



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1209575  
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: \_\_\_\_\_

1209575

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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<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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Loker Trust 1-1
Doc ID	1209575

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated





acct.  
Prod-LH

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 141754  
Invoice Date: Mar 4, 2014  
Page: 1

Voice: (817) 546-7282  
Fax: (817) 246-3361

<b>Bill To:</b>
Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202

Customer ID	Field Ticket #	Payment Terms	
Murfin	61982	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Mar 4, 2014	4/3/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Loker Trust #1-1		
370.00	CEMENT MATERIALS	Class A Common	17.90	6,623.00
20.00	CEMENT MATERIALS	Chloride	64.00	1,280.00
388.50	CEMENT SERVICE	Cubic Feet Charge	2.48	963.48
899.39	CEMENT SERVICE	Ton Mileage Charge	2.60	2,338.41
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
65.00	CEMENT SERVICE	Pump Truck Mileage	7.70	500.50
65.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	286.00
1.00	CEMENT SUPERVISOR	Kelly Gabel		
1.00	EQUIPMENT OPERATOR	Wayne Mc Ghghy		
1.00	OPERATOR ASSISTANT	Brandon Wilkinson		

Subtotal	13,503.64
Sales Tax	624.34
Total Invoice Amount	14,127.98
Payment/Credit Applied	
<b>TOTAL</b>	<b>14,127.98</b>

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 4,726.27 *ph*

ONLY IF PAID ON OR BEFORE  
Mar 29, 2014

-4726.27

9401.71

OK MSR

# ALLIED OIL & GAS SERVICES, LLC 061982

Federal Tax I.D. # 20-8651476

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Oakley, KS

DATE <u>3-1-14</u>	SEC. <u>1</u>	TWP. <u>3<sup>s</sup></u>	RANGE <u>36<sup>w</sup></u>	CALLED OUT	ON LOCATION	JOB START <u>11:00 AM</u>	JOB FINISH <u>12:00 PM</u>
LEASER <u>TSUST</u>	WELL # <u>1-1</u>	LOCATION <u>McDonald E to Rd 5 2 N</u>			COUNTY <u>Rawlins</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)		<u>1/4 E N into</u>					

CONTRACTOR Muffman # 8 OWNER same

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 350 CEMENT

CASING SIZE 8 7/8 DEPTH 350 AMOUNT ORDERED 370 SKS COM 390 CC

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM COMMON 370 SKS @ 17.00 6623.00

MEAS. LINE SHOE JOINT POZMIX @

CEMENT LEFT IN CSG. 15 GEL @

PERFS. CHLORIDE 20 SKS @ 64.00 1280.00

DISPLACEMENT 2 1/4 ASC @

**EQUIPMENT**

PUMP TRUCK CEMENTER Kelly Orabel

# 422 HELPER Wayne McLaughlin

BULK TRUCK

# 3234 308 DRIVER Brendon Williams

BULK TRUCK

# DRIVER

HANDLING 388.50 @ 2.50 971.25

MILEAGE 17.39 100 X 65 @ 2.50 2828.75

TOTAL 11,205.39

**REMARKS:**

Mixed 370 SKS COM 390 CC  
displaced with 2 1/4 bbl water  
shut in

Cement did circulate  
Thank You  
Kelly & crew

**SERVICE**

DEPTH OF JOB 350

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE @

MILEAGE MILV 65 @ 7.20 500.50

MANIFOLD @

MILV 65 @ 4.40 286.00

TOTAL 2012.75

CHARGE TO: Muffman

STREET

CITY STATE ZIP

**PLUG & FLOAT EQUIPMENT**

@

@

@

@

@

TOTAL

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Russell Hawkins

SIGNATURE Russell Hawkins

SALES TAX (If Any)

TOTAL CHARGES 13,218.14

DISCOUNT 4,626.34 IF PAID IN 30 DAYS

8,591.79 Net



P. O. Box 466  
Ness City, KS 67560  
Off: 785-798-2300



# Invoice

DATE	INVOICE #
3/13/2014	25427

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661
USED FOR <u>IC 103</u>
APPROVED <u>[Signature]</u>

- Acidizing
- Cement
- Tool Rental

FH

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-1	Loker Trust	Rawlins	Murfin Drilling	Oil	Development	5-1/2" Top To B...	Josh
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				160	Miles	6.00	960.00
579D	Pump Charge - Top To Bottom LongString				1	Job	2,000.00	2,000.00
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
281	Mud Flush				500	Gallon(s)	1.25	625.00T
290	D-Air				5	Gallon(s)	42.00	210.00T
403-5	5 1/2" Cement Basket				3	Each	300.00	900.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	275.00	275.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	375.00	375.00T
409-5	5 1/2" Turbolizer				15	Each	90.00	1,350.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
325	Standard Cement				200	Sacks	14.50	2,900.00T
330	Swift Multi-Density Standard (MIDCON II)				300	Sacks	18.50	5,550.00T
276	Flocele				125	Lb(s)	2.50	312.50T
283	Salt				1,000	Lb(s)	0.20	200.00T
284	Calseal				9	Sack(s)	35.00	315.00T
285	CFR-1				150	Lb(s)	4.50	675.00T
581D	Service Charge Cement				500	Sacks	2.00	1,000.00
583D	Drayage				4,068.5	Ton Miles	1.00	4,068.50
	Subtotal							22,016.00
	Sales Tax Rawlins County						7.90%	1,105.01
<b>We Appreciate Your Business!</b>							<b>Total</b>	\$23,121.01



CHARGE TO: Murkin Drile  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET 25427

PAGE 1 OF 2

SERVICE LOCATIONS

1. <u>Hays Co</u>	WELL/PROJECT NO. <u>1-1</u>	LEASE	COUNTY/PARISH <u>Rawlins</u>	STATE <u>KS</u>	CITY	DATE <u>3-13-14</u>	OWNER
2. <u>Ness City Ks</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE	CONTRACTOR <u>Murkin Drile</u>	RIG NAME NO. <u>8</u>	SHIPPED VIA <u>UT</u>	DELIVERED TO <u>Location</u>	ORDER NO.	
3.	WELL TYPE <input type="checkbox"/> SALES	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>5 1/2 Top to Bottom</u>	WELL PERMIT NO.		WELL LOCATION <u>Sec 1 Trap 35 R 36w</u>	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE #	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
575		1			112	160	mi				6.00	960.00
579		1			Pump Change Top to Bottom	1	ea				2000.00	2000.00
221		1			Logva KLL	4	gal				251.00	1004.00
281		1			Mud Flush	500	gal				1.25	625.00
290		1			O-Air	5	gal				42.00	210.00
403		1			Leavent Basket	3	ea		5 1/2"		300.00	900.00
406		1			Latch Down Plug + Gaffle	1	ea				275.00	275.00
407		1			Insert Float Shoe w/ Auto Fill	1	ea				375.00	375.00
409		1			Turbolifters	15	ea				90.00	1350.00
419		1			Gas Factory Head Rental	1	ea				200.00	200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 3-13-14 TIME SIGNED 2:20

A.M.  P.M.

REMIT PAYMENT TO:  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	AMOUNT
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				P1	6995.00
WE UNDERSTOOD AND MET YOUR NEEDS?				P2	15021.00
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				Subtotal	2,2016.00
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Rawlins TAX 7.9%	1105.01
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO		TOTAL	23,121.01

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR [Signature] APPROVAL

Thank You!





PO Box 466  
Ness City, KS 67560  
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 25427

CUSTOMER: *Murphy* WELL: *Laker Trust 1-1* DATE: *3-13-14* PAGE: *2* OF: *2*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL				DATE	UNIT PRICE	AMOUNT		
		LOG	ACCT	DE			QTY	UM	QTY	UM					
325						Standard Cement EA-2	200	Sks			14	50	2900	00	
390						Sulfur Multi-Density	300	Sks			18	50	5550	00	
276						Procece	125	Lbs			2	50	312	50	
283						Salt	1000	Lbs				20	200	00	
284						Cal Seal	9	Sks			35	00	315	00	
285						CFR-1	150	Lbs			4	50	675	00	
581						SERVICE CHARGE					2	00	1000	00	
583						MILEAGE CHANGE					1	00	4068.50	00	
							TOTAL WEIGHT	50855		LOADED MILES	160		CUBIC FEET	500	
							TOTAL WEIGHT	50855		LOADED MILES	160		TON MILES	4068.5	
							CONTINUATION TOTAL					15021.00			

**JOB LOG**

**SWIFT Services, Inc.**

DATE 3-13-14 PAGE NO.

CUSTOMER *Murphy* WELL NO. *1-1* LEASE *Laker Trust* JOB TYPE *5 1/2 top to Bottom* TICKET NO. *25427*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2130							in location 5 1/2 x 15.5" TD 4890 55 21 TP 4882 Insert 4861 Centralizers 1-13, 34, 44 Baskets 11, 35, 45
	0000							Start Pipe Circulate on St. 58 Finish Running Pipe
	0230							Drop Ball circulate rotate
	0330	5	12			✓	300	Start Mud Flush
		5	20			✓	300	Start KLL Flush
		5	138			✓	200	Start SMD Cement 250 sks @ 11.24/gal
		5	48			✓	200	Start E A -2 Cement 200 sks
	0442							Drop Plug wash out Pump + Lines
	0445	6				✓	300	Start Displacement w/20 bbl KLL flush
		6	20			✓		Finish w/H2O
		6	90			✓	800	Circulate Cement
	0515	6	115.7			✓	1000/1500	land Plug Cement in Cellar Release Dry
			7/5					Plug AH, 30 sks, AH20 sks
								wash up Back up
	0635							Job Complete Thank You Josh, Brian, Craig, Jarrod

Loker Trust #1-1  
 Daily Drilling Report  
 Page Three

3/11/14 Depth 4430'. Cut 134'. DT: None. CT: 16½ hrs. Dev.: None. **LKC H:** NS. **LKC J:** Ist, foss, pr tr fr vug por, tr foss cast por, S-FSGFO, very fnt odor, brn-dk brn spt stn. **LKC K:** NS. **DST #4 4351-4430' (LKC J-K):** 30-60-30-60. IF: ¼" blw @ open, built to 1½". FF: blw built to just under ½". Rec.: 45'M w/oil spts (98%M, 2%O). HP: 2207-2161. FP: 21/34, 36/42. SIP: 1373-1361. BHT: 126°.

3/12/14 Depth 4686'. Cut 256'. DT: None. CT: 7¾ hrs. Dev.: 1/8° @ 4430'. **Paw:** Ist, subool-sl foss, pr interpart to some fr ppt-vug por, FSGFO, no odor, dk brn spt-sat stn. **Ft Sc:** Is, sl foss, sct pc pr-fr inter foss-vug por, SSFO, sl odor, dk brn spt trc sat stn. **Cher:** Is, foss, fr-pr interpart-vug por, SSFO, fnt odor, dk brn spt-sat stn. **DST #5 4556-4686 (Paw-Cher):**

3/13/14 RTD 4890'. Cut 204'. DT: 1½ hrs hydromatic. CT: 14¾ hrs. Dev.: None. **DST #5 4556-4686 (Paw-Cher):** 30-60-60-90. IF: blw built to BOB (11") @ 22½ mins. ISI: blw back built to 2". FF: blw built to BOB @ 20¾ mins. Rec.: 265'GIP, 235'CGO (81%O, 17%G, 2%M), 190'GOCM (73%M, 14%G, 13%O). HP: 2315-2263. FP: 31/113, 123/190. SIP: 1294-1270. BHT: 135°. TD @ 6:00AM 3/13. Cond. hole.

3/14/14 RTD: 4890'. CT: 24hrs. Pioneer logged 9:45AM-3:30PM 3/13. LTD: 4892'. Ran 116jts of 15.5# 5½" prod csg, set @ 4881'. Swift cmt w/ 250sxs SMD, 200sxs EA-2. PD @ 5:15AM 3/14. 30sxs RH, 20sxs MH. Circ to cellar

3/15/14 RTD: 4890'. CT: 2 ¼ hrs. RR @ 9:15AM 3/14/14. FINAL REPORT

MDCI Loker Trust #1-1 1320' FSL 1980'FWL Sec. 1-3S-36W 3254' KB							MDCI Sramek 'B' #1-11 2405' FSL 2000'FWL Sec. 11-3S-36W 3252' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	3084	+170	-13	3086	+168	-15	3069	+183
B/Anhydrite	3126	+128	-16	3129	+125	-19	3108	+144
Topeka	3973	-719	-11	3976	-722	-14	3960	-708
Heebner	4133	-879	-11	4137	-883	-15	4120	-868
Lansing	4180	-926	-10	4182	-928	-12	4170	-916
Stark	4398	-1144	-11	4400	-1146	-13	4385	-1133
BKC	4448	-1194	-10	4448	-1194	-10	4436	-1184
Pawnee	4571	-1317	-10	4577	-1323	-16	4559	-1307
Cherokee	4647	-1393	-11	4649	-1395	-13	4634	-1382
Mississippi	4843	-1589	-15	4842	-1588	-14	4826	-1574
RTD	4890						4950	
LTD				4892			4954	



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Loker Trust #1-1**

### **1-3s-36w Rawlins KS**

Start Date: 2014.03.08 @ 14:00:00

End Date: 2014.03.08 @ 22:45:30

Job Ticket #: 53494                      DST #: 1

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

Printed: 2014.03.16 @ 13:03:58



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53494

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2014.03.08 @ 14:00:00

## GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:27:00

Time Test Ended: 22:45:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

**Interval: 4130.00 ft (KB) To 4200.00 ft (KB) (TVD)**

Reference Elevations: 3254.00 ft (KB)

Total Depth: 4200.00 ft (KB) (TVD)

3249.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 107.03 psig @ 4131.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.08

End Date:

2014.03.08

Last Calib.:

2014.03.08

Start Time: 14:00:05

End Time:

22:45:30

Time On Btm:

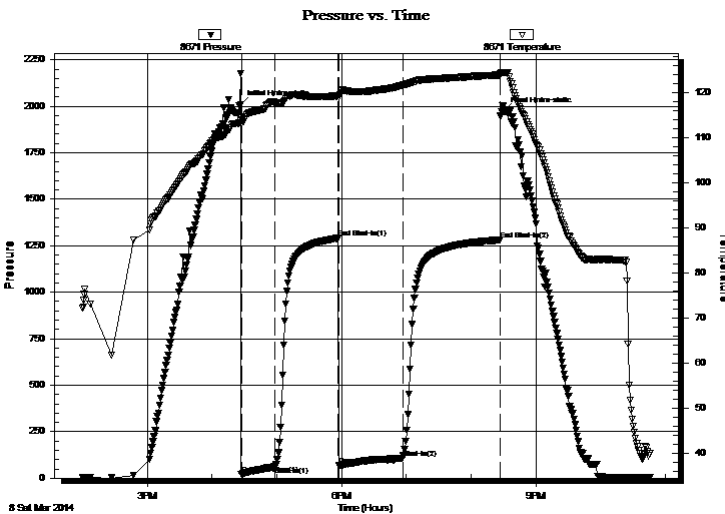
2014.03.08 @ 16:26:45

Time Off Btm:

2014.03.08 @ 20:30:15

**TEST COMMENT:** 30 - IF: Blow built to 4"  
60 - IS: No blow back  
60 - FF: Blow built to 9 1/2"  
90 - FS: Blow back built to 1/8"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.63	114.40	Initial Hydro-static
1	20.41	113.68	Open To Flow (1)
32	61.57	117.62	Shut-In(1)
90	1289.71	119.16	End Shut-In(1)
91	67.10	118.88	Open To Flow (2)
150	107.03	121.54	Shut-In(2)
241	1281.55	123.81	End Shut-In(2)
244	1973.64	124.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOCM 80% m, 12% g, 8% o	0.30
104.00	OCM 73% m, 21% o, 6% g	0.51
20.00	MO 55% o, 43% m, 2% g	0.10
25.00	CO 92% o, 7% g, 1% m	0.35
0.00	GIP = 40'	0.00

## Gas Rates

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



# TRILOBITE TESTING, INC

## DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

1-3s-36w Rawlins KS

250 N. Water STE 300  
Wichita, KS 67202

Loker Trust #1-1

ATTN: Jeff Christian

Job Ticket: 53494

DST#: 1

Test Start: 2014.03.08 @ 14:00:00

### GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock:                  ft (KB)

Time Tool Opened: 16:27:00

Time Test Ended: 22:45:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: **4130.00 ft (KB) To 4200.00 ft (KB) (TVD)**

Total Depth: 4200.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3254.00 ft (KB)

3249.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8320 Outside**

Press@RunDepth:                  psig @ 4131.00 ft (KB)

Start Date: 2014.03.08

End Date:

2014.03.08

Start Time: 14:00:05

End Time:

22:46:15

Capacity: 8000.00 psig

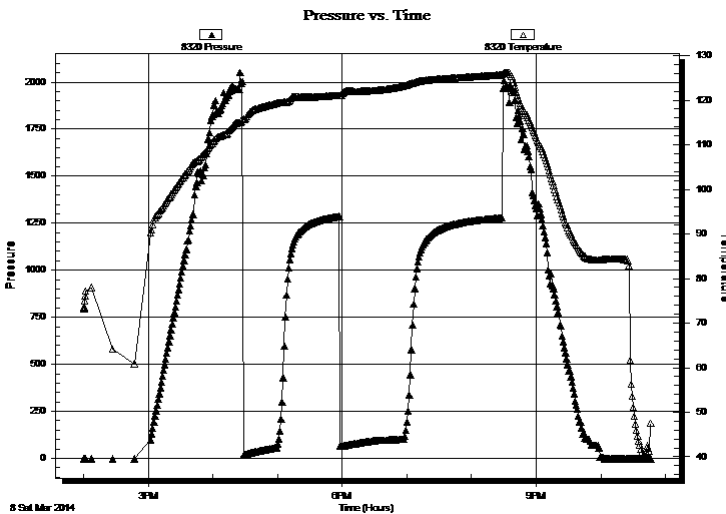
Last Calib.:

2014.03.08

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 4"  
60 - IS: No blow back  
60 - FF: Blow built to 9 1/2"  
90 - FS: Blow back built to 1/8"



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOCM 80% <sub>m</sub> , 12% <sub>g</sub> , 8% <sub>o</sub>	0.30
104.00	OCM 73% <sub>m</sub> , 21% <sub>o</sub> , 6% <sub>g</sub>	0.51
20.00	MO 55% <sub>o</sub> , 43% <sub>m</sub> , 2% <sub>g</sub>	0.10
25.00	CO 92% <sub>o</sub> , 7% <sub>g</sub> , 1% <sub>m</sub>	0.35
0.00	GIP = 40'	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53494

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2014.03.08 @ 14:00:00

## Tool Information

Drill Pipe:	Length: 3946.00 ft	Diameter: 3.80 inches	Volume: 55.35 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: 2500.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 56.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4130.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	98.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Tool slid 4' to bottom before open, No mud loss

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4107.00	
Hydraulic tool	5.00			4112.00	
Jars	5.00			4117.00	
Safety Joint	3.00			4120.00	
Packer	5.00			4125.00	28.00 Bottom Of Top Packer
Packer	5.00			4130.00	
Stubb	1.00			4131.00	
Recorder	0.00	8671	Inside	4131.00	
Recorder	0.00	8320	Outside	4131.00	
Perforations	29.00			4160.00	
Blank Spacing	34.00			4194.00	
Perforations	3.00			4197.00	
Bullnose	3.00			4200.00	70.00 Bottom Packers & Anchor

**Total Tool Length: 98.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53494

**DST#: 1**

ATTN: Jeff Christian

Test Start: 2014.03.08 @ 14:00:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.55 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	GOCM 80%m, 12%g, 8%o	0.305
104.00	OCM 73%m, 21%o, 6%g	0.511
20.00	MO 55%o, 43%m, 2%g	0.098
25.00	CO 92%o, 7%g, 1%m	0.351
0.00	GIP = 40'	0.000

Total Length: 211.00 ft      Total Volume: 1.265 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

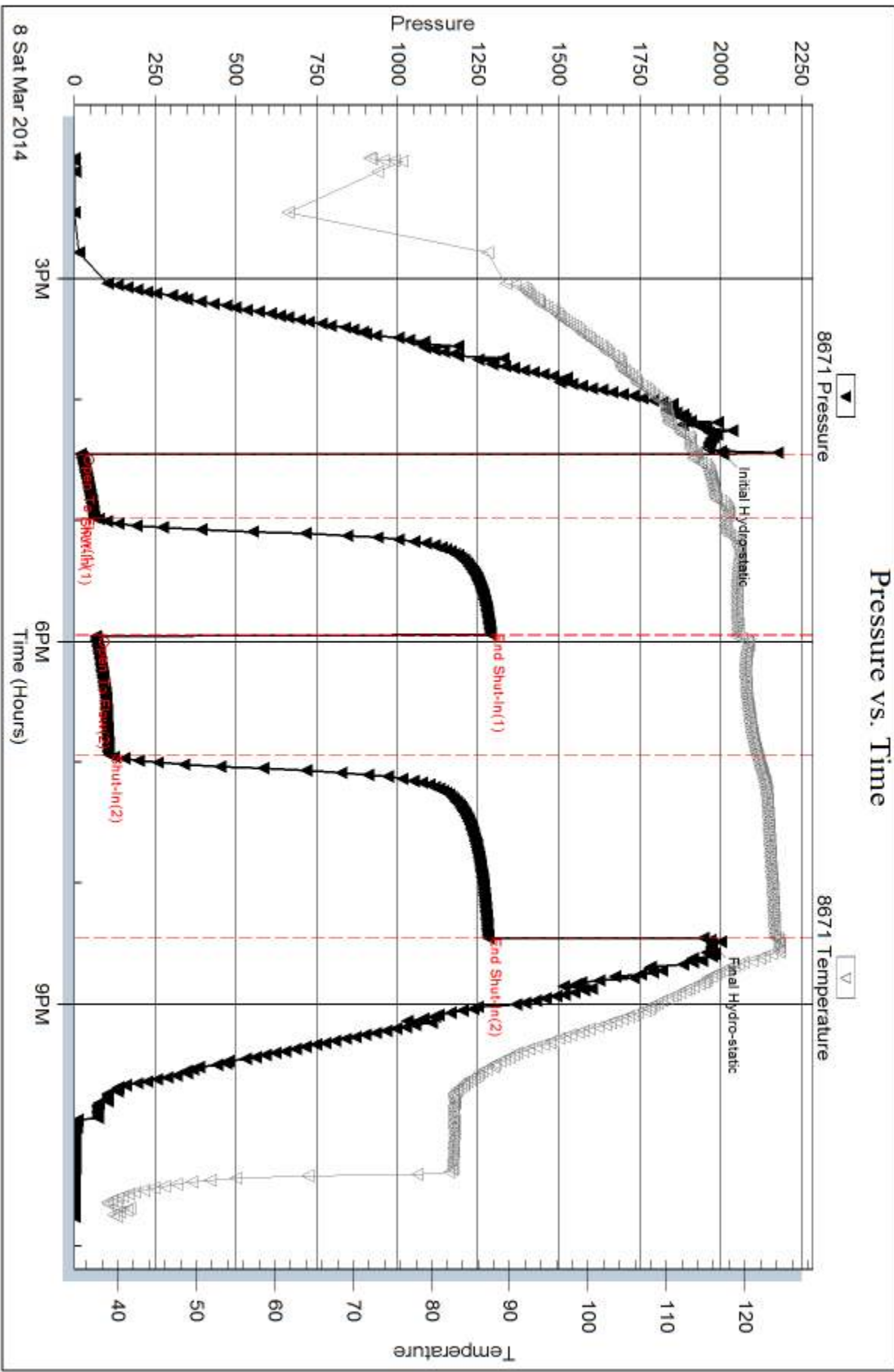
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 33.6 api @ 44 deg F

Corrected Gravity = 35.2 api



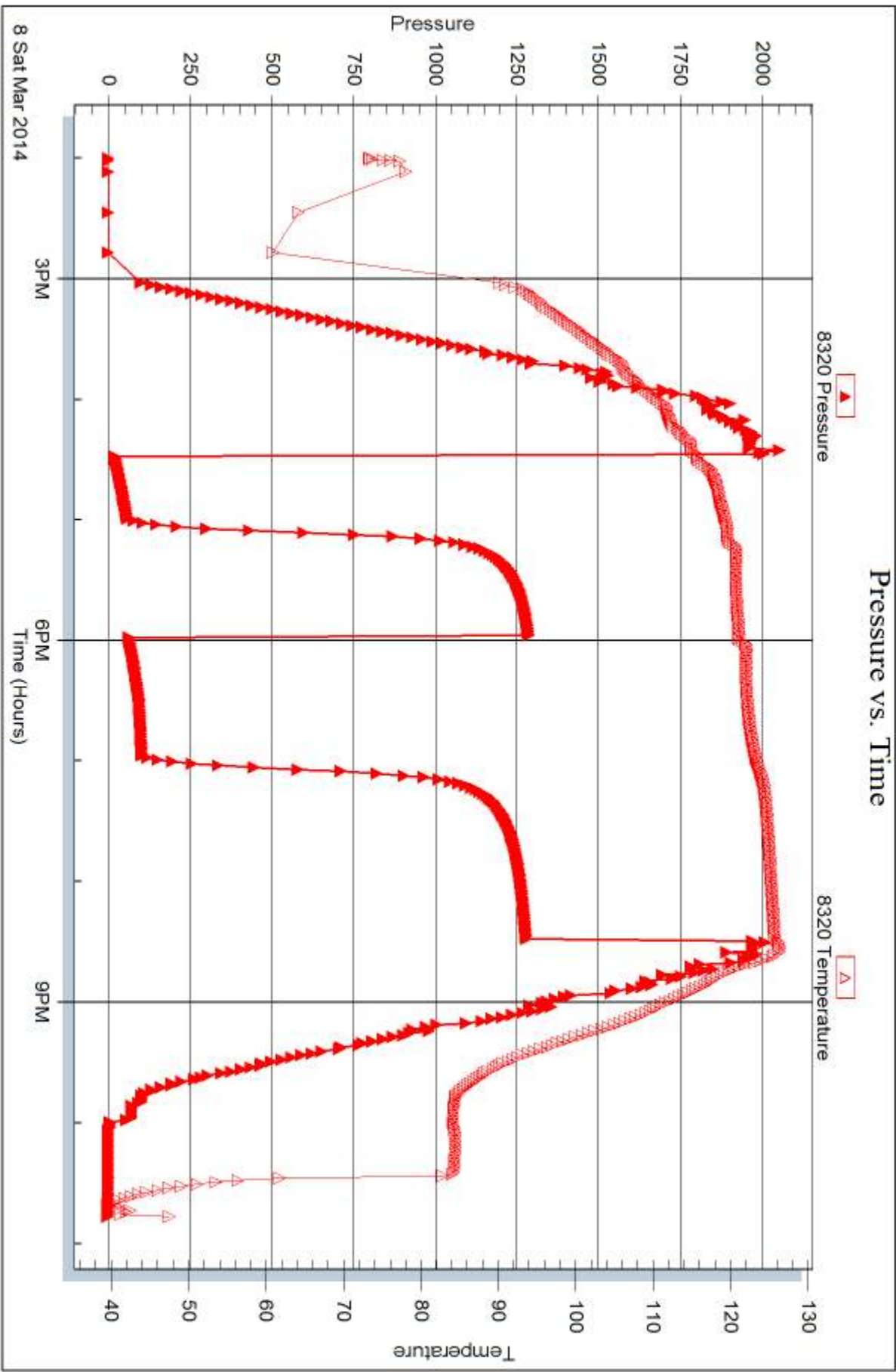


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Loker Trust#1-1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Loker Trust #1-1**

#### **1-3s-36w Rawlins KS**

Start Date: 2014.03.09 @ 07:58:00

End Date: 2014.03.09 @ 15:36:30

Job Ticket #: 53495                      DST #: 2

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

Printed: 2014.03.16 @ 13:03:34



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
 250 N. Water STE 300  
 Wichita, KS 67202  
 ATTN: Jeff Christian

**1-3s-36w Rawlins KS**  
**Loker Trust #1-1**  
 Job Ticket: 53495 **DST#: 2**  
 Test Start: 2014.03.09 @ 07:58:00

## GENERAL INFORMATION:

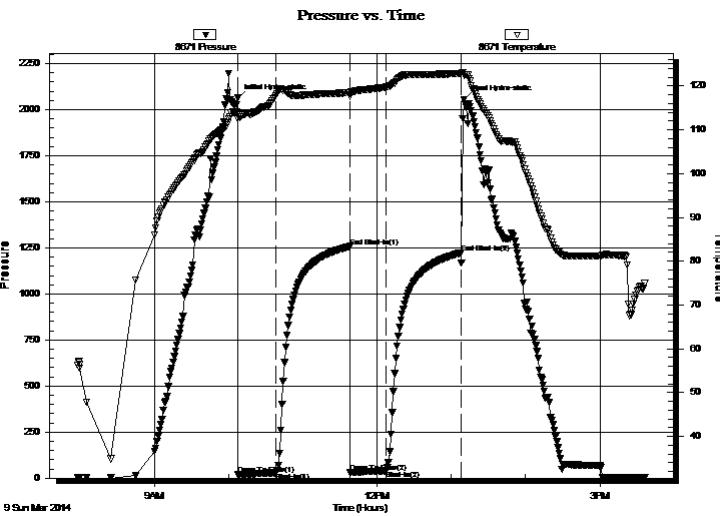
Formation: **LKC "B - D"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:07:30  
 Time Test Ended: 15:36:30  
 Interval: **4197.00 ft (KB) To 4248.00 ft (KB) (TVD)**  
 Total Depth: 4248.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 57  
 Reference Elevations: 3254.00 ft (KB)  
 3249.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8671

Inside

Press@RunDepth: 39.85 psig @ 4198.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.03.09 End Date: 2014.03.09 Last Calib.: 2014.03.09  
 Start Time: 07:58:05 End Time: 15:36:29 Time On Btm: 2014.03.09 @ 10:07:15  
 Time Off Btm: 2014.03.09 @ 13:10:15

TEST COMMENT: 30 - IF: Blow built to just over 1"  
 60 - IS: No blow back  
 30 - FF: Intermittent blow at open, built to 1/2"  
 60 - FS: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.00	113.72	Initial Hydro-static
1	19.49	112.59	Open To Flow (1)
32	29.26	117.90	Shut-In(1)
91	1257.13	118.52	End Shut-In(1)
91	30.83	117.66	Open To Flow (2)
120	39.85	119.75	Shut-In(2)
181	1223.82	122.84	End Shut-In(2)
183	2056.34	122.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud w /trace oil 100%m	0.22

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53495

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2014.03.09 @ 07:58:00

## GENERAL INFORMATION:

Formation: **LKC "B - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:07:30

Time Test Ended: 15:36:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4197.00 ft (KB) To 4248.00 ft (KB) (TVD)**

Reference Elevations: 3254.00 ft (KB)

Total Depth: 4248.00 ft (KB) (TVD)

3249.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8320 Outside**

Press@RunDepth: psig @ 4198.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.09

End Date:

2014.03.09

Last Calib.:

2014.03.09

Start Time: 07:58:05

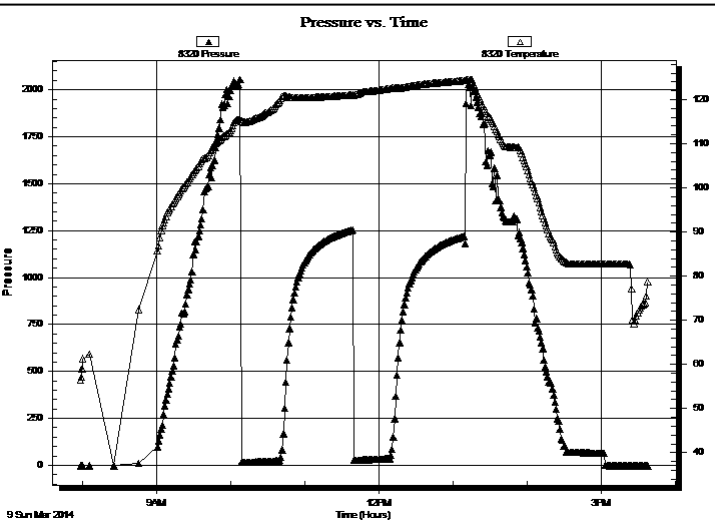
End Time:

15:37:14

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to just over 1"  
60 - IS!: No blow back  
30 - FF: Intermittent blow at open, built to 1/2"  
60 - FS!: No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud w /trace oil 100%m	0.22

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53495

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2014.03.09 @ 07:58:00

## Tool Information

Drill Pipe:	Length: 4006.00 ft	Diameter: 3.80 inches	Volume: 56.19 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: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 57.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4197.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4174.00	
Hydraulic tool	5.00			4179.00	
Jars	5.00			4184.00	
Safety Joint	3.00			4187.00	
Packer	5.00			4192.00	28.00 Bottom Of Top Packer
Packer	5.00			4197.00	
Stubb	1.00			4198.00	
Recorder	0.00	8671	Inside	4198.00	
Recorder	0.00	8320	Outside	4198.00	
Perforations	15.00			4213.00	
Blank Spacing	32.00			4245.00	
Bullnose	3.00			4248.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 79.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53495

**DST#: 2**

ATTN: Jeff Christian

Test Start: 2014.03.09 @ 07:58:00

## 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: 55.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Mud w /trace oil 100%m	0.221

Total Length: 45.00 ft      Total Volume: 0.221 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

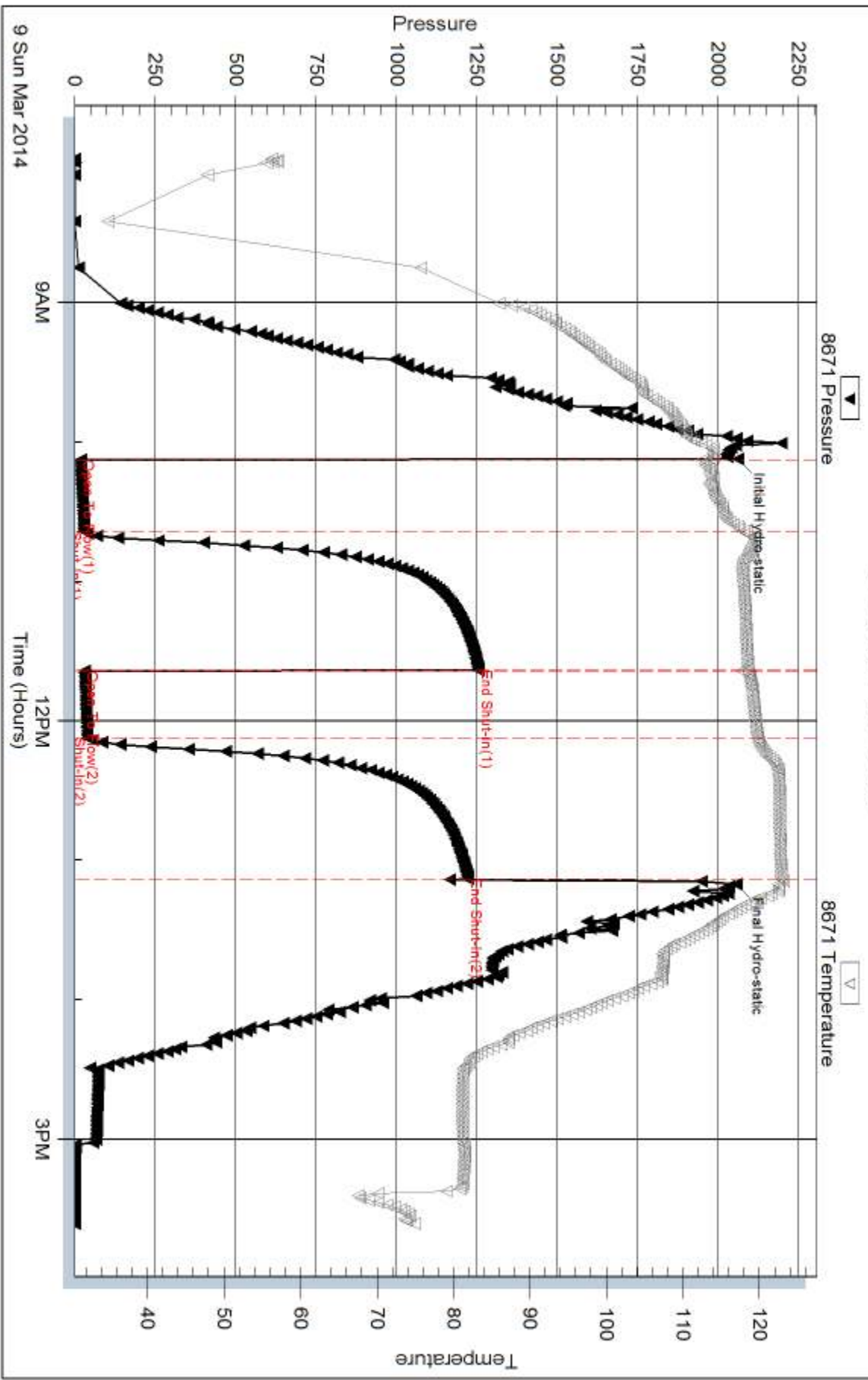
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



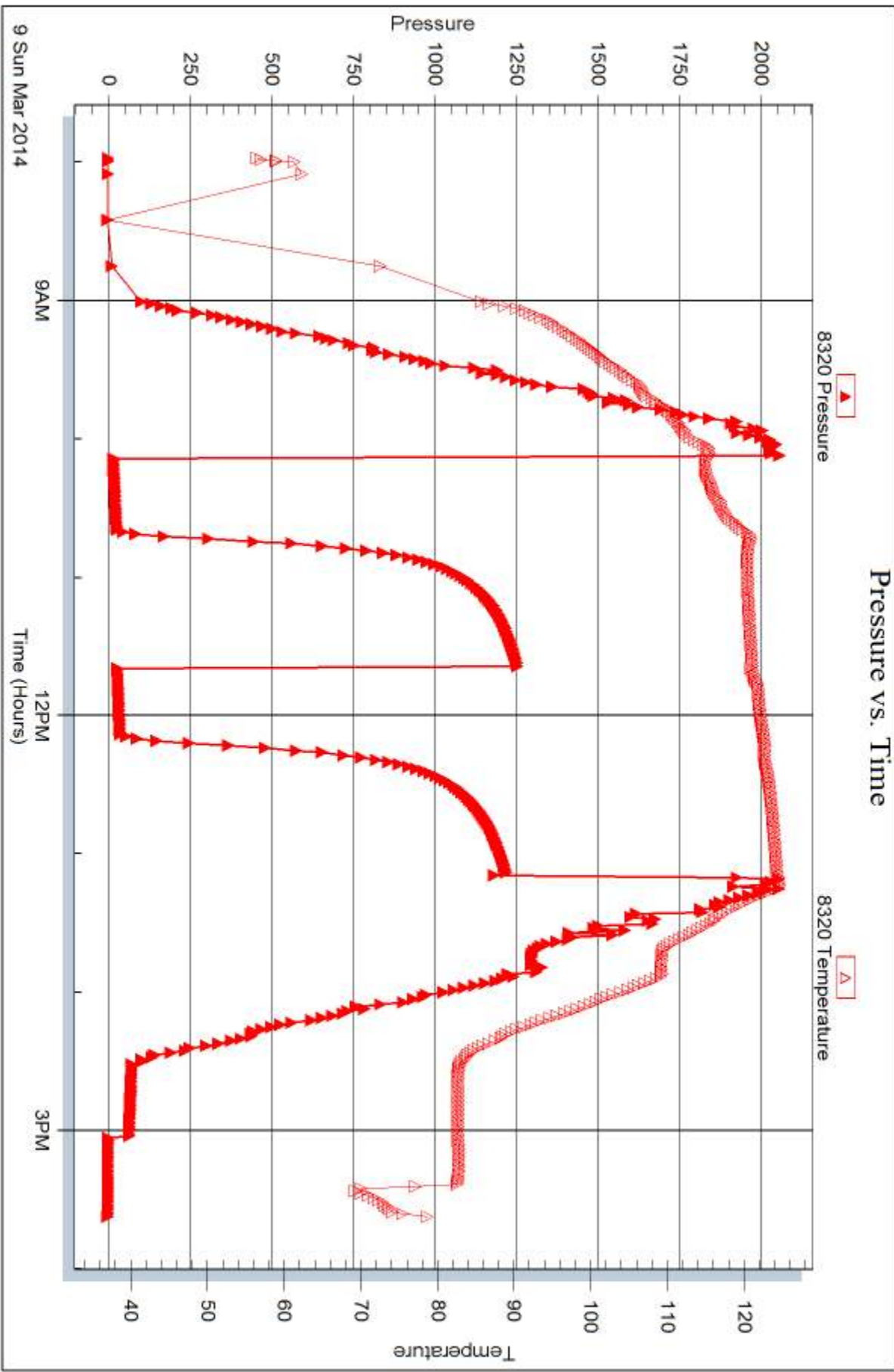


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Loker Trust#1-1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 53495

Printed: 2014.03.16 @ 13:03:36



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Loker Trust #1-1**

### **1-3s-36w Rawlins KS**

Start Date: 2014.03.10 @ 00:33:00

End Date: 2014.03.10 @ 08:15:15

Job Ticket #: 53496                      DST #: 3

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

Printed: 2014.03.16 @ 13:03:10



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53496

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2014.03.10 @ 00:33:00

## GENERAL INFORMATION:

Formation: **LKC "F - G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:56:15

Time Test Ended: 08:15:15

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4258.00 ft (KB) To 4296.00 ft (KB) (TVD)**

Reference Elevations: 3254.00 ft (KB)

Total Depth: 4296.00 ft (KB) (TVD)

3249.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 21.69 psig @ 4259.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.10

End Date:

2014.03.10

Last Calib.:

2014.03.10

Start Time: 00:33:05

End Time:

08:15:14

Time On Btm:

2014.03.10 @ 02:56:00

Time Off Btm:

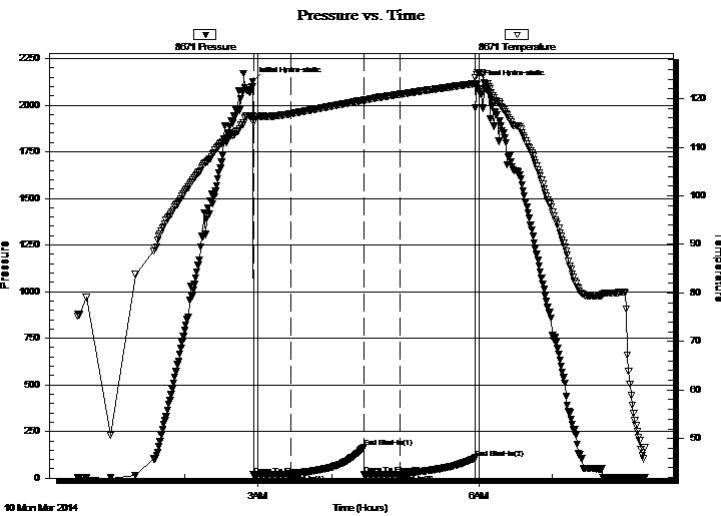
2014.03.10 @ 05:58:15

TEST COMMENT: 30 - IF: Blow built to 1/2"

60 - ISI: No blow back

30 - FF: No blow

60 - FSI: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2125.15	116.46	Initial Hydro-static
1	17.49	115.04	Open To Flow (1)
31	19.95	116.90	Shut-In(1)
91	165.66	119.69	End Shut-In(1)
91	19.57	119.59	Open To Flow (2)
121	21.69	120.91	Shut-In(2)
181	108.68	123.08	End Shut-In(2)
183	2111.70	124.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	OCM 78% m, 20% o, 2% g	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
250 N. Water STE 300  
Wichita, KS 67202  
ATTN: Jeff Christian

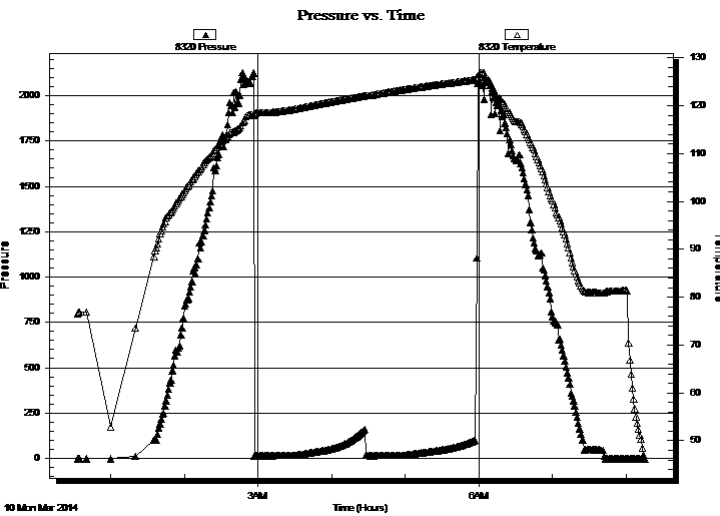
**1-3s-36w Rawlins KS**  
**Loker Trust #1-1**  
Job Ticket: 53496      **DST#: 3**  
Test Start: 2014.03.10 @ 00:33:00

## GENERAL INFORMATION:

Formation: **LKC "F - G"**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 02:56:15      Tester: James Winder  
Time Test Ended: 08:15:15      Unit No: 57  
**Interval: 4258.00 ft (KB) To 4296.00 ft (KB) (TVD)**      Reference Elevations: 3254.00 ft (KB)  
Total Depth: 4296.00 ft (KB) (TVD)      3249.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 5.00 ft

**Serial #: 8320      Outside**  
Press@RunDepth:      psig @ 4259.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.03.10      End Date: 2014.03.10      Last Calib.: 2014.03.10  
Start Time: 00:33:05      End Time: 08:15:59      Time On Btm:  
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 1/2"  
60 - IS!: No blow back  
30 - FF: No blow  
60 - FS!: No blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
2.00	OCM 78% m, 20% o, 2% g	0.01

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53496

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2014.03.10 @ 00:33:00

## Tool Information

Drill Pipe:	Length: 4069.00 ft	Diameter: 3.80 inches	Volume: 57.08 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: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 57.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4258.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4235.00	
Hydraulic tool	5.00			4240.00	
Jars	5.00			4245.00	
Safety Joint	3.00			4248.00	
Packer	5.00			4253.00	28.00 Bottom Of Top Packer
Packer	5.00			4258.00	
Stubb	1.00			4259.00	
Recorder	0.00	8671	Inside	4259.00	
Recorder	0.00	8320	Outside	4259.00	
Perforations	34.00			4293.00	
Bullnose	3.00			4296.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 66.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53496

**DST#: 3**

ATTN: Jeff Christian

Test Start: 2014.03.10 @ 00:33:00

### 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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.16 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	OCM 78% <sub>m</sub> , 20% <sub>o</sub> , 2% <sub>g</sub>	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8671

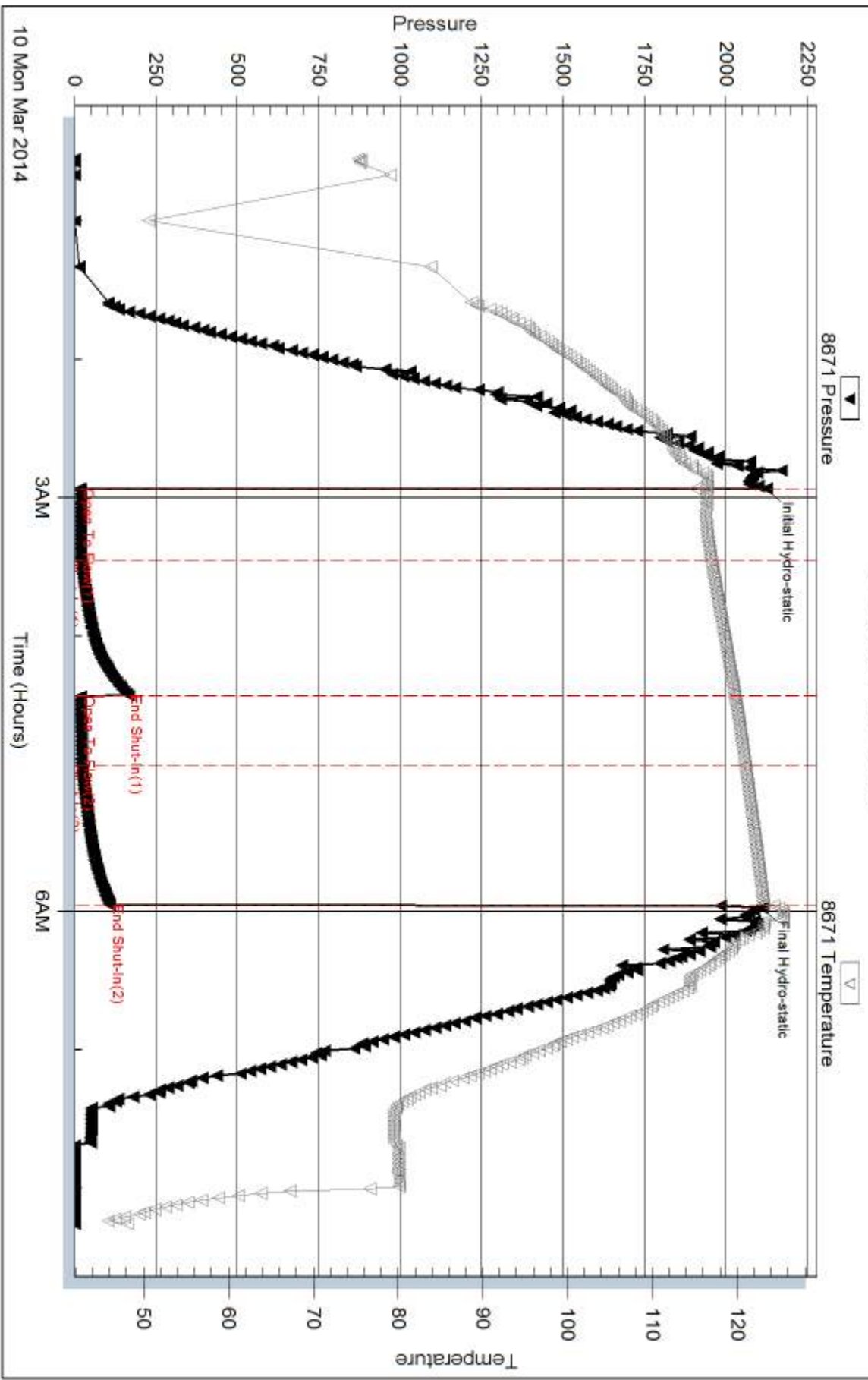
Inside

Murfin Drilling Co., Inc.

Loker Trust#1-1

DST Test Number: 3

### Pressure vs. Time

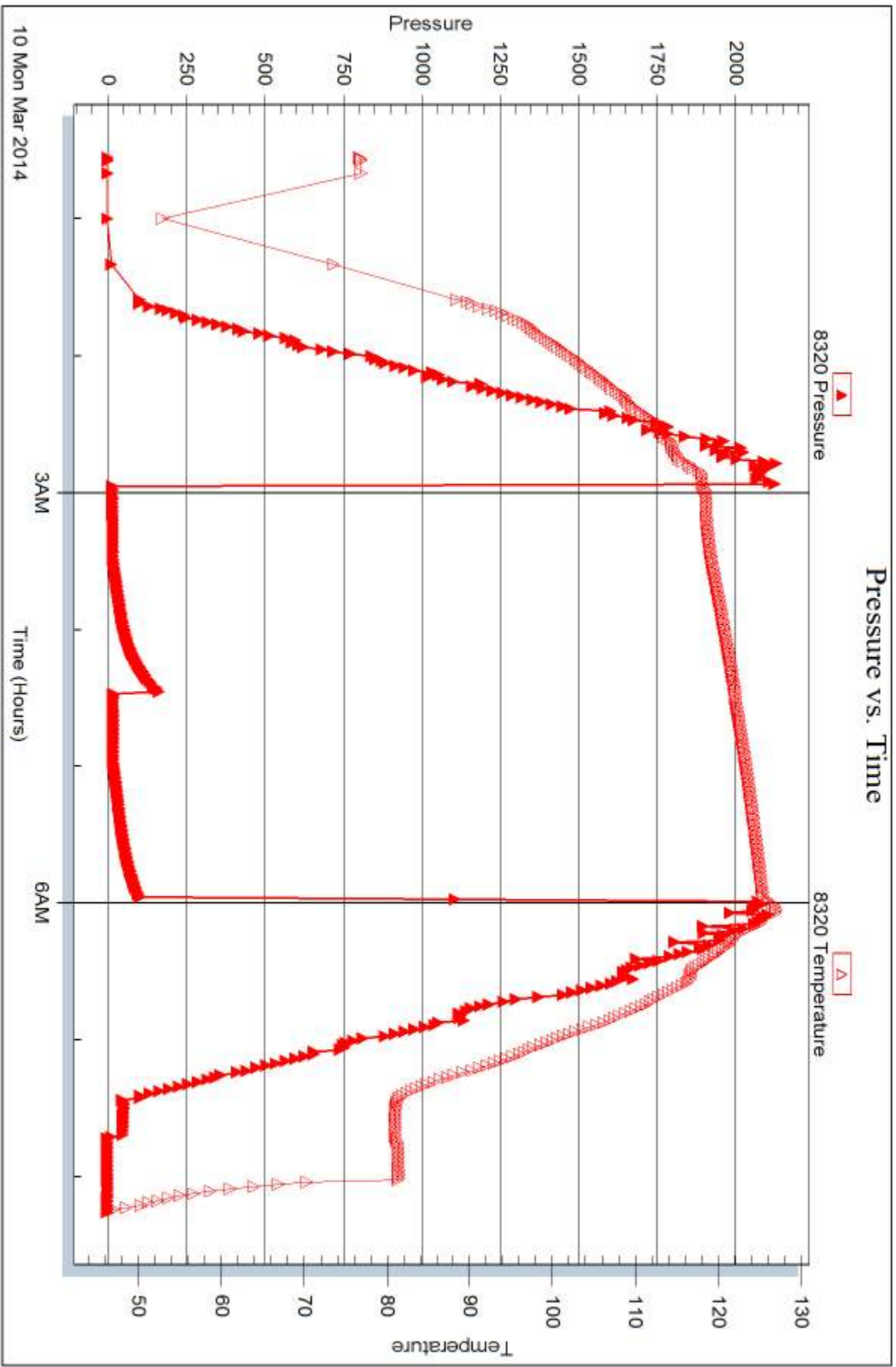


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Loker Trust#1-1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 53496

Printed: 2014.03.16 @ 13:03:13





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Loker Trust #1-1**

### **1-3s-36w Rawlins KS**

Start Date: 2014.03.10 @ 22:04:00

End Date: 2014.03.11 @ 05:53:45

Job Ticket #: 53497                      DST #: 4

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

Printed: 2014.03.16 @ 13:02:46



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
250 N. Water STE 300  
Wichita, KS 67202  
ATTN: Jeff Christian

**1-3s-36w Rawlins KS**  
**Loker Trust #1-1**  
Job Ticket: 53497 **DST#: 4**  
Test Start: 2014.03.10 @ 22:04:00

## GENERAL INFORMATION:

Formation: **LKC "J - K"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 00:11:15  
Time Test Ended: 05:53:45  
Test Type: Conventional Bottom Hole (Reset)  
Tester: James Winder  
Unit No: 57  
Interval: **4351.00 ft (KB) To 4430.00 ft (KB) (TVD)**  
Reference Elevations: 3254.00 ft (KB)  
Total Depth: 4430.00 ft (KB) (TVD) 3249.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

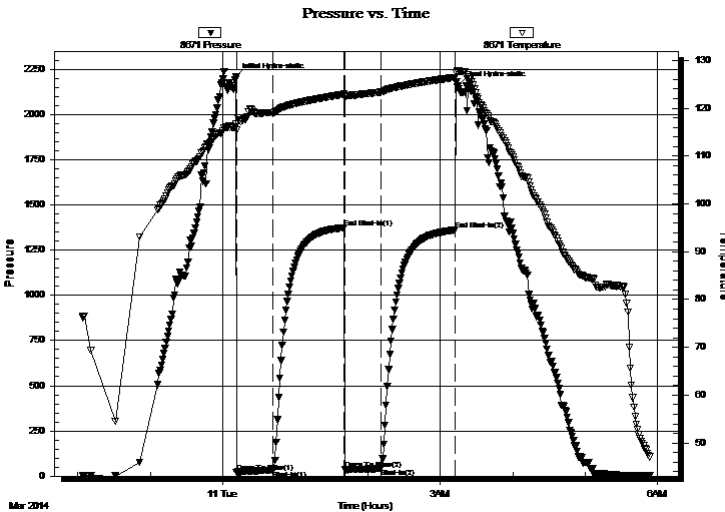
## Serial #: 8671

Inside

Press@RunDepth: 42.44 psig @ 4352.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.03.10 End Date: 2014.03.11 Last Calib.: 2014.03.11  
Start Time: 22:04:05 End Time: 05:53:44 Time On Btm: 2014.03.11 @ 00:11:00  
Time Off Btm: 2014.03.11 @ 03:14:30

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 1 1/2"  
60 - IS: No blow back  
30 - FF: Blow built to just under 1/2"  
60 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2206.64	116.68	Initial Hydro-static
1	21.47	115.41	Open To Flow (1)
31	34.12	119.07	Shut-In(1)
90	1373.19	122.95	End Shut-In(1)
90	35.81	122.39	Open To Flow (2)
120	42.44	123.38	Shut-In(2)
182	1361.08	126.43	End Shut-In(2)
184	2160.67	127.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud w /Oil spots 98%m, 2%o	0.22

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.  
 250 N. Water STE 300  
 Wichita, KS 67202  
 ATTN: Jeff Christian

**1-3s-36w Rawlins KS**  
**Loker Trust #1-1**  
 Job Ticket: 53497 **DST#: 4**  
 Test Start: 2014.03.10 @ 22:04:00

## GENERAL INFORMATION:

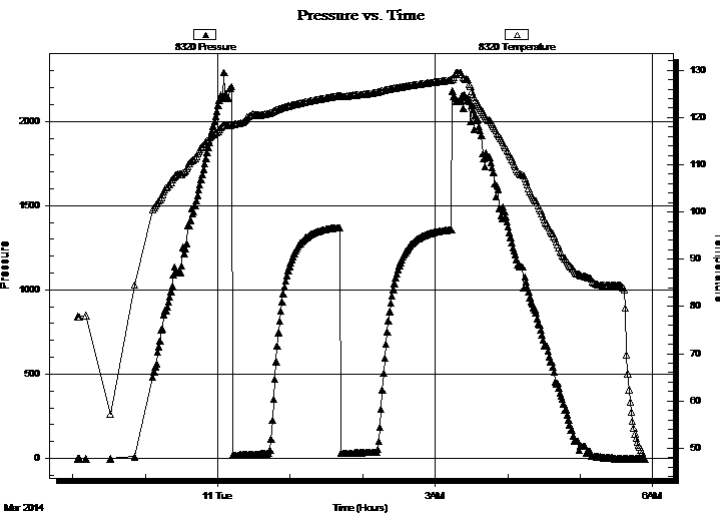
Formation: **LKC "J - K"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 00:11:15 Tester: James Winder  
 Time Test Ended: 05:53:45 Unit No: 57  
 Interval: **4351.00 ft (KB) To 4430.00 ft (KB) (TVD)** Reference Elevations: 3254.00 ft (KB)  
 Total Depth: 4430.00 ft (KB) (TVD) 3249.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

## Serial #: 8320

Outside

Press@RunDepth: psig @ 4352.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.03.10 End Date: 2014.03.11 Last Calib.: 2014.03.11  
 Start Time: 22:04:05 End Time: 05:53:59 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF: 1/4" Blow at open, built to 1 1/2"  
 60 - IS!: No blow back  
 30 - FF: Blow built to just under 1/2"  
 60 - FS!: No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud w /Oil spots 98%m, 2%o	0.22

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53497

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2014.03.10 @ 22:04:00

## Tool Information

Drill Pipe:	Length: 4166.00 ft	Diameter: 3.80 inches	Volume: 58.44 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: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 59.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4351.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	79.00 ft			
Tool Length:	107.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4328.00	
Hydraulic tool	5.00			4333.00	
Jars	5.00			4338.00	
Safety Joint	3.00			4341.00	
Packer	5.00			4346.00	28.00 Bottom Of Top Packer
Packer	5.00			4351.00	
Stubb	1.00			4352.00	
Recorder	0.00	8671	Inside	4352.00	
Recorder	0.00	8320	Outside	4352.00	
Perforations	10.00			4362.00	
Blank Spacing	65.00			4427.00	
Bullnose	3.00			4430.00	79.00 Bottom Packers & Anchor

**Total Tool Length: 107.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53497

**DST#: 4**

ATTN: Jeff Christian

Test Start: 2014.03.10 @ 22:04:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Mud w /Oil spots 98% <sub>m</sub> , 2% <sub>o</sub>	0.221

Total Length: 45.00 ft      Total Volume: 0.221 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8671

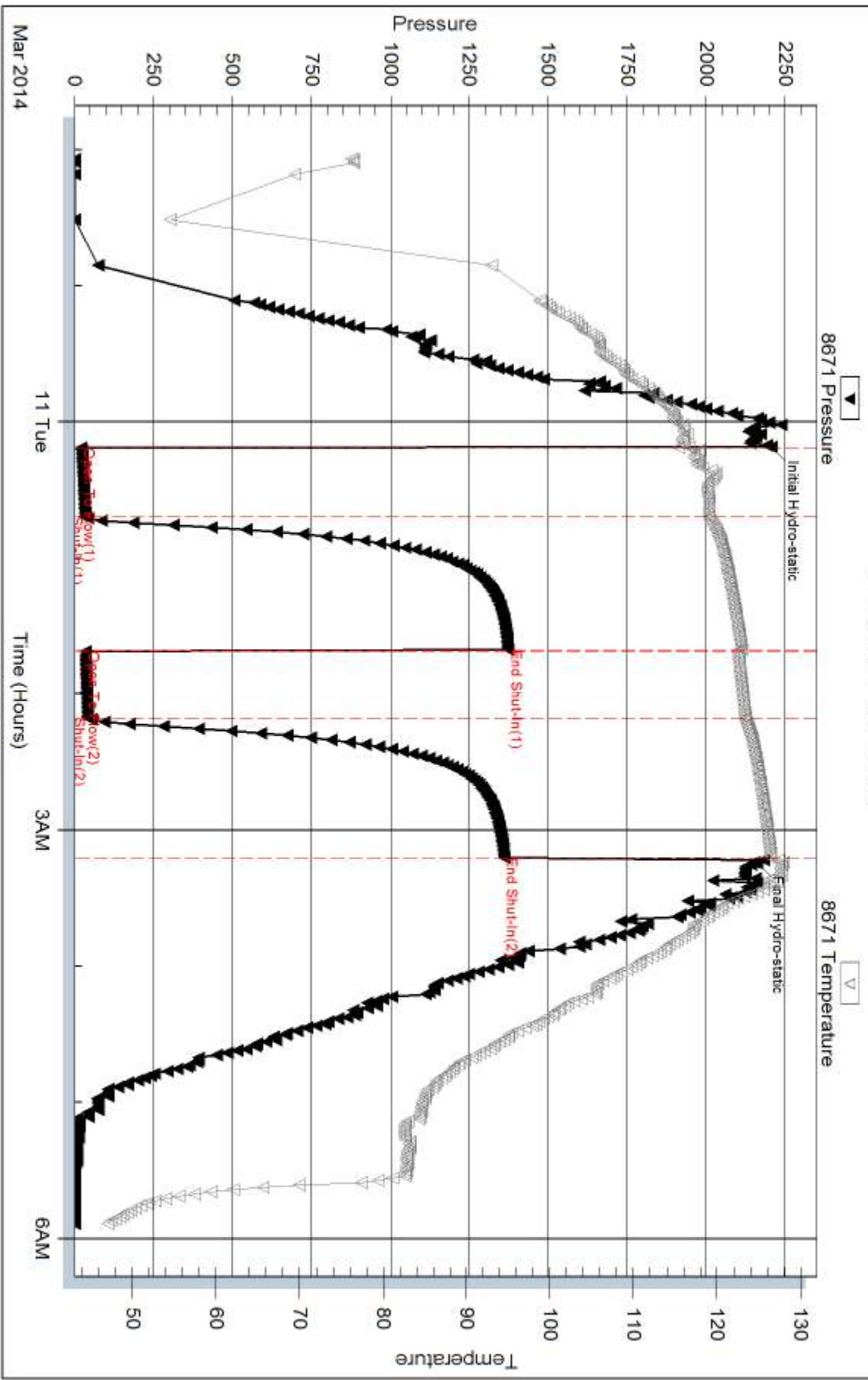
Inside

Murfin Drilling Co., Inc.

Loker Trust#1-1

DST Test Number: 4

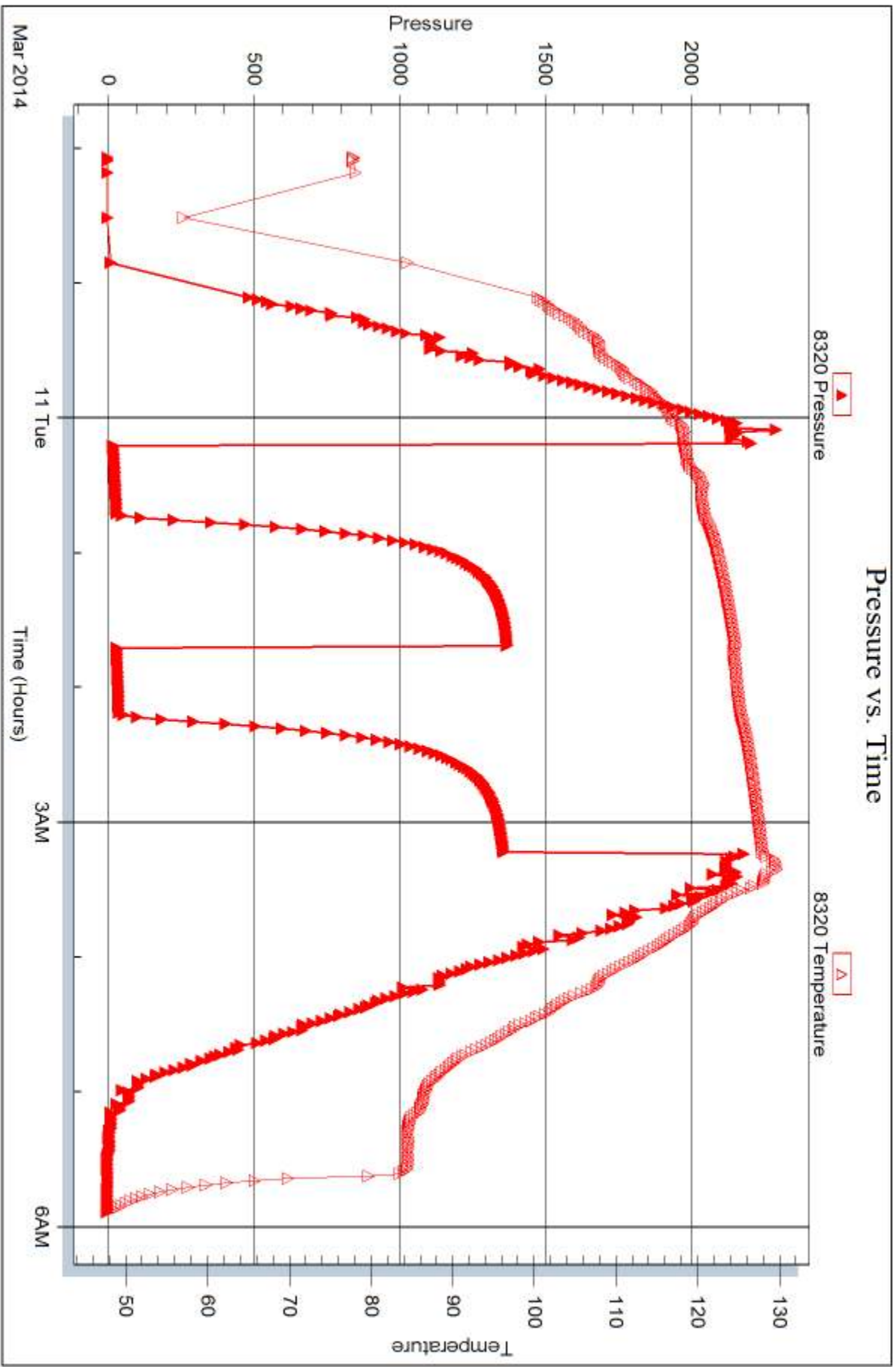
### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 53497

Printed: 2014.03.16 @ 13:02:48





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc.**

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Jeff Christian

### **Loker Trust #1-1**

### **1-3s-36w Rawlins KS**

Start Date: 2014.03.12 @ 09:10:00

End Date: 2014.03.12 @ 18:02:30

Job Ticket #: 53498                      DST #: 5

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

Printed: 2014.03.16 @ 13:02:03





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53498

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2014.03.12 @ 09:10:00

## GENERAL INFORMATION:

Formation: **Pawnee, Ft. Scott, C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:17:15

Time Test Ended: 18:02:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4556.00 ft (KB) To 4686.00 ft (KB) (TVD)**

Reference Elevations: 3254.00 ft (KB)

Total Depth: 4686.00 ft (KB) (TVD)

3249.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 190.04 psig @ 4557.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.12

End Date:

2014.03.12

Last Calib.:

2014.03.12

Start Time: 09:10:05

End Time:

18:02:30

Time On Btm:

2014.03.12 @ 11:17:00

Time Off Btm:

2014.03.12 @ 15:21:30

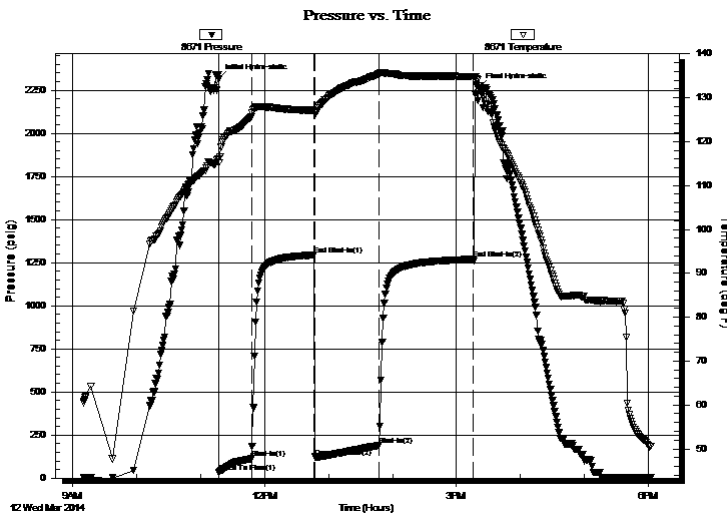
TEST COMMENT: 30 - IF: Blow built to BOB (11") at 22 1/2 min.

60 - IS: Blow back built to 2"

60 - FF: Blow built to BOB at 20 3/4 min.

90 - FS: Blow back built to 6"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2314.89	116.05	Initial Hydro-static
1	31.47	115.20	Open To Flow (1)
31	112.59	125.66	Shut-In(1)
90	1294.28	127.12	End Shut-In(1)
90	122.91	126.59	Open To Flow (2)
151	190.04	135.49	Shut-In(2)
239	1270.00	134.76	End Shut-In(2)
245	2263.26	132.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
190.00	GOCM 73% m, 14% g, 13% o	0.97
235.00	CGO 81% o, 17% g, 2% m	3.30
0.00	GIP = 265'	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53498 **DST#: 5**

ATTN: Jeff Christian

Test Start: 2014.03.12 @ 09:10:00

## GENERAL INFORMATION:

Formation: **Pawnee, Ft. Scott, C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:17:15

Time Test Ended: 18:02:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **4556.00 ft (KB) To 4686.00 ft (KB) (TVD)**

Total Depth: 4686.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3254.00 ft (KB)

3249.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8320** Outside

Press@RunDepth: psig @ 4557.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.12 End Date: 2014.03.12

Last Calib.: 2014.03.12

Start Time: 09:10:05 End Time: 18:03:30

Time On Btm:

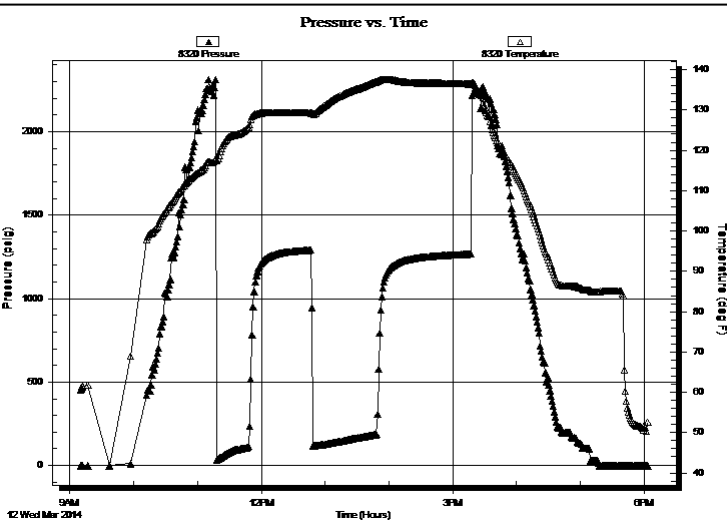
Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 22 1/2 min.

60 - ISI: Blow back built to 2"

60 - FF: Blow built to BOB at 20 3/4 min.

90 - FSI: Blow back built to 6"



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
190.00	GOCM 73% m, 14% g, 13% o	0.97
235.00	CGO 81% o, 17% g, 2% m	3.30
0.00	GIP = 265'	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53498

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2014.03.12 @ 09:10:00

## Tool Information

Drill Pipe:	Length: 4356.00 ft	Diameter: 3.80 inches	Volume: 61.10 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: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 62.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4556.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	130.00 ft			
Tool Length:	158.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4533.00	
Hydraulic tool	5.00			4538.00	
Jars	5.00			4543.00	
Safety Joint	3.00			4546.00	
Packer	5.00			4551.00	28.00 Bottom Of Top Packer
Packer	5.00			4556.00	
Stubb	1.00			4557.00	
Recorder	0.00	8671	Inside	4557.00	
Recorder	0.00	8320	Outside	4557.00	
Perforations	25.00			4582.00	
Blank Spacing	97.00			4679.00	
Perforations	4.00			4683.00	
Bullnose	3.00			4686.00	130.00 Bottom Packers & Anchor

**Total Tool Length: 158.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**1-3s-36w Rawlins KS**

250 N. Water STE 300  
Wichita, KS 67202

**Loker Trust #1-1**

Job Ticket: 53498

**DST#: 5**

ATTN: Jeff Christian

Test Start: 2014.03.12 @ 09:10:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
190.00	GOCM 73%m, 14%g, 13%o	0.971
235.00	CGO 81%o, 17%g, 2%m	3.296
0.00	GIP = 265'	0.000

Total Length: 425.00 ft      Total Volume: 4.267 bbl

Num Fluid Samples: 0

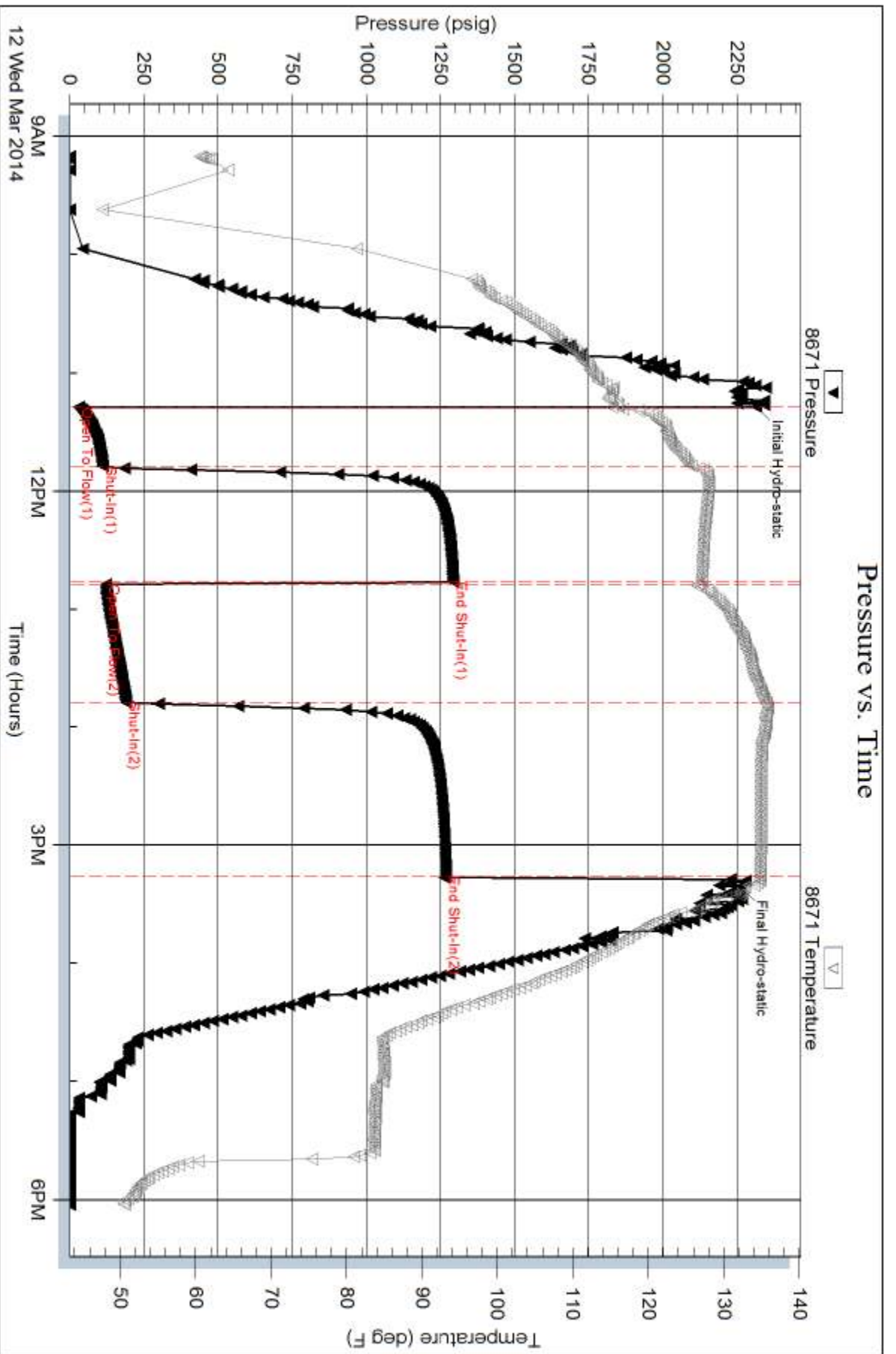
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 25.8 api @ 58 deg F  
Corrected Gravity = 26 api

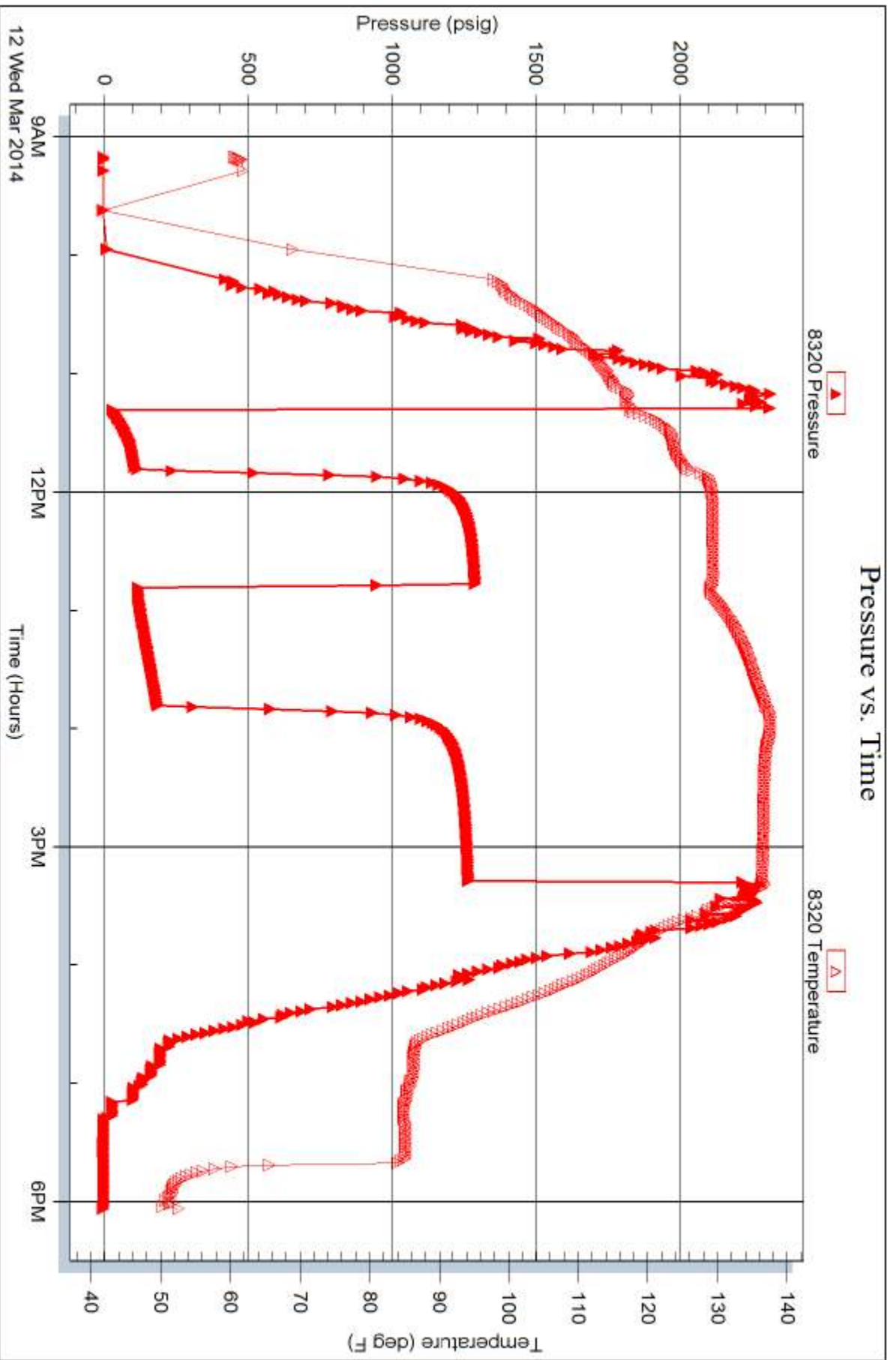


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Loker Trust#1-1

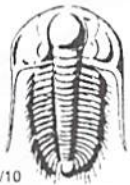
DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 53498

Printed: 2014.03.16 @ 13:02:05



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53494

Well Name & No. Loker Trust #1-1 Test No. 1 Date 3-8-14  
 Company Murfin Drilling Co. Inc Elevation 3254 KB 3249 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 1 Twp. 3S Rge. 36w Co. Rawlins State KS

Interval Tested 4130 - 4200 Zone Tested LKC "A"  
 Anchor Length 70 Drill Pipe Run 3946 Mud Wt. 9.1  
 Top Packer Depth 4125 Drill Collars Run 186 Vis 56  
 Bottom Packer Depth 4130 Wt. Pipe Run - WL 7.6  
 Total Depth 4200 Chlorides 400 ppm System LCM 4

Blow Description IF: Blow built to 4"  
ISI: No blowback  
FF: Blow built to 9 1/2"  
FSI: Blowback built to 1/8"

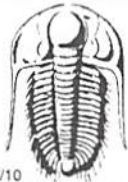
Rec	Feet of	%gas	%oil	%water	%mud
25	CO	7	92	-	1
20	MO	2	55	-	43
104	OCM	6	21	-	73
62	GOcm	12	8	-	80
	6IP=40'				

Rec Total 211 BHT 124 Gravity 35.2 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2009  Test ★ 1250 T-On Location 13:15  
 (B) First Initial Flow 20  Jars ★ 250 T-Started 14:00  
 (C) First Final Flow 62  Safety Joint ★ 75 T-Open 16:27  
 (D) Initial Shut-In 1290  Circ Sub \_\_\_\_\_ T-Pulled 20:27  
 (E) Second Initial Flow 67  Hourly Standby \_\_\_\_\_ T-Out 22:40  
 (F) Second Final Flow 107  Mileage 88RT 136.40 Comments Tool slid 4' to bottom  
 (G) Final Shut-In 1282  Sampler \_\_\_\_\_ before open - No mud loss  
 (H) Final Hydrostatic 1974  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 60  Day Standby \_\_\_\_\_ Total 1711.40  
 Final Flow 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 90 Sub Total 1711.40

Approved By Jeff Christian Our Representative James Windler

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53495

Well Name & No. Loker Trust #1-1 Test No. 2 Date 3-9-14  
 Company Murfin Drilling Co. Inc Elevation 3254 KB 3249 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 1 Twp. 3s Rge. 36w Co. Rawlins State KS

Interval Tested 4197 - 4248 Zone Tested LKC "B-D"  
 Anchor Length 51 Drill Pipe Run 4006 Mud Wt. 9.3  
 Top Packer Depth 4192 Drill Collars Run 186 Vis 55  
 Bottom Packer Depth 4197 Wt. Pipe Run - WL 7.2  
 Total Depth 4248 Chlorides 700 ppm System LCM 2

Blow Description IF: Blow built to just over 1"  
ISI: No blowback  
FF: Intermittent blow at open, built to 1/2"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Mud w/trace oil</u>	<u>trace</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	Feet of	%gas	%oil	%water	%mud

Rec Total 45 BHT 123 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2062  Test \* 1250 T-On Location 7:45  
 (B) First Initial Flow 19  Jars \* 250 T-Started 7:58  
 (C) First Final Flow 29  Safety Joint \* 75 T-Open 10:07  
 (D) Initial Shut-In 1257  Circ Sub \_\_\_\_\_ T-Pulled 13:08  
 (E) Second Initial Flow 31  Hourly Standby \_\_\_\_\_ T-Out 15:30  
 (F) Second Final Flow 40  Mileage 88 RT 136.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 1224  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2056  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1711.40  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1711.40

Approved By Jeff Chite Our Representative James Winder

TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements of opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53496

4/10

Well Name & No. Loker Trust #1-1 Test No. 3 Date 3-10-14  
 Company Murfin Drilling Co., Inc Elevation 3254 KB 3249 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 1 Twp. 3s Rge. 36w Co. Rawlins State Ks

Interval Tested 4258 - 4296 Zone Tested LKC ~ F-6"  
 Anchor Length 38 Drill Pipe Run 4069 Mud Wt. 9.1  
 Top Packer Depth 4253 Drill Collars Run 186 Vis 55  
 Bottom Packer Depth 4258 Wt. Pipe Run - WL 7.2  
 Total Depth 4296 Chlorides 700 ppm System LCM 2

Blow Description IF: Blow built to 1/2"  
ISI: No blowback  
FF: No blow  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>OCM</u>	<u>2</u>	<u>20</u>		<u>78</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

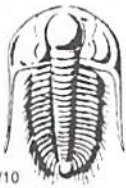
Rec Total 2 BHT 123 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 2125  Test \* 1250 T-On Location 12:00 AM  
 (B) First Initial Flow 17  Jars \* 250 T-Started ~~00:33~~  
 (C) First Final Flow 20  Safety Joint \* 75 T-Open 2:56  
 (D) Initial Shut-In 166  Circ Sub T-Pulled 5:57  
 (E) Second Initial Flow 20  Hourly Standby T-Out 8:10  
 (F) Second Final Flow 22  Mileage 88RT 136.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 109  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2112  Straddle \_\_\_\_\_

Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total 0  
 Initial Open 30  
 Initial Shut-In 60  
 Final Flow 30  
 Final Shut-In 60  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility  
 Total 1711.40  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1711.40

Approved By [Signature] Our Representative James Winder

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53497

Well Name & No. Loker Trust #1-1 Test No. 4 Date 3-10-14  
 Company Murfin Drilling Co. Inc. Elevation 3254 KB 3249 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 1 Twp. 3s Rge. 36w Co. Rawlins State KS

Interval Tested 4351-4430 Zone Tested LKC "J-K"  
 Anchor Length 79 Drill Pipe Run 4166 Mud Wt. 8.9  
 Top Packer Depth 4346 Drill Collars Run 186 Vis 60  
 Bottom Packer Depth 4351 Wt. Pipe Run - WL 7.0  
 Total Depth 4430 Chlorides 500 ppm System LCM 2  
 Blow Description IF: 1/4" Blow at open, built to 1 1/2"  
ISI: No blowback  
FF: Blow built to just under 1/2"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>mud w/oil spots</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>98</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 45 BHT 126 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>2207</u>	<input type="checkbox"/> Test <u>*</u> 1250	T-On Location <u>21:15</u>
(B) First Initial Flow <u>21</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>22:04</u>
(C) First Final Flow <u>34</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>00:11</u>
(D) Initial Shut-In <u>1373</u>	<input checked="" type="checkbox"/> Circ Sub	T-Pulled <u>3:12</u>
(E) Second Initial Flow <u>36</u>	<input checked="" type="checkbox"/> Hourly Standby	T-Out <u>5:50</u>
(F) Second Final Flow <u>42</u>	<input type="checkbox"/> Mileage <u>88RT</u> 136.40	Comments _____
(G) Final Shut-In <u>1361</u>	<input checked="" type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2161</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer <u>*</u> 320
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby	Total <u>2031.40</u>
	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1711.40</u>	

Approved By \_\_\_\_\_ Our Representative James Winder  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 53498

Well Name & No. Loker Trust #1-1 Test No. 5 Date 3-12-14  
 Company Murfin Drilling Co. Inc. Elevation 3254 KB 3249 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Jeff Christian Rig Murfin #8  
 Location: Sec. 1 Twp. 3s Rge. 36w Co. Rawlins State KS

Interval Tested 4556 - 4686 Zone Tested Pawnee, Ft. Scott, Cherokee  
 Anchor Length 130 Drill Pipe Run 4356 Mud Wt. 9.4  
 Top Packer Depth 4551 Drill Collars Run 186 Vis 60  
 Bottom Packer Depth 4556 Wt. Pipe Run - WL 6.4  
 Total Depth 4686 Chlorides 700 ppm System LCM 2

Blow Description IF: Blow built to BOB (11") at 22 1/2 min.  
ISI: Blowback built to 2"  
FF: Blow built to BOB at 20 3/4 min.  
FSI: Blowback built to 6"

Rec	Feet of	%gas	%oil	%water	%mud
<u>235</u>	<u>660</u>	<u>17</u>	<u>81</u>	<u>-</u>	<u>2</u>
<u>190</u>	<u>60cm</u>	<u>14</u>	<u>13</u>	<u>-</u>	<u>73</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 425 BHT 135 Gravity 26 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>2315</u>	<input type="checkbox"/> Test <u>*</u> 1250	T-On Location <u>8:30</u>
(B) First Initial Flow <u>31</u>	<input type="checkbox"/> Jars <u>*</u> 250	T-Started <u>9:10</u>
(C) First Final Flow <u>113</u>	<input type="checkbox"/> Safety Joint <u>*</u> 75	T-Open <u>11:17</u>
(D) Initial Shut-In <u>1294</u>	<input checked="" type="checkbox"/> Circ Sub	T-Pulled <u>15:16</u>
(E) Second Initial Flow <u>123</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>17:55</u>
(F) Second Final Flow <u>190</u>	<input type="checkbox"/> Mileage <u>88RT</u> 136.40	Comments
(G) Final Shut-In <u>1270</u>	<input checked="" type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2263</u>	<input checked="" type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Extra Packer	<input checked="" type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder	Sub Total <u>91.67</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby <u>?</u> 1d 2.75h	Total <u>1803.07</u>
Final Shut-In <u>90</u>	<input checked="" type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1711.40</u>	

Approved By Jeff Clt Our Representative James Winder

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# Jeff Christian

PETROLEUM GEOLOGIST  
Wichita, Kansas

## GEOLOGISTS' REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR	MURFIN DRILLING COMPANY	ELEVATIONS		
LEASE	LOPER TRUST # 1-1	WB	3554'	
LOCATION	1320' FSI & 1980' FWL	GL	3249'	
SEC.	1	TWP	3 S	
COUNTY	RAWLINS	STATE	KANSAS	
FIELD	WILD CAT	OPERATOR	NAME	
APR	15-153-20992	CONTRACTOR	COMPANY TOOLS	
DRILLING STARTED	03/04/2014	COMPLETED	03/13/2014	
MUD DISPLACED	3470'	MUD TYPE	CHEMICAL	
DRILLING TIME KEPT FROM	3660'	TO RTD		
SAMPLES SAVED FROM	3660'	TO RTD		
SAMPLES EXAMINED FROM	3660'	TO RTD		
GEOLOGICAL SUPERVISION FROM	3684'	TO RTD		
FORMATION	LOG	SAMPLE		
NAME	TOP DATUM	TOP DATUM	MEASUREMENTS FROM B.M.	
ANHYDRITE	3986'	(1618)	3083'	(1217)
BASE ANHYDRITE	3126'	(1223)	3123'	(1313)
TOPEKA	4182'	(1928)	4180'	(1926)
LANSING	4401'	(1147)	4398'	(1144)
STAR	4448'	(1194)	4448'	(1194)
BKC	4577'	(1323)	4571'	(1317)
PAWNEE	4649'	(1393)	4647'	(1391)
CHEROKEE	4646'	(1392)	4643'	(1389)
MISSISSIPPIAN	4896'	(1582)	4843'	(1529)
TOTAL DEPTH	4896'	(1582)	4890'	(1586)

DATE	7:00 AM DEPTH	REMARKS
3/4/14	MIRT	SPUD 4:00 pm
3/5/14	350'	WOC dev. 3/4 deg.
3/6/14	2860'	DRL6.
3/7/14	3700'	DRL6. dev. 1/2 deg. @ 3588'
3/8/14	4180'	DRL6.
3/9/14	4248'	TOH for DST # 2
3/10/14	4430'	TOH w/ DST # 3
3/11/14	4430'	TOH after DST # 4 dev. 1/8 deg.
3/12/14	4686'	TOH for DST # 5
3/13/14	4890'	RTD 4890' @ 6:00 am CTCH dev. 3/4 deg. FINISH LOGGING @

**Remarks**  
5 1/2" production casing set to further test the Lansing / Kansas City and Pawnee formations.  
Electric log measurements correlate about 2' deep compared to rotary measurements.  
Samples deposited at the Kansas Geological Survey.

Respectfully,  
*Jeff Christian*  
Jeff Christian

