



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1172548  
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: \_\_\_\_\_



1172548

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](mailto: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
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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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Palmer Oil, Inc.
Well Name	Loretta 36-1
Doc ID	1172548

All Electric Logs Run

Induction
Porosity
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Palmer Oil, Inc.
Well Name	Loretta 36-1
Doc ID	1172548

Tops

Name	Top	Datum
Marmaton	4570'	-1389
Cherokee	4842'	-1661
Atoka	5254'	-2073
Morrow	5416'	-2235
Chester	5835'	-2654
St. Gen	5985'	-2804
St.Louis	6042'	-2861
St.Louis B	6137'	-2956



# CEMENTING LOG

STAGE NO.

Date 10-15-73 District \_\_\_\_\_ Ticket No. 52244  
 Company Duke Rig # 9  
 Lease Loretta Well No. 36-1  
 County Stevens State NJ  
 Location Vel Big Bow KS Field \_\_\_\_\_

CEMENT DATA:  
 Spacer Type: H<sub>2</sub>O  
 Amt. \_\_\_\_\_ Skys Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG  
10 bbls

CASING DATA: Conductor  PTA  Squeeze  Misc   
 Surface  Intermediate  Production  Liner   
 Size 8 5/8 Type \_\_\_\_\_ Weight 24 # Collar \_\_\_\_\_

LEAD Pump Time \_\_\_\_\_ hrs. Type 45-35 6% gel  
2 bbl 1/4 # Plo Seal Excess \_\_\_\_\_  
 Amt. 625 Skys Yield 1.97 ft<sup>3</sup>/sk Density 12.4 PPG  
 TAIL Pump Time \_\_\_\_\_ hrs. Type CLASS A  
3 bbl 1/4 # Plo Seal Excess \_\_\_\_\_  
 Amt. 1200 Skys Yield 1.16 ft<sup>3</sup>/sk Density 15.6 PPG  
 WATER: Lead \_\_\_\_\_ gals/sk Tail \_\_\_\_\_ gals/sk Total \_\_\_\_\_ Bbls.

Casing Depths: Top 0 Bottom 1762

Pump Trucks Used 547-550  
 Bulk Equip. 774-744-956-201

Drill Pipe: Size \_\_\_\_\_ Weight \_\_\_\_\_ Collars \_\_\_\_\_  
 Open Hole: Size 12 1/4 T.D. 1765 ft. P.B. to \_\_\_\_\_ ft.

Floater Equipment: Manufacturer Weather Ford  
 Shoe: Type Guide shoe Depth \_\_\_\_\_  
 Float: Type AFU float in set Depth \_\_\_\_\_  
 Centralizers: Quantity \_\_\_\_\_ Plugs Top \_\_\_\_\_ Btm. \_\_\_\_\_  
 Stage Collars \_\_\_\_\_  
 Special Equip. \_\_\_\_\_  
 Disp. Fluid Type \_\_\_\_\_ Amt. \_\_\_\_\_ Bbls. Weight \_\_\_\_\_ PPG  
 Mud Type \_\_\_\_\_ Weight \_\_\_\_\_ PPG

CAPACITY FACTORS:  
 Casing: Bbls/Lin. ft. .0637 Lin. ft./Bbl. 15.7  
 Open Holes: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Drill Pipe: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Annulus: Bbls/Lin. ft. .0735 Lin. ft./Bbl. 13.6  
 Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Perforations: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Amt. \_\_\_\_\_

COMPANY REPRESENTATIVE Samuel Vignone CEMENTER Ben Bjo

TIME AM/PM	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
10:00						On location
8:45						Rigged up to well
8:50	2,000					Test lines 2,000
8:55	200		10		4	10 bbl of H <sub>2</sub> O ahead
9:00	250		229		6	Mixing lead cement at 12.4
9:38	300		271		5	Mixing tail cement at 15.6
9:45						Shut down to release plug plug left head
9:48	100		281		6	10 bbls gone
10:05	550		380		6	landed plug 1200psi release psi float holding 50 bbl of cement to surface
10:30						leaving location Thank You



# BASIC<sup>SM</sup>

ENERGY SERVICES

1700 S. Country Estates Rd.  
 Liberal, Kansas 67905  
 Phone 620-624-2277

## FIELD SERVICE TICKET

1717 04530 A

PRESSURE PUMPING & WIRELINE

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <b>10/22/13</b>	DISTRICT <b>1717</b>	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 <b>Palmer Oil/American Warrior</b>		LEASE <b>Loretta 36-1</b>		WELL NO.						
ADDRESS		COUNTY <b>Stevens</b>		STATE <b>KS</b>						
CITY		STATE		SERVICE CREW <b>Tommy/Santiago</b>						
AUTHORIZED BY <b>Tyce JRB</b>		JOB TYPE: <b>Z4Z 5 1/2 LS.</b>								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
178939	7.5									5:00
39273	7.5	39926	7.5							7:00
14354	7.5	19578	7.5				5/23/13			12:49
										2:06
										2:30
						MILES FROM STATION TO WELL <b>50</b>				

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

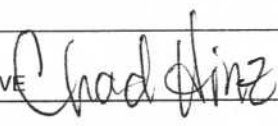
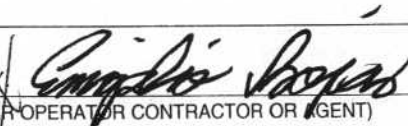
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. 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
CL105	AA-2 Cement	✓ SK	200		3640 00
CL103	60/40 POZ	SK	50		600 00
CC113	Gypsum	✓ Lb	940		705 00
CC111	Salt	✓ Lb	1,077		553 50
CC103	C-15	✓ Lb	113		1412 50
CC105	C-41P	✓ Lb	47		188 00
CC201	Gilsonite	✓ Lb	1000		670 00
CF1751	Auto Oil Float Shoe	✓ EA	1		360 00
CF607	Latch Down 14B	✓ EA	1		400 00
CF4452	Centralizers	✓ EA	12		900 00
CF4552	Basket	✓ EA	1		955 00
CF3000	Thread Lock	✓ EA	1		34 00
CC151	Mud flush	✓ EA	500		430 00
E101	Heavy Equip Mileage	Mi	100		700 00
CF240	Blending & Mixing Charge	SK	250		350 00
E113	Bulk Delivery	Tm	5.78		924 00
CE207	Depth Charge 6000' to 7000'	4hr	1		3240 00
CE504	Plug Container	50lb	1		250 00
E100	Pickup Mileage	Mi	50		212 50
SUB TOTAL					11,212.17

CHEMICAL / ACID DATA:			

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

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







# Cement Report

Customer <i>Palmer Oil/American Warrior</i>	Lease No.	Date <i>10/22, 23/13</i>
Lease <i>Loretta</i>	Well # <i>36-1</i>	Service Receipt
Casing <i>5 1/2</i>	Depth	County <i>Stevens</i>
Job Type <i>L.S.</i>	Formation	State <i>KS</i>
		Legal Description <i>36-31-39</i>

Pipe Data		Perforating Data		Cement Data
Casing size <i>5 1/2</i>	Tubing Size	Shots/Ft		Lead <i>200 SY</i>
Depth	Depth	From	To	<i>AA-2 @ 14.8#</i>
Volume	Volume	From	To	<i>1.51 4.64</i>
Max Press <i>2500#</i>	Max Press	From	To	Tail in
Well Connection <i>P.C.</i>	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	

0/23

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
9:00					<i>on loc, spot &amp; R.O., Safety mfg</i>
0:49	<i>3000</i>				<i>Test Lines</i>
0:52	<i>470</i>		<i>12</i>	<i>5</i>	<i>Pump mud flush</i>
0:54	<i>470</i>		<i>5</i>	<i>5</i>	<i>H2O spacer</i>
0:56					<i>Plug R+M</i>
0:12	<i>690</i>		<i>0</i>	<i>5</i>	<i>start mixing @ 14.8#</i>
0:22	<i>0</i>		<i>54</i>	<i>0</i>	<i>Finished mixing, washup, Drop Pk,</i>
0:30	<i>200</i>		<i>0</i>	<i>5</i>	<i>start Disp</i>
0:59	<i>910</i>		<i>138</i>	<i>2</i>	<i>slow Rate</i>
02:04	<i>920-1700</i>		<i>146</i>	<i>0</i>	<i>Plug Down</i>
02:06	<i>0</i>				<i>Release Psi, float held, Job Comp</i>
					<i>Thank You,</i>
					<i>Chad &amp; Crew.</i>

Service Units	<i>746939</i>	<i>3722337926</i>	<i>1435419574</i>		
Driver Names	<i>C. Hinz</i>	<i>T. Marcellos</i>	<i>S. Chwetz</i>		

Customer Representative \_\_\_\_\_ Station Manager *Jerry Bennett* \_\_\_\_\_ Cementer *Chad* \_\_\_\_\_ Taylor Printing, Inc.





# Mudgrouve

**PETROLEUM  
CORPORATION**  
Claflin, Kansas

## NOTES

Company: Palmer Oil

Lease: Loretta 36-1

Field: N/A

Location: N2-NW-SW (2310' FSL &660' FWL)

Sec: 36 Twsp: 31S Rge: 39W

County: Stevens State: Kansas

KB: 3181' GL: 3168'

API #: 15-189-22819-00-00

Contractor: Duke Drilling Co., Inc. (Rig # 9)

Spud: 10-14-2013 Comp: 10-22-2013

RTD: 6250' LTD: 6249'

Mud Up: 4450' Type Mud: Chemical

Samples Saved From: 4550' to RTD

Drilling Time Kept From: 3700' to RTD

Samples Examined From: 4550' to RTD

Geological Supervision From: 4500' to RTD

Geologist on Well: Wyatt Urban

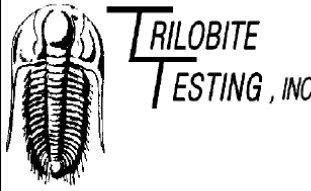
Surface Casing: 8 5/8" @ 1700'

Electronic Surveys: Logged By Pioneer Energy Services, DIL, DCPL, Micro, Sonic

## Palmer Oil, Inc. well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
Palmer Oil, Loretta 36-1					Palmer Oil, Cynthia 35-7				Anadarko Petroleum, #3 Smith			
N2-NW-SW					S2-NW-SW-NW				NW-SE-NW			
36-31S-39W					3-16S-20W				36-31S-39W			
3181 KB					3192 KB		Structural Relationship		3140 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log

Top Anhydrite	1428	1753										
Base Anhydrite	1457	1724										
Heebner	3857	-676										
B. Heebner									3838	-698		
Lansing	4006	-825			4010	-818	-7					
Marmaton	4572	-1391	4570	-1389	4582	-1390	-1	1	4586	-1446	55	57
Cherokee Shale	4849	-1668	4842	-1661	4859	-1667	-1	6				
Atoka	5254	-2073	5254	-2073								
Morrow	5419	-2238	5416	-2235	5422	-2230	-8	-5	5316	-2176	-62	-59
Chester	5839	-2658	5835	-2654	5829	-2637	-21	-17				
St. Gen	5982	-2801	5985	-2804	5940	-2748	-53	-56	5860	-2720	-81	-84
St. Louis	6039	-2858	6042	-2861	6088	-2896	38	35	5956	-2816	-42	-45
St. Louis B.	6136	-2955	6137	-2956								



## DRILL STEM TEST REPORT

**Palmer Oil, Inc**  
3118 N Cummings Rd,  
PO Box 399  
Garden City KS, 67846  
ATTN: Wyatt

**36-31s-39w Stevens Co, KS**  
**Loretta 36-1**  
Job Ticket: 52985      **DST#:** 1  
Test Start: 2013.10.20 @ 23:20:00

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**GENERAL INFORMATION:**

Formation: **St. Louis**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 02:44:15  
Time Test Ended: 08:27:45

Test Type: Conventional Bottom Hole (Initial)  
Tester: Jace McKinney  
Unit No: 46

Interval: **6018.00 ft (KB) To 6097.00 ft (KB) (TVD)**  
Total Depth: 6097.00 ft (KB) (TVD)  
Hole Diameter: inches Hole Condition: Poor      Reference Elevations: ft (KB)  
KB to GR/CF: ft

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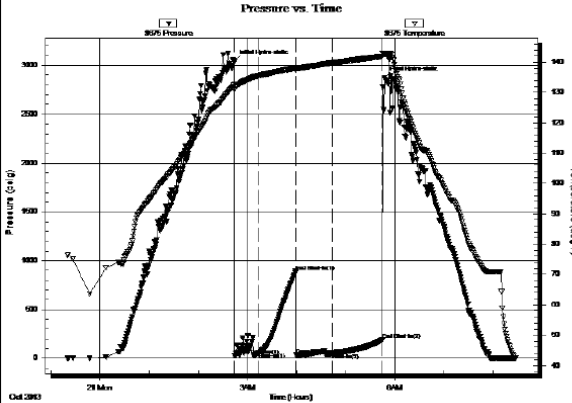
**Serial #: 8675 Inside**

Press@RunDepth: 52.34 psig @ 6019.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2013.10.20      End Date: 2013.10.21      Last Calib.: 2013.10.21  
Start Time: 23:20:15      End Time: 08:27:45      Time On Btm: 2013.10.21 @ 02:44:00  
Time Off Btm: 2013.10.21 @ 05:47:15

TEST COMMENT: Weak surface, died in 2 min  
No return blow  
No blow  
No return blow

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**Pressure vs. Time**



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3038.35	132.54	Initial Hydro-static
1	27.78	131.14	Open To Flow (1)
30	58.82	135.49	Shut-In(1)
75	890.72	137.98	End Shut-In(1)
76	36.92	137.43	Open To Flow (2)
120	52.34	139.73	Shut-In(2)
181	189.47	141.86	End Shut-In(2)
184	2868.68	142.72	Final Hydro-static

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**Recovery**

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

**Gas Rates**

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

**ROCK TYPES**

Coal	Lmst fw>7	shale, gry	shale, red
Lmst fw<7	shale, grn	Carbon Sh	Ss

**ACCESSORIES**

<b>FOSSIL</b>	<b>TEXTURE</b>
Oolite	Chalky
Oomoldic	Finexin

# OTHER SYMBOLS

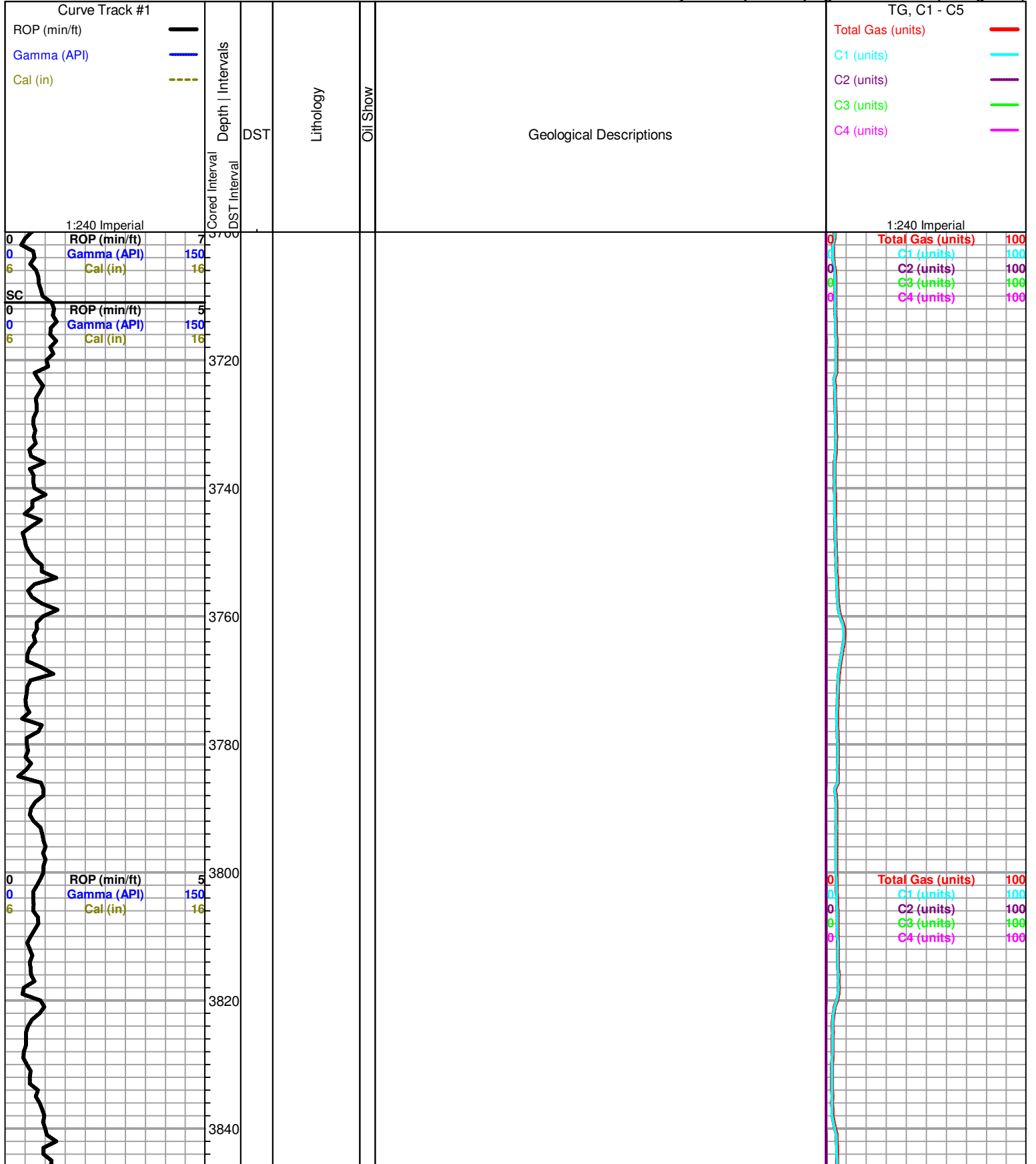
## Oil Show

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

## DST

- DST Int
- DST alt
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)



3860  
3880  
3900  
3920  
3940  
3960  
3980  
4000  
4020  
4040  
4060

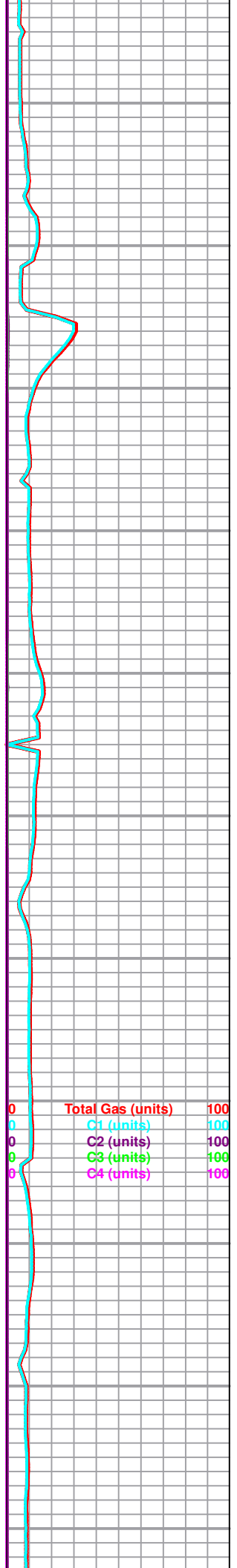
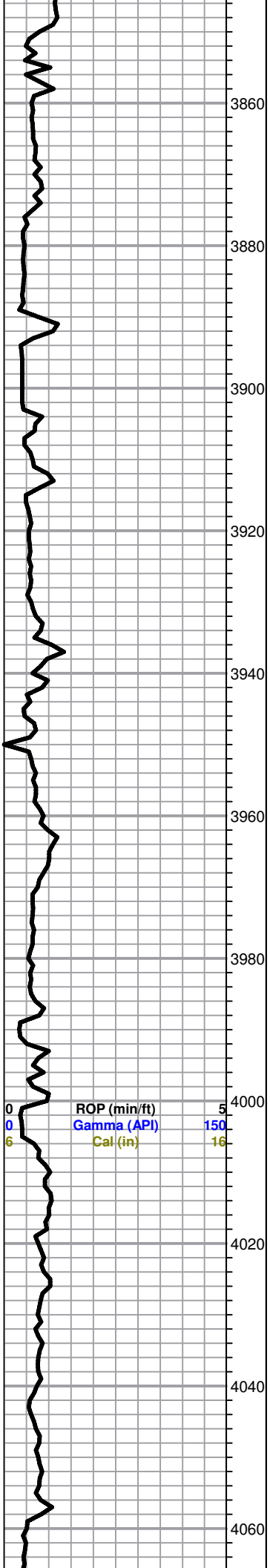
Heebner 3857 (-676)

Heebner 3872 (-691)

Lansing 4006 (-825)

0	ROP (min/ft)	5
0	Gamma (API)	150
6	Cal (in)	16

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



4080  
4100  
4120  
4140  
4160  
4180  
4200  
4220  
4240  
4260  
4280

ROP (min/ft) 5  
Gamma (API) 150  
Cal (in) 16

6

6

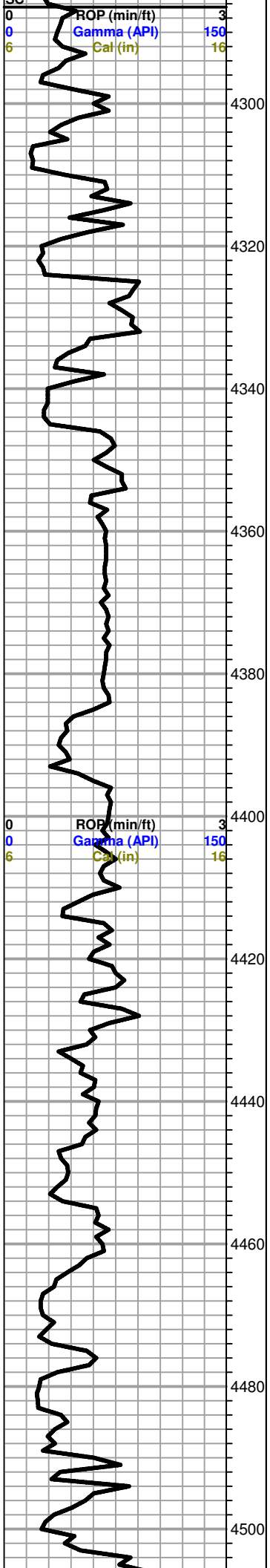
Total Gas (units) 100  
C1 (units) 100  
C2 (units) 100  
C3 (units) 100  
C4 (units) 100

0

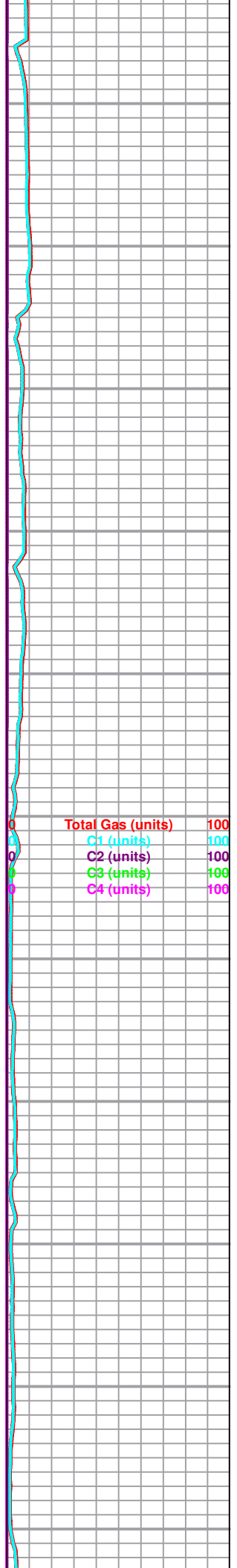
0

0

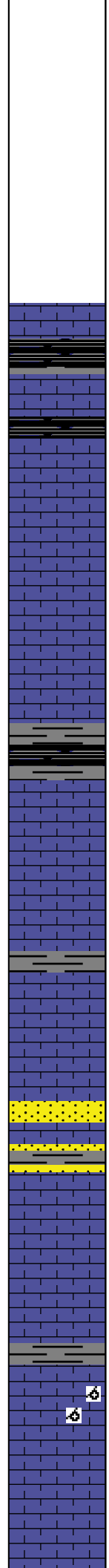
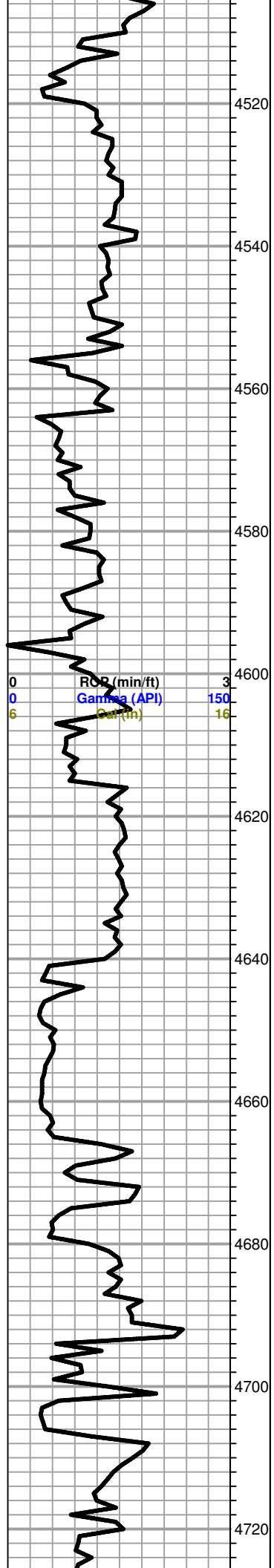
0



4300  
4320  
4340  
4360  
4380  
4400  
4420  
4440  
4460  
4480  
4500



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



LS, gray to tan, FXL, few foss, dense, chery in parts

**Marmaton 4572(-1391)**

LS, gray to tan, sandy, FXL, few foss, cherty in parts, poor visible porosity

LS, tan FXL, few foss, poor visible porosity, slightly cherty, dense

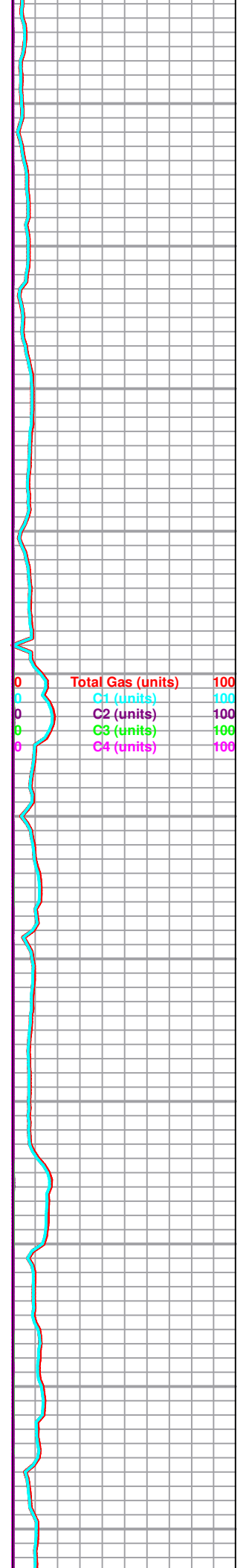
LS, tan to brown, FXL, cherty, dense, slightly chalky

LS, A/A

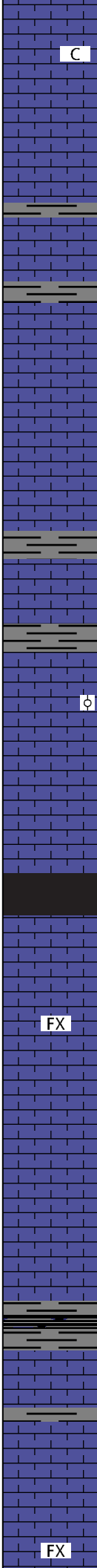
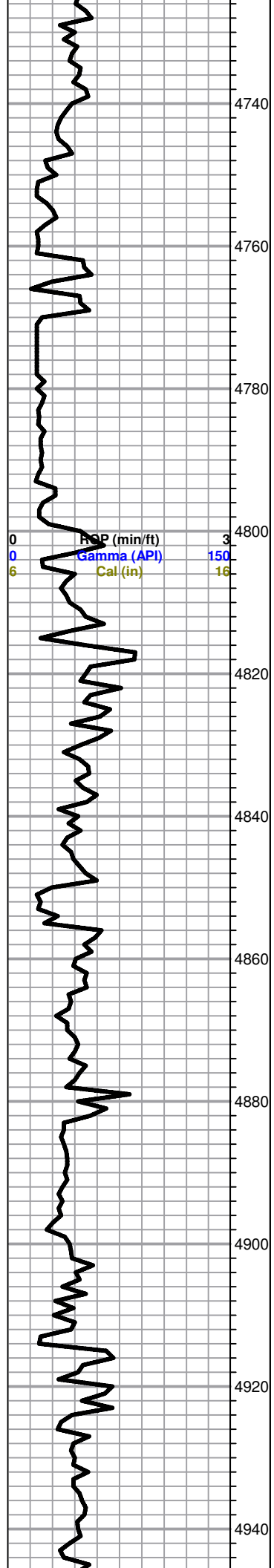
LS, A/A, trc sand, gray to green, f. grain, well sorted, friable

LS, cream to tan, FXL, ool, chalky, no shows

LS, cream to tan, oom, good vuggy porosity, chalky, N/S







**C**  
 LS, tan to brown, FXL, v. chalky, few foss, poor visible porosity, N/S

LS, tan, FXL, chalky, few foss, dense

LS, tan to brown, FXL, few foss, dense, trc sh. black silty

LS, gray to tan, FXL, dense, poor scattered porosity, cherty in parts

**o**  
 LS, tan to buff, ool, poor oom porosity, slightly chalky, trc white chert

LS, gray, FXL, dense, poor visible porosity, chalky,

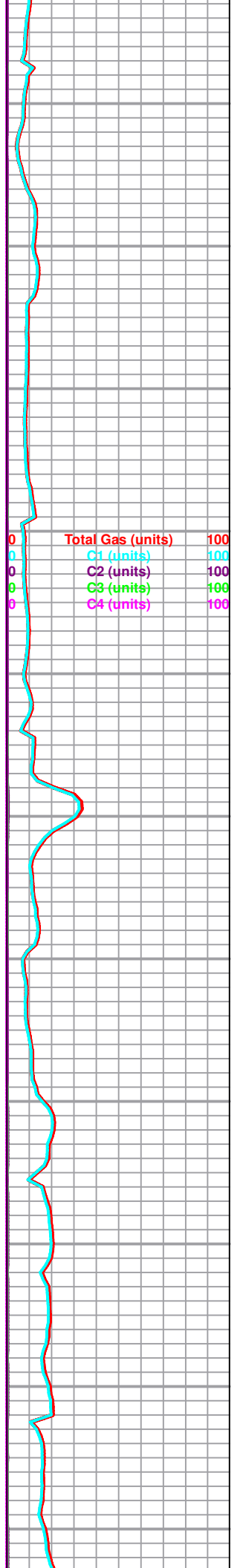
**Cherokee Shale 4849 (-1668)**  
 Black carb shale

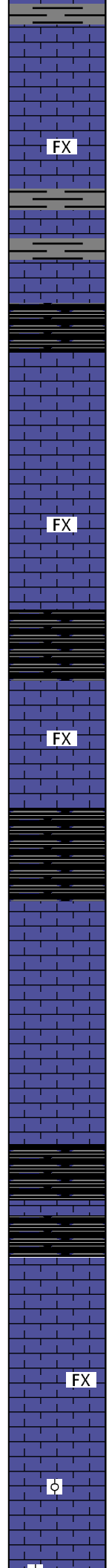
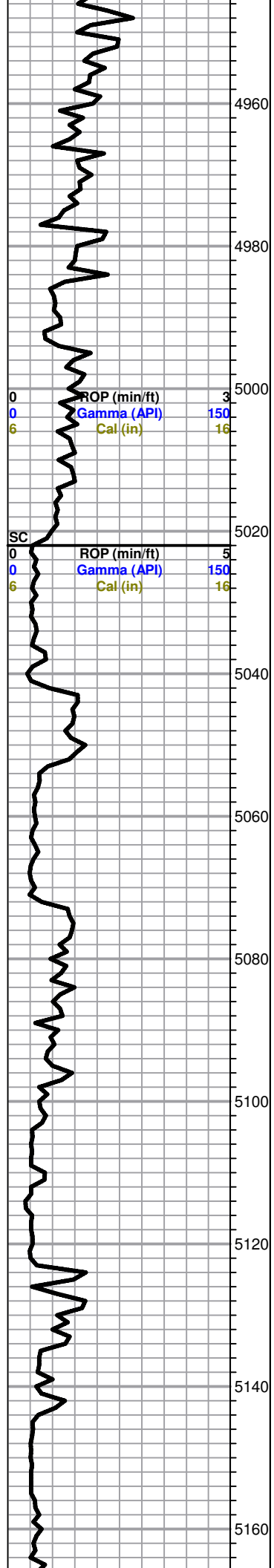
**FX**  
 LS, tan FXL, chalky few foss, poor scattered porosity, trc black carb shale

LS, gray, sandy, dense, poor visible porosity, no shows

LS, A/A

**FX**  
 LS, A/A, trch LS, tan FXL, dense, few foss, chalky in parts





in parts

LS, tan to brown, FXL, cherty, dense, poor scattered porosity, no shows

Sh, black to gray, trc, LS, tan to buff, cherty, dense

LS, gray to tan, FXL, slightly chalky, few foss, poor visible porosity, no shows

Sh, black to gray, silty, soft

LS, gray to buff, FXL, slightly chalky, few foss, dense, poor scattered porosity

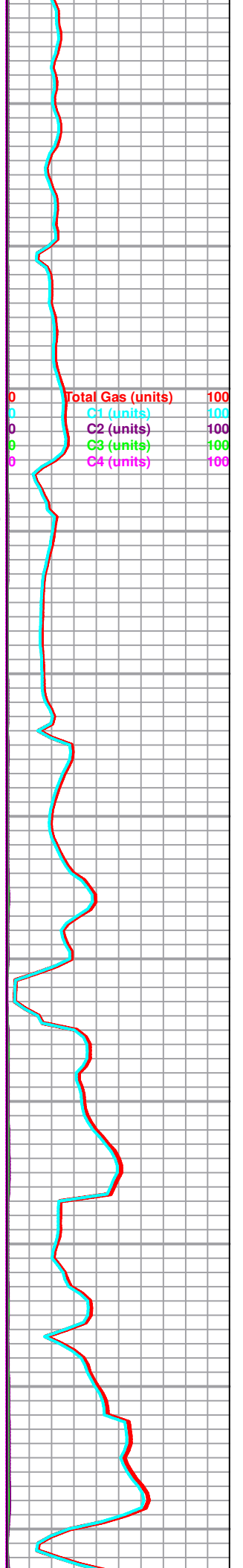
Sh, black carb soft

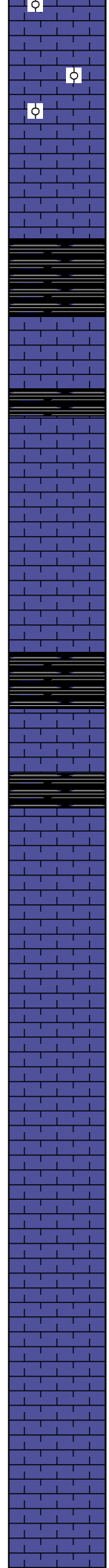
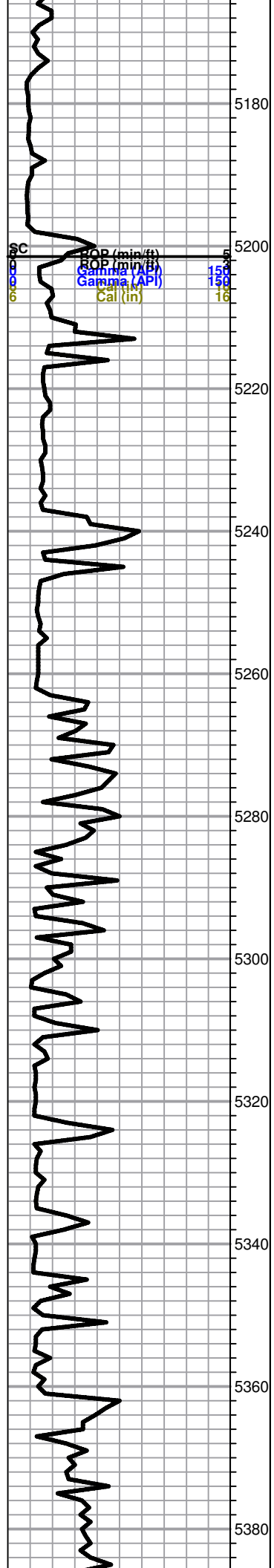
LS, cream to white, F-MXL, SL. chalky, few foss, friable, no shows

Black carb shale

LS, cream to tan FXL, slightly cherty, chalky, foss in parts, poor visible porosity, no shows

LS, gray to tan, FXL, few ool, slightly cherty, poor scattered porosity, no shows





LS, cream to tan, ool, poor scattered porosity, chalky, no shows

Black carb Sh

Sh, black, trace LS, cream to tan, FXL, chalky, few foss, poor visible porosity, no shows

LS, tan few ool, poor scattered porosity, no shows  
Atoka 5247 (-2066)

Black shale, silty, soft

Black Shale A/A

LS, tan to brown, FXL, cherty, poor visible porosity, trace green shale

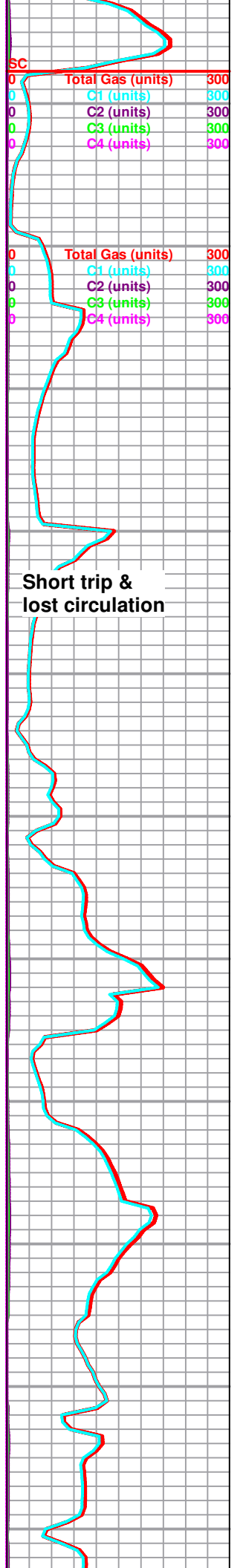
Black shale

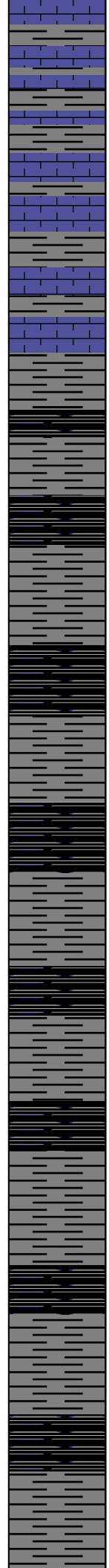
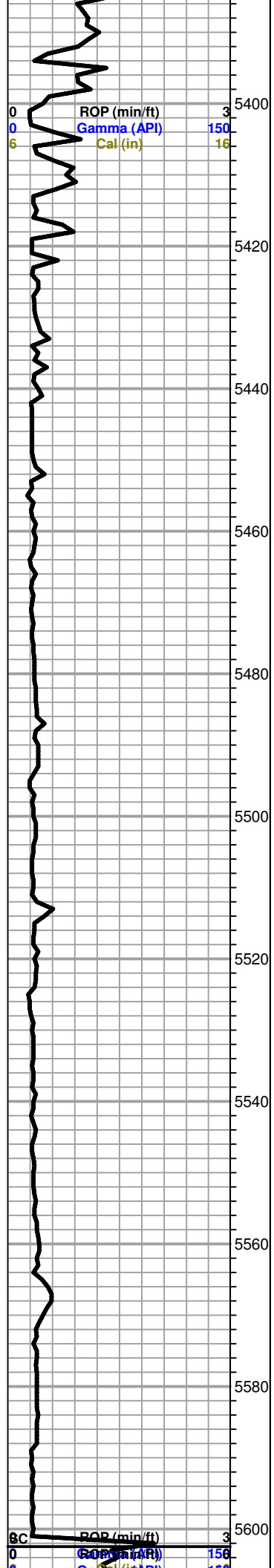
LS, tan to buff, FXL, dense, few foss, poor visible porosity, no shows

Black shale, trace LS. A/A

LS, gray to dark gray, FXL, dense, poor visible porosity, dense, slightly cherty,

LS, brown to FXL, dense, few foss, poor visible porosity, trace black shale





Sh, black trc, LS, gray, FXL, cherty, poor scattered porosity

Sh, A/A, trc, white chert, soft, LS, gray, FXL, cherty, slightly chalky

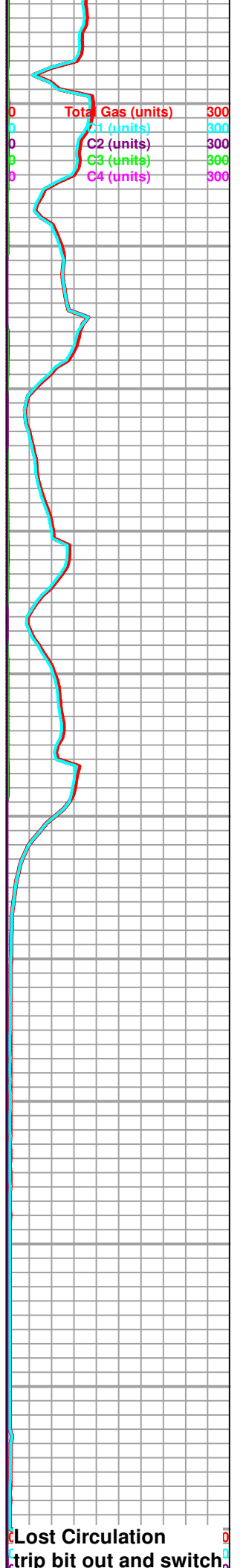
**Morrow 5427 (-2246)**

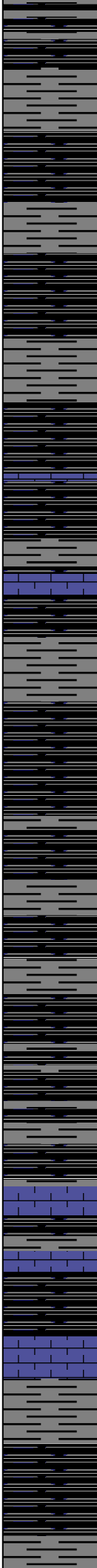
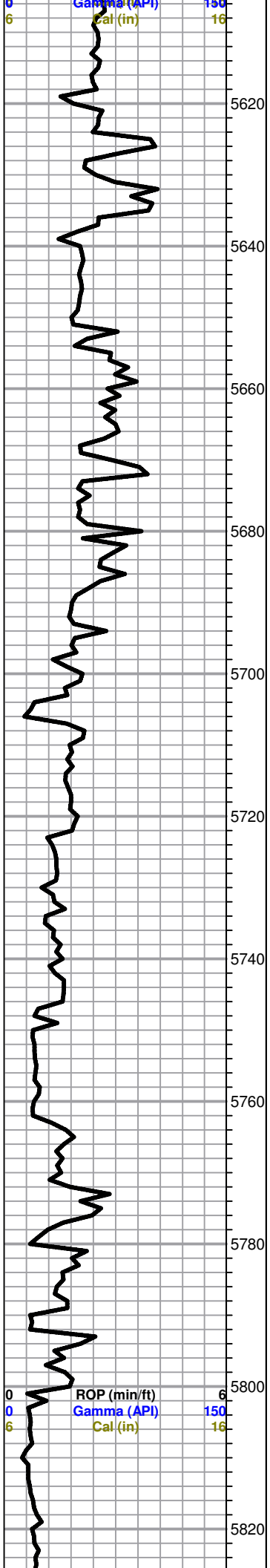
Sh. black to gray, trc, LS, gry FXL, dense, poor visible porosity

Sh, black LS, cream to gray dense few foss, poor visible porosity, no shows

Sh, black and gray

Sh, black to gray, soft





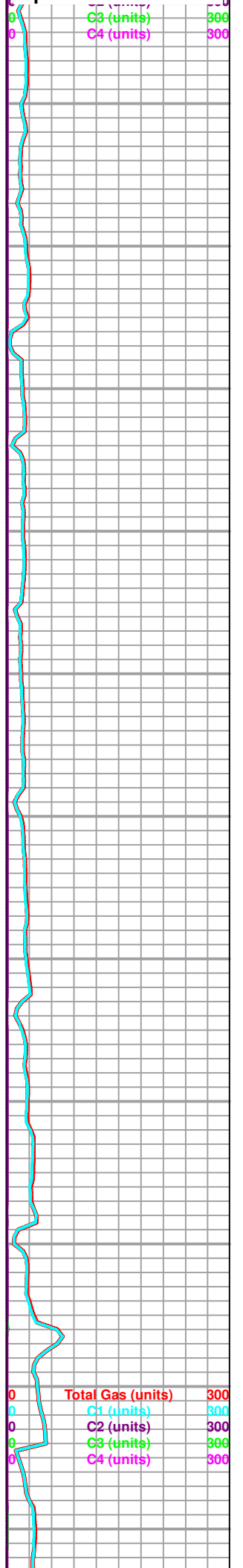
Sh A/A

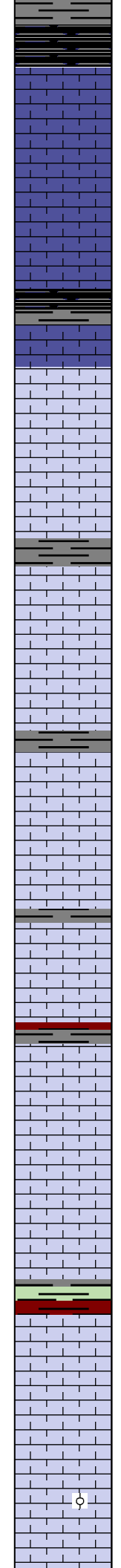
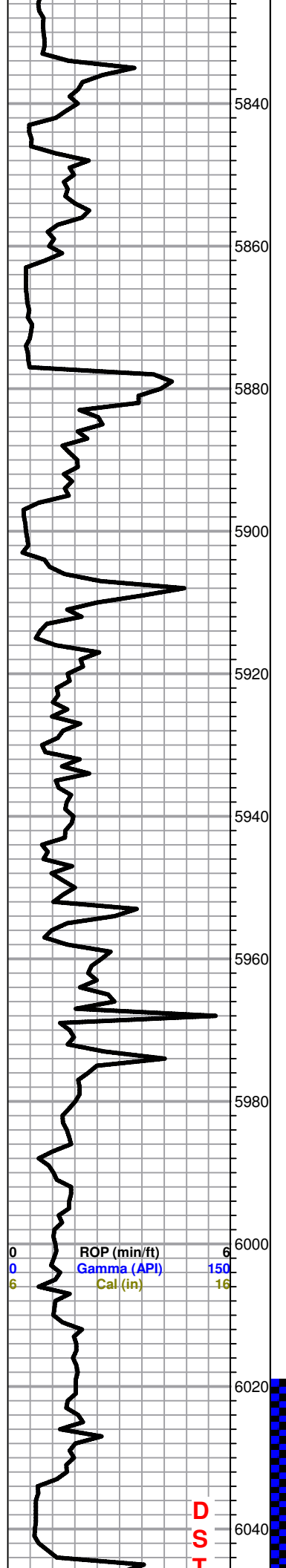
Black shale, trc, LS, white to cream chalky, poor visible porosity, no shows (poor sample quality)

Sh, A/A

Shale, black to gray, soft

Sh, black, trc, LS, brown to tan FXL, dense, chalky, no shows





**Chester 5833 (-2652)**

LS, tan to buff, FXL, dense, poor visible porosity, few foss, no shows

Sh, black to gray, silty, trc, LS, tan to brown, FXL, dense, chalky, poor scattered porosity

LS, tan brown, mar, f.grained micro ool, /sucrosic

**St. Gen 5918 (-2737)**

LS, tan to maroon, f. grained, micro ool, sucrosic

LS, tan, maroon, micro ool, sucrosic, no shows

LS, A/A, trace black, maroon, and green shales

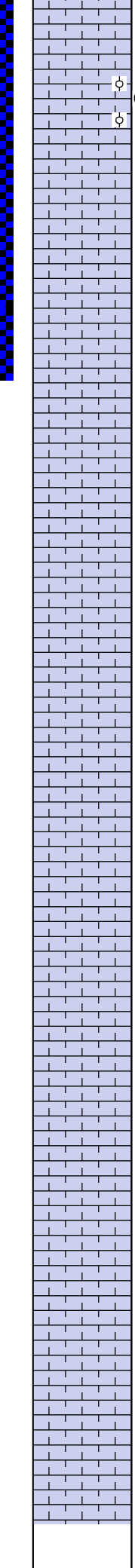
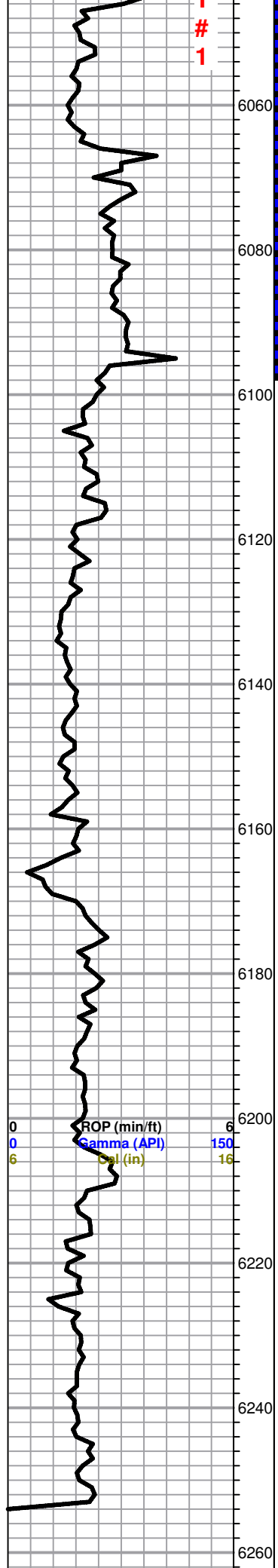
**St. Louis 6039 (-2858)**

LS, white to cream, ool, poorly developed, chalky, no flor. cut, no odor, no stain, trc white chert soft

**Mud-Co**  
**Mud Check**  
 10/20/2013  
 5878' @ 6:10 AM  
 Wt. 8.9  
 Visc. 53  
 LCM, 24lbs  
 pH 9.0

0	Total Gas (units)	300
0	C1 (units)	300
0	C2 (units)	300
0	C3 (units)	300
0	C4 (units)	300
<b>CFS 20-40-60</b>		
0	Wiper trip	100
0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

**D S H**



LS, white- cream fair-poorly developed ool, chalky, trc black stain in 60 min. sample, v. light flor. cut, no odor

LS, cream to gray, FXL, dense, poor scattered porosity, cherty in parts, no show

LS, white to cream, FXL, dense, poor visible porosity, no shows

Slug black shale, LS, cream to buff, poorly developed ool, chalky, poor scattered porosity, no shows

LS, white to cream FXL, dense, poor vis porosity, slightly chalky in parts, no shows

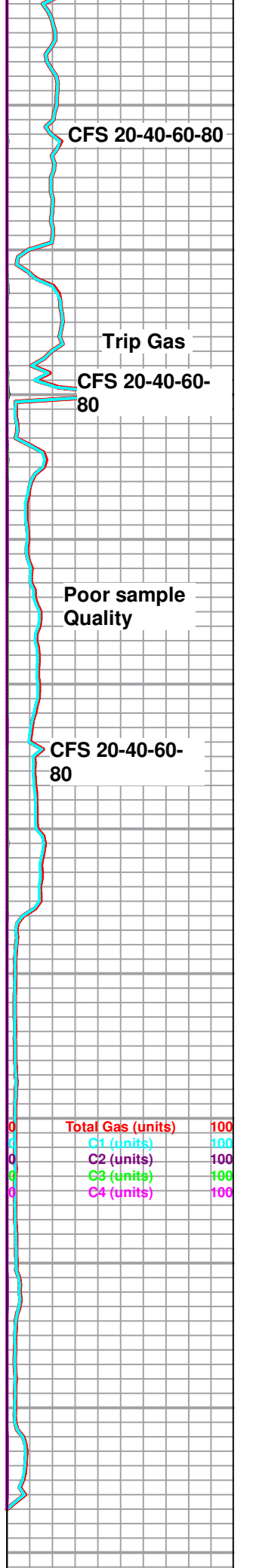
LS, white to cream, FXL, poor visible porosity, slightly chalky, dense, no shows

Ls, white to cream, FXL, chalky, poor visible porosity, no shows

LS, cream tan FXL, dense, poorly developed chalky, poor visible porosity, no shows

LS, tan to buff, FXL, dense, poor visible porosity no shows

RTD 6253 (-3072)









## DRILL STEM TEST REPORT

Prepared For: **Palmer Oil, Inc**

PO Box 399  
Garden City KS 67846

ATTN: Wyatt Urban

**Loretta #36-1**

**36-31s-39w Stevens,KS**

Start Date: 2013.10.20 @ 23:20:00

End Date: 2013.10.21 @ 08:27:45

Job Ticket #: 52985                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.24 @ 13:17:21



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

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

**36-31s-39w Stevens,KS**

**Loretta #36-1**

Job Ticket: 52985

**DST#: 1**

Test Start: 2013.10.20 @ 23:20:00

## GENERAL INFORMATION:

Formation: **St. Louis**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:44:15  
 Time Test Ended: 08:27:45  
 Interval: **6018.00 ft (KB) To 6097.00 ft (KB) (TVD)**  
 Total Depth: 6097.00 ft (KB) (TVD)  
 Hole Diameter: inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jace Mckinney  
 Unit No: 46  
 Reference Elevations: ft (KB)  
 ft (CF)  
 KB to GR/CF: ft

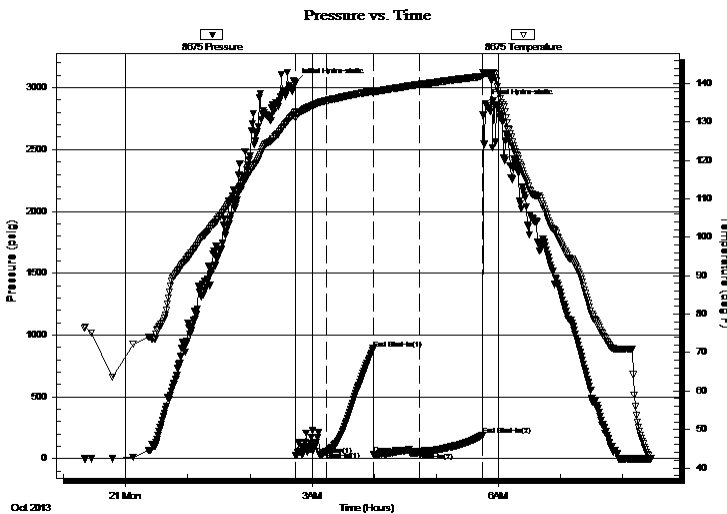
## Serial #: 8675

Inside

Press @ RunDepth: 52.34 psig @ 6019.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.10.20 End Date: 2013.10.21 Last Calib.: 2013.10.21  
 Start Time: 23:20:15 End Time: 08:27:45 Time On Btm: 2013.10.21 @ 02:44:00  
 Time Off Btm: 2013.10.21 @ 05:47:15

TEST COMMENT: Weak surface, died in 2 min  
 No return blow  
 No blow  
 No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3038.35	132.54	Initial Hydro-static
1	27.78	131.14	Open To Flow (1)
30	58.82	135.49	Shut-In(1)
75	890.72	137.98	End Shut-In(1)
76	36.92	137.43	Open To Flow (2)
120	52.34	139.73	Shut-In(2)
181	189.47	141.86	End Shut-In(2)
184	2868.68	142.72	Final Hydro-static

## Recovery

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

## 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

**36-31s-39w Stevens,KS**  
**Loretta #36-1**  
Job Ticket: 52985 **DST#: 1**  
Test Start: 2013.10.20 @ 23:20:00

## Tool Information

Drill Pipe:	Length: 5812.80 ft	Diameter: 3.80 inches	Volume: 81.54 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 186.15 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 94000.00 lb
			<u>Total Volume: 82.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.45 ft			String Weight: Initial 84000.00 lb
Depth to Top Packer:	6018.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	82.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5991.50	
Shut In Tool	5.00			5996.50	
Hydraulic tool	5.00			6001.50	
Jars	5.00			6006.50	
Safety Joint	2.50			6009.00	
Packer	5.00			6014.00	27.50 Bottom Of Top Packer
Packer	4.00			6018.00	
Stubb	1.00			6019.00	
Recorder	0.00	8675	Inside	6019.00	
Recorder	0.00	8650	Outside	6019.00	
Perforations	18.00			6037.00	
Change Over Sub	1.00			6038.00	
Drill Pipe	31.00			6069.00	
Change Over Sub	1.00			6070.00	
Bullnose	3.00			6073.00	55.00 Bottom Packers & Anchor

**Total Tool Length: 82.50**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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

**36-31s-39w Stevens,KS**  
**Loretta #36-1**  
Job Ticket: 52985      **DST#: 1**  
Test Start: 2013.10.20 @ 23:20:00

## 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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

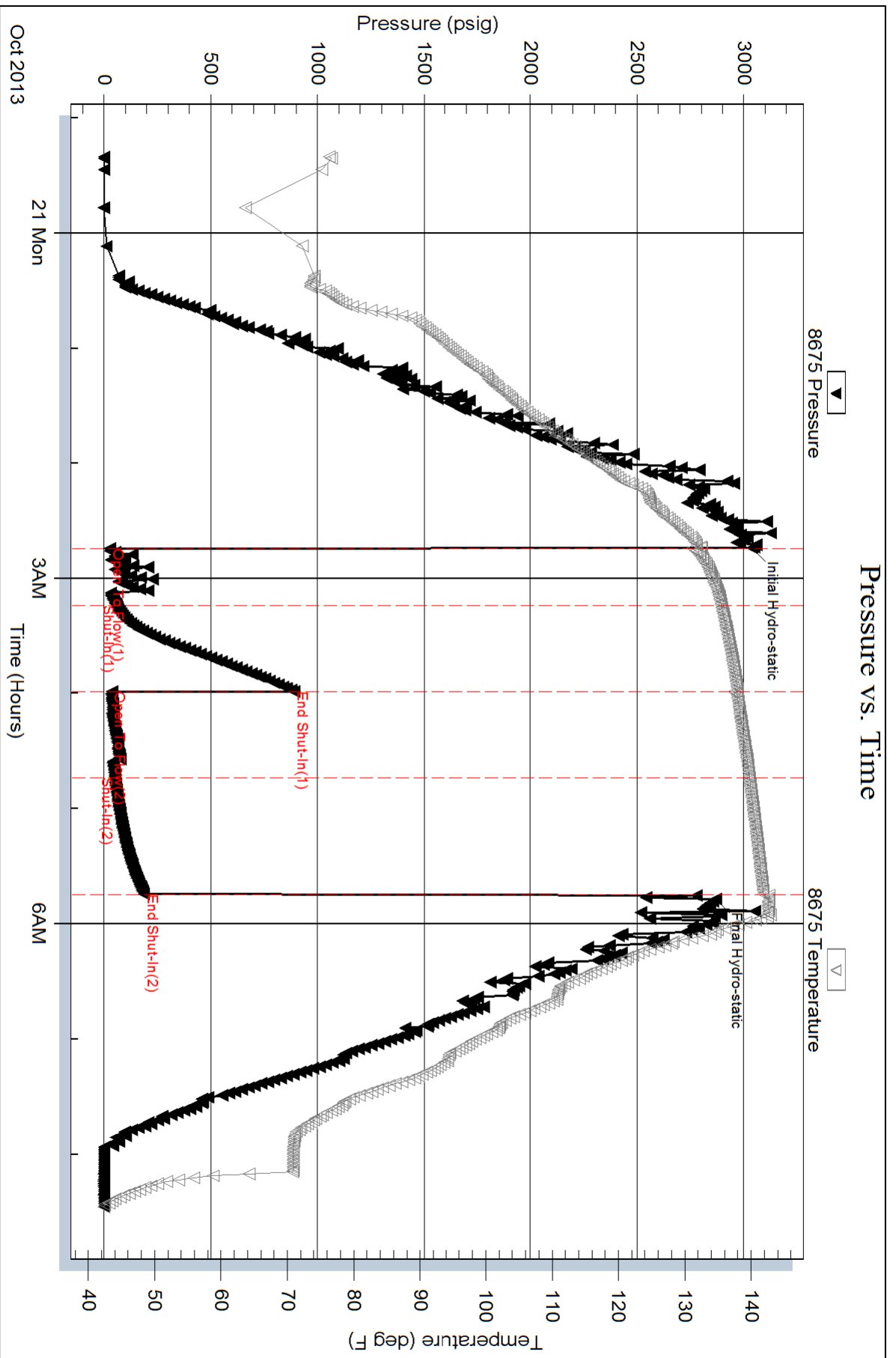
Serial #: 8675

Inside

Palmer Oil, Inc

Loreta #36-1

DST Test Number: 1



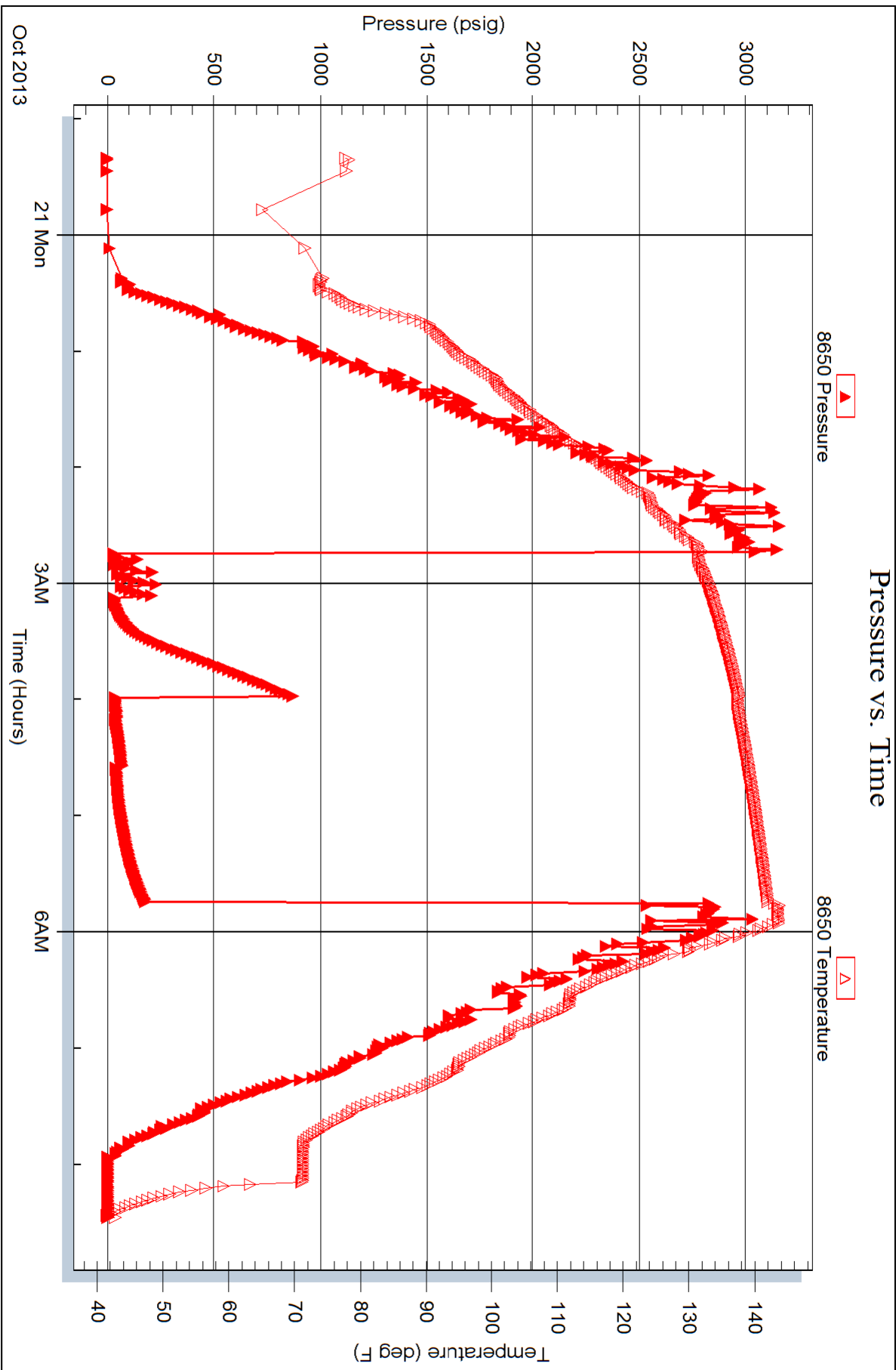


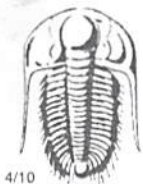
Serial #: 8650

Outside Palmer Oil, Inc

Loretta #36-1

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52985

Well Name & No. Loretta 36-1 Test No. 1 Date 10/20/13 10/21/13  
 Company Palmet Oil, Inc Elevation 3181 KB 3166 GL  
 Address 3118 N Cummings Rd, PO Box 399, Carden City KS, 67846  
 Co. Rep / Geo. W. J. ... Rig Duke Rig 9  
 Location: Sec. 36 Twp. 31s Rge. 39w Co. Stevens County State KS

Interval Tested 6018-6097 Zone Tested St. Louis  
 Anchor Length 79 Drill Pipe Run 582.80 Mud Wt. 8.9  
 Top Packer Depth 6014 Drill Collars Run 186.15 Vis 53  
 Bottom Packer Depth 6018 Wt. Pipe Run \_\_\_\_\_ WL 8.8  
 Total Depth 6097 Chlorides 500 ppm System LCM 24# spotted pill on bottom

Blow Description Weak surface died in 2 mins  
No return below  
No below  
No return below

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

Rec Total 5 BHT 140 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm  
 (A) Initial Hydrostatic 3,038  Test 1450 T-On Location 22:30  
 (B) First Initial Flow 28  Jars 250 T-Started 23:20  
 (C) First Final Flow 59  Safety Joint 75 T-Open 02:44  
 (D) Initial Shut-In 891  Circ Sub N/C T-Pulled 05:44  
 (E) Second Initial Flow 37  Hourly Standby \_\_\_\_\_ T-Out 08:27  
 (F) Second Final Flow 52  Mileage 236 RT X 2 731.60 Comments Loaded tools on 10/22 @ 08:30  
 (G) Final Shut-In 189  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2,869  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 60  
 Sub Total 2506.60  
 MP/DST Disc't \_\_\_\_\_

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