



## DRILL STEM TEST REPORT

Prepared For: **McElvain Energy, Inc.**

1050 17th St. STE 2500  
Denver, CO 80265

ATTN: Rodney Gonzales

### **Berens #13-13**

#### **13-12s-21w Trego,KS**

Start Date: 2014.11.07 @ 12:03:00

End Date: 2014.11.07 @ 21:17:45

Job Ticket #: 60977                      DST #: 1

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

Printed: 2014.11.14 @ 09:50:19



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60977

**DST#: 1**

ATTN: Rodney Gonzales

Test Start: 2014.11.07 @ 12:03:00

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:05:45

Time Test Ended: 21:17:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 76

**Interval: 3330.00 ft (KB) To 3362.00 ft (KB) (TVD)**

Reference Elevations: 2296.00 ft (KB)

Total Depth: 3362.00 ft (KB) (TVD)

2286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: 96.11 psig @ 3331.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.07

End Date:

2014.11.07

Last Calib.:

2014.11.07

Start Time: 12:03:02

End Time:

21:17:45

Time On Btm:

2014.11.07 @ 17:05:00

Time Off Btm:

2014.11.07 @ 19:21:45

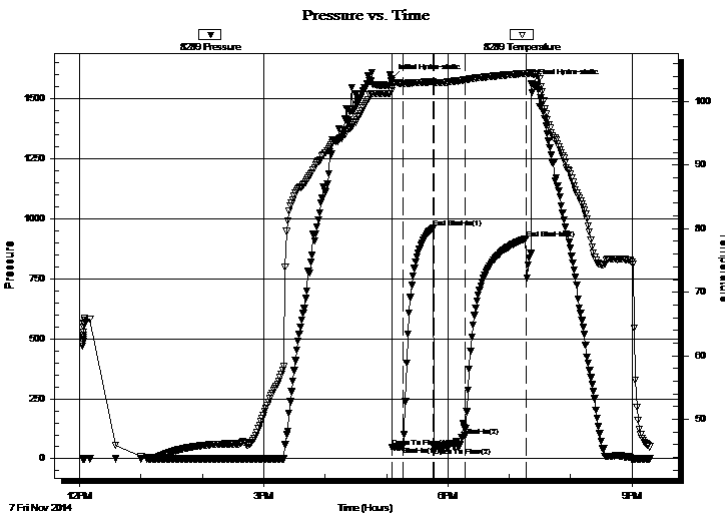
**TEST COMMENT:** 10-IF-Built to 5", died back to 3 1/2"

30-ISI-No Return

30--FF-Weak Surface Blow

60-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1585.24	101.74	Initial Hydro-static
1	47.37	102.31	Open To Flow (1)
11	50.67	102.78	Shut-In(1)
41	961.19	103.13	End Shut-In(1)
41	49.39	102.81	Open To Flow (2)
72	96.11	103.37	Shut-In(2)
132	918.39	104.43	End Shut-In(2)
137	1565.18	104.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	SVGCM, with oil spots 3%g, 97%m	0.84

## Gas Rates

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





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# DRILL STEM TEST REPORT

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60977

**DST#: 1**

ATTN: Rodney Gonzales

Test Start: 2014.11.07 @ 12:03:00

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:05:45

Time Test Ended: 21:17:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 76

**Interval: 3330.00 ft (KB) To 3362.00 ft (KB) (TVD)**

Reference Elevations: 2296.00 ft (KB)

Total Depth: 3362.00 ft (KB) (TVD)

2286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8789 Fluid**

Press@RunDepth: psig @ 3301.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.07

End Date:

2014.11.07

Last Calib.:

2014.11.07

Start Time: 12:03:02

End Time:

21:16:30

Time On Btm:

Time Off Btm:

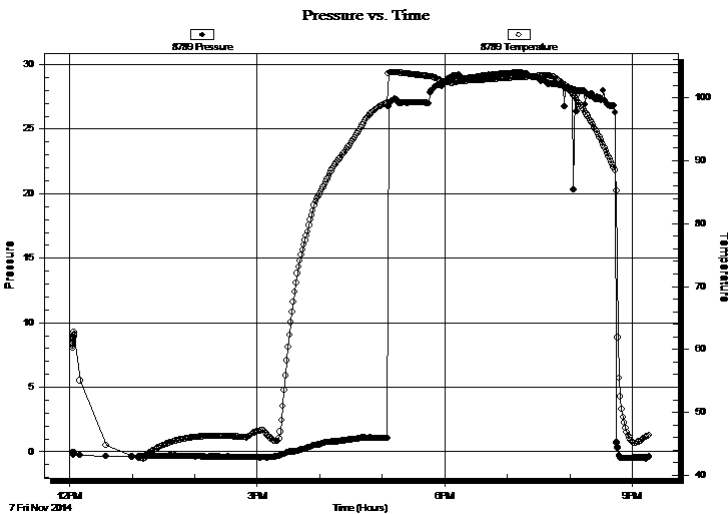
**TEST COMMENT:** 10-IF-Built to 5", died back to 3 1/2"

30-ISI-No Return

30--FF-Weak Surface Blow

60-FSI-No Return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	SVGCM, w ith oil spots 3%g, 97%m	0.84

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60977

**DST#: 1**

ATTN: Rodney Gonzales

Test Start: 2014.11.07 @ 12:03:00

## Tool Information

Drill Pipe:	Length: 3331.00 ft	Diameter: 3.80 inches	Volume: 46.73 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 46.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	35.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3330.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	66.00 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	5.00			3301.00	
Recorder	0.00	8789	Fluid	3301.00	
Shut In Tool	5.00			3306.00	
Sampler	2.00			3308.00	
Hydraulic tool	5.00			3313.00	
Jars	5.00			3318.00	
Safety Joint	2.00			3320.00	
Packer	5.00			3325.00	34.00 Bottom Of Top Packer
Packer	5.00			3330.00	
Stubb	1.00			3331.00	
Recorder	0.00	6668	Inside	3331.00	
Recorder	0.00	8289	Outside	3331.00	
Perforations	28.00			3359.00	
Bullnose	3.00			3362.00	32.00 Bottom Packers & Anchor

**Total Tool Length: 66.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60977

**DST#: 1**

ATTN: Rodney Gonzales

Test Start: 2014.11.07 @ 12:03:00

## 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: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 3.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	SVGCM, w ith oil spots 3%g, 97%m	0.842

Total Length: 60.00 ft      Total Volume: 0.842 bbl

Num Fluid Samples: 0

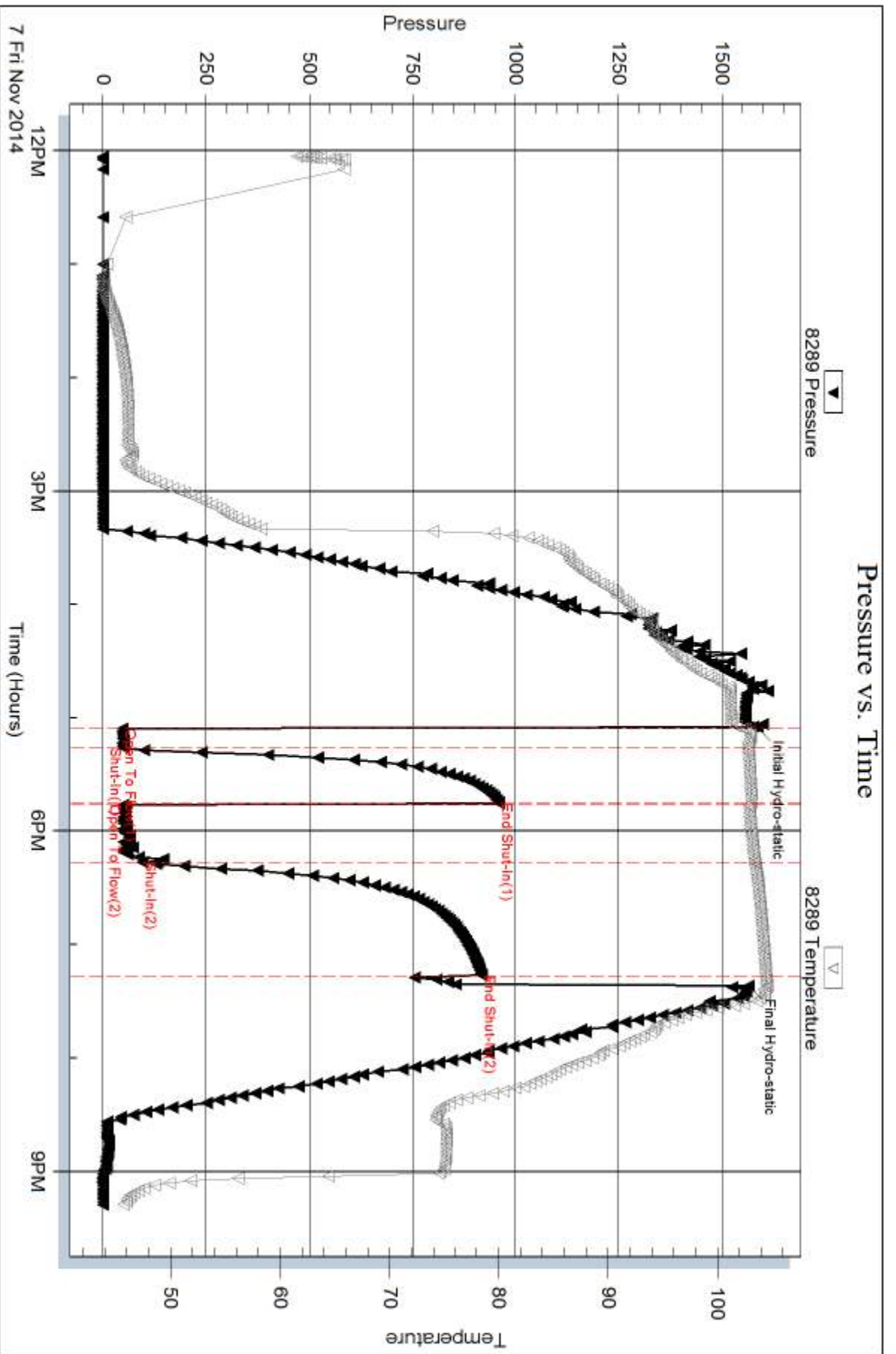
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



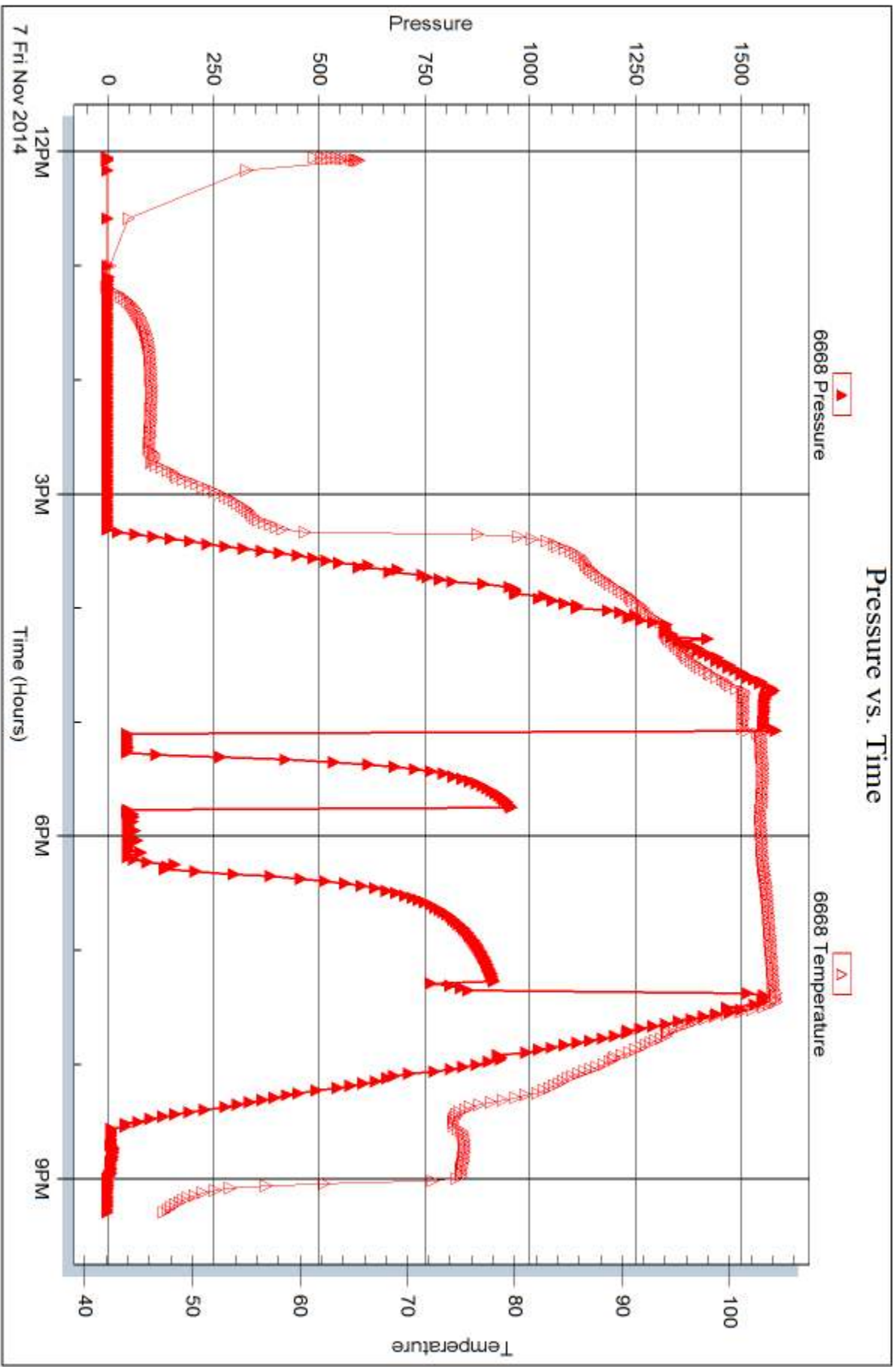
Serial #: 6668

Inside

McElvain Energy, Inc.

Berens #13-13

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60977

Printed: 2014.11.14 @ 09:50:20



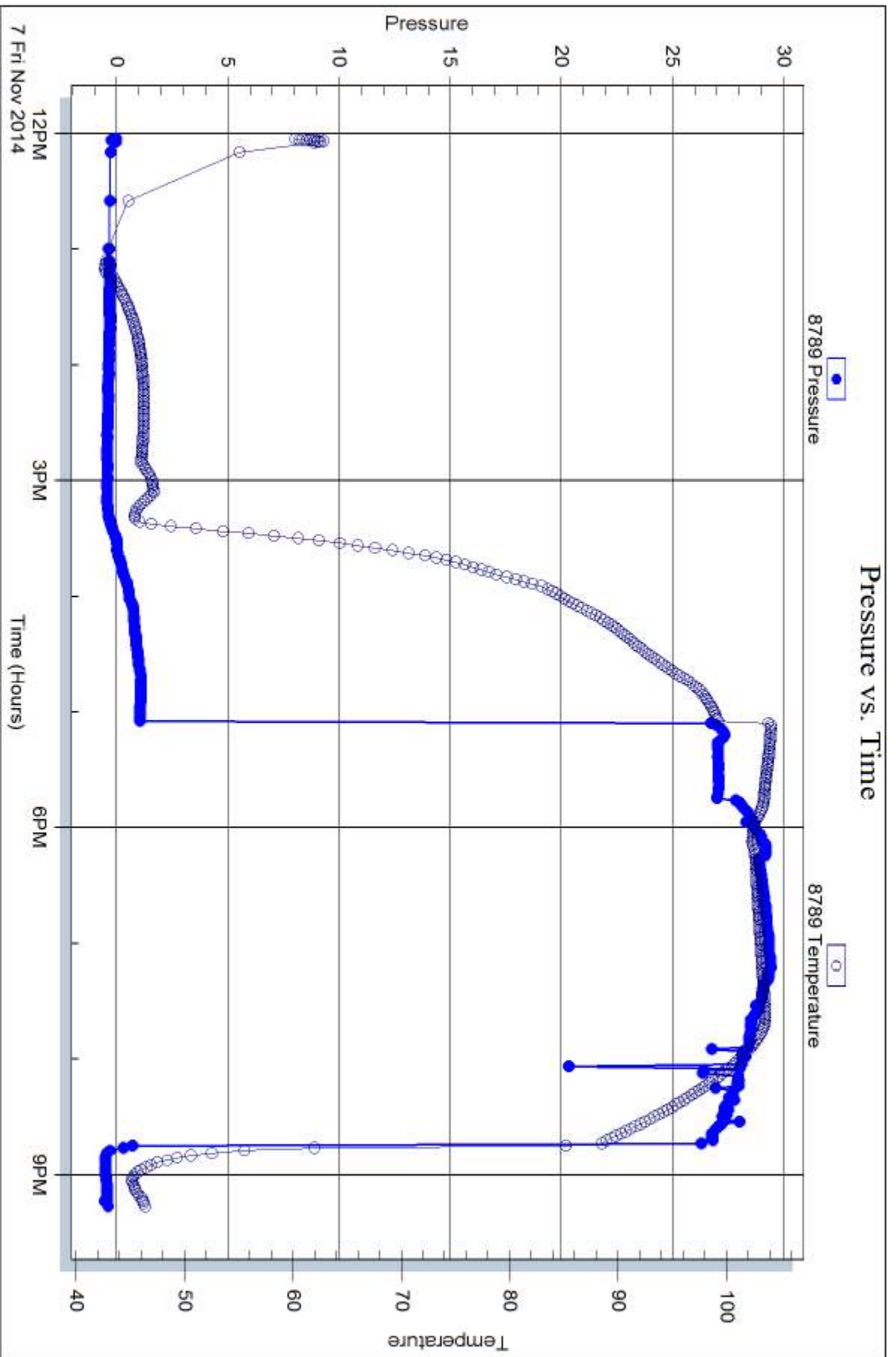
Serial #: 8789

Fluid

McElvain Energy, Inc.

Berens #13-13

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60977

Printed: 2014.11.14 @ 09:50:20



## DRILL STEM TEST REPORT

Prepared For: **McElvain Energy, Inc.**

1050 17th St. STE 2500  
Denver, CO 80265

ATTN: Rodney Gonzales

### **Berens #13-13**

#### **13-12s-21w Trego,KS**

Start Date: 2014.11.08 @ 09:49:00

End Date: 2014.11.08 @ 19:40:45

Job Ticket #: 60978                      DST #: 2

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

Printed: 2014.11.14 @ 09:49:34



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60978

**DST#: 2**

ATTN: Rodney Gonzales

Test Start: 2014.11.08 @ 09:49:00

## GENERAL INFORMATION:

Formation: **Lansing "A-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:43:15

Time Test Ended: 19:40:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 76

**Interval: 3581.00 ft (KB) To 3642.00 ft (KB) (TVD)**

Reference Elevations: 2296.00 ft (KB)

Total Depth: 3642.00 ft (KB) (TVD)

2286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: 105.33 psig @ 3582.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.08

End Date: 2014.11.08

Last Calib.: 2014.11.08

Start Time: 09:49:02

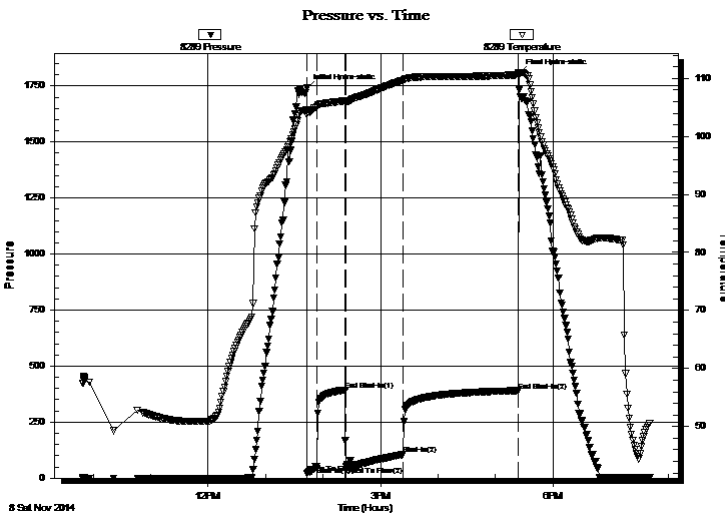
End Time: 19:40:45

Time On Btm: 2014.11.08 @ 13:43:00

Time Off Btm: 2014.11.08 @ 17:24:15

**TEST COMMENT:** 10-IF-Built to 4"  
30-ISI-No Return  
60-FF-BOB in 54 mins.  
120-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1739.83	104.52	Initial Hydro-static
1	21.40	103.73	Open To Flow (1)
11	53.91	105.17	Shut-In(1)
40	393.81	106.12	End Shut-In(1)
41	54.26	106.00	Open To Flow (2)
101	105.33	109.66	Shut-In(2)
221	390.14	110.60	End Shut-In(2)
222	1806.39	110.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	MW, 20%w, 80%w	0.14
126.00	SWCM, 10%w, 90%m	1.77
0.00	GIP-63'	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

McElvain Energy, Inc.  
 1050 17th St. STE 2500  
 Denver, CO 80265  
 ATTN: Rodney Gonzales

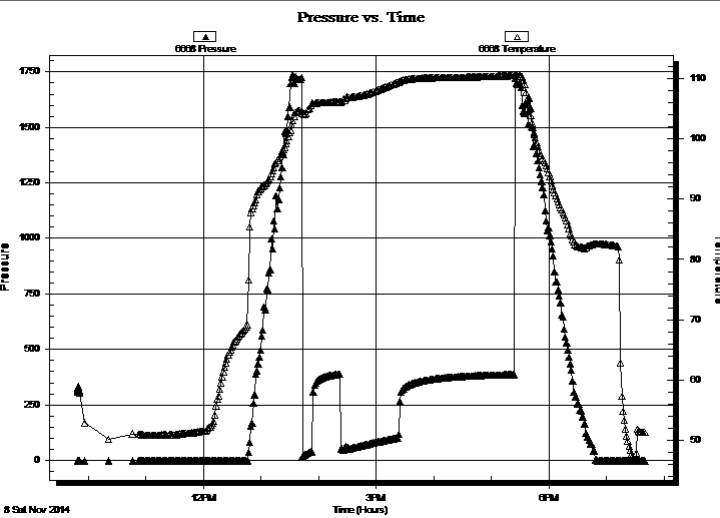
**13-12s-21w Trego,KS**  
**Berens #13-13**  
 Job Ticket: 60978 **DST#: 2**  
 Test Start: 2014.11.08 @ 09:49:00

## GENERAL INFORMATION:

Formation: **Lansing "A-C"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:43:15  
 Time Test Ended: 19:40:45  
 Interval: **3581.00 ft (KB) To 3642.00 ft (KB) (TVD)**  
 Total Depth: 3642.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Phillip Gage  
 Unit No: 76  
 Reference Elevations: 2296.00 ft (KB)  
 2286.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 6668 Inside**  
 Press@RunDepth: psig @ 3582.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.11.08 End Date: 2014.11.08 Last Calib.: 2014.11.08  
 Start Time: 09:49:02 End Time: 19:40:30 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 10-IF-Built to 4"  
 30-ISI-No Return  
 60-FF-BOB in 54 mins.  
 120-FSI-No Return



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

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	MW, 20% m, 80% w	0.14
126.00	SWCM, 10% w, 90% m	1.77
0.00	GIP-63'	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**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60978

**DST#: 2**

ATTN: Rodney Gonzales

Test Start: 2014.11.08 @ 09:49:00

## Tool Information

Drill Pipe:	Length: 3579.00 ft	Diameter: 3.80 inches	Volume: 50.20 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 50.20 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	3581.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	95.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	5.00			3552.00	
Recorder	0.00	8789	Fluid	3552.00	
Shut In Tool	5.00			3557.00	
Sampler	2.00			3559.00	
Hydraulic tool	5.00			3564.00	
Jars	5.00			3569.00	
Safety Joint	2.00			3571.00	
Packer	5.00			3576.00	34.00 Bottom Of Top Packer
Packer	5.00			3581.00	
Stubb	1.00			3582.00	
Recorder	0.00	6668	Inside	3582.00	
Recorder	0.00	8289	Outside	3582.00	
Perforations	24.00			3606.00	
Change Over Sub	1.00			3607.00	
Drill Pipe	31.00			3638.00	
Change Over Sub	1.00			3639.00	
Bullnose	3.00			3642.00	61.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>95.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60978

**DST#: 2**

ATTN: Rodney Gonzales

Test Start: 2014.11.08 @ 09:49:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

35000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	MW, 20% <sub>m</sub> , 80% <sub>w</sub>	0.140
126.00	SWCM, 10% <sub>w</sub> , 90% <sub>m</sub>	1.767
0.00	GIP-63'	0.000

Total Length: 136.00 ft      Total Volume: 1.907 bbl

Num Fluid Samples: 0

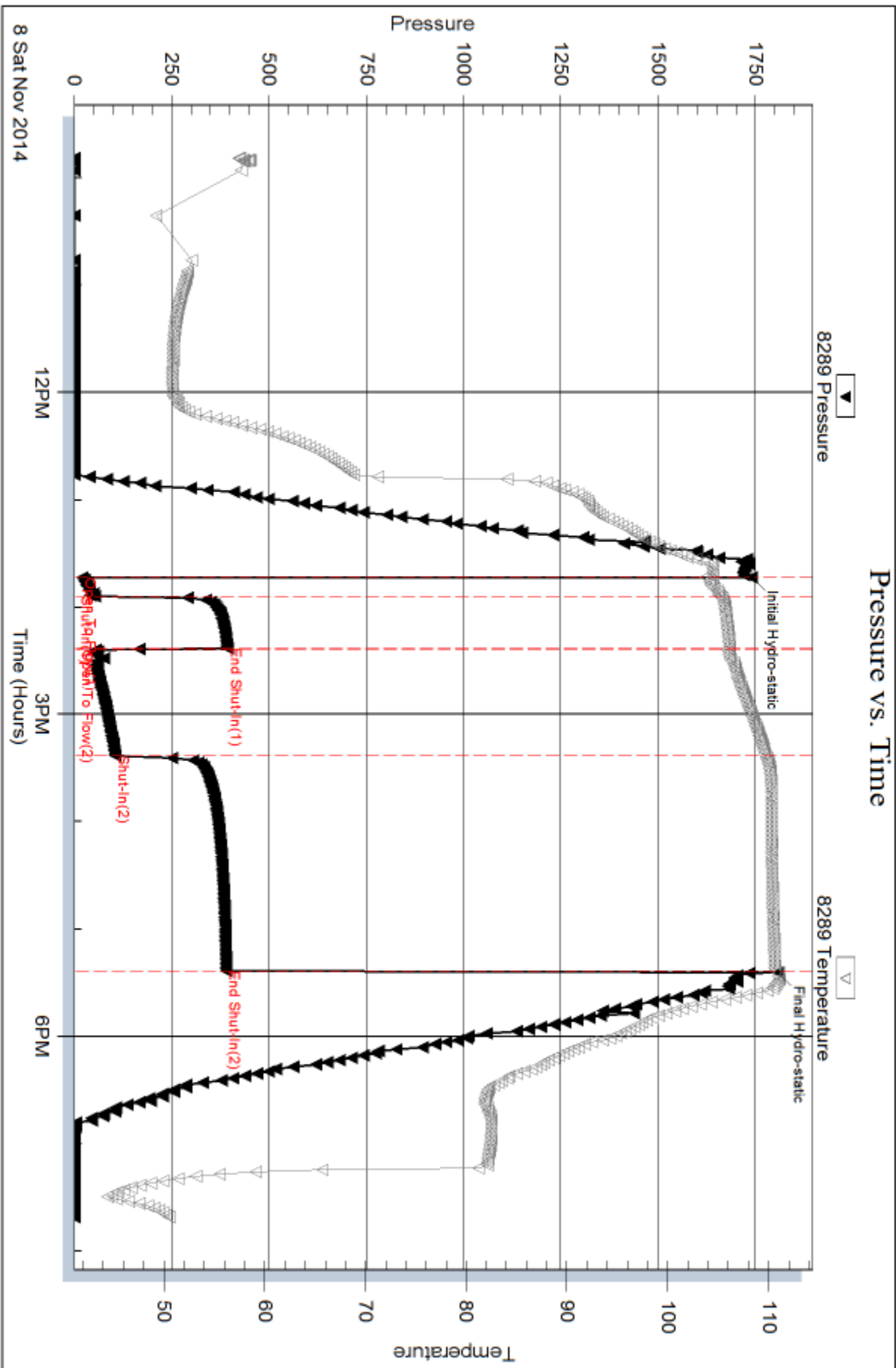
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .3 @ 51 degrees = 35,000 Salinity





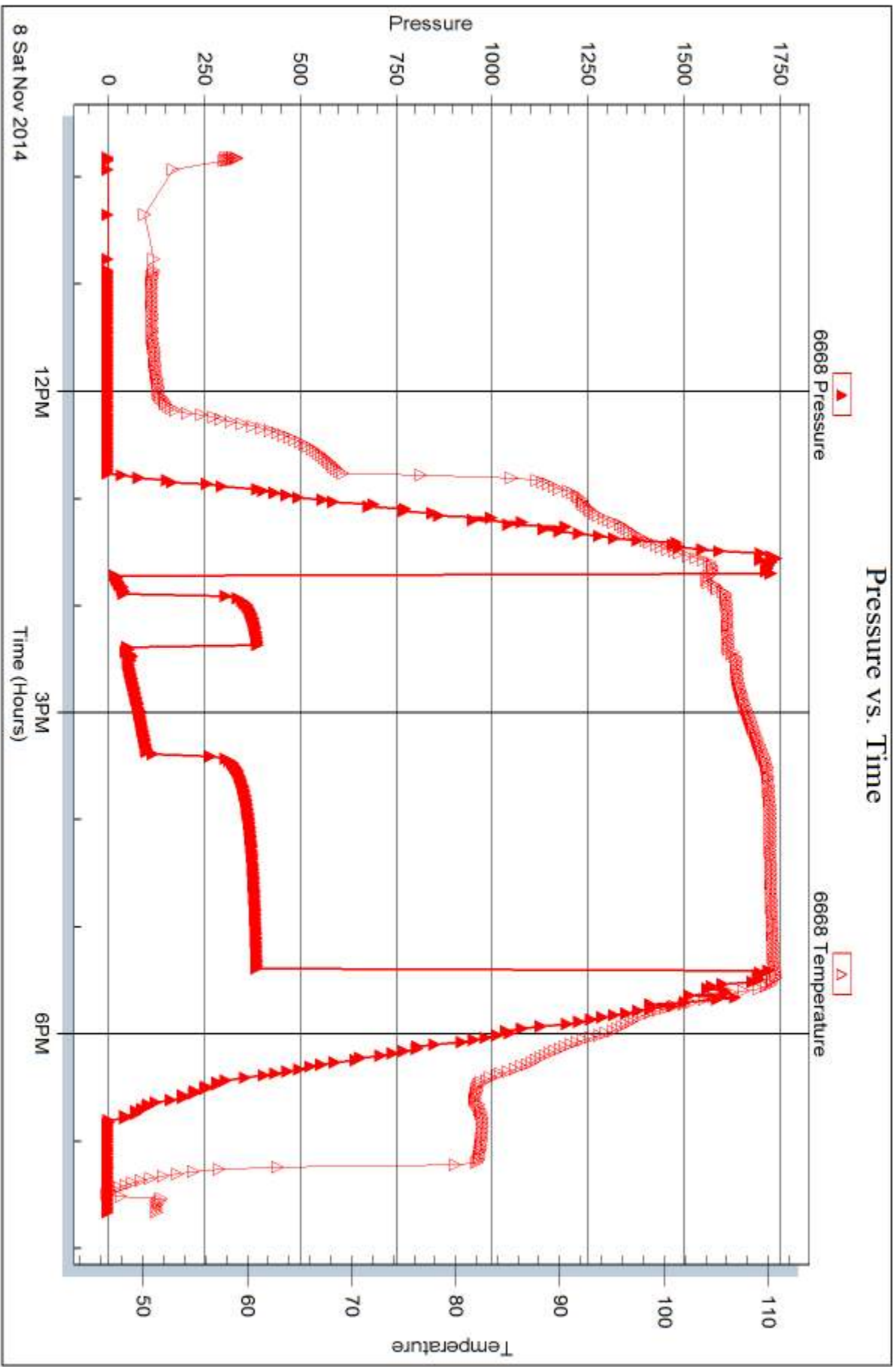
Serial #: 6668

Inside

McEvain Energy, Inc.

Berens #13-13

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 60978

Printed: 2014.11.14 @ 09:49:35

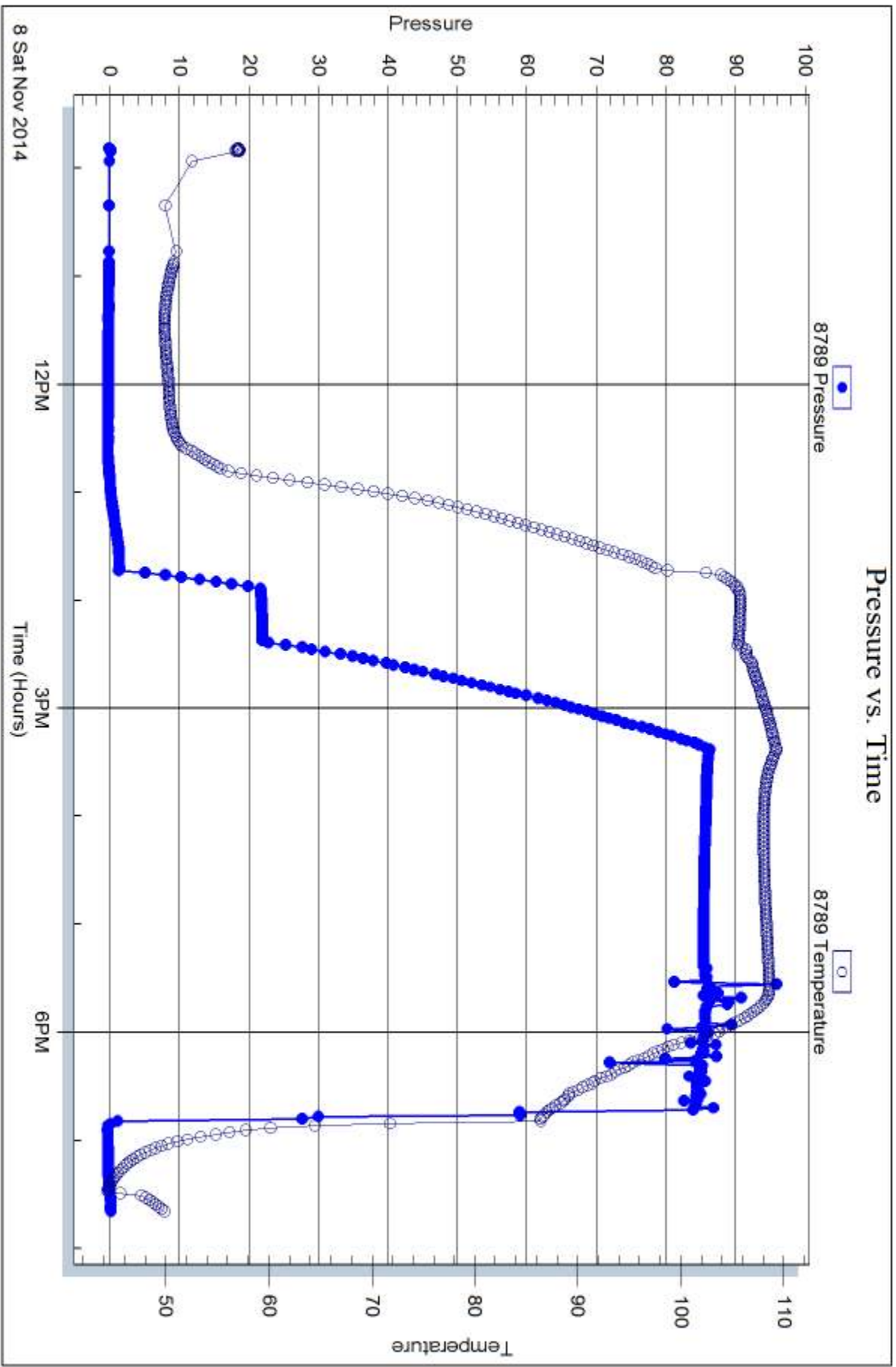
Serial #: 8789

Fluid

McEvain Energy, Inc.

Berens #13-13

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 60978

Printed: 2014.11.14 @ 09:49:35



## DRILL STEM TEST REPORT

Prepared For: **McElvain Energy, Inc.**

1050 17th St. STE 2500  
Denver, CO 80265

ATTN: Rodney Gonzales

### **Berens #13-13**

#### **13-12s-21w Trego,KS**

Start Date: 2014.11.09 @ 12:17:00

End Date: 2014.11.09 @ 20:25:30

Job Ticket #: 60979                      DST #: 3

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

Printed: 2014.11.14 @ 09:48:44



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60979

**DST#: 3**

ATTN: Rodney Gonzales

Test Start: 2014.11.09 @ 12:17:00

## GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:07:30

Time Test Ended: 20:25:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 76

**Interval: 3740.00 ft (KB) To 3760.00 ft (KB) (TVD)**

Reference Elevations: 2296.00 ft (KB)

Total Depth: 3760.00 ft (KB) (TVD)

2286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: 49.13 psig @ 3741.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.09

End Date:

2014.11.09

Last Calib.:

2014.11.09

Start Time: 12:17:02

End Time:

20:25:30

Time On Btm:

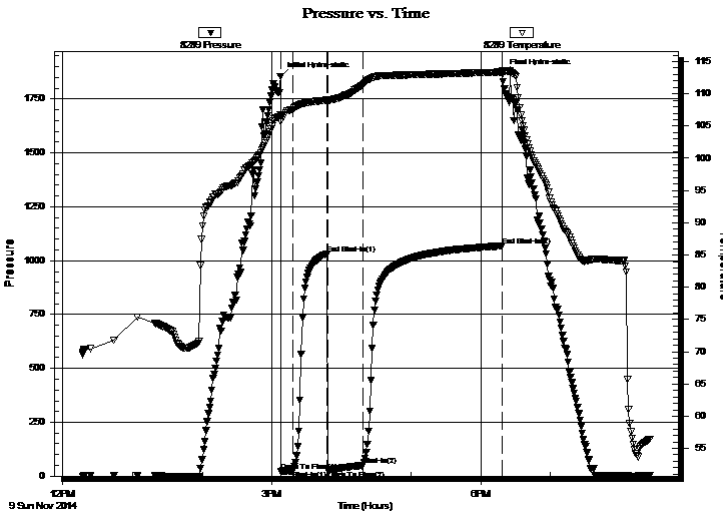
2014.11.09 @ 15:07:15

Time Off Btm:

2014.11.09 @ 18:18:45

**TEST COMMENT:** 10-IF-Built to 9"  
30-ISI-No Return  
30-FF-BOB in 5 mins.  
120-FSI-Surface Blow at 7 mins, died 8 mins later.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1853.85	106.71	Initial Hydro-static
1	22.83	105.73	Open To Flow (1)
11	25.41	107.58	Shut-In(1)
40	1032.76	108.99	End Shut-In(1)
41	25.92	108.89	Open To Flow (2)
71	49.13	111.36	Shut-In(2)
191	1067.44	113.36	End Shut-In(2)
192	1868.90	113.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP-428'	0.00
5.00	O, 100%o	0.07
63.00	VSWOGCM, 5%w, 10%o, 30%g, 55%h	0.88

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60979

**DST#: 3**

ATTN: Rodney Gonzales

Test Start: 2014.11.09 @ 12:17:00

## Tool Information

Drill Pipe:	Length: 3734.00 ft	Diameter: 3.80 inches	Volume: 52.38 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 52.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3740.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	5.00			3711.00	
Recorder	0.00	8789	Fluid	3711.00	
Shut In Tool	5.00			3716.00	
Sampler	2.00			3718.00	
Hydraulic tool	5.00			3723.00	
Jars	5.00			3728.00	
Safety Joint	2.00			3730.00	
Packer	5.00			3735.00	34.00 Bottom Of Top Packer
Packer	5.00			3740.00	
Stubb	1.00			3741.00	
Recorder	0.00	6668	Inside	3741.00	
Recorder	0.00	8289	Outside	3741.00	
Perforations	16.00			3757.00	
Bullnose	3.00			3760.00	20.00 Bottom Packers & Anchor

**Total Tool Length: 54.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60979

**DST#: 3**

ATTN: Rodney Gonzales

Test Start: 2014.11.09 @ 12:17:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GIP-428'	0.000
5.00	O, 100%o	0.070
63.00	VSWOGCM, 5%w, 10%o, 30%g, 55%m	0.884

Total Length: 68.00 ft      Total Volume: 0.954 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

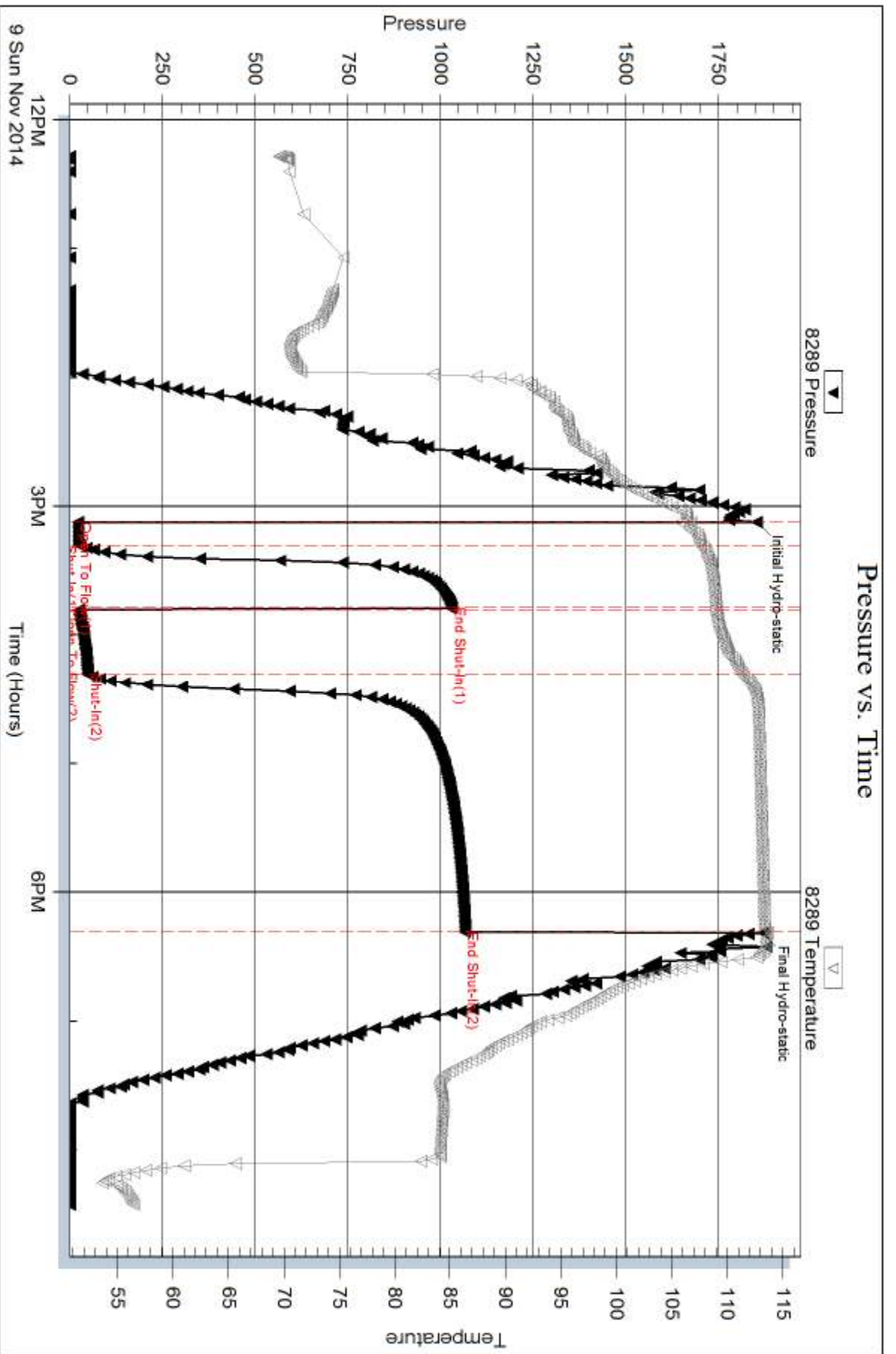
Serial #:

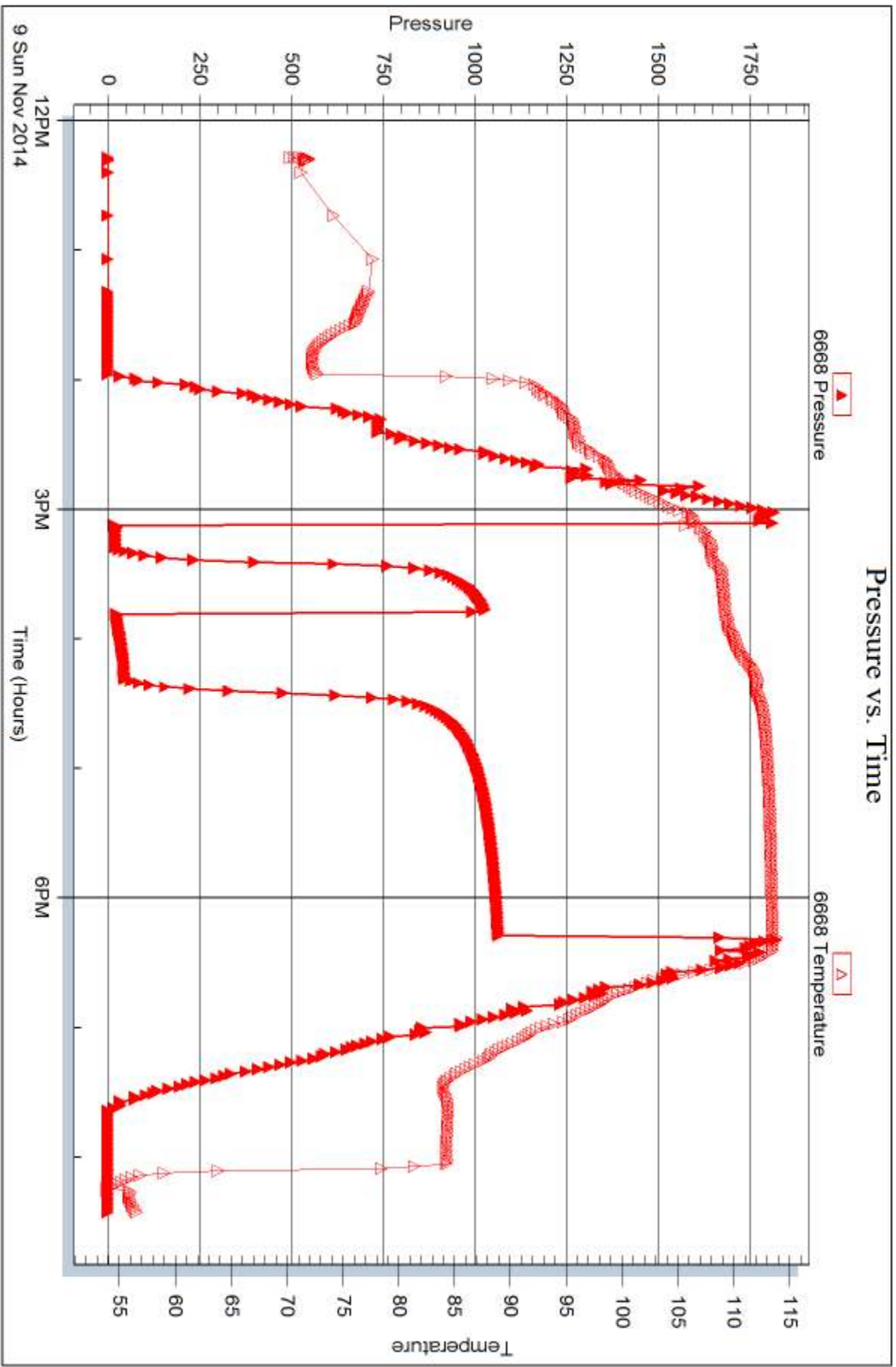
Laboratory Name:

Laboratory Location:

Recovery Comments:







Serial #: 8789

Fluid

McElvain Energy, Inc.

Berens #13-13

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 60979

Printed: 2014.11.14 @ 09:48:45



## DRILL STEM TEST REPORT

Prepared For: **McElvain Energy, Inc.**

1050 17th St. STE 2500  
Denver, CO 80265

ATTN: Rodney Gonzales

### **Berens #13-13**

#### **13-12s-21w Trego,KS**

Start Date: 2014.11.10 @ 16:07:00

End Date: 2014.11.11 @ 02:52:00

Job Ticket #: 60615                      DST #: 4

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

Printed: 2014.11.14 @ 09:46:58



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60615

**DST#: 4**

ATTN: Rodney Gonzales

Test Start: 2014.11.10 @ 16:07:00

## GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:03:15

Time Test Ended: 02:52:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

**Interval: 3895.00 ft (KB) To 3914.00 ft (KB) (TVD)**

Reference Elevations: 2296.00 ft (KB)

Total Depth: 3914.00 ft (KB) (TVD)

2286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: 238.59 psig @ 3896.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.10

End Date:

2014.11.11

Last Calib.: 2014.11.11

Start Time: 16:07:02

End Time:

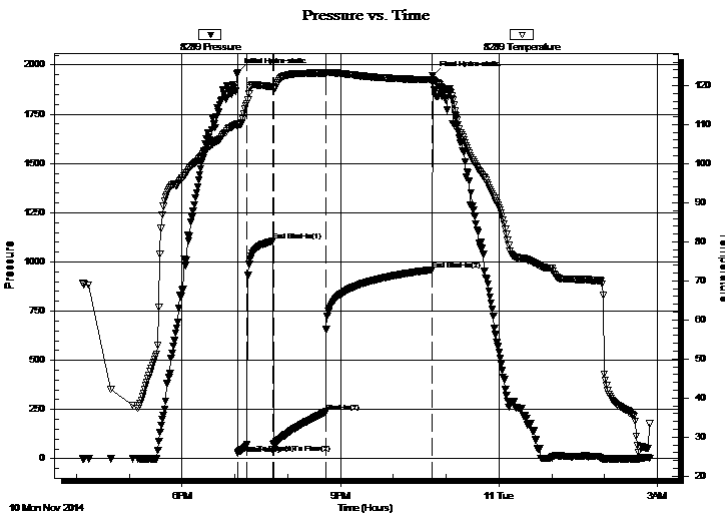
02:52:15

Time On Btm: 2014.11.10 @ 19:03:00

Time Off Btm: 2014.11.10 @ 22:44:45

**TEST COMMENT:** 10-IFP- BOB in 10 min.  
30-ISIP- No Blow  
60-FFP- BOB in 13 min.  
120-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1962.43	110.21	Initial Hydro-static
1	29.10	109.41	Open To Flow (1)
11	67.37	115.31	Shut-In(1)
41	1105.09	119.66	End Shut-In(1)
41	74.15	119.32	Open To Flow (2)
101	238.59	123.22	Shut-In(2)
221	959.68	121.41	End Shut-In(2)
222	1947.58	121.59	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
242.00	MCW 10% m 90% w Show of Oil	3.39
188.00	GMWCO 5% g 25% m 30% w 40% o	2.64
78.00	CO 100%	1.09
0.00	180 GIP	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**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60615

**DST#: 4**

ATTN: Rodney Gonzales

Test Start: 2014.11.10 @ 16:07:00

## Tool Information

Drill Pipe:	Length: 3889.00 ft	Diameter: 3.80 inches	Volume: 54.55 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 54.55 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3895.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Recorder	0.00	8789	Fluid	3861.00	
Change Over Sub	5.00			3866.00	
Shut In Tool	5.00			3871.00	
Sampler	2.00			3873.00	
Hydraulic tool	5.00			3878.00	
Jars	5.00			3883.00	
Safety Joint	2.00			3885.00	
Packer	5.00			3890.00	34.00 Bottom Of Top Packer
Packer	5.00			3895.00	
Stubb	1.00			3896.00	
Recorder	0.00	6668	Inside	3896.00	
Recorder	0.00	8289	Outside	3896.00	
Perforations	15.00			3911.00	
Bullnose	3.00			3914.00	19.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60615

**DST#: 4**

ATTN: Rodney Gonzales

Test Start: 2014.11.10 @ 16:07:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

52000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
242.00	MCW 10%m 90%w Show of Oil	3.395
188.00	GMWCO 5%g 25%m 30%w 40%o	2.637
78.00	CO 100%	1.094
0.00	180 GIP	0.000

Total Length: 508.00 ft      Total Volume: 7.126 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

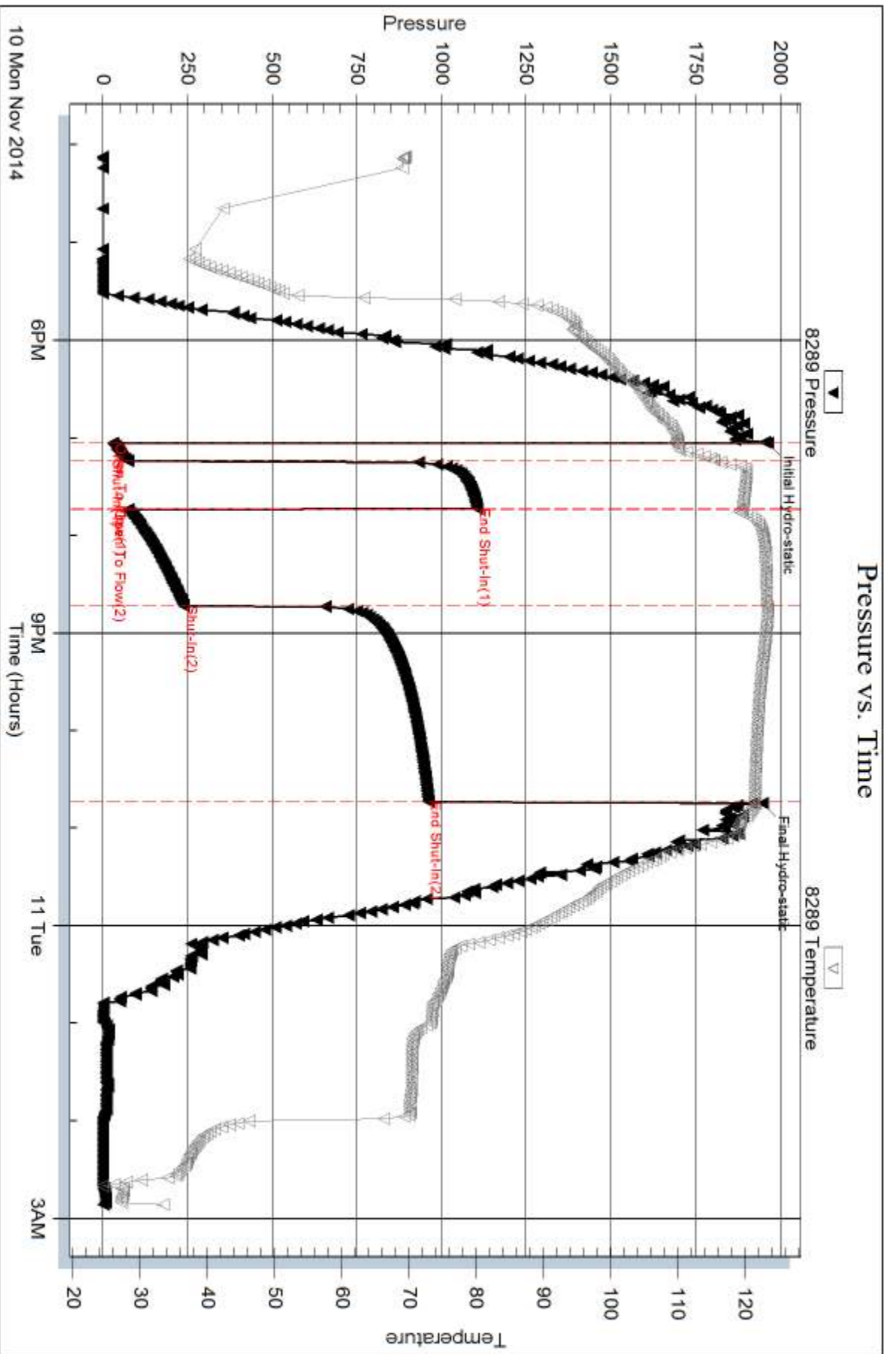
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .375 @ 27

Sampler .400 @ 29 --- 45000ppm 5ml Oil 495ml Water -- 50psi



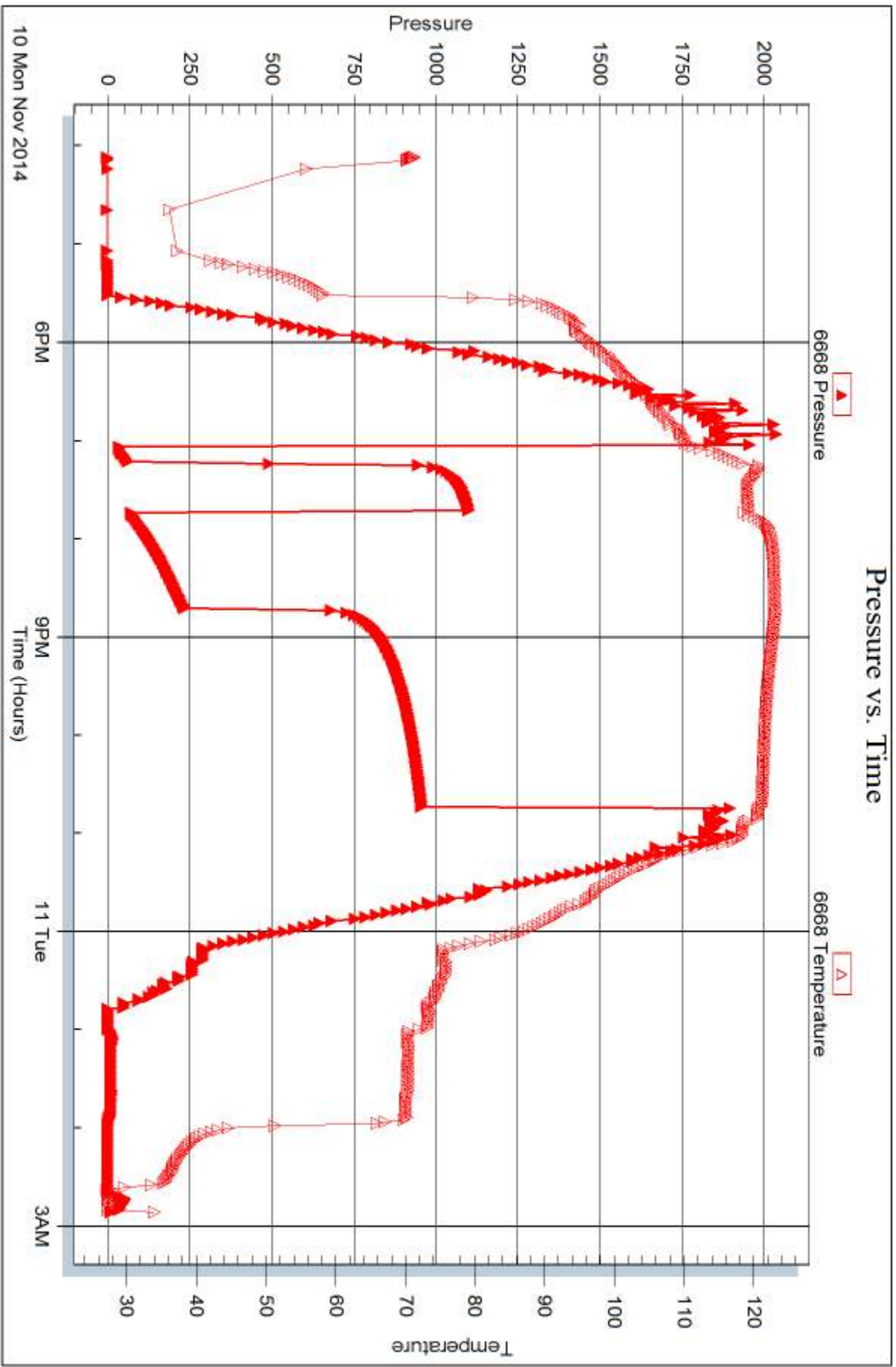
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McElvain Energy, Inc.

Berens #13-13

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 60615

Printed: 2014.11.14 @ 09:46:59

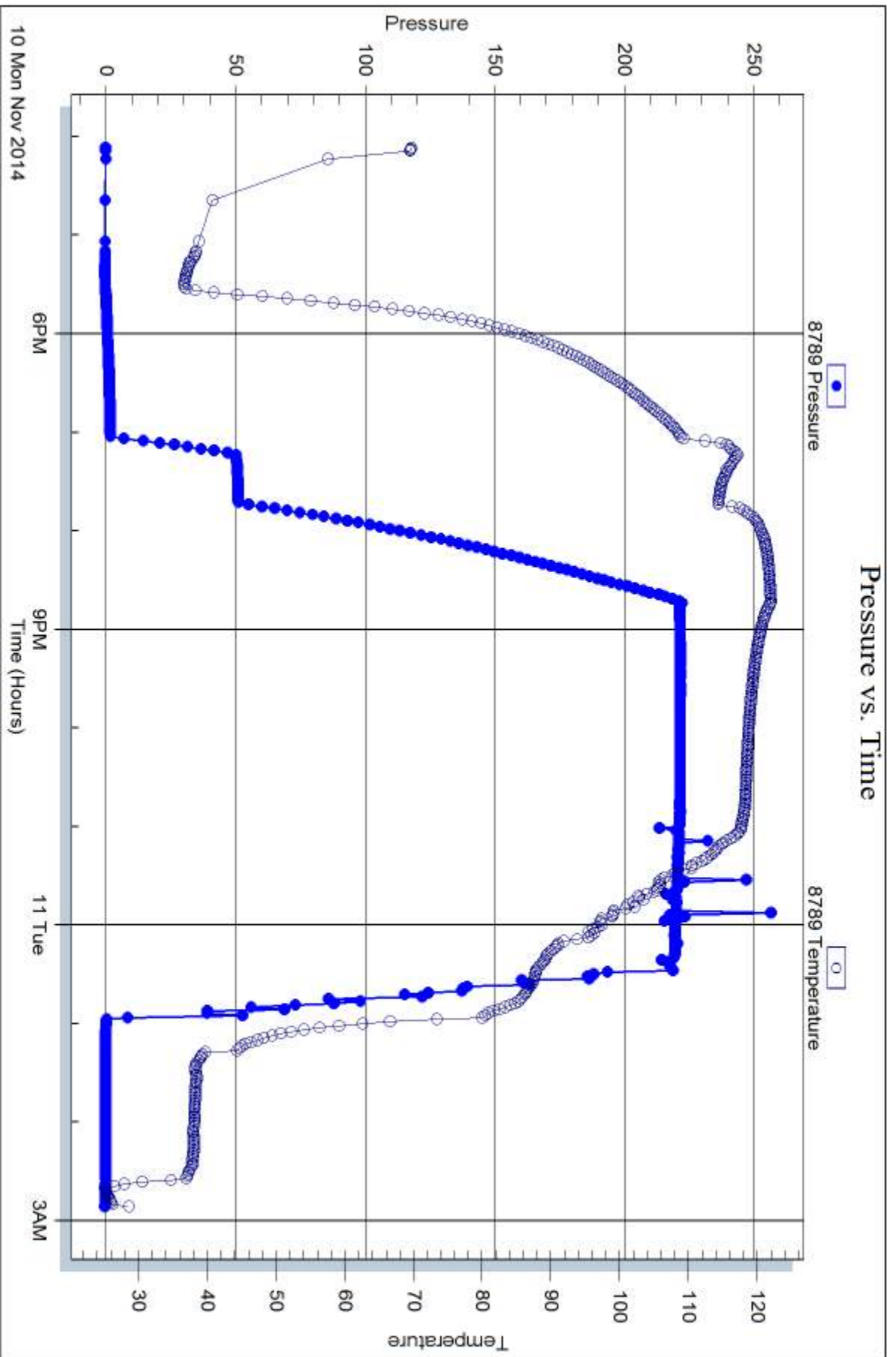
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Fluid

McElvain Energy, Inc.

Berens #13-13

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 60615

Printed: 2014.11.14 @ 09:46:59



## DRILL STEM TEST REPORT

Prepared For: **McElvain Energy, Inc.**

1050 17th St. STE 2500  
Denver, CO 80265

ATTN: Rodney Gonzales

### **Berens #13-13**

#### **13-12s-21w Trego,KS**

Start Date: 2014.11.11 @ 20:25:00

End Date: 2014.11.12 @ 06:41:00

Job Ticket #: 60616                      DST #: 5

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

Printed: 2014.11.14 @ 09:46:27



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

McElvain Energy, Inc.

**13-12s-21w Trego, KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60616

**DST#: 5**

ATTN: Rodney Gonzales

Test Start: 2014.11.11 @ 20:25:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:23:15

Time Test Ended: 06:41:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

**Interval: 3980.00 ft (KB) To 4010.00 ft (KB) (TVD)**

Reference Elevations: 2296.00 ft (KB)

Total Depth: 4010.00 ft (KB) (TVD)

2286.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8289 Outside**

Press@RunDepth: 179.31 psig @ 3982.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.11

End Date:

2014.11.12

Last Calib.:

2014.11.12

Start Time: 20:25:02

End Time:

06:41:00

Time On Btm:

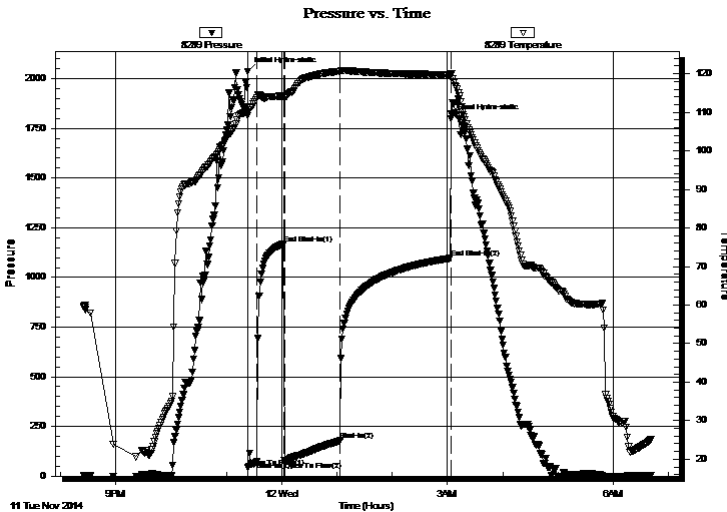
2014.11.11 @ 23:23:00

Time Off Btm:

2014.11.12 @ 03:03:45

**TEST COMMENT:** 10-IFP- BOB in 8 min.  
30-ISIP- Surface Blow  
60-FFP- BOB in 10 min.  
120-FSIP- Surface Blow in 1min. Died in 10 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2036.89	110.12	Initial Hydro-static
1	45.37	109.05	Open To Flow (1)
11	73.49	113.86	Shut-In(1)
40	1169.67	114.22	End Shut-In(1)
41	73.63	113.91	Open To Flow (2)
101	179.31	120.65	Shut-In(2)
221	1096.60	119.79	End Shut-In(2)
221	1800.31	120.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	OMCW 15%o 30%w 55%w	0.49
216.00	GWMCO 10%g 10%w 25%w 55%o	3.03
135.00	CO 100%	1.89
0.00	236 GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60616

**DST#: 5**

ATTN: Rodney Gonzales

Test Start: 2014.11.11 @ 20:25:00

## Tool Information

Drill Pipe:	Length: 3953.00 ft	Diameter: 3.80 inches	Volume: 55.45 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 67000.00 lb
			<u>Total Volume: 55.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3980.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Recorder	0.00	8789	Fluid	3946.00	
Change Over Sub	5.00			3951.00	
Shut In Tool	5.00			3956.00	
Sampler	2.00			3958.00	
Hydraulic tool	5.00			3963.00	
Jars	5.00			3968.00	
Safety Joint	2.00			3970.00	
Packer	5.00			3975.00	34.00 Bottom Of Top Packer
Packer	5.00			3980.00	
Stubb	1.00			3981.00	
Perforations	1.00			3982.00	
Recorder	0.00	6668	Inside	3982.00	
Recorder	0.00	8289	Outside	3982.00	
Perforations	25.00			4007.00	
Bullnose	3.00			4010.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 64.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McElvain Energy, Inc.

**13-12s-21w Trego,KS**

1050 17th St. STE 2500  
Denver, CO 80265

**Berens #13-13**

Job Ticket: 60616

**DST#: 5**

ATTN: Rodney Gonzales

Test Start: 2014.11.11 @ 20:25:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

23500 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	OMCW 15%o 30%m 55%w	0.491
216.00	GWMCO 10%g 10%w 25%m 55%o	3.030
135.00	CO 100%	1.894
0.00	236 GIP	0.000

Total Length: 386.00 ft

Total Volume: 5.415 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

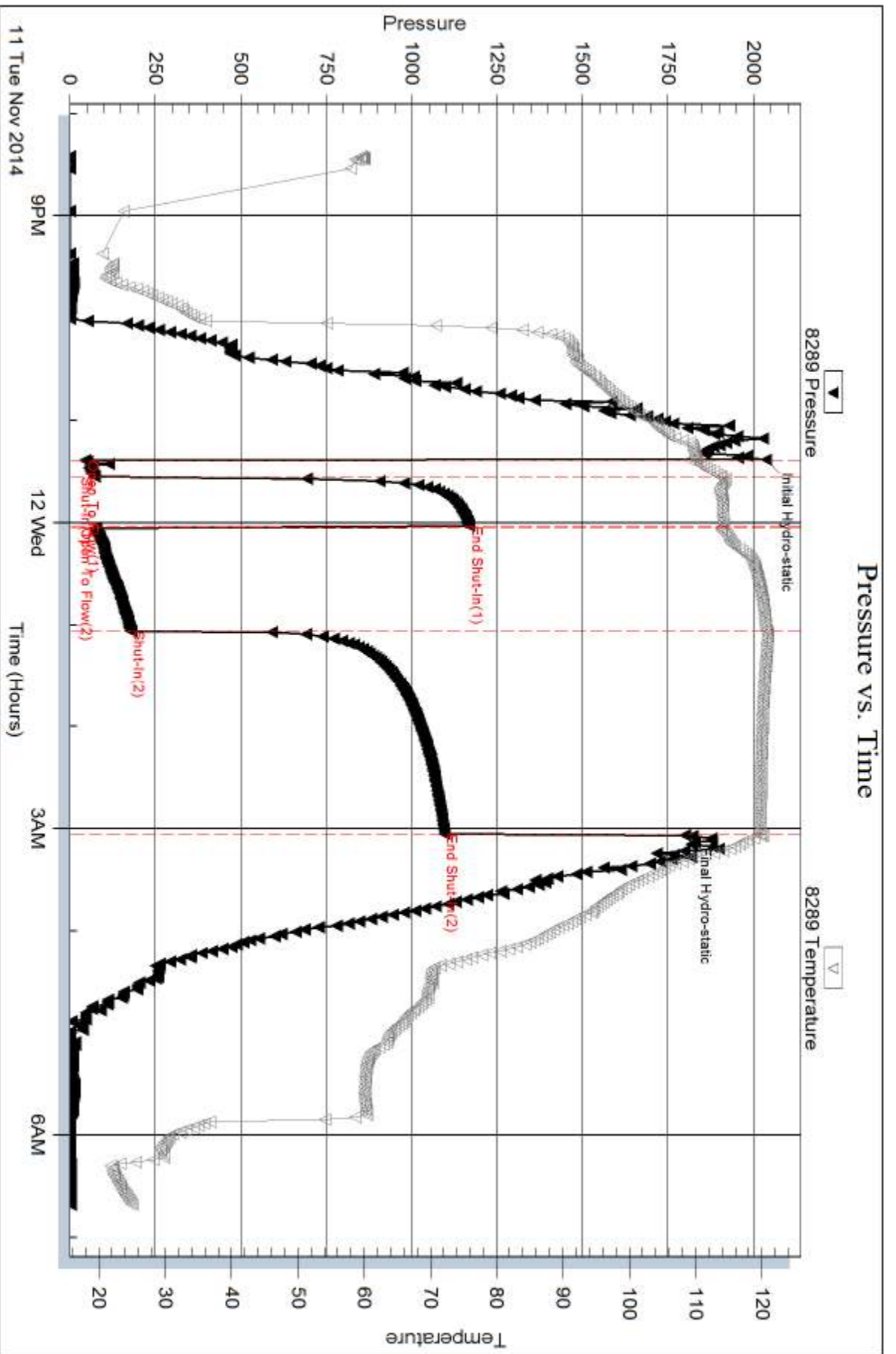
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .632 @ 32

Sampler---- 1100ml CO 100% ----- 34 Gravity----- 80psi.....



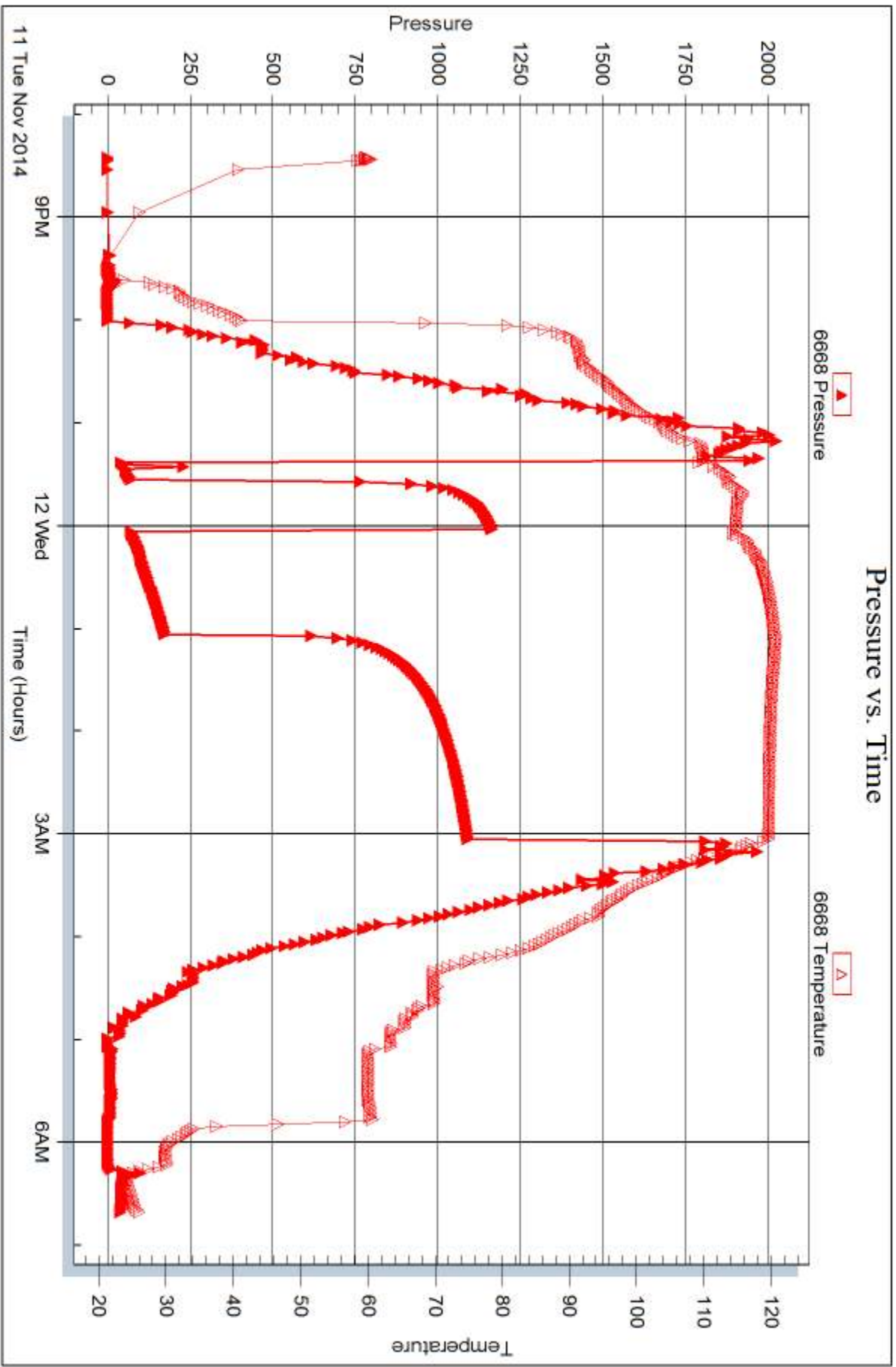
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McElvain Energy, Inc.

Berens #13-13

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 60616

Printed: 2014.11.14 @ 09:46:29

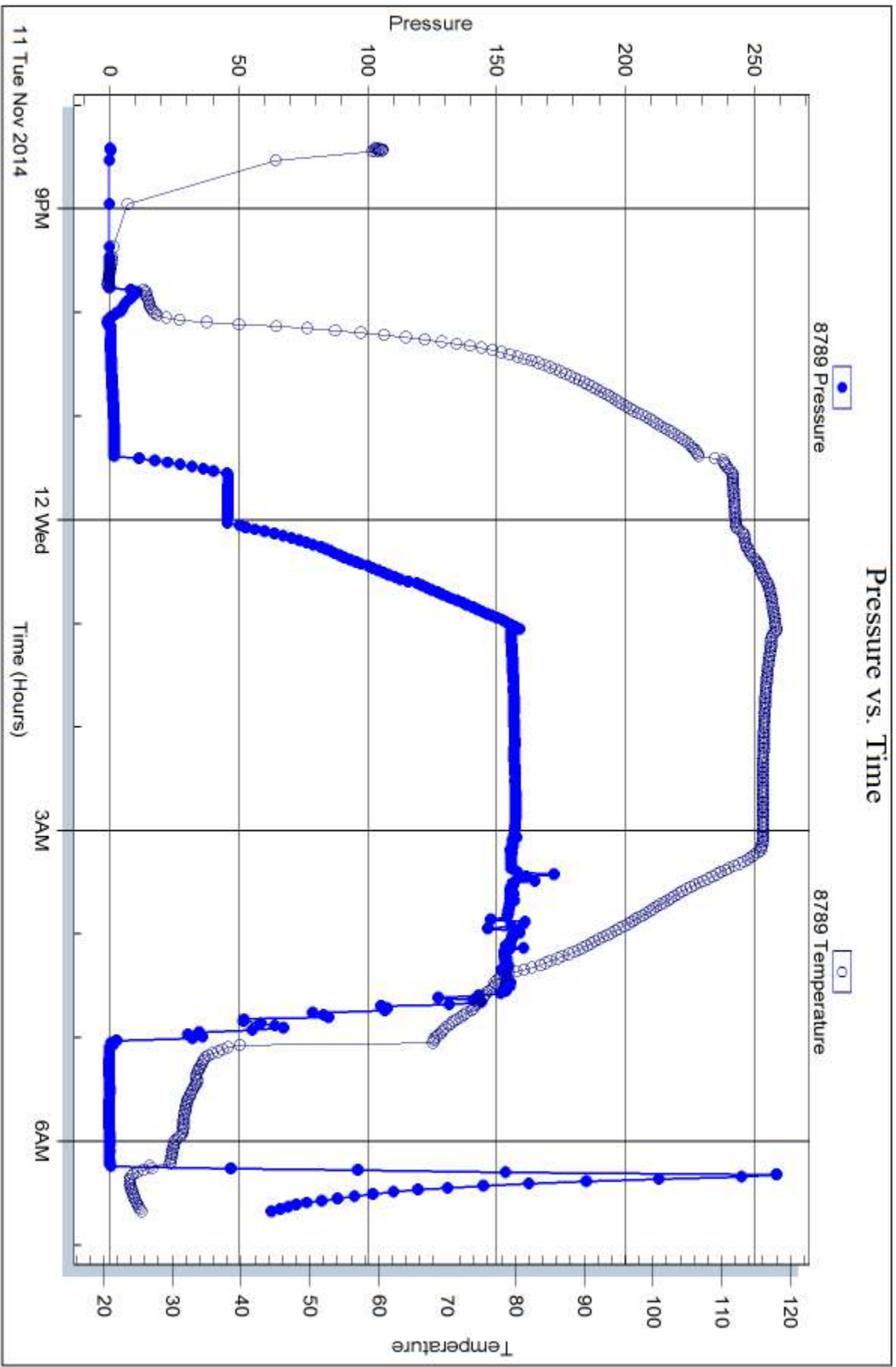
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Fluid

McElvain Energy, Inc.

Berens #13-13

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 60616

Printed: 2014.11.14 @ 09:46:29





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60977

4/10

Well Name & No. Bevens #13-13 Test No. 1 Date 11-6-14  
 Company McElvaih Energy, Inc. Elevation 2296 KB 2286 GL  
 Address 1050 17th St, STE 2500 Denver, CO 80205  
 Co. Rep / Geo. Jim McKinney Rig Val 6  
 Location: Sec. 13 Twp. 12S Rge. 21W Co. ~~KS~~ Trego State KS

Interval Tested 3330 - 3362 Zone Tested Topckg  
 Anchor Length 32' Drill Pipe Run 3331 Mud Wt. 8.7  
 Top Packer Depth 3325 Drill Collars Run 0 Vis 60  
 Bottom Packer Depth 3330 Wt. Pipe Run 0 WL 610  
 Total Depth 3362 Chlorides 1,200 ppm System LCM 3#

Blow Description IF - Built to 5", died to 3 1/2"  
ISI - No Return  
FF - Weak Surface Blow  
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>VSGCM, with oil spots</u>	<u>3</u>			<u>97</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60' BHT 104 Gravity \_\_\_\_\_ API RW @ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1585  Test 1150 T-On Location 20:58  
 (B) First Initial Flow 47  Bars 250 T-Started 00:03  
 (C) First Final Flow 50  Safety Joint 75 T-Open 05:06  
 (D) Initial Shut-In 961  Circ Sub \_\_\_\_\_ T-Pulled 07:16  
 (E) Second Initial Flow 49  Hourly Standby \_\_\_\_\_ T-Out 09:17  
 (F) Second Final Flow 96  Mileage 48 RT 74.40 Comments 8' of fill in hole. Tool slid 3'.  
 (G) Final Shut-In 918  Sampler 250  
 (H) Final Hydrostatic 1565  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 10  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder 200 Sub Total 0  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1999.40  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1999.40

Approved By \_\_\_\_\_ Our Representative Philp Hoag Thank You

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

## FLUID SAMPLER DATA

Ticket No. 60977 Date 11-6-14  
 Company Name McElvagh Energy, Inc.  
 Lease Bevens #13-13 Test No. 1  
 County Trego Sec. 13 Twp. 12S Rng. 21W

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil \_\_\_\_\_ ML  
 Mud 2000 ML  
 Water \_\_\_\_\_ ML  
 Other \_\_\_\_\_ ML  
 Pressure 150 ~~PSI~~ ~~ML~~  
 Total 2000 ML

### PIT MUD ANALYSIS

Chlorides 1,200 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 60  
 Mud Weight 8.7  
 Filtrate 6.0  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 Gravity \_\_\_\_\_ corrected @60F

### PIPE RECOVERY

~~TOP  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 MIDDLE  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 BOTTOM  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.~~





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60978

Well Name & No. Berens #13-13 Test No. 2 Date 11-8-14  
 Company McElvain Energy, Inc. Elevation 2296 KB 2286 GL  
 Address 1050 17th St, STE 2500 Denver, CO 80265  
 Co. Rep / Geo. Jim McKinney Rig Va66  
 Location: Sec. 13 Twp. 12s Rge. 21w Co. Trego State KS

Interval Tested 3581-3642 Zone Tested Lansing 'A-C'  
 Anchor Length 61' Drill Pipe Run 3579 Mud Wt. 9.1  
 Top Packer Depth 3576 Drill Collars Run 0 Vis 53  
 Bottom Packer Depth 3581 Wt. Pipe Run 0 WL 610  
 Total Depth 3642 Chlorides 3,000 ppm System LCM 2

Blow Description IF- Built to 4"  
FSE No Return  
FF- BOB in 54 mins  
FSE No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10'</u>	<u>MW</u>		<u>80</u>	<u>20</u>	
<u>126</u>	<u>SWCM</u>		<u>10</u>	<u>90</u>	
<u>0</u>	<u>GDP-63'</u>	<u>100</u>			

Rec Total 136' BHT 111 Gravity — API RW, 3 @ 51 °F Chlorides 35,000 ppm

(A) Initial Hydrostatic 1739  Test 1150 T-On Location 09:26  
 (B) First Initial Flow 31  Jars 250 T-Started 09:49  
 (C) First Final Flow 53  Safety Joint 75 T-Open 13:43  
 (D) Initial Shut-In 393  Circ Sub T-Pulled 17:23  
 (E) Second Initial Flow 54  Hourly Standby .75h 75 T-Out 19:40  
 (F) Second Final Flow 105  Mileage 48 RT 74.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 390  Sampler 250 \_\_\_\_\_  
 (H) Final Hydrostatic 1,806  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder 200 \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 10  
 Initial Shut-In 30  
 Final Flow 60  
 Final Shut-In 120

Sub Total 2074.40 MP/DST Disc't \_\_\_\_\_  
 Total 2074.40

Approved By \_\_\_\_\_ Our Representative Phil Gage Thank You!  
 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

## FLUID SAMPLER DATA

Ticket No. 60978 Date 11-8-14  
 Company Name McElveth Energy, Inc.  
 Lease Bevens #13-13 Test No. 2  
 County Trego Sec. 13 Twp. 12s Rng. 21w

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil \_\_\_\_\_ ML  
 Mud 500 ML  
 Water 1500 ML  
 Other \_\_\_\_\_ ML  
 Pressure 140 ~~PSI~~ ML  
 Total 2000 ML

### PIT MUD ANALYSIS

Chlorides 3,000 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 53  
 Mud Weight 9.1  
 Filtrate 60  
~~ML~~ Other 2#

### SAMPLER ANALYSIS

Resistivity 1.3 ohms @ 51 F  
 Chlorides 35,000 ppm.  
 Gravity \_\_\_\_\_ corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60979

Well Name & No. Berens #13-13 Test No. 3 Date 11-9-14  
 Company McElvagh Energy, Inc Elevation 2296 KB 2286 GL  
 Address 1050 17th St, STE 2500 Denver, CO 80265  
 Co. Rep / Geo. Jim McKinney Rig Val 6  
 Location: Sec. 13 Twp. 12S Rge. 21W Co. Trego State KS

Interval Tested 3740-3760 Zone Tested Lansing "I"  
 Anchor Length 20' Drill Pipe Run 3734 Mud Wt. 9.1  
 Top Packer Depth 3735 Drill Collars Run 0 Vis 56  
 Bottom Packer Depth 3740 Wt. Pipe Run 0 WL 610  
 Total Depth 3760 Chlorides 3,600 ppm System LCM 2#  
 Blow Description IF- Build to 4"  
ISI- No Return  
FF- BOB in 5mins  
FSI- Surface Blow at 7mins, died 8mins later

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>6TP-428'</u>	<u>100</u>			
<u>5'</u>	<u>0</u>		<u>100</u>		
<u>63'</u>	<u>USWOC/M</u>	<u>30</u>	<u>10</u>	<u>5</u>	<u>55</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 68' BHT 113 Gravity 39 API RW @ F Chlorides ppm  
 (A) Initial Hydrostatic 1,853  Test 1150 T-On Location 12:15  
 (B) First Initial Flow 22  Jars 250 T-Started 12:17  
 (C) First Final Flow 25  Safety Joint 75 T-Open 15:08  
 (D) Initial Shut-In 1,032  Circ Sub  T-Pulled 18:18  
 (E) Second Initial Flow 25  Hourly Standby  T-Out 20:26  
 (F) Second Final Flow 49  Mileage 48 RT 74.40 Comments   
 (G) Final Shut-In 1067  Sampler 250  
 (H) Final Hydrostatic 1368  Straddle   Ruined Shale Packer   
 Shale Packer   Ruined Packer   
 Extra Packer   Extra Copies   
 Extra Recorder 200 Sub Total 0  
 Day Standby  Total 1999.40  
 Accessibility  MP/DST Disc't   
 Sub Total 1999.40

Approved By \_\_\_\_\_ Our Representative Philp King Thank You.

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

## FLUID SAMPLER DATA

Ticket No. 60979 Date 11-9-14  
 Company Name McElvick Energy, Inc  
 Lease Revens #13-13 Test No. 3  
 County Trego Sec. 13 Twp. 12s Rng. 21w

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil 1800 ML  
 Mud 100 ML  
 Water 100 ML  
 Other \_\_\_\_\_ ML  
 Pressure 150 ~~PSF~~ ~~ML~~ CCM Other  
 Total 2000 ML

### PIT MUD ANALYSIS

Chlorides 3,600 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 56  
 Mud Weight 9.1  
 Filtrate 6.0  
2#

### SAMPLER ANALYSIS

Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 Gravity 39 corrected @60F

### PIPE RECOVERY

~~TOP  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 MIDDLE  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 BOTTOM  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.~~





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60615

Well Name & No. Berens # 13-13 Test No. 4 Date 11-10-14  
 Company McELVAIN Energy, Inc. Elevation 2296 KB 2286 GL  
 Address 1050 17th St. Ste 2500 Denver CO, 80265  
 Co. Rep / Geo. Rodrey Donzales Rig VAL #6  
 Location: Sec. 13 Twp. 12<sup>s</sup> Rge. 21<sup>w</sup> Co. Trego State KS

Interval Tested 3895 - 3914 Zone Tested Pawnee  
 Anchor Length 19 Drill Pipe Run 3889 Mud Wt. 9.2  
 Top Packer Depth 3890 Drill Collars Run 0 Vis 54  
 Bottom Packer Depth 3895 Wt. Pipe Run 0 WL 6.4  
 Total Depth 3914 Chlorides 3600 ppm System LCM 2

Blow Description IIFP- BOB in 10 min.  
ISIP- No Blow  
FFP- BOB in 13 min.  
FSIP- No Blow

Rec	Feet of	show of Oil	%gas	%oil	%water	%mud
<u>242</u>	<u>mcw</u>	<u>show of Oil</u>		<u>90</u>	<u>10</u>	
<u>188</u>	<u>AMWCO</u>	<u>5</u>	<u>40</u>	<u>30</u>	<u>25</u>	
<u>78</u>	<u>CO</u>		<u>100</u>			

Rec Total 508 BHT 121 Gravity 35 API RW .375 @ 27 ° F Chlorides 52000 ppm

(A) Initial Hydrostatic <u>1962</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>14:25</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>16:07</u>
(C) First Final Flow <u>67</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>19:03</u>
(D) Initial Shut-In <u>1105</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>22:43</u>
(E) Second Initial Flow <u>74</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>02:52</u>
(F) Second Final Flow <u>238</u>	<input checked="" type="checkbox"/> Mileage <u>74.40</u>	Comments
(G) Final Shut-In <u>959</u>	<input checked="" type="checkbox"/> Sampler <u>250</u>	
(H) Final Hydrostatic <u>1947</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open <u>10</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder <u>200</u>	Sub Total <u>0</u>
Final Shut-In <u>120</u>	<input type="checkbox"/> Day Standby	Total <u>1999.40</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1999.40</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 60615 Date 11-10-14  
 Company Name McElvain Energy, Inc.  
 Lease Berens #13-13 Test No. 4  
 County Trego Sec. 13 Twp. 12<sup>s</sup> Rng. 21<sup>w</sup>

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil 5 ML  
 Mud \_\_\_\_\_ ML  
 Water 495 ML  
 Other \_\_\_\_\_ ML  
 Pressure 50 psi ~~ML~~  
 Total 500 ML

### PIT MUD ANALYSIS

Chlorides 3600 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 54  
 Mud Weight 9.2  
 Filtrate 6.4  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

Resistivity 1,400 ohms @ 29 F  
 Chlorides 45000 ppm.  
 Gravity \_\_\_\_\_ corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity 375 ohms @ 27 F  
 Chlorides 52000 ppm.  
**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 60616

Well Name & No. Berens #13-13 Test No. 5 Date 11-11-14  
 Company McElvain Energy, Inc. Elevation 2296 KB 2286 GL  
 Address 1050 17th St, Ste 2500 Denver CO 80265  
 Co. Rep / Geo. Rodney Gonzales Rig VAI #6  
 Location: Sec. 13 Twp. 12<sup>s</sup> Rge. 21<sup>w</sup> Co. Trego State KS

Interval Tested 3980-4010 Zone Tested Arbuckle  
 Anchor Length 30 Drill Pipe Run 3953 Mud Wt. 9.1  
 Top Packer Depth 3975 Drill Collars Run 0 Vis 54  
 Bottom Packer Depth 3980 Wt. Pipe Run 0 WL 6.0  
 Total Depth 4010 Chlorides 3500 ppm System LCM 2

Blow Description IFP - BOB in 8min.  
ISIP - Surface Blow.  
FFP - BOB in 10min.  
FSIP - Surface Blow in 1min. Died in 10min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>omcw</u>	<u>15</u>	<u>55</u>	<u>30</u>	
<u>216</u>	<u>AWMCO</u>	<u>10</u>	<u>55</u>	<u>10</u>	<u>25</u>
<u>135</u>	<u>CO</u>	<u>100</u>			

Rec Total 386 BHT 120 Gravity 34 API RW .632 @ 32 °F Chlorides 23500 ppm

(A) Initial Hydrostatic <u>2036</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>19:20</u>
(B) First Initial Flow <u>45</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>20:25</u>
(C) First Final Flow <u>73</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>23:23</u>
(D) Initial Shut-In <u>1169</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>03:03</u>
(E) Second Initial Flow <u>73</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>06:41</u>
(F) Second Final Flow <u>179</u>	<input checked="" type="checkbox"/> Mileage <u>74.40</u>	Comments
(G) Final Shut-In <u>1096</u>	<input checked="" type="checkbox"/> Sampler <u>250</u>	
(H) Final Hydrostatic <u>1800</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open <u>10</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input checked="" type="checkbox"/> Extra Recorder <u>200</u>	Sub Total <u>0</u>
Final Shut-In <u>120</u>	<input type="checkbox"/> Day Standby	Total <u>2099.40</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>2099.40</u>	

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 60616 Date 11-11-14  
 Company Name McELVAIN Energy, Inc.  
 Lease Perens # 13-13 Test No. 5  
 County Trego Sec. 13 Twp. 12<sup>s</sup> Rng. 21<sup>w</sup>

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil 1100 ML  
 Mud \_\_\_\_\_ ML  
 Water \_\_\_\_\_ ML  
 Other \_\_\_\_\_ ML  
 Pressure 80 psi  
 Total 1100 ML

### PIT MUD ANALYSIS

Chlorides 3500 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 54  
 Mud Weight 9.1  
 Filtrate 6.0  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 Gravity 34 corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.