



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1206584
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: _____

1206584

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

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

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

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

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

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

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

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Frisbie 3-23
Doc ID	1206584

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 248-3361

INVOICE

Invoice Number: 141890

Invoice Date: Mar 15, 2014

Page: 1

Bill To:
Murfin Drig. Co., Inc.
250 N. Water
STE #300
Wichita, KS 67202

Customer ID	Field Ticket #	Payment Terms	
Murfin	62053	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Mar 15, 2014	4/14/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Frisbe 3-23, Section 23, Township 2 South, Range 3 West		
350.00	CEMENT MATERIALS	Class A Common	17.90	6,265.00
12.00	CEMENT MATERIALS	Chloride	64.00	768.00
367.50	CEMENT SERVICE	Cubic Feet Charge	2.48	911.40
1,270.50	CEMENT SERVICE	Ton Mileage Charge	2.60	3,303.30
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
75.00	CEMENT SERVICE	Pump Truck Mileage	7.70	577.50
1.00	CEMENT SERVICE	Swedge Manifold Rental	275.00	275.00
75.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	330.00
1.00	EQUIPMENT OPERATOR	Talon Jones		
1.00	EQUIPMENT OPERATOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Wayne McGhghy		

ID203 3.2410.0003 9618.21 Cement S. Co. H-3-23

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

\$ 4,879.85

ONLY IF PAID ON OR BEFORE

Apr 9, 2014

Subtotal	13,942.45
Sales Tax	555.61
Total Invoice Amount	14,498.06
Payment/Credit Applied	
TOTAL	14,498.06

4,879.85
9618.21

ALLIED OIL & GAS SERVICES, LLC 062053

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Ottawa KS

DATE <u>7-15-14</u>	SEC <u>23</u>	TWP <u>28</u>	RANGE <u>36W</u>	CALLED OUT	ON LOCATION	JOB START <u>9:00pm</u>	JOB FINISH <u>9:30pm</u>
LEAD <u>Fluor</u>	WELL # <u>3-23</u>	LOCATION <u>Bowdley 4N 4 1/2 W S into</u>		COUNTY <u>Rauv</u>	STATE <u>Ks</u>		
OLD OR <input checked="" type="radio"/> NEW (Circle one)							

CONTRACTOR Martin #8 OWNER Sam C

TYPE OF JOB Surface

HOLE SIZE 12 1/8 T.D. 345 ft CEMENT AMOUNT ORDERED 350 com 3% CC

CASING SIZE 8 5/8 DEPTH 345 ft

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSO. 1500

PERFS.

DISPLACEMENT 21.021

EQUIPMENT

PUMP TRUCK CEMENTER Talon / Paul Beaver

438 HELPER Wayne McLaughlin

BULK TRUCK

386 / 310 DRIVER Juan (twice)

BULK TRUCK

DRIVER

REMARKS:

Mix 350 lbs com 3% calcium
Displace with 21 bbl water
Cement did circulate 25 bbls

Thank You

CHARGE TO: Martin drilling

STREET _____

CITY _____ STATE _____ ZIP _____

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 Rodney Farr

SIGNATURE Rodney Farr

COMMON 350 sls @ 17.70 6,265.00

POZMIX @ _____

GEL @ _____

CHLORIDE 12 sls @ 67.00 768.00

ASC @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

HANDLING 36.25 cutt @ 2.48 911.90

MILEAGE 16.94km x 75mi @ 2.00 3303.30

TOTAL 11247.70

SERVICE

DEPTH OF JOB _____

PUMP TRUCK CHARGE 1,512.25

EXTRA FOOTAGE @ _____

MILEAGE 75 mi @ 7.70 577.50

MANIFOLD Sudyc @ 2.75 275.00

Light duty 75mi @ 4.40 330.00

_____ @ _____

TOTAL 2694.75

PLUG & FLOAT EQUIPMENT

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL _____

SALES TAX (If Any) _____

TOTAL CHARGES 13,942.45

DISCOUNT 4,879.85 IF PAID IN 30 DAYS

9,062.59 Net.



Acct.
Prod. - LH

INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 142224

Invoice Date: Mar 25, 2014

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

Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	62022	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	Mar 25, 2014	4/24/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Frisbie #3-23		
132.00	CEMENT MATERIALS	Class A Common	17.90	2,362.80
88.00	CEMENT MATERIALS	Pozmix	9.35	822.80
8.00	CEMENT MATERIALS	Gel	23.40	187.20
55.00	CEMENT MATERIALS	Flo Seal	2.97	163.35
236.28	CEMENT SERVICE	Cubic Feet Charge	2.48	585.97
740.25	CEMENT SERVICE	Ton Mileage Charge	2.60	1,924.65
1.00	CEMENT SERVICE	Plug to Abandon	2,600.47	2,600.47
75.00	CEMENT SERVICE	Pump Truck Mileage	7.70	577.50
75.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	330.00
1.00	EQUIPMENT OPERATOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Tyler Flipse		

Subtotal	9,554.74
Sales Tax	754.82
Total Invoice Amount	10,309.56
Payment/Credit Applied	
TOTAL	10,309.56

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

\$ 3,344.15 *oh*

ONLY IF PAID ON OR BEFORE

Apr 19, 2014

OK SR

3344.15
6965.41

ALLIED OIL & GAS SERVICES, LLC 062022

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Oakley KS

DATE <u>3-25-14</u>	SEC. <u>23</u>	TWP. <u>2</u>	RANGE <u>36</u>	CALLED OUT	ON LOCATION	JOB START <u>9:00 am</u>	JOB FINISH <u>10:00 am</u>
LEASE <u>Frisbie</u>		WELL # <u>3-23</u>		LOCATION <u>Boardsley, 11 to Rd V</u>		COUNTY <u>Rawlins</u>	STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)				<u>4 1/2 w Sinto</u>			

CONTRACTOR Murkin & OWNER Same

TYPE OF JOB <u>PTA</u>	
HOLE SIZE <u>7 7/8</u>	T.D. <u>4830'</u>
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2</u>	DEPTH <u>3195'</u>
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT <u>1st plug 3000, 2nd plug 5000, 15.70 mud</u>	
EQUIPMENT	

CEMENT
AMOUNT ORDERED 220 sks 60/40
4% gel 1/4" Flo-seal

COMMON	<u>132 sks @ 17.90</u>	<u>2362.80</u>
POZMIX	<u>88 sks @ 9.35</u>	<u>822.80</u>
GEL	<u>8 sks @ 23.40</u>	<u>187.20</u>
CHLORIDE	@	
ASC	@	
Flo-seal	<u>55# @ 2.97</u>	<u>163.35</u>
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING	<u>236.28 ft² @ 2.48</u>	<u>585.97</u>
MILEAGE	<u>9.87 hrs @ 75 mi x 2.60</u>	<u>1924.65</u>
TOTAL		<u>6446.77</u>

PUMP TRUCK CEMENTER Paul Beaver
431 HELPER Tyler Ellipse
BULK TRUCK
386/310 DRIVER Juan ? (TWS)
BULK TRUCK
DRIVER

REMARKS:
mix 25 sks @ 3195'
Displace w/ mud
mix 100 sks @ 2460'
Displace w/ mud
mix 40 sks @ 400' mix 10 sks @ 40'
w/ wooden plug mix 30 sks M.R. H
Mix 15 sks in mud.

SERVICE

DEPTH OF JOB	<u>3195'</u>	
PUMP TRUCK CHARGE	<u>2600.47</u>	
EXTRA FOOTAGE	@	
MILEAGE <u>MI HV</u>	<u>75 @ 7.70</u>	<u>577.50</u>
MANIFOLD	@	
<u>MLV</u>	<u>75 @ 4.40</u>	<u>330.00</u>
	@	

CHARGE TO: Murkin Drlg.
STREET _____
CITY _____ STATE _____ ZIP _____

TOTAL 3507.97

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.

SALES TAX (if Any) _____
TOTAL CHARGES 9,554.74
DISCOUNT 3,344.15 IF PAID IN 30 DAYS
6,210.58 Net.

PRINTED NAME Robby Farr
SIGNATURE Robby Farr

Frisbie #3-23
 Daily Drilling Report
 Page Three

MDCI Frisbie #3-23 1320' FNL 1815'FWL Sec. 23-2S-36W 3314' KB							MDCI Frisbie #1-23 2310' FNL 2310'FWL Sec. 23-2S-36W 3305' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	3177	+137	-12	3175	+139	-10	3156	+149
B/Anhydrite	3207	+107	-4	3207	+107	-4	3194	+111
Topeka	4021	-707	-10	4022	-708	-11	4002	-697
Heebner	4182	-868	-10	4182	-868	-10	4163	-858
Lansing	4233	-919	-10	4233	-919	-10	4214	-909
Stark	4455	-1141	-7	4455	-1141	-7	4439	-1134
BKC	4505	-1191	-8	4504	-1190	-7	4488	-1183
Pawnee	4635	-1321	-13	4635	-1321	-13	4613	-1308
Cherokee	4706	-1392	-11	4706	-1392	-11	4686	-1381
Mississippi				NR			4890	-1585
RTD	4830						4990	
LTD				4830			4986	



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbie #3-23

23-2s-36w Rawlins,KS

Start Date: 2014.03.18 @ 09:50:23

End Date: 2014.03.18 @ 18:12:08

Job Ticket #: 56415 DST #: 1

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

Printed: 2014.03.25 @ 16:31:19



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Rocky Milford

23-2s-36w Rawlins,KS

Frisbie #3-23

Job Ticket: 56415

DST#: 1

Test Start: 2014.03.18 @ 09:50:23

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:41:08

Time Test Ended: 18:12:08

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 65

Interval: **4010.00 ft (KB) To 4050.00 ft (KB) (TVD)**

Reference Elevations: 3314.00 ft (KB)

Total Depth: 4050.00 ft (KB) (TVD)

3309.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8846

Inside

Press@RunDepth: 105.24 psig @ 4012.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.18

End Date:

2014.03.18

Last Calib.:

2014.03.18

Start Time: 09:50:23

End Time:

18:12:08

Time On Btm:

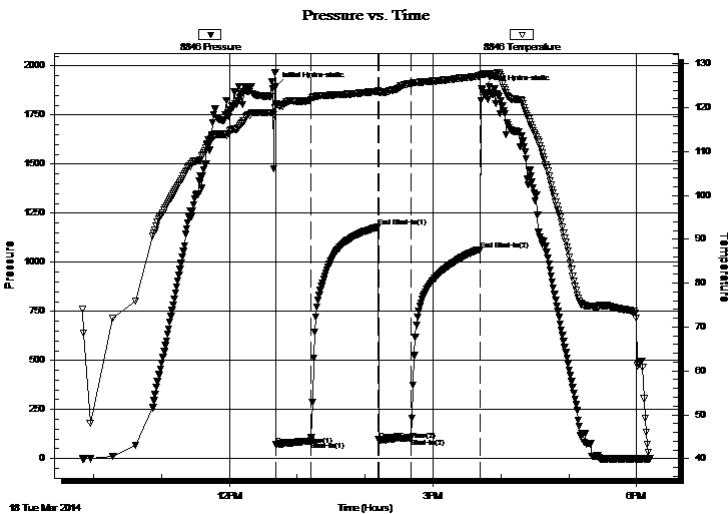
2014.03.18 @ 12:40:53

Time Off Btm:

2014.03.18 @ 15:42:53

TEST COMMENT: IF: Built to 2" blow
 IS: No return blow
 FF: Built to 1/4" blow
 FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.55	120.97	Initial Hydro-static
1	70.45	120.67	Open To Flow (1)
32	90.42	121.85	Shut-In(1)
91	1179.08	123.76	End Shut-In(1)
91	96.12	123.51	Open To Flow (2)
120	105.24	125.46	Shut-In(2)
181	1064.10	127.18	End Shut-In(2)
182	1882.29	127.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	ocm 10%o 90%m	0.30
124.00	mco 40%m 60%o	0.61

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56415

DST#: 1

ATTN: Rocky Milford

Test Start: 2014.03.18 @ 09:50:23

Tool Information

Drill Pipe:	Length: 3819.00 ft	Diameter: 3.80 inches	Volume: 53.57 bbl	Tool Weight: 1500.00 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: 80000.00 lb
			<u>Total Volume: 54.48 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4010.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3987.00	
Shut In Tool	5.00			3992.00	
Hydraulic tool	5.00			3997.00	
Jars	5.00			4002.00	
Safety Joint	3.00			4005.00	
Packer	5.00			4010.00	24.00 Bottom Of Top Packer
Packer - Shale	0.00			4010.00	
Stubb	1.00			4011.00	
Perforations	1.00			4012.00	
Recorder	0.00	8846	Inside	4012.00	
Recorder	0.00	8737	Outside	4012.00	
Change Over Sub	1.00			4013.00	
Blank Spacing	31.00			4044.00	
Change Over Sub	1.00			4045.00	
Bullnose	5.00			4050.00	40.00 Anchor Tool

Total Tool Length: 64.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56415

DST#: 1

ATTN: Rocky Milford

Test Start: 2014.03.18 @ 09:50:23

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbf

Water Loss: 0.00 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 0.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
62.00	ocm 10%o 90%m	0.305
124.00	mco 40%m 60%o	0.610

Total Length: 186.00 ft

Total Volume: 0.915 bbf

Num Fluid Samples: 0

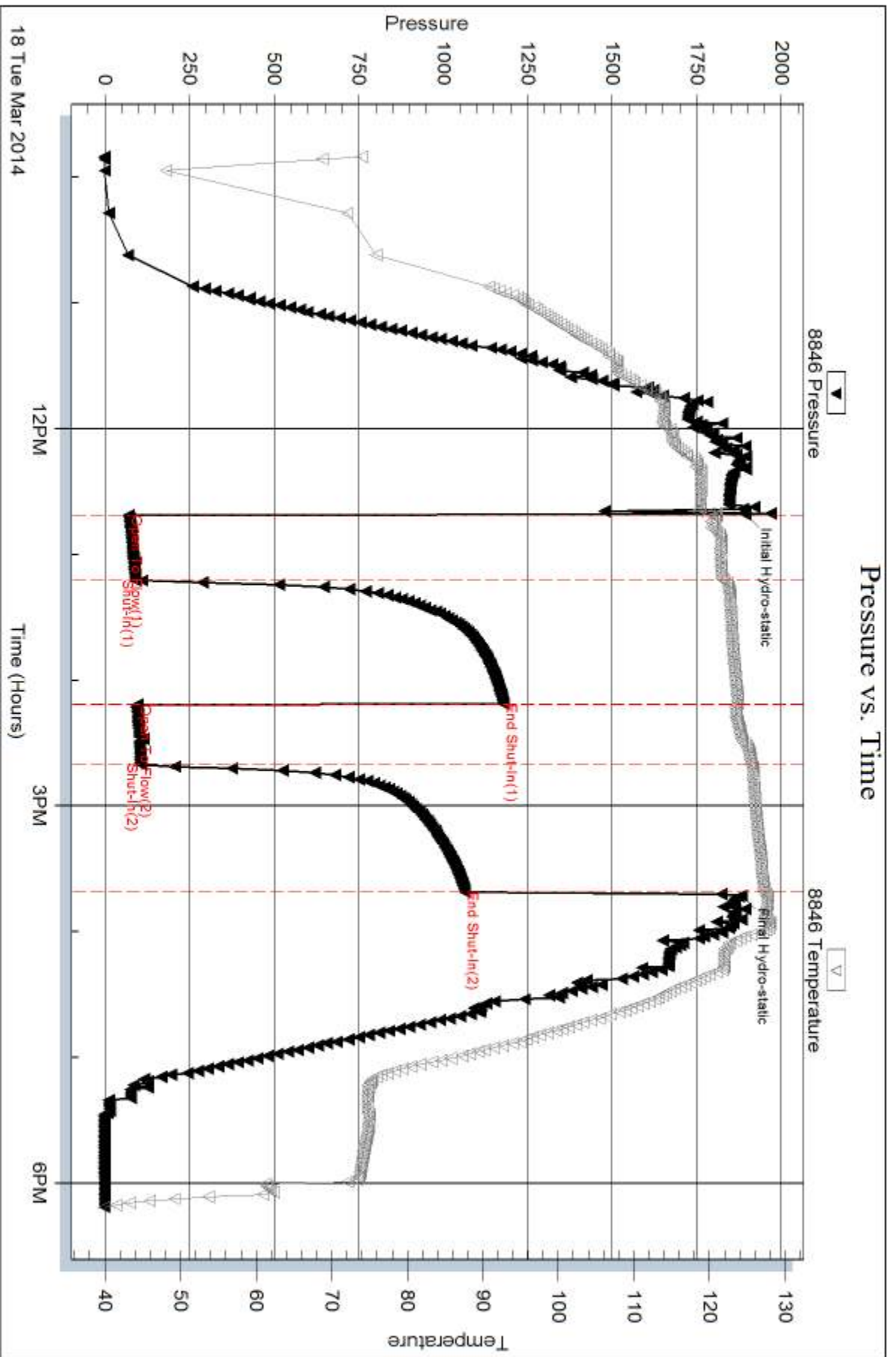
Num Gas Bombs: 0

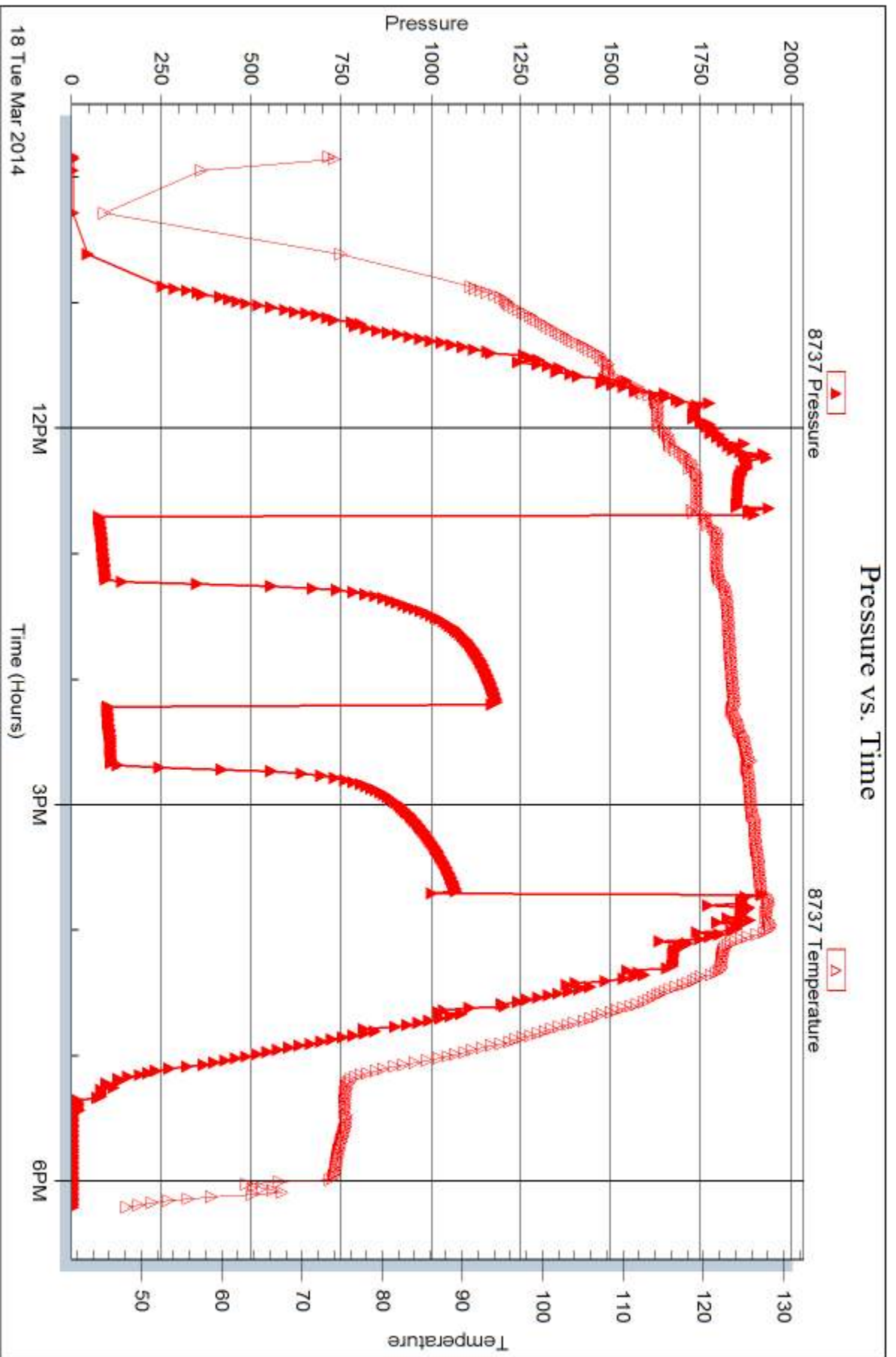
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbie #3-23

23-2s-36w Rawlins,KS

Start Date: 2014.03.19 @ 06:17:15

End Date: 2014.03.19 @ 15:37:45

Job Ticket #: 56416 DST #: 2

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

Printed: 2014.03.25 @ 16:30:53



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Rocky Milford

23-2s-36w Rawlins,KS

Frisbie #3-23

Job Ticket: 56416

DST#: 2

Test Start: 2014.03.19 @ 06:17:15

GENERAL INFORMATION:

Formation: **Oread**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:31:30
 Time Test Ended: 15:37:45
 Interval: **4094.00 ft (KB) To 4164.00 ft (KB) (TVD)**
 Total Depth: 4164.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 65
 Reference Elevations: 3314.00 ft (KB)
 3309.00 ft (CF)
 KB to GR/CF: 5.00 ft

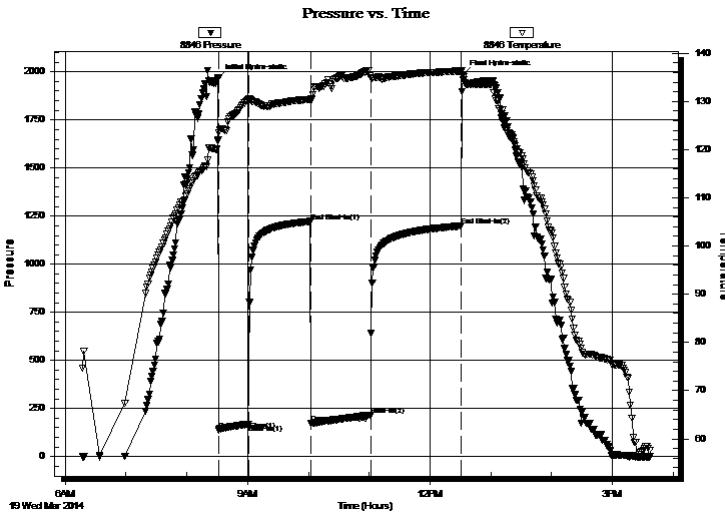
Serial #: 8846

Inside

Press@RunDepth: 216.31 psig @ 4096.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.19 End Date: 2014.03.19 Last Calib.: 2014.03.19
 Start Time: 06:17:15 End Time: 15:37:45 Time On Btm: 2014.03.19 @ 08:31:00
 Time Off Btm: 2014.03.19 @ 12:32:30

TEST COMMENT: IF:Built to 5" blow(Diesel)
 IS:No return blow
 FF:Built to 8" blow ...(Diesel)
 FS:No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1966.12	121.92	Initial Hydro-static
1	137.78	121.98	Open To Flow (1)
30	169.56	130.35	Shut-In(1)
91	1222.09	130.40	End Shut-In(1)
92	172.86	130.17	Open To Flow (2)
151	216.31	134.87	Shut-In(2)
240	1199.49	136.33	End Shut-In(2)
242	1986.36	135.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
392.00	mud 100% m w ith oil spots in tool	3.80

* 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.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56416

DST#: 2

ATTN: Rocky Milford

Test Start: 2014.03.19 @ 06:17:15

Tool Information

Drill Pipe:	Length: 3914.00 ft	Diameter: 3.80 inches	Volume: 54.90 bbl	Tool Weight:	1500.00 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:	90000.00 lb
			<u>Total Volume: 55.81 bbl</u>	Tool Chased	20.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial	64000.00 lb
Depth to Top Packer:	4094.00 ft			Final	70000.00 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 10 feet took on weight opened tool , bled off tool and then slid another 10 feet and opened again

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4067.00	
Shut In Tool	5.00			4072.00	
Hydraulic tool	5.00			4077.00	
Jars	5.00			4082.00	
Safety Joint	3.00			4085.00	
Packer	5.00			4090.00	28.00 Bottom Of Top Packer
Packer	4.00			4094.00	
Stubb	1.00			4095.00	
Perforations	1.00			4096.00	
Recorder	0.00	8846	Inside	4096.00	
Recorder	0.00	8737	Outside	4096.00	
Change Over Sub	1.00			4097.00	
Blank Spacing	31.00			4128.00	
Change Over Sub	1.00			4129.00	
Perforations	30.00			4159.00	
Bullnose	5.00			4164.00	70.00 Bottom Packers & Anchor
Total Tool Length:	98.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56416

DST#: 2

ATTN: Rocky Milford

Test Start: 2014.03.19 @ 06:17:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.36 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
392.00	mud 100% m with oil spots in tool	3.804

Total Length: 392.00 ft Total Volume: 3.804 bbl

Num Fluid Samples: 0

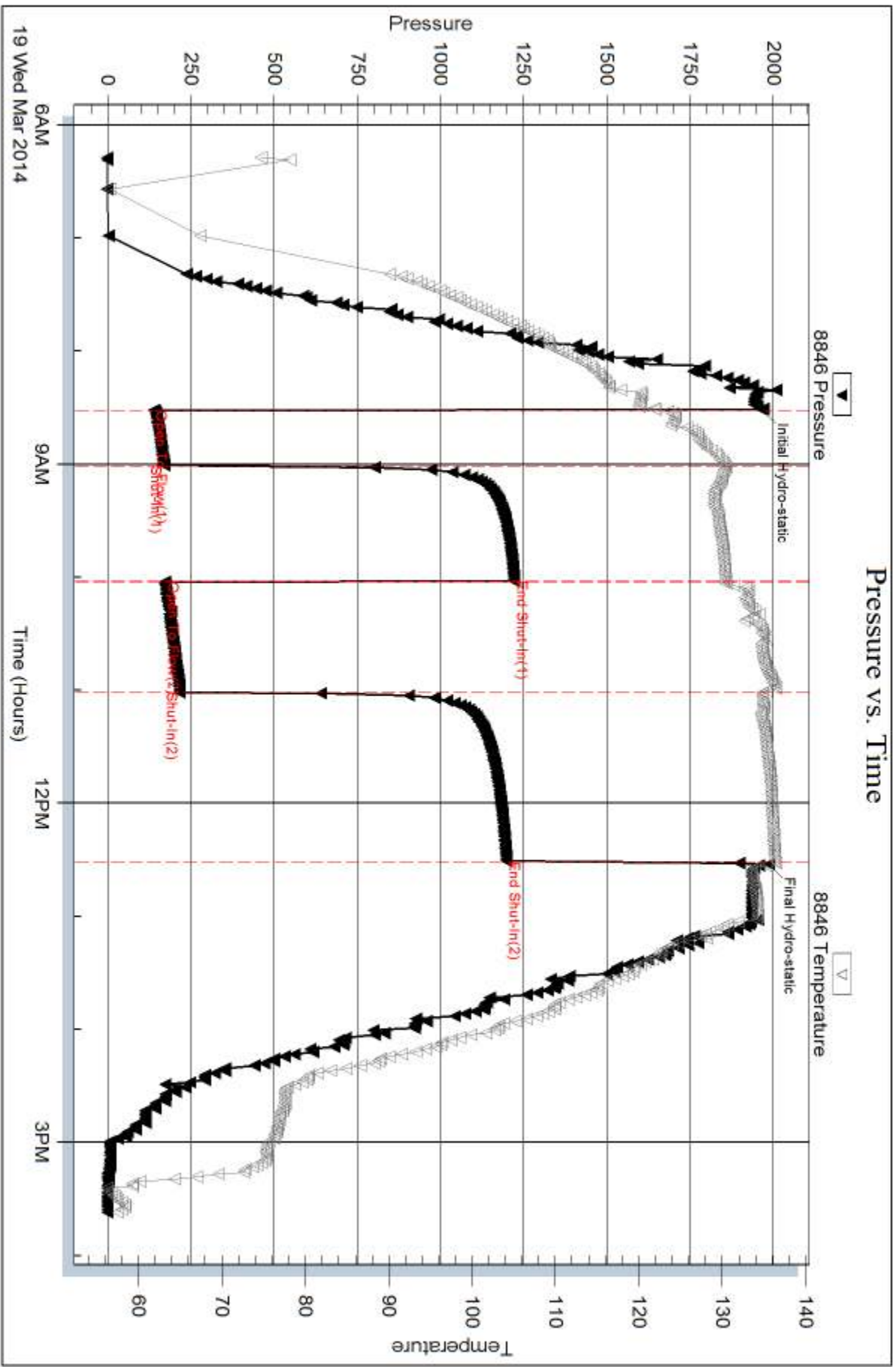
Num Gas Bombs: 0

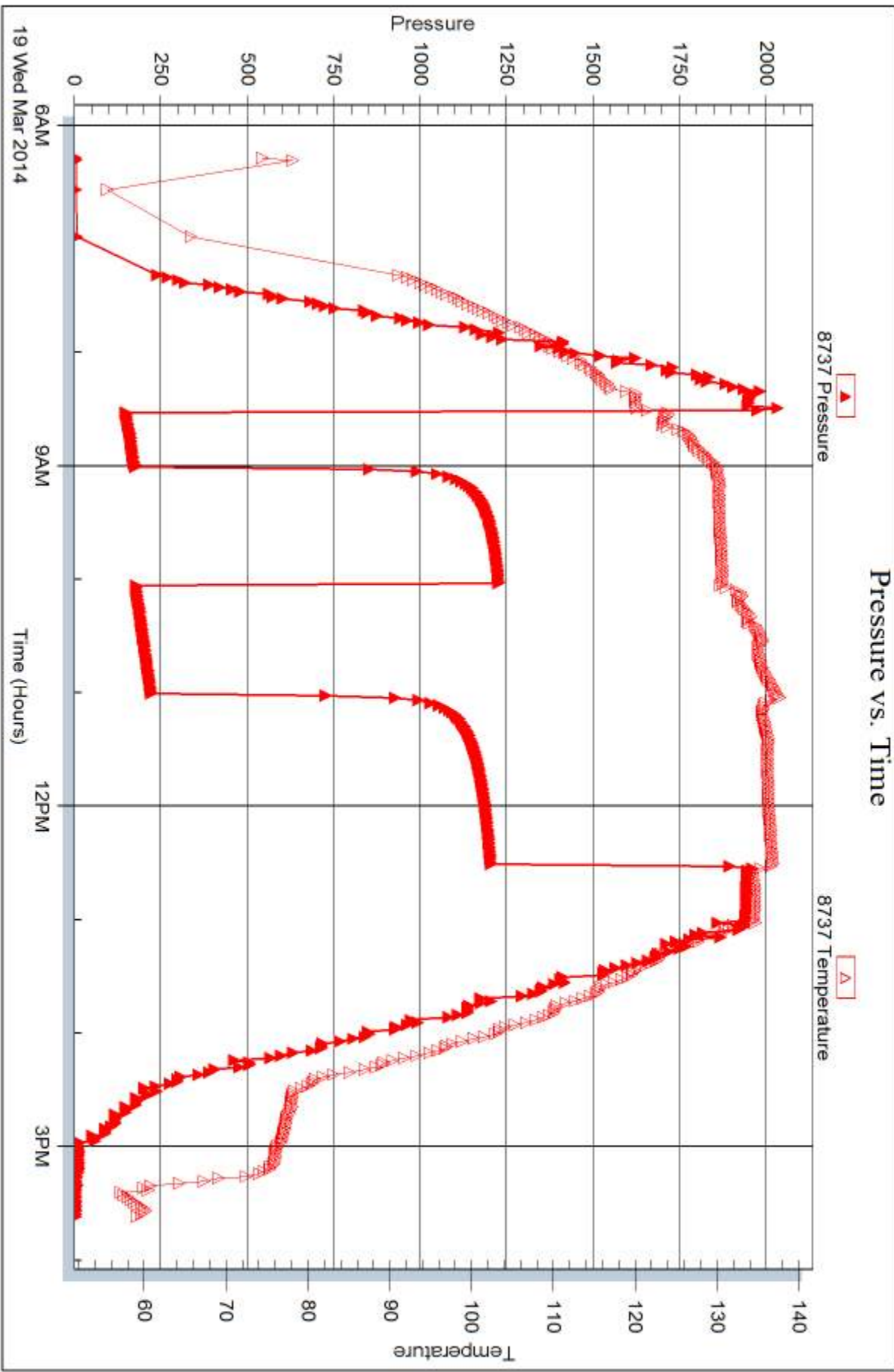
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbie #3-23

23-2s-36w Rawlins,KS

Start Date: 2014.03.20 @ 04:30:15

End Date: 2014.03.20 @ 13:27:15

Job Ticket #: 56417 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.03.25 @ 16:30:31



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Rocky Milford

23-2s-36w Rawlins,KS

Frisbie #3-23

Job Ticket: 56417

DST#: 3

Test Start: 2014.03.20 @ 04:30:15

GENERAL INFORMATION:

Formation: **Oread LKC "A"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:14:45
 Time Test Ended: 13:27:15
 Interval: **4093.00 ft (KB) To 4257.00 ft (KB) (TVD)**
 Total Depth: 4257.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 65
 Reference Elevations: 3314.00 ft (KB)
 3309.00 ft (CF)
 KB to GR/CF: 5.00 ft

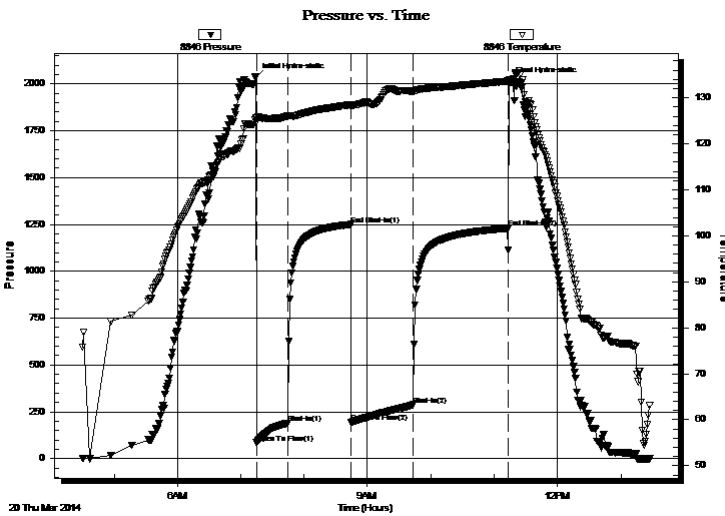
Serial #: 8846

Inside

Press@RunDepth: 286.34 psig @ 4095.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.20 End Date: 2014.03.20 Last Calib.: 2014.03.20
 Start Time: 04:30:15 End Time: 13:27:15 Time On Btm: 2014.03.20 @ 07:14:30
 Time Off Btm: 2014.03.20 @ 11:13:45

TEST COMMENT: IF:BOB in 22 min
 IS:No return blow
 FF:BOB in 32 min.
 FS:No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2036.08	125.67	Initial Hydro-static
1	84.03	124.82	Open To Flow (1)
30	189.52	126.01	Shut-In(1)
90	1249.99	128.55	End Shut-In(1)
91	192.62	128.12	Open To Flow (2)
149	286.34	131.34	Shut-In(2)
239	1229.57	133.62	End Shut-In(2)
240	2012.23	133.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	w cm 1%w 99%m w ith oil spots (Collars)	0.91
124.00	w cm 1%w 99%m w ith oil spots	1.74
144.00	m 100% mud w ith oil spots	2.02

* 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.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56417

DST#: 3

ATTN: Rocky Milford

Test Start: 2014.03.20 @ 04:30:15

Tool Information

Drill Pipe:	Length: 3910.00 ft	Diameter: 3.80 inches	Volume: 54.85 bbl	Tool Weight:	1500.00 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:	80000.00 lb
			<u>Total Volume: 55.76 bbl</u>	Tool Chased	5.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	63000.00 lb
Depth to Top Packer:	4093.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	164.00 ft				
Tool Length:	192.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments: tool slid 5 feet

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4066.00	
Shut In Tool	5.00			4071.00	
Hydraulic tool	5.00			4076.00	
Jars	5.00			4081.00	
Safety Joint	3.00			4084.00	
Packer	5.00			4089.00	28.00 Bottom Of Top Packer
Packer	4.00			4093.00	
Stubb	1.00			4094.00	
Perforations	1.00			4095.00	
Recorder	0.00	8846	Inside	4095.00	
Recorder	0.00	8737	Outside	4095.00	
Change Over Sub	1.00			4096.00	
Blank Spacing	127.00			4223.00	
Change Over Sub	1.00			4224.00	
Perforations	28.00			4252.00	
Bullnose	5.00			4257.00	164.00 Bottom Packers & Anchor
Total Tool Length:	192.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.
250 N Water STE 300
Wichita KS 67202
ATTN: Rocky Milford

23-2s-36w Rawlins,KS
Frisbie #3-23
Job Ticket: 56417 **DST#: 3**
Test Start: 2014.03.20 @ 04:30:15

Mud and Cushion Information

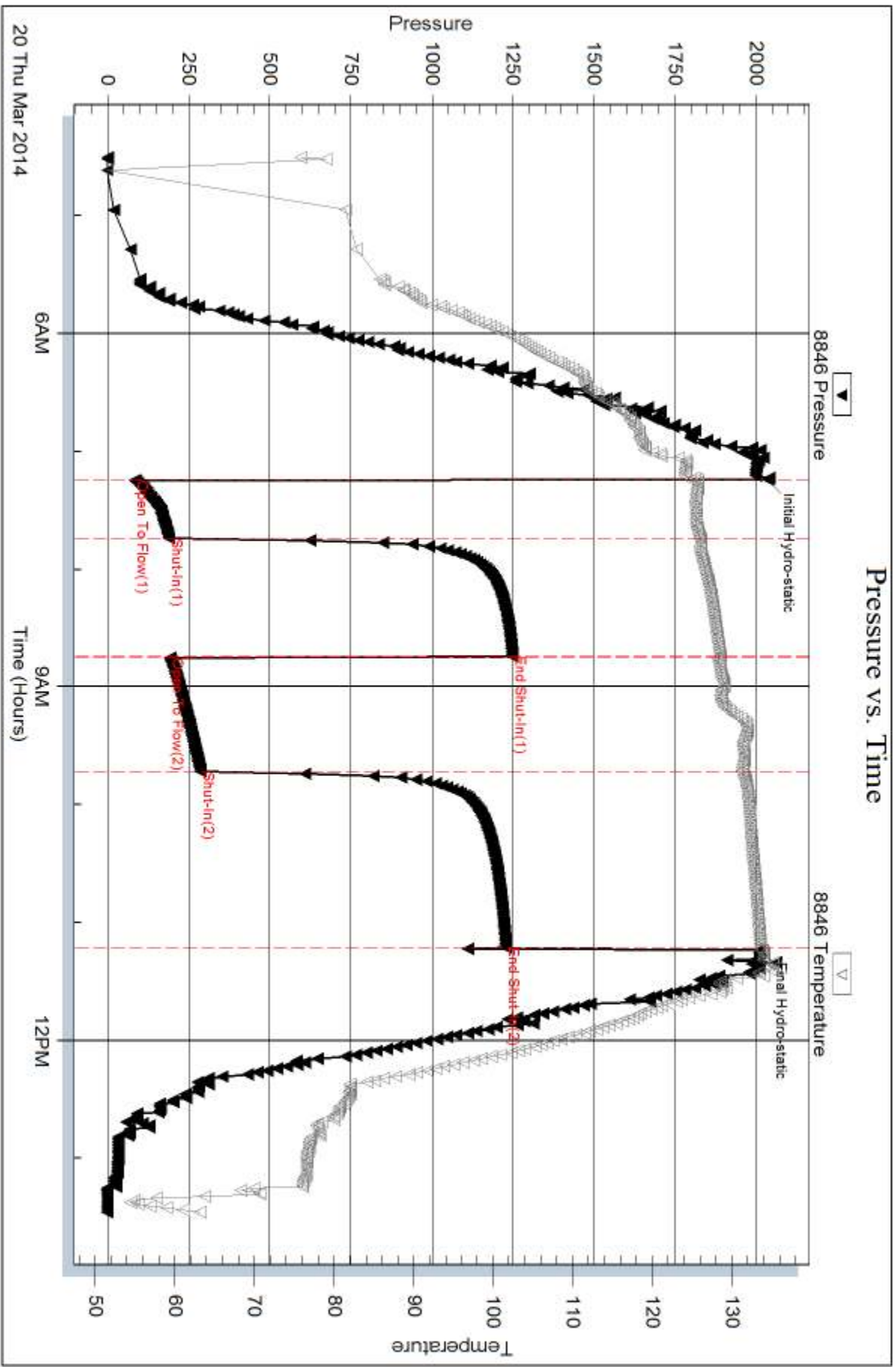
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.37 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 700.00 ppm			
Filter Cake: 2.00 inches			

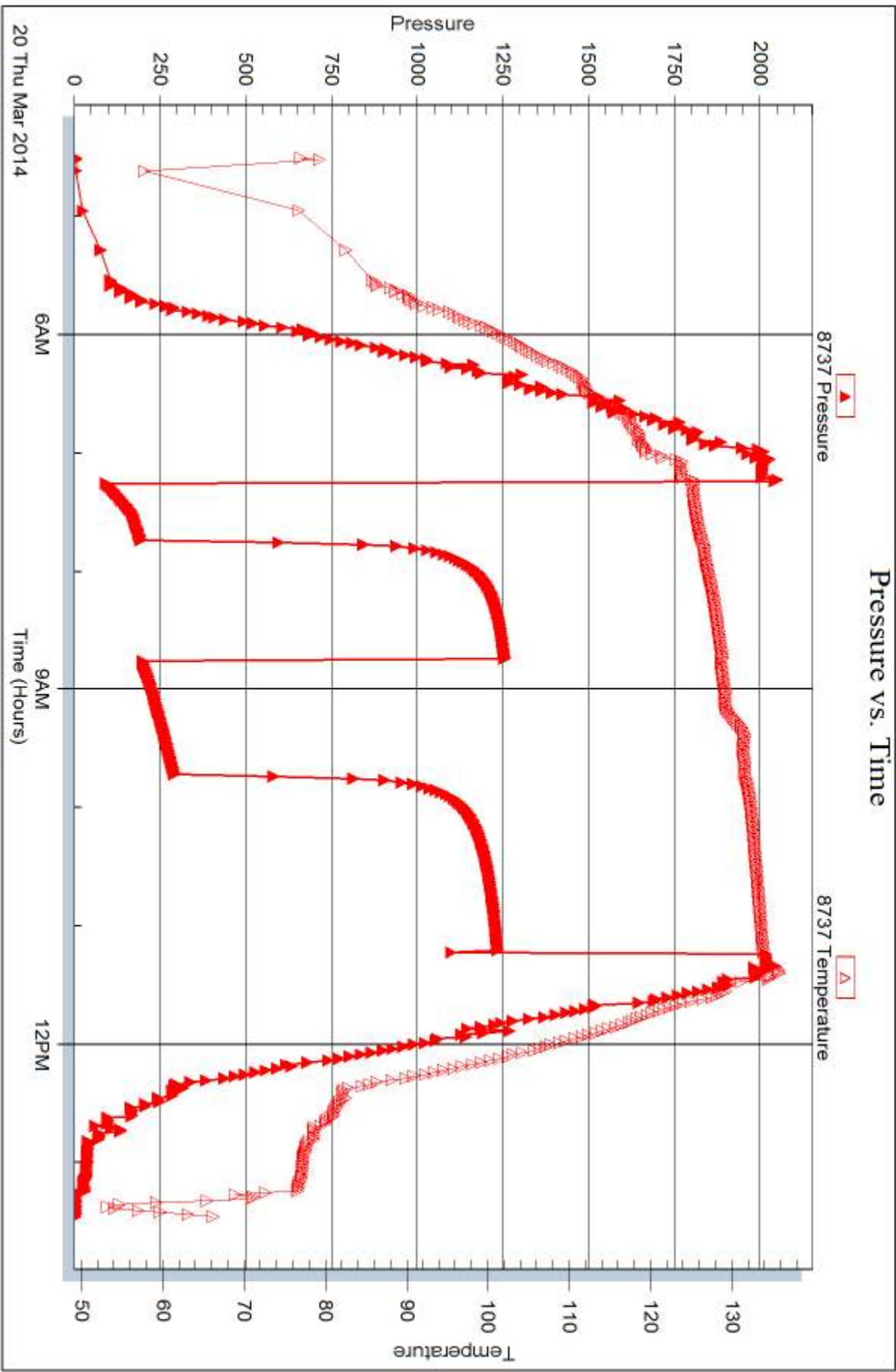
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	w cm 1%w 99%m w ith oil spots (Collars)	0.915
124.00	w cm 1%w 99%m w ith oil spots	1.739
144.00	m 100% mud w ith oil spots	2.020

Total Length: 454.00 ft Total Volume: 4.674 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbie #3-23

23-2s-36w Rawlins,KS

Start Date: 2014.03.20 @ 21:56:00

End Date: 2014.03.21 @ 07:14:15

Job Ticket #: 56917 DST #: 4

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

Printed: 2014.03.25 @ 16:28:36



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56917

DST#: 4

ATTN: Rocky Milford

Test Start: 2014.03.20 @ 21:56:00

GENERAL INFORMATION:

Formation: **LKC 'A' sd - 'D'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:30:30

Time Test Ended: 07:14:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 4255.00 ft (KB) To 4313.00 ft (KB) (TVD)

Reference Elevations: 3314.00 ft (KB)

Total Depth: 4313.00 ft (KB) (TVD)

3309.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8368

Inside

Press@RunDepth: 49.38 psig @ 4256.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.20

End Date:

2014.03.21

Last Calib.: 2014.03.21

Start Time: 21:56:05

End Time:

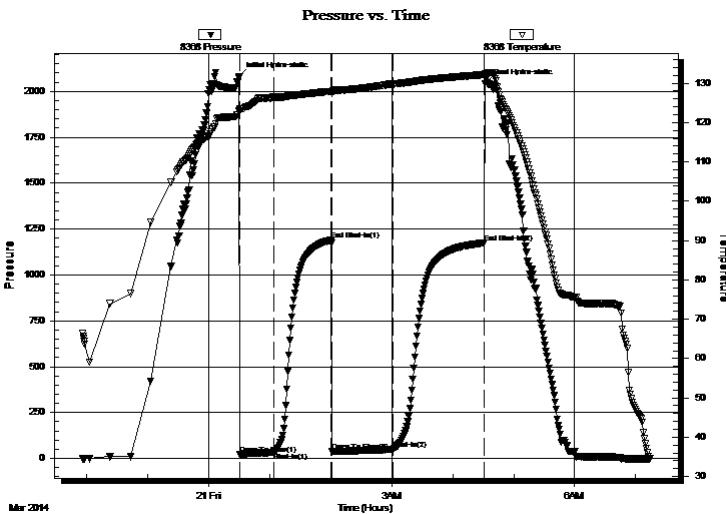
07:14:15

Time On Btm: 2014.03.21 @ 00:30:00

Time Off Btm: 2014.03.21 @ 04:31:45

TEST COMMENT: 30 - IF - Surface blow built to 1"
60 - ISI - No Return
60 - FF - Weak surface started in 13 min. built up to 1/4"
90 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2082.48	123.09	Initial Hydro-static
1	22.01	122.94	Open To Flow (1)
35	32.91	126.42	Shut-In(1)
91	1189.05	127.94	End Shut-In(1)
91	36.34	127.49	Open To Flow (2)
152	49.38	129.74	Shut-In(2)
241	1175.82	132.16	End Shut-In(2)
242	2044.41	132.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
64.00	OCM - 65M - 35o	0.31

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56917

DST#: 4

ATTN: Rocky Milford

Test Start: 2014.03.20 @ 21:56:00

Tool Information

Drill Pipe:	Length: 4071.00 ft	Diameter: 3.80 inches	Volume: 57.11 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: 72000.00 lb
			<u>Total Volume: 58.02 bbl</u>	Tool Chased 7.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4255.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	85.00 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			4233.00	
Hydraulic tool	5.00			4238.00	
Jars	5.00			4243.00	
Safety Joint	3.00			4246.00	
Packer	4.00			4250.00	27.00 Bottom Of Top Packer
Packer	5.00			4255.00	
Stubb	1.00			4256.00	
Recorder	0.00	6741	Inside	4256.00	
Recorder	0.00	8368	Inside	4256.00	
Perforations	20.00			4276.00	
Change Over Sub	1.00			4277.00	
Drill Pipe	31.00			4308.00	
Change Over Sub	1.00			4309.00	
Bullnose	4.00			4313.00	58.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56917

DST#: 4

ATTN: Rocky Milford

Test Start: 2014.03.20 @ 21:56:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
64.00	OCM - 65M - 35o	0.315

Total Length: 64.00 ft Total Volume: 0.315 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbie #3-23

23-2s-36w Rawlins,KS

Start Date: 2014.03.21 @ 17:00:00

End Date: 2014.03.22 @ 01:22:45

Job Ticket #: 56918 DST #: 5

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

Printed: 2014.03.25 @ 16:28:03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
250 N Water STE 300
Wichita KS 67202
ATTN: Rocky Milford

23-2s-36w Rawlins,KS

Frisbie #3-23

Job Ticket: 56918

DST#: 5

Test Start: 2014.03.21 @ 17:00:00

GENERAL INFORMATION:

Formation: **D' - G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:02:30
 Time Test Ended: 01:22:45
 Interval: **4305.00 ft (KB) To 4373.00 ft (KB) (TVD)**
 Total Depth: 4373.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Royal Fisher
 Unit No: #54
 Reference Elevations: 3314.00 ft (KB)
 3309.00 ft (CF)
 KB to GR/CF: 5.00 ft

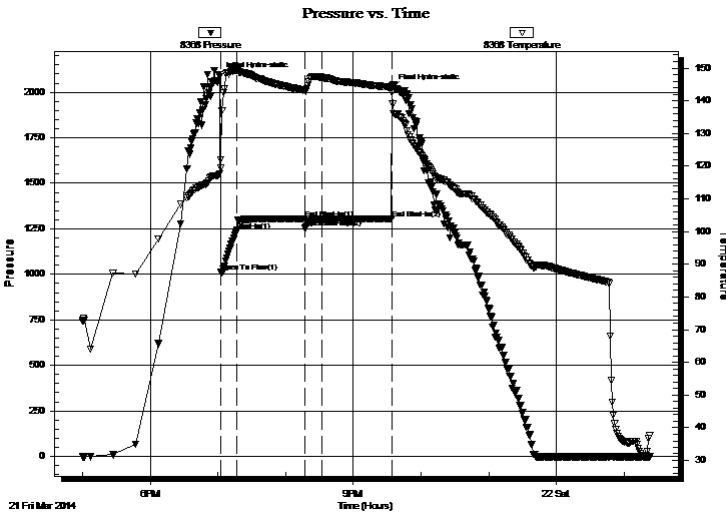
Serial #: 8368

Inside

Press@RunDepth: 1303.70 psig @ 4306.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.21 End Date: 2014.03.22 Last Calib.: 2014.03.21
 Start Time: 17:00:05 End Time: 01:22:44 Time On Btm: 2014.03.21 @ 19:01:45
 Time Off Btm: 2014.03.21 @ 21:34:15

TEST COMMENT: 15 - IF - Surface blow built to bottom of bucket in 1 min.
 60 - ISI - No Return
 15 - FF - Surface blow built to bottom of bucket in 1 min.
 60 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2085.16	117.77	Initial Hydro-static
1	1014.44	119.33	Open To Flow (1)
16	1241.12	149.28	Shut-In(1)
75	1304.10	143.26	End Shut-In(1)
76	1253.91	143.09	Open To Flow (2)
91	1303.70	147.02	Shut-In(2)
153	1304.10	144.09	End Shut-In(2)
153	2020.90	142.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2394.00	MW - 15M - 85W	31.89
481.00	WM - 60M - 40W	6.75

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56918

DST#: 5

ATTN: Rocky Milford

Test Start: 2014.03.21 @ 17:00:00

Tool Information

Drill Pipe:	Length: 4103.00 ft	Diameter: 3.80 inches	Volume: 57.55 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: 86000.00 lb
			<u>Total Volume: 58.46 bbl</u>	Tool Chased 4.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4305.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	95.00 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			4283.00	
Hydraulic tool	5.00			4288.00	
Jars	5.00			4293.00	
Safety Joint	3.00			4296.00	
Packer	4.00			4300.00	27.00 Bottom Of Top Packer
Packer	5.00			4305.00	
Stubb	1.00			4306.00	
Recorder	0.00	6741	Inside	4306.00	
Recorder	0.00	8368	Inside	4306.00	
Perforations	30.00			4336.00	
Change Over Sub	1.00			4337.00	
Drill Pipe	31.00			4368.00	
Change Over Sub	1.00			4369.00	
Bullnose	4.00			4373.00	68.00 Bottom Packers & Anchor

Total Tool Length: 95.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56918

DST#: 5

ATTN: Rocky Milford

Test Start: 2014.03.21 @ 17:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2394.00	MW - 15M - 85W	31.887
481.00	WM - 60M - 40W	6.747

Total Length: 2875.00 ft Total Volume: 38.634 bbl

Num Fluid Samples: 0

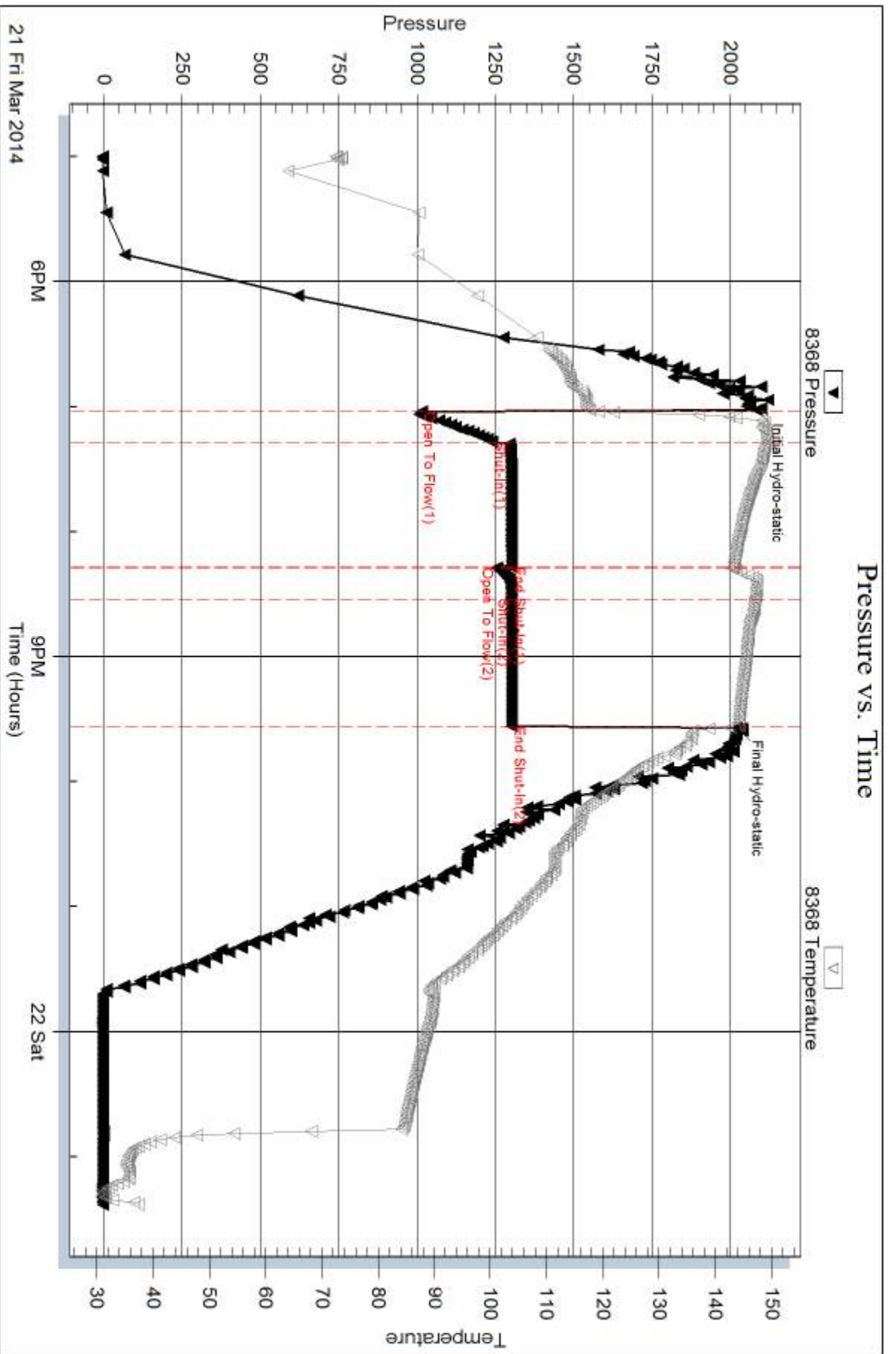
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



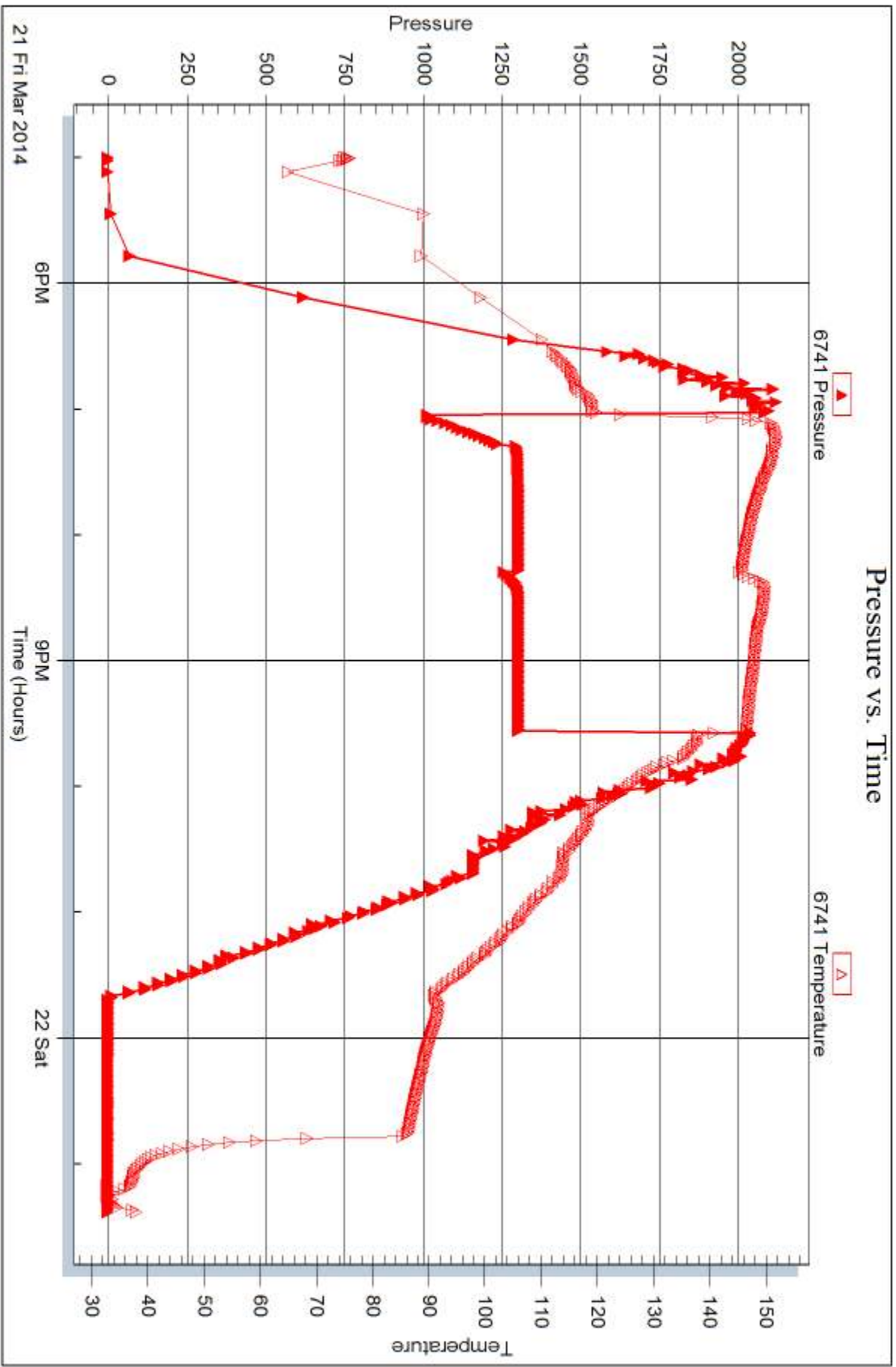
Serial #: 6741

Inside

Murfin Drilling Co. Inc.

Frisbie #3-23

DST Test Number: 5



Tribble Testing, Inc

Ref. No: 56918

Printed: 2014.03.25 @ 16:28:06



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbie #3-23

23-2s-36w Rawlins,KS

Start Date: 2014.03.22 @ 16:44:00

End Date: 2014.03.23 @ 02:20:45

Job Ticket #: 56919 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.03.25 @ 16:27:33



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Rocky Milford

23-2s-36w Rawlins,KS

Frisbie #3-23

Job Ticket: 56919

DST#: 6

Test Start: 2014.03.22 @ 16:44:00

GENERAL INFORMATION:

Formation: **LKC G' - K**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 19:33:15 Tester: Royal Fisher
 Time Test Ended: 02:20:45 Unit No: #54
 Interval: **4373.00 ft (KB) To 4490.00 ft (KB) (TVD)** Reference Elevations: 3314.00 ft (KB)
 Total Depth: 4490.00 ft (KB) (TVD) 3309.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

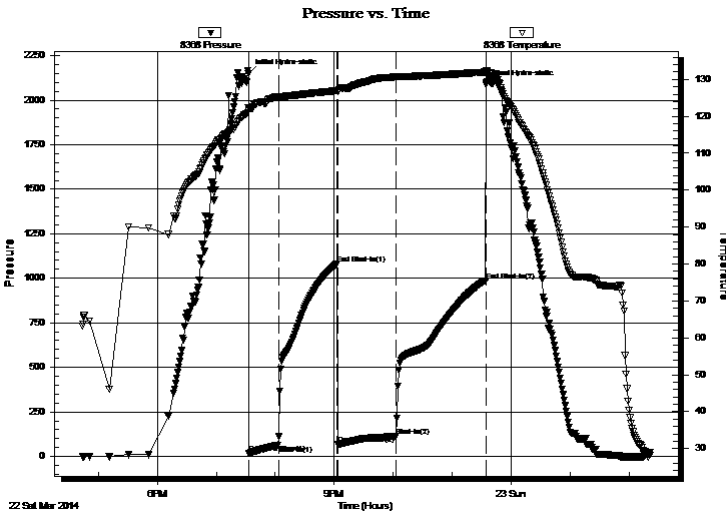
Serial #: 8368

Inside

Press@RunDepth: 113.54 psig @ 4374.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.22 End Date: 2014.03.23 Last Calib.: 2014.03.23
 Start Time: 16:44:05 End Time: 02:20:45 Time On Btm: 2014.03.22 @ 19:33:00
 Time Off Btm: 2014.03.22 @ 23:34:30

TEST COMMENT: 30 - IF - Surface blow built to 3 1/4"
 60 - ISI - No Return
 60 - FF - Surface blow started 5 min. in and built to 3 1/4"
 90 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2150.45	122.35	Initial Hydro-static
1	18.54	121.60	Open To Flow (1)
31	63.54	125.45	Shut-In(1)
90	1082.77	126.96	End Shut-In(1)
91	67.83	126.64	Open To Flow (2)
150	113.54	130.75	Shut-In(2)
241	987.11	131.98	End Shut-In(2)
242	2089.18	132.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
219.00	OSWM - 90M - 10W - Oil Spots	1.38

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56919

DST#: 6

ATTN: Rocky Milford

Test Start: 2014.03.22 @ 16:44:00

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: 70000.00 lb
			<u>Total Volume: 59.35 bbl</u>	Tool Chased 4.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4373.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	117.00 ft			
Tool Length:	144.00 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			4351.00	
Hydraulic tool	5.00			4356.00	
Jars	5.00			4361.00	
Safety Joint	3.00			4364.00	
Packer	4.00			4368.00	27.00 Bottom Of Top Packer
Packer	5.00			4373.00	
Stubb	1.00			4374.00	
Recorder	0.00	6741	Inside	4374.00	
Recorder	0.00	8368	Inside	4374.00	
Perforations	16.00			4390.00	
Change Over Sub	1.00			4391.00	
Drill Pipe	94.00			4485.00	
Change Over Sub	1.00			4486.00	
Bullnose	4.00			4490.00	117.00 Bottom Packers & Anchor

Total Tool Length: 144.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56919

DST#: 6

ATTN: Rocky Milford

Test Start: 2014.03.22 @ 16:44:00

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: 5.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
219.00	OSWM - 90M - 10W - Oil Spots	1.378

Total Length: 219.00 ft Total Volume: 1.378 bbl

Num Fluid Samples: 0

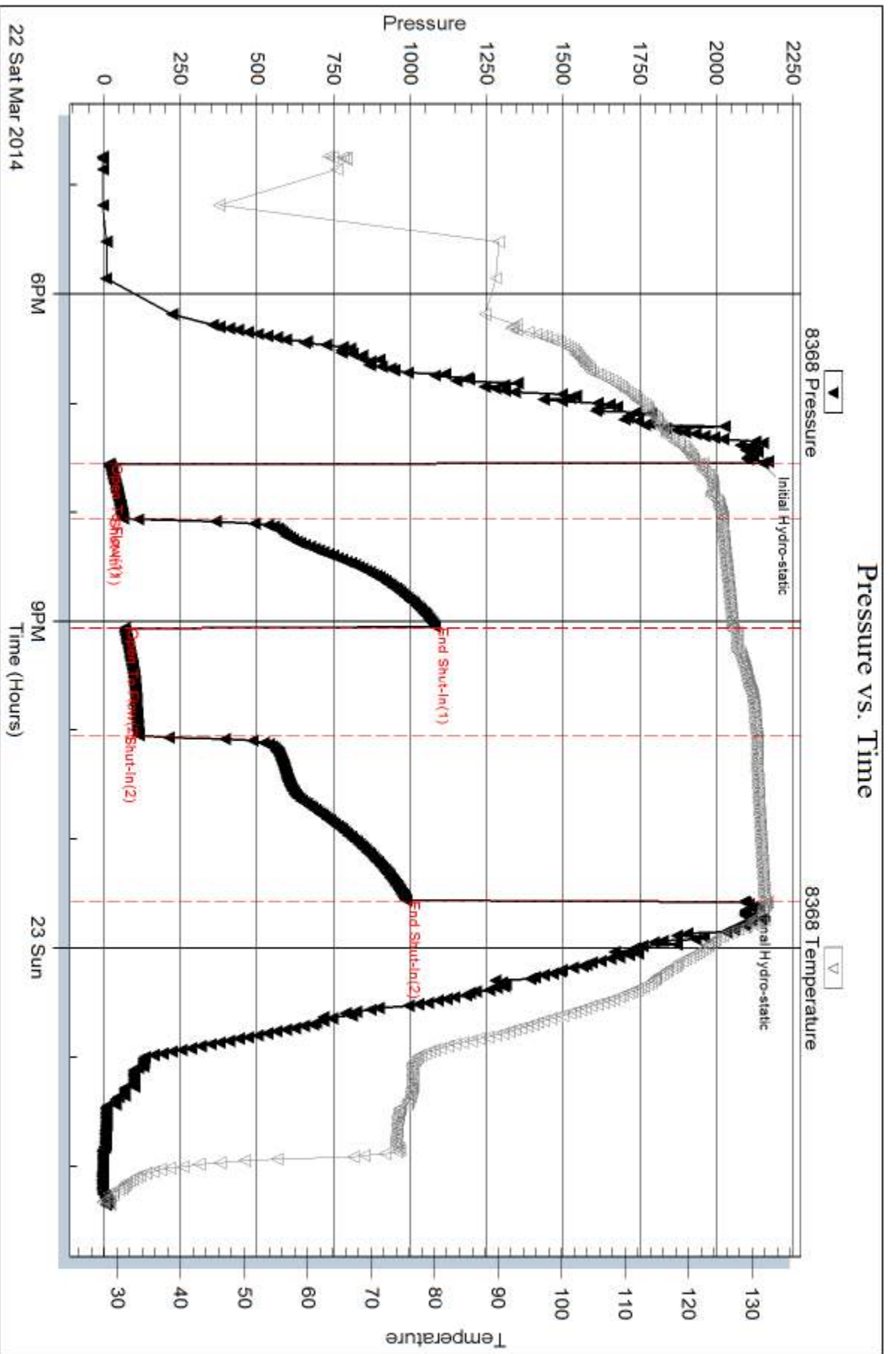
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



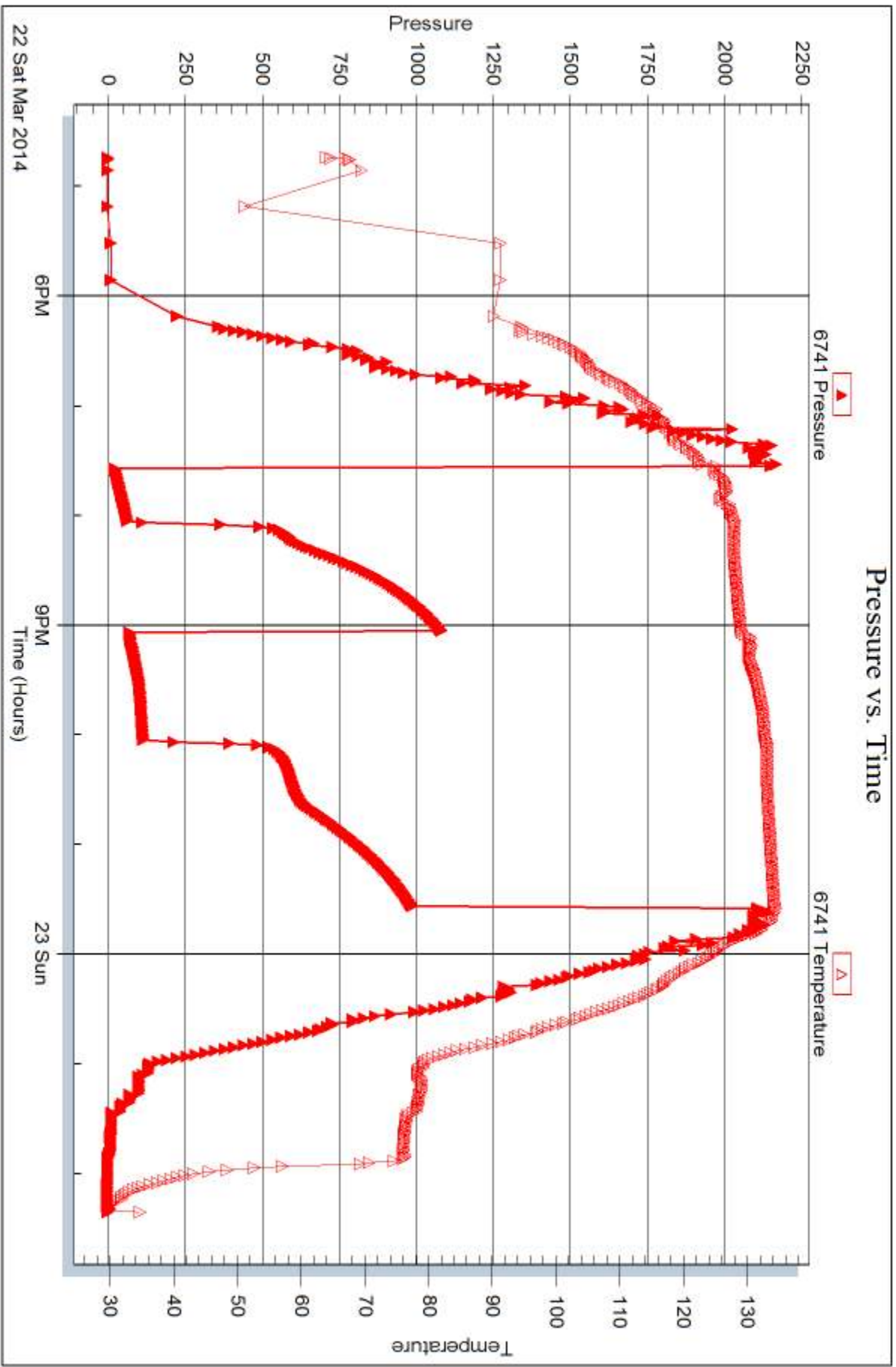
Serial #: 6741

Inside

Murfin Drilling Co. Inc.

Frisbie #3-23

DST Test Number: 6





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita KS 67202

ATTN: Rocky Milford

Frisbie #3-23

23-2s-36w Rawlins,KS

Start Date: 2014.03.24 @ 03:49:00

End Date: 2014.03.24 @ 12:47:00

Job Ticket #: 56920 DST #: 7

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

Printed: 2014.03.25 @ 16:26:55



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co. Inc.
250 N Water STE 300
Wichita KS 67202
ATTN: Rocky Milford

23-2s-36w Rawlins,KS

Frisbie #3-23

Job Ticket: 56920

DST#: 7

Test Start: 2014.03.24 @ 03:49:00

GENERAL INFORMATION:

Formation: **Pawnee - Verdigris**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:21:45

Time Test Ended: 12:47:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: \$54

Interval: 4603.00 ft (KB) To 4744.00 ft (KB) (TVD)

Reference Elevations: 3314.00 ft (KB)

Total Depth: 4744.00 ft (KB) (TVD)

3309.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8368

Inside

Press@RunDepth: 30.22 psig @ 4604.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.24

End Date:

2014.03.24

Last Calib.: 2014.03.24

Start Time: 03:49:05

End Time:

12:47:00

Time On Btm: 2014.03.24 @ 07:21:30

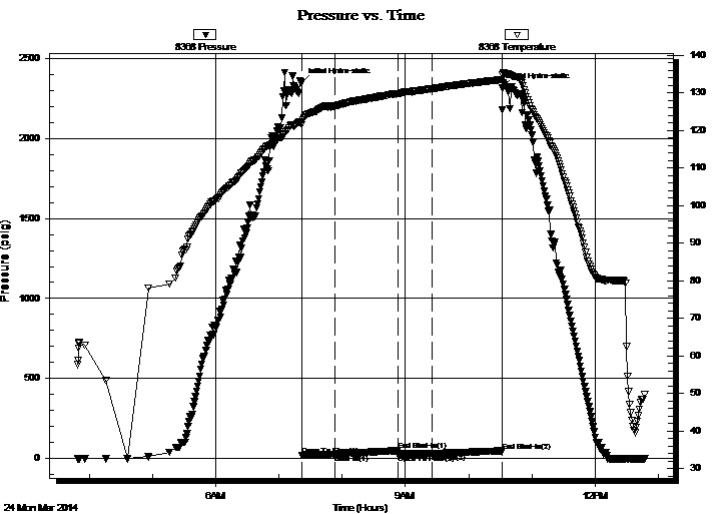
Time Off Btm: 2014.03.24 @ 10:32:00

TEST COMMENT: 30 - IF - Surface blow slowly built to 1"

60 - ISI - No Return

30 - FF - No Surface blow

60 - FSI - No Rrtun



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2349.89	122.25	Initial Hydro-static
1	20.67	121.41	Open To Flow (1)
32	26.23	126.42	Shut-In(1)
92	49.07	129.76	End Shut-In(1)
92	27.34	129.86	Open To Flow (2)
124	30.22	131.08	Shut-In(2)
190	42.60	133.49	End Shut-In(2)
191	2315.74	134.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud - 100M	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56920

DST#: 7

ATTN: Rocky Milford

Test Start: 2014.03.24 @ 03:49:00

Tool Information

Drill Pipe:	Length: 4417.00 ft	Diameter: 3.80 inches	Volume: 61.96 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: 90000.00 lb
			<u>Total Volume: 62.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4603.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	141.00 ft			
Tool Length:	168.00 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			4581.00	
Hydraulic tool	5.00			4586.00	
Jars	5.00			4591.00	
Safety Joint	3.00			4594.00	
Packer	4.00			4598.00	27.00 Bottom Of Top Packer
Packer	5.00			4603.00	
Stubb	1.00			4604.00	
Recorder	0.00	6741	Inside	4604.00	
Recorder	0.00	8368	Inside	4604.00	
Perforations	8.00			4612.00	
Change Over Sub	1.00			4613.00	
Drill Pipe	126.00			4739.00	
Change Over Sub	1.00			4740.00	
Bullnose	4.00			4744.00	141.00 Bottom Packers & Anchor

Total Tool Length: 168.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co. Inc.

23-2s-36w Rawlins,KS

250 N Water STE 300
Wichita KS 67202

Frisbie #3-23

Job Ticket: 56920

DST#: 7

ATTN: Rocky Milford

Test Start: 2014.03.24 @ 03:49:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud - 100M	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl

Num Fluid Samples: 0

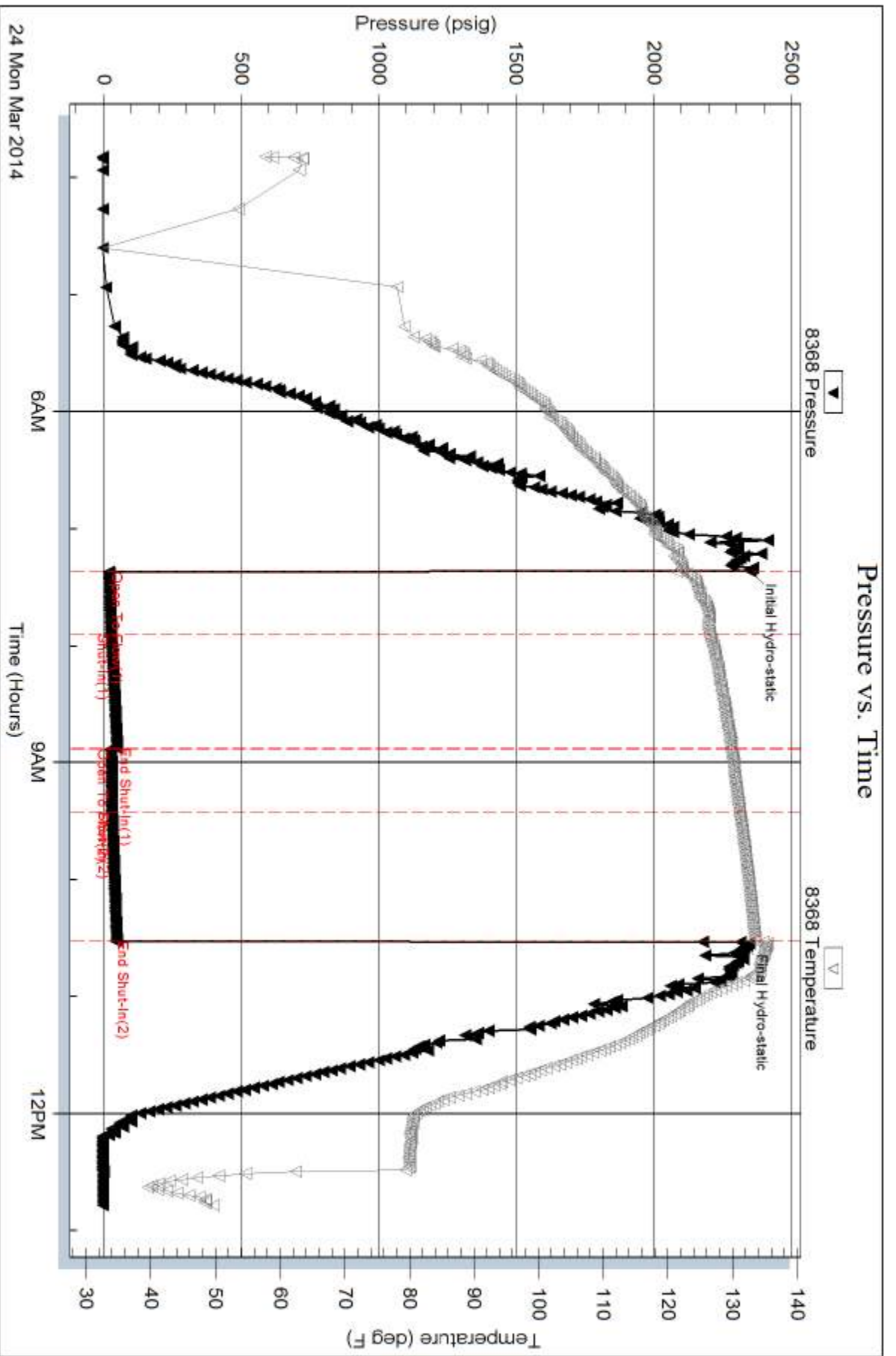
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



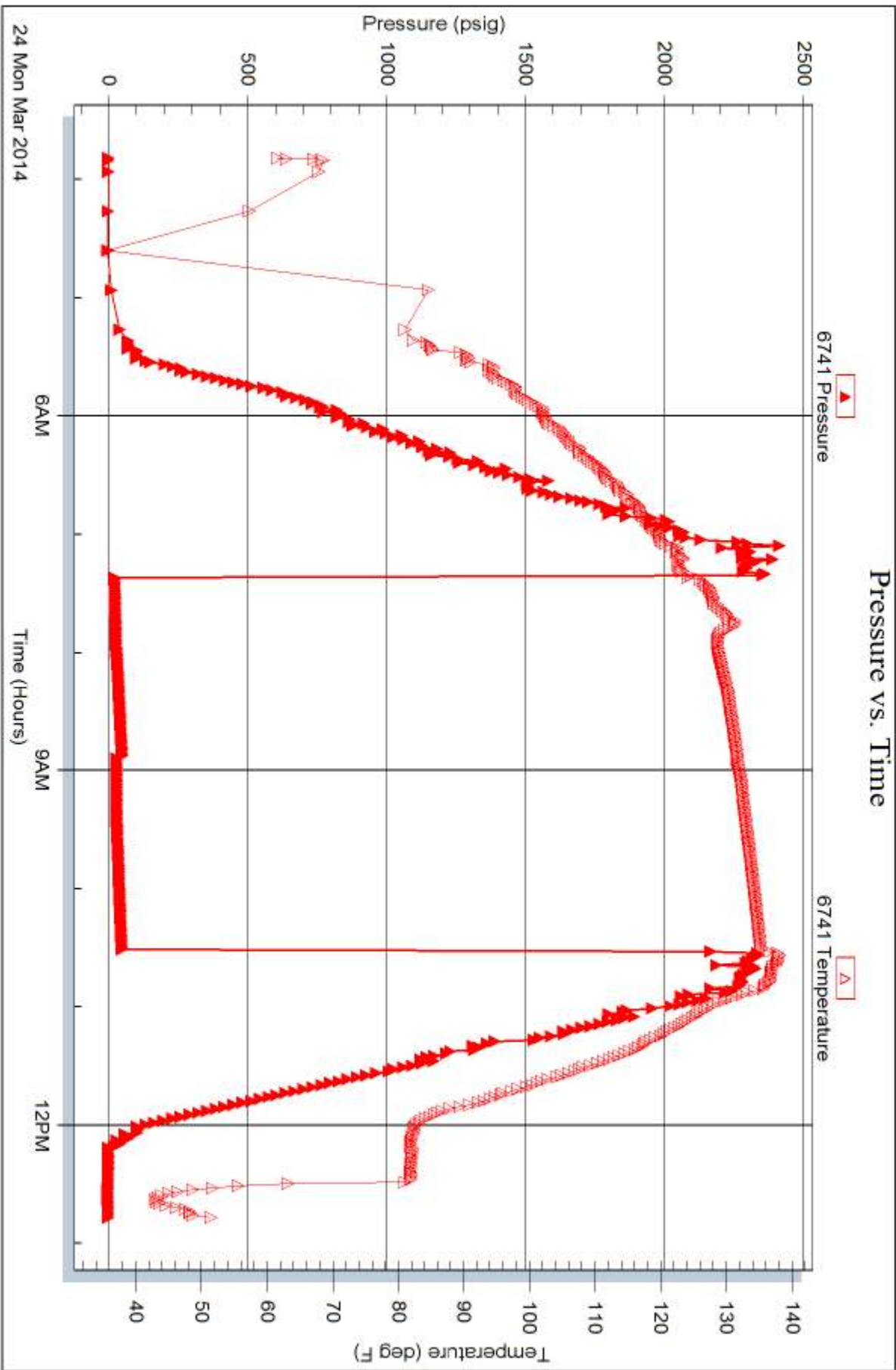
Serial #: 6741

Inside

Murfin Drilling Co. Inc.

Frisbie #3-23

DST Test Number: 7



Trilobite Testing, Inc

Ref. No: 56920

Printed: 2014.03.25 @ 16:26:57



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56415

Well Name & No. Frisbie #3-23 Test No. 1 Date 3-18-14
 Company Murkin Drilling Co Inc. Elevation 3314 KB 3309 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murkin 8
 Location: Sec. 23 Twp. 25 Rge. 36W Co. Rawlins State KS

Interval Tested 4010-4050 Zone Tested Topeka
 Anchor Length 40 Drill Pipe Run 3819 Mud Wt. 8.5
 Top Packer Depth 4005 Drill Collars Run 186 Vis 62
 Bottom Packer Depth 4010 Wt. Pipe Run Ø WL Ø
 Total Depth 4050 Chlorides Ø ppm System LCM Ø
 Blow Description IF: Built to 2" Blow
IS: No Return Blow
FF: Built to 1/4" Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	
<u>62</u>	<u>mco</u>	<u>60</u>		<u>40</u>	

Rec Total 186 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1893</u>	<input checked="" type="checkbox"/> Test <u>1250.00</u>	T-On Location <u>09:30</u>
(B) First Initial Flow <u>70</u>	<input checked="" type="checkbox"/> Jars <u>250.00</u>	T-Started <u>12:41 09:50</u>
(C) First Final Flow <u>90</u>	<input checked="" type="checkbox"/> Safety Joint <u>75.00</u>	T-Open <u>12:41 12:41</u>
(D) Initial Shut-In <u>1179</u>	<input checked="" type="checkbox"/> Circ Sub <u>NL</u>	T-Pulled <u>15:41</u>
(E) Second Initial Flow <u>96</u>	<input type="checkbox"/> Hourly Standby <u>100rt 155</u>	T-Out <u>18:12</u>
(F) Second Final Flow <u>105</u>	<input checked="" type="checkbox"/> Mileage <u>200RT 310.00</u>	Comments _____
(G) Final Shut-In <u>1064</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1882</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250.00</u>	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1980</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility <u>1980</u>	
	Sub Total <u>\$2135.00</u>	

Approved By Rocky Milford Our Representative Mike Roberts

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. **56416**

Well Name & No. Frisbie #3-23 Test No. 2 Date 3-19-14
 Company Murfin Drilling Co Inc. Elevation 5314 KB 3309 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin 8
 Location: Sec. 23 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4094-4164 Zone Tested Oread
 Anchor Length 70' Drill Pipe Run 3914 Mud Wt. 8.9
 Top Packer Depth 4089 Drill Collars Run 186 Vis 57
 Bottom Packer Depth 4094 Wt. Pipe Run 16 WL 6.4
 Total Depth 4164 Chlorides 700 ppm System LCM 4
 Blow Description IF: Built to 5" Blow (Diesel)
IS: No Return Blow
FF: Built to 8" Blow (Diesel)
FS: No Return Blow

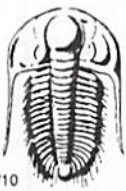
Rec	Feet of	%gas	%oil	%water	%mud
<u>392</u>	<u>MUD - Oil Spots in tool</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 392 BHT 136 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	<u>1966</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>05:00</u>
(B) First Initial Flow	<u>137</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>06:17</u>
(C) First Final Flow	<u>169</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>08:31</u>
(D) Initial Shut-In	<u>1222</u>	<input checked="" type="checkbox"/> Circ Sub	<u>NC</u>	T-Pulled	<u>12:31</u>
(E) Second Initial Flow	<u>172</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>15:37</u>
(F) Second Final Flow	<u>216</u>	<input checked="" type="checkbox"/> Mileage	<u>200 RT 155</u>	Comments	<u>Slid 10' tool on weight slid another 10' tool opened.</u>
(G) Final Shut-In	<u>1199</u>	<input type="checkbox"/> Sampler		<input type="checkbox"/> Ruined Shale Packer	
(H) Final Hydrostatic	<u>1986</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Packer	
Initial Open	<u>30</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Extra Copies	
Initial Shut-In	<u>60</u>	<input type="checkbox"/> Extra Packer		Sub Total	<u>0</u>
Final Flow	<u>60</u>	<input type="checkbox"/> Extra Recorder		Total	<u>1730</u>
Final Shut-In	<u>90</u>	<input type="checkbox"/> Day Standby		MP/DST Disc't	
		<input type="checkbox"/> Accessibility			
		Sub Total	<u>1730</u>		

Approved By Rocky Milford Our Representative Mike Robert

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56417

4/10

Well Name & No. Frisbie #3-23 Test No. 3 Date 3-20-14
 Company Murfin Drilling Co Inc. Elevation 3314 KB 3309 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin B
 Location: Sec. 23 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4093-4257 Zone Tested Dread-LKC A
 Anchor Length 164 Drill Pipe Run 3910 Mud Wt. 9.0
 Top Packer Depth 4086 Drill Collars Run 186 Vis 55
 Bottom Packer Depth 4093 Wt. Pipe Run Ø WL 6.4
 Total Depth 4257 Chlorides 700 ppm System LCM 2
 Blow Description IF: BOB IN 22 Min
IS: NO Return Blow
FF: BOB IN 32 Min
FS: No Return Blow

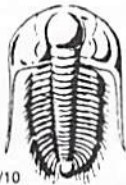
Rec	Feet of	%gas	%oil	%water	%mud
<u>144</u>	<u>MUD with oil spots</u>			<u>100</u>	
<u>124</u>	<u>WCM with oil spots</u>		<u>1</u>	<u>99</u>	
<u>186</u>	<u>WCM with oil spots (collars)</u>		<u>1</u>	<u>99</u>	

Rec Total 454 BHT 132 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2036 Test 1250 T-On Location 02:30
 (B) First Initial Flow 84 Jars 250 T-Started ~~03:30~~ 04:30
 (C) First Final Flow 189 Safety Joint 75 T-Open 06:50
 (D) Initial Shut-In 1249 Circ Sub NC T-Pulled 10:50
 (E) Second Initial Flow 192 Hourly Standby _____ T-Out 13:27
 (F) Second Final Flow 286 Mileage 200 RT 155 Comments _____
 (G) Final Shut-In 1229 Sampler _____
 (H) Final Hydrostatic 2012 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 1730
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1730

Approved By Rocky Milford Our Representative Mike Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56917

4/10

Well Name & No. Frisbie # 3-23 Test No. 4 Date 3-20-14
 Company Murfin Drilling Co., Inc. Elevation 3314 KB 3309 GL
 Address 250 N. Water Ste. 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #8
 Location: Sec. 23 Twp. 2S Rge. 36 W Co. Rawlins State KS

Interval Tested 4255-4313 Zone Tested LKC 'A'sd - D'
 Anchor Length 58' Drill Pipe Run 4071' Mud Wt. 9.1
 Top Packer Depth 4251 Drill Collars Run 186' Vis 52
 Bottom Packer Depth 4255 Wt. Pipe Run 0 WL 6.8
 Total Depth 4313 Chlorides 800 ppm System LCM 2#

Blow Description IF - Surface blow built to 1"
ISI - No Return
FF - Weak surface started in 13 min. built up to 1/4"
FSTI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>64'</u>	<u>ocm</u>	<u>35</u>		<u>65</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

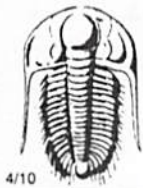
Rec Total 64' BHT 132°F Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2082 Test 1250 T-On Location 9:15 pm
 (B) First Initial Flow 22 Jars 250 T-Started 9:56 pm
 (C) First Final Flow 32 Safety Joint 75 T-Open 12:31 am
 (D) Initial Shut-In 1189 Circ Sub N/C T-Pulled 4:31 am
 (E) Second Initial Flow 36 Hourly Standby _____ T-Out 7:14 am
 (F) Second Final Flow 49 Mileage 100 R/T 155 Comments slide 7' to bottom
 (G) Final Shut-In 1175 Sampler _____
 (H) Final Hydrostatic 2044 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 1730
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1730

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56918

Well Name & No. Frisbie #3-23 Test No. 5 Date 3-21-14
 Company Murfin Drilling Co., Inc. Elevation 3314 KB 3309 GL
 Address 250 N. Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #8
 Location: Sec. 23 Twp. 2S Rge. 36 W Co. Rawlins State KS

Interval Tested 4305-4373 Zone Tested D'-G
 Anchor Length 68' Drill Pipe Run 4103 Mud Wt. 9.0
 Top Packer Depth 4301 Drill Collars Run 186' Vis 53
 Bottom Packer Depth 4305 Wt. Pipe Run 0 WL 6.4
 Total Depth 4373 Chlorides 900 ppm System LCM 4#
 Blow Description IF - Surface blow built to bottom of bucket in 1 min.
ISI - No Return
FF - Surface blow built to bottom of bucket in 1 min.
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>481'</u>	<u>WM WM</u>		<u>40</u>	<u>60</u>	
<u>2394'</u>	<u>MW</u>		<u>85</u>	<u>15</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

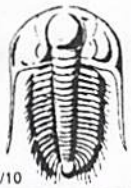
Rec Total 2,875' BHT 144°F Gravity _____ API RW 373 @ 35 °F Chlorides 40,000 ppm

(A) Initial Hydrostatic <u>2085</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>4:45pm</u>
(B) First Initial Flow <u>1,014</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>5:00pm</u>
(C) First Final Flow <u>1241</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>7:02pm</u>
(D) Initial Shut-In <u>1304</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>9:32pm</u>
(E) Second Initial Flow <u>1253</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1:22am</u>
(F) Second Final Flow <u>1303</u>	<input checked="" type="checkbox"/> Mileage <u>100 R/T</u> 155	Comments _____
(G) Final Shut-In <u>1304</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2020</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1730</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1730</u>	

Approved By _____ Our Representative Rocky Milford

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56919

Well Name & No. Frisbie #~~3-23~~ #3-23 Test No. 6 Date 3-22-14
 Company Murfin Drilling Co., Inc. Elevation 3314 KB 3309 GL
 Address 250 W. Water Ste. 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #8
 Location: Sec. 23 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4373 - 4490 Zone Tested LKC G'-K
 Anchor Length 117' Drill Pipe Run 4166' Mud Wt. 9.0
 Top Packer Depth 4369 Drill Collars Run 186' Vis 55
 Bottom Packer Depth 4373 Wt. Pipe Run 0 WL 5.6
 Total Depth 4490 Chlorides 1,400 ppm System LCM 4#

Blow Description IF - Surface blow built to 3 1/4"
ISI - No Return
FF - Surface blow started 5 min. in and built to 3 1/4"
FSI - No Return

Rec	Feet of	%gas	spots	%oil	%water	%mud
<u>219'</u>	<u>OSWM</u>			<u>10</u>	<u>90</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 219' BHT 132°F Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2150 Test 1250 T-On Location 4:00 pm
 (B) First Initial Flow 18 Jars 250 T-Started 4:44 pm
 (C) First Final Flow 63 Safety Joint 75 T-Open 7:33 pm
 (D) Initial Shut-In 1083 Circ Sub N/C T-Pulled 11:33 pm
 (E) Second Initial Flow 67 Hourly Standby _____ T-Out 2:20 am
 (F) Second Final Flow 113 Mileage 100 R/T 155 Comments Chased tool
 (G) Final Shut-In 987 Sampler _____ 4A to bottom
 (H) Final Hydrostatic 2089 Straddle _____

Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1980
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1980

Approved By _____ Our Representative [Signature]

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Well Name & No. Frisbie #3-23 Test No. 7 Date 3-24-14
 Company Murfin Drilling Co., Inc. Elevation 3314 KB 3309 GL
 Address 250 N. Water Ste 300 Wichita KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #8
 Location: Sec. 23 Twp. 2S Rge. 36W Co. Rawlins State KS

Interval Tested 4603-4744 Zone Tested Pawnee - Verdigris
 Anchor Length 141' Drill Pipe Run 4147 Mud Wt. 9.0
 Top Packer Depth 4599 Drill Collars Run 186' Vis 57
 Bottom Packer Depth 4603 Wt. Pipe Run 0 WL 6.4
 Total Depth 4744 Chlorides 1200 ppm System LCM 3#
 Blow Description IF - Surface blow slowly built to 1"
ISI - No Return
FF - No surface blow
FST - No Return

Rec	Feet of	%gas	%oil	%water	%mud
3'	Mud			100%	

Rec Total 3' BHT 133°F Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2349 Test 1250 T-On Location 3:15am
 (B) First Initial Flow 20 Jars 250 T-Started 3:49am
 (C) First Final Flow 26 Safety Joint 75 T-Open 7:22am
 (D) Initial Shut-In 49 Circ Sub N/C T-Pulled 10:30am
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 12:47pm
 (F) Second Final Flow 30 Mileage 100 R/T 155 Comments Loaded tool after test
 (G) Final Shut-In 42 Sampler _____
 (H) Final Hydrostatic 2315 Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1980
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1980

Robert L. Milford

PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOG
OPERATOR — Murfin Drilling Company, Inc.
LEASE — Frisbie #3-23
LOC. SPOT — 165' w of C E2 NW
LOC. FOOTAGE — 1,220' FNL 1,815' FWL
SEC. — 23 TWPSP — 25 RANG — 36W
COUNTY — Rawlins STATE — KANSAS
APR — 15-153-20995-00-00
CONTRACTOR — Murfin Drilling Co., Inc. RIG NO. — 8
DRILLING STARTED — 3-15-2014 COMPLETED — 3-24-2014
MUD DISPLACED — 3,651 WUD TYPE — Chemical
DRILLING TIME KEPT FROM — 3,800' TO R/TD
SAMPLES SAVED FROM — 3,900' TO R/TD
SAMPLES EXAMINED FROM — 3,900' TO R/TD
GEOLOGICAL SUPERVISION FROM — 3,900' TO R/TD

ELEVATIONS
KB — 3,314'
GL — 3,309'

NEAREST TOWN/LOCALITY
CASING RECORD
CONDUIT
SURFACE — 8.5/8" @ 345'
W/ 350 sacks cement
Production none

ELECTRICAL SURVEYS
Pioneer Wireline
Dual Induction Log
Dual Compensated

Porosity Log
Borehole Compensated
Sonic Log

FORMATION NAME	LOG TOP	DATUM	TOP	SAMPLE DATE
Stone Corral	3,175'	+139'	3,177'	+137'
Base Stone Corral	3,207'	+107'	3,207'	+107'
Topeka	4,022'	-708'	4,023'	-709'
Leebner	4,182'	-868'	4,182'	-868'
Lansing	4,233'	-919'	4,233'	-919'
Stark	4,485'	-1141'	4,486'	-1142'
B/KC	4,504'	-1190'	4,505'	-1191'
Pawnee	4,635'	-1321'	4,635'	-1321'
Cherokee	4,706'	-1392'	4,707'	-1393'
Total Depth	4,830'	-1516'	4,830'	-1516'

DATE	7:00 AM DEPTH	REMARKS
3-15-14	0'	Spud @ 3:30 pm. Plug down @ 9:30 pm. Drilled out plug @ 5:30 am on 3/16 w/ PDC bit
3-16-14	440'	Cut 440' in last 24 hrs
3-17-14	3,335'	Cut 2,895' in last 24 hrs; 21.25 hrs drlg. Bit trip @ 3900'. DST #1 @ 4050'
3-18-14	4,050'	Cut 715' in last 24 hrs; 16.5 hrs drlg. DST #2 @ 4164'
3-19-14	4,164'	Cut 114' in last 24 hrs; 4.75 hrs drlg. DST #3 @ 4257'
3-20-14	4,257'	Cut 93' in last 24 hrs; 4.25 hrs drlg. DST #4 @ 4313'
3-21-14	4,313'	Cut 56' in last 24 hrs; 4.25 hrs drlg. DST #5 @ 4373'
3-22-14	4,400'	Cut 87' in last 24 hrs; 4.75 hrs drlg. DST #6 @ 4490'
3-23-14	4,505'	Cut 105' in last 24 hrs; 5.75 hrs drlg. DST #7 @ 4744'
3-24-14	4,744'	Cut 239' in last 24 hrs; 14 hrs drlg. RTD 4830' @ 8:10 pm
3-25-14	4,830'	Cut 86' in last 24 hrs; 3.25 hrs drlg. P&A

Remarks

The electric log measurements correlate from even to 2' higher to the drilling measurements.

Formation tops and lithology on this report have been corrected to the electric log.

The drilling samples were deposited at the Kansas Geological Survey office in Wichita.

Respectfully submitted,

Robert L. Milford

Drill Stem Test Charts

Drill Stem Test by Trilobite Testing, Inc.

