

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

Form approved,  
Budget Bureau No. 42-R355.5.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other ☐  
b. TYPE OF COMPLETION: Helium ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. LESVR. ☐ Other ☐

RECEIVED

2. NAME OF OPERATOR

S. E. R. H., Inc.

3. ADDRESS OF OPERATOR

P. O. Box 312, Otis, Kansas 67565

BUREAU OF LAND MANAGEMENT  
FARMINGTON RESOURCE AREA

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 1850' fsl; 795' fwl NW/4 SW/4 Unit L

At top prod. interval reported below

At total depth

Same

14. PERMIT NO.

DATE ISSUED

App. 7/25/85

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

15. DATE SPUDDED

8-21-85

16. DATE T.D. REACHED

9-11-85

17. DATE COMPL. (Ready to prod.)

Flow to clean up

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*

5926' Gr.; 5939' KB

19. ELEV. CASINGHEAD

5927'

20. TOTAL DEPTH, MD &amp; TVD

6142'

21. PLUG, BACK T.D., MD &amp; TVD

6100'

22. IF MULTIPLE COMPL., HOW MANY\*

2

23. INTERVALS DRILLED BY

ROTARY TOOLS

All

CABLE TOOLS

None

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

Organ Rock 3876' to 3931' Gross &amp; 31' net.

Note: Dual well with Mississippian

26. TYPE ELECTRIC AND OTHER LOGS RUN

Gearhart - DIL; Gr. D/N; BCS; MSFL; CBL

27. WAS WELL CORED

Yes

28. CASING RECORD (Report all strings set in well)

| CASING SIZE               | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD*                       | AMOUNT PULLED |
|---------------------------|-----------------|----------------|-----------|-----------------------------------------|---------------|
| 13-3/8"                   | 68.0 New        | 73'            | 17-1/2"   | 100 sx. Cl. B to surface                | 0             |
| 8-5/8"                    | 24.0 New        | 1487' J        | 12-1/4"   | 780 sx. Cl. B to surface                | 0             |
| 5-1/2"                    | 15.5 New        | 6142' K        | 7-7/8"    | 450 sx. 50/50 Poz 1st. stg.             | 0             |
| 2nd. Stage collar @ 3972' |                 |                |           | 800 sx. HOWCO-Lite & 216 sx. 50/50 Poz. | 0 14 12       |

29. LINER RECORD

1.84

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) |
|------|----------|-------------|---------------|-------------|
|      | None     |             |               |             |

30. TUBING RECORD

| SIZE       | DEPTH SET (MD) | PACKER SET (MD) |
|------------|----------------|-----------------|
| 1 1/2" EUE | 6075           | Bkr. R-3 4089'  |
| 1 1/2" IJ  | 3889           | -               |

31. PERFORATION RECORD (Interval, size and number)

Organ Rock perof.s by Blue Jet w/MK-4  
(0.30") @ 3876' - 81' - 85' - 89' - 92';  
3908' - 10' - 14' - 18'; 3927' - 29' - 31'  
Total 12 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED               |
|---------------------|------------------------------------------------|
| 3876' - 3931'       | 1000 gal. 7 1/2% Fe HCl. (breakdown)           |
| " "                 | Foam frac by HOWCO w/76,000# 20/40             |
| " "                 | sd. & 75 Q foam using 1,186,88 SCF             |
| " "                 | N <sub>2</sub> . Treat @ 3000 psi. avg. 15 BPM |

33.\* PRODUCTION

| DATE FIRST PRODUCTION | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) | WELL STATUS (Producing or shut-in) |
|-----------------------|----------------------------------------------------------------------|------------------------------------|
|                       | Flow                                                                 | Flow to clean up                   |

| DATE OF TEST * | HOURS TESTED | CHOKE SIZE | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF. | WATER—BBL. | GAS-OIL RATIO |
|----------------|--------------|------------|-------------------------|----------|----------|------------|---------------|
|                |              |            |                         |          |          |            |               |

| FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL—BBL. | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.) |
|---------------------|-----------------|-------------------------|----------|----------|------------|-------------------------|
|                     |                 |                         |          |          |            |                         |

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Note: Well is too wet to test at this time. Will move in tank and flow for clean up.

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Same as Mississippian Completion Log.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

John M. Heller

TITLE

Consultant

DATE October 9, 1985

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29:** "Stacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF PORE'S ZONES:  
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF: CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING  
DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING, AND SHUT-IN PRESSURES, AND RECOVERIES

| FORMATION     | TOP  | BOTTOM | DESCRIPTION, CONTENTS, ETC.                                                                                                    | GEOLOGIC MARKERS |             |     | TRUE VERT. DEPTH |
|---------------|------|--------|--------------------------------------------------------------------------------------------------------------------------------|------------------|-------------|-----|------------------|
|               |      |        |                                                                                                                                | NAME             | MEAS. DEPTH | TOP |                  |
| Organ Rock    | 3754 | 4147   | Cored from 3784' to 3966' See Core Lab attachment                                                                              | Dakota           | 130'*       |     | Same             |
| "             | "    | "      | DST #1 by HOWCO. 3776' to 3967'; Rec. 475' Slight gas cut mud. Very light blow during test. See HOWCO Report attached.         | Morrison         | 350'*       |     | "                |
| Mississippian | 5940 | 6082   | Cored from 5942' to 6112' See Core Lab attachment<br>Flowed inert gasses after stimulation from perf.'s 6011'-22' & 6071'-80'. | Entrada          | 1450'*      |     | "                |
|               |      |        |                                                                                                                                | Navajo           | 1820'*      |     | "                |
|               |      |        |                                                                                                                                | Kayenta          | 2180'*      |     | "                |
|               |      |        |                                                                                                                                | Wingate          | 2360'*      |     | "                |
|               |      |        |                                                                                                                                | Chinle           | 2530'*      |     | "                |
|               |      |        |                                                                                                                                | Shinarump        | 2880'*      |     | "                |
|               |      |        |                                                                                                                                | Moenkopi         | 2980'*      |     | "                |
|               |      |        |                                                                                                                                | DeChelly         | 3154'       |     | "                |
|               |      |        |                                                                                                                                | Organ Rock       | 3754'       |     | "                |
|               |      |        |                                                                                                                                | Cutler           | 4147'       |     | "                |
|               |      |        |                                                                                                                                | Hermosa          | 4868'       |     | "                |
|               |      |        |                                                                                                                                | Ismay            | 5366'       |     | "                |
|               |      |        |                                                                                                                                | Desert Creek     | 5458'       |     | "                |
|               |      |        |                                                                                                                                | Akah             | 5560'       |     | "                |
|               |      |        |                                                                                                                                | Barker Creek     | 5637'       |     | "                |
|               |      |        |                                                                                                                                | Molas            | 5906'       |     | "                |
|               |      |        |                                                                                                                                | Mississippian    | 5940'       |     | "                |
|               |      |        |                                                                                                                                | Devonian         | 6082'       |     | "                |
|               |      |        |                                                                                                                                | TD (SLM)         | 6142'       |     | "                |

**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*  
DALLAS, TEXAS

CORE ANALYSIS REPORT

FOR

S.E.R.H., INC.

NAVAJO # 4-32  
BEAUTIFUL MTN BIG GAP  
SAN JUAN, N.M.

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

# **CORE LABORATORIES, INC.** *Petroleum Reservoir Engineering*

S.E.R.H., INC.  
NAVAJO # 4-32  
BEAUTIFUL MTN BIG GAP  
SAN JUAN, N.M.

DALLAS, TEXAS  
DATE : 1-SEPT-1985  
FORMATION : ORGAN ROCK  
URLG. FLUID: WBM  
LOCATION : NW, SW SEC. 32-T27N-R19W

FILE NO : 3803-003402  
ANALYSIS : DS+EV  
ELEVATION: 5938 RB

## CONVENTIONAL ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER                   | DEPTH       | PERM. TO AIR (MD) MAXIMUM | 90 DEG | FOR. Hg | FLUID OIL | SATS. WTR | GRAIN DEN         | DESCRIPTION                            |
|---------------------------------|-------------|---------------------------|--------|---------|-----------|-----------|-------------------|----------------------------------------|
| ORGAN ROCK CORE # 1 3784-3844   |             |                           |        |         |           |           |                   |                                        |
| 1                               | 3784.0-11.0 | 0.01                      | 6.9    | 0.0     | 20.5      | 2.64      | SD RD VEGRN       | SANDSTONE/SHALE --- NO ANALYSIS        |
| 2                               | 3811.0-12.0 | 0.24                      | 10.3   | 0.0     | 75.3      | 2.67      | SD RD VEGRN       | CALC STR **                            |
| 3                               | 3812.0-13.0 | 0.07                      | 9.4    | 0.0     | 85.7      | 2.65      | SD RD VEGRN       |                                        |
| 4                               | 3813.0-14.0 | 0.02                      | 6.7    | 0.0     | 88.1      | 2.64      | SD RD VEGRN       |                                        |
| 5                               | 3814.0-15.0 | 0.13                      | 8.4    | 0.0     | 28.7      | 2.64      | SD RD VEGRN       | SL/CALC                                |
| 6                               | 3815.0-16.0 | 0.23                      | 11.8   | 0.0     | 74.1      | 2.66      | SD RD VEGRN       | SL/PYR                                 |
| 7                               | 3816.0-17.0 | 0.01                      | 2.5    | 0.0     | 23.7      | 2.81      | SD RD VEGRN       | SL/CALC SL/PYR CGL                     |
| 8                               | 3817.0-18.0 | <0.01                     | 3.4    | 0.0     | 41.3      | 2.80      | SD RD VEGRN       | SL/CALC SL/PYR CGL                     |
| 9                               | 3818.0-19.0 | 0.18                      | 7.0    | 0.0     | 15.7      | 2.65      | SD RD-WH FNGRN    | SL/CALC                                |
| 10                              | 3819.0-20.0 | 0.10                      | 7.3    | 0.0     | 51.3      | 2.64      | SD RD-WH FNGRN    | SL/CALC                                |
| 11                              | 3820.0-21.0 | 0.12                      | 7.0    | 0.0     | 14.6      | 2.65      | SD WH FNGRN       | SL/CALC                                |
| 12                              | 3821.0-22.0 | 0.01                      | 2.5    | 0.0     | 18.9      | 2.69      | SLT RD SL/SD      | SL/PYR                                 |
| 13                              | 3822.0-23.0 | 0.16                      | 2.2    | 0.0     | 27.2      | 2.70      | SLT RD SL/SD      | SL/PYR **                              |
| SANDSTONE/SHALE --- NO ANALYSIS |             |                           |        |         |           |           |                   |                                        |
| CORE LOSS                       |             |                           |        |         |           |           |                   |                                        |
| DRILLED 2 FEET                  |             |                           |        |         |           |           |                   |                                        |
| ORGAN ROCK CORE # 2 3846-3906   |             |                           |        |         |           |           |                   |                                        |
| 14                              | 3846.0-79.0 | 3.58                      | 12.6   | 0.0     | 64.4      | 2.62      | SD DKRD FN-MEDGRN | SL/SHY SANDSTONE/SHALE --- NO ANALYSIS |
| 15                              | 3879.0-80.0 | 4.96                      | 14.3   | 0.0     | 62.3      | 2.61      | SD DKRD FN-MEDGRN | SL/SHY                                 |
| 16                              | 3880.0-81.0 | 0.36                      | 11.0   | 0.0     | 59.0      | 2.62      | SD DKRD FN-MEDGRN | SL/SHY                                 |
| 17                              | 3881.0-82.0 | 2.88                      | 13.7   | 0.0     | 55.7      | 2.62      | SD DKRD FN-MEDGRN | SL/SHY                                 |

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**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*

S.E.R.H., INC.,  
 NAVAJO # 4-32

DALLAS, TEXAS  
 DATE : 1-SEPT-1985  
 FORMATION : ORGAN ROCK

FILE NO : 3803-003402  
 ANALYSTS : DSFEV

CONVENTIONAL ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE<br>NUMBER | DEPTH       | PERM. TO AIR (MD)<br>MAXIMUM | 90 DEG | FOR.<br>He | FLUID SATS.<br>OIL | WTR  | GRAIN<br>DEN | DESCRIPTION                     |
|------------------|-------------|------------------------------|--------|------------|--------------------|------|--------------|---------------------------------|
| 18               | 3883.0-84.0 | 4.84                         |        | 12.1       | 0.0                | 51.5 | 2.62         | SD DKRD FN-MEDGRN SL/SHY        |
| 19               | 3884.0-85.0 | 0.05                         |        | 7.4        | 0.0                | 65.6 | 2.64         | SD DKRD FN-MEDGRN SL/SHY        |
| 20               | 3885.0-86.0 | 0.66                         |        | 5.9        | 0.0                | 53.4 | 2.64         | SD DKRD FN-MEDGRN SL/SHY        |
| 21               | 3886.0-87.0 | 3.82                         |        | 6.2        | 0.0                | 51.7 | 2.63         | SD DKRD FN-MEDGRN SL/SHY        |
| 22               | 3887.0-88.0 | 1.05                         |        | 4.9        | 0.0                | 41.1 | 2.63         | SD DKRD FN-MEDGRN SL/SHY        |
| 23               | 3888.0-89.0 | 8.44                         |        | 11.5       | 0.0                | 46.6 | 2.65         | SD DKRD FN-MEDGRN SL/SHY        |
| 24               | 3889.0-90.0 | 3.88                         |        | 9.4        | 0.0                | 40.0 | 2.66         | SD LTRD FN-MEDGRN               |
| 25               | 3890.0-91.0 | 0.05                         |        | 6.3        | 0.0                | 48.3 | 2.66         | SD DKRD FNGRN                   |
| 26               | 3891.0-92.0 | 6.75                         |        | 13.6       | 0.0                | 44.6 | 2.64         | SD RD FN-MEDGRN SL/SHY          |
| 27               | 3892.0-93.0 | 0.26                         |        | 8.1        | 0.0                | 56.8 | 2.65         | SD RD FNGRN                     |
| 28               | 3893.0-94.0 | 0.65                         |        | 12.4       | 0.0                | 77.2 | 2.67         | SD DKRD FN-MEDGRN SL/FYR        |
| 29               | 3894.0-95.0 | 0.09                         |        | 5.3        | 0.0                | 37.3 | 2.68         | SD LTRD FNGRN SL/FYR            |
|                  | 3895.0-96.0 |                              |        |            |                    |      |              | SANDSTONE/SHALE --- NO ANALYSIS |

ORGAN ROCK CORE # 3 3906-3966

|    |             |      |  |      |     |      |      |                                 |
|----|-------------|------|--|------|-----|------|------|---------------------------------|
| 30 | 3906.0-11.0 | 0.19 |  | 12.0 | 0.0 | 58.9 | 2.63 | SANDSTONE/SHALE --- NO ANALYSIS |
| 31 | 3911.0-12.0 | 0.19 |  | 12.0 | 0.0 | 58.9 | 2.63 | SD DKRD VF-FNGRN SL/SHY         |
| 32 | 3912.0-13.0 | 0.20 |  | 10.6 | 0.0 | 62.6 | 2.63 | SD RD FNGRN SL/SHY              |
| 33 | 3913.0-14.0 | 0.01 |  | 1.0  | 0.0 | 52.5 | 2.74 | SD RD VF-FNGRN SL/CALC SL/FYR   |
| 34 | 3914.0-15.0 | 0.15 |  | 9.4  | 0.0 | 49.1 | 2.65 | SD RD FNGRN SL/SHY              |
| 35 | 3915.0-16.0 | 0.33 |  | 8.7  | 0.0 | 53.6 | 2.67 | SD RD FNGRN SL/FYR              |
| 36 | 3916.0-17.0 | 0.23 |  | 7.4  | 0.0 | 43.2 | 2.65 | SD RD FNGRN                     |
| 37 | 3917.0-18.0 | 5.04 |  | 12.7 | 0.0 | 55.5 | 2.62 | SD LTRD FNGRN SL/SHY            |
| 38 | 3918.0-19.0 | 4.70 |  | 14.2 | 0.0 | 51.0 | 2.62 | SD LTRD FNGRN SL/SHY            |
| 39 | 3919.0-20.0 | 3.93 |  | 13.5 | 0.0 | 55.3 | 2.62 | SD LTRD FNGRN SL/SHY            |
| 40 | 3920.0-21.0 | 2.72 |  | 11.5 | 0.0 | 49.1 | 2.63 | SD LTRD FNGRN SL/SHY            |
|    | 3921.0-22.0 | 0.01 |  | 1.0  | 0.0 | 58.9 | 2.65 | SD KD VFGRN                     |
|    | 3922.0-50.0 |      |  |      |     |      |      | SANDSTONE/SHALE --- NO ANALYSIS |
| 41 | 3950.0-51.0 | 0.01 |  | 4.7  | 0.0 | 93.1 | 2.67 | SD RD VFGRN SL/FYR              |

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DATE : 1-SEPT-1985  
FORMATION : ORGAN ROCK

FILE NO : 3803-003402  
ANALYSTS : DS:EV

CONVENTIONAL ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE<br>NUMBER                       | DEPTH       | PERM. TO<br>MAXIMUM | AIR (MD)<br>90 DEG | POR.<br>He | FLUID<br>OIL | SATS.<br>WTR | GRAIN<br>DEN | DESCRIPTION                        |
|----------------------------------------|-------------|---------------------|--------------------|------------|--------------|--------------|--------------|------------------------------------|
| 42                                     | 3951.0-52.0 | 0.01                |                    | 3.0        | 0.0          | 76.3         | 2.67         | SD RD VFGN SL/CALC                 |
| 43                                     | 3952.0-53.0 | 0.02                |                    | 0.6        | 0.0          | 87.1         | 2.72         | SD RD VFGN SL/CALC                 |
|                                        | 3953.0-64.0 |                     |                    |            |              |              |              | SANDSTONE/SHALE --- NO ANALYSIS    |
|                                        | 3964.0-66.0 |                     |                    |            |              |              |              | CORE LOSS                          |
|                                        | 3966.0-42.0 |                     |                    |            |              |              |              | DRILLED TO LEADVILLE FM            |
| LEADVILLE FORMATION CORE # 4 5942-5998 |             |                     |                    |            |              |              |              |                                    |
| 44                                     | 5942.0-43.0 | <0.01               | *                  | 0.5        | 0.0          | 64.2         | 2.70         | LM WH VFXLN SL/SHY                 |
| 45                                     | 5943.0-44.0 | <0.01               | *                  | 1.0        | 0.0          | 71.0         | 2.72         | LM WH VFXLN SL/SHY                 |
| 46                                     | 5944.0-45.0 | <0.01               | *                  | 0.5        | 0.0          | 80.5         | 2.71         | LM WH VFXLN SL/SHY                 |
| 47                                     | 5945.0-46.0 | <0.01               | *                  | 0.7        | 0.0          | 61.7         | 2.71         | LM WH VFXLN SL/SHY                 |
| 48                                     | 5946.0-47.0 | <0.01               | *                  | 0.6        | 0.0          | 56.8         | 2.71         | LM WH VFXLN SL/SHY                 |
| 49                                     | 5947.0-48.0 | 0.01                | *                  | 0.9        | 0.0          | 72.1         | 2.71         | LM WH VFXLN SL/SHY                 |
| 50                                     | 5948.0-49.0 | <0.01               | *                  | 0.5        | 0.0          | 64.6         | 2.71         | LM WH VFXLN SL/SHY                 |
| 51                                     | 5949.0-50.0 | <0.01               | *                  | 0.5        | 0.0          | 91.6         | 2.71         | LM WH VFXLN SL/SHY                 |
| 52                                     | 5950.0-51.0 | <0.01               | *                  | 1.2        | 0.0          | 47.0         | 2.69         | LM WH VFXLN SL/SHY                 |
| 53                                     | 5951.0-52.0 | 0.06                | 0.05               | 1.4        | 0.0          | 75.9         | 2.69         | LM WH-RD VFXLN SL/SHY CRIN STYL ** |
| 54                                     | 5952.0-53.0 | 0.01                | *                  | 1.5        | 0.0          | 92.1         | 2.68         | LM WH VFXLN SL/SHY                 |
| 55                                     | 5953.0-54.0 | 0.07                | 0.06               | 1.3        | 0.0          | 69.8         | 2.70         | LM WH VFXLN CUF                    |
| 56                                     | 5954.0-55.0 | 0.01                | *                  | 0.8        | 0.0          | 69.8         | 2.70         | LM WH VFXLN SL/SHY                 |
| 57                                     | 5955.0-56.0 | 0.21                | 0.04               | 1.4        | 0.0          | 40.4         | 2.70         | LM LTRD FNXLN SL/SHY               |
| 58                                     | 5956.0-57.0 | 0.01                | *                  | 0.9        | 0.0          | 41.9         | 2.69         | LM LTRD FNXLN SL/SHY               |
| 59                                     | 5957.0-58.0 | 0.01                | *                  | 1.0        | 0.0          | 42.5         | 2.70         | LM LTRD FNXLN SL/SHY               |
| 60                                     | 5958.0-59.0 | 0.01                | *                  | 1.4        | 0.0          | 39.5         | 2.69         | LM LTRD FNXLN SL/SHY               |
| 61                                     | 5959.0-60.0 | 0.04                | 0.04               | 1.4        | 0.0          | 34.3         | 2.70         | LM LTRD FNXLN SL/SHY               |
| 62                                     | 5960.0-61.0 | 0.01                | *                  | 0.8        | 0.0          | 54.4         | 2.70         | LM LTRD FNXLN SL/SHY               |
| 63                                     | 5961.0-62.0 | <0.01               | *                  | 0.8        | 0.0          | 31.8         | 2.70         | LM LTRD FNXLN SL/SHY               |
| 64                                     | 5962.0-63.0 | 0.06                | 0.04               | 1.7        | 0.0          | 19.1         | 2.71         | LM LTRD FNXLN SL/SHY               |
| 65                                     | 5963.0-64.0 | 0.03                | *                  | 1.0        | 0.0          | 72.7         | 2.70         | LM LTRD FNXLN SL/SHY               |

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**CORE LABORATORIES, INC.**  
*Petroleum Reservoir Engineering*

DALLAS, TEXAS

S.E.R.H., INC.  
NAVAJO # 4-32

DATE : 1-SEPT-1985  
FORMATION : ORGAN ROCK

FILE NO : 3803-003402  
ANALYSTS : DS/EV

CONVENTIONAL ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH       | PERM. TO AIR (MD) MAXIMUM | 90 DEG | FOR. He | FLUID OIL | SATS. WTR | GRAIN DEN | DESCRIPTION                 |
|---------------|-------------|---------------------------|--------|---------|-----------|-----------|-----------|-----------------------------|
| 66            | 5964.0-65.0 | 0.56                      | 0.51   | 3.5     | 0.0       | 80.9      | 2.72      | LM LTRD FNXLN SL/SHY        |
| 67            | 5965.0-66.0 | 0.01                      | *      | 1.0     | 0.0       | 48.0      | 2.69      | LM LTRD FNXLN SL/SHY        |
| 68            | 5966.0-67.0 | 0.01                      | *      | 1.1     | 0.0       | 50.1      | 2.69      | LM LTRD FNXLN SL/SHY        |
|               | 5967.0-83.0 |                           |        |         |           |           |           | LM/DOL SLTY --- NO ANALYSIS |
| 69            | 5983.0-84.0 | 0.06                      | 0.03   | 1.7     | 0.0       | 34.1      | 2.70      | LM LTRD FNXLN SL/SHY        |
| 70            | 5984.0-85.0 | 0.07                      | 0.07   | 1.9     | 0.0       | 24.3      | 2.70      | LM LTRD FNXLN SL/SHY        |
| 71            | 5985.0-86.0 | 0.01                      | *      | 0.8     | 0.0       | 54.6      | 2.70      | LM LTRD FNXLN SL/SHY CWF    |
| 72            | 5986.0-87.0 | 0.06                      | 0.02   | 1.3     | 0.0       | 28.7      | 2.72      | LM LTRD FNXLN SL/SHY        |
|               | 5987.0-97.0 |                           |        |         |           |           |           | LM/DOL SLTY --- NO ANALYSIS |
|               | 5997.0-98.0 |                           |        |         |           |           |           | CORE LOGS                   |

1 FAULTIVE FORMATION CORE # 5 5998-6035

|    |             |       |      |     |     |      |      |                           |
|----|-------------|-------|------|-----|-----|------|------|---------------------------|
| 73 | 5998.0-00.0 | <0.01 | *    | 1.1 | 0.0 | 32.6 | 2.69 | LM WH FNXLN SL/SHY        |
| 74 | 6001.0-02.0 | <0.01 | *    | 1.0 | 0.0 | 31.3 | 2.70 | LM WH FNXLN SL/SHY        |
| 75 | 6002.0-03.0 | 0.01  | *    | 1.1 | 0.0 | 39.0 | 2.70 | LM WH FNXLN SL/SHY        |
| 76 | 6003.0-04.0 | 0.37  | 0.36 | 3.1 | 0.0 | 10.0 | 2.70 | LM WH FNXLN SL/SHY        |
| 77 | 6004.0-05.0 | 0.37  | *    | 5.2 | 0.0 | 31.7 | 2.69 | LM WH FNXLN SL/SHY        |
| 78 | 6005.0-06.0 | 0.25  | *    | 5.6 | 0.0 | 9.5  | 2.70 | LM WH FNXLN SL/SHY        |
| 79 | 6006.0-07.0 | 0.49  | *    | 5.1 | 0.0 | 12.1 | 2.70 | LM WH FNXLN SL/SHY        |
| 80 | 6007.0-08.0 | 2.57  | *    | 6.0 | 0.0 | 9.5  | 2.69 | LM WH FNXLN SL/SHY        |
| 81 | 6008.0-09.0 | 0.03  | *    | 3.1 | 0.0 | 38.8 | 2.69 | LM WH FNXLN SL/SHY        |
| 82 | 6009.0-10.0 | 0.96  | *    | 5.2 | 0.0 | 10.0 | 2.70 | LM WH FNXLN SL/SHY        |
| 83 | 6010.0-11.0 | 0.76  | 0.76 | 6.3 | 0.0 | 14.2 | 2.70 | LM WH FNXLN SL/SHY        |
| 84 | 6011.0-12.0 | 0.46  | 0.41 | 5.7 | 1.6 | 12.4 | 2.70 | LM WH FNXLN SL/SHY        |
| 85 | 6012.0-13.0 | 0.39  | 0.32 | 5.4 | 3.8 | 11.4 | 2.70 | LM WH FNXLN SL/SHY        |
| 86 | 6013.0-14.0 | 0.10  | 0.08 | 2.5 | 8.8 | 10.6 | 2.70 | LM WH FNXLN SL/SHY        |
|    | 6014.0-23.0 |       |      |     |     |      |      | LM SLTY --- NO ANALYSIS   |
| 87 | 6023.0-24.0 | 0.01  | *    | 1.0 | 0.0 | 11.3 | 2.82 | LM WH FNXLN SL/SHY SL/DOL |

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# **CORE LABORATORIES, INC.** *Petroleum Reservoir Engineering*

S.F.E.H., INC.  
 MAVOLO # 4-32

DALLAS, TEXAS  
 DATE : 1-SEPT-1985  
 FORMATION : ORGAN ROCK

FILE NO : 3803-003402  
 ANALYSIS : USFEV

## CONVENTIONAL ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE NUMBER | DEPTH       | PERM. TO AIR (MD) | FOR. DEG | FOR. HO | FLUID OIL | SATS. MTR | GRAIN DEN | DESCRIPTION               |
|---------------|-------------|-------------------|----------|---------|-----------|-----------|-----------|---------------------------|
| 88            | 6024.0-25.0 | 0.03              | 0.02     | 1.0     | 0.0       | 45.3      | 2.78      | LM WH VFXLN SL/SHY SL/DOL |
| 89            | 6025.0-26.0 | 0.01              | *        | 0.6     | 0.0       | 40.6      | 2.70      | LM WH VFXLN SL/SHY        |
| 90            | 6026.0-27.0 | <0.01             | *        | 1.3     | 0.0       | 43.0      | 2.71      | LM WH VFXLN SL/SHY        |
| 91            | 6027.0-28.0 | 0.01              | *        | 0.5     | 0.0       | 42.8      | 2.70      | LM WH VFXLN SL/SHY CUF    |
|               | 6028.0-32.0 |                   |          |         |           |           |           | LM SLTY --- NO ANALYSIS   |
|               | 6032.0-35.0 |                   |          |         |           |           |           | CORE LOSS                 |

## LEADVILLE FORMATION CORE # 6 6035-6061

|    |             |       |   |     |     |      |      |                    |
|----|-------------|-------|---|-----|-----|------|------|--------------------|
| 92 | 6035.0-36.0 | 0.01  | * | 0.5 | 0.0 | 72.2 | 2.71 | LM WH VFXLN        |
| 93 | 6036.0-37.0 | 0.01  | * | 0.9 | 0.0 | 16.5 | 2.71 | LM WH VFXLN        |
| 94 | 6037.0-38.0 | <0.01 | * | 0.7 | 0.0 | 40.6 | 2.70 | LM WH VFXLN        |
| 95 | 6038.0-39.0 | <0.01 | * | 0.7 | 0.0 | 35.9 | 2.71 | LM WH VFXLN        |
| 96 | 6039.0-40.0 | <0.01 | * | 0.7 | 0.0 | 20.1 | 2.70 | LM WH VFXLN        |
| 97 | 6040.0-41.0 | <0.01 | * | 0.7 | 0.0 | 35.9 | 2.70 | LM WH VFXLN        |
|    | 6041.0-50.0 |       |   |     |     |      |      | LM --- NO ANALYSIS |
| 98 | 6050.0-51.0 | 0.10  | * | 0.5 | 0.0 | 22.8 | 2.71 | LM WH VFXLN CUF    |
|    | 6051.0-54.0 |       |   |     |     |      |      | LM --- NO ANALYSIS |
| 99 | 6054.0-55.0 | <0.01 | * | 0.5 | 0.0 | 21.6 | 2.72 | LM WH VFXLN        |
|    | 6055.0-57.0 |       |   |     |     |      |      | LM --- NO ANALYSIS |
|    | 6057.0-61.0 |       |   |     |     |      |      | CORE LOSS          |

\*\*

## LEADVILLE FORMATION CORE # 7 6061-6112

|     |             |       |      |      |     |      |      |               |
|-----|-------------|-------|------|------|-----|------|------|---------------|
| 100 | 6061.0-62.0 | <0.01 | *    | 4.3  | 0.0 | 16.6 | 2.87 | DOL BRN VFXLN |
| 101 | 6062.0-63.0 | 0.03  | 0.03 | 5.4  | 1.6 | 23.0 | 2.87 | DOL BRN VFXLN |
| 102 | 6063.0-64.0 | 0.03  | *    | 5.1  | 1.3 | 17.6 | 2.86 | DOL BRN VFXLN |
| 103 | 6064.0-65.0 | 0.02  | *    | 8.9  | 1.0 | 13.3 | 2.86 | DOL BRN VFXLN |
| 104 | 6065.0-66.0 | 0.85  | *    | 11.7 | 0.0 | 10.9 | 2.86 | DOL BRN VFXLN |
| 105 | 6066.0-67.0 | 1.16  | *    | 8.2  | 0.0 | 6.5  | 2.86 | DOL BRN VFXLN |

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*Petroleum Reservoir Engineering*

DALLAS, TEXAS

S.E.R.H., INC.  
NAVAJO # 4-32

DATE : 1-SEPT-1985  
FORMATION : ORGAN ROCK

FILE NO : 3803-003402  
ANALYSTS : DS:EV

CONVENTIONAL ANALYSIS-BOYLE'S LAW POROSITY

| SAMPLE<br>NUMBER | DEPTH       | PERM. TO<br>MAXIMUM | AIR (MD)<br>90 DEG | POR.<br>He | FLUID<br>OIL | SATS.<br>WTR | GRAIN<br>DEN | DESCRIPTION             |
|------------------|-------------|---------------------|--------------------|------------|--------------|--------------|--------------|-------------------------|
| 106              | 6067.0-68.0 | 1.32                | 1.17               | 9.4        | 0.0          | 12.9         | 2.87         | DOL BRN VFXLN           |
| 107              | 6068.0-69.0 | 2.48                | *                  | 13.3       | 0.0          | 29.5         | 2.86         | DOL BRN VFXLN           |
| 108              | 6069.0-70.0 | 4.95                | *                  | 10.8       | 0.0          | 25.6         | 2.86         | DOL BRN VFXLN           |
| 109              | 6070.0-71.0 | 24.                 | *                  | 13.7       | 0.0          | 34.9         | 2.86         | DOL BRN VFXLN           |
| 110              | 6071.0-72.0 | 25.                 | *                  | 12.5       | 0.0          | 24.6         | 2.85         | DOL BRN VFXLN           |
| 111              | 6072.0-73.0 | 2.91                | *                  | 10.9       | 0.0          | 27.6         | 2.85         | DOL BRN VFXLN           |
| 112              | 6073.0-74.0 | 3.44                | *                  | 13.1       | 4.8          | 28.9         | 2.83         | DOL BRN VFXLN           |
| 113              | 6074.0-75.0 | 6.20                | 5.47               | 12.3       | 0.0          | 73.5         | 2.85         | DOL BRN VFXLN           |
| 114              | 6075.0-76.0 | 0.40                | 0.29               | 9.4        | 0.0          | 46.4         | 2.84         | DOL BRN VFXLN           |
| 115              | 6076.0-77.0 | 0.15                | *                  | 11.0       | 0.0          | 82.5         | 2.83         | DOL BRN VFXLN           |
| 116              | 6077.0-78.0 | 0.02                | *                  | 8.2        | 0.0          | 52.0         | 2.85         | DOL BRN VFXLN           |
| 117              | 6078.0-79.0 | <0.01               | *                  | 1.8        | 0.0          | 81.8         | 2.81         | DOL BRN VFXLN           |
| 118              | 6079.0-99.0 |                     |                    |            |              |              |              | LM SLTY --- NO ANALYSIS |
| 119              | 6099.0-00.0 | 0.01                | *                  | 0.9        | 0.0          | 28.5         | 2.71         | LM WH VFXLN             |
| 120              | 6100.0-01.0 | <0.01               | *                  | 0.5        | 0.0          | 18.8         | 2.71         | LM WH VFXLN             |
| 121              | 6101.0-02.0 | <0.01               | *                  | 0.6        | 0.0          | 22.9         | 2.71         | LM WH VFXLN             |
| 122              | 6102.0-03.0 | 0.12                | *                  | 0.5        | 0.0          | 28.9         | 2.71         | LM WH VFXLN             |
| 123              | 6103.0-04.0 | <0.01               | *                  | 0.5        | 0.0          | 19.7         | 2.71         | LM WH VFXLN             |
|                  | 6104.0-05.0 | 0.29                | *                  | 0.9        | 0.0          | 18.7         | 2.71         | LM WH VFXLN             |
|                  | 6105.0-12.0 |                     |                    |            |              |              |              | LM SLTY --- NO ANALYSIS |

\*\* DENOTES FRACTURE PERMEABILITY

\* SAMPLE NOT SUITABLE FOR FULL DIAMETER ANALYSIS

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