



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1215660
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: _____

1215660

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: 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	Oelkers 'B' 1-2
Doc ID	1215660

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Borehole Compensated



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Oelkers B #1-2

2-16s-19w Rush,KS

Start Date: 2014.05.06 @ 13:56:57

End Date: 2014.05.06 @ 21:13:57

Job Ticket #: 58927 DST #: 1

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

Printed: 2014.05.14 @ 16:08:07



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company
250 N Water STE 300
Wichita KS 67202
ATTN: Andy White

2-16s-19w Rush,KS

Oelkers B #1-2

Job Ticket: 58927

DST#: 1

Test Start: 2014.05.06 @ 13:56:57

GENERAL INFORMATION:

Formation: **Oread - Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:38:37

Time Test Ended: 21:13:57

Test Type: Conventional Bottom Hole (Initial)

Tester: Tate Lang

Unit No: 49

Interval: 3190.00 ft (KB) To 3350.00 ft (KB) (TVD)

Reference Elevations: 2035.00 ft (KB)

Total Depth: 3350.00 ft (KB) (TVD)

2030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8898

Outside

Press@RunDepth: 180.61 psig @ 3218.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.06

End Date:

2014.05.06

Last Calib.:

2014.05.06

Start Time: 13:56:58

End Time:

21:13:57

Time On Btm:

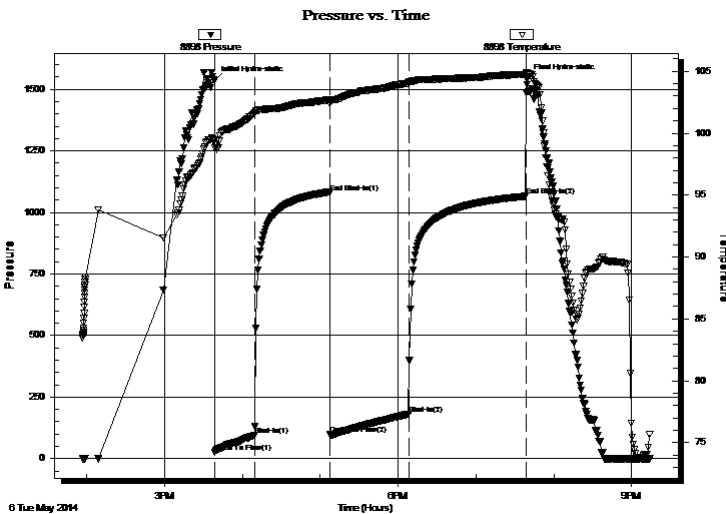
2014.05.06 @ 15:38:27

Time Off Btm:

2014.05.06 @ 19:39:06

TEST COMMENT: B.O.B. in 22 mins
Dead no blow back
B.O.B. in 33 mins
Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1536.06	99.49	Initial Hydro-static
1	26.27	98.83	Open To Flow (1)
31	93.86	101.61	Shut-In(1)
89	1080.78	102.69	End Shut-In(1)
89	97.34	102.39	Open To Flow (2)
150	180.61	104.05	Shut-In(2)
240	1065.89	104.75	End Shut-In(2)
241	1542.33	104.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MCW 20%M 80%W	2.25
150.00	WCM 80%M 20%W	2.10

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58927

DST#: 1

ATTN: Andy White

Test Start: 2014.05.06 @ 13:56:57

Tool Information

Drill Pipe:	Length: 3165.00 ft	Diameter: 3.80 inches	Volume: 44.40 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 44.55 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3190.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	160.00 ft			
Tool Length:	187.00 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			3168.00	
Hydraulic tool	5.00			3173.00	
Jars	5.00			3178.00	
Safety Joint	2.00			3180.00	
Packer	5.00			3185.00	27.00 Bottom Of Top Packer
Packer	5.00			3190.00	
Stubb	1.00			3191.00	
Perforations	27.00			3218.00	
Recorder	0.00	8897	Inside	3218.00	
Recorder	0.00	8898	Outside	3218.00	
Change Over Sub	1.00			3219.00	
Drill Pipe	127.00			3346.00	
Change Over Sub	1.00			3347.00	
Bullnose	3.00			3350.00	160.00 Bottom Packers & Anchor

Total Tool Length: 187.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58927

DST#: 1

ATTN: Andy White

Test Start: 2014.05.06 @ 13:56:57

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:

38000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	MCW 20%M 80%W	2.252
150.00	WCM 80%M 20%W	2.104

Total Length: 330.00 ft

Total Volume: 4.356 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

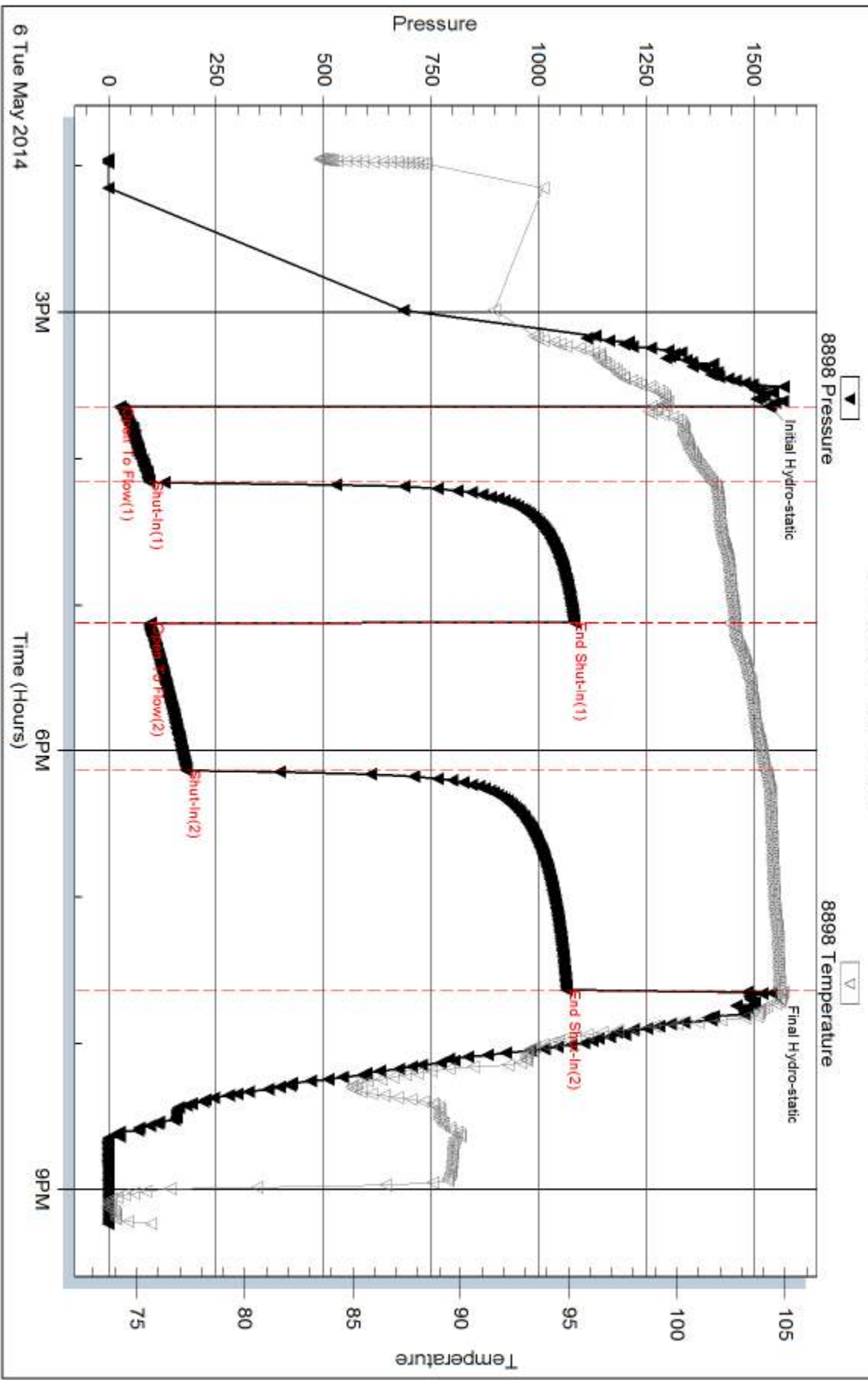
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



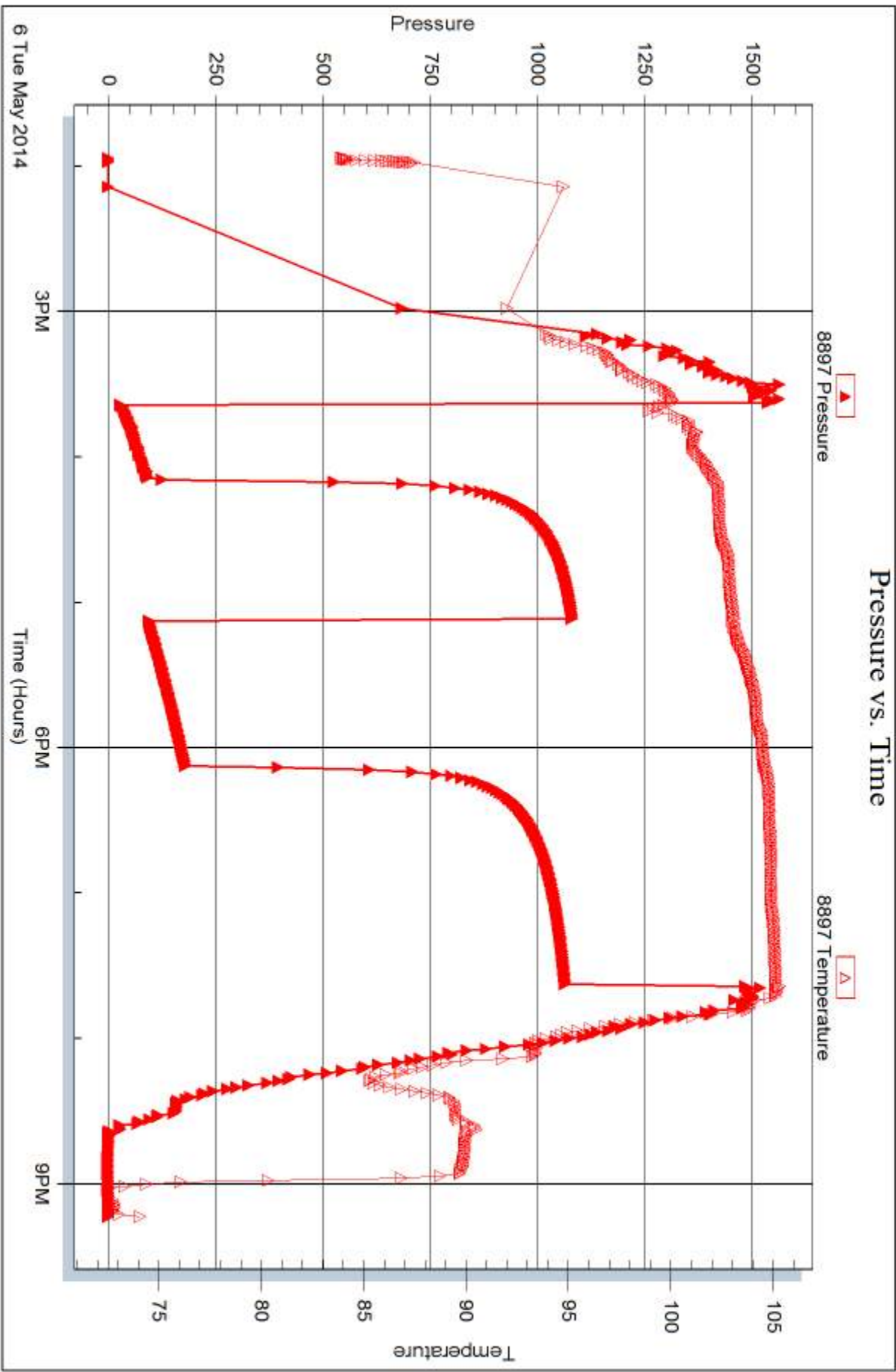
Serial #: 8897

Inside

Murfin Drilling Company

Oelkers B #1-2

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58927

Printed: 2014.05.14 @ 16:08:08



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Oelkers B #1-2

2-16s-19w Rush,KS

Start Date: 2014.05.07 @ 09:12:21

End Date: 2014.05.07 @ 15:02:51

Job Ticket #: 58918 DST #: 2

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

Printed: 2014.05.14 @ 16:07:40



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58918

DST#: 2

ATTN: Andy White

Test Start: 2014.05.07 @ 09:12:21

GENERAL INFORMATION:

Formation: **LKC D-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:56:11

Time Test Ended: 15:02:51

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3350.00 ft (KB) To 3400.00 ft (KB) (TVD)

Reference Elevations: 2035.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

2030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8898 Outside

Press@RunDepth: 25.57 psig @ 3363.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.07 End Date: 2014.05.07

Last Calib.: 2014.05.07

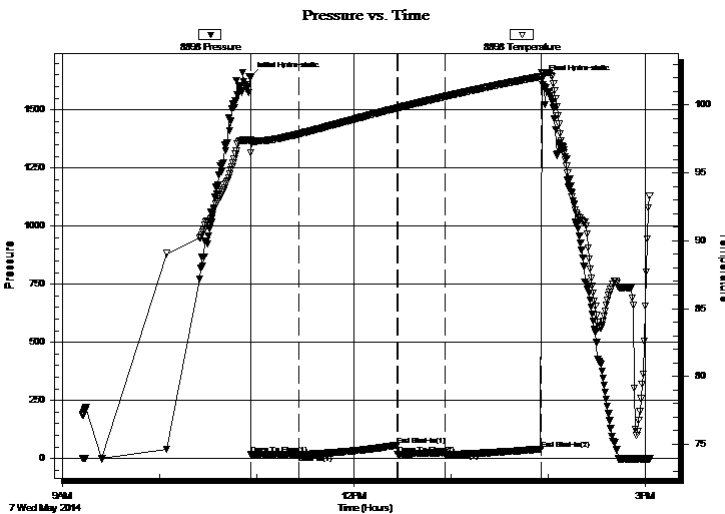
Start Time: 09:12:22 End Time: 15:02:51

Time On Btm: 2014.05.07 @ 10:56:01

Time Off Btm: 2014.05.07 @ 13:56:00

TEST COMMENT: Weak surface blow
Dead no blow back
Dead no blow
Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1641.15	97.43	Initial Hydro-static
1	16.36	96.49	Open To Flow (1)
30	18.09	97.86	Shut-In(1)
91	57.90	99.78	End Shut-In(1)
91	17.15	99.77	Open To Flow (2)
121	25.57	100.63	Shut-In(2)
180	40.32	102.11	End Shut-In(2)
180	1630.26	102.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%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 Company
 250 N Water STE 300
 Wichita KS 67202
 ATTN: Andy White

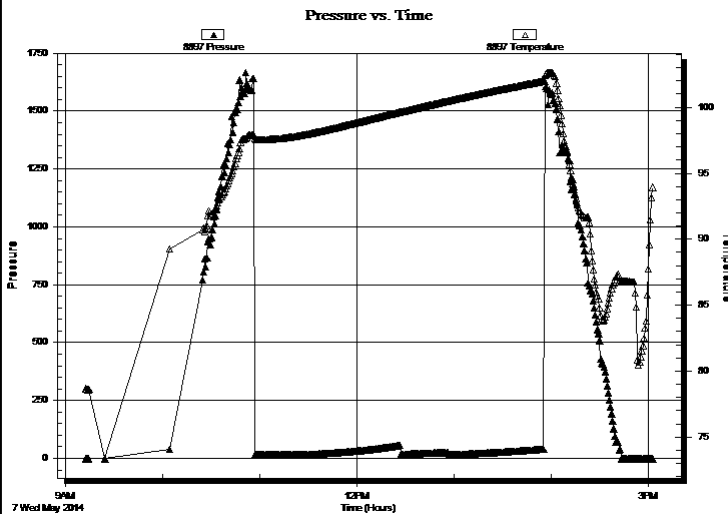
2-16s-19w Rush,KS
Oelkers B #1-2
 Job Ticket: 58918 **DST#: 2**
 Test Start: 2014.05.07 @ 09:12:21

GENERAL INFORMATION:

Formation: **LKC D-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:56:11
 Time Test Ended: 15:02:51
Interval: 3350.00 ft (KB) To 3400.00 ft (KB) (TVD)
 Total Depth: 3400.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tate Lang
 Unit No: 49
 Reference Elevations: 2035.00 ft (KB)
 2030.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8897 **Inside**
 Press@RunDepth: psig @ 3363.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.07 End Date: 2014.05.07 Last Calib.: 2014.05.07
 Start Time: 09:12:11 End Time: 15:02:40 Time On Btm:
 Time Off Btm:

TEST COMMENT: Weak surface blow
 Dead no blow back
 Dead no blow
 Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%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 Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58918

DST#: 2

ATTN: Andy White

Test Start: 2014.05.07 @ 09:12:21

Tool Information

Drill Pipe:	Length: 3324.00 ft	Diameter: 3.80 inches	Volume: 46.63 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 46.78 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	3350.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	77.00 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			3328.00	
Hydraulic tool	5.00			3333.00	
Jars	5.00			3338.00	
Safety Joint	2.00			3340.00	
Packer	5.00			3345.00	27.00 Bottom Of Top Packer
Packer	5.00			3350.00	
Stubb	1.00			3351.00	
Perforations	12.00			3363.00	
Recorder	0.00	8897	Inside	3363.00	
Recorder	0.00	8898	Outside	3363.00	
Change Over Sub	1.00			3364.00	
Drill Pipe	32.00			3396.00	
Change Over Sub	1.00			3397.00	
Bullnose	3.00			3400.00	50.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58918

DST#: 2

ATTN: Andy White

Test Start: 2014.05.07 @ 09:12:21

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud 100%M	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

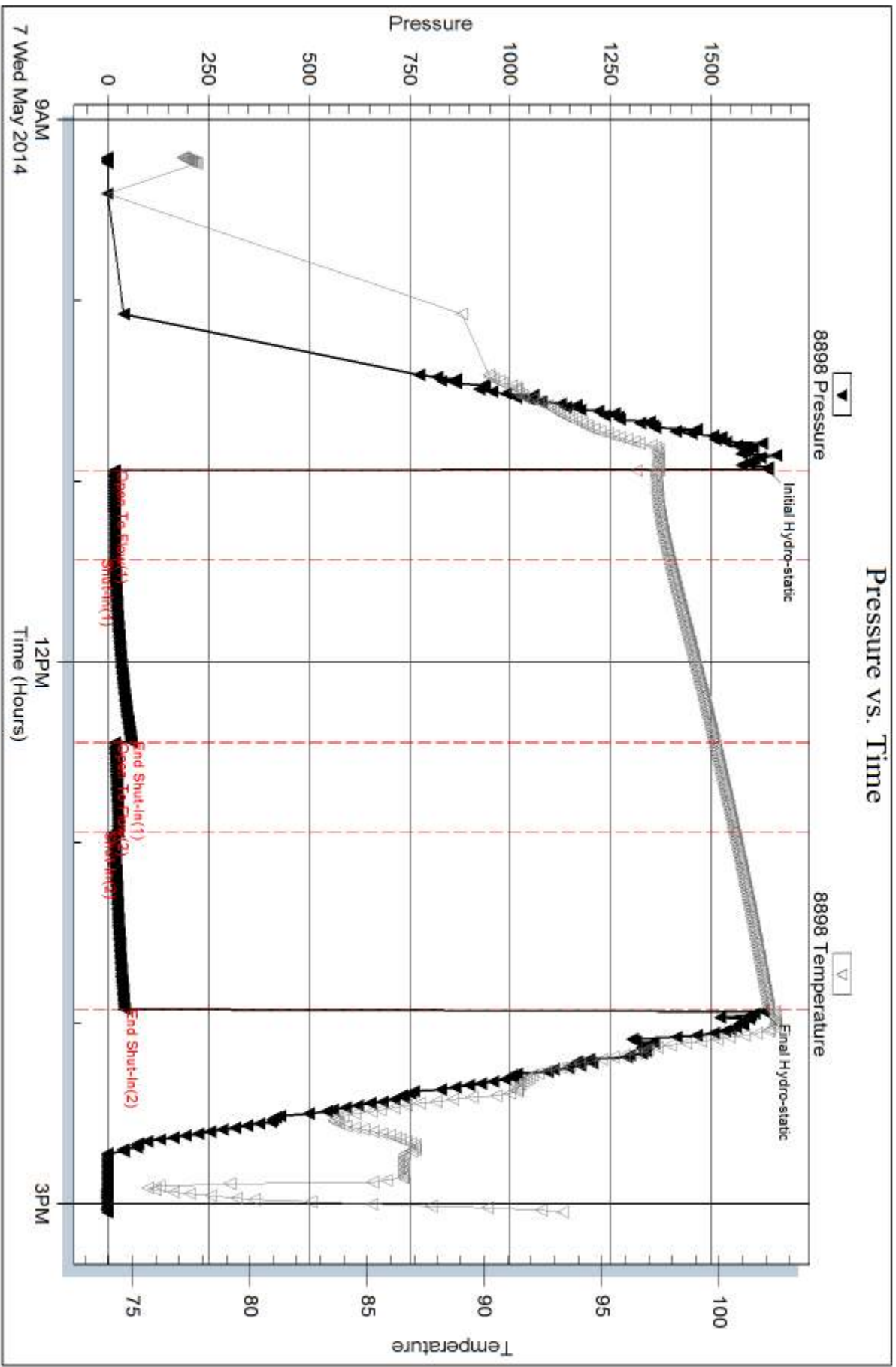
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



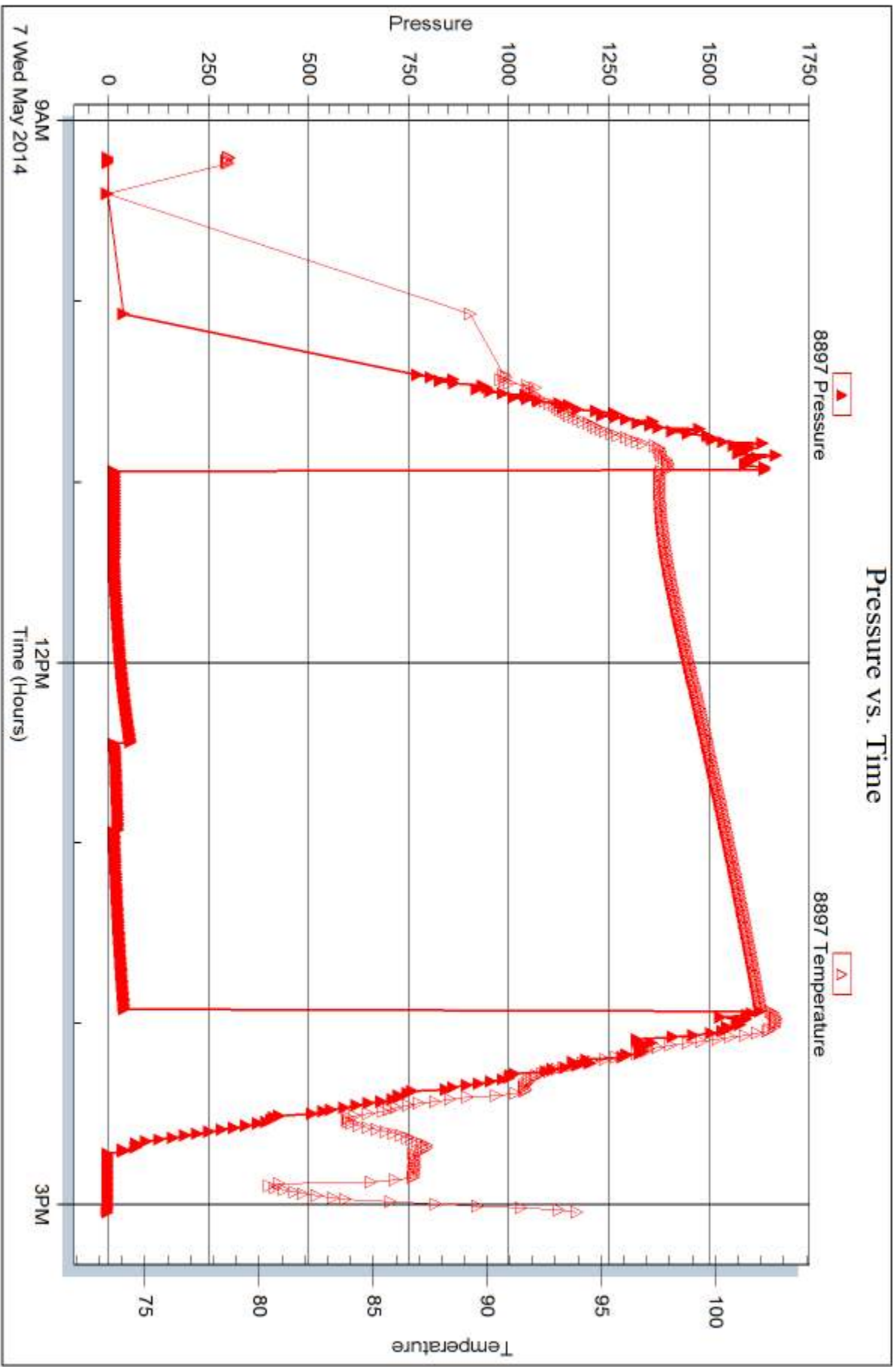
Serial #: 8897

Inside

Murfin Drilling Company

Oelkers B #1-2

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 58918

Printed: 2014.05.14 @ 16:07:42



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Oelkers B #1-2

2-16s-19w Rush,KS

Start Date: 2014.05.08 @ 08:35:26

End Date: 2014.05.08 @ 15:36:16

Job Ticket #: 58929 DST #: 3

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

Printed: 2014.05.14 @ 16:07:08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58929

DST#: 3

ATTN: Andy White

Test Start: 2014.05.08 @ 08:35:26

GENERAL INFORMATION:

Formation: **LKC H-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:18:06

Time Test Ended: 15:36:16

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3429.00 ft (KB) To 3540.00 ft (KB) (TVD)

Reference Elevations: 2035.00 ft (KB)

Total Depth: 3540.00 ft (KB) (TVD)

2030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8898

Outside

Press@RunDepth: 52.89 psig @ 3440.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.08

End Date:

2014.05.08

Last Calib.:

2014.05.08

Start Time:

08:35:27

End Time:

15:36:16

Time On Btm:

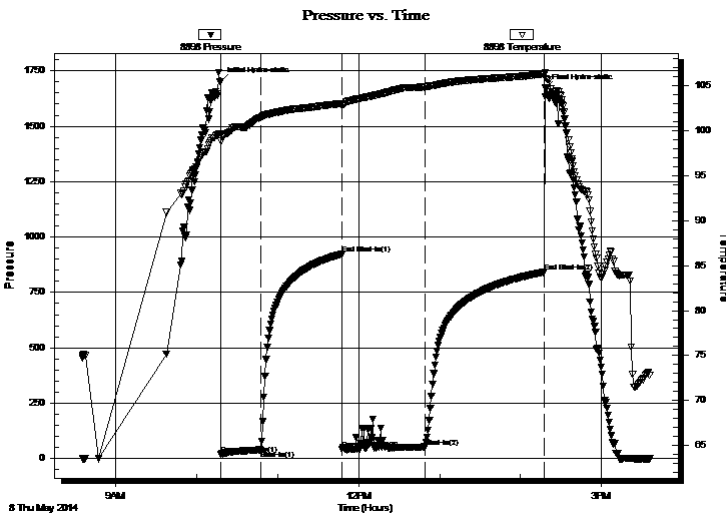
2014.05.08 @ 10:17:56

Time Off Btm:

2014.05.08 @ 14:18:26

TEST COMMENT: Weak surface blow built to 3"
Dead no blow back
Weak surface blow built to 2"
Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1701.78	99.63	Initial Hydro-static
1	20.49	98.85	Open To Flow (1)
30	39.28	101.50	Shut-In(1)
90	922.26	103.05	End Shut-In(1)
90	43.44	102.75	Open To Flow (2)
151	52.89	104.89	Shut-In(2)
240	841.73	106.30	End Shut-In(2)
241	1671.87	106.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
85.00	100% Mud	0.92

* 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 Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58929

DST#: 3

ATTN: Andy White

Test Start: 2014.05.08 @ 08:35:26

Tool Information

Drill Pipe:	Length: 3388.00 ft	Diameter: 3.80 inches	Volume: 47.52 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 47.67 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3429.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	111.00 ft				
Tool Length:	138.00 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			3407.00	
Hydraulic tool	5.00			3412.00	
Jars	5.00			3417.00	
Safety Joint	2.00			3419.00	
Packer	5.00			3424.00	27.00 Bottom Of Top Packer
Packer	5.00			3429.00	
Stubb	1.00			3430.00	
Perforations	10.00			3440.00	
Recorder	0.00	8897	Inside	3440.00	
Recorder	0.00	8898	Outside	3440.00	
Change Over Sub	1.00			3441.00	
Drill Pipe	95.00			3536.00	
Change Over Sub	1.00			3537.00	
Bullnose	3.00			3540.00	111.00 Bottom Packers & Anchor

Total Tool Length: 138.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58929

DST#: 3

ATTN: Andy White

Test Start: 2014.05.08 @ 08:35:26

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 8.78 in³
Resistivity: ohm.m
Salinity: 7000.00 ppm
Filter Cake: 1.00 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

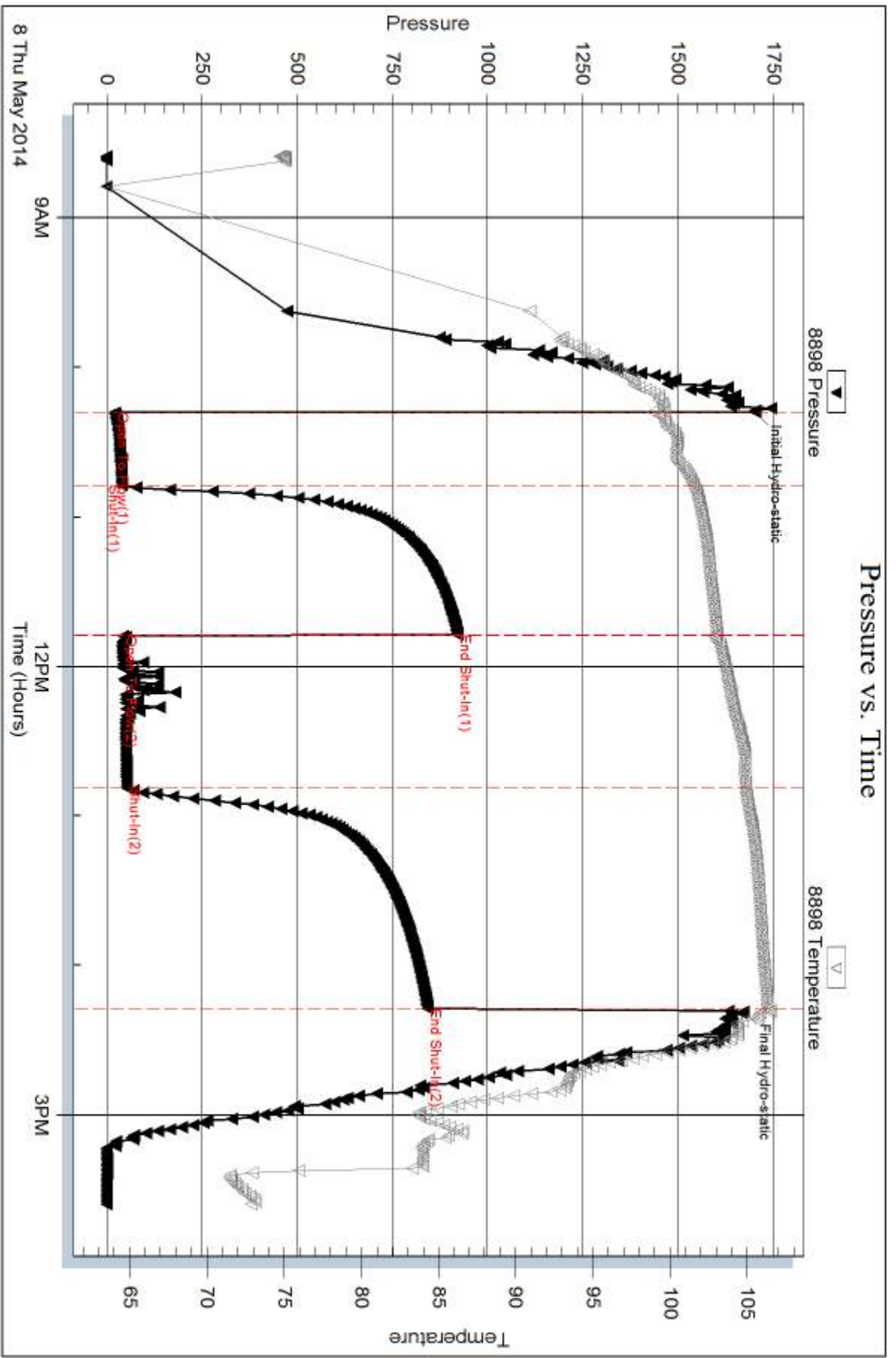
Length ft	Description	Volume bbl
85.00	100% Mud	0.919

Total Length: 85.00 ft Total Volume: 0.919 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



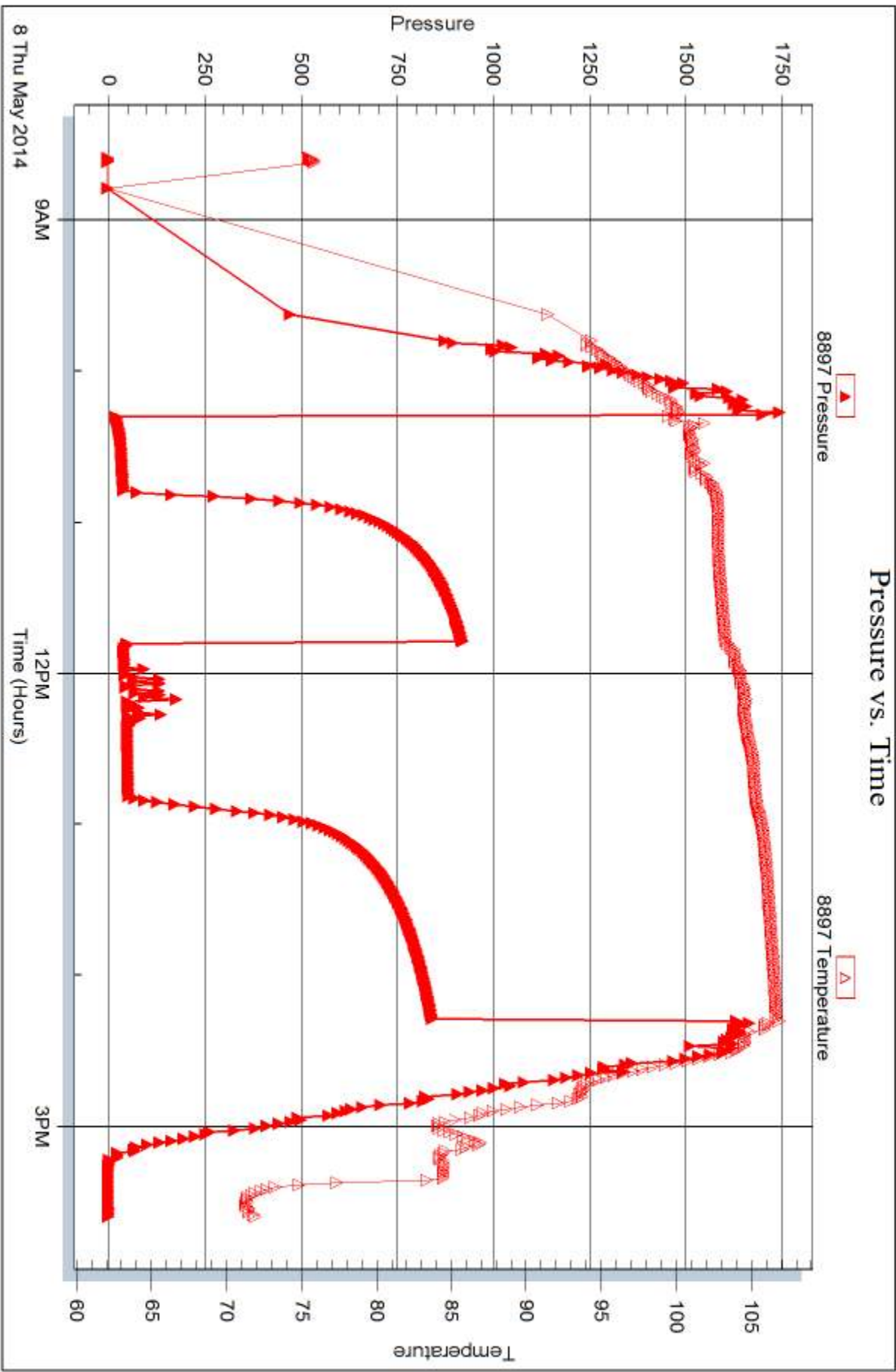
Serial #: 8897

Inside

Murfin Drilling Company

Oelkers B #1-2

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58929

Printed: 2014.05.14 @ 16:07:09



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Oelkers B #1-2

2-16s-19w Rush,KS

Start Date: 2014.05.09 @ 03:45:28

End Date: 2014.05.09 @ 09:28:48

Job Ticket #: 58930 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.05.14 @ 16:02:22



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58930

DST#: 4

ATTN: Andy White

Test Start: 2014.05.09 @ 03:45:28

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:14:18

Time Test Ended: 09:28:48

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3608.00 ft (KB) To 3618.00 ft (KB) (TVD)

Reference Elevations: 2035.00 ft (KB)

Total Depth: 3618.00 ft (KB) (TVD)

2030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8898 Outside

Press@RunDepth: 16.73 psig @ 3609.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time:

03:45:29

End Time:

09:28:48

Time On Btm:

2014.05.09 @ 05:14:08

Time Off Btm:

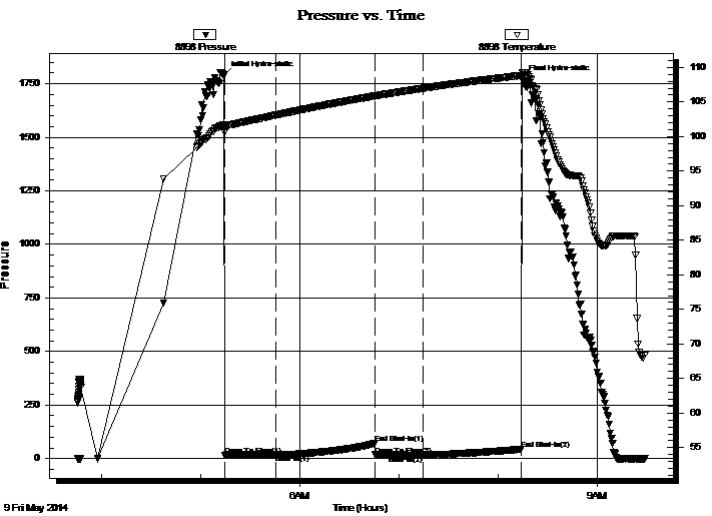
2014.05.09 @ 08:14:28

TEST COMMENT: Weak surface blow built to 1/2"

Dead no blow back

Dead no blow

Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.75	101.70	Initial Hydro-static
1	16.61	100.52	Open To Flow (1)
31	17.54	103.08	Shut-In(1)
91	70.44	105.86	End Shut-In(1)
92	17.29	105.85	Open To Flow (2)
121	16.73	106.97	Shut-In(2)
180	44.10	108.84	End Shut-In(2)
181	1771.56	109.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Oil Spotted Mud 100%M Show of free oil	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 Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58930

DST#: 4

ATTN: Andy White

Test Start: 2014.05.09 @ 03:45:28

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:14:18

Time Test Ended: 09:28:48

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3608.00 ft (KB) To 3618.00 ft (KB) (TVD)

Reference Elevations: 2035.00 ft (KB)

Total Depth: 3618.00 ft (KB) (TVD)

2030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8897 Inside

Press@RunDepth: psig @ 3609.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time: 03:45:40

End Time:

09:28:59

Time On Btm:

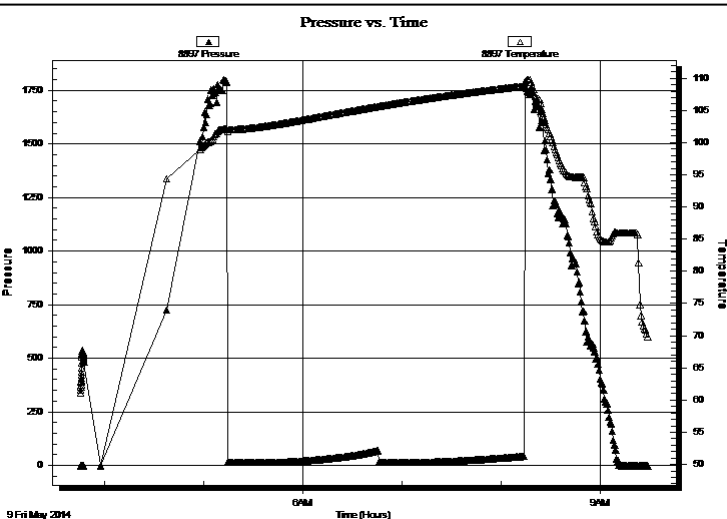
Time Off Btm:

TEST COMMENT: Weak surface blow built to 1/2"

Dead no blow back

Dead no blow

Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Oil Spotted Mud 100%M Show of free oil	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 Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58930

DST#: 4

ATTN: Andy White

Test Start: 2014.05.09 @ 03:45:28

Tool Information

Drill Pipe:	Length: 3579.00 ft	Diameter: 3.80 inches	Volume: 50.20 bbl	Tool Weight:	2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 50.35 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	3608.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	10.00 ft				
Tool Length:	37.00 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			3586.00	
Hydraulic tool	5.00			3591.00	
Jars	5.00			3596.00	
Safety Joint	2.00			3598.00	
Packer	5.00			3603.00	27.00 Bottom Of Top Packer
Packer	5.00			3608.00	
Stubb	1.00			3609.00	
Recorder	0.00	8897	Inside	3609.00	
Recorder	0.00	8898	Outside	3609.00	
Perforations	6.00			3615.00	
Bullnose	3.00			3618.00	10.00 Bottom Packers & Anchor

Total Tool Length: 37.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58930

DST#: 4

ATTN: Andy White

Test Start: 2014.05.09 @ 03:45:28

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 8.78 in³
Resistivity: ohm.m
Salinity: 6000.00 ppm
Filter Cake: 1.00 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

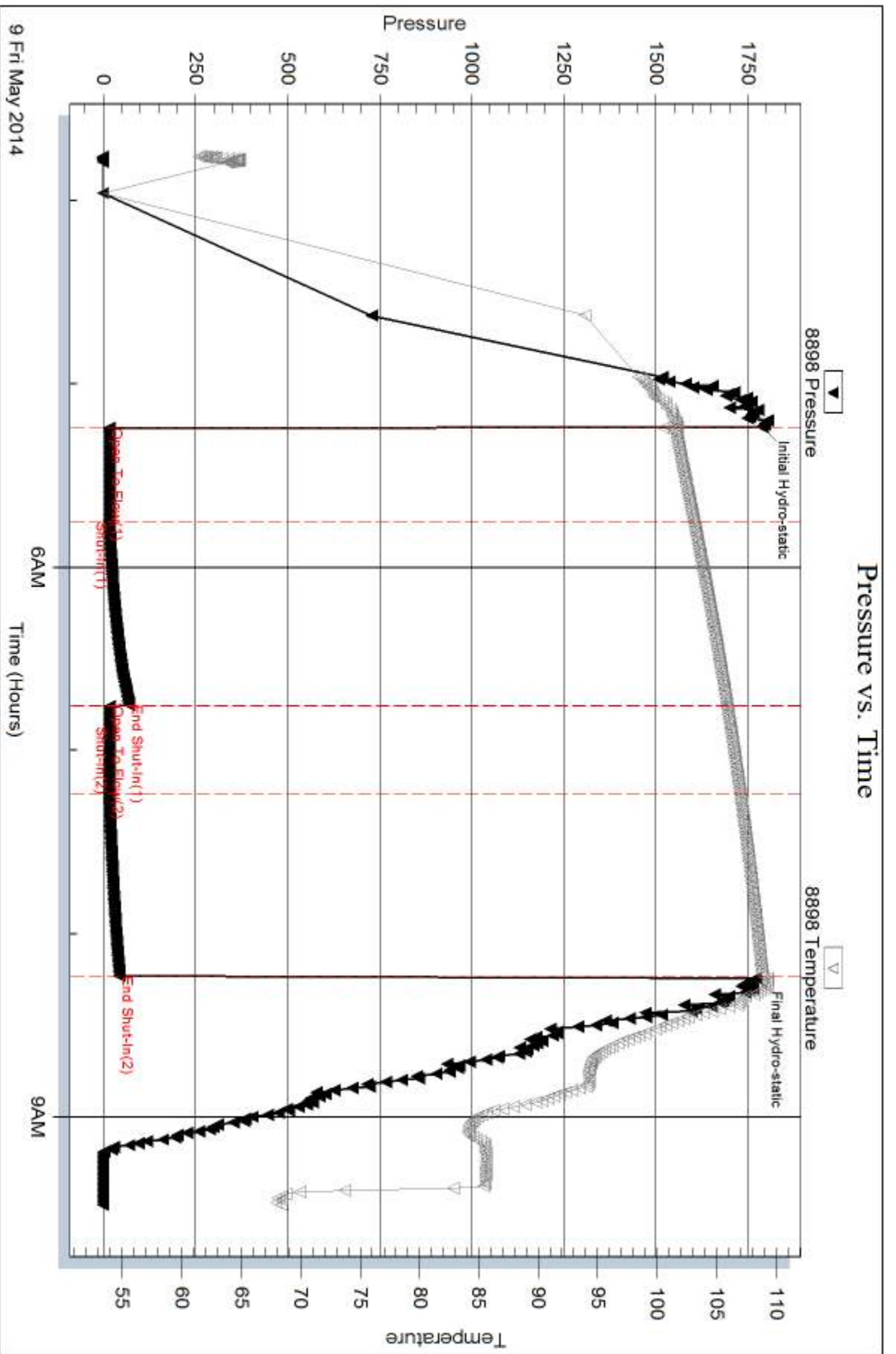
Length ft	Description	Volume bbl
1.00	Oil Spotted Mud 100%M Show of free oil o	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



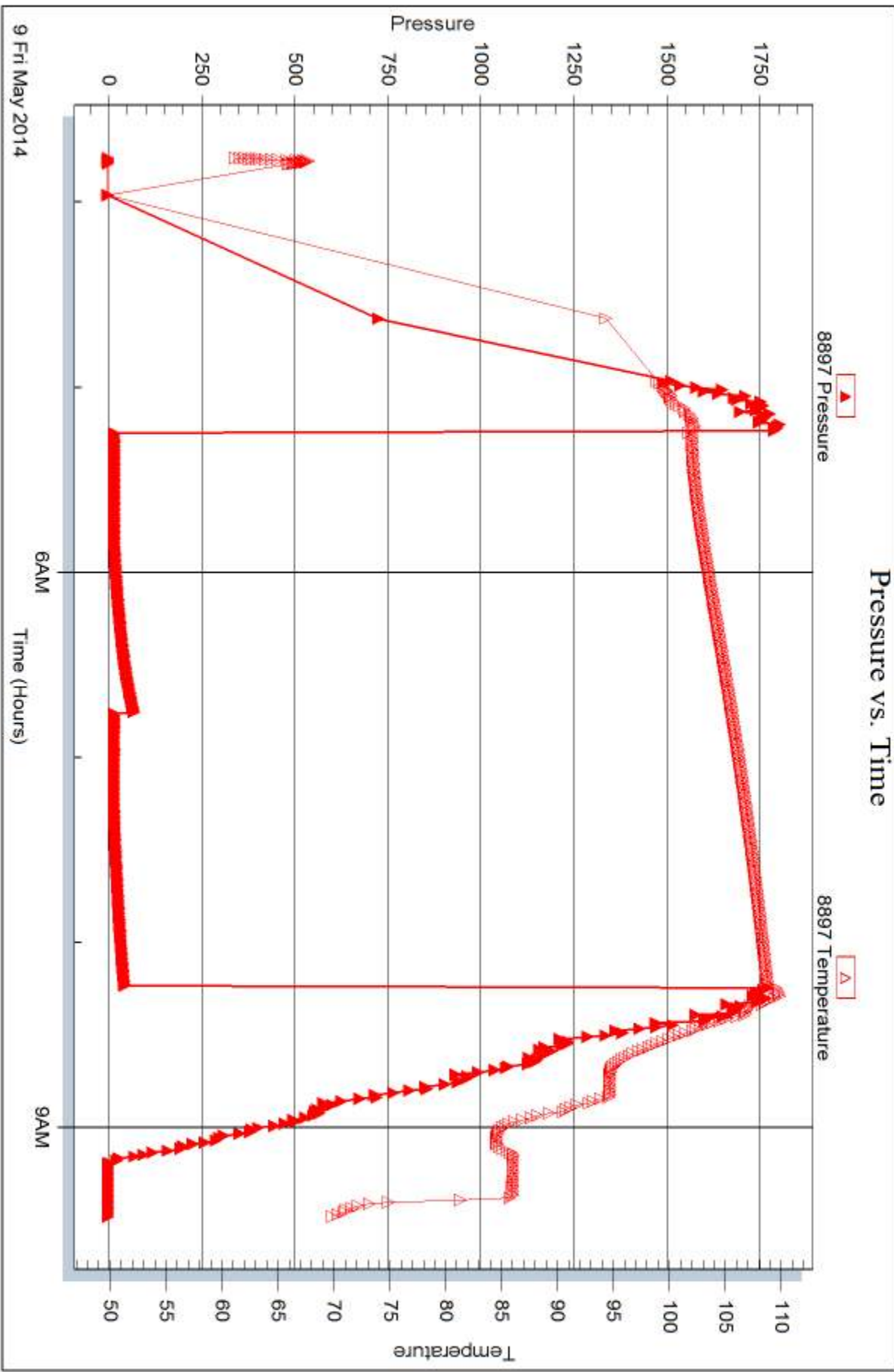
Serial #: 8897

Inside

Murfin Drilling Company

Oelkers B #1-2

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 58930

Printed: 2014.05.14 @ 16:02:24



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Oelkers B #1-2

2-16s-19w Rush,KS

Start Date: 2014.05.09 @ 14:06:06

End Date: 2014.05.09 @ 19:05:56

Job Ticket #: 58931 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.05.14 @ 16:01:54



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58931

DST#: 5

ATTN: Andy White

Test Start: 2014.05.09 @ 14:06:06

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:01:06

Time Test Ended: 19:05:56

Test Type: Conventional Bottom Hole (Reset)

Tester: Tate Lang

Unit No: 49

Interval: 3608.00 ft (KB) To 3628.00 ft (KB) (TVD)

Reference Elevations: 2035.00 ft (KB)

Total Depth: 3628.00 ft (KB) (TVD)

2030.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8897

Inside

Press@RunDepth: 17.05 psig @ 3609.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time: 14:06:07

End Time:

19:05:56

Time On Btm:

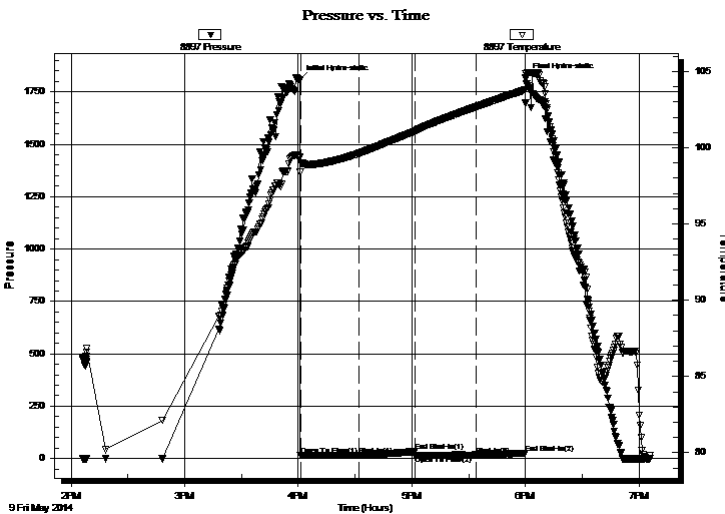
2014.05.09 @ 16:00:56

Time Off Btm:

2014.05.09 @ 18:00:16

TEST COMMENT: Weak surface blow
Dead no blow back
Dead no blow
Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1810.03	99.38	Initial Hydro-static
1	14.11	98.39	Open To Flow (1)
31	16.05	99.61	Shut-In(1)
61	33.80	101.07	End Shut-In(1)
61	16.28	101.08	Open To Flow (2)
94	17.05	102.69	Shut-In(2)
119	25.44	103.78	End Shut-In(2)
120	1816.53	104.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud With oil spots	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 Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58931

DST#: 5

ATTN: Andy White

Test Start: 2014.05.09 @ 14:06:06

Tool Information

Drill Pipe:	Length: 3579.00 ft	Diameter: 3.80 inches	Volume: 50.20 bbl	Tool Weight: 2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 50.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3608.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	47.00 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			3586.00	
Hydraulic tool	5.00			3591.00	
Jars	5.00			3596.00	
Safety Joint	2.00			3598.00	
Packer	5.00			3603.00	27.00 Bottom Of Top Packer
Packer	5.00			3608.00	
Stubb	1.00			3609.00	
Recorder	0.00	8897	Inside	3609.00	
Recorder	0.00	8898	Outside	3609.00	
Perforations	16.00			3625.00	
Bullnose	3.00			3628.00	20.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58931

DST#: 5

ATTN: Andy White

Test Start: 2014.05.09 @ 14:06:06

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: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud With oil spots	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8897

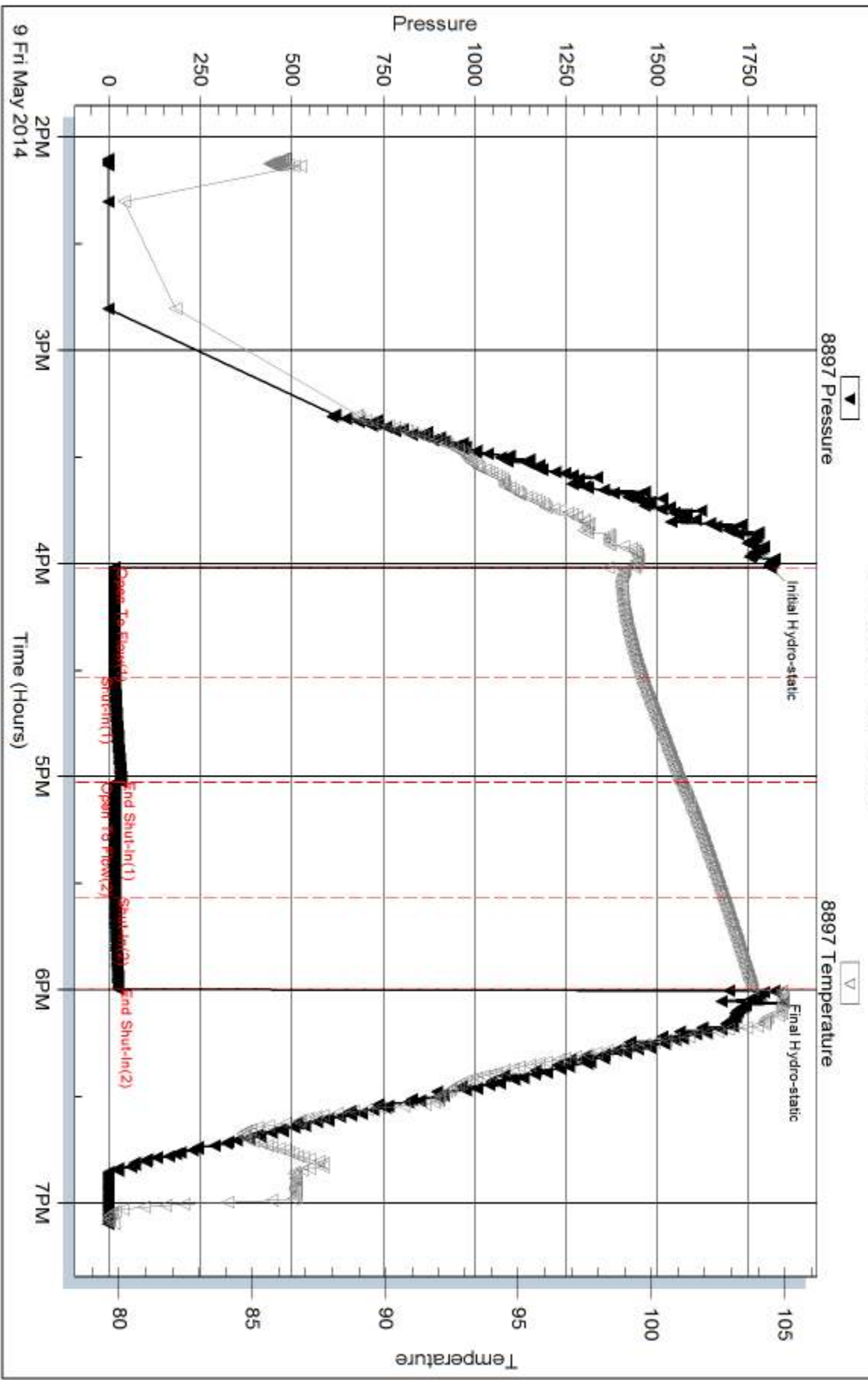
Inside

Murfin Drilling Company

Oelkers B #1-2

DST Test Number: 5

Pressure vs. Time



Tribble Testing, Inc

Ref. No: 58931

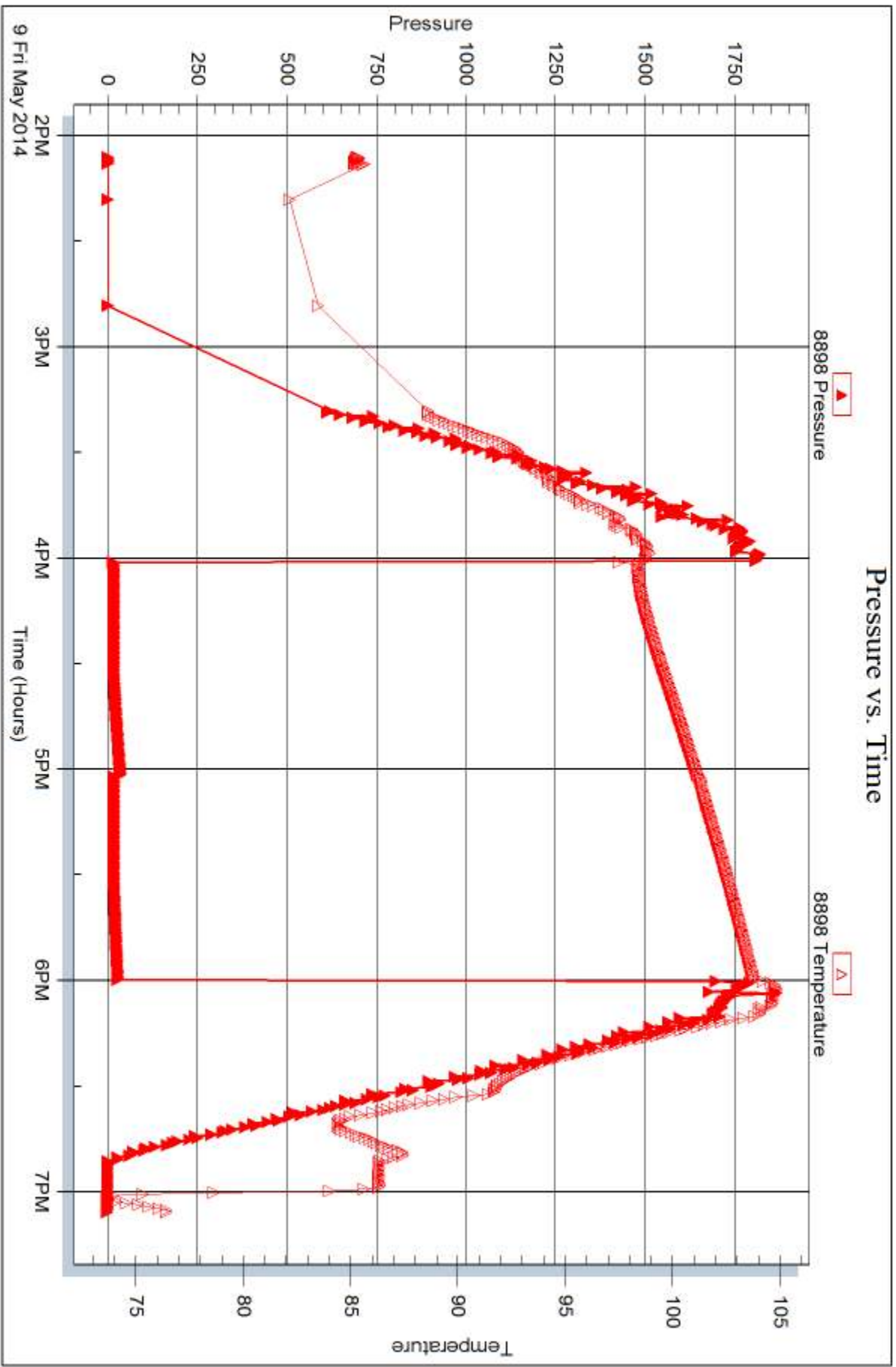
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Serial #: 8898

Outside Murfin Drilling Company

Oelkers B #1-2

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 58931

Printed: 2014.05.14 @ 16:01:56



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water STE 300
Wichita KS 67202

ATTN: Andy White

Oelkers B #1-2

2-16s-19w Rush,KS

Start Date: 2014.05.10 @ 00:25:17

End Date: 2014.05.10 @ 07:22:47

Job Ticket #: 58932 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.05.14 @ 16:01:20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Company
250 N Water STE 300
Wichita KS 67202
ATTN: Andy White

2-16s-19w Rush,KS

Oelkers B #1-2

Job Ticket: 58932

DST#: 6

Test Start: 2014.05.10 @ 00:25:17

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 02:33:07
 Tester: Tate Lang
 Time Test Ended: 07:22:47
 Unit No: 49
 Interval: **3608.00 ft (KB) To 3638.00 ft (KB) (TVD)**
 Reference Elevations: 2035.00 ft (KB)
 Total Depth: 3350.00 ft (KB) (TVD)
 2030.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 5.00 ft

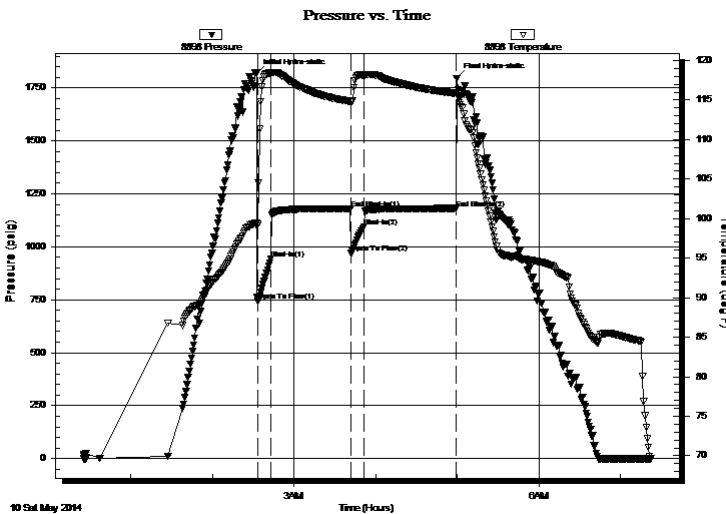
Serial #: 8898

Outside

Press@RunDepth: 1093.44 psig @ 3609.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.10 End Date: 2014.05.10 Last Calib.: 2014.05.10
 Start Time: 00:25:18 End Time: 07:22:47 Time On Btm: 2014.05.10 @ 02:32:37
 Time Off Btm: 2014.05.10 @ 04:59:47

TEST COMMENT: B.O.B. in 30 sec
 Dead no blow back
 B.O.B. in 30 sec
 Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1819.13	99.44	Initial Hydro-static
1	745.41	99.30	Open To Flow (1)
11	941.74	118.41	Shut-In(1)
69	1180.05	114.80	End Shut-In(1)
70	968.98	114.73	Open To Flow (2)
79	1093.44	118.16	Shut-In(2)
147	1181.32	115.84	End Shut-In(2)
148	1796.70	115.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1922.00	VSMCW 98%W 2%M	26.69
310.00	WCM 20%W 80%M	4.35

* 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 Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58932

DST#: 6

ATTN: Andy White

Test Start: 2014.05.10 @ 00:25:17

Tool Information

Drill Pipe:	Length: 3579.00 ft	Diameter: 3.80 inches	Volume: 50.20 bbl	Tool Weight:	2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 50.35 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3608.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	57.00 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			3586.00	
Hydraulic tool	5.00			3591.00	
Jars	5.00			3596.00	
Safety Joint	2.00			3598.00	
Packer	5.00			3603.00	27.00 Bottom Of Top Packer
Packer	5.00			3608.00	
Stubb	1.00			3609.00	
Recorder	0.00	8897	Inside	3609.00	
Recorder	0.00	8898	Outside	3609.00	
Perforations	26.00			3635.00	
Bullnose	3.00			3638.00	30.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

2-16s-19w Rush,KS

250 N Water STE 300
Wichita KS 67202

Oelkers B #1-2

Job Ticket: 58932

DST#: 6

ATTN: Andy White

Test Start: 2014.05.10 @ 00:25:17

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:

24000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1922.00	VSMCW 98%W 2%M	26.687
310.00	WCM 20%W 80%M	4.348

Total Length: 2232.00 ft

Total Volume: 31.035 bbl

Num Fluid Samples: 0

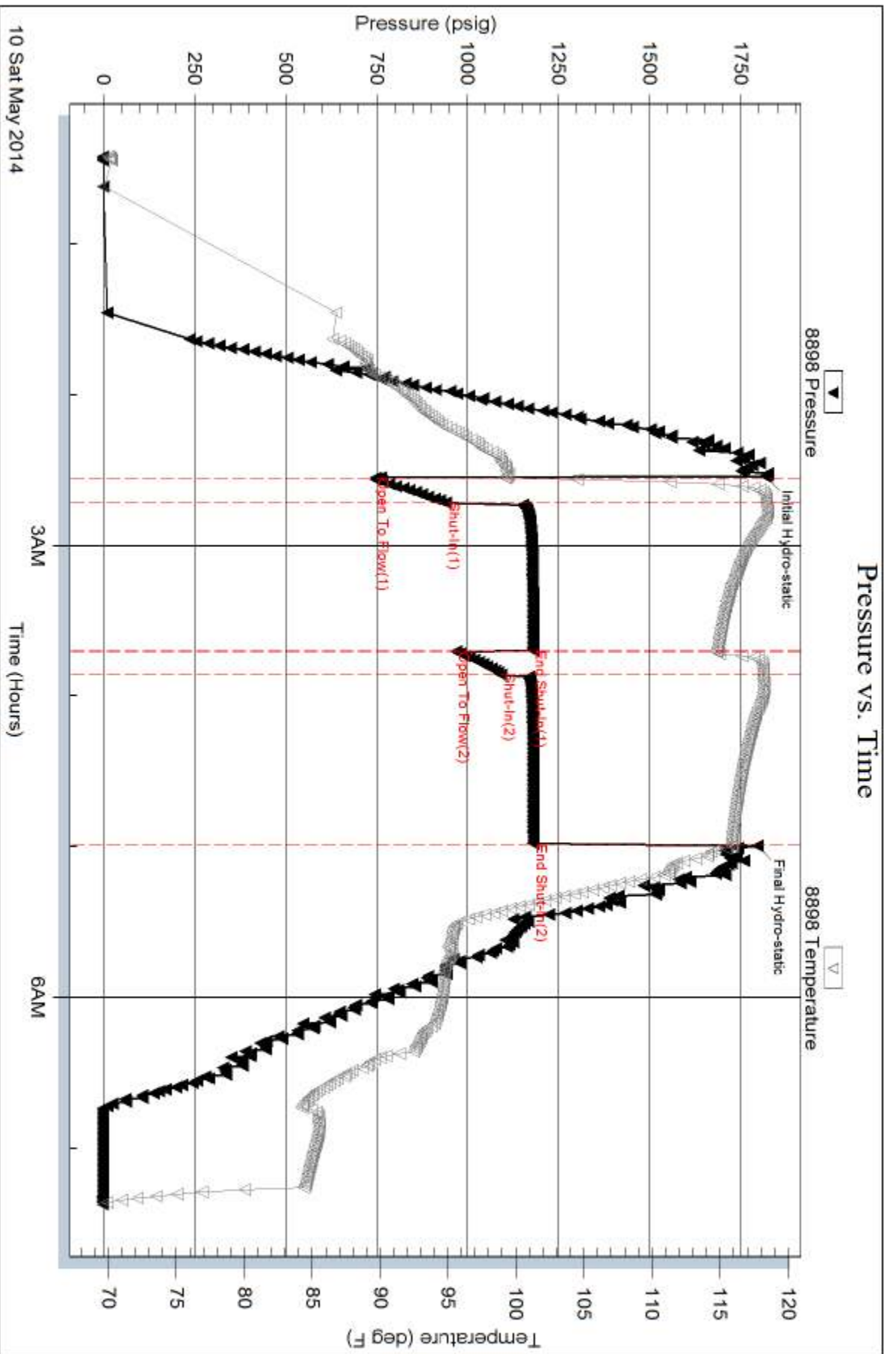
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



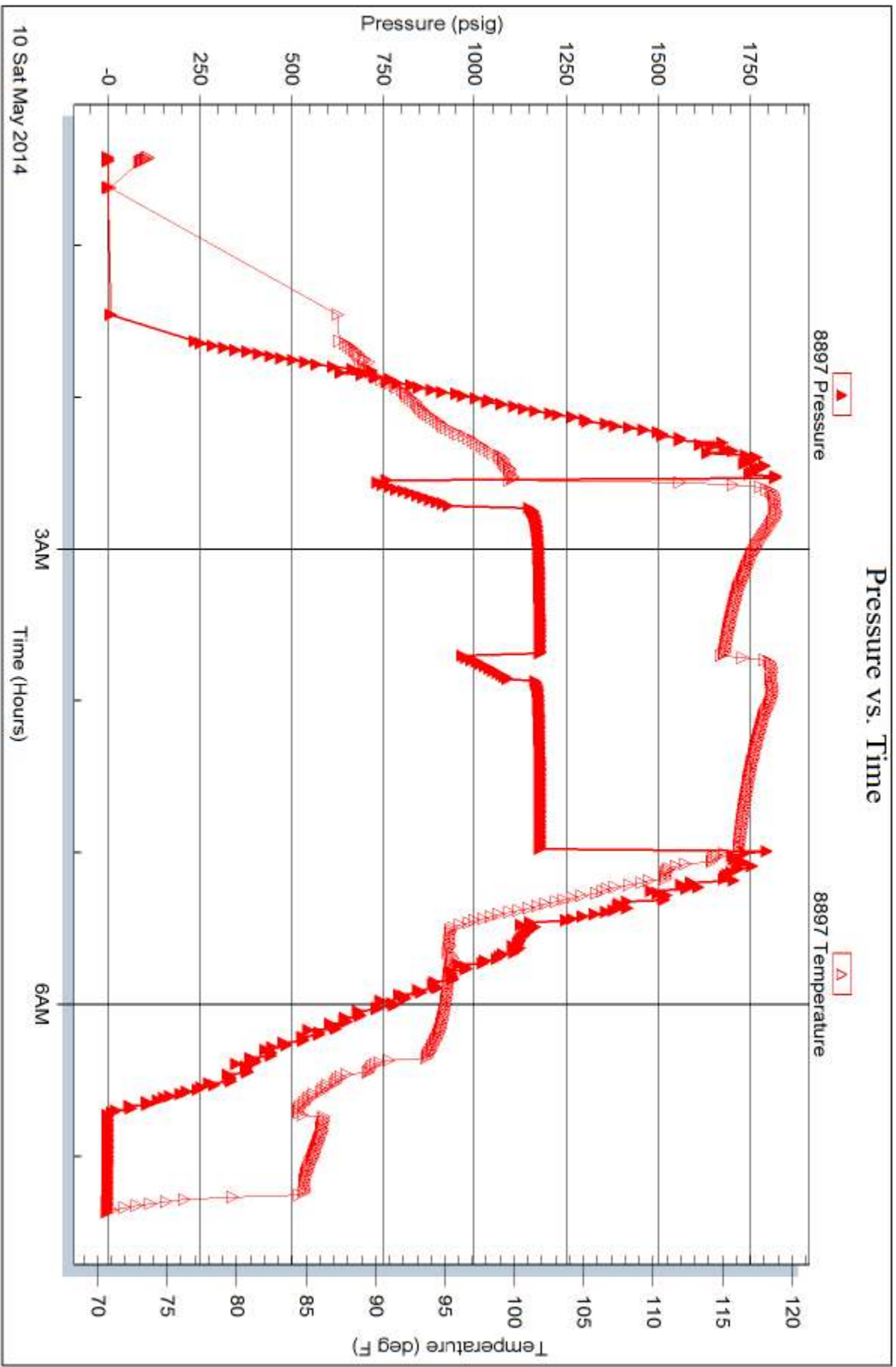
Serial #: 8897

Inside

Murfin Drilling Company

Oelkers B #1-2

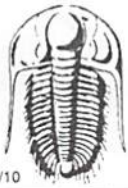
DST Test Number: 6



Trilobite Testing, Inc

Ref. No: 58932

Printed: 2014.05.14 @ 16:01:21



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58927

Well Name & No. Ocellers B #1-2 Test No. 1 Date 5-6-14
 Company Murfin Drilling Company Elevation 2035 KB 2030 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Andy White Rig Murfin 16
 Location: Sec. 2 Twp. 16S Rge. 19W Co. Rush State KS

Interval Tested 3190 3350 Zone Tested Oread, Toronto, Lansing
 Anchor Length 160 Drill Pipe Run 3165 Mud Wt. 8.8
 Top Packer Depth 3185 Drill Collars Run 30 Vis 49
 Bottom Packer Depth 3190 Wt. Pipe Run 0 WL 8.0
 Total Depth 3350 Chlorides 3560 ppm System LCM TR

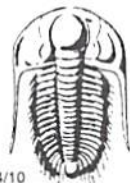
Blow Description B.O.B. In 22 mins
Dead no blow back
B.O.B. In 33 mins
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>180</u>	Feet of <u>MCM (oil spots on top of tool)</u>	%gas	%oil <u>80</u>	%water <u>20</u>	%mud
Rec <u>150</u>	Feet of <u>WCM</u>	%gas	%oil <u>20</u>	%water <u>80</u>	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 330 BHT 105 Gravity API RW, 26.2 @ 70° F Chlorides 3560 ppm
 (A) Initial Hydrostatic 1336 Test 1150 T-On Location 12:50
 (B) First Initial Flow 26 Jars 250 T-Started 13:56
 (C) First Final Flow 94 Safety Joint 75 T-Open 15:38
 (D) Initial Shut-In 1081 Circ Sub _____ T-Pulled 19:38
 (E) Second Initial Flow 97 Hourly Standby _____ T-Out _____
 (F) Second Final Flow 181 Mileage 40 R/H 62 Comments _____
 (G) Final Shut-In 1066 Sampler _____
 (H) Final Hydrostatic 1542 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1537
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1537

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

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58928

Well Name & No. Oelkers B #1-2 Test No. 2 Date 5-7-14
 Company Murfin Drilling Company Elevation 2635 KB 2030 GL
 Address _____
 Co. Rep / Geo. Andy White Rig Murfin #16
 Location: Sec. 2 Twp. 16S Rge. 19W Co. Rush State KS

Interval Tested 3150 3400 ~~3800~~ Zone Tested Lws D-F
 Anchor Length 50 Drill Pipe Run 3324 Mud Wt. 8.9
 Top Packer Depth 3845 Drill Collars Run 30 Vis 55
 Bottom Packer Depth 3850 Wt. Pipe Run 0 WL 8.9
 Total Depth 3400 ~~3800~~ Chlorides 7000 ppm System LCM 1 1/2"

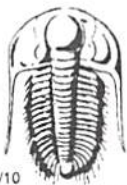
Blow Description Well surface slow
Dead no blow
Dead no blow
Dead no blow

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>1</u>	Feet of <u>Mud</u>	%gas	%oil	%water	<u>100</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1641</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>08:53</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>09:12</u>
(C) First Final Flow <u>18</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:56</u>
(D) Initial Shut-In <u>58</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>13:56</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby _____	T-Out _____
(F) Second Final Flow <u>26</u>	<input checked="" type="checkbox"/> Mileage <u>62</u>	Comments _____
(G) Final Shut-In <u>40</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1630</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>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1537</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1537</u>	

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58929

Well Name & No. Oelkers B #1-2 Test No. 3 Date 5-8-14
 Company Murfin Drilling Company Elevation 2035 KB 2030 GL
 Address _____
 Co. Rep / Geo. Andy White Rig Murfin #16
 Location: Sec. 2 Twp. 16S Rge. 19W Co. Rush State KS

Interval Tested 3429 3540 Zone Tested LHC H-L
 Anchor Length 111 Drill Pipe Run 3388 Mud Wt. 8.9
 Top Packer Depth 3424 Drill Collars Run 30 Vis 53
 Bottom Packer Depth 3429 Wt. Pipe Run 0 WL 8.8
 Total Depth 3540 Chlorides 7000 ppm System LCM 1 1/2 #

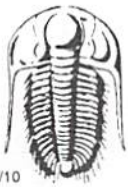
Blow Description Weak surface blow built to 3 in
Dead no blow back
Weak surface blow built to 2 in
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>85</u>	Feet of <u>mud</u>	%gas	%oil	%water	<u>100</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 85 BHT 106 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1702</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>08:13</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>08:35</u>
(C) First Final Flow <u>39</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:18</u>
(D) Initial Shut-In <u>922</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>14:18</u>
(E) Second Initial Flow <u>43</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>15:36</u>
(F) Second Final Flow <u>53</u>	<input checked="" type="checkbox"/> Mileage <u>62</u>	Comments _____
(G) Final Shut-In <u>842</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1672</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>600</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1537</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1537</u>	

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58930

Well Name & No. Oelkers B #1-2 Test No. 4 Date 5-9-14
 Company Murfin Drilling Company Elevation 2035 KB 2080 GL
 Address _____
 Co. Rep / Geo Andy White Rig Murfin #16
 Location: Sec. 2 Twp. 16S Rge. 19W Co. Rush State KS

Interval Tested 3608 3618 Zone Tested Arbuckle
 Anchor Length 10 Drill Pipe Run _____ Mud Wt. 9.1
 Top Packer Depth 3603 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3608 Wt. Pipe Run 0 WL 8.8
 Total Depth 3618 Chlorides 6000 ppm System LCM 1 1/2 #

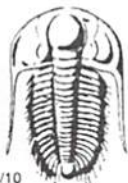
Blow Description Weak surface blow built to 1/2,
Dead no blow back
Dead no blow
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>1</u>	Feet of <u>Oil spotted Mud (show free oil ON TOP)</u>	%gas	%oil	%water	<u>100</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT 109 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1290</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>03:34</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>03:45</u>
(C) First Final Flow <u>18</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>05:14</u>
(D) Initial Shut-In <u>70</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>08:14</u>
(E) Second Initial Flow <u>17</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>09:28</u>
(F) Second Final Flow <u>17</u>	<input checked="" type="checkbox"/> Mileage <u>62</u>	Comments _____
(G) Final Shut-In <u>44</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1772</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1537</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1537</u>	

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58931

Well Name & No. Delkers B #1-2 Test No. 5 Date 5-9-14
 Company Murfin Drilling Company Elevation 2035 KB 2030 GL
 Address _____
 Co. Rep / Geo. Andy White Rig Murfin #16
 Location: Sec. 2 Twp. 16S Rge. 19W Co. Rush State KS

Interval Tested 3608 3628 Zone Tested Arkville
 Anchor Length 20 Drill Pipe Run 3577 Mud Wt. 9.1
 Top Packer Depth 3603 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3608 Wt. Pipe Run 0 WL 8.8
 Total Depth 3628 Chlorides 6000 ppm System LCM \$1 1/2 #

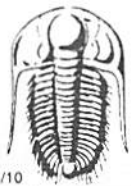
Blow Description Weak surface blow
Dead w/ blow back
Dead no blow
Dead w/ slow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>1</u>	Feet of <u>Mud with Oil spots</u>	%gas	%oil	%water	<u>100</u> %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1810 Test 1150 T-On Location 15:50
 (B) First Initial Flow 14 Jars 250 T-Started 14:05
 (C) First Final Flow 16 Safety Joint 75 T-Open 16:02
 (D) Initial Shut-In 34 Circ Sub _____ T-Pulled 18:02
 (E) Second Initial Flow 16 Hourly Standby _____ T-Out 19:05
 (F) Second Final Flow 17 Mileage 62 Comments _____
 (G) Final Shut-In 25 Sampler _____
 (H) Final Hydrostatic 1817 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1537
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1537

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58932

Well Name & No. Oelkers B #1-2 Test No. 14 Date 5-10-14
 Company Murfin Drilling Company Elevation 2035 KB 2030 GL
 Address _____
 Co. Rep / Geo. Andy White Rig Murfin #16
 Location: Sec. 2 Twp. 16S Rge. 19W Co. Rush State KS

Interval Tested 3608 3638 Zone Tested Arbuckle
 Anchor Length 30 Drill Pipe Run 3579 Mud Wt. 911
 Top Packer Depth 3603 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3608 Wt. Pipe Run 0 WL 818
 Total Depth 3638 Chlorides 6000 ppm System LCM 1 1/2

Blow Description B.O.B. IN 30 sec
Dead no blow back
B.O.B. IN 30 sec
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>1922</u>	Feet of <u>VSMCW</u>			<u>98</u>	<u>2</u>
Rec <u>310</u>	Feet of <u>WCM</u>			<u>20</u>	<u>80</u>
Rec _____	Feet of _____				
Rec _____	Feet of _____				

Rec Total 2232 BHT 116 Gravity _____ API RW 394 @ 50 °F Chlorides 24000 ppm
 (A) Initial Hydrostatic 1819 Test 1150 T-On Location 23:50 (59-14)
 (B) First Initial Flow 745 Jars 250 T-Started 00:25
 (C) First Final Flow 942 Safety Joint 75 T-Open 02:33
 (D) Initial Shut-In 1180 Circ Sub _____ T-Pulled 04:53
 (E) Second Initial Flow 969 Hourly Standby _____ T-Out 07:22
 (F) Second Final Flow 1093 Mileage 62 Comments _____
 (G) Final Shut-In 1181 Sampler _____
 (H) Final Hydrostatic 1767 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 10
 Initial Shut-In 60
 Final Flow 10
 Final Shut-In 60
 Sub Total 0
 Total 1537
 MP/DST Disc' _____
 Sub Total 1537

Approved By _____ Our Representative [Signature]
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acct
Prod-MG

Date: 5/3/2014
Invoice # 174

P.O.#:

Due Date: 6/2/2014
Division: Russell



QUALITY OILWELL CEMENTING, INC.
PO Box 32 - 740 West Wichita Ave, Russell KS 67665
Phone: 785-324-1041 fax: 785-483-1087
Email: cementing@ruraltel.net

Invoice

USED FOR _____

APPROVED _____

Contact:
Murfin Drilling Company
Address/Job Location:
Murfin Drilling Company
P.O. Box 288
Russell Ks 67665

OPERATOR PAY MDC
LEASE: BM

Reference:
OELKERS B 1-2

Description of Work:
LONG SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No				
Common-Class A	500	\$ 8,382.35	Yes				
Bulk Truck Mat-Material Service Charge	600	\$ 1,341.18	No				
Calcium Chloride	18	\$ 1,119.75	Yes				
Pump Truck Mileage-Job to Nearest Camp	23	\$ 256.54	No				
Premium Gel (Bentonite)	12	\$ 218.34	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	23	\$ 150.12	No				
8 5/8" Top Rubber Plug	1	\$ 118.47	Yes				
Baffle Plate Aluminum, 8 5/8"	1	\$ 100.59	Yes				

Invoice Terms:
Net 30

SubTotal: \$ 12,707.89
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (1,906.18)

SubTotal for Taxable Items: \$ 8,448.58
SubTotal for Non-Taxable Items: \$ 2,353.13
Total: \$ 10,801.71
Tax: \$ 519.59

6.15% Rush County Sales Tax

Thank You For Your Business!

Amount Due: \$ 11,321.30
Applied Payments:
Balance Due: \$ 11,321.30

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.
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acct
Prod-MG

Date: 5/10/2014
Invoice # 227

P.O.#:
Due Date: 6/9/2014
Division: Russell



QUALITY OILWELL CEMENTING, INC.
PO Box 32 - 740 West Wichita Ave, Russell KS 67665
Phone: 785-324-1041 fax: 785-483-1087
Email: cementing@ruraltel.net

Invoice

USED FOR _____

APPROVED _____

Contact:
Murfin Drilling Company
Address/Job Location:
Murfin Drilling Company
P.O. Box 288
Russell Ks 67665

OPERATOR PAY MDC

LEASE: BM

Reference:
OELKERS B 1-2

Description of Work:
PLUG JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	Yes				
Common-Class A	132	\$ 2,212.94	Yes				
POZ Mix-Standard	88	\$ 619.62	Yes				
Bulk Truck Matl-Material Service Charge	132	\$ 295.06	Yes				
Pump Truck Mileage-Job to Nearest Camp	23	\$ 256.54	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	23	\$ 150.12	Yes				
Premium Gel (Bentonite)	8	\$ 145.56	Yes				
Flo Seal	55	\$ 122.94	Yes				

Invoice Terms:

Net 30

SubTotal: \$ 4,823.34
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (723.50)

SubTotal for Taxable Items: \$ 4,099.84
SubTotal for Non-Taxable Items: \$ -

6.15% Rush County Sales Tax

Total: \$ 4,099.84
Tax: \$ 252.14

Thank You For Your Business!

Amount Due: \$ 4,351.98
Applied Payments:
Balance Due: \$ 4,351.98

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 227

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-10-14	2	16	19	Rush	KS		11:00PM

Location *Hays S to C.L., 1S, 4W, NnZ*

Lease <i>Oelkers B</i>	Well No. <i>1-2</i>	Owner
Contractor <i>Murfin 16</i>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <i>Plug</i>		Charge To <i>Murfin Drlg</i>
Hole Size	T.D.	Street
Csg.	Depth	City
Tbg. Size	Depth	State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint	Cement Amount Ordered <i>220sx 60/40, 4% gel, 1/4# Flo</i>
Meas Line	Displace	

EQUIPMENT

Pumptrk <i>16</i>	No.	Cementer	Common <i>132</i>
		Helper <i>Billy</i>	Poz. Mix <i>88</i>
Bulktrk <i>19</i>	No.	Driver <i>Ryan</i>	Gel. <i>8</i>
		Driver <i>Nick</i>	Calcium
Bulktrk <i>Ph</i>	No.	Driver <i>Travis</i>	

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal <i>55#</i>
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38

50sx at 3609
50sx at 1260
50sx at 490
20sx at 60
30sx Rat
20sx Mouse

Handling *228*
Mileage

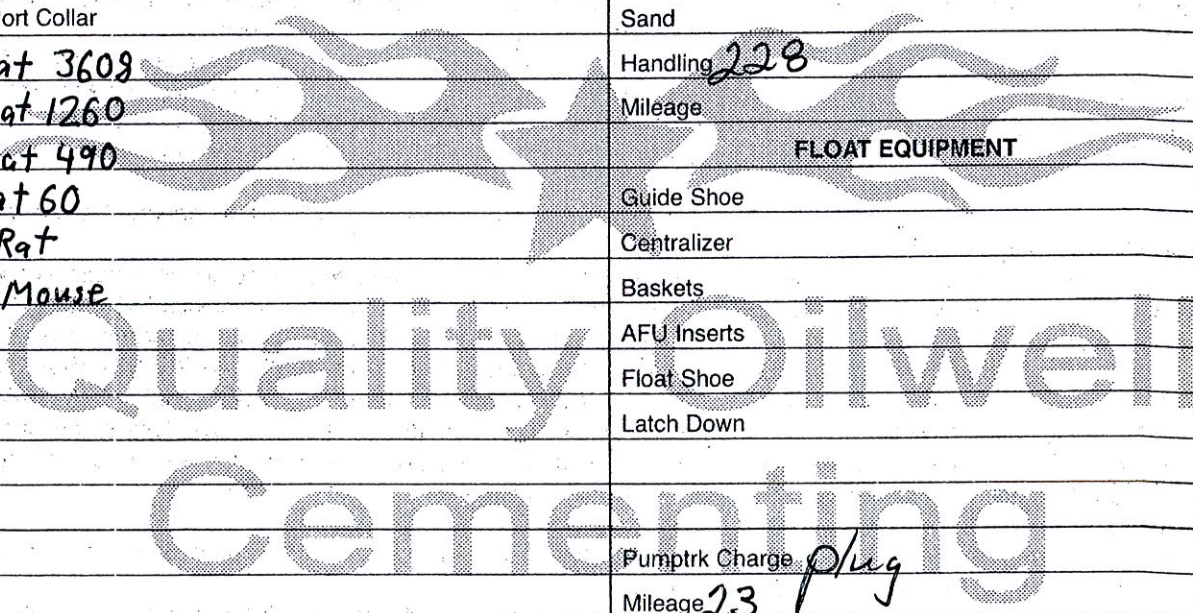
FLOAT EQUIPMENT

Guide Shoe
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge *plug*
Mileage *23*

Tax
Discount
Total Charge

X Signature *Az [Signature]*



Oelkers 'B' #1-2
 Daily Drilling Report
 Page Two

- 5/9/14 Depth 3618'. Cut 78'. DT: None. CT: 20hrs. Dev.: None. **Pawnee**: dol, crm-tan-gry, fxln-mxln, some granular, dense, strong odor, GSFO, sli-fr por, dull yellow-gold fluor. **DST #4 3608-3618' (Pawnee)**: 30-60-30-60. IF: wk surf blw built to 1/2". FF: no blw. Rec.: 1'OSM (100%M, SFO). HP: 1790-1772. FP: 17/18, 17/17. SIP: 70/44. BHT: 109°.
- 5/10/14 Depth 3638'. Cut 20'. DT: None. CT: 23hrs. Dev.: None. **Pawnee**: dol, crm-tan-gry, fxln-mxln, some granular, dense, strong odor, GSFO, sli-fr por, dull yellow-gold fluor. **DST #5 3608-3628 (Pawnee)**: 30-30-30-30. IF: wk surf blw. FF: no blw. Rec.: 1'M w/oil spts. HP: 1810-1817. FP: 14/16, 16/17. SIP: 34-25. BHT: 104°. **Arbuckle SS**: clr, f-m grn, friable few dense clusters, sub round, fr vis por, nsfo. **DST #6 3608-3638' (Arb)**: 10-60-10-60. IF: BOB 30secs. FF: BOB in 30secs. Rec.: 1922' VSMCW (98%W, 2%M), 310' WCM (20%W, 80%M). HP: 1819-1797. FP: 745/942, 969/1093. SIP: 1180-1181. BHT: 116°.
- 5/11/14 RTD: 3688'. Cut 50'. DT: None. CT: 18 1/2 hrs. Dev.: 3/4° @ 3688'. HC @ 11:00AM 5/10. Pioneer logged 1:30PM – 5:00PM 5/10. LTD: 3689'. Quality plugged 8:00PM – 11:00PM 5/10, as follows using 60/40Poz, 4%Gel, 1/4#Flo seal, 50sxs @ 3608', 50sxs @ 1260', 50sxs @ 490', 20sxs @ 60', 30sxs RH, 20sxs @ MH. Orders: Richard Lacey, KCC Dodge. RR @ 3:00AM 5/11/14. FINAL REPORT

MDCI Oelkers 'B' #1-2 1320' FSL 2310' FWL Sec. 2-T16S-R19W 2035' KB							Triple H Oil CO Oelkers #1-A C NE NE SW Sec. 2-T16S-R19W 2033' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	1221	+814	-3	1224	+811	-6	1216	+817
B/Anhydrite	1264	+771	-7	1264	+771	-7	1255	+778
Topeka				3010	-975	-9	2999	-966
Heebner	3270	-1235	+6	3284	-1249	-8	3274	-1241
Toronto	3290	-1255	+6	3304	-1269	-8	3294	-1261
Lansing	3314	-1279	+6	3326	-1291	-6	3318	-1285
Stark	3504	-1469	+12	3523	-1488	-7	3514	-1481
BKC	3555	-1520	+5	3568	-1533	-8	3558	-1525
Arbuckle	3608	-1573		3632	-1597		----	----
Reagan				3653	-1618	-25	3626	-1593
RTD	3688						3652	
LTD				3689				