

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1260654
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: _____

1260654



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> <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 'B' 1-6
Doc ID	1260654

All Electric Logs Run

DIL
DUCP
MEL
BHCS



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.04 @ 06:28:00

End Date: 2015.07.04 @ 14:53:45

Job Ticket #: 62193 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:50:53



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62193

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.07.04 @ 06:28:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:48:30

Time Test Ended: 14:53:45

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 4040.00 ft (KB) To 4102.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4102.00 ft (KB) (TVD)

3260.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8791

Inside

Press@RunDepth: 131.40 psig @ 4041.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.04

End Date:

2015.07.04

Last Calib.:

2015.07.04

Start Time: 06:28:05

End Time:

14:53:44

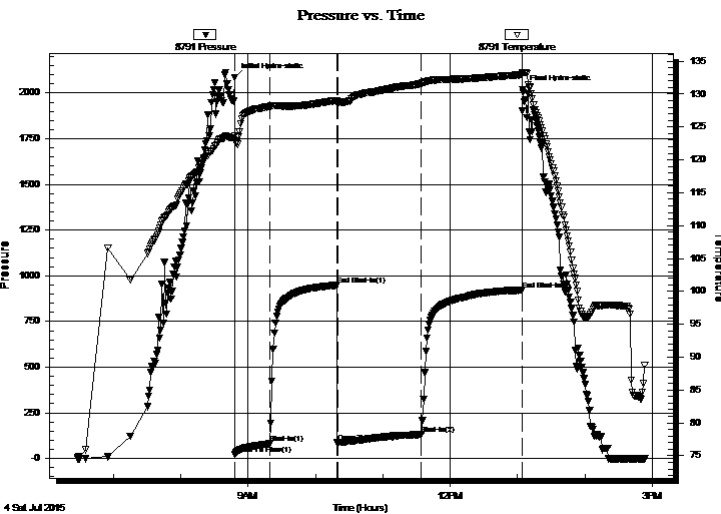
Time On Btm:

2015.07.04 @ 08:48:15

Time Off Btm:

2015.07.04 @ 13:04:45

TEST COMMENT: 30 - IF: Blow built to 6"
60 - IS: No blow back
75 - FF: No blow, flushed tool at 17 min., Blow built to 3"
90 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2084.28	123.65	Initial Hydro-static
1	21.89	122.94	Open To Flow (1)
31	81.45	128.11	Shut-In(1)
91	948.51	129.02	End Shut-In(1)
92	87.90	128.80	Open To Flow (2)
166	131.40	131.61	Shut-In(2)
256	923.05	132.94	End Shut-In(2)
257	2017.47	133.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
121.00	SOC/MW 48%w, 47%m, 3%o, 2%g	0.60
121.00	SO/WCM 73%m, 25%w, 2%o	0.60
10.00	OM 55%m, 45%o	0.14
10.00	SMCO 92%o, 8%m	0.14

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: Robert Hendrix

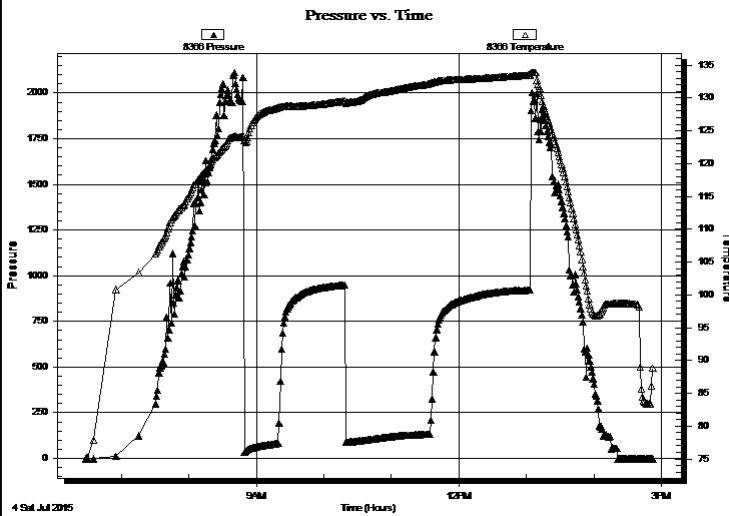
6-2s/-5w Rawlins KS
Frisbie 'B' #1-6
Job Ticket: 62193 **DST#: 1**
Test Start: 2015.07.04 @ 06:28:00

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:48:30
Time Test Ended: 14:53:45
Interval: **4040.00 ft (KB) To 4102.00 ft (KB) (TVD)**
Total Depth: 4102.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 83
Reference Elevations: 3271.00 ft (KB)
3260.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8366 **Outside**
Press@RunDepth: psig @ 4041.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.07.04 End Date: 2015.07.04 Last Calib.: 2015.07.04
Start Time: 06:28:05 End Time: 14:52:59 Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 6"
60 - ISI: No blow back
75 - FF: No blow , flushed tool at 17 min., Blow built to 3"
90 - FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
121.00	SOC/MW 48%w , 47%m, 3%o, 2%g	0.60
121.00	SO/WCM 73%m, 25%w , 2%o	0.60
10.00	OM 55%m, 45%o	0.14
10.00	SMCO 92%o, 8%m	0.14

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62193

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.07.04 @ 06:28:00

Tool Information

Drill Pipe:	Length: 3803.00 ft	Diameter: 3.80 inches	Volume: 53.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 54.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4040.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: picked it up to flushed tool @ 17 min. (didn't feel tool reopen - and doesn't show on chart) but surface blow started

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4017.00	
Hydraulic tool	5.00			4022.00	
Jars	5.00			4027.00	
Safety Joint	3.00			4030.00	
Packer	5.00			4035.00	28.00 Bottom Of Top Packer
Packer	5.00			4040.00	
Stubb	1.00			4041.00	
Recorder	0.00	8791	Inside	4041.00	
Recorder	0.00	8366	Outside	4041.00	
Perforations	24.00			4065.00	
Blank Spacing	34.00			4099.00	
Bullnose	3.00			4102.00	62.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62193

DST#: 1

ATTN: Robert Hendrix

Test Start: 2015.07.04 @ 06:28:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 60.00 sec/qt
Water Loss: 6.76 in³
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: 23.4 deg API
Water Salinity: 12000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
121.00	SOC/MW 48%w , 47%m, 3%o, 2%g	0.595
121.00	SO/WCM 73%m, 25%w , 2%o	0.595
10.00	OM 55%m, 45%o	0.140
10.00	SMCO 92%o, 8%m	0.140

Total Length: 262.00 ft Total Volume: 1.470 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity = 27.2 api @ 98 deg F Corrected Gravity = 23.4 api
RW = .393 ohms @ 95.7 deg F Chlorides = 12,000 ppm

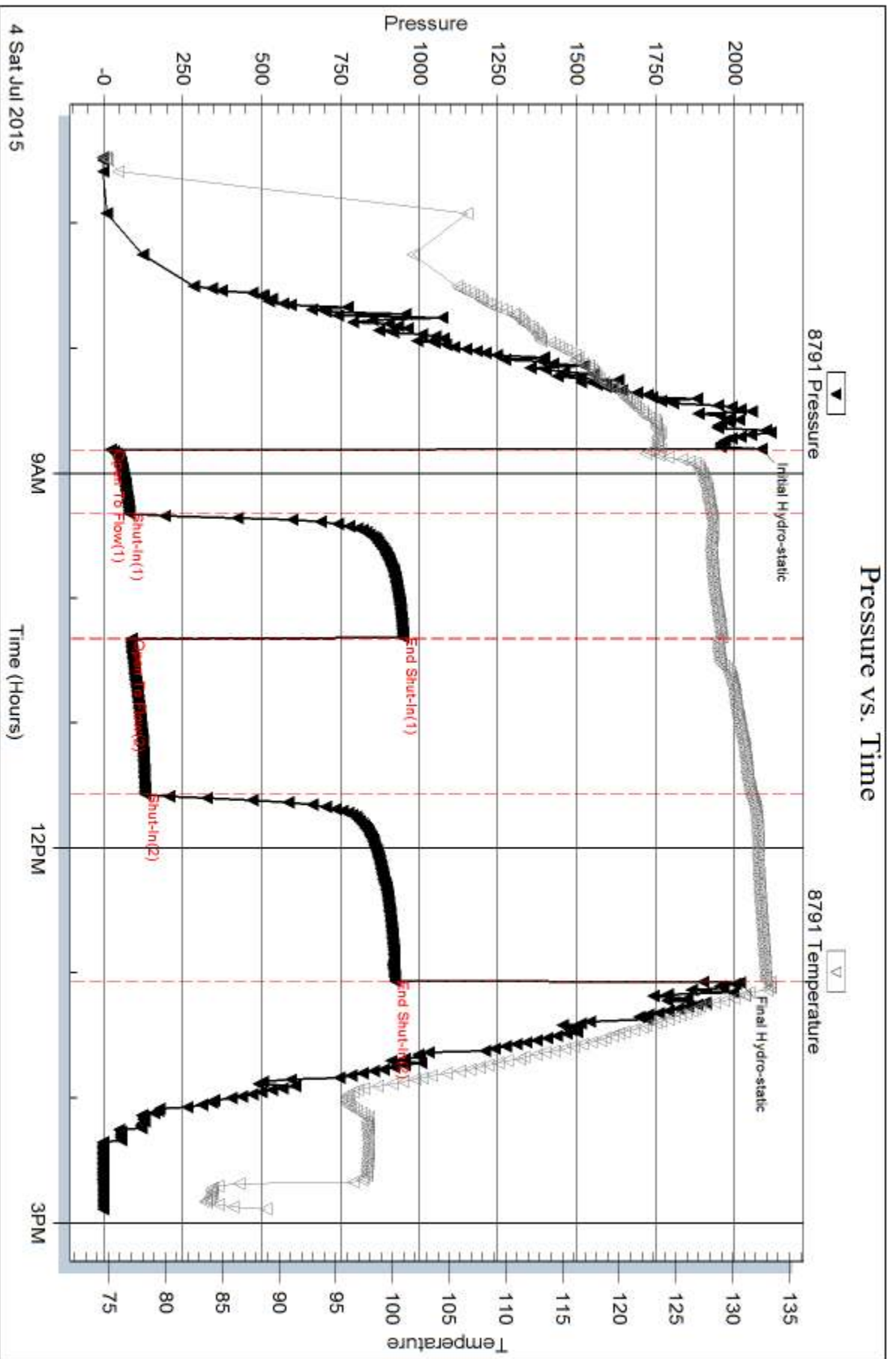
Serial #: 8791

Inside

Murfin Drilling Co., Inc.

Frisbie B' #1-6

DST Test Number: 1

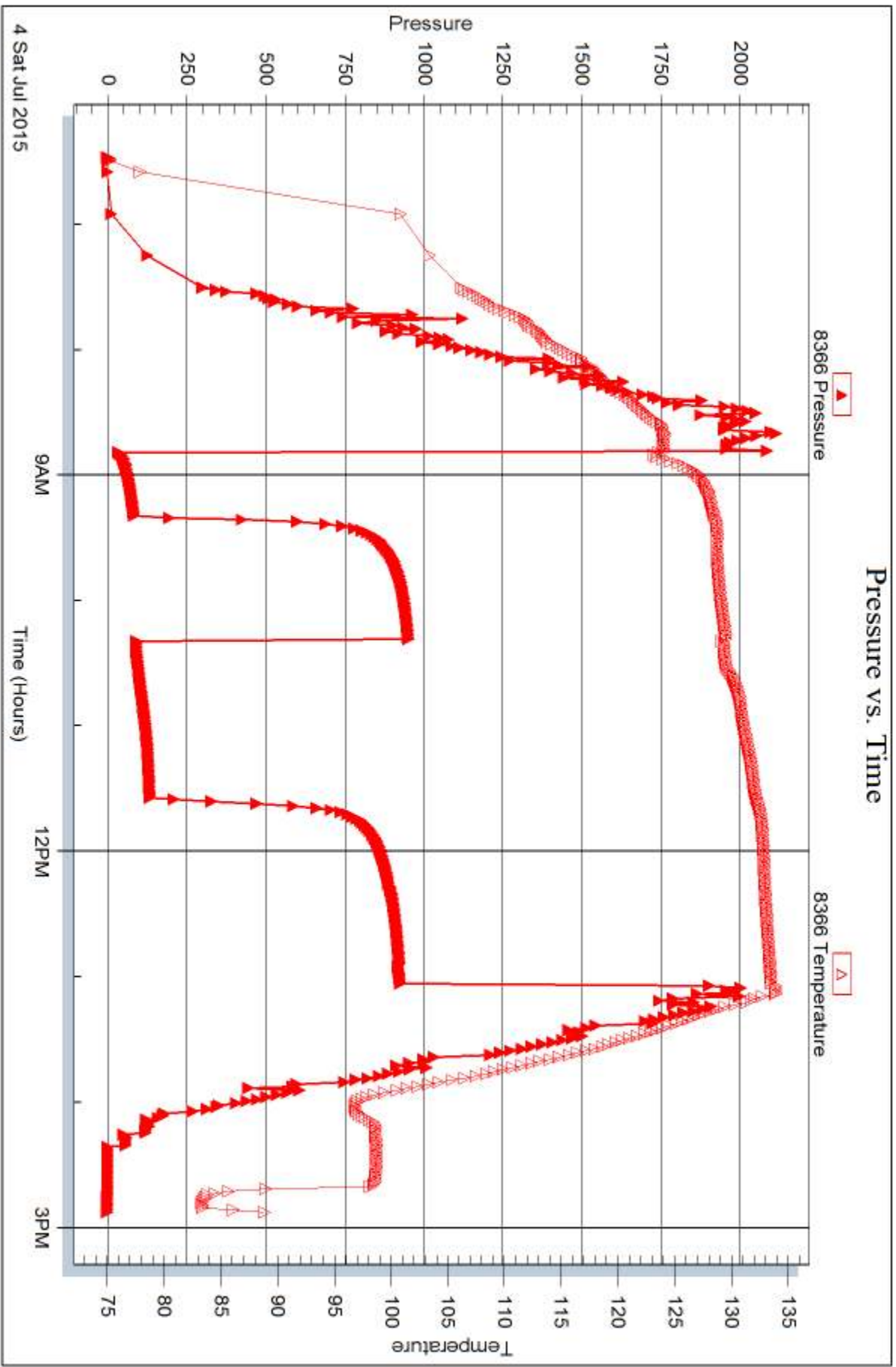


Serial #: 8366

Outside Murfin Drilling Co., Inc.

Frisbie B' #1-6

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 62193

Printed: 2015.07.09 @ 08:50:54



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.05 @ 03:37:00

End Date: 2015.07.05 @ 10:35:00

Job Ticket #: 62194 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:50:31



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62194

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 03:37:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:30:30

Time Test Ended: 10:35:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4129.00 ft (KB) To 4220.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4220.00 ft (KB) (TVD)

3260.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8791

Inside

Press@RunDepth: 506.31 psig @ 4130.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.05

End Date:

2015.07.05

Last Calib.: 2015.07.05

Start Time: 03:37:05

End Time:

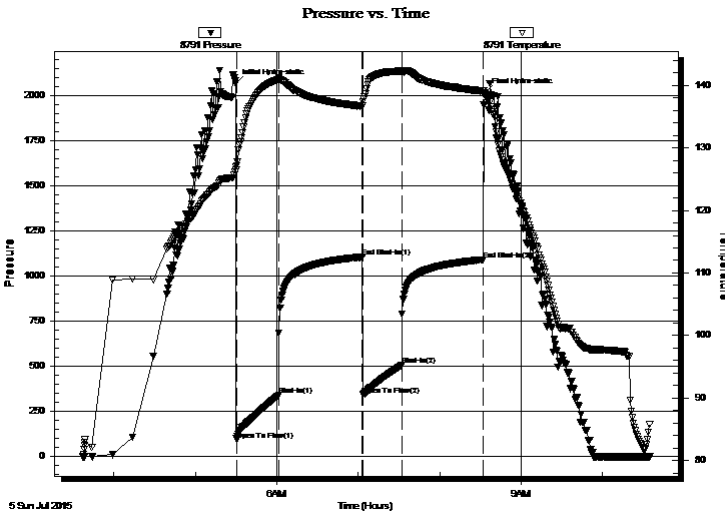
10:34:59

Time On Btm: 2015.07.05 @ 05:30:00

Time Off Btm: 2015.07.05 @ 08:33:30

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 4 3/4 min.
60 - ISI: No blow back
30 - FF: Blow built to BOB at 6 1/4 min.
60 - FSI: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2063.17	126.92	Initial Hydro-static
1	91.85	127.09	Open To Flow (1)
32	338.38	140.99	Shut-In(1)
93	1104.83	136.64	End Shut-In(1)
94	342.03	137.36	Open To Flow (2)
123	506.31	142.25	Shut-In(2)
182	1089.41	139.04	End Shut-In(2)
184	2014.01	138.63	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
869.00	SMCW w/trace oil 94%w , 6% m	9.99
205.00	MW w /oil spots 54%w , 45% m, 1% o	2.88
1.00	Free oil	0.01

	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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62194

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 03:37:00

Tool Information

Drill Pipe:	Length: 3865.00 ft	Diameter: 3.80 inches	Volume: 54.22 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: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 55.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4129.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	91.00 ft			
Tool Length:	119.00 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			4106.00	
Hydraulic tool	5.00			4111.00	
Jars	5.00			4116.00	
Safety Joint	3.00			4119.00	
Packer	5.00			4124.00	28.00 Bottom Of Top Packer
Packer	5.00			4129.00	
Stubb	1.00			4130.00	
Recorder	0.00	8791	Inside	4130.00	
Recorder	0.00	8366	Outside	4130.00	
Perforations	21.00			4151.00	
Blank Spacing	66.00			4217.00	
Bullnose	3.00			4220.00	91.00 Bottom Packers & Anchor

Total Tool Length: 119.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62194

DST#: 2

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 03:37:00

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:

25000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in³

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
869.00	SMCW w /trace oil 94%w , 6%m	9.985
205.00	MW w /oil spots 54%w , 45%m, 1%o	2.876
1.00	Free oil	0.014

Total Length: 1075.00 ft Total Volume: 12.875 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

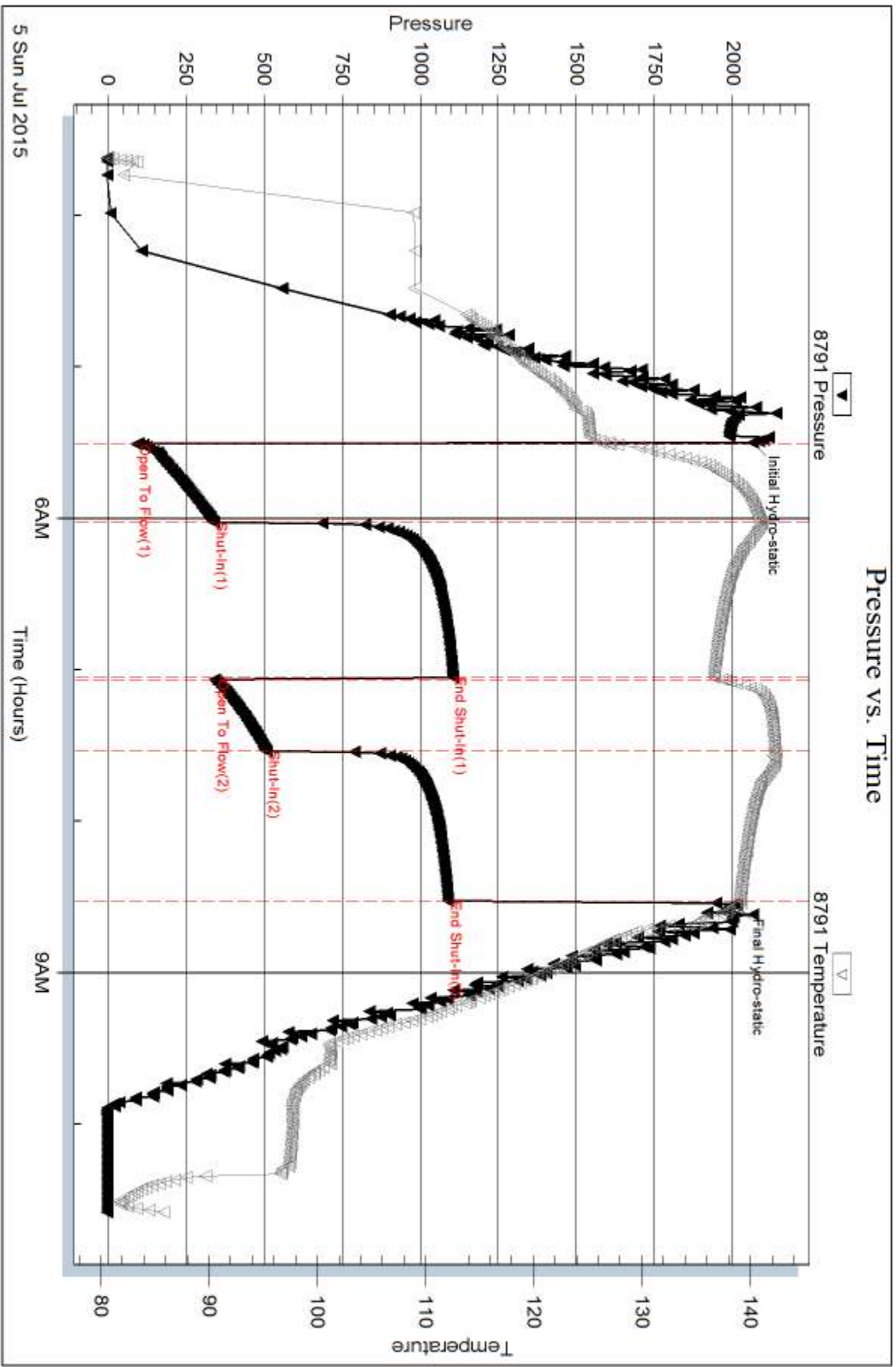
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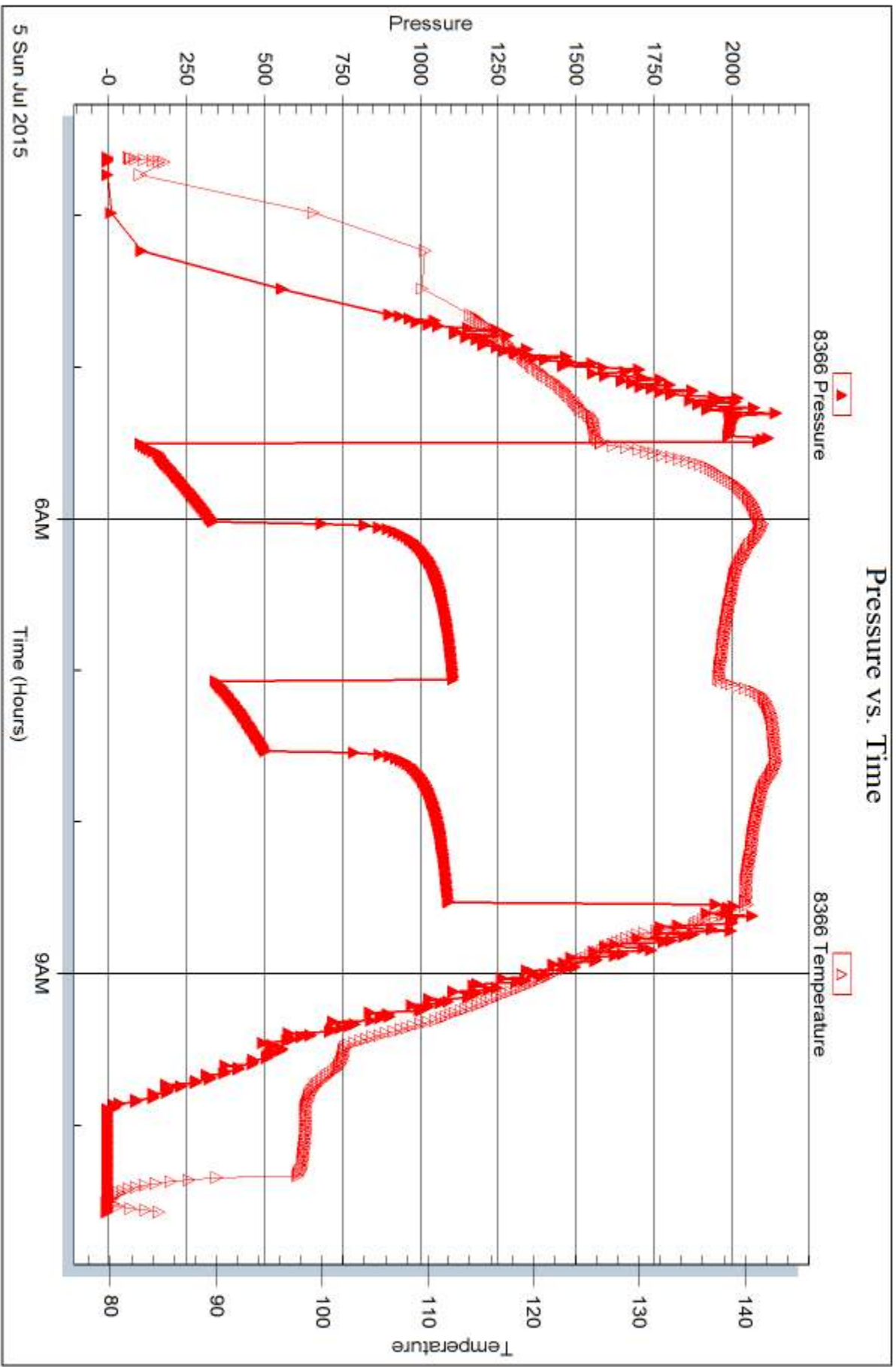
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .228 ohms @ 84.5 deg F

Chlorides = 25,000 ppm







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.05 @ 18:55:00

End Date: 2015.07.06 @ 02:44:00

Job Ticket #: 62195 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:50:09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 18:55:00

GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:58:30

Time Test Ended: 02:44:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4214.00 ft (KB) To 4270.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4270.00 ft (KB) (TVD)

3260.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8791

Inside

Press@RunDepth: 494.90 psig @ 4215.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.05

End Date:

2015.07.06

Last Calib.:

2015.07.06

Start Time: 18:55:05

End Time:

02:43:59

Time On Btm:

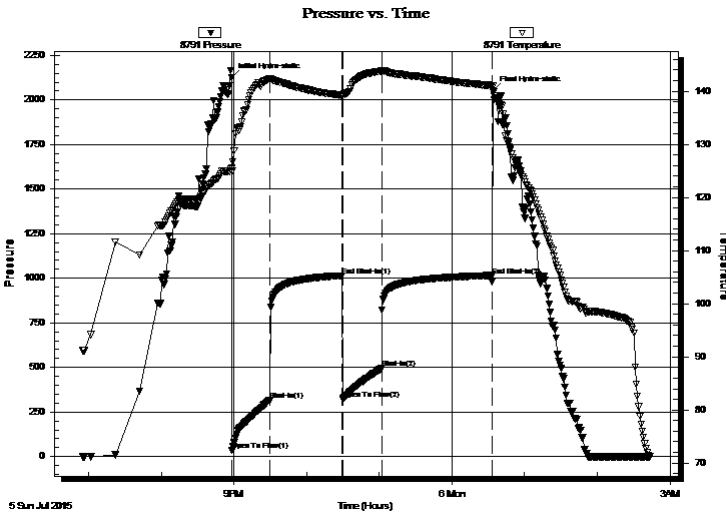
2015.07.05 @ 20:58:15

Time Off Btm:

2015.07.06 @ 00:34:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 6 min.
60 - IS: Blow back built to 1/4"
30 - FF: Blow built to BOB at 7 1/2 min.
90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2126.26	125.52	Initial Hydro-static
1	35.23	124.90	Open To Flow (1)
31	313.42	142.25	Shut-In(1)
91	1014.51	139.18	End Shut-In(1)
92	321.17	139.12	Open To Flow (2)
124	494.90	143.79	Shut-In(2)
215	1015.78	141.09	End Shut-In(2)
216	2051.17	140.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
355.00	SMCW w/trace oil 94%w, 6%m	2.78
250.00	SOMCW 91%w, 7%m, 2%o	3.51
440.00	SOCWM 53%m, 40%w, 4%g, 3%o	6.17
15.00	SMCGO 84%o, 10%g, 6%m	0.21

* 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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 18:55:00

GENERAL INFORMATION:

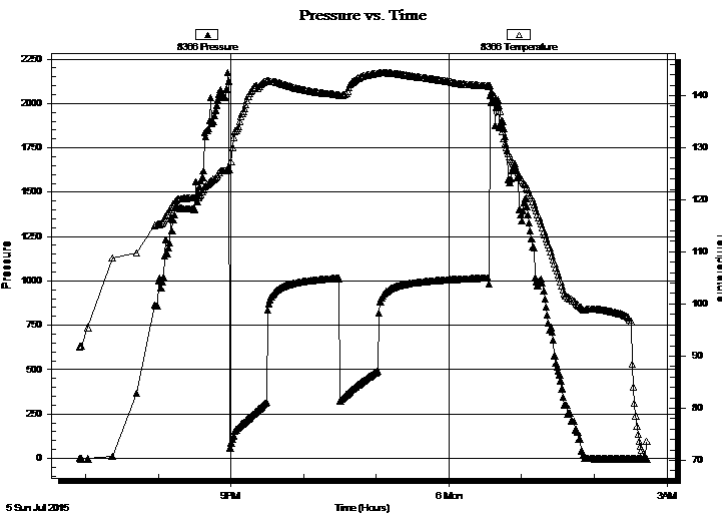
Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:58:30
 Time Test Ended: 02:44:00
 Interval: **4214.00 ft (KB) To 4270.00 ft (KB) (TVD)**
 Total Depth: 4270.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3271.00 ft (KB)
 3260.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8366

Outside

Press@RunDepth: psig @ 4215.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.07.05 End Date: 2015.07.06 Last Calib.: 2015.07.06
 Start Time: 18:55:05 End Time: 02:43:14 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 6 min.
 60 - IS: Blow back built to 1/4"
 30 - FF: Blow built to BOB at 7 1/2 min.
 90 - FS: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
355.00	SMCW w/trace oil 94%w, 6%m	2.78
250.00	SOMCW 91%w, 7%m, 2%o	3.51
440.00	SOCWM 53%m, 40%w, 4%g, 3%o	6.17
15.00	SMCGO 84%o, 10%g, 6%m	0.21

* 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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 18:55:00

Tool Information

Drill Pipe:	Length: 3962.00 ft	Diameter: 3.80 inches	Volume: 55.58 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: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 56.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4214.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	84.00 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			4191.00	
Hydraulic tool	5.00			4196.00	
Jars	5.00			4201.00	
Safety Joint	3.00			4204.00	
Packer	5.00			4209.00	28.00 Bottom Of Top Packer
Packer	5.00			4214.00	
Stubb	1.00			4215.00	
Recorder	0.00	8791	Inside	4215.00	
Recorder	0.00	8366	Outside	4215.00	
Perforations	18.00			4233.00	
Blank Spacing	34.00			4267.00	
Bullnose	3.00			4270.00	56.00 Bottom Packers & Anchor

Total Tool Length: 84.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62195

DST#: 3

ATTN: Robert Hendrix

Test Start: 2015.07.05 @ 18:55:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 6.76 in³
Resistivity: ohm.m
Salinity: 1500.00 ppm
Filter Cake: 2.00 inches

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

Oil API: deg API
Water Salinity: 29000 ppm

Recovery Information

Recovery Table

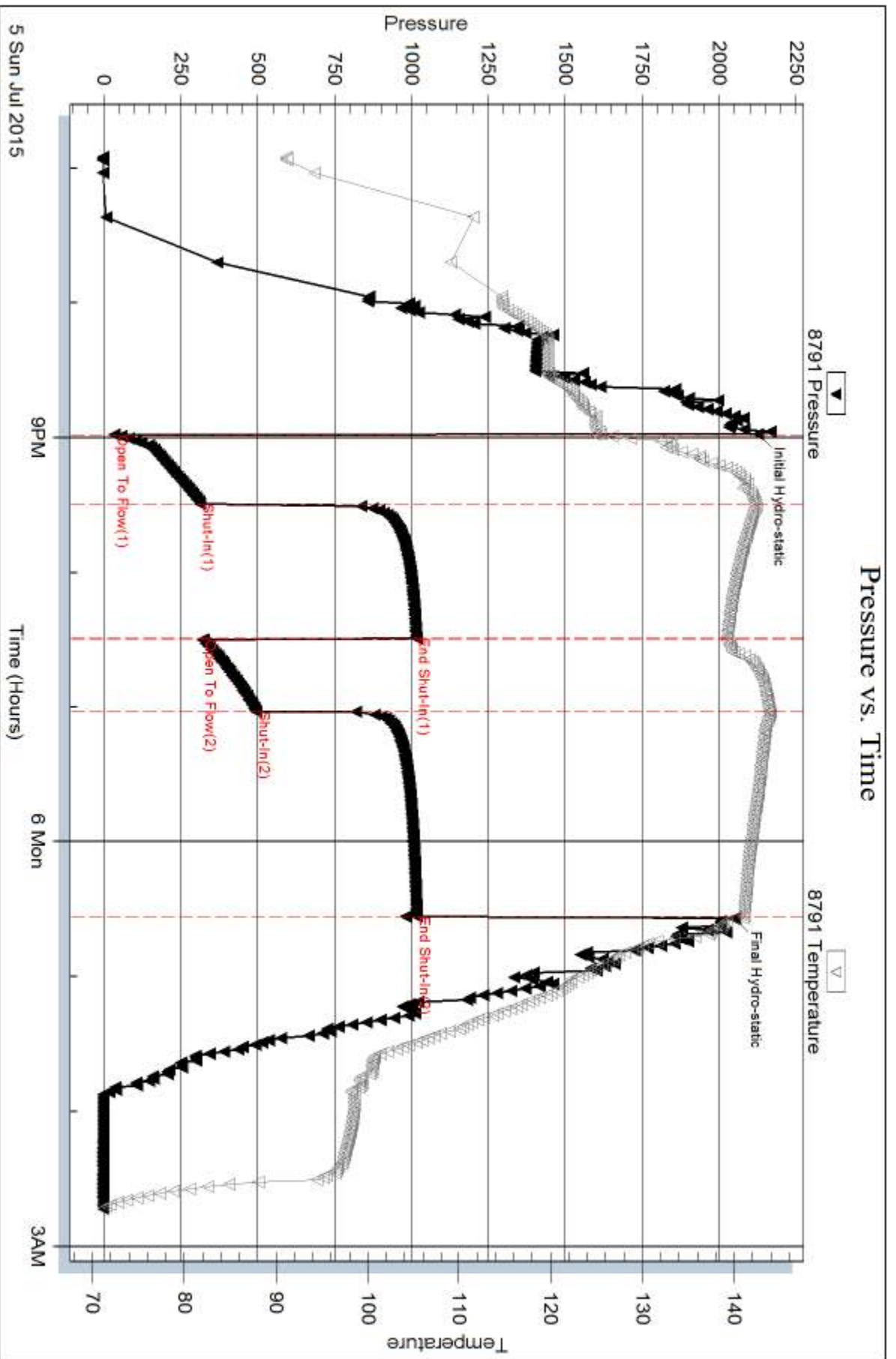
Length ft	Description	Volume bbl
355.00	SMCW w/trace oil 94%w , 6%m	2.775
250.00	SOMCW 91%w , 7%m, 2%o	3.507
440.00	SOCWM 53%m, 40%w , 4%g, 3%o	6.172
15.00	SMCGO 84%o, 10%g, 6%m	0.210

Total Length: 1060.00 ft Total Volume: 12.664 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity too low to check
RW = .271 ohms @ 69.3 deg F Chlorides = 29,000 ppm

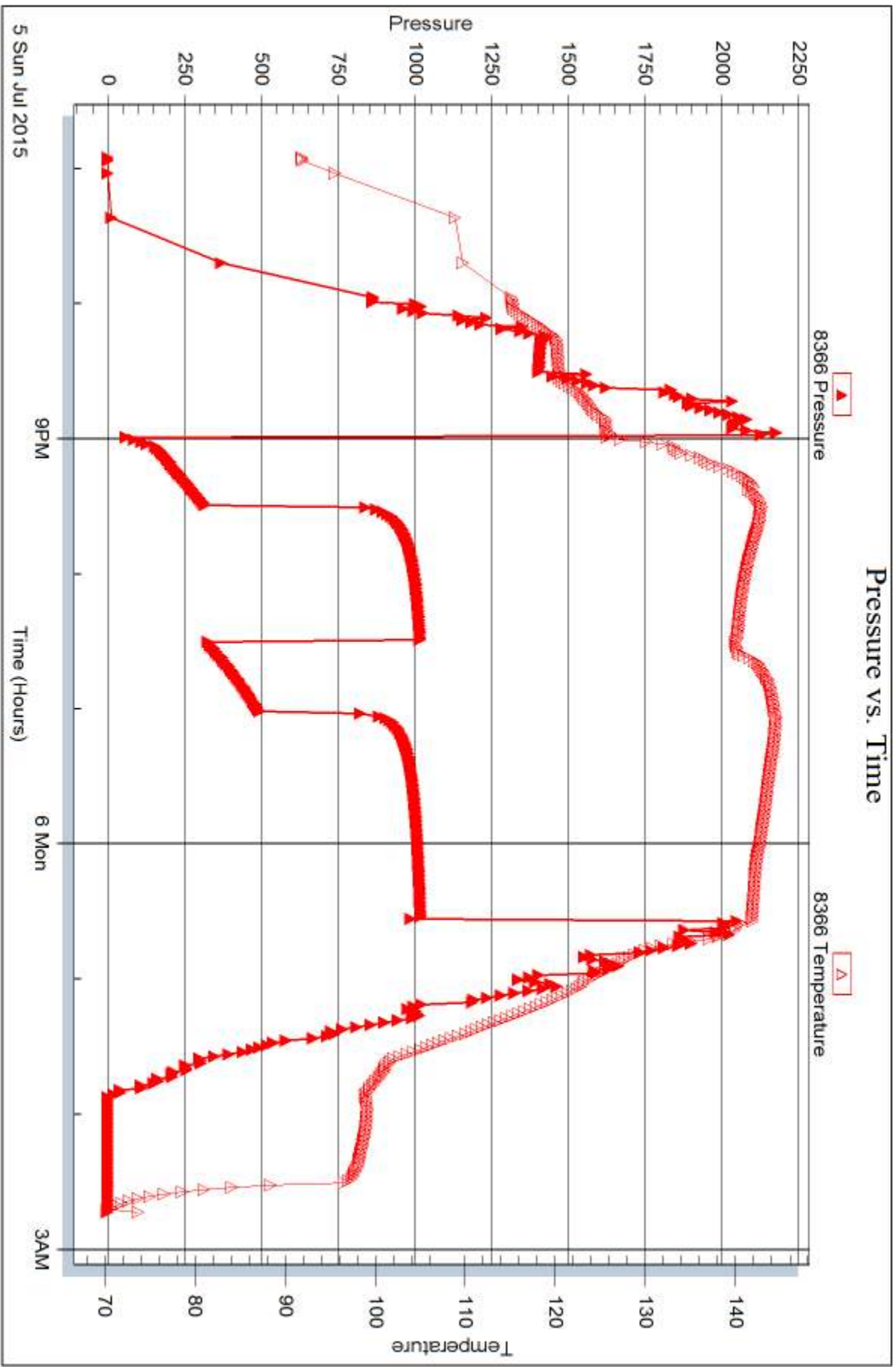


Serial #: 8366

Outside Murfin Drilling Co., Inc.

Friskie B' #1-6

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 62195

Printed: 2015.07.09 @ 08:50:10



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Frisbie 'B' #1-6

6-2s/-5w Rawlins KS

Start Date: 2015.07.06 @ 19:27:00

End Date: 2015.07.07 @ 02:48:30

Job Ticket #: 62196 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.09 @ 08:48:14



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.07.06 @ 19:27:00

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:00:30

Time Test Ended: 02:48:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4359.00 ft (KB) To 4406.00 ft (KB) (TVD)

Reference Elevations: 3271.00 ft (KB)

Total Depth: 4406.00 ft (KB) (TVD)

3260.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8791

Inside

Press@RunDepth: 44.59 psig @ 4360.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.06

End Date:

2015.07.07

Last Calib.:

2015.07.07

Start Time: 19:27:05

End Time:

02:48:29

Time On Btm:

2015.07.06 @ 21:00:15

Time Off Btm:

2015.07.07 @ 01:03:15

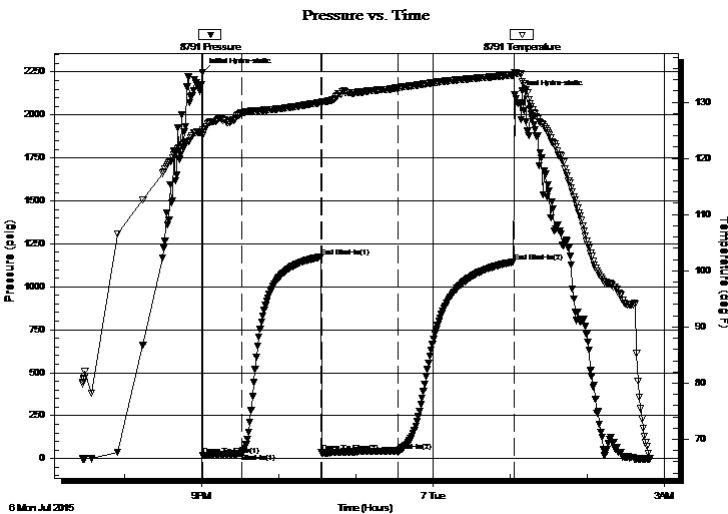
TEST COMMENT: 30 - IF: Blow built to 1 1/8", died back to 1/2" at close

60 - IS: No blow back

60 - FF: No blow

90 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2247.82	125.13	Initial Hydro-static
1	17.06	124.10	Open To Flow (1)
31	29.30	128.12	Shut-In(1)
92	1174.30	129.92	End Shut-In(1)
93	34.19	129.72	Open To Flow (2)
153	44.59	132.58	Shut-In(2)
243	1145.73	134.83	End Shut-In(2)
243	2120.02	135.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 85% m, 12% o, 3% g	0.30
1.00	MCO 70% o, 30% m	0.00

* 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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.07.06 @ 19:27:00

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:00:30

Time Test Ended: 02:48:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4359.00 ft (KB) To 4406.00 ft (KB) (TVD)

Total Depth: 4406.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3271.00 ft (KB)

3260.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8366

Outside

Press@RunDepth: psig @ 4360.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.07.06

End Date:

2015.07.07

Last Calib.:

2015.07.07

Start Time: 19:27:05

End Time:

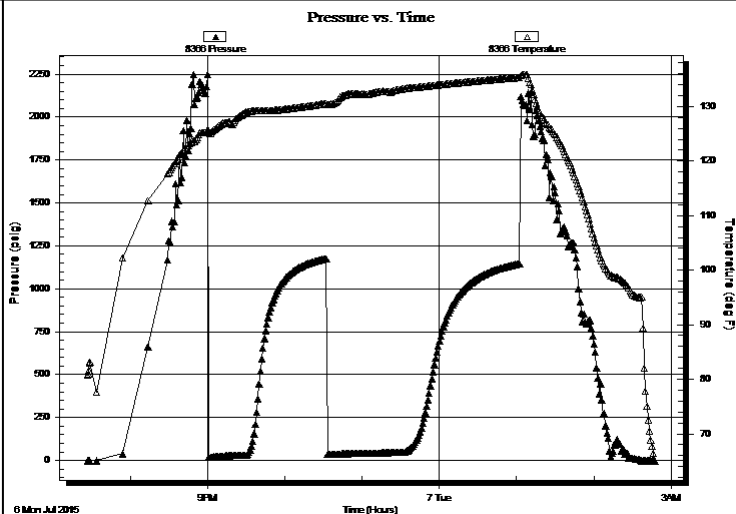
02:47:59

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 1 1/8", died back to 1/2" at close
60 - ISI: No blow back
60 - FF: No blow
90 - FSI: No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 85% m, 12% o, 3% g	0.30
1.00	MCO 70% o, 30% m	0.00

* 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.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.07.06 @ 19:27:00

Tool Information

Drill Pipe:	Length: 4120.00 ft	Diameter: 3.80 inches	Volume: 57.79 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: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 58.98 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	4359.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	47.00 ft				
Tool Length:	75.00 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			4336.00	
Hydraulic tool	5.00			4341.00	
Jars	5.00			4346.00	
Safety Joint	3.00			4349.00	
Packer	5.00			4354.00	28.00 Bottom Of Top Packer
Packer	5.00			4359.00	
Stubb	1.00			4360.00	
Recorder	0.00	8791	Inside	4360.00	
Recorder	0.00	8366	Outside	4360.00	
Perforations	9.00			4369.00	
Blank Spacing	34.00			4403.00	
Bullnose	3.00			4406.00	47.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

6-2s/-5w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Frisbie 'B' #1-6

Job Ticket: 62196

DST#: 4

ATTN: Robert Hendrix

Test Start: 2015.07.06 @ 19:27:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 7.19 in³
Resistivity: ohm.m
Salinity: 1300.00 ppm
Filter Cake: 2.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCM 85% <i>m</i> , 12% <i>o</i> , 3% <i>g</i>	0.295
1.00	MCO 70% <i>o</i> , 30% <i>m</i>	0.005

Total Length: 61.00 ft Total Volume: 0.300 bbl

Num Fluid Samples: 0

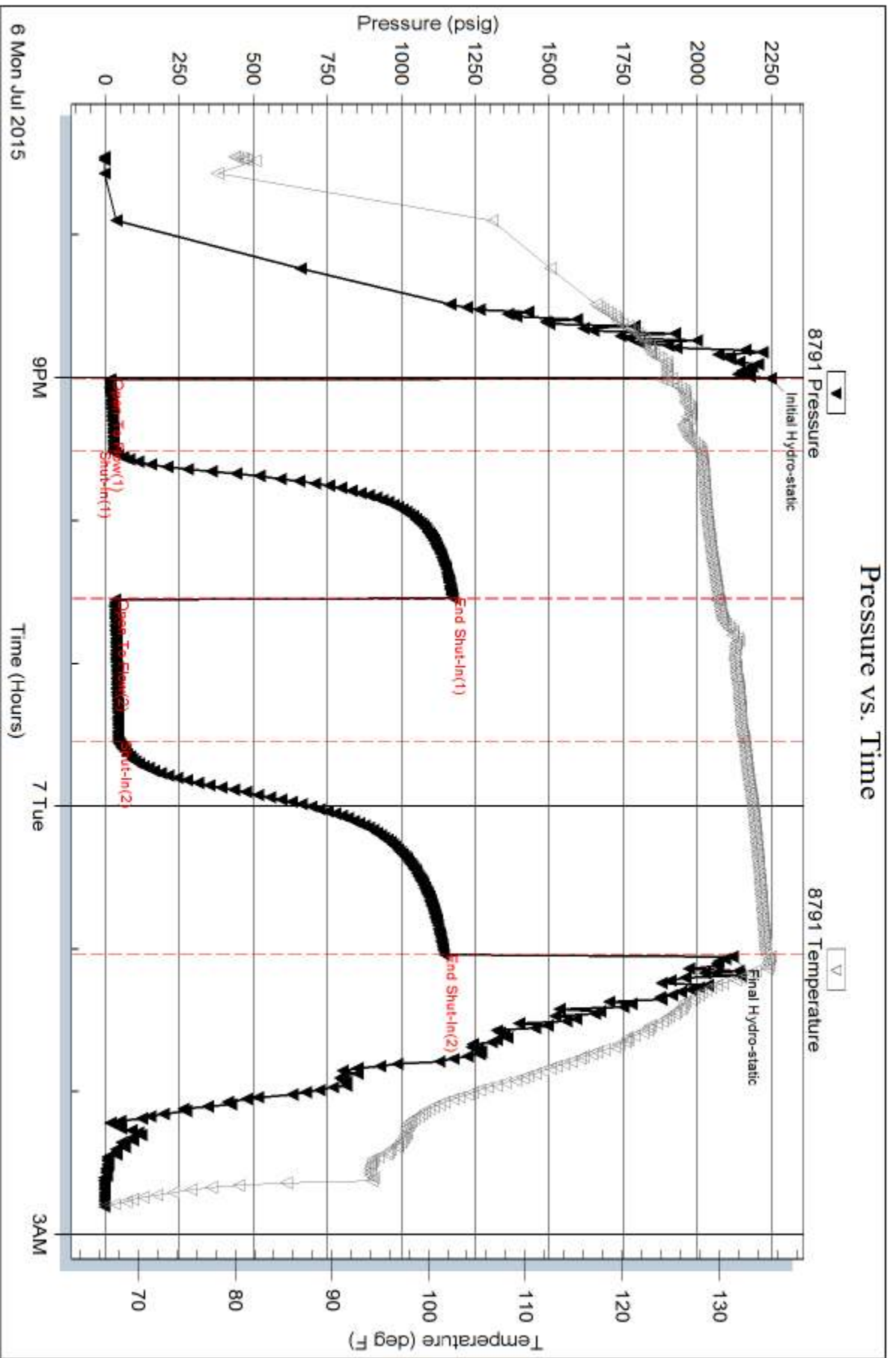
Num Gas Bombs: 0

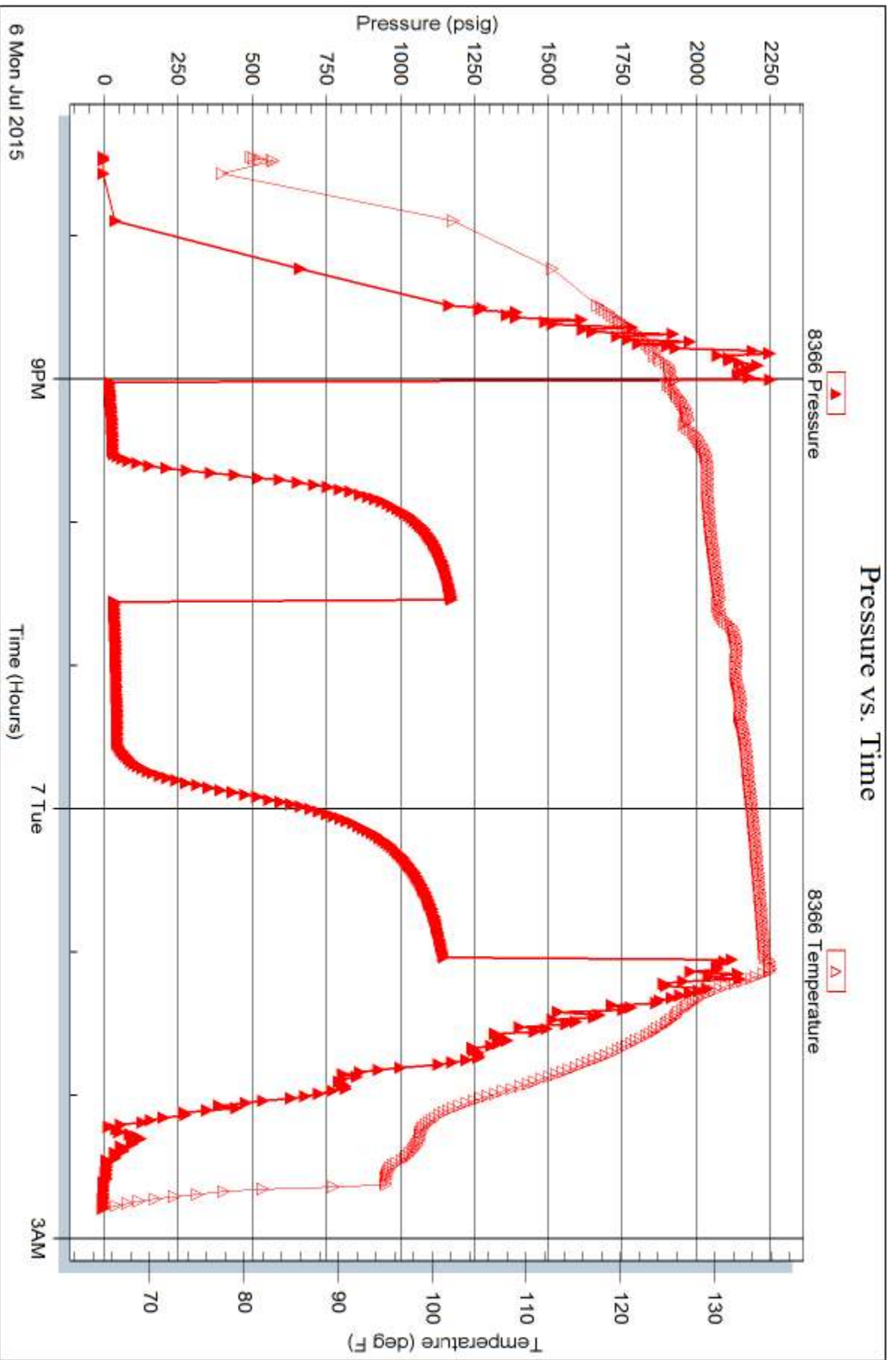
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62193

Well Name & No. Frisbie 'B' # ~~000~~ 1-6 Test No. 1 Date 7-4-15
 Company Murfin Drilling Co. Inc. Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2S Rge. 35W Co. Rawlins State KS

Interval Tested 4040 - 4102 Zone Tested Oread
 Anchor Length 62 Drill Pipe Run 3803 Mud Wt. 9.1
 Top Packer Depth 4035 Drill Collars Run ~~000~~ 242 Vis 60
 Bottom Packer Depth 4040 Wt. Pipe Run - WL 6.8
 Total Depth 4102 Chlorides 600 ppm System LCM 6

Blow Description IF: Blow built to 6"
ISI: No blowback
FF: No blow, Flushed tool at 17 min., Blow built to 3"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>60000 SMCO</u>	-	<u>92</u>	-	<u>8</u>
<u>10</u>	<u>Om</u>	-	<u>45</u>	-	<u>55</u>
<u>121</u>	<u>50/wcm</u>	-	<u>2</u>	<u>25</u>	<u>73</u>
<u>121</u>	<u>50/mw</u>	<u>20</u>	<u>3</u>	<u>48</u>	<u>47</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 262 BHT 133 Gravity 23.4 API RW .393 @ 95.7 °F Chlorides 12,000 ppm

(A) Initial Hydrostatic 2084 Test 1150 T-On Location 5:05
 (B) First Initial Flow 22 Jars 250 T-Started 6:28
 (C) First Final Flow 81 Safety Joint 75 T-Open 8:48
 (D) Initial Shut-In 949 Circ Sub _____ T-Pulled 13:03
 (E) Second Initial Flow 88 Hourly Standby _____ T-Out 14:50
 (F) Second Final Flow 131 Mileage 96 RT 96 Comments Didn't feel tool
 (G) Final Shut-In 923 Sampler _____ Reopen at flush but surface
 (H) Final Hydrostatic 2017 Straddle _____ blow started
 Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____
 Extra Recorder _____
 Sub Total 0
 Total 1571
 MP/DST Disc't _____
 Day Standby _____
 Accessibility _____
 Sub Total 1571

Initial Open 30
 Initial Shut-In 60
 Final Flow 75
 Final Shut-In 90

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. 62194

Well Name & No. Frisbie 'B' #1-6 Test No. 2 Date 7-5-15
 Company Murfin Drilling Co. Inc. Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2S Rge. 35W Co. Rawlins State KS

Interval Tested 4129 - 4220 Zone Tested LKC "A"
 Anchor Length 91 Drill Pipe Run 3865 Mud Wt. 9.1
 Top Packer Depth 4124 Drill Collars Run 242 Vis 58
 Bottom Packer Depth 4129 Wt. Pipe Run - WL 7.2
 Total Depth 4220 Chlorides 600 ppm System LCM 8
 Blow Description IF: Blow built to BOB (11") at 4 3/4 min.
ISI: No blowback
FF: Blow built to BOB at 6 1/4 min
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Oil</u>				
<u>205</u>	<u>MW w/oil spots</u>		<u>1</u>	<u>54</u>	<u>45</u>
<u>869</u>	<u>SMCW w/trace oil</u>		<u>trace</u>	<u>94</u>	<u>6</u>

Rec Total 1075 BHT 139 Gravity _____ API RW .228 @ 84.5 °F Chlorides 25 000 ppm

(A) Initial Hydrostatic 2063 Test 1150 T-On Location 2:40
 (B) First Initial Flow 92 Jars 250 T-Started 3:37
 (C) First Final Flow 338 Safety Joint 75 T-Open 5:30
 (D) Initial Shut-In 1105 Circ Sub _____ T-Pulled 8:32
 (E) Second Initial Flow 342 Hourly Standby _____ T-Out 10:30
 (F) Second Final Flow 506 Mileage 96 RT 96 Comments _____
 (G) Final Shut-In 1089 Sampler _____
 (H) Final Hydrostatic 2014 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 60 Day Standby _____
 Accessibility _____
 Sub Total 1571 Sub Total 1571 MP/DST Disc't _____

Approved By Rh D. [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. 62195

Well Name & No. Frisbie 'B' #1-6 Test No. 3 Date 7-5-15
 Company Murfin Drilling Co. Inc Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2s Rge. 35W Co. Rawlins State KS

Interval Tested 4214 - 4270 Zone Tested LKC "D"
 Anchor Length 56 Drill Pipe Run 3962 Mud Wt. 9.1
 Top Packer Depth 4209 Drill Collars Run 242 Vis 53
 Bottom Packer Depth 4214 Wt. Pipe Run - WL 6.8
 Total Depth 4270 Chlorides 1500 ppm System LCM 8

Blow Description IF: Blow built to BOB (11") at 6 min.
ISI: Blowback built to 1/4"
FF: Blow built to BOB at 7 1/2 min
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>SMCGO</u>	<u>10</u>	<u>84</u>	<u>-</u>	<u>6</u>
<u>440</u>	<u>SOCWM</u>	<u>4</u>	<u>3</u>	<u>40</u>	<u>53</u>
<u>250</u>	<u>SOMCW</u>	<u>-</u>	<u>2</u>	<u>91</u>	<u>7</u>
<u>355</u>	<u>SMCW w/trace oil</u>	<u>%gas</u>	<u>trace</u>	<u>94</u>	<u>6</u>

Rec Total 1060 BHT 141 Gravity _____ API RW 271 @ 69.3 °F Chlorides 29000 ppm
 (A) Initial Hydrostatic 2126 Test 1150 T-On Location 18:40 7/5
 (B) First Initial Flow 35 Jars 250 T-Started 18:55
 (C) First Final Flow 313 Safety Joint 75 T-Open 20:58
 (D) Initial Shut-In 1015 Circ Sub _____ T-Pulled 00:33
 (E) Second Initial Flow 321 Hourly Standby _____ T-Out 2:40 7/6
 (F) Second Final Flow 495 Mileage 96RT 96 Comments _____
 (G) Final Shut-In 1016 Sampler _____
 (H) Final Hydrostatic 2051 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 90 Day Standby _____
 Sub Total 1571 Accessibility _____
 Sub Total 1571 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1571
 MP/DST Disc't _____

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. 62196

Well Name & No. Frisbie 'B' #1-6 Test No. 3 Date 7-6-15
 Company Murfin Drilling Co. Inc Elevation 3271 KB 3260 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 6 Twp. 2s Rge. 35w Co. Rawlins State KS

Interval Tested 4359-4406 Zone Tested LKC "J"
 Anchor Length 47 Drill Pipe Run 4120 Mud Wt. 9.2
 Top Packer Depth 4354 Drill Collars Run 242 Vis 53
 Bottom Packer Depth 4359 Wt. Pipe Run - WL 7.2
 Total Depth 4406 Chlorides 1300 ppm System LCM 8
 Blow Description IF: Blow built to 1 1/8", died back to 1/2" at close
ISI: No blowback
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>mco</u>	<u>70</u>		<u>30</u>	
<u>60</u>	<u>OCM</u>	<u>3</u>	<u>12</u>	<u>85</u>	

Rec Total 61 BHT 135 Gravity 1150 API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2248 Test 1150 T-On Location 19:00 7/6
 (B) First Initial Flow 17 Jars 250 T-Started 19:27
 (C) First Final Flow 29 Safety Joint 75 T-Open 21:00
 (D) Initial Shut-In 1174 Circ Sub _____ T-Pulled 1:02
 (E) Second Initial Flow 34 Hourly Standby _____ T-Out 2:45 7/7
 (F) Second Final Flow 45 Mileage 96RT X 2 96+96 Comments _____
 (G) Final Shut-In 1146 Sampler _____
 (H) Final Hydrostatic 2120 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 60 Extra Recorder _____
 Final Shut-In 90 Day Standby _____
 Accessibility _____
 Sub Total 1667 MP/DST Disc't _____

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.

Robert D. Hendrix

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY **Murfin Drilling Co. Inc.**

LEASE **Frishie 'B' #1-6**

FIELD **Wildcat**

LOCATION **1980'nl & 330'el**

SEC **6** TWPSP **2** RGE **35**

COUNTY **Rawlins** STATE **Kansas**

CONTRACTOR **X** COMP **7/9/2015**

SPUD **7/1/2015** LTD. **4880'**

RTD **4874'** TYPE MUD **Chemical**

MUD UP **3288'** CONDUCTOR SURFACE **8-5/8" at 310'**

SAMPLES SAVED FROM **3880' TO TD**

DRILLING TIME KEPT FROM **3880' TO TD**

SAMPLES EXAMINED FROM **3880' TO TD**

GEOLOGICAL SUPERVISION FROM **3836'**

GEOLOGIST ON WELL **Robert D. Hendrix**

FORMATION TOPS

ANhydrite **3129' (-42')**

TOpeka **3969' (-68)**

ORead **4084' (-82)**

Lansing **4197' (-92)**

Stark Shale **4410' (-139)**

BKC **4458' (-187)**

Pawnee **4584' (-131)**

Cherokee Shale **4659' (-138)**

Mississippian **4862' (-159)**

ELEVATIONS

KB **3271'**

DF _____

GL **3260'**

Measurements Are All From **Kelly Bushing**

CASING _____

PRODUCTION **X**

Electrical

Supervisors

REMARKS:

LEGEND



DRILLING TIME IN MINUTES PER FOOT

DEPTH

LITHOLOGY

SAMPLE DESCRIPTION

REMARKS

Rate of Penetration Decreases

5 10 15

3100

3150

3200

Limestone: tan, f,fxn, sl chalky, granular, no vis por

Shale: gray, red, silty

Limestone: tan to gray, mxln, v-fossiliferous, no vis por

Shale: gray, red, green

Limestone: white to tan, f-mxln, sl chalky, granular, fossiliferous, no vis por

Shale: red, gray, blocky, silty

Shale: red, dark gray, black

Limestone: white to tan, f-mxln, v-fossiliferous, no vis por

Shale: red, dark gray, black

Limestone: white, f-kin, chalky, v-fossiliferous, no vis por

Shale: gray, red, silty, sandy

Shale: gray, red, silty, sandy, pyritic

Shale: gray, green, red, purple, blocky

Limestone: white to tan, f-mxln, sl chalky, fossiliferous, no vis por

Shale: gray, red, purple, blocky, silty

Limestone: tan, mxln, sl chalky, granular, fossiliferous, no vis por

Shale: yellow, green, silty, sandy

Limestone: tan, mxln, sl chalky, oolitic, fossiliferous, pr interln por, gd dark sat stain, frsfo (heavy), faint odor

Limestone: lt gray, vf-xln, dense, no vis por

Limestone: lt gray, vf-xln, dense, fossiliferous, no vis por

Limestone: lt gray, vf-xln, sl cherty, dense, fossiliferous, no vis por

Siltstone/Shale: gray, silty, hard, calcareous

Shale: dark gray, black carbonaceous, silty

Limestone: tan to brown, f,fxn, pyritic, dense, no vis por

Shale: reg, gray, sandy

Sandstone: gray to white, opaque, f-gr, md, well sorted, calcareous, semi friable, no vis por

Shale: gray, red, silty

Limestone: white to tan, mxln, sl chalky, oolitic, fossiliferous, gd oolitic por, lt to dark sat stain, gdsfo, strong odor

Limestone: tan, micro-xln, dense, v-sl fossiliferous, no vis por

Sandstone: white, lt to opaque, f-gr, sub-md, well sorted, calcareous, semi friable, no vis por, few pieces with black stain, nfo, no odor

Shale: red, silty, sandy

Shale: gray, green, red, silty

Limestone: white, f-mxln, oolitic, fossiliferous, no vis por

Shale: red, gray, black, silty

Limestone: tan, f,fxn, dense, fossiliferous, no vis por

Shale: red, gray, silty

Shale: red, clumpy

Limestone: white, f,fxn, sl chalky, oolitic, fossiliferous, no vis por

Limestone: tan to white, f,fxn, granular, fossiliferous, no vis por, 2 pieces with trace amount of glsontie, nfo, no odor

Shale: gray, black, carbonaceous

Shale: gray, dark gray, silty

Limestone: brown, f,fxn, dense, sl fossiliferous, no vis por

Shale: red, silty

Limestone: white, f,fxn, chalky, granular, fossiliferous, pr interln por

Shale: gray, red, silty

Limestone: white to tan, f,fxn, sl fossiliferous, no vis por

Shale: gray, red, silty

Limestone: white, f,fxn, sl chalky, fossiliferous, fr pp to vug por, dark sat stain, gdsfo, faint odor

Shale: red, brown, dark to lt gray

Limestone: tan to lt gray, mxln, sl chalky, oolitic, fossiliferous, no vis por

Limestone: white to lt gray, f,fxn, sl chalky, fossiliferous, no vis por

Shale: gray, red

Limestone: tan, microxln, dense, fossiliferous, no vis por

Shale: gray, red

Shale: gray, red

Limestone: white, f,fxn, sl chalky, fossiliferous, no vis por

Shale: gray, red, green, silty

Sandstone: white, lt to opaque, f-gr, md, well sorted, calcareous, semi friable, no vis por

Limestone: gray, f-mxln, sl fossiliferous, no vis por

Shale: red, gray, green, silty

Limestone: gray, m-kin, oolitic in part, fossiliferous, argillaceous, no vis por

Shale: gray, red, silty, sl sandy

Shale: red, gray, green, silty, sandy

Limestone: gray, f,fxn, oolitic, dense, fossiliferous, no vis por

Shale: gray, red, silty

Limestone: gray, f,fxn, chalky, fossiliferous, no vis por

Shale: gray, black

Limestone: tan, f,fxn, dense, fossiliferous, no vis por

Shale: gray, black

Limestone: tan, f,fxn, dense, fossiliferous, no vis por

Shale: gray, red, brown, sandy

Sandstone: white, opaque, f-mgr, sub-md, poorly sorted, calcareous, soft, chalky, no vis por

Limestone: tan to white, f,fxn, hard, sl chalky, no vis por

Shale: red, gray, purple, yellow

Sandstone: white, lt, f-mgr, sub-ang., mod sorted, biotitic, semi friable, no vis por

Shale: red, gray, green, sandy

Conglomerate

Shale: red, gray, green, sandy

Sandstone: red, m-igr, sub-ang., mod sorted, semi friable, no vis por

Shale: red, gray, green, yellow, sandy

Sandstone: white, lt, f,gr, sub-md, poorly sorted, biotitic, semi friable, no vis por

Shale: gray lt to dark, red, purple, blocky

Shale: gray lt to dark, red, silty, sandy

Shale: gray, black, yellow, red, silty, sandy, pyritic

Sandstone: white, lt to opaque, biotitic, f-mgr, sub-md, mod sorted, semi friable, fr intergranular por

Shale: gray, black, red

Chert: white, mostly opaque, 70% weathered 30% fresh, no vis por

Mississippian

RTD

4874' (-1603)

wt 9.1, vis. 57, lcm 8#

Morgan Mud, Cade Lines

Geologist off location at 2:30pm, 7/8/2015

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5976804

067816

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

SERVICE POINT

Dock, KS

DATE <u>7-9-15</u>	SEC. <u>6</u>	TWP. <u>2</u>	RANGE <u>35</u>	CALLED OUT	ON LOCATION <u>1:30am</u>	JOB START <u>2:30am</u>	JOB FINISH <u>3:00am</u>
LEASE <u>Frybicki Well # 1-6</u>		LOCATION <u>Boardway rd to Rd. W, Wto Rd. 8, 2 N, Winto</u>		COUNTY <u>Rawlins</u>	STATE <u>KS</u>		
OLD OR (NEW) (Circle one)							

CONTRACTOR Murfin J OWNER Same 1.03 \$25 all

TYPE OF JOB RTA

HOLE SIZE 7 7/8 TD 4000'

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2 DEPTH 3150'

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT 1 1/2 plug 5 w/ 13 mud 2 1/2 plug 5 w/ 13 mud

EQUIPMENT _____

PUMP TRUCK CEMENTER Paul Beaver 1

431 HELPER Brandon Wilkinson 2

BULK TRUCK _____

820/241 DRIVER Darren Rucelle 2

BULK TRUCK _____

_____ DRIVER _____

CEMENT

AMOUNT ORDERED 25.5 sks 60/40

4 1/2 gal 1/4" Flo-seal

COMMON	@	_____
POZMIX	@	_____
GEL	@	_____
CHLORIDE	@	_____
ASC	@	_____
<u>60/40/4</u>	<u>25.5 sks @ 18.92</u>	<u>4824.60</u>
<u>Flo-seal</u>	<u>64 "</u>	<u>@ 2.97 190.08</u>
TOTAL		<u>5,014.68</u>

REMARKS:

Mix 50 sks @ 3150' Displace w/ mud

Mix 100 sks @ 2310' Displace w/ mud

Mix 50 sks @ 315'

mip 16 sks @ 40' w/ plug

Mix 30 sks in bulk

Mix 15 sks in bulk

Thank You!
Paul + crew

CHARGE TO: Murfin Dtlg.

STREET _____

CITY _____ STATE _____ ZIP _____

DISCOUNT 50% 2507.24

SERVICE

HANDLING <u>213.87 ft³</u>	@ <u>2.48</u>	<u>679.20</u>
MILEAGE <u>11.44 hrs x 50 mi x 2.75</u>		<u>1573.00</u>
DEPTH OF JOB	<u>3150'</u>	
PUMP TRUCK CHARGE		<u>2483.59</u>
EXTRA FOOTAGE	@	_____
HV MILEAGE	<u>50 @ 7.90</u>	<u>395.00</u>
LV MILEAGE	<u>50 @ 4.40</u>	<u>220.00</u>
TOTAL		<u>5,180.79</u>

DISCOUNT 50% 2590.39

PLUG & FLOAT EQUIPMENT

8 5/8 Industrial

wooden plug @ _____ 110.00

TOTAL 110.00

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 Arno Cabera

SIGNATURE Arno Cabera

DISCOUNT 0%

SALES TAX (if Any) 845.25

TOTAL CHARGES 10,845.47

DISCOUNT 5.06173 (50%) IF PAID IN 30 DAYS

NET TOTAL 5,177.73 IF PAID IN 30 DAYS

MDCI
 Frisbie 'B' #1-6
 1980' FNL 330'FEL
 Sec. 6-2S-35W
 3271' KB

Formation	Sample top	Datum	Ref	Log tops	Datum	Ref
Anhydrite	3125	+146	+4	3130	+141	-1
B/Anhydrite	3158	+113	+3	3163	+108	-2
Topeka	3967	-696	+10	3969	-698	+8
Oread	4089	-818	+9	4094	-823	+4
Lansing	4197	-926	+4	4198	-927	+3
Stark	4409	-1138	+9	4410	-1139	+8
BKC	4454	-1183	+11	4458	-1187	+7
Pawnee	4582	-1311	+8	4586	-1315	+4
Cherokee	4657	-1386	+10	4659	-1388	+8
Mississippi	4862	-1591	+10	4862	-1591	+10
RTD	4874	-1603				
LTD				4880	-1609	