



**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: \_\_\_\_\_



1066664

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
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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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	HOPKINS 1-31
Doc ID	1066664

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

November 02, 2011

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

Re: ACO1  
API 15-167-23725-00-00  
HOPKINS 1-31  
SW/4 Sec.31-15S-15W  
Russell 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: 7/12/2011  
 Invoice # 4673  
 P.O.#:  
 Due Date: 8/11/2011  
 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

**Reference:**  
 HOPHINS 1-31

**Description of Work:**  
 LONG SURFACE JOB

DRLG  COMP  W/O  LOE  GG

Account	8200-138
Well/Prospect	HOPKINS 1-31
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

**Services / Items Included:**

	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 963.85	No				
Common-Class A	370	\$ 4,764.78	Yes	Baffle Plate Aluminum, 8 5/8"	1	\$95.00	Yes
8 5/8" Basket	3	\$ 1,000.67	Yes				
Bulk Truck Mat-Material Service Charge	390	\$ 823.33	No				
Calcium Chloride	13	\$ 516.78	Yes				
Pump Truck Mileage-Job to Nearest Camp	21	\$ 221.22	No				
8 5/8" Centralizer	3	\$ 202.67	Yes				
Flo Seal	92	\$ 194.22	Yes				
Premium Gel (Bentonite)	7	\$ 120.29	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	21	\$ 129.45	No				
8 5/8" Top Rubber Plug	1	\$ 111.89	Yes				

**Invoice Terms:**

Net 30

SubTotal:	\$ 9,144.15
Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$ (1,371.62)
SubTotal for Taxable Items:	\$ 5,955.35
SubTotal for Non-Taxable Items:	\$ 1,817.18
Total:	\$ 7,772.53
Tax:	\$ 494.29
<b>Amount Due:</b>	<b>\$ 8,266.82</b>
Applied Payments:	
<b>Balance Due:</b>	<b>\$ 8,266.82</b>

8.30% Russell 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. 4673

Date	7-9-11	Sec.	31	Twp.	15	Range	15	County	Russell	State	Ran 543	On Location		Finish	3:30 PM	
Lease	Hopkins	Well No.	1-31			Location Graham 5 to Co Line Unit										
Contractor	Discovery Drilling Rig 2										Owner					
Type Job	Surface										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.					
Hole Size	12 1/4	T.D.	982													
Csg.	8 1/2	23 1/2	Depth	982												
Tbg. Size											Charge To	Samuel Gary Jr. & Associates				
Tool	Baffle Plate										Street					
Cement Left in Csg.											City	State				
Meas Line											The above was done to satisfaction and supervision of owner agent or contractor.					
	Displace 59 3/4 Bbl										Cement Amount Ordered 370 Common 3 1/2					

**EQUIPMENT**

Pumptrk	9	No.	Cement Helper	Steve
Bulktrk	13	No.	Driver	Ken
Bulktrk		No.	Driver	Dave

2 1/2 bags 1/2 lb flo seal per sk  
Common 370  
Poz. Mix  
Gel. 7  
Calcium 13

**JOB SERVICES & REMARKS**

Remarks:  
Rat Hole  
Mouse Hole  
Centralizers 1 15 23  
Baskets 2 16 24  
D/V or Port Collar  
Cement did Circulate

Hulls  
Salt  
Flowseal  
Kol-Seal  
Mud CLR 48  
CFL-117 or CD110 CAF 38  
Sand  
Handling 390  
Mileage

**FLOAT EQUIPMENT**

Guide Shoe  
Centralizer 3  
Baskets 3  
AFU Inserts  
Float Shoe  
Latch Down  
Baffle Plate  
Rubber Plug  
Pumptrk Charge Long Surface  
Mileage 21

Signature: *Steve Wink*

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: 7/22/2011  
 Invoice # 5105

P.O.#:

Due Date: 8/21/2011

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

**Reference:**  
 hopkins 1-31

**Description of Work:**  
 plug

DRLG    COMP    W/O    LOE    GG

Account	8200-145
Well/Prospect	HOPKINS 1-31
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	No				
Common-Class A	111	\$ 1,470.27	Yes				
Bulk Truck Matl-Material Service Charge	191	\$ 414.74	No				
POZ Mix-Standard	74	\$ 369.58	Yes				
Pump Truck Mileage-Job to Nearest Camp	21	\$ 227.54	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	21	\$ 133.15	No				
Flo Seal	46	\$ 99.89	Yes				
Dry Hole Plug	1	\$ 60.80	No				

**Invoice Terms:**

Net 30

	SubTotal:	\$	3,767.36
	Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(565.10)
<hr/>			
	SubTotal for Taxable Items:	\$	1,648.78
	SubTotal for Non-Taxable Items:	\$	1,553.48
<hr/>			
	Total:	\$	3,202.26
	Tax:	\$	136.85
<hr/>			
	Amount Due:	\$	3,339.11
	Applied Payments:		
	Balance Due:	\$	3,339.11

8.30% Russell 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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Phone 785-483-2025  
Cell 785-324-1041

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

No. 5105

Date	7-14-11	Sec.	31	Twp.	15	Range	15	County	Russell	State	Ks	On Location		Finish	11:00 PM		
Lease	Hopkins		Well No.	1-31		Location Gosham, Ks - 5 to C.L., 1w, N/S											
Contractor	Discovery #2							Owner									
Type Job	Plug							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.									
Hole Size	7 7/8"		T.D.	3650'													
Csg.								Depth	Charge To Samuel Gary Jr + Associates								
Tbg. Size	4 1/2" D.P.		Depth	3434'													
Tool								Depth	Street								
Cement Left in Csg.								Shoe Joint	City								
Meas Line								Displace	H2O/mud		The above was done to satisfaction and supervision of owner agent or contractor.					State	
										Cement Amount Ordered						185 sx 60/40 4% Gel	

**EQUIPMENT**

Pumptrk	1	No.	Cement Helper	Rick	Common	111
Bulktrk	12	No.	Driver	Doug	Poz. Mix	74
Bulktrk		No.	Driver		Gel.	6

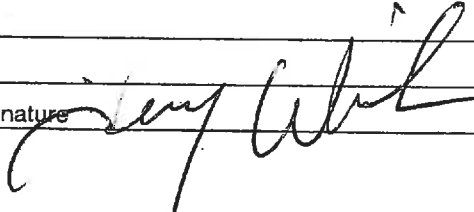
**JOB SERVICES & REMARKS**

Remarks:	Cement did Circulate	Calcium
Rat Hole		Hulls
Mouse Hole		Salt
Centralizers		Flowseal 464
Baskets		Kol-Seal
D/V or Port Collar		Mud CLR 48
3434' - 25 SX		CFL-117 or CD110 CAF 38
990' - 25 SX		Sand
420' - 80 SX		Handling 191
40' - 10 SX		Mileage

**FLOAT EQUIPMENT**

Rathole - 30 SX	Guide Shoe
Mousehole - 15 SX	Centralizer
185 SX 60/40 4% Gel 44K.S.	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	Pumptrk Charge Plug
	Mileage 21

Tax	
Discount	
Total Charge	

X Signature 





## DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. and Associates Inc.**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

ATTN: Clayton Camozzi

**31-15-15 Russell, Ks**

**Hopkins 1-31**

Start Date: 2011.07.12 @ 15:00:44

End Date: 2011.07.12 @ 21:30:14

Job Ticket #: 43913                      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

Samuel Gary Jr. and Associates Inc.

**Hopkins 1-31**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

**31-15-15 Russell, Ks**

ATTN: Clayton Camozzi

Job Ticket: 43913

**DST#: 1**

Test Start: 2011.07.12 @ 15:00:44

## GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:51:44

Time Test Ended: 21:30:14

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 47

**Interval: 3178.00 ft (KB) To 3198.00 ft (KB) (TVD)**

Reference Elevations: 1894.00 ft (KB)

Total Depth: 3198.00 ft (KB) (TVD)

1886.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 6753**

**Inside**

Press @ Run Depth: 37.13 psig @ 3179.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.12 End Date: 2011.07.12

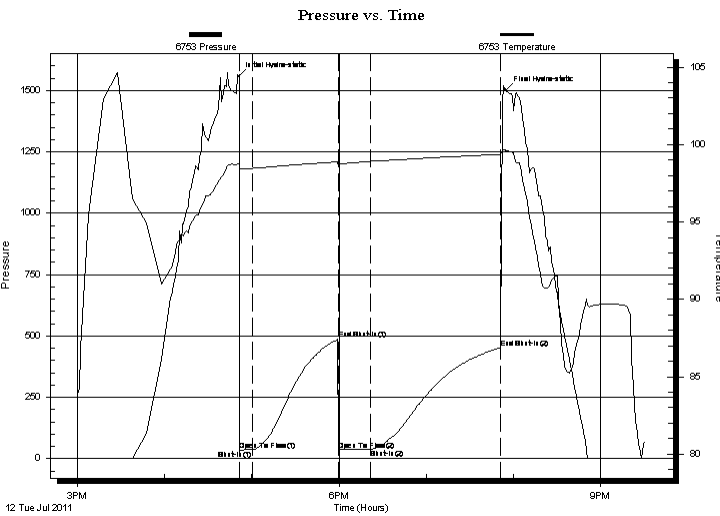
Last Calib.: 2011.07.12

Start Time: 15:00:49 End Time: 21:30:13

Time On Btm: 2011.07.12 @ 16:50:44

Time Off Btm: 2011.07.12 @ 19:54:44

**TEST COMMENT:** 10 - IFP - sur blow - died 2 min  
60 - ISI - no blow back  
20 - FFP - no blow  
90 - FSI - no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1556.35	98.79	Initial Hydro-static
1	35.65	98.44	Open To Flow (1)
10	35.86	98.47	Shut-In(1)
69	487.31	98.88	End Shut-In(1)
69	36.09	98.62	Open To Flow (2)
91	37.13	98.92	Shut-In(2)
181	452.78	99.36	End Shut-In(2)
184	1500.49	99.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	drl mud 100%	0.07

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Samuel Gary Jr. and Associates Inc.

**Hopkins 1-31**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

**31-15-15 Russell, Ks**

Job Ticket: 43913

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2011.07.12 @ 15:00:44

## Tool Information

Drill Pipe:	Length: 3127.00 ft	Diameter: 3.80 inches	Volume: 43.86 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 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: 44.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3178.00 ft			Final 47000.00 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			3144.00	
Recorder	0.00	8369	Fluid	3144.00	
Blank Spacing	5.00			3149.00	
Shut In Tool	5.00			3154.00	
Sampler	2.00			3156.00	
Hydraulic tool	5.00			3161.00	
Jars	5.00			3166.00	
Safety Joint	2.00			3168.00	
Packer	5.00			3173.00	35.00 Bottom Of Top Packer
Packer	5.00			3178.00	
Stubb	1.00			3179.00	
Recorder	0.00	6753	Inside	3179.00	
Recorder	0.00	8319	Outside	3179.00	
Perforations	16.00			3195.00	
Bullnose	3.00			3198.00	20.00 Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr. and Associates Inc.

**Hopkins 1-31**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

**31-15-15 Russell, Ks**

Job Ticket: 43913

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2011.07.12 @ 15:00:44

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	drl mud 100%	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

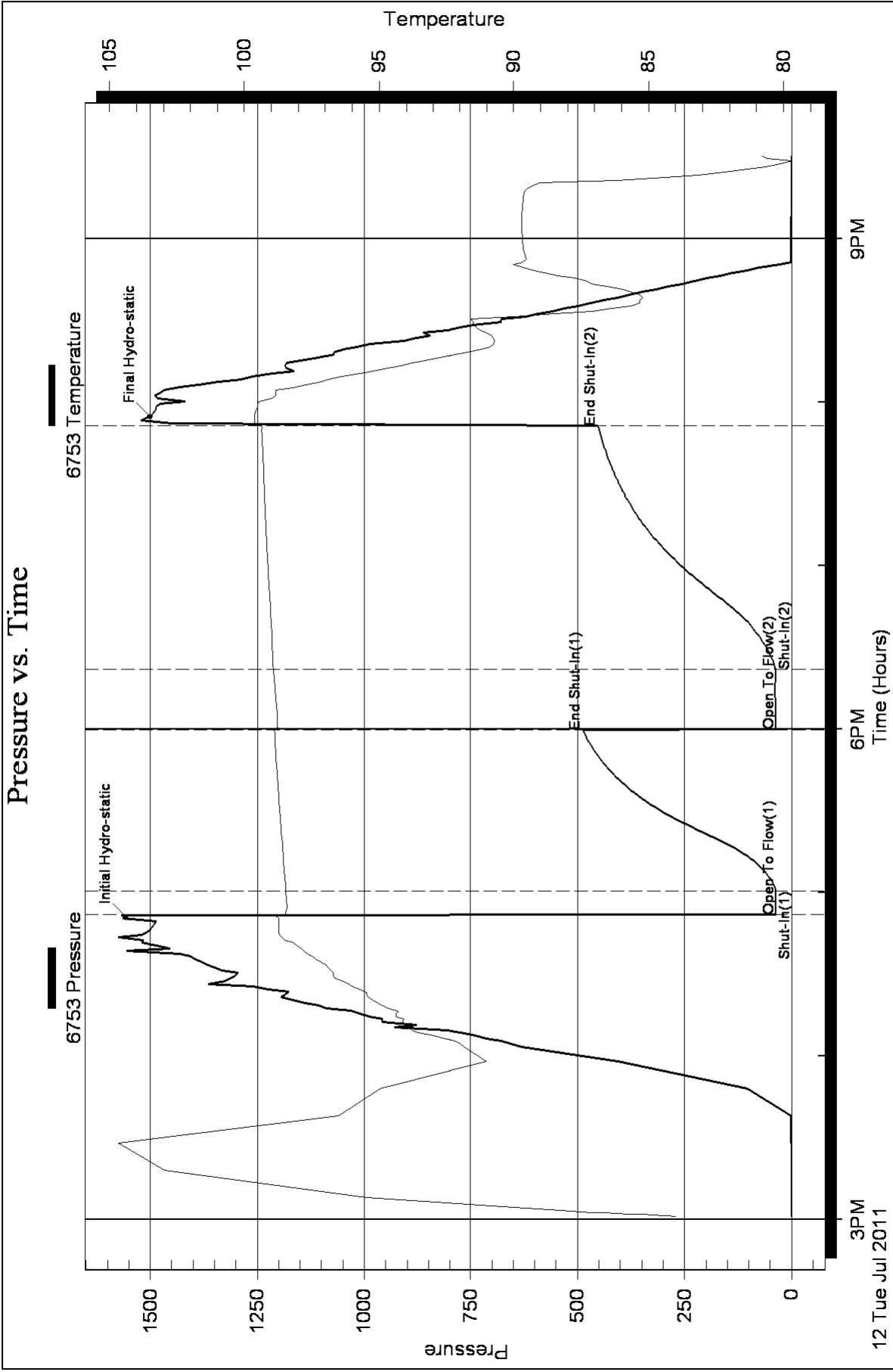
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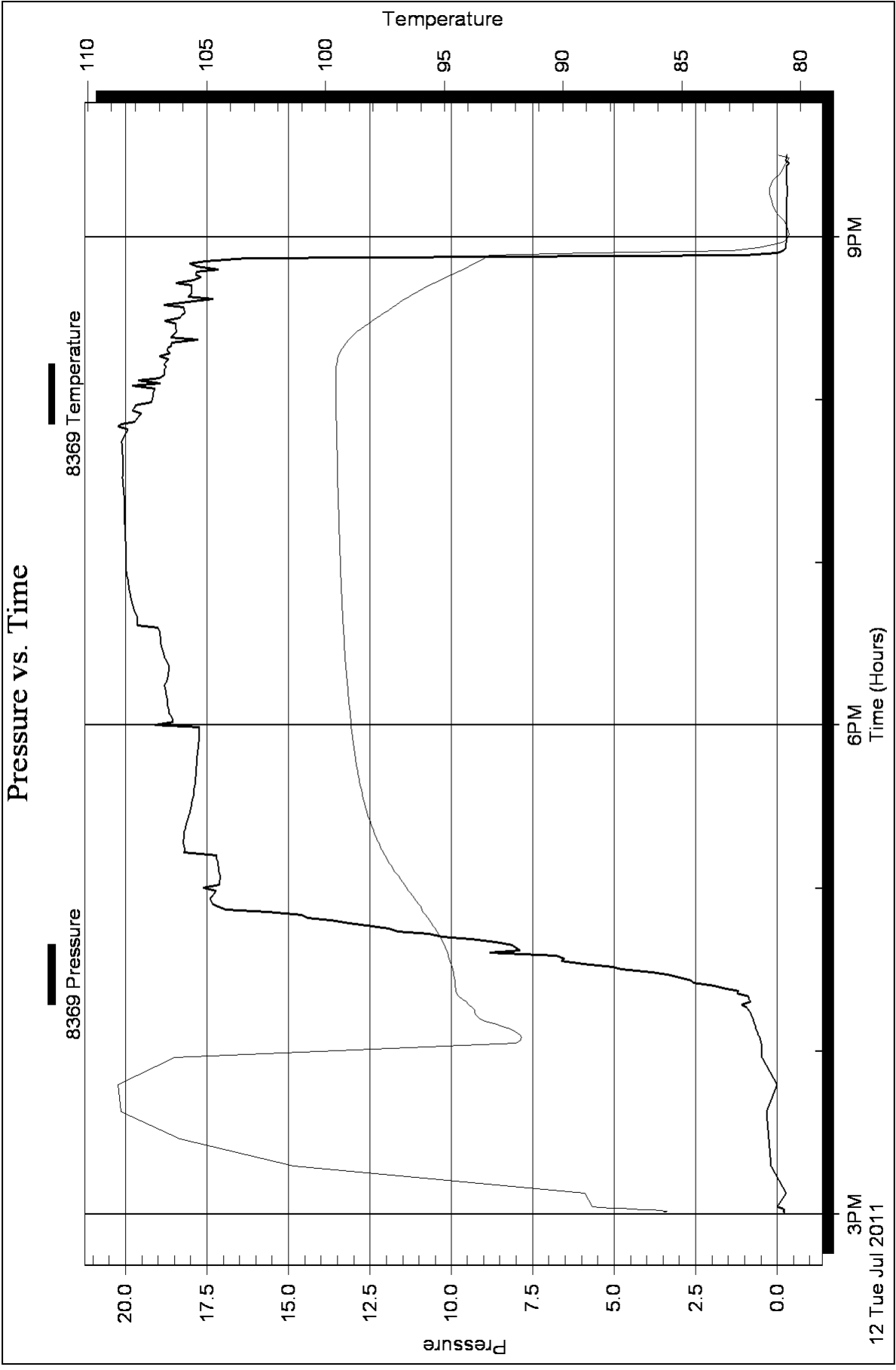
Laboratory Name:

Laboratory Location:

Recovery Comments: 4000 ml mud, 40 lbs

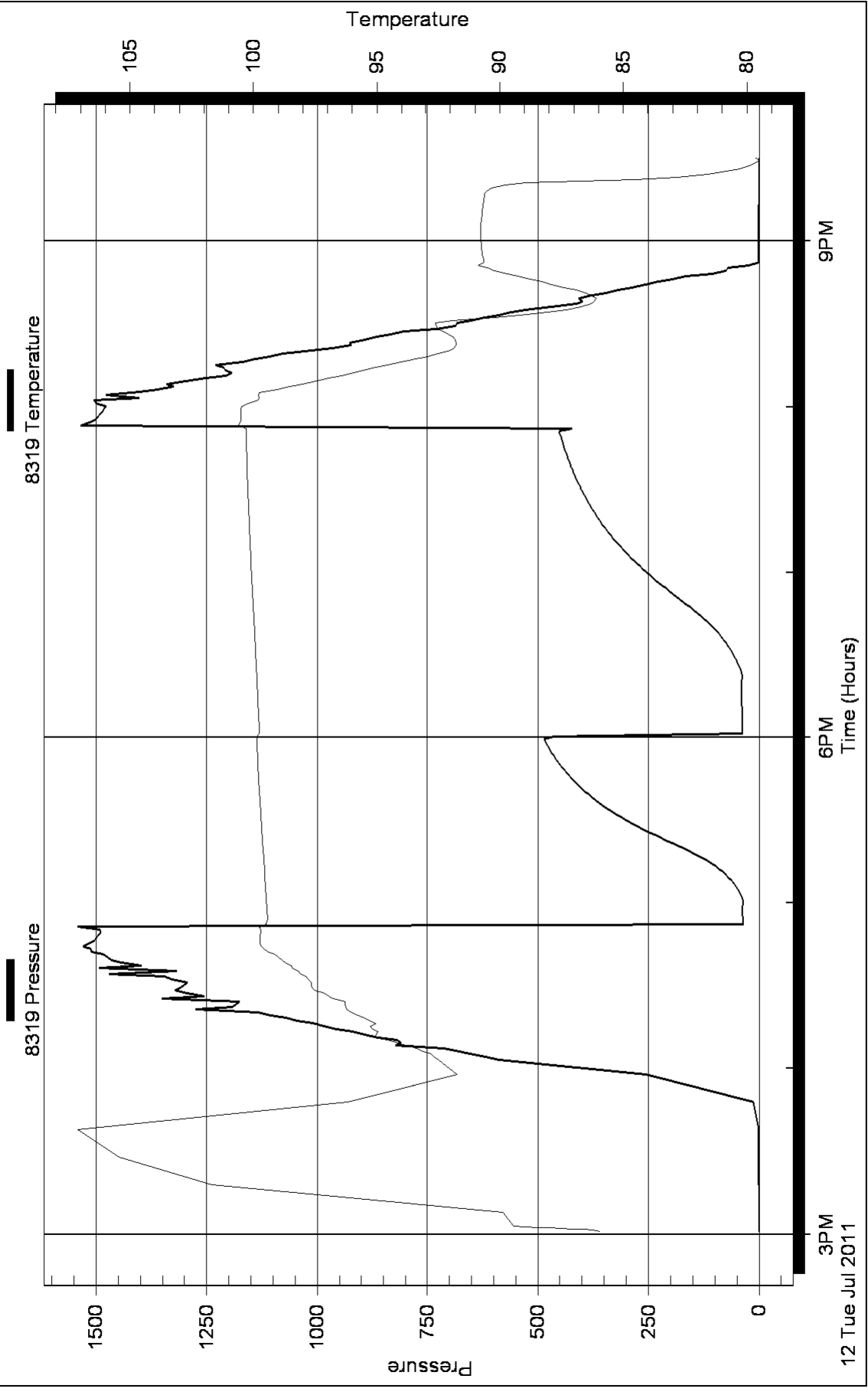
### Pressure vs. Time



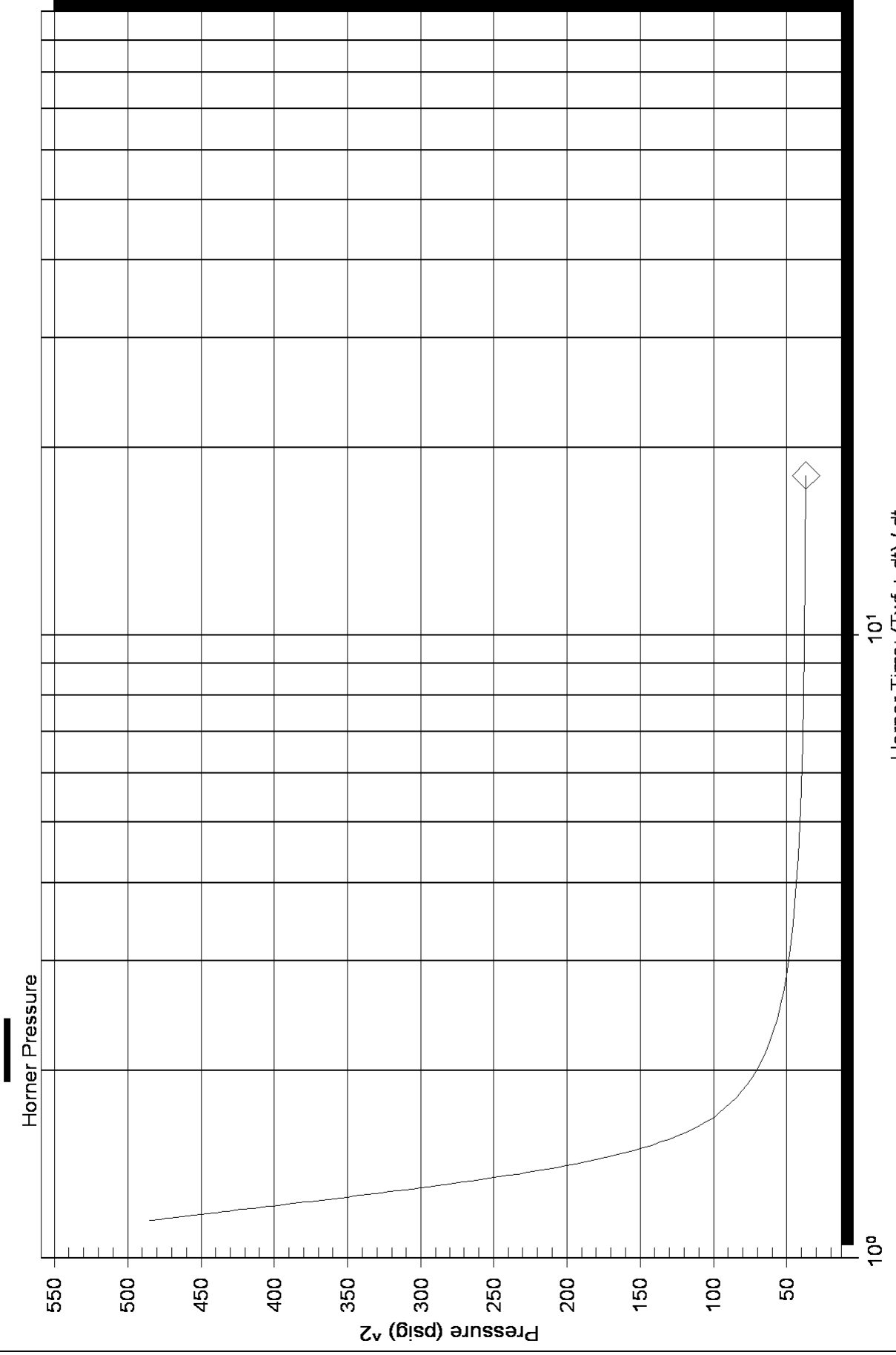




### Pressure vs. Time



### Homer Plot

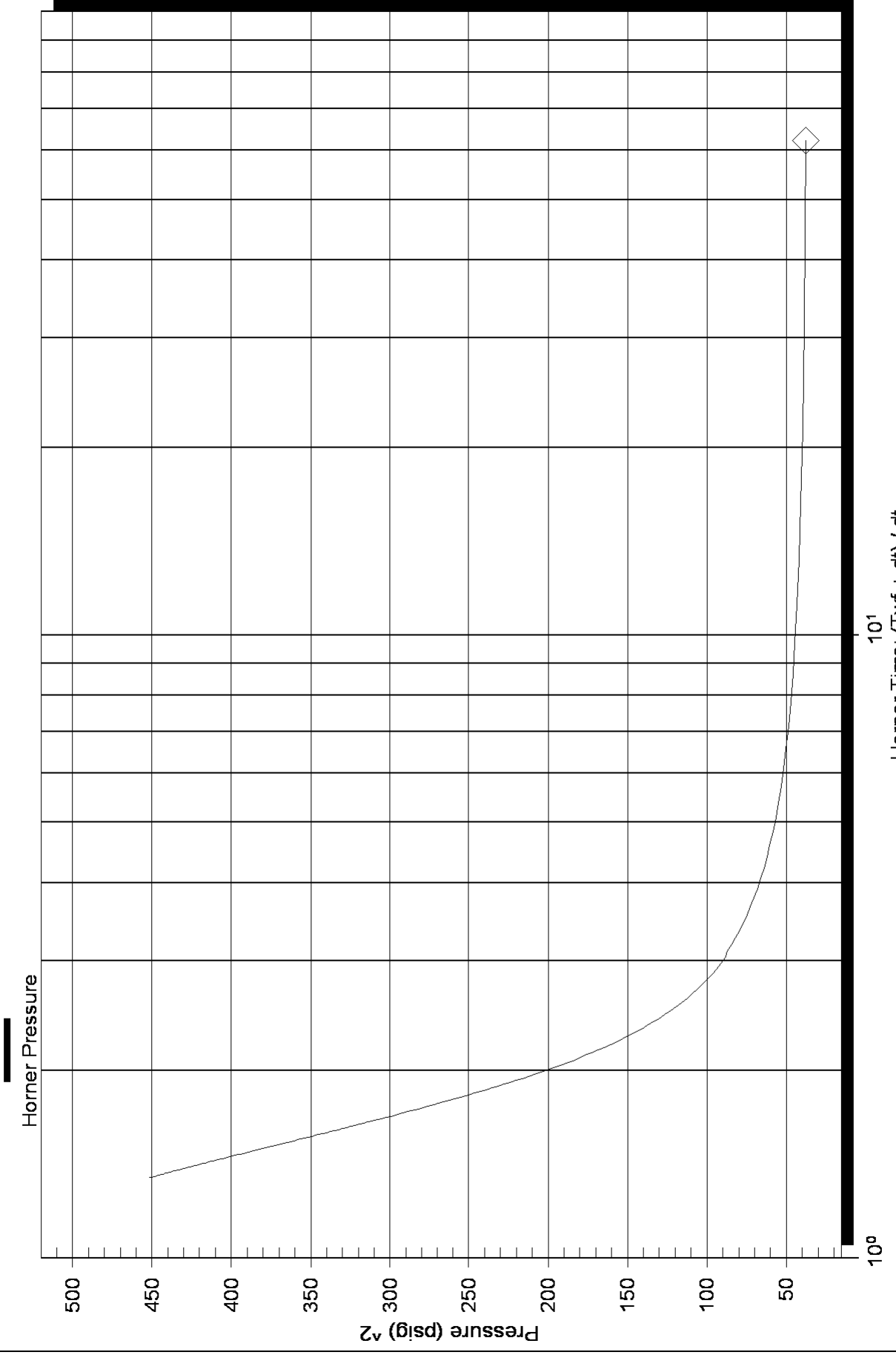


Serial Number: 6753 (Inside)

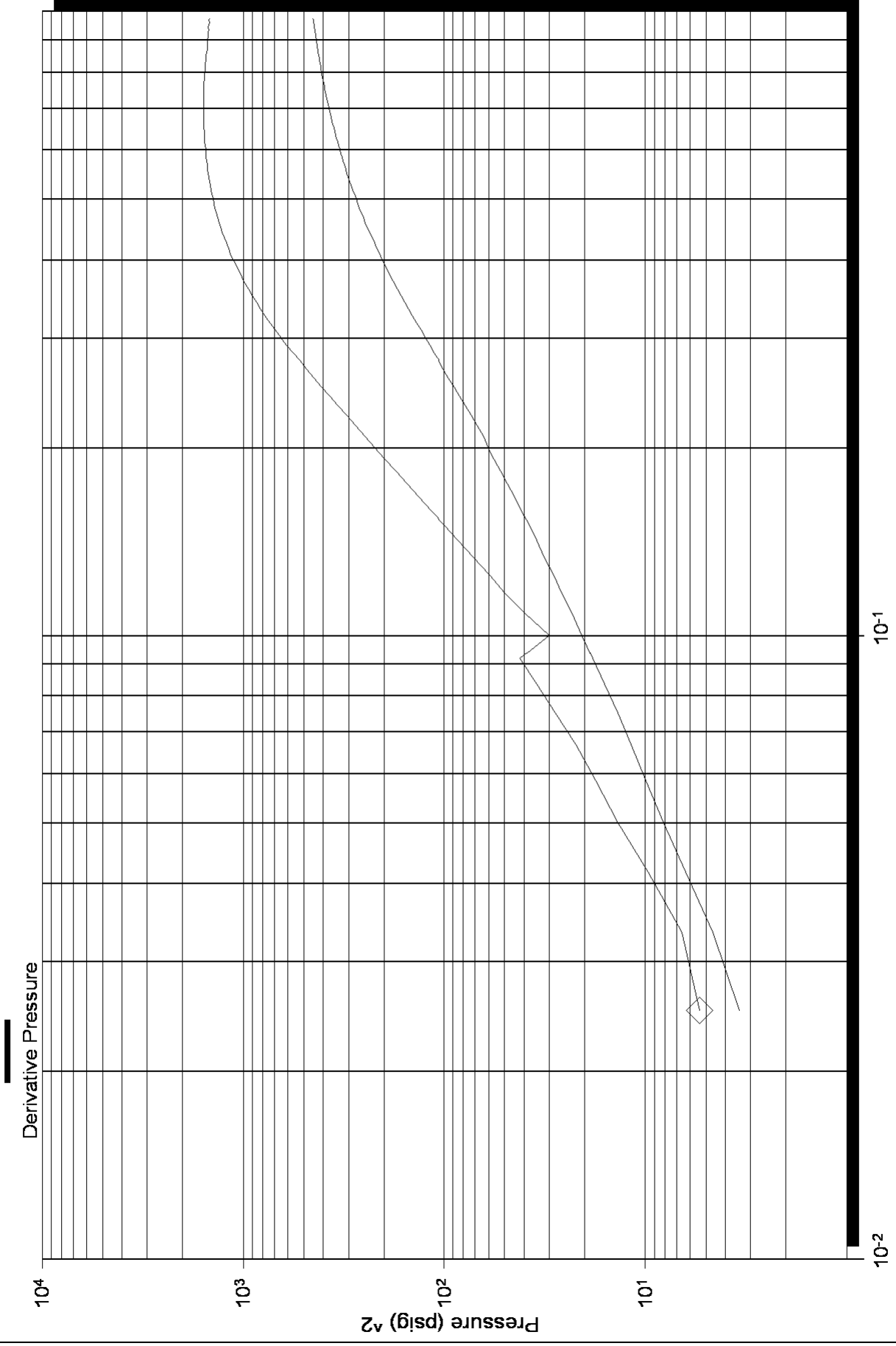
P\* : Slope (m) : kpa/log cycle

Flow Cycle: 1

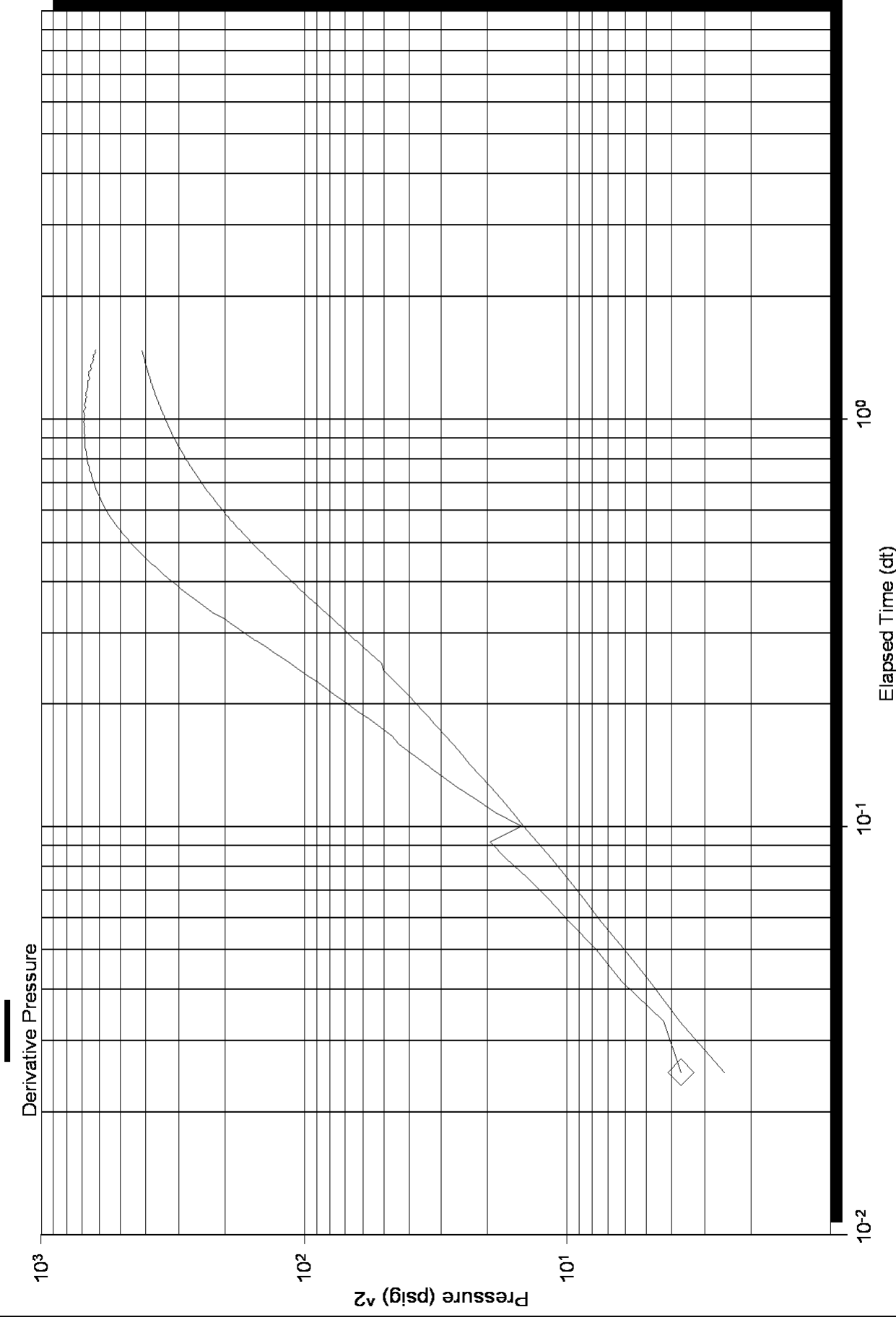
### Homer Plot



# Log-Log and Pseudo-Derivative



### Log-Log and Pseudo-Derivative





## DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. and Associates Inc.**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

ATTN: Clayton Camozzi

**31-15-15 Russell, Ks**

**Hopkins 1-31**

Start Date: 2011.07.13 @ 13:40:10

End Date: 2011.07.13 @ 19:50:40

Job Ticket #: 43914                      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

Samuel Gary Jr. and Associates Inc.

**Hopkins 1-31**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

**31-15-15 Russell, Ks**

ATTN: Clayton Camozzi

Job Ticket: 43914

**DST#: 2**

Test Start: 2011.07.13 @ 13:40:10

## GENERAL INFORMATION:

Formation: **KC "I,J,K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:06:40

Time Test Ended: 19:50:40

Test Type: Conventional Bottom Hole

Tester: Brett Dickinson

Unit No: 47

**Interval: 3324.00 ft (KB) To 3375.00 ft (KB) (TVD)**

Reference Elevations: 1894.00 ft (KB)

Total Depth: 3375.00 ft (KB) (TVD)

1886.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8319 Outside**

Press @ Run Depth: 37.69 psig @ 3325.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.13

End Date:

2011.07.13

Last Calib.:

2011.07.13

Start Time:

13:40:15

End Time:

19:50:39

Time On Btm:

2011.07.13 @ 15:05:10

Time Off Btm:

2011.07.13 @ 18:07:40

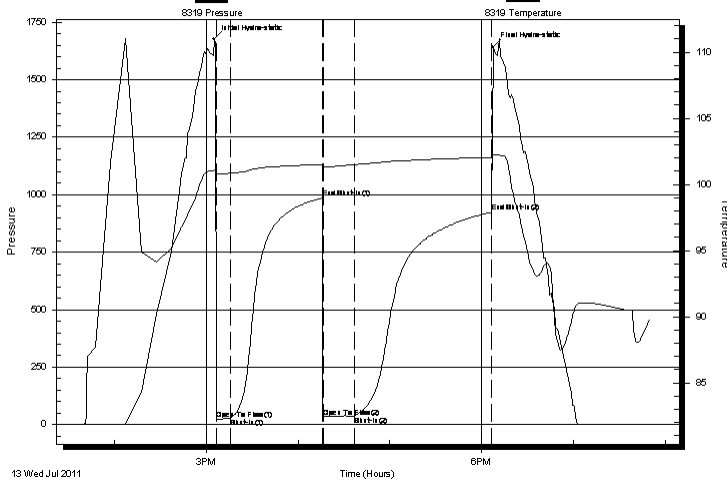
TEST COMMENT: IF-Weak surface blow

ISI-NBlow

FF-NBlow

FSI-NBlow

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.56	101.07	Initial Hydro-static
2	21.53	100.77	Open To Flow (1)
11	28.62	100.85	Shut-In(1)
71	985.55	101.51	End Shut-In(1)
71	33.21	101.28	Open To Flow (2)
92	37.69	101.50	Shut-In(2)
182	923.81	102.04	End Shut-In(2)
183	1643.47	102.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	VSOCM 5%O 95%M	0.22

## Gas Rates

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









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TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Samuel Gary Jr. and Associates Inc.

**Hopkins 1-31**

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Denver, CO 80202

**31-15-15 Russell, Ks**

ATTN: Clayton Camozzi

Job Ticket: 43914

**DST#: 2**

Test Start: 2011.07.13 @ 13:40:10

## Tool Information

Drill Pipe:	Length: 3281.00 ft	Diameter: 3.80 inches	Volume: 46.02 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 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: 46.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3324.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	86.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3290.00	
Recorder	0.00	8369	Fluid	3290.00	
Blank Spacing	5.00			3295.00	
Shut In Tool	5.00			3300.00	
Sampler	2.00			3302.00	
Hydraulic tool	5.00			3307.00	
Jars	5.00			3312.00	
Safety Joint	2.00			3314.00	
Packer	5.00			3319.00	35.00 Bottom Of Top Packer
Packer	5.00			3324.00	
Stubb	1.00			3325.00	
Recorder	0.00	6753	Inside	3325.00	
Recorder	0.00	8319	Outside	3325.00	
Perforations	4.00			3329.00	
Change Over Sub	1.00			3330.00	
Blank Spacing	31.00			3361.00	
Change Over Sub	1.00			3362.00	
Perforations	10.00			3372.00	
Bullnose	3.00			3375.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr. and Associates Inc.

**Hopkins 1-31**

1515 Wynkoop St. Ste. 700  
Denver, CO 80202

**31-15-15 Russell, Ks**

Job Ticket: 43914

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2011.07.13 @ 13:40:10

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	VSOCM 5%O 95%M	0.218

Total Length: 35.00 ft      Total Volume: 0.218 bbl

Num Fluid Samples: 0

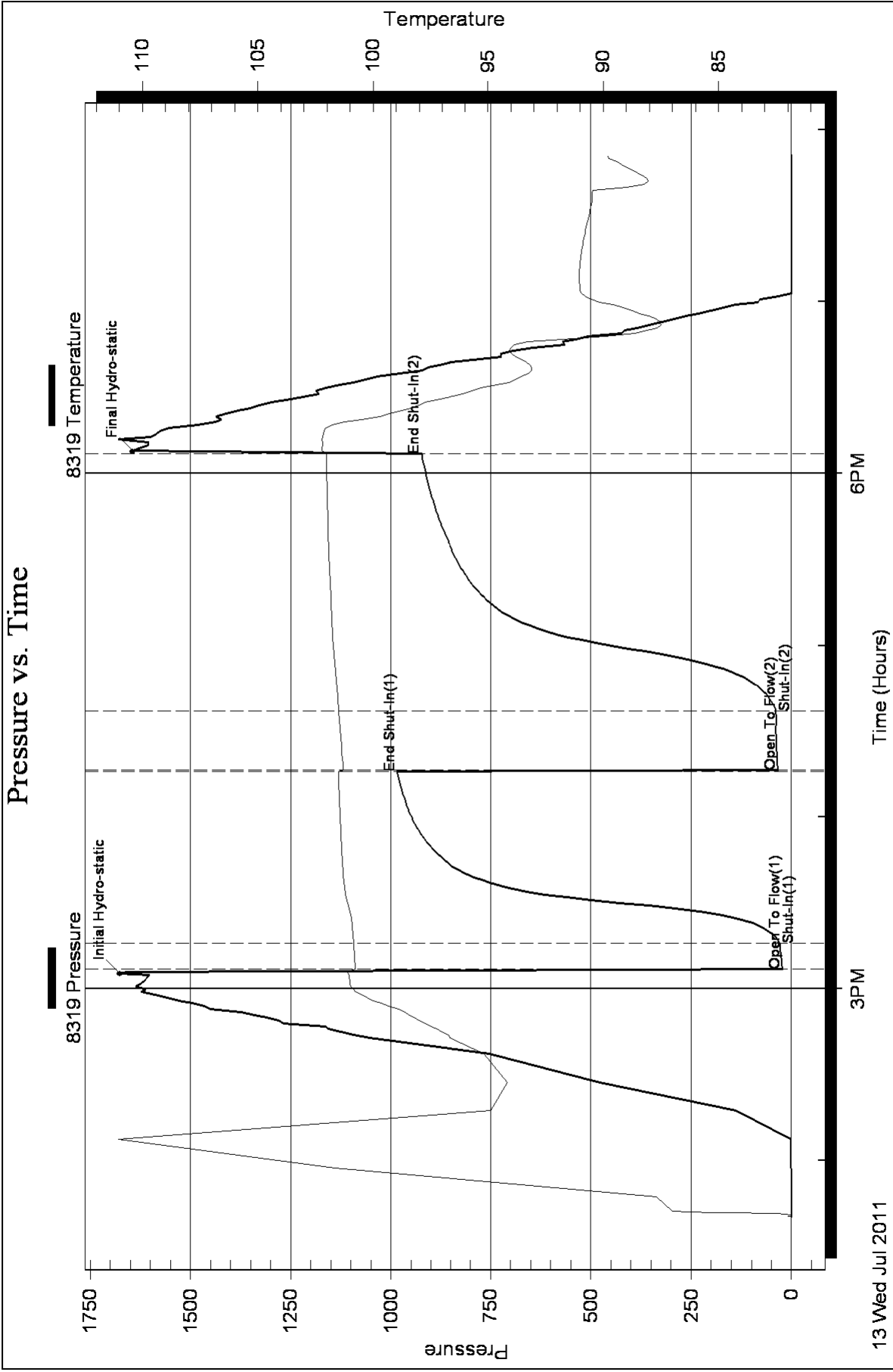
Num Gas Bombs: 0

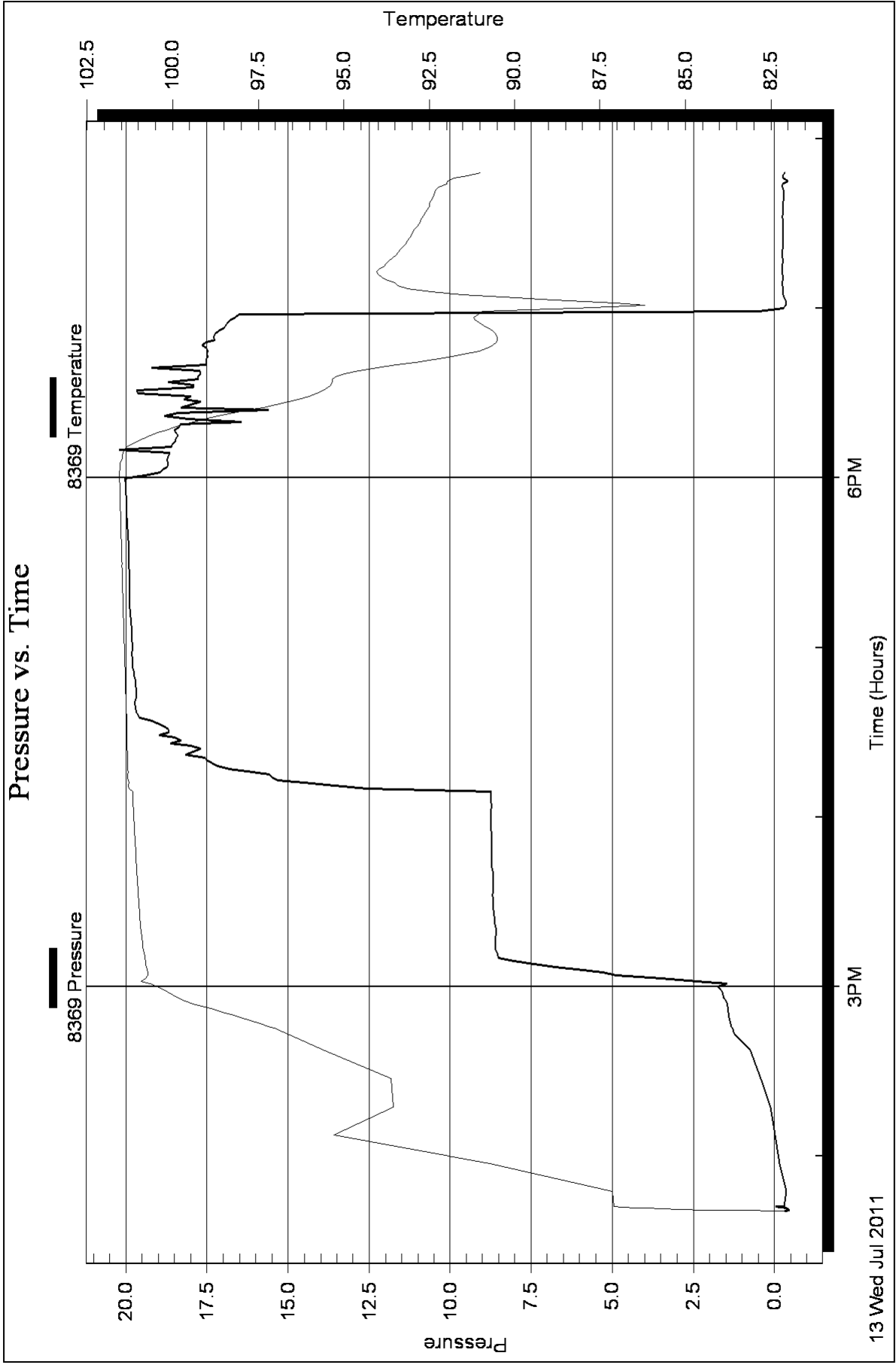
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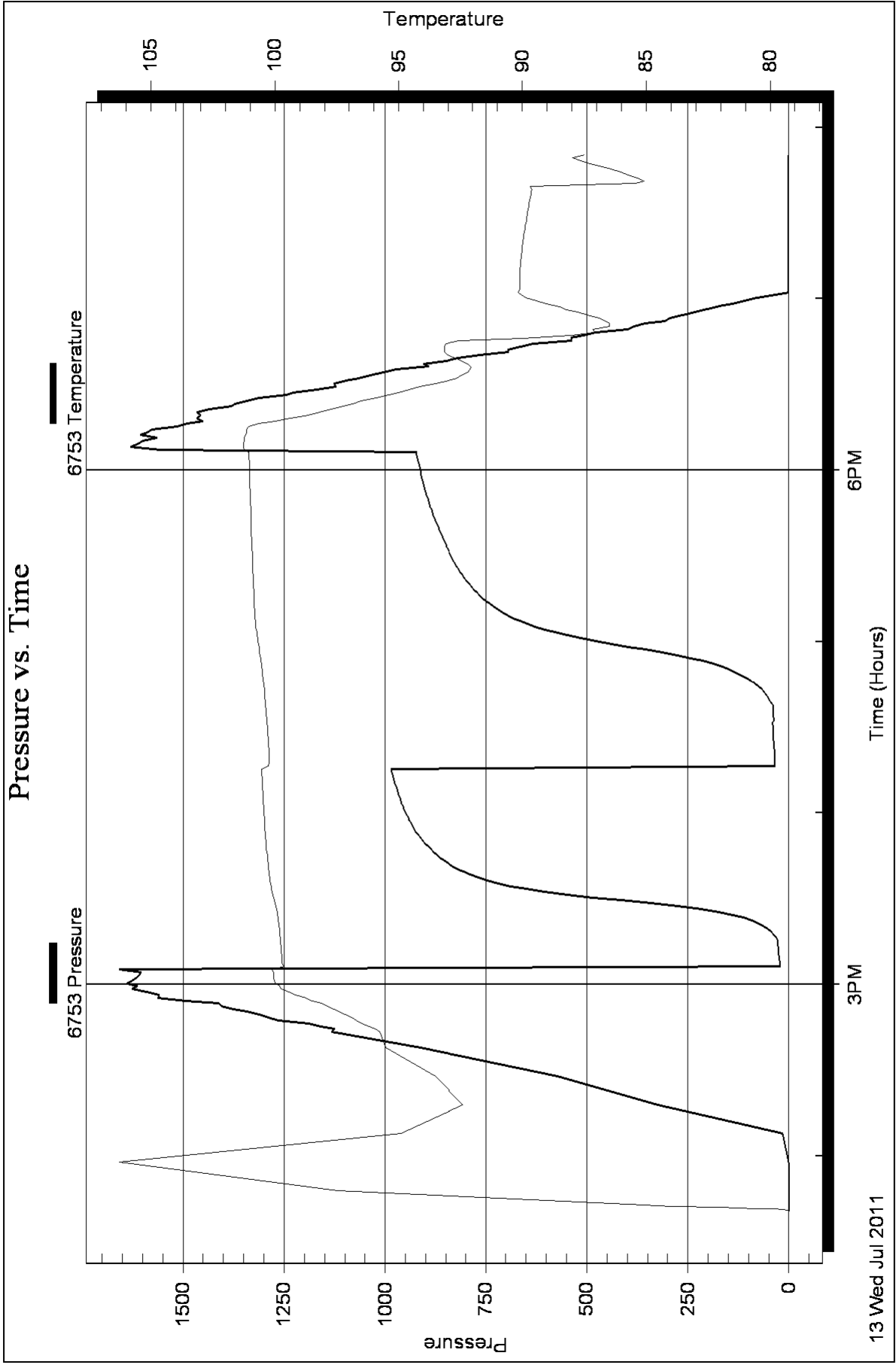
Laboratory Name:

Laboratory Location:

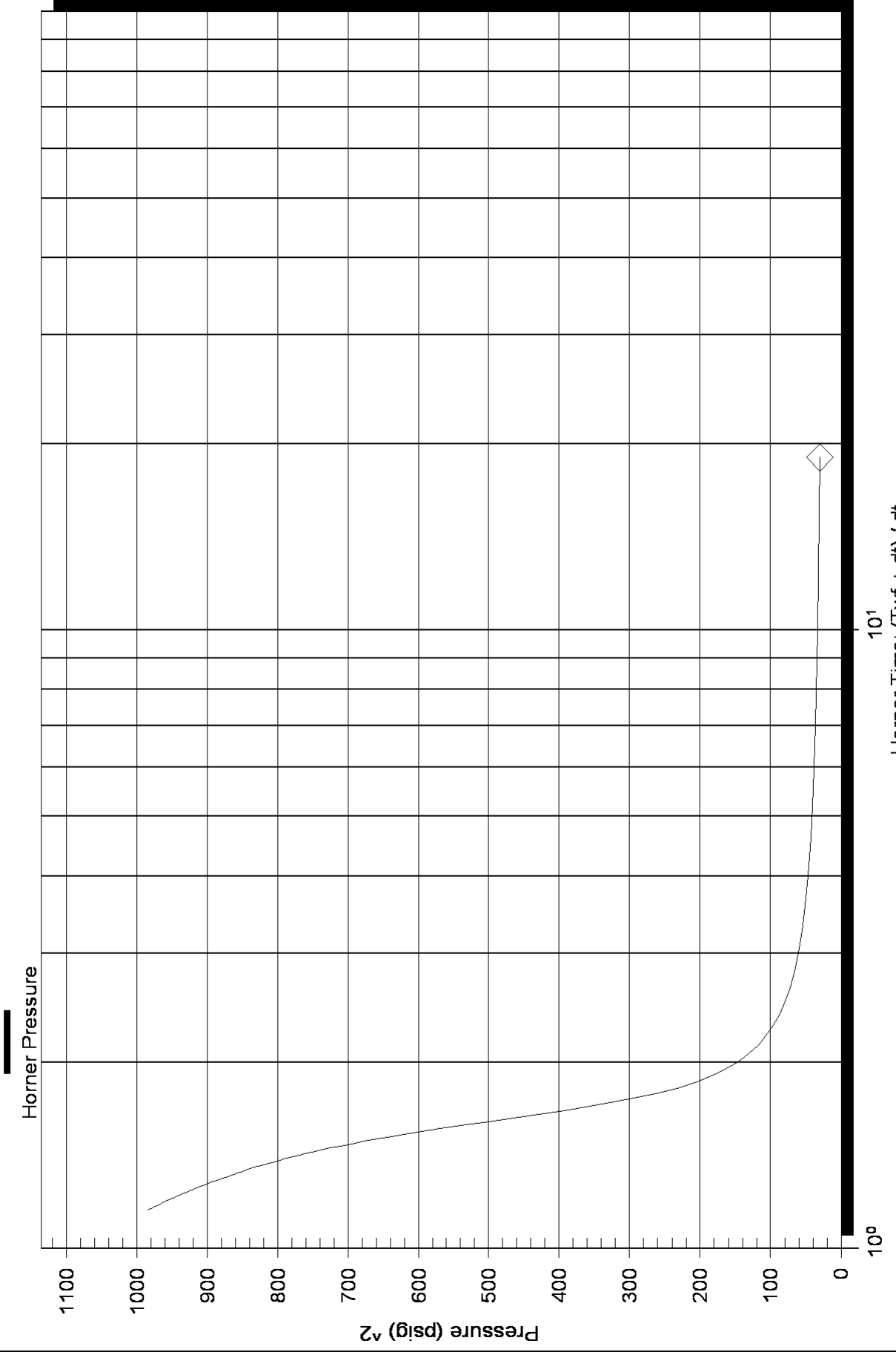
Recovery Comments: Sampler Data Plugged 100PSI



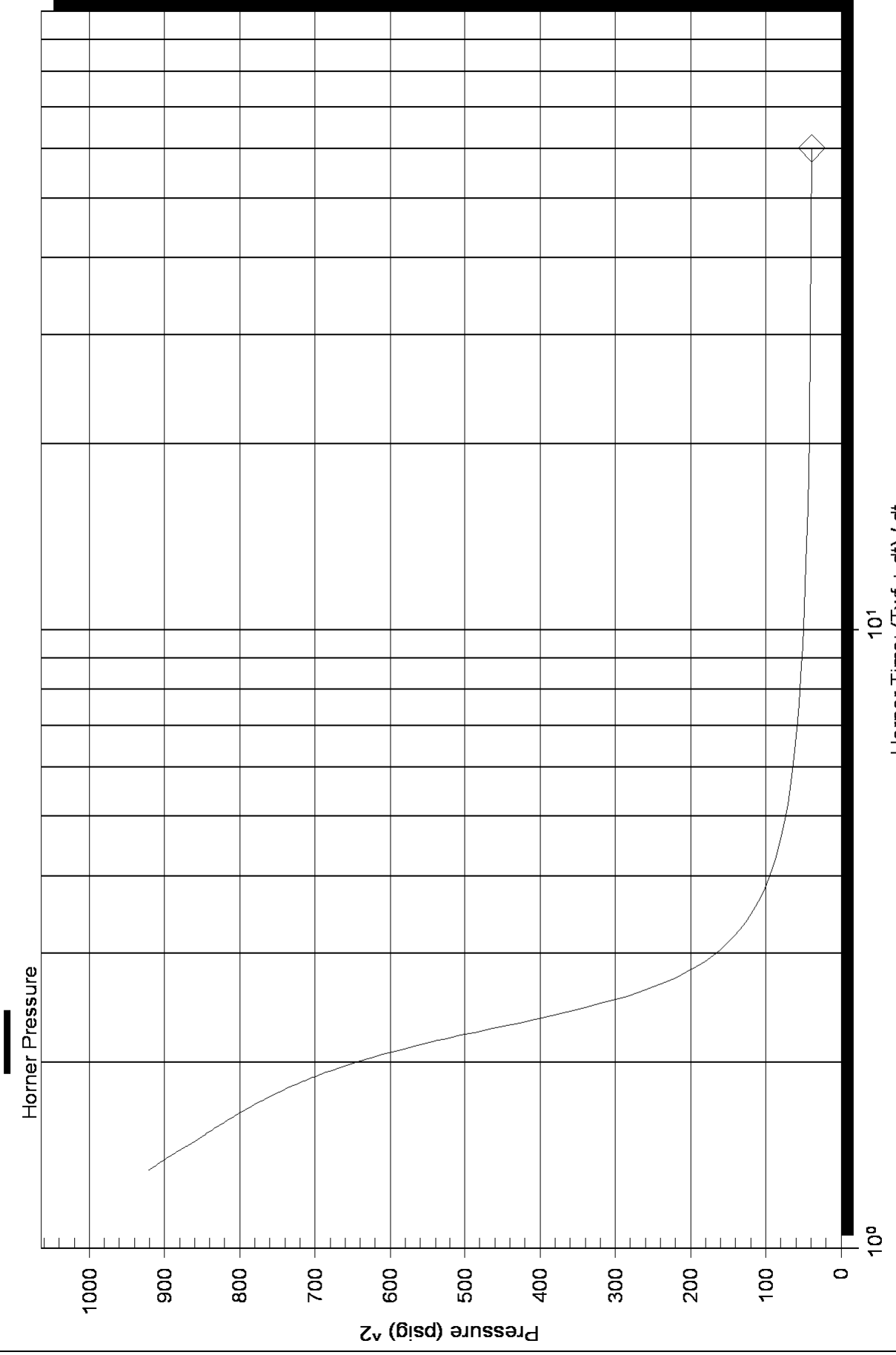




### Homer Plot

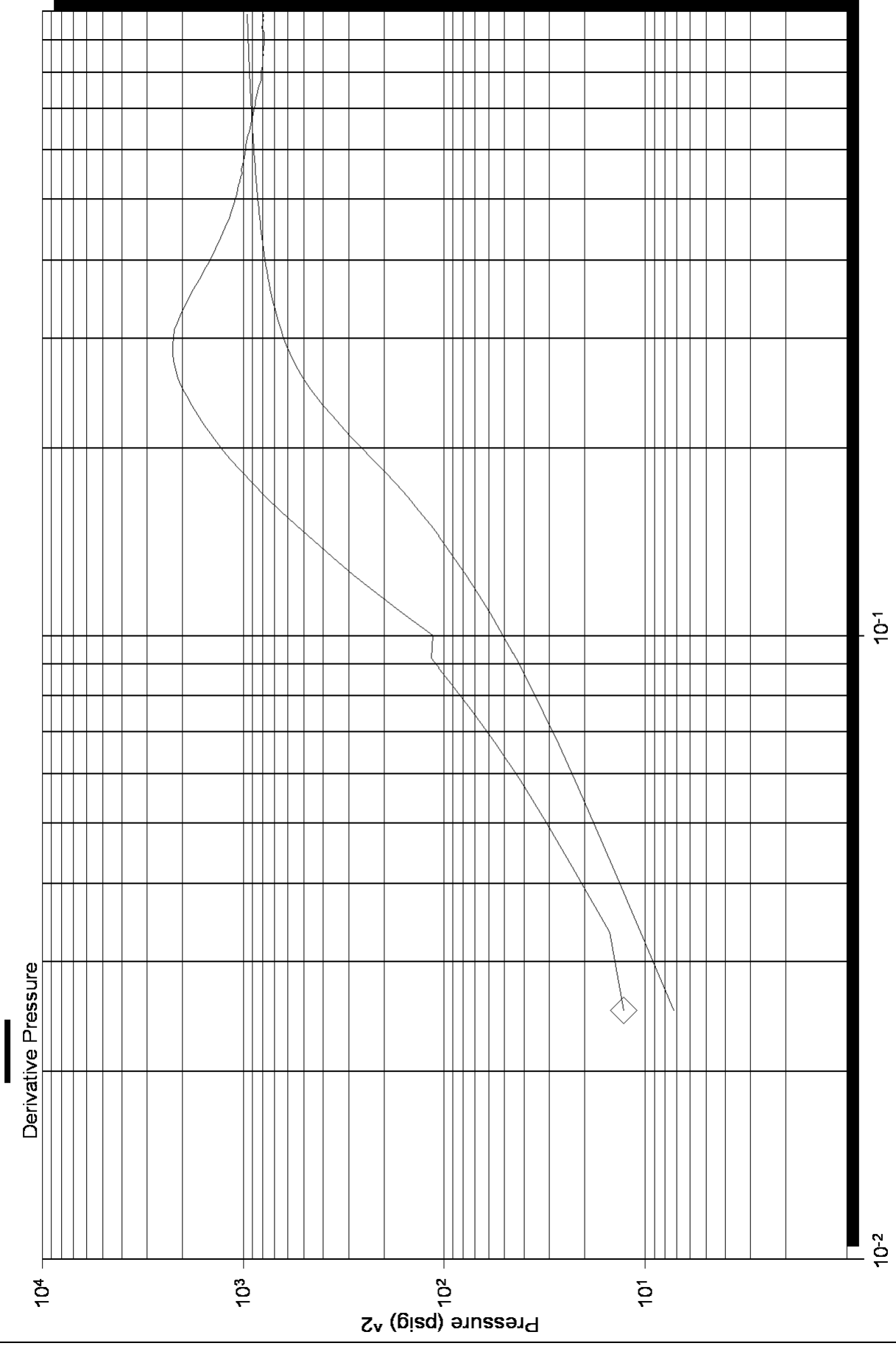


### Homer Plot

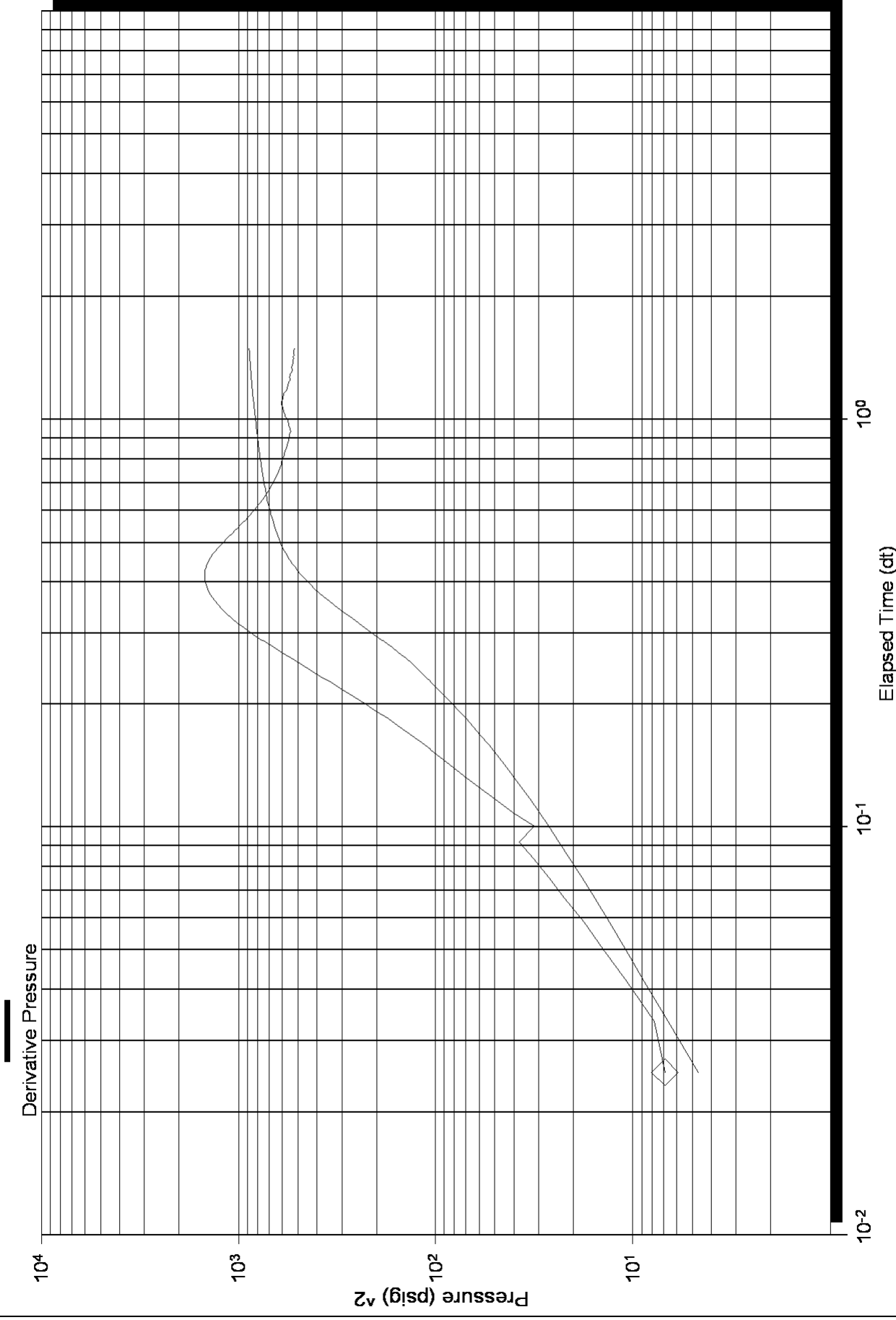




### Log-Log and Pseudo-Log-Derivative



### Log-Log and Pseudo-Derivative





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

Well Name: Hopkins 1-31  
 Location: Sec. 31 15S 15W, Russell County, Kansas  
 License Number: 15-167-23725  
 Spud Date: 7/8/11  
 Surface Coordinates: Region: Wildcat  
Drilling Completed: 7/14/2011

Bottom Hole Coordinates:  
 Ground Elevation (ft): 1886' K.B. Elevation (ft): 1894'  
 Logged Interval (ft): 1700' To: 3600' Total Depth (ft): 3600'  
 Formation: Lansing, Arbuckle  
 Type of Drilling Fluid:

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

### OPERATOR

Company: Samuel Gary, Jr & Assoc.  
 Address: 1515Wynkoop,Suite 700  
 Denver, Co 80202  
 Company Geo. Clayto Camozzi

### GEOLOGIST

Name: JASON MARSHALL  
 Company: Earth Tech, OGL, Inc  
 Address: P.O. Box 683  
 Hooker, Okla. 73945  
 Off: 888-543-8378 Cell: 620-655-1298

### DST's Report

DST #1, 3178'-3198', 10,60,20,90  
 IFP-SURFACE BLOW- DIED IN 2 MIN, ISI-NO BLOW BACK, FF-NO BLOW, FSI- NO BLOW BACK, IH-1556,  
 FH-1500, FIF-36, FFF-36, SIF-36, SFF-37, ISI-487, FSI-453, TOTAL REC- 15', 100% MUD

DST #2, 3324'-3375', 10,60,20,90  
 IFP- WEAK SURFACE BLOW, ISI-NO BLOW BACK, FF-NO BLOW, FSI- NO BLOW BACK, IH-1677, FH-1643,  
 FIF-22, FFF-29, SIF-33, SFF-38, ISI-986, FSI-924, TOTAL REC- 35', 95% MUD, 5% OIL

### ROCK TYPES

Anhy	Gyp	Shgy	Sandylms
Bent	Igne	Sltst	Shale
Brec	Lmst	Ss	Sltstn
Cht	Meta	Till	Shlyslts
Clyst	Mrlst	Carb sh	Sitysh
Coal	Salt	Dol	Lms
Congl	Shale	Dtd	
Dol	Shcol	Gry sh	

### ACCESSORIES

<b>MINERAL</b>	Salt	Fossil	Clystn
Anhy	Sandy	Gastro	Dol
Arggrn	Silt	Oolite	Grysh
Arg	Sil	Ostra	Grysilt
Bent	Sulphur	Pelec	Lms
Bit	Tuff	Pellet	Sandylms
Brecfrag	Chlorite	Pisolite	Sh
Calc	Dol	Plant	Siltstn
Carb	Sand	Strom	
Chtdk	Sity	Fuss	
Chtlt		Oomold	
Dol	<b>FOSSIL</b>	<b>STRINGER</b>	Boundst
Feldspar	Algae	Anhy	Chalky
Ferrpel	Amph	Arg	Cryxln
Ferr	Belm	Bent	Earthy
Glau	Bioclst	Coal	Finexln
Gyp	Brach	Dol	Grainst
Hvymin	Bryozoa	Gyp	Lithogr
Kaol	Cephal	Ls	Microxln
Marl	Coral	Mrst	Mudst
Minxl	Crin	Sltstrg	Packst
Nodule	Echin	Ssstrg	Wackest
Phos	Fish	Carbsh	
Pyr	Foram		

OTHER SYMBOLS

POROSITY TYPE

- E Earthy
- B Fenest
- F Fracture
- X Inter
- Z Moldic
- O Organic
- P Pinpoint
- V Vuggy

SORTING

- W Well
- M Moderate
- P Poor

ROUNDING

- R Rounded
- r Subrnd
- a Subang

- A Angular

OIL SHOWS

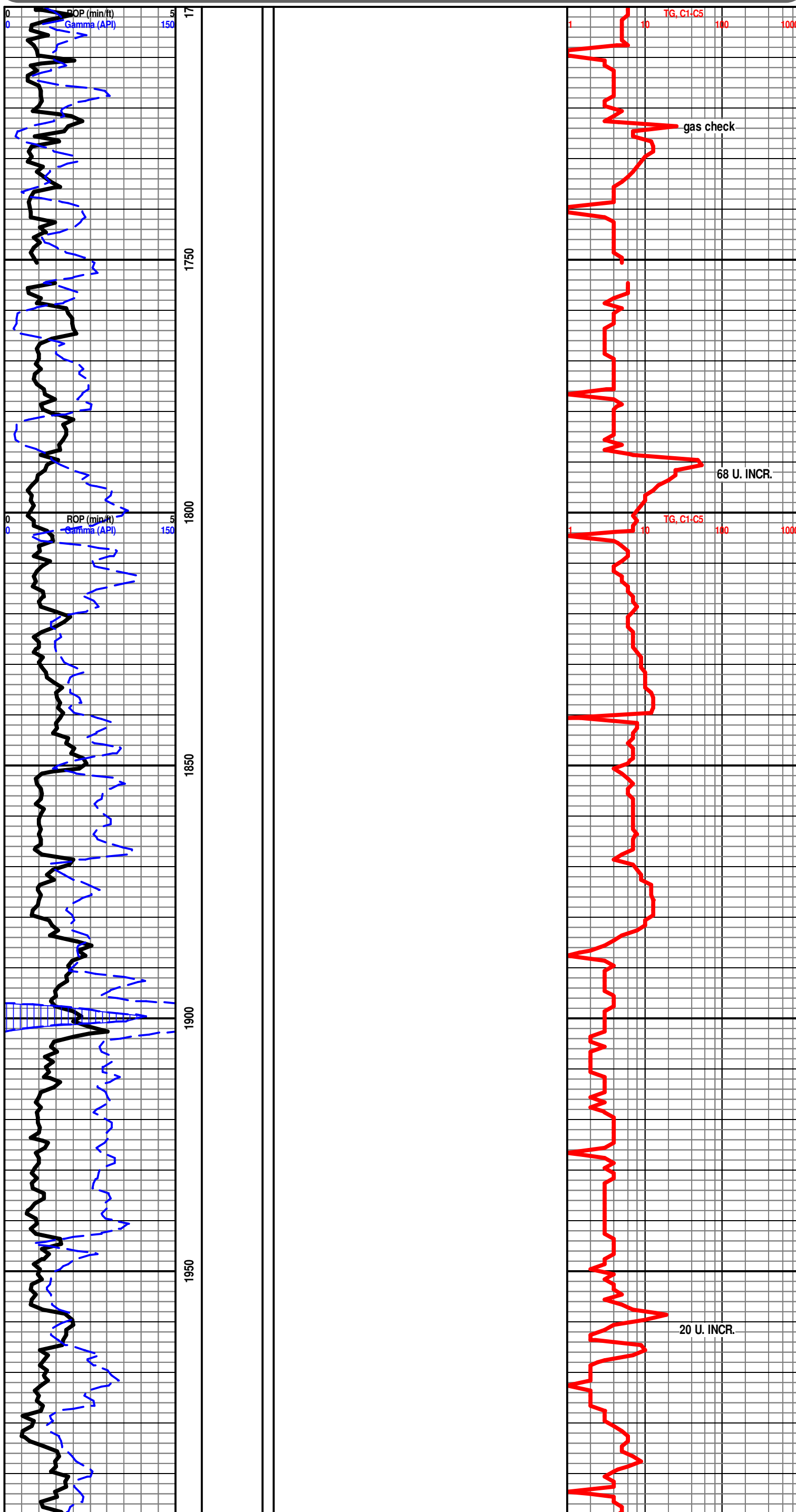
- Even
- ◐ Spotted
- ◑ Ques
- ◒ Dead
- ⊠ Gas show

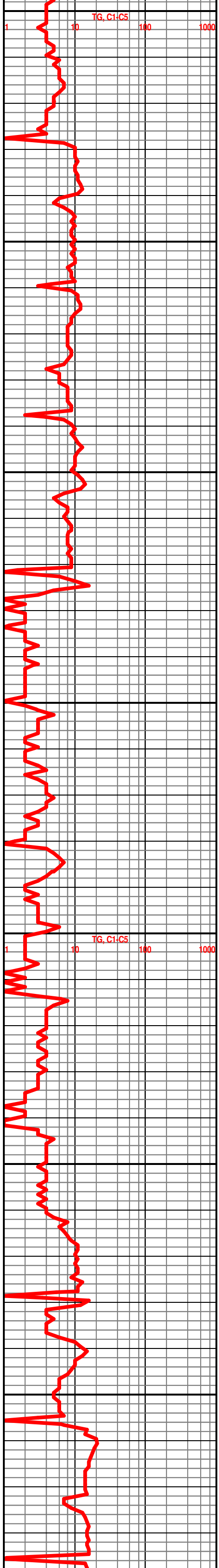
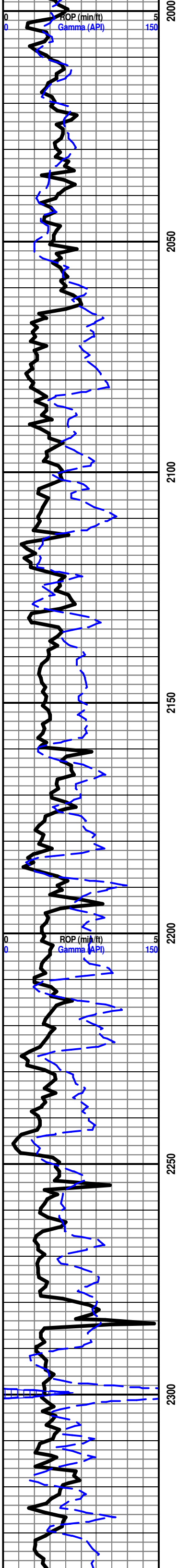
INTERVALS

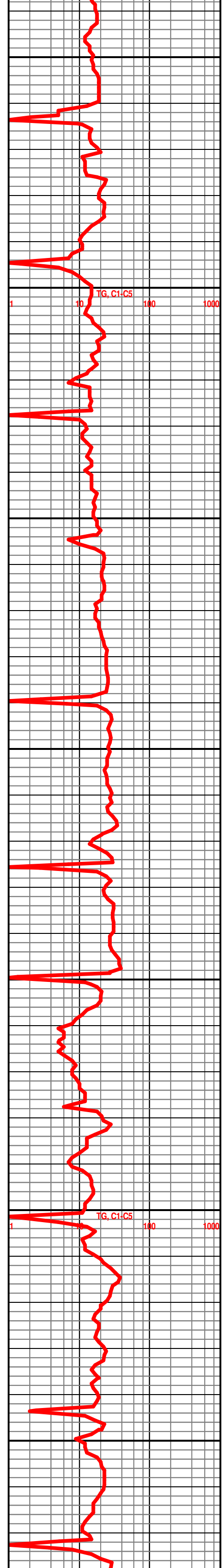
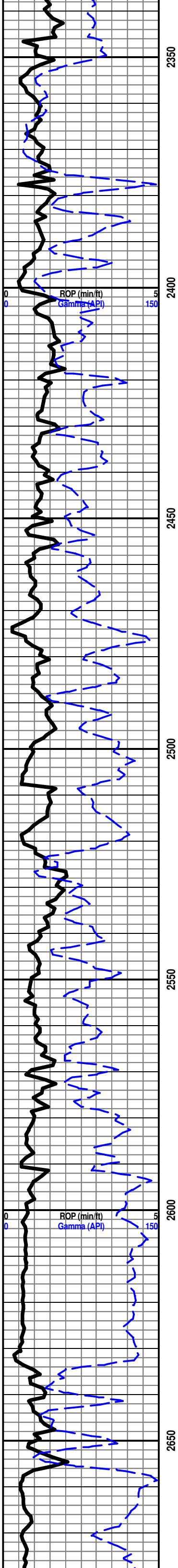
- Core
- ◻ Dst
- ◼ Dst

EVENTS

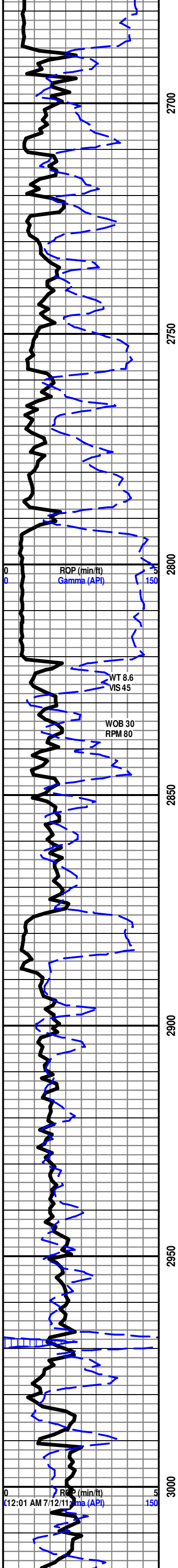
- ◻ Rft
- ◼ Sidewall







BASE ROOT SH 2633' - 739'



STARTED 24 HR MANNED UNIT 7/11/11

**HOWARD 2821' - 927'**

LS- CRM BFF LT GY MOTT IP, HD TO MD HD, MD- F-XLN SLI RE-XLN IP, TR IMBD SH IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO LT GRN, FRM IP TO V/ SFT SLTY TXT

LS- CRM BFF LT TN- HD DNS TO BRITT, MD-XLN TR FOSS FRGS IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM LT TN TN - HD DNS TO BRITT, MD-F-XLNN RE-XLN MTRX, FOSS FRGS SCAT THRU, NO FLO TO TR LT YEL MIN FLO IP, NO VIS POR, NO VIS SHIW

**SEVERY 2875' - 981'**

SH- LT GY TO GY- FRM IP TO V/ V/ SFT SLTYTXT IP

**TOPEKA 2884' - 990'**

LS- CRM LT TN- HD DNS TO BRITT, MD-XLN, RE-XLN IP, GRAINY TXT, SLI TR IMBD FOSS FRGS IP, TR IMBD CHLK IP, NO FLO, NO VIS POR, NO VIS SHOW

SH- LT GY GY- FRM BLKY

LS- OFF WHT CRM LT GY IP , HD DNS TO BRITT, MD-XLN TO V/ SUCRO MTRX, SLI TR SCAT IMBD DISS LT GY SH IP, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

LS- CRM LT GY GY- HD DNS F-XLN TO TT SUCRO MTRX, ABDT IMBD DISS LT GY SH IP, TR MOTT CHRT, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM LT GY- OTT, HD TO MD HD, MD-XLN RE-XLN MTRX, V/ FOSS, ABDT IMBD LT GY SH IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

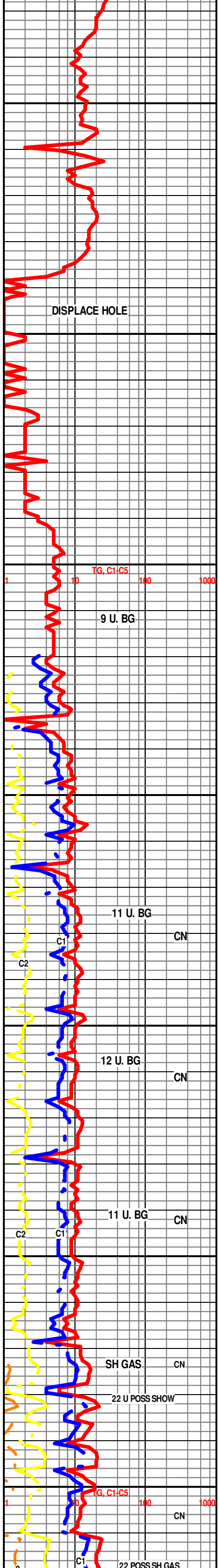
SH- BLK SFT CARB

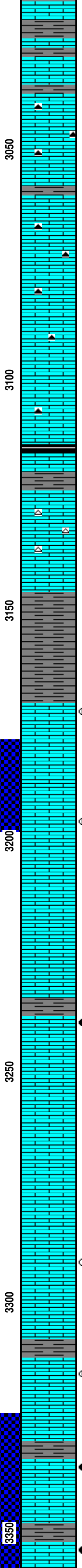
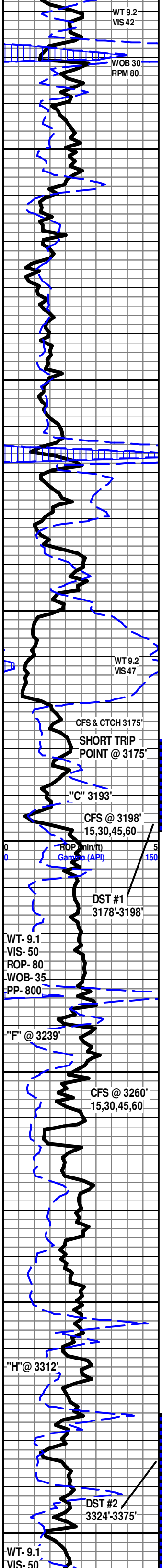
2970- 2971' LS- LT TN TN- HD DNS TR BRITT, V/ CRS SUCRO MTRX, ABDT IMBD TN ANG LM GRNS, SME SMLL QURTZ GRNS IMBD IP, NO FLO, NO VIS POR, NO VIS CUT OR SHOW

**LeCOMPTON 2991' - 1097'**

LS- OF WHT CRM BFF- HD DNS TO SLI BRITT, MD-F-XLN TO SUCRO IP, TR FOSS FRGS, TR IMBD SH, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

SH- LT TO MD GY- FRM BLKY IP TO BLK HD SPLNTY





LS - CRM LT GY- HD DNS TO BRIT, MD-F-XLN, RE-XLN IP ,  
IMBD LT TO MD GY SH THRU, TR FOSS FRGS IP, NO FLO,  
NO VIS POR, NO VIS SHOW

LS- CRM OFF WHT- , HD TO MD HD , V/ SUCRO MTRX,  
F-XLN IP, ABDT WHT TN MOTT CHRT, LT YEL MIN FLO, NO  
VIS POR, NO VIS SHOW

LS- CRM BFF- HD TO BRITT, MD-XLN TO V/ SUCRO MTRX,  
V/ AREN LOOKING TXT, TR IMBD SH IP, NO FLO, NO VIS  
POR, NO VIS SHOW

LS- OFF WHT CRM BFF- HD TO V/ BRITT, MD-XLN RE-XLN  
TRX IP TO SUCRO S-CHLKY IP, TR FOSS FRGS IP, TR WHT  
WTHRD CHRT, NO FLO, POSS V/ PR PP POR IP, NO VIS  
SHOW

LS- CRM LT TN - HD DNS F-V/F-XLN, RE-XLN IP, SLI T  
FOSS, HVY TR ABDT SFT CHLK IP, TR WTHRED CHRT, NO  
FLO, NO VIS POR, NO VIS SHOW

**HEEBNER 3113' - 1219'**

SH- BLK SFT CARB

SH- LT GRN- FRM IP TO V/ SFT IP

LS- OFF WHT TO WHT- F- V/F-XLN TO V/ SUCRO S CHLKY  
IP TO ABDT SFT GMMY CHLK IP, HVY TR ABDT WHT  
CHRT, NO FLO TO SCAT YEL MIN FLO IN 20%, NO VIS  
POR, NO VIS SHOW

**DOUGLAS 3146' - 1252'**

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

**LANSING 3169' - 1275'**

LS- CRM LT TN TN- HD DNS , LT TN STN IP ( 4 ROCKS),  
F-V-F-XLN , RE-XLN IP, BRIT YEL GLD FLO IN 50%, DLL  
YEL FLO IN 50%, PR VIS SCAT MICROVUG POR IN 20%,  
TR V/ PR MICRO PP POR, WK FLSH TO FR SLO STRM  
CUT, LT OIL ODOR

LS- CRM LT TN TO TN, HD DNS TO BRITT, STAIN IN 30%,  
FN TO MD XLN TO REXLN MTRX SCAT THRU, IMBD CALC  
XLS IP, IMBD FOSS FRAGS IP, DLL GLD YEL FLO IN 40%,  
TR FR INTR-XLN POR, PR FLUSH CUT TO PR SLOW MLKY  
BLUE STREAM CUT IN 5%, NO ODOR

LS- CRM LT TN TO TN, HD DNS TO BRITT, FN TO MD XLN  
TO REXLN MTRX SCAT THRU, IMBD CALC XLS IP, IMBD  
FOSS FRAGS IP, DLL YEL FLO IN 20%, NO VIS POR, NO  
VIS SHOW

LS- CRM LT TN TO TN, STAIN IN 65%, HD DNS TO BRITT,  
FN XLN TO REXLN MTRX SCAT THRU, IMBD CALC XLS IP,  
SLI TR IMBD OOL SCAT IP, TR IMBD FOSS FRAGS, GLD  
YEL FLO IN 50%, TR MICRO PP TO PR TO FR INTR-XLN  
POR, FR FLUSH CUT THRU TO GD STRONG SLOW MLKY  
BLUE STREAM CUT IN 35%, FR TO GD ODOR, LT STAIN  
ON DISH

LS- CRM OFF WHT TO WHT LT TN, HD DNS TO BRITT, FN  
TO MD XLN TO REXLN MTRX, IMBD CALC XLS THRU, SFT  
WHT CHLK SCAT THRU, TR IMBD OOL, DLL YEL FLO  
THRU, PR OOLCST POR IP, NO VIS CUT NO VIS SHOW

LS- CRM OFF WHT TO WHT, HD DNS TO BRITT, FN TO MD  
XLN TO REXLN MTRX, SFT WHT CHLK SCAT THRU, TR  
IMBD OOL, DLL YEL FLO THRU, GD OOLCST POR, NO  
VIS CUT NO VIS SHOW

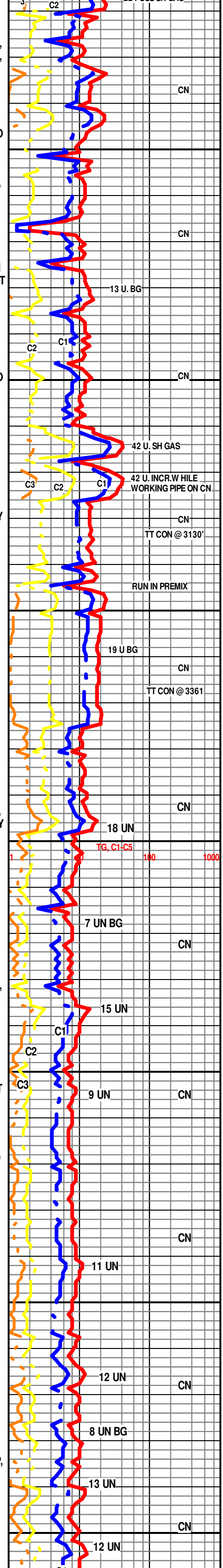
LS- OFF WHT TO WHT, HD DNS TO BRITT, FN XLN TO  
REXLN MTRX, SUCRO TXT SCAT IP, IMBD CALC XLS  
SCAT IP, SLI TR IMBD OOLS IP, DLL TO BRIT YEL FLO IN  
25%, TR FR INTR-XLN TO PR MICRO PP POR, PR FLUSH  
CUT THRU TO NO STREAM CUT

SH- GRY TO DK GRY, FRM, SMTH BLKY

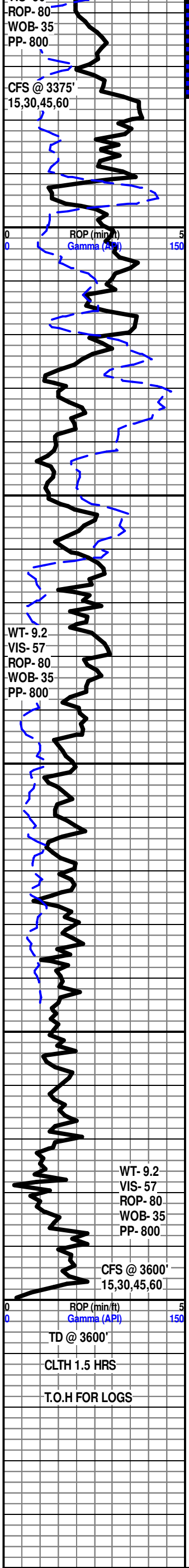
LS- OFF WHT CRM LT TN TO TN, STAIN IN 10%, HD DNS  
TO BRITT, FN XLN TO REXLN MTRX, IMBD CALC XLS  
SCAT THRU, TR IMBD FOSS FRAGS, SLI TR IMBD DISS  
PYR SCAT IP, DLL TO TR BRIT YEL FLO IN 10%, TR PR  
INTR-XLN TO PR PP POR, FR FLUSH CUT IN 50% TO FR  
SLOW MLKY BLUE STREAM CUT IN 5%, FR OIL ODOR

LS- CRM LT TN TO TN, STAIN IN 20%, HD DNS TO BRITT,  
FN TO MD XLN, REXLN MTRX THRU, SUCRO TXT SCAT IP,  
IMBD CALC XLS THRU, IMBD GRN CLY SCAT THRU, GLD  
YEL TO BRIT FLO IN 25%, FR TO GD INTR-XLN TO FR  
VUG POR, GD FLUSH CUT THRU TO GD STRONG MLKY  
BLUE STREAM CUT IN 40%, GD OIL ODOR

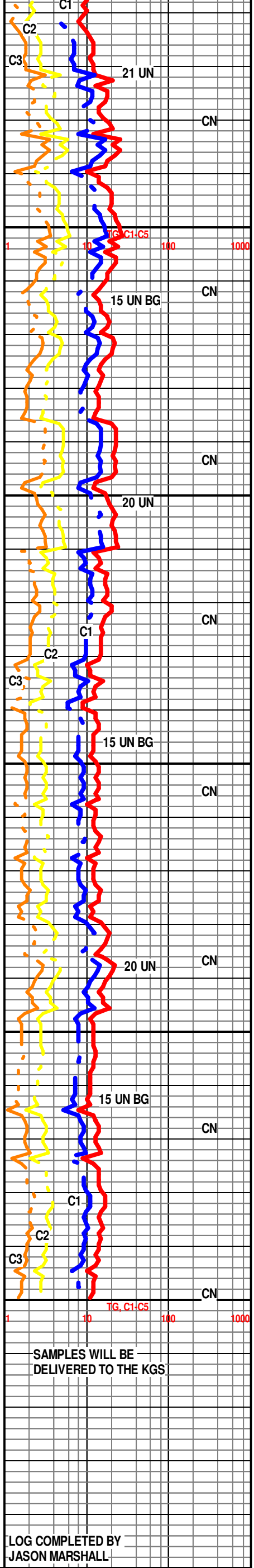
LS- CRM OFF WHT TN TO TR DK TN, STAIN IN 55%, HD  
DNS TO BRITT, FN XLN TO REXLN MTRX, SLI TR IMBD







OOL SCAT IP, TR IMBD CALC XLS SCAT THRU, GLD TO BRIT YEL FLO IN 40%, GD VUG TO FR INTR-XLN POR, GD FLUSH CUT TO GD STRONG MLKY BLUE STREAM CUT THRU, FR OIL ODOR, LT STAIN ON DISH  
 LS- CRM TN TO TN, STAIN IN 30%, HD DNS TO BRITT, FN XLN TO REXLN MTRX, SUCRO TXT SCAT IP, IMBD CALC XLS SCAT THRU, DLL GLD FLO IN 30%, FR INTR-XLN TO FR MICRO PP POR, GD FLUSH CUT THRU TO GD STRONG MLKY BLUE STREAM CUT IN 20%, FR OIL ODOR  
**BASE KANSAS CITY @ 3391' -1497'**  
 SH- LT GRY TO DK GRY, FRM TO SFT, SMTH BLKY  
 LS- CRM OFF WHT LT TN TO TN, HD DNS TO BRITT, FN XLN TO REXLN MTRX, SUCRO TXT SCAT IP, IMBD CALC XLS SCAT IP, IMBD FOSS FRAGS, TR IMBD OOL IP, DLL GLD FLO IN 30%, FR INTR-XLN POR IP, FR FLUSH CUT TO NO STREAM CUT, NO ODOR  
 SH- RDISH BRN GRY TO DK GRY, FRM TO SFT, BLKY  
 LS- CRM OFF WHT LT TN, HD DNS TO BRITT, MD XLN TO REXLN MTRX SCAT THRU, SUCRO TXT SCAT THRU, IMBD OOL SCAT THRU, IMBD CALC XLS SCAT THRU, FOSS FRAGS IP, IMBD CHRTS SCAT THRU, DLL YEL FLO THRU, TR INTR-XLN POR, NO VIS CUT NO VIS SHOW  
 SH- RDISH BRN GRY TO DK GRY, SFT GUMMY THRU, BLKY, WHTISH YEL CHRT THRU, SLI TR PYR  
**ARBUCKLE @ 3454' -1560'**  
 DOL- GRY LT TN TO TN, STAIN IN 40%, BRITT, FN XLN, REXLN MTRX THRU, SUCRO TXT THRU, IMBD ABDT SM ANG TO S/RND DOL GRNS, SLI TR FRM WHT CHLK, TR YELISH WHT CHRT SCAT IP, IMBD PYR SCAT IP, DLL GLD FLO THRU TO BRIT GLD FLO IN 15%, FR INTR-XLN POR TO TR FR VUG POR, GD FLUSH CUT THRU TO GD STRONG MLKY BLUE STREAM CUT IN 50%, LT STAIN ON DISH, PR OIL ODOR  
 DOL- LT GRY TO LT TN, HD DNS TO BRITT, FN TO MD XLN, REXLN MTRX THRU, SUCRO TXT THRU, IMBD SM S/ANG DOL GRNS SCAT THRU, DLL GLD FLO THRU, FR TO TR GD INTR-XLN POR, FR FLUSH CUT TO NO STREAM CUT  
 DOL- WHT TO TR LT TN, HD DNS TO BRITT, FN TO MD XLN, REXLN MTRX THRU, SUCRO TXT SCAT THRU, IMBD MD S/ANG DOL GRNS SCAT THRU, DLL GLD FLO IN 10%, TR FR INTR-XLN POR, NO VIS CUT TO NO VIS SHOW, NO ODOR  
 DOL- WHT TO OFF WHT, HD DNS TO BRITT, FN TO MD XLN, REXLN MTRX THRU, SUCRO TXT SCAT THRU, IMBD SM TO MD S/ANG TO ANG DOL GRNS SCAT THRU, DLL GLD FLO IN 10%, NO VIS POR, NO VIS SHOW  
 DOL- CRM OFF WHT TO WHT, HD DNS TO BRITT, FN TO MD XLN, SUCRO MTRX SCAT THRU, IMBD MD S/ANG TO ANG DOL GRNS SCAT THRU, DLL GLD FLO THRU, NO VIS POR, NO VIS CUT, NO VIS SHOW  
 DOL- CRM OFF WHT TO WHT LT TN, HD DNS TO BRITT, FN XLN, SUCRO MTRX SCAT THRU, IMBD MD ANG DOL GRNS SCAT THRU, SLI TR FRM CHLK, DLL GLD FLO THRU, TR FR INTR-XLN POR, NO VIS CUT, NO VIS SHOW  
 DOL- CRM OFF WHT LT TN, STAIN IN 15%, HD DNS, FN XLN, SUCRO MTRX SCAT THRU, IMBD MD ANG DOL GRNS SCAT THRU, SLI TR FRM CHLK, DLL GLD FLO THRU, FR INTR-XLN POR, NO VIS CUT, NO VIS SHOW  
**RTD 3600' @ 9:30 AM 07/14/2011**  
 TD @ 3600'  
 CLTH 1.5 HRS  
 T.O.H FOR LOGS  
**LOGS BY WEATHERFORD**  
**LIBERAL KANSAS**  
 THANK YOU FOR CHOOSING EARTHTECH



LOG COMPLETED BY  
 JASON MARSHALL