



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1217790  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

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

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1217790

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
-----------------------------------	-----------	---------	-------------	---------------	---------

<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> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Burk Trust 'D' 4-23
Doc ID	1217790

All Electric Logs Run

DIL
DUCP
MEL
BHCS





Heat  
Producing

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 143069  
Invoice Date: May 3, 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	63278	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	May 3, 2014	6/2/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Buck Trust D #4-23		
220.00	CEMENT MATERIALS	Class A Common	17.90	3,938.00
8.00	CEMENT MATERIALS	Chloride	64.00	512.00
231.00	CEMENT SERVICE	Cubic Feet Charge	2.48	572.88
852.00	CEMENT SERVICE	Ton Mileage Charge	2.60	2,215.20
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
80.00	CEMENT SERVICE	Pump Truck Mileage	7.70	616.00
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
80.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	352.00
1.00	CEMENT SUPERVISOR	LaRene Wentz		
1.00	CEMENT SUPERVISOR	Andrew Forslund		

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

\$ 3,497.66

ONLY IF PAID ON OR BEFORE  
May 28, 2014

Subtotal	9,993.33
Sales Tax	351.55
Total Invoice Amount	10,344.88
Payment/Credit Applied	
<b>TOTAL</b>	<b>10,344.88</b>

OK  
JR

# ALLIED OIL & GAS SERVICES, LLC 063278

Federal Tax I.D. # 20-3651475

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

SERVICE POINT: Oakley, KS

DATE <u>5-3-14</u>	SEC. <u>23</u>	TWP. <u>1</u>	RANGE <u>36</u>	CALLED OUT	ON LOCATION <u>8:20 pm</u>	JOB START <u>9:30 pm</u>	JOB FINISH <u>9:02 pm</u>	
LEASE <u>Bush Trust</u>	WELL # <u>4-23</u>	LOCATION <u>Reardon/ N to AA</u>	COUNTY <u>Neosho</u>		STATE <u>K</u>			
OLD OR <input checked="" type="checkbox"/> NEW (Circle one)			SPACE <u>Write (14) of (55)</u>					

CONTRACTOR <u>Martin Z</u>	OWNER <u>same</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>225'</u>
CASING SIZE <u>8 7/8</u>	DEPTH <u>225'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>151</u>	
PERFS.	
DISPLACEMENT <u>13,561</u>	

EQUIPMENT		
PUMP TRUCK # <u>431</u>	CEMENTER <u>Lakone E. Wank</u>	COMMON <u>220 S/B1 @ 10.20 3938.00</u>
BULK TRUCK # <u>384/241</u>	HELPER <u>Andrew Forslund</u>	POZMIX @
BULK TRUCK #	DRIVER <u>Juan Tamer (PWS)</u>	GEL @
BULK TRUCK #	DRIVER	CHLORIDE <u>8.5 @ 2.90 512.50</u>
		ASC @
		Material Total <u>4,400.00</u>
		(1351.50/35%)
		HANDLING <u>231.84 @ 2.48 572.88</u>
		MILEAGE <u>106.5 hrs @ 80X 2.60 2213.20</u>

REMARKS:  
Mix 220 S/B cement  
Displace with water  
Cement did circulate.  
20 S/B to pit

Thank you

CHARGE TO: Martin  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE	
DEPTH OF JOB <u>225</u>	
PUMP TRUCK CHARGE <u>1512.25</u>	
EXTRA FOOTAGE @	
MILEAGE <u>MI 80 @ 2.70 616.00</u>	
MANIFOLD @	
<u>MFLU 80 @ 4.40 352.00</u>	
(1946.16/35%)	<u>5,543.33</u>
TOTAL	

PLUG & FLOAT EQUIPMENT	
_____ @	
_____ @	
_____ @	
_____ @	
_____ @	
0/0	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 Anna P. ...  
SIGNATURE Anna P. ...

SALES TAX (If Any) \_\_\_\_\_  
TOTAL CHARGES 9,993.33  
DISCOUNT 3,497.66 (35%) IF PAID IN 30 DAYS  
6,495.67



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



# Invoice

DATE	INVOICE #
5/11/2014	26353

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

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#4- <del>32</del> <u>23</u>	Burk Trust D	Rawlins	Murfin Drilling Ri...	Oil	Development	5-1/2" LongString	Jason
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				150	Miles	6.00	900.00
579D	Pump Charge - Top To Bottom LongString				1	Job	2,000.00	2,000.00
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
413-5	5 1/2" Roto Wall Scratcher				15	Each	40.00	600.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
281	Mud Flush				500	Gallon(s)	1.25	625.00T
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
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
290	D-Air				5	Gallon(s)	42.00	210.00T
325	Standard Cement				200	Sacks	14.50	2,900.00T
330	Swift Multi-Density Standard (MIDCON II)				300	Sacks	18.50	5,550.00T
581D	Service Charge Cement				500	Sacks	2.00	1,000.00
583D	Drayage				3,808.12	Ton Miles	1.00	3,808.12
Subtotal								22,295.62
Sales Tax Rawlins County							7.90%	1,152.41

**We Appreciate Your Business!** **Total** \$23,448.03



CHARGE TO: MURFIN DRILLING  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET 26353

PAGE 1 OF 2

WELL PROJECT NO. 4-32  
 LEASE BURK TRUST D  
 COUNTY/PARISH RAWLINS, KS  
 CITY BEARDSLEY, KS  
 STATE KS  
 DATE 11 MAY 14  
 OWNER  
 SERVICE LOCATIONS NESS CITY, KS  
 CONTRACTOR MURFIN DRILLING RIG Co  
 RIG NAME/NO.  
 TICKET TYPE  SERVICE  SALES  
 WELL TYPE OIL  
 JOB PURPOSE DEVELOPMENT  
 WELL LOCATION 7N, 44W, 2N, 4W, N1E  
 INVOICE INSTRUCTIONS 5' LONG STRING

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT							
575				MILEAGE # 115	150	MIL			60	9000
579				PUMP CHARGE	1	CHRG			2000	2000
403				CEMENT BASKET	3	EA			300	900
406				LATCH DOWN PLUG & BAFFLE	1	EA			275	275
407				INSERT FLOAT SHOE w/ FILL	1	EA			375	375
409				TURBOIZERS	15	EA			90	1350
413				ROTO WALL SCRATCHERS	15	EA			40	600
281				MUD FLUSH	500	QAL			1.25	625
221				AIRWID KCL	4	SK			25	100
419				ROTATING HEAD RENTAL	1	JOB			200	200

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  
 X *Alan Robinson* TIME SIGNED 11 MAY 14 6:30 P.M.  
 DATE SIGNED 11 MAY 14 6:30 P.M.  
 REMIT PAYMENT TO:  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300  
 SURVEY  
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?  
 WE UNDERSTOOD AND MET YOUR NEEDS?  
 OUR SERVICE WAS PERFORMED WITHOUT DELAY? AND PERFORMED JOB CALCULATIONS SATISFACTORILY?  
 ARE YOU SATISFIED WITH OUR SERVICE?  
 YES  NO   
 CUSTOMER DID NOT WISH TO RESPOND  
 PAGE TOTAL 1 7325  
 2 14970  
 Subtotal 22295  
 Rawlins TAX 7.9% 1,152.41  
 TOTAL 23,448.03  
 CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.  
 SWIFT OPERATOR *James E. Kowalski* APPROVAL  
 Thank You!





JOB LOG

SWIFT Services, Inc.

DATE 10 MAY 14 PAGE NO.

CUSTOMER MURFIN DRILLING

WELL NO. 4-23

LEASE BURK TRUST D

JOB TYPE 5 1/2 LONGSTRING

TICKET NO. 26353

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0000							ON LOCATION
	0105							START PIPE - 5 1/2 15.5 # RTD @ 4580 SHOE JT. 22,17 CENTRALIZERS 1,2,3,4,5,6,7,8,9,10,12,14,20,33,60 BASKETS 21,34,62
	<del>0230</del>							CIRCULATE 30 min @ JT 60
	0330							CIRCULATE - DROP BALL
	0434	6	12		✓	300		Pump 500 gal MUD FLUSH
		6	20		✓	300		Pump 20 Bbl KCL FLUSH
	0442		7.5					PLUG RH-30 sx, MH-20 sx
	0447	6	138		✓			MIX 250 sx SMD
		4	48					MIX 200 sx EA-2
	0526							WASH OUT Pump & LINES.
	0529	6			✓			START DISPLACING PLUG
	0547	8	108		✓	1700		PLUG DOWN - LATCH PLUG IN.
	0549							RELEASE PSI - DRY
	0551							WASH TRUCK
	0630							JOB COMPLETE
								THANKS #115
								JASON DOUG WAYNE JOHN

Burk Trust 'D' #4-23  
 Daily Drilling Report  
 Page Two

5/10/14 Depth 4554'. Cut 179'. DT: None. CT: 12¾ hrs. Dev.: ¾° @ 4440'. **DST #3 4382-4440 (LKC J)**: 30-60-30-60. IF: Built to ½". FF: No blow. Rec.: 20' OCM (88%M, 10%O, 2%G), HP: 2200-2199. FP: 19/25, 26/30. SIP: 718-639. BHT: 136°

5/11/14 RTD 4580'. Cut 26'. DT: None. CT: 22¼ hrs. Dev.: ¾° @ 4580'. HC @ 8:45AM 5/10. Pioneer logged 2:00PM - 5:30PM 5/10. LTD: 4580'. Ran 109jts of 5½" prod csg, set @ 4574'. Swift cmt w/450sxs (250sxs SMD, 200 EA-2). PD @ 6:00AM 5/11. 30sxs RH, 20sxs MH. No cmt to pit.

5/12/14 RTD: 4580'. CT: 3hrs. RR @ 10:00AM 5/11/14. FINAL REPORT

MDCI Burk Trust 'D' #4-23 330' FSL 1440' FWL Sec. 23-T1S-R36W 3287' KB							Berexco Lillie #2-26 330' FNL 1175' FWL Sec. 23-T1S-R36W 3285' KB	
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref	Log Top	Datum
Anhydrite	3182	+105	-2	3185	+102	-5	3178	+107
B/Anhydrite	3219	+68	-7	3219	+68	-7	3210	+75
Neva	3670	-383	-3	3673	-386	-6	3665	-380
Red Eagle	3734	-447	-6	3734	-447	-6	3726	-441
Foraker	3780	-493	-4	3784	-497	-8	3774	-489
Topeka	3998	-711	-7	3998	-711	-7	3989	-704
Oread	4113	-826	-9	4111	-824	-7	4102	-817
Lansing	4216	-929	-5	4217	-930	-6	4209	-924
Stark	4436	-1149	-8	4438	-1151	-10	4426	-1141
BKC	4487	-1200	-10	4487	-1200	-10	4475	-1190
RTD	4580	-1293					4563	
LTD				4580			4560	



## DRILL STEM TEST REPORT

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

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Saman Sharifaie

### **Burk Trust 'D' #4-23**

### **23-1s-36w Rawlins,KS**

Start Date: 2014.05.07 @ 11:53:00

End Date: 2014.05.07 @ 20:18:30

Job Ticket #: 58156                      DST #: 1

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

Printed: 2014.05.13 @ 11:06:47



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58156

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2014.05.07 @ 11:53:00

## GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:13:30

Time Test Ended: 20:18:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

**Interval: 4082.00 ft (KB) To 4140.00 ft (KB) (TVD)**

Reference Elevations: 3287.00 ft (KB)

Total Depth: 4140.00 ft (KB) (TVD)

3276.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 131.06 psig @ 4083.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.07

End Date:

2014.05.07

Last Calib.:

2014.05.07

Start Time: 11:53:05

End Time:

20:18:29

Time On Btm:

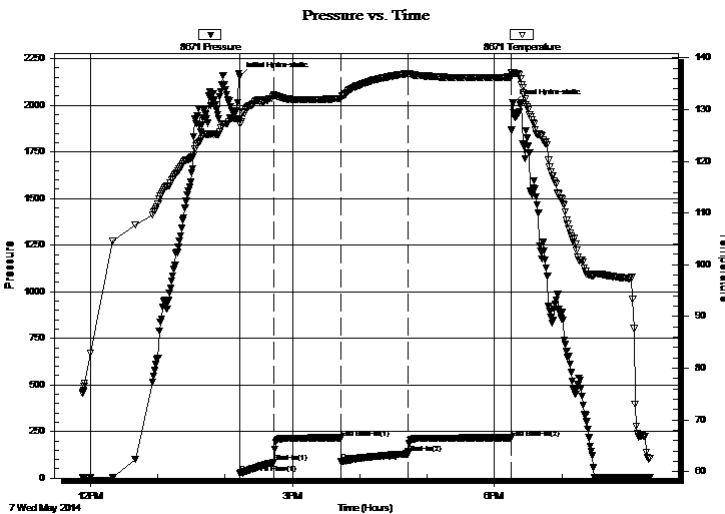
2014.05.07 @ 14:13:15

Time Off Btm:

2014.05.07 @ 18:16:15

**TEST COMMENT:** 30 - IF: Blow built to 7"  
60 - IS: No blow back  
60 - FF: Blow built to 7 1/2"  
90 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2155.78	128.24	Initial Hydro-static
1	25.81	127.26	Open To Flow (1)
31	83.81	132.79	Shut-In(1)
90	216.14	132.15	End Shut-In(1)
91	88.62	132.10	Open To Flow (2)
150	131.06	136.99	Shut-In(2)
242	215.64	136.28	End Shut-In(2)
243	2011.82	137.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
176.00	SOCWM 51% m, 42% w, 4% o, 3% g	0.87
42.00	OWCM 73% m, 14% w, 8% o, 5% g	0.33
40.00	CO 93% o, 4% m, 3% g	0.56
0.00	GIP = 45'	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.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58156

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2014.05.07 @ 11:53:00

## Tool Information

Drill Pipe:	Length: 3879.00 ft	Diameter: 3.80 inches	Volume: 54.41 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: 204.00 ft	Diameter: 2.25 inches	Volume: 1.00 bbl	Weight to Pull Loose: 92000.00 lb
			<u>Total Volume: 55.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4082.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	86.00 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			4059.00	
Hydraulic tool	5.00			4064.00	
Jars	5.00			4069.00	
Safety Joint	3.00			4072.00	
Packer	5.00			4077.00	28.00 Bottom Of Top Packer
Packer	5.00			4082.00	
Stubb	1.00			4083.00	
Recorder	0.00	8671	Inside	4083.00	
Recorder	0.00	8320	Outside	4083.00	
Perforations	20.00			4103.00	
Blank Spacing	34.00			4137.00	
Bullnose	3.00			4140.00	58.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58156

**DST#: 1**

ATTN: Saman Sharifaie

Test Start: 2014.05.07 @ 11:53:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 56.00 sec/qt  
Water Loss: 6.78 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 600.00 ppm  
Filter Cake: 2.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 24.8 deg API  
Water Salinity: 12500 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
176.00	SOCWM 51% <i>m</i> , 42% <i>w</i> , 4% <i>o</i> , 3% <i>g</i>	0.866
42.00	OWCM 73% <i>m</i> , 14% <i>w</i> , 8% <i>o</i> , 5% <i>g</i>	0.334
40.00	CO 93% <i>o</i> , 4% <i>m</i> , 3% <i>g</i>	0.561
0.00	GIP = 45'	0.000

Total Length: 258.00 ft      Total Volume: 1.761 bbl

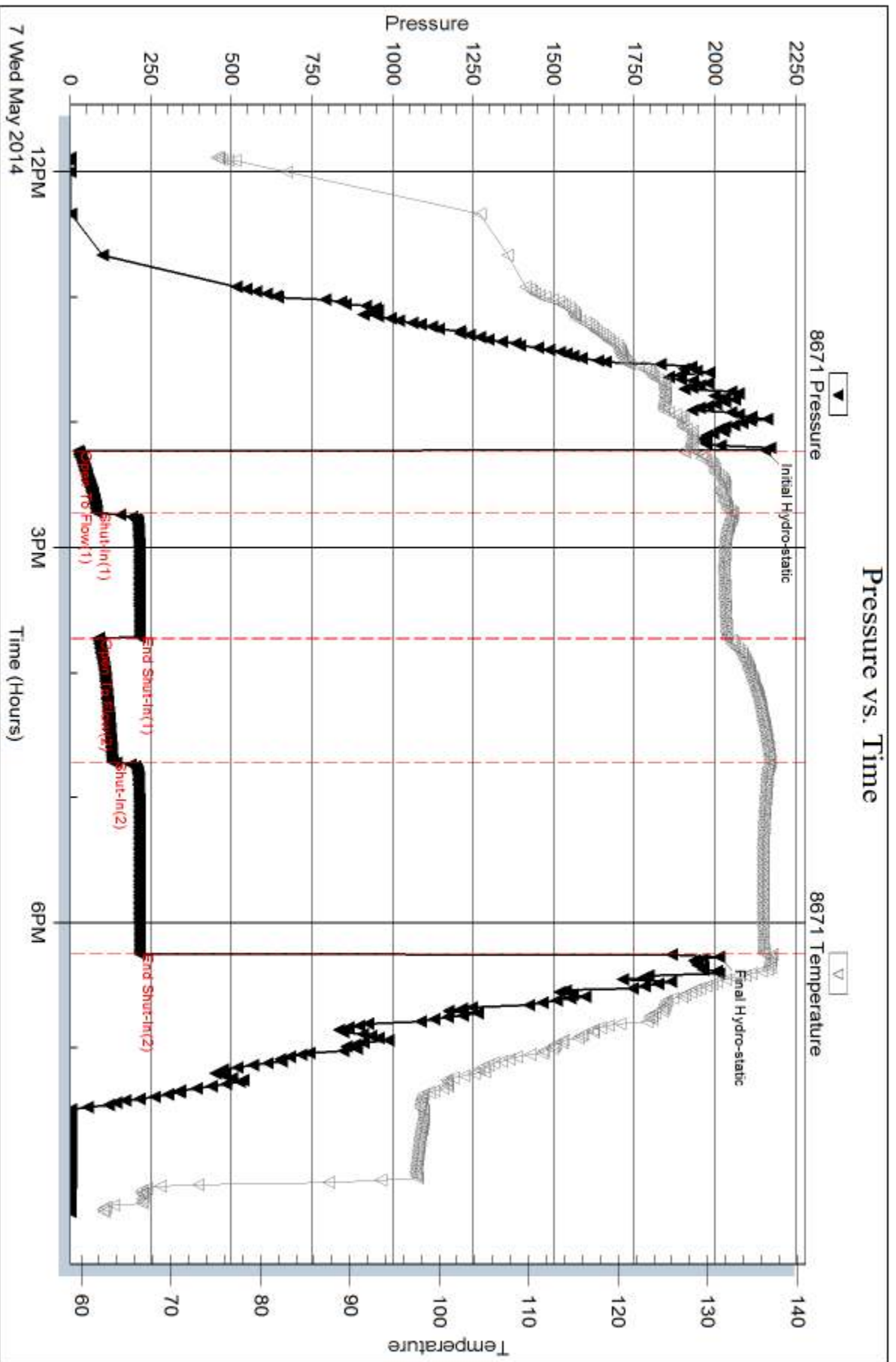
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: Gravity = 25.8 api @ 70 deg F Corrected Gravity = 24.8 api  
RW = .520 ohms @ 70.2 deg F Chlorides = 12,500 ppm  
LCM = 12#



### Pressure vs. Time

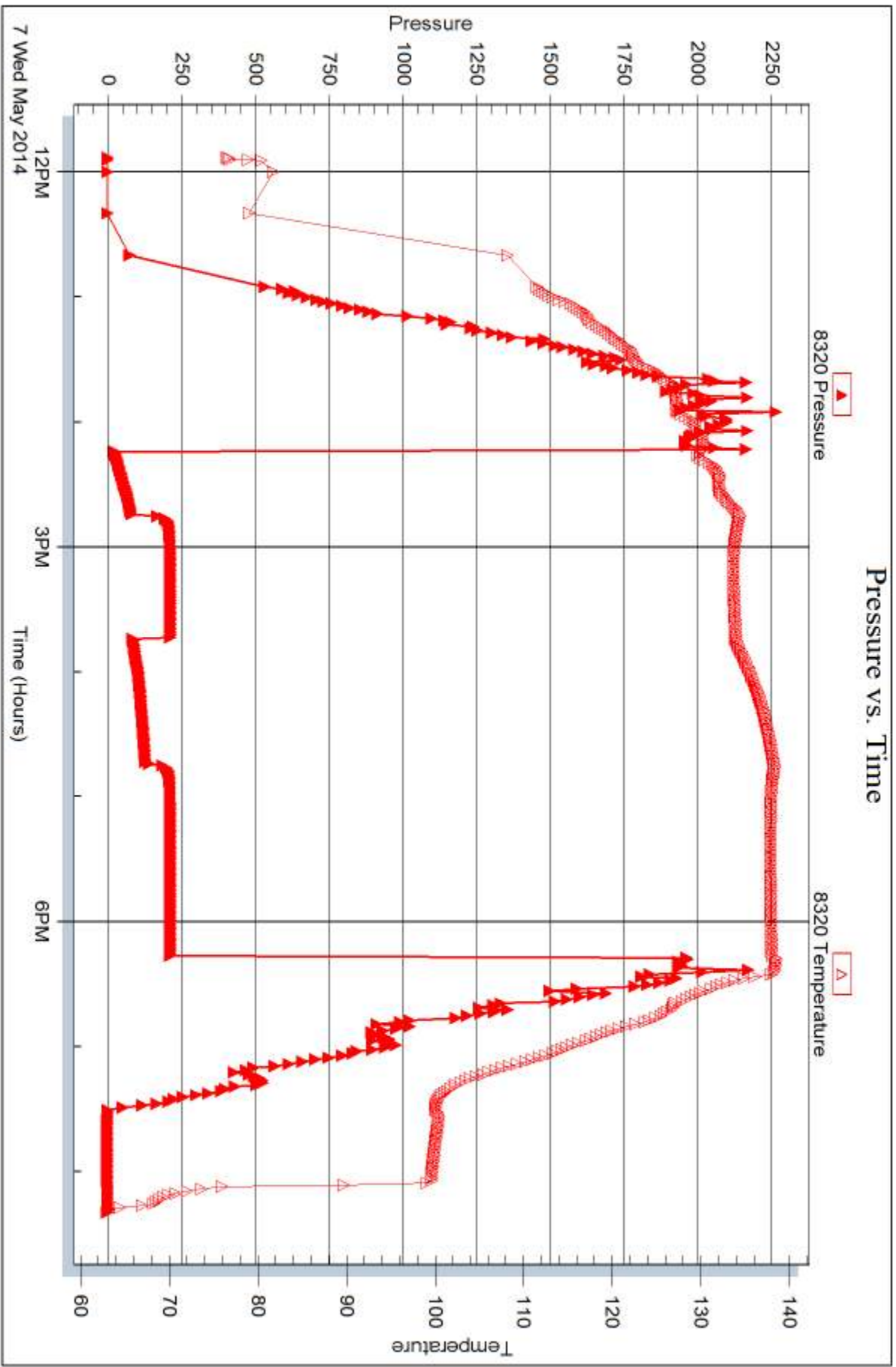


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Burk Trust 'D' #4-23

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 58156

Printed: 2014.05.13 @ 11:06:48



## DRILL STEM TEST REPORT

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

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Saman Sharifaie

### **Burk Trust 'D' #4-23**

### **23-1s-36w Rawlins,KS**

Start Date: 2014.05.08 @ 13:50:00

End Date: 2014.05.08 @ 22:12:45

Job Ticket #: 58157                      DST #: 2

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

Printed: 2014.05.13 @ 11:06:25

Murfin Drilling Co., Inc.  
23-1s-36w Rawlins,KS  
Burk Trust 'D' #4-23  
DST # 2  
LKC "D"  
2014.05.08



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58157

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2014.05.08 @ 13:50:00

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:51:00

Time Test Ended: 22:12:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4234.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Reference Elevations: 3287.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

3276.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

## Serial #: 8671

Inside

Press@RunDepth: 179.75 psig @ 4235.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.08

End Date:

2014.05.08

Last Calib.:

2014.05.08

Start Time:

13:50:05

End Time:

22:12:44

Time On Btm:

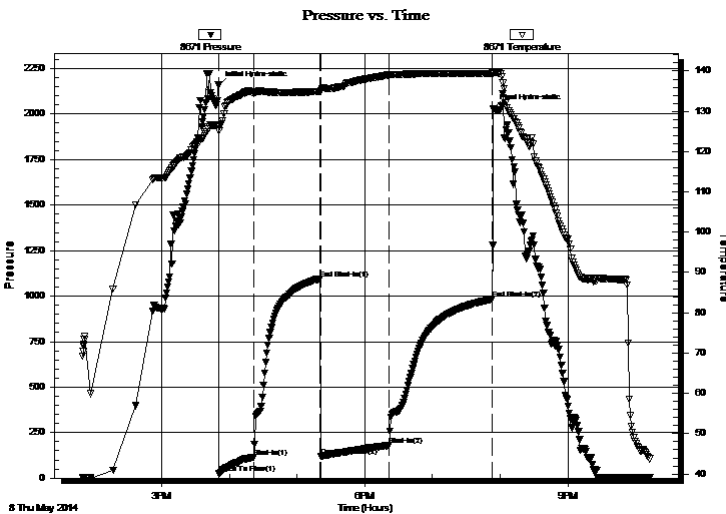
2014.05.08 @ 15:50:45

Time Off Btm:

2014.05.08 @ 19:53:45

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 22 min.  
60 - IS: Blow back built to 1/2"  
60 - FF: Blow built to BOB at 33 min.  
90 - FS: Blow back built to 2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2156.49	126.48	Initial Hydro-static
1	23.85	125.16	Open To Flow (1)
31	116.13	134.55	Shut-In(1)
90	1095.51	134.92	End Shut-In(1)
91	121.05	134.91	Open To Flow (2)
151	179.75	139.02	Shut-In(2)
243	983.55	139.40	End Shut-In(2)
243	2031.82	139.44	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
58.00	OMCW 58%w, 32%m, 10%o	0.29
179.00	SO/WCM 65%m, 26%w, 5%g, 4%o	1.18
63.00	GOWCM 55%m, 18%o mix, 17%w, 10%g	0.88
68.00	CGO 79%o, 17%g, 4%m	0.95
0.00	GIP = 250'	0.00

## Gas Rates

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

\* Recovery from multiple tests



# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins, KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58157

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2014.05.08 @ 13:50:00

## GENERAL INFORMATION:

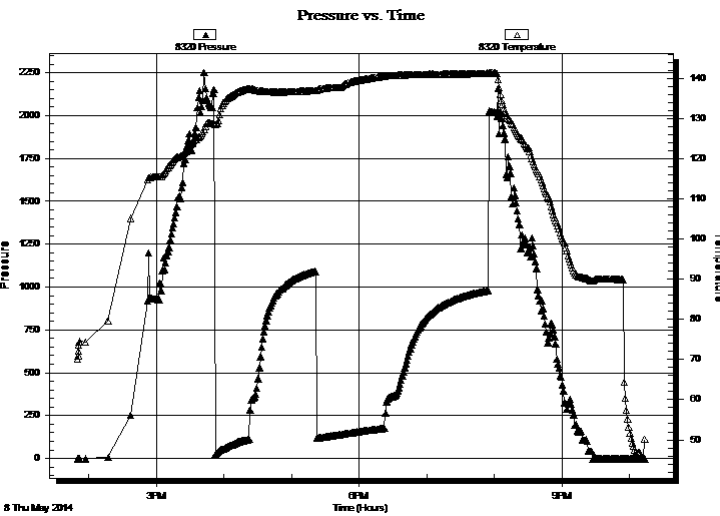
Formation: **LKC "D"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:51:00  
 Time Test Ended: 22:12:45  
**Interval: 4234.00 ft (KB) To 4300.00 ft (KB) (TVD)**  
 Total Depth: 4300.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 57  
 Reference Elevations: 3287.00 ft (KB)  
 3276.00 ft (CF)  
 KB to GR/CF: 11.00 ft

## Serial #: 8320 Outside

Press@RunDepth: psig @ 4235.00 ft (KB)  
 Start Date: 2014.05.08 End Date: 2014.05.08  
 Start Time: 13:50:05 End Time: 22:13:44  
 Capacity: 8000.00 psig  
 Last Calib.: 2014.05.08  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 22 min.  
 60 - ISI: Blow back built to 1/2"  
 60 - FF: Blow built to BOB at 33 min.  
 90 - FS: Blow back built to 2"



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
58.00	OMCW 58%w , 32%m, 10%o	0.29
179.00	SO/WCM 65%w , 26%o , 5%g, 4%o	1.18
63.00	GOWCM 55%w , 18%o mix , 17%g, 10%o	0.88
68.00	CGO 79%o , 17%g, 4%m	0.95
0.00	GIP = 250'	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.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58157

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2014.05.08 @ 13:50:00

## Tool Information

Drill Pipe:	Length: 4034.00 ft	Diameter: 3.80 inches	Volume: 56.59 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: 204.00 ft	Diameter: 2.25 inches	Volume: 1.00 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 57.59 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4234.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	94.00 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			4211.00	
Hydraulic tool	5.00			4216.00	
Jars	5.00			4221.00	
Safety Joint	3.00			4224.00	
Packer	5.00			4229.00	28.00 Bottom Of Top Packer
Packer	5.00			4234.00	
Stubb	1.00			4235.00	
Recorder	0.00	8671	Inside	4235.00	
Recorder	0.00	8320	Outside	4235.00	
Perforations	29.00			4264.00	
Blank Spacing	33.00			4297.00	
Bullnose	3.00			4300.00	66.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58157

**DST#: 2**

ATTN: Saman Sharifaie

Test Start: 2014.05.08 @ 13:50:00

## 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:

ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 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
58.00	OMCW 58%w , 32%m, 10%o	0.285
179.00	SO/WCM 65%m, 26%w , 5%g, 4%o	1.181
63.00	GOWCM 55%m, 18%o mix, 17%w , 10%g	0.884
68.00	CGO 79%o, 17%g, 4%m	0.954
0.00	GIP = 250'	0.000

Total Length: 368.00 ft      Total Volume: 3.304 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

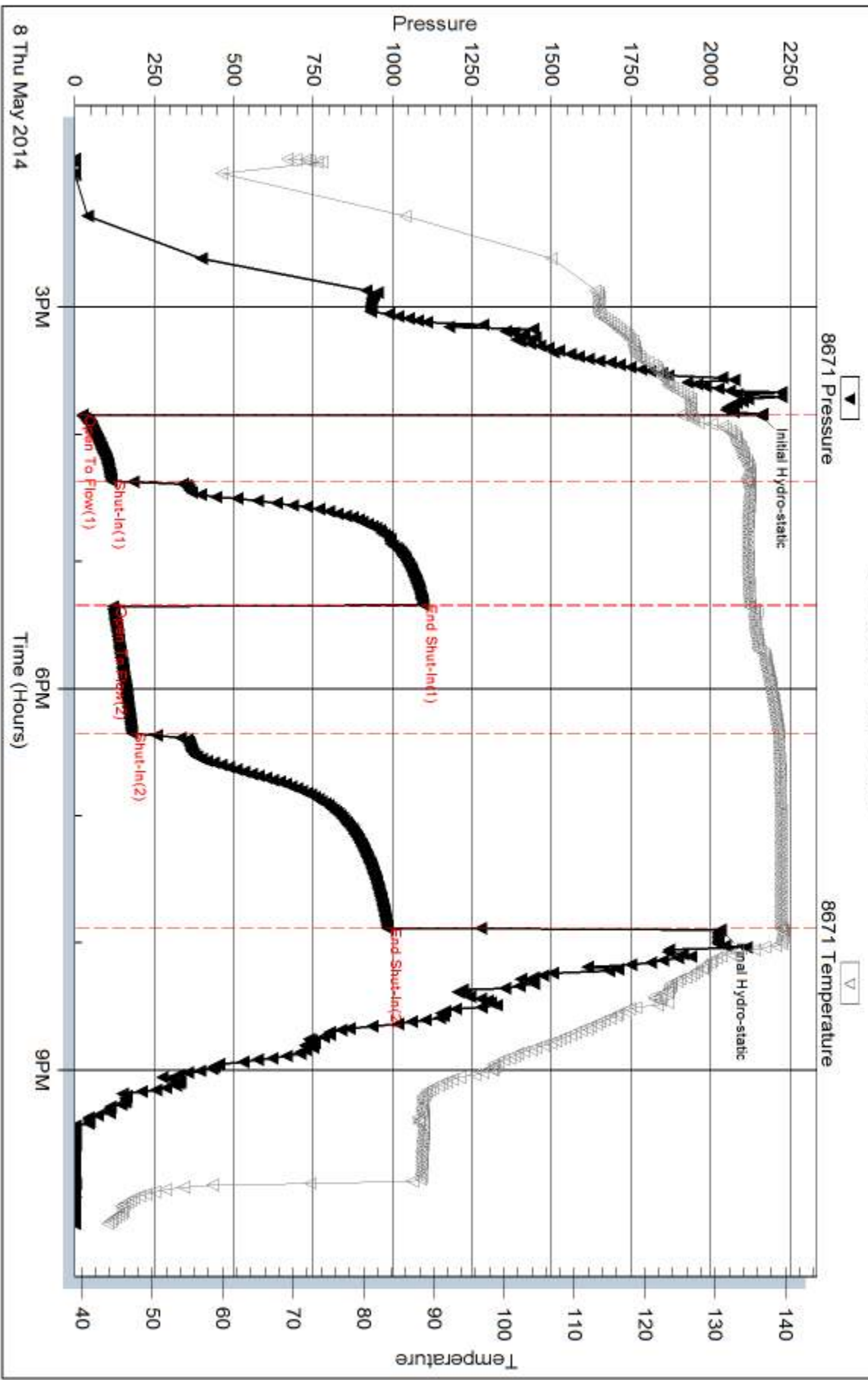
Laboratory Location:

Recovery Comments: Gravity = 23.6 api @ 48 deg F

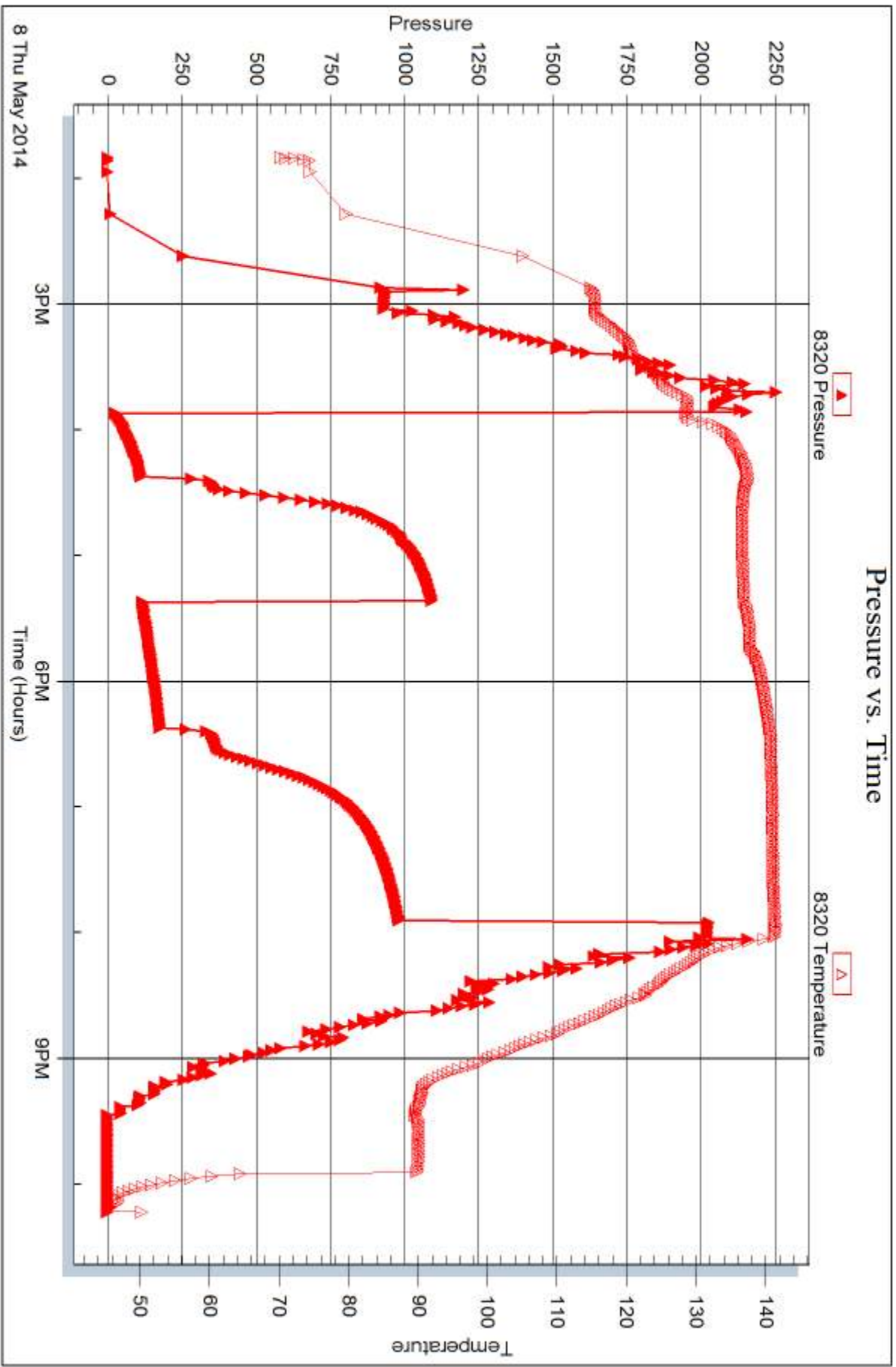
Corrected Gravity = 24.8 api

Couldn't get clean w ater sample for chloride check

### Pressure vs. Time









## DRILL STEM TEST REPORT

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

250 N. Water STE 300  
Wichita, KS 67202

ATTN: Saman Sharifaie

### **Burk Trust 'D' #4-23**

### **23-1s-36w Rawlins,KS**

Start Date: 2014.05.09 @ 13:40:00

End Date: 2014.05.09 @ 20:50:00

Job Ticket #: 58158                      DST #: 3

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

Printed: 2014.05.13 @ 11:05:50

Murfin Drilling Co., Inc.

23-1s-36w Rawlins,KS

Burk Trust 'D' #4-23

DST # 3

LKC "J"

2014.05.09



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins, KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58158

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2014.05.09 @ 13:40:00

## GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:44:30

Time Test Ended: 20:50:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 4382.00 ft (KB) To 4440.00 ft (KB) (TVD)**

Reference Elevations: 3287.00 ft (KB)

Total Depth: 4440.00 ft (KB) (TVD)

3276.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 29.69 psig @ 4383.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time: 13:40:05

End Time:

20:49:59

Time On Btm:

2014.05.09 @ 15:44:15

Time Off Btm:

2014.05.09 @ 18:53:15

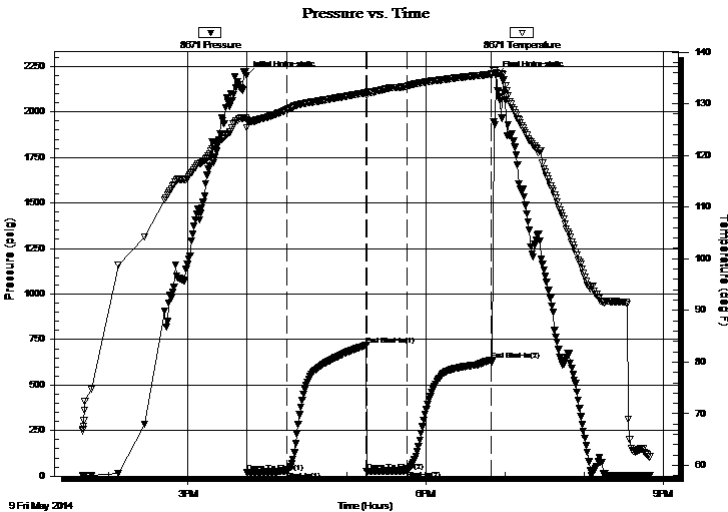
**TEST COMMENT:** 30 - IF: Blow built to 1/2", blew at 1/2" dying slightly by close

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	2199.71	126.91	Initial Hydro-static
1	18.57	125.40	Open To Flow (1)
31	25.07	128.86	Shut-In(1)
91	718.32	132.11	End Shut-In(1)
91	26.08	131.61	Open To Flow (2)
121	29.69	133.38	Shut-In(2)
185	638.61	135.71	End Shut-In(2)
189	2199.25	135.92	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 88% m, 10% o, 2% g	0.10

\* 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: Saman Sharifaie

**23-1s-36w Rawlins, KS**

**Burk Trust 'D' #4-23**

Job Ticket: 58158 **DST#: 3**  
 Test Start: 2014.05.09 @ 13:40:00

### GENERAL INFORMATION:

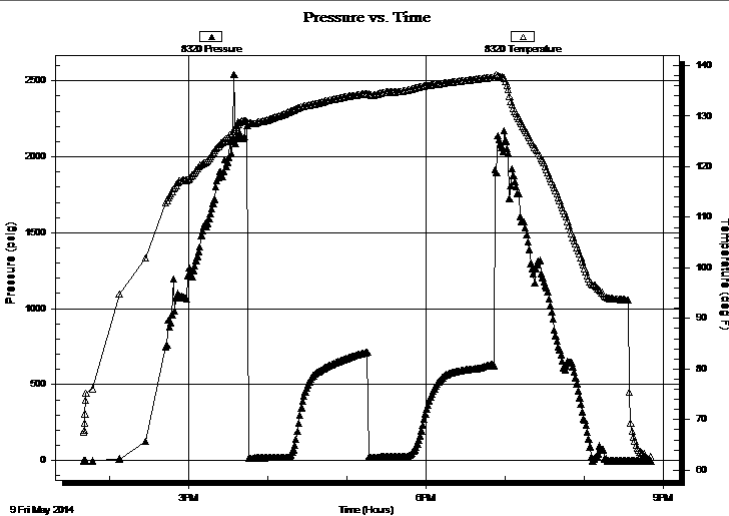
Formation: **LKC "J"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 15:44:30 Tester: James Winder  
 Time Test Ended: 20:50:00 Unit No: 57  
 Interval: **4382.00 ft (KB) To 4440.00 ft (KB) (TVD)** Reference Elevations: 3287.00 ft (KB)  
 Total Depth: 4440.00 ft (KB) (TVD) 3276.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

**Serial #: 8320 Outside**

Press@RunDepth: psig @ 4383.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.09 End Date: 2014.05.09 Last Calib.: 2014.05.09  
 Start Time: 13:40:05 End Time: 20:50:14 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to 1/2", blew at 1/2" dying slightly by close  
 60 - ISI: No blow back  
 30 - FF: No blow  
 60 - FSI: No blow back

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 88% m, 10% o, 2% g	0.10

### 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.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58158

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2014.05.09 @ 13:40:00

## Tool Information

Drill Pipe:	Length: 4161.00 ft	Diameter: 3.80 inches	Volume: 58.37 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: 204.00 ft	Diameter: 2.25 inches	Volume: 1.00 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 59.37 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4382.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	86.00 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			4359.00	
Hydraulic tool	5.00			4364.00	
Jars	5.00			4369.00	
Safety Joint	3.00			4372.00	
Packer	5.00			4377.00	28.00 Bottom Of Top Packer
Packer	5.00			4382.00	
Stubb	1.00			4383.00	
Recorder	0.00	8671	Inside	4383.00	
Recorder	0.00	8320	Outside	4383.00	
Perforations	21.00			4404.00	
Blank Spacing	33.00			4437.00	
Bullnose	3.00			4440.00	58.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Murfin Drilling Co., Inc.

**23-1s-36w Rawlins,KS**

250 N. Water STE 300  
Wichita, KS 67202

**Burk Trust 'D' #4-23**

Job Ticket: 58158

**DST#: 3**

ATTN: Saman Sharifaie

Test Start: 2014.05.09 @ 13:40:00

### 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: 48.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 88% <sub>m</sub> , 10% <sub>o</sub> , 2% <sub>g</sub>	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

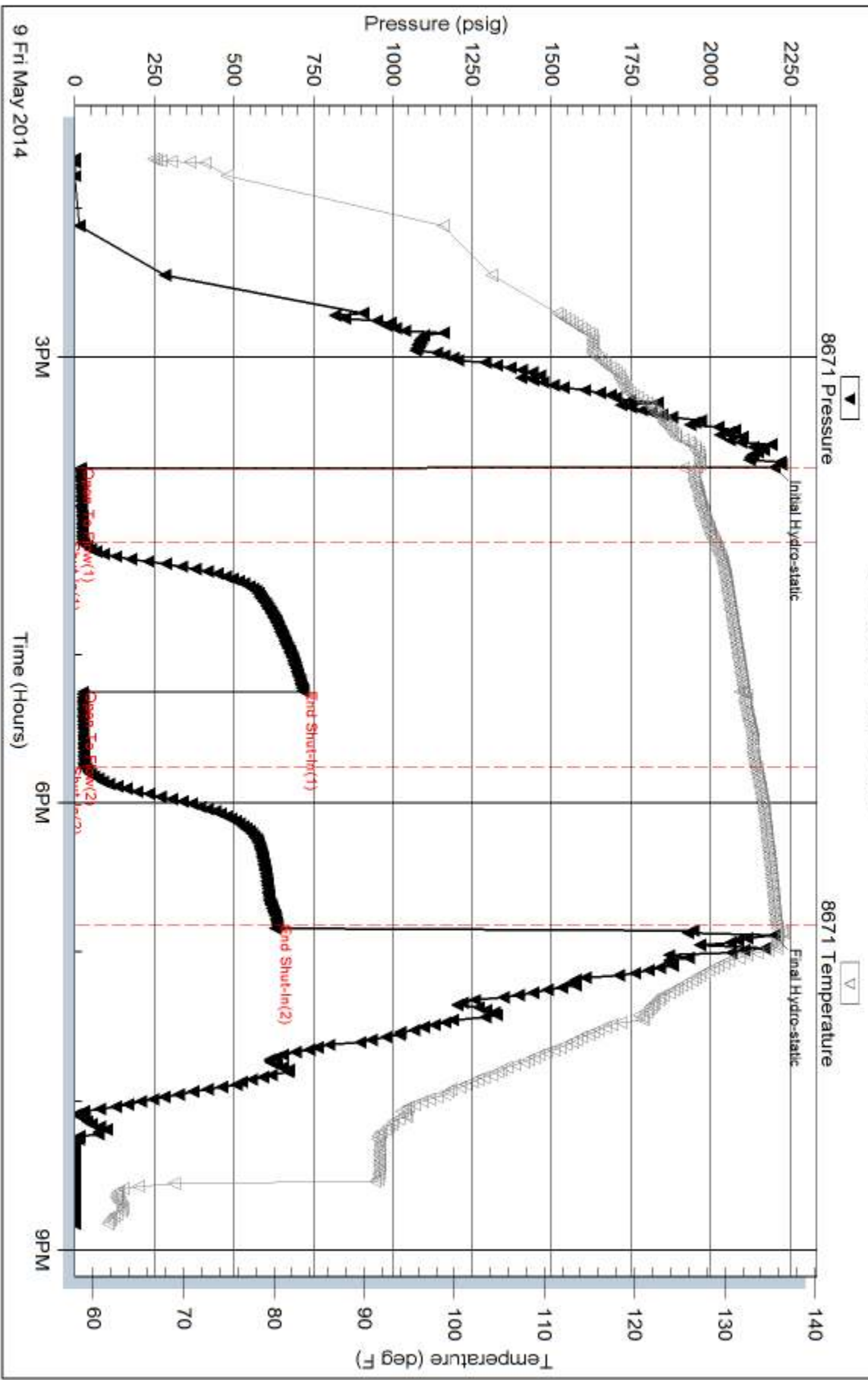
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

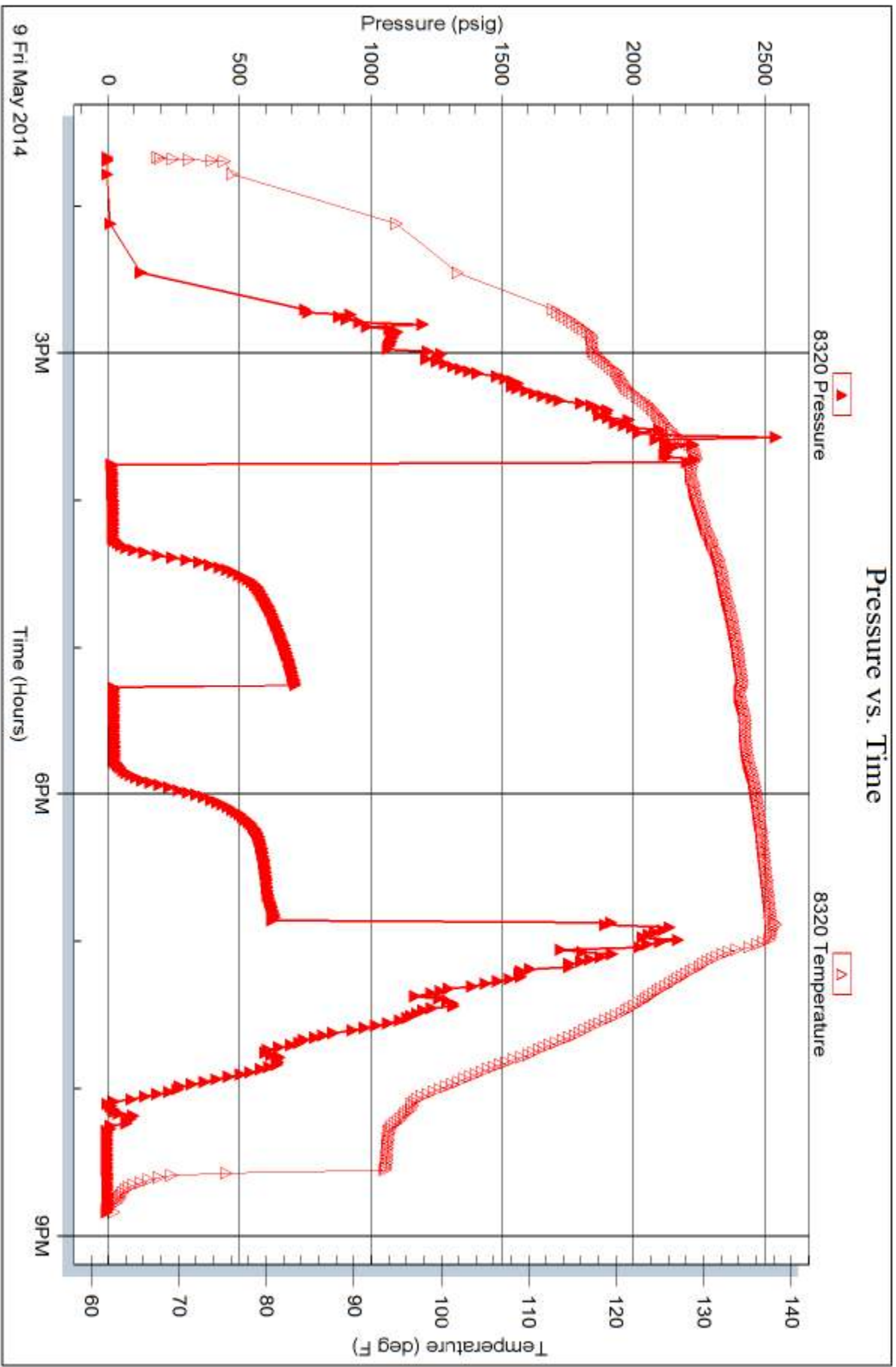


Serial #: 8320

Outside Murfin Drilling Co., Inc.

Burk Trust 'D' #4-23

DST Test Number: 3







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **58156**

4/10

Well Name & No. Burk Trust 'D' #4-23 Test No. 1 Date 5-7-14  
 Company Murfin Drilling Co. Inc. Elevation 3287 KB 3276 GL  
 Address 250 N. Water Suite 300 Wichita, KS 67202  
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #2  
 Location: Sec. 23 Twp. 1S Rge. 36W Co. Rawlins State KS

Interval Tested 4082 ~~4050~~ - 4140 Zone Tested Oread  
 Anchor Length 58 Drill Pipe Run 3879 Mud Wt. 9.2  
 Top Packer Depth 4073 Drill Collars Run 204 Vis 56  
 Bottom Packer Depth 4078 Wt. Pipe Run - WL 6.8  
 Total Depth 4140 Chlorides 600 ppm System LCM 12

Blow Description IF: Blow built to 7"  
ISI: No blowback  
FF: Blow built to 7 1/2"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>CO</u>	<u>3</u>	<u>93</u>	<u>-</u>	<u>4</u>
<u>42</u>	<u>OWCM</u>	<u>5</u>	<u>8</u>	<u>14</u>	<u>73</u>
<u>176</u>	<u>SOCWM</u>	<u>3</u>	<u>4</u>	<u>42</u>	<u>51</u>
<u>        </u>	<u>GIP=45'</u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

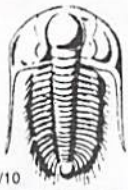
Rec Total 258 BHT 136 Gravity 24.8 API RW .520 @ 70.2 °F Chlorides 12,500 ppm

(A) Initial Hydrostatic 2156  Test 1250 T-On Location 11:00  
 (B) First Initial Flow 26  Jars 250 T-Started 11:53  
 (C) First Final Flow 84  Safety Joint 75 T-Open 14:13  
 (D) Initial Shut-In 216  Circ Sub \_\_\_\_\_ T-Pulled 18:15  
 (E) Second Initial Flow 89  Hourly Standby \_\_\_\_\_ T-Out 20:15  
 (F) Second Final Flow 131  Mileage 120RT 186 Comments \_\_\_\_\_  
 (G) Final Shut-In 216  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2012  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 60  Day Standby \_\_\_\_\_ Total 1761  
 Final Shut-In 90  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1761

Approved By [Signature] 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 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. **58157**

4/10

Well Name & No. Burk Trust 'D' #4-23 Test No. 2 Date 5-8-14  
 Company Murfin Drilling Co. Inc Elevation 3287 KB 3276 GL  
 Address 250 N. Water STE 300 Wichita, KS 67202  
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #2  
 Location: Sec. 23 Twp. 15 Rge. 36w Co. Rawlins State KS

Interval Tested 4234 - 4300 Zone Tested LKC "D"  
 Anchor Length 66 Drill Pipe Run 4034 Mud Wt. 9.2  
 Top Packer Depth 4229 Drill Collars Run 204 Vis 62  
 Bottom Packer Depth 4234 Wt. Pipe Run - WL 6.0  
 Total Depth 4300 Chlorides 700 ppm System LCM 12

Blow Description IF: Blow built to BOB (11") at 22 min.  
ISI: Blowback built to 1/2"  
FF: Blow built to BOB at 33 min.  
FSI: Blowback built to 2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>68</u>	<u>C60</u>	<u>17</u>	<u>79</u>	<u>-</u>	<u>4</u>
<u>63</u>	<u>60wcm</u>	<u>10</u>	<u>18 mixture</u>	<u>17</u>	<u>55</u>
<u>179</u>	<u>50/wcm</u>	<u>5</u>	<u>4</u>	<u>26</u>	<u>65</u>
<u>58</u>	<u>0mcw</u>	<u>-</u>	<u>10</u>	<u>58</u>	<u>32</u>
<u>        </u>	<u>GIP=250'</u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

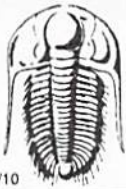
Rec Total 368 BHT 139 Gravity 24.8 API RW          @          °F Chlorides          ppm

(A) Initial Hydrostatic 2156  Test 1250 T-On Location 13:35  
 (B) First Initial Flow 24  Jars 250 T-Started 13:50  
 (C) First Final Flow 116  Safety Joint 75 T-Open 15:51  
 (D) Initial Shut-In 1096  Circ Sub          T-Pulled 19:53  
 (E) Second Initial Flow 121  Hourly Standby          T-Out 22:00  
 (F) Second Final Flow 180  Mileage 120 RT 186 Comments           
 (G) Final Shut-In 984  Sampler           
 (H) Final Hydrostatic 2032  Straddle           Ruined Shale Packer           
 Shale Packer           Ruined Packer           
 Extra Packer           Extra Copies           
 Extra Recorder          Sub Total 0  
 Day Standby          Total 1761  
 Accessibility          MP/DST Disc't         

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90  
 Sub Total 1761

Approved By \_\_\_\_\_ 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 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. **58158**

4/10

Well Name & No. Burk Trust 'D' #4-23 Test No. 3 Date 5-9-14  
 Company Murfin Drilling Co, Inc. Elevation 3287 KB 3276 GL  
 Address 250 N. Water STE 300 Wichita Ks 67202  
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #2  
 Location: Sec. 23 Twp. 15 Rge. 36w Co. Rawlins State Ks

Interval Tested 4382 - 4440 Zone Tested LKC "J"  
 Anchor Length 58 Drill Pipe Run 4161 Mud Wt. 9.1  
 Top Packer Depth ~~4377~~ 4377 Drill Collars Run 204 Vis 48  
 Bottom Packer Depth 4382 Wt. Pipe Run - WL 6.4  
 Total Depth 4440 Chlorides 600 ppm System LCM 6

Blow Description IF: Blow built to 1/2", blew at 1/2" dieing slightly by close  
ISI: No blowback  
FF: No blow  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>0cm</u>	<u>2</u>	<u>10</u>	<u>-</u>	<u>88</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 20 BHT 136 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2200  Test 1250 T-On Location 12:30  
 (B) First Initial Flow 19  Jars 250 T-Started 13:40  
 (C) First Final Flow 25  Safety Joint 75 T-Open 15:44  
 (D) Initial Shut-In 718  Circ Sub \_\_\_\_\_ T-Pulled 18:49  
 (E) Second Initial Flow 26  Hourly Standby \_\_\_\_\_ T-Out 20:45  
 (F) Second Final Flow 30  Mileage RT 120 186 Comments \_\_\_\_\_  
 (G) Final Shut-In 639  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2200  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1761  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1761

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

Approved By [Signature] 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 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.

# Saman Sharifaie

## Petroleum Geologist

### GEOLOGIST'S REPORT

#### DRILLING TIME AND SAMPLE LOG

COMPANY: **Martin Drilling Co., Inc.**  
LEASE: **Burk Trust "C" #4-23**

FIELD: **East Fork**  
LOCATION: **330' FSL & 140' FWL**  
SEC: **23 TWP** IS: **RGE** 36W  
COUNTY: **Ravalli** STATE: **Kansas**  
CONTRACTOR: **Martin Drilling #2**  
RTD: **05/03/14** COMP: **05/11/14**  
SPUD: **4:50P** LTD: **4:50P**  
MUD UP: **3:00P** TYPE MUD: **Chemical**

SAMPLES SAVED FROM: **3:57' TO RTD**  
DRILLING TIME KEPT FROM: **3:57' TO RTD**  
SAMPLES EXAMINED FROM: **3:57' TO RTD**  
GEOLOGICAL SUPERVISION FROM: **3:27'**  
REFERENCE WELL: **Berexo - Lillie #2-26**

CASINO  
CONDUCTOR: **8-5/8" at 22.5'**  
SURFACE: **5-1/2" at 4574'**  
PRODUCTION: **5-1/2" at 4574'**

ELECTRICAL SURVEYS  
CND: **D.L. MELI, Smitc**  
Pioneer Wellfire

Formation	Sample Tops	E-log Tops	Strat Pos.
Anhydrite	3182 (+105)	3185 (+102)	-5
Base Anhydrite	3219 (+68)	3219 (+68)	-7
Neva	3270 (-383)	3673 (-380)	-6
Foraker	3780 (-493)	3784 (-497)	-8
Foraker	3780 (-493)	3908 (-711)	-7
Oread	4115 (-826)	4111 (-820)	-6
Lansing	4216 (-929)	4217 (-930)	-10
Stark	4438 (-1131)	4438 (-1131)	-10
BKC	4487 (-1200)	4486 (-1199)	-9

REMARKS: Due to fair shows of oil in multiple potential pay zones and positive DST results, it is recommended and agreed upon by all parties that production casing be set to further evaluate this well.

Respectfully Submitted,  
Saman Sharifaie  
Petroleum Geologist

\*Tops have been adjusted to electric logs

