



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1181376
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
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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: _____

1181376

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Palmer Oil, Inc.
Well Name	Laura 21-3
Doc ID	1181376

All Electric Logs Run

Induction
Porosity
Micro
Sonic



CEMENTING LOG

Date **12/5/2013** District **Liberal # 21** Ticket No. **052123**
 Company **PALMER OIL** Rig **DUKE # 9**
 Lease **LAURA** Well No **21-3**
 County **STEVENS** State **KS**
 Location _____
 Field _____

Casing Data Conductor PTA Squeeze Misc.
 Surface Intermediate Production Liner
 Size **8 5/8** Type **J-55** Weight **24** Collar _____

Casing Depths Top _____ Bottom **1747.66**

Drill Pipe: BBLS/LIN. FT _____ LIN. FT/BBL _____
 Open Hole: BBLS/LIN. FT _____ LIN. FT/BBL _____
 Capacity Factors: BBLS/LIN. FT _____ LIN. FT/BBL _____
 Casing BBLS/LIN. FT **0.0636** LIN. FT/BBL _____
 Open Holes BBLS/LIN. FT _____ LIN. FT/BBL _____
 Drill Pipe BBLS/LIN. FT _____ LIN. FT/BBL _____
 Annulus BBLS/LIN. FT **0.0735** LIN. FT/BBL _____
 Perforations From _____ ft to _____ ft Amt _____

CEMENT DATA

Spacer Type **10 BBL FRESH WATER**
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG
 LEAD: Time _____ hrs. Type **65/35 - 6**
3% CC, 1/4# FLOSEAL Excess _____
 Amt. **625** Sks Yield **1.97** ft³/sk Density **12.4** PPG
 TAIL: Time _____ hrs. Type **CLASS A**
3% CC, 1/4 # FLOSEAL Excess _____
 Amt. **200** Sks Yield **1.18** ft³/sk Density **15.6** PPG
 WATER Lead **10.9** Gal/sk Tail **5.3** Gal/sk Total _____ BBLs

Pump Trucks Used: **530 - 484**
 Bulk Equipment **868 - 841**
869 - 842

Float Equipment: Manufacturer **WEATHERFORD**
 Shoe: Type **REGULAR GUIDE SHOE** Depth **1747.66**
 Float: Type **AFU INSERT FLOAT** Depth **1705.31**
 Centralizers: Quantity **3** Plugs Top **1** Bottom _____
 Stage Collars _____
 Special Equipment _____
 Disp: Fluid Type **FRESH WATER** Amt **108.5** bbls Weight **8.33** PPG
 Mud Type _____ Weight _____

COMPANY REPRESENTATIVE

Emilia Lopez

CEMENTER

KIRBY HARPER

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	PUMPED PER TIME PERIOD	RATE BBLs/MIN	
2000						ON LOCATION -- SPOT AND RIG UP
0200						CASING ON BOTTOM -- BREAK CIRCULATION
0215						SAFETY MEETING
0237	1500					PRESSURE TEST
0239	200			10	4	START PUMPING FRESH WATER
0244	200			219	6	START MIXING 625 SK 65/35 @ 12.4 PPG
0319	200			42	6	START MIXING 200 SK CLASS A @ 15.6 PPG
0347						SHUT DOWN -- DROP TOP PLUG
0353	200		0		6	START DISPLACING WITH FRESH WATER
0404	500		98		2	SLOW RATE
0410	500-1000		108			BUMP PLUG
0411	1000-0					RELEASE PRESSURE -- FLOAT HELD
				50		CIRCULATE CEMENT TO THE PIT

FINAL DISP. PRESS **500** PSI BUMP PLUG TO **1000** PSI BLEEDBACK **0.5** BBLs **THANK YOU**



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET
1718 09568 A

DATE _____ TICKET NO. _____

DATE OF JOB 12-15-13 DISTRICT PRATT		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:								
CUSTOMER PA 104-1 Oil - HARRIS WATSON		LEASE CAWA WELL NO. 213								
ADDRESS		COUNTY STEVENS STATE KY								
CITY STATE		SERVICE CREW MATTHEW, MCGUIRE, KENNEDY, PIERSON								
AUTHORIZED BY		JOB TYPE: CNW LS								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
37586	1						12-15-13			5:05
						ARRIVED AT JOB				9:30
77686/19905	1					START OPERATION		AM	PM	2:00
						FINISH OPERATION		AM	PM	3:00
19831/19862	1					RELEASED		AM	PM	3:45
						MILES FROM STATION TO WELL				170

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: _____
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 105	AA-2	SK	200		3,400.00
CO 103	60/40 FOR	SK	50		600.00
CC 113	54PSUM	1B	940		705.00
CC 111	SALT	1B	1107		553.50
CC 103	C-15	1B	113		1,412.50
CC 105	C-41P	1B	47		188.00
CC 201	GILSONITE	1B	1000		670.00
CC 1251	AUTO FILL FLOW SHUT 5 1/2	EA	1		360.00
CC 607	ATCH OWN Plug + BACKUP 5 1/2	EA	1		400.00
CC 4452	CONTRACTOR 5 1/2	EA	12		900.00
CC 4552	BACKUP 5 1/2	EA	1		955.00
CC 151	MUD FLUSH	GM	500		430.00
E100	P.U. MILK	MI	50		212.50
E101	Heavy eq milk	MT	100		700.00
E113	PROP + GUNK Del	TM	578		924.00
CE 240	Blend + mix	SK	25		350.00
CE 207	DEPTH change 600' - 700'	4WS	1		3,240.00
CE 504	Plug cost	JOB	1		250.00
5003	service SUPER	EA	1		175.00
				SUB TOTAL	10,788.27

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE Mike MATTHEW	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
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FIELD SERVICE ORDER NO.



Mudgrove

PETROLEUM CORPORATION
Clayton, Kansas

NOTES

Company: Palmer Oil, Inc.

Lease: Laura 21-3

Field: Gentzler North

Location: SE-NW-NE-SE (2200' FSL & 900' FEL)

Sec: 21 Twsp: 32S Rge: 37W

County: Stevens State: Kansas

KB: 3153' GL: 3140'

API #: 15-189-22826-00-00

Contractor: Duke Drilling Inc. (Rig #9)

Spud: 12/04/2013 Comp: 12/14/2013

RTD: 6510' LTD: 6509

Mud Up: 4500' Type Mud: Chemical

Samples Saved From: 4600' to RTD
 Drilling Time Kept From: 4800' to RTD
 Samples Examined From: 4600' to RTD
 Geological Supervision from: 4600' to RTD
 Geologist on Well: Wyatt Urban

Surface Casing: 8 5/8@ 1747'

Electronic Surveys: Logged by Pioneer Energy Services, DIL, CNL/CDL, MEL, Sonic

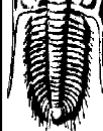
PALMER OIL WELL COMPARISON SHEET

Formation	DRILLING WELL				COMPARISON WELL				COMPARISON WELL			
	Palmer Oil - Laura 21-3				EOG Resources-21-1 Laura				Palmer Oil - Laura 21-2			
	SE-NW-NE-SE 21-32-37W				SE-NW-SE-SE 21-32-37W				E2-E2-SW-SE 21-32-37W			
3153 KB				3151 KB				3148 KB				
Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Structural Relationship		Log	Sub-Sea	Structural Relationship		
						Sample	Log			Sample	Log	
Base Heebner					4145	-994	994	994	4146	-998		
Lansing					4263	-1112	1112	1112	4273	-1125		
Marmaton	4932	-1779	4935	-1782	4923	-1772	-7	-10	4924	-1776	-3	-6
Cherokee	5160	-2007	5144	-1991	5160	-2009	2	18	5140	-1992	-15	1
Atoka	5523	-2370	5521	-2368	5547	-2396	26	28	5547	-2399	29	31
Morrow	5668	-2515	5681	-2528	5660	-2509	-6	-19	5662	-2514	-1	-14
St. GEN	6180	-3027	6207	-3054	6168	-3017	-10	-37	6180	-3032	5	-22
St. Louis	6330	-3177	6363	-3210	6318	-3167	-10	-43	6344	-3196	19	-14
St. Louis "B"	6404	-3251	6400	-3247	6349	-3198	-53	-49	6389	-3241	-10	-6
St. Louis "C"	6430	-3277	6432	-3279					6420	-3272	-5	-7
RTD	6500	-3347	6500	-3347	6550	-3399			6550	-3402	55	55
LTD	6509	-3356	6509	-3356					6538	-3390	34	34



DRILL STEM TEST REPORT

Palmer Oil, Inc. 21-32-37W Stevens Co.



TESTING, INC

Palmer Oil, Inc.
3119 Cummings Rd
P.o Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

21-32s-37w Stevens Co.

Laura #21-3
Job Ticket: 55663 **DST#:1**
Test Start: 2013.12.13 @ 09:31:00

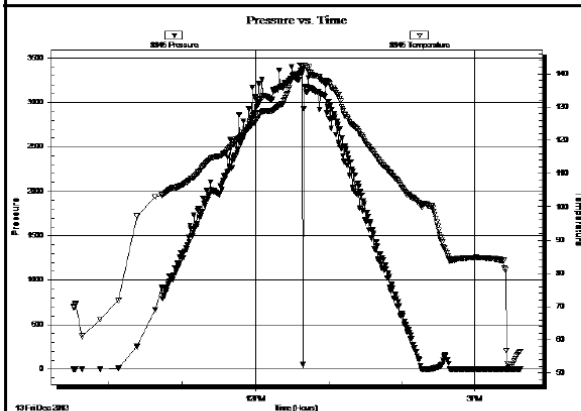
GENERAL INFORMATION:

Formation: **St. Louis**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: Tester: Sam Esparza
 Time Test Ended: 15:37:00 Unit No: 64
 Interval: **6326.00 ft (KB) To 6410.00 ft (KB) (TVD)** Reference Elevations: 3153.00 ft (KB)
 Total Depth: 6410.00 ft (KB) (TVD) 3140.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 13.00 ft

Serial #: 8845

Press@RunDepth: psig @ ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.13 End Date: 2013.12.13 Last Calib.: 2013.12.13
 Start Time: 09:31:05 End Time: 15:36:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:
 IS: MISRUN PACKER FAILURE.
 FF:
 FS:



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
500.00	Mud 100m	5.36

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Palmer Oil, Inc.
3119 Cummings Rd
P.o Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

21-32s-37w Stevens Co.
Laura #21-3
Job Ticket: 55664 **DST#:2**
Test Start: 2013.12.13 @ 16:04:00

GENERAL INFORMATION:

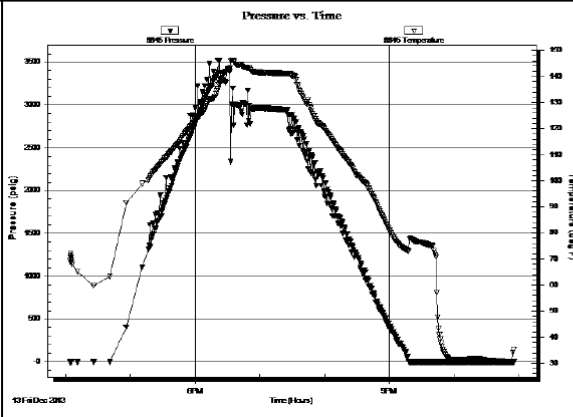
Formation: **St. Louis**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: Tester: Sam Esparza
 Time Test Ended: 22:55:30 Unit No: 64
 Interval: **6310.00 ft (KB) To 6410.00 ft (KB) (TVD)** Reference Elevations: 3153.00 ft (KB)
 Total Depth: 6410.00 ft (KB) (TVD) 3140.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 13.00 ft

Serial #: 8845

Outside

Press@RunDepth: psig @ 6311.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.13 End Date: 2013.12.13 Last Calib.: 2013.12.13
 Start Time: 16:04:05 End Time: 22:55:29 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:
 IS: MISRUN PACKER FAILURE.
 FF:
 FS:



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

Length (ft)	Description	Volume (bbl)
650.00	MUD 100m	7.47

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

* Recovery from multiple tests

ROCK TYPES

sdy lmst
 Lmst fw7>
 shale, gry
 shale, red

Lmst fw<7
 shale, grn
 Carbon Sh

ACCESSORIES

FOSSIL

φ Oolite

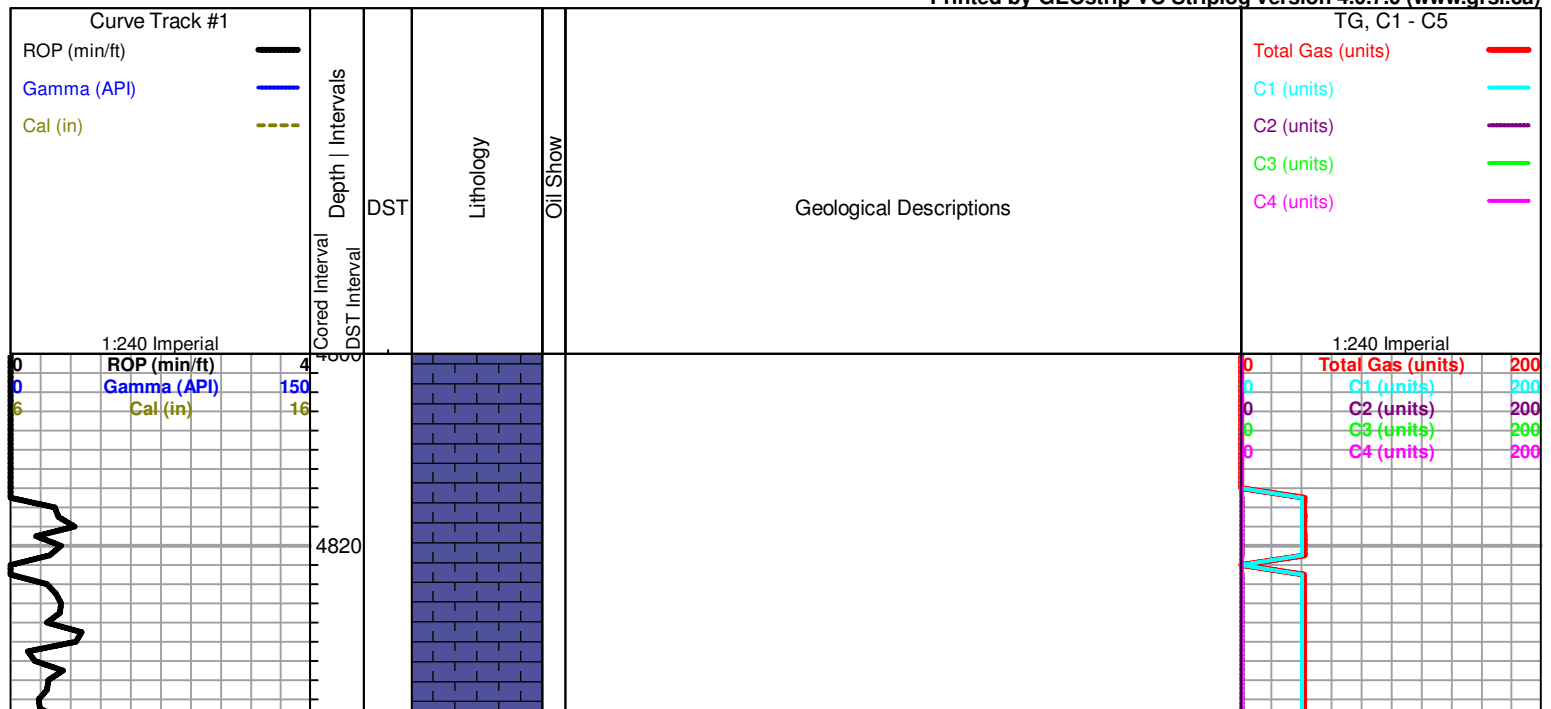
OTHER SYMBOLS

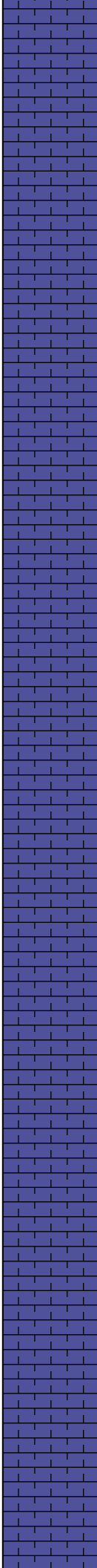
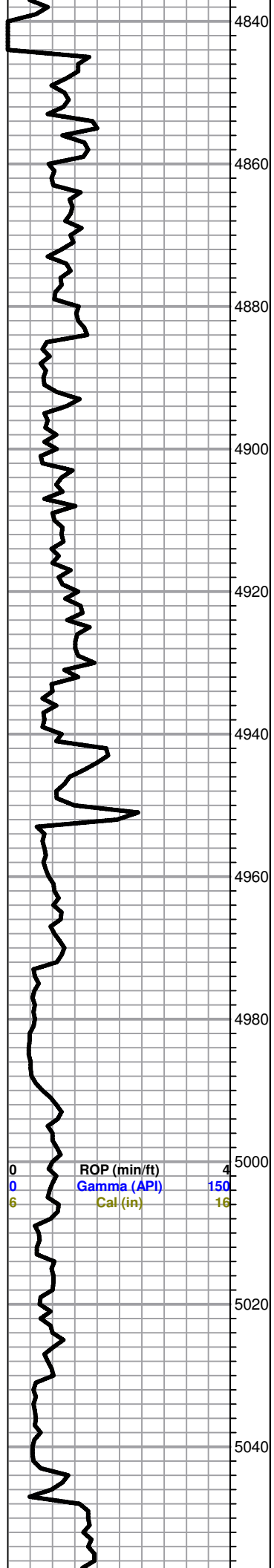
Oil Show

- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Strn
- D Dead Oil Strn
- Fluorescence
- * Gas

DST

- DST Int
- DST alt
- Core
- tail pipe





LS, cream to gray, FXL poorly developed ool, chalky, trace black carb shale.

LS, tan, brown, mottled, poor visible porosity, few ool, poor to fair oom porosity, no shows

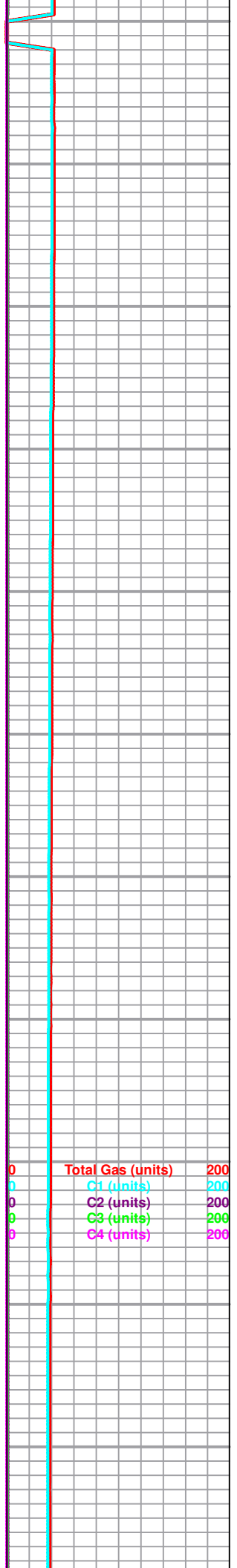
LS, A/A

Marmaton 4932(-1779)

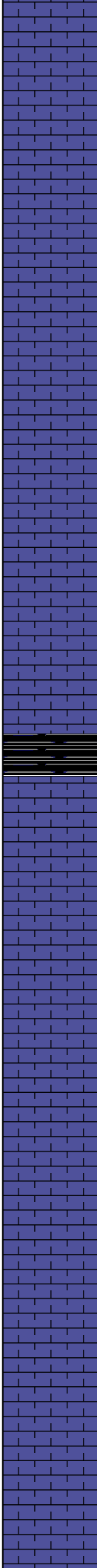
LS, gray, FXL, dense, cherty in parts, NS

LS, tan to brown, cherty FXL, dense, trace shale, black to gray, silty

LS, gray to tan, mottled, FXL, dense cherty in parts,



5060
5080
5100
5120
5140
5160
5180
5200
5220
5240
5260



LS, cream ool, chalky, poorly developed, trace white chert, no shows

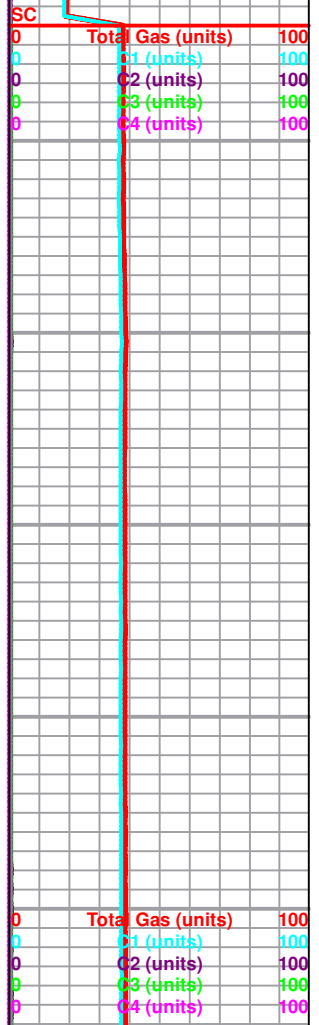
LS, gray, FXL, dense, cherty in parts, poor visible porosity

Cherokee Sh. 5160 (-2007)
Black carb shale

LS, gray to tan, mottled, FXL, dense, cherty, poor visible porosity, no shows

LS, tan to brown, chalky, poor visible porosity, no shows

ROP (min/ft) 4
Gamma (API) 150
Cal (in) 16



5280
5300
5320
5340
5360
5380
5400
5420
5440
5460
5480

LS, cream to tan, chalky, poor scattered porosity

Black carb shale

LS, gray, tan, brown, FXL, poor scattered porosity, trace black, red, gray, sh

Ls, A/A, trace Black to gray shale

LS, gray,FXL , dense, poor visible porosity, cherty in parts

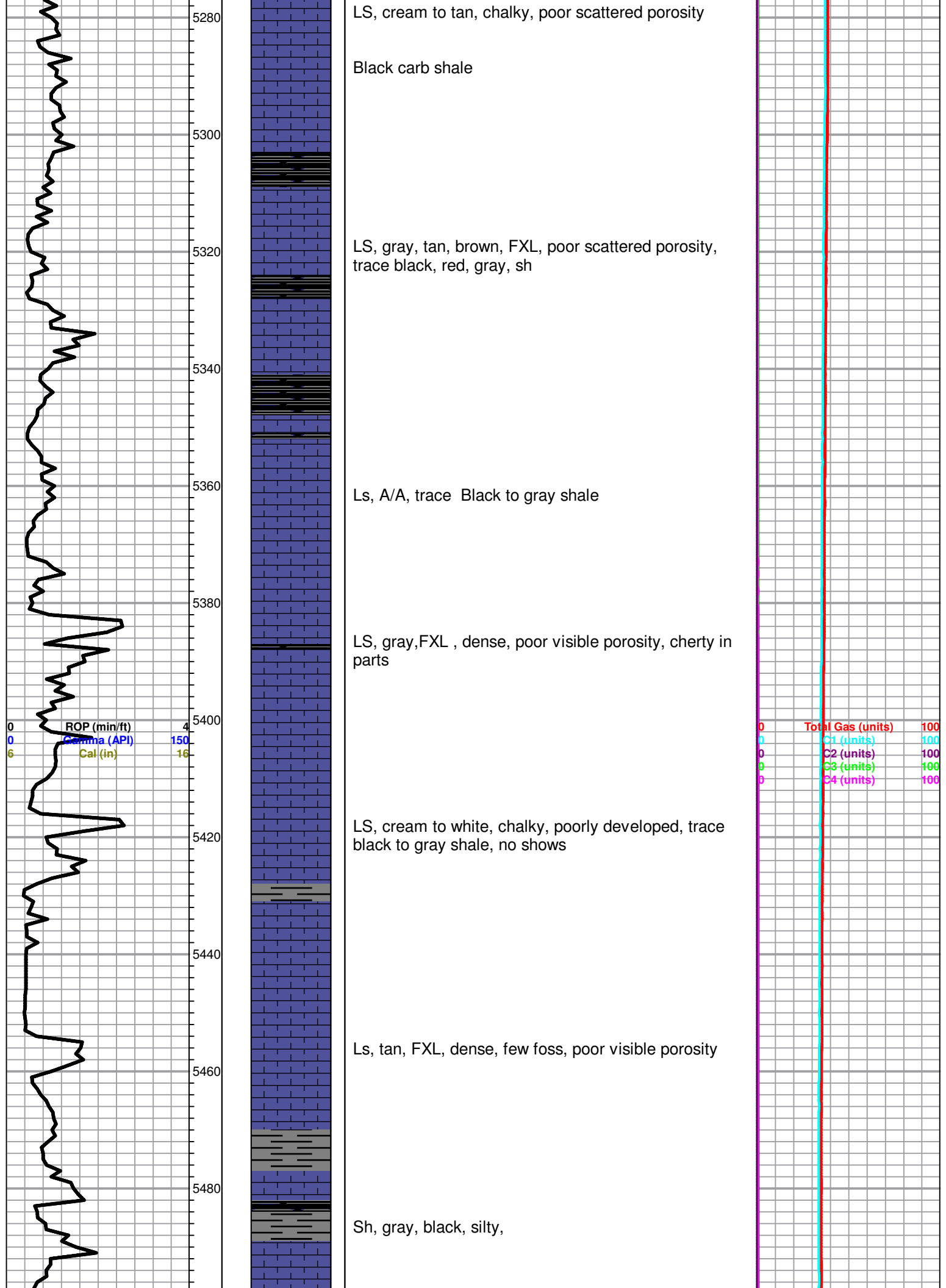
LS, cream to white, chalky, poorly developed, trace black to gray shale, no shows

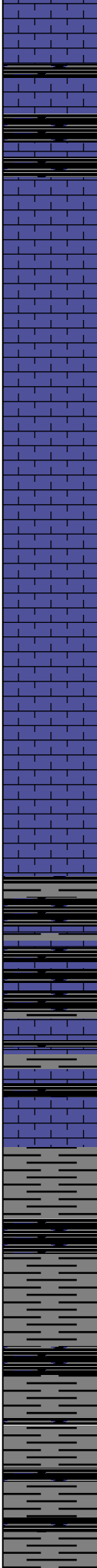
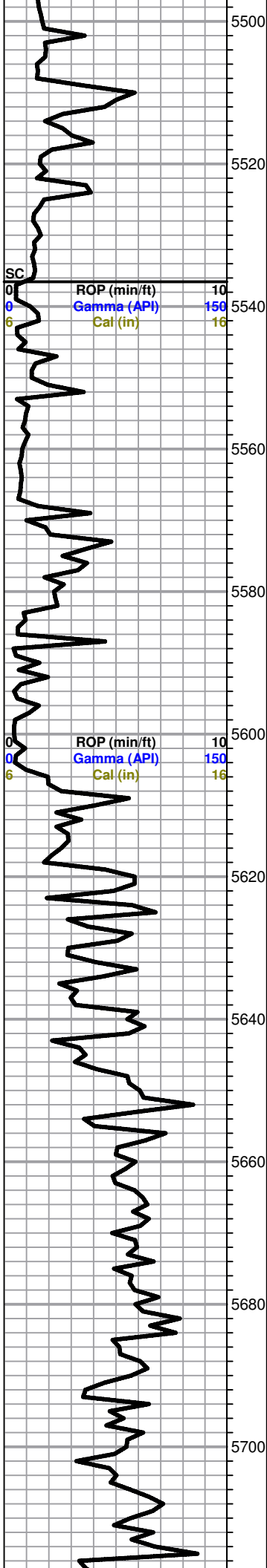
Ls, tan, FXL, dense, few foss, poor visible porosity

Sh, gray, black, silty,

ROP (min/ft) 4
Gamma (API) 150
Cal (in) 16

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100





Black carb shale

Atoka 5523 (-2370)

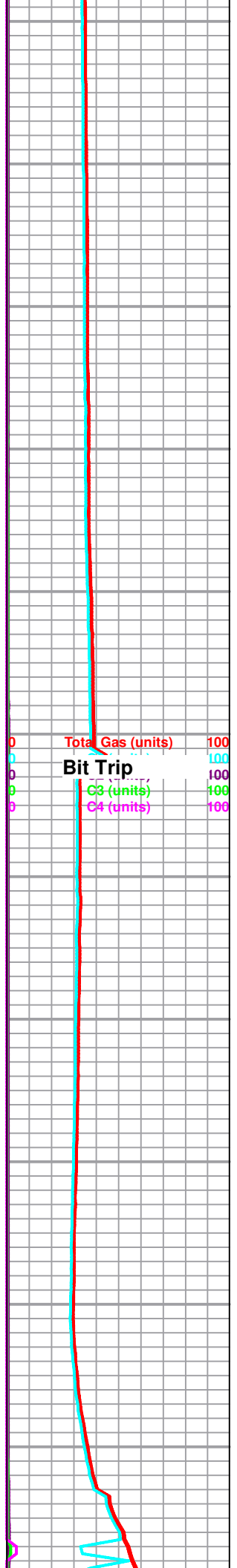
LS, cream to tan, FXL, dense, poor scattered porosity, no shows

LS, brn to tan, FXL, cherty poor visible porosity, trace gray chalky LS,

Black to gray shale

Morrow 5668 (-2515)

Sh. Black carb, gray, silty



5720
5740
5760
5780
5800
5820
5840
5860
5880
5900
5920



Sh. black gray, few brick red silty

Black carb shale

LS, cream to tan, few foss, chalky, poor visible porosity, no shows

Black carb shale

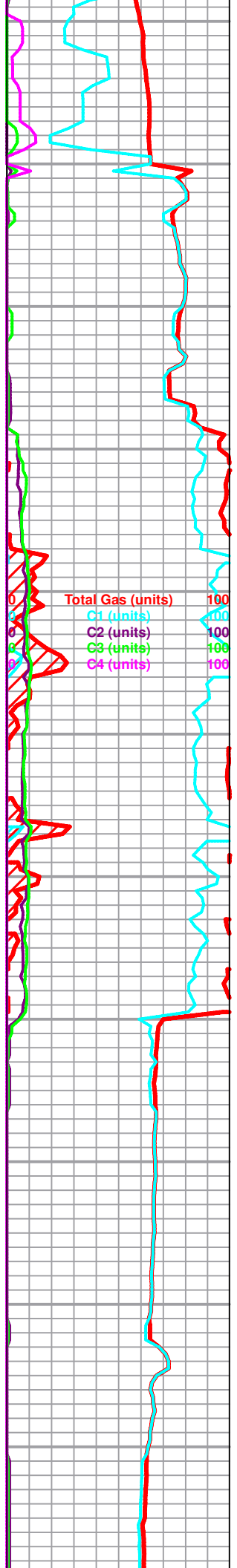
LS, cream to tan, MXL, poor-fair scattered porosity, few foss, no shows

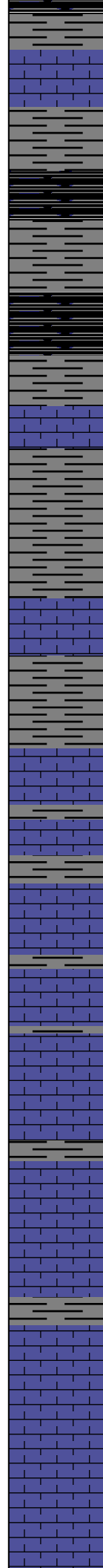
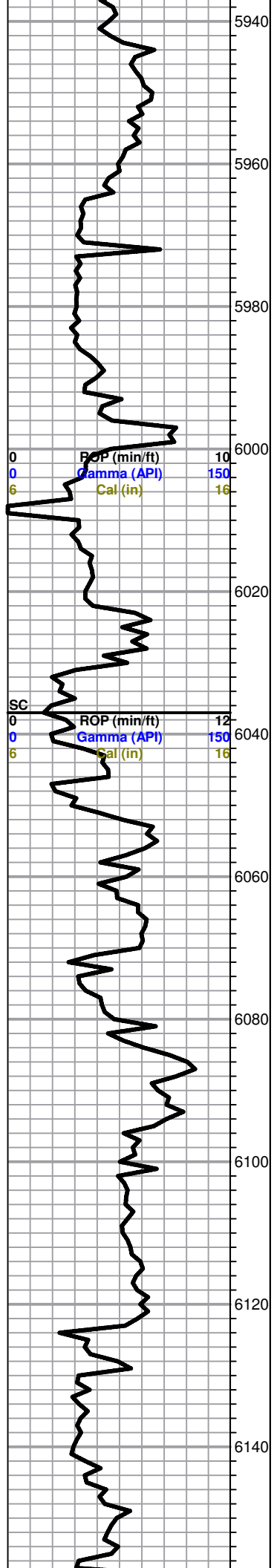
Black carb shale,

LS. gray, FXL, dense, few foss, cherty, dense no shows

0 ROP (min/ft) 10
0 Gamma (API) 150
6 Cal (in) 16

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100





Trc sand, clear, F-med. grained, well sorted sub rounded

Black carb shale

LS, cream to tan, mottled, poor visible porosity, chalky, poor vis porosity, no shows

Trc. Sand, clear, sub angular, poorly sorted, no shows

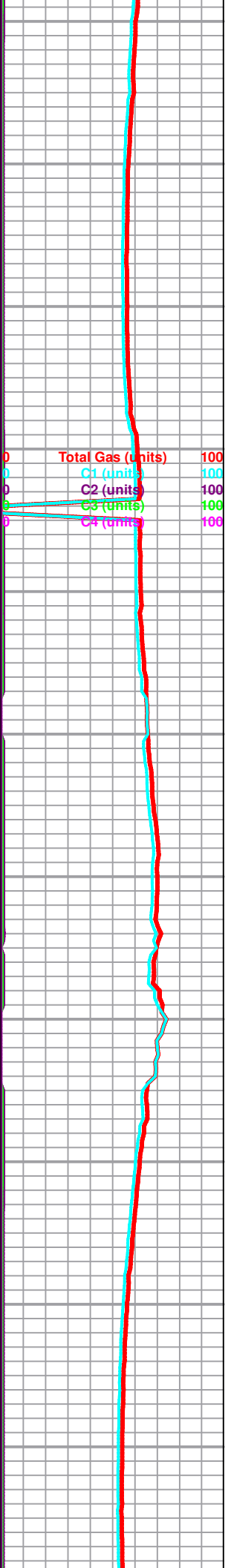
LS, cream to tan, mottled, foss, chalky, poor scattered porosity

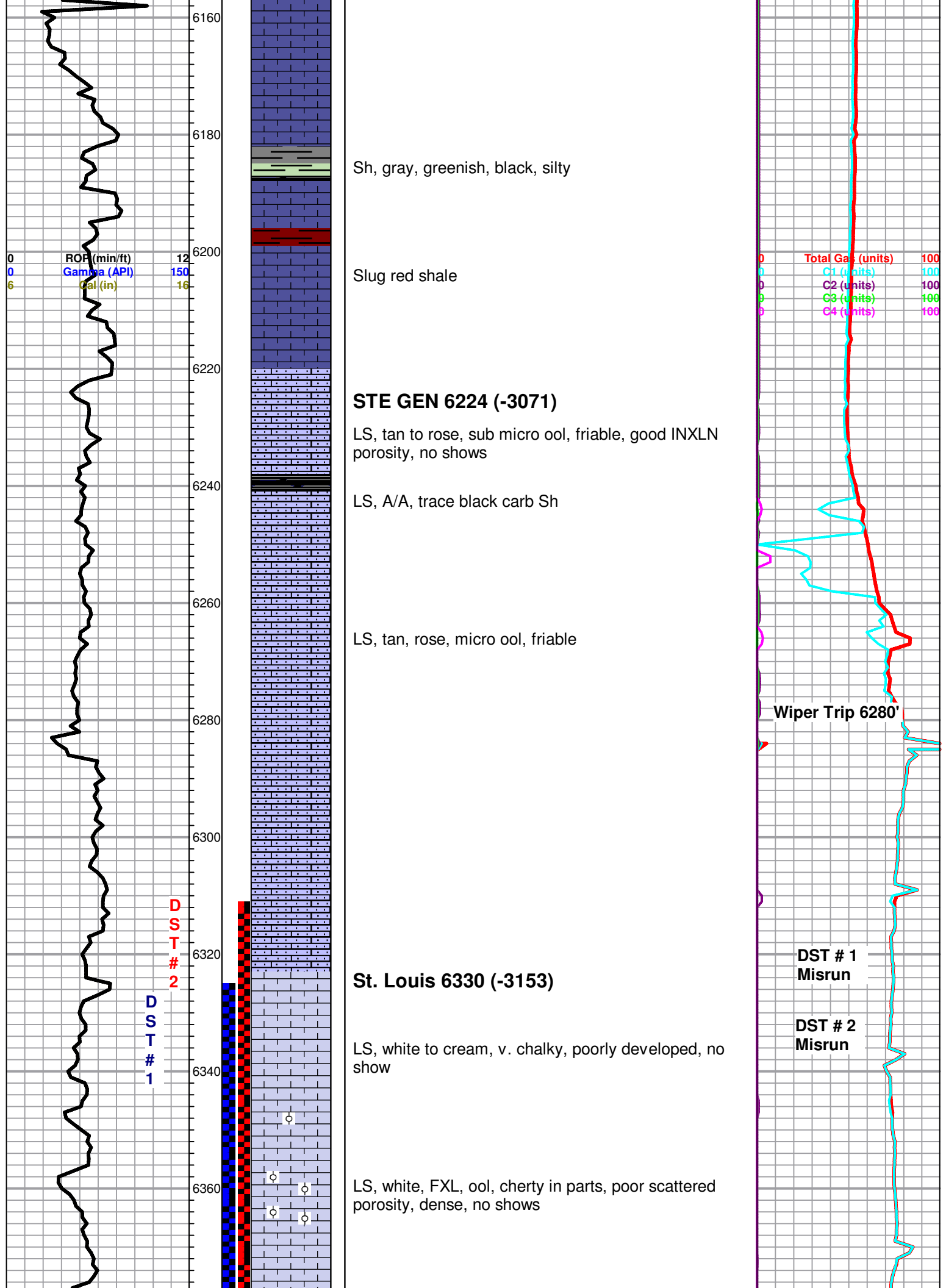
LS, cream, tan, gray, FXL, foss, poor visible porosity, NSFO, dense, no shows

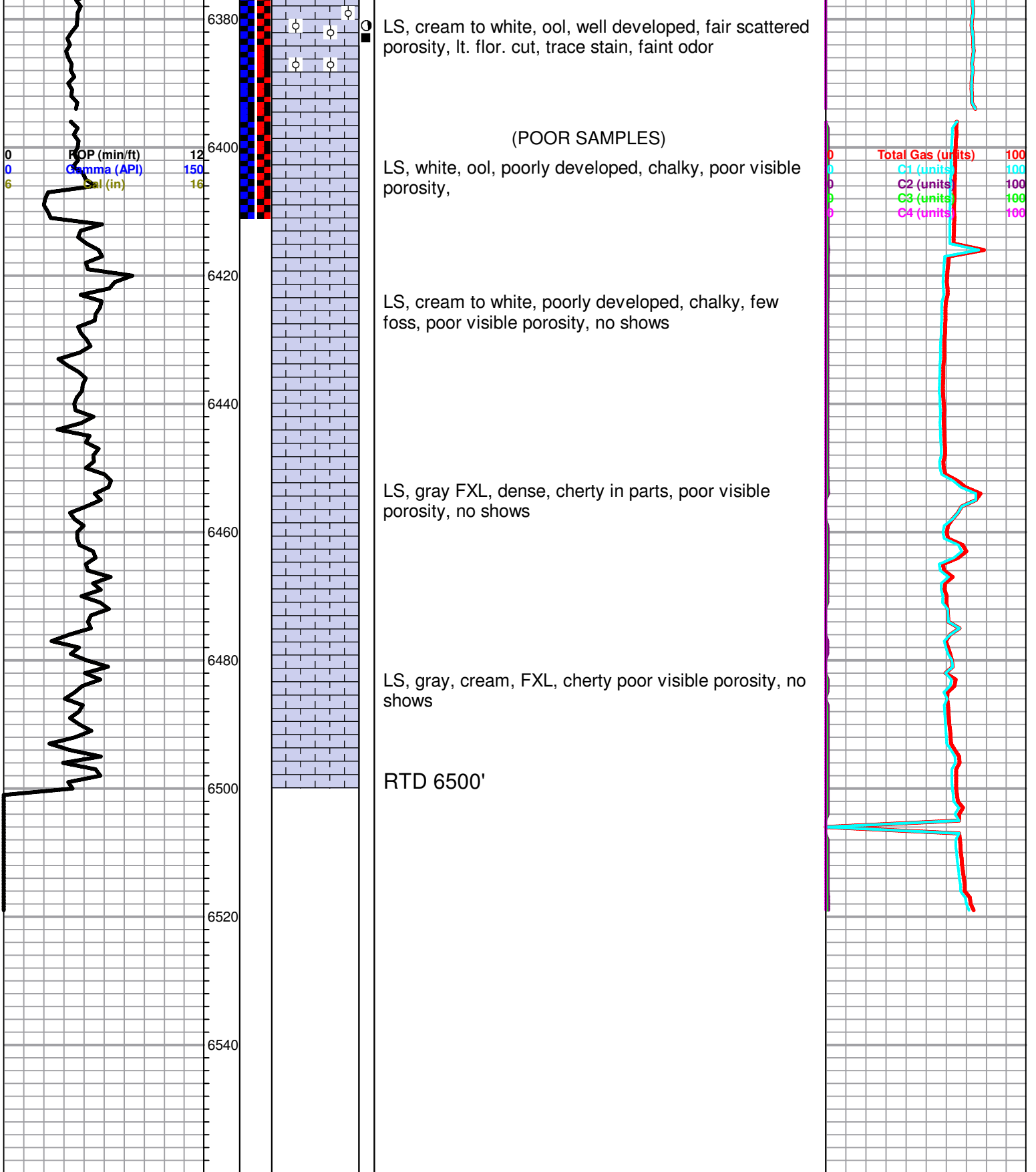
LS, brn tan, mottled, FXL, cherty in parts, dense, poor visible porosity

LS, brown, FXL, dense, trace, gray to black shale

LS, gray to brown, FXL, dense, poor visible porosity, cherty no shows









DRILL STEM TEST REPORT

Prepared For: **Palmer Oil, Inc.**

PO Box 399
Garden City, KS 67846

ATTN: Wyatt Urban

Laura #21-3

21-32s-37w Stevens,KS

Start Date: 2013.12.13 @ 09:31:00

End Date: 2013.12.13 @ 15:37:00

Job Ticket #: 55663 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.12.16 @ 15:29:00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

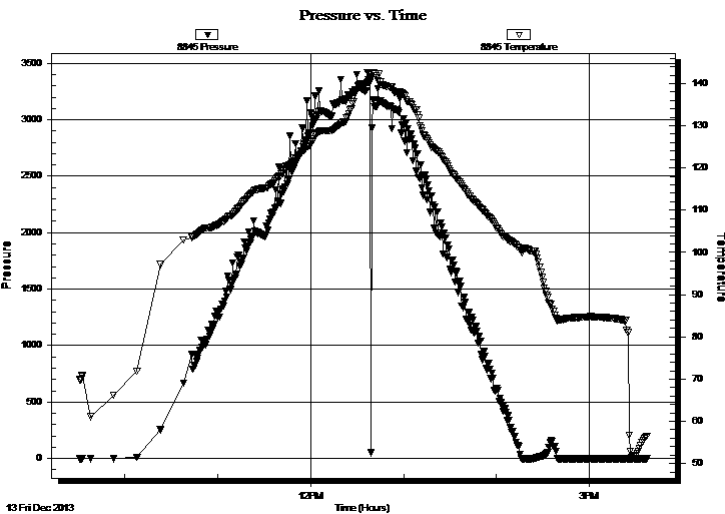
21-32s-37w Stevens,KS
Laura #21-3
Job Ticket: 55663 **DST#: 1**
Test Start: 2013.12.13 @ 09:31:00

GENERAL INFORMATION:

Formation:	St. Louis				
Deviated:	No Whipstock:	ft (KB)	Test Type:	Conventional Bottom Hole (Initial)	
Time Tool Opened:			Tester:	Sam Esparza	
Time Test Ended:	15:37:00		Unit No:	64	
Interval:	6326.00 ft (KB) To 6410.00 ft (KB) (TVD)		Reference Elevations:	3153.00 ft (KB)	
Total Depth:	6410.00 ft (KB) (TVD)			3140.00 ft (CF)	
Hole Diameter:	7.88 inches	Hole Condition: Good	KB to GR/CF:	13.00 ft	

Serial #: 8845	Outside				
Press@RunDepth:	psig @	6327.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2013.12.13	End Date:	2013.12.13	Last Calib.:	2013.12.13
Start Time:	09:31:05	End Time:	15:36:59	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IF:
IS: MISRUN PACKER FAILURE
FF:
FS:



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
500.00	Mud 100m	5.36

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palmer Oil, Inc.
 PO Box 399
 Garden City, KS 67846

 ATTN: Wyatt Urban

21-32s-37w Stevens,KS

Laura #21-3

Job Ticket: 55663

DST#: 1

Test Start: 2013.12.13 @ 09:31:00

GENERAL INFORMATION:

Formation: **St. Louis**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 15:37:00

Test Type: Conventional Bottom Hole (Initial)
 Tester: Sam Esparza
 Unit No: 64

Interval: **6326.00 ft (KB) To 6410.00 ft (KB) (TVD)**
 Total Depth: 6410.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3153.00 ft (KB)
 3140.00 ft (CF)
 KB to GR/CF: 13.00 ft

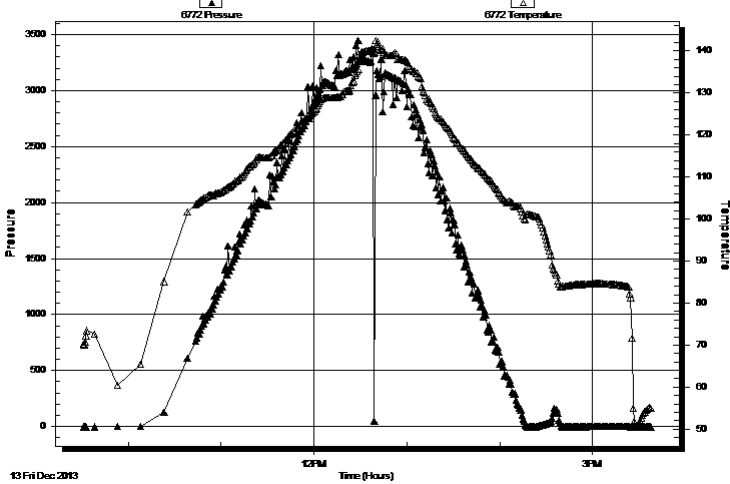
Serial #: 6772 Outside

Press@RunDepth: psig @ 6327.00 ft (KB)
 Start Date: 2013.12.13 End Date: 2013.12.13
 Start Time: 09:31:05 End Time: 15:37:29

Capacity: 8000.00 psig
 Last Calib.: 2013.12.13
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:
 IS: MISRUN PACKER FAILURE
 FF:
 FS:

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
500.00	Mud 100m	5.36

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

21-32s-37w Stevens,KS
Laura #21-3
Job Ticket: 55663 **DST#: 1**
Test Start: 2013.12.13 @ 09:31:00

Tool Information

Drill Pipe:	Length: 6127.00 ft	Diameter: 3.80 inches	Volume: 85.95 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 181.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 86.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	6326.00 ft			Final 90000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	112.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			6299.00	
Shut In Tool	5.00			6304.00	
Hydraulic tool	5.00			6309.00	
Jars	5.00			6314.00	
Safety Joint	3.00			6317.00	
Packer	5.00			6322.00	28.00 Bottom Of Top Packer
Packer	4.00			6326.00	
Stubb	1.00			6327.00	
Recorder	0.00	6772	Outside	6327.00	
Recorder	0.00	8845	Outside	6327.00	
Perforations	13.00			6340.00	
Change Over Sub	1.00			6341.00	
Drill Pipe	63.00			6404.00	
Change Over Sub	1.00			6405.00	
Bullnose	5.00			6410.00	84.00 Bottom Packers & Anchor

Total Tool Length: 112.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

21-32s-37w Stevens,KS
Laura #21-3
Job Ticket: 55663 **DST#: 1**
Test Start: 2013.12.13 @ 09:31:00

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: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
500.00	Mud 100m	5.365

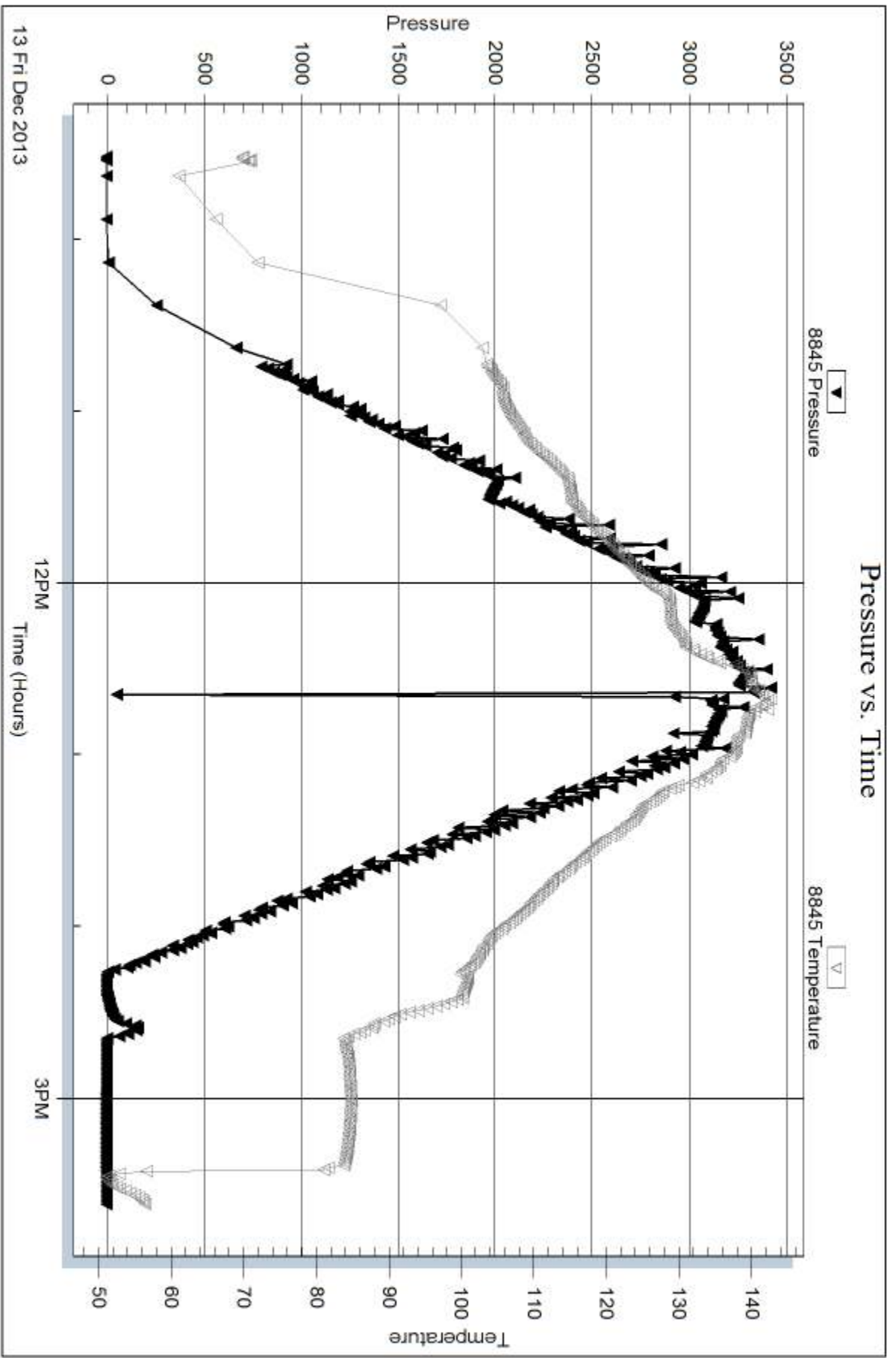
Total Length: 500.00 ft Total Volume: 5.365 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8845

Outside Palmer Oil, Inc.

Laura #21-3

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 55663

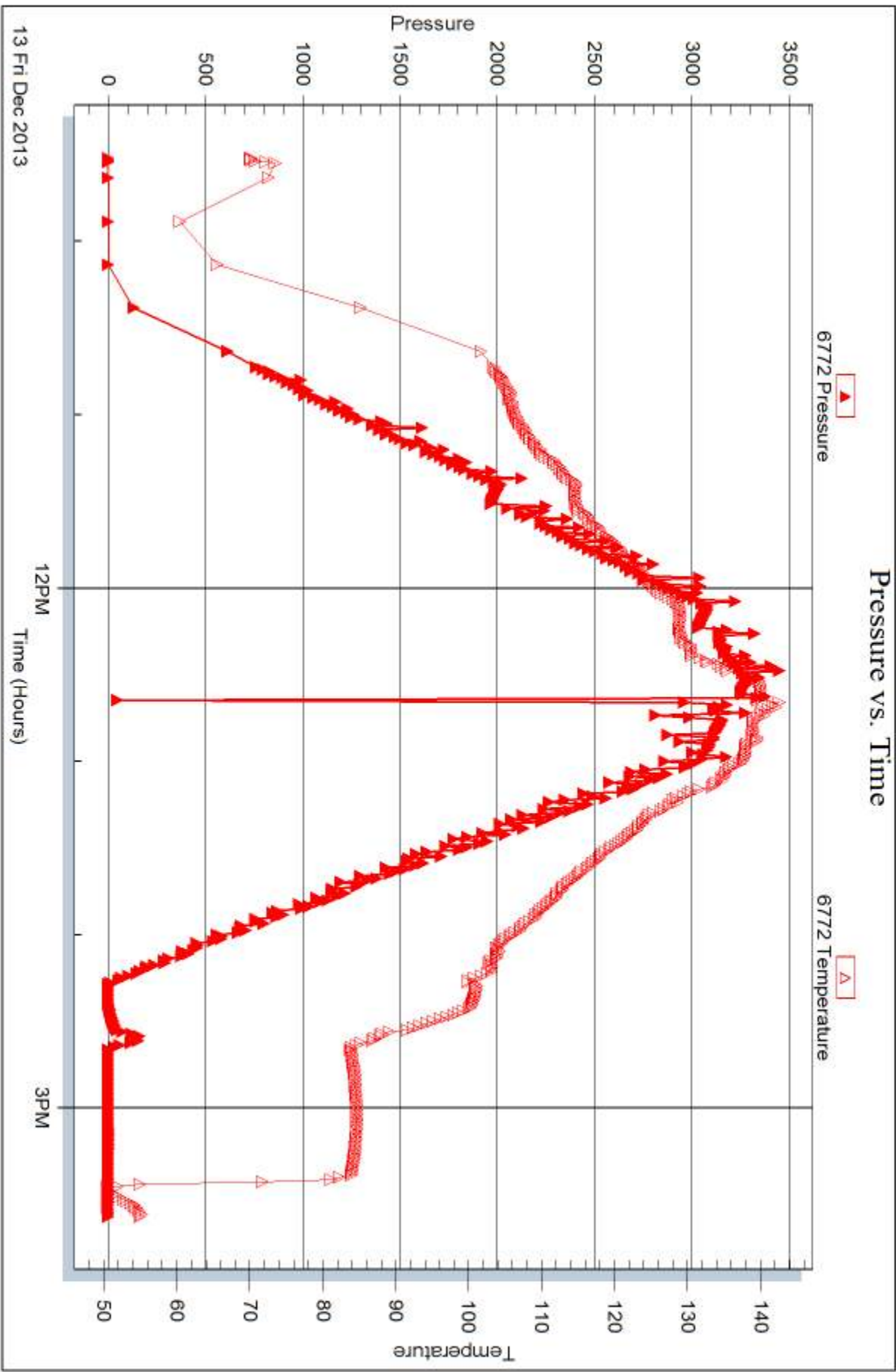
Printed: 2013.12.16 @ 15:29:02

Serial #: 6772

Outside Palmer Oil, Inc.

Laura #21-3

DST Test Number: 1



13 Fri Dec 2013

12PM Time (Hours)

3PM



DRILL STEM TEST REPORT

Prepared For: **Palmer Oil, Inc.**

PO Box 399
Garden City, KS 67846

ATTN: Wyatt Urban

Laura #21-3

21-32s-37w Stevens,KS

Start Date: 2013.12.13 @ 16:04:00

End Date: 2013.12.13 @ 22:55:30

Job Ticket #: 55664 DST #: 2

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

Printed: 2013.12.16 @ 15:26:12

Palmer Oil, Inc. 21-32s-37w Stevens,KS Laura #21-3 DST # 2 St. Louis 2013.12.13



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palmer Oil, Inc.
 PO Box 399
 Garden City, KS 67846
 ATTN: Wyatt Urban

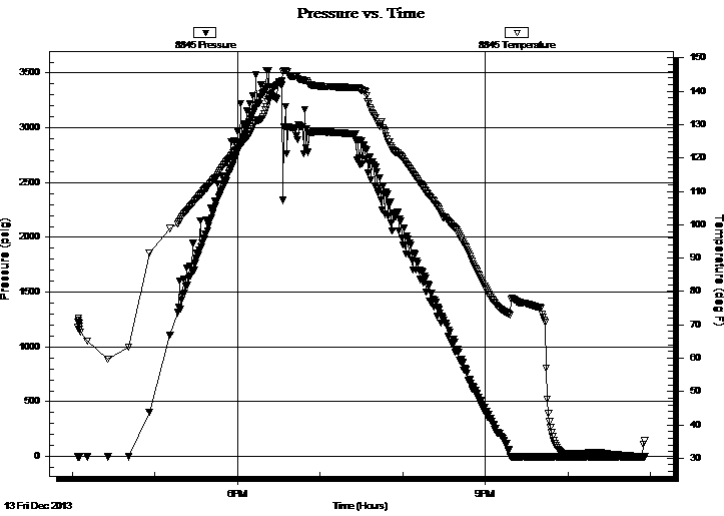
21-32s-37w Stevens,KS
Laura #21-3
 Job Ticket: 55664 **DST#: 2**
 Test Start: 2013.12.13 @ 16:04:00

GENERAL INFORMATION:

Formation: **St. Louis**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: Tester: Sam Esparza
 Time Test Ended: 22:55:30 Unit No: 64
Interval: 6310.00 ft (KB) To 6410.00 ft (KB) (TVD) Reference Elevations: 3153.00 ft (KB)
 Total Depth: 6410.00 ft (KB) (TVD) 3140.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 13.00 ft

Serial #: 8845 Outside
 Press@RunDepth: psig @ 6311.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.13 End Date: 2013.12.13 Last Calib.: 2013.12.13
 Start Time: 16:04:05 End Time: 22:55:29 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:
 IS: MISRUN PACKER FAILURE
 FF:
 FS:



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
650.00	MUD 100m	7.47

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palmer Oil, Inc.
 PO Box 399
 Garden City, KS 67846
 ATTN: Wyatt Urban

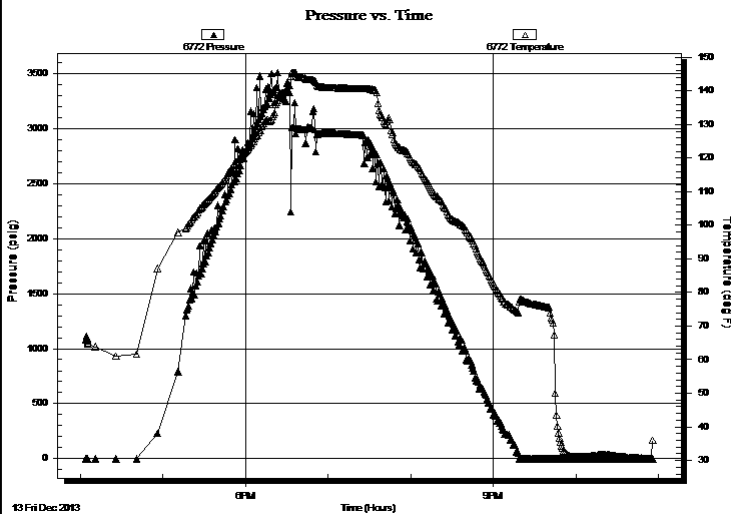
21-32s-37w Stevens, KS
Laura #21-3
 Job Ticket: 55664 **DST#: 2**
 Test Start: 2013.12.13 @ 16:04:00

GENERAL INFORMATION:

Formation: **St. Louis**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 22:55:30
 Interval: **6310.00 ft (KB) To 6410.00 ft (KB) (TVD)**
 Total Depth: 6410.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Sam Esparza
 Unit No: 64
 Reference Elevations: 3153.00 ft (KB)
 3140.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 6772 **Outside**
 Press@RunDepth: psig @ 6311.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.13 End Date: 2013.12.13 Last Calib.: 2013.12.13
 Start Time: 16:04:05 End Time: 22:55:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF:
 IS: MISRUN PACKER FAILURE
 FF:
 FS:



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
650.00	MUD 100m	7.47

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

21-32s-37w Stevens,KS
Laura #21-3
Job Ticket: 55664 **DST#: 2**
Test Start: 2013.12.13 @ 16:04:00

Tool Information

Drill Pipe:	Length: 6121.00 ft	Diameter: 3.80 inches	Volume: 85.86 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 181.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 86.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	6310.00 ft			Final 90000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	128.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			6283.00	
Shut In Tool	5.00			6288.00	
Hydraulic tool	5.00			6293.00	
Jars	5.00			6298.00	
Safety Joint	3.00			6301.00	
Packer	5.00			6306.00	28.00 Bottom Of Top Packer
Packer	4.00			6310.00	
Stubb	1.00			6311.00	
Recorder	0.00	6772	Outside	6311.00	
Recorder	0.00	8845	Outside	6311.00	
Perforations	29.00			6340.00	
Change Over Sub	1.00			6341.00	
Drill Pipe	63.00			6404.00	
Change Over Sub	1.00			6405.00	
Bullnose	5.00			6410.00	100.00 Bottom Packers & Anchor

Total Tool Length: 128.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil, Inc.
PO Box 399
Garden City, KS 67846
ATTN: Wyatt Urban

21-32s-37w Stevens,KS
Laura #21-3
Job Ticket: 55664 **DST#: 2**
Test Start: 2013.12.13 @ 16:04:00

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: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
650.00	MUD 100m	7.469

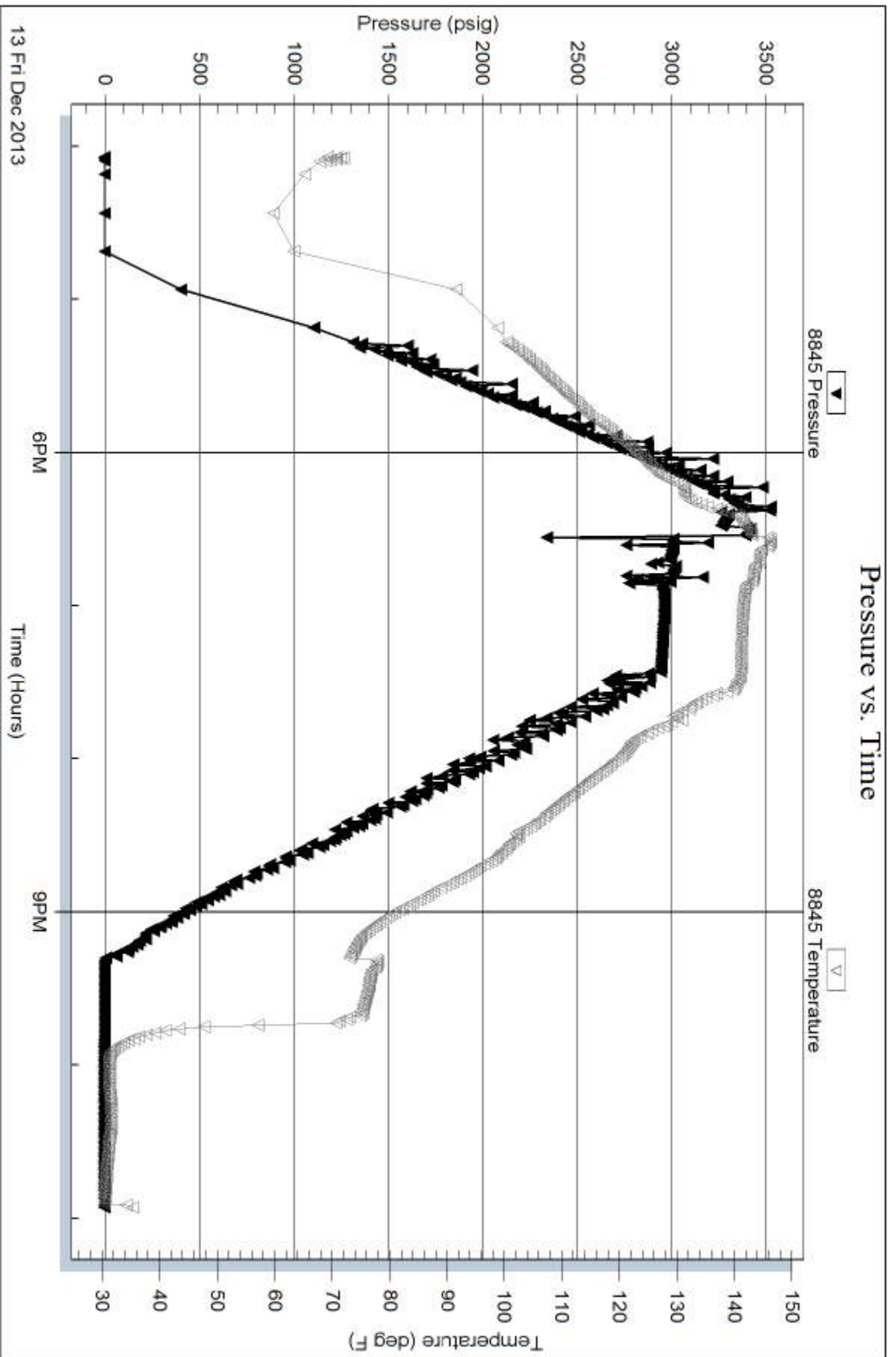
Total Length: 650.00 ft Total Volume: 7.469 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8845

Outside Palmer Oil, Inc.

Laura #21-3

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 55664

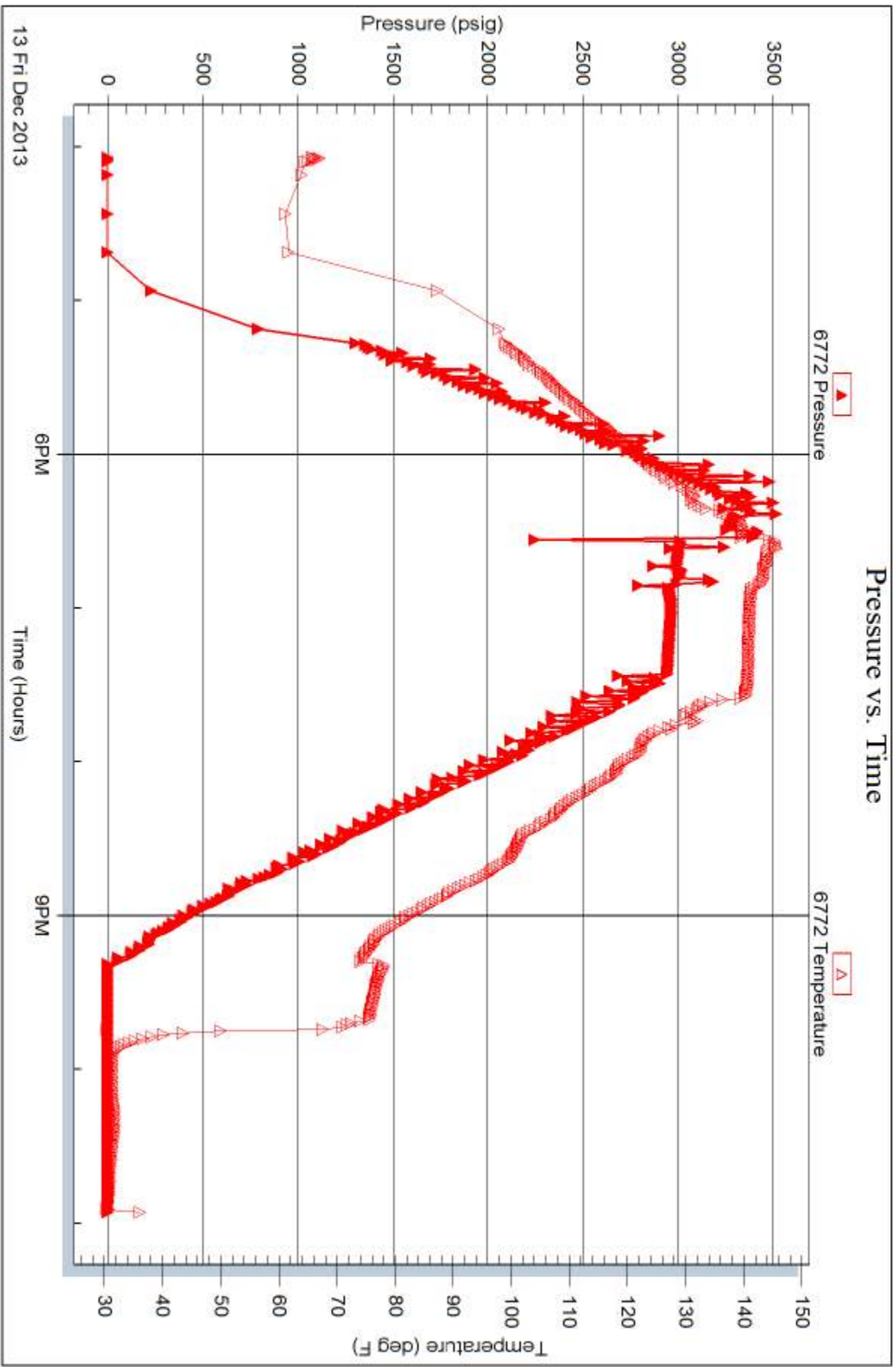
Printed: 2013.12.16 @ 15:26:14

Serial #: 6772

Outside Palmer Oil, Inc.

Laura #21-3

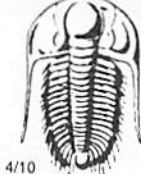
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 55664

Printed: 2013.12.16 @ 15:26:15



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55663

Well Name & No. Lanna #21-3 Test No. 1 Date 12/13/13
 Company Palmer Oil, Inc. Elevation 3153 KB 3140 GL
 Address 3118 Cummings RD P.O. Box 399 Garden city, KS 67846
 Co. Rep / Geo. Wyatt Urban Rig Duke #9
 Location: Sec. 21 Twp. 32S Rge. 37W Co. Stevens State KS

Interval Tested 6326-6410 Zone Tested St. Louis
 Anchor Length 84 Drill Pipe Run 6127 Mud Wt. 9.4
 Top Packer Depth 6322 Drill Collars Run 181 Vis 57
 Bottom Packer Depth 6326 Wt. Pipe Run 0 WL 8.0
 Total Depth 6410 Chlorides 2200 ppm System LCM 3

Blow Description IR:
ISI:
FF: Misrun Packer Failure.
FSI:

Rec	Feet of	%gas	%oil	%water	%mud
<u>500</u>	<u>Mud</u>			<u>100</u>	

Rec Total 500 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic Test 1250 T-On Location 8:35
 (B) First Initial Flow Jars 250 T-Started 9:31
 (C) First Final Flow Safety Joint 75 T-Open N/A
 (D) Initial Shut-In Circ Sub _____ T-Pulled N/A
 (E) Second Initial Flow Hourly Standby _____ T-Out 15:37
 (F) Second Final Flow Mileage 220 R/H 341 Comments _____
 (G) Final Shut-In Sampler _____
 (H) Final Hydrostatic Straddle _____
 Shale Packer _____ Ruined Shale Packer _____
 Ruined Packer 320
 Extra Packer _____ Extra Copies _____
 Initial Open Extra Recorder _____ Sub Total 0
 Initial Shut-In Day Standby _____ Total 2236
 Final Flow Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ Sub Total 1916

Approved By _____ Our Representative _____

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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55664

4/10

Well Name & No. Laura #21-3 Test No. 2 Date 12/13/13
 Company Palmer Oil, Inc. Elevation 3153 KB 3K10 GL
 Address 3118 Cummings Rd P.O. Box 399 Garden City, KS 67846
 Co. Rep / Geo. Wyatt Urban Rig Duke #9
 Location: Sec. 21 Twp. 32S Rge. 37W Co. Stevens State KS

Interval Tested 6310-6410 Zone Tested ST. Louis
 Anchor Length 100 Drill Pipe Run 6121 Mud Wt. 9.4
 Top Packer Depth 6306 Drill Collars Run 181 Vis 57
 Bottom Packer Depth 6310 Wt. Pipe Run 65 WL 8.0
 Total Depth 6410 Chlorides 2200 ppm System LCM 3

Blow Description IF:
ISI:
FF: Misrun Packer Failure
FSI:

Rec	Feet of	%gas	%oil	%water	%mud
<u>650</u>	<u>Mud</u>			<u>100</u>	

Rec Total 650 BHT — Gravity — API RW —@ — °F Chlorides — ppm

(A) Initial Hydrostatic X Test 1250 T-On Location 8:35
 (B) First Initial Flow X Jars 250 T-Started 16:04
 (C) First Final Flow X Safety Joint 75 T-Open N/A
 (D) Initial Shut-In X Circ Sub N/C T-Pulled N/A
 (E) Second Initial Flow X Hourly Standby — T-Out 22:56
 (F) Second Final Flow X Mileage 220 RTT Comments boxed Tools
 (G) Final Shut-In X Sampler —
 (H) Final Hydrostatic X Straddle — Ruined Shale Packer —
 Ruined Packer 320
 Extra Copies —
 Initial Open N/A Extra Packer — Sub Total 0
 Initial Shut-In N/A Extra Recorder — Total 1895
 Final Flow N/A Day Standby — MP/DST Disc't —
 Final Shut-In N/A Accessibility —
 Sub Total 1575

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.