



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1200534
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: _____

1200534

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

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

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

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR. _____	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____					
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Abell Ranch 'A' 1-30
Doc ID	1200534

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated

Thomas J. Funk
Petroleum Geologist

Geologists Report
Drilling Time and Sample Log

OPERATOR **Murfin Drilling Co., Inc**

LEASE **Abell Ranch 'A'** WELL NO **#1-30**
FIELD **Field Ext** API **15-063-22172**
LOCATION **660' FSL & 330' FWL**
SEC. **30** TWP **12S** RGE. **30W**
COUNTY **Gove** STATE **Kansas**

ELEVATION
KB 2907'
DF
GL 2896'
Measurements Are All From **KB**

CASING RECORD
SURFACE
8 5/8" at 215'KB w/175SX

DRILLING TIME KEPT FROM **3600'** TO **4620'**
SAMPLES EXAMINED FROM **3600'** TO **4620'**
GEOLOGICAL SUPERVISION FROM **3620'** TO **4620'**
MUD UP **3300'** TYPE MUD **Chemical**

FORMATION	LOG	SAMPLE	TOP DATUM	TOP DATUM
Anhydrite	2395 (+512)	2393 (+514)		
B/Anhydrite	2419 (+489)	2417 (+490)		
Topokaka	3699 (-792)	3701 (-794)		
Heebner Sh	3920 (-1013)	3918 (-1011)		
Lansing	3953 (-1046)	3953 (-1046)		
Muncie Creek	4099 (-1192)	4097 (-1190)		
Start Sh	4182 (-1275)	4181 (-1274)		
Marmaton	4306 (-1389)	4305 (-1388)		
Pawnee	4374 (-1467)	4369 (-1462)		
Cherokee Sh	4464 (-1557)	4463 (-1556)		
Johnson Zone	4508 (-1601)	4507 (-1600)		
Mississippian	4525 (-1618)	4624 (-1617)		

Date	Daily Progress	NO	Stret	Make	Type	Depth	Out	Feet	Hours
12/27/13	Spud	1	12 1/4"	HTC	RR	217	217		2
12/28/13		2	7 7/8"	HTC	DF566F	3600	3393	42	
12/29/13		3	7 7/8"	HTC	GX20c	4620	1020	84	
12/30/13									
12/31/13									
1/1/14									
1/2/14									
1/3/14									
1/4/14									
1/5/14									
1/6/14									
1/7/14									

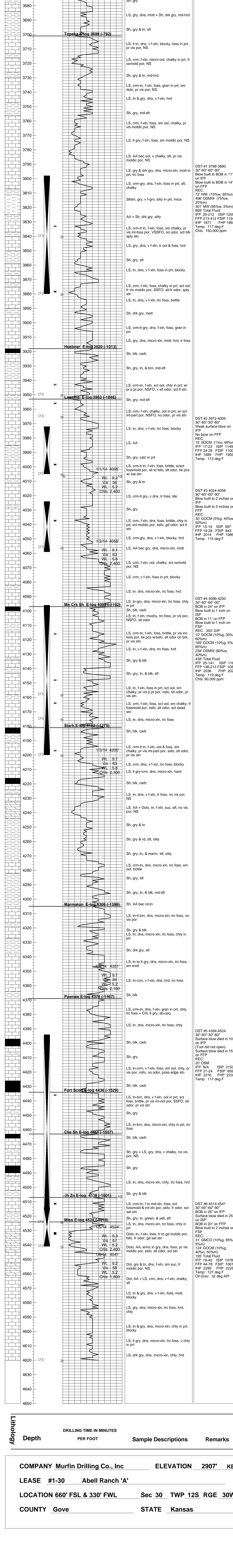
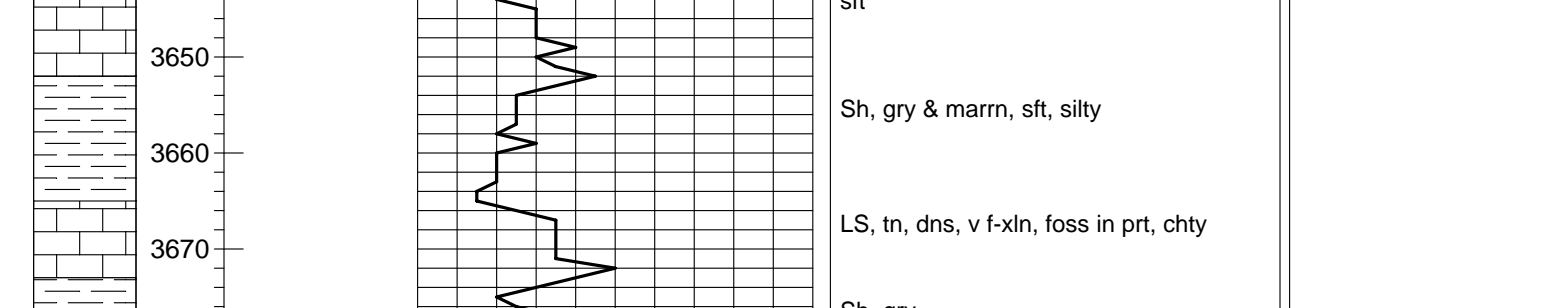
PRODUCTION
5 1/2" at 4612'KB w/175SX

ELECTRICAL SURVEYS
Pioneer Energy Services
DIL
MEL
DUOP
BHCS

LOG	SAMPLE	TOP DATUM	TOP DATUM
2395 (+512)	2393 (+514)		
2419 (+489)	2417 (+490)		
3699 (-792)	3701 (-794)		
3920 (-1013)	3918 (-1011)		
3953 (-1046)	3953 (-1046)		
4099 (-1192)	4097 (-1190)		
4182 (-1275)	4181 (-1274)		
4306 (-1389)	4305 (-1388)		
4374 (-1467)	4369 (-1462)		
4464 (-1557)	4463 (-1556)		
4508 (-1601)	4507 (-1600)		
4525 (-1618)	4624 (-1617)		

Remarks And Recommendations:
Based upon log analysis, DST recovery, and sample examination, it was decided to set production casing on the #1-30 Abell Ranch 'A'.
Thomas Funk
Petroleum Geologist

LEGEND



COMPANY **Murfin Drilling Co., Inc** ELEVATION **2907'** KB
LEASE **#1-30 Abell Ranch 'A'**
LOCATION **660' FSL & 330' FWL** Sec **30** TWP **12S** RGE **30W**
COUNTY **Gove** STATE **Kansas**



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water Suite 300
Wichita, KS 67202

ATTN: Tom Funk

Abell Ranch A #1-30

S30-12s-30w Gove, KS

Start Date: 2013.12.31 @ 10:10:00

End Date: 2013.12.31 @ 19:08:30

Job Ticket #: 55567 DST #: 1

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

Printed: 2014.01.08 @ 11:15:08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55567 **DST#: 1**
Test Start: 2013.12.31 @ 10:10:00

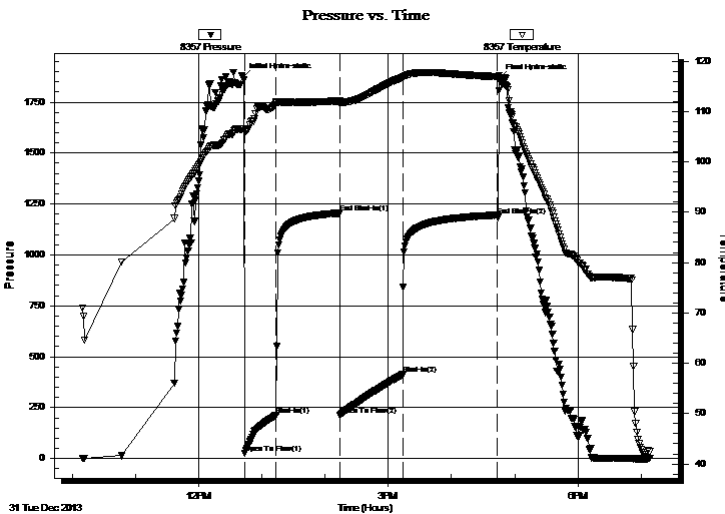
GENERAL INFORMATION:

Formation: **Lecompton - Oread**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 12:44:00 Tester: Chuck Smith
 Time Test Ended: 19:08:30 Unit No: 62
 Interval: **3798.00 ft (KB) To 3880.00 ft (KB) (TVD)** Reference Elevations: 2907.00 ft (KB)
 Total Depth: 3880.00 ft (KB) (TVD) 2896.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8357 Inside
 Press@RunDepth: 412.19 psig @ 3800.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.31 End Date: 2013.12.31 Last Calib.: 2013.12.31
 Start Time: 10:10:05 End Time: 19:08:30 Time On Btm: 2013.12.31 @ 12:41:48
 Time Off Btm: 2013.12.31 @ 16:45:12

TEST COMMENT: B.O.B. @ 11 min.
No return.
B.O.B. @ 14 min.
No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1870.86	106.65	Initial Hydro-static
3	25.12	105.93	Open To Flow (1)
32	212.30	111.66	Shut-In(1)
92	1205.13	112.11	End Shut-In(1)
93	213.40	111.62	Open To Flow (2)
152	412.19	116.76	Shut-In(2)
242	1193.86	116.95	End Shut-In(2)
244	1865.10	117.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
301.00	MW 5m 95w Oil spots Popping gas	2.05
496.00	MW 25m 75w Oil spots Popping gas	6.96
72.00	WM 13w 85m	1.01

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

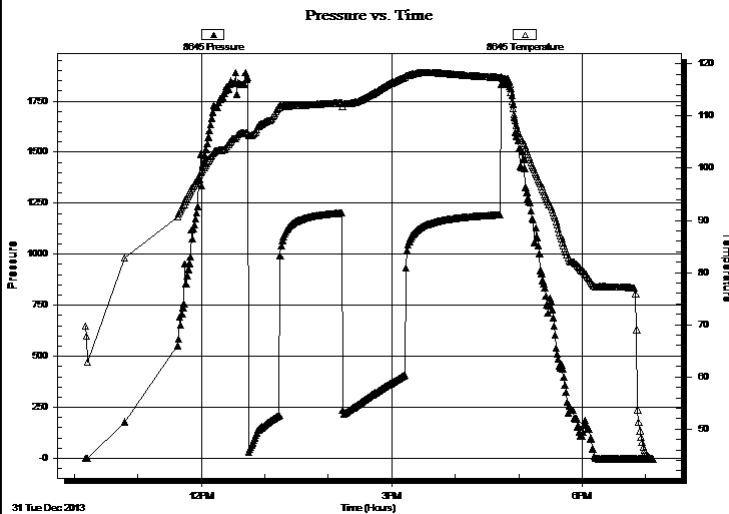
S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55567 **DST#: 1**
Test Start: 2013.12.31 @ 10:10:00

GENERAL INFORMATION:

Formation: **Lecompton - Oread**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 12:44:00 Tester: Chuck Smith
Time Test Ended: 19:08:30 Unit No: 62
Interval: 3798.00 ft (KB) To 3880.00 ft (KB) (TVD) Reference Elevations: 2907.00 ft (KB)
Total Depth: 3880.00 ft (KB) (TVD) 2896.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8645 Outside
Press@RunDepth: psig @ 3800.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.12.31 End Date: 2013.12.31 Last Calib.: 2013.12.31
Start Time: 10:10:38 End Time: 19:06:56 Time On Btm:
Time Off Btm:

TEST COMMENT: B.O.B. @ 11 min.
No return.
B.O.B. @ 14 min.
No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
301.00	MW 5m 95w Oil spots Popping gas	2.05
496.00	MW 25m 75w Oil spots Popping gas	6.96
72.00	WM 13w 85m	1.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55567

DST#: 1

ATTN: Tom Funk

Test Start: 2013.12.31 @ 10:10:00

Tool Information

Drill Pipe:	Length: 3570.00 ft	Diameter: 3.80 inches	Volume: 50.08 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 239.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 51.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	3798.00 ft			Final 88000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	102.00 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			3779.00	
Shut In Tool	5.00			3784.00	
Hydraulic tool	5.00			3789.00	
Packer	5.00			3794.00	20.00 Bottom Of Top Packer
Packer	4.00			3798.00	
Stubb	1.00			3799.00	
Perforations	1.00			3800.00	
Recorder	0.00	8357	Inside	3800.00	
Recorder	0.00	8645	Outside	3800.00	
Perforations	13.00			3813.00	
Change Over Sub	1.00			3814.00	
Drill Pipe	62.00			3876.00	
Bullnose	1.00			3877.00	
Bullnose	3.00			3880.00	82.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55567

DST#: 1

ATTN: Tom Funk

Test Start: 2013.12.31 @ 10:10:00

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:

150000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
301.00	MW 5m 95w Oil spots Popping gas	2.045
496.00	MW 25m 75w Oil spots Popping gas	6.958
72.00	WM 13w 85m	1.010

Total Length: 869.00 ft Total Volume: 10.013 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

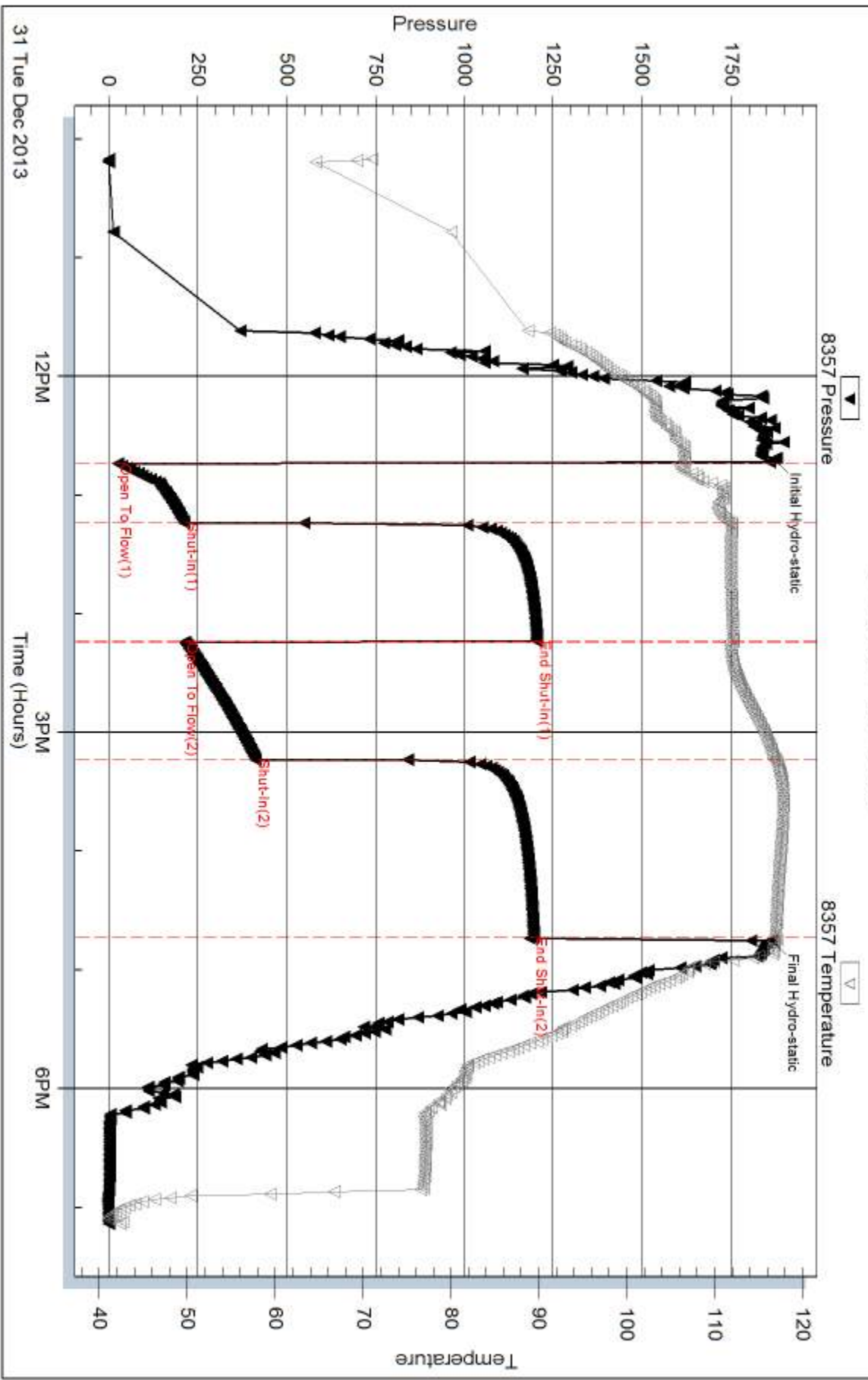
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .084 @ 49 Degrees F = 150000 PPM

Pressure vs. Time

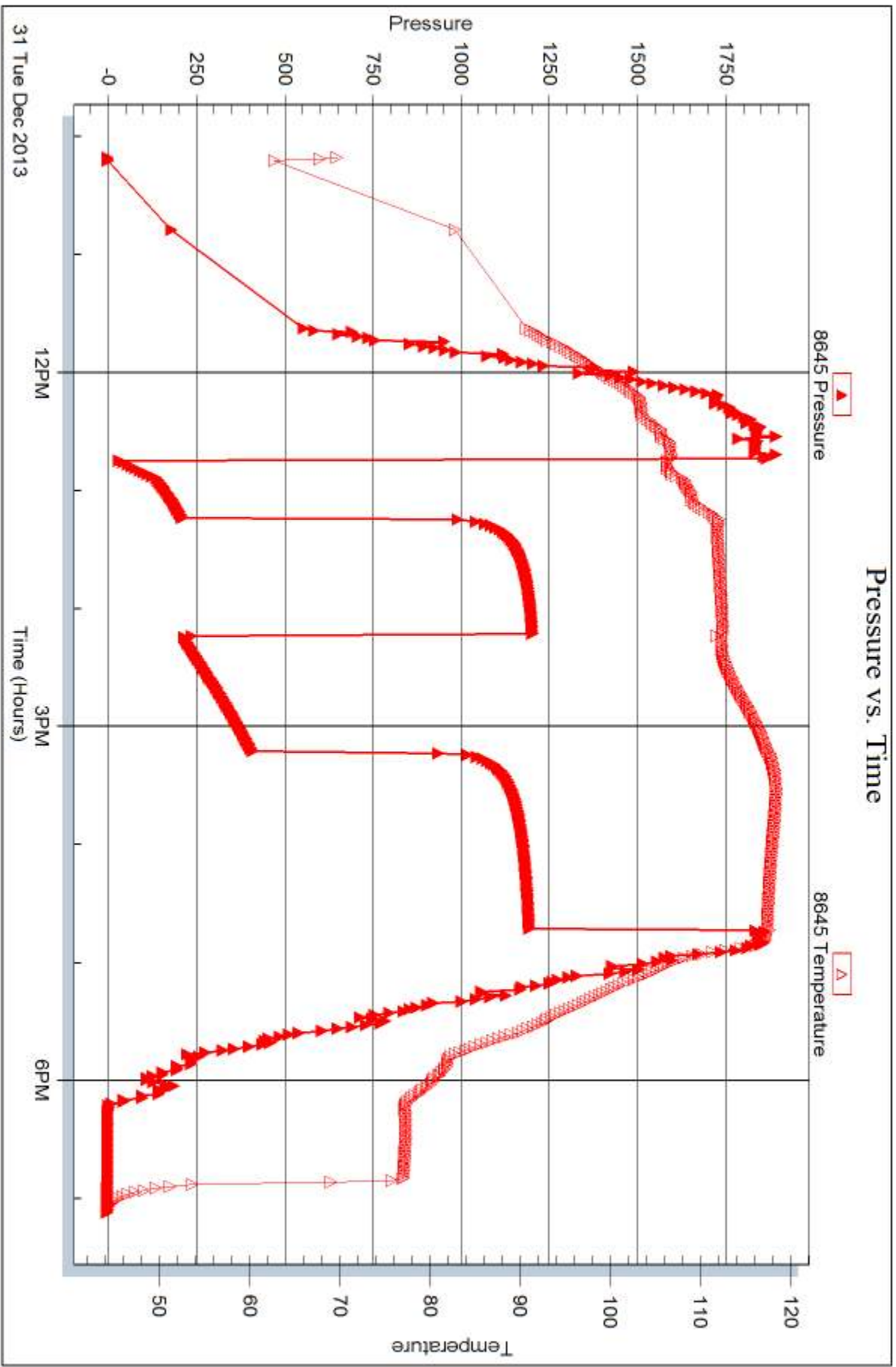


Serial #: 8645

Outside Murfin Drilling Co.

Abell Ranch A #1-30

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 55567

Printed: 2014.01.08 @ 11:15:11



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water Suite 300
Wichita, KS 67202

ATTN: Tom Funk

Abell Ranch A #1-30

S30-12s-30w Gove, KS

Start Date: 2014.01.01 @ 11:43:00

End Date: 2014.01.01 @ 18:30:47

Job Ticket #: 55568 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.01.08 @ 11:14:36



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
 250 N Water Suite 300
 Wichita, KS 67202
 ATTN: Tom Funk

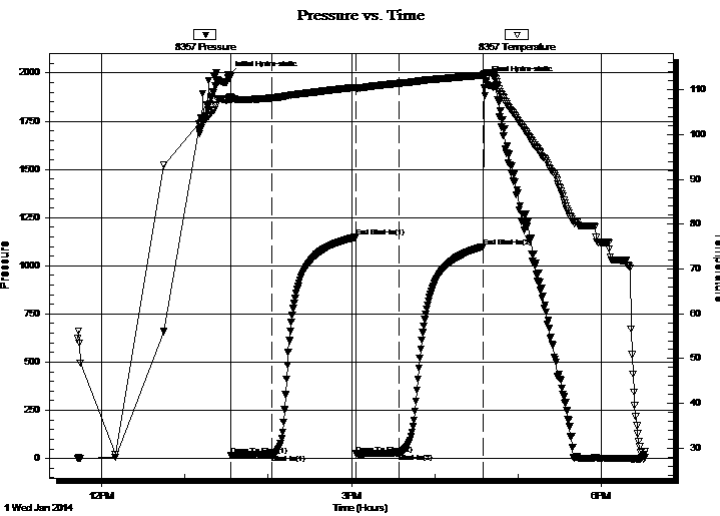
S30-12s-30w Gove, KS
Abell Ranch A #1-30
 Job Ticket: 55568 **DST#: 2**
 Test Start: 2014.01.01 @ 11:43:00

GENERAL INFORMATION:

Formation: **LKC 'B'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:33:24
 Time Test Ended: 18:30:47
 Interval: **3972.00 ft (KB) To 4005.00 ft (KB) (TVD)**
 Total Depth: 4005.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Smith
 Unit No: 62
 Reference Elevations: 2907.00 ft (KB)
 2896.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8357 Inside
 Press@RunDepth: 28.00 psig @ 3979.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.01.01 End Date: 2014.01.01 Last Calib.: 2014.01.01
 Start Time: 11:43:05 End Time: 18:30:48 Time On Btm: 2014.01.01 @ 13:31:24
 Time Off Btm: 2014.01.01 @ 16:36:17

TEST COMMENT: Surface blow throughout.
 No return.
 No blow.
 No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1988.94	107.90	Initial Hydro-static
2	16.83	107.63	Open To Flow (1)
31	22.62	108.18	Shut-In(1)
92	1149.32	110.58	End Shut-In(1)
93	23.93	110.19	Open To Flow (2)
123	28.00	111.45	Shut-In(2)
184	1100.23	113.26	End Shut-In(2)
185	1959.06	113.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	SOCM 1 to 99m	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55568

DST#: 2

ATTN: Tom Funk

Test Start: 2014.01.01 @ 11:43:00

GENERAL INFORMATION:

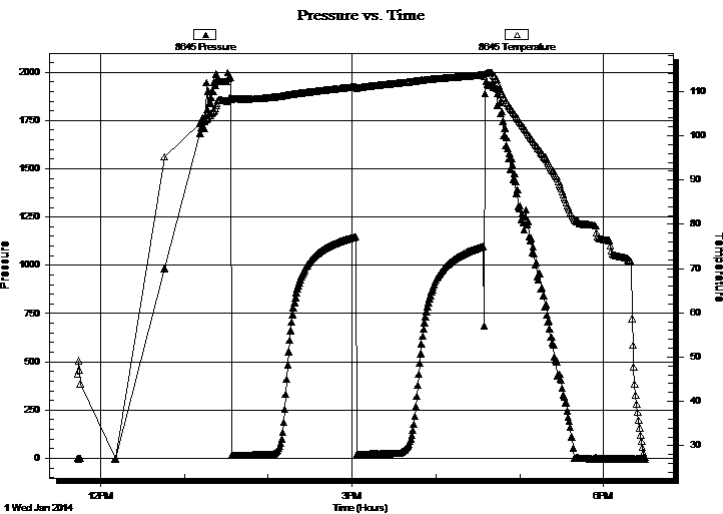
Formation: **LKC 'B'**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 13:33:24 Tester: Chuck Smith
 Time Test Ended: 18:30:47 Unit No: 62
 Interval: **3972.00 ft (KB) To 4005.00 ft (KB) (TVD)** Reference Elevations: 2907.00 ft (KB)
 Total Depth: 4005.00 ft (KB) (TVD) 2896.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8645

Outside

Press@RunDepth: psig @ 3979.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.01.01 End Date: 2014.01.01 Last Calib.: 2014.01.01
 Start Time: 11:43:43 End Time: 18:29:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: Surface blow throughout.
 No return.
 No blow.
 No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	SOCM 1 to 99m	0.07

* 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.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55568

DST#: 2

ATTN: Tom Funk

Test Start: 2014.01.01 @ 11:43:00

Tool Information

Drill Pipe:	Length: 3728.00 ft	Diameter: 3.80 inches	Volume: 52.29 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 239.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 53.47 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	3972.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	53.00 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			3953.00	
Shut In Tool	5.00			3958.00	
Hydraulic tool	5.00			3963.00	
Packer	5.00			3968.00	20.00 Bottom Of Top Packer
Packer	4.00			3972.00	
Stubb	1.00			3973.00	
Perforations	5.00			3978.00	
Perforations	1.00			3979.00	
Recorder	0.00	8357	Inside	3979.00	
Recorder	0.00	8645	Outside	3979.00	
Perforations	23.00			4002.00	
Bullnose	3.00			4005.00	33.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55568

DST#: 2

ATTN: Tom Funk

Test Start: 2014.01.01 @ 11:43:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	SOCM 1o 99m	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

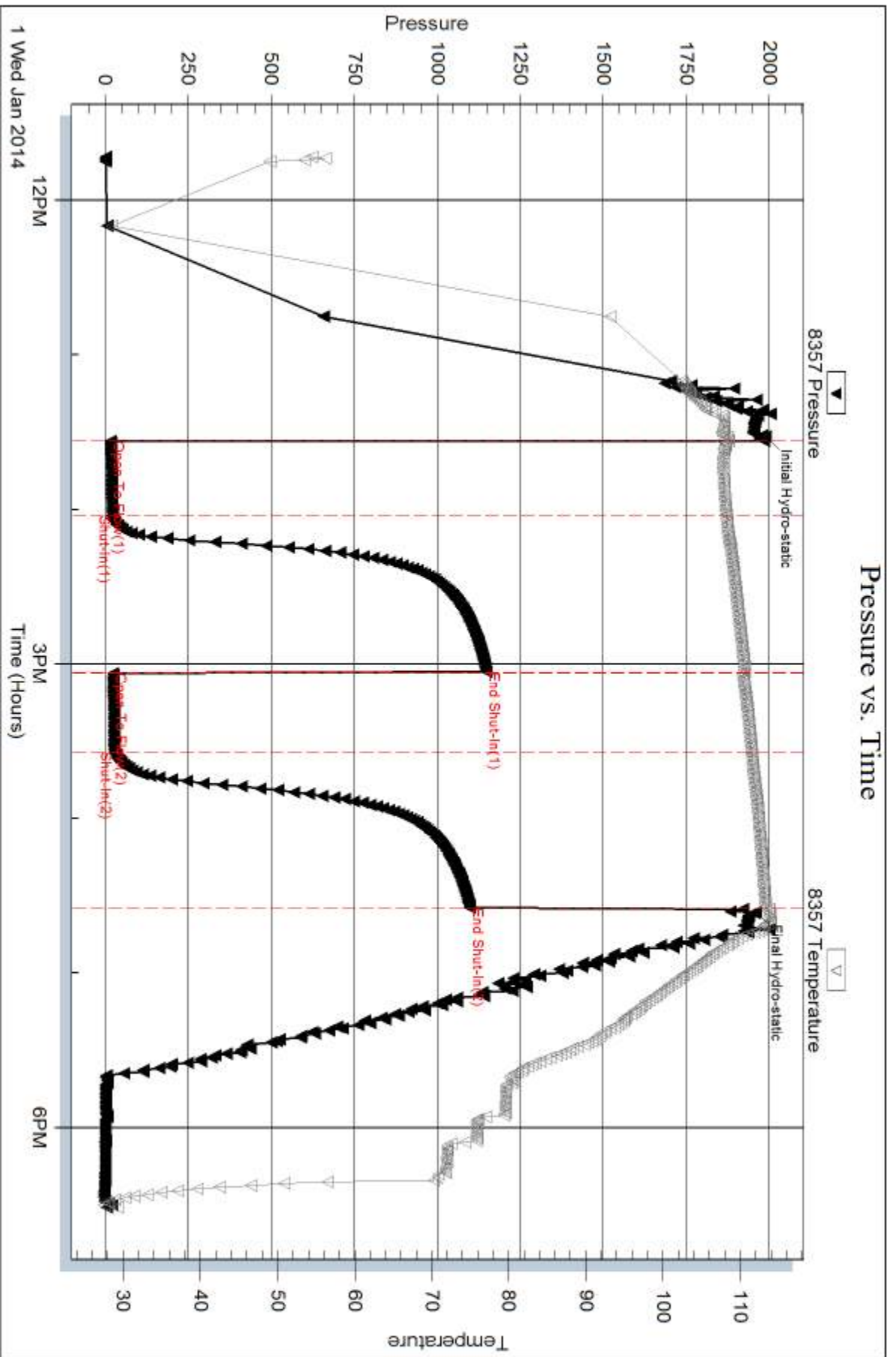
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

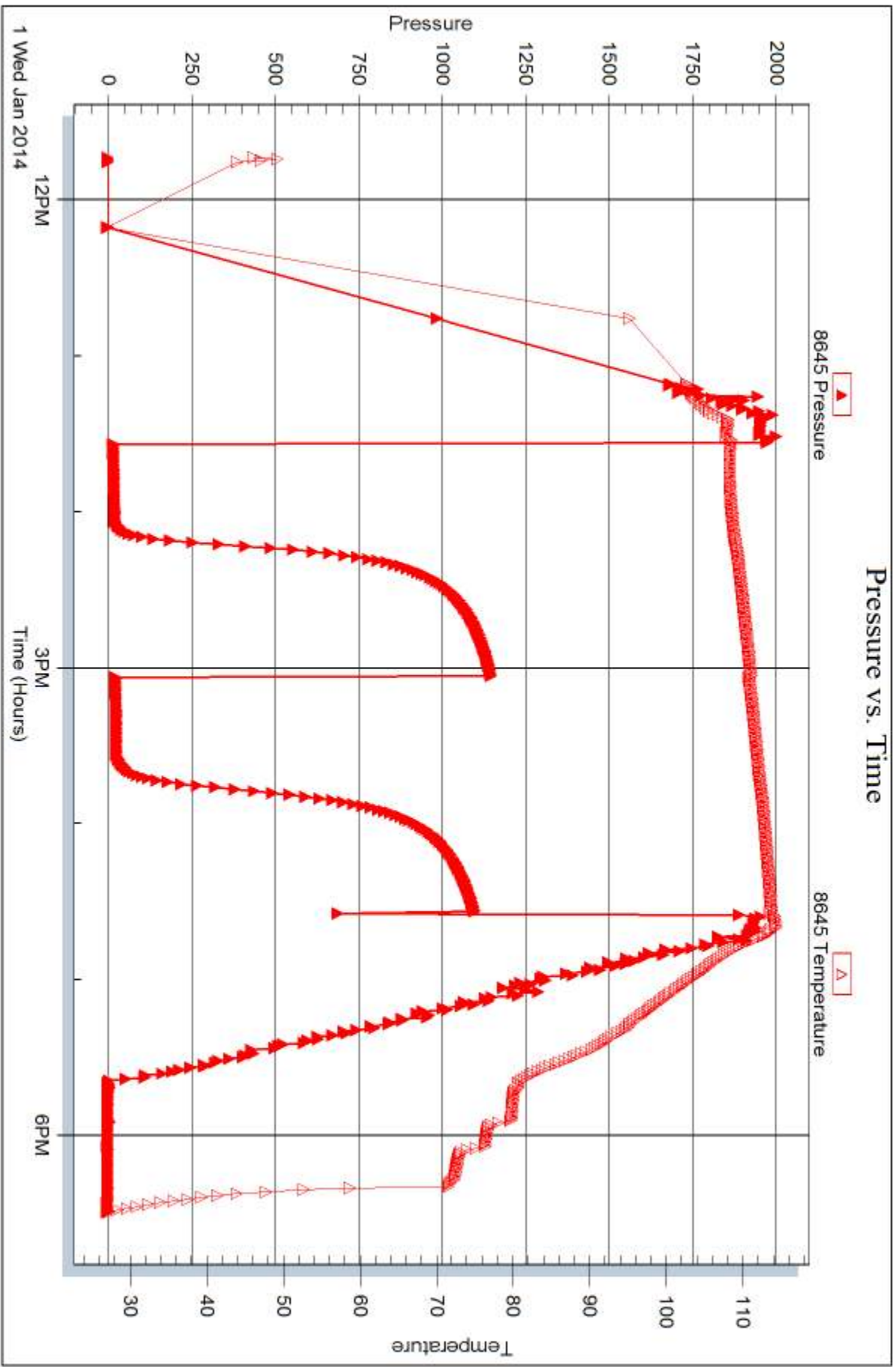


Serial #: 8645

Outside Murfin Drilling Co.

Abell Ranch A #1-30

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 55568

Printed: 2014.01.08 @ 11:14:38



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water Suite 300
Wichita, KS 67202

ATTN: Tom Funk

Abell Ranch A #1-30

S30-12s-30w Gove, KS

Start Date: 2014.01.02 @ 03:38:00

End Date: 2014.01.02 @ 11:54:42

Job Ticket #: 55569 DST #: 3

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

Printed: 2014.01.08 @ 11:14:04

Murfin Drilling Co. S30-12s-30w Gove, KS Abell Ranch A #1-30 DST # 3 LKC E.F. 2014.01.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55569 **DST#: 3**
Test Start: 2014.01.02 @ 03:38:00

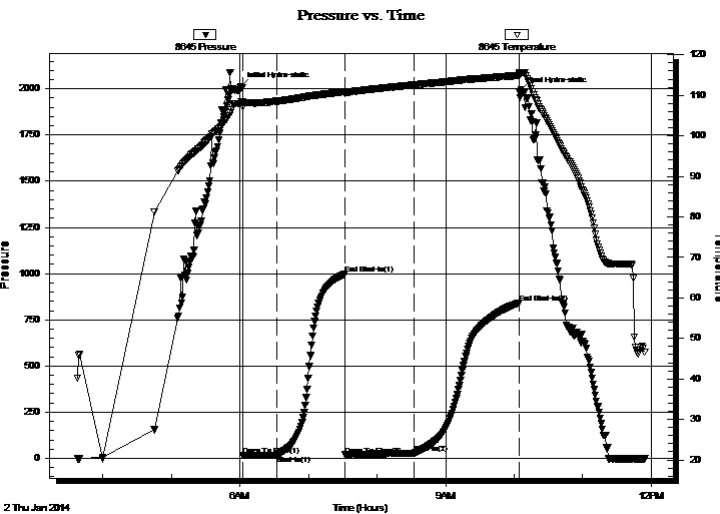
GENERAL INFORMATION:

Formation: **LKC 'E-F'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:02:30
Time Test Ended: 11:54:42
Interval: **4024.00 ft (KB) To 4056.00 ft (KB) (TVD)**
Total Depth: 4056.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Smith
Unit No: 62
Reference Elevations: 2907.00 ft (KB)
2896.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8645 Outside

Press@RunDepth: 28.39 psig @ 4030.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.02 End Date: 2014.01.02 Last Calib.: 2014.01.02
Start Time: 03:38:05 End Time: 11:54:42 Time On Btm: 2014.01.02 @ 06:00:30
Time Off Btm: 2014.01.02 @ 10:04:24

TEST COMMENT: 2" Blow .
No return.
5" Blow .
No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2013.87	107.95	Initial Hydro-static
2	14.75	107.09	Open To Flow (1)
32	19.01	108.54	Shut-In(1)
92	996.56	110.93	End Shut-In(1)
92	18.70	110.42	Open To Flow (2)
153	28.39	112.58	Shut-In(2)
244	842.55	114.90	End Shut-In(2)
244	1986.11	115.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	GOCM 5g 450 50m	0.15

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55569 **DST#: 3**
Test Start: 2014.01.02 @ 03:38:00

GENERAL INFORMATION:

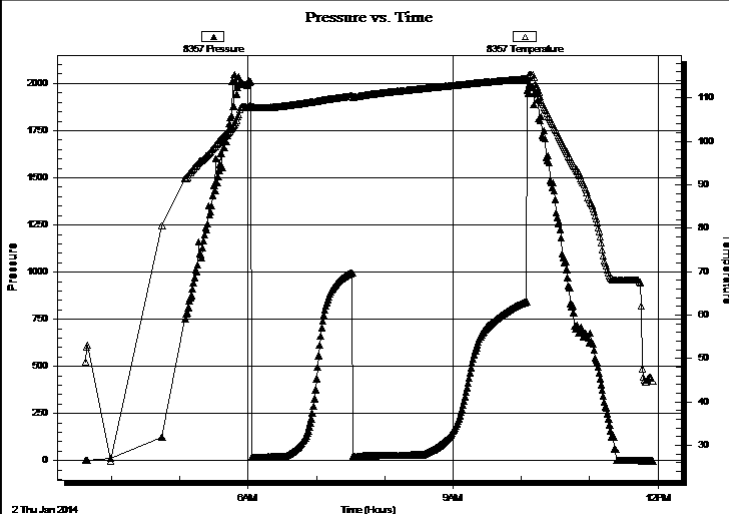
Formation: **LKC 'E-F'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:02:30
Time Test Ended: 11:54:42
Interval: **4024.00 ft (KB) To 4056.00 ft (KB) (TVD)**
Total Depth: 4056.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Smith
Unit No: 62
Reference Elevations: 2907.00 ft (KB)
2896.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8357

Inside

Press@RunDepth: psig @ 4030.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.02 End Date: 2014.01.02 Last Calib.: 2014.01.02
Start Time: 03:37:20 End Time: 11:55:57 Time On Btm:
Time Off Btm:

TEST COMMENT: 2" Blow.
No return.
5" Blow.
No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	GOCM 5g 450 50m	0.15

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55569

DST#: 3

ATTN: Tom Funk

Test Start: 2014.01.02 @ 03:38:00

Tool Information

Drill Pipe:	Length: 3781.00 ft	Diameter: 3.80 inches	Volume: 53.04 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 239.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 54.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4024.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	52.00 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			4005.00	
Shut In Tool	5.00			4010.00	
Hydraulic tool	5.00			4015.00	
Packer	5.00			4020.00	20.00 Bottom Of Top Packer
Packer	4.00			4024.00	
Stubb	1.00			4025.00	
Perforations	5.00			4030.00	
Recorder	0.00	8357	Inside	4030.00	
Recorder	0.00	8645	Outside	4030.00	
Perforations	23.00			4053.00	
Bullnose	3.00			4056.00	32.00 Bottom Packers & Anchor

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55569

DST#: 3

ATTN: Tom Funk

Test Start: 2014.01.02 @ 03:38:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	GOCM 5g 450 50m	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

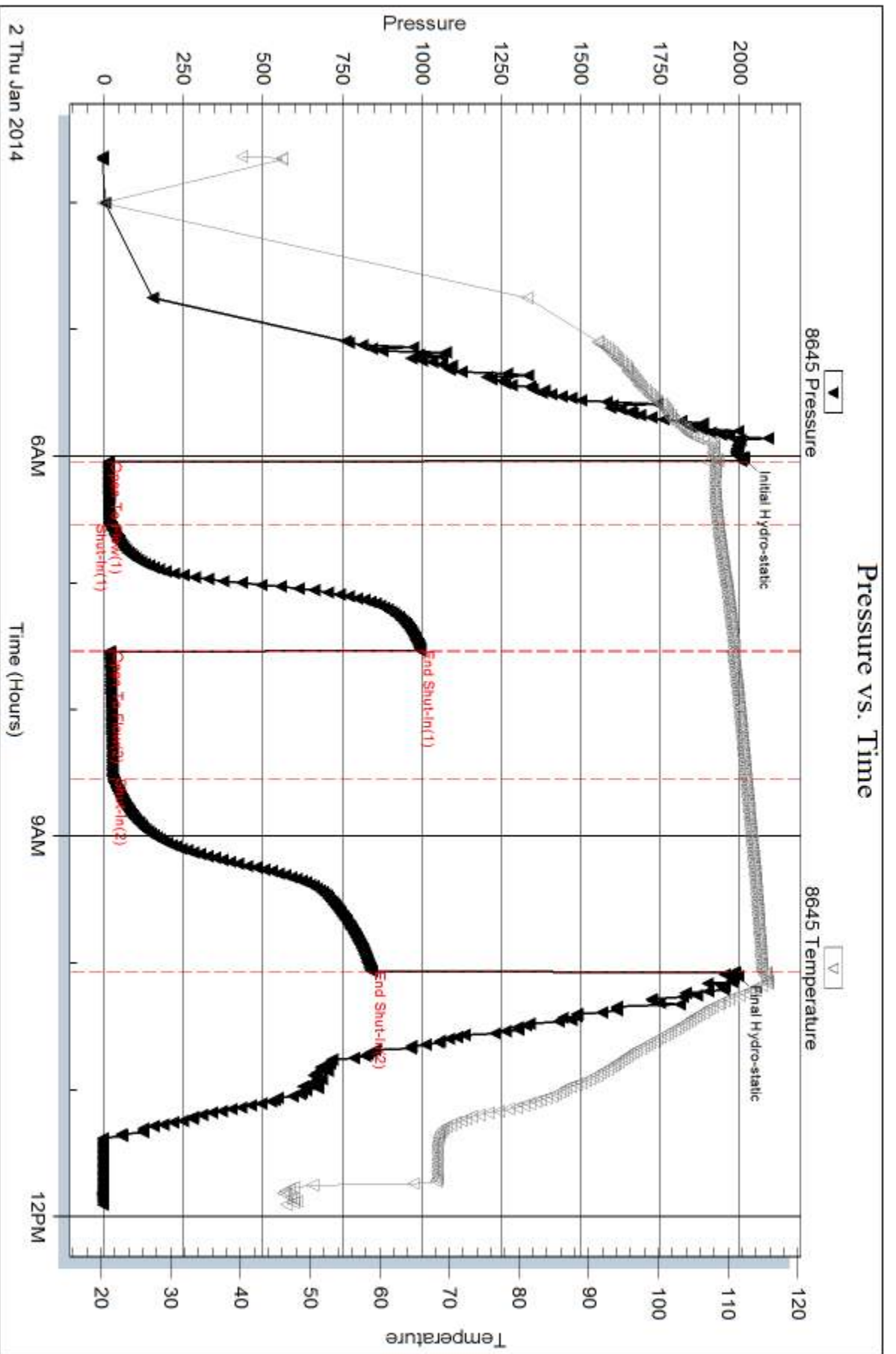
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 38 @ 60 Degrees F = 38



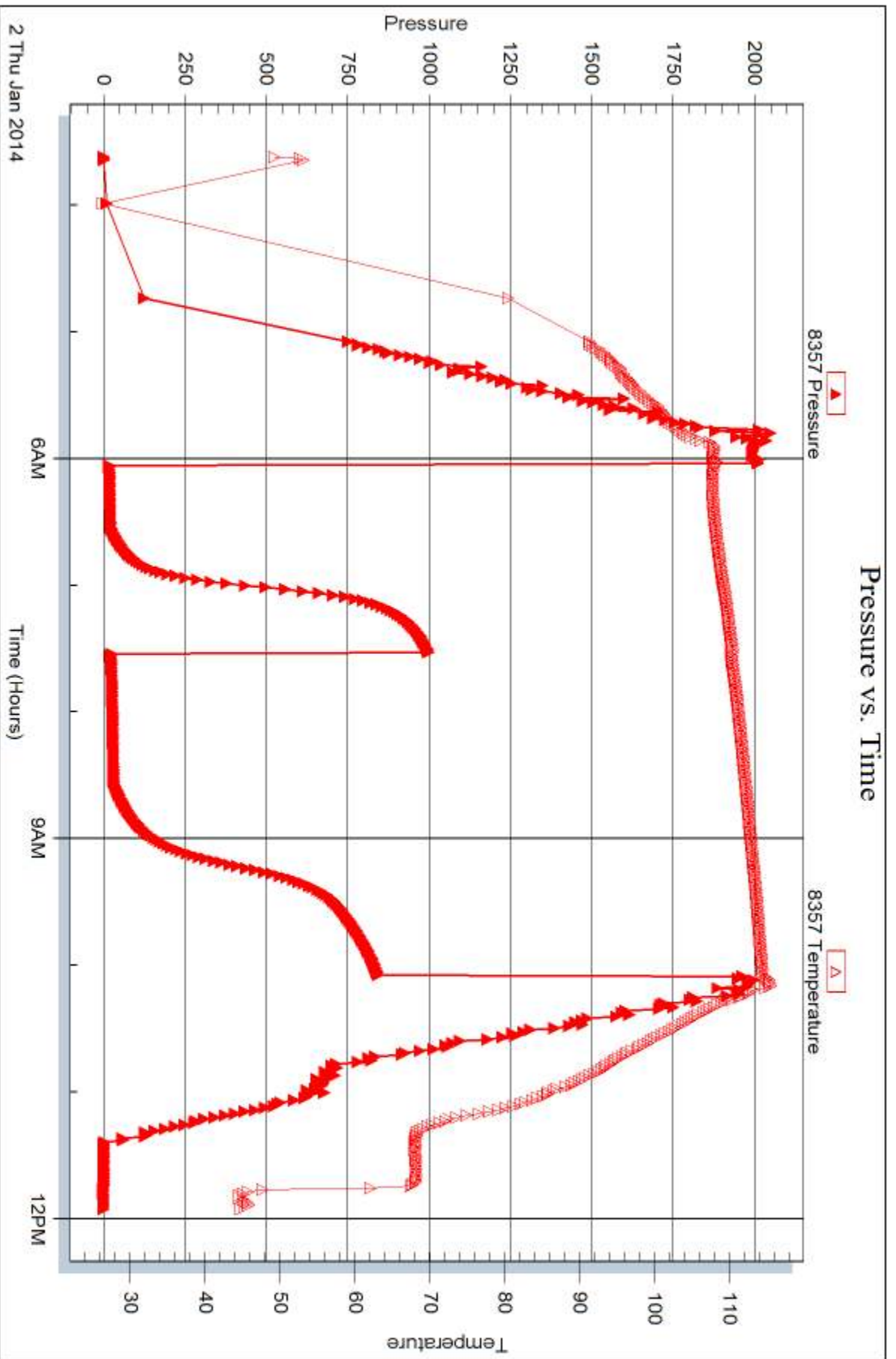
Serial #: 8357

Inside

Murfin Drilling Co.

Abell Ranch A #1-30

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water Suite 300
Wichita, KS 67202

ATTN: Tom Funk

Abell Ranch A #1-30

S30-12s-30w Gove, KS

Start Date: 2014.01.03 @ 10:15:00

End Date: 2014.01.03 @ 18:39:36

Job Ticket #: 55570 DST #: 4

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

Printed: 2014.01.08 @ 11:13:36

Murfin Drilling Co. S30-12s-30w Gove, KS Abell Ranch A #1-30 DST # 4 LKC:H-K 2014.01.03



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

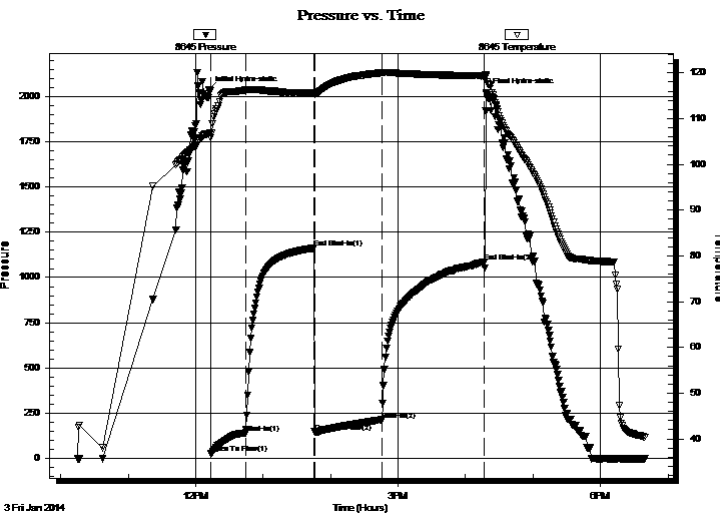
S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55570 **DST#: 4**
Test Start: 2014.01.03 @ 10:15:00

GENERAL INFORMATION:

Formation: **LKC 'H-K'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:13:24
Time Test Ended: 18:39:36
Interval: **4096.00 ft (KB) To 4200.00 ft (KB) (TVD)**
Total Depth: 4200.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Smith
Unit No: 62
Reference Elevations: 2907.00 ft (KB)
2896.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8645 Outside
Press@RunDepth: 213.00 psig @ 4097.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.03 End Date: 2014.01.03 Last Calib.: 2014.01.03
Start Time: 10:15:05 End Time: 18:39:36 Time On Btm: 2014.01.03 @ 12:11:54
Time Off Btm: 2014.01.03 @ 16:18:18

TEST COMMENT: B.O.B. @ 24 min.
1" Return.
B.O.B. @ 11 min.
1" Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2036.37	106.74	Initial Hydro-static
2	25.22	105.79	Open To Flow (1)
33	140.55	116.26	Shut-In(1)
93	1162.81	115.67	End Shut-In(1)
94	145.95	115.32	Open To Flow (2)
154	213.00	119.99	Shut-In(2)
245	1084.47	119.32	End Shut-In(2)
247	2021.68	119.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
239.00	OSMW 40m 60w	1.18
189.00	GOCM 10g 5o 85m	2.65
10.00	GOCM 10g 30o 60m	0.14
0.00	350' GIP	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.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

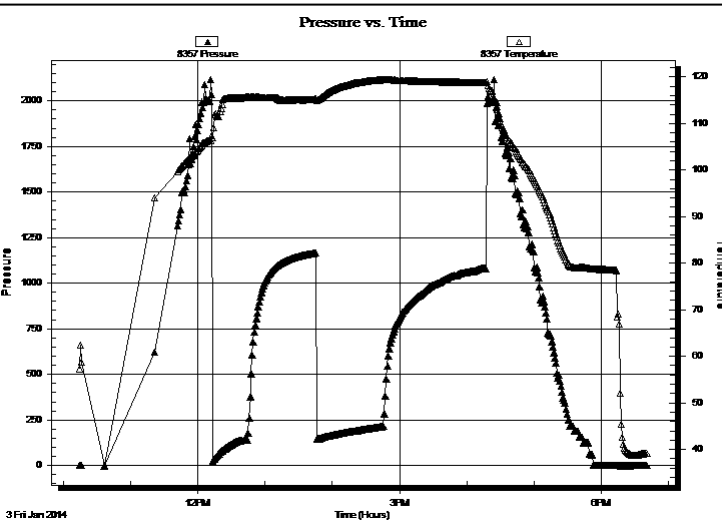
S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55570 **DST#: 4**
Test Start: 2014.01.03 @ 10:15:00

GENERAL INFORMATION:

Formation: **LKC 'H-K'**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 12:13:24 Tester: Chuck Smith
Time Test Ended: 18:39:36 Unit No: 62
Interval: 4096.00 ft (KB) To 4200.00 ft (KB) (TVD) Reference Elevations: 2907.00 ft (KB)
Total Depth: 4200.00 ft (KB) (TVD) 2896.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8357 Inside
Press@RunDepth: psig @ 4097.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.03 End Date: 2014.01.03 Last Calib.: 2014.01.03
Start Time: 10:14:30 End Time: 18:40:54 Time On Btm:
Time Off Btm:

TEST COMMENT: B.O.B. @ 24 min.
1" Return.
B.O.B. @ 11 min.
1" Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
239.00	OSMW 40m 60w	1.18
189.00	GOCM 10g 5o 85m	2.65
10.00	GOCM 10g 30o 60m	0.14
0.00	350' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55570

DST#: 4

ATTN: Tom Funk

Test Start: 2014.01.03 @ 10:15:00

Tool Information

Drill Pipe:	Length: 3854.00 ft	Diameter: 3.80 inches	Volume: 54.06 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 239.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 55.24 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4096.00 ft			Final 87000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	104.00 ft			
Tool Length:	124.00 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			4077.00	
Shut In Tool	5.00			4082.00	
Hydraulic tool	5.00			4087.00	
Packer	5.00			4092.00	20.00 Bottom Of Top Packer
Packer	4.00			4096.00	
Stubb	1.00			4097.00	
Recorder	0.00	8357	Inside	4097.00	
Recorder	0.00	8645	Outside	4097.00	
Perforations	5.00			4102.00	
Change Over Sub	1.00			4103.00	
Drill Pipe	93.00			4196.00	
Bullnose	1.00			4197.00	
Bullnose	3.00			4200.00	104.00 Bottom Packers & Anchor

Total Tool Length: 124.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55570

DST#: 4

ATTN: Tom Funk

Test Start: 2014.01.03 @ 10:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

90000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
239.00	OSMW 40m 60w	1.175
189.00	GOCM 10g 5o 85m	2.651
10.00	GOCM 10g 30o 60m	0.140
0.00	350' GIP	0.000

Total Length: 438.00 ft Total Volume: 3.966 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

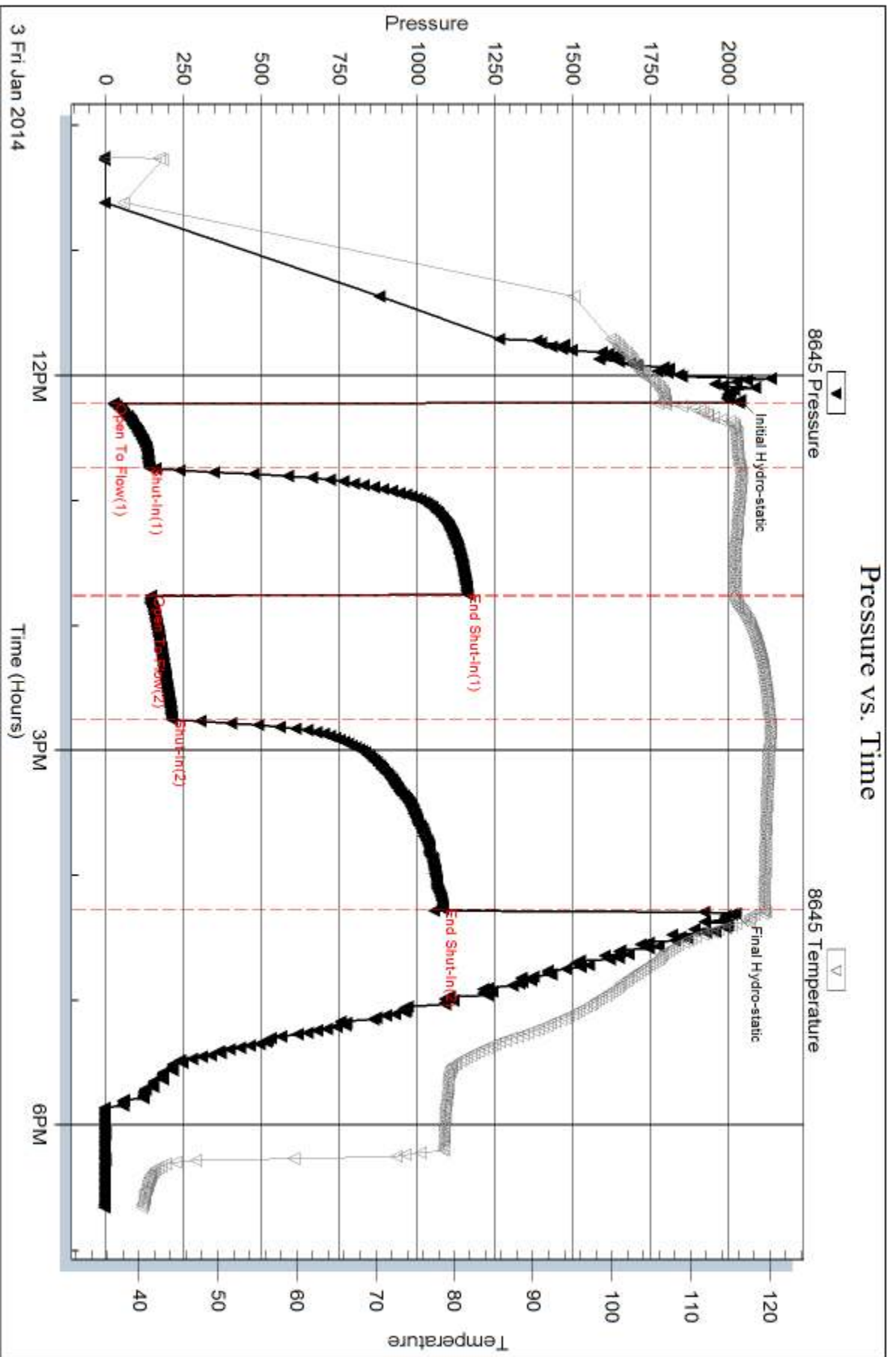
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 38 @ 50 Degrees F = 39.

RW: .145 @ 43 Degrees F = 90000 PPM



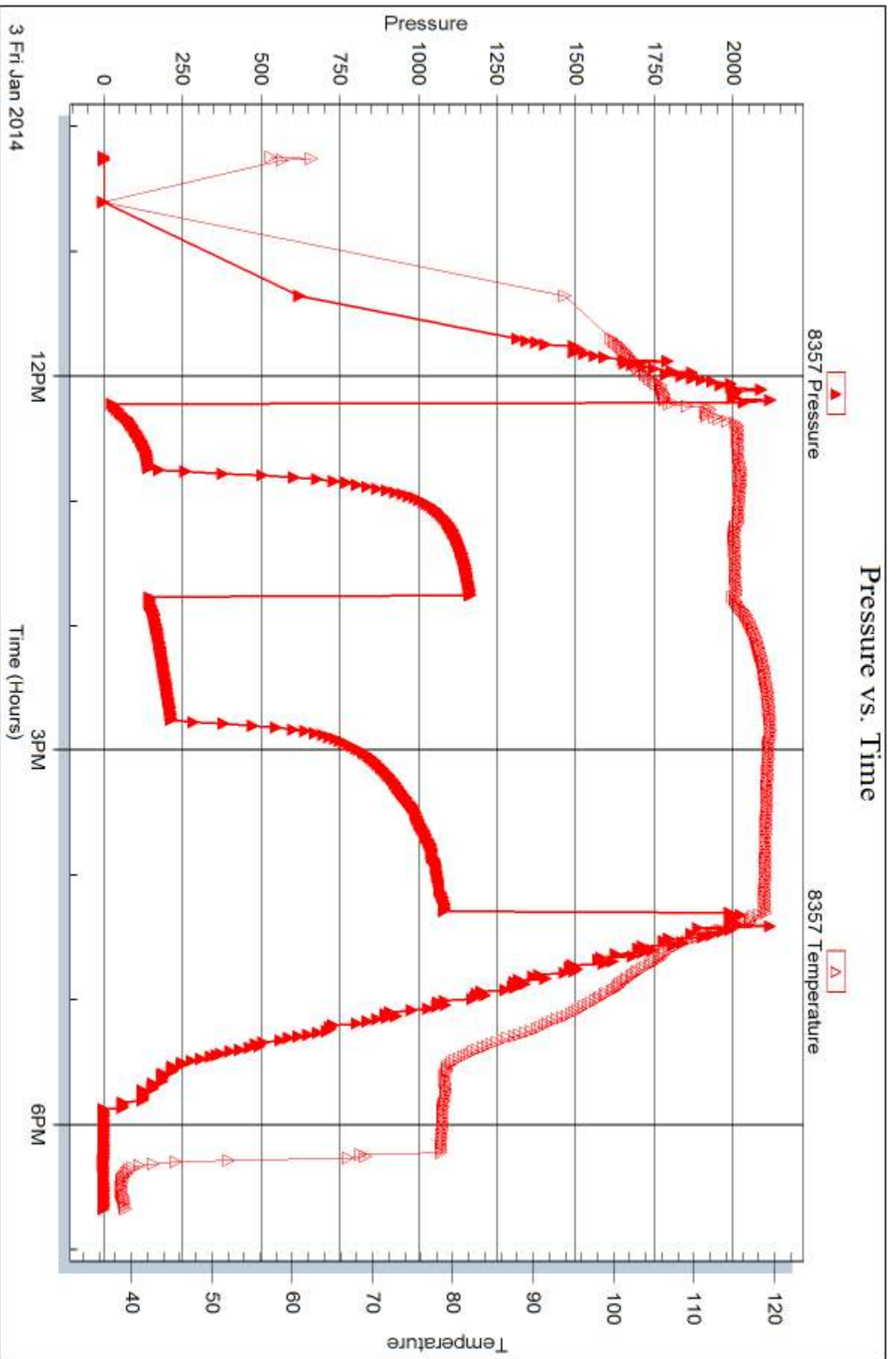
Serial #: 8357

Inside

Murfin Drilling Co.

Abell Ranch A #1-30

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 55570

Printed: 2014.01.08 @ 11:13:39



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water Suite 300
Wichita, KS 67202

ATTN: Tom Funk

Abell Ranch A #1-30

S30-12s-30w Gove, KS

Start Date: 2014.01.05 @ 10:26:00

End Date: 2014.01.05 @ 17:49:12

Job Ticket #: 55571 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.01.08 @ 11:13:11



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

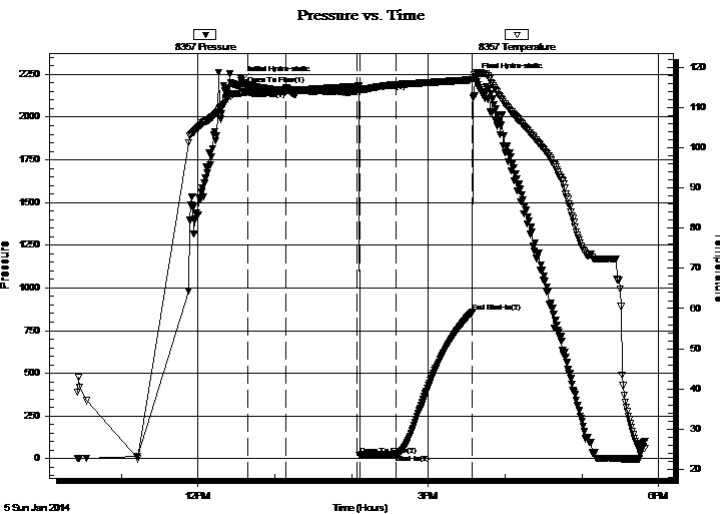
S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55571 **DST#: 5**
Test Start: 2014.01.05 @ 10:26:00

GENERAL INFORMATION:

Formation: **Lower Pawnee - Ft. S**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:38:42
Time Test Ended: 17:49:12
Interval: **4394.00 ft (KB) To 4524.00 ft (KB) (TVD)**
Total Depth: 4524.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Smith
Unit No: 62
Reference Elevations: 2907.00 ft (KB)
2896.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8357 Inside
Press@RunDepth: 23.91 psig @ 4396.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.05 End Date: 2014.01.05 Last Calib.: 2014.01.05
Start Time: 10:26:05 End Time: 17:49:12 Time On Btm: 2014.01.05 @ 12:34:00
Time Off Btm: 2014.01.05 @ 15:36:42

TEST COMMENT: Weak surface blow died @ 10 min. Tool did not open.
No return.
Weak surface blow died @ 15 min.
No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2215.71	113.48	Initial Hydro-static
5	2188.67	113.80	Open To Flow (1)
35	2153.37	114.10	Shut-In(1)
90	2150.32	115.25	End Shut-In(1)
93	20.93	114.47	Open To Flow (2)
121	23.91	115.68	Shut-In(2)
181	858.85	116.88	End Shut-In(2)
183	2234.51	118.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OSM 100m	0.10

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

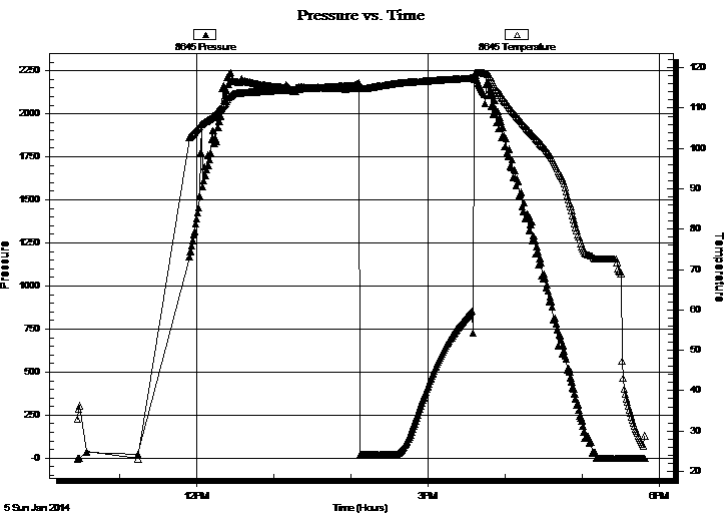
S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55571 **DST#: 5**
Test Start: 2014.01.05 @ 10:26:00

GENERAL INFORMATION:

Formation: **Lower Pawnee - Ft. S**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:38:42
Time Test Ended: 17:49:12
Interval: **4394.00 ft (KB) To 4524.00 ft (KB) (TVD)**
Total Depth: 4524.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Smith
Unit No: 62
Reference Elevations: 2907.00 ft (KB)
2896.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8645 **Outside**
Press@RunDepth: psig @ 4396.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.05 End Date: 2014.01.05 Last Calib.: 2014.01.05
Start Time: 10:27:05 End Time: 17:48:29 Time On Btm:
Time Off Btm:

TEST COMMENT: Weak surface blow died @ 10 min. Tool did not open.
No return.
Weak surface blow died @ 15 min.
No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OSM 100m	0.10

* 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.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55571

DST#: 5

ATTN: Tom Funk

Test Start: 2014.01.05 @ 10:26:00

Tool Information

Drill Pipe:	Length: 4167.00 ft	Diameter: 3.80 inches	Volume: 58.45 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 239.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 59.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 85000.00 lb
Depth to Top Packer:	4394.00 ft			Final 85000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	130.00 ft			
Tool Length:	150.00 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			4375.00	
Shut In Tool	5.00			4380.00	
Hydraulic tool	5.00			4385.00	
Packer	5.00			4390.00	20.00 Bottom Of Top Packer
Packer	4.00			4394.00	
Stubb	1.00			4395.00	
Perforations	1.00			4396.00	
Recorder	0.00	8357	Inside	4396.00	
Recorder	0.00	8645	Outside	4396.00	
Perforations	30.00			4426.00	
Change Over Sub	1.00			4427.00	
Drill Pipe	93.00			4520.00	
Bullnose	1.00			4521.00	
Bullnose	3.00			4524.00	130.00 Bottom Packers & Anchor

Total Tool Length: 150.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55571

DST#: 5

ATTN: Tom Funk

Test Start: 2014.01.05 @ 10:26:00

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: 5.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OSM 100m	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

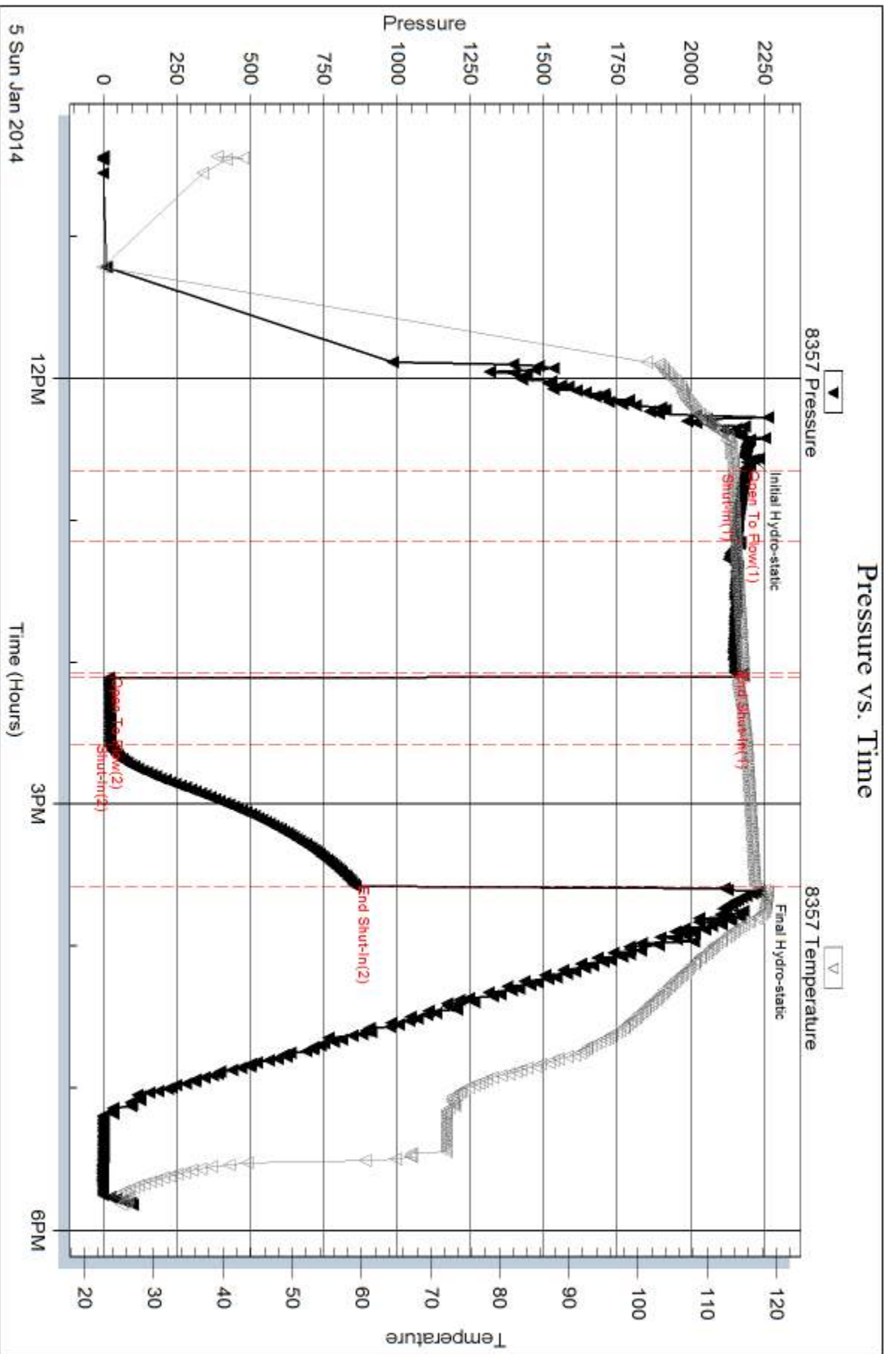
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

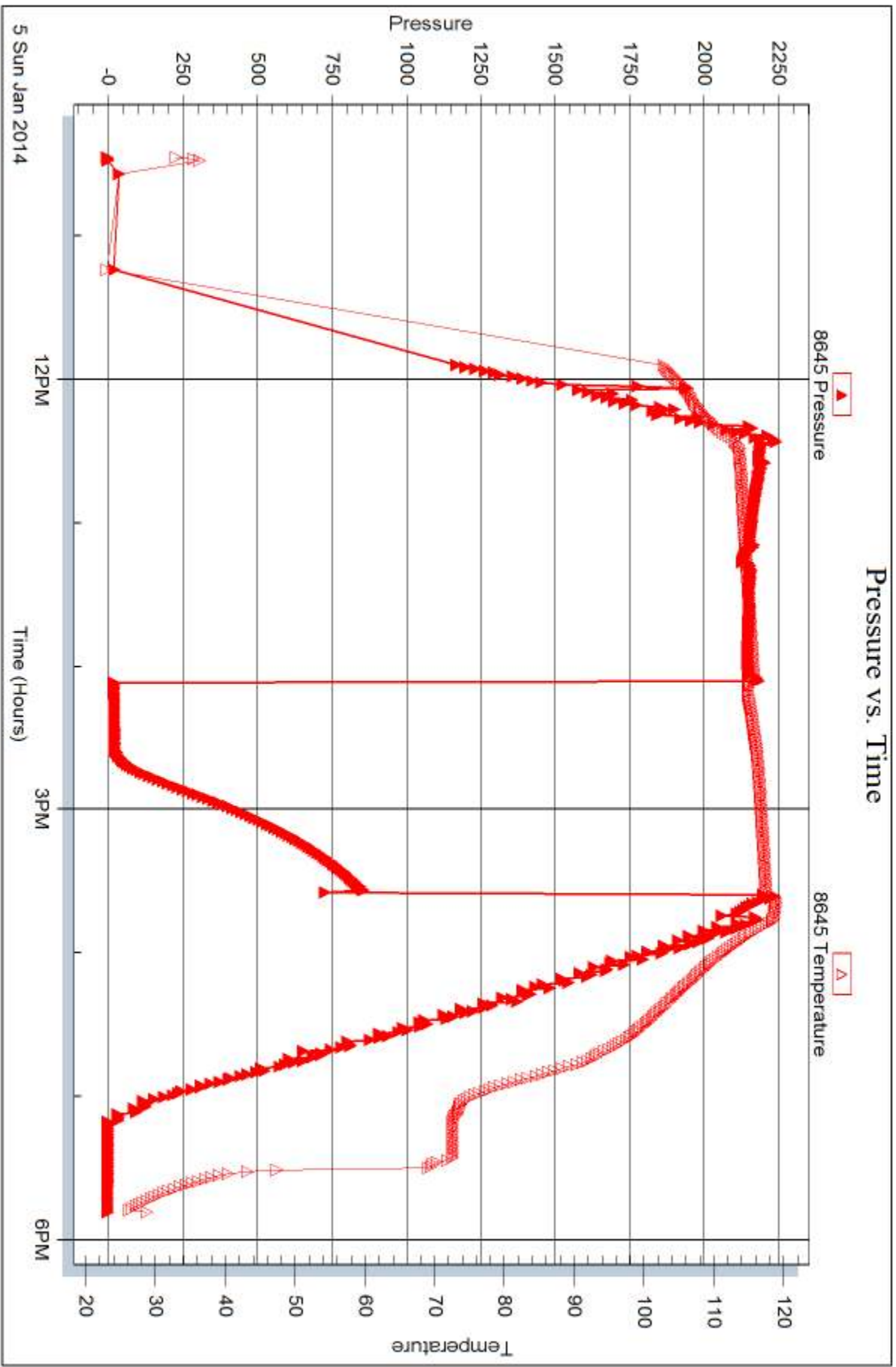


Serial #: 8645

Outside Murfin Drilling Co.

Abell Ranch A #1-30

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 55571

Printed: 2014.01.08 @ 11:13:13



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N Water Suite 300
Wichita, KS 67202

ATTN: Tom Funk

Abell Ranch A #1-30

S30-12s-30w Gove, KS

Start Date: 2014.01.06 @ 00:41:00

End Date: 2014.01.06 @ 14:12:35

Job Ticket #: 55572 DST #: 6

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

Printed: 2014.01.08 @ 11:12:12



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

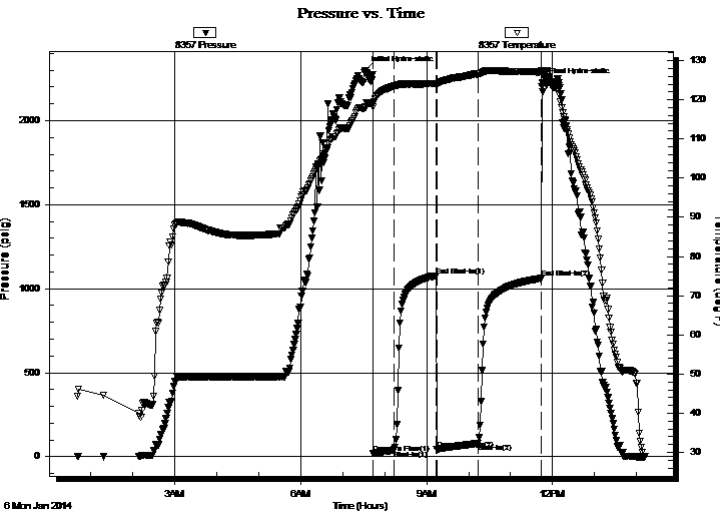
S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55572 **DST#: 6**
Test Start: 2014.01.06 @ 00:41:00

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:43:30
Time Test Ended: 14:12:35
Interval: **4514.00 ft (KB) To 4541.00 ft (KB) (TVD)**
Total Depth: 4541.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Smith
Unit No: 62
Reference Elevations: 2907.00 ft (KB)
2896.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8357 Inside
Press@RunDepth: 78.23 psig @ 4516.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.01.06 End Date: 2014.01.06 Last Calib.: 2014.01.06
Start Time: 00:41:05 End Time: 14:12:36 Time On Btm: 2014.01.06 @ 07:32:17
Time Off Btm: 2014.01.06 @ 11:45:24

TEST COMMENT: B.O.B. @ 28 min.
Weak surface return died @ 25 min.
B.O.B. @ 20 min.
2" Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2299.35	117.96	Initial Hydro-static
12	19.30	118.15	Open To Flow (1)
42	40.36	123.51	Shut-In(1)
102	1077.99	124.10	End Shut-In(1)
102	43.91	123.81	Open To Flow (2)
162	78.23	126.61	Shut-In(2)
252	1061.32	127.11	End Shut-In(2)
254	2228.10	127.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GOCM 10g 40o 50m	1.74
31.00	GMCO 10g 5m 85o	0.43

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

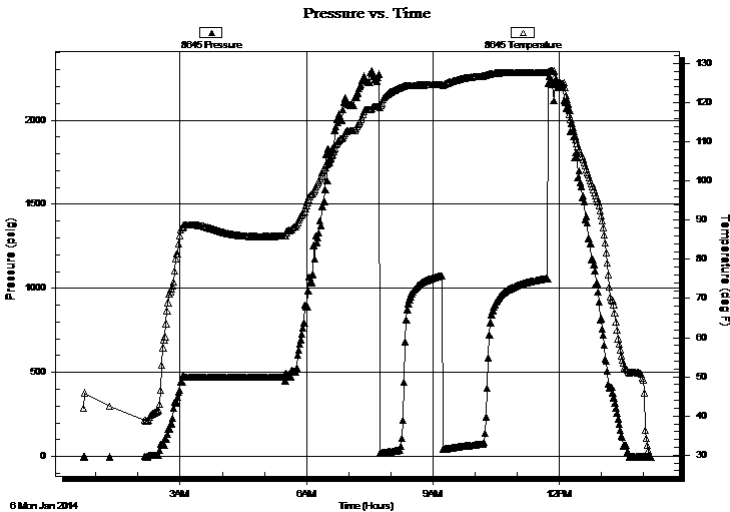
S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55572 **DST#: 6**
Test Start: 2014.01.06 @ 00:41:00

GENERAL INFORMATION:

Formation: **Mississippian**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:43:30
Time Test Ended: 14:12:35
Interval: **4514.00 ft (KB) To 4541.00 ft (KB) (TVD)**
Total Depth: 4541.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Smith
Unit No: 62
Reference Elevations: 2907.00 ft (KB)
2896.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8645 Outside
Press@RunDepth: psig @ 4516.00 ft (KB)
Start Date: 2014.01.06 End Date: 2014.01.06
Start Time: 00:42:37 End Time: 14:11:08
Capacity: 8000.00 psig
Last Calib.: 2014.01.06
Time On Btm:
Time Off Btm:

TEST COMMENT: B.O.B. @ 28 min.
Weak surface return died @ 25 min.
B.O.B. @ 20 min.
2" Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GOCM 10g 40o 50m	1.74
31.00	GMCO 10g 5m 85o	0.43

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.
250 N Water Suite 300
Wichita, KS 67202
ATTN: Tom Funk

S30-12s-30w Gove, KS
Abell Ranch A #1-30
Job Ticket: 55572 **DST#: 6**
Test Start: 2014.01.06 @ 00:41:00

Tool Information

Drill Pipe:	Length: 4510.00 ft	Diameter: 3.80 inches	Volume: 63.26 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 63.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4514.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	47.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4495.00	
Shut In Tool	5.00			4500.00	
Hydraulic tool	5.00			4505.00	
Packer	5.00			4510.00	20.00 Bottom Of Top Packer
Packer	4.00			4514.00	
Stubb	1.00			4515.00	
Perforations	1.00			4516.00	
Recorder	0.00	8357	Inside	4516.00	
Recorder	0.00	8645	Outside	4516.00	
Perforations	22.00			4538.00	
Bullnose	3.00			4541.00	27.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

S30-12s-30w Gove, KS

250 N Water Suite 300
Wichita, KS 67202

Abell Ranch A #1-30

Job Ticket: 55572

DST#: 6

ATTN: Tom Funk

Test Start: 2014.01.06 @ 00:41:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	GOCM 10g 40o 50m	1.739
31.00	GMCO 10g 5m 85o	0.435

Total Length: 155.00 ft Total Volume: 2.174 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

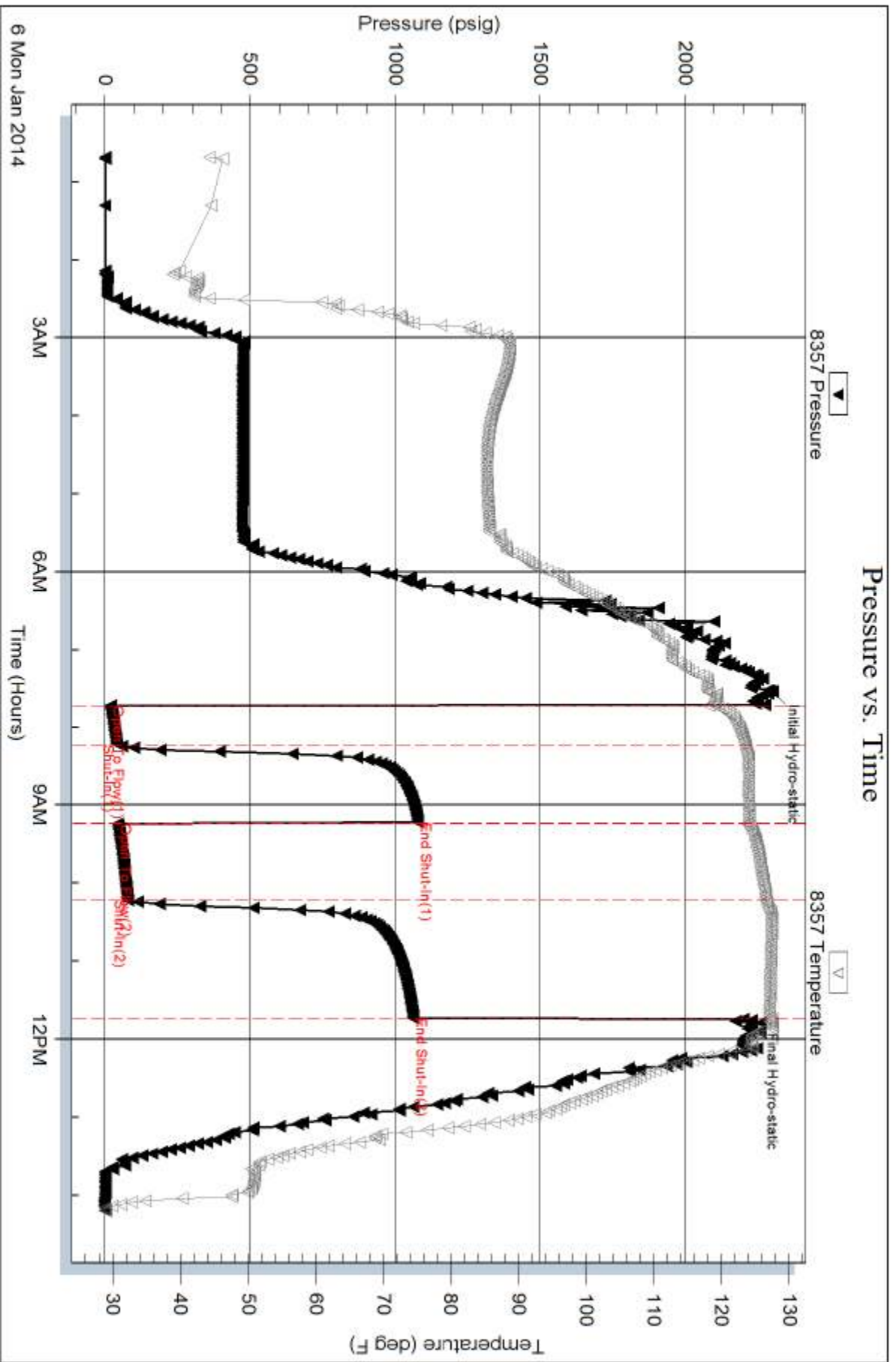
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API: 29 @ 30 Degrees F = 32.

Pressure vs. Time

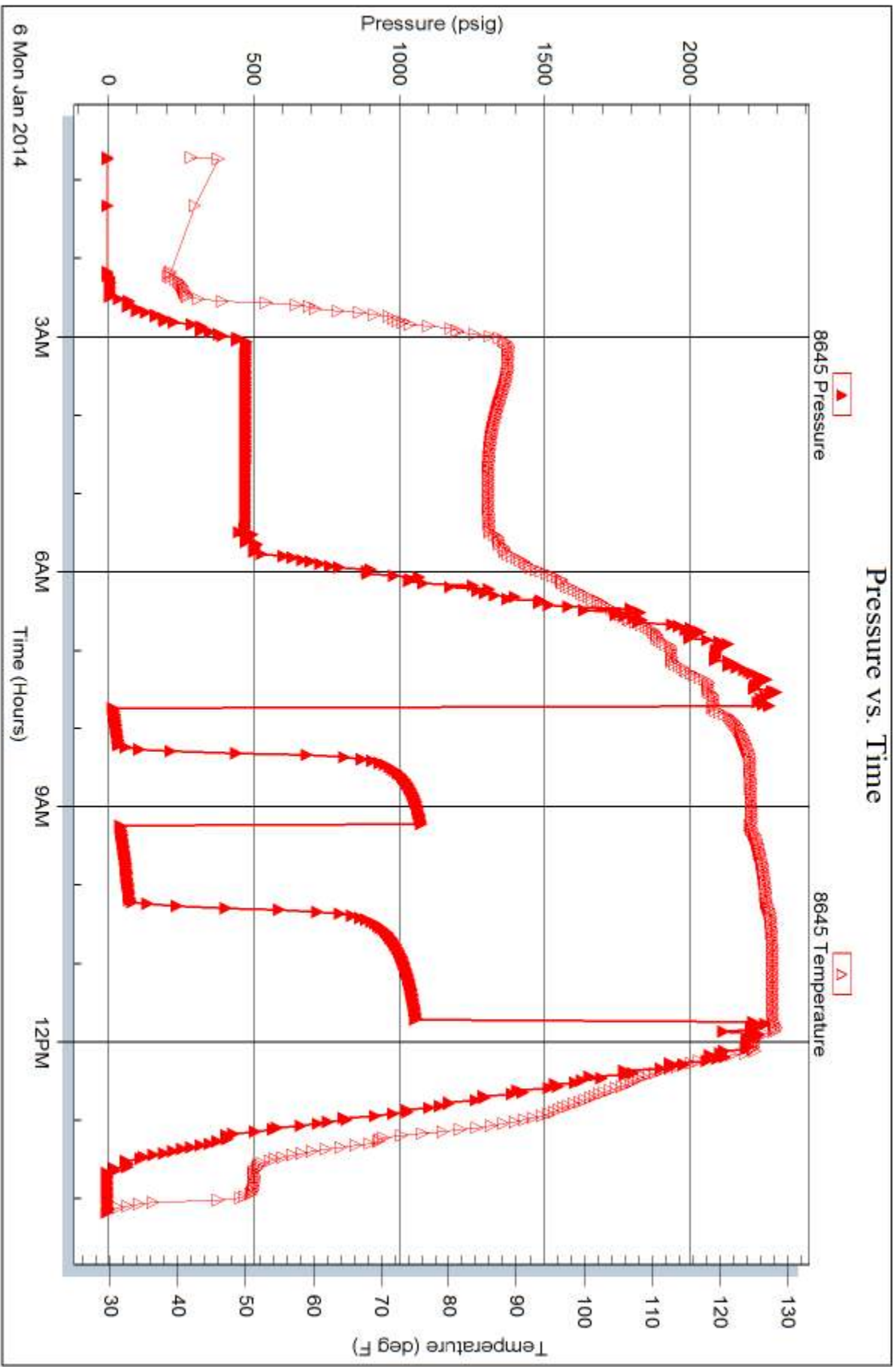


Serial #: 8645

Outside Murfin Drilling Co.

Abell Ranch A #1-30

DST Test Number: 6





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55567**

4/10

Well Name & No. Abell Ranch 'A' #1-30 Test No. 1 Date 12-31-13
 Company Musfin Drilling Co. Elevation 2907 KB 2896 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Tom Funk Rig MDC #22
 Location: Sec. 30 Twp. 12s Rge. 30w Co. Gove State KS

Interval Tested 3798-3880 Zone Tested Leocompton - Oread
 Anchor Length 82 Drill Pipe Run 3570 Mud Wt. 9.1
 Top Packer Depth 3794 Drill Collars Run 239 Vis 5.5
 Bottom Packer Depth 3798 Wt. Pipe Run 0 WL 5.2
 Total Depth 3880 Chlorides 1700 ppm System LCM 3rd

Blow Description B.O.B. @ 11 min.
No return.
B.O.B. @ 14 min.
No return.

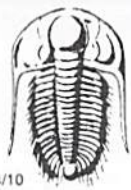
Rec	Feet of	%gas	%oil	%water	%mud
<u>72</u>	<u>WM</u>		<u>15</u>	<u>85</u>	
<u>496</u>	<u>MW Oil spots Popping gas</u>		<u>75</u>	<u>25</u>	
<u>301</u>	<u>MW Oil spots Popping gas</u>		<u>95</u>	<u>2.5</u>	

Rec Total 869 BHT 117 Gravity — API RW .084 @ 49 °F Chlorides 150,000 ppm
 (A) Initial Hydrostatic 1871 Test 1150 T-On Location 9:45
 (B) First Initial Flow 25 Jars T-Started 10:10
 (C) First Final Flow 212 Safety Joint T-Open 12:44
 (D) Initial Shut-In 1205 Circ Sub NIC T-Pulled 16:44
 (E) Second Initial Flow 213 Hourly Standby T-Out 19:09
 (F) Second Final Flow 412 Mileage 90RT 139.50
 (G) Final Shut-In 1194 Sampler
 (H) Final Hydrostatic 1865 Straddle
 Shale Packer
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 1289.50
 MP/DST Disc't

Approved By [Signature] Our Representative Chuck Smith

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. **55568**

Well Name & No. Abell Ranch 'A' #1-30 Test No. 2 Date 1-1-14
 Company Murfin Drilling Co. Elevation 2907 KB 2896 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Tom Funk Rig MDC #22
 Location: Sec. 30 Twp. 12s Rge. 30w Co. Gove State Ks

Interval Tested 3972-4005 Zone Tested LKC 'B'
 Anchor Length 33 Drill Pipe Run 3728 Mud Wt. 9.2
 Top Packer Depth 3968 Drill Collars Run 239 Vis 50
 Bottom Packer Depth 3972 Wt. Pipe Run 0 WL 5.2
 Total Depth 4005 Chlorides 2400 ppm System LCM 2"

Blow Description Surface blow throughout.
No return.
No blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>15</u>	Feet of <u>500cm</u>		<u>1</u>		<u>99</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

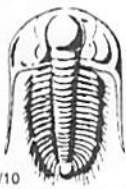
Rec Total 15 BHT 113 Gravity — API RW @ ° F Chlorides — ppm

(A) Initial Hydrostatic 1989 Test 1250 T-On Location 11:15
 (B) First Initial Flow 17 Jars — T-Started 11:43
 (C) First Final Flow 23 Safety Joint — T-Open 13:33
 (D) Initial Shut-In 1149 Circ Sub NIC T-Pulled 16:35
 (E) Second Initial Flow 24 Hourly Standby — T-Out 18:31
 (F) Second Final Flow 28 Mileage 139.50 Comments —
 (G) Final Shut-In 1100 Sampler —
 (H) Final Hydrostatic 1959 Straddle —

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 30
 Initial Shut-In 60
 Final Flow 30
 Final Shut-In 60
 Sub Total 0
 Total 1389.50
 MP/DST Disc't —
 Sub Total 1389.50

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55569**

Well Name & No. Abell Ranch A 1-30 Test No. 3 Date 1-2-14
 Company Musfin Drilling Co. Elevation 2907 KB 2896 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Tom Funk Rig MDC #22
 Location: Sec. 30 Twp. 12s Rge. 30w Co. Gove State KS

Interval Tested 4024-4056 Zone Tested LKC 'E-F'
 Anchor Length 32 Drill Pipe Run 3781 Mud Wt. 9.3
 Top Packer Depth 4020 Drill Collars Run 239 Vis 55
 Bottom Packer Depth 4024 Wt. Pipe Run 0 WL 5.2
 Total Depth 4056 Chlorides 2400 ppm System LCM 2"

Blow Description 2" Blow.
No return.
5" Blow.
No return.

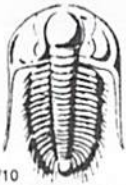
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>30</u>	Feet of <u>60CM</u>	<u>5</u> %gas	<u>45</u> %oil	%water	<u>50</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 115 Gravity 38 API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2014 Test 1250 T-On Location 3:35
 (B) First Initial Flow 15 Jars T-Started 3:38
 (C) First Final Flow 19 Safety Joint T-Open 6:03
 (D) Initial Shut-In 997 Circ Sub N/C T-Pulled 10:04
 (E) Second Initial Flow 19 Hourly Standby T-Out 11:55
 (F) Second Final Flow 28 Mileage 90RT 139.50
 (G) Final Shut-In 843 Sampler
 (H) Final Hydrostatic 1986 Straddle

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 0
 Total 1389.50
 MP/DST Disc't

Approved By [Signature] Our Representative Chuck Smith

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55570

Well Name & No. Abell Ranch 'A' 1-30 Test No. 4 Date 1-3-14
 Company Murfin Drilling Co. Elevation 2907 KB 2896 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Tom Funk Rig MDC #22
 Location: Sec. 30 Twp. 12s Rge. 30W Co. Gove State KS

Interval Tested 4096-4200 Zone Tested LKC 'H,I,J,K'
 Anchor Length 104 Drill Pipe Run 3854 Mud Wt. 9.2
 Top Packer Depth 4092 Drill Collars Run 239 Vis 55
 Bottom Packer Depth 4096 Wt. Pipe Run 0 WL 5.6
 Total Depth 4200 Chlorides 2400 ppm System LCM 2#

Blow Description B.O.B. @ 24 min.
1" Return.
B.O.B. @ 11 min.
1" Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>GOCM</u>	<u>10</u>	<u>30</u>	<u>60</u>	
<u>189</u>	<u>GOCM</u>	<u>10</u>	<u>5</u>	<u>85</u>	
<u>239</u>	<u>OSMW</u>		<u>60</u>	<u>40</u>	
	<u>350' RIP</u>				
<u>438</u>					

Rec Total 438 BHT 119 Gravity 39 API RW .145 @ 43 °F Chlorides 90,000 ppm

(A) Initial Hydrostatic 2034 Test 1250 T-On Location 10:15
 (B) First Initial Flow 25 Jars T-Started 10:15
 (C) First Final Flow 141 Safety Joint T-Open 12:13
 (D) Initial Shut-In 1163 Circ Sub NIC T-Pulled 16:16
 (E) Second Initial Flow 146 Hourly Standby T-Out 18:40
 (F) Second Final Flow 213 Mileage 139.50
 (G) Final Shut-In 1084 Sampler
 (H) Final Hydrostatic 2022 Straddle

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 0
 Total 1389.50
 MP/DST Disc't

Approved By [Signature] Our Representative Chuck Amick

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. **55571**

Well Name & No. Abell Ranch A 1-30 Test No. 5 Date 1-5-14
 Company Murfin Drilling Co. Elevation 2907 KB 2896 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Tom Funk Rig MDC #22
 Location: Sec. 30 Twp. 12s Rge. 30W Co. Gove State KS

Interval Tested 4394 - 4524 Zone Tested Lower Pawnee - Ft. Scott - Johnson
 Anchor Length 130 Drill Pipe Run 4167 Mud Wt. 9.4
 Top Packer Depth 4390 Drill Collars Run 239 Vis 55
 Bottom Packer Depth 4394 Wt. Pipe Run 0 WL 5.2
 Total Depth 4524 Chlorides 2100 ppm System LCM 3"
 Blow Description Weak surface blow, died @ 10 min. Tool did not open
No return.
Weak surface blow died @ 15 min.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>20</u>	Feet of <u>OSM</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2216</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>10:15</u>
(B) First Initial Flow <u>2189</u>	<input type="checkbox"/> Jars	T-Started <u>10:26</u>
(C) First Final Flow <u>2153</u>	<input type="checkbox"/> Safety Joint	T-Open <u>12:40</u>
(D) Initial Shut-In <u>2150</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>15:35</u>
(E) Second Initial Flow <u>21</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>17:49</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>90RT</u> 139.50	Comments
(G) Final Shut-In <u>8.59</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2235</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>55</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>516.67</u>
Final Shut-In <u>60</u>	<input checked="" type="checkbox"/> Day Standby <u>1d 15.5h</u>	Total <u>1706.17</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1189.50</u>	

Approved By

Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55572

Well Name & No. Abell Ranch 'A' 1-30 Test No. 6 Date 1-6-14
 Company Murfin Drilling Co. Elevation 2907 KB 2896 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Tom Funk Rig MDC #22
 Location: Sec. 30 Twp. 12s Rge. 30w Co. Gove State KS

Interval Tested 4514-4541 Zone Tested Mississippi
 Anchor Length 27 Drill Pipe Run 4510 Mud Wt. 9.3
 Top Packer Depth 4510 Drill Collars Run 0 Vis 60
 Bottom Packer Depth 4514 Wt. Pipe Run 0 WL 5.2
 Total Depth 4541 Chlorides 2400 ppm System LCM 2nd

Blow Description B.O.B. @ 28 min.
Weak surface return died @ 25 min.
B.O.B. @ 20 min.
2" Return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>31</u>	Feet of <u>GMCO</u>	<u>10</u>	<u>85</u>	<u>5</u>	<u>5</u>
Rec <u>124</u>	Feet of <u>GOOM</u>	<u>10</u>	<u>40</u>	<u>50</u>	<u>50</u>
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 155 BHT 127 Gravity 32 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2299 Test 1250 T-On Location 00:30
 (B) First Initial Flow 19 Jars _____ T-Started 00:41
 (C) First Final Flow 40 Safety Joint _____ T-Open 7:44
 (D) Initial Shut-In 1078 Circ Sub NIC T-Pulled 11:44
 (E) Second Initial Flow 44 Hourly Standby 3.5h 350 T-Out 14:13
 (F) Second Final Flow 78 Mileage 90RT 139.50 Comments _____
 (G) Final Shut-In 1061 Sampler _____
 (H) Final Hydrostatic 2228 Straddle _____

Ruined Shale Packer _____
 Ruined Packer 320
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1739.50
 Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 0
 Total 2059.50
 MP/DST Disc't _____

Approved By [Signature] Our Representative Chuck Smith

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.

- 1/03/14 Depth: 4195'. Cut 139'. DT: None. CT: 8¼ hrs. Dev.: 2° @ 4056'. **LKC H:** Ist, fxln, foss, chty, pr vis infoss por, Vssfo, slt odor on brk. Pr vis stn. **LKC I:** Ist, f-xln, foss, in prt chlky, pr vis ppt por, NSFO, slt odor, pr vis stn. **LKC J:** Ist, fxln, foss, sm ool, fr foss-mold por, SSFO, slt odor, abt blk stn. **LKC K:** Ist, fxln, ool & foss, chlky, pr vis int- part por, SSFO, slt odor, pr vis stn. **DST #4 4096-4200' (LKC H-K):**
- 1/04/14 Depth 4315'. Cut 120'. DT: None. CT: 13¾ hrs. Dev.: 2½° @ 4200'. **DST #4 4096-4200' (LKC H-K):** 30-60-60-90. IF: BOB 24mins. ISl: 1" return. FF: BOB 11mins. FSI: 1" return. Rec.: 239'OSMW (40%M, 60%W), 189'GOCM (10%G, 5%O, 85%M), 10'GOCM (10%G, 30%O, 60%M), 350'GIP. HP: 2036-2022. FP: 25/141, 146/213. SIP: 1163-1084. BHT: 119°.
- 1/05/14 Depth 4524'. Cut 209'. DT: none. CT: 1hr. Dev.: None. **Ft Sc:** Ist, fn xln, ool, pr vis interool por, SSFO, sl odor, very sct spt-sat stn. **Jhn Zn:** Ist, fn-med xln, brittle, sct moldic por, SSFO, fr odor on break, sct sat stn. **DST #5 4394-4524 (Lwr Pawnee-Ft Sc):** 30-60-30-60. IF: wk surf blw died @ 10mins. Tool did not open. FF: wk surf blw died @ 15mins. Rec.: 20'OSM. HP: 2216-2235. FP: 2189/2153, 21/24. SIP: 2150-859. BHT: 117°.
- 1/06/14 Depth 4541'. Cut 17'. DT: None. CT: 23¼ hrs. Dev.: 2½° @ 4524'. **Miss:** dol, fn xln, foss, fr-gd foss moldic por, S-FSFO, sl odor, sat stn. **DST #6 4514-4541 (Miss):** 30-60-60-90. IF: BOB @ 28mins. ISl: wk surf return died @ 25mins. FF: BOB @ 20mins. FSI: 2" return. Rec.: 123'GOCM (10%G, 40%O, 50%M), 31'GMCO (10%G, 5%M, 85%O). HP: 2299-2228. FP: 19/40, 44/78. SIP: 1078/1061. BHT: 127°.
- 1/07/14 RTD: 4620'. Cut 79'. DT: None. CT: 17½ hrs. Dev.: 3° @ 4620'. HC @ 12:30AM 1/7. Pioneer started logging @ 4:15AM 1/7. LTD: 4621'.
- 1/08/14 RTD: 4620'. CT: 20hrs. Finished logging @ 9:15AM 1/07. Ran 114jts=4614 of 5½" prod csg, set @ 4612'. Swift cmt w/175sxs of EA-2. PD @ 11:00PM 1/07. PC @ 2435'. 30sxs RH, 20sxs MH. RR @ 3:00AM 1/08. FINAL REPORT.

		MDCI Abell Ranch 'A' #1-30 660 FSL 330' FWL Sec. 30-T12S-R30W 2907' KB				MDCI Abell Ranch #2-25 1376 FSL 408' FEL Sec. 25-T12S-R31W 2885' KB			
Formation	Sample tops	Datum	Ref	Log Tops	Datum	Ref	Log Tops	Datum	
Anhydrite	2393	+514	-8	2395	+512	-10	2363	+522	
B/Anhydrite	2417	+490	-7	2419	+488	-9	2388	+497	
Topeka	3692	-785	+6	3699	-792	-1	3676	-791	
Heebner	3918	-1011	Flat	3920	-1013	-2	3896	-1011	
Lansing	3953	-1046	-3	3953	-1046	-3	3928	-1043	
Stark	4181	-1274	-1	4182	-1275	-2	4158	-1273	
Marmaton	4305	-1398	+2	4306	-1399	+1	4285	-1400	
Fort Scott	4434	-1527	-3	4436	-1529	-5	4409	-1524	
Cherokee	4463	-1556	-4	4464	-1557	-5	4437	-1552	
Mississippi	4524	-1617	+1	4525	-1618	Flat	4503	-1618	
RTD	4620						4600		
LTD				4621			4599		



PO Box 93999
Southlake, TX 76092

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

INVOICE

*acct.
Prod-LH*

Invoice Number: 140560
Invoice Date: Dec 27, 2013
Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	62122	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Dec 27, 2013	1/26/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Abell Ranch A #1-30		
175.00	CEMENT MATERIALS	Class A Common	17.90	3,132.50
6.00	CEMENT MATERIALS	Chloride	64.00	384.00
183.75	CEMENT SERVICE	Cubic Feet Charge	2.48	455.70
177.86	CEMENT SERVICE	Ton Mileage Charge	2.60	462.44
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
21.00	CEMENT SERVICE	Pump Truck Mileage	7.70	161.70
1.00	CEMENT SERVICE	Swedge Manifold Rental	275.00	275.00
21.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	92.40
1.00	CEMENT SUPERVISOR	LaRene Wentz		
1.00	CEMENT SUPERVISOR	Kelly Gabel		

OK

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

\$ 2,266.60 *3/10*

ONLY IF PAID ON OR BEFORE Jan 21, 2014 *OK*

Subtotal	6,475.99
Sales Tax	277.80
Total Invoice Amount	6,753.79
Payment/Credit Applied	
TOTAL	6,753.79

- 2266.60
4487.19

ALLIED OIL & GAS SERVICES, LLC 062122

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Daklay, KS

DATE <u>12-27-13</u>	SEC. <u>30</u>	TWP. <u>12</u>	RANGE <u>30</u>	CALLED OUT	ON LOCATION <u>7:30 pm</u>	JOB START <u>10:30 pm</u>	JOB FINISH <u>11:00 pm</u>
LEASE <u>Abell Ranch</u>		WELL # <u>1-30</u>		LOCATION <u>Daklay, 115, 8E, 1N,</u>		COUNTY <u>Cowley</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)				CITY <u>Emita</u>			

CONTRACTOR <u>Marfin 22</u>	OWNER <u>Same.</u>
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>217</u>
CASING SIZE <u>8 7/8</u>	DEPTH <u>216.79</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>151</u>	
PERFS.	
DISPLACEMENT <u>129164</u>	
EQUIPMENT	
PUMP TRUCK # <u>431</u>	CEMENTER <u>Lawrence Eubank</u>
	HELPER <u>Kelly Gabel</u>
BULK TRUCK # <u>3761306</u>	DRIVER <u>Jacqui Tame (TW)</u>
BULK TRUCK #	DRIVER

CEMENT AMOUNT ORDERED <u>1755 lbs</u>	COMMON <u>1755 lbs @ 19.90</u>	<u>34825.00</u>
	POZMIX @	
	GEL @	
CHLORIDE <u>600</u>	<u>600 @ 64.00</u>	<u>38400</u>
ASC @		
HANDLING <u>183.75</u>	<u>2.98 @ 2.98</u>	<u>435.90</u>
MILEAGE <u>8.47 hrs X 21 X 2.60</u>		<u>462.96</u>
TOTAL		<u>4434.66</u>

REMARKS:
Mix 175 stb cement
Displace with water
Cement did circulate

Thank you

CHARGE TO: Marfin Drilling
STREET _____
CITY _____ STATE _____ ZIP _____

SERVICE		
DEPTH OF JOB		
PUMP TRUCK CHARGE		<u>1512.25</u>
EXTRA FOOTAGE @		
MILEAGE <u>M.D.H.V 21</u>	<u>7.70 @ 7.70</u>	<u>161.70</u>
MANIFOLD <u>5 wedge</u>		<u>275.00</u>
<u>M.D.U 21</u>	<u>4.90 @ 4.90</u>	<u>92.40</u>
TOTAL		<u>2046.35</u>

PLUG & FLOAT EQUIPMENT		
	@	
	@	
	@	
	@	
	@	
TOTAL		

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

PRINTED NAME Kelly Wilson
SIGNATURE Kelly Wilson

SALES TAX (If Any) _____
TOTAL CHARGES 6,476.01
DISCOUNT 2,266.60 IF PAID IN 30 DAYS
4,209.41 Net



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



Invoice

DATE	INVOICE #
1/7/2014	25361

BILL TO
Murfin Drilling Co Inc P. O. Box 130 Hill City, KS 67642-0130
APPROVED _____ IC/103

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-30	Abell Ranch A	Gove	Company Rig	Oil	Development	Cement LongStri...	Don

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	80	Miles	6.00	480.00
578D-L	Pump Charge - Long String - 4614 Feet	1	Job	1,500.00	1,500.00
221	Liquid KCL (Clayfix)	4	Gallon(s)	25.00	100.00T
280	Flocheck 21	500	Gallon(s)	3.00	1,500.00T
290	D-Air	3	Gallon(s)	42.00	126.00T
403-5	5 1/2" Cement Basket	1	Each	300.00	300.00T
404-5	5 1/2" Port Collar	1	Each	2,900.00	2,900.00T
406-5	5 1/2" Latch Down Plug & Baffle	1	Each	275.00	275.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill	1	Each	375.00	375.00T
409-5	5 1/2" Turbolizer	10	Each	90.00	900.00T
413-5	5 1/2" Roto Wall Scratcher	20	Each	40.00	800.00T
419-5	5 1/2" Rotating Head Rental	1	Each	200.00	200.00T
325	Standard Cement	225	Sacks	14.50	3,262.50T
276	Flocele	57	Lb(s)	2.50	142.50T
283	Salt	1,125	Lb(s)	0.20	225.00T
284	Calseal	11	Sack(s)	35.00	385.00T
285	CFR-1	159	Lb(s)	4.50	715.50T
581D	Service Charge Cement	225	Sacks	2.00	450.00
583D	Drayage	941.96	Ton Miles	1.00	941.96
	Subtotal				15,578.46
	Sales Tax Gove County			7.90%	964.31

Thank You For Your Business In 2013!
We Look Forward To Serving You In 2014!

Total \$16,542.77



CHARGE TO: Martin Dry Co
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET 25361

PAGE 1 OF 2

1. SERVICE LOCATIONS: Hesper, KS WELL/PROJECT NO: # 1-30 LEASE: Abell Ranch 'A' COUNTY/PARISH: Osage STATE: KS DATE: 1-7-14 OWNER: _____
 2. Ness City, KS CONTRACTOR: Ce Reg RIG NAME/NO.: # 22 SHIPPED VIA: or DELIVERED TO: W/Grade KS ORDER NO.: _____
 3. WELL TYPE: Oil WELL CATEGORY: Wildcat JOB PURPOSE: Cement Linstriking WELL PERMIT NO.: _____
 4. REFERRAL LOCATION: _____ INVOICE INSTRUCTIONS: _____

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE #113	82	mi			600	48200
578		1			Pump Charge - cut - Linstriking	1	ea	5/14	ft	150000	150000
221		1			Liquid KCC	4	gal			2500	10000
280		1			F/D - check - 21	50	gal			300	15000
290		1			D - AIR	3	gal			4200	12600
403		1			Cement Baskets	1	ea	5 1/2	in	30000	30000
404		1			Port Collar	1	ea	5 1/2	in	20000	20000
406		1			Latex Down Plug & Baffle	1	ea	5 1/2	in	20000	20000
408		1			Insert Flats (Slope w/ Auto - Bill	1	ea	5 1/2	in	37500	37500
409		1			Turbolizers	1	ea	5 1/2	in	9000	9000
413		1			RH Well Scrubbers	2	ea	5	ft	4000	8000
419		1			Rothrig Head Rental	1	ea	5 1/2	in	20000	20000

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS
 X DATE SIGNED: 1-7-14 TIME SIGNED: 11:30 A.M. P.M.
 SWIFT OPERATOR: [Signature] APPROVAL: _____
 CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 REMIT PAYMENT TO: SWIFT SERVICES, INC. P.O. BOX 466 NESS CITY, KS 67560 785-798-2300
 SURVEY: OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? WE UNDERSTOOD AND MET YOUR NEEDS? OUR SERVICE WAS PERFORMED WITHOUT DELAY? WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? ARE YOU SATISFIED WITH OUR SERVICE? YES NO
 SUBTOTAL: 155492
 TAX: 7.9%
 TOTAL: 16,542.77
 Thank You!



Switzer, Inc.

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

TICKET CONTINUATION

TICKET No. 25361

CUSTOMER
Merfins Dry Co

WELL
1-3 Abell Ranch A

DATE
1-7-14

PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL				DATE	UNIT PRICE	AMOUNT	
		LOG	ACCT	DE			QTY	UM	QTY	UM				QTY
285						Standard Cement EA-2	285	SKS	2152	lbs		14.52	3268.50	
276						Eldeck	57	lbs				14.52	828.84	
283						Salt	1145	lbs				20	22900	
284						Alseal	1058	lbs		11	SKS	35.20	38500	
285						CFR-1	159	lbs				45.20	7155.20	
581														
583														
SERVICE CHARGE														
MILEAGE CHANGE														
TOTAL WEIGHT							23549	lbs						
LOADED MILES							80							
CUBIC FEET							285	SKS						
TON MILES							941.96							
CONTINUATION TOTAL												941.96		

67-270-46

JOB LOG

SWIFT Services, Inc.

DATE 7-7-14 PAGE NO. 1

CUSTOMER Wartford Drilling Co.

WELL NO. # 1-30

LEASE Abell Ranch 'A'

JOB TYPE Cement Lining

TICKET NO. 25361

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	16:15					15.5 #/A	5 1/2"	TD - 4620'
	18:15							Dr location - float equip - Dusty start 5 1/2" - 15.5 #/A casing to 4614'
								Insert Float Valve w/ Auto-Fill Latch Drain Baffle - SJ - 21' @ 4593 = 109.3 100' of 706 Gal Scratchers. Casing 1-2-3-4-6-8-10-12-14-53 Cmt Basket Pinned #54 Port Collar - collar #54 @ 2435'
	19:15							CIR #102 1/2 HR
	20:45							Drop fill-up ball to JTs and Fin Casing
	21:00							Rig CIR / Rotate Fin - CIR
		6	20				350	Pump 15 BBI KCL Flush
		5	12				300	Pump 500 gal Fl-ck-21
		5	5				300	Pump 5 BBI KCL spacer
		4					300	Start 17.5 SKS EA-2-cmt
	22:27		43				Var	Fin cmt
	22:29							Wash out Pump & Lines
	22:30							Drop Plug
	22:32	9					300	Start Displ
		9	80				300	Caught cent left - gradually slow rate
		8	85				400	
		7	90				500	
		6	95				700	
							1000	Last pump press - CIR
	22:45		109 1/2				1700	Plug Down - Hold - Release & Hold.
	22:50		7					Plug RH - 30 SKS EA-2-cmt
			4 1/2					MH - 20 SKS EA-2-cmt
	23:00							Wash up & Reek up
	23:30							Job Complete

Pauls
Don & Tom & Isaac