



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1155447  
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: \_\_\_\_\_



1155447

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
--	--	---

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	LEGLEITER 1-11
Doc ID	1155447

All Electric Logs Run

DEN-NEUT
INDUCTION
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  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

August 16, 2013

CHRISTOPHER MITCHELL  
Samuel Gary Jr. & Associates, Inc.  
1515 WYNKOOP, STE 700  
DENVER, CO 80202

Re: ACO1  
API 15-051-26513-00-00  
LEGLEITER 1-11  
NE/4 Sec.11-15S-16W  
Ellis County, Kansas

Dear Production Department:

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

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
CHRISTOPHER MITCHELL



**QUALITY OILWELL CEMENTING, INC.**

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

Date: 4/30/2013  
 Invoice # 6660

P.O.#:

Due Date: 5/30/2013

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:**

LEGLEITER 1-11

**Description of Work:**

LONG SURFACE JOB

DRIG  COMP  W/O  LOE  CG

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	15	\$92.47	No
Common-Class A	350	\$ 4,632.83	Yes				
8 5/8" Basket	3	\$ 1,000.67	Yes				
Bulk Truck Matl-Material Service Charge	370	\$ 781.11	No				
Calcium Chloride	13	\$ 654.00	Yes				
8 5/8" Centralizer	3	\$ 202.67	Yes				
Flo Seal	87	\$ 183.67	Yes				
Pump Truck Mileage-Job to Nearest Camp	15	\$ 158.02	No				
Premium Gel (Bentonite)	7	\$ 120.29	Yes				
8 5/8" Top Rubber Plug	1	\$ 111.89	Yes				
Baffle Plate Aluminum, 8 5/8"	1	\$ 95.00	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 8,996.46  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,349.47)

SubTotal for Taxable Items:	\$ 5,950.86
SubTotal for Non-Taxable Items:	\$ 1,696.13
<b>Total:</b>	<b>\$ 7,646.99</b>
<b>Tax:</b>	<b>\$ 374.90</b>

6.30% Ellis County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 8,021.89**  
**Applied Payments:**  
**Balance Due: \$ 8,021.89**

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**

**MAY 03 2013**

**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. 6660

Date	4-26-13	Sec.	11	Twp.	15	Range	16	County	Ellis	State	KS	On Location		Finish	10:30 AM
Lease								Well No.		Owner					
Legleiter								1-11		w to 390 Rd 1/2 S wn 2					
Contractor								To Quality Oilwell Cementing, Inc.							
Val								You are hereby requested to rent cementing equipment and furnish							
Type Job								cementer and helper to assist owner or contractor to do work as listed.							
Surface								Charge							
Hole Size								To							
12 1/4								Samuel Gury and Associates							
Csg.								Depth							
8 5/8								856							
Tbg. Size								Street							
								City							
Tool								State							
								The above was done to satisfaction and supervision of owner agent or contractor.							
Cement Left in Csg.								Cement Amount Ordered							
42								350 com 3% CC 2% gel 1/4 #flow							
Meas Line								Displace							
								5 1/2							
<b>EQUIPMENT</b>												Common			
												350			
Pumptrk												Poz. Mix			
16															
No. Cementer												Gel.			
												7			
Bulktrk												Calcium			
13												13			
No. Driver												Hulls			
Loonie M.															
Bulktrk												Salt			
Pu												Flowseal			
No. Driver												87 #			
Travis												Kol-Seal			
<b>JOB SERVICES &amp; REMARKS</b>												Mud CLR 48			
Remarks: Cement did Circulate												CFL-117 or CD110 CAF 38			
Rat Hole												Sand			
Mouse Hole												Handling			
Centralizers												370			
1, 11, 20												Mileage			
Baskets															
2, 12, 19												<b>FLOAT EQUIPMENT</b>			
D/V or Port Collar												Guide Shoe			
												Centralizer			
												3			
												Baskets			
												3			
												AFU Inserts			
												Float Shoe			
												Latch Down			
												1 Baffle plate			
												1 Rubber plug			
												Pumptrk Charge			
												Long Surface			
												Mileage			
												15			
												Tax			
												Discount			
												Total Charge			
X Signature															
[Signature]															

Thank you!

X Signature [Signature]



**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: 5/7/2013  
 Invoice # 6666

P.O.#:

Due Date: 6/6/2013  
 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:**  
 LEGLEITER 1-11

**Description of Work:**  
 PLUG JOB

DRLG  COMP  W/O  LOE  GG

Account	8200.145
Well/Project	
Approval	bls
Description	

Services / Items Included:	Quantity	Price	Taxable
Labor		\$ 991.39	Yes
Common-Class A	150	\$ 2,042.23	Yes
Bulk Truck Matl-Material Service Charge	259	\$ 562.40	Yes
POZ Mix-Standard	100	\$ 499.43	Yes
Pump Truck Mileage-Job to Nearest Camp	15	\$ 162.53	Yes
Premium Gel (Bentonite)	9	\$ 159.08	Yes
Flo Seal	62	\$ 134.63	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	15	\$ 95.11	Yes

**Item**                      **Quantity**                      **Price**                      **Taxable**

**Invoice Terms:**

Net 30

SubTotal: \$ 4,646.79  
 Discount Available ONLY if Invoice is Paid & Received  
 within listed terms of invoice: \$ (697.02)

SubTotal for Taxable Items:	\$ 3,949.77
SubTotal for Non-Taxable Items:	\$ -
<b>Total:</b>	<b>\$ 3,949.77</b>
<b>Tax:</b>	<b>\$ 248.84</b>

6.30% Ellis County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 4,198.61**  
**Applied Payments:**  
**Balance Due: \$ 4,198.61**

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**

**MAY 10 2013**

**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. 8988

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-2-13	11	15	16	Ellis	KS		2:15 AM
				Location			
				Graham S to Walters Rd, 2 W, 1/2 S, W 2			

Lease	Well No.	Owner	
Legleiter	1-11	To Quality Oilwell Cementing, Inc.	
Contractor		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Val 6			
Type Job		Charge To	
Plug		Samuel Gray and Associates	
Hole Size	T.D.	Street	
7 1/2			
Csg.	Depth	City	
		State	
Tbg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
		Cement Amount Ordered	
Tool	Depth	50 x 6 3/4 4% gel #1 flow	
Cement Left in Csg.	Shoe Joint		

Meas Line	Displace

EQUIPMENT			Common
Pumptrk	No.	Cementer	150
15		Helper	
		Driver	
Bulktrk	No.	Driver	Poz. Mix
10		Loonie M	100
		Driver	Gel.
Bulktrk	No.	Driver	9
PU		Travis	Calcium

JOB SERVICES & REMARKS		Hulls
Remarks:		Salt
Rat Hole	30sx	Flowseal 62#
Mouse Hole	15sx	Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand
First plug 50sx at 3490		Handling 259
#2 25sx at 1025		Mileage

FLOAT EQUIPMENT	
#3 40sx at 900	Guide Shoe
#4 80sx at 430	Centralizer
#5 10sx at 40	Baskets
30sx Rat	AFU Inserts
15sx Mouse	Float Shoe
	Latch Down
	1 wood plug
	Pumptrk Charge
	15 plug
	Mileage

	Tax
	Discount
	Total Charge
X Signature	





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52231

**DST#: 1**

Test Start: 2013.04.29 @ 20:38:01

## GENERAL INFORMATION:

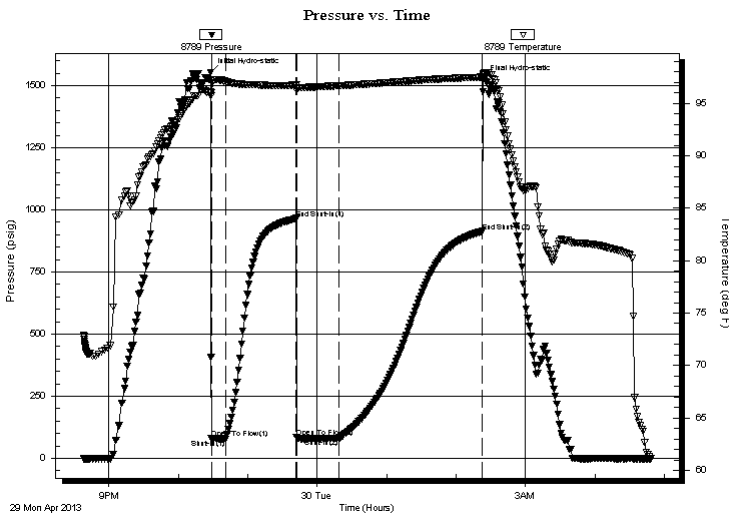
Formation: **D**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 22:28:31  
 Time Test Ended: 04:49:16  
 Interval: **3229.00 ft (KB) To 3247.00 ft (KB) (TVD)**  
 Total Depth: 3247.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 1935.00 ft (KB)  
 1925.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8789 Inside**

Press @ Run Depth: 80.28 psig @ 3231.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.29 End Date: 2013.04.30 Last Calib.: 2013.04.30  
 Start Time: 20:38:03 End Time: 04:49:16 Time On Btm: 2013.04.29 @ 22:28:01  
 Time Off Btm: 2013.04.30 @ 02:23:31

**TEST COMMENT:** IFP-8' Fill, Slid Tool 4" on Open, Dead  
 ISI-Dead  
 FFP-Weak Blow, Built to 1/2"  
 FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1553.37	96.07	Initial Hydro-static
1	78.95	96.03	Open To Flow (1)
13	77.99	97.07	Shut-In(1)
74	965.46	96.74	End Shut-In(1)
74	84.18	96.25	Open To Flow (2)
111	80.28	96.67	Shut-In(2)
235	913.20	97.51	End Shut-In(2)
236	1523.94	97.84	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
130.00	SOCM-0%O-90%M	1.82

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

### DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52231

**DST#: 1**

Test Start: 2013.04.29 @ 20:38:01

#### GENERAL INFORMATION:

Formation: **D**

Deviated: **No** Whipstock: **0.00 ft (KB)**

Time Tool Opened: 22:28:31

Time Test Ended: 04:49:16

Test Type: **Conventional Bottom Hole (Initial)**

Tester: **Jason McLemore**

Unit No: **54**

**Interval: 3229.00 ft (KB) To 3247.00 ft (KB) (TVD)**

Reference Elevations: **1935.00 ft (KB)**

Total Depth: **3247.00 ft (KB) (TVD)**

**1925.00 ft (CF)**

Hole Diameter: **7.80 inches** Hole Condition:

KB to GR/CF: **10.00 ft**

**Serial #: 8289**

**Fluid**

Press @ RunDepth: **psig @ 3194.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2013.04.29**

End Date:

**2013.04.30**

Last Calib.:

**2013.04.30**

Start Time: **20:36:29**

End Time:

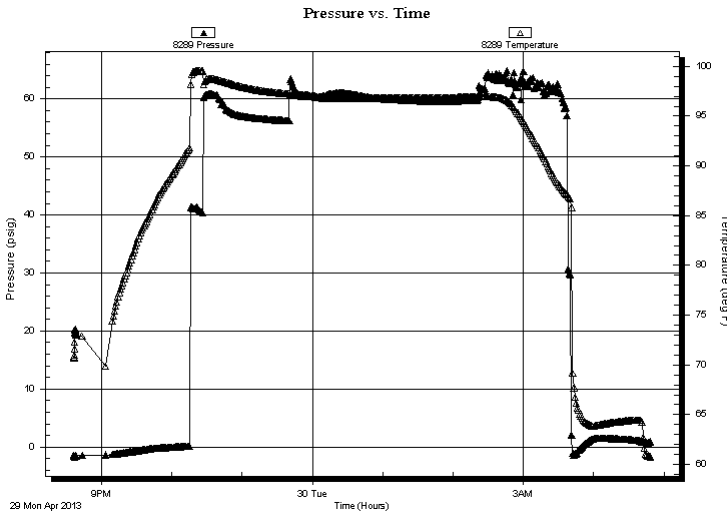
**04:48:12**

Time On Btm:

Time Off Btm:

TEST COMMENT: IFF-8' Fill, Slid Tool 4" on Open, Dead  
ISI-Dead  
FFP-Weak Blow, Built to 1/2"  
FSI-Dead

#### PRESSURE SUMMARY



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

#### Recovery

Length (ft)	Description	Volume (bbl)
130.00	SOCM-0%O-90%M	1.82

#### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52231

**DST#: 1**

Test Start: 2013.04.29 @ 20:38:01

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
130.00	SOCM-0%O-90%M	1.824

Total Length: 130.00 ft      Total Volume: 1.824 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

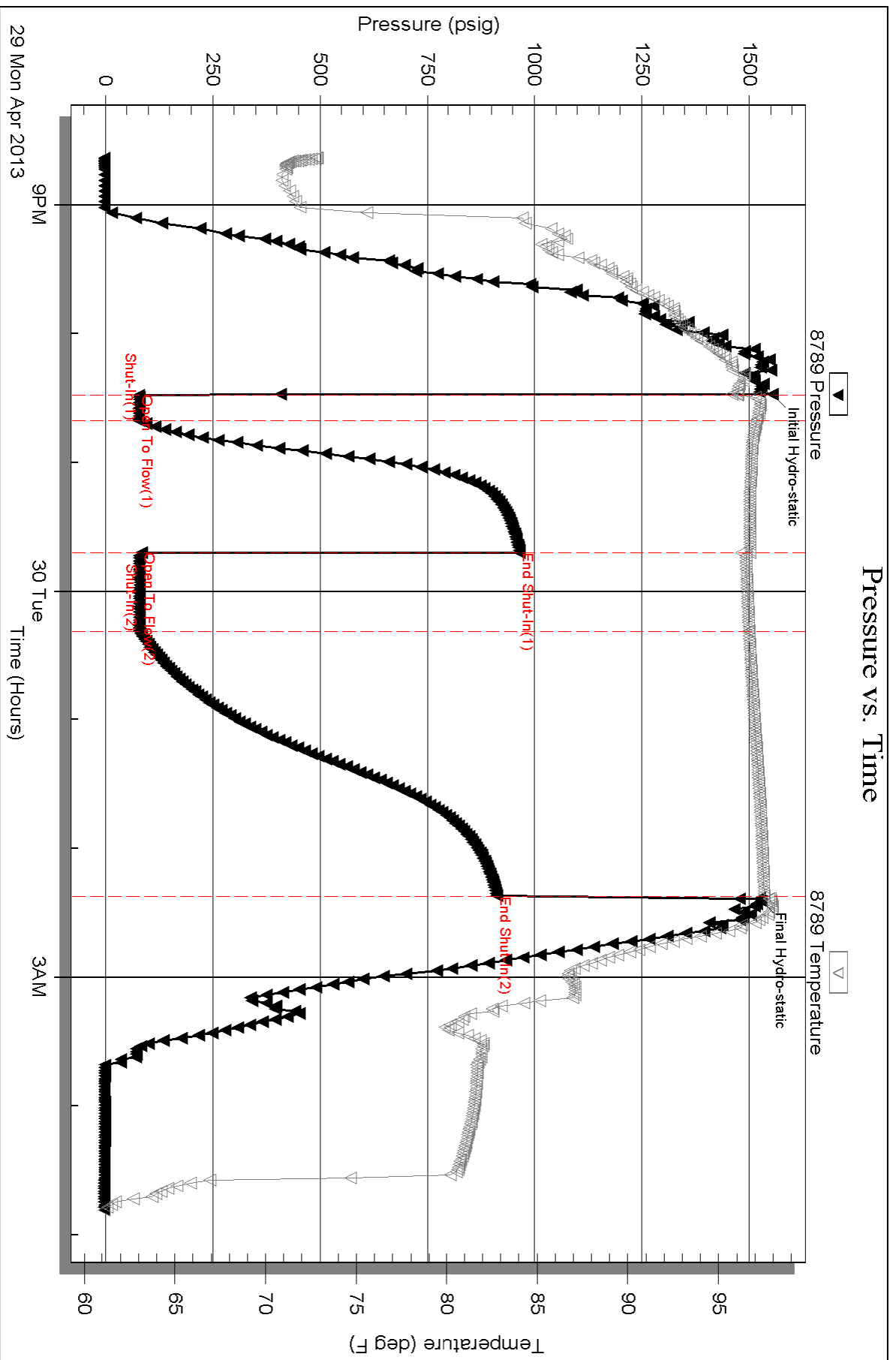
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler-50#,2000ml Oil,1000ml Mud

### Pressure vs. Time



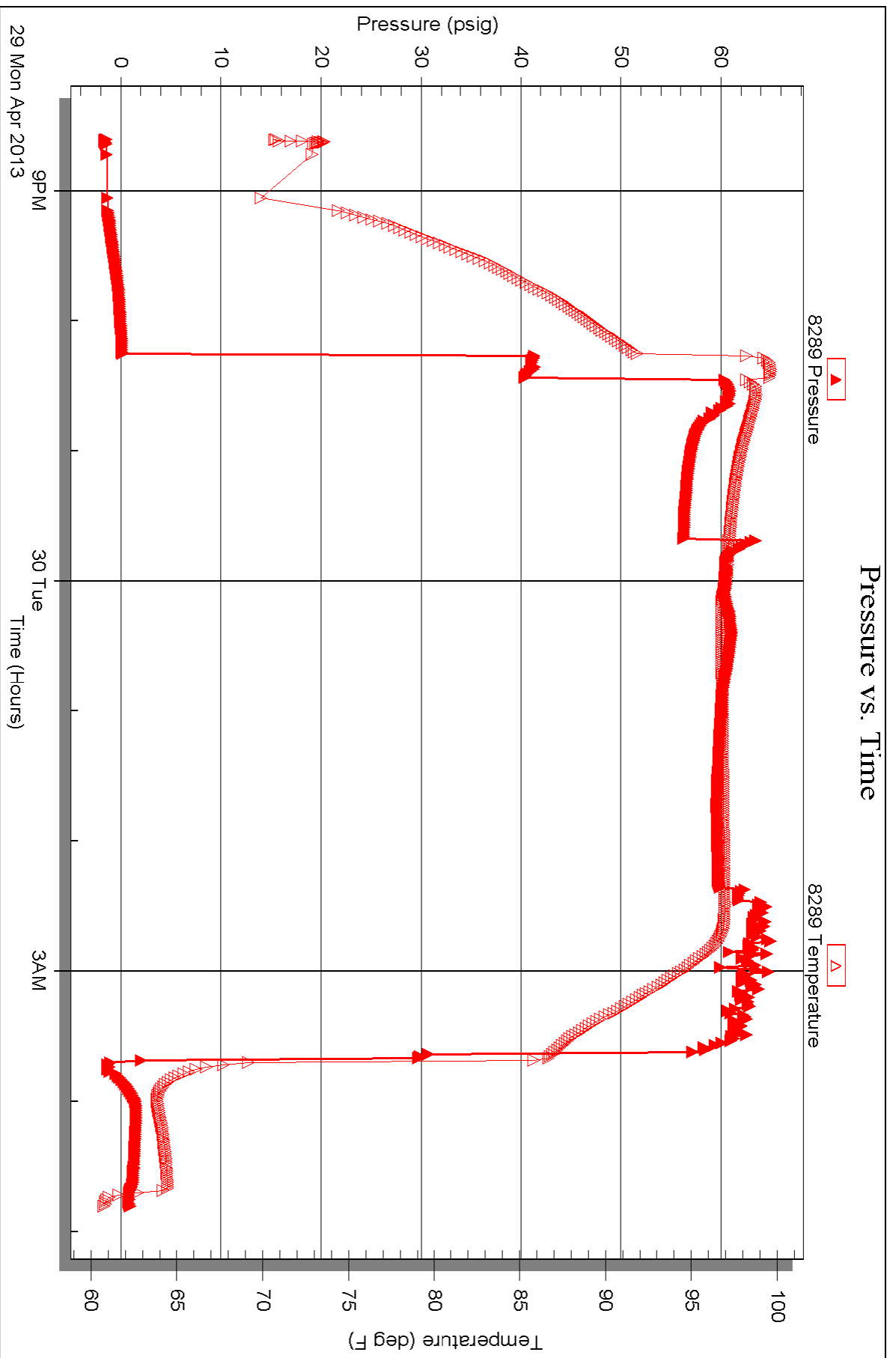
Serial #: 8289

Fluid

Samuel Gary Jr & Associates

Legleiter #1-11

DST Test Number: 1





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52232

**DST#: 2**

Test Start: 2013.04.30 @ 13:40:48

## GENERAL INFORMATION:

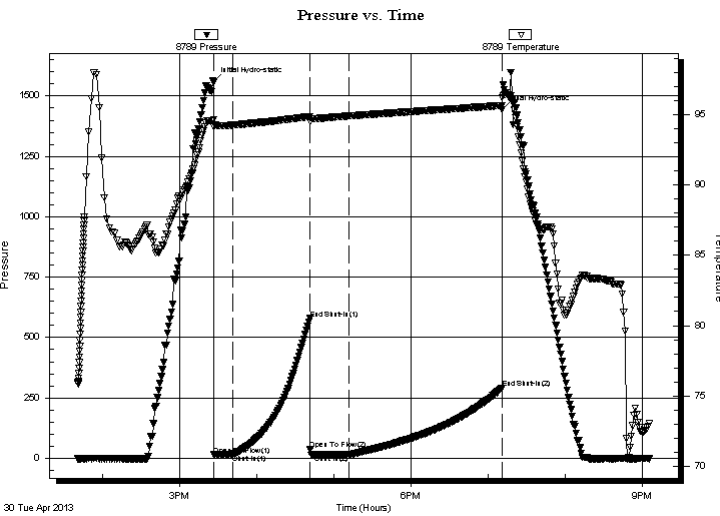
Formation: <b>D</b>			Test Type: Conventional Straddle (Reset)
Deviated: No Whipstock: 0.00 ft (KB)			Tester: Jason McLemore
Time Tool Opened: 15:26:33			Unit No: 54
Time Test Ended: 21:06:18			Reference Elevations: 1935.00 ft (KB)
<b>Interval: 3229.00 ft (KB) To 3248.00 ft (KB) (TVD)</b>			1925.00 ft (CF)
Total Depth: 3274.00 ft (KB) (TVD)			KB to GR/CF: 10.00 ft
Hole Diameter: 7.80 inches	Hole Condition: Fair		

## Serial #: 8789

**Inside**

Press @ Run Depth: 15.18 psig @ 3231.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2013.04.30	End Date: 2013.04.30
Start Time: 13:40:50	End Time: 21:06:18
	Last Calib.: 2013.04.30
	Time On Btm: 2013.04.30 @ 15:26:18
	Time Off Btm: 2013.04.30 @ 19:10:48

**TEST COMMENT:** IFP-Weak Surface Blow , Died in 7 Min.  
ISI-Dead  
FFP-Weak, Built to 2" in 5 Min., Then Died Back, Ending at 1/2"  
FSI-Dead



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1558.48	94.64	Initial Hydro-static
1	13.93	94.15	Open To Flow (1)
15	16.23	94.27	Shut-In(1)
75	578.57	94.88	End Shut-In(1)
76	37.12	94.55	Open To Flow (2)
106	15.18	94.91	Shut-In(2)
225	290.24	95.66	End Shut-In(2)
225	1443.79	96.23	Final Hydro-static

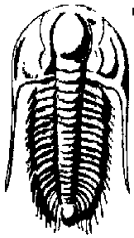
## Recovery

Length (ft)	Description	Volume (bbl)
7.00	V SOCM-3%O-97%M	0.10

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52232

**DST#: 2**

Test Start: 2013.04.30 @ 13:40:48

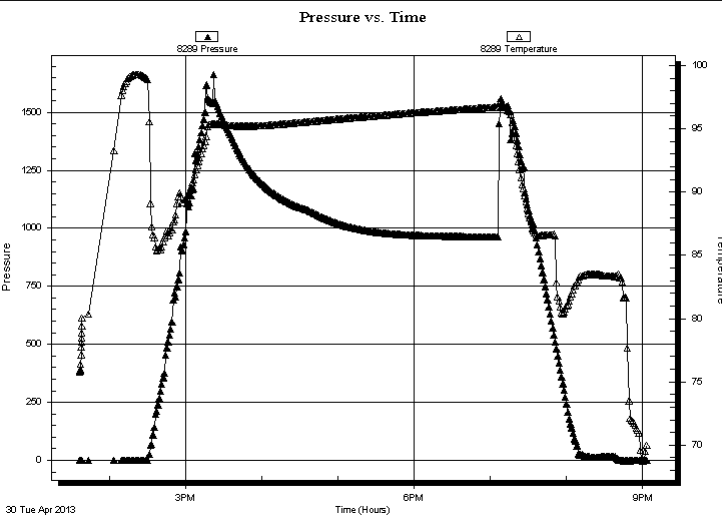
**GENERAL INFORMATION:**

Formation: **D**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 15:26:33  
 Time Test Ended: 21:06:18  
 Test Type: Conventional Straddle (Reset)  
 Tester: Jason McLemore  
 Unit No: 54  
 Interval: **3229.00 ft (KB) To 3248.00 ft (KB) (TVD)**  
 Reference Elevations: 1935.00 ft (KB)  
 Total Depth: 3274.00 ft (KB) (TVD)  
 1925.00 ft (CF)  
 Hole Diameter: 7.80 inches  
 Hole Condition: Fair  
 KB to GR/CF: 10.00 ft

**Serial #: 8289 Below (Straddle)**

Press @ Run Depth: psig @ 3271.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.30 End Date: 2013.04.30 Last Calib.: 2013.04.30  
 Start Time: 13:36:16 End Time: 21:03:14 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IFP-Weak Surface Blow, Died in 7 Min.  
 ISI-Dead  
 FFP-Weak, Built to 2" in 5 Min., Then Died Back, Ending at 1/2"  
 FSI-Dead



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
7.00	VSOCM-3%O-97%M	0.10

\* Recovery from multiple tests

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52232

**DST#: 2**

Test Start: 2013.04.30 @ 13:40:48

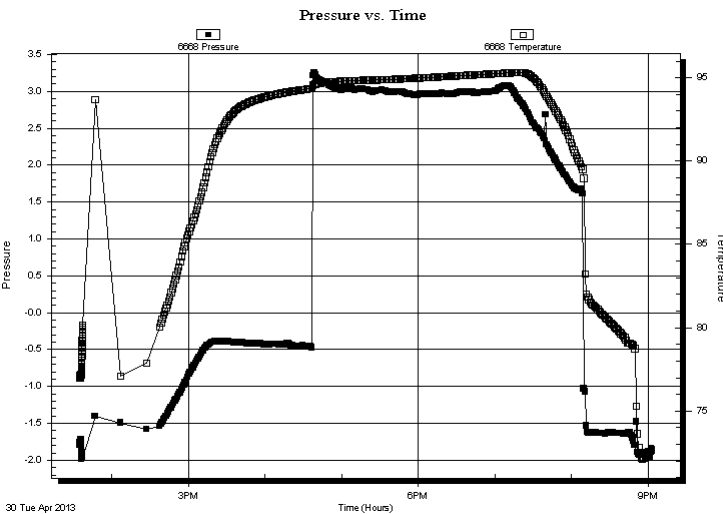
## GENERAL INFORMATION:

Formation: **D**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 15:26:33  
 Time Test Ended: 21:06:18  
 Interval: **3229.00 ft (KB) To 3248.00 ft (KB) (TVD)**  
 Total Depth: 3274.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Reset)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 1935.00 ft (KB)  
 1925.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 6668 Fluid

Press @ RunDepth: psig @ 3194.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.30 End Date: 2013.04.30 Last Calib.: 1899.12.30  
 Start Time: 13:35:01 End Time: 21:02:30 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IFP-Weak Surface Blow, Died in 7 Min.  
 ISI-Dead  
 FFP-Weak, Built to 2" in 5 Min., Then Died Back, Ending at 1/2"  
 FSI-Dead



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
7.00	V SOCM-3%O-97%M	0.10

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE**  
**TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52232

**DST#: 2**

Test Start: 2013.04.30 @ 13:40:48

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 7.18 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 4400.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	VSOCM-3%O-97%M	0.098

Total Length: 7.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

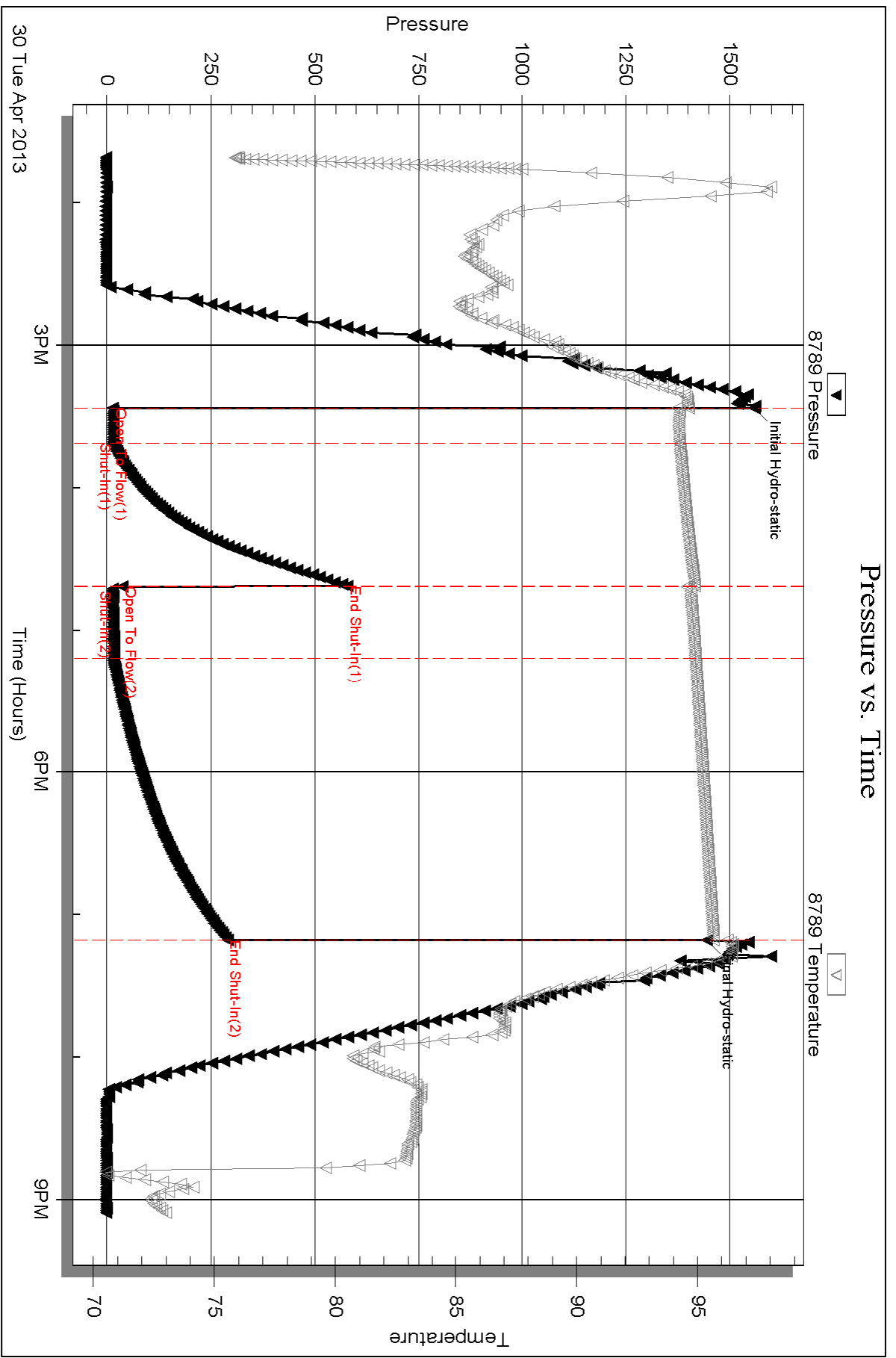
Num Gas Bombs: 0

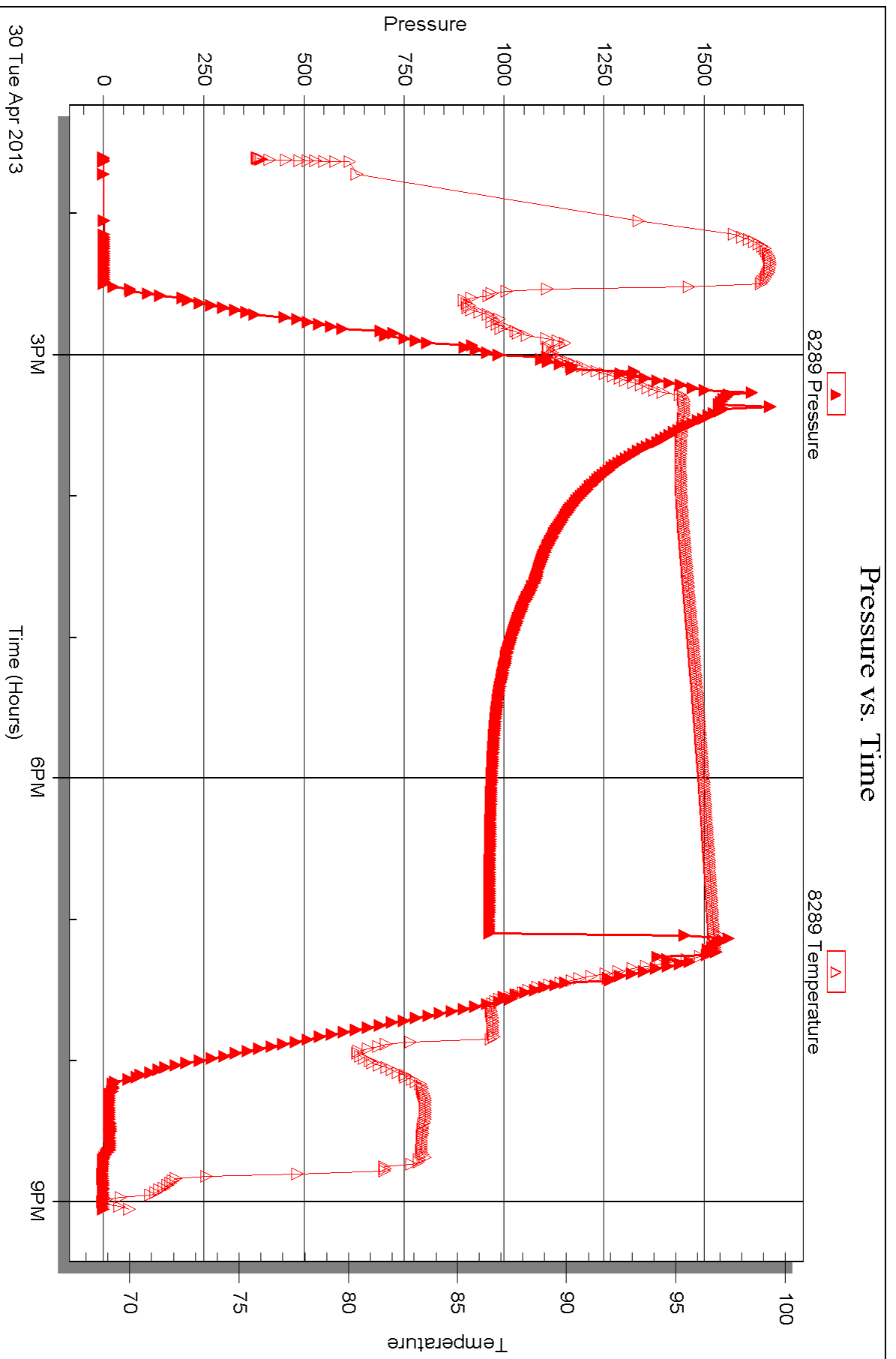
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler-55#-2500ml Oil-500ml Mud





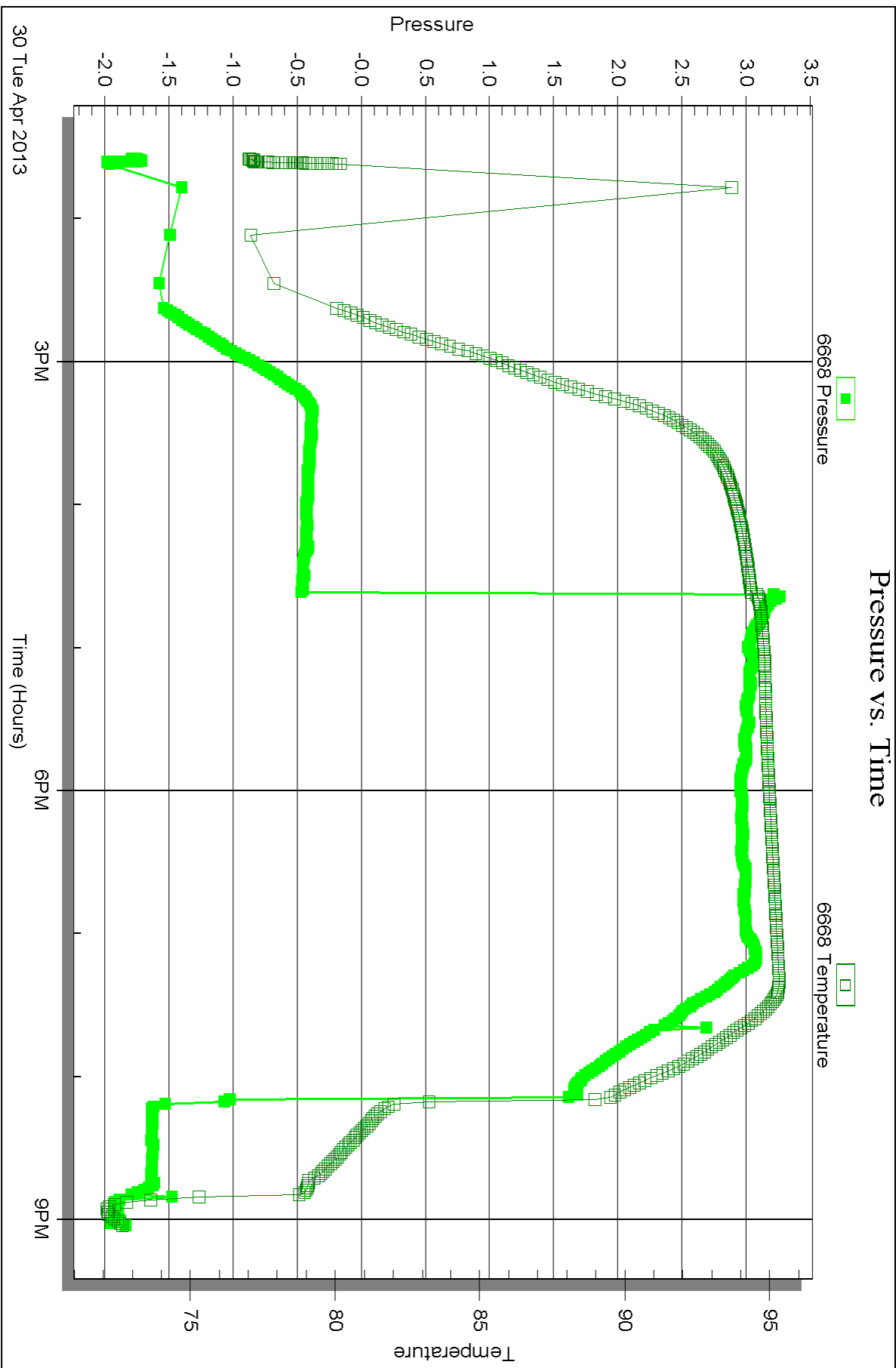
Serial #: 6668

Fluid

Samuel Gary Jr & Associates

Legleiter #1-11

DST Test Number: 2





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52233

**DST#: 3**

Test Start: 2013.05.01 @ 05:16:14

## GENERAL INFORMATION:

Formation: **G**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 07:30:29  
 Time Test Ended: 12:29:44  
 Interval: **3276.00 ft (KB) To 3314.00 ft (KB) (TVD)**  
 Total Depth: 3314.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jason McLemore  
 Unit No: 54  
 Reference Elevations: 1935.00 ft (KB)  
 1925.00 ft (CF)  
 KB to GR/CF: 10.00 ft

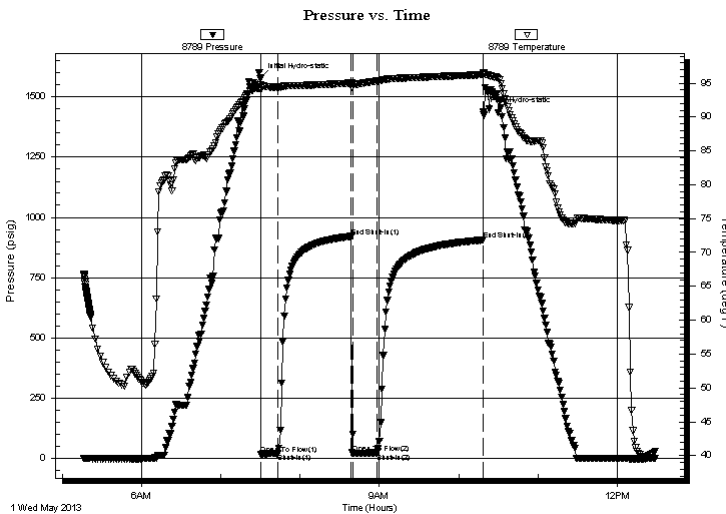
## Serial #: 8789

Inside

Press @ Run Depth: 22.22 psig @ 3278.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.05.01 End Date: 2013.05.01 Last Calib.: 2013.05.01  
 Start Time: 05:16:16 End Time: 12:29:44 Time On Btm: 2013.05.01 @ 07:30:14  
 Time Off Btm: 2013.05.01 @ 10:18:44

TEST COMMENT: IFP-Weak Surface Blow  
 ISI-Dead  
 FFP-Dead  
 FSI-Dead

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1580.39	94.81	Initial Hydro-static
1	14.34	94.02	Open To Flow (1)
13	18.92	94.38	Shut-In(1)
69	920.74	95.02	End Shut-In(1)
70	21.23	94.81	Open To Flow (2)
88	22.22	95.30	Shut-In(2)
169	906.14	96.24	End Shut-In(2)
169	1437.17	96.59	Final Hydro-static

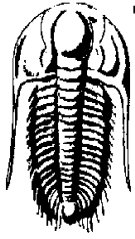
## Recovery

Length (ft)	Description	Volume (bbl)
10.00	VSOCWM-2%O-15%W-83%M	0.14

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52233

**DST#: 3**

Test Start: 2013.05.01 @ 05:16:14

**GENERAL INFORMATION:**

Formation: **G**  
 Deviated: No Whipstock: 0.00 ft (KB)  
 Time Tool Opened: 07:30:29  
 Time Test Ended: 12:29:44  
 Interval: **3276.00 ft (KB) To 3314.00 ft (KB) (TVD)**  
 Total Depth: 3314.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches  
 Hole Condition: Good

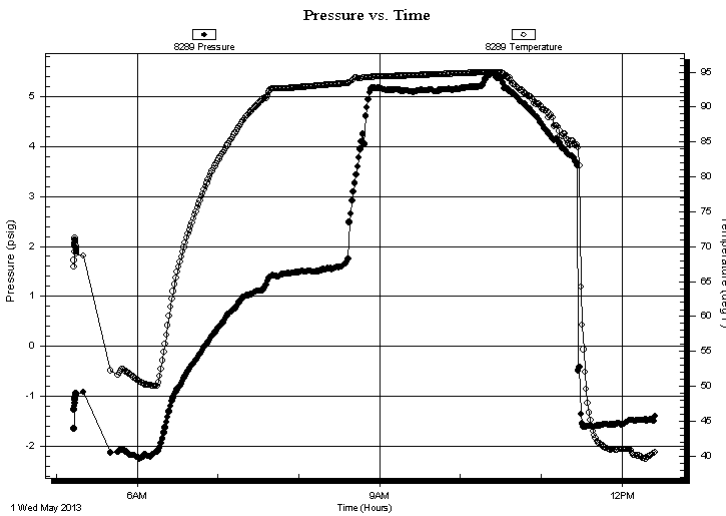
Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jason McLemore  
 Unit No: 54

Reference Elevations: 1935.00 ft (KB)  
 1925.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8289 Fluid**

Press @ Run Depth: psig @ 3241.00 ft (KB)  
 Start Date: 2013.05.01 End Date: 2013.05.01 Capacity: 8000.00 psig  
 Start Time: 05:12:55 End Time: 12:25:23 Last Calib.: 2013.05.01  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IFP-Weak Surface Blow  
 ISI-Dead  
 FFP-Dead  
 FSI-Dead



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

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	VSOCWM-2%O-15%W-83%M	0.14

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Samuel Gary Jr & Associates

**11-15s-16w-Ellis**

1515 Wynkoop  
Suite 700  
Denver, CO. 80202  
ATTN: Chris Mitchell

**Legleiter #1-11**

Job Ticket: 52233

**DST#: 3**

Test Start: 2013.05.01 @ 05:16:14

## 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:	34000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4400.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

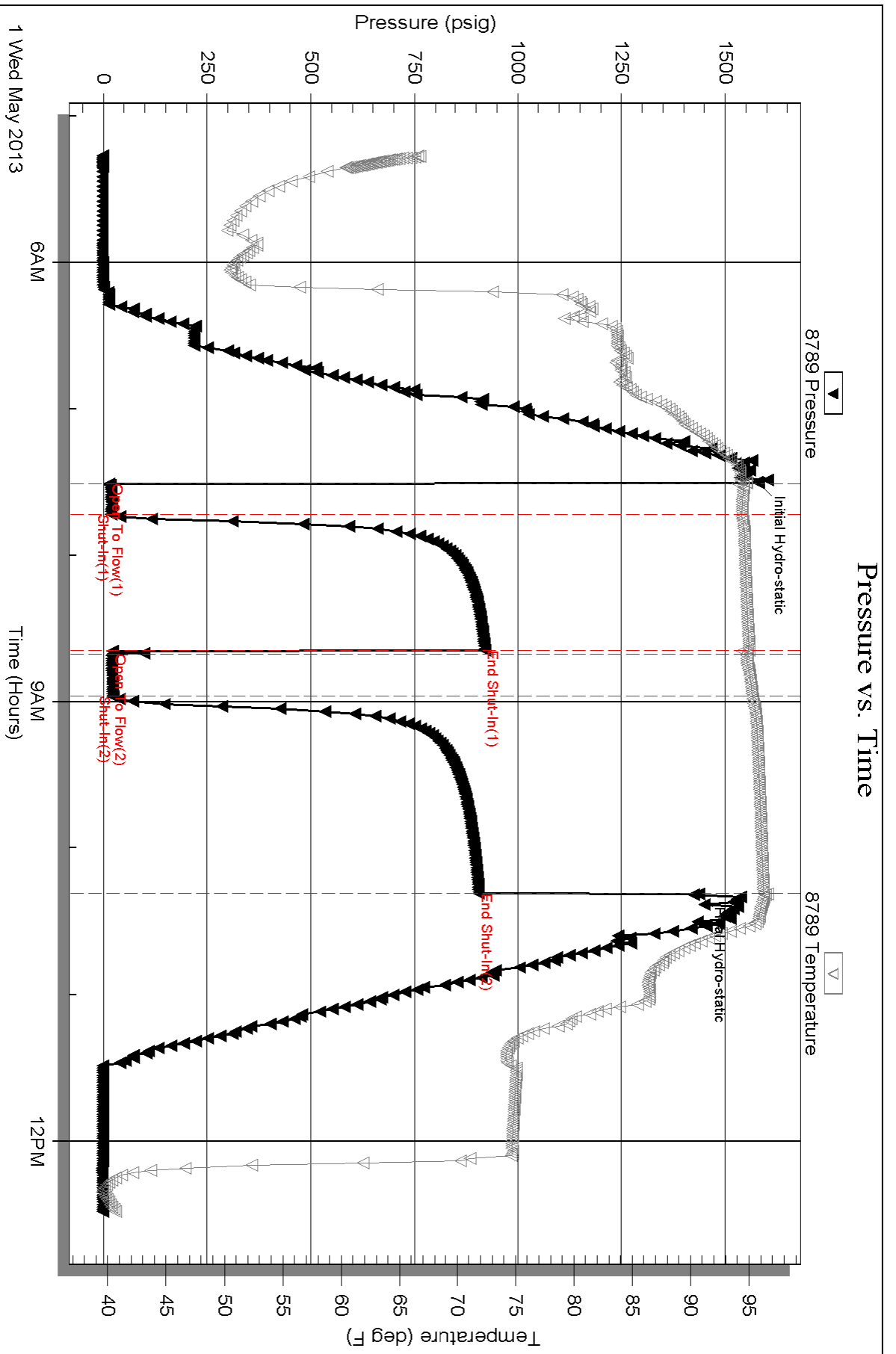
Length ft	Description	Volume bbl
10.00	VSOCWM-2%O-15%W-83%M	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: Sampler-110#-50%Water-50%Mud





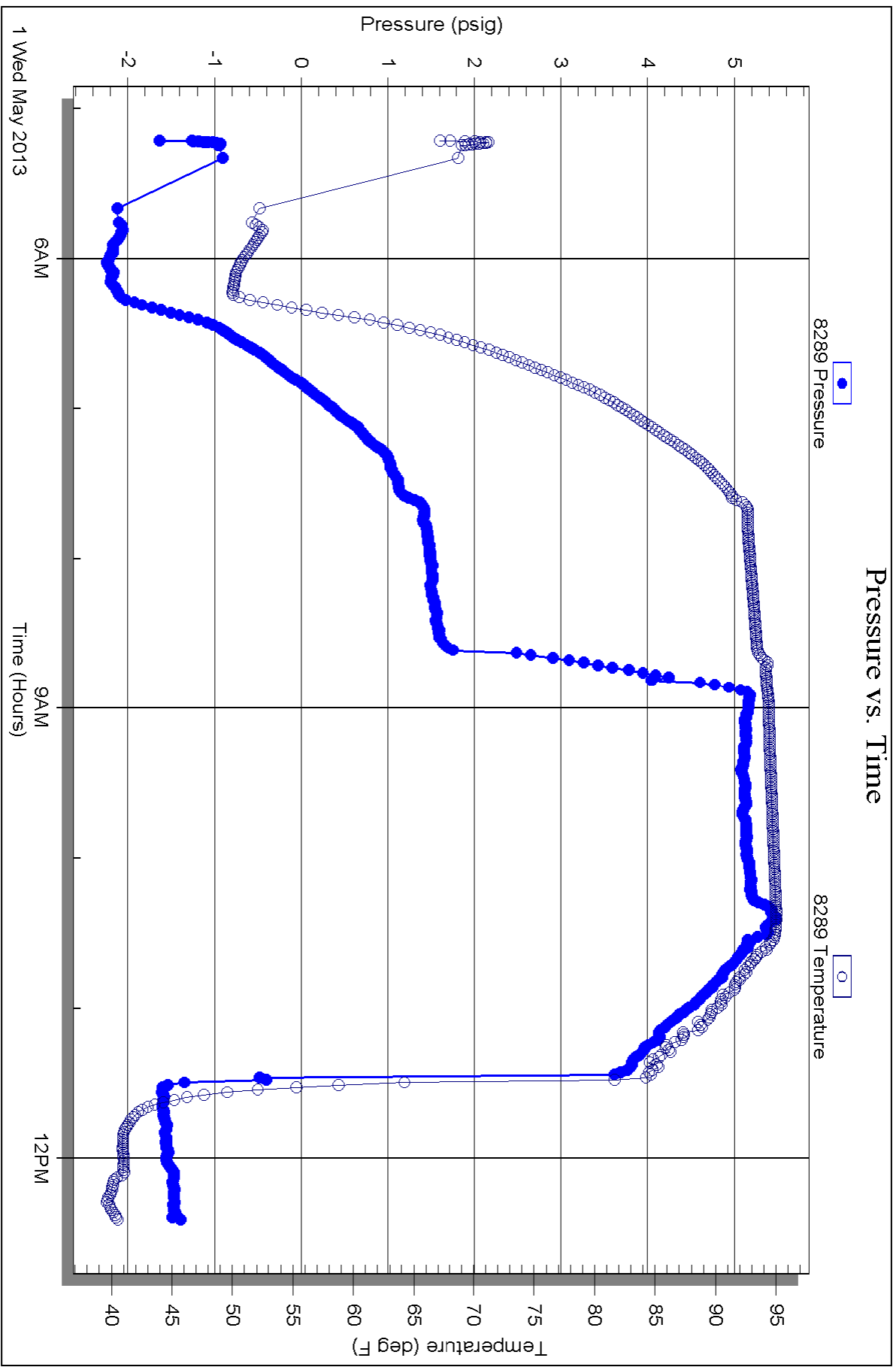
Serial #: 8289

Fluid

Samuel Gary Jr & Associates

Legleiter #1-11

DST Test Number: 3





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

Well Name: Legleiter 1-11  
 Location: Sec. 11-15S-16W Ellis County, Kansas  
 License Number: 15-051-26513-0000  
 Spud Date: Apr. 26, 2013  
 Surface Coordinates: 2090 FNL/ 550 FEL  
 Region: WILDCAT  
 Drilling Completed: May.2 , 2013

Bottom Hole Coordinates:  
 Ground Elevation (ft): 1925' K.B. Elevation (ft): 1935'  
 Logged Interval (ft): 2875' To: 3610' Total Depth (ft): 3610'  
 Formation:  
 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: 1515 Wynkoop, Ste. # 700  
 Denver, Colo. 80202  
 Geo: Chris Mitchell

**GEOLOGIST**

Name: Aaron Suelter  
 Company: Earth Tech OGL, Inc.  
 Address: PO Box 683  
 Hooker, Okla . 73945  
 Off. 888-543-8378 Cell: 620-600-0777

**DST's Report**

DST#1 3229'-3247' 10 60 40 120  
 IF- 8' FILL, SLID 4', DEAD/ ISI- DEAD/ FF- WEAK BLOW, BUILT TO 1/2"/ FSI- DEAD  
 IH-1553, FH- 1524/ IF-79 TO 84/ FF- 78 TO 80/ ISI- 965, FSI- 913  
 RECOVERY- 130' SOCM 10% OIL, 90% MUD  
 SAMPLER- 2000ML OIL, 1000 ML MUD 3000 ML TOTAL

**DST's Report**

DST#2- 3229'-3248' 10 60 30 120  
 IF- WEAK SURFACE BLOW, DIED IN 7 MINS/ ISI- DEAD/ FF- WEAK BLOW, BUILT TO 2" IN 5 MIN, DIED BACK TO 1/2" BY END/ FSI- DEAD  
 IH- 1558, FH- 1444/ IF- 14 TO 37/ FF- 16 TO 15/ ISI- 579, FSI- 290  
 RECOVERY- 7' VSOCM 3% OIL, 97% MUD  
 SAMPLER- 2500 ML OIL, 500 ML MUD, 3000 ML TOTAL

**DST's Report**

DST#3- 3276'-3314' 10 60 20 80  
 IF- WEAK SURFACE BLOW/ ISI- DEAD/ FF- DAED/ FSI- DEAD  
 IH- 1580, FH- 1437/ IF- 14 TO 21/ FF- 19 TO 22/ ISI- 921, FSI- 906  
 RECOVERY- 10' VSOCWM 2% OIL, 15% WATER, 83% MUD

**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**

**MINERAL**

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brefracg
- 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
- Slty

**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
- Sandyms
- Sh
- Sltstn

**TEXTURE**

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

**OTHER SYMBOLS**

**POROSITY TYPE**

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

**SORTING**

- Well
- Moderate
- Poor

**ROUNDING**

- Rounded
- Subrnd
- Subang

- Angular

**OIL SHOWS**

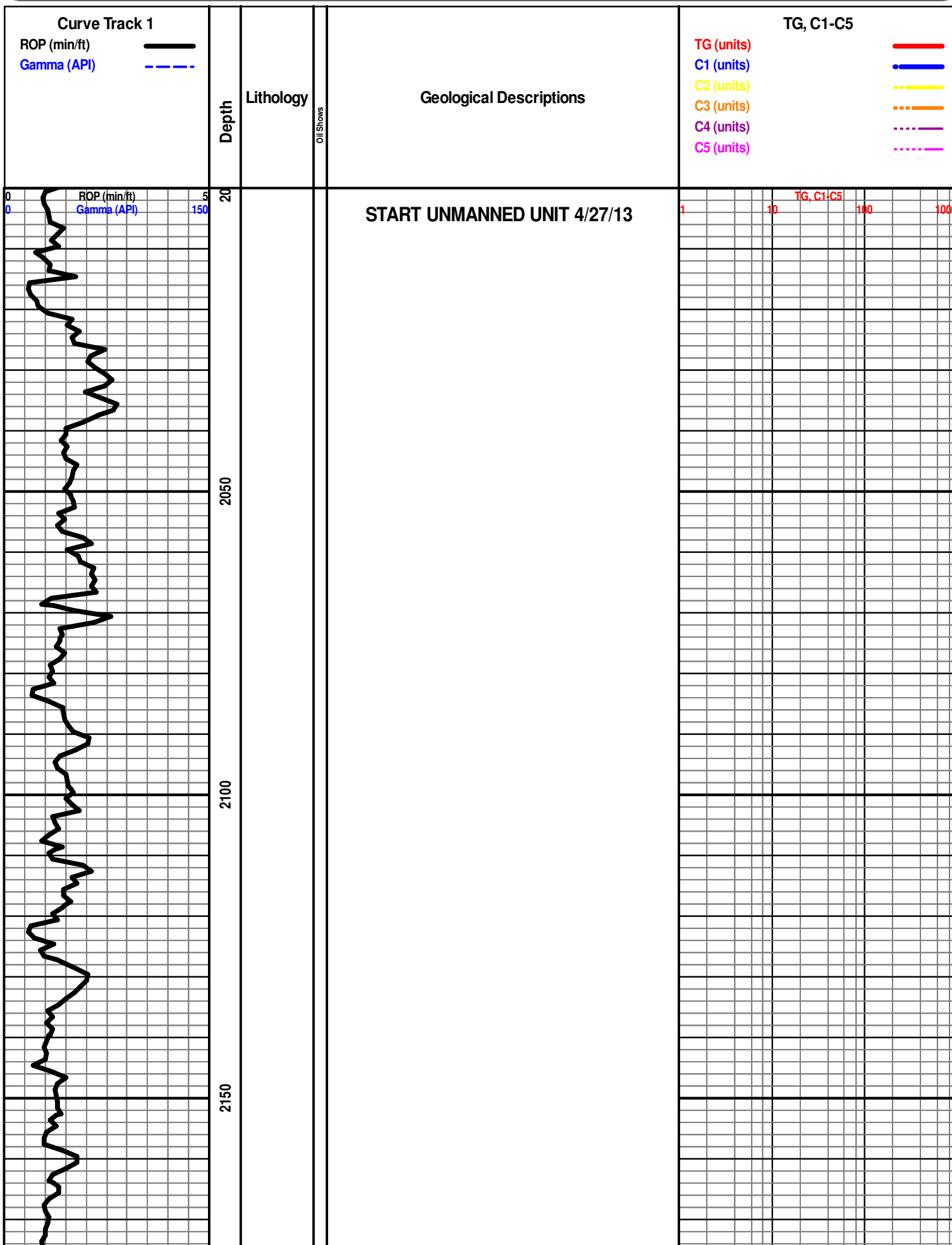
- Even
- Spotted
- Ques
- Dead
- Gas show

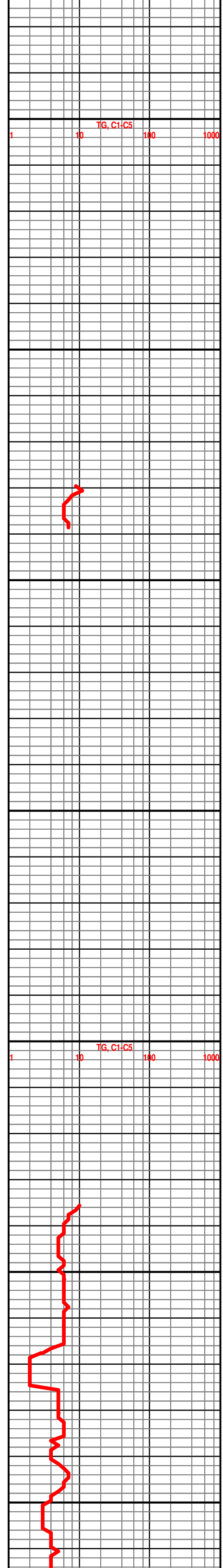
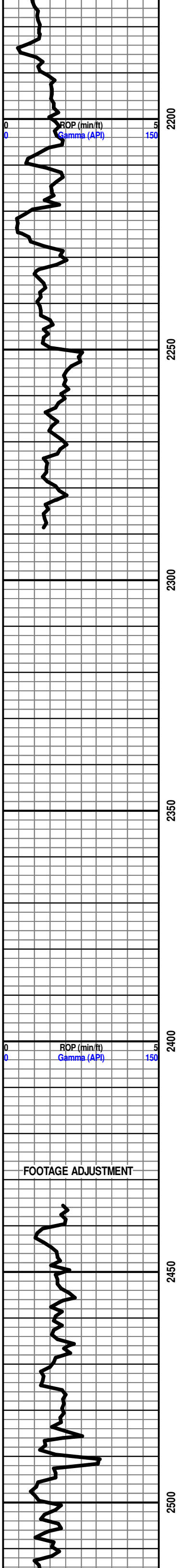
**INTERVALS**

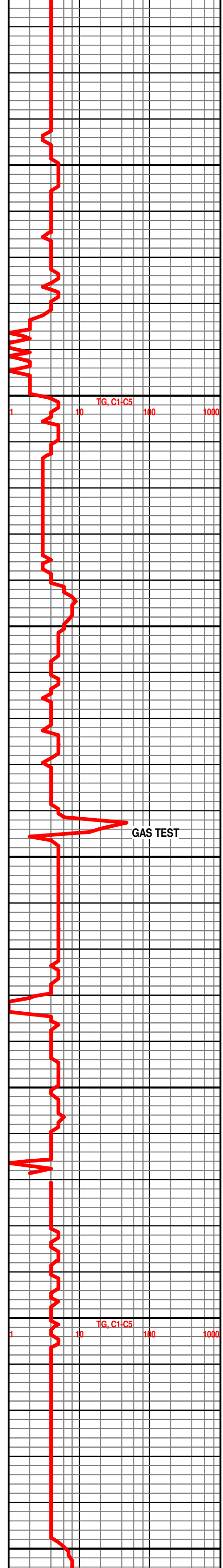
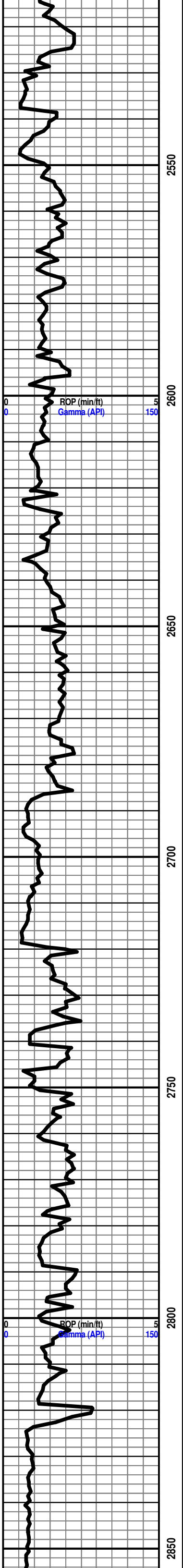
- Core
- Dst
- Dst

**EVENTS**

- Rft
- Sidewall







HOWARD 2856' -921'

START 24 HOUR MANNED UNIT 4/28/13

LS- LT TN TO TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, S-CHLKY IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TN TO TN, HD DNS TO BRIT, F XLN SUCRO MTRX, RE-XLN IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

SEVERY 2901' -966'

SH- RED BRWN LT GY TO GY, FRM BLKY, SMTH TXT

TOPEKA 2920' -985'

LS- OFF WHT TO CRM, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SCAT IMBD FOSS FRG IP, NO VIS FLO, PR INTR XLN PR IN 1%, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO V/ BRIT, F XLN SUCRO MTRX, S-CHLKY, SCAT IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TO GY, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, RE-XLN IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TN TO TN, HD DNS TO BRIT IP, F TO MD XLN RE-XLN MTRX, S-SUCRO, SCAT IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO BRIT, F TO MD XLN RE-XLN MTRX, S-SUCRO, S-CHLKY IP, SCAT IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO BRIT, F TO MD XLN RE-XLN MTRX, S-SUCRO, S-CHLKY IP, SCAT IMBD FOSS FRG THRU, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO GY, FRM BLKY, SMTH TXT

LE COMPTON 3011' -1076'

LS- CRM TO LT TN, HD DNS TO BRIT, F TO MD XLN SUCRO MTRX, S-CHLKY, ABDT IMBD FOSS FRG THRU, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- WHT TO OFF WHT, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, SCAT IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, SCAT IMBD FOSS FRG IP, SLI TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TO TN TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG THRU, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TN TO TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, RE-XLN IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- LT TN TO TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, RE-XLN IP, S-CHLKY IP, SCAT IMBD FOSS FRG IP, SLI TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SCAT IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TO TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY, SCAT IMBD FOSS FRG IP, SLI TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

HEEBNER 3138' -1203'

SH- BLCK, SFT, CARB

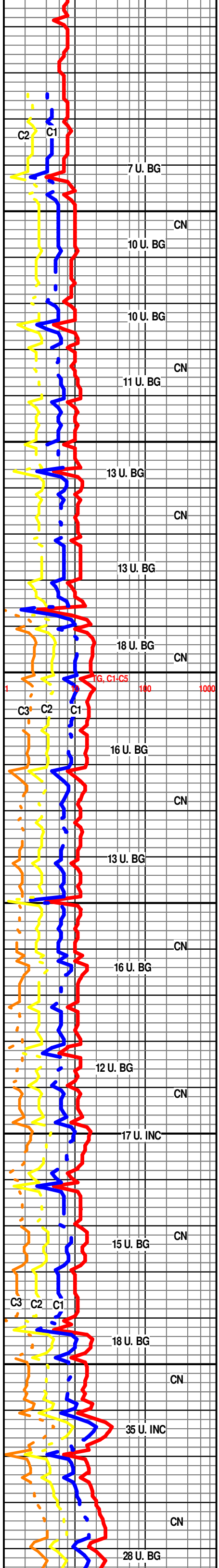
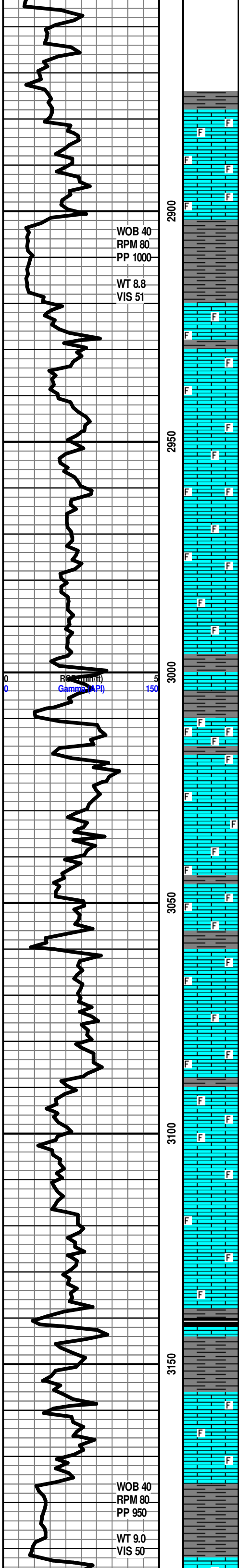
SH- GRN BRW TO GY, FRM BLKY, SMTH TXT

LS- OFF WHT TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, TR SCAT IMBD FOSS FRG IP, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

DOUGLAS 3176' -1241'

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

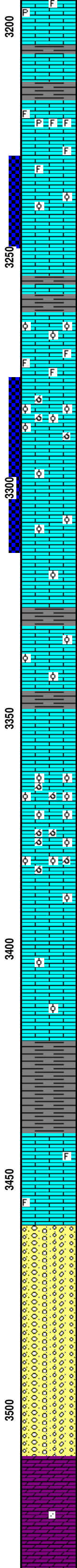
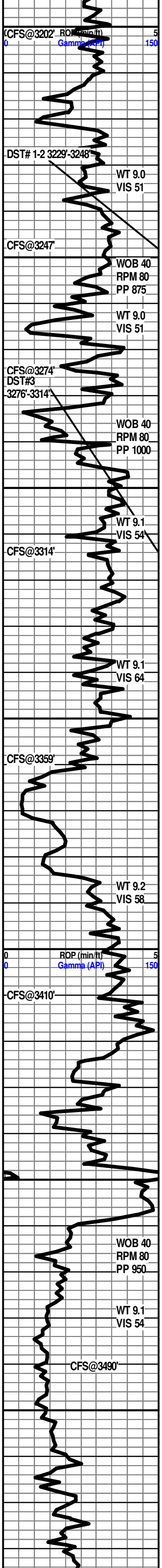
LANSING 3192' -1257'



WOB 40  
RPM 80  
PP 1000  
  
WT 8.8  
VIS 51

0  
0  
Gamma (API)  
150

WOB 40  
RPM 80  
PP 950  
  
WT 9.0  
VIS 50



3194'-3196' LS- OFF WHT TO CRM W/ TN OIL STN IN 60%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, TR IMBD FOSS FRG IP, SLI TR IMBD PYR IP, DUL YEL GLD FLO IN 60%, TT PP POR IN 4%, FR FLSH CUT IN 60%, PR TO FR SLW STRM IN 60%, LT TN LCH ON DISH

**LANSING "C" 3216' -1281'**

3219'-3221' LS- OFF WHT TO LT TN W/ LT TN OIL STN IN 25%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, S-CHLKY, IMBD FOSS FRG IP, SLI TR IMBD PYR IP, DUL YEL GLD FLO IN 30%, PR TO FR INTR XLN POR IN 4%, FR FLSH CUT IN 30%, PR TO FR SLW STRM IN 25%, NO LCH ON DISH

3237'-3239' LS- OFF WHT TO LT TN W/ LT TN TO TN OIL STN IN 40%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY, IMBD OOL IP, BRT YEL GLD FLO IN 40%, PR TO F INTR OOL POR IN 3%, PR TO FR INTR XLN POR IN 2%, FR TO GD FLSH CUT IN 40%, FR TO GD SLW STRM IN 40%, LT TN LCH ON DISH

**LANSING "F" 3261' -1326'**

LS- CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN CHLKY MTRX, S-SUCRO IP, ABDT IMBD OOL IP, SFT WHT CHLK IN TRAY, NO VIS FLO, PR TO FR INTR OOL POR IN 3%, NO VIS SHOW

3283'-3285' LS- CRM TO LT TN W/ LT TN TO TN OIL STN IN 50%, L HD DNS TO BRIT IP, V/F TO F XLNS SUCRO MTRX, ABDT IMBD OOL THRU, ABDT OOLMLD THRU, DUL YEL GLD FLO IN 50%, FR OOLMLD POR IN 5%, PR TO FR INTR OOL POR IN 2%, FR TO GD VUG POR IN 2%, GD FLSH CUT IN 50%, FR TO GD SLW STRM IN 50%, TN LCH ON DISH, FR OIL ODOR

LS- CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, SCAT IMBD OOL IP, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

**LANSING "H" 3329' -1394'**

LS- LT TN TO LT GY, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, TR SCAT IMBD OOL IP, TR SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- GY TO DK GY, FRM BLKY, SMTH TXT

LS- LT TN TO LT GY, HD DNS TO V/BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY, ABDT SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW, SULFUR ODOR

3365'-3372' LS- LT TN TO TN W/ TN OIL STN IN 30%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, ABDT OOLMLD THRU, SFT WHT CHLK IN TRAY, DUL YEL GLD FLO IN 30%, GD TO V/GD OOLMLD POR IN 5%, FR INTR OOL POR IN 3%, FR FLSH CUT IN 30%, FR TO GD SLW STRM IN 30%, NO LCH ON DISH, SULFUR ODOR

3389'-3384' LS- LT TN TO TN W/ LT TN OIL STN IN 50%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, ABDT OOLMLD THRU, BRT YEL GLD FLO IN 50%, FR TO GD OOLMLD POR IN 5%, FR VUG POR IN 1%, PR TO FR FLSH CUT IN 50%, PR TO FR SLW STRM IN 50%, NO LCH ON DISH

LS- LT TN TO TN, HD DNS, V/F TO F XLN SUCRO MTRX, SCAT IMBD OOL IP, SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

**BKC 3419' -1484'**

SH- GREEN RED TO GY, FRM BLKY, SMTH TXT

LS- CRM TO TN, V/HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, SCAT IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

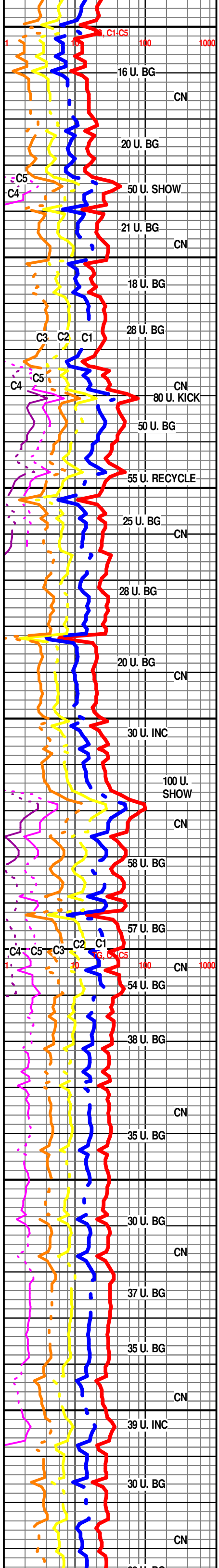
CONG- LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SH- RED GRN TO GY, FRM BLKY TO SFT GMMY, SMTH TO SLTY TXT, CHRT- OFF WHT TO FRSTY

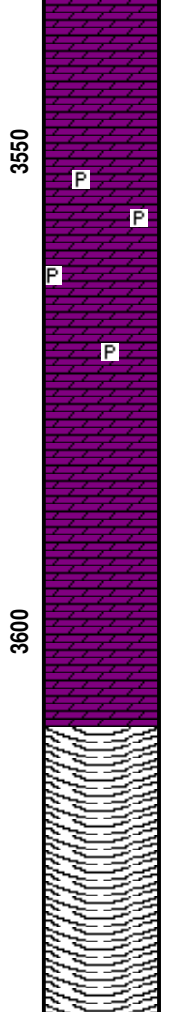
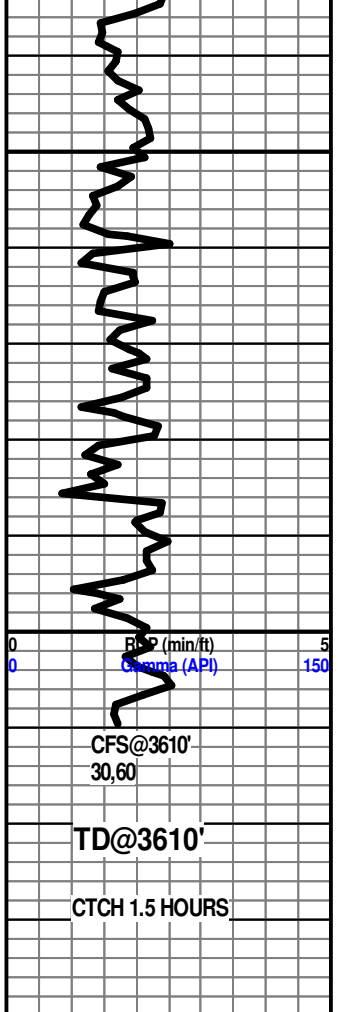
CONG- LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, SH- RED GRN TO GY, FRM BLKY TO SFT GMMY, SMTH TO SLTY TXT, CHRT- OFF WHT FRSTY YEL TO ORNG

**ARBUCKLE 3510' -1575'**

DOLO- CRM TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABDT IMBD F TO SM RND TO S-RND DOLO GRNS THRU, NO VIS FLO, PR INTR XLN POR IN 5%, NO VIS SHOW

DOLO- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD F TO SM RND TO S-RND DOLO





GRNS THRU, SLI TR IMBD S-ANG TO S-RND QRTZ XLS IP, NO VIS FLO, PR INTR GRN POR IN 5%, NO VIS SHOW

DOLO- OFF WHT TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, ABDT IMBD F TO MD RND TO S-ANG DOLO GRNS THRU, NO VIS FLO, PR TO FR INTR GRN POR IN 7%, NO VIS SHOW

DOLO- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD F TO MD RND TO S-ANG DOLO GRNS THRU, NO VIS FLO, PR TO FR INTR GRN POR IN 10%, NO VIS SHOW

DOLO- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD F TO MD RND TO S-ANG DOLO GRNS THRU, IMBD DISS PYR IP, NO VIS FLO, PR TO FR INTR GRN POR IN 10%, NO VIS SHOW

DOLO- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD F TO MD RND TO S-ANG DOLO GRNS THRU, IMBD DISS PYR IP, NO VIS FLO, PR TO FR INTR GRN POR IN 10%, NO VIS SHOW

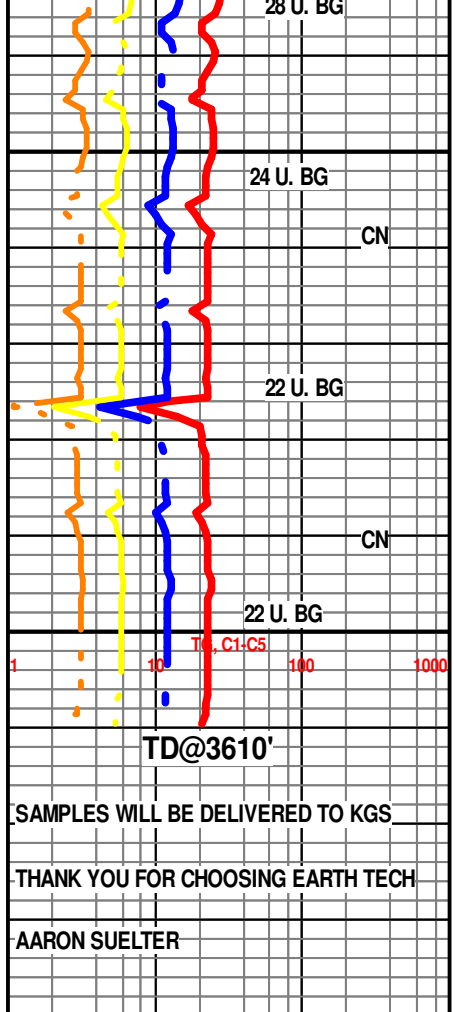
R.T.D. @ 9:40 AM 5/2/13

SHORT TRIP

DROP SURVEY

TOFL

WEATHERFORD/ LIBERAL



CFS@3610'  
30,60

TD@3610'

CTCH 1.5 HOURS

TD@3610'

SAMPLES WILL BE DELIVERED TO KGS

THANK YOU FOR CHOOSING EARTH TECH

AARON SUELTER