

# BAKER SERVICE TOOLS

## SAMPLER REPORT

Company Hanson Operating Co., Inc. Date 3/24/93  
Well Name & No. Junction Federal #1 Ticket No. 258-79750  
County Roosevelt State New Mexico  
Test Interval 9414' - 9480' DST No. 5

Pressure in Sampler: 420 \_\_\_\_\_ psig  
Total Volume of Sampler: 2600 \_\_\_\_\_ cc.  
Total Volume of Sample: 1100 \_\_\_\_\_ cc.  
Oil: 950 \_\_\_\_\_ cc.  
Water: None \_\_\_\_\_ cc.  
Mud: 150 (emulsified mud) \_\_\_\_\_ cc.  
Gas: 1.91 \_\_\_\_\_ cu. ft.  
Other: None \_\_\_\_\_

### Resistivity

Make Up Water \_\_\_\_\_ @ \_\_\_\_\_ °F of Chloride Content \_\_\_\_\_ ppm.  
Mud Pit Sample .074 @ 60 °F of Chloride Content 74,000 ppm.  
Gas/Oil Ratio 321.7/1 cu.ft./bbl. Gravity 47.0 °API @ 60 °F  
Where was sample drained On Location.

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# BAKER

## SERVICE TOOLS

Hanson Operating Co., Inc.  
Operator

Junction Federal #1  
Well Name and No

5  
DST No

Note: The semi-log plots indicate a double porosity system.

### TEST PARAMETERS

|                           |             |      |            |
|---------------------------|-------------|------|------------|
| Reservoir Temperature     | (Deg F)     | T    | 151        |
| Uo                        | (cp)        |      | 5.9279E-01 |
| Bo                        | (RB/STB)    |      | 1.2723E+00 |
| Co                        | (1/psi)     |      | 9.6450E-06 |
| Ct                        | (1/psi)     |      | 1.2179E-05 |
| Pay Thickness             | (feet)      | hnet | 10         |
| Porosity                  | (%)         | por  | 7          |
| Wellbore Radius           | (feet)      | rw   | 0.3281     |
| P @ 1hr                   | (psia)      | Plhr | 3391       |
| Gauge Depth               | (feet)      |      | 9425       |
| Elevation                 | (feet)      |      | 0          |
| Extrapolated Pressure (1) | (psia)      | P*   | 3475       |
| Extrapolated Pressure (2) | (psia)      | P*   | 3434       |
| Semi-Log Slope            | (psi/cycle) | M    | -104.194   |
| Gas Flow Rate             | (mcf)       | Qg   | 213        |
| Oil Flow Rate             | (STB/D)     | Qo   | 468        |

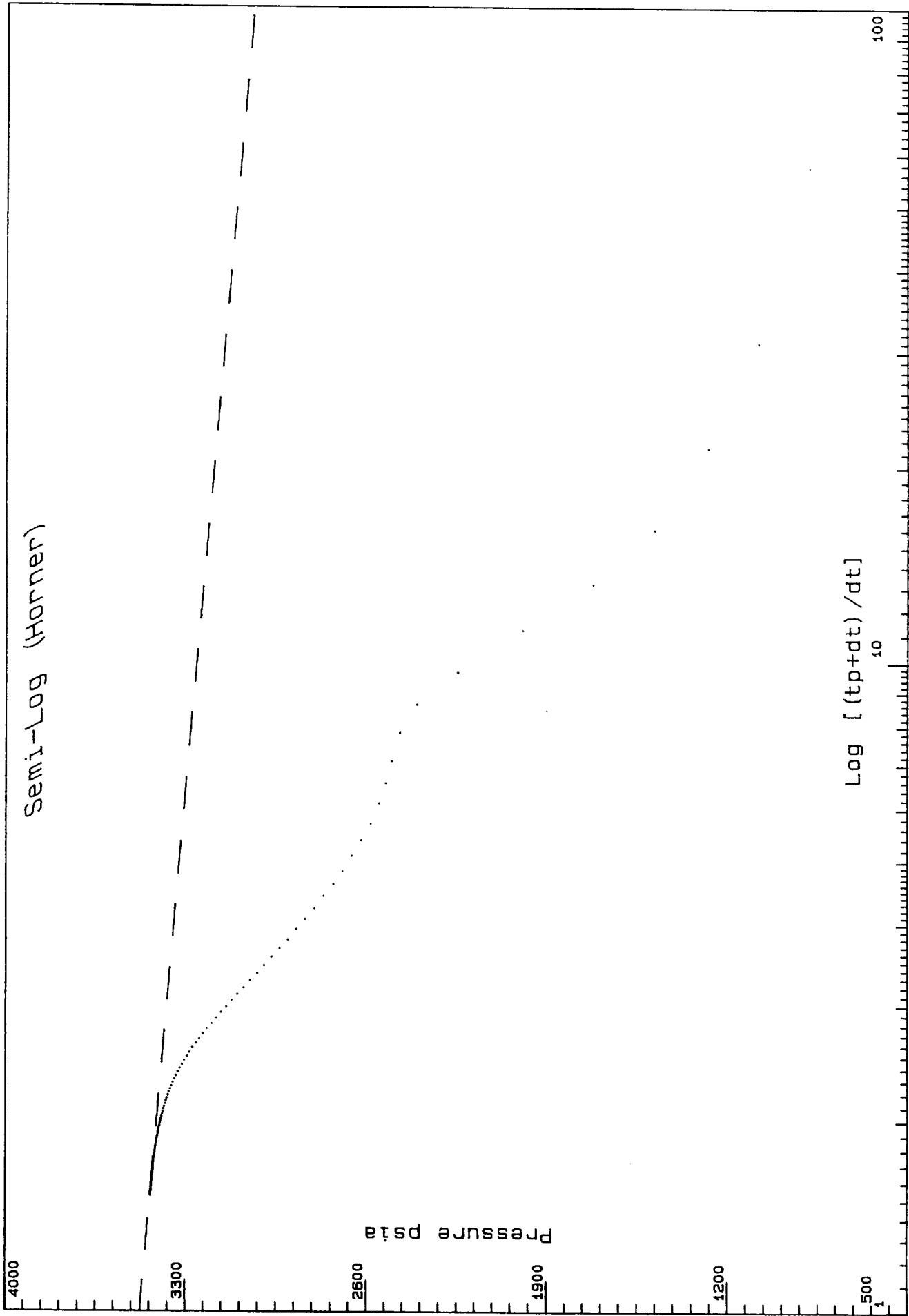
### CALCULATIONS

#### (Semi-Log) Analysis

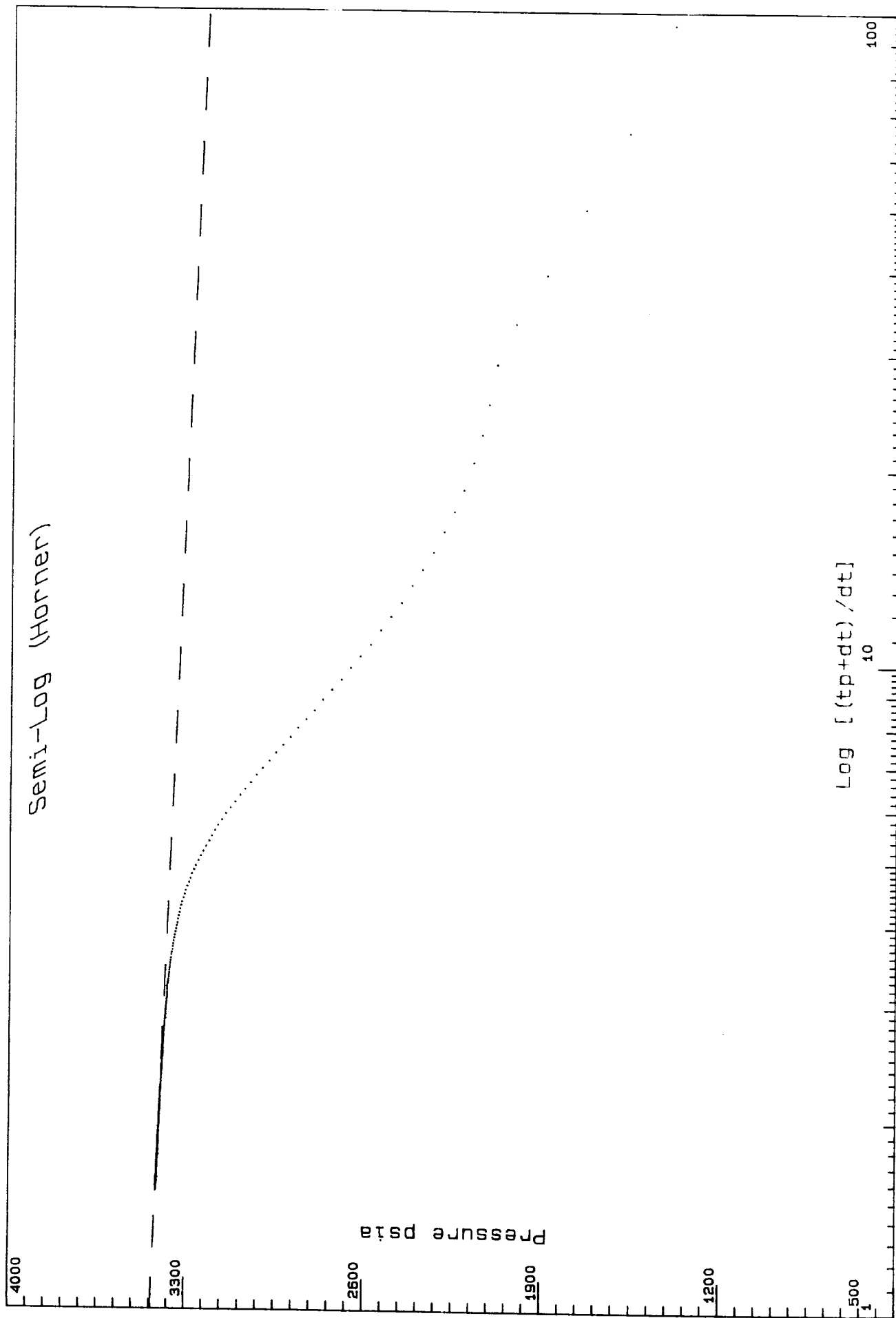
|                           |         |    |          |
|---------------------------|---------|----|----------|
| Flow Capacity             | (md-ft) | kh | 550.844  |
| Permeability              | (md)    | k  | 55.084   |
| Skin Damage               | (total) | S  | +18.59   |
| Pressure Drop due to Skin | (psia)  | dP | +1682.15 |
| Flow Efficiency           | (%)     | FE | +27.74   |
| Drainage Radius           | (feet)  | rd | 524      |

#### (Log-Log) Analysis

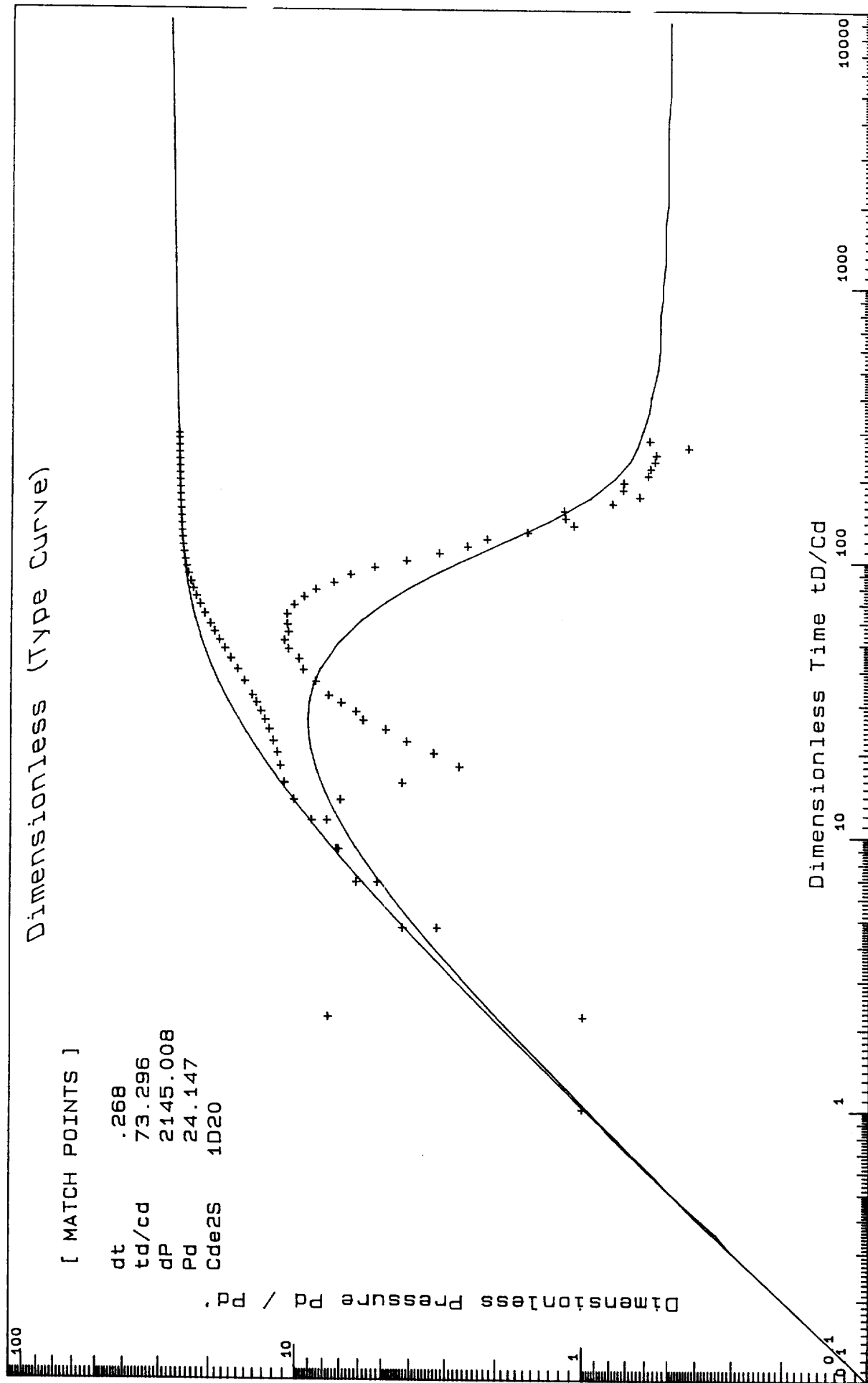
|                           |         |    |          |
|---------------------------|---------|----|----------|
| Flow Capacity             | (md-ft) | kh | 561.074  |
| Permeability              | (md)    | k  | 56.107   |
| Skin Damage               | (total) | S  | +19.57   |
| Pressure Drop due to Skin | (psia)  | dP | +1738.85 |
| Flow Efficiency           | (%)     | FE | +25.30   |

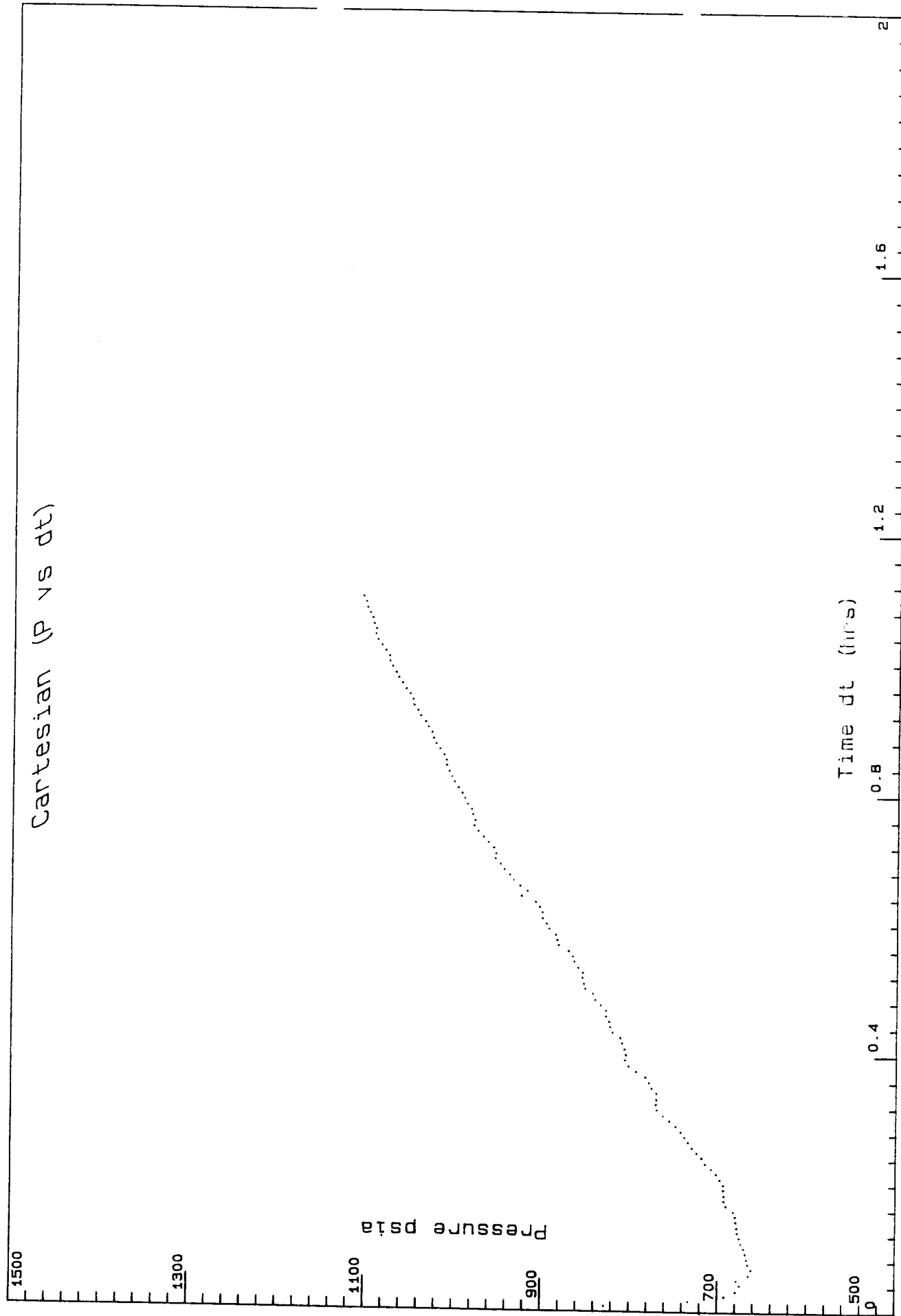


Shut-in #1  
 $P^* = 3475$  psi  
 $M = -220.668$  psi/cycle

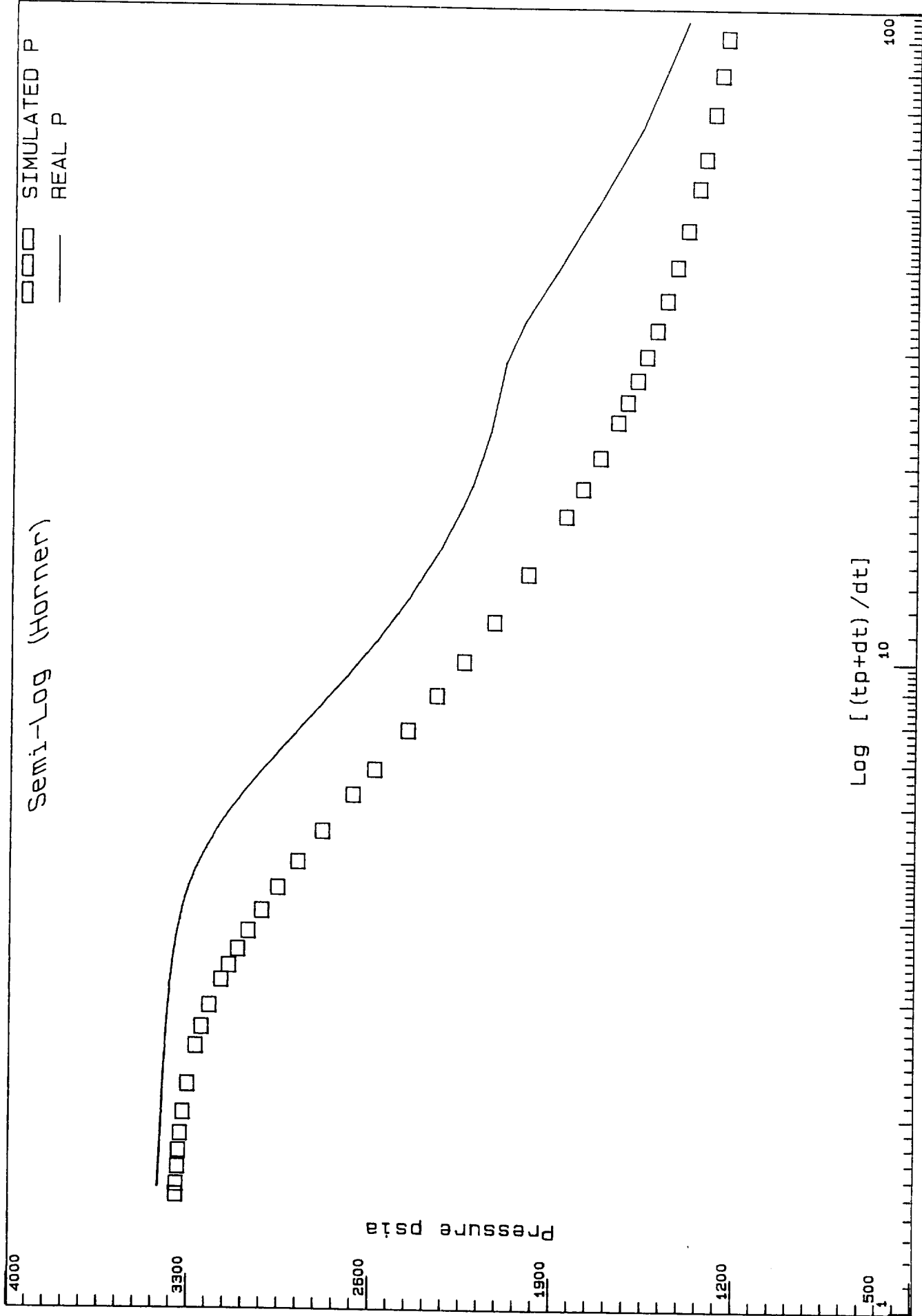


Shut-in #2  
P\* = 3434 psi  
M = -104.194 psi/cycle

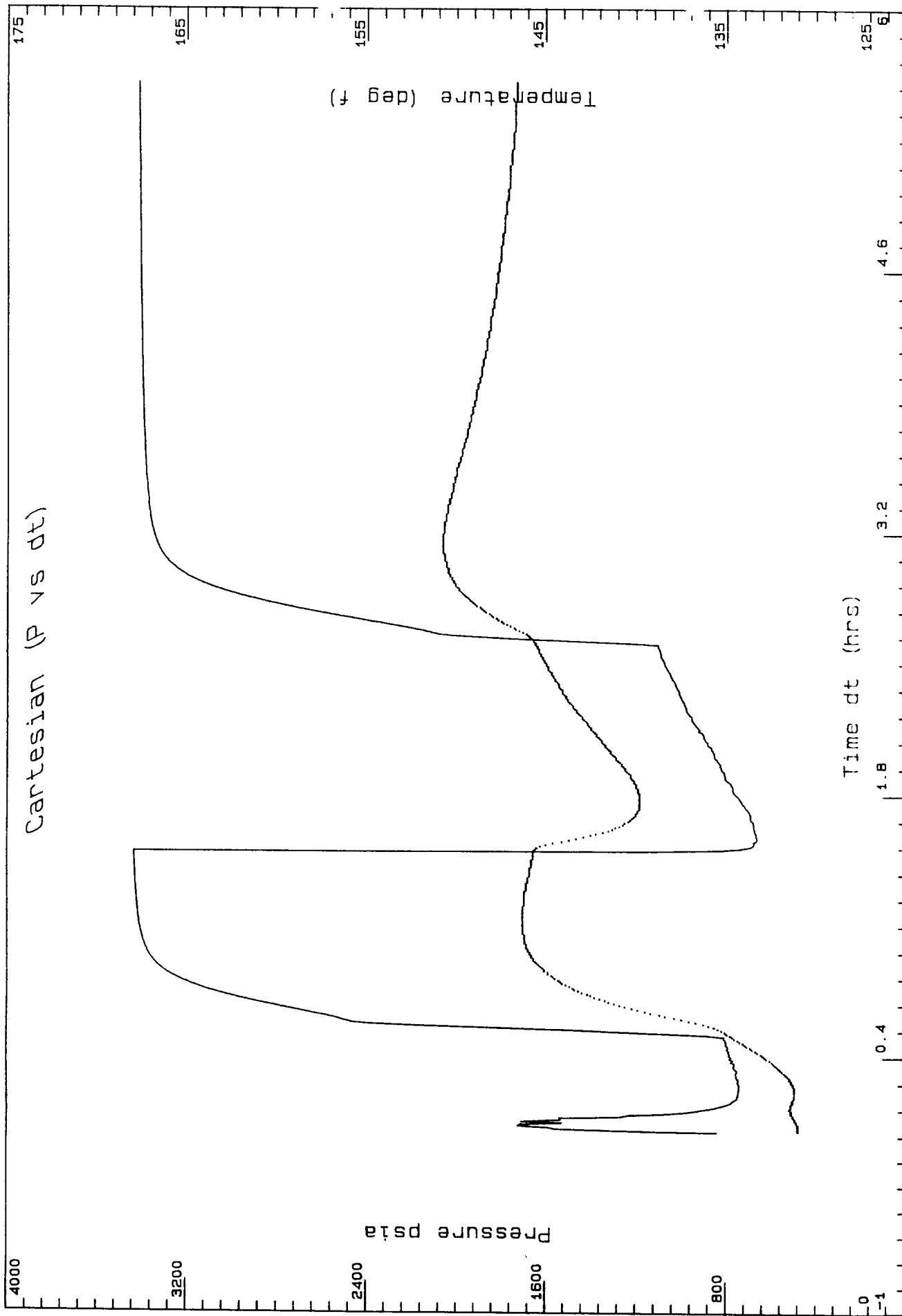




Flow #2  
M = 470.288 psi/cycle  
Equivalent to 467.9 BOPD



Shut-in #2



Company: Hanson Operating Co., Inc.  
Well: Junction Federal #1, DST #5  
Field: Wildcat

Date: 03/25/1993

# BAKER

## SERVICE TOOLS

Hanson Operating Co., Inc.  
Operator

Junction Federal #1  
Well Name and No

All  
DST No.

Hanson Operating Co. (4)  
Box 1515  
Roswell NM 88202-1515

Tom P. Stephens (1)  
Box 698  
Roswell NM 88202-0698

Rogers Aston (1)  
Box 1090  
Roswell NM 88202-1090

Warren, Inc. (1)  
Box 7250  
Albuquerque NM 87194-7250

Tierra Oil Co. (1)  
Box 1354  
Roswell NM 88202-1354

T. Morgan, Trustee (1)  
Morgan Trust  
2520 N. Baffert Drive  
Nogales AZ 85621

Murphy Petroleum Corp. (1)  
Box 2545  
Roswell NM 88202-2545

Energex Co. (1)  
100 No. Pennsylvania  
Roswell NM 88201

Worrall Investment Corp. (1)  
226 No. Main, Ste 301  
Roswell NM 88201

Robert Beck (1)  
C/O Robert Cress  
Box 37  
Roswell NM 88202-0037

Skipper Hamilton, Inc. (1)  
Box 10983  
Midland TX 79702

Scott Exploration, Inc. (2)  
648 Petroleum Bldg.  
Roswell NM 88201

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
HOBBS, NEW MEXICO

Budget Bureau No. 1004-0135  
Expires August 31, 1985

3. LEASE DESIGNATION AND SERIAL NO.

88240NM-86945

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NA

7. UNIT AGREEMENT NAME

NA

8. FARM OR LEASE NAME

Junction Federal

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat Devonian

11. SEC., T., R., N., OR BLK. AND  
SURVEY OR AREA

Sec.17-8S-37E

12. COUNTY OR PARISH

Roosevelt

13. STATE

New Mexico

1. OIL WELL ☒ GAS WELL ☐ OTHER

2. NAME OF OPERATOR

Hanson Operating Company, Inc.

3. ADDRESS OF OPERATOR

P. O. Box 1515, Roswell, New Mexico 88202-1515

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

1650' FSL & 1650' FWL, Sec.17-8S-37E  
Unit K NESW.

14. PERMIT NO.

30-041-20863

15. ELEVATIONS (Show whether DF, RT, OR, etc.)

4042' GR

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLAN\*

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) Csg & Cem Job

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

X

(Note: Report results of multiple completion on Well  
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

2-10-93 Ran & cem 99 jts 32# & 24# J-55 ST&C csg. Cem w/1450 sx Halliburton Lite w/15# salt & 1/4# flocele p/sx. Tail in w/250 sx Premium Plus w/ 2% CaCl p/sx. Plug dn @9:45 pm 2-10-93. Press to 1300#. Held Ok. Circ 150 sx to pit. WOC 18 hrs. Csg Set @4200'. NU & test BOP's to 3000 Psi.

18. I hereby certify that the foregoing is true and correct

SIGNED

TITLE Production Analyst

DATE 02/11/93

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

DATE

RECEIVED FOR RECORD  
PETER W. CHESTER

FEB 19 1993

\*See Instructions on Reverse Side

BUREAU OF LAND MANAGEMENT  
ROSWELL RESOURCE AREA