



15-135-24288

## DIAMOND TESTING

P.O. Box 157

HOISINGTON, KANSAS 67544

(620) 653-7550 • (800) 542-7313

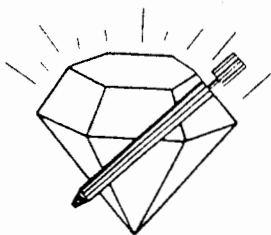
STC 21098.D14

Page 1 of 8 Pages

Company Mull Drilling Company, Inc. Lease & Well No. Schreiber Trusts No. 1-27  
Elevation 2462 KB Formation Conglomerate/Cherokee Sand Effective Pay -- Ft. Ticket No. J1520  
Date 6-18-04 Sec. 27 Twp. 16S Range 23W County Ness State Kansas  
Test Approved By Roger L. Martin Diamond Representative John C. Riedl  
Formation Test No. 1 Interval Tested from 4,313 ft. to 4,440 ft. Total Depth 4,440 ft.  
Packer Depth 4,308 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
Packer Depth 4,313 ft. Size 6 3/4 in. Packer Depth -- ft. Size -- in.  
Depth of Selective Zone Set -- ft.  
Top Recorder Depth (Inside) 4,318 ft. Recorder Number Elec. Cap. 5,000 psi  
Bottom Recorder Depth (Outside) 4,347 ft. Recorder Number 13556 Cap. 5,475 psi  
Below Straddle Recorder Depth -- ft. Recorder Number -- Cap. -- psi  
Drilling Contractor Duke Drilling Company, Inc. - Rig 4 Drill Collar Length -- ft. I.D. -- in.  
Mud Type Chemical Viscosity 51 Weight Pipe Length -- ft. I.D. -- in.  
Weight 9.0 Water Loss 8.0 cc. Drill Pipe Length 4,287 ft. I.D. 3 1/2 in.  
Chlorides 2,500 P.P.M. Test Tool Length 26 ft. Tool Size 3 1/2 - IF in.  
Jars: Make Bowen Serial Number 2 Anchor Length 127 ft. Size 4 1/2 - FH in.  
Did Well Flow? No Reversed Out Yes Surface Choke Size 1 in. Bottom Choke Size 5/8 in.  
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 - XH in.  
Blow: 1st Open: Strong blow. Off bottom of bucket in 3 mins. No blow back during shut-in.  
2nd Open: Strong blow. Off bottom of bucket in 3 1/2 mins. No blow back during shut-in.  
Recovered 50 ft. of gas in pipe  
Recovered 2,150 ft. of very slightly muddy & gas cut oil = 30.530000 bbls. (Grind out: 8%-mud; 5%-gas; 87%-oil)  
Recovered 120 ft. of heavy gas & oil cut mud = 1.704000 bbls. (Grind out: 25%-gas; 35%-oil; 40%-mud)  
Recovered 2,270 ft. of TOTAL FLUID = 32.234000 bbls.  
Recovered -- ft. of --  
Remarks Tool Sample Grind Out: 5%-gas; 95%-oil

RECEIVED  
KANSAS CORPORATION COMMISSION  
SEP 22 2004  
CONSERVATION DIVISION

Time Set Packer(s) 3:33 P.M. Time Started Off Bottom 7:13 P.M. Maximum Temperature 123°  
Initial Hydrostatic Pressure (A) 2046 P.S.I.  
Initial Flow Period Minutes 10 (B) 77 P.S.I. to (C) 261 P.S.I.  
Initial Closed In Period Minutes 30 (D) 1281 P.S.I.  
Final Flow Period Minutes 60 (E) 256 P.S.I. to (F) 847 P.S.I.  
Final Closed In Period Minutes 120 (G) 1318 P.S.I.  
Final Hydrostatic Pressure (H) 2030 P.S.I.



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(620) 653-7550 • (800) 542-7313

Page 2 of 8 Pages

**FLUID SAMPLE DATA**

Company Mull Drilling Company, Inc.

Lease & Well No. Schreiber Trusts No. 1-27

Date 6-18-04 Sec. 27 Twp. 16 S Range 23 W

Formation Test No. 1 Interval Tested From 4,313 ft. to 4,440 ft. Total Depth 4,440 ft.

Formation Conglomerate/Cherokee Sand

|            | <u>MUD PIT</u> | <u>RECOVERY</u> |
|------------|----------------|-----------------|
| Viscosity  | <u>51</u> CP   | <u>--</u> CP    |
| Weight     | <u>9.0</u>     | <u>--</u>       |
| Water Loss | <u>8.0</u> CC  | <u>--</u> CC    |
| PH Factor  | <u>10.5</u>    | <u>--</u>       |

|                         | <u>RESISTIVITY</u>                           | <u>CHLORIDE CONTENT</u> |
|-------------------------|----------------------------------------------|-------------------------|
| Recovery Water          | <u>--</u> @ <u>--</u> °F. <u>--</u> ppm      |                         |
| Recovery Mud            | <u>--</u> @ <u>--</u> °F. <u>--</u> ppm      |                         |
| Recovery Mud Filtrate   | <u>--</u> @ <u>--</u> °F. <u>--</u> ppm      |                         |
| Mud Pit Sample          | <u>2.40</u> @ <u>71</u> °F. <u>2,600</u> ppm |                         |
| Mud Pit Sample Filtrate | <u>2.40</u> @ <u>73</u> °F. <u>2,800</u> ppm |                         |

Sample Taken By JOHN C. RIEDL

Witness By Roger L. Martin

Remarks Pit filtrate triton dish chlorides were 2,500 Ppm.

## **GENERAL INFORMATION**

### **Client Information:**

Company: MULL DRILLING COMPANY, INC.

Contact: ERNIE MORRISON

Phone: Fax: e-mail:

### **Site Information:**

Contact: ROGER MARTIN

Phone: Fax: e-mail:

### **Well Information:**

Name: SCHRIEBER TRUST #1-27

Operator: MULL DRILLING COMPANY, INC.

Location-Downhole: DST #1 CONGL. CHERO. SAND 4,313'-4,440'

Location-Surface: SEC 27-16S-23W

### **Test Information:**

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: ROGER MARTIN

Test Type: CONVENTIONAL Job Number:

Test Unit: NO 2

Start Date: 2004/06/18 Start Time: 14:00:00

End Date: 2004/06/19 End Time: 00:45:00

Report Date: Prepared By:

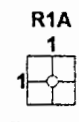
**Remarks:** Qualified By:

RECOVERED: 50' GAS IN PIPE  
2,270' SLTMC GO (5% GAS, 87% OIL, 8% MUD) 40 GRAVITY @ 60 deg.

TOOL SAMPLE 5% GAS 95% OIL

# Oil Well Test - Buildup

## Radial Flow Analysis



Page 4 of 8 Pages

MULL DRILLING COMPANY, INC  
SCHRIEBER TRUST #1-27

DST #1 CONG. CHERO. SAND  
4,313'-4,440'

### Analysis Results

|                                     |                  |                                            |            |
|-------------------------------------|------------------|--------------------------------------------|------------|
| Total Sandface Rate ( $q_t B_t$ )   | 780.336 bbl/d    | Apparent Skin ( $s'$ )                     | 3.264      |
| Semilog Slope (m)                   | 51.04            | Skin - Damage                              | 3.264      |
| Gas Permeability ( $k_g$ )          | md               | Skin - Inclination                         | 0.000      |
| Oil Permeability ( $k_o$ )          | 308.444 md       | Skin - Partial Penetration                 |            |
| Water Permeability ( $k_w$ )        | md               | Pressure Drop Due to Skin ( $\Delta p_s$ ) | 144.79 psi |
| Flow Capacity (kh)                  | 4626.663 md.ft   | Damage Ratio (DR)                          | 1.121      |
| Total Mobility ( $k/\mu_t$ )        | 165.72 md/cp     | Flow Efficiency (FE)                       | 0.892      |
| Total Transmissivity ( $kh/\mu_t$ ) | 2485.76 md.ft/cp |                                            |            |

### Reservoir Parameters

|                                     |                            |
|-------------------------------------|----------------------------|
| Net Pay (h)                         | 15.000 ft                  |
| Total Porosity ( $\phi_t$ )         | 12.00 %                    |
| Water Saturation ( $S_w$ )          | 20.00 %                    |
| Oil Saturation ( $S_o$ )            | 80.00 %                    |
| Gas Saturation ( $S_g$ )            | 0.00 %                     |
| Wellbore Radius ( $r_w$ )           | 0.30 ft                    |
| Formation Temperature (T)           | 120.0 °F                   |
| Formation Compressibility ( $c_f$ ) | 4.508e-6 psi <sup>-1</sup> |
| Total Compressibility ( $c_t$ )     | 1.331e-5 psi <sup>-1</sup> |

### Pressures

|                                      |             |
|--------------------------------------|-------------|
| Initial Pressure ( $p_i$ )           | 2184.12 psi |
| Extrapolated Pressure ( $p^*$ )      | 1291.59 psi |
| Ave. Reservoir Press                 | 1290.30 psi |
| Final Flowing Pressure ( $p_{wfo}$ ) | 845.69 psi  |

### Production and Times

|                               |               |
|-------------------------------|---------------|
| Corrected Flow Time ( $t_c$ ) | 1.1694 hr     |
| Cumulative Oil Production     | 31.283 bbl    |
| Final Oil Rate                | 642.000 bbl/d |

### Fluid Properties

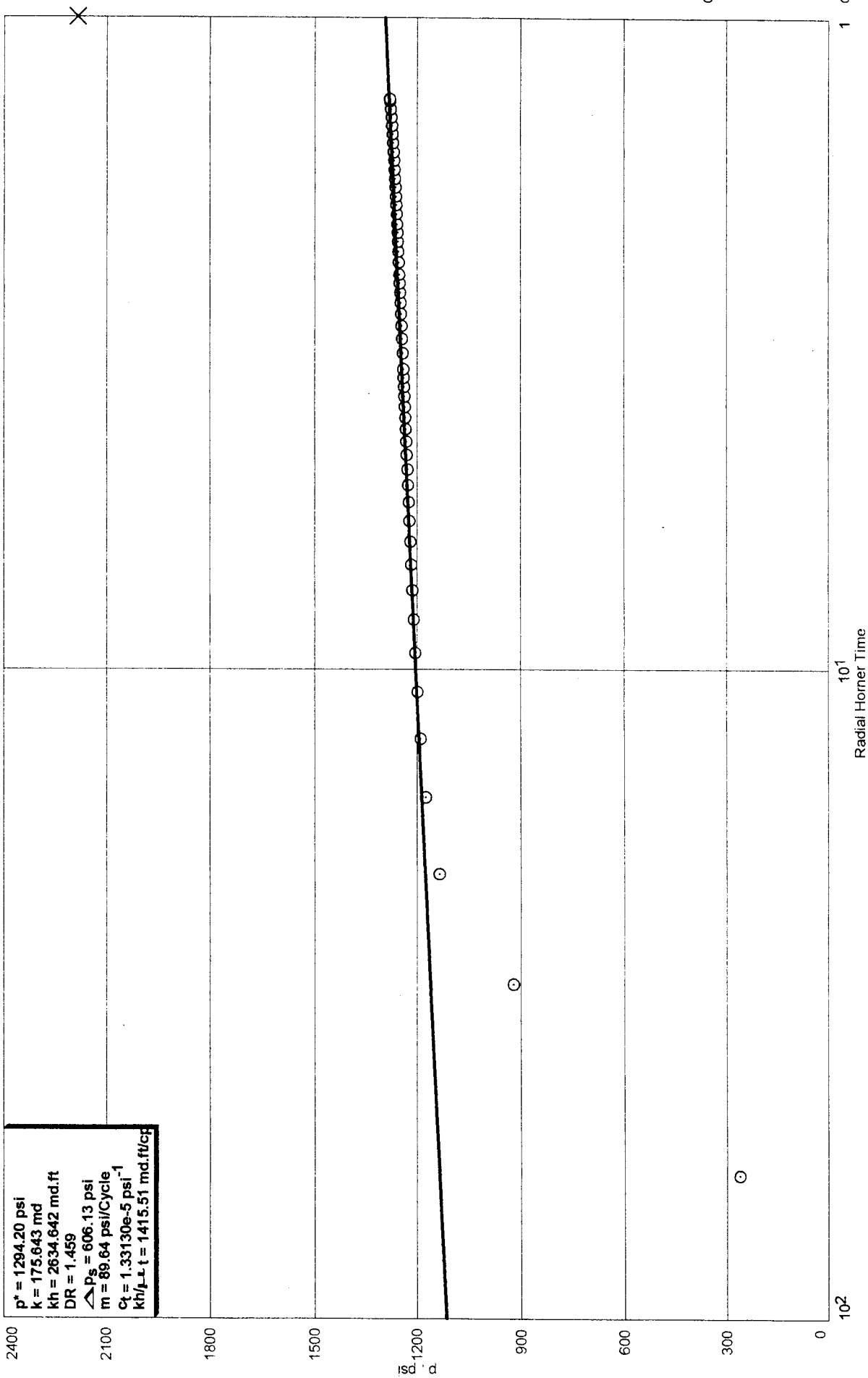
|                                       |                              |
|---------------------------------------|------------------------------|
| Oil Compressibility ( $c_o$ )         | 1.02657e-5 psi <sup>-1</sup> |
| Oil Formation Volume Factor ( $B_o$ ) | 1.215                        |
| Oil Viscosity ( $\mu_o$ )             | 1.861 cp                     |
| Solution Gas Ratio ( $R_s$ )          | 400 scf/bbl                  |
| Oil Gravity ( $\gamma_o$ )            | 30.00 ° API                  |
| Gas Gravity ( $G$ )                   | 0.650                        |
| PVT Reference Pressure ( $p_{pVT}$ )  | 2184.12 psi                  |

### Extended Rates Calculations

|                                        |                 |
|----------------------------------------|-----------------|
| Specified Flowing Pressure             | 845.69 psi      |
| Specified Reservoir Pressure           | 1290.30 psi     |
| Drainage Area                          | 160.0 acres     |
| 3 - Month Constant Rate                | bbl/d           |
| 6 - Month Constant Rate                | bbl/d           |
| Stabilized Rate @ Current Skin         | 552.658 bbl/d   |
| Stabilized Rate @ Skin of 0            | 767.728 bbl/d   |
| Stabilized Rate @ Skin of -4           | 1467.588 bbl/d  |
| PI / II (Total Liquids - Actual)       | 1.444 bbl/d/psi |
| PI / II (Total Liquids - Ideal)        | 2.141 bbl/d/psi |
| Stab. PI / II (Total Liquids - Actual) | 1.243 bbl/d/psi |
| Stab. PI / II (Total Liquids - Ideal)  | 1.843 bbl/d/psi |

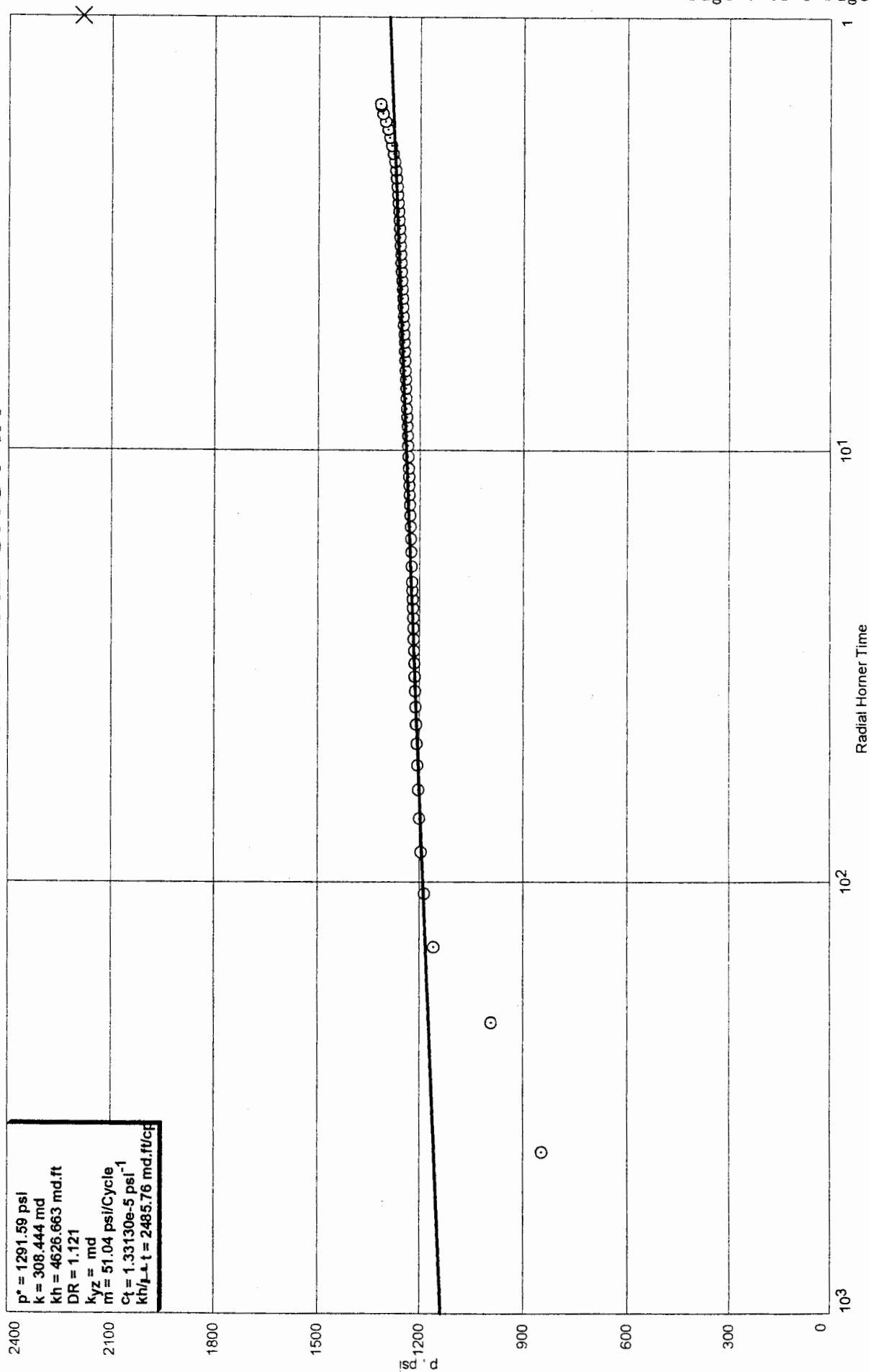
MULL DRILLING COMPANY, INC  
SCHRIEBER TRUST #1-27  
DST #1 CONG. CHERO. SAND  
4,313'-4,440'

# HORNER PLOT INITIAL SHUT-IN



MULL DRILLING COMPANY, INC  
 SCHRIEBER TRUST #1-27  
 DST #1 CONG. CHERO. SAND  
 4,313'-4,440'

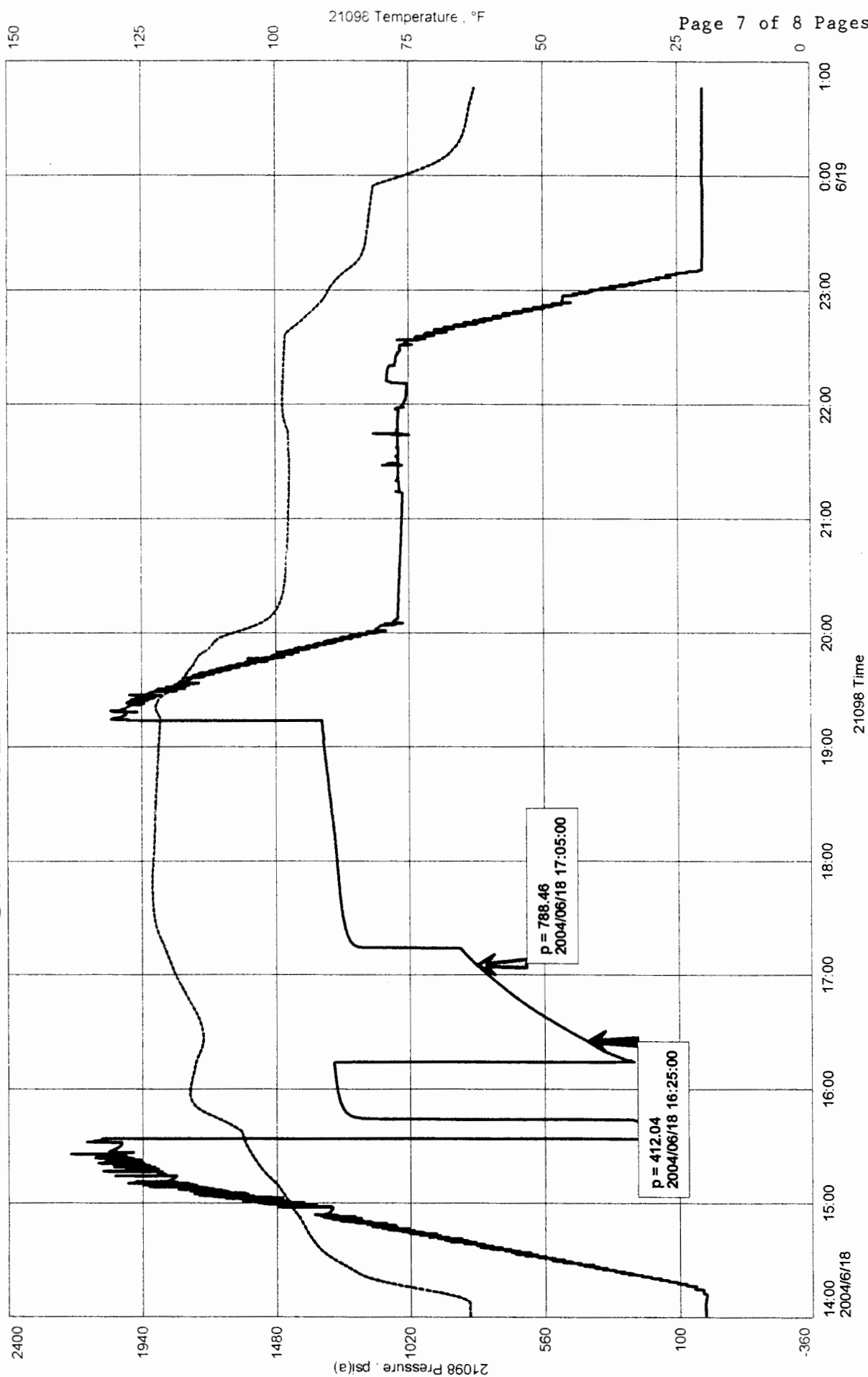
# HORNER PLOT FINAL SHUT-IN



MULL DRILLING COMPANY, INC.  
 DST #1 CONGL. CHERO. SAND 4,313'-4,440'  
 Start Test Date: 2004/06/18  
 Final Test Date: 2004/06/19

SCHRIEBER TRUST #1-27  
 Formation: DST #1 CONGL. CHERO. SAND 4,413'-4,400'  
 Pool: WILDCAT

# SCHRIEBER TRUST #1-27



MULL DRILLING COMPANY, INC.

|             |         |         |          |         |          |        |       |       |         |            |
|-------------|---------|---------|----------|---------|----------|--------|-------|-------|---------|------------|
| DESCRIPTION | SECOND  | FIRST   | PRESSURE | PIPE    | FLUID    | TIME   | TOTAL | DAILY | AVERAGE | ESTIMATED  |
| READING     | READING | READING | CHANGE   | SIZE-ID | GRADIENT | CHANGE | TIME  | PROD. | % OIL   | PRODUCTION |
| FINAL FLOW  | 788     | 412     | 376      | 0.0142  | 0.3573   | 30     | 1440  | 717   | 0.87    | 624        |

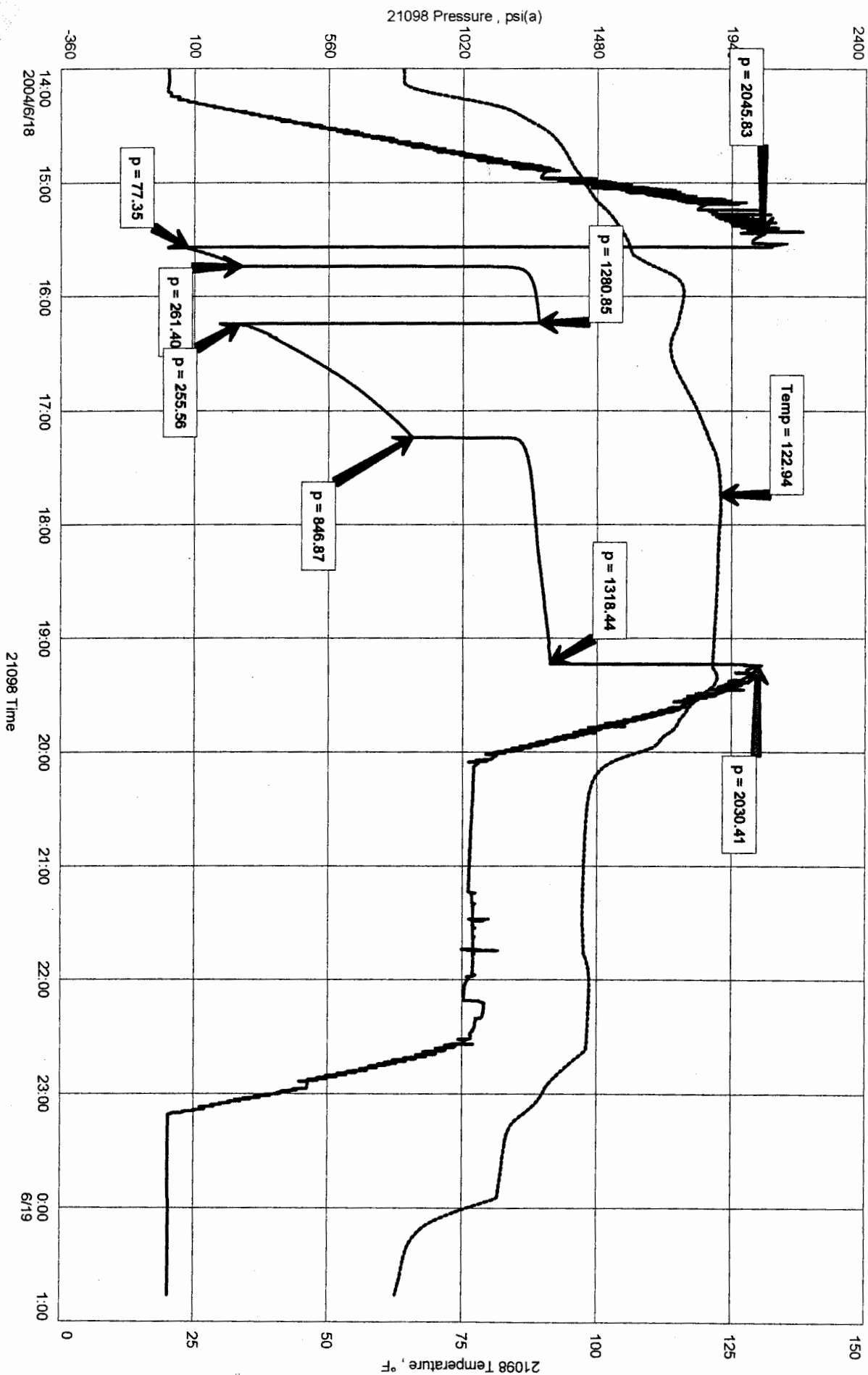
DST#1 CONGL. CHERO. SAND 4,313'-4,440'

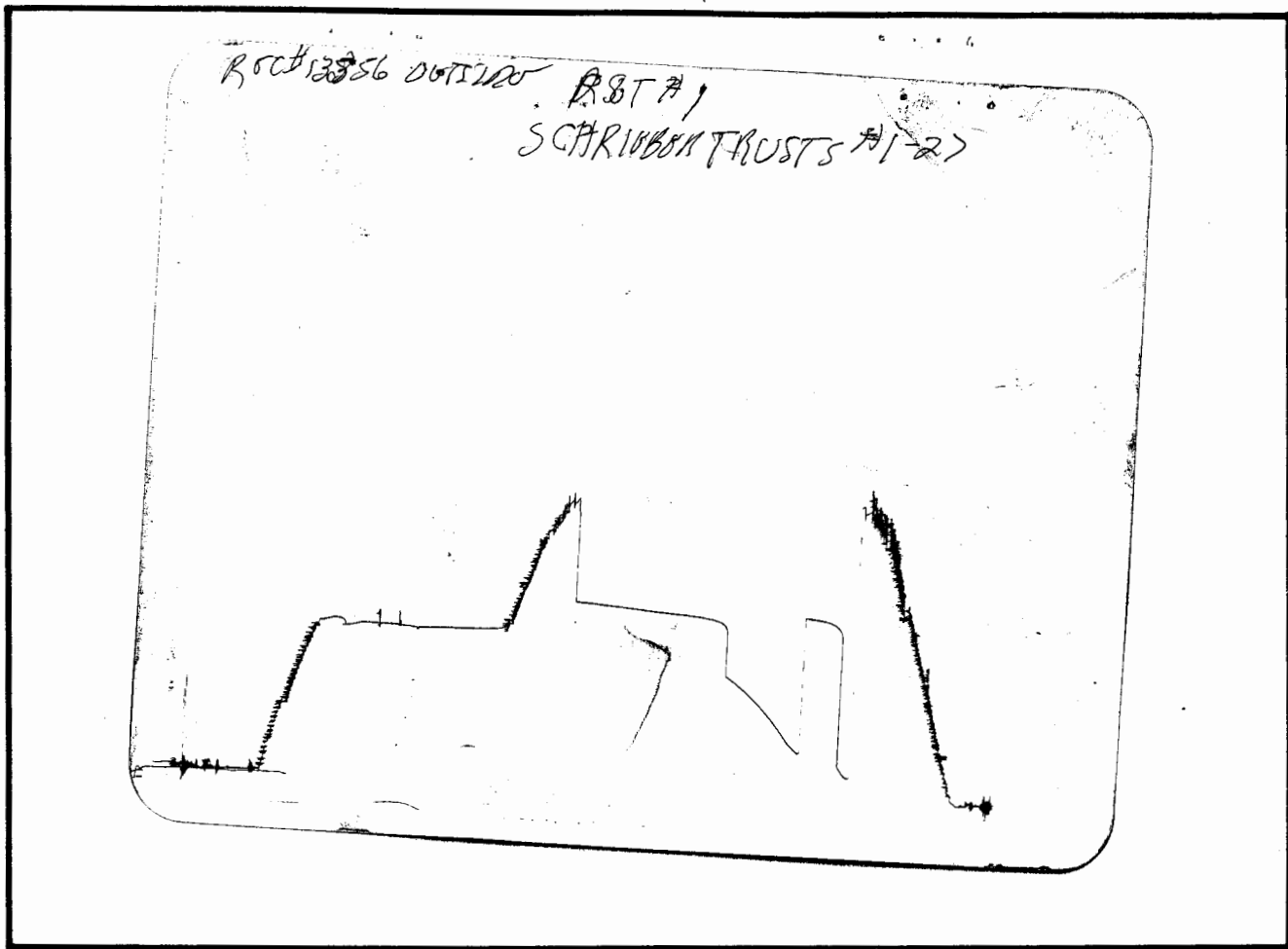


MULL DRILLING COMPANY, INC.  
 DST #1 CONGL. CHERO. SAND 4,313'-4,440'  
 Start Test Date: 2004/06/18  
 Final Test Date: 2004/06/19

# SCHRIEBER TRUST #1-27

SCHRIEBER TRUST #1-27  
 Formation: DST #1 CONGL. CHERO. SAND 4,413'-4,400'  
 Pool: WILDCAT





This is an actual photograph of recorder chart.

| POINT                                  | PRESSURE         |                            |
|----------------------------------------|------------------|----------------------------|
|                                        | Field<br>Reading | Elec.<br>Office<br>Reading |
| (A) Initial Hydrostatic Mud .....      | 2046             | 2046                       |
| (B) First Initial Flow Pressure.....   | 77               | 77                         |
| (C) First Final Flow Pressure .....    | 261              | 261                        |
| (D) Initial Closed-in Pressure .....   | 1281             | 1281                       |
| (E) Second Initial Flow Pressure ..... | 256              | 256                        |
| (F) Second Final Flow Pressure.....    | 847              | 847                        |
| (G) Final Closed-in Pressure.....      | 1318             | 1318                       |
| (H) Final Hydrostatic Mud .....        | 2030             | 2030                       |