



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1145232  
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: \_\_\_\_\_



1145232

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:  Yes  No

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

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

<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> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	OLSON 1-28
Doc ID	1145232

All Electric Logs Run

INDUCTION
MICRO
DEN-NEUT
SONIC
SPECTRAL

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



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

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

June 04, 2013

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

Re: ACO1  
API 15-051-26406-00-00  
OLSON 1-28  
SW/4 Sec.28-15S-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: 2/13/2013  
 Invoice # 6411

P.O.#:

Due Date: 3/15/2013

Division: Russell

# Invoice

**RECEIVED**

**FEB 27 2013**

**SAMUEL GARY JR. & ASSOCIATES, INC.**

DRLG  COMP  W/O  LOE  GG

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

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

**Reference:**  
 OLSON 1-28

**Description of Work:**  
 LONG SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	No				
Common-Class A	400	\$ 5,445.94	Yes				
8 5/8" Basket	3	\$ 1,029.26	Yes				
Bulk Truck Matl-Material Service Charge	422	\$ 916.34	No				
Calcium Chloride	14	\$ 724.43	Yes				
8 5/8" Centralizer	3	\$ 208.46	Yes				
Pump Truck Mileage-Job to Nearest Camp	19	\$ 205.87	No				
Premium Gel (Bentonite)	8	\$ 141.40	Yes				
8 5/8" Top Rubber Plug	1	\$ 115.09	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	19	\$ 120.47	No				
Baffle Plate Aluminum, 8 5/8"	1	\$ 97.71	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 9,996.37

Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,499.46)

SubTotal for Taxable Items: \$ 6,597.95  
 SubTotal for Non-Taxable Items: \$ 1,898.96

Total: \$ 8,496.91

Tax: \$ 415.67

6.30% Ellis County Sales Tax

**Amount Due: \$ 8,912.58**

**Applied Payments:**

**Balance Due: \$ 8,912.58**

**Thank You For Your Business!**

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

Federal Tax I.D.# 20-2886107

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

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

No. 6411

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-13-13	28	15	16	ELLIS	KANSAS		4:45 PM
Lease OLSON				Well No. #1-28		Owner Sam Gary Jr. & Assoc.	
Contractor D.D #2				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job L. SURFACE				Charge To Sam Gary Jr & Assoc.			
Hole Size 12 1/4"		T.D. 852'		Street 1515 WYNKOPD - STE 700			
Csg. 8 5/8" 23LB NEW		Depth 852'		City DENVER State Co. 80202			
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Tool		Depth		Cement Amount Ordered 400 com - 3% - 2% GEL - 1/4 FLO			
Cement Left in Csg.		Shoe Joint 41.74		Meas Line Displace 5 1/2 BBLs			
<b>EQUIPMENT</b>				Common 400			
Pumptrk #15	No.	Cementer		Poz. Mix			
		Helper NICK W.		Gel. 8			
Bulktrk #12	No.	Driver		Calcium 14			
		Driver BILLY K.		Hulls			
Bulktrk Du	No.	Driver		Salt			
		Driver CISCO A.		Flowseal			
<b>JOB SERVICES &amp; REMARKS</b>				Kol-Seal			
Remarks:				Mud CLR 48			
Rat Hole				CFL-117 or CD110 CAF 38			
Mouse Hole				Sand			
Centralizers				Handling 422			
Baskets				Mileage			
D/V or Port Collar				<b>FLOAT EQUIPMENT</b>			
CEMENT DID CIRCULATE!				Guide Shoe			
LIFT PRESSURE @ 400 LBS.				Centralizer 3- 8 5/8"			
PLUG LANNED @ 5 1/2 STEPS. 700 LBS.				Baskets 3- 8 5/8"			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				1- 8 5/8" BAFFLE PLATE			
				1- 8 5/8" RUBBER PLUG			
				Pumptrk Charge Long Surface			
				Mileage 19			
THANK YOU!				Tax			
Signature [Signature]				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: 2/21/2013  
 Invoice # 6439

P.O.#:  
 Due Date: 3/23/2013  
 Division: Russell

# Invoice

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

**RECEIVED**

MAR 01 2013

SAMUEL GARY JR.  
 & ASSOCIATES, INC.

DRLG  COMP  W/C  LOE  GG

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

**Reference:**  
 OLSON 1-28

**Description of Work:**  
 PLUG JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 991.39	Yes				
Common-Class A	135	\$ 1,838.01	Yes				
Bulk Truck Matl-Material Service Charge	233	\$ 505.94	Yes				
POZ Mix-Standard	90	\$ 449.49	Yes				
Pump Truck Mileage-Job to Nearest Camp	19	\$ 205.87	Yes				
Premium Gel (Bentonite)	8	\$ 141.40	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	19	\$ 120.47	Yes				
Flo Seal	50	\$ 108.57	Yes				
Dry Hole Plug	1	\$ 60.80	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 4,421.94  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (663.29)

SubTotal for Taxable Items:	\$ 3,758.65
SubTotal for Non-Taxable Items:	\$ -
<b>Total:</b>	<b>\$ 3,758.65</b>
<b>Tax:</b>	<b>\$ 236.79</b>
<b>Amount Due:</b>	<b>\$ 3,995.44</b>
<b>Applied Payments:</b>	
<b>Balance Due:</b>	<b>\$ 3,995.44</b>

6.30% Ellis County Sales Tax

**Thank You For Your Business!**

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

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 6439

Date	2-18-13	Sec.	28	Twp.	15	Range	16	County	Ellis	State	KS	On Location	3:30 PM	Finish	7:00 PM				
Location								Waller W to 370 S to Schuch RD & W N 10 <sup>th</sup>											
Lease	Olson				Well No.	1-28				Owner									
Contractor	Discovek 2				To Quality Oilwell Cementing, Inc.						You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.								
Type Job	Plug				Charge To						Sam Gary Jr & Assoc.								
Hole Size					T.D.	3428				Street									
Csg.	Pill Pipe				Depth						City								
Tbg. Size					Depth						State								
Tool					Depth						The above was done to satisfaction and supervision of owner agent or contractor.								
Cement Left in Csg.					Shoe Joint						Cement Amount Ordered								
Meas Line												Displace				1/4 flow			
<b>EQUIPMENT</b>																			
Pumptrk	5	No.	Cementer		Helper		MAH		Common										
Bulktrk	10	No.	Driver		Driver		Brett		Poz. Mix										
Bulktrk	10	No.	Driver		Driver		Kennele MA		Gel.										
<b>JOB SERVICES &amp; REMARKS</b>																			
Remarks:								Olson 1-28								Hulls			
Rat Hole																Salt			
Mouse Hole								30 SX								Flowseal			
Centralizers								15.5+								Kol-Seal			
Baskets																Mud CLR 48			
D/V or Port Collar																CFL-117 or CD110 CAF 38			
																Sand			
																Handling			
																233			
																Mileage			
																<b>FLOAT EQUIPMENT</b>			
																Guide Shoe			
																Centralizer			
																Baskets			
																AFU Inserts			
																Float Shoe			
																Latch Down			
																Wood Plug			
																Pumptrk Charge			
																Mileage			
																19 Plug			
Signature												Tax							
												Discount							
												Total Charge							

X Signature *Paul W. ...*





## DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr & Assoc. Inc.**

1515 Wynkoop STE 700  
Denver CO 80202

ATTN: Chris Mitchell

**Olson #1-28**

**28-15s-16w Ellis,KS**

Start Date: 2013.02.18 @ 02:54:05

End Date: 2013.02.18 @ 10:50:20

Job Ticket #: 51480                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.02.27 @ 10:22:35



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Sam Gary Jr & Assoc. Inc.

**28-15s-16w Ellis,KS**

1515 Wynkoop STE 700  
Denver CO 80202

**Olson #1-28**

Job Ticket: 51480

**DST#: 1**

ATTN: Chris Mitchell

Test Start: 2013.02.18 @ 02:54:05

## GENERAL INFORMATION:

Formation: **LKC "J-K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:47:20

Time Test Ended: 10:50:20

Test Type: Conventional Straddle (Initial)

Tester: Andy Carreira

Unit No: 39

**Interval: 3309.00 ft (KB) To 3359.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3551.00 ft (KB) (TVD)

1861.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8372 Outside**

Press @ Run Depth: 61.83 psig @ 3316.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.02.18

End Date:

2013.02.18

Last Calib.:

2013.02.18

Start Time:

02:54:05

End Time:

10:50:20

Time On Btm:

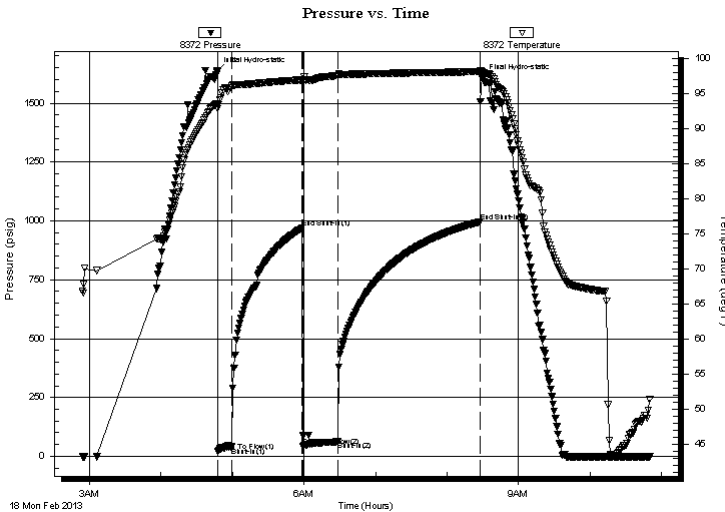
2013.02.18 @ 04:46:50

Time Off Btm:

2013.02.18 @ 08:29:39

**TEST COMMENT:** IF:(10min) 2" blow in 3 min. 3" in 6 min. 4" in 10 min.  
ISl:(60min) No Return  
FF:(30min) 1" blow in 5 min. Surging blow built to 2"  
FSl:(120min) No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1634.95	93.57	Initial Hydro-static
1	19.79	92.84	Open To Flow (1)
13	40.37	96.10	Shut-In(1)
72	969.12	96.98	End Shut-In(1)
73	43.44	96.97	Open To Flow (2)
102	61.83	97.63	Shut-In(2)
221	996.15	98.15	End Shut-In(2)
223	1604.59	98.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	Mud	0.99

## Gas Rates

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









**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Sam Gary Jr & Assoc. Inc.

**28-15s-16w Ellis,KS**

1515 Wynkoop STE 700  
Denver CO 80202

**Olson #1-28**

Job Ticket: 51480

**DST#: 1**

ATTN: Chris Mitchell

Test Start: 2013.02.18 @ 02:54:05

## Tool Information

Drill Pipe:	Length: 3252.00 ft	Diameter: 3.80 inches	Volume: 45.62 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	26000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 45.77 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	3309.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	3359.00 ft				
Interval between Packers:	50.00 ft				
Tool Length:	281.00 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	1.00			3275.00	
Recorder	0.00	8736	Fluid	3275.00	
Blank Spacing	5.00			3280.00	
Shut In Tool	5.00			3285.00	
Sampler	2.00			3287.00	
Hydraulic tool	5.00			3292.00	
Jars	5.00			3297.00	
Safety Joint	3.00			3300.00	
Packer	5.00			3305.00	35.00 Bottom Of Top Packer
Packer	4.00			3309.00	
Stubb	1.00			3310.00	
Perforations	5.00			3315.00	
Change Over Sub	1.00			3316.00	
Recorder	0.00	8844	Inside	3316.00	
Recorder	0.00	8372	Outside	3316.00	
Drill Pipe	31.00			3347.00	
Change Over Sub	1.00			3348.00	
Perforations	6.00			3354.00	
Blank Off Sub	1.00			3355.00	
Blank Spacing	4.00			3359.00	50.00 Tool Interval
Packer	4.00			3363.00	
Stubb	1.00			3364.00	
Perforations	2.00			3366.00	
Change Over Sub	1.00			3367.00	
Recorder	0.00	8647	Below	3367.00	
Drill Pipe	188.00			3555.00	196.00 Bottom Packers & Anchor

**Total Tool Length: 281.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Sam Gary Jr & Assoc. Inc.

**28-15s-16w Ellis,KS**

1515 Wynkoop STE 700  
Denver CO 80202

**Olson #1-28**

Job Ticket: 51480

**DST#: 1**

ATTN: Chris Mitchell

Test Start: 2013.02.18 @ 02:54:05

## 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: 55.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Mud	0.989

Total Length: 90.00 ft      Total Volume: 0.989 bbl

Num Fluid Samples: 0

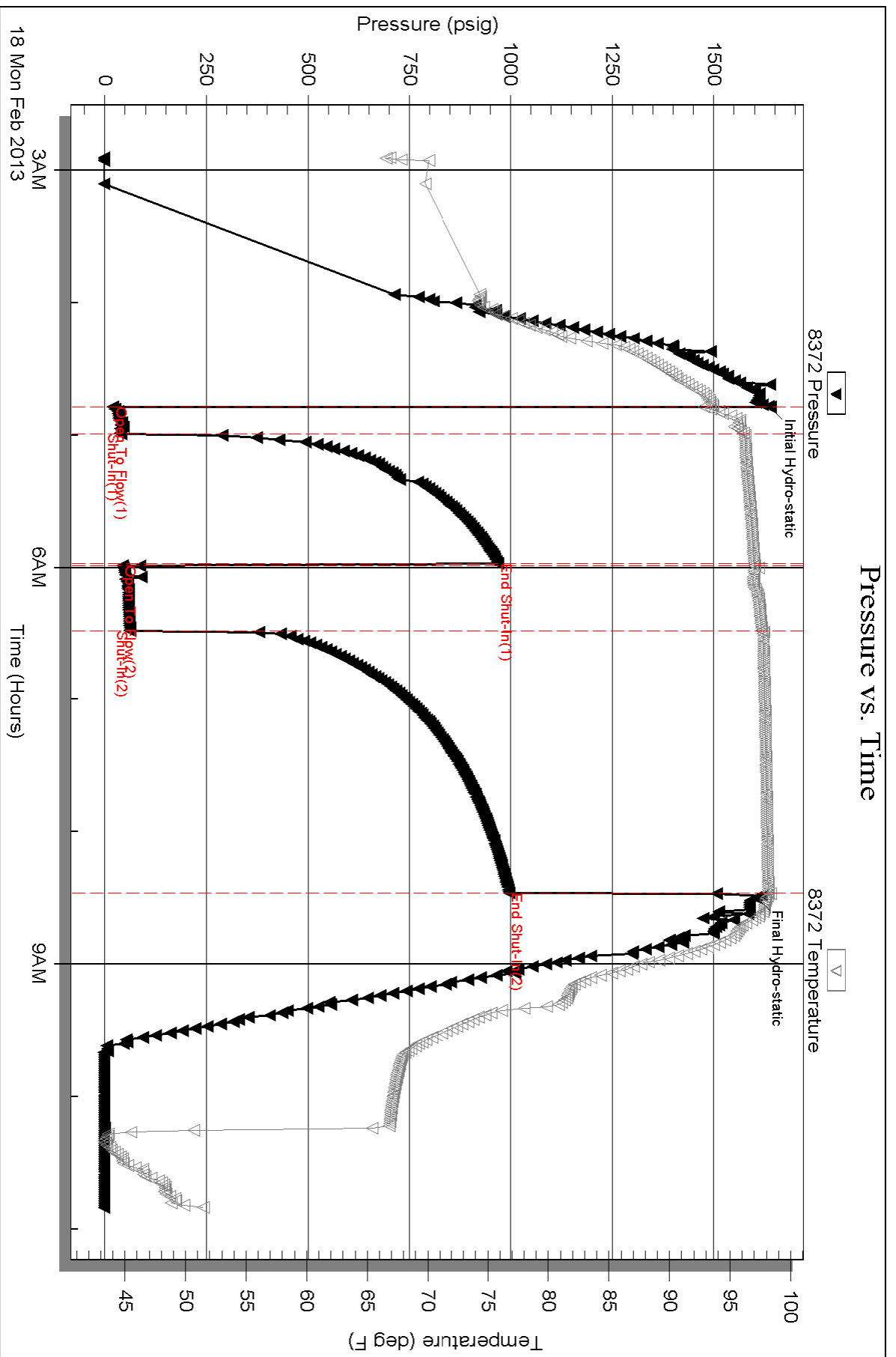
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





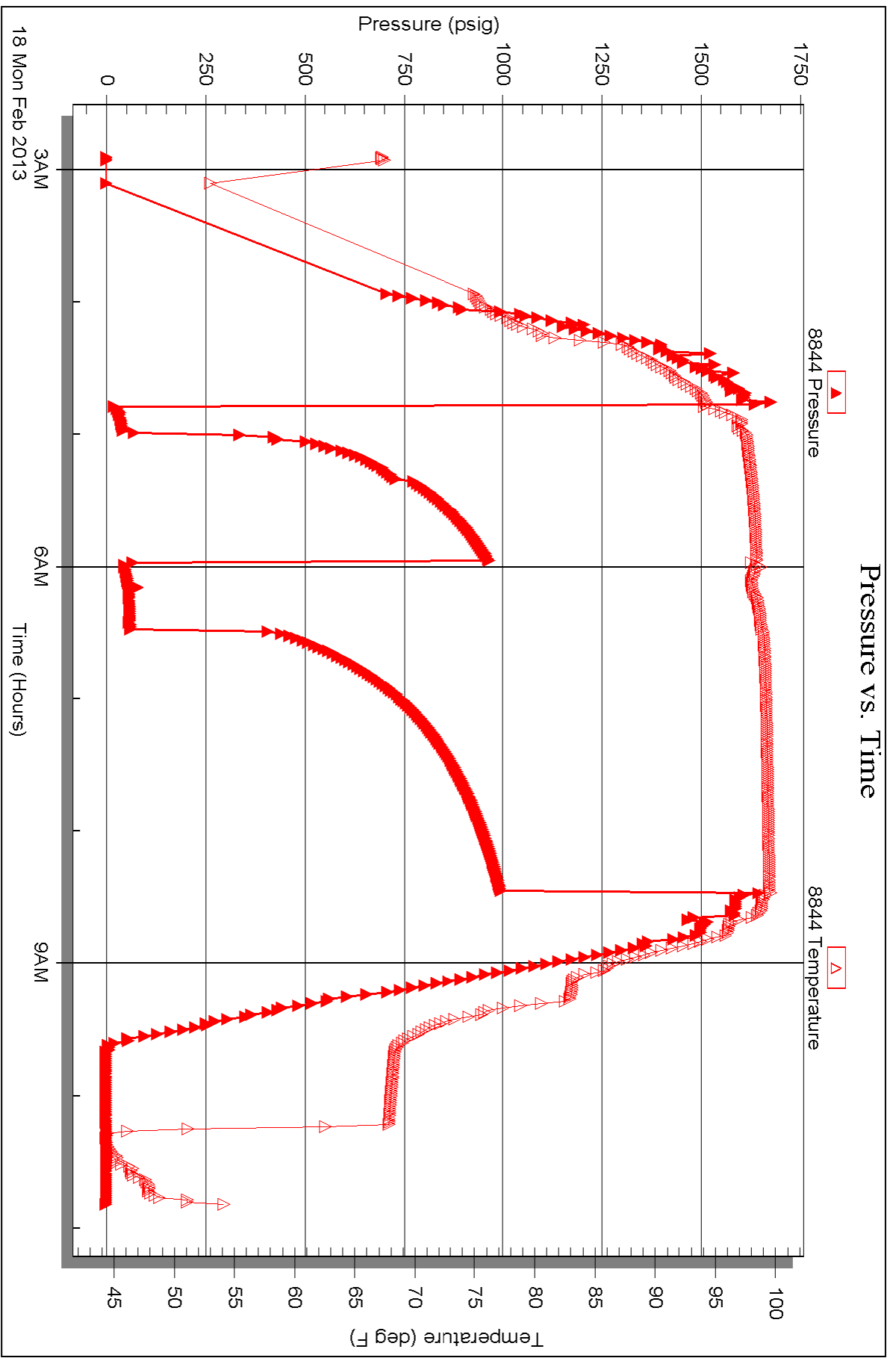
Serial #: 8844

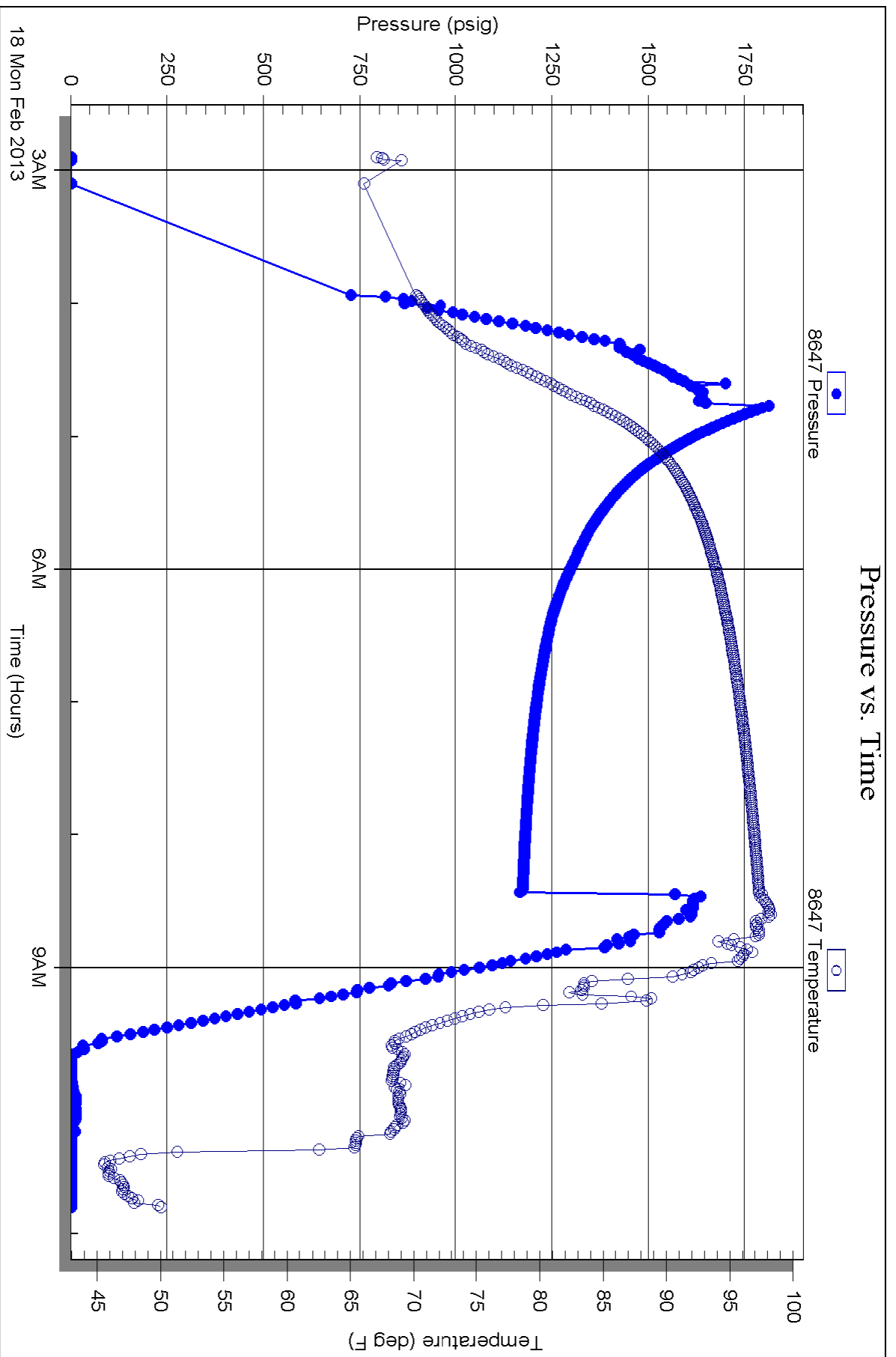
Inside

Sam Gary Jr & Assoc. Inc.

Olson #1-28

DST Test Number: 1





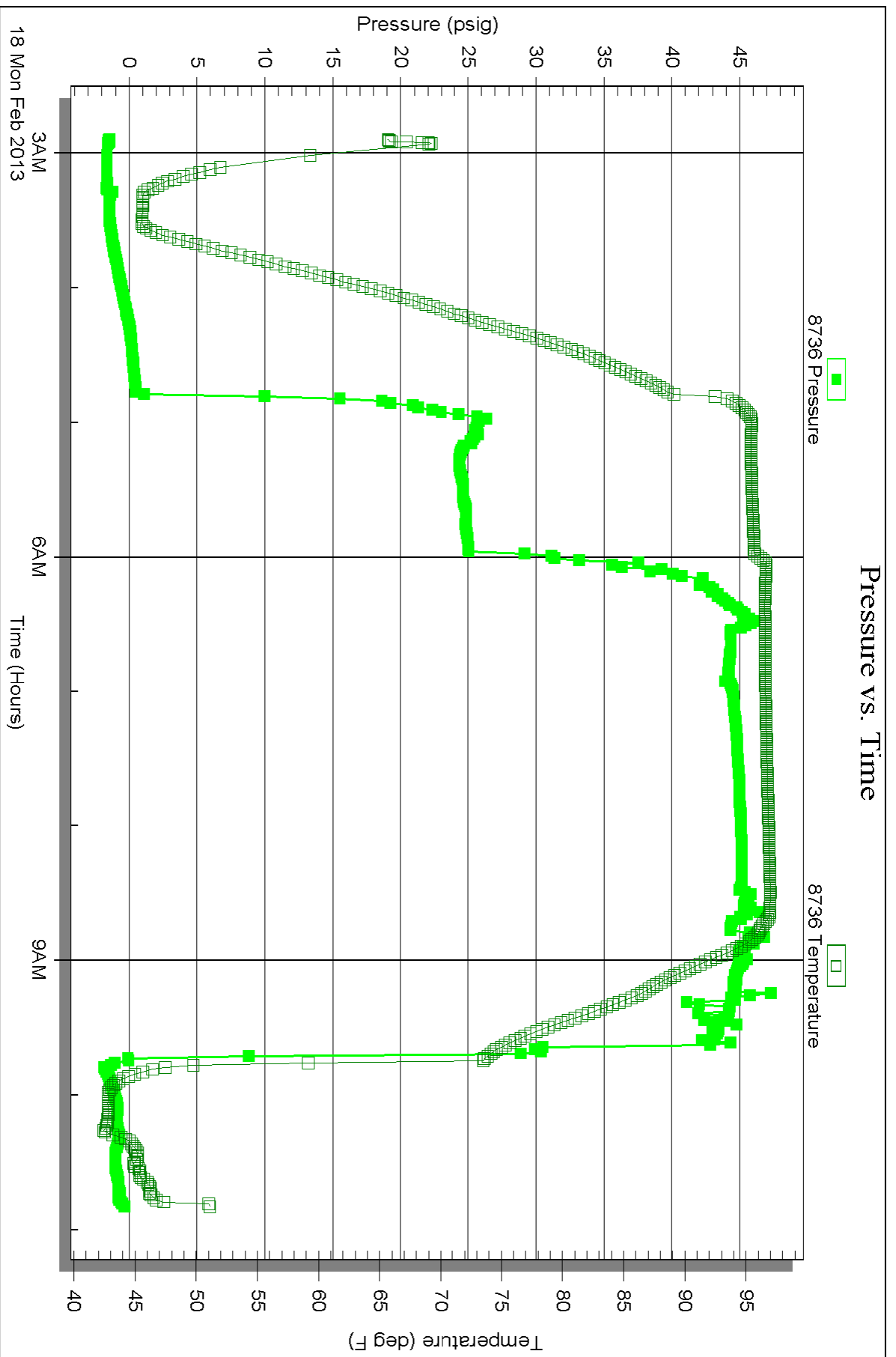
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Fluid

Sam Gary Jr & Assoc. Inc.

Olson #1-28

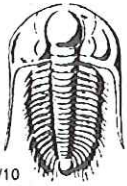
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 51480

Printed: 2013.02.27 @ 10:22:41



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51480

4/10

Well Name & No. Olson #1-28 Test No. 1 Date 2-18-13  
 Company S. Gary Jr & Assoc. Inc Elevation 1869 KB 1861 GL  
 Address 1515 WYNKOOP STE 700 DENVER CO 80209  
 Co. Rep / Geo. Chris Mitchell Rig Discovery #2  
 Location: Sec. 28 Twp. 15s Rge. 16w Co. Ellis Co. State Ks

Interval Tested 3309 - 3359 Zone Tested LKC "J-K"  
 Anchor Length 50 Drill Pipe Run \_\_\_\_\_ Mud Wt. 8.9  
 Top Packer Depth 3309 Drill Collars Run 30 Vis 55  
 Bottom Packer Depth 3359 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3551 Chlorides 6800 ppm System LCM 0

Blow Description IF: 2" blow in 3min, 3" in 6min 4" in 10min  
FST: NO RETURN  
FF: 1" blow in 5min, surging blow built to 2"  
FST: NO RETURN

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>mud</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 90 BHT 98° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

- (A) Initial Hydrostatic 1634
- (B) First Initial Flow 19
- (C) First Final Flow 40
- (D) Initial Shut-In 969
- (E) Second Initial Flow 43
- (F) Second Final Flow 61
- (G) Final Shut-In 996
- (H) Final Hydrostatic 1604

- Test 1150
- Jars 250
- Safety Joint 75
- Circ Sub \_\_\_\_\_
- Hourly Standby \_\_\_\_\_
- Mileage 48AT 74.40
- Sampler 250
- Straddle 600
- Shale Packer \_\_\_\_\_
- Extra Packer \_\_\_\_\_
- Extra Recorder 200
- Day Standby \_\_\_\_\_
- Accessibility \_\_\_\_\_
- Sub Total 2599.40

- T-On Location 01:50
- T-Started 02:54
- T-Open 04:58
- T-Pulled 08:38
- T-Out 11:00

- Comments \_\_\_\_\_
- Ruined Shale Packer \_\_\_\_\_
- Ruined Packer \_\_\_\_\_
- Extra Copies \_\_\_\_\_
- Sub Total 0
- Total 2599.40

Initial Open 10  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 120

Approved By \_\_\_\_\_ Our Representative [Signature]

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. 51480 Date 2-18-13  
 Company Name S. GARY JR & ASSOC INC  
 Lease OLSON # 1-28 Test No. 1  
 County ELLIS Sec. 28 Twp. 15S Rng. 16W

### SAMPLER RECOVERY

Gas 0 ML  
 Oil 0 ML  
 Mud 3000 ML  
 Water 0 ML  
 Other 0 ML  
 Pressure 100 lbs ML  
 Total 3000 ML

### PIT MUD ANALYSIS

Chlorides 6800 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 55  
 Mud Weight 8.9  
 Filtrate 8.0  
 Other LCM 2#s

### 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: SGA Olson 1-28  
 Location: Sec. 28 - 15S - 16W Ellis County, Kansas  
 License Number: 15-051-264068-0000  
 Spud Date: Feb 13, 2013  
 Surface Coordinates: 840 FSL/ 2030 FWL  
 Region: WILDCAT  
 Drilling Completed: Feb 17, 2013

Bottom Hole Coordinates:  
 Ground Elevation (ft): 1861' K.B. Elevation (ft): 1869'  
 Logged Interval (ft): 2850' To: 3550' Total Depth (ft): 3550'  
 Formation: LANSING/ ARBUCKLE  
 Type of Drilling Fluid:

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

**OPERATOR**

Company: 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 3309'-3359' 10 60 30 120  
 IF- 2" BLOW IN 3 MIN, 3" IN 6 MIN 4" IN 10 MIN/ ISI- NO RETURN/ FF- 1" BLOW IN 5 MIN, SURGING BLOW  
 BUILT TO 2"/ FSI NO RETURN  
 IH- 1634, FH 1604/ IF- 19 TO 43/ FF- 40 TO 61/ ISI- 969, FSI- 996  
 RECOVERY- 90' MUD

**ROCK TYPES**

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

**ACCESSORIES**

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



OTHER SYMBOLS

POROSITY TYPE

- E Earthy
- B Fenest
- F Fracture
- X Inter
- A 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

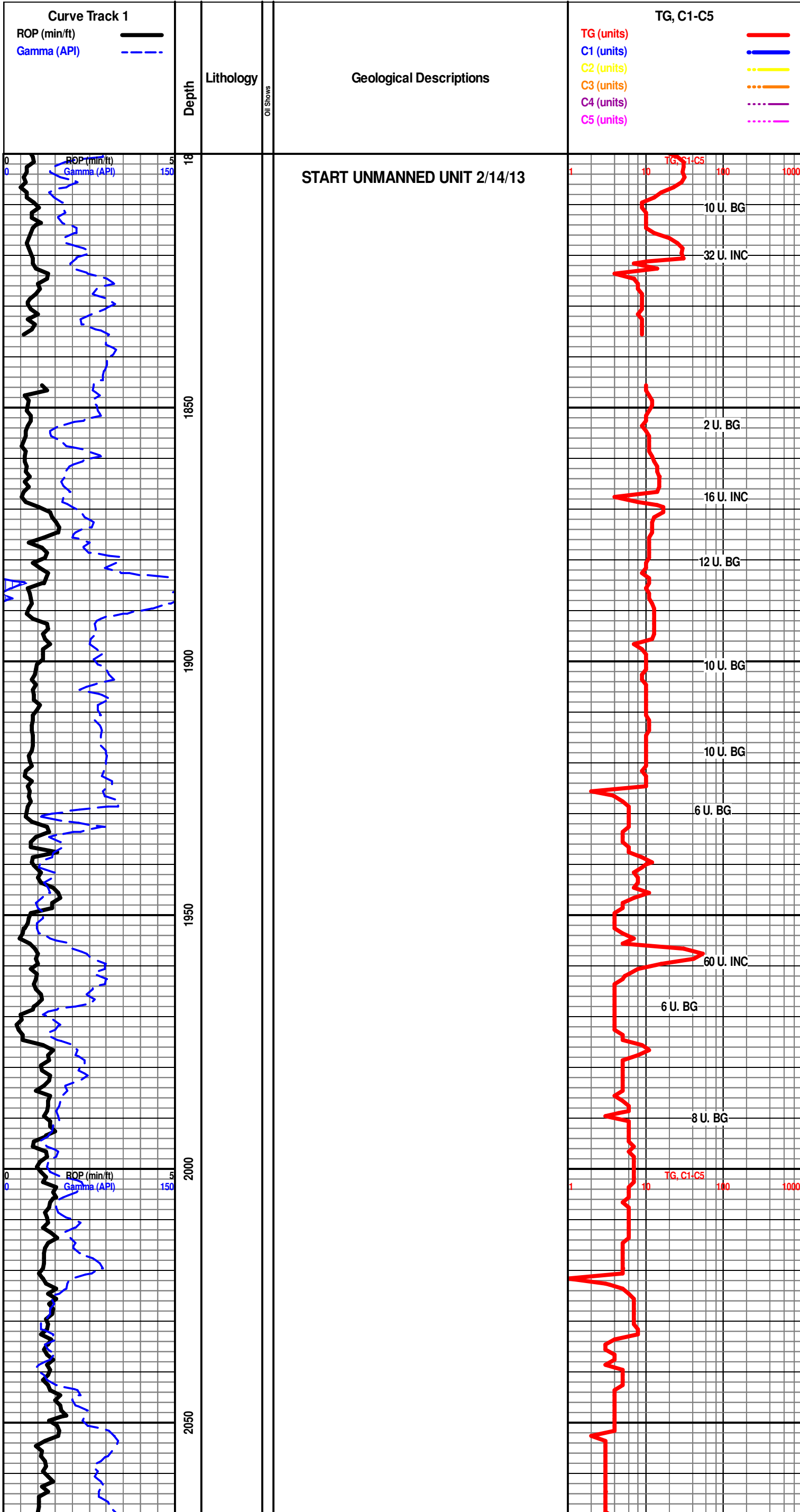
- Even
- ◐ Spotted
- ◑ Ques
- ◒ Dead
- ⊠ Gas show

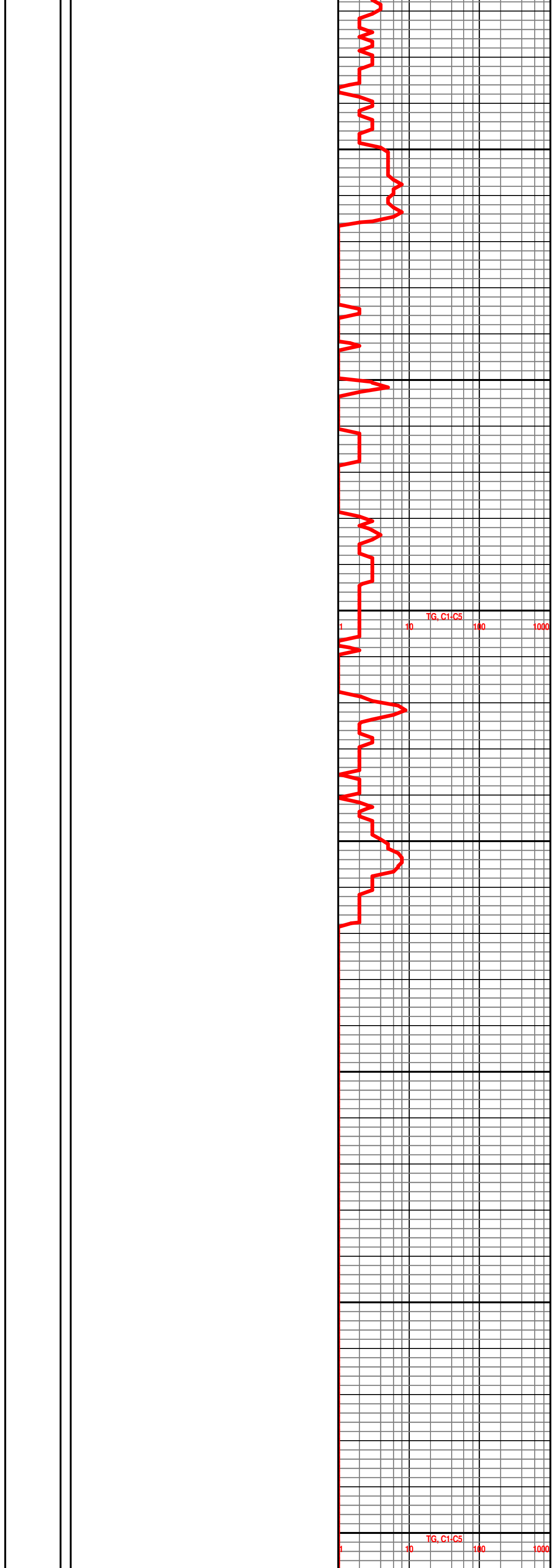
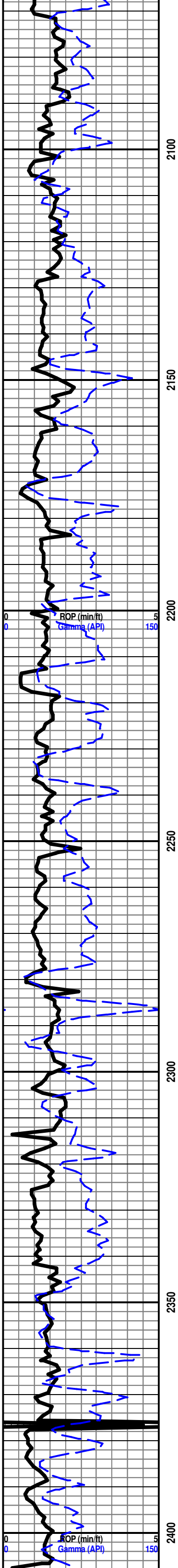
INTERVALS

- Core
- Dst
- Dst

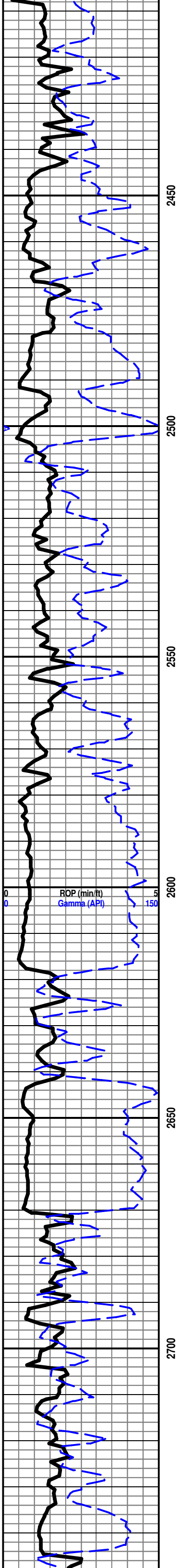
EVENTS

- ▤ Rft
- ▥ Sidewall

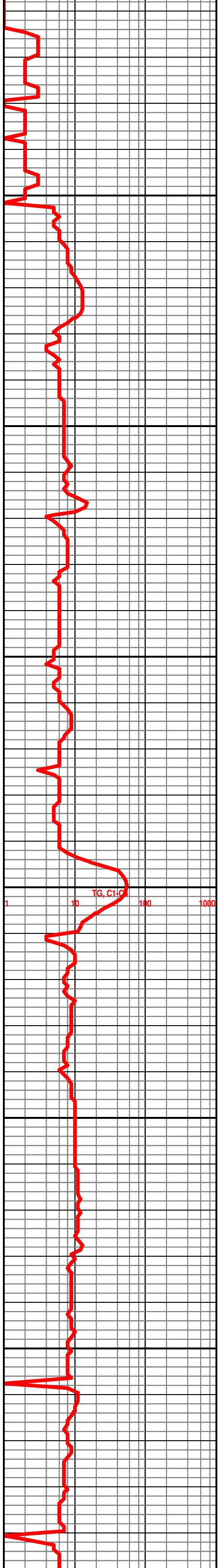




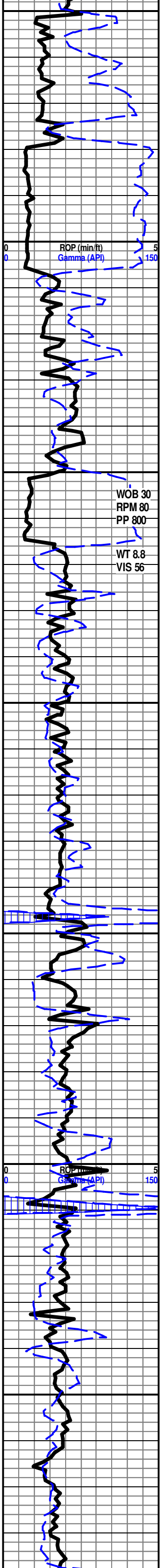




2700 2650 2600 2550 2500 2450



2700 2650 2600 2550 2500 2450



2750  
2800  
2850  
2900  
2950  
3000  
3050

ROP (min/ft)  
Gamma (API)

WOB 30  
RPM 80  
PP 800  
WT 8.8  
VIS 56

ROP (min/ft)  
Gamma (API)

**HOWARD 2807' -938'**

**START 24 HOUR MANNED UNIT 2/15/12  
SEVERY 2850' -981'**

SH- LT GY TO GY, SFT GMMY

**TOPEKA 2865' -996'**

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

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

LS- LT TN TO TN, F XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- LT GY 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 IP, SCAT IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

**LE COMPTON 2969' -1100'**

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

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

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

SH- BLCK, SFT, CARB

LS- OFF WHT TO 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

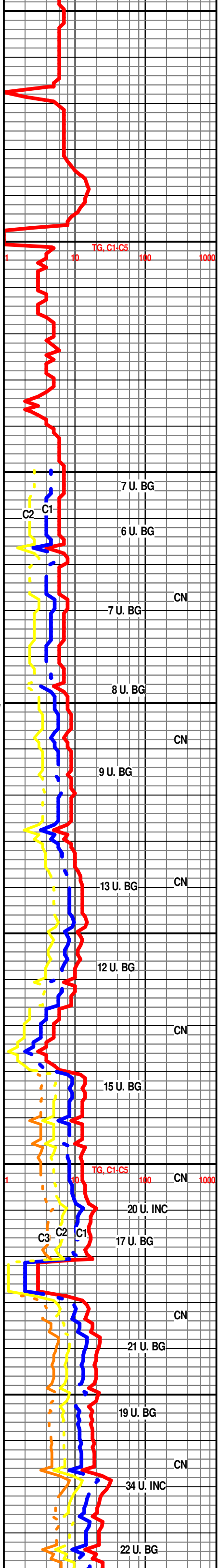
LS- OFF WHT TO LT TN, HD DNS TO BRIT IP, IMBD FOSS FRG THRU, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

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

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

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



TG, C1-C5

C2 C1

C3 C2 C1

7 U. BG

6 U. BG

7 U. BG

8 U. BG

9 U. BG

13 U. BG

12 U. BG

15 U. BG

17 U. BG

21 U. BG

19 U. BG

34 U. INC

22 U. BG

CN

CN

CN

CN

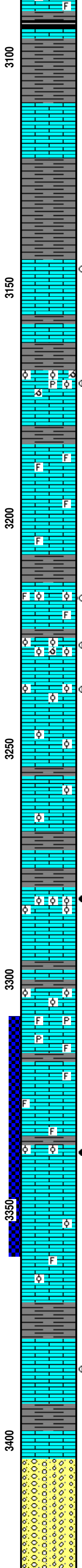
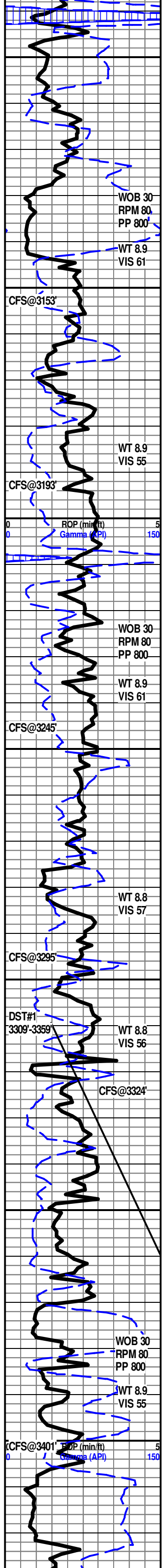
CN

CN

CN

100 1000

100 1000



**HEEBNER 3089' -1220'**  
SH- BLCK, SFT, CARB

SH- GRN BRW LT GY TO DK GY, FRM BLKY, SMTH TO SLTY TXT

LS- LT GY OFF WHT TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, RE-XLN IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

**DOUGLAS 3123' -1254'**  
SH- GRN BRW TO GY, FRM BKY TO SFT GMMY, SLTY TXT

**LANSING 3143' -1274'**  
3145'-3146' LS- OFF WHT TO CRM W/ TN OIL STN IN 2%, HD DNS TO BRIT, V/F TO F XLN CHLKY MTRX, S-SUCRO IP, SLI TR SFT WHT CHLK IN TRAY, NO VIS FLO, PR MICRO VUG POR IN 2%, NO FLSH CUT, V/ WK TO WK SLW STRM IN 2%, NO LCH ON DISH

**LANSING "C" 3168' -1299'**  
3189'-3192' LS- CRM TO LT TN W/ TN OIL STN IN 35%, HD DNS TO BRIT IP, F XLNS SUCRO MTRX, S-CHLKY IP, IMBD OOL THRU, TR OOLMLD IP, SLI TR SFT WHT CHLK IN TRAY, SLI TR PYR IN TRAY, DUL YEL GLD FLO IN 35%, BRT YEL GLD FLO IN 5%, PR TO F OOLMLD POR IN 4%, PR TO FR VUG POR IN 2%, FR FLSH CUT IN 40%, FR TO GD SLW STRM IN 40%, LT TN LCH ON DISH

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

**LANSING "F" 3213' -1344'**  
3216'-3217' LS- LT GY TO LT TN W/ TN OIL STN IN 1%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY, SCAT IMBD OOL IP, SLI TR IMBD FOSS FRG IP, SLI TR IMBD CALC XLS IP, BRT YEL GLD FLO IN 3%, V/PR VUG POR IN 2%, WK FLSH CUT IN 3%, FR SLW STRM IN 3%, NO LCH ON DISH

3227'-3228' LS- LT TN TO TN W/ TN OIL STN IN 55%, LOS IN 5%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD OOL THRU, SLI TR OOLMLD IP, DUL YEL GLD FLO IN 40%, PR TO FR INTR OOL POR IN 7%, PR OOLMLD POR IN 2%, GD FLSH CUT IN 60%, GD MLKY BLU SLW STRM IN 60%, DK TN LCH ON DISH, FR OIL ODOR

3235'-3237' LS- CRM TO LT TN W/ OIL STN IN 30%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL IP, DUL YEL GLD FLO IN 35%, PR TO FR INTR OOL POR IN 4%, PR TO FR VUG POR IN 3%, FR TO GD FLSH CUT IN 35%, FR TO GD SLW STRM IN 35%, TN LCH ON DISH, NO OIL ODOR

LS- LT TN TO TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, IMBD OOL IP, SLI TR IMBD CALC XLS IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

**LANSING "H" 3280' -1411'**  
3281'-3283' LS- CRM TO LT TN W/ LT TN TO TN OIL STN IN 80%, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL THRU, DUL YEL GLD FLO IN 80%, FR INTR OOL POR IN 7%, GD FLSH CUT IN 75%, FR TO GD SLW STRM IN 80%, TN LCH ON DISH, WK OIL ODOR

LS- CRM TO LT TN, HD DNS TO BRIT, F XLN SUCRO MTRX, S-CHLKY IP, SCAT IMBD OOL IP, SLI TR IMBD FOSS FRG IP, TR IMBD CALC XLS IP, PYR IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

3335'-3336' LS- LT TN TO TN W/ TN OIL STN IN 60%, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, ABDT IMBD OOL IP, DUL YEL GLD FLO IN 80%, GD TO V/GD VUG POR IN 4%, FR FLSH CUT IN 80%, FR TO GD SLW STRM IN 80%, TN LCH ON DISH

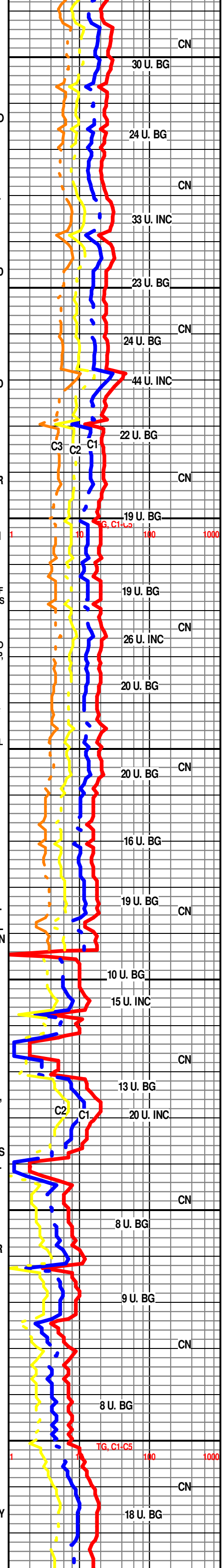
LS- OFF WHT TO LT TN, HD DNS TO BRIT, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, TR SCAT IMBD OOL IP, SLI TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

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

**BKC 3375' -1506'**  
3384'-3389' LS- LT TO TN W/ TN OIL STN IN 75%, V/HD DNS TO BRIT IP, V/F TO F XLN RE-XLN MTRX, S-SUCRO, IMBD CALC XLS THRU, DUL YEL GLD FLO IN 60%, BRT YEL GLD FLO IN 15%, PR TO FR INTR XLN POR IN 5%, PR TO FR MICRO VUG POR IN 3%, PR FLSH CUT IN 75%, PR TO FR SLW STRM IN 75%, LT TN LCH ON DISH,

CONG- LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, TR IMBD OOL IP, SH- GRN BRWN RED GY TO DK GY, FRM BLKY, SMTH TO SLTY TXT, CHRT- WHT TO RED

CONG- LS- CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F XLN SUCRO MTRX, S-CHLKY IP, TR IMBD OOL IP, SH- GRN BRWN RED GY TO DK GY, FRM BLKY, SMTH TO SLTY TXT, CHRT- WHT TO RED



CN

30 U. BG

24 U. BG

CN

33 U. INC

23 U. BG

CN

24 U. BG

44 U. INC

22 U. BG

CN

19 U. BG

19 U. BG

26 U. INC

CN

20 U. BG

20 U. BG

CN

16 U. BG

19 U. BG

CN

10 U. BG

15 U. INC

CN

13 U. BG

20 U. INC

CN

8 U. BG

9 U. BG

CN

8 U. BG

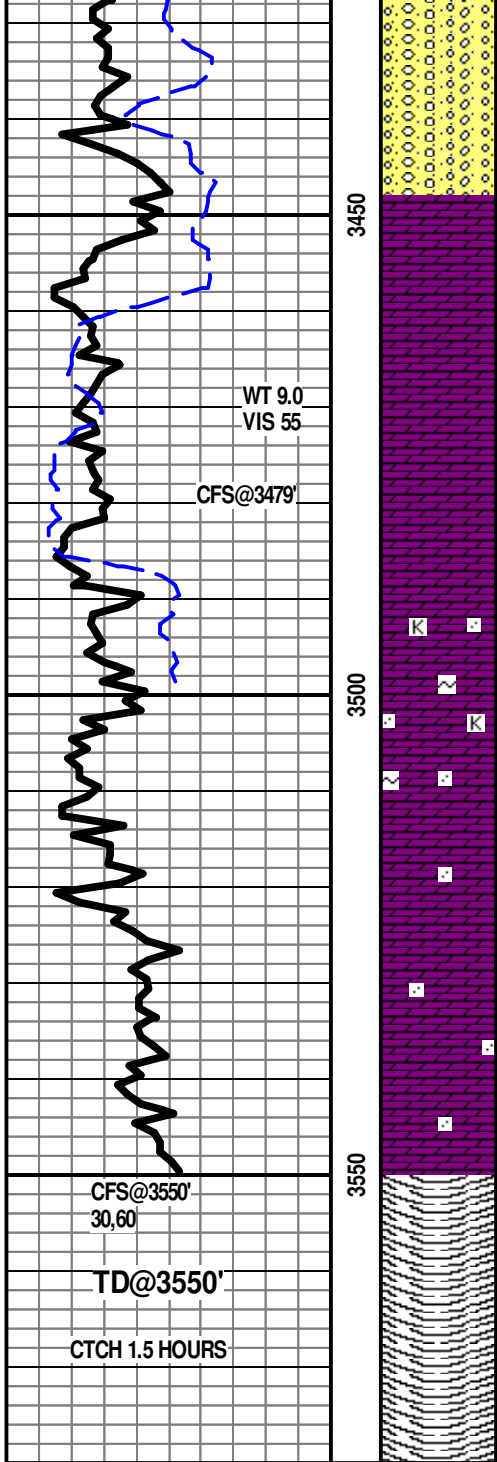
8 U. BG

CN

18 U. BG

CONG-LS-CRM TO LT TN, HD DNS TO BRIT IP, V/F TO F  
XLN SUCRO MTRX, S-CHLKY IP, TR IMBD OOL IP, SH-BLU  
PRPLE GRN BRWN RED GY TO DK GY, FMR BLKY, SMTH  
TO SLTY TXT, CHRT- WHT FRSTY TO RED

**ARBUCKLE 3448' -1579'**



3450'-3451' DOLO- OFF WHT TO LT TN W/ TN OIL STN IN 15%, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD SM TO CRS S-ANG TO S-RND DOLO GRNS THRU, DUL YEL GLD FLO IN 15%, PR TO FR INTR GRN POR IN 7%, WK FLSH CUT IN 15%, PR TO FR FLSH CUT IN 15%, NO LCH ON DISH

3464'-3465' DOLO- OFF WHT TO CRM W/ TN OIL STN IN 10%, LOS IN 5%, HD DNS, F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO S-RND DOLO GRNS THRU, DUL YEL GLD FLO IN 10%, PR TO FR INTR GRN POR IN 10%, WK FLSH CUT IN 15%, FR SLW STRM IN 10%, DK TN LCH ON DISH

3473'-3474' DOLO- OFF WHT TO LT TN W/ TN OIL STN IN 25%, HD DNS TO BRIT IP, F XLNS SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO S-RND DOLO GRNS THRU, DUL YEL GLD FLO IN 25%, PR TO FR INTR GRN POR IN 10%, FR FLSH CUT IN 25%, FR SLW STRM IN 25%, TN LCH ON DISH

3483'-3487' DOLO- OFF WHT TO LT TN W/ TN OIL STN IN 5%, HD DNS TO BRT IP, F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO ANG DOLO GRNS THRU, NO VIS FLO, PR TO FR INTR GRN POR IN 10%, PR FLSH CUT IN 5%, PR TO FR SLW STRM IN 5%, NO LCH ON DISH

DOLO- OFF WHT TO LT TN, HD DNS TO BRIT IP, F XLN SUCRO MTRX, ABDT IMBD SM TO MD S-ANG TO S-RND DOLO GRNS THRU, IMBD QRTZ GRNS THRU, TR IMBD KAOL OR GLAUC IP, NO VIS FLO, PR TO FR INTR GRN POR IN 10%, NO VIS SHOW

R.T.D. @ 4:40 PM 2/17/13

SHORT TRIP

DROP SURVEY

TOFL

WEATHERFORD/LIBERAL

