbons : Distance between pipes is equal to **1 FOOT** of 100 % porosity or hydrocarbons in place.

