



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1215597
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: _____

1215597

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> _____ <input type="checkbox"/> Commingled <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	Melba 1-34
Doc ID	1215597

All Electric Logs Run

Dual Induction
Dual Compensated
Microresistivity
Boreole Compensated



DRILL STEM TEST REPORT

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

20 N Water STE #300
Wichita, KS 67202

ATTN: Keith Reavis

Melba #1-34

34-4s-31w Rawlins,KS

Start Date: 2014.05.05 @ 06:21:00

End Date: 2014.05.05 @ 14:14:00

Job Ticket #: 56834 DST #: 1

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

Printed: 2014.05.09 @ 14:41:43



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

34-4s-31w Rawlins, KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56834

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.05 @ 06:21:00

GENERAL INFORMATION:

Formation: **Toronto-Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:52:00

Time Test Ended: 14:14:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3905.00 ft (KB) To 3990.00 ft (KB) (TVD)

Reference Elevations: 2940.00 ft (KB)

Total Depth: 3990.00 ft (KB) (TVD)

2935.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press@RunDepth: 53.57 psig @ 3906.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.05

End Date:

2014.05.05

Last Calib.:

2014.05.05

Start Time: 06:22:00

End Time:

14:14:00

Time On Btm:

2014.05.05 @ 08:50:30

Time Off Btm:

2014.05.05 @ 11:54:00

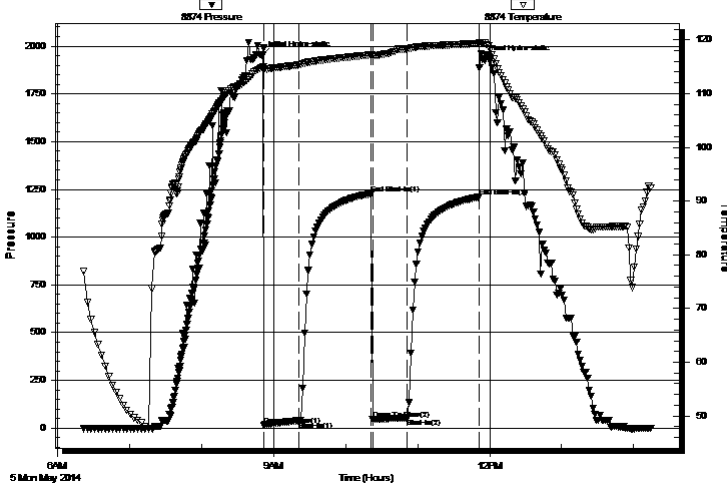
TEST COMMENT: 30 - IF- 1/4" Blow built to 1"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1951.31	114.83	Initial Hydro-static
2	16.76	114.47	Open To Flow (1)
31	38.41	115.35	Shut-In(1)
91	1228.68	117.22	End Shut-In(1)
92	44.75	117.00	Open To Flow (2)
121	53.57	118.31	Shut-In(2)
181	1209.92	119.34	End Shut-In(2)
184	1931.98	119.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05
60.00	Mud 100M	0.39

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

34-4s-31w Rawlins, KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56834

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.05 @ 06:21:00

GENERAL INFORMATION:

Formation: **Toronto-Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:52:00

Time Test Ended: 14:14:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3905.00 ft (KB) To 3990.00 ft (KB) (TVD)

Total Depth: 3990.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2940.00 ft (KB)

2935.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: psig @ 3906.00 ft (KB)

Start Date: 2014.05.05

End Date:

2014.05.05

Capacity: 8000.00 psig

Last Calib.:

2014.05.05

Start Time: 06:22:00

End Time:

14:12:30

Time On Btm:

Time Off Btm:

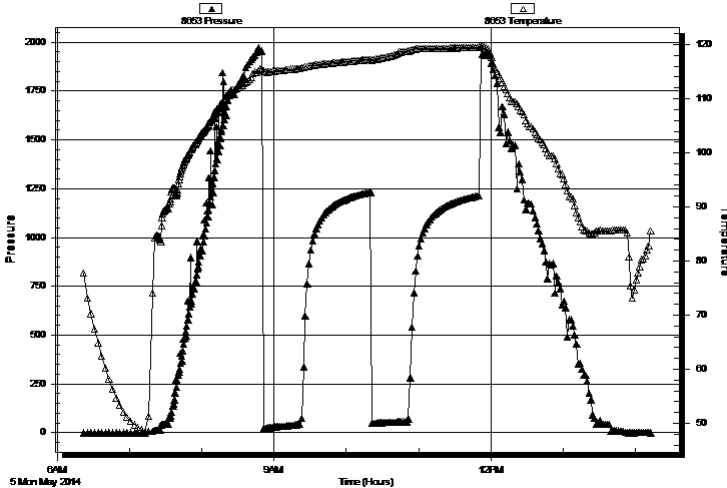
TEST COMMENT: 30 - IF- 1/4" Blow built to 1"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05
60.00	Mud 100M	0.39

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56834

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.05 @ 06:21:00

Tool Information

Drill Pipe:	Length: 3834.00 ft	Diameter: 3.80 inches	Volume: 53.78 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 54.08 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3905.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	113.00 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			3878.00	
Shut In Tool	5.00			3883.00	
Hydraulic tool	5.00			3888.00	
Jars	5.00			3893.00	
Safety Joint	3.00			3896.00	
Packer	5.00			3901.00	28.00 Bottom Of Top Packer
Packer	4.00			3905.00	
Stubb	1.00			3906.00	
Recorder	0.00	8653	Outside	3906.00	
Recorder	0.00	8874	Inside	3906.00	
Perforations	15.00			3921.00	
Change Over Sub	1.00			3922.00	
Drill Pipe	62.00			3984.00	
Change Over Sub	1.00			3985.00	
Bullnose	5.00			3990.00	85.00 Bottom Packers & Anchor

Total Tool Length: 113.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56834

DST#: 1

ATTN: Keith Reavis

Test Start: 2014.05.05 @ 06:21:00

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: 6.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OSM 100M (oil spots)	0.049
60.00	Mud 100M	0.386

Total Length: 70.00 ft Total Volume: 0.435 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

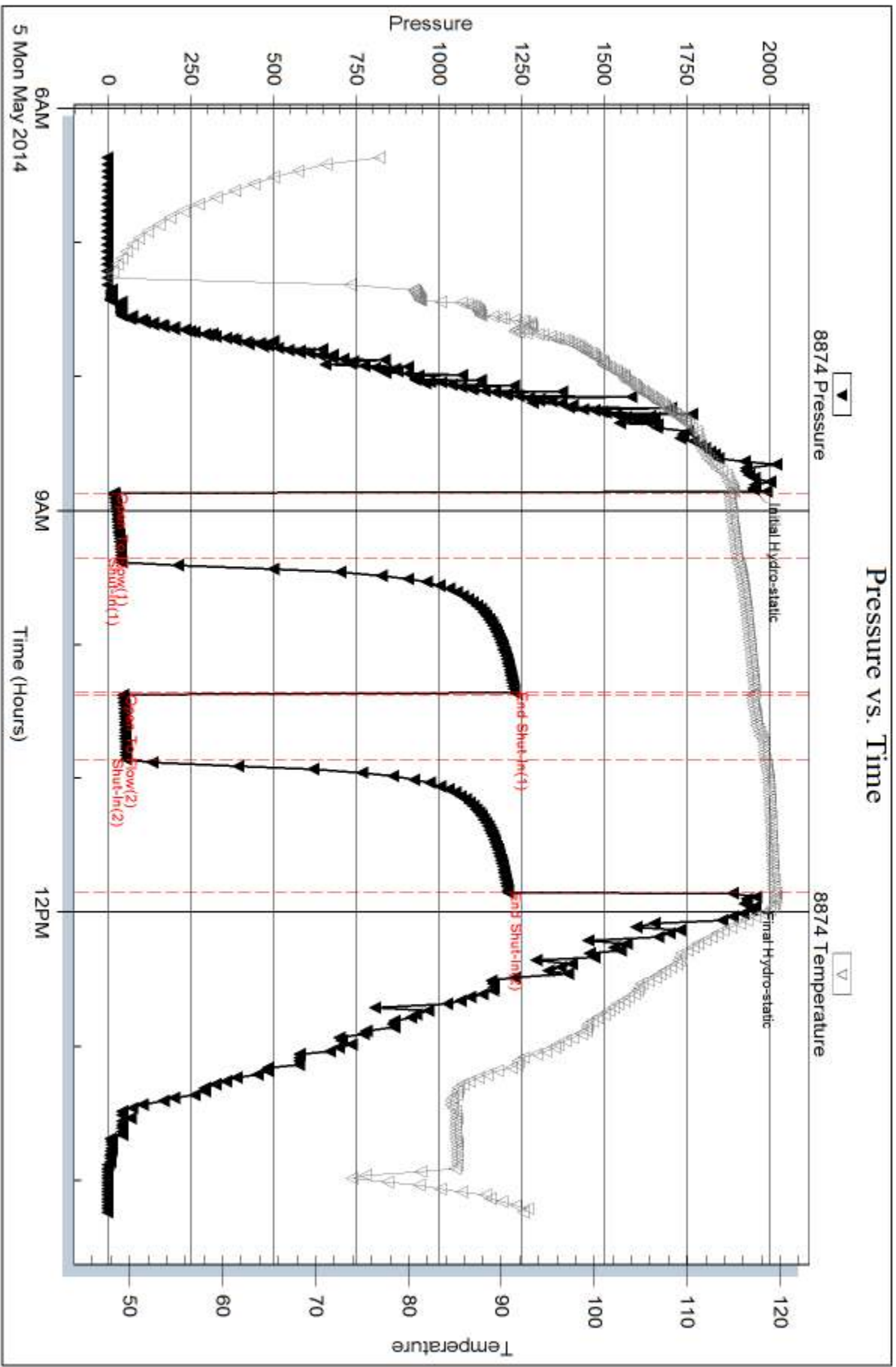
Serial #: 8874

Inside

Murfin Drilling Co., Inc.

Wellbore #1-34

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56834

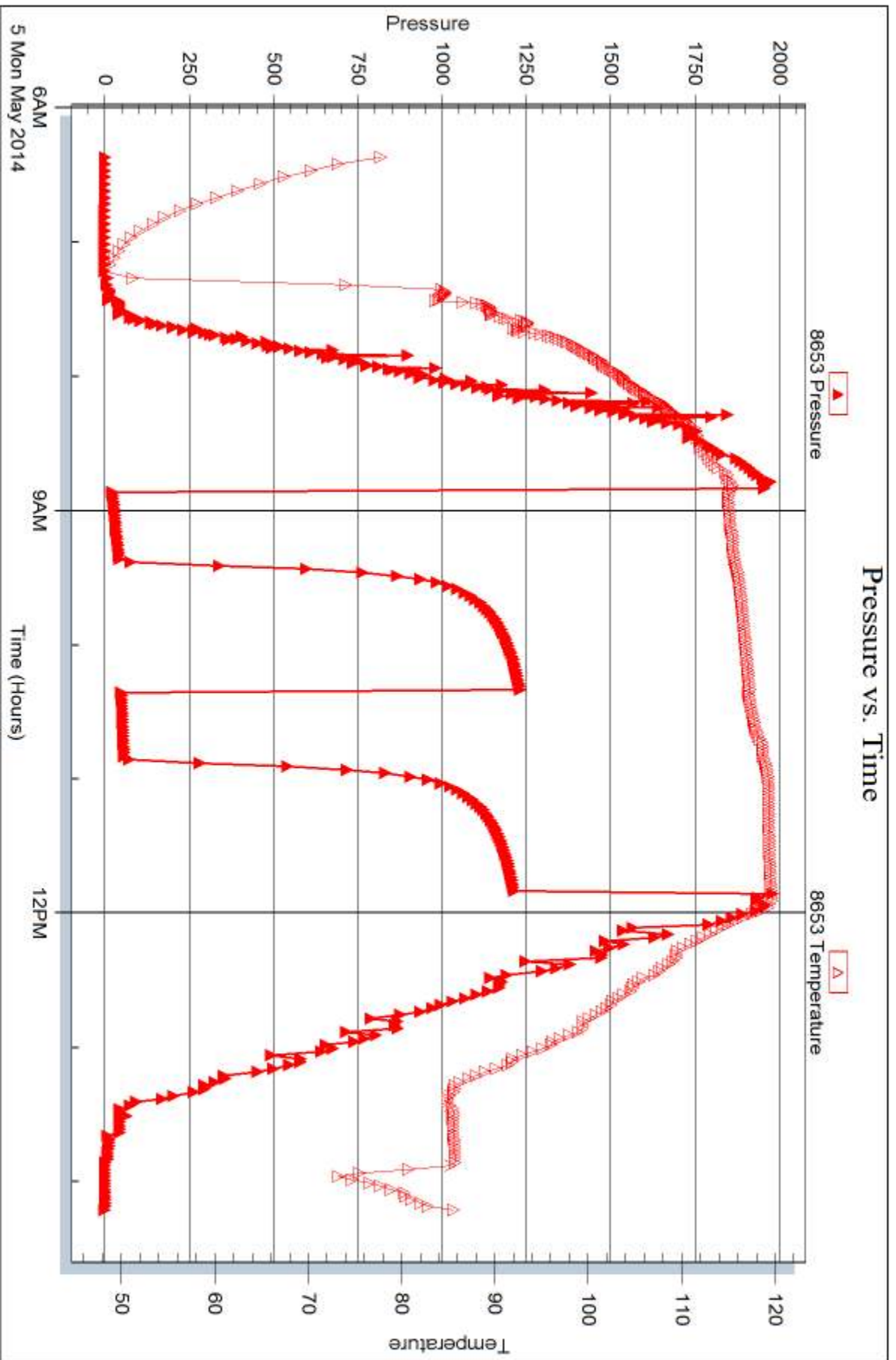
Printed: 2014.05.09 @ 14:41:44

Serial #: 8653

Outside Murfin Drilling Co., Inc.

Wellbore #1-34

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 56834

Printed: 2014.05.09 @ 14:41:44



DRILL STEM TEST REPORT

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

20 N Water STE #300
Wichita, KS 67202

ATTN: Keith Reavis

Melba #1-34

34-4s-31w Rawlins,KS

Start Date: 2014.05.06 @ 00:50:00

End Date: 2014.05.06 @ 08:37:00

Job Ticket #: 56835 DST #: 2

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

Printed: 2014.05.09 @ 14:41:18



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56835

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.05.06 @ 00:50:00

GENERAL INFORMATION:

Formation: **LKC "F-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:34:30

Time Test Ended: 08:37:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4008.00 ft (KB) To 4040.00 ft (KB) (TVD)

Reference Elevations: 2940.00 ft (KB)

Total Depth: 4040.00 ft (KB) (TVD)

2935.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: 35.24 psig @ 4009.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.06

End Date:

2014.05.06

Last Calib.:

2014.05.06

Start Time: 00:51:00

End Time:

08:37:00

Time On Btm:

2014.05.06 @ 03:32:30

Time Off Btm:

2014.05.06 @ 06:42:30

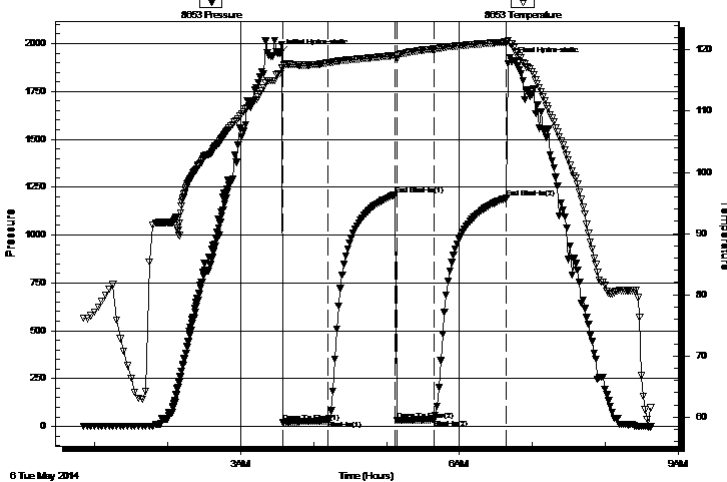
TEST COMMENT: 30 - IF- 1/2" Blow built to 1"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1947.00	116.17	Initial Hydro-static
2	23.04	117.13	Open To Flow (1)
40	29.78	117.93	Shut-In(1)
95	1210.94	119.12	End Shut-In(1)
96	31.81	118.50	Open To Flow (2)
126	35.24	120.14	Shut-In(2)
186	1193.46	121.31	End Shut-In(2)
190	1907.48	120.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100M	0.10

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56835

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.05.06 @ 00:50:00

Tool Information

Drill Pipe:	Length: 3925.00 ft	Diameter: 3.80 inches	Volume: 55.06 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 55.36 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4008.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	60.00 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			3981.00	
Shut In Tool	5.00			3986.00	
Hydraulic tool	5.00			3991.00	
Jars	5.00			3996.00	
Safety Joint	3.00			3999.00	
Packer	5.00			4004.00	28.00 Bottom Of Top Packer
Packer	4.00			4008.00	
Stubb	1.00			4009.00	
Recorder	0.00	8653	Outside	4009.00	
Recorder	0.00	8874	Inside	4009.00	
Perforations	26.00			4035.00	
Bullnose	5.00			4040.00	32.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56835

DST#: 2

ATTN: Keith Reavis

Test Start: 2014.05.06 @ 00:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
20.00	Mud 100M	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbf

Num Fluid Samples: 0

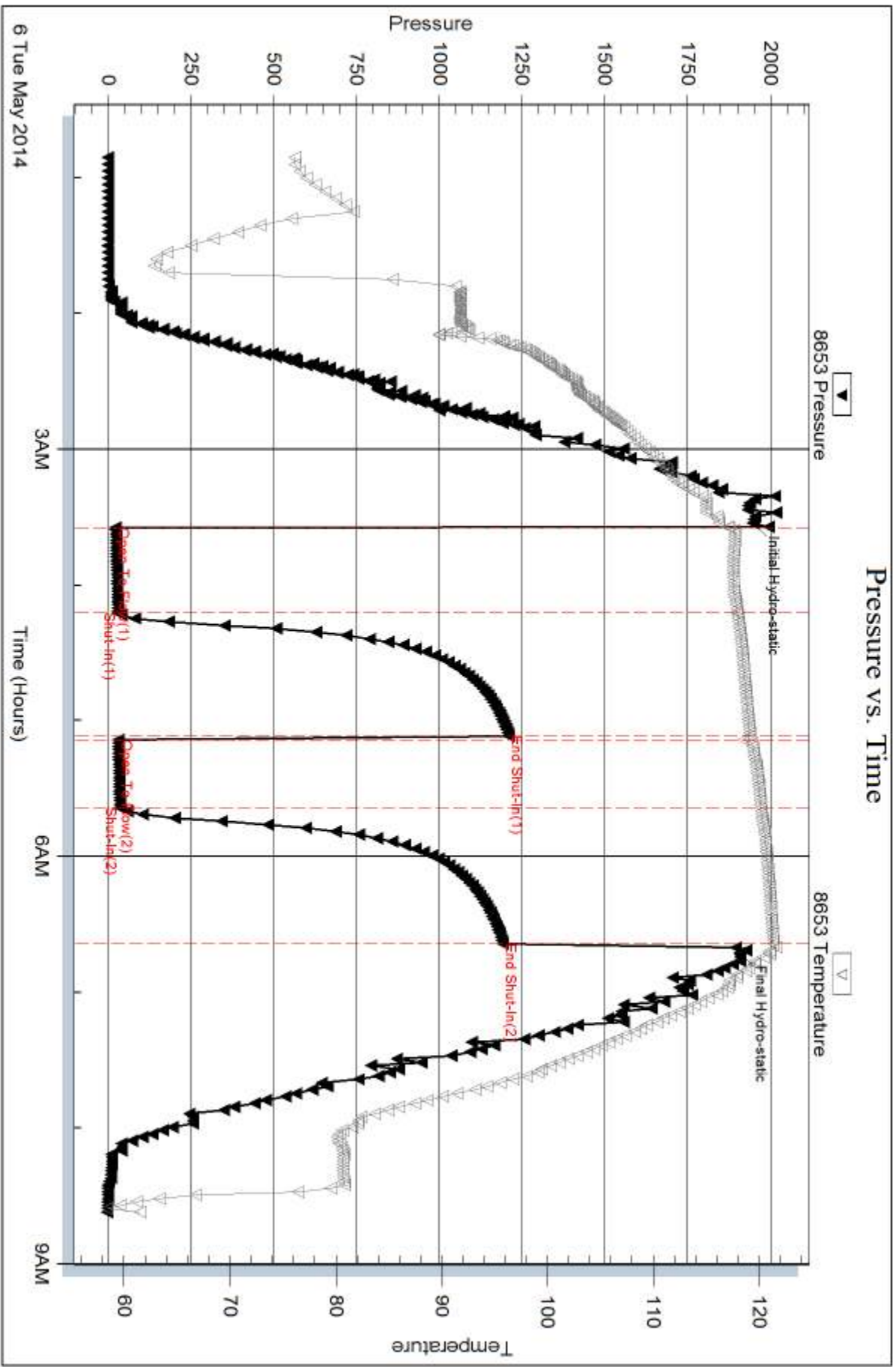
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



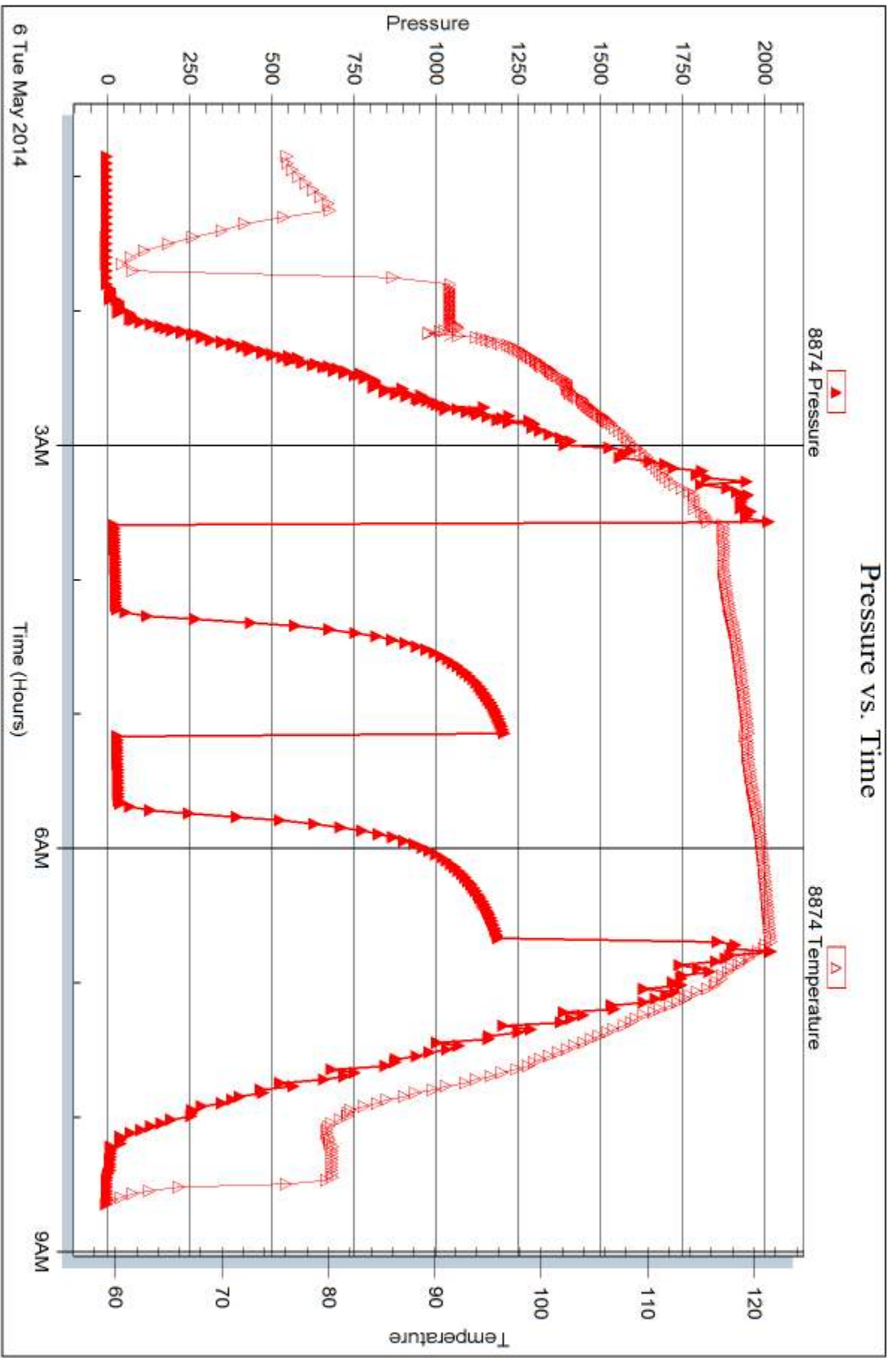
Serial #: 8874

Inside

Murfin Drilling Co., Inc.

Wellbore #1-34

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56835

Printed: 2014.05.09 @ 14:41:19



DRILL STEM TEST REPORT

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

20 N Water STE #300
Wichita, KS 67202

ATTN: Keith Reavis

Melba #1-34

34-4s-31w Rawlins,KS

Start Date: 2014.05.06 @ 23:02:00

End Date: 2014.05.07 @ 08:38:00

Job Ticket #: 56836 DST #: 3

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

Printed: 2014.05.09 @ 14:40:41



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56836

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.05.06 @ 23:02:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:22:00

Time Test Ended: 08:38:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4078.00 ft (KB) To 4148.00 ft (KB) (TVD)

Reference Elevations: 2940.00 ft (KB)

Total Depth: 4148.00 ft (KB) (TVD)

2935.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press@RunDepth: 176.82 psig @ 4079.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.06

End Date:

2014.05.07

Last Calib.:

2014.05.07

Start Time: 23:03:00

End Time:

08:38:00

Time On Btm:

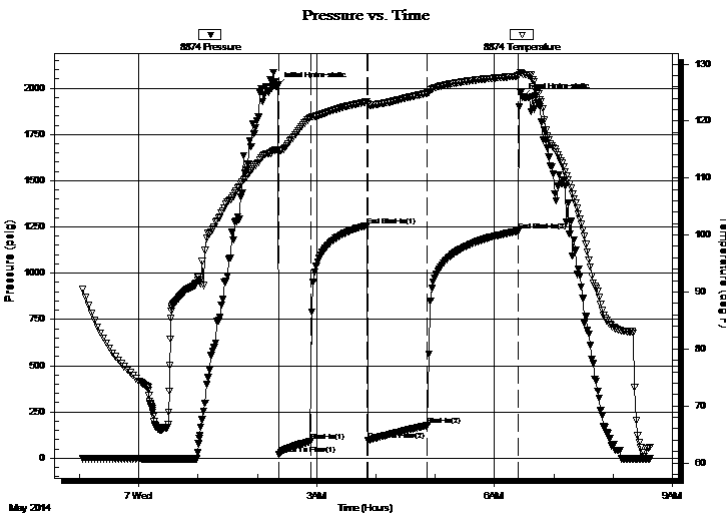
2014.05.07 @ 02:20:00

Time Off Btm:

2014.05.07 @ 06:28:00

TEST COMMENT: 30 - IF- BoB in 28 min.
60 - IS- No Return
60 - FF- BoB in 32 min
90 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2009.26	114.98	Initial Hydro-static
2	22.74	114.68	Open To Flow (1)
34	91.51	120.60	Shut-In(1)
91	1257.25	123.37	End Shut-In(1)
92	95.53	122.97	Open To Flow (2)
152	176.82	124.89	Shut-In(2)
244	1226.56	127.87	End Shut-In(2)
248	1951.34	128.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud (Heavy) 100M	0.02
181.00	MW 95W 5M	2.04
126.00	MW 80W 20M	1.77
20.00	OSMW 20M 80W (Oil spots)	0.28

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

34-4s-31w Rawlins, KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56836

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.05.06 @ 23:02:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:22:00

Time Test Ended: 08:38:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4078.00 ft (KB) To 4148.00 ft (KB) (TVD)

Total Depth: 4148.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2940.00 ft (KB)

2935.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: psig @ 4079.00 ft (KB)

Start Date: 2014.05.06

End Date:

2014.05.07

Start Time: 23:03:00

End Time:

08:36:00

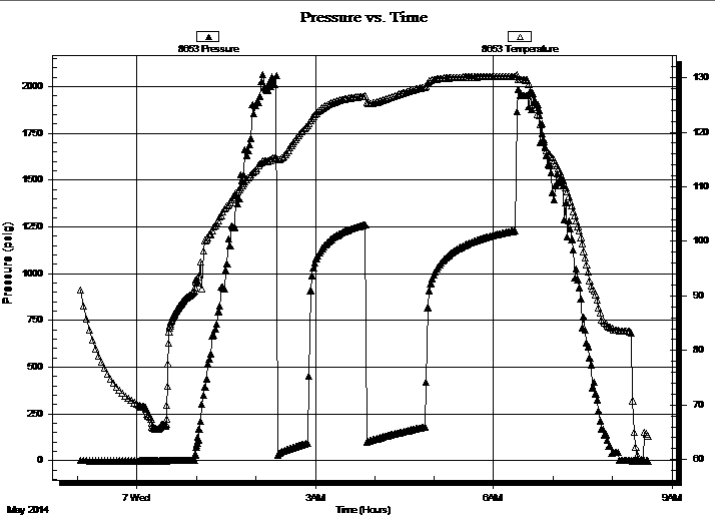
Capacity: 8000.00 psig

Last Calib.: 2014.05.07

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- BoB in 28 min.
60 - IS- No Return
60 - FF- BoB in 32 min
90 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud (Heavy) 100M	0.02
181.00	MW 95W 5M	2.04
126.00	MW 80W 20M	1.77
20.00	OSMW 20M 80W (Oil spots)	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56836

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.05.06 @ 23:02:00

Tool Information

Drill Pipe:	Length: 4021.00 ft	Diameter: 3.80 inches	Volume: 56.40 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 56.70 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4078.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	98.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4051.00	
Shut In Tool	5.00			4056.00	
Hydraulic tool	5.00			4061.00	
Jars	5.00			4066.00	
Safety Joint	3.00			4069.00	
Packer	5.00			4074.00	28.00 Bottom Of Top Packer
Packer	4.00			4078.00	
Stubb	1.00			4079.00	
Recorder	0.00	8653	Outside	4079.00	
Recorder	0.00	8874	Inside	4079.00	
Perforations	1.00			4080.00	
Change Over Sub	1.00			4081.00	
Drill Pipe	63.00			4144.00	
Change Over Sub	1.00			4145.00	
Bullnose	3.00			4148.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

34-4s-31w Rawlins,KS

20 N Water STE #300
Wichita, KS 67202

Melba #1-34

Job Ticket: 56836

DST#: 3

ATTN: Keith Reavis

Test Start: 2014.05.06 @ 23:02:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud (Heavy) 100M	0.025
181.00	MW 95W 5M	2.038
126.00	MW 80W 20M	1.767
20.00	OSMW 20M 80W (Oil spots)	0.281

Total Length: 332.00 ft

Total Volume: 4.111 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8874

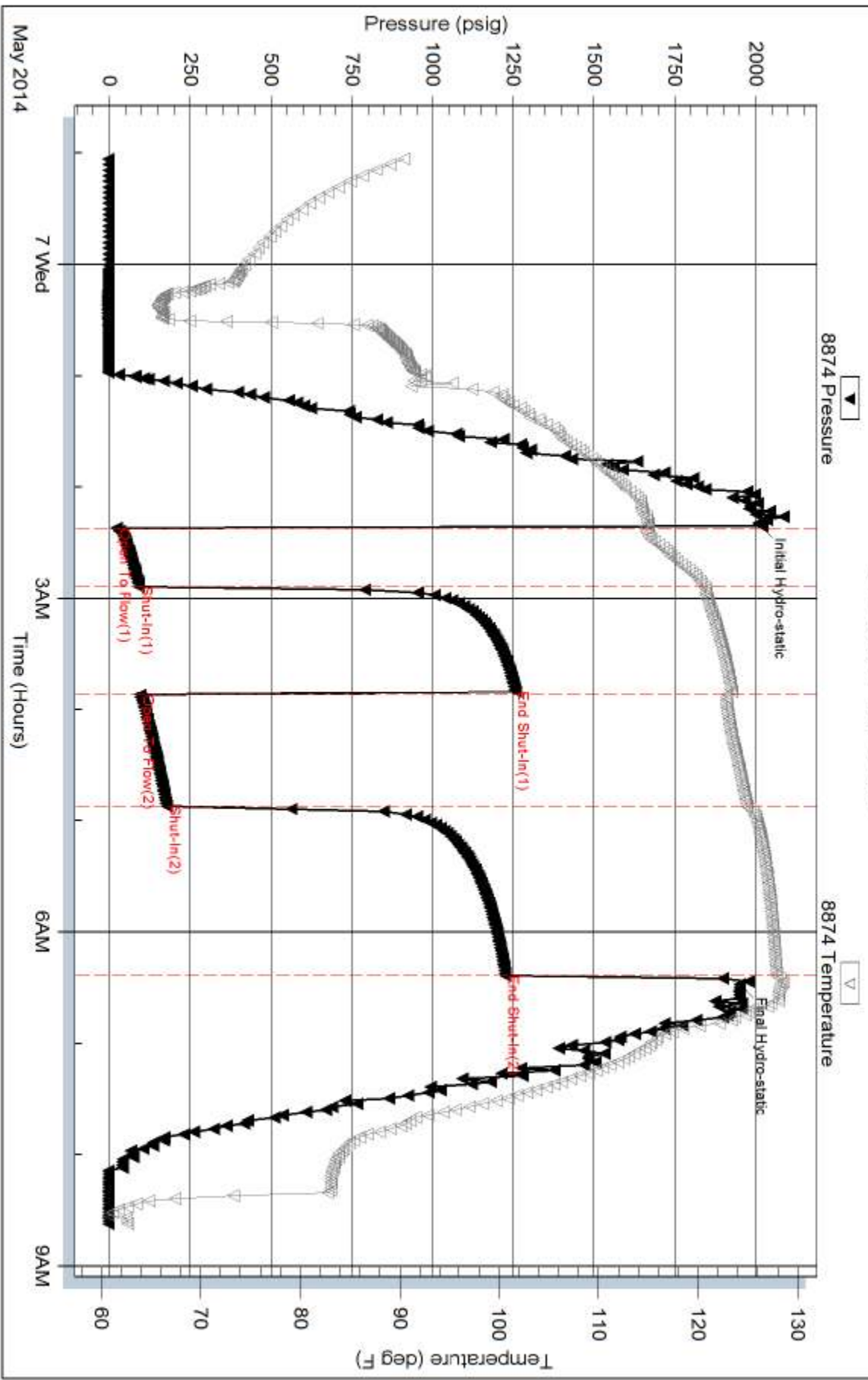
Inside

Murfin Drilling Co., Inc.

Wellbore #1-34

DST Test Number: 3

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 56836

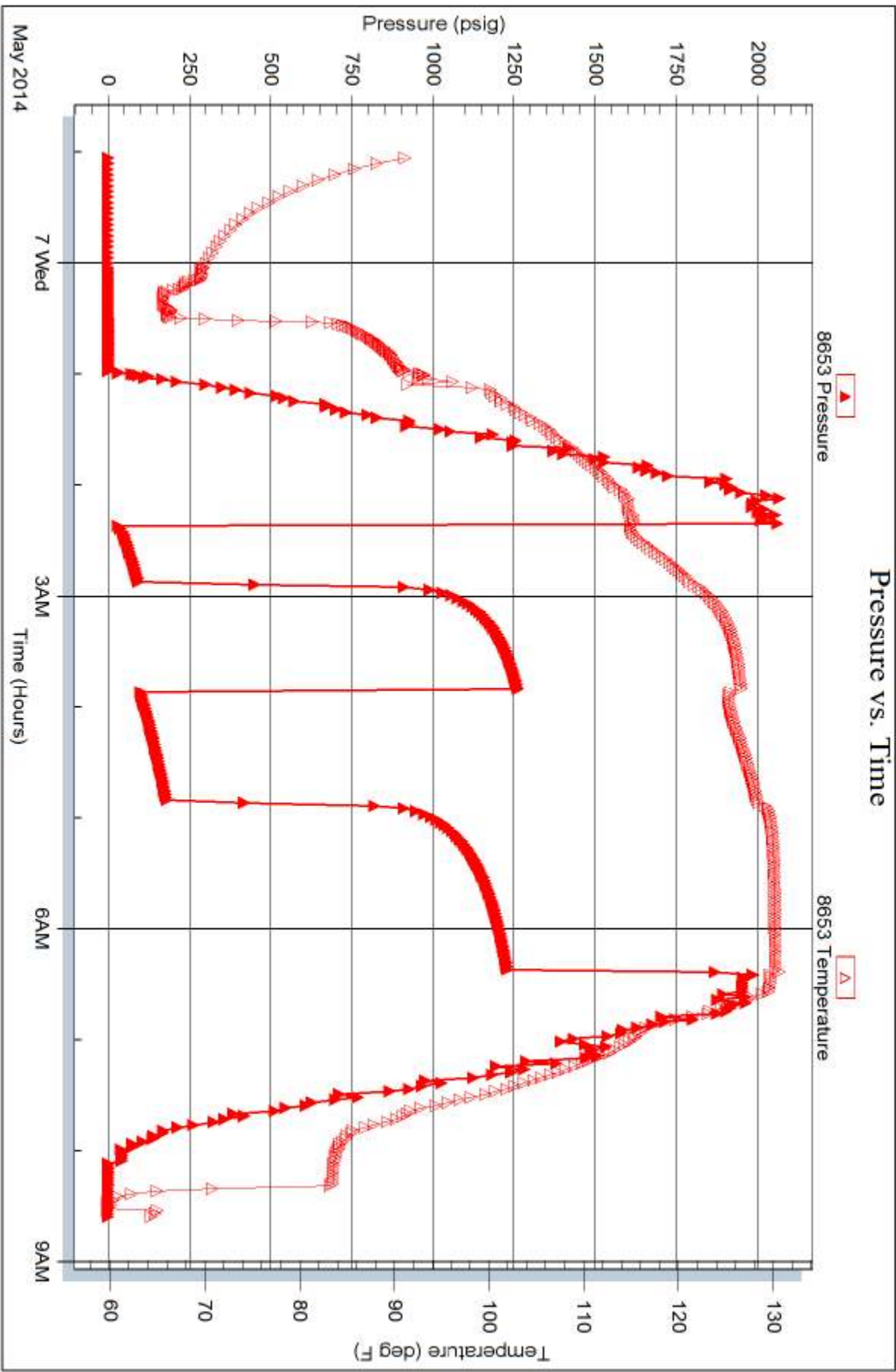
Printed: 2014.05.09 @ 14:40:42

Serial #: 8653

Outside Murfin Drilling Co., Inc.

Wellbore #1-34

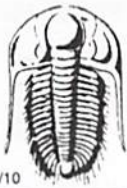
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 56836

Printed: 2014.05.09 @ 14:40:43



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56834

4/10

Well Name & No. Meiba #1-34 Test No. 1 Date 5-5-14
 Company Murfin Drilling Co., Inc. Elevation 2940 KB 2935 GL
 Address 250 N Water STE #300 Wichita, KS 67202
 Co. Rep / Geo. Keith Reavis Rig Murfin #7
 Location: Sec. 34 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 3905-3990 Zone Tested Toronto - Lansing
 Anchor Length 85' Drill Pipe Run 3834' Mud Wt. 8.9
 Top Packer Depth 3901 Drill Collars Run 60' Vis 50
 Bottom Packer Depth 3905 Wt. Pipe Run 0 WL 6.8
 Total Depth 3990 Chlorides 1,200 ppm System LCM 6#
 Blow Description IF - 1/4" Blow built to 1
ISL - NO Return
FF - NO Blow
FSI - NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>CSM</u>		<u>SPOTS</u>	<u>100</u>	
<u>60</u>	<u>Mud</u>			<u>100</u>	

Rec Total 70 BHT 119 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1951</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>5:20 AM</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>6:21 AM</u>
(C) First Final Flow <u>38</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>8:52 AM</u>
(D) Initial Shut-In <u>1228</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>11:52 AM</u>
(E) Second Initial Flow <u>44</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2:20 PM</u>
(F) Second Final Flow <u>53</u>	<input checked="" type="checkbox"/> Mileage <u>56 RT</u> 86.80	Comments
(G) Final Shut-In <u>1209</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1931</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1561.80</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1561.80</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. 56835

4/10

Well Name & No. Melba #1-34 Test No. 2 Date 5-6-14
 Company Murfin Drilling Co., Inc. Elevation 2940 KB 2935 GL
 Address 250 N Water STE # 300 Wichita, KS 67202
 Co. Rep / Geo. Keith Rivas Rig Murfin #7
 Location: Sec. 34 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4008 - 4040 Zone Tested LKC "F-G"
 Anchor Length 32' Drill Pipe Run 3925 Mud Wt. 9.2
 Top Packer Depth 4004 Drill Collars Run 60 Vis 50
 Bottom Packer Depth 4008 Wt. Pipe Run 0 WL 6.8
 Total Depth 4040 Chlorides 1,400 ppm System LCM 6#
 Blow Description IF-1/2" Blow built to 1"
ISI - NO Return
FF - NO Blow
FSI - NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>208</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 208 BHT 121 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1947 Test 1250 T-On Location 12:05 AM
 (B) First Initial Flow 23 Jars 250 T-Started 12:50 AM
 (C) First Final Flow 29 Safety Joint 75 T-Open 3:10 AM
 (D) Initial Shut-In 1210 Circ Sub _____ T-Pulled 6:10 AM
 (E) Second Initial Flow 31 Hourly Standby _____ T-Out 8:40 AM
 (F) Second Final Flow 35 Mileage 56 RT 86.80 Comments _____
 (G) Final Shut-In 1193 Sampler _____
 (H) Final Hydrostatic 1907 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1661.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1661.80

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56836

4/10

Well Name & No. Melba #1-34 Test No. 3 Date 5-6-14
 Company Murfin Drilling Co., Inc. Elevation 2940 KB 2935 GL
 Address 250 N Water STE #3000 Wichita, KS 67202
 Co. Rep / Geo. Keith Rawlis Rig Murfin #7
 Location: Sec. 34 Twp. 4S Rge. 31W Co. Rawlins State KS

Interval Tested 4078-4148 Zone Tested LKC "I-J"
 Anchor Length 70' Drill Pipe Run 4021 Mud Wt. 9.0
 Top Packer Depth 4074 Drill Collars Run 600' Vis 60
 Bottom Packer Depth 4078 Wt. Pipe Run 0 WL 6.0
 Total Depth 4148 Chlorides 2,000 ppm System LCM 8#
 Blow Description IF-BOB in 28 min.
ISI-NO Return
FF-BOB in 32 min.
FSI-NO Return

Rec	Feet of	%gas	SPOTS	%oil	%water	%mud
<u>205</u>	<u>OS MW</u>			<u>80</u>	<u>20</u>	
<u>126</u>	<u>MW</u>			<u>80</u>	<u>20</u>	
<u>181</u>	<u>MW</u>			<u>95</u>	<u>5</u>	
<u>5</u>	<u>Mud (heavy)</u>				<u>100</u>	

Rec Total 332 BHT 128 Gravity _____ API RW .122 @ 61 °F Chlorides 75,000 ppm

(A) Initial Hydrostatic _____ Test 1250 T-On Location 10:20 PM
 (B) First Initial Flow _____ Jars 250 T-Started 11:02 PM
 (C) First Final Flow _____ Safety Joint 75 T-Open 2:22 AM
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled 6:22 AM
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 8:40 AM
 (F) Second Final Flow _____ Mileage 56 RT 173.60 Comments loaded tools
 (G) Final Shut-In _____ Sampler _____ 1:20 PM 5-8-14
 (H) Final Hydrostatic _____ Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 800
 Initial Shut-In 60 Day Standby 1d 4.5h Total 2548.60
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1748.60

Approved By _____

Our Representative

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OPERATOR

Company: Murfin Drilling Company
 Address: 250 N. Water
 Suite 300
 Wichita, KS 67202
 Contact Geologist: Shauna Gunzelman
 Contact Phone Nbr: 316-267-3241
 Well Name: Melba #1-34
 Location: Sec. 34 - T4S - R31W
 Pool: Sec. 34 - T4S - R31W
 State: Kansas
 API: 15-153-21012-0000
 Field: Wildcat
 Country: USA



Scale 1:240 Imperial

Well Name: Melba #1-34
 Surface Location: Sec. 34 - T4S - R31W
 Bottom Location: API: 15-153-21012-0000
 License Number: 30606
 Spud Date: 5/1/2014
 Region: Rawlins County
 Drilling Completed: 5/8/2014
 Surface Coordinates: 660' FSL & 2310' FWL
 Bottom Hole Coordinates: Ground Elevation: 2935.00ft
 K.B. Elevation: 2940.00ft
 Logged Interval: 3640.00ft
 Total Depth: 4560.00ft
 Formation: Mississippian
 Drilling Fluid Type: Chemical/Fresh Water Gel
 Time: 15:30
 Time: 15:30
 To: 4560.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 660' FSL
 E/W Co-ord: 2310' FWL

LOGGED BY

Keith Reavis
Consulting Geologist

Company: Keith Reavis, Inc.
 Address: 3420 22nd Street
 Great Bend, KS 67530
 Phone Nbr: 620-617-4091
 Logged By: KLG #136
 Name: Keith Reavis

CONTRACTOR

Contractor: Murfin Drilling Company
 Rig #: 7
 Rig Type: mud rotary
 Spud Date: 5/1/2014
 TD Date: 5/8/2014
 Rig Release:
 Time: 15:30
 Time: 15:30
 Time:

ELEVATIONS

K.B. Elevation: 2940.00ft
 K.B. to Ground: 5.00ft
 Ground Elevation: 2935.00ft

NOTES

Due to negative drill stem test results and electrical log calculations, it was determined that the Melba #1-34 be plugged and abandoned as a dry test.

Gamma ray and caliper curves were imported into this report from the electrical log suite. Log tops were generally within a couple of feet from tops picked from the drill time. No curves were shifted to provide an exact match, but rather left as recorded in the field.

The samples were saved and will be available for review at the Kansas Geological Survey Well Samples Library in Wichita, KS.

Respectfully submitted,
 Keith Reavis

Murfin Drilling Company
daily drilling report

DATE	7:00 AM DEPTH	REMARKS
05/03/2014		Geologist Keith Reavis on location @ 1130 hrs, 3608 ft, bit trip, out with PDC
05/04/2014	3618	finish bit trip, in with button bit, resume drilling, Howard, Topeka, Lecompton, Oread, Heebner, Lansing, show in Toronto and Lansing warrant DST
05/05/2014	3990	TOH for DST #1, conducting and complete DST #1, successful test, TOH w/tools and TIH w/bit, resume drilling, D, E, F, G
05/06/2014	4040	show in F and G zones warrant test, TOH w/bit, in w/tools, conduct and complete DST #2 - successful test, TIH w/bit, drill H, I, J, shows warrant test, TOH for DST #3
05/07/2014	4148	complete DST #3, successful test, TIH w/bit, resume drilling, BKC, Marmaton, Pawnee
05/08/2014	4395	drilling ahead, Ft. Scott, Cherokee, Mississippian, TD @ 4560, short trip, TOH for logs, going in hole with tools at 2300 hrs
05/09/2014	4560	conduct and complete logging operations at 0300 hrs, geol. off loc 0330 hrs

Murfin Drilling Company
well comparison sheet

DRILLING WELL					COMPARISON WELL			
Murfin - Melba #1-34					N. Wood - Erickson #61-4			
660' FSL & 2310' FWL					NE NW NE			
Sec 34 - T4S - R31W					Sec 4 - T5S - R31W			
2940 KB					2946 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Anhydrite	2672	268			2680	266	2	
Topeka	3741	-801	3739	-799	3750	-804	3	5
Heebner	3906	-966	3908	-968	3916	-970	4	2
Lansing	3954	-1014	3956	-1016	3966	-1020	6	4
Stark	4120	-1180	4121	-1181	4134	-1188	8	7
BKC	4175	-1235	4177	-1237	4182	-1236	1	-1
Pawnee	4283	-1343	4285	-1345	4297	-1351	8	6
Cherokee	4368	-1428	4372	-1432	4380	-1434	6	2
Mississippian	4482	-1542	4491	-1551	nr			
Total Depth	4560	-1620	4563	-1623	4499	-1553	-67	-70

Drill Stem Test #1

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc. **34-4S-31W Rawlins, KS**
 20 N Water STE#300 **Melba #1-34**
 Wichita, KS 67202 Job Ticket: 56834 **DST#: 1**
 ATTN: Keith Reavis Test Start: 2014.05.05 @ 06:21:00

GENERAL INFORMATION:

Formation: **Toronto-Lansing**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 08:52:00 Tester: Kevin Mack
 Time Test Ended: 14:14:00 Unit No: 66
 Interval: 3905.00 ft (KB) To 3990.00 ft (KB) (TVD) Reference Elevations: 2940.00 ft (KB)
 Total Depth: 3990.00 ft (KB) (TVD) 2935.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8874 Inside

Press@RunDepth: 53.57 psig @ 3906.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.05 End Date: 2014.05.05 Last Calib.: 2014.05.05
 Start Time: 06:22:00 End Time: 14:14:00 Time On Btm: 2014.05.05 @ 08:50:30
 Time Off Btm: 2014.05.05 @ 11:54:00

TEST COMMENT: 30 - IF- 1/4" Blow built to 1"
 60 - IS- No Return
 30 - FF- No Blow
 60 - FS- No Return

PRESSURE SUMMARY


Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1951.31	114.83	Initial Hydro-static
2	16.76	114.47	Open To Flow (1)
31	38.41	115.35	Shut-In(1)
91	1228.68	117.22	End Shut-In(1)
92	44.75	117.00	Open To Flow (2)
121	53.97	118.31	Shut-In(2)
181	1209.92	119.34	End Shut-In(2)
184	1931.98	119.44	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05
60.00	Mud 100M	0.39

Drill Stem Test #2



DRILL STEM TEST REPORT

34-4S-31W Rawlins, KS

Melba #1-34

Job Ticket: 56835 **DST#: 2**

Test Start: 2014.05.06 @ 00:50:00

Murfin Drilling Co., Inc.

20 N Water STE#300
Wichita, KS 67202

ATTN: Keith Reavis

34-4S-31W Rawlins, KS

Melba #1-34

Job Ticket: 56835 **DST#: 2**

Test Start: 2014.05.06 @ 00:50:00

GENERAL INFORMATION:

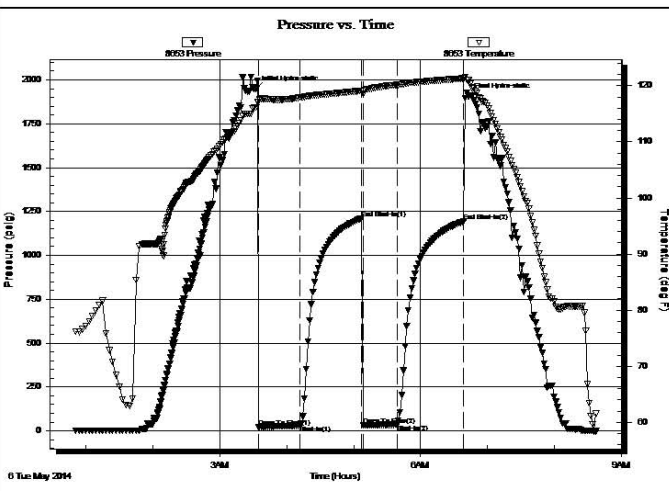
Formation: **LKC "F-G"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 03:34:30 Tester: Kevin Mack
 Time Test Ended: 08:37:00 Unit No: 66

Interval: **4008.00 ft (KB) To 4040.00 ft (KB) (TVD)** Reference Elevations: 2940.00 ft (KB)
 Total Depth: 4040.00 ft (KB) (TVD) 2935.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: 35.24 psig @ 4009.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.06 End Date: 2014.05.06 Last Calib.: 2014.05.06
 Start Time: 00:51:00 End Time: 08:37:00 Time On Btm: 2014.05.06 @ 03:32:30
 Time Off Btm: 2014.05.06 @ 06:42:30

TEST COMMENT: 30 - IF- 1/2" Blow built to 1"
 60 - IS- No Return
 30 - FF- No Blow
 60 - FS- No Return




Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1947.00	116.17	Initial Hydro-static
2	23.04	117.13	Open To Flow (1)
40	29.78	117.93	Shut-In(1)
95	1210.94	119.12	End Shut-In(1)
96	31.81	118.50	Open To Flow (2)
126	35.24	120.14	Shut-In(2)
186	1193.46	121.31	End Shut-In(2)
190	1907.48	120.96	Final Hydro-static

Length (ft)	Description	Volume (bbl)
20.00	Mud 100M	0.10

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

Drill Stem Test #3



DRILL STEM TEST REPORT

34-4S-31W Rawlins, KS

Melba #1-34

Job Ticket: 56836 **DST#: 3**

Test Start: 2014.05.06 @ 23:02:00

Murfin Drilling Co., Inc.

20 N Water STE#300
Wichita, KS 67202

ATTN: Keith Reavis

34-4S-31W Rawlins, KS

Melba #1-34

Job Ticket: 56836 **DST#: 3**

Test Start: 2014.05.06 @ 23:02:00

GENERAL INFORMATION:

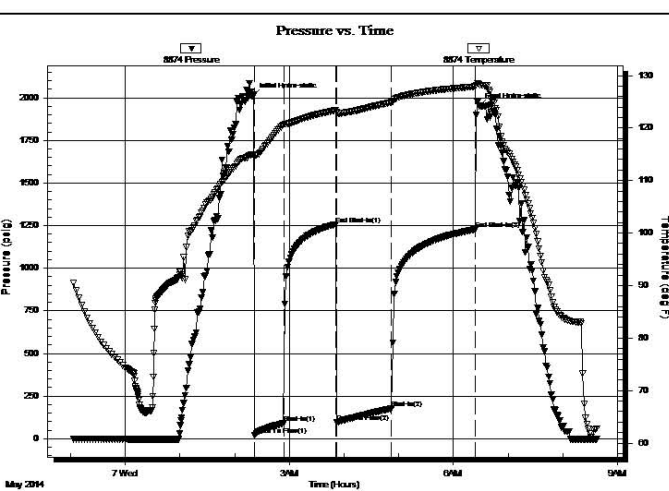
Formation: **LKC "I-J"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 02:22:00 Tester: Kevin Mack
 Time Test Ended: 08:38:00 Unit No: 66

Interval: **4078.00 ft (KB) To 4148.00 ft (KB) (TVD)** Reference Elevations: 2940.00 ft (KB)
 Total Depth: 4148.00 ft (KB) (TVD) 2935.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8874 Inside

Press@RunDepth: 176.82 psig @ 4079.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.06 End Date: 2014.05.07 Last Calib.: 2014.05.07
 Start Time: 23:03:00 End Time: 08:38:00 Time On Btm: 2014.05.07 @ 02:20:00
 Time Off Btm: 2014.05.07 @ 06:28:00

TEST COMMENT: 30 - IF- BoB in 28 min.
 60 - IS- No Return
 60 - FF- BoB in 32 min
 90 - FS- No Return



Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2009.26	114.98	Initial Hydro-static
2	22.74	114.68	Open To Flow (1)
34	91.51	120.60	Shut-In(1)
91	1257.25	123.37	End Shut-In(1)
92	95.53	122.97	Open To Flow (2)
152	176.82	124.89	Shut-In(2)
244	1226.56	127.87	End Shut-In(2)
248	1951.34	128.30	Final Hydro-static

Length (ft)	Description	Volume (bbl)
5.00	Mud (Heavy) 100M	0.02
181.00	MW 95W 5M	2.04
126.00	MW 80W 20M	1.77
20.00	OSMW 20M 80W (Oil spots)	0.28

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

ROCK TYPES

	Cht vari		Lmst fw7>		Carbon Sh		Ss
	sdy lmst		shale, grn		shale, red		
	Lmst fw<7		shale, gry		Shcol		

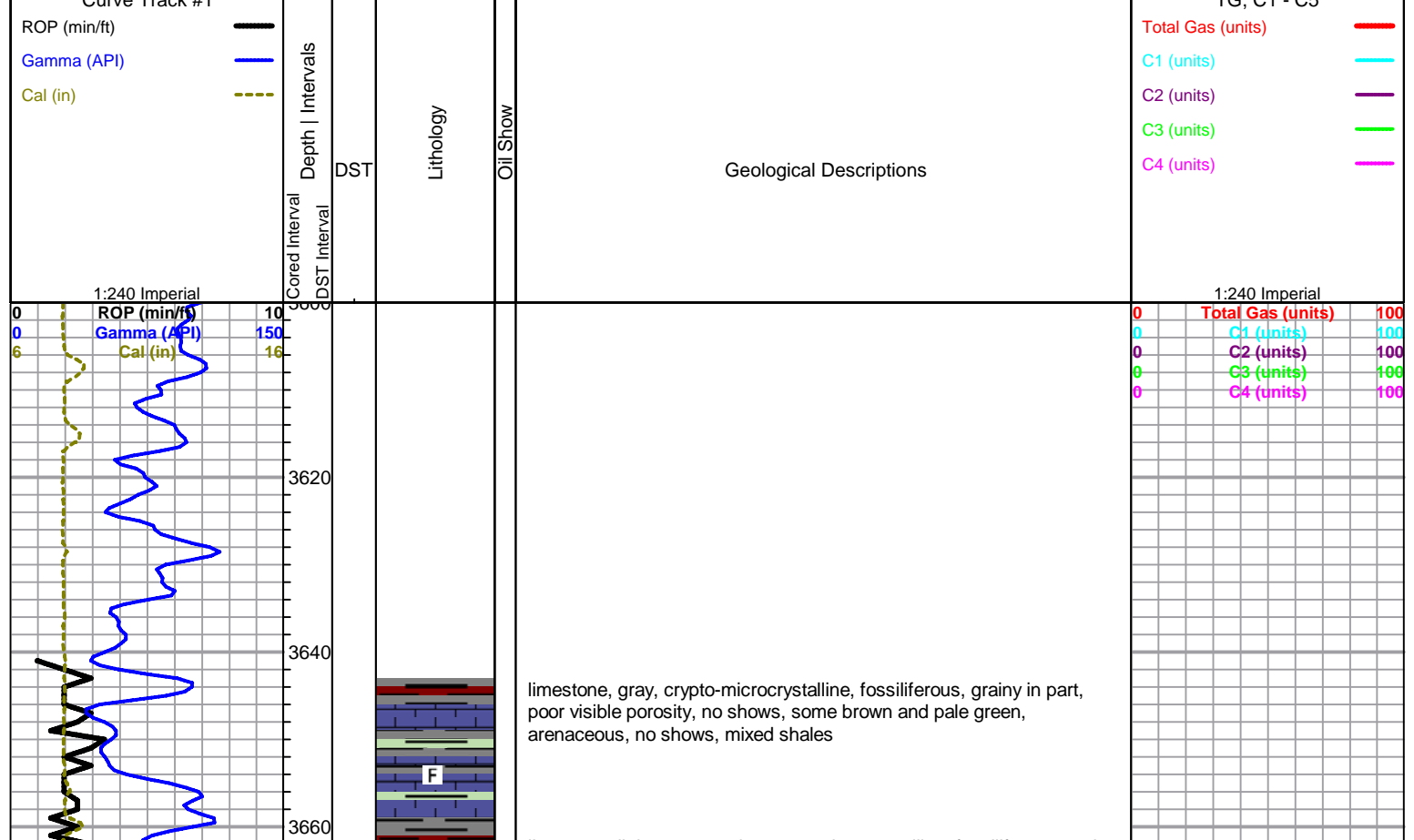
ACCESSORIES

MINERAL	FOSSIL	STRINGER	TEXTURE
Glaucconite	Biolastic or Fragmental	Limestone	Chalky
Pyrite	Fossils < 20%	Sandstone	Lithogr
Silty	Oolite	Siltstone	
Chert White		green shale	

OTHER SYMBOLS

MISC	Oil Show	DST
Daily Report	Good Show	DST Int
Digital Photo	Fair Show	DST alt
Document	Poor Show	Core
Folder	Spotted or Trace	tail pipe
Link	Questionable Stn	
Vertical Log File	Dead Oil Stn	
Horizontal Log File	Fluorescence	
Core Log File	Gas	
Drill Cuttings Rpt		

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)



to arenaceous, poor visible porosity, no shows

Howard

limestone, light gray to cream and pale green, microcrystalline, fossiliferous, some arenaceous, trace glauconitic, with limestone, cream, chalky in part, grainy, trace interclast porosity, no shows

3760 sample, flood red shale, heavy red wash

Topeka 3741 -801

limestone, light gray to cream, microcrystalline, fossiliferous, some limestone with brownish cast and small poorly developed vugs, some white soft very chalky limestone, no shows, fair even blueish-green fluorescence

stringers light gray/green sandstone to siltstone, very fine grain, well sorted and cemented, fair rounding, no visible porosity or shows

limestone, white to light gray, microcrystalline, fossiliferous to bioclastic, chalky, some grainy with some interclast porosity, with limestone, light gray to white, cryptocrystalline, dense lithographic to fossiliferous, trace small solution vugs, no visible shows, abundant chalk

limestone grades to gray to light brown, mottled grainy fossiliferous, chalky, friable

limestone, white to cream, cryptocrystalline, slightly fossiliferous, dense, some small solution vugs, barren, some white slightly chalky bioclastic, some pin-point porosity, dense, no shows

limestone, light gray to white, bioclastic, some pinpoint porosity, grainy to dense to chalky, flood chalk in samples, no shows

Heebner 3906 -966

gray/black shale

gray green silty shale with pale green siltstone

grading to red shales, heavy red wash

Toronto

3950 sample - limestone, light gray to cream, microcrystalline, fossiliferous, abundant interclast and crystal lined solution vug porosity, brown to black interclast staining and stained vugs, fair show free oil, good odor, faint green fluorescence, excellent cut

Lansing 3454 -1014

limestone, white, some green tint, cryptocrystalline, fossiliferous to lithographic, mostly dense, scattered etching and small vugs, trace stain, fair to good fluorescence, oil sheen, no odor, some chalk

red sticky shales

3390 sample - limestone, light gray, microcrystalline, fossiliferous, vuggy, good wormy saturated black stain, bleeding heavy free oil, fleeting odor, fair even fluorescence, excellent cut - abundant shales - 30 min sample mostly shale, 60 min sample shale and ls a.a. with abundant pale green siltstone to sandy limestone

limestone, white to pale green, cryptocrystalline, lithographic to fossiliferous, mostly dense, no shows, with trace white very chalky limestone, friable, small specimens, no free oil or odor, poor spotty-saturated stain, no visible porosity, no visible porosity, no free oil or odor, poor fluorescence

flood sticky red shale

30 min sample, limestone, white, very chalky and friable, solution vugs with black gilsonitic stain, very slight sheen, fleeting odor, fair even light green fluorescence, excellent cut, 60 sample as above, with influx limestone, gray, microcrystalline, fossiliferous, some small solution vugs, spotted to wormy black to brown staining, fair sheen, fleeting odor, spotty fluorescence, good cut

limestone, white to light gray, microcrystalline, fossiliferous, dense to chalky, poor visible porosity, some scattered white fossiliferous translucent cherts, sharp, fresh, no shows

limestone, light gray to cream, microcrystalline, fossiliferous, poor visible porosity, mostly dense, some chalk, no shows

mostly gray and green silty shales

4120 sample, light gray, microcrystalline, bioclastic to fossiliferous (forams and corals, very vuggy interclast porosity, light wormy brown to black stain, heavy streaming sheen free oil, gassy, fair show free oil on break, faint odor, light fluorescence, good cut and halo

Stark

limestone, gray to pale green and cream, microcrystalline, slightly fossiliferous, chert, some scattered light surface etching with very light brown staining, no show free oil, 1 piece trace heavy tarry oil on break, no odor, fair fluorescence, no cut - 60 min sample a.a. with some brown/yellow grainy limestone, chalky fossiliferous and influx gray/black silty shales

limestone, cream to light gray, micro-cryptocrystalline, some fossiliferous, some fractured with red shale fill, no shows

Base KC 4175 -1235

mixed shales, marked increase in green shales

poor samples, abundant shales, limestone, gray to light green, fossiliferous to arenaceous, poor visible porosity, no shows

flood red sticky shales

Marmaton

poor samples, mostly red and gray soft sticky shales with limestone, gray to olive, fossiliferous to argillaceous and arenaceous, some chalk, no shows

limestone, light gray to white, microcrystalline, grainy, very fossiliferous, poor visible porosity, chalky to dense, no shows, abundant chalk in samples

shales, gray, some red, silty, with salt and pepper siltstone stringers,

Morgan Mud chk @ 3710 ft. 1050 hrs. 5/4/14 Vis. 50 Wt. 8.9 PV 18 YP 16 WL 6.8 Cake 2/32, pH 10.5 CHL 1200 ppm Ca 10 ppm Sol 4.3 LCM 6# DMC \$2655.00 CMC \$10063.00

0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100

Melba 1-34 DST #1.pdf

Morgan Mud chk @ 3990 ft. 1025 hrs. 5/5/14 Vis. 50 Wt. 9.2 PV 18 YP 16 WL 6.8 Cake 2/32, pH 10.0 CHL 1400 ppm Ca 10 ppm Sol 6.4 LCM 6# DMC \$00.00 CMC \$10063.00

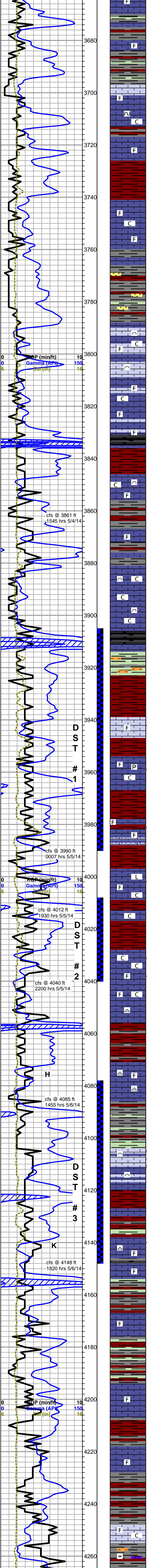
Melba 1-34 DST #2.pdf

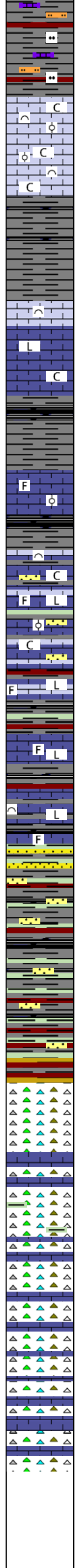
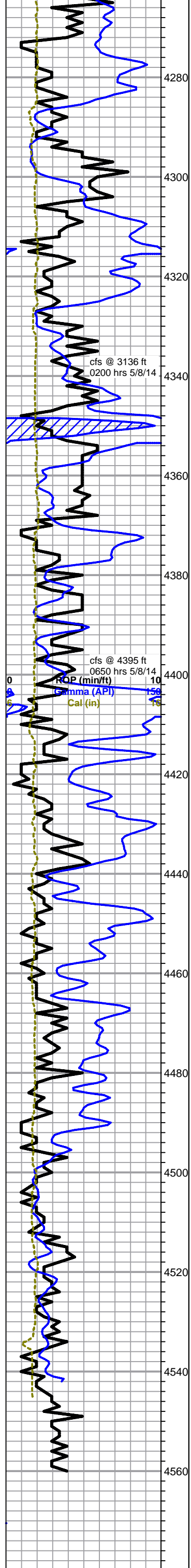
deviation survey 1/4 deg
Morgan Mud chk @ 4040 ft. 1055 hrs. 5/6/14 Vis. 60 Wt. 9.0 PV 19 YP 24 WL 6.0 Cake 2/32, pH 10.5 CHL 2000 ppm Ca 10 ppm Sol 5.0 LCM 8# DMC \$2875.00 CMC \$12938.00

Melba 1-34 DST #3.pdf

Morgan Mud chk @ 4148 ft. 1025 hrs. 5/7/14 Vis. 46 Wt. 9.3 PV 14 YP 14 WL 7.6 Cake 2/32, pH 11.0 CHL 4600 ppm Ca 10 ppm Sol 7.1 LCM 6# DMC \$1375.00 CMC \$14313.00

0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100





some limestone stringers as above with dense pale green cryptocrystalline limestone, no shows

Pawnee 4283 -1343

limestone, light gray with trace tan, microcrystalline, oolitic to bioclastic, some chalky, some secondary calcite, poor visible porosity, abundant chalk in samples, no shows, light even fluorescence

as above, some arenaceous chalky limestone, increasing chalk

soft gray shales, some black, soft, stick, heavy gray wash

limestone, light gray to cream, grainy bioclastic to fossiliferous, chalky to dense, poor visible porosity, with limestone, gray/green, microcrystalline, arenaceous to lithographic, dense, no shows, even pale fluorescence, abundant chalk

black carbonaceous and soft gray shales

limestone, light gray to cream, microcrystalline, some secondary calcite, fossiliferous, some flattened sub-oolitic, mostly dense, trace chalky, no shows

Cherokee 4368 -1428

limestones, mixed tan to pale green, gray and maroon, mostly cryptocrystalline, dense-cherty, lithographic, some fractured, trace sandy with limestones, light gray to cream, fossiliferous to bioclastic and oolitic, dense to chalky, sandstone, gray, very fine to fine grain, few scattered large grains, glauconitic to pyritic, mostly well rounded, poorly sorted, fair cemented, poor porosity, no shows, abundant chalk

as above grading to more light gray to cream limestones

limestone, cream to light gray and tan, mixed fossiliferous to cryptocrystalline lithographic, some chalky white bioclastic grainstones, sands drop out as does chalk, no visible porosity or shows

green and gray silty shales, some mottled, with maroon brown and black shale, stringers sandstone, reddish/brown, very fine grain, dirty clayey and glauconitic, round to sub-angular, poor sorting, mostly well cemented, no show

as above, increasing red shales, influx yellow silty shales

Mississippian 4482 -1452 (Log 4491 -1551)

chert, white to light gray and yellow, sharp and fresh to leached and sub-tripolitic, some scattered fair porosity, no shows or odor, some faint fluorescence

chert as above with limestone, pale green, cryptocrystalline, fossiliferous, glauconitic, no shows,

chert as above, limestone drops out, increase in yellow chert, influx orange chert, less weathered overall, abundant olive/yellow shales, silty, no shows

chert as above, with limestone, white, cryptocrystalline, dense compact lithographic

cherts as above with influx boney white chert, limestone, white, cryptocrystalline, dense fossiliferous with limestone, reddish brown, very chalky and weathered, fossiliferous, abundant reddish/brown chalk, no shows

Rotary TD 4560 ft. @ 1530 hrs 5/8/14
Pioneer Log TD 4563 ft.
Complete Logging Operations @ 0300 hrs 5/9/14

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

Morgan Mud chk @ 4522 ft.
1415 hrs. 5/8/14
Vis. 55 Wt. 9.2
PV 17 YP 22
WL 7.6
Cake 2/32,
pH 11.0
CHL 1700 ppm
Ca 10 ppm
Sol 6.4 LCM 6#
DMC \$2582.00
CMC \$16895.00



PO Box 93999
Southlake, TX 76092

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

Red-MC

INVOICE

Invoice Number: 143076
Invoice Date: May 1, 2014
Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	63400	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	May 1, 2014	5/31/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Melba #1-34		
200.00	CEMENT MATERIALS	Class A Common	17.90	3,580.00
4.00	CEMENT MATERIALS	Gel	23.40	93.60
7.00	CEMENT MATERIALS	Chloride	64.00	448.00
216.27	CEMENT SERVICE	Cubic Feet Charge	2.48	536.35
493.50	CEMENT SERVICE	Ton Mileage Charge	2.60	1,283.10
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	EQUIPMENT OPERATOR	Kevin Ryan		

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

\$ 2,820.40

ONLY IF PAID ON OR BEFORE
May 26, 2014

Subtotal	8,058.30
Sales Tax	325.61
Total Invoice Amount	8,383.91
Payment/Credit Applied	
TOTAL	8,383.91

OK JR

ALLIED OIL & GAS SERVICES, LLC 063400

Federal Tax I.D. # 20-8651475

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

SERVICE POINT
Chalkley, KS

DATE <u>8/1/14</u>	SEC. <u>34</u>	TWP. <u>4</u>	RANGE <u>31</u>	CALLED OUT	ON LOCATION	JOB START <u>8:30</u>	JOB FINISH <u>2:00</u>
LEASE <u>Melba</u>	WELL# <u>1-34</u>	LOCATION <u>West Ford N to Y 1 W 2 N</u>		COUNTY <u>Nowata</u>	STATE <u>KS</u>		
OLD OR NEW (Circle one)		<u>3 W N 3 mile to Rd 67.05</u>					

CONTRACTOR Murphy 7 OWNER James

TYPE OF JOB Surface

HOLE SIZE _____ T.D. 224' CEMENT AMOUNT ORDERED Can 390CC 279 gal

CASING SIZE 8 5/8 DEPTH 224' AMOUNT ORDERED 2000 SKS

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15'

PERFS. _____

DISPLACEMENT 13.31 @ 140

EQUIPMENT

PUMP TRUCK CEMENTER Mar Ryan
403-281 HELPER Kevin Ryan
BULK TRUCK
818 DRIVER Greg (TWS)
BULK TRUCK
_____ DRIVER _____

COMMON	<u>200</u>	@	<u>1790⁰⁰</u>	<u>358200</u>
POZMIX		@		
GEL	<u>9</u>	@	<u>23⁰⁰</u>	<u>20700</u>
CHLORIDE	<u>7</u>	@	<u>64⁰⁰</u>	<u>44800</u>
ASC		@		
Material Total		@		<u>412600</u>
(1,442.56/358)		@		
HANDLING <u>216²⁷</u>		@	<u>2⁴⁰</u>	<u>536²⁵</u>
MILEAGE <u>700</u>		@	<u>9.87</u>	<u>69090</u>

REMARKS:

Run Log, Circulate, mix cement, displace cement, shut in

Cement did Circulate
Thank you Alan, Kevin, Greg

SERVICE

DEPTH OF JOB	<u>224'</u>		
PUMP TRUCK CHARGE		@	<u>1512⁰⁰</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>50</u>	@	<u>720</u>
MANIFOLD		@	
CD Vehicle	<u>50</u>	@	<u>440</u>
(1,577.84/358)		@	
TOTAL			<u>3,936.00</u>

CHARGE TO: Murphy
STREET _____
CITY _____ STATE _____ ZIP _____

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 Fred Wilton
SIGNATURE [Signature]

SALES TAX (If Any) _____
TOTAL CHARGES 8,058.30
DISCOUNT 2,820.40 (35%) IF PAID IN 30 DAYS
5,237.89 Net.



PO Box 93999
Southlake, TX 76092

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

TRT
Producing

INVOICE

Invoice Number: 143134
Invoice Date: May 9, 2014
Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Murfin	63602	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-03	Great Bend	May 9, 2014	6/8/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Melba #1-34		
132.00	CEMENT MATERIALS	Class A Common	17.90	2,362.80
88.00	CEMENT MATERIALS	Pozmix	9.35	822.80
8.00	CEMENT MATERIALS	Gel	23.40	187.20
55.00	CEMENT MATERIALS	Flo Seal	2.97	163.35
236.99	CEMENT SERVICE	Cubic Feet Charge	2.48	587.74
494.00	CEMENT SERVICE	Ton Mileage Charge	2.60	1,284.40
1.00	CEMENT SERVICE	Rotary Plug	2,483.59	2,483.59
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	CEMENT SUPERVISOR	Dustin Chambers		
1.00	OPERATOR ASSISTANT	Joshua Ellis		
1.00	OPERATOR ASSISTANT	Kevin Weighous		

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

\$ 2,973.90

ONLY IF PAID ON OR BEFORE
Jun 3, 2014

Subtotal	8,496.88
Sales Tax	671.25
Total Invoice Amount	9,168.13
Payment/Credit Applied	
TOTAL	9,168.13

OK
/s/

ALLIED OIL & GAS SERVICES, LLC 063602

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Great Bend, KS

DATE <u>8-9-14</u>	SEC. <u>34</u>	TWP. <u>45</u>	RANGE <u>314</u>	CALLED OUT	ON LOCATION <u>6:30 AM</u>	JOB START <u>11:30 AM</u>	JOB FINISH <u>12:30 PM</u>
LEASE <u>me160</u>	WELL # <u>1-34</u>	LOCATION <u>Rexford 7N 1w 2N 1w</u>			COUNTY <u>Rawlins</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)			<u>5N E To Rly</u>				

CONTRACTOR Murfin Drilling OWNER _____

TYPE OF JOB Rotary Plug

HOLE SIZE _____ T.D. _____ CEMENT _____

CASING SIZE _____ DEPTH _____ AMOUNT ORDERED 220 SKS 60% class A

TUBING SIZE _____ DEPTH _____ 40% po2 4% gel 100lb

DRILL PIPE 4 1/2 DEPTH 2685

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____ COMMON 132 @ 17.90 2362.80

MEAS. LINE _____ SHOE JOINT _____ POZMIX 88 @ 9.35 822.80

CEMENT LEFT IN CSG. _____ GEL 8 @ 23.40 187.20

PERFS. _____ CHLORIDE _____ @ _____

DISPLACEMENT Freshwater / mud ASC _____ @ _____

EQUIPMENT _____ float 55 @ 2.97 163.35

PUMP TRUCK CEMENTER Dustin Chambers _____ @ _____

398 HELPER Josh Ellis _____ @ _____

BULK TRUCK _____ @ _____

660-170 DRIVER Kevin Weyhous _____ @ _____

BULK TRUCK _____ @ _____

_____ DRIVER _____ @ _____

COMMON	<u>132</u>	@	<u>17.90</u>	<u>2362.80</u>
POZMIX	<u>88</u>	@	<u>9.35</u>	<u>822.80</u>
GEL	<u>8</u>	@	<u>23.40</u>	<u>187.20</u>
CHLORIDE		@		
ASC		@		
	<u>float 55</u>	@	<u>2.97</u>	<u>163.35</u>
		@		
	<u>Material Total</u>	@		<u>3536.15</u>
	<u>Dix</u>	@	<u>(35%)</u>	<u>1237.45</u>
		@		
		@		
		@		
	<u>Service</u>	@		
		@		
HANDLING	<u>236.99</u>	@	<u>2.48</u>	<u>587.73</u>
MILEAGE	<u>9.88 x 50 x 2.60</u>	@		<u>1284.40</u>

REMARKS:

Fill hole with Rly Mud
1. 2685-255 SKS
2. 1930-100 SKS
3. 275-90 SKS
4. 40--10 SKS
5. RH-30 SKS
plug down 12:00 pm
Rly Down

SERVICE

DEPTH OF JOB _____			
PUMP TRUCK CHARGE	<u>2.483</u>	@	<u>52</u>
EXTRA FOOTAGE		@	
MILEAGE <u>Hum 50</u>	@	<u>7.70</u>	<u>385.00</u>
MANIFOLD <u>Hum 50</u>	@	<u>4.40</u>	<u>220.00</u>
	@		
	@		

CHARGE TO: Mur Fin Drilling
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL 4960.72
35% 1736.25

PLUG & FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____

TOTAL _____

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

SALES TAX (If Any) _____
 TOTAL CHARGES 8496.87
 DISCOUNT 2973.20 (35/35%) IF PAID IN 30 DAYS
5522.91

PRINTED NAME FRED WILLIAMS

SIGNATURE [Signature]

Thank You!!

5/7/14 Depth 4147'. Cut 107'. DT: None. CT: 18¼ hrs. Dev.: None. **LKC J:** lt gry, micro xtl, bioclastic – foss forams & corals, v vuggy interclast por, lt wormy brn – blk sn, hvy streaming sheen FO, gassy, FSFO on brk, fnt odr, lt flouresence, gd cut & halo. **LKC K:** Ls, gry-pale grn & crm, micro xtl, sl foss, chrt, sm scrt lt surf etching w/v lt brn stn, NS, 1pc trc hvy tarry oil on brk, no odor, fr fluor, no cut-60 min smpl a.a. w/some brn/yellow grainy ls, chlky foss & influx gry/blk silty shales. **DST #3 4078-4147 (LKC J-K):** 30-60-60-90. IF: BOB 28mins. FF: BOB 32mins. Rec.: 20'OSMW (20%M, 80%W (oil spts)), 126'MW(80%W, 20%M), 181'MW (95%W, 5%M), 5'M (Hvy). HP: 2009-1951. FP: 23/92, 96/177. SIP: 1257-1227. BHT: 128°.

5/8/14 Depth 4395'. Cut 248'. DT: None. CT: 5¼ hrs. Dev.: None.

5/9/14 RTD: 4560'. Cut 165'. DT: None. CT: 15¾ hrs. Dev.: ¾° @ 4560'. HC @ 12:15PM 5/8. Pioneer logged 10:30PM 5/8 – 3:00AM 5/9. LTD: 4563'. To Plug

5/10/14 RTD: 4560'. CT: 9hrs. Allied plugged hole 9:00AM – 12:00PM 5/9, as follows using 60/40Poz, 4%Gel, ¼#Flo seal, 25sxs @ 2685', 100sxs @ 1930', 40sxs @ 275', 10sxs @ 40', 30sxs RH, 15sxs MH. Order: Ed Schumacher KCC Hays. RR @ 4:00PM 5/9/14. FINAL REPORT

Melba #1-34 660' FSL 2310' FWL Sec. 34-4S-31W 2940' KB							Neil Wood O&G Erickson 61-4 Sec. 4-5S-31W 2946' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	2672	+268	+2	2668	+272	+6	2680	+266
B/Anhydrite	2704	+236	+3	2702	+238	+5	2713	+233
Topeka	3741	-801	+3	3739	-799	+5	3750	-804
Heebner	3906	-966	+4	3908	-968	+2	3916	-970
Lansing	3954	-1014	+6	3956	-1016	+4	3966	-1020
Stark	4120	-1180	+8	4121	-1181	+7	4134	-1188
BKC	4175	-1235	+1	4169	-1229	+7	4182	-1236
Pawnee	4283	-1343	+8	4285	-1345	+6	4297	-1351
Ft Scott	4359	-1419	+5	4357	-1417	+7	4370	-1424
Cherokee	4368	-1428	+6	4372	-1432	+2	4380	-1434
Mississippi	4482	-1452		4491	-1461		DNR	
RTD	4560						4500	
LTD				4563			4499	