



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

| | | |
|-----------------------------------|-----------------|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - _____

Spot Description: _____

_____-_____-_____- Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

| | |
|---|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|---|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used | | | | | | | |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | |
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|--|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| _____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone | | | | |
| | | | | |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
| | | | |
| | | | |
| | | | |
| | | | |

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other (Explain) _____

| | | | | | |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|

| | | |
|---|---|--|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____ | PRODUCTION INTERVAL: _____ _____ |
|---|---|--|

| | |
|-----------|------------------------------------|
| Form | ACO1 - Well Completion |
| Operator | Samuel Gary Jr. & Associates, Inc. |
| Well Name | LEAS 1-23 |
| Doc ID | 1059868 |

All Electric Logs Run

| |
|----------|
| |
| DIL |
| MICRO |
| POR |
| SONIC |
| SPECTRAL |

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

July 19, 2011

CLAYTON CAMOZZI
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-051-26118-00-00
LEAS 1-23
NW/4 Sec.23-15S-16W
Ellis County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office at 303-831-4673.

Respectfully,
CLAYTON CAMOZZI



QUALITY OILWELL CEMENTING, INC.

PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 3/30/2011
 Invoice # 4519

P.O.#:

Due Date: 4/29/2011

Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 3111 W. 10th Street
 Great Bend, KS 67503

DRLG COMP W/O LOE GG

| | |
|---------------|-----------|
| Account | 8200-138 |
| Well/Prospect | LEAS 1-23 |
| Deck | |
| AFE | |
| Approval | LSJ |
| Description | |

Reference:
 LEAS 1-23

Description of Work:
 LONG SURFACE JOB

Services / Items Included:

| | Quantity | Price | Taxable |
|--|----------|-------------|---------|
| Labor | | \$ 703.35 | No |
| Common-Class A | 375 | \$ 4,698.65 | Yes |
| 8 5/8" Basket | 3 | \$ 973.62 | Yes |
| Bulk Truck Mat-Material Service Charge | 395 | \$ 811.35 | No |
| Calcium Chloride | 13 | \$ 502.81 | Yes |
| Pump Truck Mileage-Job to Nearest Camp | 22 | \$ 225.49 | No |
| 8 5/8" Centralizer | 3 | \$ 197.19 | Yes |
| Flo Seal | 90 | \$ 184.86 | Yes |
| Bulk Truck Mileage-Job to Nearest Bulk Plant | 22 | \$ 131.95 | No |
| Premium Gel (Bentonite) | 7 | \$ 117.04 | Yes |
| 8 5/8" Top Rubber Plug | 1 | \$ 108.86 | Yes |

| Item | Quantity | Price | Taxable |
|-------------------------------|----------|---------|---------|
| Baffle Plate Aluminum, 8 5/8" | 1 | \$92.43 | Yes |

Invoice Terms:

Net 30

SubTotal: \$ 8,747.62
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,312.14)

| | |
|---------------------------------|--------------------|
| SubTotal for Taxable Items: | \$ 5,844.15 |
| SubTotal for Non-Taxable Items: | \$ 993.48 |
| Total: | \$ 7,435.48 |
| Tax: | \$ 368.18 |
| Amount Due: | \$ 7,803.66 |
| Applied Payments: | |
| Balance Due: | \$ 7,803.66 |

6.30% Ellis County Sales Tax

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 4519

| | | | | | | | | | | | | | | | |
|---------------------|---------------------------|----------|------------|------|---|-------|--|--------|-------|-------|----|-------------|--|--------|---------|
| Date | 3/27/11 | Sec. | 23 | Twp. | 15 | Range | 16 | County | Ellis | State | KS | On Location | | Finish | 6:45 AM |
| Lease | Leas | Well No. | 1-23 | | Location Gorham, 9S, 2W, 1S, 5&W, 5 into | | | | | | | | | | |
| Contractor | Discovery Drilling Rig #2 | | | | Owner To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. | | | | | | | | | | |
| Type Job | Surface | | | | Charge To Sam Gary Jr & Associates | | | | | | | | | | |
| Hole Size | 12 1/4" | | T.D. | | 978' | | Street | | | | | | | | |
| Csg. | 8 3/8" 23# | | Depth | | 978' | | City | | | | | | | | |
| Tbg. Size | | | Depth | | | | State | | | | | | | | |
| Tool | | | Depth | | | | The above was done to satisfaction and supervision of owner agent or contractor. | | | | | | | | |
| Cement Left in Csg. | 33' | | Shoe Joint | | 33' | | Cement Amount Ordered 375 sx Com. 5% @ 2% gel | | | | | | | | |
| Meas Line | | | Displace | | 60 1/4 Bbls. | | 1/4# per sq ft of csg | | | | | | | | |

EQUIPMENT

| | | | | | | |
|---------|----|-----|----------|---------|----------|-----|
| Pumptrk | 1 | No. | Cementor | Paul | Common | 375 |
| | | | Helper | | | |
| Bulktrk | 4 | No. | Driver | Brandon | Poz. Mix | |
| | | | Driver | | | |
| Bulktrk | PV | No. | Driver | Rocky | Gel. | 7 |
| | | | Driver | | | |

JOB SERVICES & REMARKS

| | |
|--------------------|-------------------------|
| Remarks: | Hulls |
| Rat Hole | Salt |
| Mouse Hole | Flowseal 90# |
| Centralizers | Kol-Seal |
| Baskets | Mud CLR 48 |
| D/V or Port Collar | CFL-117 or CD110 CAF-38 |
| Cement Circulated | Sand |

| | |
|----------|-----|
| Handling | 395 |
| Mileage | 4 " |

8 1/2" FLOAT EQUIPMENT

| | |
|-------------|---|
| Guide Shoe | |
| Centralizer | 3 |
| Baskets | 3 |
| AFU Inserts | |
| Float Shoe | |
| Latch Down | |

Head + Manifold
Rubber Plug

| | |
|----------------|---------------|
| Pumptrk Charge | Lorig Surface |
| Mileage | 22 |

Thank You!!

X Signature *[Signature]*

| | |
|--------------|--|
| Tax | |
| Discount | |
| Total Charge | |



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net

Date: 4/5/2011
 Invoice # 5053

P.O.#:
 Due Date: 5/5/2011
 Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 3111 W. 10th Street
 Great Bend, KS 67503

DRLG COMP W/O LOE GG

| | |
|---------------|-----------|
| Account | 8200-145 |
| Well/Prospect | LEAS 1-23 |
| Deck | |
| APP | |
| Approval | |
| Description | |

Reference:
 LEAS 1-23

Description of Work:
 PLUG

| Services / Items Included: | Quantity | Price | Taxable | Item | Quantity | Price | Taxable |
|--|----------|-------------|---------|------|----------|-------|---------|
| Labor | | \$ 963.85 | No | | | | |
| Common-Class A | 111 | \$ 1,429.43 | Yes | | | | |
| Bulk Truck Matl-Material Service Charge | 193 | \$ 407.44 | No | | | | |
| POZ Mix-Standard | 74 | \$ 359.31 | Yes | | | | |
| Pump Truck Mileage-Job to Nearest Camp | 22 | \$ 231.76 | No | | | | |
| Bulk Truck Mileage-Job to Nearest Bulk Plant | 22 | \$ 135.62 | No | | | | |
| Premium Gel (Bentonite) | 6 | \$ 103.11 | Yes | | | | |
| Dry Hole Plug | 1 | \$ 59.11 | Yes | | | | |

Invoice Terms:

Net 30

SubTotal: \$ 3,689.63
 Discount Available ONLY if Invoice is Paid & Received
 within listed terms of invoice: \$ (553.44)

SubTotal for Taxable Items: \$ 1,658.32
 SubTotal for Non-Taxable Items: \$ 658.60

Total: \$ 3,136.19
 Tax: \$ 104.47

6.30% Ellis County Sales Tax

Thank You For Your Business!

Amount Due: \$ 3,240.66
Applied Payments:
Balance Due: \$ 3,240.66

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 5053

| | | | | | | | | | | | | | | | |
|---------------------|------------------------|----------|------|------|------------|-------|--|--------|--------------------|-------|--------|-------------|--|--------|---------|
| Date | 4-2-11 | Sec. | 23 | Twp. | 15 | Range | 16 | County | Ellis | State | Kansas | On Location | | Finish | 2:45 PM |
| Lease | Lens | Well No. | 1-23 | | Location | | Walker 95 SE Sinto | | | | | | | | |
| Contractor | Discovery Drilling Rig | | | | Owner | | To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. | | | | | | | | |
| Type Job | Plug | | | | Charge To | | Samuel Gary Jr. & Associates | | | | | | | | |
| Hole Size | 7 7/8 | | | | T.D. | | 3550 | | | | | | | | |
| Csg. | | | | | Depth | | | | | | | | | | |
| Tbg. Size | | | | | Depth | | | | | | | | | | |
| Tool | | | | | Depth | | City | | State | | | | | | |
| Cement Left in Csg. | | | | | Shoe Joint | | The above was done to satisfaction and supervision of owner agent or contractor. | | | | | | | | |
| Meas Line | | | | | Displace | | Cement Amount Ordered | | 185 gal/ho 48 buel | | | | | | |

EQUIPMENT

| | | | | | |
|---------|----|-----|----------|---------|----------------------|
| Pumptrk | 5 | No. | Cementer | | 4 lb Flo Seal per sk |
| | | | Helper | Steve | Common |
| Bulktrk | 10 | No. | Driver | Brandon | Poz. Mix |
| | | | Driver | Neate | Gel. |
| Bulktrk | | No. | Driver | | 0 |

JOB SERVICES & REMARKS

| | |
|--------------------|-------------------------|
| Remarks: | Calcium |
| Rat Hole | Hulls |
| Mouse Hole | Salt |
| Centralizers | Flowseal 4/6 # |
| Baskets | Kol-Seal |
| D/V or Port Collar | Mud CLR 48 |
| 1st Plug @ 3434 | CFL-117 or CD110 CAF 38 |
| 2nd " " 916 | Sand |
| 3rd " " 319 | Handling 193 |
| 4th " " 40 | Mileage |
| Rat Hole | |
| Mouse Hole | |

FLOAT EQUIPMENT

| | |
|--|-----------------|
| | Guide Shoe |
| | Centralizer |
| | Baskets |
| | AFU Inserts |
| | Float Shoe |
| | Latch Down |
| | 8 1/2 Wood Plug |
| | Pumptrk Charge |
| | Mileage 22 plug |

X Signature: *[Handwritten Signature]*

Tax
Discount
Total Charge



Notice: Fill out COMPLETELY and return to Conservation Division at the address below within 60 days from plugging date.

KANSAS CORPORATION COMMISSION 1054358
OIL & GAS CONSERVATION DIVISION

Form CP-4
March 2009

Type or Print on this Form
Form must be Signed
All blanks must be Filled

WELL PLUGGING RECORD
K.A.R. 82-3-117

OPERATOR: License #: _____
 Name: _____
 Address 1: _____
 Address 2: _____
 City: _____ State: _____ Zip: _____ + _____
 Contact Person: _____
 Phone: (_____) _____
 Type of Well: (Check one) Oil Well Gas Well OG D&A Cathodic
 Water Supply Well Other: _____ SWD Permit #: _____
 ENHR Permit #: _____ Gas Storage Permit #: _____
 Is ACO-1 filed? Yes No If not, is well log attached? Yes No
 Producing Formation(s): List All (If needed attach another sheet)
 _____ Depth to Top: _____ Bottom: _____ T.D. _____
 _____ Depth to Top: _____ Bottom: _____ T.D. _____
 _____ Depth to Top: _____ Bottom: _____ T.D. _____

API No. 15 - _____
 Spot Description: _____
 _____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West
 _____ Feet from North / South Line of Section
 _____ Feet from East / West Line of Section
 Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
 County: _____
 Lease Name: _____ Well #: _____
 Date Well Completed: _____
 The plugging proposal was approved on: _____ (Date)
 by: _____ (KCC District Agent's Name)
 Plugging Commenced: _____
 Plugging Completed: _____

Show depth and thickness of all water, oil and gas formations.

| Oil, Gas or Water Records | | Casing Record (Surface, Conductor & Production) | | | |
|---------------------------|---------|---|------|---------------|------------|
| Formation | Content | Casing | Size | Setting Depth | Pulled Out |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Describe in detail the manner in which the well is plugged, indicating where the mud fluid was placed and the method or methods used in introducing it into the hole. If cement or other plugs were used, state the character of same depth placed from (bottom), to (top) for each plug set.

Plugging Contractor License #: _____ Name: _____
 Address 1: _____ Address 2: _____
 City: _____ State: _____ Zip: _____ + _____
 Phone: (_____) _____
 Name of Party Responsible for Plugging Fees: _____
 State of _____ County, _____, ss.
 _____ Employee of Operator or Operator on above-described well,
 (Print Name)

being first duly sworn on oath, says: That I have knowledge of the facts statements, and matters herein contained, and the log of the above-described well is as filed, and the same are true and correct, so help me God.

Submitted Electronically

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202



DRILL STEM TEST REPORT

Prepared For: **Sam Gary & Associates Inc**

1515 Wynkoop St Ste 700
Denver Colo 80202

ATTN: Clayton Comozzi

23-15-16-Ellis-Ks

Leas 1-23

Start Date: 2011.03.30 @ 10:40:28

End Date: 2011.03.30 @ 17:39:58

Job Ticket #: 042406 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042406

DST#: 1

ATTN: Clayton Comozzi

Test Start: 2011.03.30 @ 10:40:28

GENERAL INFORMATION:

Formation: **C LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:36:58

Time Test Ended: 17:39:58

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: 3150.00 ft (KB) To 3170.00 ft (KB) (TVD)

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3170.00 ft (KB) (TVD)

1862.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 62.79 psig @ 3151.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.03.30

End Date: 2011.03.30

Last Calib.: 2011.03.30

Start Time: 10:50:28

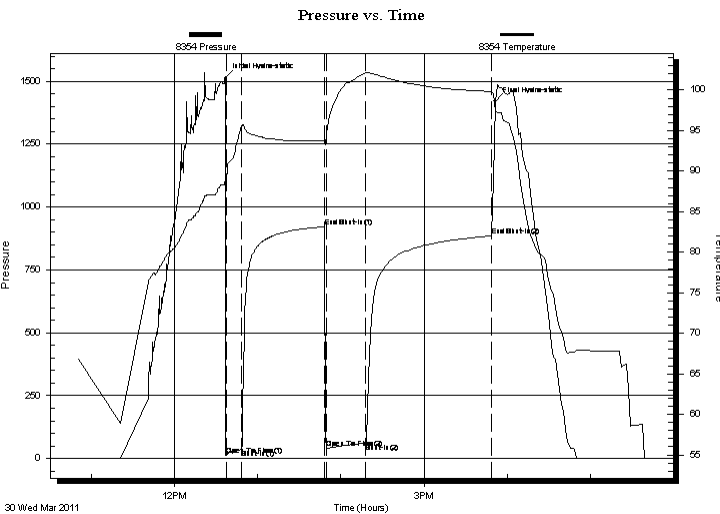
End Time: 17:39:58

Time On Btm: 2011.03.30 @ 12:36:48

Time Off Btm: 2011.03.30 @ 15:51:28

TEST COMMENT: IF-Weak building to 1"

FF-Weak building to 3/4"
Times-10-60-30-90



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1514.10 | 89.34 | Initial Hydro-static |
| 1 | 14.38 | 88.52 | Open To Flow (1) |
| 12 | 36.58 | 95.54 | Shut-In(1) |
| 72 | 921.86 | 93.72 | End Shut-In(1) |
| 73 | 40.04 | 94.60 | Open To Flow (2) |
| 102 | 62.79 | 102.13 | Shut-In(2) |
| 193 | 885.44 | 99.82 | End Shut-In(2) |
| 195 | 1421.28 | 97.34 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------|--------------|
| 90.00 | Mdy Wtr | 0.99 |
| 0.00 | Rw .11 @ 70 = 68000ppm | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
| | | |



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary & Associates Inc
 1515 Wynkoop St Ste 700
 Denver Colo 80202
 ATTN: Clayton Comozzi

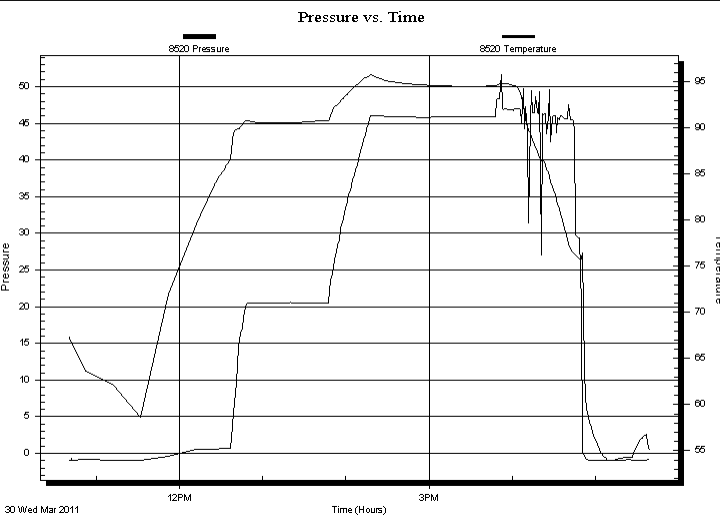
Leas 1-23
23-15-16-Ellis-Ks
 Job Ticket: 042406 **DST#: 1**
 Test Start: 2011.03.30 @ 10:40:28

GENERAL INFORMATION:

Formation: **C LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:36:58
 Time Test Ended: 17:39:58
Interval: 3150.00 ft (KB) To 3170.00 ft (KB) (TVD)
 Total Depth: 3170.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Dan Bangle
 Unit No: 38
 Reference Elevations: 1870.00 ft (KB)
 1862.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8520 Inside
 Press @ Run Depth: psig @ 3116.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.03.30 End Date: 2011.03.30 Last Calib.: 2011.03.30
 Start Time: 10:40:01 End Time: 17:39:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-Weak building to 1"
 FF-Weak building to 3/4"
 Times-10-60-30-90



| PRESSURE SUMMARY | | | |
|------------------|-----------------|--------------|------------|
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
| | | | |
| | | | |
| | | | |
| | | | |

| Recovery | | |
|-------------|------------------------|--------------|
| Length (ft) | Description | Volume (bbl) |
| 90.00 | Mdy Wtr | 0.99 |
| 0.00 | Rw .11 @ 70 = 68000ppm | 0.00 |
| | | |
| | | |
| | | |

| Gas Rates | | | |
|-----------|----------------|-----------------|------------------|
| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
| | | | |
| | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042406

DST#: 1

ATTN: Clayton Comozzi

Test Start: 2011.03.30 @ 10:40:28

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3099.00 ft | Diameter: 3.80 inches | Volume: 43.47 bbl | Tool Weight: 3000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 20000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: 45000.00 lb |
| | | | <u>Total Volume: 43.62 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 14.00 ft | | | String Weight: Initial 45000.00 lb |
| Depth to Top Packer: | 3150.00 ft | | | Final 45000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 20.00 ft | | | |
| Tool Length: | 55.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3116.00 | |
| Recorder | 0.00 | 8520 | Inside | 3116.00 | |
| Blank Spacing | 5.00 | | | 3121.00 | |
| Shut In Tool | 5.00 | | | 3126.00 | |
| Sampler | 2.00 | | | 3128.00 | |
| Hydraulic tool | 5.00 | | | 3133.00 | |
| Jars | 5.00 | | | 3138.00 | |
| Safety Joint | 3.00 | | | 3141.00 | |
| Packer | 5.00 | | | 3146.00 | 35.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3150.00 | |
| Stubb | 1.00 | | | 3151.00 | |
| Recorder | 0.00 | 8354 | Inside | 3151.00 | |
| Recorder | 0.00 | 8653 | Outside | 3151.00 | |
| Perforations | 16.00 | | | 3167.00 | |
| Bullnose | 3.00 | | | 3170.00 | 20.00 Bottom Packers & Anchor |

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042406

DST#: 1

ATTN: Clayton Comozzi

Test Start: 2011.03.30 @ 10:40:28

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

68000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------------|---------------|
| 90.00 | Mdy Wtr | 0.989 |
| 0.00 | Rw .11 @ 70 = 68000ppm | 0.000 |

Total Length: 90.00 ft Total Volume: 0.989 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

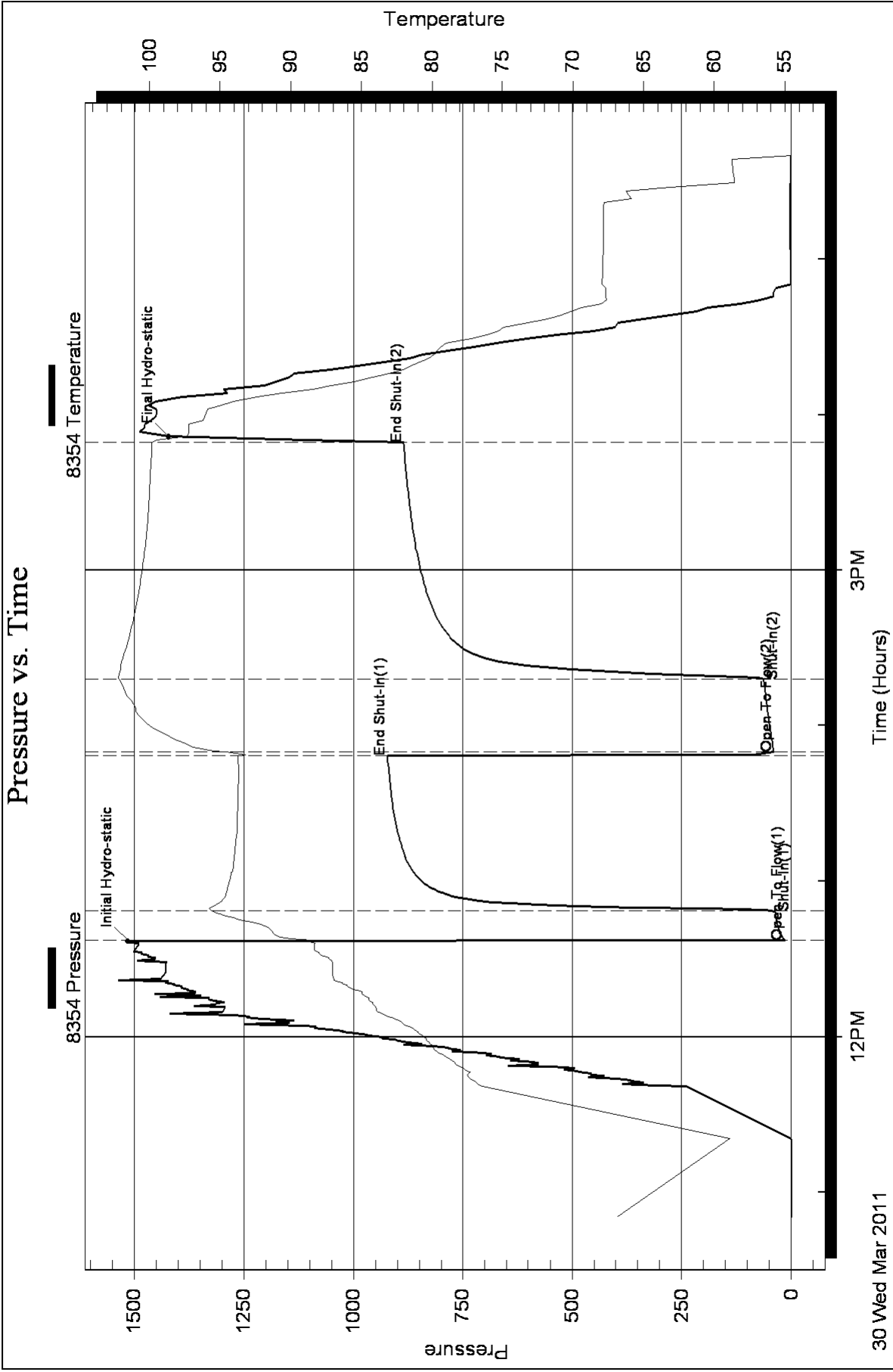
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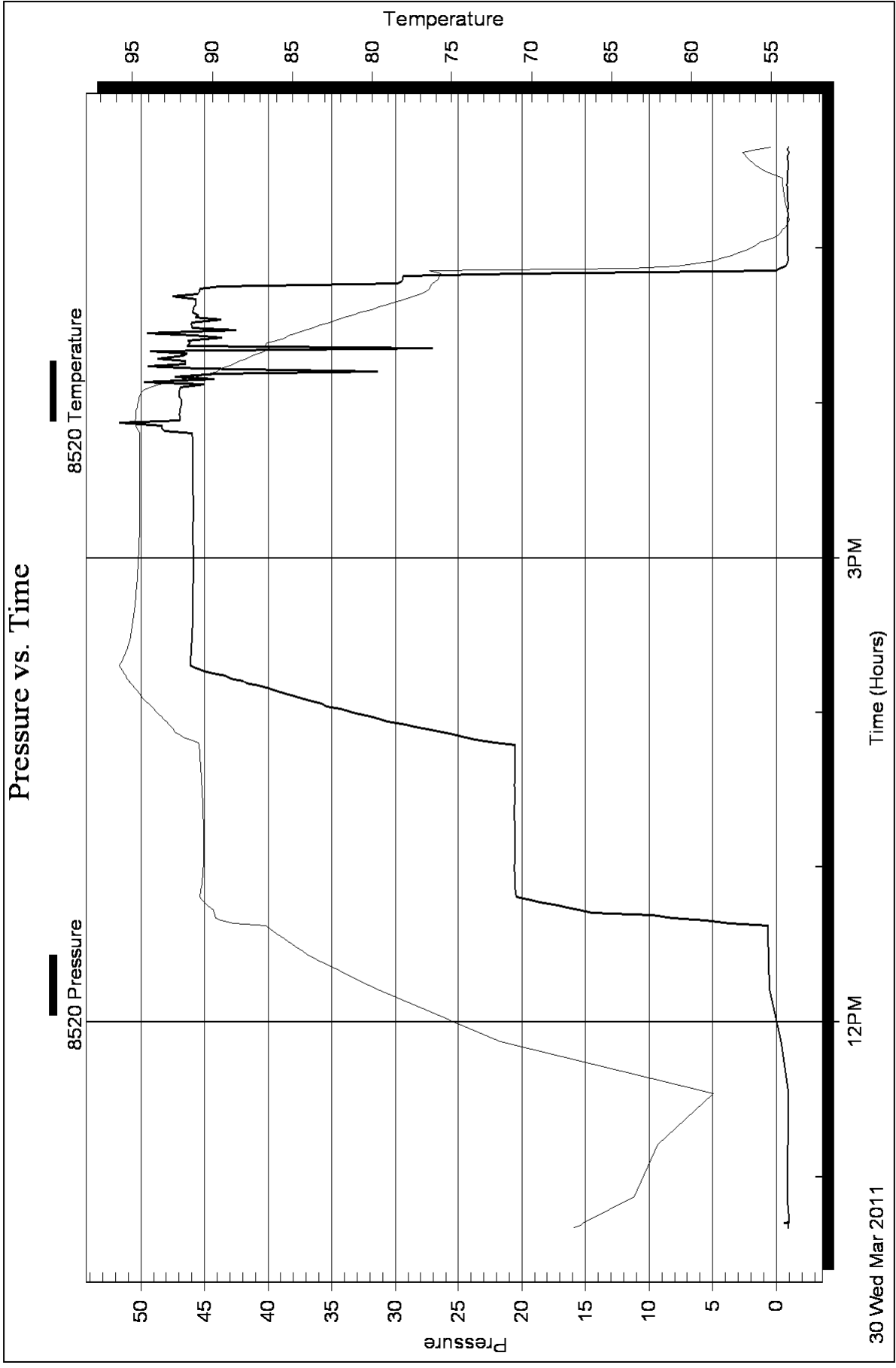
Laboratory Name:

Laboratory Location:

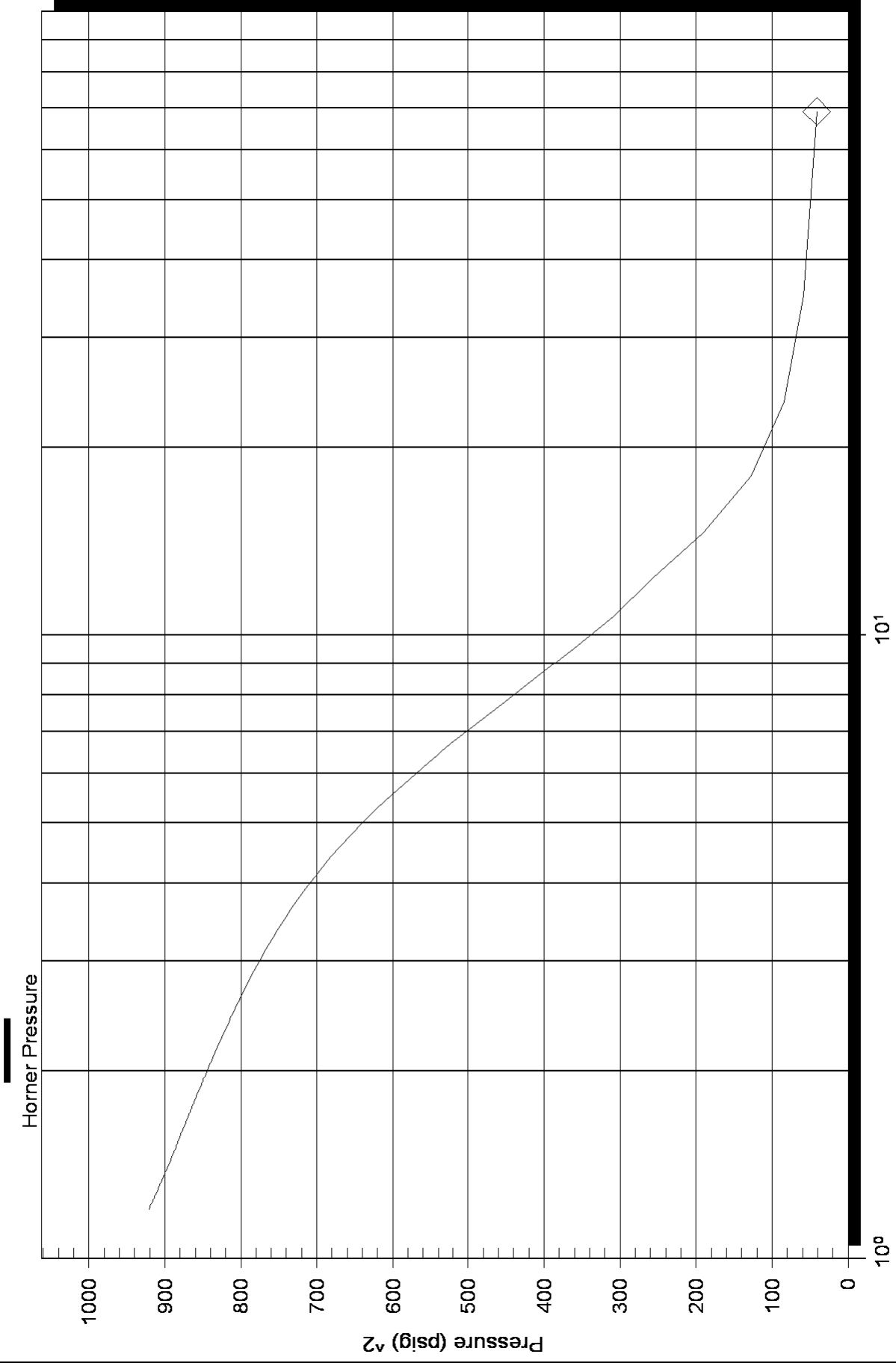
Recovery Comments: SAMPLER

Gas 0

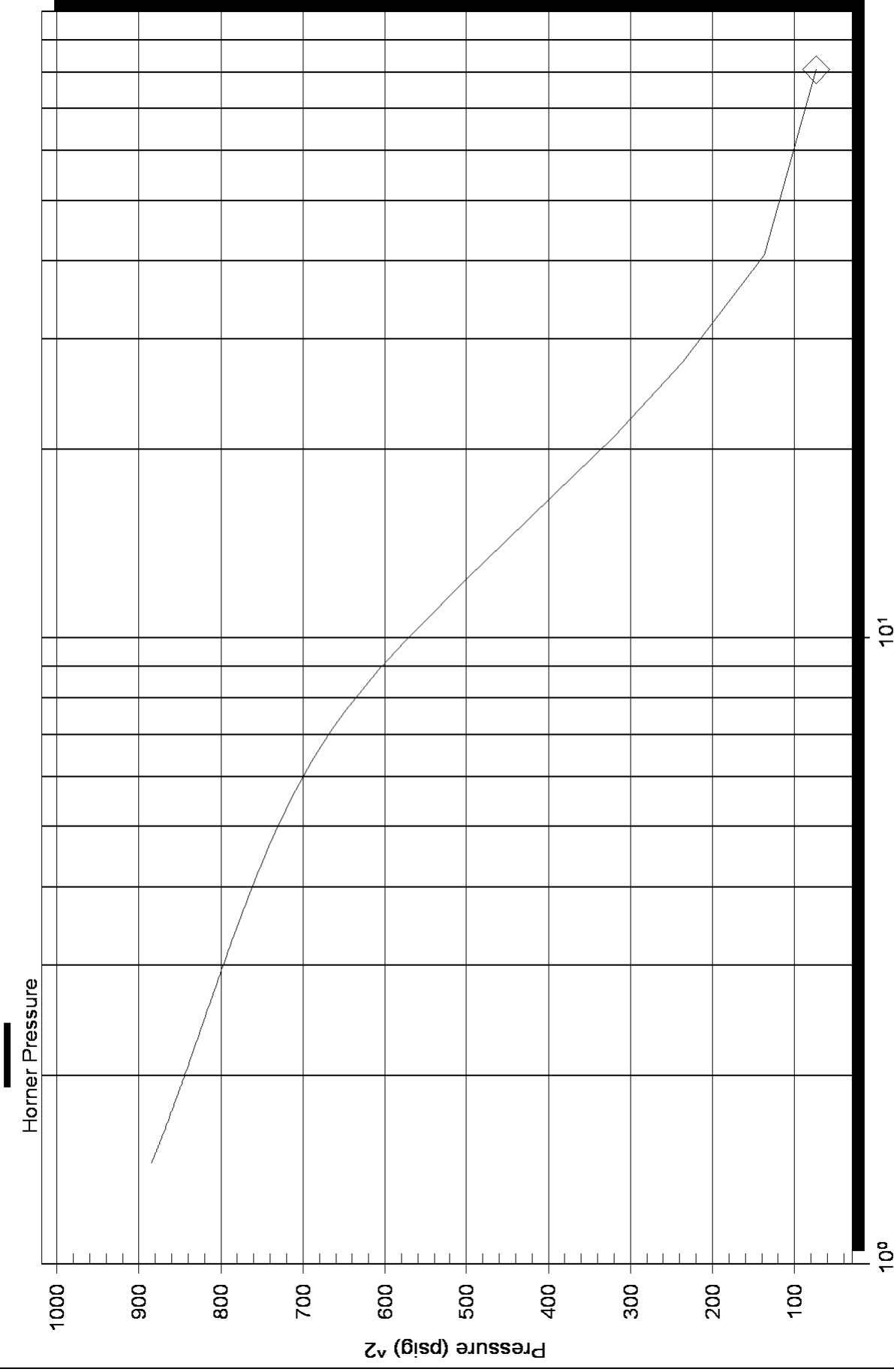




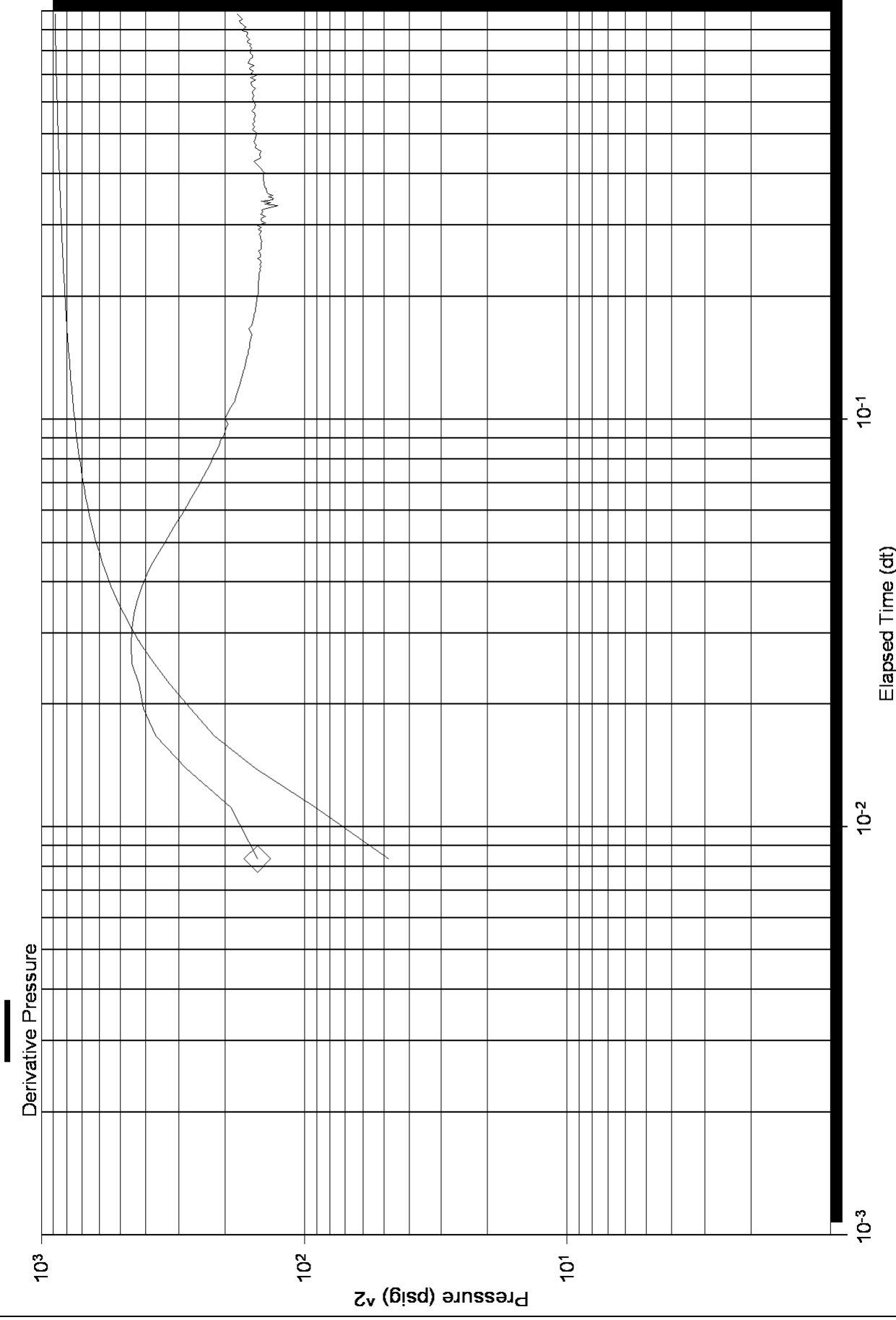
Homer Plot



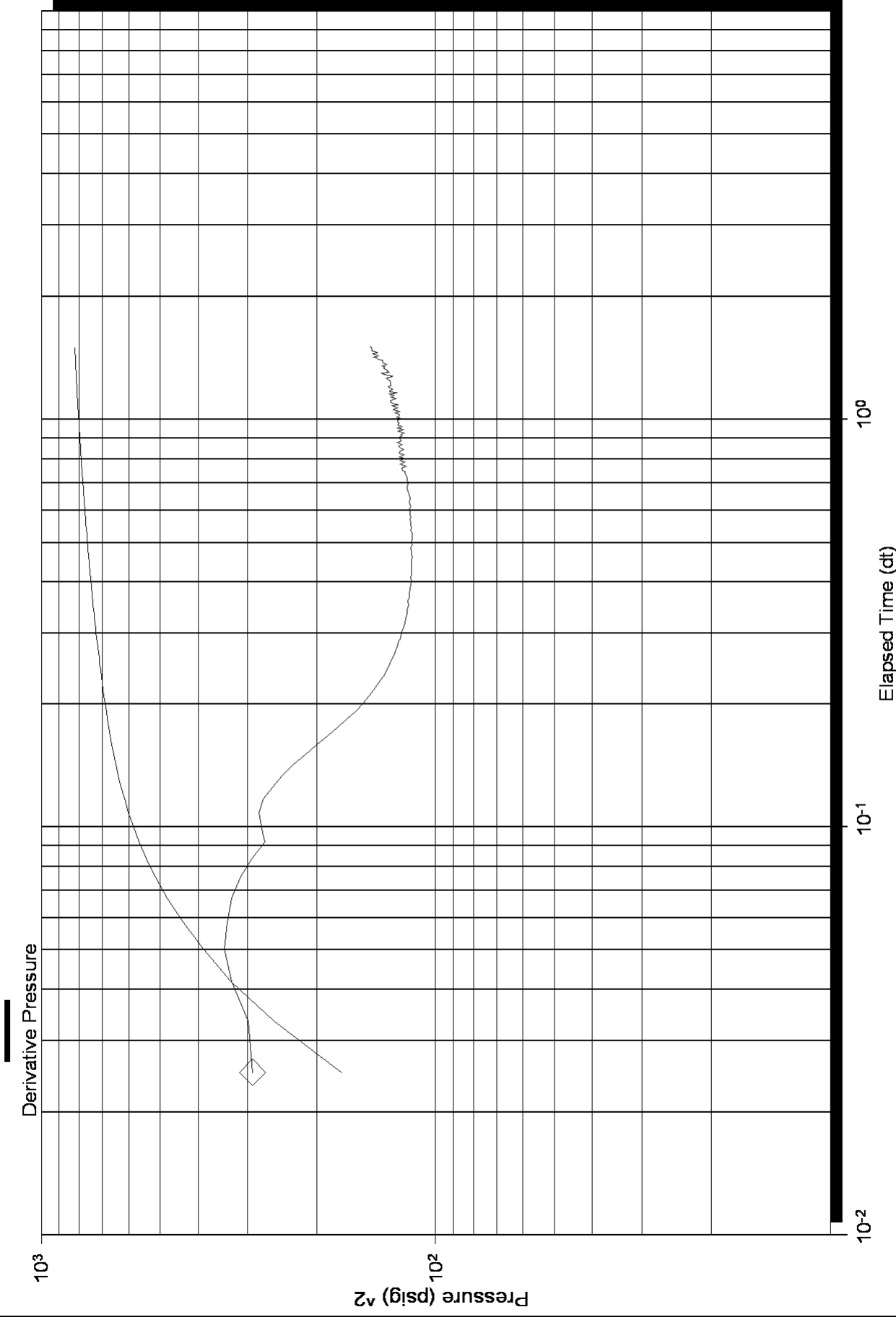
Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative





DRILL STEM TEST REPORT

Prepared For: **Sam Gary & Associates Inc**

1515 Wynkoop St Ste 700
Denver Colo 80202

ATTN: Clayton Comozzi

23-15-16-Ellis-Ks

Leas 1-23

Start Date: 2011.03.31 @ 08:37:33

End Date: 2011.03.31 @ 15:53:33

Job Ticket #: 042407 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042407

DST#: 2

ATTN: Clayton Comozzi

Test Start: 2011.03.31 @ 08:37:33

GENERAL INFORMATION:

Formation: **K-L LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:10:13

Time Test Ended: 15:53:33

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: 3330.00 ft (KB) To 3355.00 ft (KB) (TVD)

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3355.00 ft (KB) (TVD)

1862.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 42.30 psig @ 3331.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.03.31

End Date:

2011.03.31

Last Calib.: 2011.03.31

Start Time: 08:47:33

End Time:

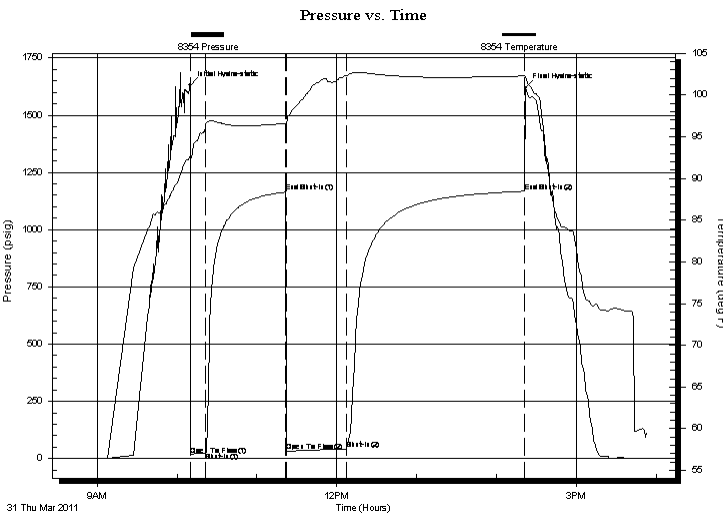
15:53:33

Time On Btm: 2011.03.31 @ 10:10:03

Time Off Btm: 2011.03.31 @ 14:22:03

TEST COMMENT: IF-Weak steady surface blow

FF-Weak steady surface blow
Times-10-60-45-135



PRESSURE SUMMARY

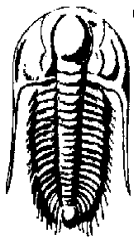
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1631.29 | 92.65 | Initial Hydro-static |
| 1 | 13.99 | 92.02 | Open To Flow (1) |
| 12 | 25.51 | 96.32 | Shut-In(1) |
| 72 | 1164.03 | 96.59 | End Shut-In(1) |
| 72 | 29.62 | 96.37 | Open To Flow (2) |
| 117 | 42.30 | 102.33 | Shut-In(2) |
| 251 | 1167.60 | 102.29 | End Shut-In(2) |
| 252 | 1618.56 | 102.16 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 15.00 | Mdy Wtr | 0.07 |
| 0.00 | Rw .17 @ 70 42000ppm | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
| | | |



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042407 **DST#: 2**

ATTN: Clayton Comozzi

Test Start: 2011.03.31 @ 08:37:33

GENERAL INFORMATION:

Formation: **K-L LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:10:13

Time Test Ended: 15:53:33

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: **3330.00 ft (KB) To 3355.00 ft (KB) (TVD)**

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3355.00 ft (KB) (TVD)

1862.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8653 Outside

Press @ Run Depth: psig @ 3331.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.03.31 End Date: 2011.03.31

Last Calib.: 2011.03.31

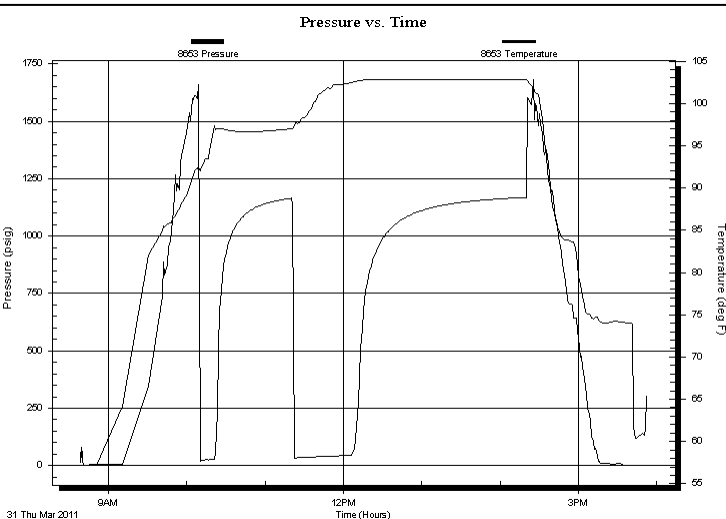
Start Time: 08:38:44 End Time: 15:52:13

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-Weak steady surface blow

FF-Weak steady surface blow
Times-10-60-45-135



PRESSURE SUMMARY

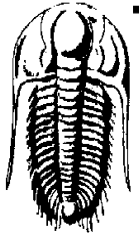
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
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Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 15.00 | Mdy Wtr | 0.07 |
| 0.00 | Rw .17 @ 70 42000ppm | 0.00 |
| | | |
| | | |
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| | | |

Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
| | | |



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary & Associates Inc
 1515 Wynkoop St Ste 700
 Denver Colo 80202
 ATTN: Clayton Comozzi

Leas 1-23
23-15-16-Ellis-Ks
 Job Ticket: 042407 **DST#: 2**
 Test Start: 2011.03.31 @ 08:37:33

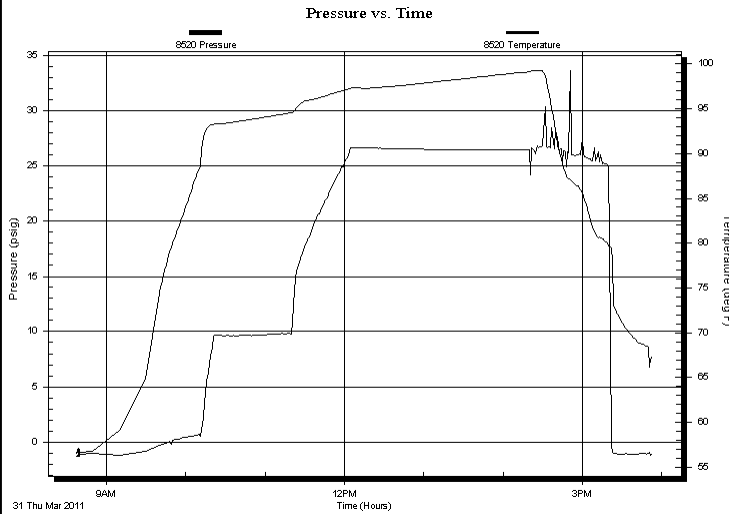
GENERAL INFORMATION:

Formation: **K-L LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:10:13
 Time Test Ended: 15:53:33
Interval: 3330.00 ft (KB) To 3355.00 ft (KB) (TVD)
 Total Depth: 3355.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Dan Bangle
 Unit No: 38
 Reference Elevations: 1870.00 ft (KB)
 1862.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8520 Inside

Press @ Run Depth: psig @ 3296.00 ft (KB)
 Start Date: 2011.03.31 End Date: 2011.03.31
 Start Time: 08:37:24 End Time: 15:52:53
 Capacity: 8000.00 psig
 Last Calib.: 2011.03.31
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-Weak steady surface blow
 FF-Weak steady surface blow
 Times-10-60-45-135



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
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Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------------|--------------|
| 15.00 | Mdy Wtr | 0.07 |
| 0.00 | Rw .17 @ 70 42000ppm | 0.00 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
| | | |
| | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042407

DST#: 2

ATTN: Clayton Comozzi

Test Start: 2011.03.31 @ 08:37:33

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3287.00 ft | Diameter: 3.80 inches | Volume: 46.11 bbl | Tool Weight: | 3000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 20000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: | 50000.00 lb |
| | | | <u>Total Volume: 46.26 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 22.00 ft | | | String Weight: Initial | 48000.00 lb |
| Depth to Top Packer: | 3330.00 ft | | | Final | 48000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 25.00 ft | | | | |
| Tool Length: | 60.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3296.00 | |
| Recorder | 0.00 | 8520 | Inside | 3296.00 | |
| Blank Spacing | 5.00 | | | 3301.00 | |
| Shut In Tool | 5.00 | | | 3306.00 | |
| Sampler | 2.00 | | | 3308.00 | |
| Hydraulic tool | 5.00 | | | 3313.00 | |
| Jars | 5.00 | | | 3318.00 | |
| Safety Joint | 3.00 | | | 3321.00 | |
| Packer | 5.00 | | | 3326.00 | 35.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3330.00 | |
| Stubb | 1.00 | | | 3331.00 | |
| Recorder | 0.00 | 8354 | Inside | 3331.00 | |
| Recorder | 0.00 | 8653 | Outside | 3331.00 | |
| Perforations | 21.00 | | | 3352.00 | |
| Bullnose | 3.00 | | | 3355.00 | 25.00 Bottom Packers & Anchor |

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042407

DST#: 2

ATTN: Clayton Comozzi

Test Start: 2011.03.31 @ 08:37:33

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: 1.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|----------------------|---------------|
| 15.00 | Mdy Wtr | 0.074 |
| 0.00 | Rw .17 @ 70 42000ppm | 0.000 |

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

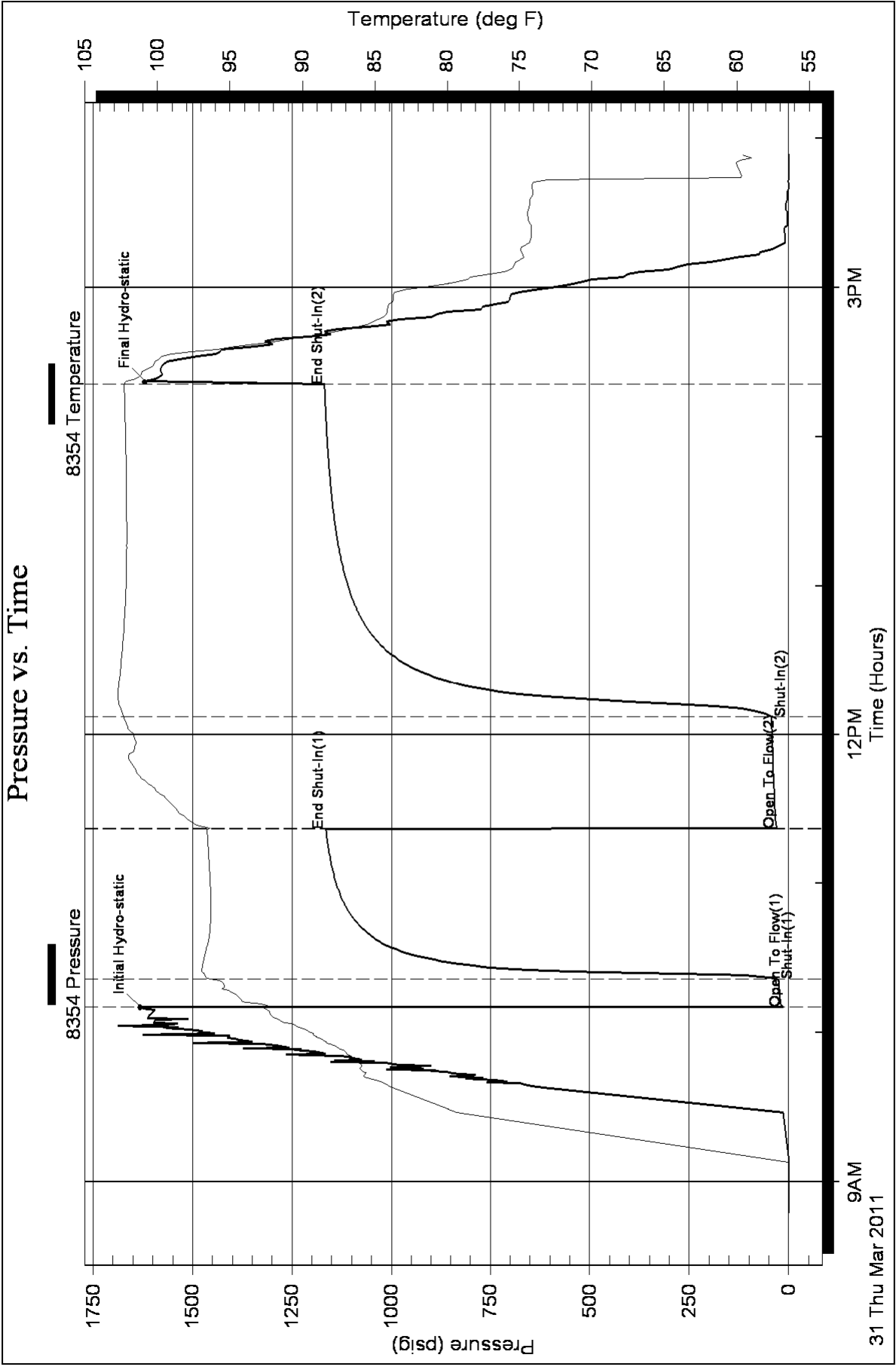
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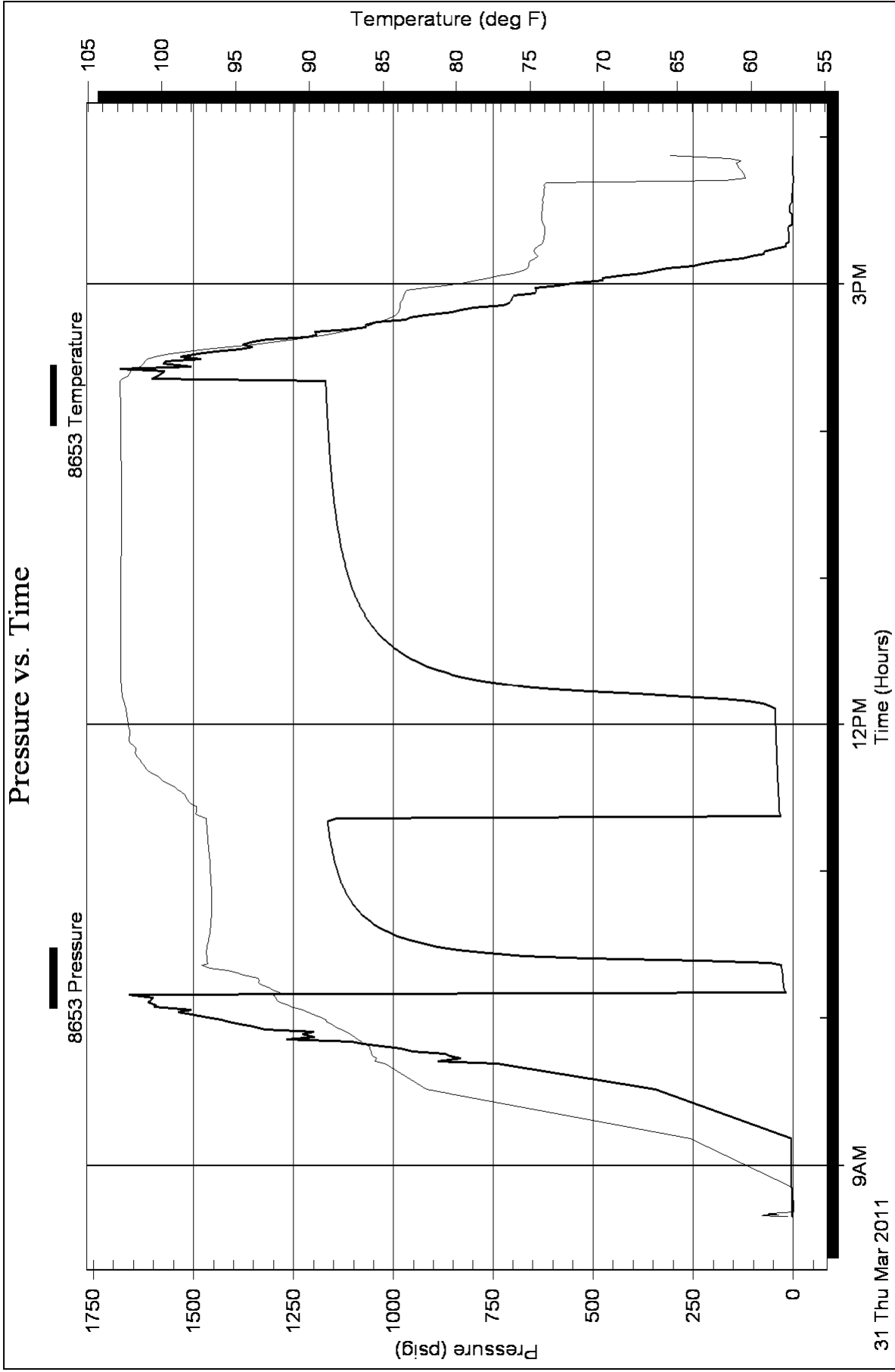
Laboratory Name:

Laboratory Location:

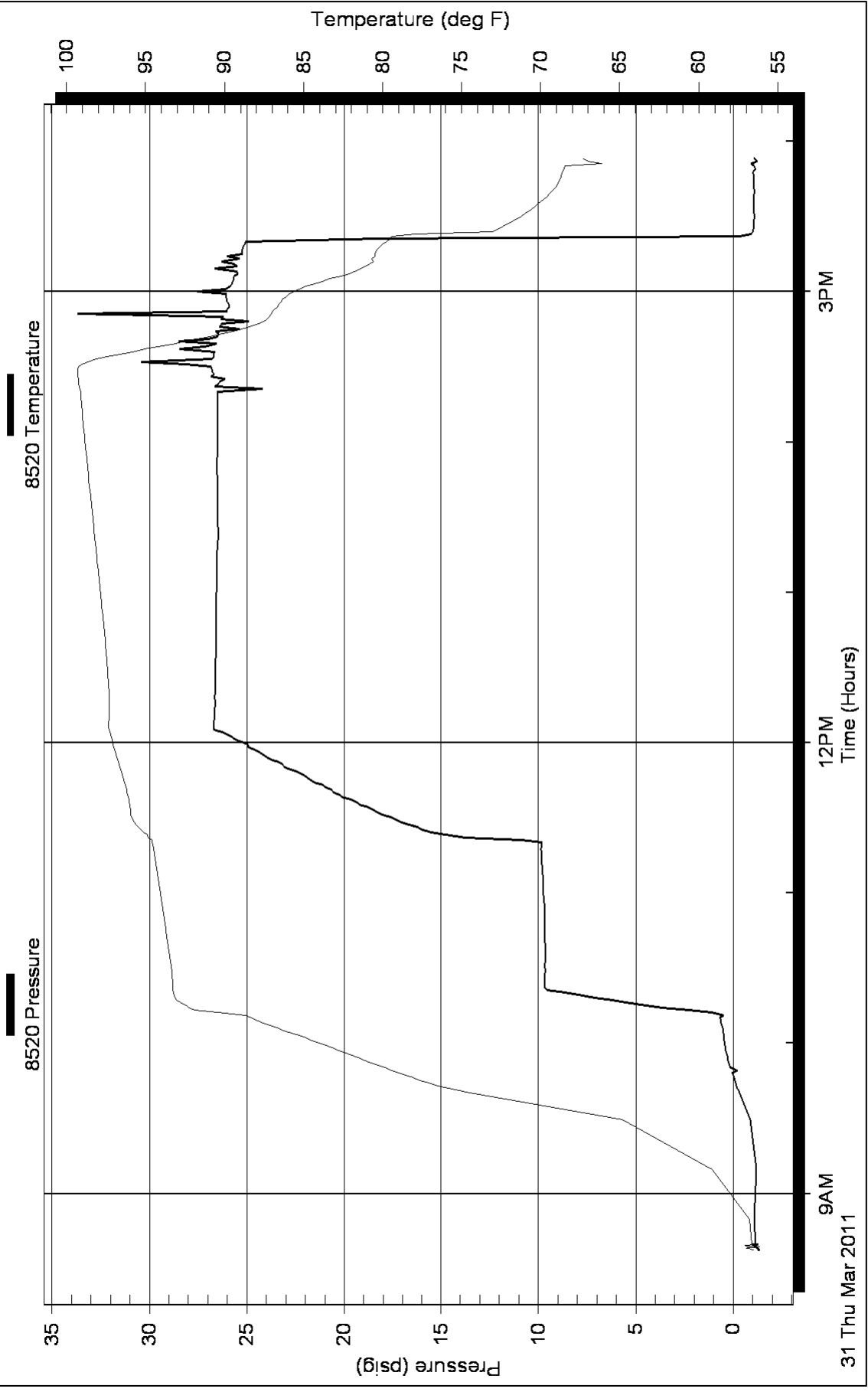
Recovery Comments: Sampler Gas 0 Oil 0 Mud 0 Wtr 2000 ml PSI 362 Total 2000 ml

Pressure vs. Time

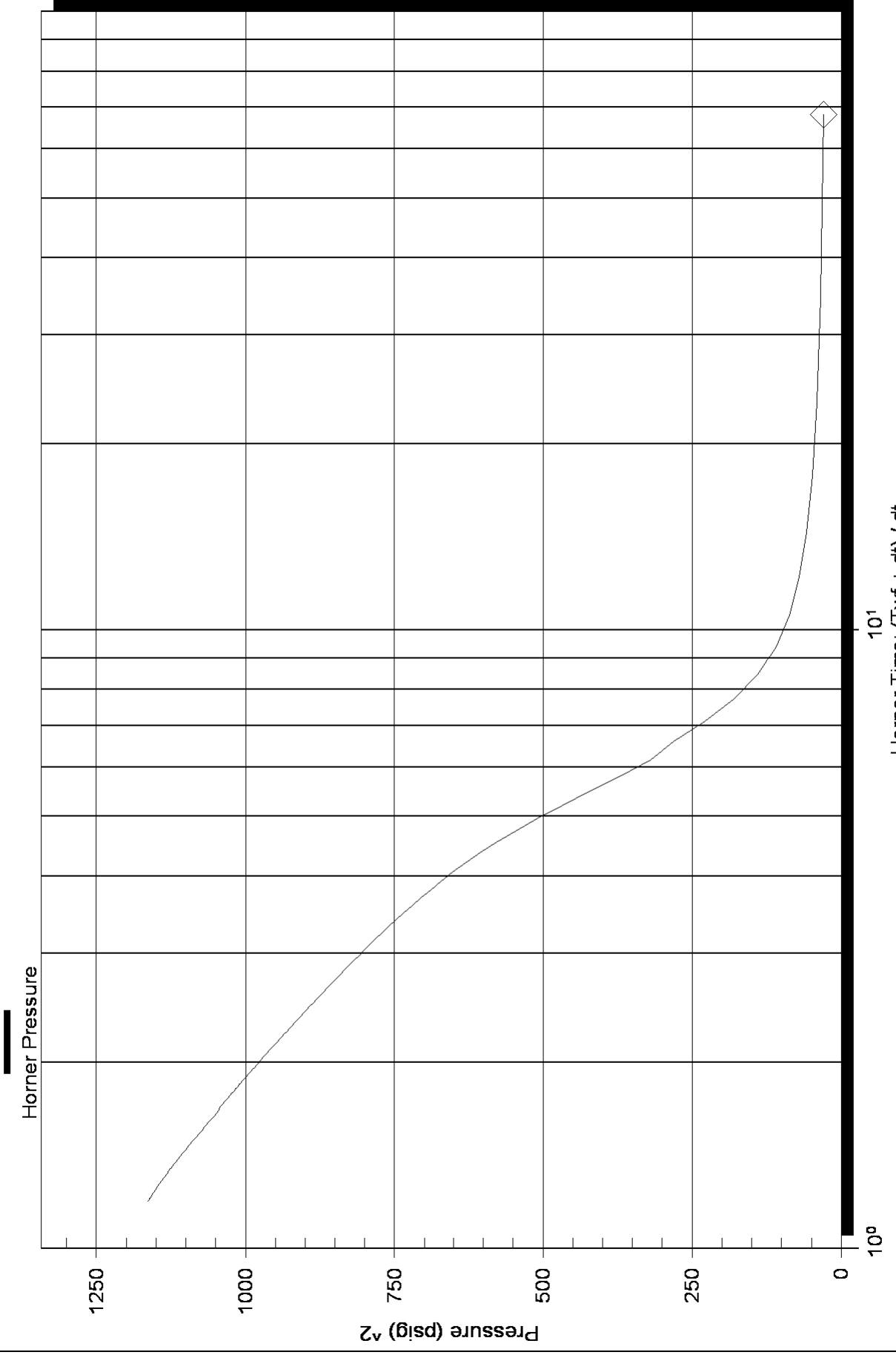




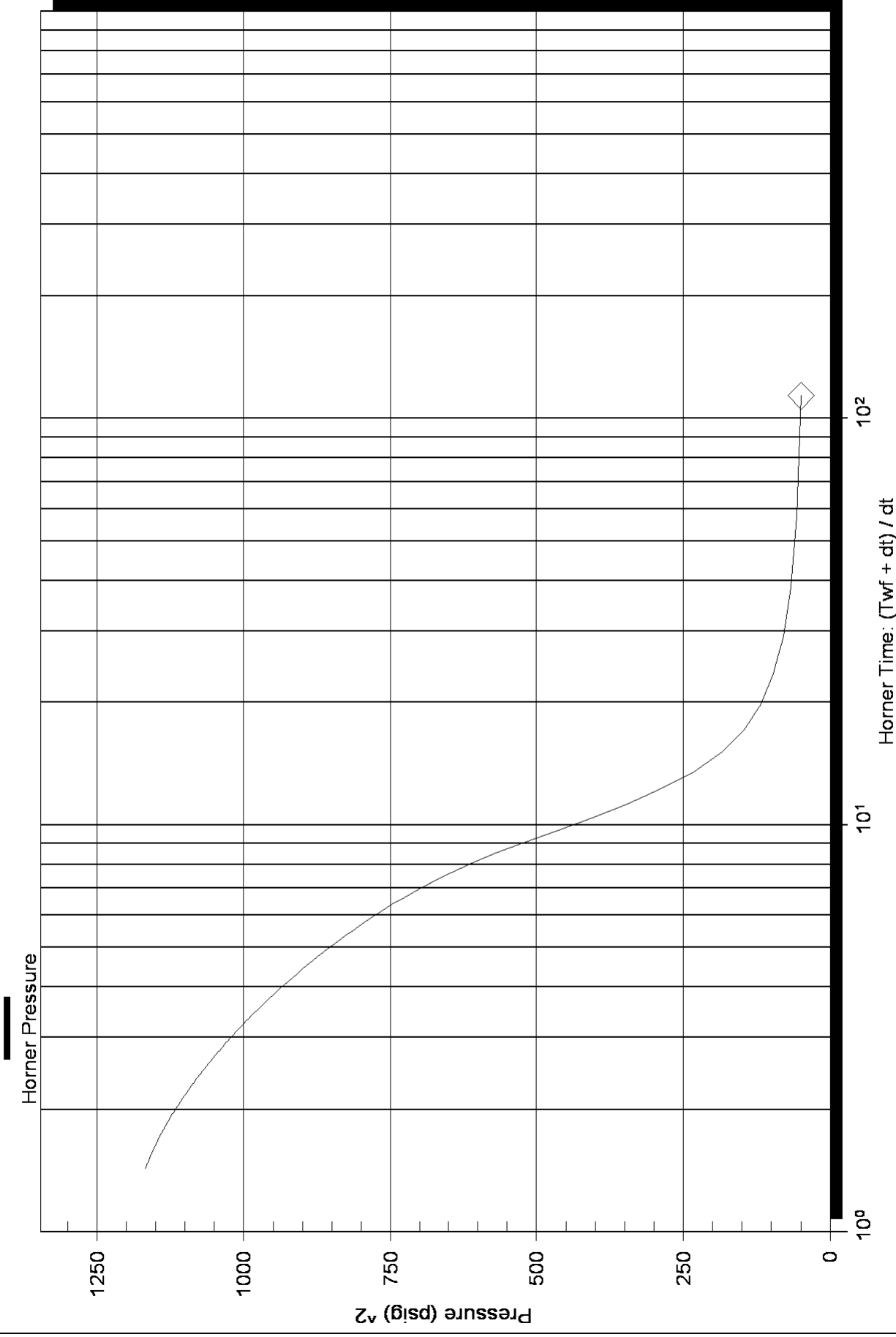
Pressure vs. Time



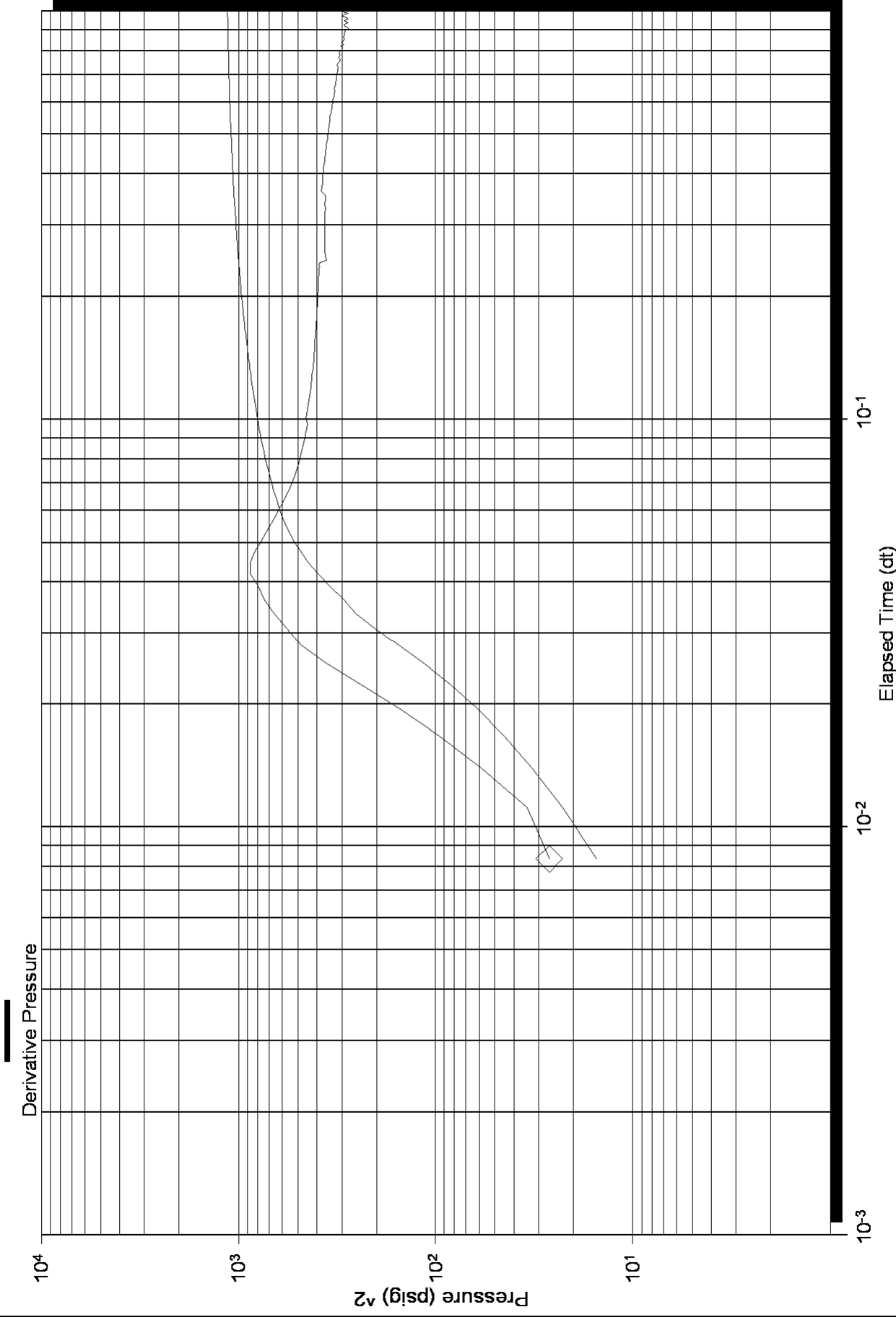
Homer Plot



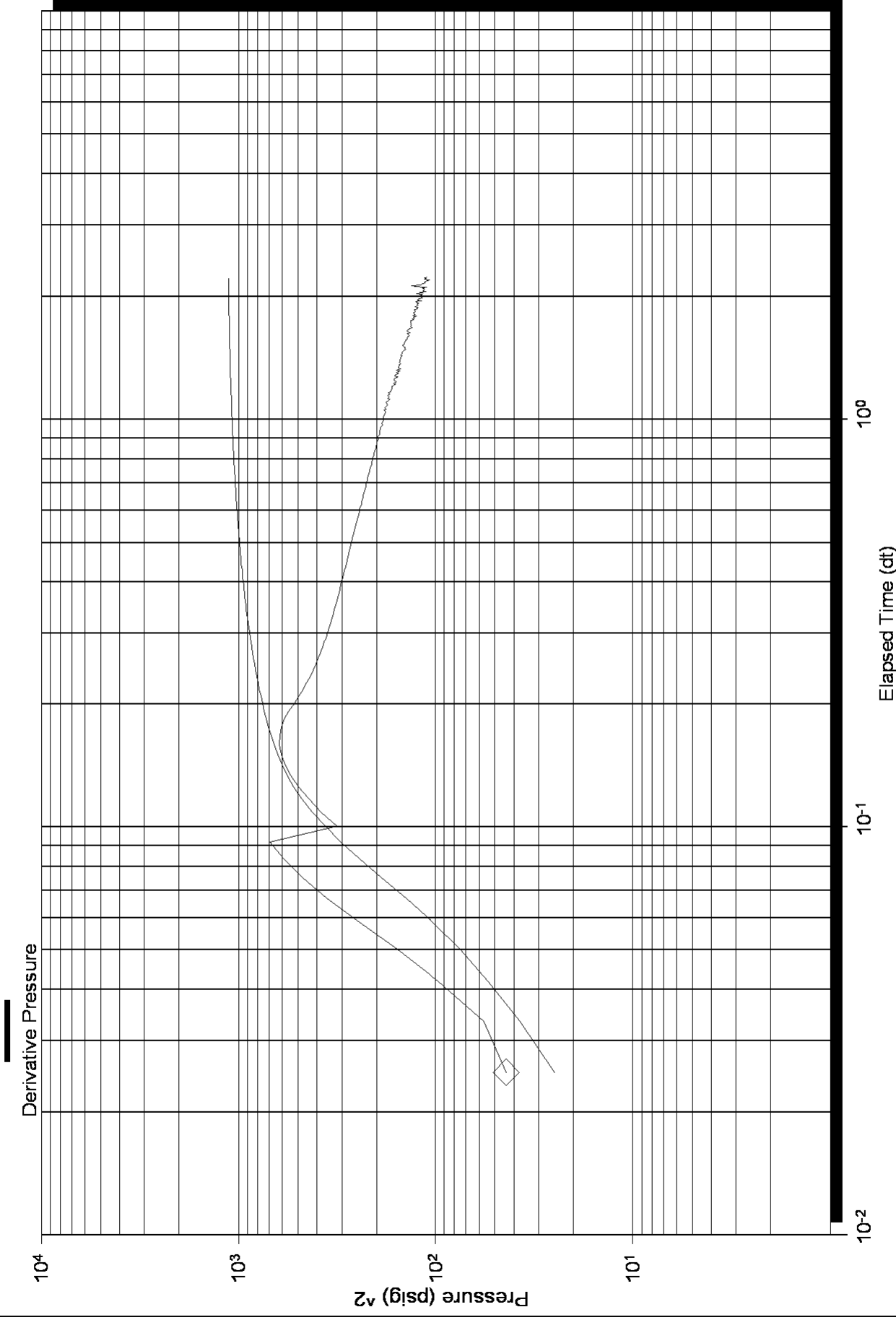
Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative





DRILL STEM TEST REPORT

Prepared For: **Sam Gary & Associates Inc**

1515 Wynkoop St Ste 700
Denver Colo 80202

ATTN: Clayton Comozzi

23-15-16-Ellis-Ks

Leas 1-23

Start Date: 2011.04.01 @ 01:02:25

End Date: 2011.04.01 @ 08:11:55

Job Ticket #: 042408 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042408

DST#: 3

ATTN: Clayton Comozzi

Test Start: 2011.04.01 @ 01:02:25

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:51:35

Time Test Ended: 08:11:55

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: 3438.00 ft (KB) To 3450.00 ft (KB) (TVD)

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD)

1862.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8354 Inside

Press @ Run Depth: psig @ 3439.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.04.01 End Date: 2011.04.01

Last Calib.: 2011.04.01

Start Time: 01:12:25 End Time: 08:11:55

Time On Btm: 2011.04.01 @ 02:48:05

Time Off Btm: 2011.04.01 @ 06:02:55

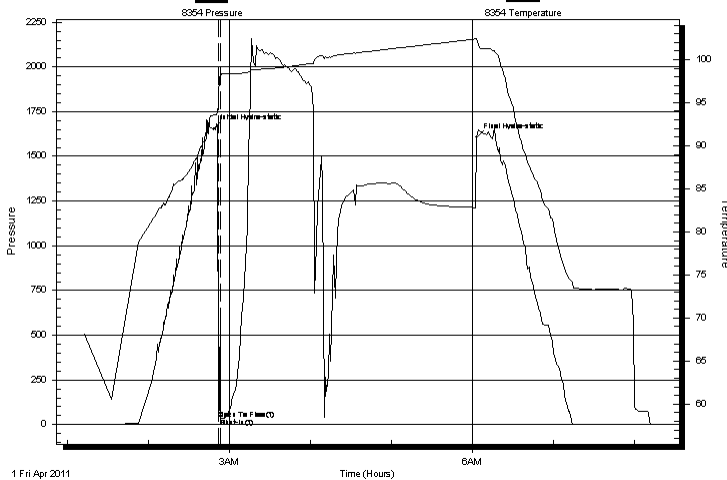
TEST COMMENT: IF-Weak 1/2" blow [slid tool 5' to bottom]

FF-Weak steady surface blow

Times-10-60-30-90

PLUGGED TOOL

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1654.14 | 93.56 | Initial Hydro-static |
| 4 | 29.70 | 95.65 | Open To Flow (1) |
| 5 | 33.29 | 98.04 | Shut-In(1) |
| 195 | 1605.16 | 102.46 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 10.00 | Drig Mud | 0.05 |
| 0.00 | Plugged Tool | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
| | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

1515 Wynkoop St Ste 700
Denver Colo 80202

ATTN: Clayton Comozzi

Leas 1-23

23-15-16-Ellis-Ks

Job Ticket: 042408

DST#: 3

Test Start: 2011.04.01 @ 01:02:25

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:51:35

Time Test Ended: 08:11:55

Interval: **3438.00 ft (KB) To 3450.00 ft (KB) (TVD)**

Total Depth: 3450.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Reference Elevations: 1870.00 ft (KB)

1862.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8653

Outside

Press @ Run Depth: psig @ 3439.00 ft (KB)

Start Date: 2011.04.01

End Date:

2011.04.01

Start Time: 01:02:17

End Time:

08:09:16

Capacity: 8000.00 psig

Last Calib.:

2011.04.01

Time On Btm:

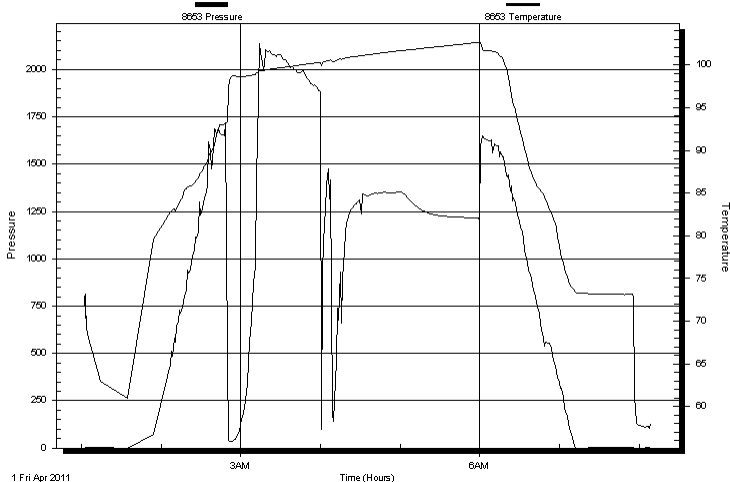
Time Off Btm:

TEST COMMENT: IF-Weak 1/2" blow [slid tool 5' to bottom]

FF-Weak steady surface blow
Times-10-60-30-90

PLUGGED TOOL

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 10.00 | Drig Mud | 0.05 |
| 0.00 | Plugged Tool | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
| | | |



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary & Associates Inc
 1515 Wynkoop St Ste 700
 Denver Colo 80202
 ATTN: Clayton Comozzi

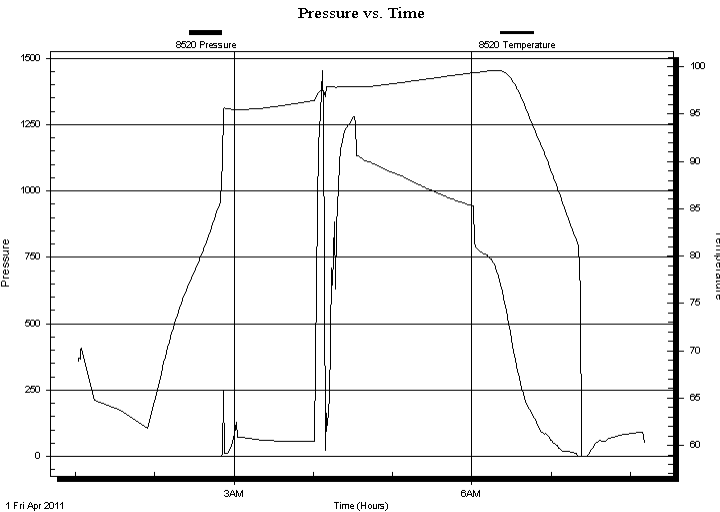
Leas 1-23
23-15-16-Ellis-Ks
 Job Ticket: 042408 **DST#: 3**
 Test Start: 2011.04.01 @ 01:02:25

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:51:35
 Time Test Ended: 08:11:55
Interval: 3438.00 ft (KB) To 3450.00 ft (KB) (TVD)
 Total Depth: 3450.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Dan Bangle
 Unit No: 38
 Reference Elevations: 1870.00 ft (KB)
 1862.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8520 Inside
 Press @ Run Depth: psig @ 3404.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.04.01 End Date: 2011.04.01 Last Calib.: 2011.04.01
 Start Time: 01:02:21 End Time: 08:10:50 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-Weak 1/2" blow [slid tool 5' to bottom]
 FF-Weak steady surface blow
 Times-10-60-30-90 **PLUGGED TOOL**



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 10.00 | Drig Mud | 0.05 |
| 0.00 | Plugged Tool | 0.00 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
| | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042408

DST#: 3

ATTN: Clayton Comozzi

Test Start: 2011.04.01 @ 01:02:25

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3382.00 ft | Diameter: 3.80 inches | Volume: 47.44 bbl | Tool Weight: | 3000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 20000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: | 65000.00 lb |
| | | | <u>Total Volume: 47.59 bbl</u> | Tool Chased | 5.00 ft |
| Drill Pipe Above KB: | 9.00 ft | | | String Weight: Initial | 48000.00 lb |
| Depth to Top Packer: | 3438.00 ft | | | Final | 48000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 12.00 ft | | | | |
| Tool Length: | 47.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3404.00 | |
| Recorder | 0.00 | 8520 | Inside | 3404.00 | |
| Blank Spacing | 5.00 | | | 3409.00 | |
| Shut In Tool | 5.00 | | | 3414.00 | |
| Sampler | 2.00 | | | 3416.00 | |
| Hydraulic tool | 5.00 | | | 3421.00 | |
| Jars | 5.00 | | | 3426.00 | |
| Safety Joint | 3.00 | | | 3429.00 | |
| Packer | 5.00 | | | 3434.00 | 35.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3438.00 | |
| Stubb | 1.00 | | | 3439.00 | |
| Recorder | 0.00 | 8354 | Inside | 3439.00 | |
| Recorder | 0.00 | 8653 | Outside | 3439.00 | |
| Perforations | 8.00 | | | 3447.00 | |
| Bullnose | 3.00 | | | 3450.00 | 12.00 Bottom Packers & Anchor |

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042408

DST#: 3

ATTN: Clayton Comozzi

Test Start: 2011.04.01 @ 01:02:25

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------|---------------|
| 10.00 | Drig Mud | 0.049 |
| 0.00 | Plugged Tool | 0.000 |

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

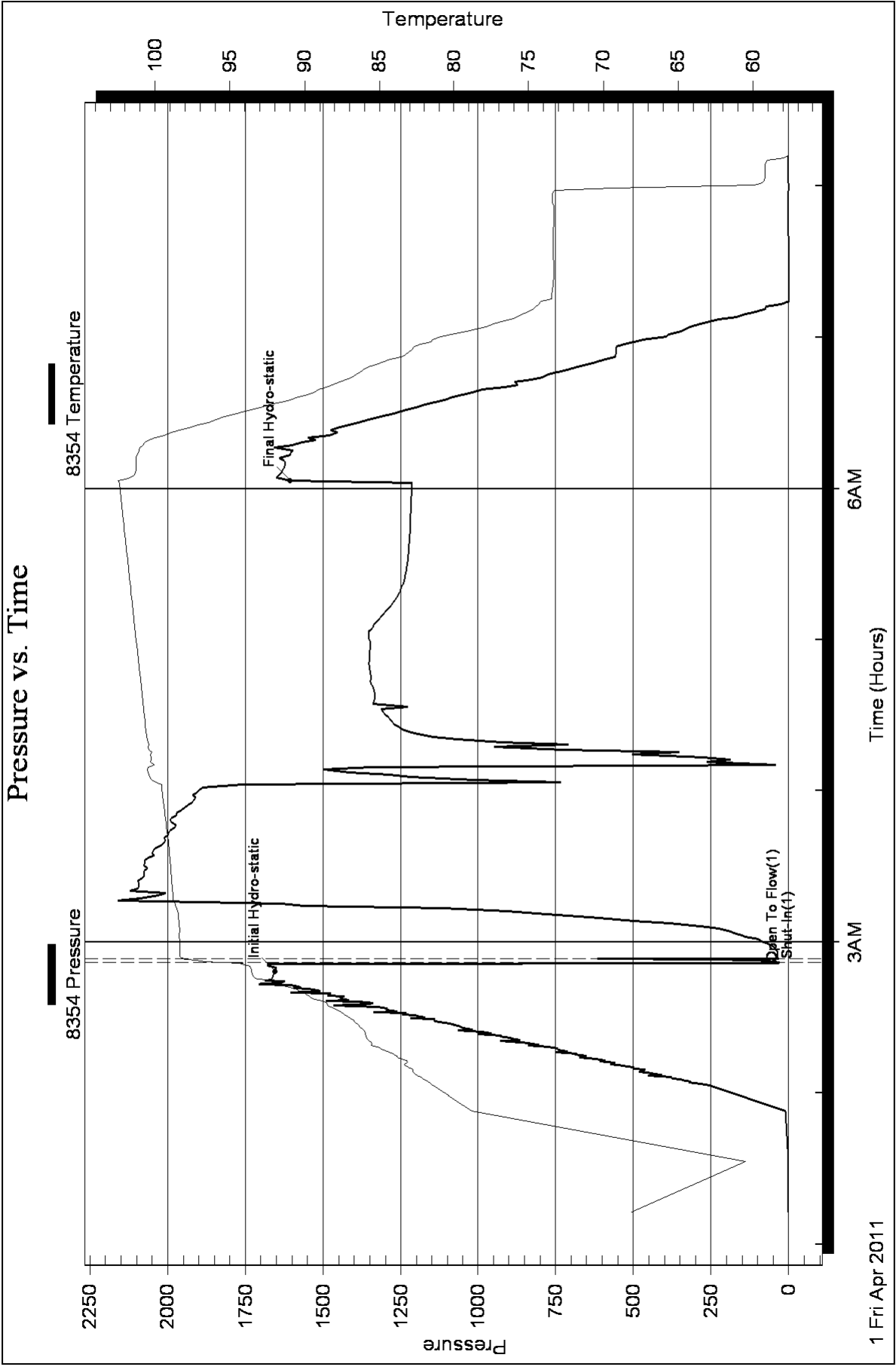
Num Gas Bombs: 0

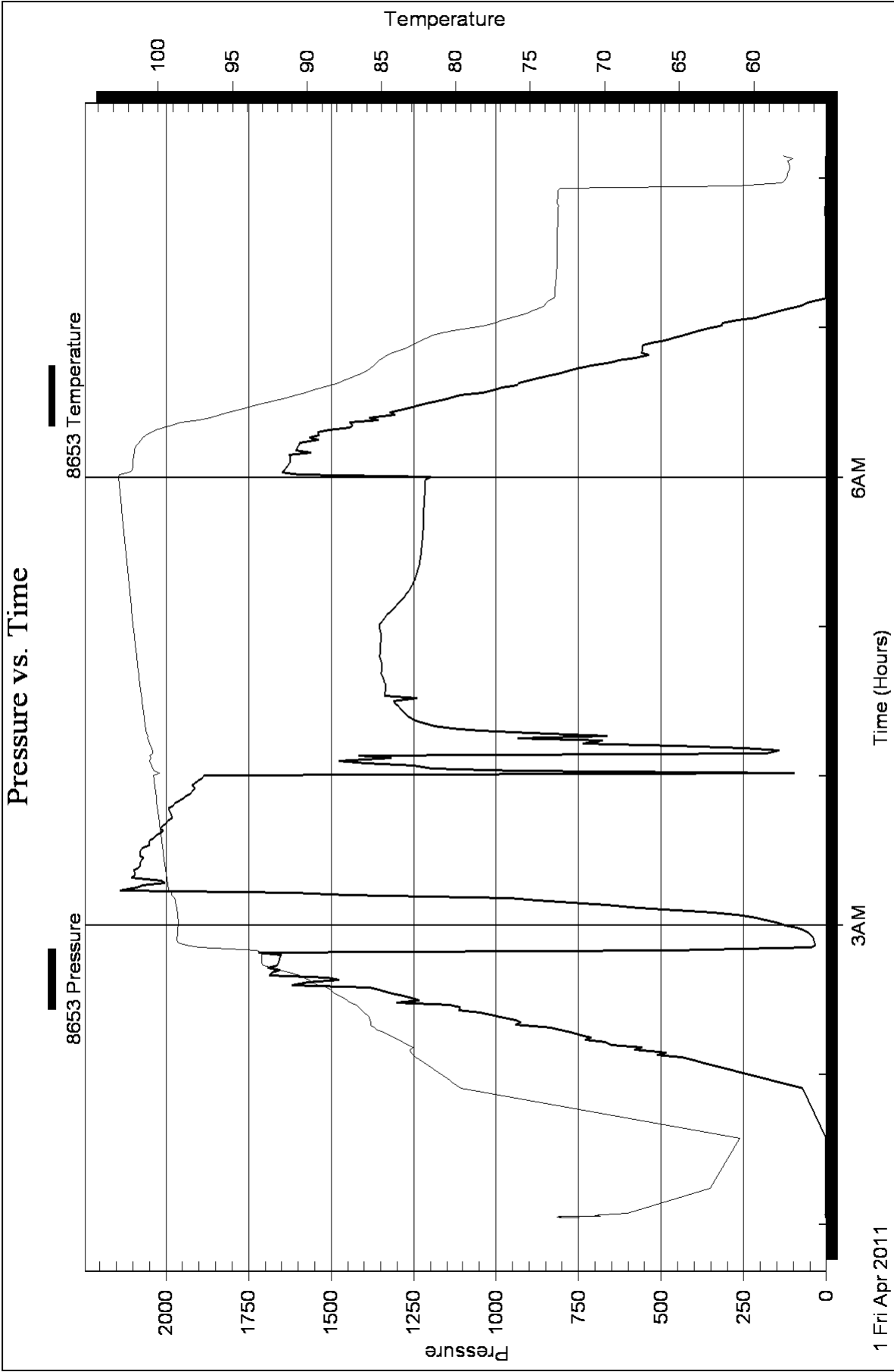
Serial #:

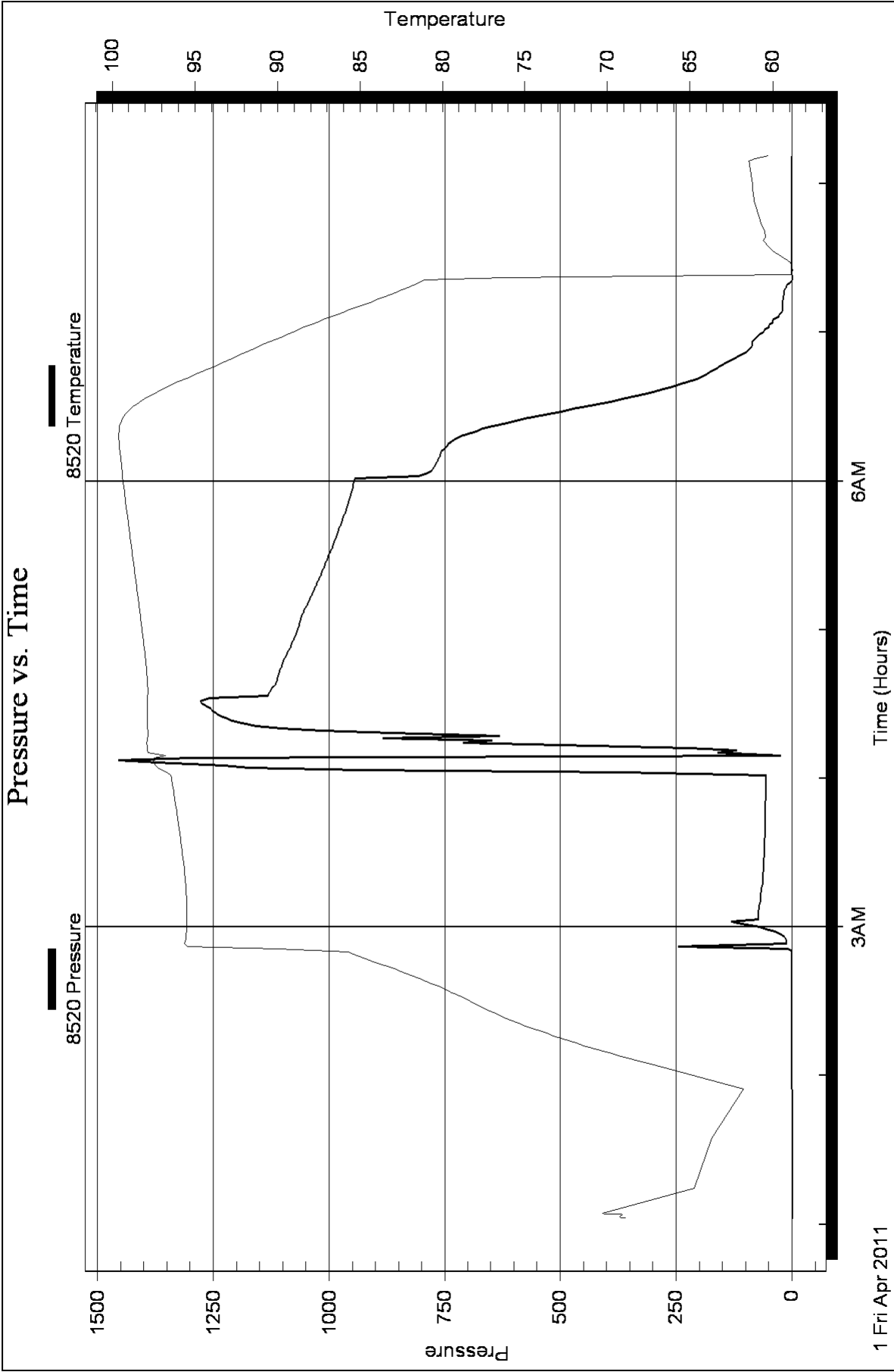
Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Plugged
Gas









DRILL STEM TEST REPORT

Prepared For: **Sam Gary & Associates Inc**

1515 Wynkoop St Ste 700
Denver Colo 80202

ATTN: Clayton Comozzi

23-15-16-Ellis-Ks

Leas 1-23

Start Date: 2011.04.01 @ 13:14:56

End Date: 2011.04.01 @ 19:28:26

Job Ticket #: 042409 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042409

DST#: 4

ATTN: Clayton Comozzi

Test Start: 2011.04.01 @ 13:14:56

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:45:56

Time Test Ended: 19:28:26

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: 3438.00 ft (KB) To 3450.00 ft (KB) (TVD)

Reference Elevations: 1870.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD)

1862.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 31.82 psig @ 3439.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.04.01

End Date:

2011.04.01

Last Calib.:

2011.04.01

Start Time:

13:24:56

End Time:

19:28:26

Time On Btm:

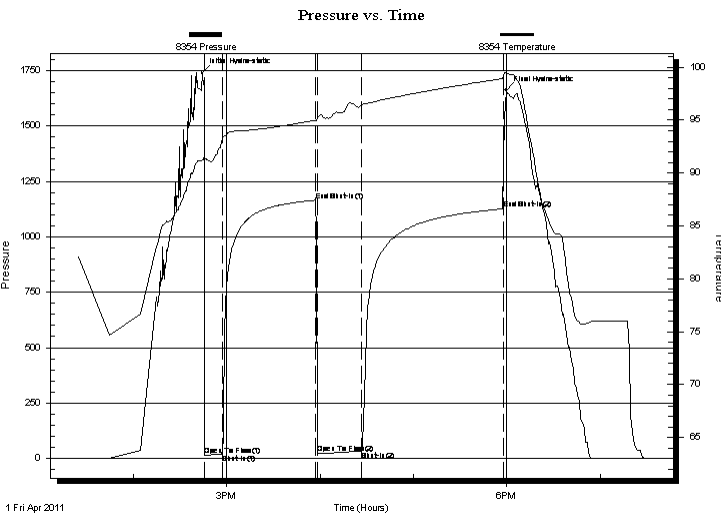
2011.04.01 @ 14:44:26

Time Off Btm:

2011.04.01 @ 17:59:26

TEST COMMENT: IF-Weak steady surface blow

FF-Weak steady surface blow
Times-10-60-30-90



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1739.88 | 91.21 | Initial Hydro-static |
| 2 | 13.70 | 90.84 | Open To Flow (1) |
| 13 | 20.09 | 93.15 | Shut-In(1) |
| 73 | 1164.17 | 94.98 | End Shut-In(1) |
| 74 | 21.56 | 95.25 | Open To Flow (2) |
| 102 | 31.82 | 96.32 | Shut-In(2) |
| 193 | 1125.48 | 98.92 | End Shut-In(2) |
| 195 | 1660.72 | 99.44 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 5.00 | Mdy Wtr | 0.02 |
| 0.00 | Rw .3 @ 65 = 25000ppm | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
| | | |



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

ATTN: Clayton Comozzi

Job Ticket: 042409

DST#: 4

Test Start: 2011.04.01 @ 13:14:56

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:45:56

Time Test Ended: 19:28:26

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: 3438.00 ft (KB) To 3450.00 ft (KB) (TVD)

Total Depth: 3450.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1870.00 ft (KB)

1862.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8653 Outside

Press @ RunDepth: psig @ 3439.00 ft (KB)

Start Date: 2011.04.01 End Date: 2011.04.01

Start Time: 13:14:55 End Time: 19:26:24

Capacity: 8000.00 psig

Last Calib.: 2011.04.01

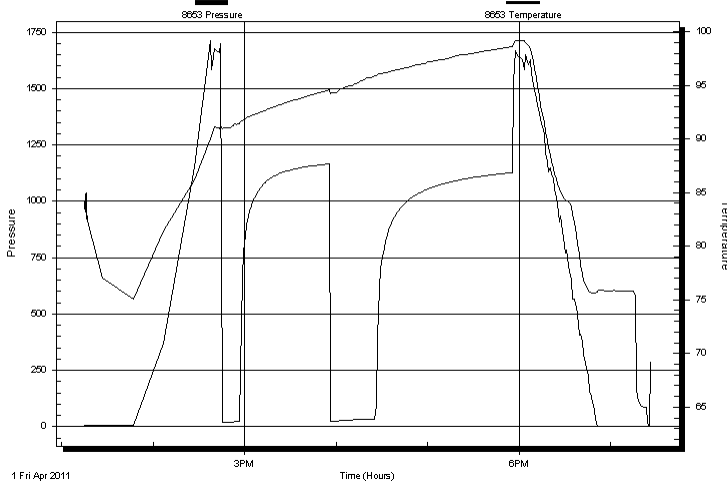
Time On Btm:

Time Off Btm:

TEST COMMENT: IF-Weak steady surface blow

FF-Weak steady surface blow
Times-10-60-30-90

Pressure vs. Time



PRESSURE SUMMARY

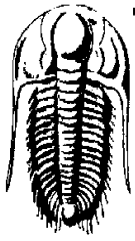
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 5.00 | Mdy Wtr | 0.02 |
| 0.00 | Rw .3 @ 65 = 25000ppm | 0.00 |
| | | |
| | | |

Gas Rates

| Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
| | | |



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Sam Gary & Associates Inc

1515 Wynkoop St Ste 700
Denver Colo 80202

ATTN: Clayton Comozzi

Leas 1-23

23-15-16-Ellis-Ks

Job Ticket: 042409 **DST#: 4**

Test Start: 2011.04.01 @ 13:14:56

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:45:56

Time Test Ended: 19:28:26

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 38

Interval: 3438.00 ft (KB) To 3450.00 ft (KB) (TVD)

Total Depth: 3450.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1870.00 ft (KB)

1862.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8520 Inside

Press @ RunDepth: psig @ 3404.00 ft (KB)

Start Date: 2011.04.01 End Date: 2011.04.01

Start Time: 13:14:14 End Time: 19:27:13

Capacity: 8000.00 psig

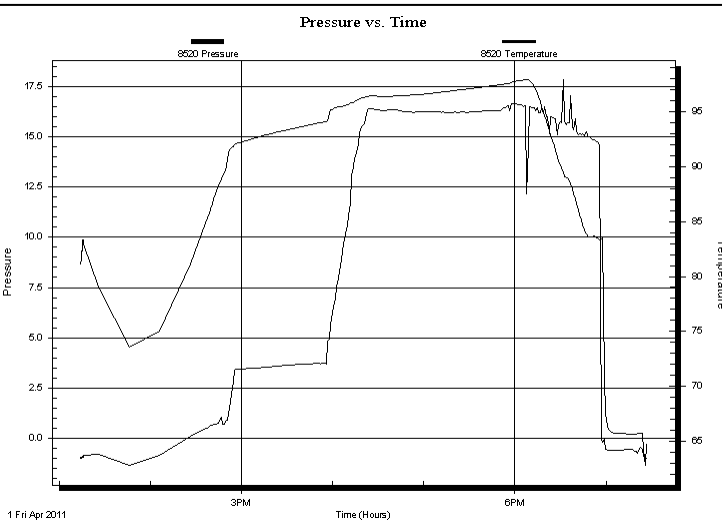
Last Calib.: 2011.04.01

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-Weak steady surface blow

FF-Weak steady surface blow
Times-10-60-30-90



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-----------------------|--------------|
| 5.00 | Mdy Wtr | 0.02 |
| 0.00 | Rw .3 @ 65 = 25000ppm | 0.00 |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
| | | | |



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042409

DST#: 4

ATTN: Clayton Comozzi

Test Start: 2011.04.01 @ 13:14:56

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3382.00 ft | Diameter: 3.80 inches | Volume: 47.44 bbl | Tool Weight: | 3000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 20000.00 lb |
| Drill Collar: | Length: 30.00 ft | Diameter: 2.25 inches | Volume: 0.15 bbl | Weight to Pull Loose: | 50000.00 lb |
| | | | <u>Total Volume: 47.59 bbl</u> | Tool Chased | 0.00 ft |
| Drill Pipe Above KB: | 9.00 ft | | | String Weight: Initial | 48000.00 lb |
| Depth to Top Packer: | 3438.00 ft | | | Final | 48000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 12.00 ft | | | | |
| Tool Length: | 47.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3404.00 | |
| Recorder | 0.00 | 8520 | Inside | 3404.00 | |
| Blank Spacing | 5.00 | | | 3409.00 | |
| Shut In Tool | 5.00 | | | 3414.00 | |
| Sampler | 2.00 | | | 3416.00 | |
| Hydraulic tool | 5.00 | | | 3421.00 | |
| Jars | 5.00 | | | 3426.00 | |
| Safety Joint | 3.00 | | | 3429.00 | |
| Packer | 5.00 | | | 3434.00 | 35.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3438.00 | |
| Stubb | 1.00 | | | 3439.00 | |
| Recorder | 0.00 | 8354 | Inside | 3439.00 | |
| Recorder | 0.00 | 8653 | Outside | 3439.00 | |
| Perforations | 8.00 | | | 3447.00 | |
| Bullnose | 3.00 | | | 3450.00 | 12.00 Bottom Packers & Anchor |

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary & Associates Inc

Leas 1-23

1515 Wynkoop St Ste 700
Denver Colo 80202

23-15-16-Ellis-Ks

Job Ticket: 042409

DST#: 4

ATTN: Clayton Comozzi

Test Start: 2011.04.01 @ 13:14:56

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|-----------------------|----------------|
| 5.00 | Mdy Wtr | 0.025 |
| 0.00 | Rw .3 @ 65 = 25000ppm | 0.000 |

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

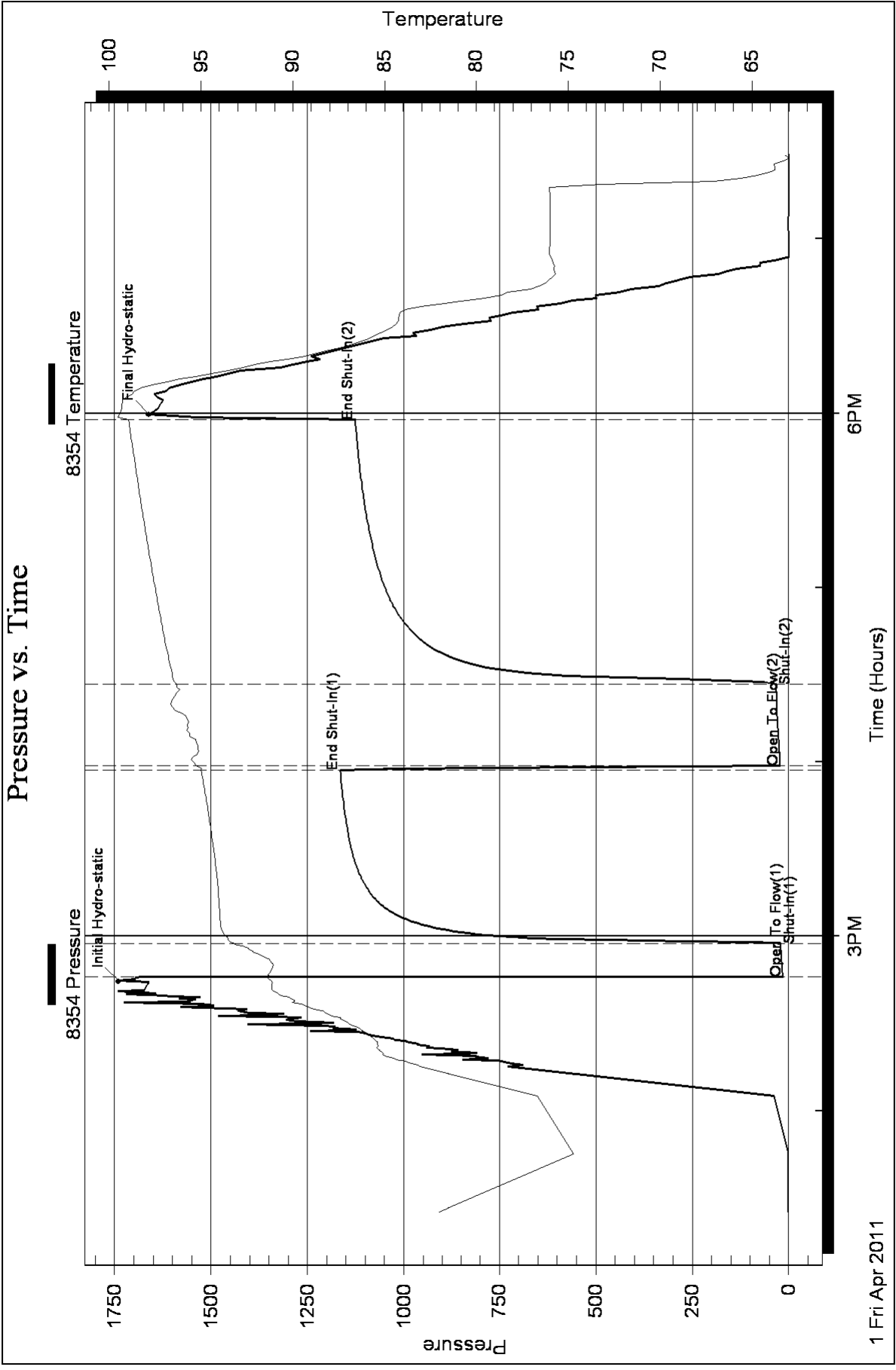
Serial #:

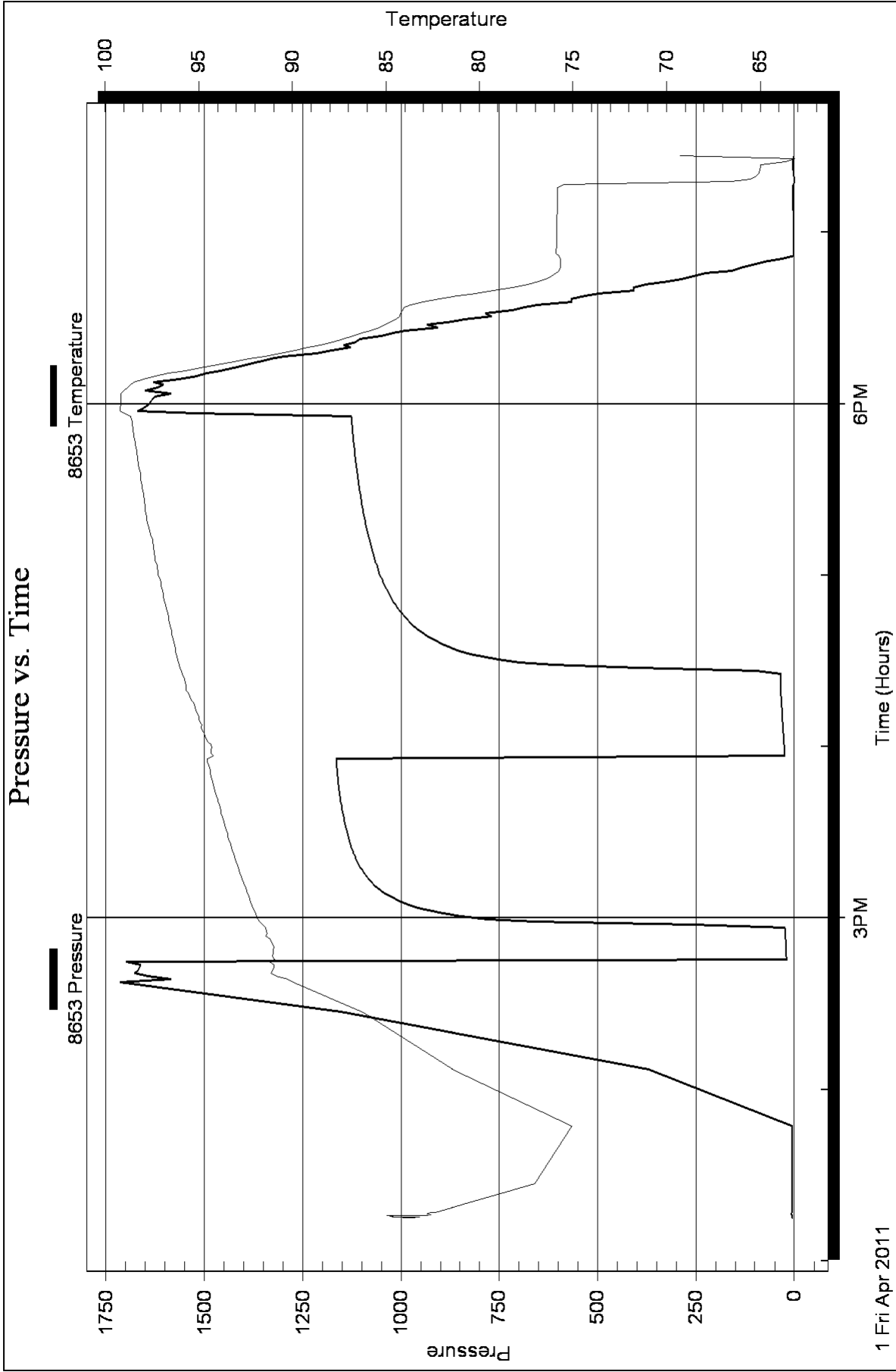
Laboratory Name:

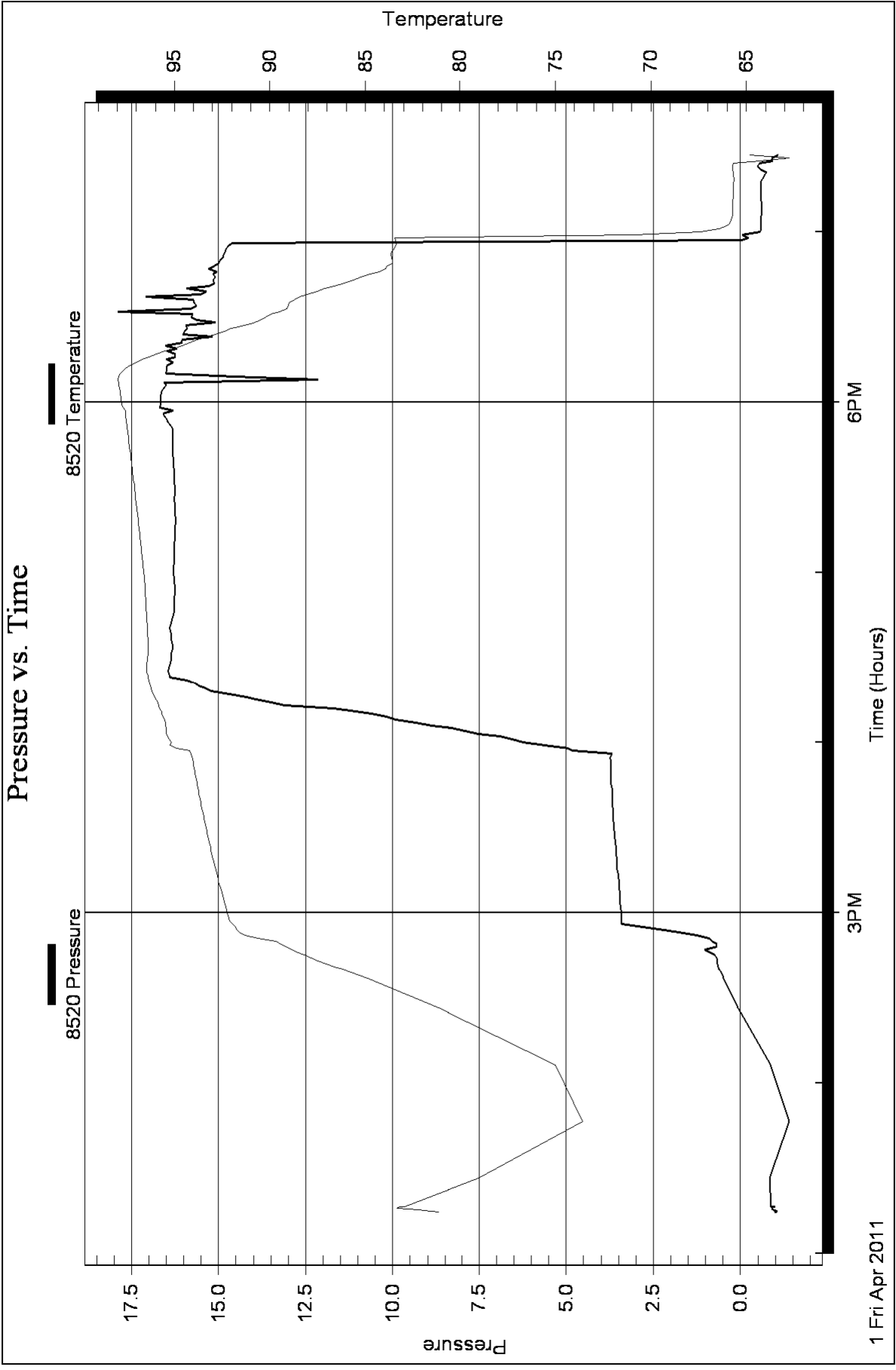
Laboratory Location:

Recovery Comments: Sampler
Gas

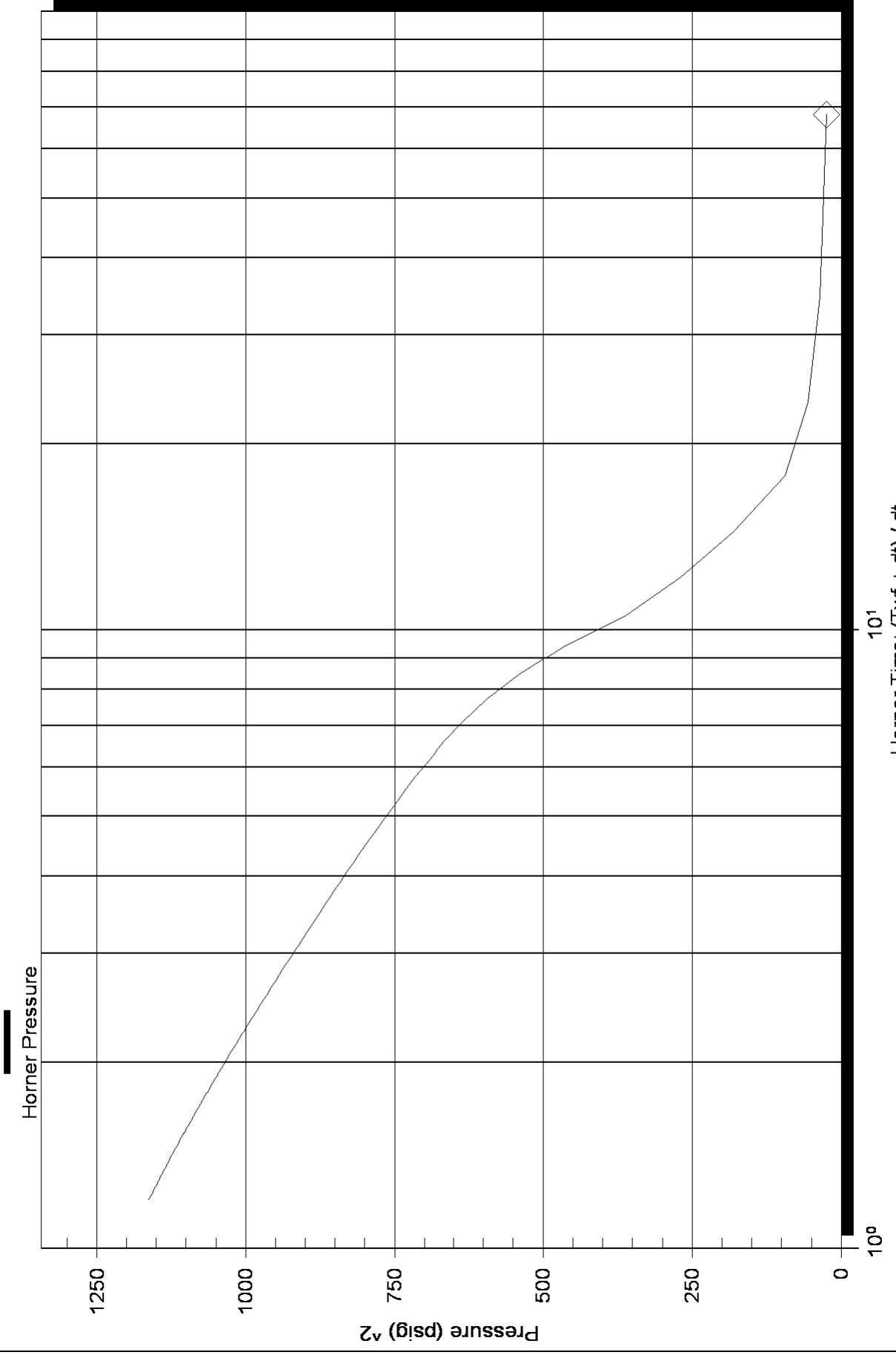
Pressure vs. Time



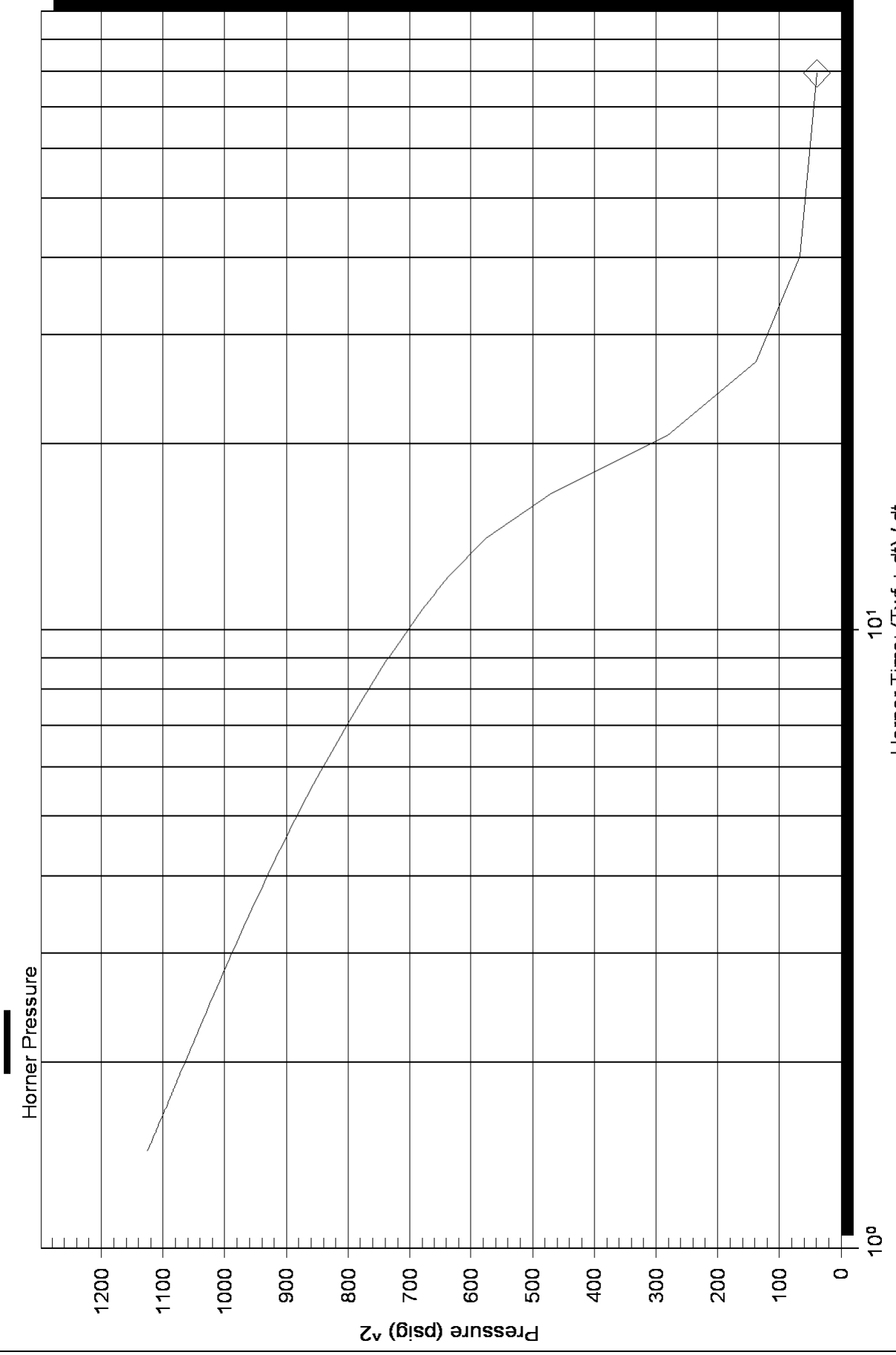




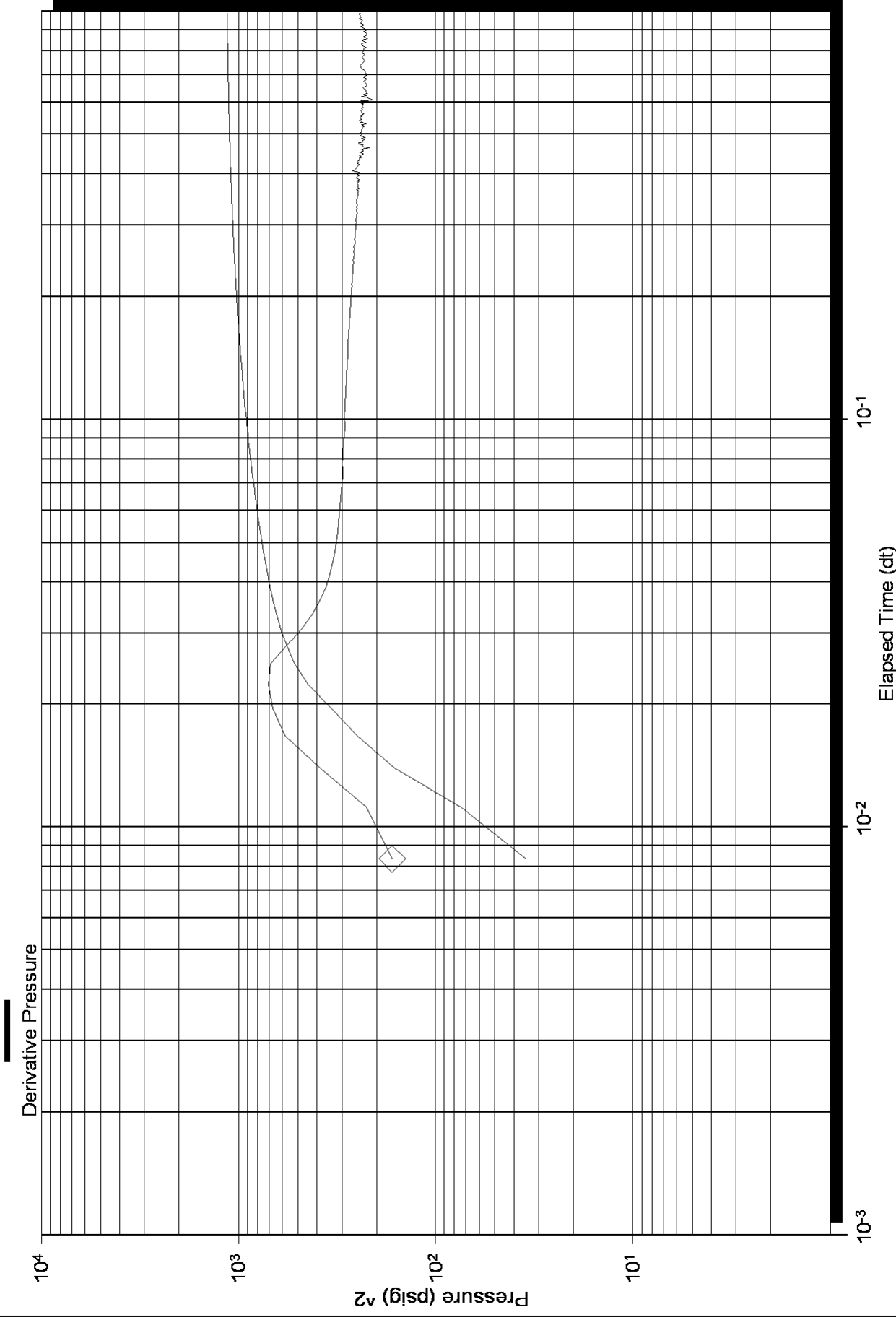
Homer Plot



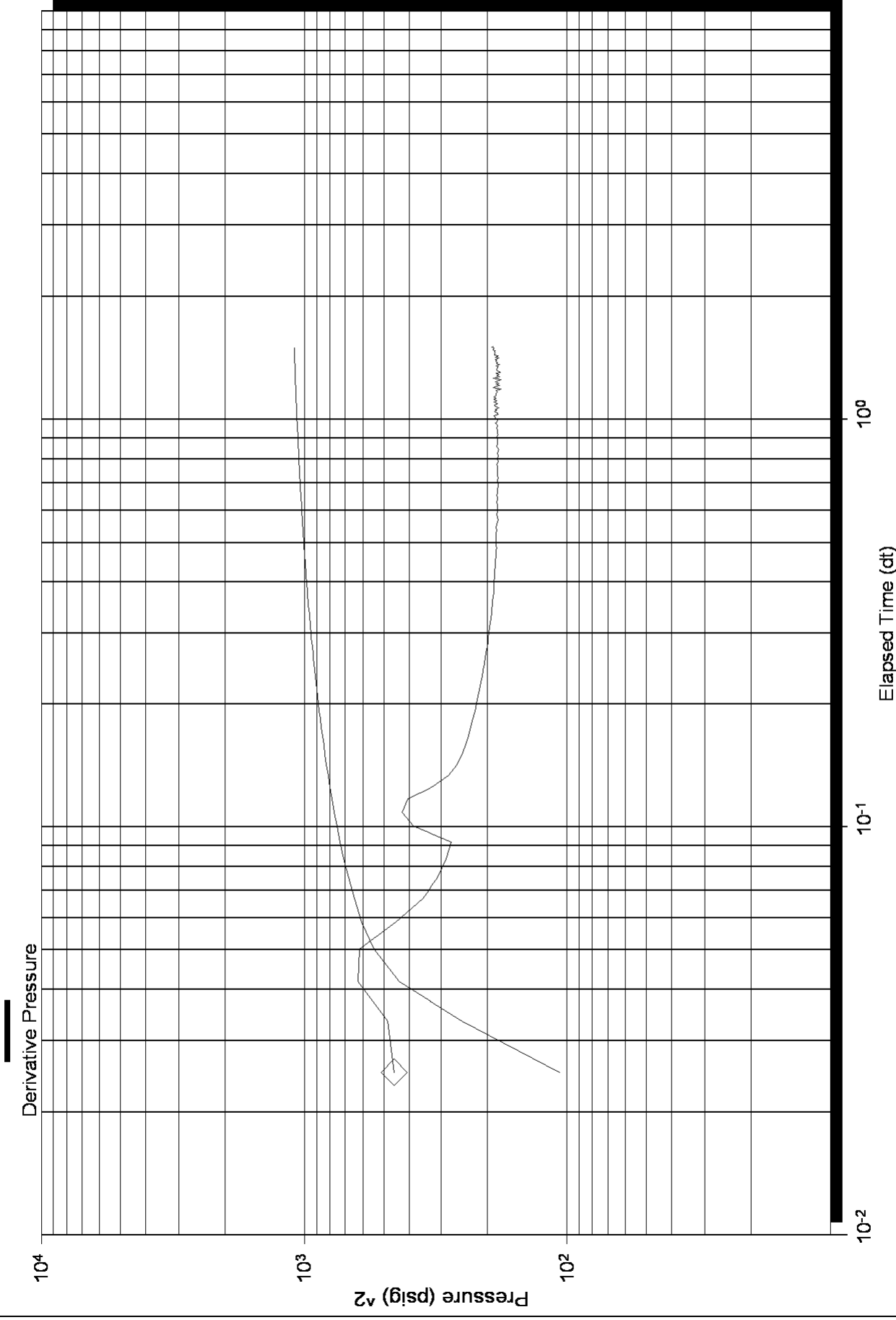
Homer Plot



Log-Log and Pseudo-Derivative



Log-Log and Pseudo-Derivative





Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: LEAS 1-23
Location: Sec 23 15S 16W, Ellis , Kansas
License Number: 15-051-26118-0000
Spud Date: 03/25/2011
Surface Coordinates: 1840' FNL & 2090' FWL
Region: Wildcat
Drilling Completed: 04/02/2011

Bottom Hole Coordinates:

Ground Elevation (ft): 1862' K.B. Elevation (ft): 1870'
Logged Interval (ft): 1852' To: 3550' Total Depth (ft): 3550'
Formation: LANSING/ARBUCKLE
Type of Drilling Fluid:

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Sam Gary Jr. & Assoc.
Address: 1515 Wynkoop, # 700
Denver, Colo. 80202
Geologist: MR. Clayton Camozzi

GEOLOGIST

Name: Tim Hedrick
Company: Earth Tech OGL, Inc.
Address: PO Box 683
Hooker, Okla . 73945
Off. 888-543-8378 Cell: 620-282-0035

DST REPORT

DST#1 3150-3170' 10 60 30 90

IF- SLO BLD TO 1"/ ISI- NB/ FF- SLO BLD TO 3/4"/ FSI- NB

IH- 1514, FH- 1421/ IF- 14 TO 36, FF- 40-62/ ISI- 921, FSI- 885/

RECOV- 90' MW , CHL- 68,000, PIT CHL-5700 BHT 99 Deg.

DST#2 3330'-3355' 10 60 45 135

IF- WEAK STEADY SURFACE BLOW/ FF- WEAK STEADY SURFACE BLOW

IH- 1631, FH- 1618/ IF- 13 TO 29, FF- 25-42/ ISI- 1164, FSI- 1167/

RECOV- 15' MW , CHL- 42,000, PIT CHL-6300 BHT 102 Deg.

DST #3 FAILED TEST


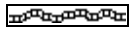
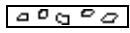
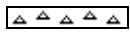
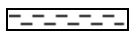



DST#4 3348'-3450' 10 60 30 90





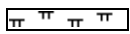
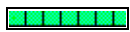
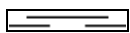
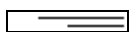
IF- WEAK STEADY SURFACE BLOW/ FF- WEAK STEADY SURFACE BLOW

IH- 1739, FH- 1660/ IF- 13 TO 21, FF- 20-31/ ISI- 1164, FSI- 1125/







RECOV- 5' MW , CHL- 25,000, PIT CHL-6400 BHT 98 Deg.

ROCK TYPES

| | |
|--|-------|
|  | Anhy |
|  | Bent |
|  | Brec |
|  | Cht |
|  | Clyst |
|  | Coal |
|  | Congl |
|  | Dol |

| | |
|---|-------|
|  | Gyp |
|  | Igne |
|  | Lmst |
|  | Meta |
|  | Mrlst |
|  | Salt |
|  | Shale |
|  | Shcol |

| | |
|---|---------|
|  | Shgy |
|  | Sltst |
|  | Ss |
|  | Till |
|  | Carb sh |
|  | Dol |
|  | Dtd |
|  | Gry sh |

| | |
|---|----------|
|  | Sandylms |
|  | Shale |
|  | Sltstn |
|  | Shlyslts |
|  | Sltyslts |
|  | Lms |

ACCESSORIES

- FOSSIL**
- Algae
 - Amph
 - Belm
 - Bioclst
 - Brach
 - Bryozoa
 - Cephal
 - Coral
 - Crin
 - Echin
 - Fish
 - Foram
 - Fossil
 - Gastro
 - Oolite
 - Ostra
 - Pelec
 - Pellet
 - Pisolite
 - Plant
 - Strom
 - Fuss
 - Oomold

- MINERAL**
- Anhy
 - Arggrn
 - Arg
 - Bent
 - Bit
 - Breclrag
 - Calc
 - Carb
 - Chtdk
 - Chtlt
 - Dol
 - Feldspar
 - Ferrpel
 - Ferr
 - Glau
 - Gyp
 - Hvymin
 - Kaol
 - Marl
 - Minxl
 - Nodule
 - Phos
 - Pyr

- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Sltly

- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

INTERVALS

- Core
- Dst
- Dst

EVENTS

- Rft
- Sidewall

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

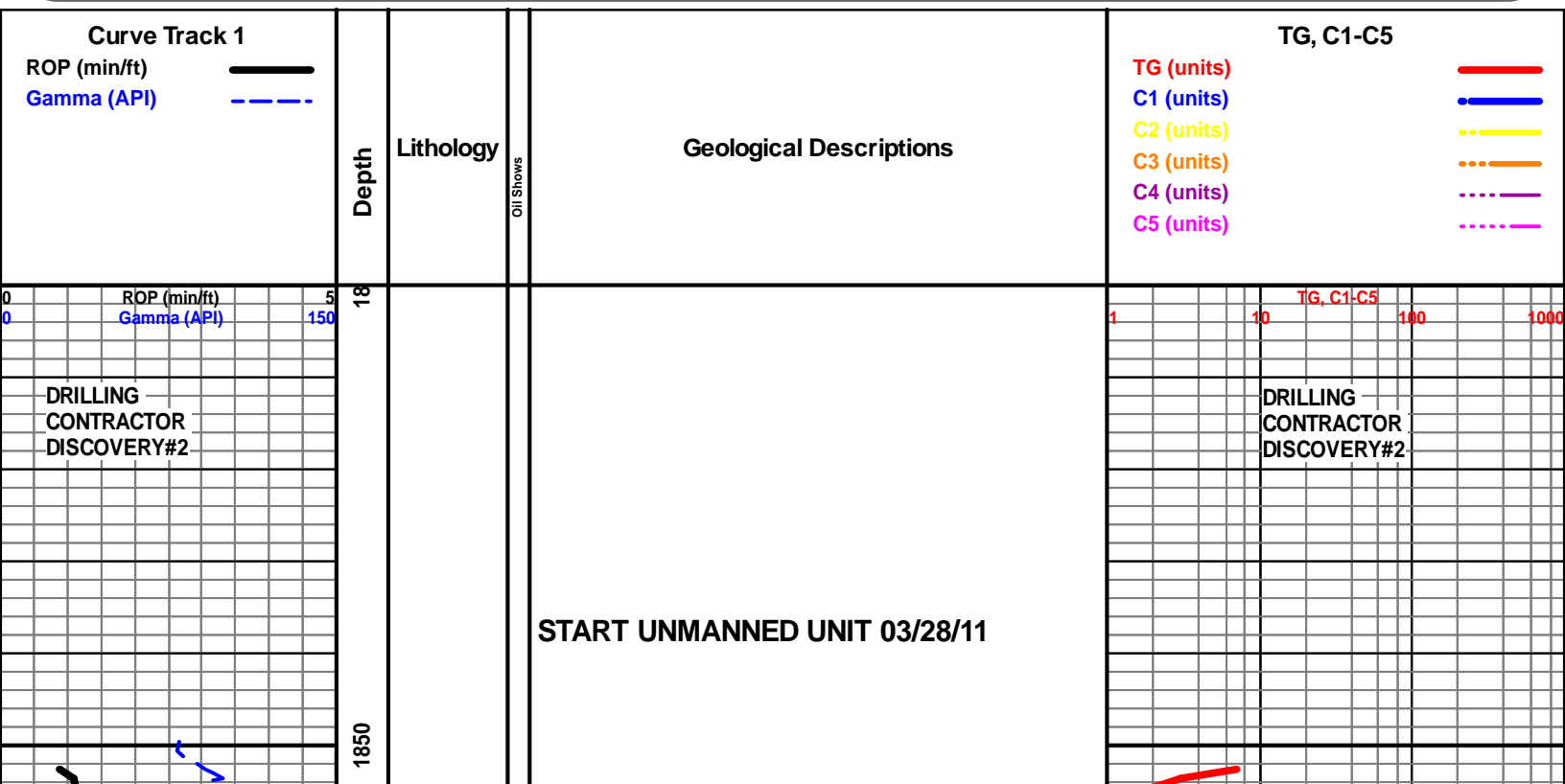
ROUNDING

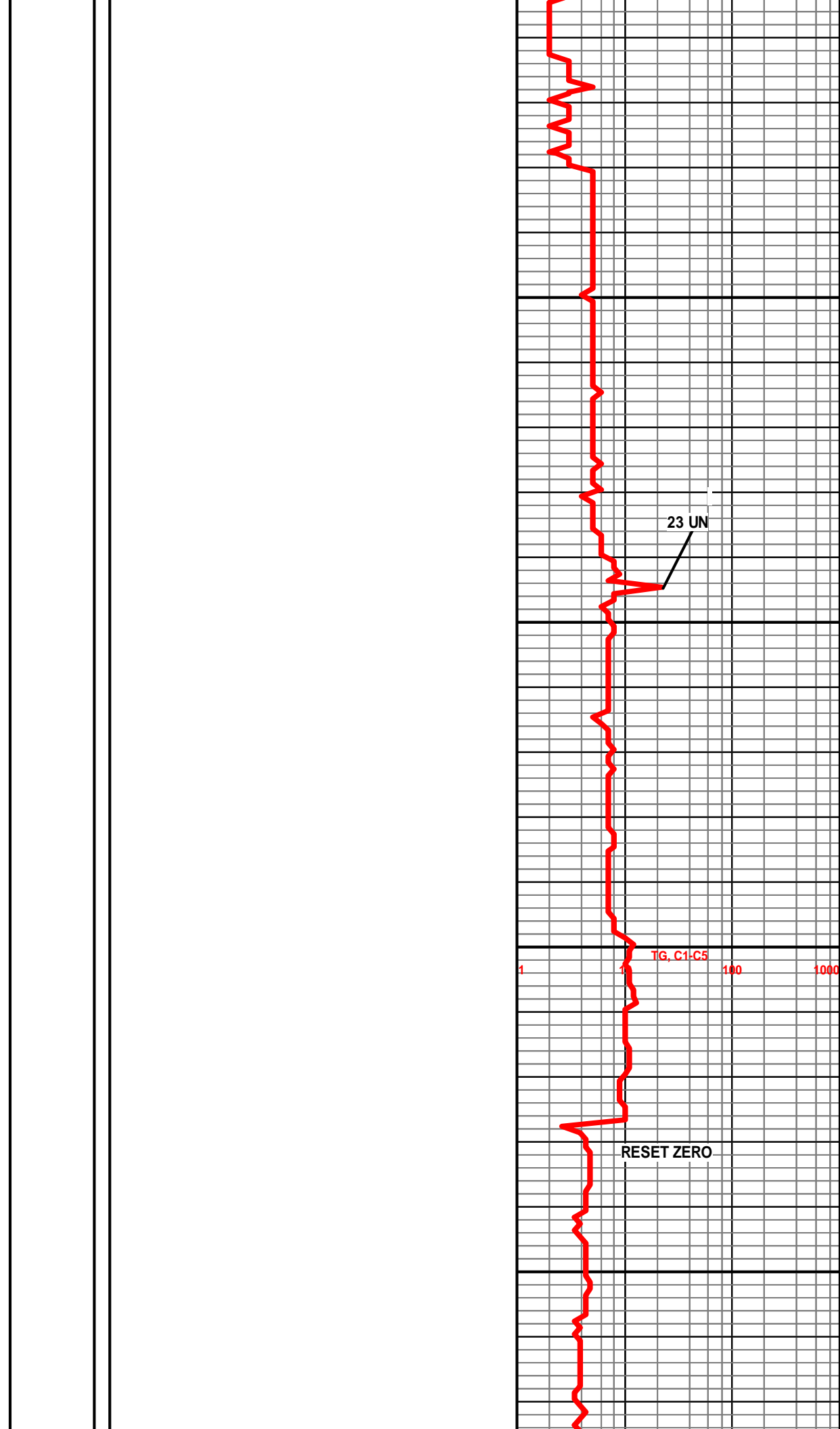
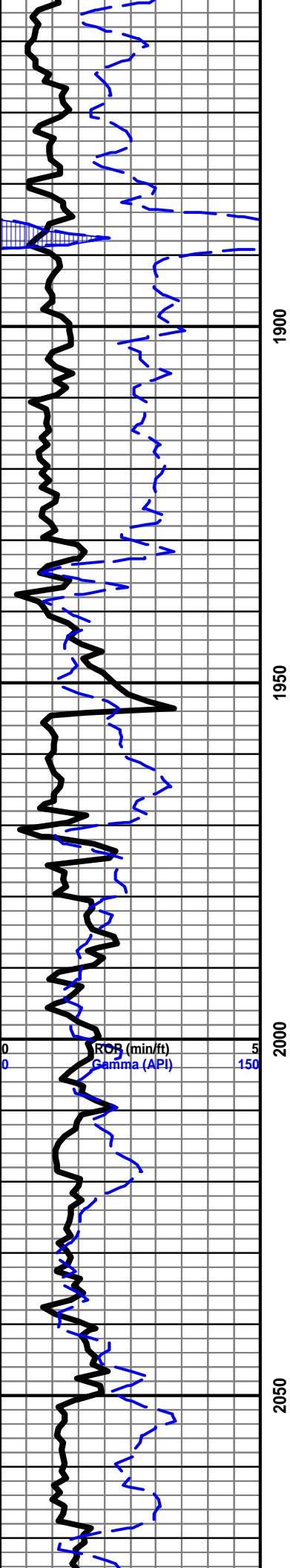
- Rounded
- Subrnd
- Subang

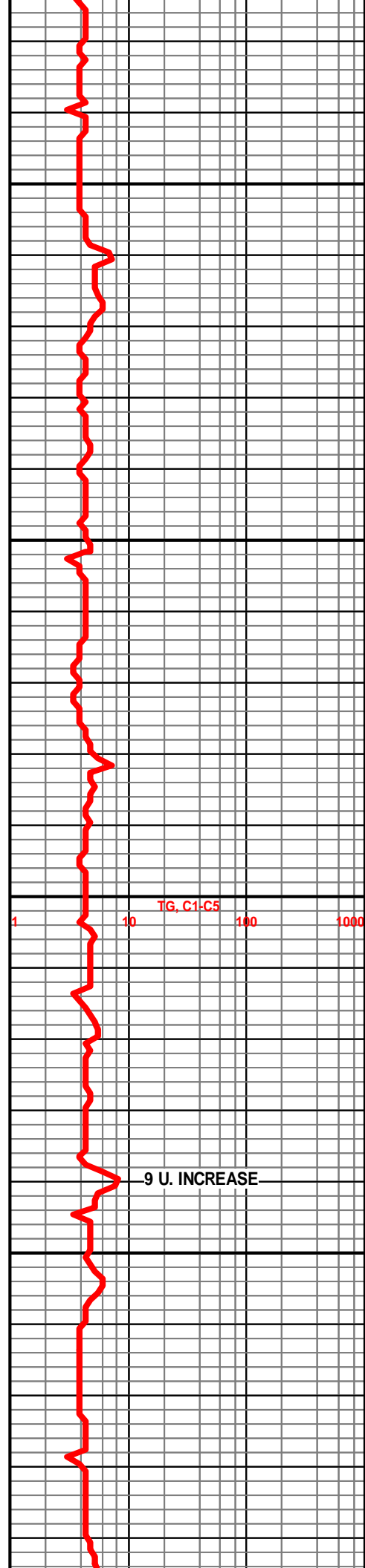
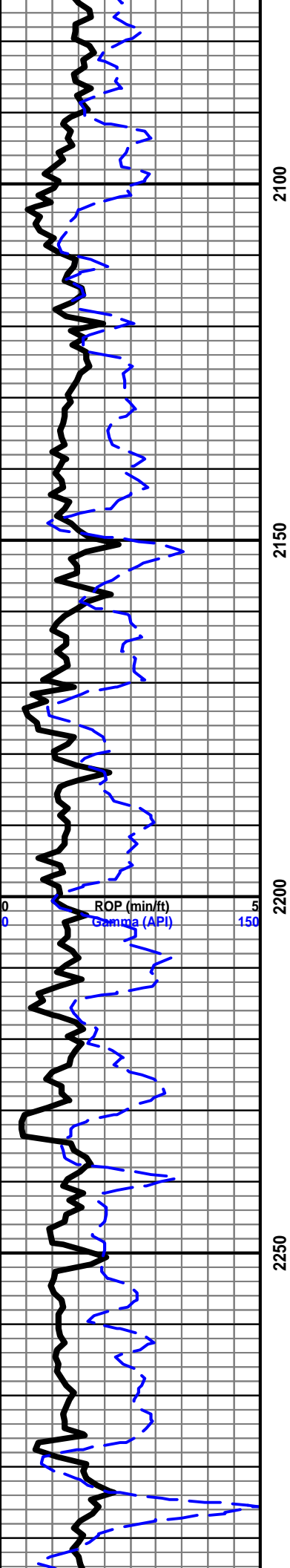
- Angular

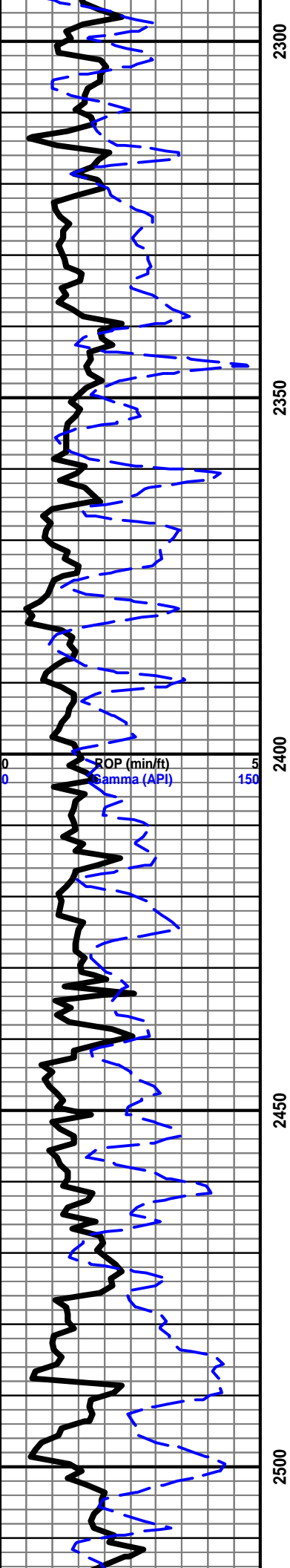
OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show









2300

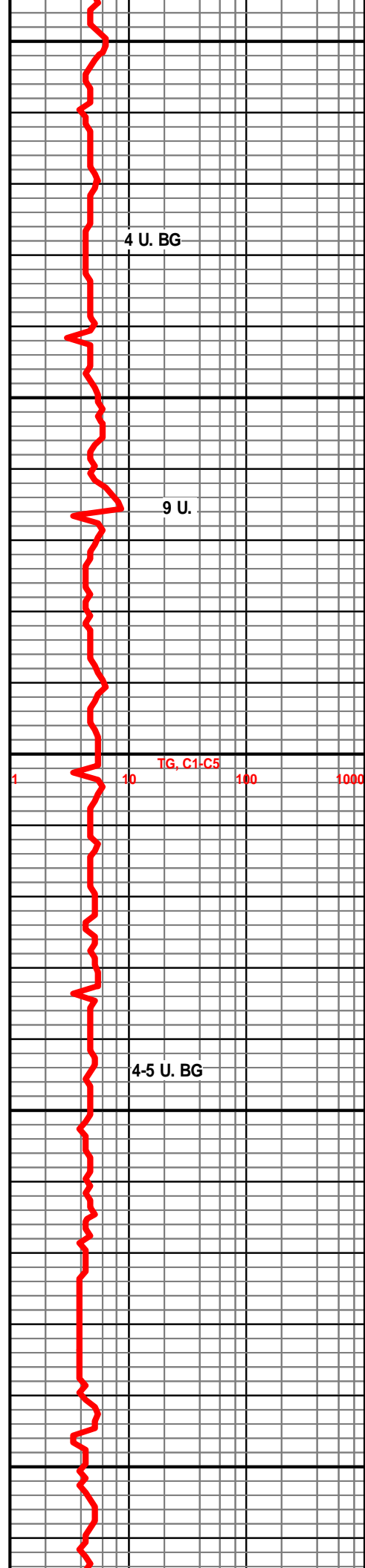
2350

2400

2450

2500

ROP (min/ft)
Gamma (API)



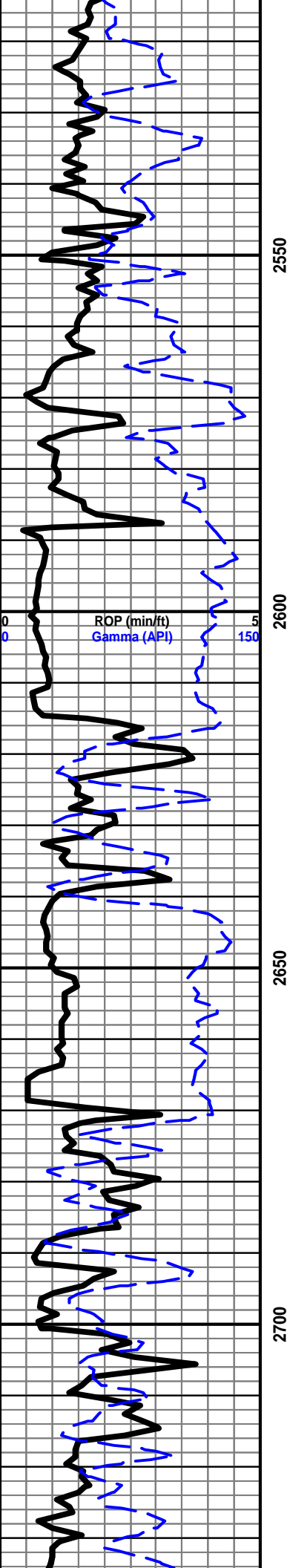
4 U. BG

9 U.

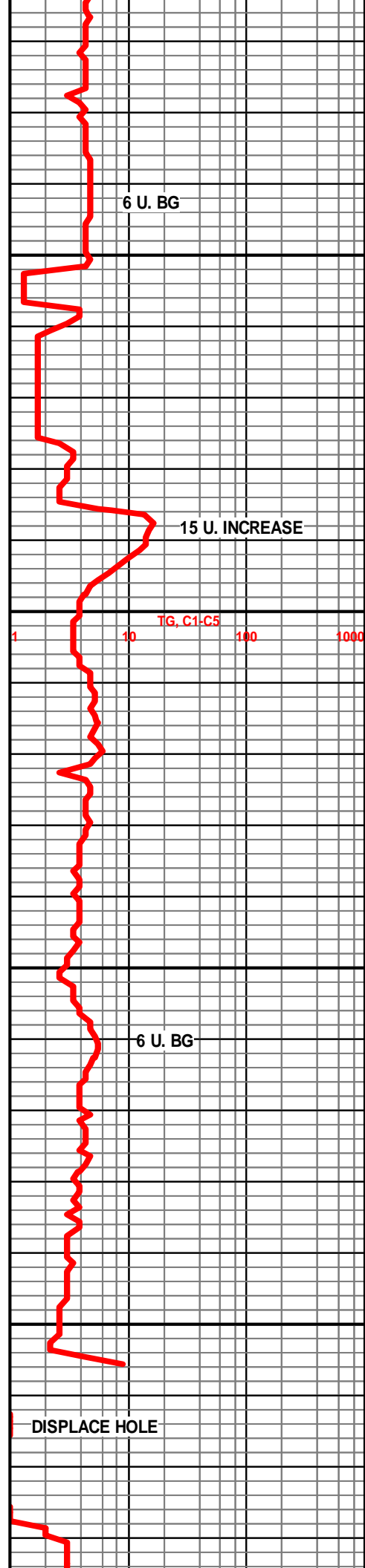
TG, C1-C5

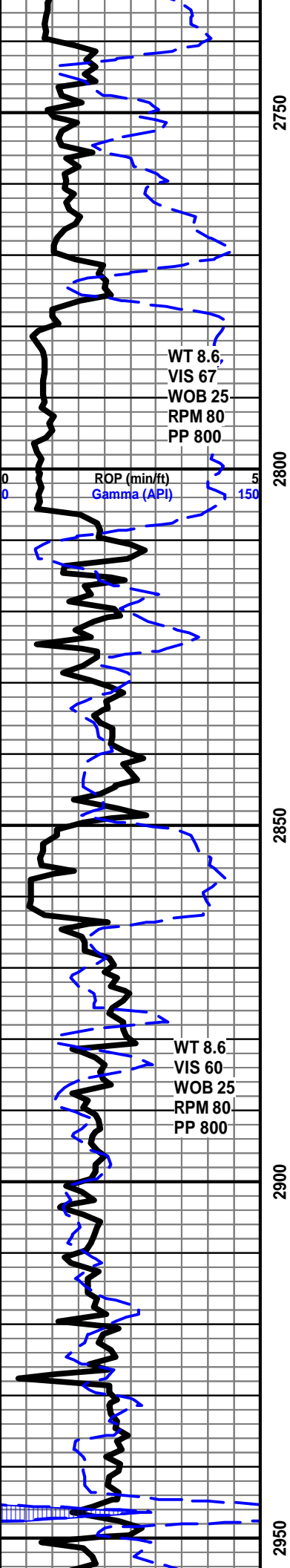
4-5 U. BG

1 10 100 1000



BASE ROOT SHALE 2615' - 745'





2750

2800

2850

2900

2950

WT 8.6,
VIS 67
WOB 25
RPM 80
PP 800

ROP (min/ft)
Gamma (API)

WT 8.6
VIS 60
WOB 25
RPM 80
PP 800

START MANNED UNIT 3/29/2011

SH- LT GY TO GY- FRM BLKY IP V/ SFT SLTY LOOKING
TXT IP

HOWARD 2805' - 935'

LS- CRM LT TN LT GY- HD DNS TO BRITT IP, MD-F-XLN
RE-XLN MTRX , FOSS IMBD IP, HVY TR TO ABDT IMBD
MED GY SH SCAT THRU, SLI TR DISS PYR, NO FLO, NO
VIS POR, NO VIS SHOW

LS- CRM LT TN TN- HD DNS, F-V/F-XLN, ABDT IMBD FOSS
FRGS SCAT THRU, NO FLO, NO VIS POR, NO VIS SHOW

TOPEKA 2862' - 992'

LS-CRM LT TN - HD DNS F-XLN TO SUCRO MTRX HVY TR
FOSS SCAT IP, LT YEL FLO, NO VIS OR, NO VIS SHOW

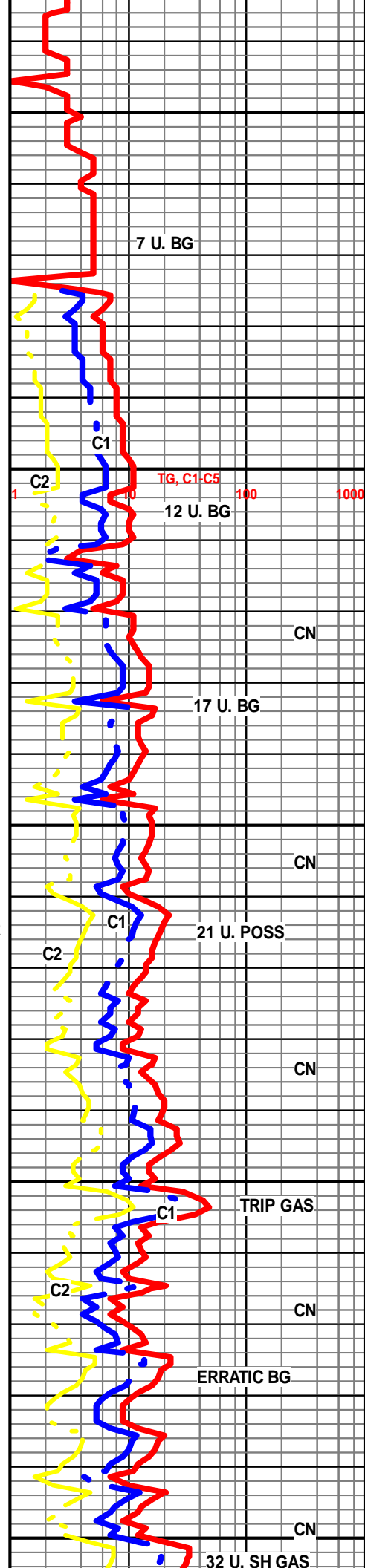
LS- CRM LT TN GY- HD DNS MOTT, MD-F-XLN, ABDT IMBD
LT GY SH SCAT THRU , NO FLO, NO VIS POR, NO VIS
SHOW

TRIP OUT , HOLE IN PIPE @ 2901'

LS- OFF WHT CRM- HD DNS F-V/F-XLN , IMBD SMLL TO
MD CALC XLS, TR FOSS FRGS IP, LT YEL MIN FLO, NO
VIS POR, NO VIS SHOW

LS- CRM LT TN TN- HD DNS , F-V/F-XLN TR SMLL CALC
XLS IMBD IP, V/ LT YEL MIN FLO, NO VIS POR, NO VIS
SHOW

SH- BLK SFT CARB



7 U. BG

C1

C2

TG, C1-C5

12 U. BG

17 U. BG

CN

CN

C2

C1

21 U. POSS

CN

TRIP GAS

C2

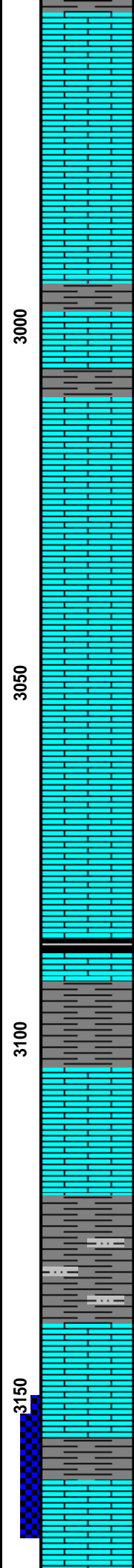
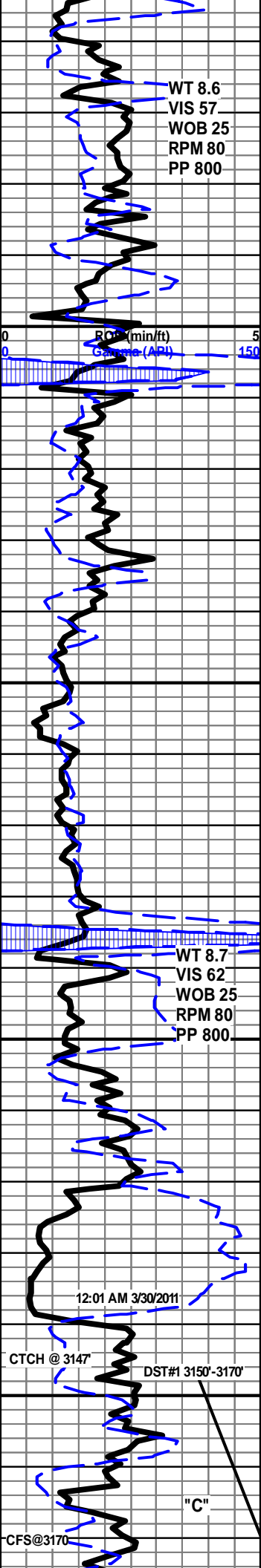
C1

CN

ERRATIC BG

CN

32 U. SH GAS



LS- OFF WHT CRM LT TN- HD DNS IP TO V/ SFT, F-XLN RE-XLN MTRX, ABDT IMBD SFT WHT CHLK, TR LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

LS- LT TN TN LT GY IP, HD DNS MD-F-XLN RE-XLN MTRX ABDT IMBD LT GY SH IP, FOSS FRGS IP, SMLL CALC XLS IMBD IP, NO FLO, NO VIS POR, NO VIS SHOW

SH- MD TO DK G- FRM BLKY GRNY TXT SLI CARB IP

LS- LT TN TN LT BRN LT GY IP, HD DNS MOTT MD-F-XLN RE-XLN MTRX ABDT IMBD LT GY TO MD GY SH IP, FOSS FRGS IP, SMLL CALC XLS IMBD IP, NO FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TN- HD DNS MD-F-XLN RE-XLN MTRX, FOSS FRGS IP, SMLL TO MD CALC XLS IP, NO FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM LT TN- HD DNS IP TO V/ SFT, MD-F-XLN RE-XLN MTRX, ABDT IMBD FOSS FRGS SCAT THRU GRDNG TO ABDT MD TO SFT WHT CHLK, NO FLO, NO VIS POR TO POSS SCAT MICRO PP POR IP, NO VIS SHOW

HEEBNER SH 3087' - 1217'

SH- BLK SFT CARB TO DK GY FRM BLKY IP

SH- MD TO DK GY- FRM BLKY SMTH TXT, SLI SFT GMMY IP

LS- OFF WHT WHT- HD DNS TO TR BRITT, F-V/F-XLN RE-XLN MTRX, IMBD SFT WHT CHLK IP HVY TR LT GY CHRT, TR SCAT MD CALC XLS IP, NO FLO, NO VIS POR, NO VIS SHOW

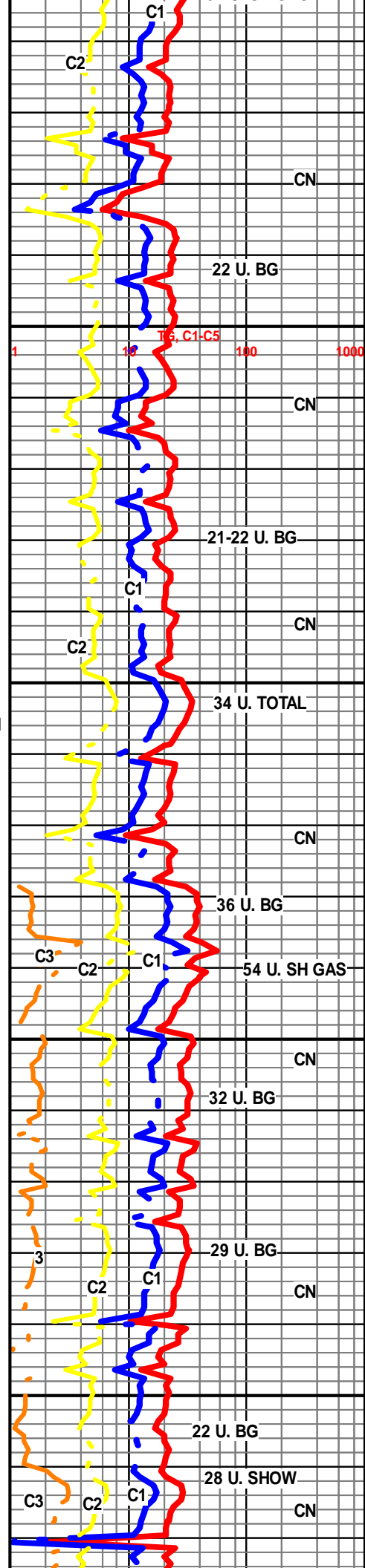
DOUGLAS 3121' - 1251'

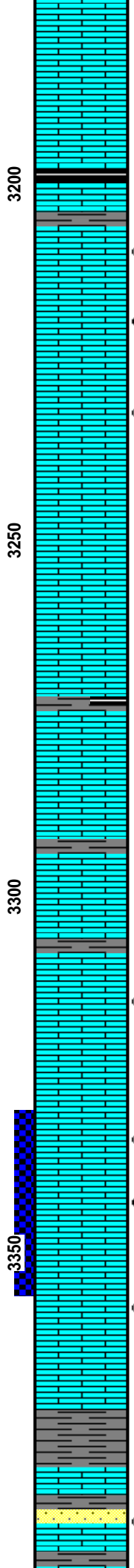
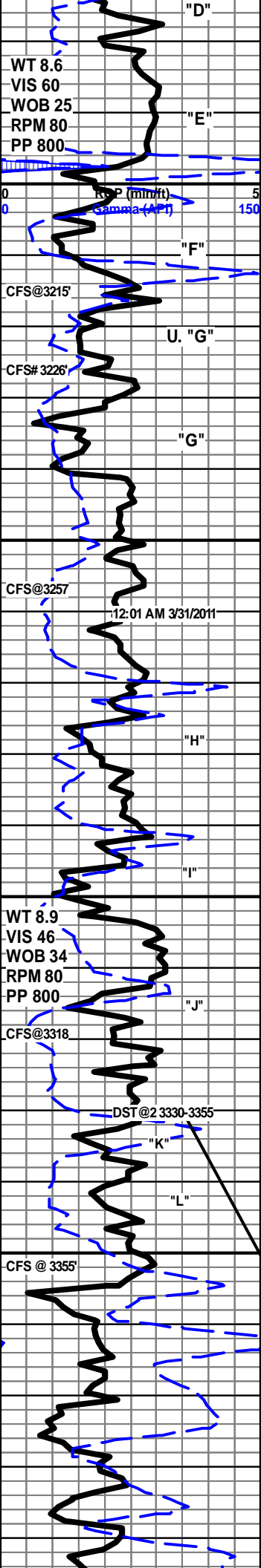
SH- LT TO MD GY- FRM IP TO V/ SFT SLTY TO SLI GMMY IP

LANSING 3139' - 1269'

LS- CRM LT TN- HD DNS TO BRITT, MD-F-XLN RE-XLN MTRX, FOSS FRGS SCAT THRU, SLI TR IMBD SFT CHLK IP, LT YEL MIN FLO IP TO NO FLO, NO VIS POR, NO VIS SHOW

3163 - 3166 LS- OFF WHT CRM LT TN, TN STN SCAT IN 30%, HD BRITT, MD-F-XLN RE-XLN MTRX, ABDT IMBD FOSS FRGS SCAT THRU, HVY TR ABDT FRM WHT CHLK IP, DLL YEL FLO IN 40% TO BRIT YEL GLD SCAT FLO IN 30%, PR TO FR SCAT MICRO PP POR IP TO FR SCAT INTER-FOSS POR IN 30%, PR TO FR SCAT MICROVUG POR IP, FR TO GD FLSH TO GD SLO STRM CUT, LT TN STN ON DISH, GD OIL ODOR





LS- CRM LT TN TN - HD DNS TO BRITT, F-VF-XLN RE-XLN MTRX IP, ABDT IMBD FNLY DISS FOSS FRGS THRU, SLI TR CALC XLS IP, NO FLO, NO VIS POR, NO VIS SHOW

LS-OFF WHT CRM- HD DNS, F-VF-XLN RE-XLN IP, TR FOSS FRGS IP, SLI TR SMLL CALC XLS IP, NO FLO, NO VIS POR, NO VIS SHOW

SH-BLK SFT CARB

LANSING "F" 3207' - 1337'

3207-3210 LS OFF WHT CRM TO DK TN IP (DUE TO DK BRN STN IN 10%) MD HD TO SFT IP, V/ SUCRO MTRX TO SU CRO S-CHLKY, ABDT IMBD AND FREE MD HD TO SFT WHT CHLK THRU, TR SCAT FOSS IP, TR IMBD SMLL CALC XLS IN 10%, DLL YEL FLO IN 40% NO FLO IN 50%, BRIT YEL GLD FLO IN 10%, TR PR PP POR IP W/ TR DOS TO NO POR, NO ODOR, FR FLSH CUT IN 10% TO NO FLSH CUT IN 90%, WK SLO STRM CUT IN 10-20% , NO CUT IN 80%

3217-3219- LS TN BRN DK BRN (DUE TO OIL STN THRU) HD DNS F-VF-XLN RE-XLN MTRX, V/ FOSS, SMLL CALC XLS IMBD IP, TR SCAT SMLL OOL IP, NO FLO WET, V/ DLL YEL GLD FLO SCAT THRU DRY, FR OIL ODOR DRY, PR SCAT INTER FOSS POR, PR SCAT INTER OOL POR, EXCEL RICH FLSH CUT THRU, V/ GD SLO STRM MLKY BLU CUT THRU, BRN LCH ON DISH

3221 -3224' LS- OFF WHT O WHT- MD HD TO SFT, V/ SUCRO S-CHLKY MTRX, ABDT IMBD SFT WHT CHLK IP, ABDT FREE SFT GMMY CHLK, TR SMLL CALC XLS IP, NO FLO, NO VIS POR, NO VIS SHOW

3232-3240' LS- OFF WHT CRM BFF - HD DNS TO BRITT IP, MD-F-XLN, V/RE-XLN MTRX, V/ MICRO OOLMLD SCAT IP, ABDT IMBD SMLL CALC XLS IP, HVY TR SFT WHT CHLK IMBD, NO FLO IN 60%, LT BRIT YEL GLD FLO IN 20%, DLL YEL FLO IN 10%, PR TO FR SCAT MICRO OOLMLD POR, PR SCAT MICROVUG POR, NO FLSH CUT TO PR SLO STRM CUT IN 10%, NO ODOR

SH- SFT BLACK CARB SHALE

3265-3270' LS- CRM OFF WHT TO WHT, HD DNS TO BRITT, FN TO MD XLN, REXLN MTRX THRU, V/SLI TR OOLMLD SCAT THRU, IMBD CALC XLS IP, SLI TR CHLKY, DLL TO TR BRIT YEL FLO IN 40%, V/PR INTR XLN POR, NO VIS CUT, NO VIS SHOW

3292-3302 LS- OFF WHT TO CRM BFF- HD IP TO MD HD TO SFT- SUCRO S-CHLKY IP, SLI TR F-XLN IP SLI TR SMLL CALC XLS IP, V/ SLI OOLMLD IP, LT BRIT YEL MIN FLO IN 30% TO NO FLO IP, TR V/ PR OOLMLD POR IP ,NO VIS CUT OR SHOW

3313' -3318' LS- OFF WHT TO CRM - HD TO MD HD, F-XLN TO SUCRO S-CHLKY MTRX, W/A BDT FRM WHT CHLK THRU, SLI TR IMBD SMLL CALC XLS IP, NO FLO IN 20%, LT BRIT YEL FLO IN 60%, TR BRIT YEL GLD FLO IN 20%. NO VIS POR, NO FLSH CUT, PR TO FR SLO STRM CUT IN 1 ROCK, NO ODOR

3332- 3336' LS- CRM LT TN TN - HD DNS TO BRITT, V/ TT SUCR MTX IP TO MD-XLN RE-XLN, FOSS FRGS IMBD IP, TR DOS IN VUGS, DLL YEL GLD FLO IN 60%, BRIT YEL GLD FLO IN 40%, NO VIS POR TO PR SCT MICROVUG POR IP, WK FLSH CUT TO PR TO FR SLO STRM CUT IN 20%

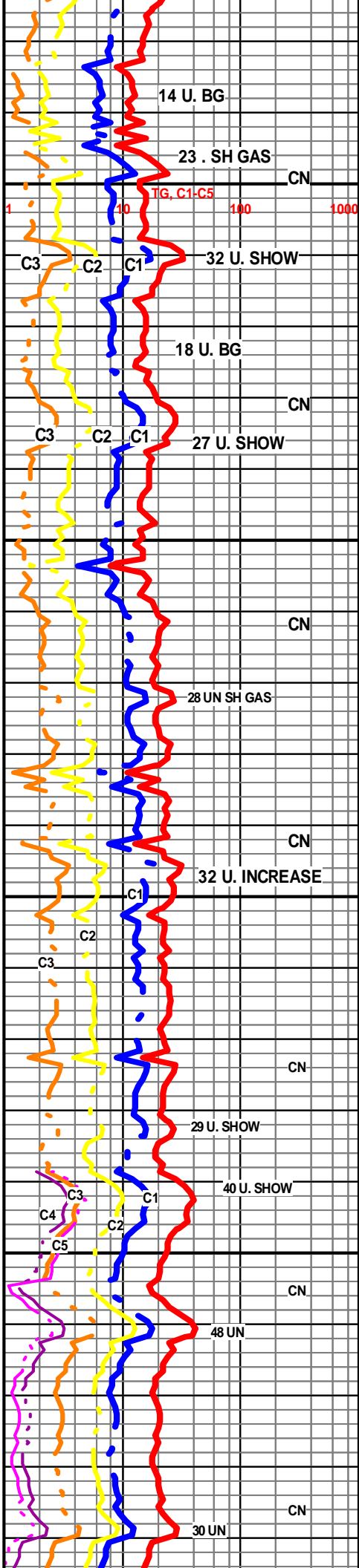
LS- OFF WHT CRM LT TN TN (TN STN IN 70%)- HD DNS TO V/ BRITT, MD-XLN RE-XLN MTRX, V/ FOSS IP, SCAT SMLL IMBD OOL, SCAT SMLL TO MD CALC XLS IP, BRIT YEL GLD FLO IN 70%, DLL YEL GLD FLO IN 30%, GD VIS INTER OOL POR IN 30%, FR TO GD SCAT INTER-FOSS POR IN 30%, FR SCAT MICROVUG POR 20%, V/ GD FLSH CUT TO GD SLO STRM MLKY BLU CUT, GOOD OIL ODOR DRY

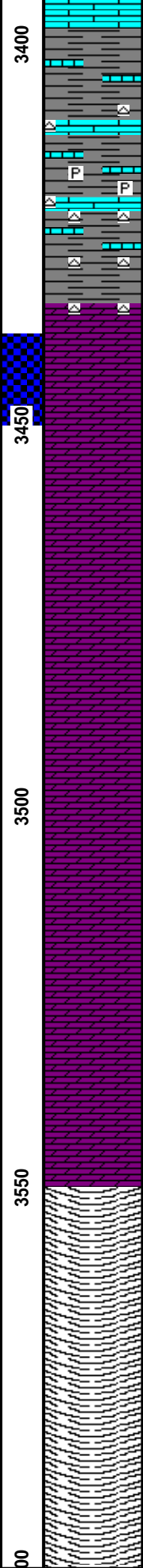
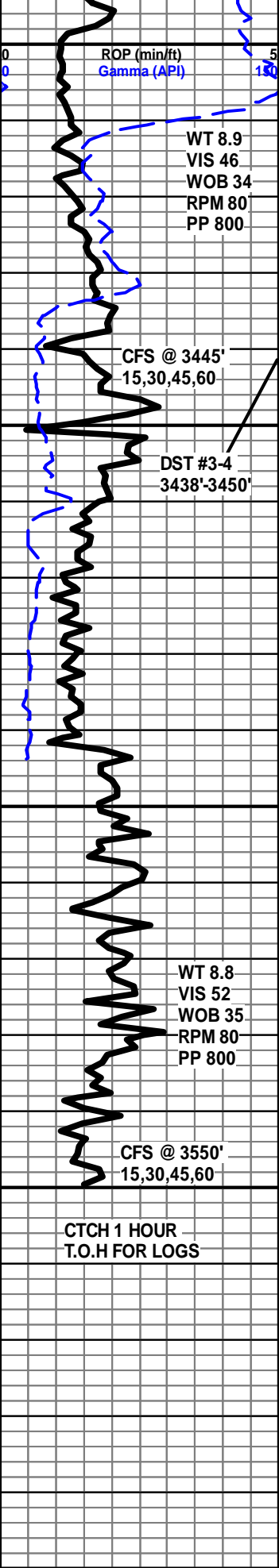
LS- OFF WHT CRM LT TN TN, HD DNS TO BRITT, MD-XLN RE-XLN MTRX, FOSS IP, SCAT SMLL CALC XLS IP, BRIT YEL GLD FLO IN 70%, PR PPPOR IN 20%, PR INTER-FOSS POR IN 10%, NO FLUSH CUT TO V/PR STREAM CUT IN 10% NO ODOR

BASE KANSAS CITY @ 3371' -1501'

SH- GRY TO DK GRY, FRM, SMTH SPLNTY

SS- FRSTY, HD TT, V/FN GRNS, RND TO SUB/RND GRN THRU, GLD TO BRIT YEL FLO IN 50%, PR INTER-GRN POR IN 20%, PR PP POR IN 10%, FR FLUSH CUT IN 10%, MLKY BLUE STREAM CUT IN 10%, NO ODOR





SH- GRY TO DK GRY, REDISH IP, SFT, GMMY IP, BLKY

LS- OFF WHT TN CRM, HD DNS TO BRITT, MD XLN REXLN MTRX THRU, DISS PYR SCAT THRU, CALC XLS IP, DLL TO BRIT YEL MIN FLO, NO VIS POR, NO VIS SHOW

SH- GRY TO DK GRY, REDISH IP, SFT, GMMY IP, BLKY, YELISH WHT CHRT THRU, PYR IP

ARBUCKLE @ 3434' - 1564'

DOL- CRM OFF WTH LT TN TO TN, STAIN IN 60%, V/FN TO FN XLN, REXLN MTRX THRU, SUCRO TXT, FN IMBD DOL XLS THRU, TR CHLK SCAT THRU, LIVE OIL IN 30%, GLD YEL FLO, FR INT-XLN POR IN 40%, FR PP POR IN 20%, GD FLUSH CUT THRU, GD STRONG MLKY BLUE STREAM CUT IN 60%, GD OIL ODOR, BRN STAIN ON DISH

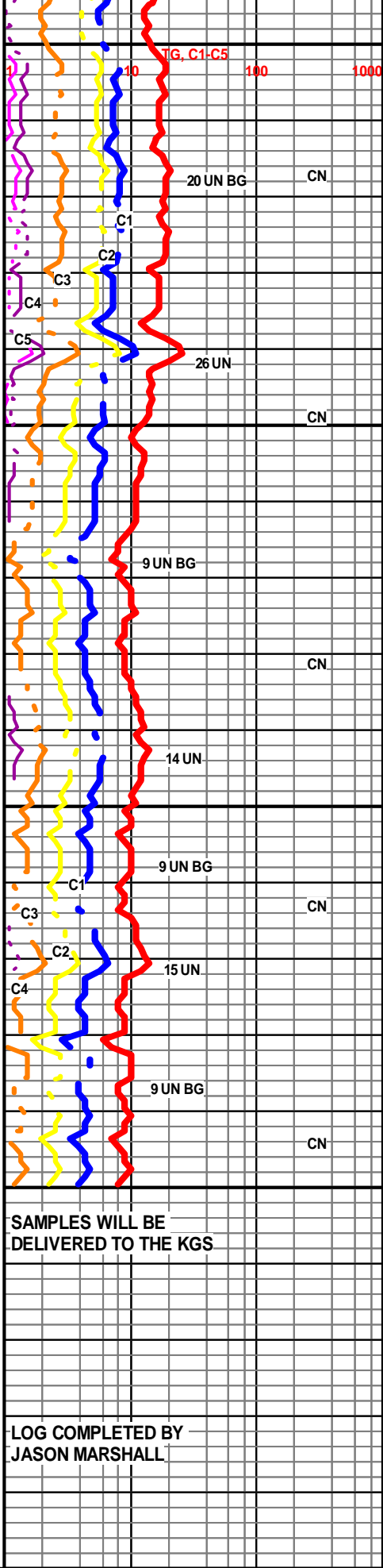
DOL- CRM OFF WTH TN, STAIN IN 40%, V/FN XLN, REXLN MTRX THRU, SUCRO TXT, FN IMBD DOL XLS THRU, TR CHLK SCAT IP, LIVE OIL IN 20%, GLD YEL FLO, FR INT-XLN POR IN 20%, GD FLUSH CUT THRU, GD STRONG MLKY BLUE STREAM CUT IN 10%, FR OIL ODOR

DOL- CRM OFF WTH TN, STAIN IN 10%, V/FN XLN, REXLN MTRX THRU, SUCRO TXT IP, FN IMBD DOL XLS THRU, DLL YEL FLO, V/PR INT-XLN POR IN 20%, V/PR FLUSH CUT THRU, NO STREAM CUT, NO ODOR

DOL- CRM OFF WTH TN, STAIN IN 10%, V/FN XLN, REXLN MTRX THRU, SUCRO TXT, FN IMBD DOL XLS THRU, SLI TR CHLK IP, DLL TO BRIT YEL FLO, PR INT-XLN POR IN 20%, PR FLUSH CUT THRU, NO STREAM CUT, V/PR ODOR

DOL- WHT OFF WHT TN IP, STAIN IN 10%, V/FN XLN, REXLN MTRX THRU, SUCRO TXT THRU, V/FN IMBD DOL XLS THRU, SLI TR CHLK IP, DLL TO BRIT YEL FLO, PR INT-XLN POR IN 30%, TR PR PP POR IN 10%, PR FLUSH CUT THRU, V/PR STREAM CUT IN 10%, V/PR OIL ODOR

DOL- WHT OFF WHT TN IP, V/FN XLN, REXLN MTRX THRU, SUCRO TXT THRU, V/FN IMBD DOL XLS THRU, SLI TR CHLK IP, DLL TO BRIT YEL FLO, PR INT-XLN POR IN 30%, TR PR PP POR IN 20%, V/PR FLUSH CUT IN 10%, NO STREAM CUT, NO OIL ODOR



RTD 3550' @ 1:50 PM 04/02/2011

LOGS BY WEATHERFORD

LIBERAL KANSAS

LOG COMPLETED BY JASON MARSHALL

THANK YOU FOR CHOOSING EARTHTECH