



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1084150
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

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
- Plug Back Conv. to GSW Conv. to Producer
- 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

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical 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

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

1084150

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

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

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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 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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	--	---

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	PFANNENSTIEL ET AL 1-24
Doc ID	1084150

All Electric Logs Run

ARRAY IND
DEN-NEUT
MICRO
SONIC
SPECTRAL GR

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

June 11, 2012

TOM FERTAL
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-051-26263-00-00
PFANNENSTIEL ET AL 1-24
SW/4 Sec.24-14S-18W
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,
TOM FERTAL



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: 2/21/2012
 Invoice # 588

P.O.#:
 Due Date: 3/22/2012
 Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

Reference:
 PFANNENSTEIL ET AL 1-24

Description of Work:
 LONG SURFACE JOB

DRLG CORR W/O LOE GG

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

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 963.85	No	Bulk Truck Mileage-Job to Nearest Bulk Plant	7	\$43.15	No
Common-Class A	450	\$ 5,795.00	Yes				
8 5/8" Basket	3	\$ 1,000.67	Yes				
Bulk Truck Matl-Material Service Charge	475	\$ 1,002.78	No				
Calcium Chloride	16	\$ 636.04	Yes				
Flo Seal	112	\$ 236.44	Yes				
8 5/8" Centralizer	3	\$ 202.67	Yes				
Premium Gel (Bentonite)	9	\$ 154.66	Yes				
8 5/8" Top Rubber Plug	1	\$ 111.89	Yes				
Baffle Plate Aluminum, 8 5/8"	1	\$ 95.00	Yes				
Pump Truck Mileage-Job to Nearest Camp	7	\$ 73.74	No				

Invoice Terms:

Net 30

SubTotal: \$ 10,315.88
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,547.38)

SubTotal for Taxable Items:	\$ 6,997.51
SubTotal for Non-Taxable Items:	\$ 1,770.99
Total:	\$ 8,768.50
Tax:	\$ 440.84
Amount Due:	\$ 9,209.34
Applied Payments:	
Balance Due:	\$ 9,209.34

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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RECEIVED

FEB 24 2012

SAMUEL GARY JR.
 & ASSOCIATES, INC.

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. 588

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-18-12	24	14	18	Ellis	Ks		5:00 PM
Lease <i>See Remarks</i>		Well No. #2		Location <i>Hay's, Ks - Commerce Pkwy + Hwy 40</i>			
Contractor <i>Discoversy</i>				Owner <i>2 1/2 BS, EIS</i>			
Type Job <i>Surface</i>				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 <i>12 1/4"</i>		T.D. <i>1158'</i>		Charge To <i>Sam Gaby Jr + Associates</i>			
Csg. <i>8 5/8"</i>		Depth <i>1157.35</i>		Street			
Tbg. Size		Depth		City			
Tool		Depth		State			
Cement Left in Csg. <i>42.47'</i>		Shoe Joint <i>42.47'</i>		The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line		Displace <i>71 BLS</i>		Cement Amount Ordered <i>450 5x Common 3% CC</i>			
EQUIPMENT				<i>2% Gel 1/4 # Flo-seal</i>			
Pumptrk <i>15</i>	No.	Cementer	<i>Cisco</i>	Common			
Bulktrk <i>12</i>	No.	Driver	<i>Lonnie</i>	Poz. Mix			
Bulktrk <i>fw</i>	No.	Driver	<i>Rick</i>	Gel. <i>9</i>			
JOB SERVICES & REMARKS				Calcium <i>16</i>			
Remarks: <i>PFannenstiel ET AL 1-24</i>				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal <i>112#</i>			
Centralizers <i>1, 15, 23</i>				Kol-Seal			
Baskets <i>2, 16, 24</i>				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
<i>Cement did Circulate.</i>				Sand			
				Handling <i>475</i>			
				Mileage			
FLOAT EQUIPMENT							
				Guide Shoe			
				Centralizer <i>3</i>			
				Baskets <i>3</i>			
				AFU inserts			
				Float Shoe			
				Latch Down			
				<i>1- Baffle plate</i>			
				<i>1- Rubber plug</i>			
				Pumptrk Charge <i>Long Surface Job</i>			
				Mileage <i>7</i>			
X Signature <i>Steve White</i>				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: 2/29/2012
 Invoice # 10
 P.O.#:
 Due Date: 3/30/2012
 Division: Russell

Invoice

Contact:
 Samuel Gary Jr & Associates Inc
Address/Job Location:
 Samuel Gary Jr & Associates Inc
 1815 11th Street
 Great Bend, KS 67530

Reference:
 PFANNENSTIEL ET AL 1-24

Description of Work:
 PLUG JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,257.19	Yes				
Common-Class A	126	\$ 1,693.15	Yes				
Bulk Truck Matl-Material Service Charge	217	\$ 478.03	Yes				
POZ Mix-Standard	84	\$ 425.60	Yes				
Premium Gel (Bentonite)	7	\$ 125.52	Yes				
Flo Seal	50	\$ 110.14	Yes				
Pump Truck Mileage-Job to Nearest Camp	7	\$ 76.95	Yes				
Dry Hole Plug	1	\$ 61.68	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	7	\$ 45.03	Yes				

Invoice Terms:

Net 30

	SubTotal:	\$	4,273.29
	Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(718.01)
SubTotal for Taxable Items:		\$	3,632.30
SubTotal for Non-Taxable Items:		\$	-
Total:		\$	3,555.28
Tax:		\$	228.83
Amount Due:		\$	3,784.12
Applied Payments:			
Balance Due:		\$	3,784.12

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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RECEIVED
 MAR 07 2012
 SAMUEL GARY JR.
 & ASSOCIATES, INC.

DRLG COMP W/O LOE GG

Account	8200.138
Well/Prospect	
Deck	
AFE	
Approval	<i>[Signature]</i>
Description	

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. 010

Date	2-25-12	Sec.	Twp.	Range	County	State	On Location	Finish	2:15 PM	
Lease	Pfannenstiel	Well No	ETRI-24	Location						P-70 + Conroy park way 3 1/2 S
Contractor	Discovery #2	Owner			VJE					
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.	3630							
Csg.		Depth	Charge To							
Tbg. Size		Depth	Sam Gary Jr + Assoc							
Tool		Depth	Street			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							

240 @ 6% 4% gel 1/4 fl.

EQUIPMENT

Pumptrk	15	No.	Cementor	Dave	Common	126
			Helper			
Bulktrk	3	No.	Driver	Mike	Poz. Mix	84
			Driver			
Bulktrk	pl	No.	Driver	Coly	Gel.	7
			Driver			

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole 30 sk	Salt
Mouse Hole 15 sk	Flowseal 50 #
Centralizers	Kol-Seal 7
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
23 @ 3524	Sand
40 @ 1170	Handling 217
90 @ 500	Mileage
10 @ 40 ok plug	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
plug	
Pumptrk Charge	plug
Mileage	7

Pfannenstiel

X Signature *[Signature]*

Tax	
Discount	
Total Charge	



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Associates Inc**

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Tom Fertal

Pfannenstiel #1-24

24 14s 18w Ellis,KS

Start Date: 2012.02.22 @ 01:30:48

End Date: 2012.02.22 @ 10:15:18

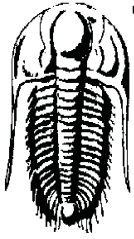
Job Ticket #: 46873 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.02.28 @ 15:41:04



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

ATTN: Tom Fertal

Job Ticket: 46873

DST#: 1

Test Start: 2012.02.22 @ 01:30:48

GENERAL INFORMATION:

Formation: **Lansing KC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:26:48

Time Test Ended: 10:15:18

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett/Jim

Unit No: 59

Interval: 3250.00 ft (KB) To 3276.00 ft (KB) (TVD)

Reference Elevations: 1959.00 ft (KB)

Total Depth: 3276.00 ft (KB) (TVD)

1951.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753 Inside

Press@RunDepth: 146.00 psig @ 3251.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.22 End Date: 2012.02.22

Last Calib.: 2012.02.22

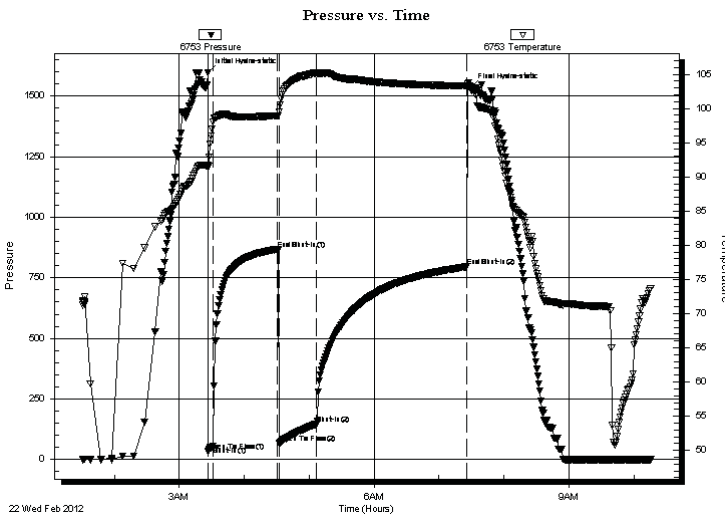
Start Time: 01:30:53 End Time: 10:15:18

Time On Btm: 2012.02.22 @ 03:26:18

Time Off Btm: 2012.02.22 @ 07:28:48

TEST COMMENT: 5min IF-BOB in 4 min
60min ISI-1/2" blow
35min FF-BOB in 4 1/2 min
45min FSI-BOB in 24 min Died Back to 3"

PRESSURE SUMMARY



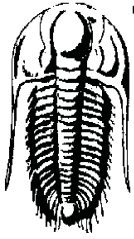
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1596.28	91.65	Initial Hydro-static
1	35.86	91.48	Open To Flow (1)
5	55.10	98.04	Shut-In(1)
65	868.32	98.96	End Shut-In(1)
66	66.86	99.50	Open To Flow (2)
101	146.00	105.19	Shut-In(2)
240	795.99	103.28	End Shut-In(2)
243	1536.59	103.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
175.00	Water	2.17
60.00	gsocm 10%g 5%o 30%m 55%w	0.84
45.00	gmocw 10%g 40%o 10%m 40%w	0.63
0.00	465 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

Job Ticket: 46873

DST#: 1

ATTN: Tom Fertal

Test Start: 2012.02.22 @ 01:30:48

Tool Information

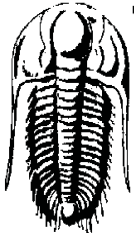
Drill Pipe:	Length: 3218.00 ft	Diameter: 3.80 inches	Volume: 45.14 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 45.29 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3250.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 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
Recorder	0.00	8369	Fluid	3216.00	
Change Over Sub	5.00			3221.00	
Change Over Sub	1.00			3222.00	
Shut In Tool	5.00			3227.00	
Sampler	2.00			3229.00	
Hydraulic tool	5.00			3234.00	
Jars	5.00			3239.00	
Safety Joint	2.00			3241.00	
Packer	5.00			3246.00	34.00 Bottom Of Top Packer
Packer	4.00			3250.00	
Stubb	1.00			3251.00	
Recorder	0.00	6753	Inside	3251.00	
Recorder	0.00	8319	Outside	3251.00	
Perforations	22.00			3273.00	
Bullnose	3.00			3276.00	26.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

Job Ticket: 46873

DST#: 1

ATTN: Tom Fertal

Test Start: 2012.02.22 @ 01:30:48

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:

85000 ppm

Viscosity: 43.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
175.00	Water	2.172
60.00	gsocm 10%g 5%o 30%m 55%w	0.842
45.00	gmocw 10%g 40%o 10%m 40%w	0.631
0.00	465 GIP	0.000

Total Length: 280.00 ft Total Volume: 3.645 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .11 @ 60

Sampler Data 900mL G 500mL O 1600mL W 375 PSI

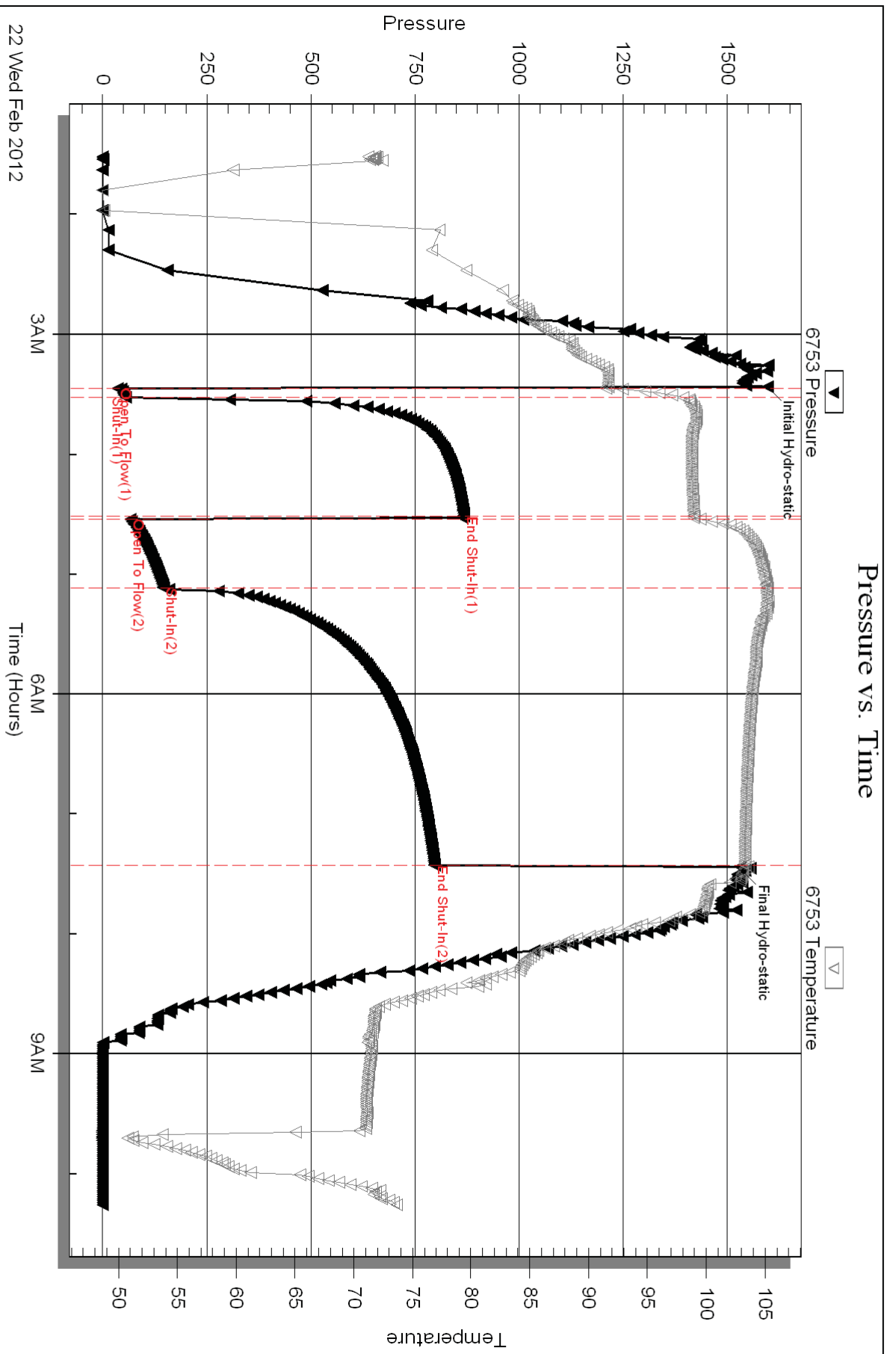
Serial #: 6753

Inside

Samuel Gary Jr & Associates Inc

Pfannenstiel #1-24

DST Test Number: 1



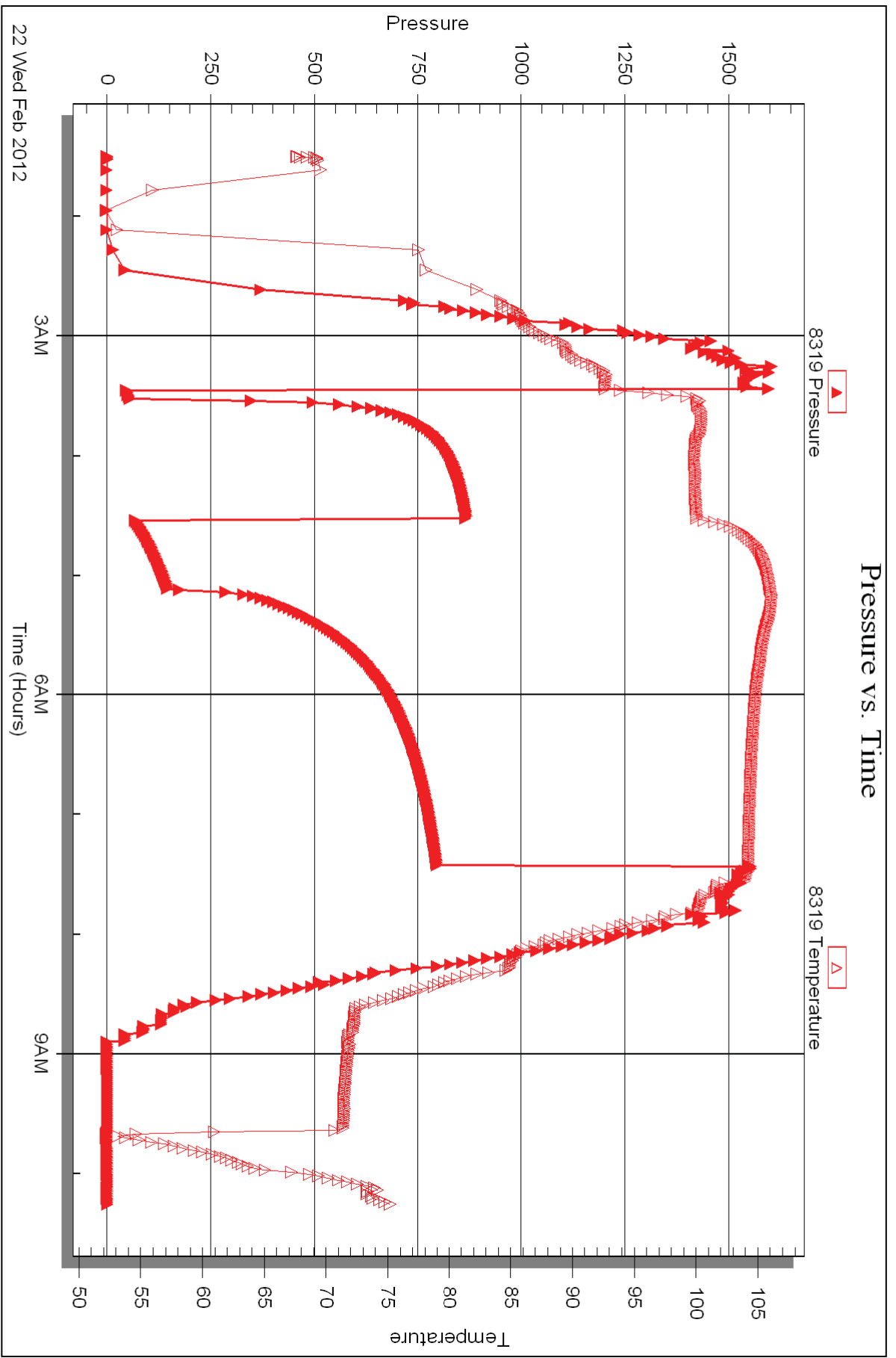
Serial #: 8319

Outside

Samuel Gary Jr & Associates Inc

Pfannenstiel #1-24

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 46873

Printed: 2012.02.28 @ 15:41:07

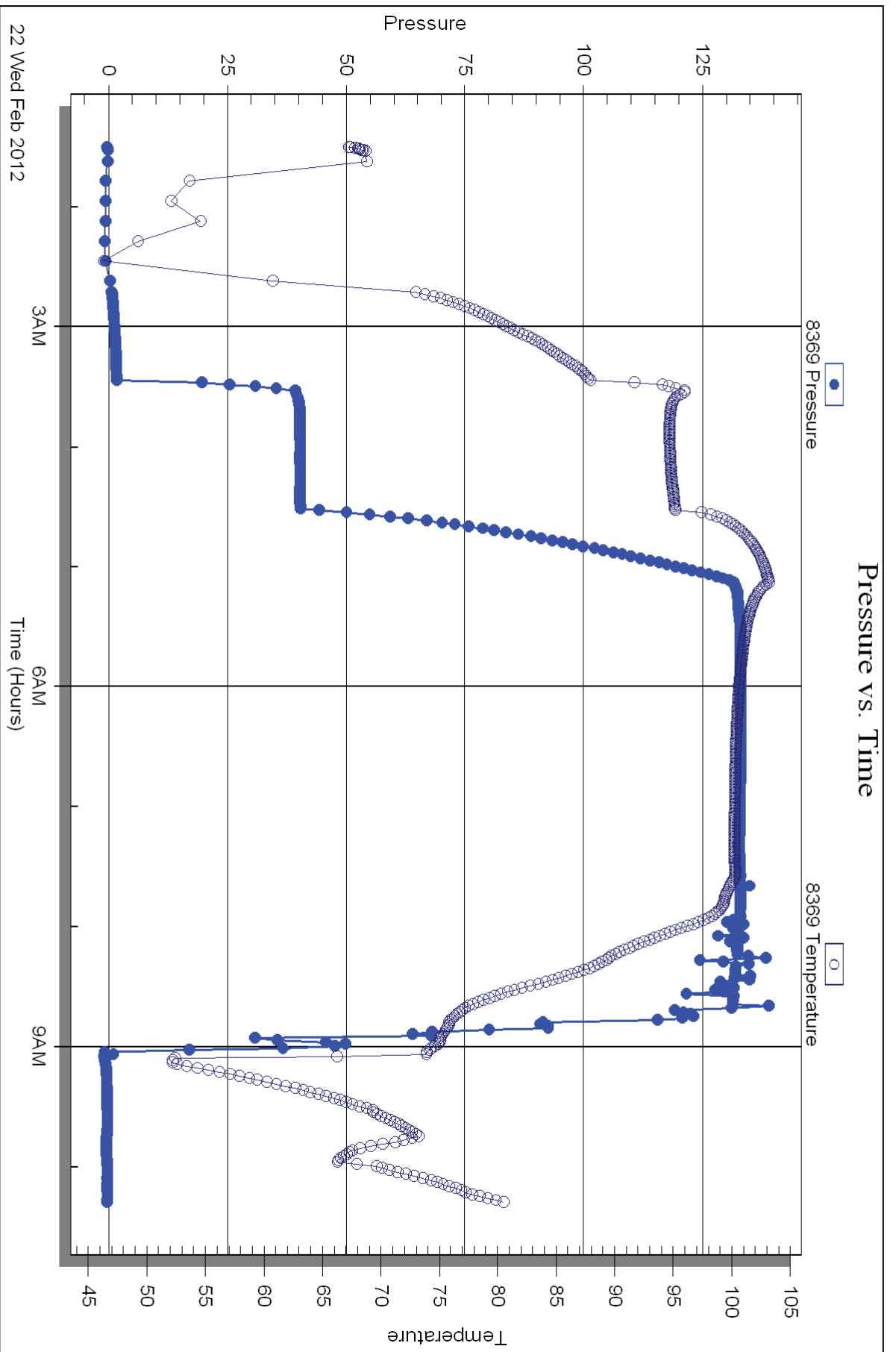
Serial #: 8369

Fluid

Samuel Gary Jr & Associates Inc

Pfannenstiel #1-24

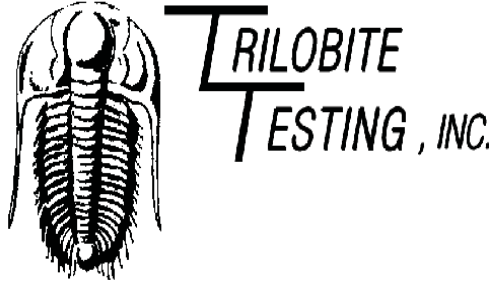
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 46873

Printed: 2012.02.28 @ 15:41:08



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Associates Inc**

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Tom Fertal

Pfannenstiel #1-24

24 14s 18w Ellis,KS

Start Date: 2012.02.22 @ 22:05:00

End Date: 2012.02.23 @ 05:10:00

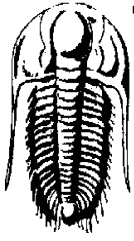
Job Ticket #: 46874 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.02.28 @ 15:40:26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

ATTN: Tom Fertal

Job Ticket: 46874

DST#: 2

Test Start: 2012.02.22 @ 22:05:00

GENERAL INFORMATION:

Formation: **Lansing KC "D-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:18:30

Time Test Ended: 05:10:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett/Jim

Unit No: 59

Interval: 3282.00 ft (KB) To 3350.00 ft (KB) (TVD)

Reference Elevations: 1959.00 ft (KB)

Total Depth: 3350.00 ft (KB) (TVD)

1951.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press@RunDepth: 31.32 psig @ 3289.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.22

End Date:

2012.02.23

Last Calib.:

2012.02.23

Start Time: 22:05:05

End Time:

05:09:59

Time On Btm:

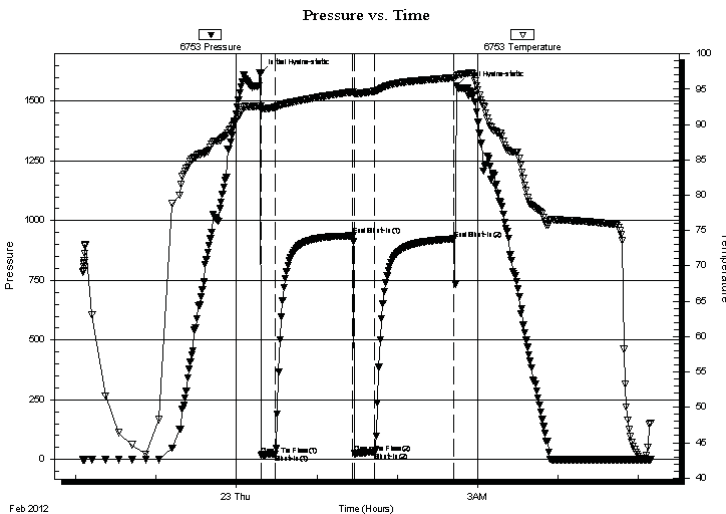
2012.02.23 @ 00:18:00

Time Off Btm:

2012.02.23 @ 02:44:30

TEST COMMENT: 10min-IF- 1" Blow
60min-ISI-No Blow
15min-FF-No Blow
60min-FSI-No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1615.99	92.65	Initial Hydro-static
1	18.21	92.11	Open To Flow (1)
11	23.02	92.46	Shut-In(1)
69	937.67	94.63	End Shut-In(1)
70	24.81	94.39	Open To Flow (2)
85	31.32	94.70	Shut-In(2)
145	923.58	96.64	End Shut-In(2)
147	1565.15	96.94	Final Hydro-static

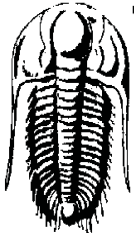
Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% m	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

Job Ticket: 46874

DST#: 2

ATTN: Tom Fertal

Test Start: 2012.02.22 @ 22:05:00

Tool Information

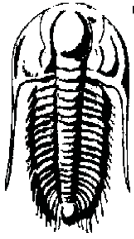
Drill Pipe:	Length: 3250.00 ft	Diameter: 3.80 inches	Volume: 45.59 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 45.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3282.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	102.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Recorder	0.00	8369	Fluid	3248.00	
Change Over Sub	5.00			3253.00	
Change Over Sub	1.00			3254.00	
Shut In Tool	5.00			3259.00	
Sampler	2.00			3261.00	
Hydraulic tool	5.00			3266.00	
Jars	5.00			3271.00	
Safety Joint	2.00			3273.00	
Packer	5.00			3278.00	34.00 Bottom Of Top Packer
Packer	4.00			3282.00	
Stubb	1.00			3283.00	
Perforations	5.00			3288.00	
Change Over Sub	1.00			3289.00	
Recorder	0.00	6753	Inside	3289.00	
Recorder	0.00	8319	Outside	3289.00	
Blank Spacing	31.00			3320.00	
Change Over Sub	1.00			3321.00	
Perforations	26.00			3347.00	
Bullnose	3.00			3350.00	68.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

Job Ticket: 46874

DST#: 2

ATTN: Tom Fertal

Test Start: 2012.02.22 @ 22:05:00

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 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

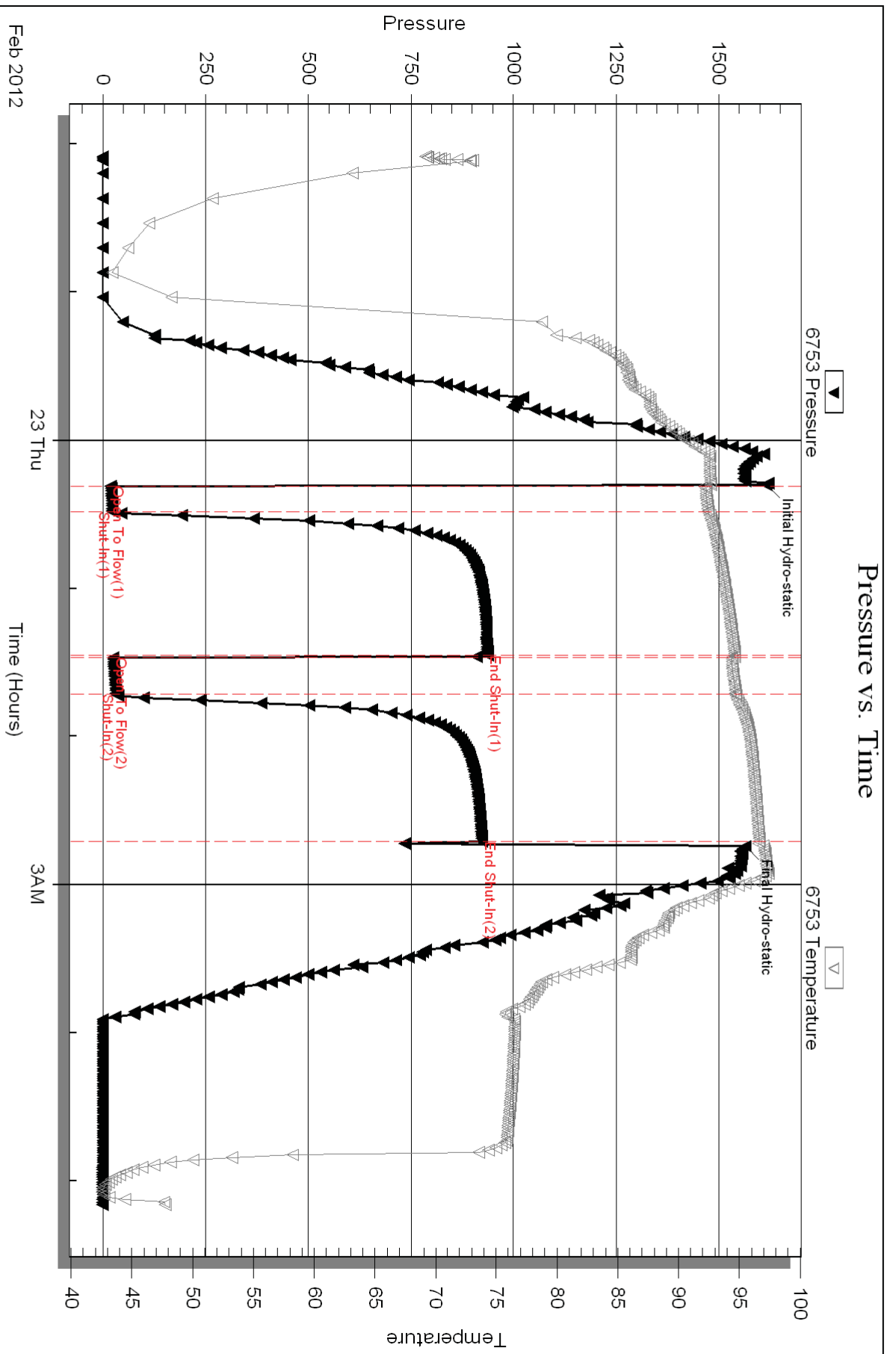
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data 3000mL mud 195psi



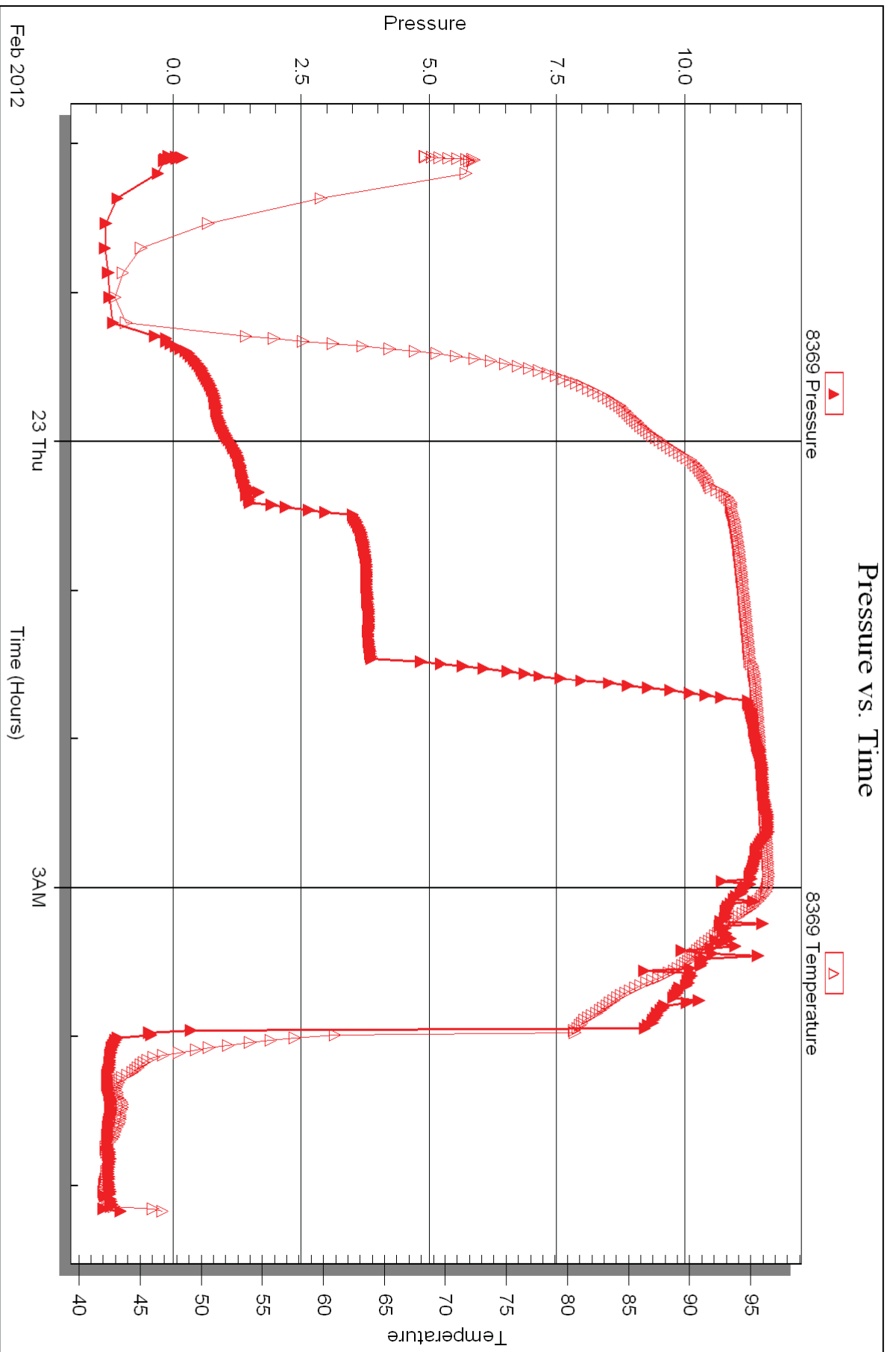
Serial #: 8369

Fluid

Samuel Gary Jr & Associates Inc

Pfannenstiel #1-24

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 46874

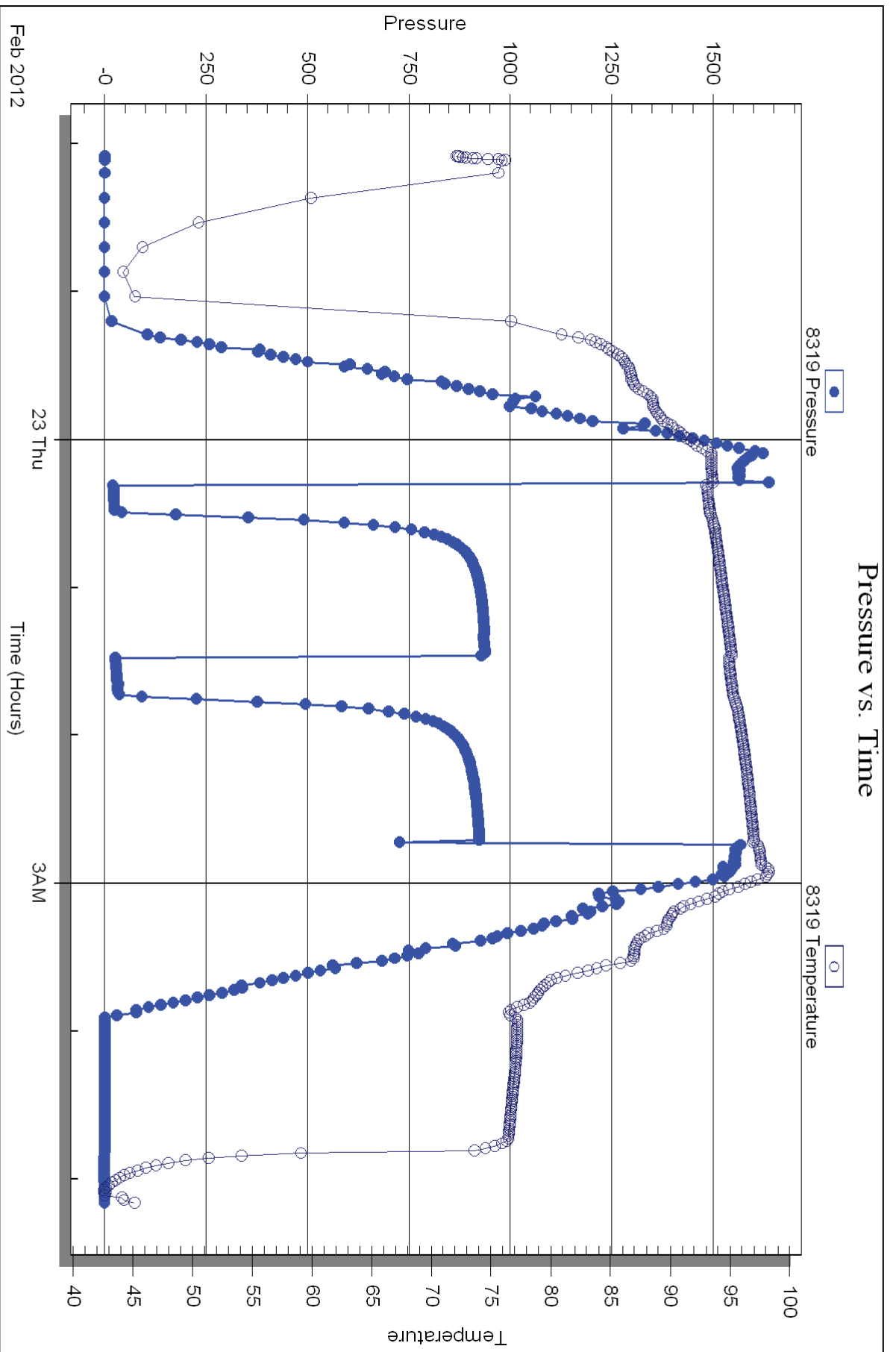
Printed: 2012.02.28 @ 15:40:29

Serial #: 8319

Outside Samuel Gary Jr & Associates Inc

Pfannenstiel #1-24

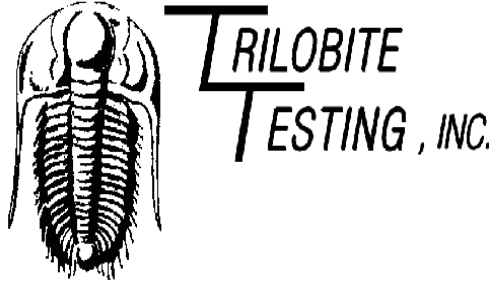
DST Test Number: 2



Triobite Testing, Inc

Ref. No: 46874

Printed: 2012.02.28 @ 15:40:29



DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr & Associates Inc**

1515 Wynkoop Ste 700
Denver CO 80202

ATTN: Tom Fertal

Pfannenstiel #1-24

24 14s 18w Ellis,KS

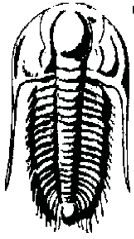
Start Date: 2012.02.24 @ 12:50:39

End Date: 2012.02.24 @ 18:52:09

Job Ticket #: 46875 DST #: 3

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

Printed: 2012.02.28 @ 15:39:46



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

ATTN: Tom Fertal

Job Ticket: 46875

DST#: 3

Test Start: 2012.02.24 @ 12:50:39

GENERAL INFORMATION:

Formation: **Penn Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:33:09

Time Test Ended: 18:52:09

Test Type: Conventional Straddle (Reset)

Tester: Brett/Jim

Unit No: 59

Interval: 3508.00 ft (KB) To 3548.00 ft (KB) (TVD)

Reference Elevations: 1959.00 ft (KB)

Total Depth: 3630.00 ft (KB) (TVD)

1951.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753 Outside

Press@RunDepth: 23.76 psig @ 3544.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.24 End Date: 2012.02.24

Last Calib.: 2012.02.24

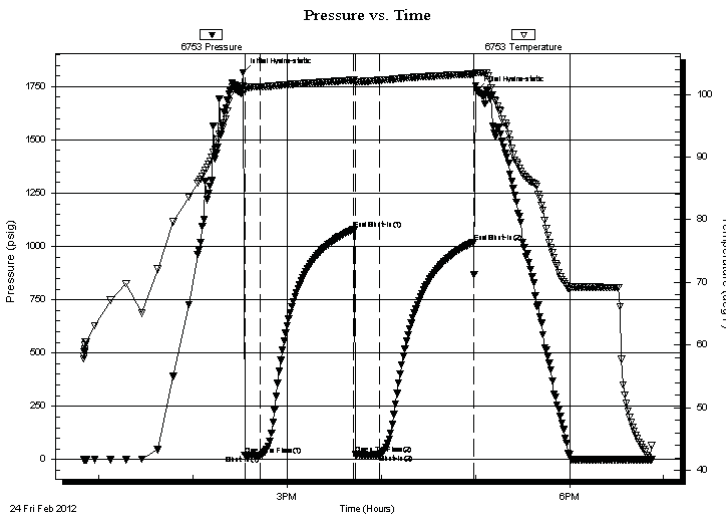
Start Time: 12:50:44 End Time: 18:52:08

Time On Btm: 2012.02.24 @ 14:32:09

Time Off Btm: 2012.02.24 @ 17:01:09

TEST COMMENT: 10min IF-1/4" blow
60min ISI-No blow
15min FF-Very weak surface blow
60min FSI-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1816.05	101.33	Initial Hydro-static
1	20.48	100.61	Open To Flow (1)
11	19.21	101.21	Shut-In(1)
71	1079.82	102.28	End Shut-In(1)
72	23.26	101.93	Open To Flow (2)
87	23.76	102.26	Shut-In(2)
147	1019.62	103.26	End Shut-In(2)
149	1730.38	103.49	Final Hydro-static

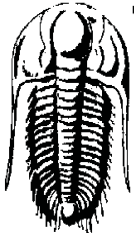
Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 30%O 70%M	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

Job Ticket: 46875

DST#: 3

ATTN: Tom Fertal

Test Start: 2012.02.24 @ 12:50:39

Tool Information

Drill Pipe:	Length: 3469.00 ft	Diameter: 3.80 inches	Volume: 48.66 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3508.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	3548.00 ft			
Interval between Packers:	40.00 ft			
Tool Length:	166.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

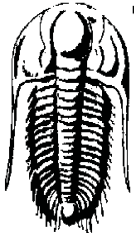
Tool Comments:

Tool Description

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

Change Over Sub	6.00			3480.00	
Recorder	0.00	8788	Fluid	3480.00	
Shut In Tool	5.00			3485.00	
Sampler	2.00			3487.00	
Hydraulic tool	5.00			3492.00	
Jars	5.00			3497.00	
Safety Joint	2.00			3499.00	
Packer	4.00			3503.00	34.00 Bottom Of Top Packer
Packer	5.00			3508.00	
Stubb	1.00			3509.00	
Perforations	35.00			3544.00	
Recorder	0.00	8319	Inside	3544.00	
Recorder	0.00	6753	Outside	3544.00	
Blank Off Sub	4.00			3548.00	40.00 Tool Interval
Packer	4.00			3552.00	
Stubb	1.00			3553.00	
Recorder	0.00	8369	Below	3553.00	
perforations	19.00			3572.00	
Change Over Sub	1.00			3573.00	
Blank Spacing	63.00			3636.00	
Change Over Sub	1.00			3637.00	
Bullnose	3.00			3640.00	92.00 Bottom Packers & Anchor

Total Tool Length: 166.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr & Associates Inc

24 14s 18w Ellis,KS

1515 Wynkoop Ste 700
Denver CO 80202

Pfannenstiel #1-24

Job Ticket: 46875

DST#: 3

ATTN: Tom Fertal

Test Start: 2012.02.24 @ 12:50:39

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	OCM 30%O 70%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

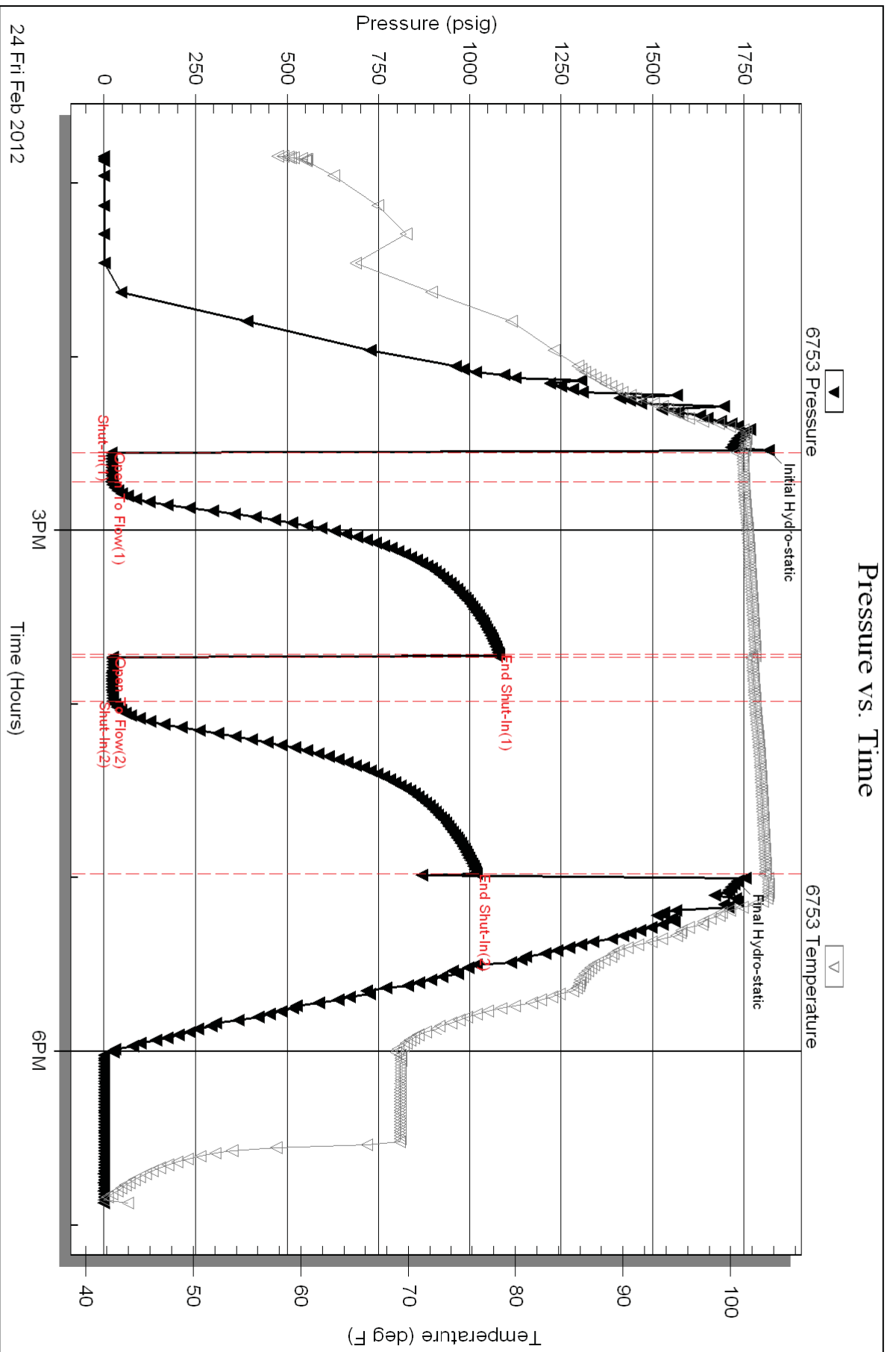
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data 300mL mud 100mL Oil 2600mL Gas 150psi



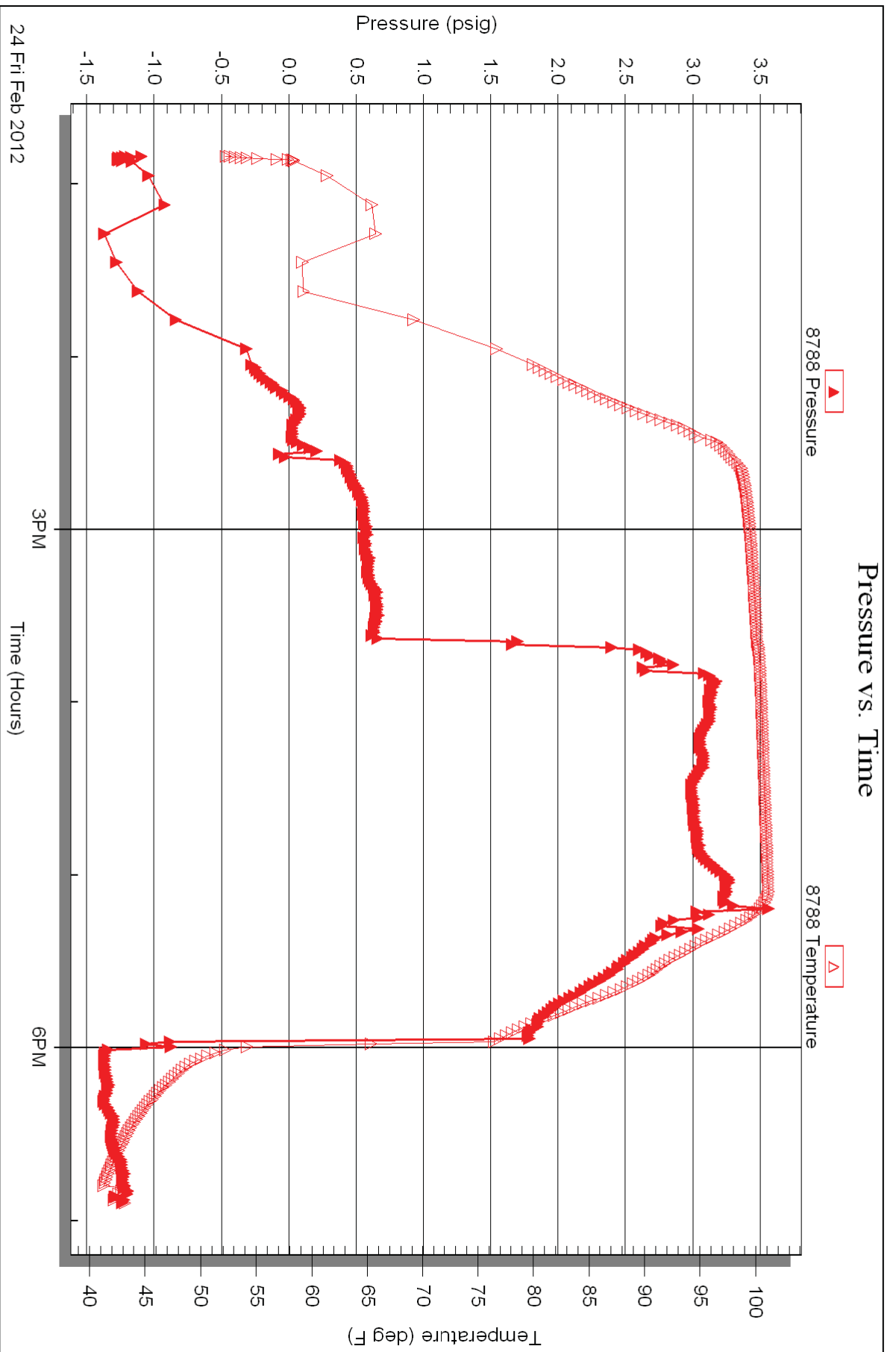
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Fluid

Samuel Gary Jr & Associates Inc

Pfannenstiel #1-24

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 46875

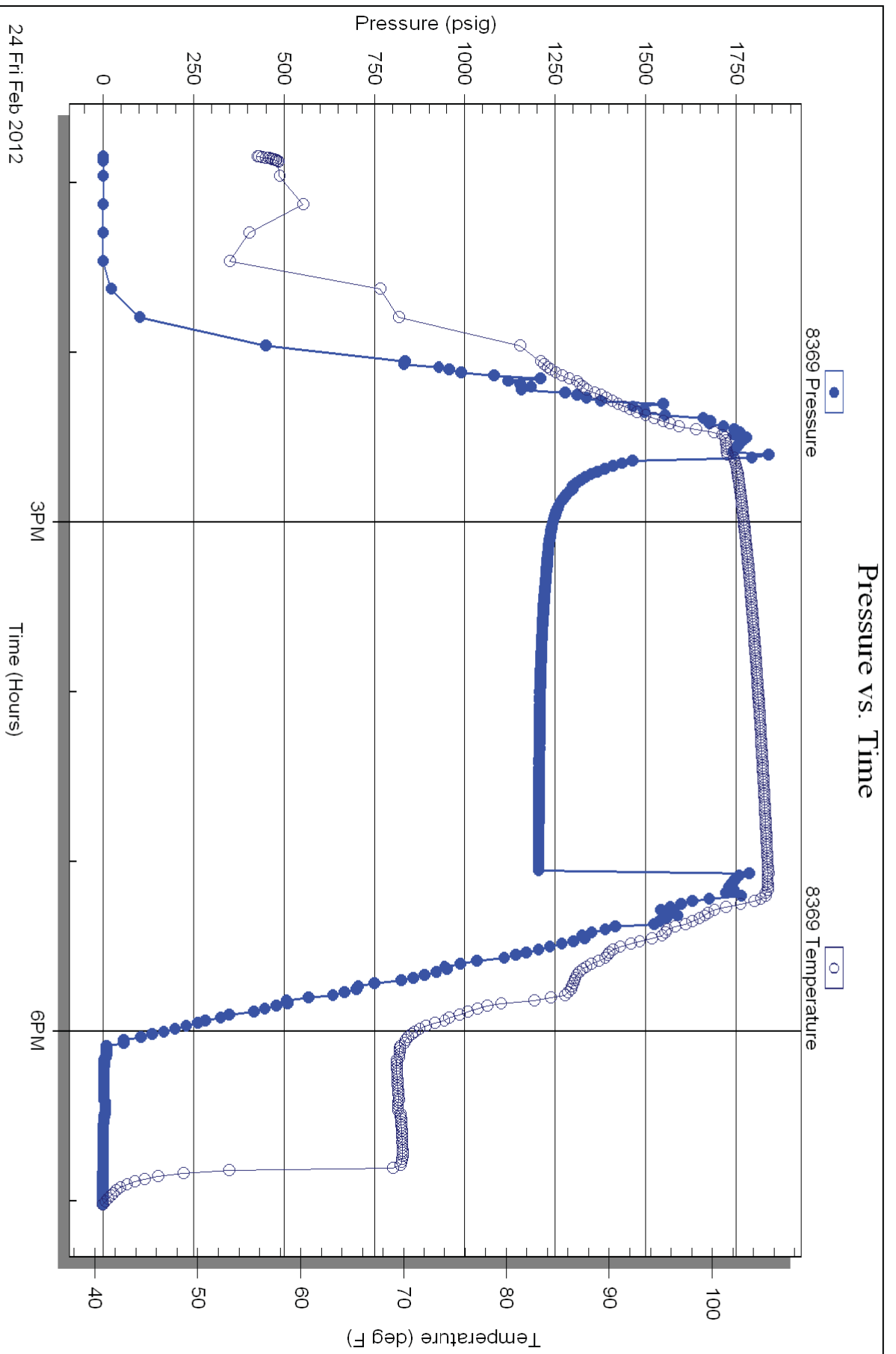
Printed: 2012.02.28 @ 15:39:49

Serial #: 8369

Below (Stratton) Gary Jr & Associates Inc

Pfannenstiel #1-24

DST Test Number: 3



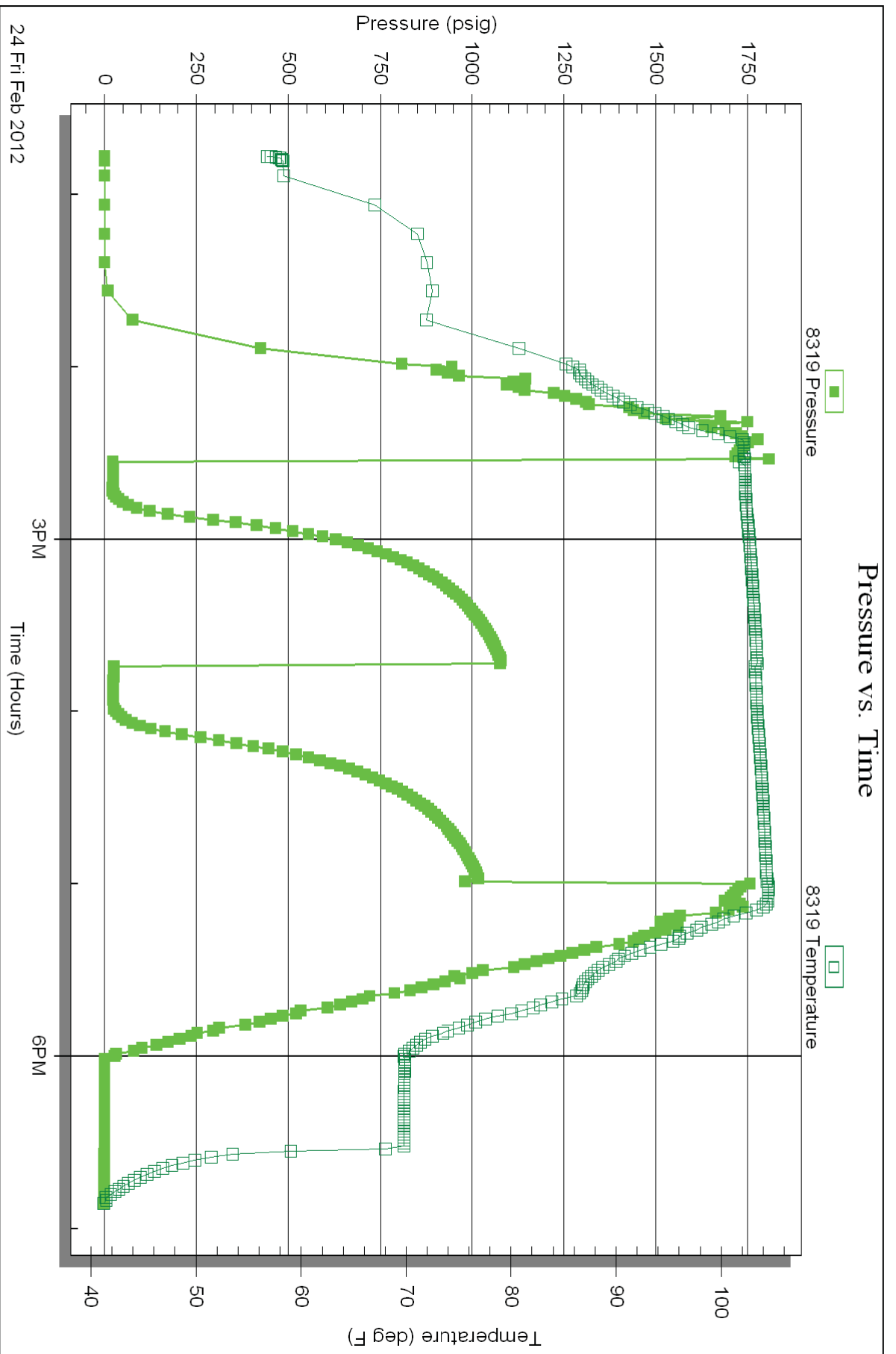
Serial #: 8319

Inside

Samuel Gary Jr & Associates Inc

Flannnstiel #1-24

DST Test Number: 3





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 24 2012

Test Ticket

NO. 46873

4/10

Well Name & No. PFANNENSTIEL et al 1-24 Test No. 1 Date 2-22-12
 Company SAMUEL DANCY JR. & ASSOC. Elevation 1959 KB 1951 GL
 Address 1515 WYNROOP STE 700 DENVER CO. 80202
 Co. Rep / Geo. TOM FERTAL 3037486230 Rig Discovery #2
 Location: Sec. 24 Twp. 14^s Rge. 18^w Co. Ellis State Ks

Interval Tested 3250-3276 Zone Tested KC LANSING "C"
 Anchor Length 26 Drill Pipe Run 3218 Mud Wt. 8.6
 Top Packer Depth 3245 Drill Collars Run 31 Vis 43
 Bottom Packer Depth 3250 Wt. Pipe Run — WL 7.6
 Total Depth 3276 Chlorides 2000 ppm System LCM —

Blow Description IF - BOB IN 4min
FSI - ~~BOB~~ 1/2 in blow
FF - BOB IN 4 1/2 min.
FSI - BOB IN 24min died back to 3in

Rec	Feet of	%gas	%oil	%water	%mud
<u>175</u>	<u>water</u>				
<u>60</u>	<u>650CMW</u>	<u>10</u>	<u>5</u>	<u>55</u>	<u>30</u>
<u>45</u>	<u>6MOCW</u>	<u>10</u>	<u>40</u>	<u>40</u>	<u>10</u>
<u>—</u>	<u>4050 GPP</u>				
<u>—</u>	<u>—</u>				

Rec Total 280 BHT 103 Gravity — API RW 11 @ 60 °F Chlorides 85000 ppm

(A) Initial Hydrostatic <u>1,596</u>	<input checked="" type="checkbox"/> Test <u>1125</u>	T-On Location <u>00:50</u>
(B) First Initial Flow <u>36</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:27</u>
(C) First Final Flow <u>55</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>3:25</u>
(D) Initial Shut-In <u>868</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>7:25</u>
(E) Second Initial Flow <u>66</u>	<input type="checkbox"/> Hourly Standby <u>1/2 hr - 50</u>	T-Out <u>10:12</u>
(F) Second Final Flow <u>146</u>	<input checked="" type="checkbox"/> Mileage <u>10x2 28</u>	Comments
(G) Final Shut-In <u>796</u>	<input checked="" type="checkbox"/> Sampler <u>250</u>	
(H) Final Hydrostatic <u>1,536</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>35</u>	<input checked="" type="checkbox"/> Extra Recorder <u>200</u>	Sub Total <u>0</u>
Final Shut-In <u>140</u>	<input type="checkbox"/> Day Standby	Total <u>1978</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1978</u>	

Approved By _____ Our Representative [Signature] 989

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 46873 Date 2-22-12

Company Name Sam Gary Jr. & Assoc.

Lease PFannestiel #1-24 Test No. 1

County Ellis Sec. 24 Twp. 14^o Rng. 18^W

SAMPLER RECOVERY

Gas 900 ML

Oil 500 ML

Mud _____ ML

Water 1600 ML

Other _____ ML

Pressure 375 PSE ML

Total _____ ML

PIT MUD ANALYSIS

Chlorides 2000 ppm.

Resistivity _____ ohms @ _____ F

Viscosity 43

Mud Weight 8.6

Filtrate 7.6

Other _____

SAMPLER ANALYSIS

Resistivity .11 ohms @ 60 F

Chlorides 85,000 ppm.

Gravity _____ corrected @60F

PIPE RECOVERY

TOP

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

MIDDLE

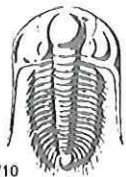
Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

BOTTOM

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 24 2012

Test Ticket

NO. 46874

4/10

BY: _____

Well Name & No. Pfannenstiel et al 1-24 Test No. 2 Date 2-22-12
 Company Samuel Gary Jr. & Assoc. Elevation 1959 KB 1951 GL _____
 Address 1515 WYNKOOP Ste 700 DENVER CO. 80202
 Co. Rep / Geo. Tom FERTAL Rig Discovery # 2
 Location: Sec. 24 Twp. 14^s Rge. 18^w Co. Ellis State KS

Interval Tested 3282-3350 Zone Tested LANSING KC 12-0
 Anchor Length 68 Drill Pipe Run 3318 Mud Wt. 9.2
 Top Packer Depth 3277 Drill Collars Run 31 Vis 50
 Bottom Packer Depth 3282 Wt. Pipe Run — WL 8.0
 Total Depth 3350 Chlorides 2500 ppm System LCM —

Blow Description 10 FF- 1 in Blow
60 FSI- NO Blow
15 FF- NO Blow
60 FSI- NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MUD</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 97 Gravity API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 1616 Test 1125 T-On Location 22:00
 (B) First Initial Flow 18 Jars 250 T-Started 22:05
 (C) First Final Flow 23 Safety Joint 75 T-Open 0:17
 (D) Initial Shut-In 937 Circ Sub _____ T-Pulled 2:42
 (E) Second Initial Flow 25 Hourly Standby _____ T-Out 5:08
 (F) Second Final Flow 31 Mileage 20 RT 28 Comments _____
 (G) Final Shut-In 923 Sampler 250 _____
 (H) Final Hydrostatic 1565 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 10 Extra Recorder 205 Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1928
 Final Flow 15 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1928

Approved By _____ Our Representative Brett Jim 964

TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 46874 Date 2-23-12
 Company Name Samuel Gary Jr. & Assoc.
 Lease Fannenstiel #1-24 Test No. 2
 County Ellis Sec. 24 Twp. 14^S Rng. 18^W

SAMPLER RECOVERY

Gas _____ ML
 Oil _____ ML
 Mud 3000 ML
 Water _____ ML
 Other _____ ML
 Pressure 195 PSI ML
 Total 3000 ML

PIT MUD ANALYSIS

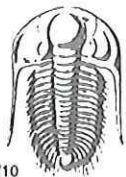
Chlorides 2500 ppm.
 Resistivity _____ ohms @ _____ F
 Viscosity 50
 Mud Weight 9.2
 Filtrate 8.0
 Other _____

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
 Gravity _____ corrected @60F

PIPE RECOVERY

TOP
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
MIDDLE
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.
BOTTOM
 Resistivity _____ ohms @ _____ F
 Chlorides _____ ppm.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 24 2012

Test Ticket

NO. 46875

4/10

BY: _____

Well Name & No. Pfannenstiel et al #1-24 Test No. 3 Date 2/24/12
 Company Samuel Gary Jr. & Assoc. Elevation 1959 KB 1951 GL
 Address 1515 Wynton St Ste 700 Denver CO. 80202
 Co. Rep / Geo. Tom Ferial Rig Discovery #2
 Location: Sec. 24 Twp. 14s Rge. 18w Co. Ellis State KS

Interval Tested 3508 - 3548 Zone Tested Penn Sand
 Anchor Length 40 Drill Pipe Run 3469 Mud Wt. 9.4
 Top Packer Depth 3503 3508 Drill Collars Run 31 Vis 52
 Bottom Packer Depth 3548 Wt. Pipe Run — WL 7.8
 Total Depth 3634 Chlorides 4,000 ppm System LCM —
 Blow Description IF - 4 in blow
JSI - No blow
FF - Very weak surface blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>0 CM</u>		<u>30</u>	<u>70</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

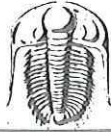
Rec Total 5 BHT 103 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,816 Test 1125' T-On Location 12:20
 (B) First Initial Flow 20 Jars 250' T-Started 12:50
 (C) First Final Flow 19 Safety Joint 75' T-Open 14:30
 (D) Initial Shut-In 1,080 Circ Sub _____ T-Pulled 16:55
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 18:55
 (F) Second Final Flow 24 Mileage 10x2 25' Comments _____
 (G) Final Shut-In 1,020 Sampler 250 _____
 (H) Final Hydrostatic 1,730 Straddle 600' Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 10 Extra Recorder 200' Sub Total 233.38
 Initial Shut-In 60 Day Standby 31 hrs Total 274.38
 Final Flow 15 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 2528' 1264/116.69

Approved By _____

Our Representative Butch [Signature] / SIM

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 46875 Date 2/24/12

Company Name Samuel Gary Jr. & Assoc.

Lease Pfannenstiel et al # 1-24 Test No. 3

County Ellis Sec. 24 Twp. 14 Rng. 18w

SAMPLER RECOVERY

Gas 2600 ML

Oil 100 ML

Mud 300 ML

Water _____ ML

Other _____ ML

Pressure 150 PSI ML

Total _____ ML

PIT MUD ANALYSIS

Chlorides 4,000 ppm.

Resistivity _____ ohms @ _____ F

Viscosity 52

Mud Weight 9.4

Filtrate 7.8

Other _____

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

Gravity _____ corrected @60F

PIPE RECOVERY

TOP

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

MIDDLE

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

BOTTOM

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.



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

Well Name: Pfannenstiel et al 1-24
Location: Sec 24 14s 18w, Ellis County, Kansas
License Number: 15-051-2263-0000
Spud Date: FEB. 17, 2012
Surface Coordinates: 950' Fsl & 1320' fwl
Region: Wildcat
Drilling Completed: FEB.24,2012

Bottom Hole
Coordinates:
Ground Elevation (ft): 1951' K.B. Elevation (ft): 1959'
Logged Interval (ft): 2900' To: 3630' Total Depth (ft): 3630'
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, Co. 80202
Co. Geo: Tom Fertal

GEOLOGIST

Name: Tim Hedrick
Company: Earth Tech OGL, Inc
Address: PO Box 683
Hooker, Okla. 73945
cell 580-754-0062


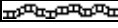
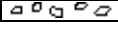

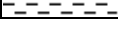







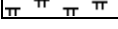

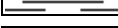
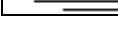



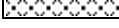










DST's Report

DST#1 3250-3276 5 60 35 140
IF-BOB IN 4 MIN./ISI- 1/2 BLOW / FF-BOB 4.5 MIN/FSI-BOB 24 MIN & DIED BACK TO 3"
IH-1596, FH-1536/IF-36 TO 55,FF-66 TO 146/ISI-868, FSI-796
RECOV- 280' TF, 465' GIP, 45' GMOCW,10%G.,40%O.,40%W., 10%,/ 60' GSOCMW, 10%G,5%G.,55%W., 30%M.,175'
W. BHT 103 DEG, / PIT CHLOR 2000/ TEST CHL 87,000 RW .11 @ 60 DEG
SAMPLER-900 ML GAS/ 500 ML OIL/ 1600 ML WATER/ 375 PSI























































































DST's Report

DST#2 3282 -3350 10 60 15 60
 IF-1"BLOW/ ISI- NB/ FF- NB/ FSI-NB
 IH-1616, FH-1565/IF-18 TO 23, FH-25 TO 31/ ISI-937, FSI-923
 RECOVERED 5' TF, 5' DRILL MUD, 100% M. BHT 97 DEG. PIT CHL-2500
 SAMPLER-3000 ML MUD/ 195 PSI, TOTAL 3000

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  Slttysh  Lms
--	--	--	---

ACCESSORIES

MINERAL  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  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 FOSSIL  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram	 Fossil  Gastro  Oolite  Ostra  Pelec  Pellet  Pisolite  Plant  Strom  Fuss  Oomold STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst  Sltstrg  Ssstrg  Carbsh	 Clystn  Dol  Grysh  Gryslt  Lms  Sandylms  Sh  Sltstn TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
--	--	--	--

OTHER SYMBOLS

POROSITY TYPE

- E Earthy
- Fenest
- F Fracture
- X Inter
- / 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

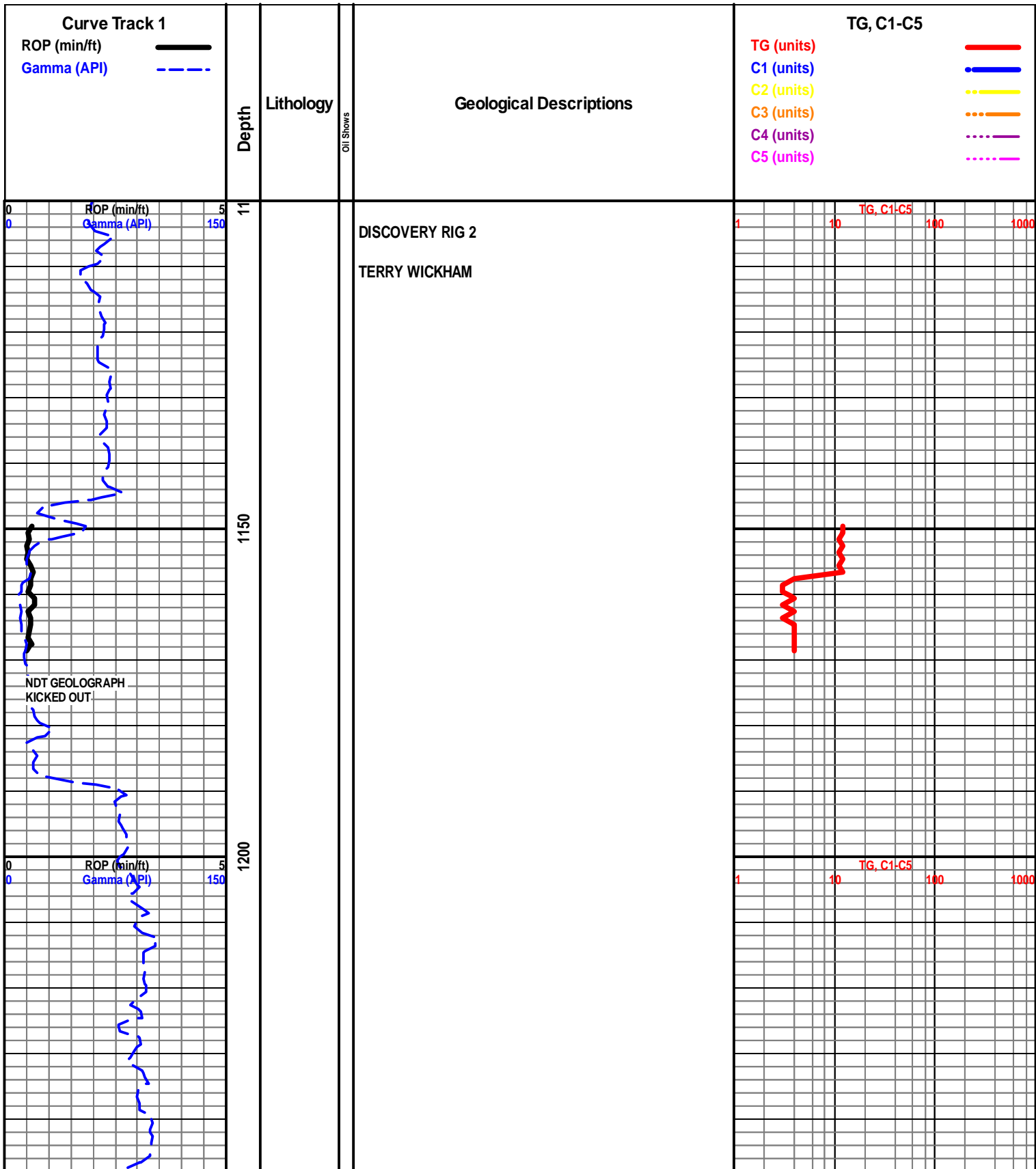
- Even
- ◉ Spotted
- ◐ Ques
- ◑ Dead
- ⊠ Gas show

INTERVALS

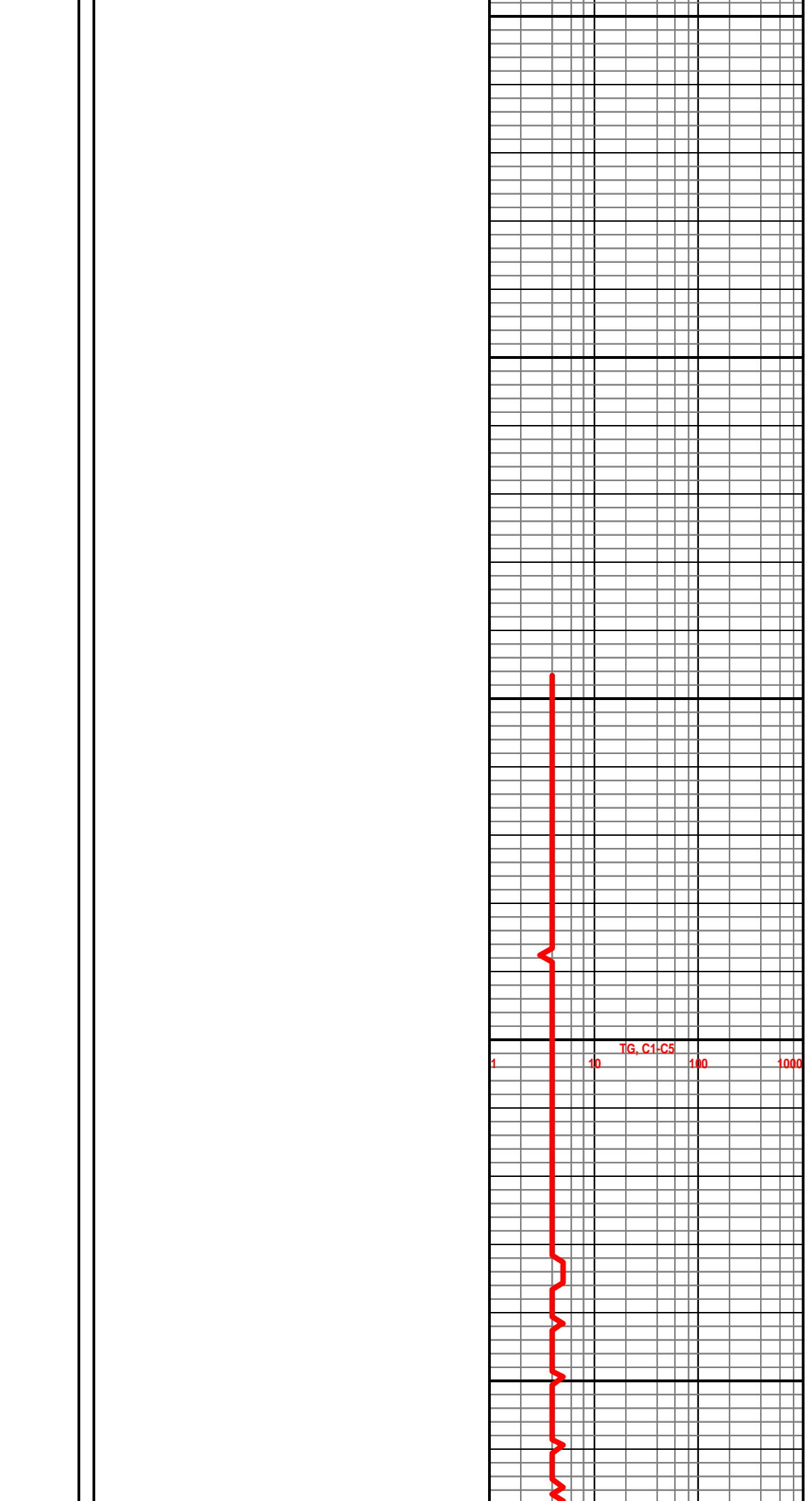
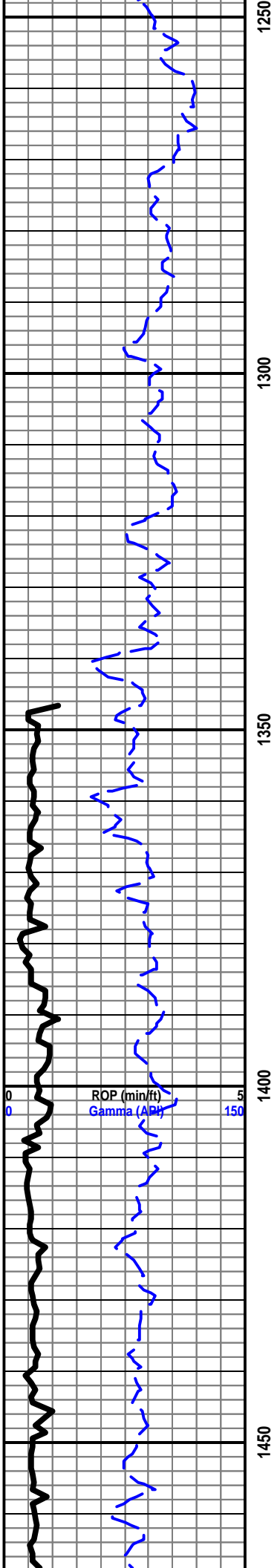
- Core
- ◻ Dst
- ◼ Dst

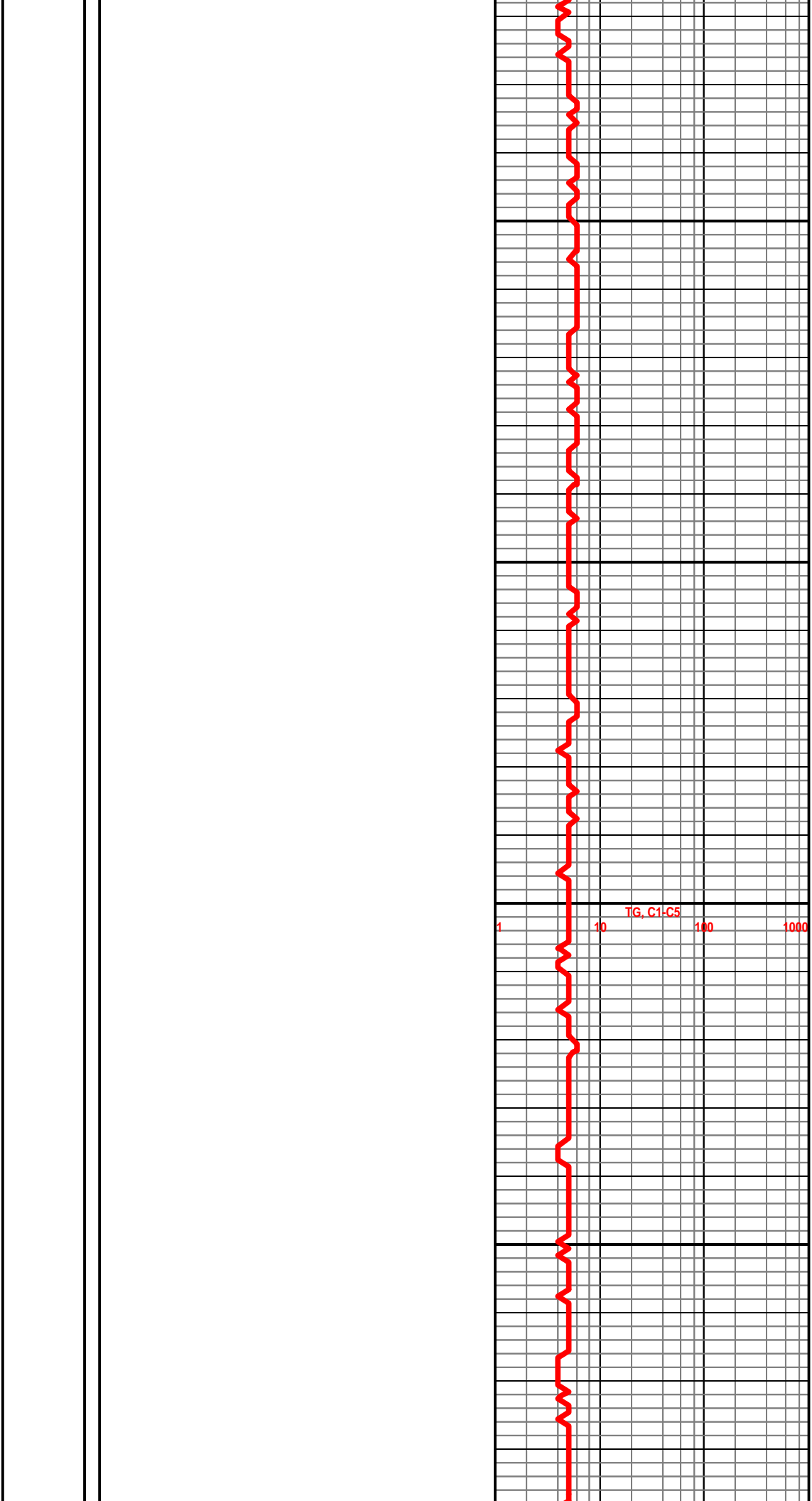
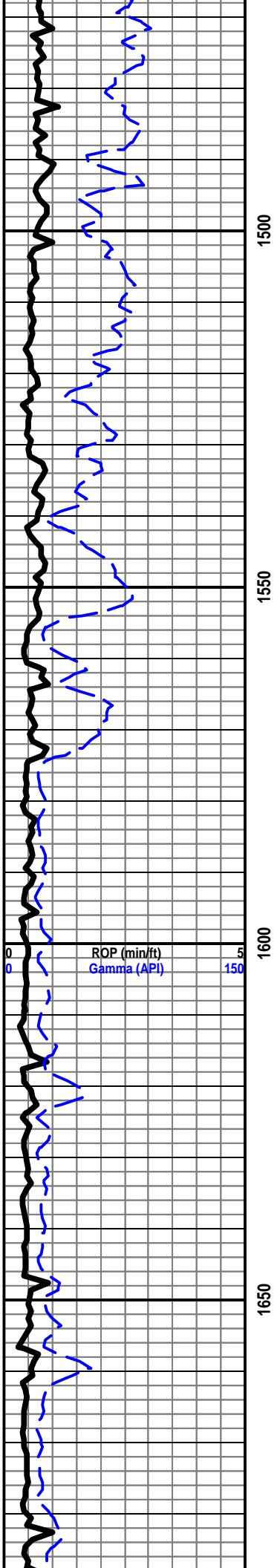
EVENTS

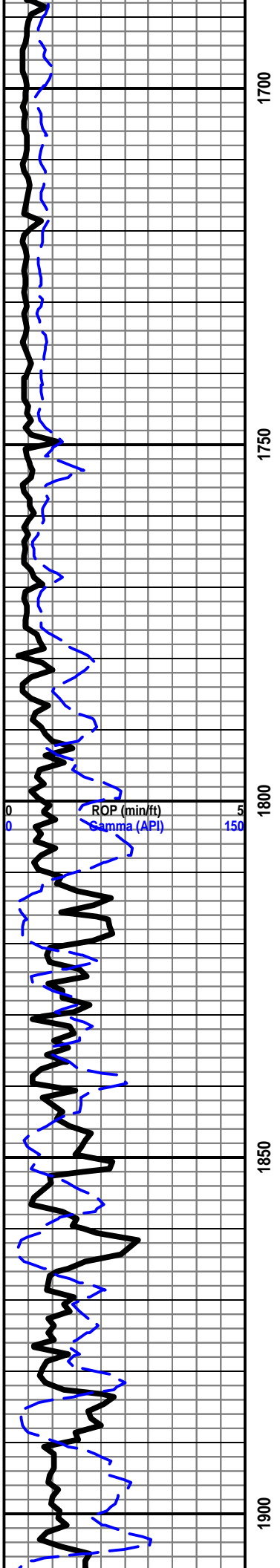
- ◁ Rft
- ▷ Sidewall



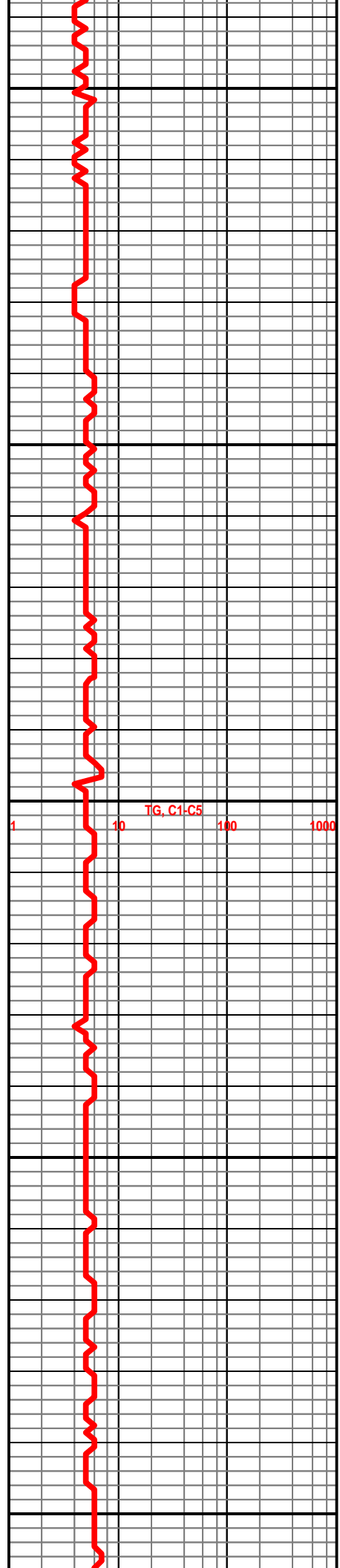
NDT GEOLOGRAPH
KICKED OUT

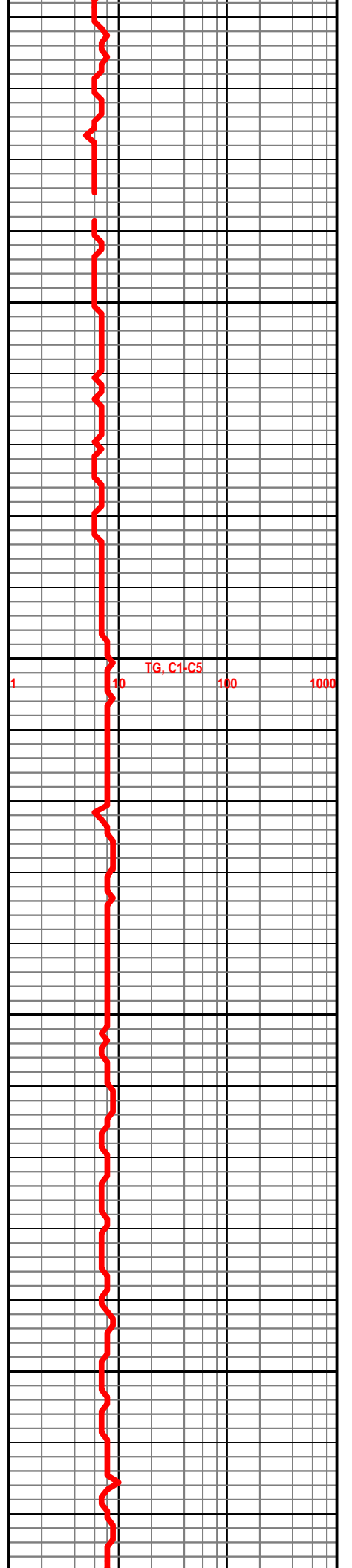
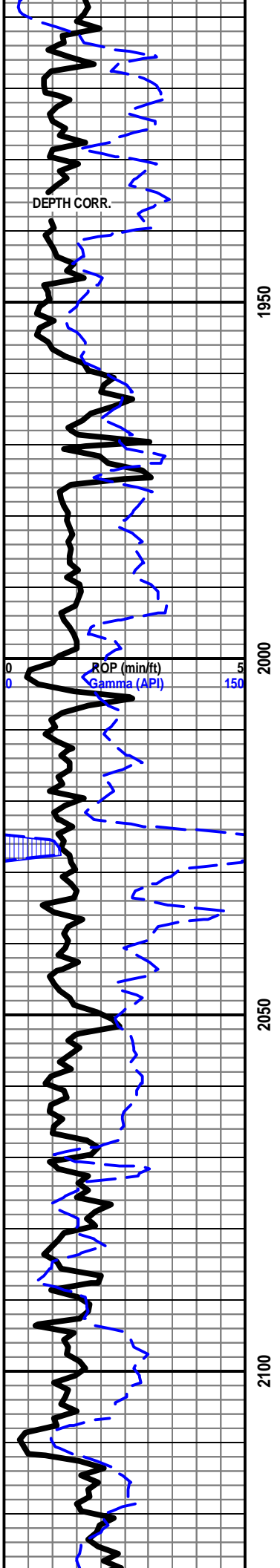


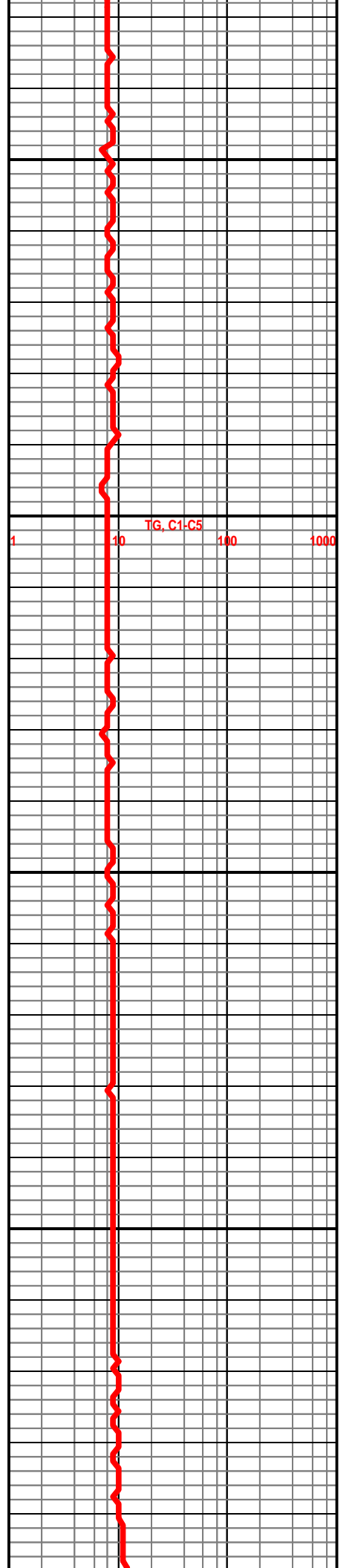
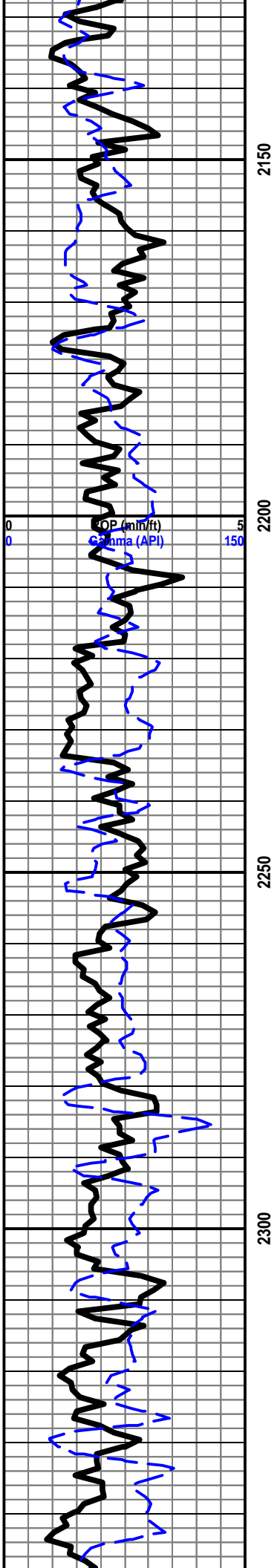


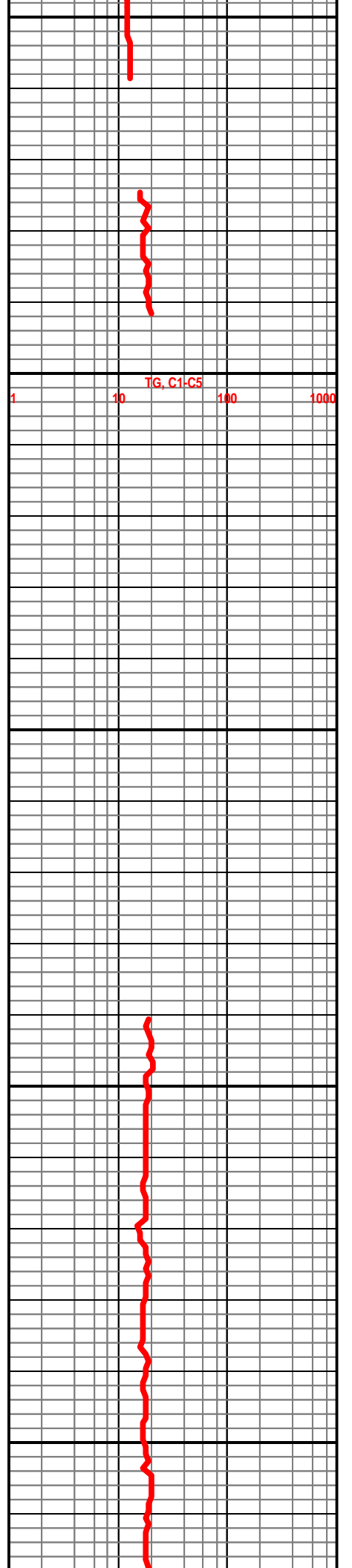
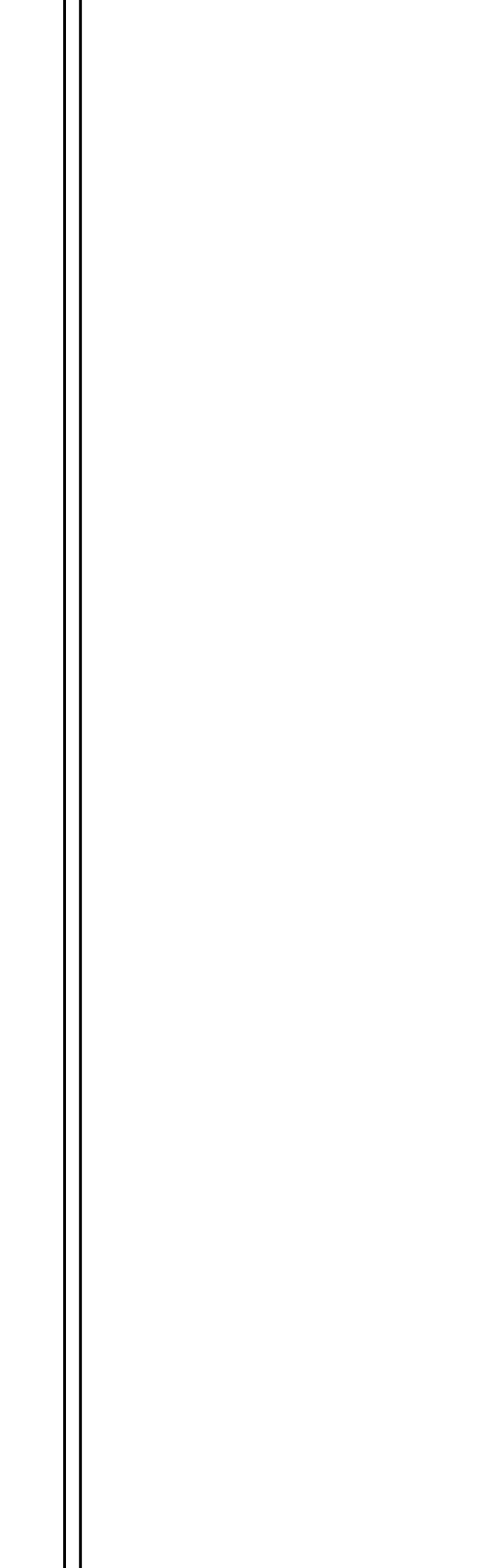
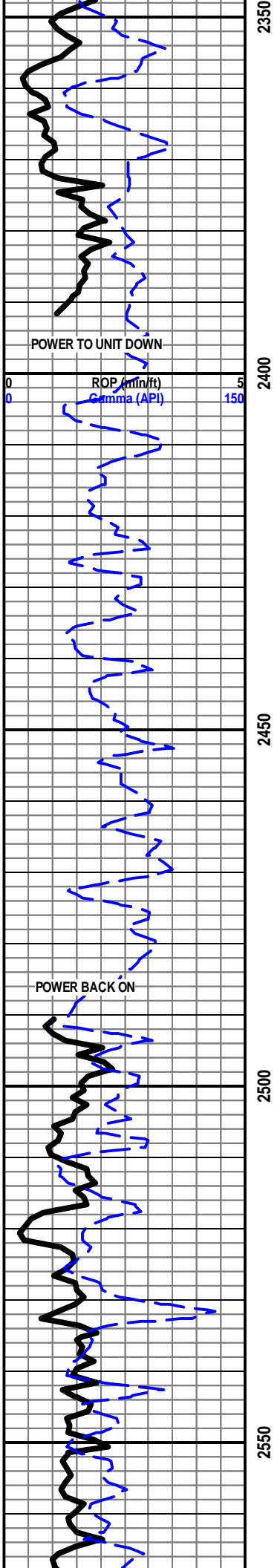


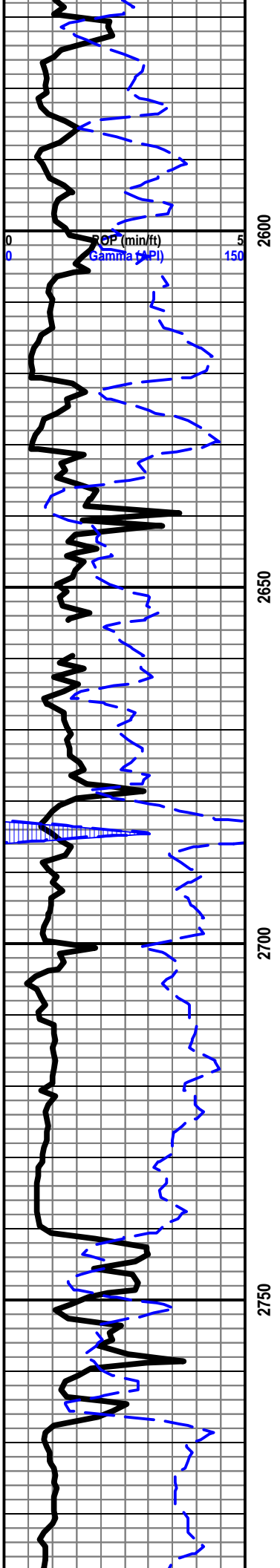
START UNMANNED FEB 19TH











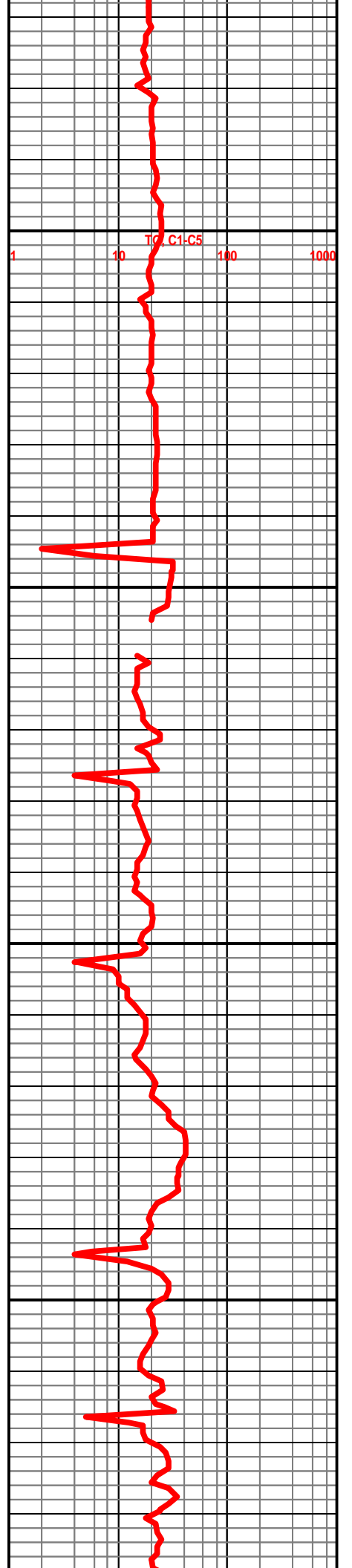
2600

2650

2700

2750

BRS 2740' - 781'

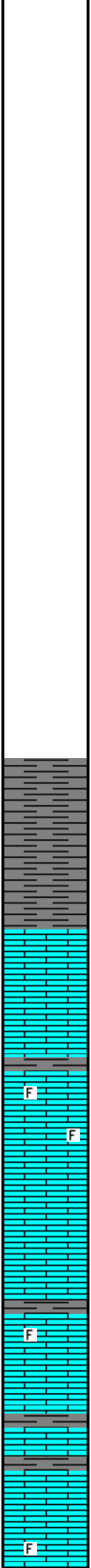
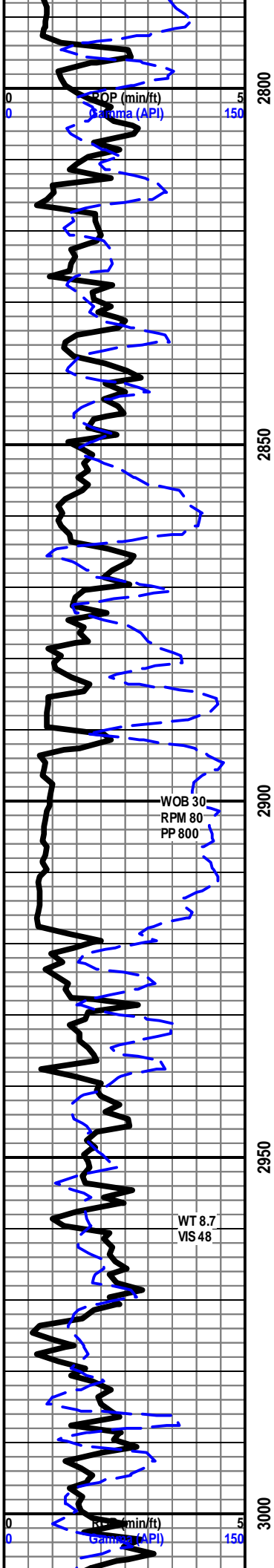


1

10

100

1000



START 24 HR MANNED UNIT ON FEB. 21, 2012

SH- LT TO MD GY- FRM BLKY IP SMTH TXT TO V/SFT

HOWARD 2918' - 959'

LS- OFF WHT CRM BFF- HD DNS TO BRITT, V/ SUCRO MTRX, V/ S-CHLKY IP, TR IMBD CALC XLS IP, LT BRIT YEL MIN FLO THRU, NO VIS POR, NO VIS SHOW

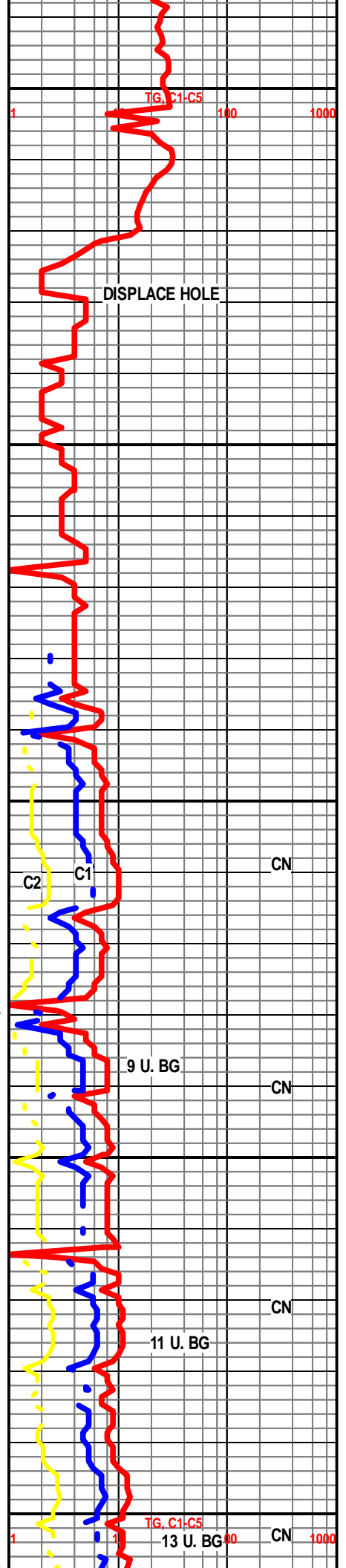
LS- OFF WHT CRM LT TN -HD DNS TO BRITT IP MD-XLN TO SUCRO IP, TR IMBD FOSS FRGS IP, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM BFF- HD BRITT TO SFT IP, V/ SUCRO MTRX V/ S-CHLKY IP, ABDT IMBD SMLL CALC XLS IP, LT BRIT YEL MIN FLO THRU, PR VIS PP POR IP, NO VIS SHOW

TOPEKA 2971' - 1012'

LS- CRM LT TN OFF WHT- HD BRITT, MD-XLN TO V/ SUCRO IP, HVY TR IMBD FOSS FRGS IP, TR IMBD SMLL CALC XLS, HVY TR SFT WHT CHLK IP, BRIT YEL MIN FLO, NO VIS POR TO TR MICRO PP POR IP, NO VIS SHOW OR CUT

LS- OFF WHT CRM BFF- HD TO BRITT, MD-XLN TO V/ SUCRO SLI S-CHLKY MTRX IP, TR FOSS FRGS IP, HVY TR

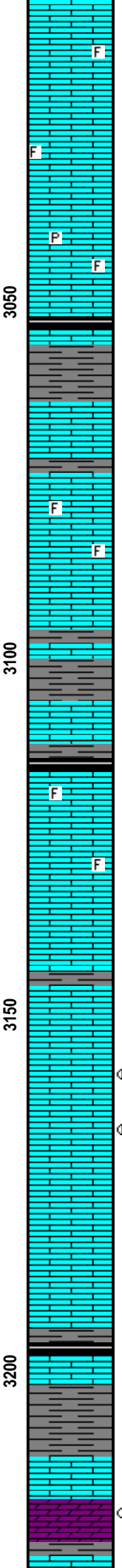
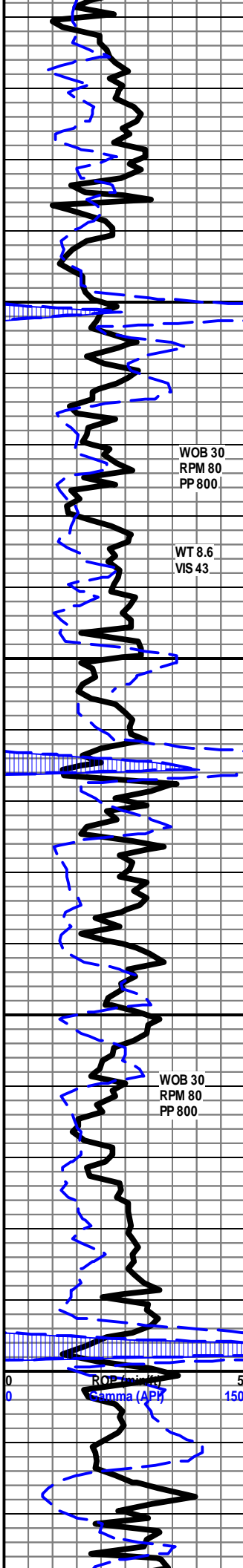


CN

CN

CN

CN



ABDT SFT WHT IP, BRIT YEL MIN FLO IN 20%, DLL YEL FLO IN 80%, NO VIS POR, NO VIS SHOW

LS- LT TN TN- HD DNS TO SLI TR BRITT, MD-F-XLN TR V/F-XLN RE-XLN IP, TR FOSS FRGS IP, TR IMBD LT GY SH IP, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM LT TN- HD IP TO V/ BRITT, MD-F-XLN RE-XLN MTRX TO V/ SUCRO SLI S-CHLKY TR SCAT IMBD LRG CALC XLS, TR FOSS FRGS W/ IMBD DISS PYR IP, LT BRIT YEL MIN FLO, PR VIS PP POR IP, NO VIS SHOW OR CUT

SH- BLK SFT CARB IP TO BLK HD SPLNTY TO FRM BLKY

SH- LT GRY TO LT GRN- FRM BLKY SMTH TXT

LS- OFF WHT CRM BFF- MD HD TO SFT IP, V/ SUCRO S-CHLKY IP, TR FOSS FRGS IP, TR IMBD LT GY SH IP, HVY TR SFT WHT CHLK, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO LT GRN- FRM BLKY IP SMTH TXT TO FRM BLKY IP SMTH TXT

SH- BLK SFT CARB

LS- CRM BFF TO OFF WHT- HD DNS MD-FXLN RE-XLN MTRX SLI TR FOSS IP, GRDNG TO SUCRO S-CHLKY TO CHLKY MTRX IP, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- OFF WHT CRM BFF- HD BRITT, MD-XLN TO SUCRO IP, SLI TR SFT CHLK IMBD IP, LT YEL MIN FLO NO VIS POR TO TR MICRO PP POR IP, NO VIS SHOW OR CUT

NOTE SAMPLES COMING UP VERY LATE, ABDT UPHOLE CAVINGS

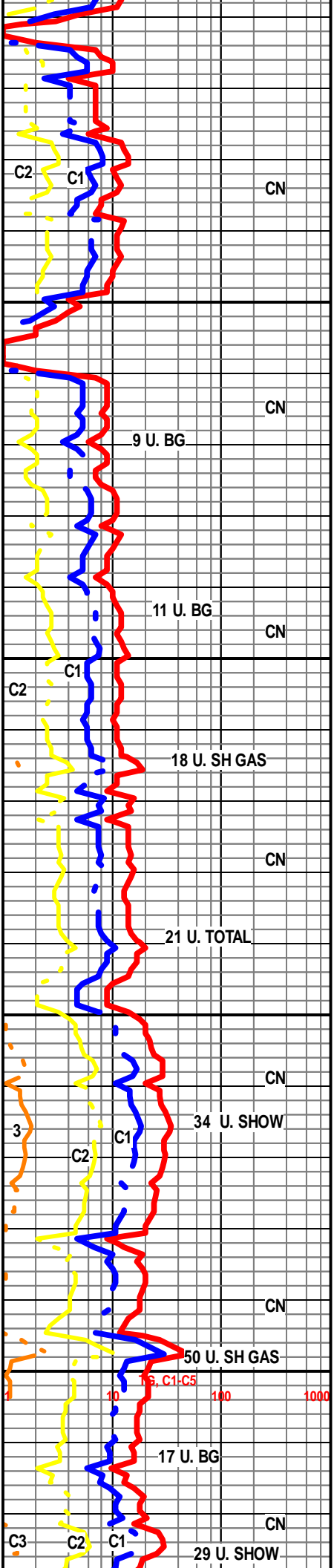
3154 - 3168 LS- OFF WHT CRM BFF-V/ LT TN ST IN 10%, DOS IN SCAT 30%, HD TO MD HD, V/ SUCRO MTRX TO TR MD-XLN IP, SLI TR WHT CHLK IP, TR SMLL IMBD CALC IMBD IP, BRIT YEL GLD FLO IN 30%, NO FLO IN 60%, TR SCAT PR TO TR FR MICRO PP POR IN 30%, V/LT FLSH CUT IN 30-40%, FR SLO STRM CUT IN 30%, LT OIL ODOR, NO STN ON DISH

HEEBNER 3194' - 1235'

SH- BLK SFT CARB

SH- LT GY TO LT GRN- FRM BLKY , SMTH TXT TO SLI GRNY

3218-3222' DOLO - OFF WHT TO WHT- HD DNS TO V/ BRITT(1 ROCK) F-XLN TO CRS SUCRO MTRX, IMBD MD ANG DOLO GRNS THRU, HVY TR IMBD SFT WHT CHLK IP, BRIT YEL FLO THRU, TR PR VIS MICROVUG POR IP, NO FLSH CUT, LT GASSYCUT



SH- RED GRN BRN -FRM BLKY SMTH TXT TO SFT SLTY IP

LANSING 3242' - 1283'

LS- CRM LT TN TN- HD DNS F-V/F-XLN MD-XLN IP, TR FOSS IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW OR CUT

LANSING "C" 3265' - 1306'

3266-3270' LS- OFF WHT CRM LT TN (STN SCAT IN 80%)- HD V/BRITT, MD-XLN, V/RE-XLN MTRX, ABTD IMBD FOSS, TR FOSS HSH IP, SMLL CALC XLS IP, BRIT YEL GLD FLO SCAT THRU, DLL YEL GLD FLO SCAT THRU, PR TO GD TO V/GD VIS INTER-FOSS POR SCAT THRU, GD VIS SCAT VUG POR IN 30%, GD FLSH CUT THRU, GD SLO STRM CUT THRU, GD OIL ODOR, LT TN STN ON DISH

3384-3386' LS- LT GRN CRM LT TN TN - SCAT TN OIL STN IN 50%, HD DNS TO TR BRITT, MD-F-XLN RE-XLN MTRX, FOSS FRGS SCAT THU, HVY TR CHLK IP, HVY TR IMBD LT GRN SH IN 30%, SLI TR FNLYDISS PYR SCAT THRU, BRIT YEL GLD FLO SCAT IN 40%, DLL YEL GLD FLO IN 30%, NO FLO IN 30%, PR VIS INTER-XLN POR IP, SLI TR PR MICRO VUG POR IN 10%, VWK FLSH CUT , PR TO TR FR SLO STRM CUT IN 40%, NO ODOR, NO STN ON DISH

3390-3392' LS- CRM OFF WHT LT TN (LT TN STN IN 60%)- HD DNS TO BRITT, MD-F-XLN RE-XLN MTRX, S-SUCRO IP, ABTD IMBD FOSS IN 60%, V/MICRO OOL IP, SLI TR SFT WHT CHLK IP, BRIT YEL GLD FLO IN 80%, DLL YEL GLD FLO IN 20%, FR SCAT VIS INTER-FOSS POR IN 30%, TR INTER-OOL POR IP, FR FLSH CUT IN 80%, GD SLO STRM CUT IN 80-90%, NO ODOR, V/LT TN STN ON DISH

LANSING "F" 3310' - 1351'

3318-3323' LS- OFF WHT CRM LT TN (TN SCAT EVEN BRN OIL STN IN 90%) HD TO V/BRITT, V/SUCRO MTRX, V/RE-XLN , SCAT IMBD SMLL OOL, SCT IMBD FOSS FRGS THRU, SLI TR S-CHLKY IN 20%, BRIT YEL GLD FLO SCAT IN 70%, DLL YEL GLD FLO SPTTD THRU, FR TO TR GD MICRO VUG TO VUG POR IN 30%, FR TO HVY TR GD VIS INTER-XLN PP POR IN 40%, GD FLSH CUT IN 50%, GD SLO STRM CUT IN 80%, FR OIL ODOR, LT TN LCH ON DISH

3325-3330- LS OFF WHT CRM LT TN (SCAT LT BRN OIL STN IN 80%), HD V/BRITT,MD-F-XLN V/RE-XLN MTRX, V/FOSS , SCAT IMBD SMLL OOL, SMLL ANG LM GRNS IMBD THRU, SCAT SMLL CALC XLS IP, HVY TR CHLKY IP,HVY TR WHT CHRT, BRIT YEL GLD FLO THRU AND DLL YEL GLD SPTTD FLO THRU, PR TO FR TO HVY TR GD INTER-XLN POR IN 50%, FR VIS INTER FOSS POR IN 30%, GD OIL ODOR, GD FLSH CUT IN 50%, GD SLO STRM CUT IN 80%, TN LCH ON DISH

3331-3334- LS - CRM LT TN BRN (DUE TO SCAT TN BRN OIL STN THRU) HD DNS V/F-CRYPTPTO-XLN , TR IMBD SCAT FOSS IP, FRLY NON DESCRIPT, BRIT YEL GLD FLO IN 25%, DLL YEL GLD FLO SCAT IN 75%, PR SCAT MICRO VUG TO PR VUG POR SCAT THRU, V/GD FLSH CUT THRU, TO V/ GD SLO STRM MLKY BLU CUT SCAT THRU, FR OIL ODOR, V/ LT TN STN ON DISH

LANSING "H" 3368' - 1409'

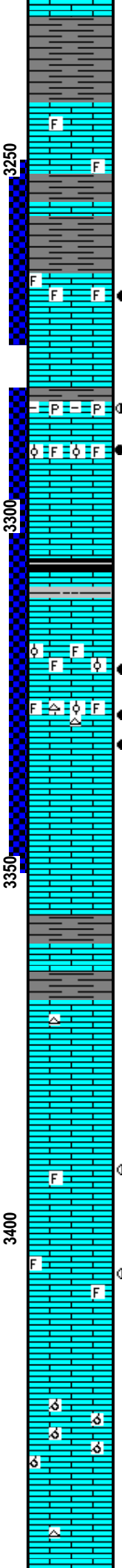
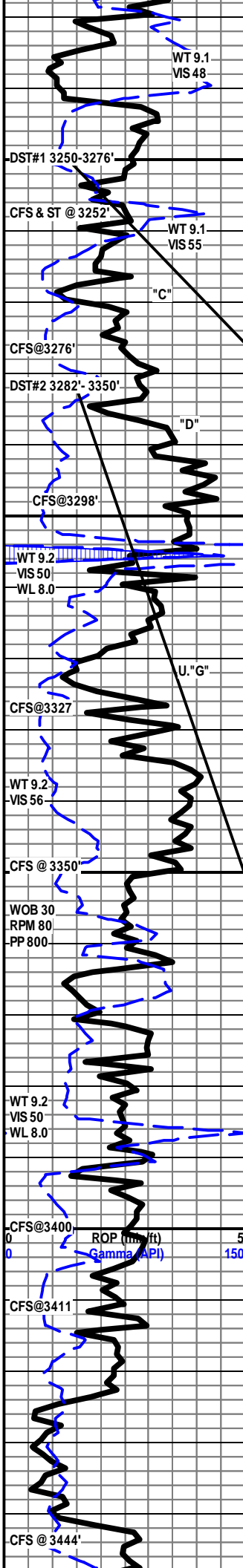
3368-3372-LS- OFF WHT TO WHT- HD DNS TO BRITT, F-V/F-XLN SLI TR RE-XLN IP, TR S-CHLKY IP, TR WHT CHRT, NO FLO, NO VIS POR , NO VIS SHOW

3391-3393- LS-CRM LT TN TN (DUE TO SCAT TN STN THRU, V/SUCRO MTRX, TR MD -XLN IP , SLI TR FOSS FRGS IP, BRIT YEL GLD FLO IN 80%, POR TO FR VIS INTER-XLN MICRO PP POR IN 40%, FR FLSH CUT IN 50%, GD SLO STRM CUT IN 30%, NO ODOR, NO STN ON DISH

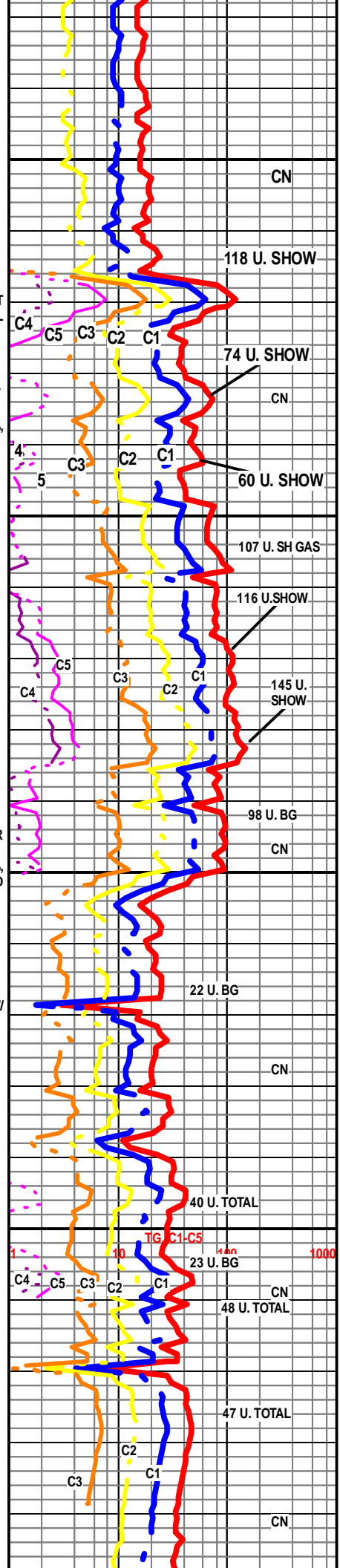
3406-3409 LS- OFF WHT CRM DK TN SCAT TN OIL STN IN 20%- HD DNS TR BRITT, MD-FXLN TO SUCRO IP, SCAT IMBD FOSS FRGS, TR SMLL IMBD ANG LM GRNS IP, S-CHLKY IP, DLL YEL GLD FLO SCAT IN 30%, PR VIS INTER-XLN POR SCAT THRU, FR FLSH CUT IN 60%, GD SLO STRM CUT IN 70%, LT OIL ODOR, NO STN ON DISH

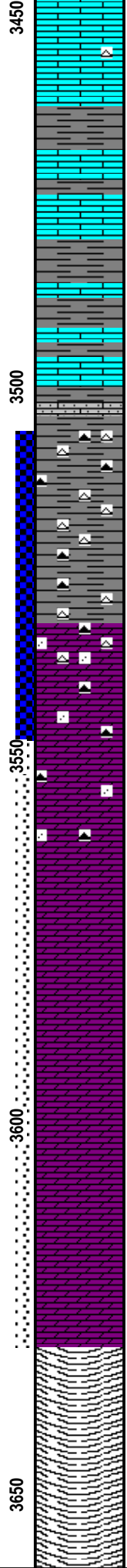
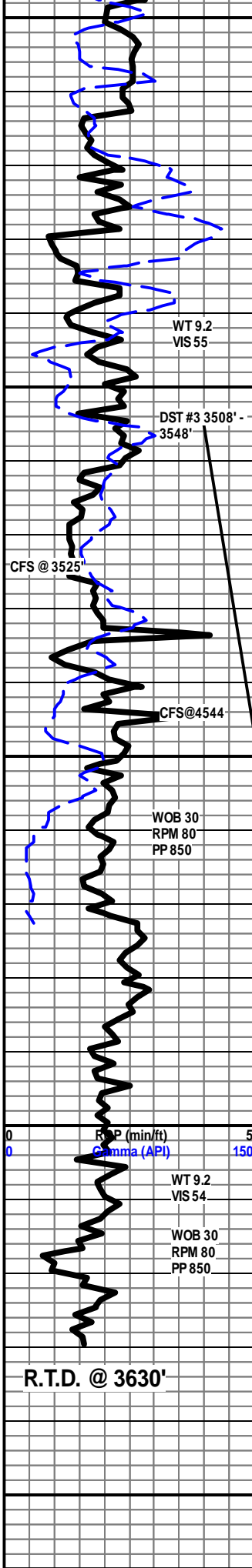
LS- OFF WHT WHT- HD V/V/BRITT, MD-XLN RE-XLN MTRX V/ OOLMLD IP TO V/ SFT CHLKY IP, HVY TR ABTD SFT WHT CHLK, NO FLO , PR VIS OOLMLD POR, ROCK ALL GROUND UP, NO VIS SHOW OR CUT

LS- OFF WHT CRM - HD DNS TO BRITT, F-XLN TO SUCRO



LS- OFF WHT CRM - HD DNS TO BRITT, F-XLN TO SUCRO





LS- OFF WHT CRM - HD DNS TO BRIT, F-XLN TO SUCRO
SLI S-CHLKY IP, TR WHT CHRT, LT YEL MIN FLO, NO VIS
POR, NO VIS SHOW

SH- LT GY TO LT GRN SMTH BLK GRNY TXT

LS- OFF WHT TO CRM - MD HD TO SFT V SUCRO
S-CHLKY TO CHLKY MTRX IP, TR IMBD LT GY SH IP, NO
FLO, NO VIS POR, NO VIS SHOW

BKC 3479' - 1520'

SH- RED GRN- FRM BLKY MOTT GRNY TXT

SH- RED DK RED- FRM IP TO V/ SFT GMMY W/ IMBD TN
BRN WHT CHRT

SH- RED DK RED- FRM IP TO V/ SFT GMMY W/ IMBD TN
BRN WHT CHRT

ARBUCKLE 3533' - 1574'

3534-3551' DOLO- WHT OFF WHT BLK DUE TO HVY TAR & DOS STN SCAT THRU, V/ TT SUCRO MTRX, F-XLN IP, S-CHLKY THRU, HVY TR IMBD WHT CHRT SCAT THRU, IMBD FN S-ANG CLR QURTZ GRNS IP, BRIT YEL GLD FLO IN 30%, DLL YEL FLO IN 50%, TR PR SCAT INTER-XLN POR IN 30%, V/ GD FL SH CUT THRU, V/ GD SLO STRM CUT THRU, LT OIL ODOR

3551-3570' DOLO- WHT OFF WHT BLK DUE TO HVY TAR & DOS STN SCAT IN 50%, V/ TT SUCRO MTRX, F-XLN IP, V/ S-CHLKY THRU, HVY TR IMBD WHT ORNG CHRT SCAT THRU, IMBD FN S-ANG CLR QURTZ GRNS IP, BRIT YEL GLD FLO IN 30%, DLL YEL FLO IN 20%, TR PR SCAT INTER-XLN POR IN 10%, V/ GD FL SH CUT THRU, V/ GD SLO STRM CUT THRU, LT OIL ODOR

3572-3585 DOLO- WHT OFF WHT-TR SCAT LIVE OIL STN IN 50%, HD DNS TO TR BRIT, FN XLN IP TO V/ CRS SUCRO MTRX, ABTD IMBD MD ANG DOLO GRNS THRU, HVT RE SFT WHT CHLK SCAT THRU, DLL YEL MIN FLO THRU, PR TO FR SCAT INTER-XLN POR THRU, FR SCAT MICROVUG POR SCAT IN 30%, GD INST FL SH CUT THRU, GD SLO STRM CUR THRU, NO ODOR, TN STN ON DISH

3285-3610-DOLO-OF WHT WHT- HD DNS TO TR BRIT, MD-XLN TO FN SUCRO MTRX, SMLL IMBD ANG DOLO GRNS IP, ABTD IMBD SFT WHT CHLK, TR ABTD FREE SFT WHT CHLK, DLL YEL MIN FLO THRU, NO VIS POR, NO VIS CUT OR SHOW

3610-3630-DOLO -OFF WHT TO WHT- HD DNS TO SLI TR BRIT IP, FN XLN TO TR CRS SUCRO MTRX, ABTD IMBD SMLL TO MD ANG DOLO GRNS THRU, ABTD IMBD AND FREE SFT WHT CHLK, DLL YEL MIN FLO THRU, PR VIS INTER-GRN POR SCAT IN 40%, NO VIS CUT OR SHOW

RTD @ 12:33 AM FEB. 24, 2012

CTCH 1.5 HRS

SHORT TRIP HOLE PULLED TIGHT

