

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1366759  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
November 2016

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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1366759



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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top _____ Bottom _____
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Prairie Fire Petroleum, LLC
Well Name	LONG HAUL 1-24
Doc ID	1366759

All Electric Logs Run

Compensated Density/Neutron
Dual Induction
Micro Log
Cement Bond

Form	ACO1 - Well Completion
Operator	Prairie Fire Petroleum, LLC
Well Name	LONG HAUL 1-24
Doc ID	1366759

Tops

Name	Top	Datum
Anhydrite	2126	+497
Base/Anhydrite	2159	+464
Topeka	3279	-656
Oread	3419	-796
Heebner Shale	3445	-822
Toronto	3477	-854
Lansing	3486	-863
Base/KC	3689	-1066
Arbuckle	3866	-1243
Reagan Sand	3942	-1319
RTD	4000	-1377
LTD	4000	-1377





**QUALITY OILWELL CEMENTING, INC.**  
 PO Box 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665  
 PHONE: 785-324-1041 FAX: 785-483-1087  
 EMAIL: cementing@ruraltel.net

Date: 4/27/2017  
 Invoice # 214  
 P.O.#:  
 Due Date: 5/27/2017  
 Division: Russell

# Invoice

Contact:  
 PRAIRIE FIRE PETROLEUM  
 Address/Job Location:

PO BOX 38  
 NORTON KS 67654

Reference:  
 LONG HAUL 1-24 SEC 24-2-27

Description of Work:  
 SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 601.97	No				
Common-Class A	145	\$ 1,624.00	Yes				
Calcium Chloride	7	\$ 264.48	Yes				
POZ Mix-Standard	35	\$ 165.30	Yes				
Pump Truck Mileage-Job to Nearest Camp	52	\$ 157.86	No				
Bulk Truck Matl-Material Service Charge	190	\$ 128.19	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	52	\$ 122.80	No				
Premium Gel (Bentonite)	3	\$ 58.70	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 3,123.32  
 Discount Available ONLY if Invoice is Paid & Received  
 within listed terms of invoice: \$ (78.08)

SubTotal for Taxable Items:	\$ 2,059.67
SubTotal for Non-Taxable Items:	\$ 985.56
<b>Total:</b>	<b>\$ 3,045.24</b>
<b>Tax:</b>	<b>\$ 154.48</b>

7.50% Decatur County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 3,199.72**  
**Applied Payments:**  
**Balance Due: \$ 3,199.72**

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.

Date	4.27.12	Sec.	24	Twp.	2	Range	27	County	Decatur	State	KS	On Location		Finish	4.15pm
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Location Nowataw 7th 23rd 31st 14th Sinto

Lease	<u>Long Haul</u>	Well No.	<u>1-24</u>	Owner	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.
Contractor	<u>White Knight</u>	Type Job	<u>Surface</u>	Charge To	<u>Prarie Fire petroleum</u>
Hole Size	<u>12.14</u>	T.D.	<u>263</u>	Street	
Csg.	<u>8 5/8</u>	Depth	<u>261</u>	City	State
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool		Depth		Cement Amount Ordered	<u>5/20 51.00 21.00</u>
Cement Left in Csg.	<u>15'</u>	Shoe Joint			<u>180</u>
Meas Line		Displace	<u>15 1/2 B/L</u>		

**EQUIPMENT**

Pumptrk	<u>20</u>	No.	Cement Helper <u>Long</u>	Common	<u>145</u>
Bulktrk		No.	Driver <u>BRFF</u>	Poz. Mix	<u>35</u>
Bulktrk	<u>21</u>	No.	Driver <u>Long</u>	Gel.	<u>3</u>
				Calcium	<u>7</u>

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
<u>8 5/8 on bottom Est. Circulation</u>	Sand
<u>Mix 205K + Displace</u>	Handling <u>190</u>
<u>180SK</u>	Mileage

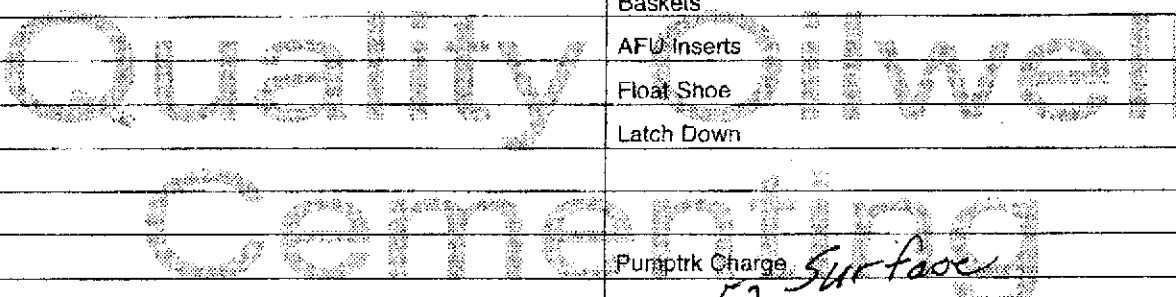
**FLOAT EQUIPMENT**

Guide Shoe	<u>8 5/8 Swage</u>
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge Surface  
Mileage 52

X Signature Terry Custon

Tax	
Discount	
Total Charge	





**QUALITY OILWELL CEMENTING, INC.**  
 PO BOX 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665  
 PHONE: 785-324-1041 FAX: 785-483-1087  
 EMAIL: cementing@ruraltel.net

Date: 5/15/2017  
 Invoice # 228

P.O.#:  
 Due Date: 6/14/2017  
 Division: Russell

# Invoice

Contact:  
 PRAIRIE FIRE PETROLEUM  
 Address/Job Location:

PO BOX 38  
 NORTON KS 67654

Reference:  
 LONG HAUL 1-24 SEC 24-2-27

Description of Work:  
 PROD STRING 2 STAGE BOTTOM STAGE

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 848.50	No	Bulk Truck Matl-Material Service Charge	198	\$133.59	No
Two Stage Cement Collar, 5 1/2"	1	\$ 2,804.05	Yes	Bulk Truck Mileage-Job to Nearest Bulk Plant	52	\$122.80	No
Common-Class A	175	\$ 1,960.00	Yes	5 1/2" Limit Clamps	1	\$20.24	Yes
Gilsonite	875	\$ 885.54	Yes	KCL	1	\$20.15	Yes
5 1/2" Basket	3	\$ 566.75	Yes				
5 1/2" Turbolizer	8	\$ 388.63	Yes				
Mud Clear	500	\$ 249.64	Yes				
Auto Fill Float Shoe, 5 1/2"	1	\$ 228.70	Yes				
Latch Down Plug & Baffle, 5 1/2"	1	\$ 179.47	Yes				
Pump Truck Mileage-Job to Nearest Camp	52	\$ 157.88	No				
Salt (Fine)	15	\$ 132.58	Yes				

SubTotal: \$ 8,696.50

**Invoice Terms:**

Net 30

Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (217.41)

SubTotal for Taxable Items: \$ 7,247.89

SubTotal for Non-Taxable Items: \$ 1,231.20

Total: \$ 8,479.09

Tax: \$ 543.59

7.50% Decatur County Sales Tax

Amount Due: \$ 9,022.68

Thank You For Your Business!

Applied Payments:

Balance Due: \$ 9,022.68

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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5-23-17  
 #5403



# 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.

Date	5-15-17	Sec.	24	Twp.	2	Range	27	County	Decatur	State	KS	On Location		Finish	1:30 AM
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Location *Decatur 7W 2300R 3N 1/4E Sinto*

Lease	<i>Long Haul</i>	Well No.	<i>1-24</i>	Owner	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.
Contractor	<i>White Knight</i>			Charge To	<i>Prairie Fire Petroleum</i>
Type Job	<i>DV JOB</i>			Street	
Hole Size	<i>7 7/8</i>	T.D.	<i>4000</i>	City	
Csg.	<i>5 1/2</i>	Depth	<i>3997</i>	State	
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool	<i>DV Tool</i>	Depth	<i>2118</i>	Cement Amount Ordered	<i>175 comp. Salt 5/16 Gilsonite</i>
Cement Left in Csg.	<i>43.36</i>	Shoe Joint	<i>43.36</i>		
Meas Line		Displace	<i>94 BCL</i>		<i>50 gal mud clear 10 BCL KCL</i>

**EQUIPMENT**

Pumptrk	<i>20</i>	No.		Cement Helper	<i>Chris</i>	Common	<i>175</i>
Bulktrk	<i>9</i>	No.		Driver	<i>Brett</i>	Poz. Mix	
Bulktrk	<i>19</i>	No.		Driver	<i>Tony</i>	Gel.	
				Driver	<i>Dave</i>	Calcium	

**JOB SERVICES & REMARKS**

Remarks:		Hubs	<i>1 gal</i>
Rat Hole		Salt	<i>15</i>
Mouse Hole		Flowseal	
Centralizers		Kol-Seal	<i>875 #</i>
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
		Sand	
	<i>5 1/2 spc 3997 ball @ 395364</i>	Handling	<i>198</i>
	<i>Est. Circulation Pump 50 gal mud clear</i>	Mileage	
	<i>Cement 5 1/2 with 175 gal clear lines</i>		
	<i>Displace Plug. Displace with 45 BCL</i>	<b>FLOAT EQUIPMENT</b>	<i>5 1/2</i>
	<i>Water 45 BCL mud + 5 BCL water to land</i>	Guide Shoe	<i>1 Limit Clamp</i>
	<i>Plug</i>	Centralizer	<i>8 Turbo's</i>
	<i>Plug landed @ 1600 #</i>	Baskets	<i>3 Caged</i>
	<i>Drop Part &amp; open DV Tool</i>	AFI Inserts	<i>24 Lead Scrubbers</i>
	<i>Circulate 3 hrs</i>	Float Shoe	<i>1</i>
		Latch Down	<i>1</i>
			<i>1 DV Tool</i>

Pumptrk Charge	<i>prod string</i>	Bottom Stage
Mileage	<i>52</i>	
		Tax
		Discount
		Total Charge

X Signature *[Signature]*



**QUALITY OILWELL CEMENTING, INC.**  
 PO BOX 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665  
 PHONE: 785-324-1041 FAX: 785-483-1087  
 EMAIL: cementing@ruraltel.net

Date: 5/15/2017  
 Invoice # 229

P.O.#:  
 Due Date: 6/14/2017  
 Division: Russell

# Invoice

**Contact:**  
 PRAIRIE FIRE PETROLEUM  
**Address/Job Location:**

PO BOX 38  
 NORTON KS 67654

**Reference:**  
 LONG HAUL 1-24 SEC 24-2-27

**Description of Work:**  
 PROD STRING 2 STAGE TOP STAGE

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 848.50	No				
Multi Density- 80/20	400	\$ 4,722.89	Yes				
Mud Clear	500	\$ 249.64	Yes				
Pump Truck Mileage-Job to Nearest Camp	52	\$ 157.88	No				
Flo Seal	100	\$ 134.94	Yes				
Bulk Truck Matl-Material Service Charge	198	\$ 133.59	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	52	\$ 122.80	No				

**Invoice Terms:**

Net 30

SubTotal:	\$	6,370.24
Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice:	\$	(159.26)
<hr/>		
SubTotal for Taxable Items:	\$	4,979.78
SubTotal for Non-Taxable Items:	\$	1,231.20
<hr/>		
Total:	\$	6,210.98
Tax:	\$	373.48

7.50% Decatur County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 6,584.46**  
**Applied Payments:**  
**Balance Due: \$ 6,584.46**

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5-23-17  
 #5403

# 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. 000

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-15-17	24	2	27	Decatur	KS		5:30 AM

Location *Decatur Twp 23000 31 1/4 E Shto*

Lease	Well No.	Owner	
<i>Long Haul</i>	<i>1-24</i>	To Quality Oilwell Cementing, Inc.	
Contractor		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
<i>White Knight</i>	<i>Top Stage</i>		
Type Job		Charge To	
<i>DV JOB</i>		<i>Prine Fire Petroleum</i>	
Hole Size	T.D.		
<i>2 7/8</i>	<i>4000'</i>		
Csg.	Depth	Street	
<i>5 1/2</i>	<i>3997</i>		
Tbg. Size	Depth	City	
		State	
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
<i>DV tool</i>	<i>2118</i>		
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered	
<i>43.36</i>	<i>43.36</i>	<i>400 80/20 QMDC 1/4#FB</i>	
Meas Line	Displace		
	<i>50 1/2 B/C</i>		

**EQUIPMENT**

Pumptrk	No.	Cement Helper	Common
<i>20</i>		<i>Long</i>	<i>400</i>
Bulktrk	No.	Driver	Poz. Mix
		<i>Brett</i>	
Bulktrk	No.	Driver	Gel.
Bulktrk	No.	Driver	Calcium
<i>19</i>		<i>David</i>	

**JOB SERVICES & REMARKS**

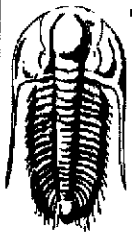
Remarks:	Hulls
	Salt
Rat Hole <i>305K</i>	Flowseal <i>100 PL</i>
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFI -117 or CD110 CAF 38
D/V or Port Collar	Sand
<i>Plug Rathole Pump seal and Jar.</i>	Handling <i>400</i>
<i>Cement 5 1/2 with 370SK</i>	Mileage
<i>Clear lines &amp; Displace Plug</i>	
<i>Plug &amp; Seal</i>	
<i>Cement Circulated</i>	

**FLOAT EQUIPMENT**

Guide Shoe
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge	<i>prod staging</i>	<i>Top Stage</i>
Mileage	<i>52</i>	

Signature	Tax
	Discount
	Total Charge



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61227      **DST#: 1**

ATTN: Kevin Bailey

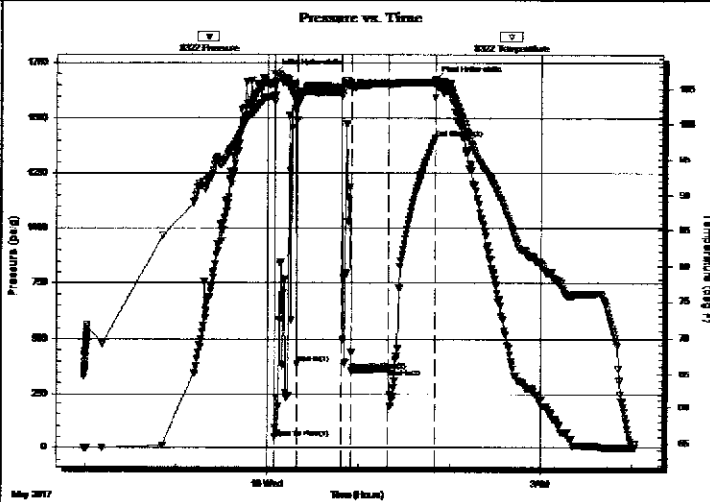
Test Start: 2017.05.09 @ 21:59:00

## GENERAL INFORMATION:

Formation: **LKC"A"**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 00:04:30  
 Time Test Ended: 04:01:20  
 Interval: **3485.00 ft (KB) To 3495.00 ft (KB) (TVD)**  
 Total Depth: **3495.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Martine Salinas  
 Unit No: 82  
 Reference Elevations: 2623.00 ft (KB)  
 2618.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8322**      Inside  
 Press@RunDepth: 367.01 psig @ 3486.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2017.05.09      End Date: 2017.05.10      Last Calib.: 2017.05.10  
 Start Time: 21:59:01      End Time: 04:01:20      Time On Btrn: 2017.05.10 @ 00:04:20  
 Time Off Btrn: 2017.05.10 @ 01:50:10

**TEST COMMENT:** 15-IF-B.O.B "12inches"@ 4mins  
 30-ISI-No blow  
 30-FF-Blow back built to 3 1/2" dead @ 4 1/2 mins.(head manifold w as loose w hen laying down head Jt)  
 30-FSI-No blow



## PRESSURE SUMMARY

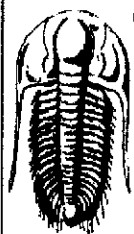
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.98	104.05	Initial Hydro-static
1	47.53	103.09	Open To Flow (1)
15	390.45	103.37	Shut-In(1)
45	1641.72	104.41	End Shut-In(1)
51	358.34	105.29	Open To Flow (2)
75	367.01	105.64	Shut-In(2)
106	1409.28	105.80	End Shut-In(2)
106	1667.84	105.89	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
678.00	Mud 100%	9.51

## Gas Rates

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



**TRILOBITE TESTING, INC.**

### DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61227      **DST#: 1**

ATTN: Kevin Bailey

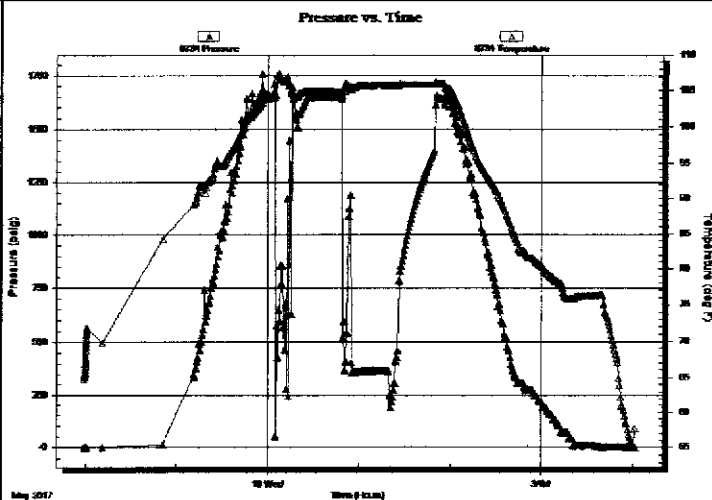
Test Start: 2017.05.09 @ 21:59:00

**GENERAL INFORMATION:**

Formation: **LKC"A"**  
 Deviated: **No** Whipstock:                      ft (KB)  
 Time Tool Opened: 00:04:30  
 Time Test Ended: 04:01:20  
 Interval: **3485.00 ft (KB) To 3495.00 ft (KB) (TVD)**  
 Total Depth: **3495.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Martine Salinas**  
 Unit No: **82**  
 Reference Elevations: **2623.00 ft (KB)**  
**2618.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

**Serial #: 8734**      **Outside**  
 Press@RunDepth:                      psig @ **3486.00 ft (KB)**      Capacity: **8000.00 psig**  
 Start Date: **2017.05.09**      End Date: **2017.05.10**      Last Calib.: **2017.05.10**  
 Start Time: **21:59:01**      End Time: **04:01:20**      Time On Btm:      Time Off Btm

**TEST COMMENT:** 15-IF-B.O.B "12inches"@ 4mins  
 30-IS-No blow  
 30-FF-Blow back built to 3 1/2" dead @ 4 1/2 mins.(head manifold was loose when laying down head Jt)  
 30-FSI-No blow



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
678.00	Mud 100%	9.51

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Prairie Fire Petroleum LLC

24-2S-27 Decatur Co., KS

P.O. Box 38  
Norton, KS 67654

Long Haul #1-24

Job Ticket: 61227

DST#: 1

ATTN: Kevin Bailey

Test Start: 2017.05.09 @ 21:59:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 47.00 sec/qt

Water Loss: 7.99 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
678.00	Mud 100%	9.511

Total Length: 678.00 ft

Total Volume: 9.511 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8322

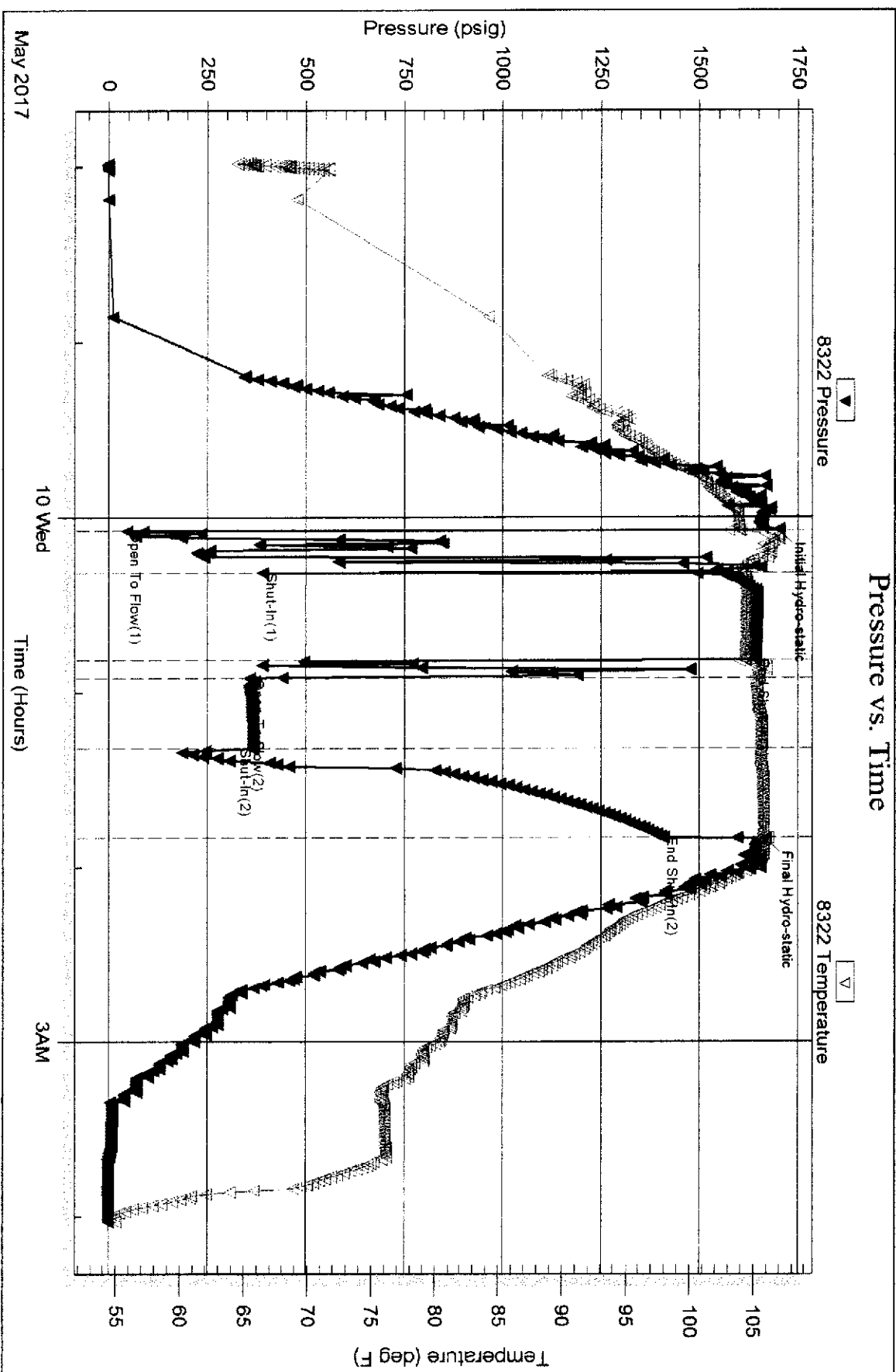
Inside

Prairie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 1

### Pressure vs. Time



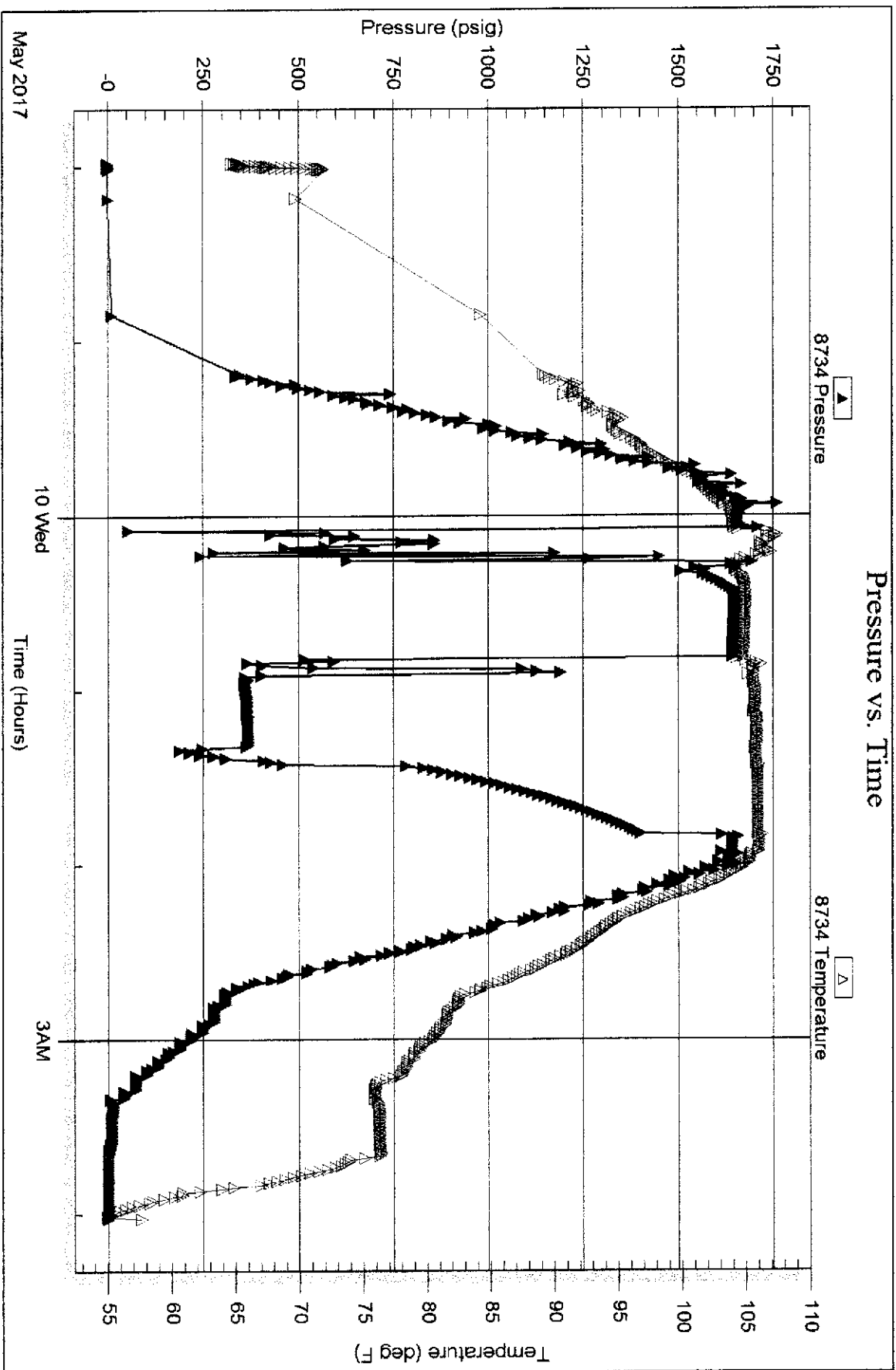
Serial #: 8734

Outside Prairie Fire Petroleum LLC

Long Hall #1-24

DST Test Number: 1

### Pressure vs. Time

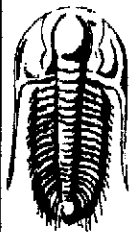


Triadite Testing, Inc

Ref. No: 61227

Printed: 2017.05.10 @ 13:18:54





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

24-2S-27 Decatur Co., KS

P.O. Box 38  
Norton, KS 67654

Long Haul #1-24

Job Ticket: 61228      DST#: 2

ATTN: Kevin Bailey

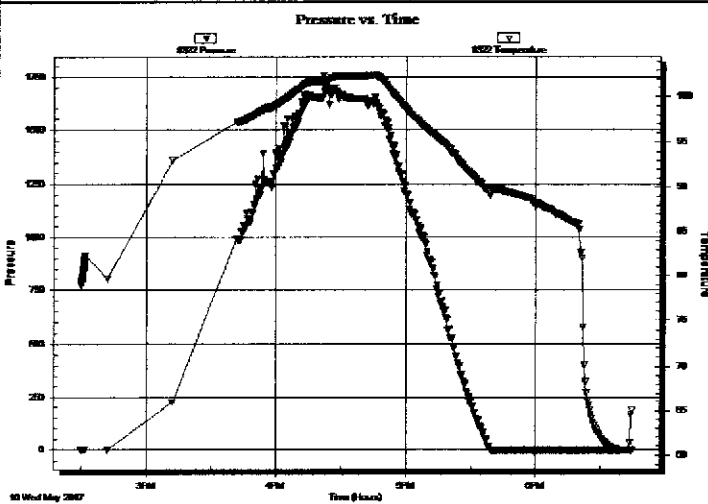
Test Start: 2017.05.10 @ 14:30:00

### GENERAL INFORMATION:

Formation: **Lansing A,B,C**  
 Deviated: **No** Whipstock: **ft (KB)**  
 Time Tool Opened:  
 Time Test Ended: **18:44:40**  
 Interval: **3480.00 ft (KB) To 3536.00 ft (KB) (TVD)**  
 Total Depth: **3536.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Reset)**  
 Tester: **Martine Salinas**  
 Unit No: **82**  
 Reference Elevations: **2623.00 ft (KB)**  
**2618.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

**Serial #: 8322**      **Inside**  
 Press@RunDepth: **psig @ 3481.00 ft (KB)**      Capacity: **8000.00 psig**  
 Start Date: **2017.05.10**      End Date: **2017.05.10**      Last Calib.: **2017.05.10**  
 Start Time: **14:30:01**      End Time: **18:44:40**      Time On Btm:  
    Time Off Btm:

TEST COMMENT: Packer failure picked up off bottom and tried to re-seat lost fluid again, mis-run, pull tool



### PRESSURE SUMMARY

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

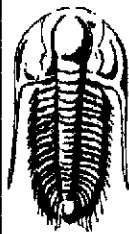
### Recovery

Length (ft)	Description	Volume (bbl)
179.00	Mud 100%	2.51

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61228 **DST#: 2**

ATTN: Kevin Bailey

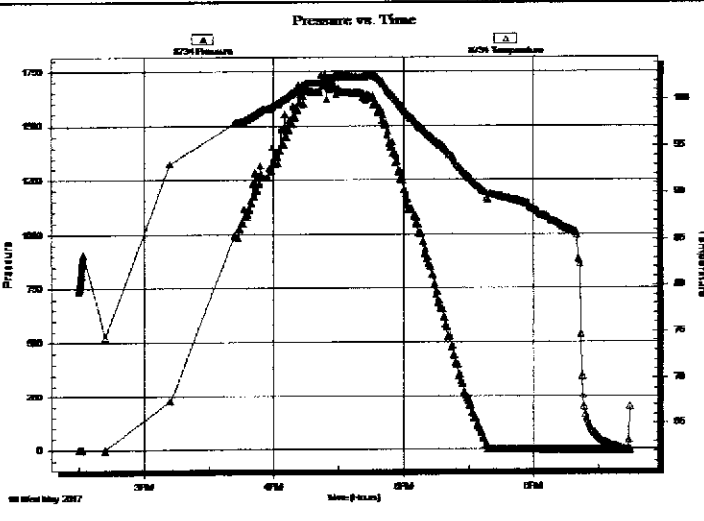
Test Start: 2017.05.10 @ 14:30:00

## GENERAL INFORMATION:

Formation: **Lansing A,B,C**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened:  
 Time Test Ended: 18:44:40  
 Interval: **3480.00 ft (KB) To 3536.00 ft (KB) (TVD)**  
 Total Depth: 3536.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Martine Salinas  
 Unit No: 82  
 Reference Elevations: 2623.00 ft (KB)  
 2618.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8734** Outside  
 Press@RunDepth: psig @ 3481.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.05.10 End Date: 2017.05.10 Last Calib.: 2017.05.10  
 Start Time: 14:30:01 End Time: 18:44:40 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** Packer failure picked up off bottom and tried to re-seat lost fluid again, mis-run, pull tool



## PRESSURE SUMMARY

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

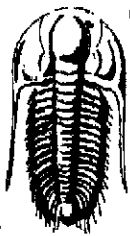
## Recovery

Length (ft)	Description	Volume (bbl)
179.00	Mud 100%	2.51

\* Recovery from multiple tests

## Gas Rates

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



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

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61228      **DST#: 2**

ATTN: Kevin Bailey

Test Start: 2017.05.10 @ 14:30:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 44.00 sec/qt

Water Loss: 7.17 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
179.00	Mud 100%	2.511

Total Length: 179.00 ft      Total Volume: 2.511 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

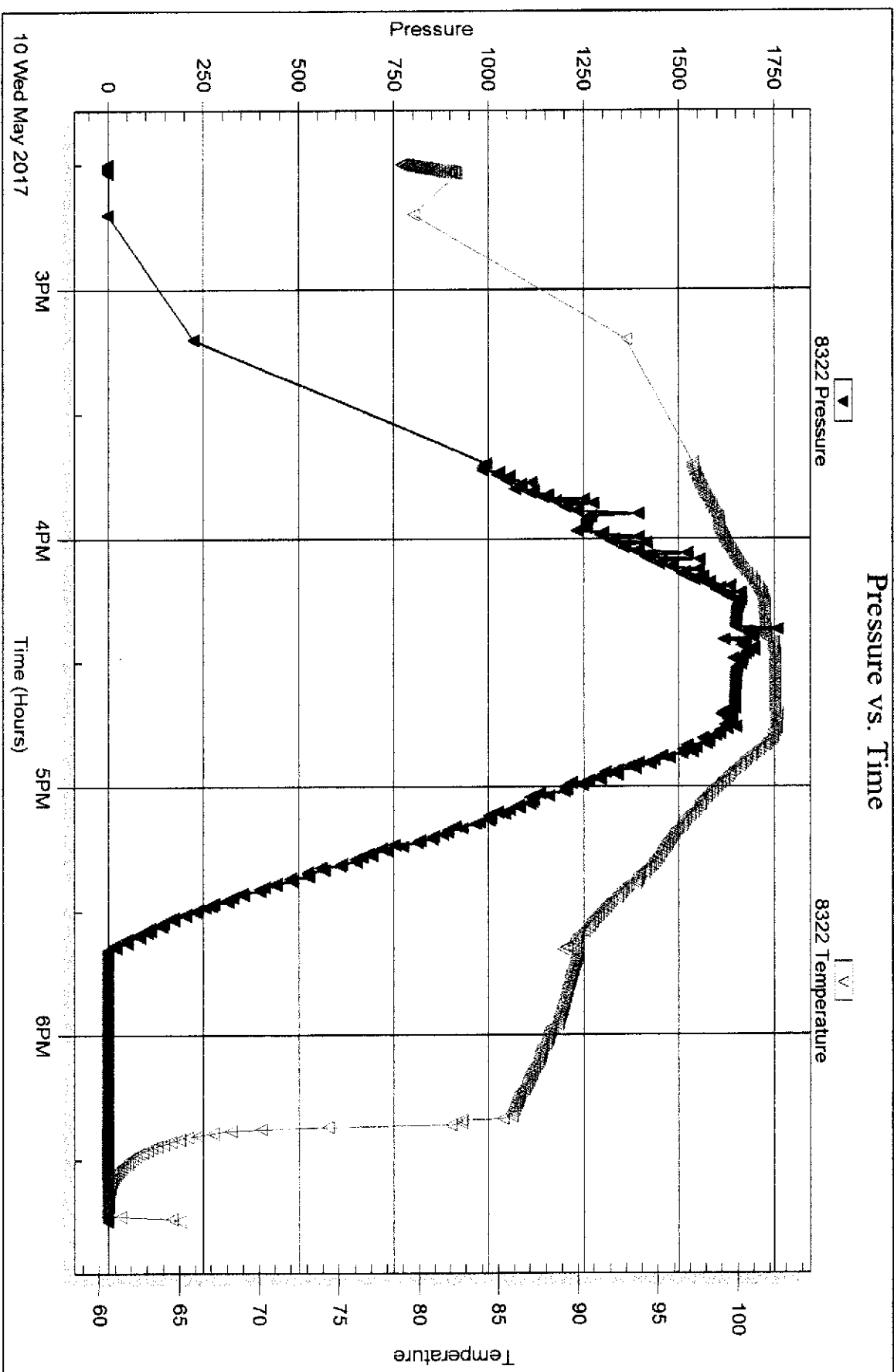
Serial #: 8322

Inside

Prairie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 2

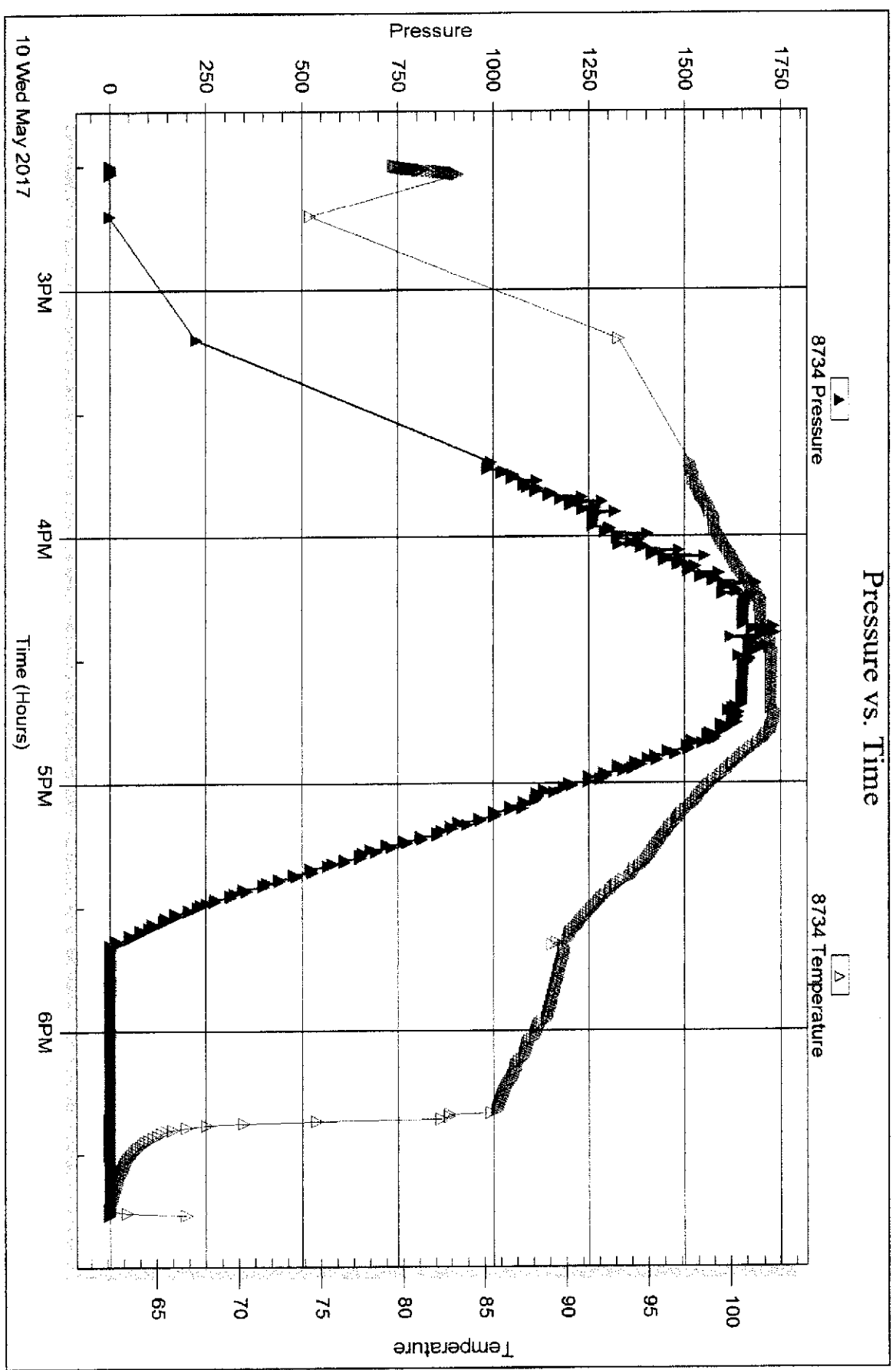


Serial #: 8734

Outside Prairie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 2

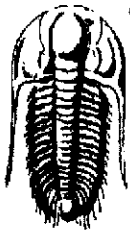


10 Wed May 2017

Tribble Testing, Inc

Ref. No: 61228

Printed: 2017.05.12 @ 20:42:33



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61229

**DST#: 3**

ATTN: Kevin Bailey

Test Start: 2017.05.10 @ 19:21:17

## GENERAL INFORMATION:

Formation: **Lansing A,B,C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:27:47

Time Test Ended: 03:24:56

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

Tester: **Martine Salinas**

Unit No: **82**

Interval: **3446.00 ft (KB) To 3536.00 ft (KB) (TVD)**

Total Depth: **3536.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2623.00 ft (KB)**

**2618.00 ft (CF)**

KB to GR/CF: **5.00 ft**

**Serial #: 8322**

**Inside**

Press@RunDepth: **591.35 psig @ 3447.00 ft (KB)**

Start Date: **2017.05.10**

End Date: **2017.05.11**

Start Time: **19:21:18**

End Time: **03:24:57**

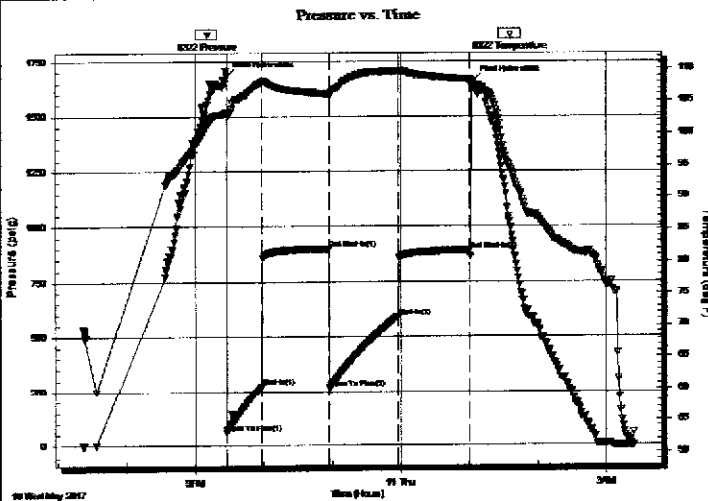
Capacity: **8000.00 psig**

Last Calib.: **2017.05.11**

Time On Btm: **2017.05.10 @ 21:26:57**

Time Off Btm: **2017.05.11 @ 01:03:37**

**TEST COMMENT:** 30-F- S. blow built to B.O.B (12 inches) @ 6 1/2 mins  
60-IS- Weak S. blow  
60-FF- Blow back built to B.O.B (12 inches) @ 8 mins  
60-FS- Weak S. blow dead @ 38 mins



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1685.63	103.22	Initial Hydro-static
1	60.15	102.78	Open To Flow (1)
32	274.30	108.04	Shut-In(1)
91	901.28	106.12	End Shut-In(1)
91	267.44	105.92	Open To Flow (2)
151	591.35	109.67	Shut-In(2)
214	893.45	108.43	End Shut-In(2)
217	1660.02	107.08	Final Hydro-static

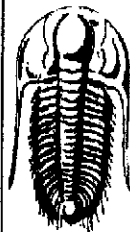
## Recovery

Length (ft)	Description	Volume (bbl)
630.00	SOSWCM 65%M, 34%W, 1%O	8.84
509.00	SOSMCW 20%M, 79%W, 1%O	7.14
10.00	SOSWCM 66%M, 33%W, 1%O	0.14

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61229

**DST#: 3**

ATTN: Kevin Bailey

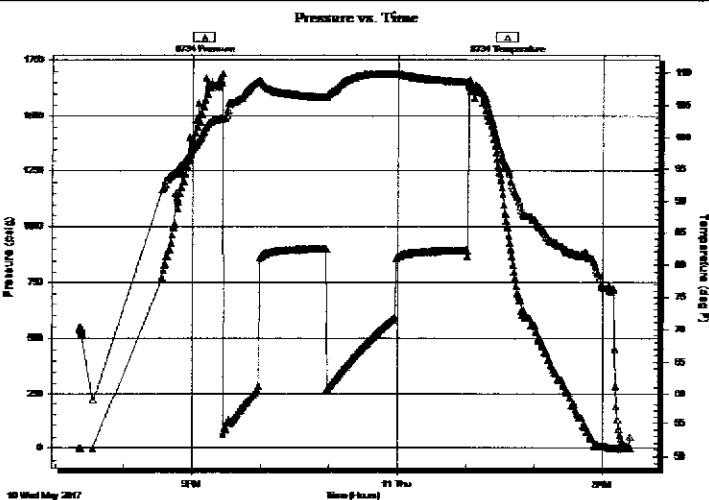
Test Start: 2017.05.10 @ 19:21:17

## GENERAL INFORMATION:

Formation: **Lansing A,B,C**  
 Deviated: **No Whipstock** ft (KB)  
 Test Type: **Conventional Bottom Hole (Reset)**  
 Time Tool Opened: **21:27:47**  
 Tester: **Martine Salinas**  
 Time Test Ended: **03:24:56**  
 Unit No: **82**  
 Interval: **3446.00 ft (KB) To 3536.00 ft (KB) (TVD)**  
 Reference Elevations: **2623.00 ft (KB)**  
**2618.00 ft (CF)**  
 Total Depth: **3536.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 KB to GRVCF: **5.00 ft**

**Serial #: 8734** **Outside**  
 Press@RunDepth: **psig @ 3447.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2017.05.10** End Date: **2017.05.11** Last Calib.: **2017.05.11**  
 Start Time: **19:21:01** End Time: **03:24:40** Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IF- S. blow built to B.O.B (12 inches) @ 6 1/2 mins  
 60-ISI- Weak S. blow  
 60-FF- Blow back built to B.O.B (12 inches) @ 8 mins  
 60-FSI- Weak S. blow dead @ 38 mins



## PRESSURE SUMMARY

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

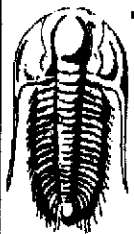
## Recovery

Length (ft)	Description	Volume (bbl)
630.00	SOSWCM 65%M, 34%W, 1%O	8.84
509.00	SOSMCW 20%M, 79%W, 1%O	7.14
10.00	SOSWCM 66%M, 33%W, 1%O	0.14

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Prairie Fire Petroleum LLC

24-2S-27 Decatur Co., KS

P.O. Box 38  
Norton, KS 67654

Long Haul #1-24

Job Ticket: 61229

DST#: 3

ATTN: Kevin Bailey

Test Start: 2017.05.10 @ 19:21:17

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 44.00 sec/qt

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

Resistivity: ohm.m

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API: deg API

Water Salinity: 8500 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
630.00	SOSWCM 65%M, 34%W, 1%O	8.837
509.00	SOSMCW 20%M, 79%W, 1%O	7.140
10.00	SOSWCM 66%M, 33%W, 1%O	0.140

Total Length: 1149.00 ft      Total Volume: 16.117 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW=1.0@53 degs



Serial #: 8322

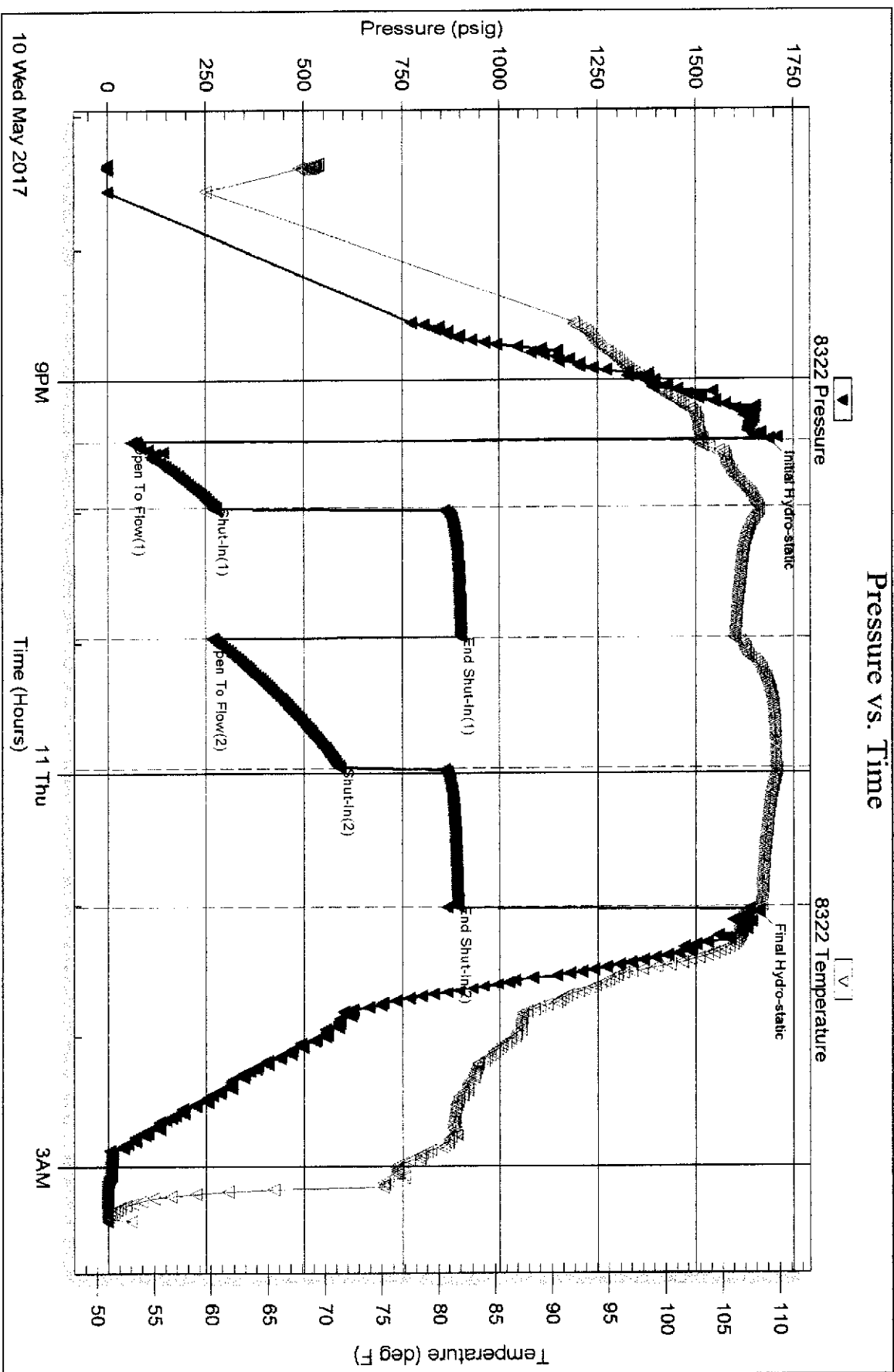
Inside

Parie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 3

### Pressure vs. Time

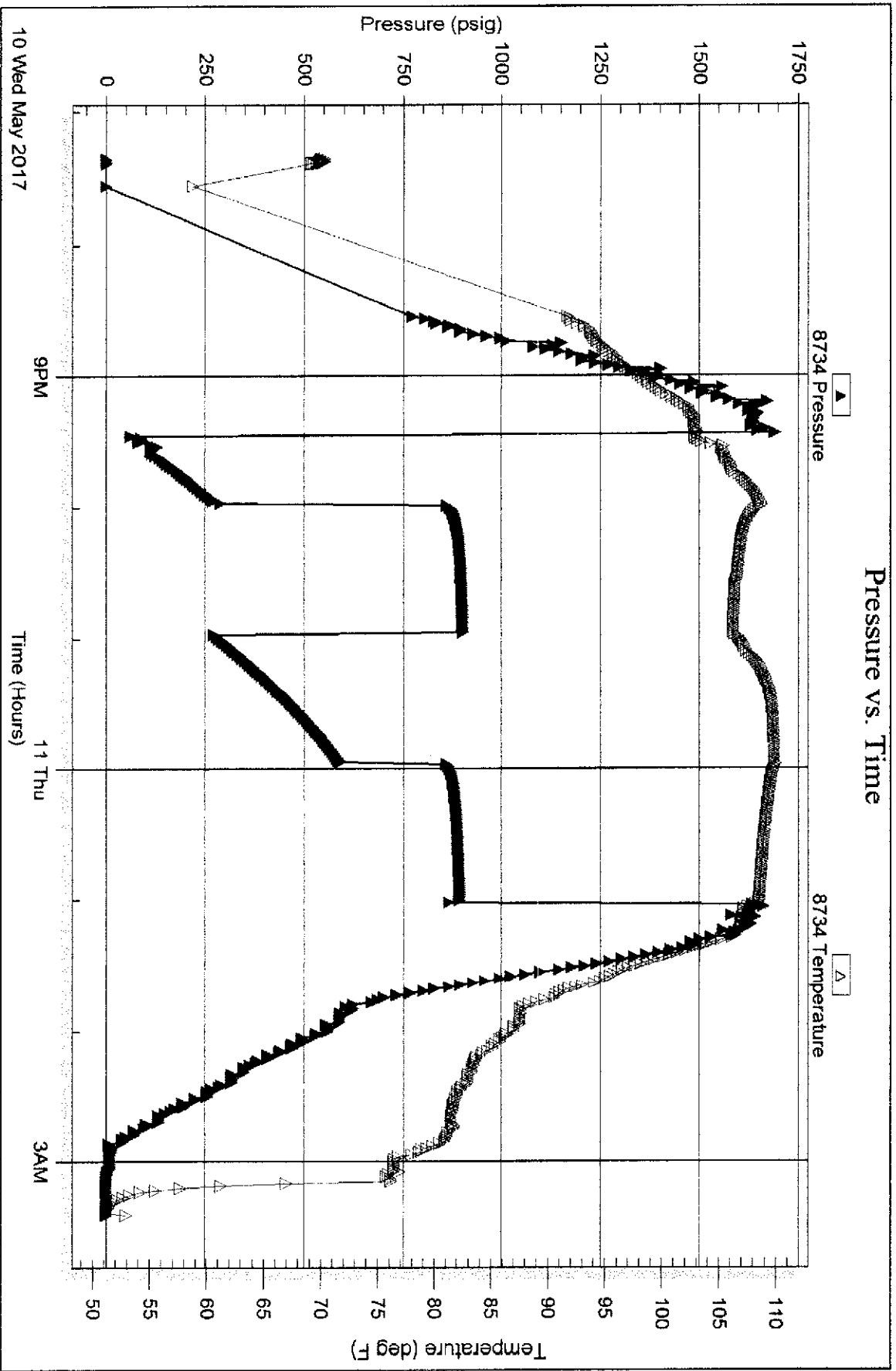


Serial #: 8734

Outside Prairie Fire Petroleum LLC

Long Haul #1-24

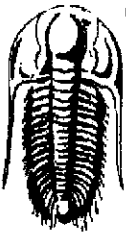
DST Test Number: 3



Tribble Testing, Inc

Ref. No: 61229

Printed: 2017.05.11 @ 07:32:59



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

24-2S-27 Decatur Co., KS

P.O. Box 38  
Norton, KS 67654

Long Haul #1-24

Job Ticket: 61230

DST#: 4

ATTN: Kevin Bailey

Test Start: 2017.05.12 @ 12:50:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

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

Time Tool Opened: 14:23:10

Time Test Ended: 19:32:09

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

Tester: **Martine Salinas**

Unit No: **82**

Interval: **3930.00 ft (KB) To 3949.00 ft (KB) (TVD)**

Total Depth: **3949.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2623.00 ft (KB)**

**2618.00 ft (CF)**

KB to GR/CF: **5.00 ft**

**Serial #: 8322**

**Inside**

Press@RunDepth: **545.55 psig @ 3931.00 ft (KB)**

Start Date: **2017.05.12**

End Date: **2017.05.12**

Start Time: **12:50:01**

End Time: **19:32:10**

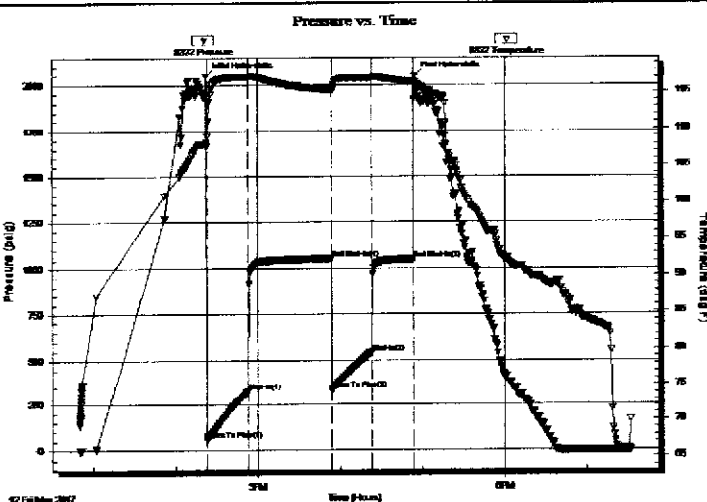
Capacity: **8000.00 psig**

Last Calib.: **2017.05.12**

Time On Btm: **2017.05.12 @ 14:22:20**

Time Off Btm: **2017.05.12 @ 16:54:00**

**TEST COMMENT:** 30-IF-S.blow built to B.O.B (12 inches) @ 4 1/2 mins  
60-ISI-blow back built to 1/8" and died back to s.blow  
30-FF-S.blow built to B.O.B (12 inches) @ 6 3/4 mins  
30-FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2046.69	108.16	Initial Hydro-static
1	58.90	109.07	Open To Flow (1)
31	332.62	117.00	Shut-In(1)
92	1052.58	115.25	End Shut-In(1)
92	339.65	115.18	Open To Flow (2)
121	545.55	116.88	Shut-In(2)
151	1050.84	116.32	End Shut-In(2)
152	2044.74	116.00	Final Hydro-static

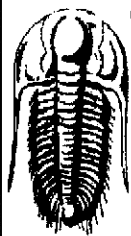
## Recovery

Length (ft)	Description	Volume (bbl)
461.00	MCW 30%M,70%W	6.47
751.00	MW 7%M,93%W	10.53
5.00	MCW 15%M, 85%W	0.07

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

24-2S-27 Decatur Co.,KS

P.O. Box 38  
Norton, KS 67654

Long Haul #1-24

Job Ticket: 61230

DST#: 4

ATTN: Kevin Bailey

Test Start: 2017.05.12 @ 12:50:00

### GENERAL INFORMATION:

Formation: Reagan Sand

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:23:10

Time Test Ended: 19:32:09

Interval: 3930.00 ft (KB) To 3949.00 ft (KB) (TVD)

Total Depth: 3949.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Reference Elevations: 2623.00 ft (KB)

2618.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8734

Outside

Press@RunDepth: psig @ 3931.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.05.12 End Date: 2017.05.12

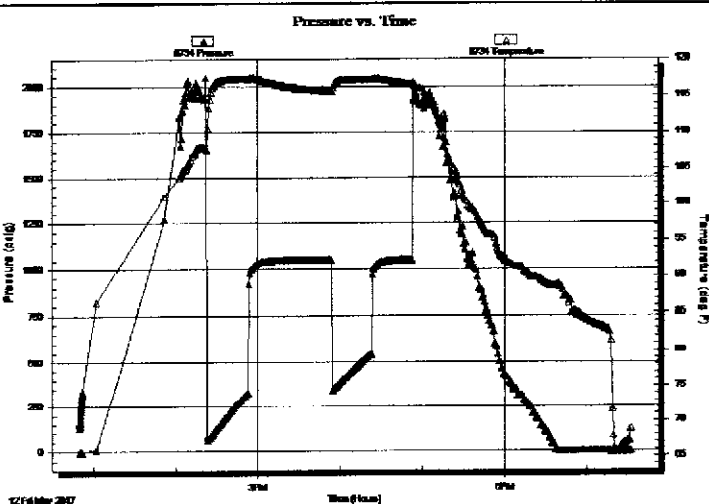
Last Calib.: 2017.05.12

Start Time: 12:50:01 End Time: 19:32:10

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-S.blow built to B.O.B (12 inches) @ 4 1/2 mins  
60-ISI-blow back built to 1/8" and died back to s.blow  
30-FF-S.blow built to B.O.B (12 inches) @ 6 3/4 mins  
30-FSH No blow



### PRESSURE SUMMARY

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

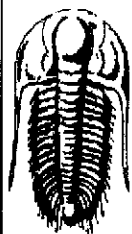
### Recovery

Length (ft)	Description	Volume (bbl)
461.00	MCW 30%M,70%W	6.47
751.00	MW 7%M,93%W	10.53
5.00	MCW 15%M, 85%W	0.07

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61230      **DST#: 4**

ATTN: Kevin Bailey

Test Start: 2017.05.12 @ 12:50:00

## 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: 58000 ppm

Viscosity: 76.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
461.00	MCW 30%M,70%W	6.467
751.00	MMW 7%M,93%W	10.535
5.00	MCW 15%M, 85%W	0.070

Total Length: 1217.00 ft      Total Volume: 17.072 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW=.126@77.5deg

Serial #: 8322

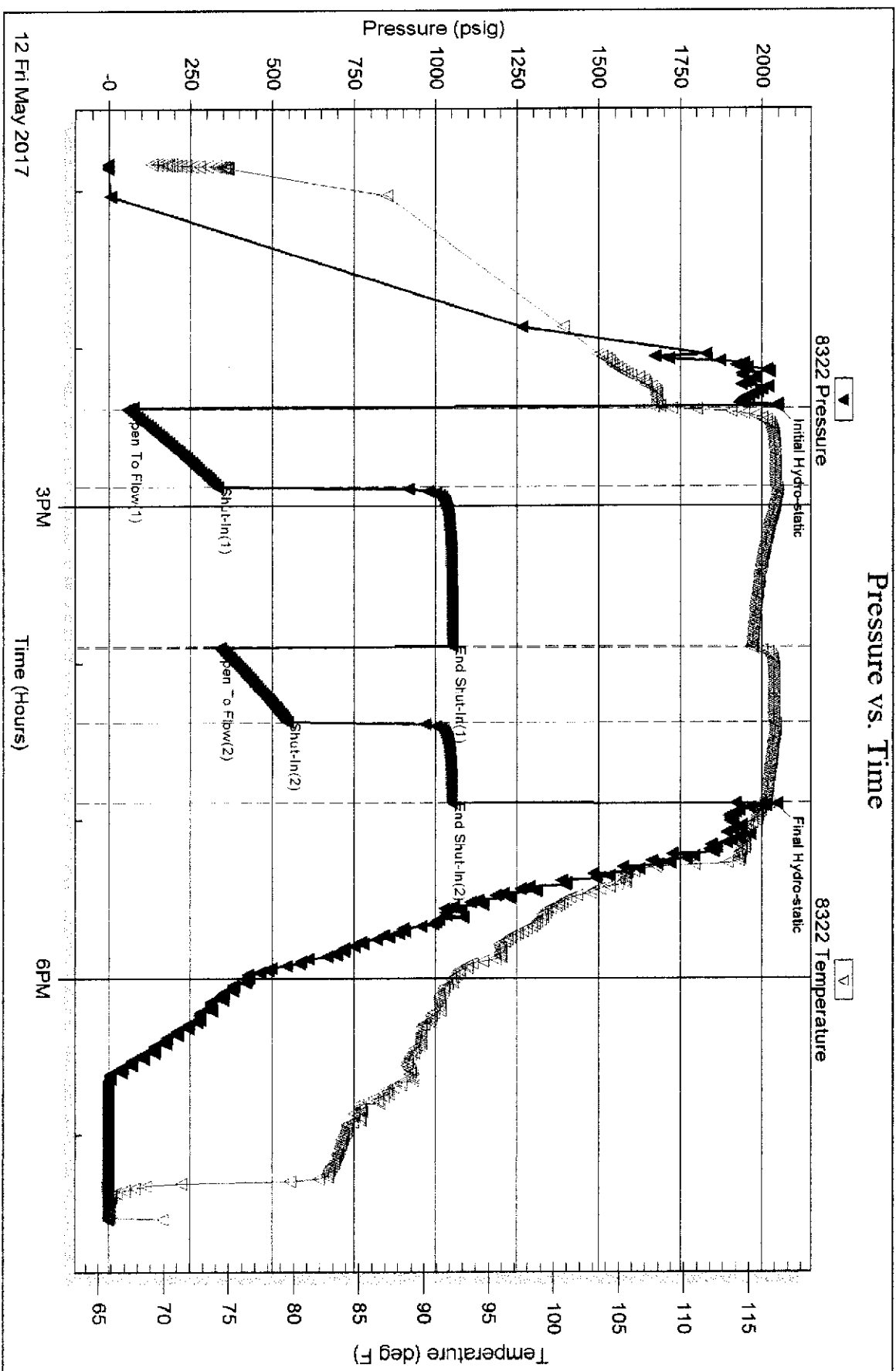
Inside

Prarie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 4

### Pressure vs. Time



12 Fri May 2017

Triobite Testing, Inc

Ref. No: 61230

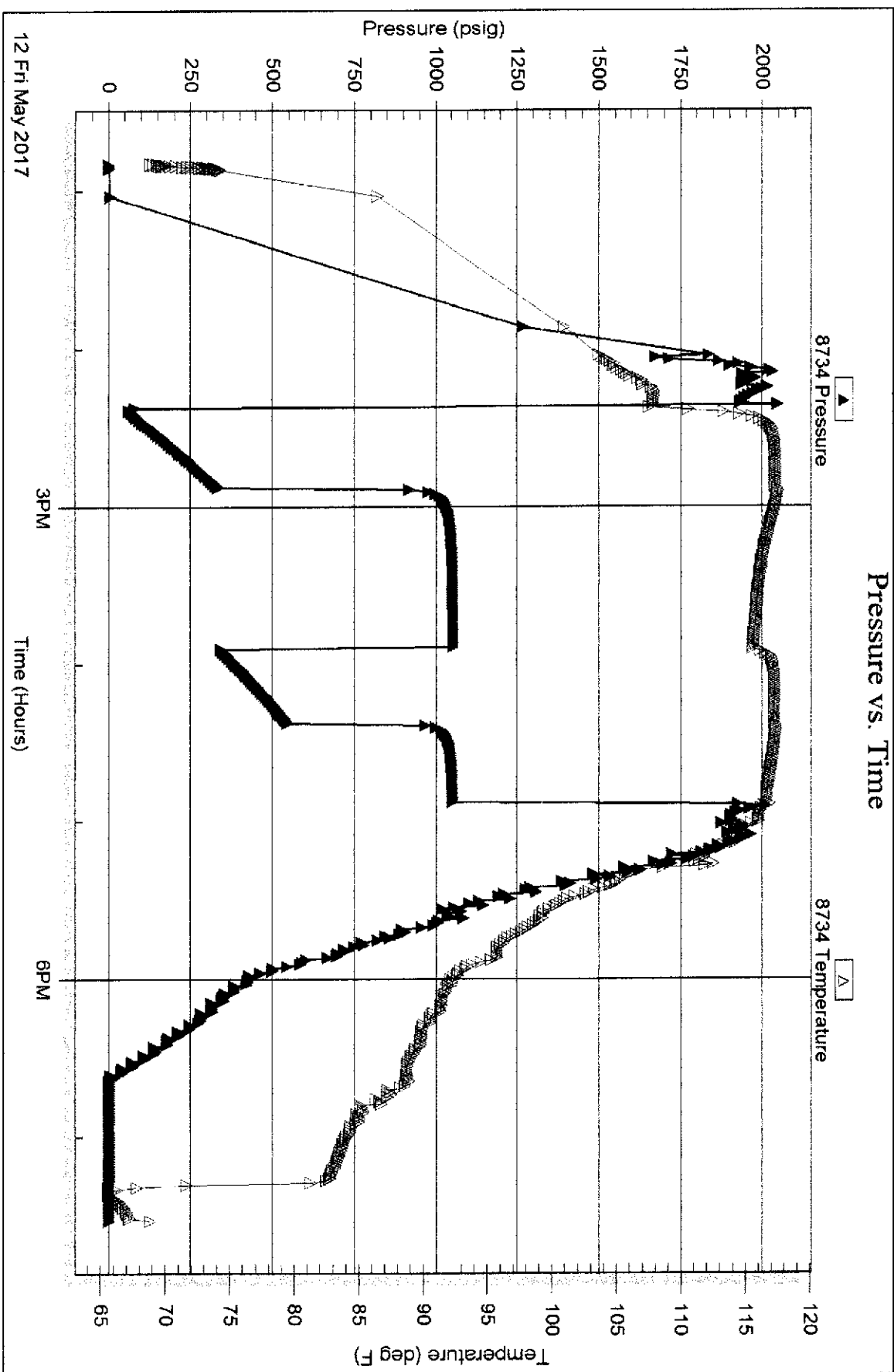
Printed: 2017.05.12 @ 20:39:41

Serial #: 8734

Outside Prairie Fire Petroleum LLC

Long Haul #1-24

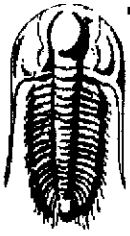
DST Test Number: 4



Trialite Testing, Inc

Ref. No: 61230

Printed: 2017.05.12 @ 20:39:41



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

24-2S-27 Decatur Co.,KS

P.O. Box 38  
Norton,KS 67654

Long Haul #1-24

Job Ticket: 61231

DST#: 5

ATTN: Kevin Bailey

Test Start: 2017.05.13 @ 13:41:00

### GENERAL INFORMATION:

Formation: **Lansing "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 16:27:40

Test Type: Conventional Straddle (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **3474.00 ft (KB) To 3495.00 ft (KB) (TVD)**

Reference Elevations: 2623.00 ft (KB)

Total Depth: 4000.00 ft (KB) (TVD)

2618.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8322**

Inside

Press@RunDepth: psig @ 3475.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.05.13

End Date: 2017.05.13

Last Calib.: 2017.05.13

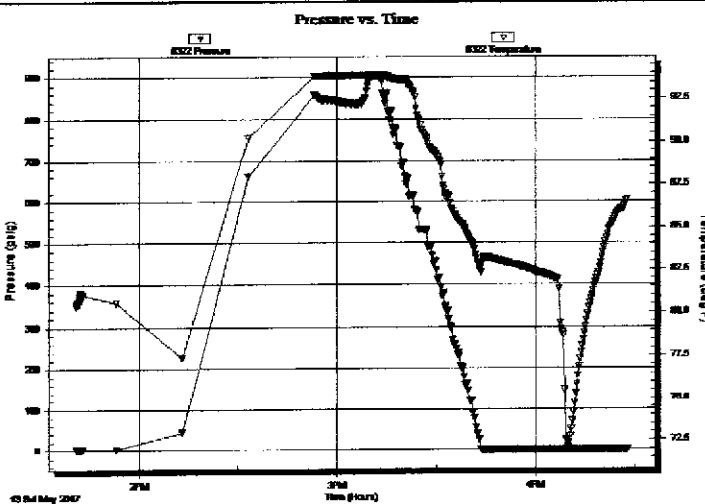
Start Time: 13:41:01

End Time: 16:27:40

Time On Btm

Time Off Btm

TEST COMMENT: Hit bridge @1859(Cedar Hills) lost fluid, picked up and filled hole,no circulation, mis-run and pull tool



### PRESSURE SUMMARY

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

### Recovery

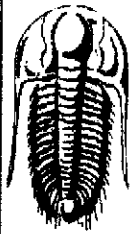
Length (ft)	Description	Volume (bbl)
0.00	tool didnt open	0.00

### Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co.,KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61231

**DST#: 5**

ATTN: Kevin Bailey

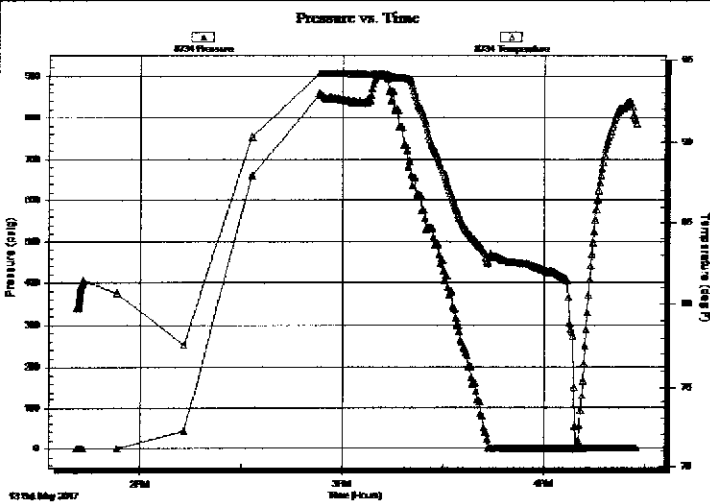
Test Start: 2017.05.13 @ 13:41:00

**GENERAL INFORMATION:**

Formation: **Lansing"A"**  
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Straddle (Reset)**  
 Time Tool Opened: **Tester: Martine Salinas**  
 Time Test Ended: **16:27:40** Unit No: **82**  
 Interval: **3474.00 ft (KB) To 3495.00 ft (KB) (TVD)** Reference Elevations: **2623.00 ft (KB)**  
 Total Depth: **4000.00 ft (KB) (TVD)** **2618.00 ft (CF)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **5.00 ft**

**Serial #: 8734** Outside  
 Press@RunDepth: **psig @ 3475.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2017.05.13** End Date: **2017.05.13** Last Calib.: **2017.05.13**  
 Start Time: **13:41:01** End Time: **16:27:30** Time On Btm  
 Time Off Btm

**TEST COMMENT:** Hit bridge @1859(Cedar Hills) lost fluid, picked up and filled hole, no circulation, mis-run and pull tool



**PRESSURE SUMMARY**

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

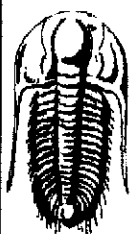
**Recovery**

Length (ft)	Description	Volume (bbl)
0.00	tool didnt open	0.00

\* Recovery from multiple tests

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prairie Fire Petroleum LLC

**24-2S-27 Decatur Co., KS**

P.O. Box 38  
Norton, KS 67654

**Long Haul #1-24**

Job Ticket: 61231

**DST#: 5**

ATTN: Kevin Bailey

Test Start: 2017.05.13 @ 13:41:00

### GENERAL INFORMATION:

Formation: **Lansing"A"**

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

Time Tool Opened:

Time Test Ended: 16:27:40

Test Type: **Conventional Straddle (Reset)**

Tester: **Martine Salinas**

Unit No: **82**

Interval: **3474.00 ft (KB) To 3495.00 ft (KB) (TVD)**

Total Depth: **4000.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2623.00 ft (KB)**

**2618.00 ft (CF)**

KB to GR/CF: **5.00 ft**

### Serial #: 6752

Press@RunDepth: **psig @ 3518.00 ft (KB)**

Start Date: **2017.05.13**

End Date: **2017.05.13**

Start Time: **13:41:01**

End Time: **16:27:40**

Capacity: **8000.00 psig**

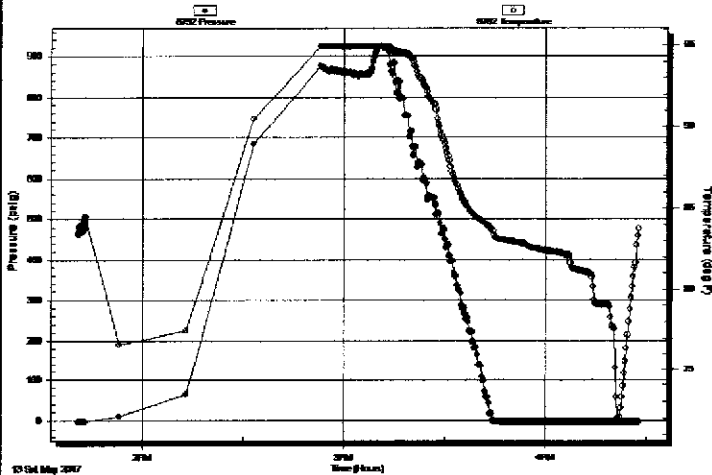
Last Calib.: **2017.05.13**

Time On Btm

Time Off Btm

TEST COMMENT: Hit bridge @1859(Cedar Hills) lost fluid, picked up and filled hole,no circulation,mis-run and pull tool

Pressure vs. Time



### PRESSURE SUMMARY

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

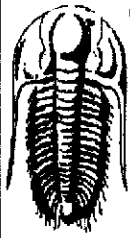
### Recovery

Length (ft)	Description	Volume (bbl)
0.00	tool didnt open	0.00

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Prairie Fire Petroleum LLC

24-2S-27 Decatur Co., KS

P.O. Box 38  
Norton, KS 67654

Long Haul #1-24

Job Ticket: 61231

DST#: 5

ATTN: Kevin Bailey

Test Start: 2017.05.13 @ 13:41:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 76.00 sec/qt

Water Loss: 7.80 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	tool didnt open	0.000

Total Length: ft

Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

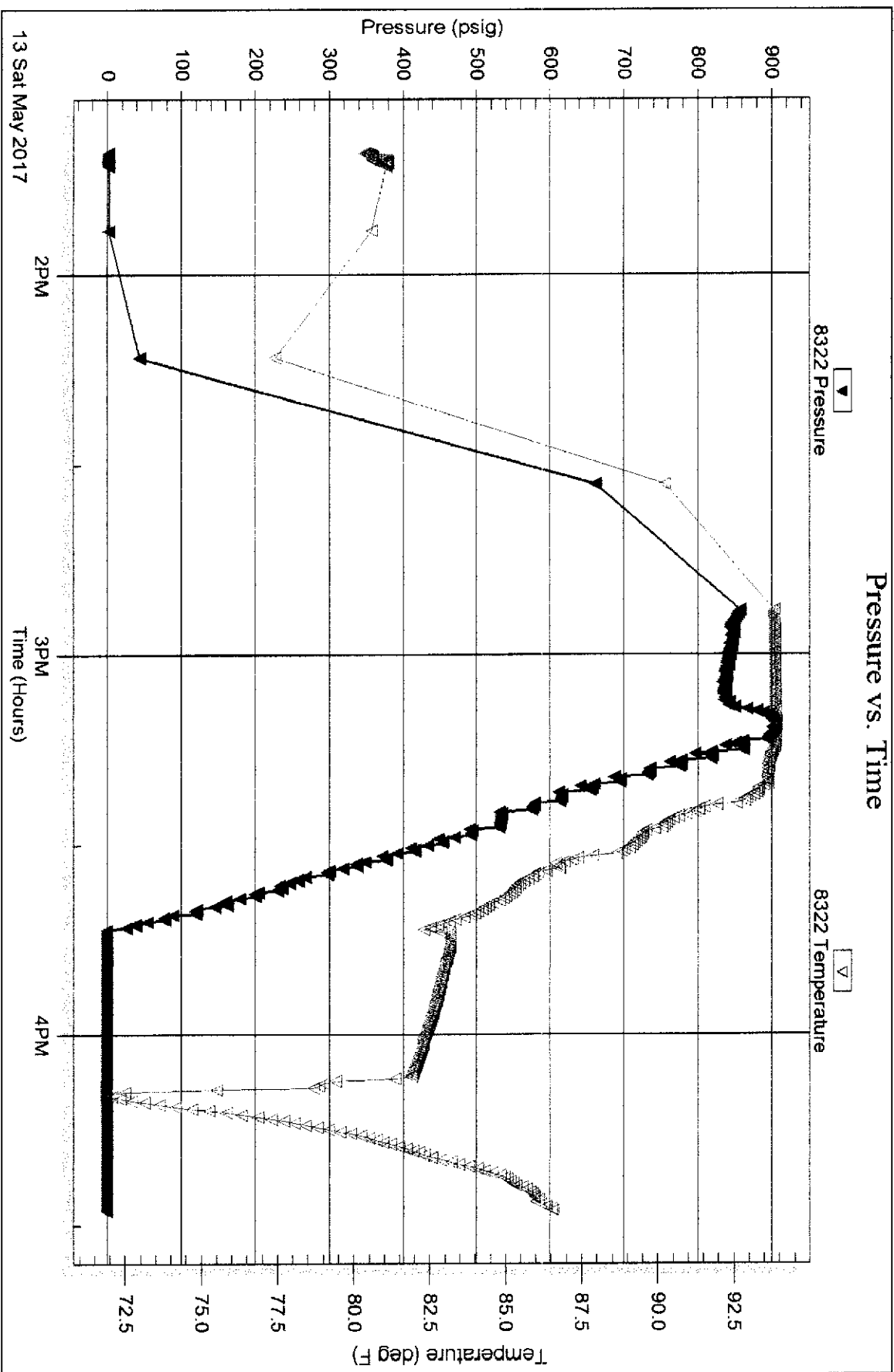
Serial #: 8322

Inside

Prairie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 5

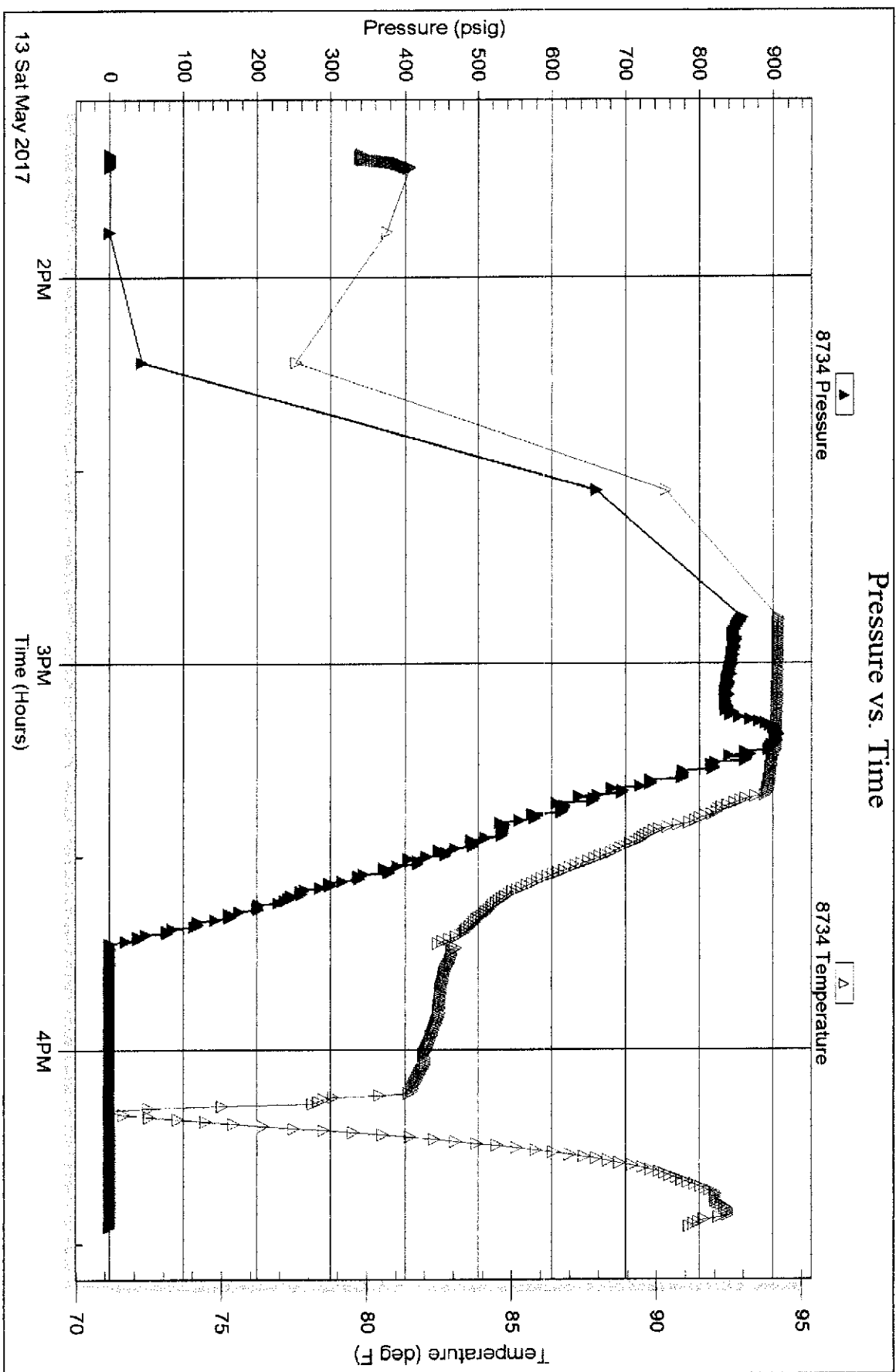


Serial #: 8734

Outside Prairie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 5



Tridibite Testing, Inc

Ref. No: 61231

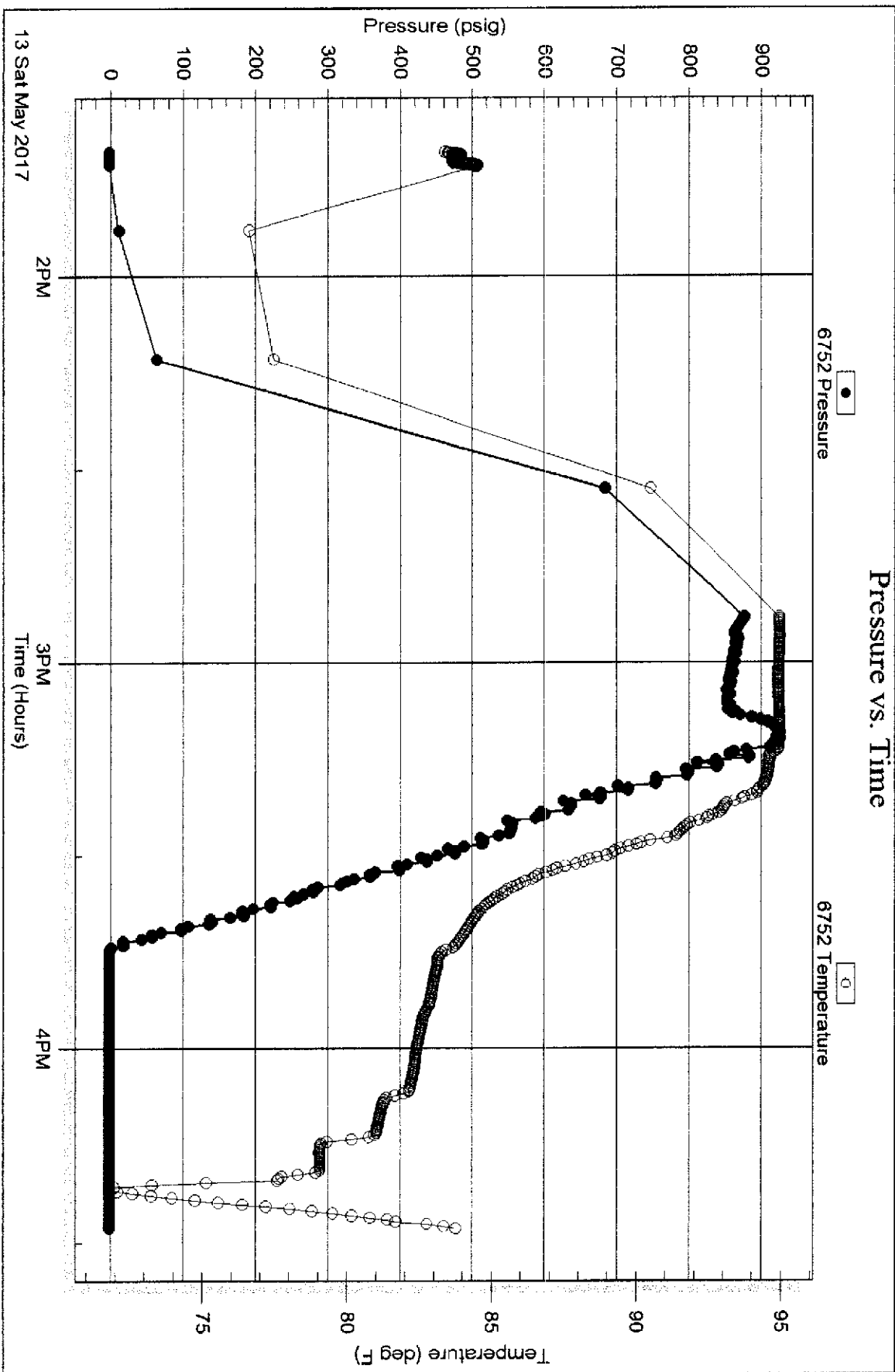
Printed: 2017.05.14 @ 10:47:17

Serial #: 6752

Prairie Fire Petroleum LLC

Long Haul #1-24

DST Test Number: 5





**16221 LEO CIRCLE  
LEAVENWORTH, KS 66048  
913 544 7527  
KEVIN BAILEY**

**COMPANY:** Prairie Fire Petroleum, LLC Doug Frickey 34418  
**WELL:** Long Haul #1-24  
**FIELD:** Wildcat **COUNTY:** Decatur **STATE:** Kansas  
**LOCATION:** NE/4 24-2-27 or 2370' FNL , 1520' FEL  
**Interval Logged:** 3000 **To:** 4000 **G.L.:** 2618 **K.B.:** 2623  
**Date Logged:** 5/07/2017 **To:** 5/15/2017 **Spud Date:** 4/27/2017  
**Rig:** WHITE Knight Drilling Jerry Green 34743 **Unit No.:** #1  
**Loggers:** ELI Hays, KS  
**Api No.:** 15-039-21238-00-00  
**Filename:** longh1-24prfr.mlw  
**Geologist:** Kevin J. Bailey

Created By MainLog

**Abbreviations:**

NB...New Bit  
 CO...Circ Out  
 NR...No Returns  
 TG...Trip Gas  
 WOB...Wt on Bit  
 RPM...Rev/Min  
 SG...Survey Gas  
 DST...Drill Stem Test  
 DS...Directional Survey  
 CG...Connection gas  
 LAT...Logged After Trip  
 PP...Pump Pressure  
 SPM...Strokes/Min  
 DTG...Down Time Gas

**Mud Data**

WT..Weight  
 PH..Acidity  
 CHL...Chlorides  
 V..Viscosity  
 F..Filtrate  
 SC..Solids Content

**Lithology Symbols:**

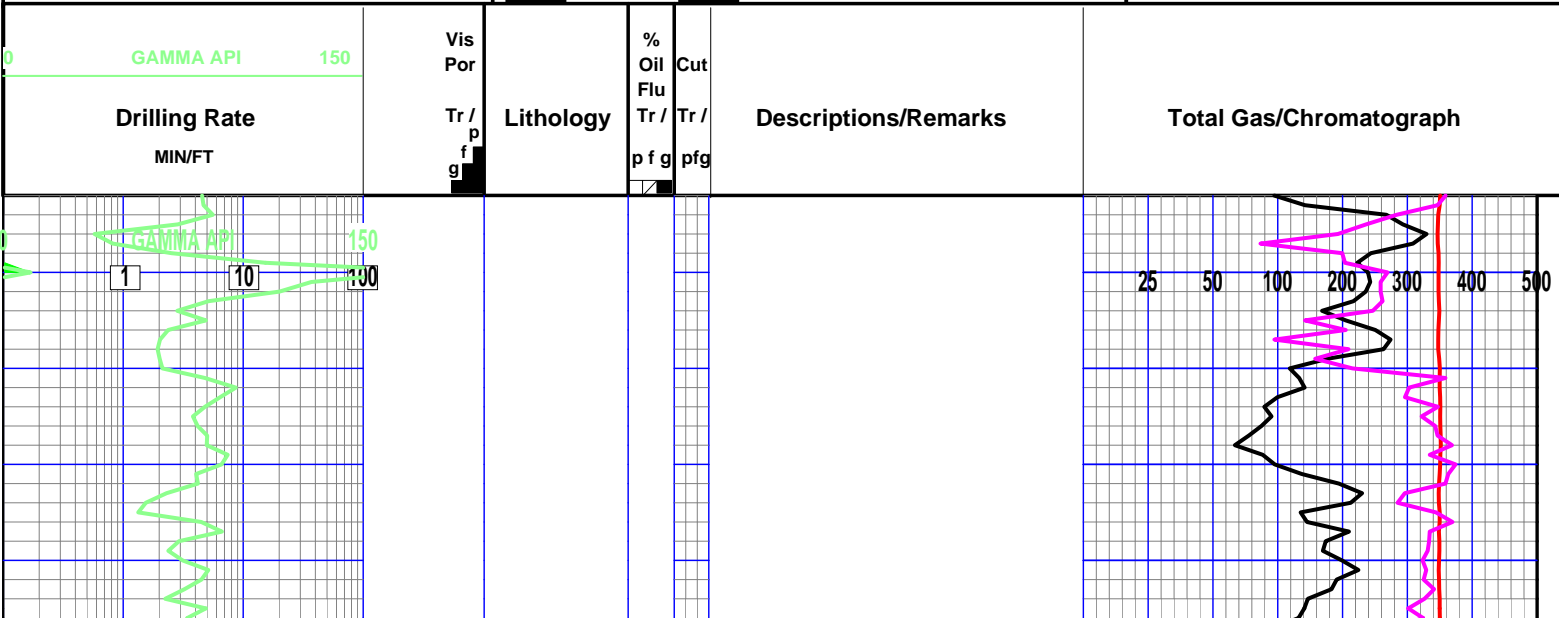
Anhydrite	Salt	Granite
Siltstone	Chert	Sandstone
Dolomite	Conglomerate	Limestone
Coal	Shale	Bentonite
Carb Shale	Granite Wash	Quartz Wash
Red Sh	Org Sh	Green Sh
Cust Sh1	Cust Sh2	Cust Sh3
Cust Sh4	Cust Sh5	Cust Sh6

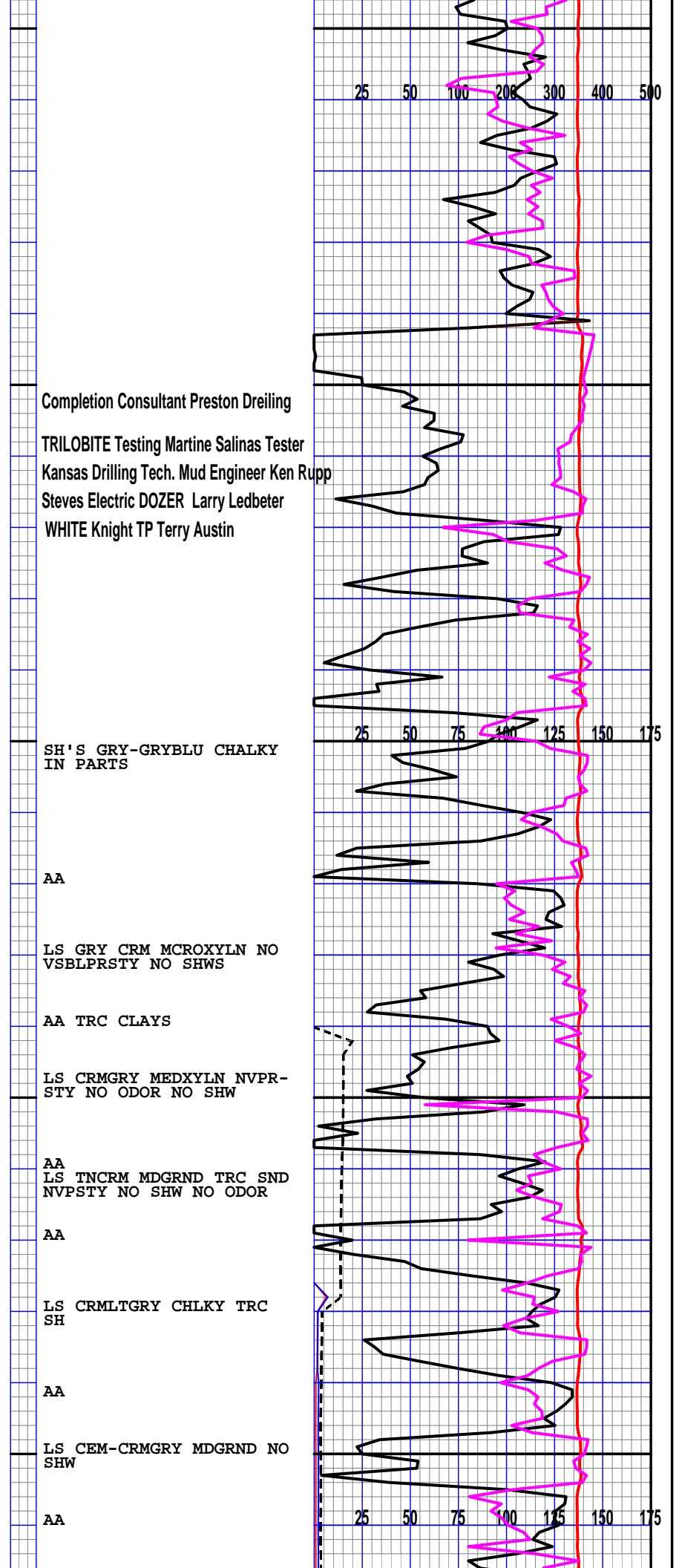
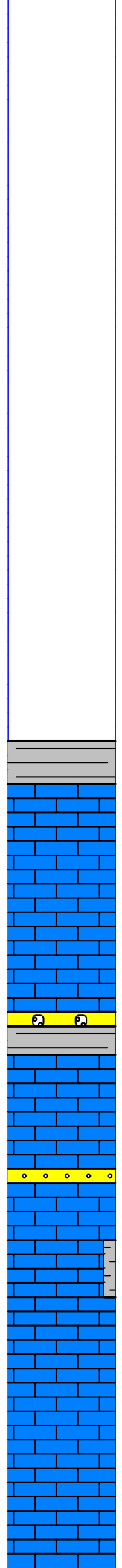
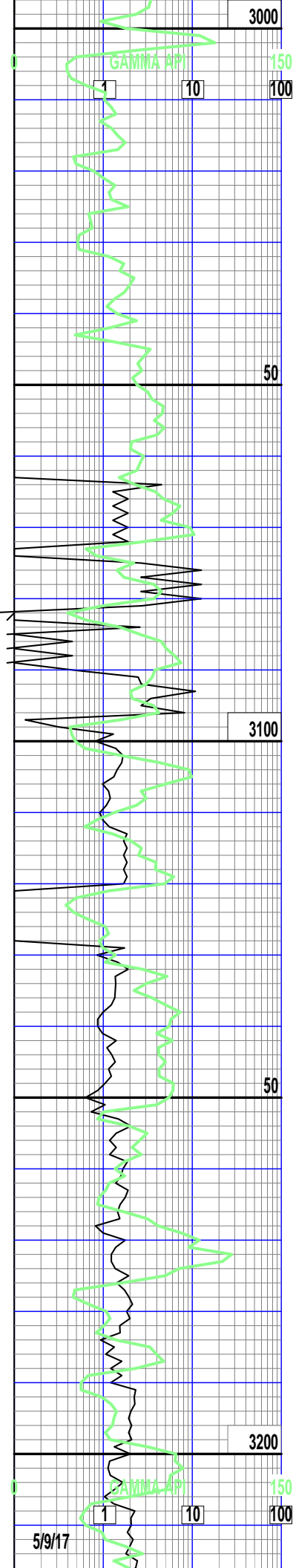
**Gas Chromatograph Analysis:**

HW ---  
 C1 ---  
 C2 ---  
 C3 ---  
 IC4 ---  
 NC4 ---  
 IC5 ---  
 NC5 ---

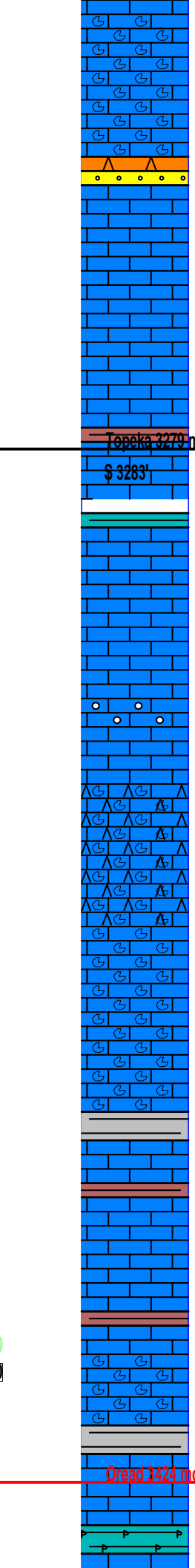
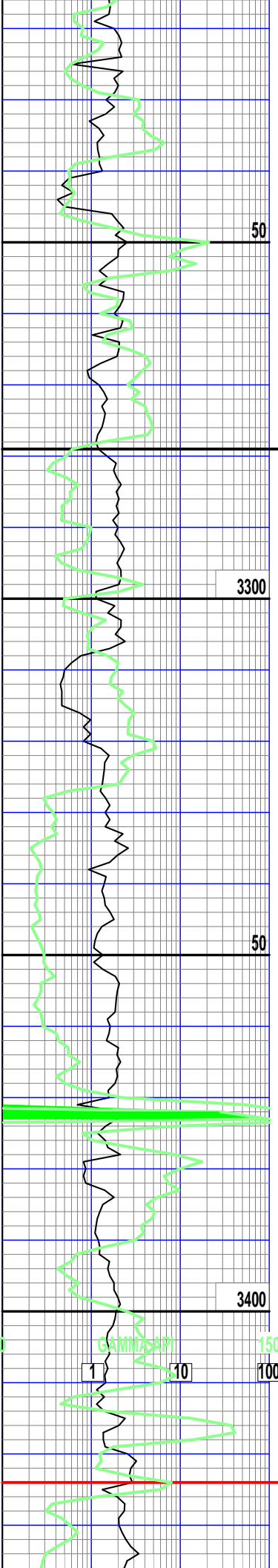
**Accessories**

Glauconite Pyrite Fossils Oolites  
 Fractures Cement









LS CRMGY CHALKY THRGH-  
OUT FSSL CRNDS BRCPDS

AA

LS CRMLTGRY CHLKY FSSL  
IN GLSSY CHRT TRC SNDS  
WELLCMNTD NO SHW VFNT  
ODOR NVFO

LS CRMGRY CHLKY NO SHW  
NO ODOR BAREN

AA

LS CRMDULL RED STAINING  
MLKY NO SHWS  
SH RED-BRWNRED

LS CRM MD-FNGRND CHLKY  
TRC SH BLU-BLUGRN NO  
SHW NO ODOR PRVPRSTY

AA LESS RED STAIN

CHLKY MLKY NO SHW  
LS CRMWHT MICRXYN FSSL  
CHLKY IN PARTS NO SHW  
TRC GLCNT  
AA TRC OOLTC TIGHT NO  
SHW NO ODOR

LS CRM MICROXYLN TRCFSL  
CHRT CRM NO ODOR NO SHW

AA

LS CRM-CRMVLTYLW MICRO-  
XYLN FSL NO SHW NO ODOR

AA

LS CRM MOCROXYLN FSSL  
NVPRSTY NO SHW

SH GRY BRWN FISSL  
LS LTGRY MICROXYLN NO  
SHW

LS CR-LTGRY VFXYLN NO  
SHW NO ODOR TRC REDBRWN  
STAIN

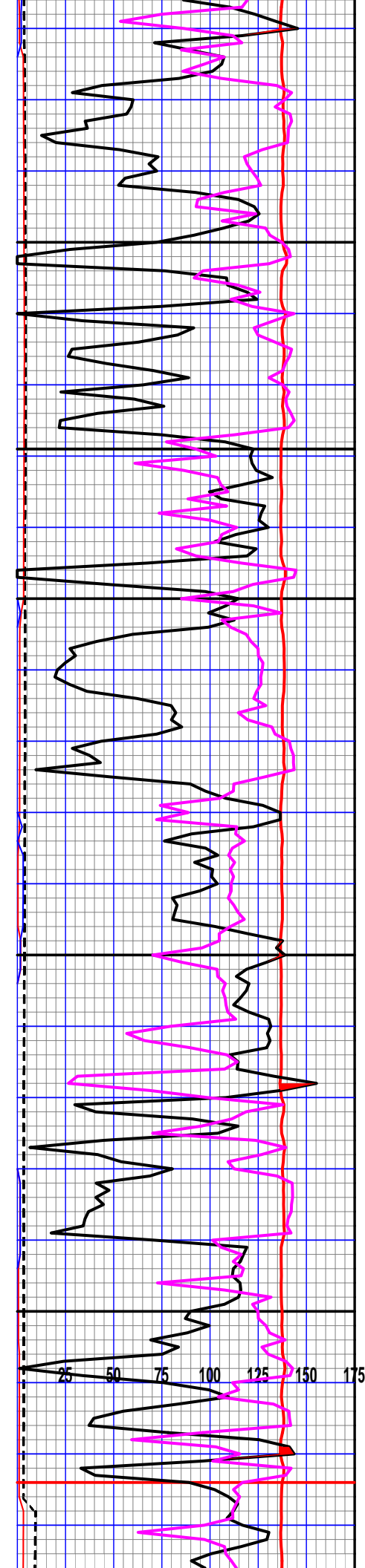
AA SH RED BRWN

LS CRM-VLT GRY TRC VGY  
FOSL PVPRSTY TRC CHLKY  
NO SHW

SH GRY BRWN MLIKY

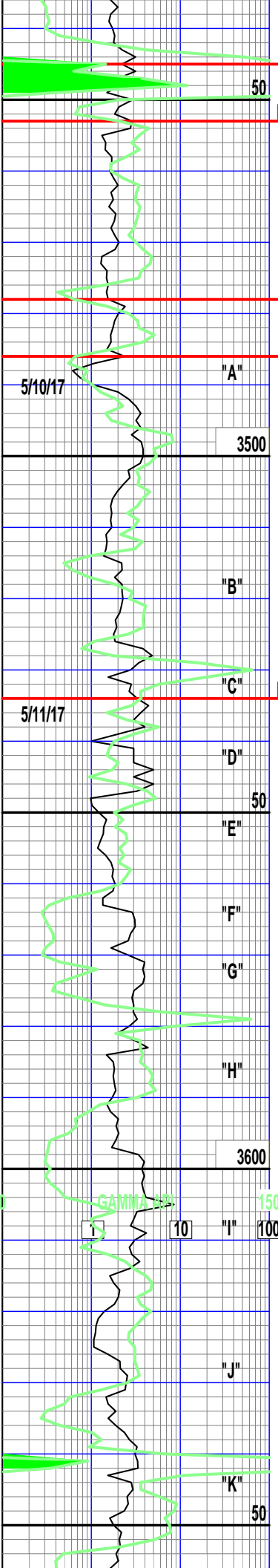
LS CRMDXYLN SLIGHTLYVGY  
NVPRSTY NO SHW NO ODOR

AA SH GRN PYRTIC GLCNIT  
LS CRM-LT GRYMDXYLN TRC



Dread 1423 md (-801 SS)

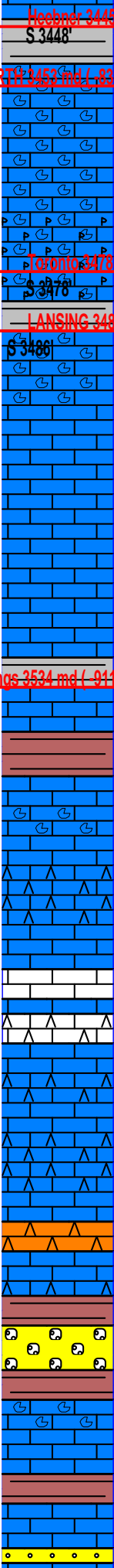
GAMMA AP 150  
1 10 100



Bonner 3445 md (-822 SS)  
 LEAVENWORTH 3493 md (-830 SS)

Lansing 3477 md (-855 SS)  
 Lansing 3486 md (-863 SS)

Bonner Springs 3534 md (-914 SS)



SH LINT GRN TRC BRTL

LS CRMWHITMDXYLN CHALKY  
 BRILE NO SHW NO ODOR

SH BLK GRY LMNATED  
 LS LTCRMLTYLLW MICRO-  
 XYLN CRNDFSSL CHERTY IN  
 PARTS NO SHW NO ODOR

LS CRMDULLYLWHT MICRO-  
 XYLN MICROFSSL NO SHW  
 NO ODOR

LS CRM-CRMLTYLW MDXYLN  
 SHARD TIGHT NO SHW FAINT  
 ODOR

LS CLRWHT VGY GD SHW IN  
 FR SHW WHEN CRUSHED LOW  
 ODOR TO FAINT

LS CRM CHHKLY NVPRSTY  
 NO SHW NO ODOR

LS CRMCLR XYLNCLKY TRC  
 FSSL NVPRSTY NO ODOR NO  
 SHW

LS CRMVUGGY-XYLN FRODOR  
 SLIGHT SHW

AA LS CRMVGGY W/OIL ON  
 SUFRCE GD SHW WHEN CRSD

SH BRWNRED-BRCK W/INBDD  
 CALCUS BULKYDRK GRY SH

AA SH DRK TRC PYRT

LS CRMMDXYLN BRITL IN-  
 PRTS SLT CHLKY SLFSSL  
 TRC CHERT CRM FSSL NO  
 SHW NO ODOR

AA LS CRM-CRMLTGRY-BRTL  
 SLFSSL CHLKY INPARTS NO  
 ODOR NO SHW

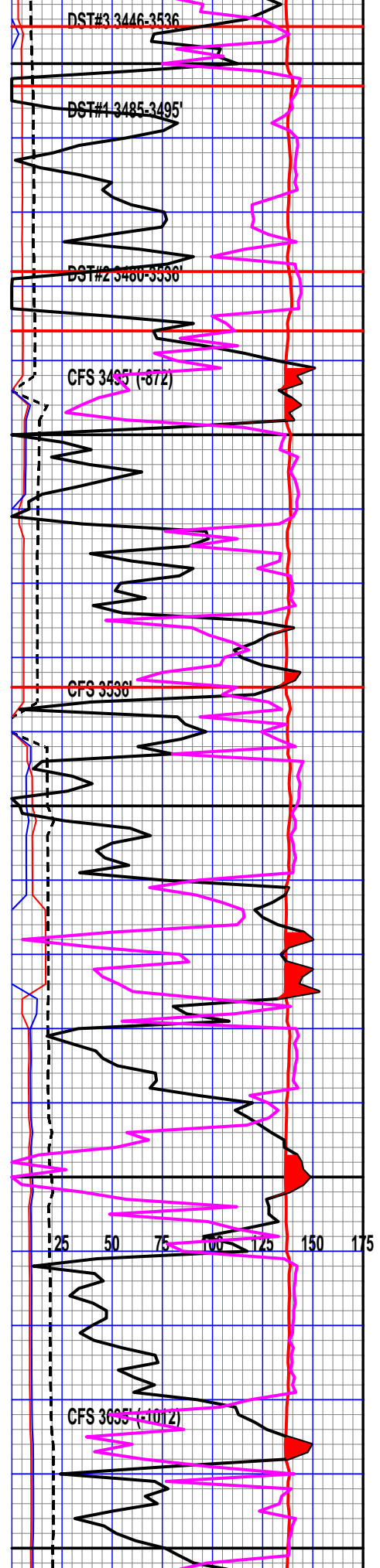
LS CRMXYLN BRTL NVPSTY  
 W/INTBDD CHERT WHTCRM  
 NO ODOR NO SHW

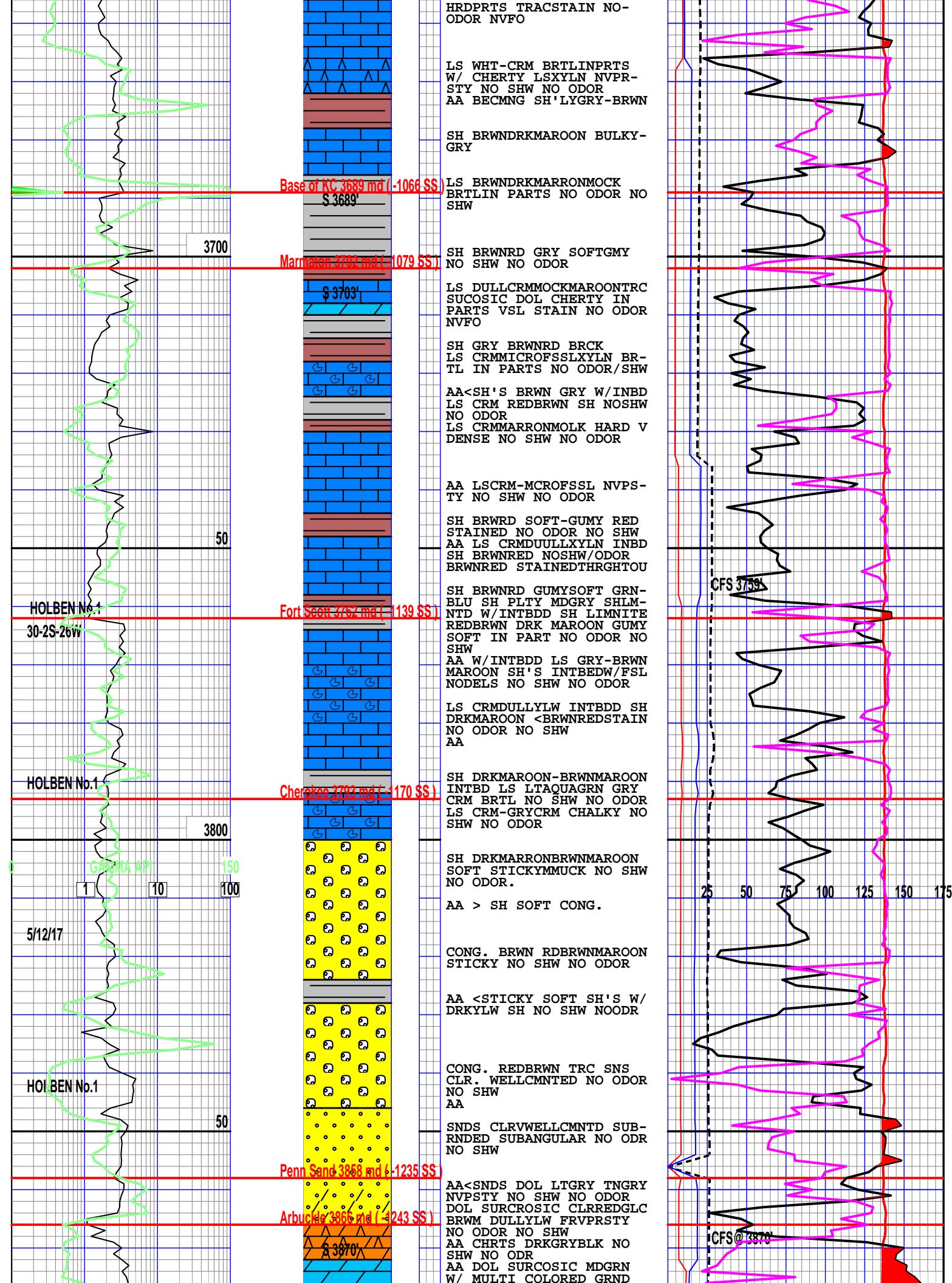
LS CRMBRGTWHT MICOXYLN  
 SLCHRT NVPSTY NOSHWO  
 ODR  
 AA

LS CRM-WHTLTGRYXYLN TRC  
 STN IN CHERTCRM NO ODOR  
 NFO

AA >CHERTS CRM-LTGRYPYR  
 INTBDD BIT CHATTER NO-  
 SHW-NO ODR  
 LS CRM-CRMYLW CHERTY IN  
 PRTS NO SHW NO ODR  
 SH BRWNRD SOFTINPRTS W/  
 FNT-FR ODOR NO SHW  
 AA CONGL. SH CLY BRWN-  
 BRWNRD SOFT REDSTAINED  
 THRGHOUT.  
 SH BRWNRD MUSHYSOFT RED  
 STAINED FNT ODOR NOSHW

LS CRM-CRMYLW BRILTHRGH  
 OUT TRC FSSL CRND NOSHW  
 NO ODOR  
 LS CRM-YLWCRM MIROFSSLX  
 LYN NVPRSTY NOSHWO  
 ODR  
 LS CRMYLWVGY-XYLN W/SLT  
 STAININ BRTL LS FNTODOR  
 NVFO  
 AA SNS CLRGY SL STAIN  
 FNT-FR ODOR NVFO  
 LS CRM-CRMLTYLW BRTL W/





HRDPRTS TRACSTAIN NO-  
ODOR NVFO

LS WHT-CRM BRTLINPRTS  
W/ CHERTY LSXYLN NVPR-  
STY NO SHW NO ODOR  
AA BECMNG SH'LYGRY-BRW

SH BRWNRKMAROON BULKY-  
GRY

Base of KC 3689 md (-1066 SS)  
S 3689'

LS BRWNRKMARRONMOCK  
BRTLIN PARTS NO ODOR NO  
SHW

3700

Marmaton 3702 md (-1079 SS)

SH BRWNRD GRY SOFTGMY  
NO SHW NO ODOR

S 3703'

LS DULLCRMCKMAROONTRC  
SUCOSIC DOL CHERTY IN  
PARTS VSL STAIN NO ODOR  
NVFO

SH GRY BRWNRD BRCK  
LS CRMMICROFSSLXYLN BR-  
TL IN PARTS NO ODOR/SHW

AA<SH'S BRWN GRY W/INBD  
LS CRM REDBRWN SH NOSHW  
NO ODOR  
LS CRMMARRONMOLK HARD V  
DENSE NO SHW NO ODOR

50

AA LSCRM-MCROFSSL NVPS-  
TY NO SHW NO ODOR

SH BRWRD SOFT-GUMY RED  
STAINED NO ODOR NO SHW  
AA LS CRMDUULLXYLN INBD  
SH BRWNRED NOSHW/ODOR  
BRWNRED STAINEDTHRHTOU

HOLBEN No.1

30-2S-26W

Fort Scott 3782 md (-1139 SS)

SH BRWNRD GUMYSOFT GRN-  
BLU SH PLTY MDGRY SHLM-  
NTD W/INTBDD SH LIMNITE  
REDBRWN DRK MAROON GUMY  
SOFT IN PART NO ODOR NO  
SHW  
AA W/INTBDD LS GRY-BRW  
MAROON SH'S INTBEDW/FSL  
NODELS NO SHW NO ODOR

CFS 3739'

LS CRMDULLYLW INTBDD SH  
DRKMAROON <BRWNREDSTAIN  
NO ODOR NO SHW  
AA

HOLBEN No.1

Cherokee 3792 md (-1170 SS)

SH DRKMAROON-BRWNMAROON  
INTBD LS LTAQUAGR N GRY  
CRM BRTL NO SHW NO ODOR  
LS CRM-GRYCRM CHALKY NO  
SHW NO ODOR

3800

SH DRKMARRONBRWNMAROON  
SOFT STICKYMUCK NO SHW  
NO ODOR.

AA > SH SOFT CONG.

5/12/17

CONG. BRWN RDBRWNMAROON  
STICKY NO SHW NO ODOR

AA <STICKY SOFT SH'S W/  
DRKYLW SH NO SHW NOODR

HOLBEN No.1

50

CONG. REDBRWN TRC SNS  
CLR. WELLCMNTD NO ODOR  
NO SHW  
AA

SNDS CLRWELLCMNTD SUB-  
RNDED SUBANGULAR NO ODR  
NO SHW

Penn Sand 3858 md (-1235 SS)

AA<SNDS DOL LTGRY TNGRY  
NVSTY NO SHW NO ODOR  
DOL SURCROSIC CLRREDGLC  
BRWM DULLYLW FRVPRSTY  
NO ODOR NO SHW  
AA CHR'S DRKGRYBLK NO  
SHW NO ODR  
AA DOL SURCROSIC MDGRN  
W/ MULTI COLORED GRND

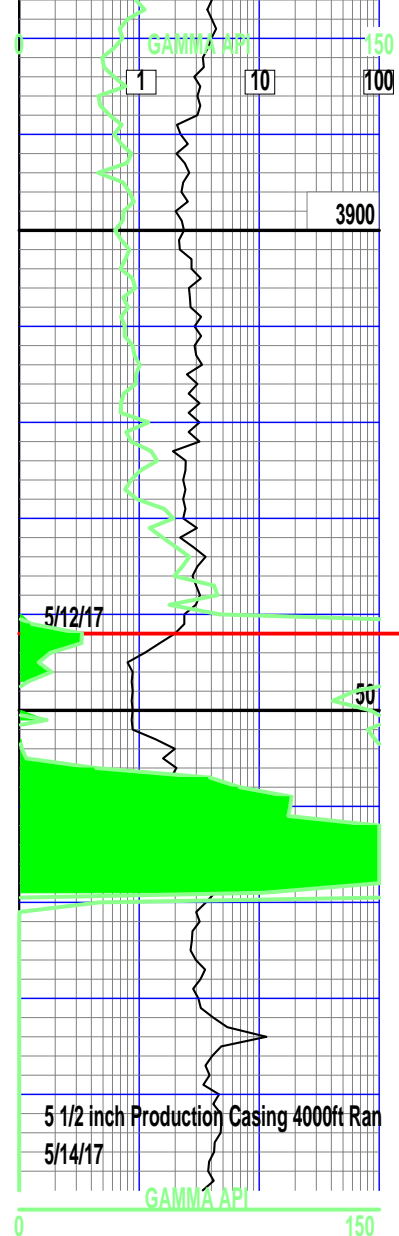
Arbuckle 3866 md (-1243 SS)

S 3870'

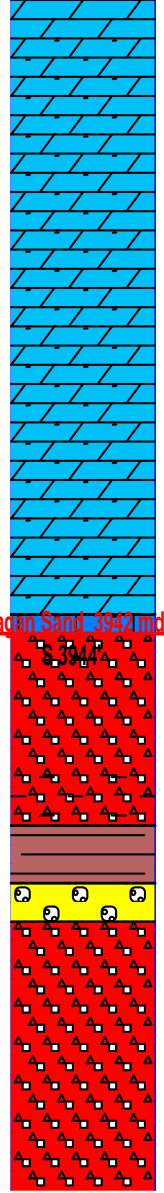
CFS @ 3870'

GRAMA AP  
1 10 100

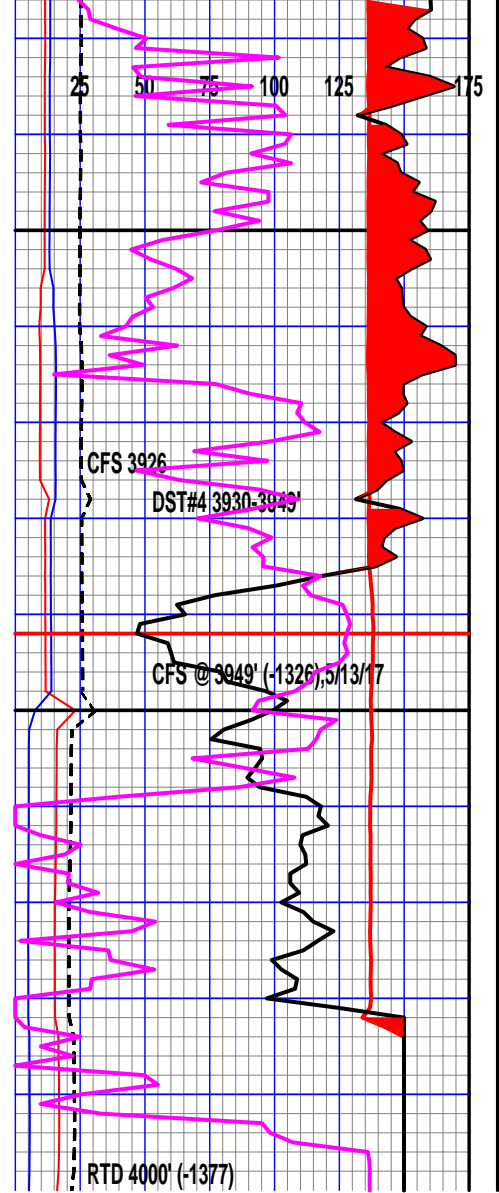
25 50 75 100 125 150 175



Ream Sand 3927md (-1319 SS)



MED-FN NO SHW NOODOR  
 AA> GLUNIT FLACKS SPECS  
 AA DOL GLUCNT GRN FLCKS  
 SIZE INCREASED AND DRKR  
 NO SHW NO ODR  
 DOL CRMYLW MICOXYLN W/  
 CHRYS CRM DRKGRY NO ODR  
 NO SHW  
 DOL CRMYLW-TNYLW SURCRO  
 SIC MOST BRTL-DENSE NO  
 ODOR NO SHW  
 AA RDSTAIND THROUGHOUT  
 Start 5ft samples  
 DOL SURCSIC-MEDGRN TN-  
 BRWN SOME GLCNIT SPECS  
 INMATRX W/ SNDS VWELL  
 CMNTD SOME CRSHBL NOSHW  
 NO ODOR TRC-FR PRSTY  
 AA DOL DRKPNKMAROONMCRO  
 MDGRND NO ODOR NO SHW  
 DOL TNBRNYLW SURCSIC W/  
 GLCNT SPEC FLAKES NO  
 ODOR NO SHW  
 DOL SURCOSICTNBRWNGLCNT  
 SPECS BRWN STAIN NO ODR  
 NVFO  
 AA OXYGNTD DEPOSTNAL EN  
 VIROMENT CONDITIONS  
 SNS CLR-TNBRWN EASYCRS  
 HABL GLCNT SNS TRC BRW  
 STAIN NO FLOUR  
 SNDS MULTICOLORD GWASH  
 GLCNITC SS SPEC/FLACKS  
 GILSNITFELDSPARRD MULTI  
 SNDS CLR PINKDRKRD WELL  
 RND TO SUB RDD  
 MULTI COLRD QRTZSNDGRNS  
 ANGULR TOSUB WHTCLRQRTZ  
 SH'S BRWNRDBRKRD NO SHW  
 NO ODOR  
 AA W/CONG.SH'S SNDS NO  
 ODOR NO SHWS  
 AA<PINKRD STAIN OXYGNTD  
 DEPOSITIONL ENVIRONMENT  
 AA<SNDS QRTZ/FELDPAR W/  
 DOL WEATHRD SNDS PINK-  
 RD STAINDSURFAC&QRTZ NO  
 ODOR NO SHW  
 CFS & CTCH 1hr 15min prior to E-log



DENSITY POR	
.3	-05
NEUTRON POR	
.3	-05
CROSSPLOT POR	
.3	-05