



DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co Inc**

1700 N Waterfront Pkwy
Bldg 1200
Wichita Ks 67206

ATTN: Mark Shreve

Sargent #1-15

15-17s-23w Ness,KS

Start Date: 2013.01.15 @ 03:20:24

End Date: 2013.01.15 @ 10:00:54

Job Ticket #: 50518 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 08:46:32



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mull Drilling Co Inc
1700 N Waterfront Pkw y
Bldg 1200
Wichita Ks 67206
ATTN: Mark Shreve

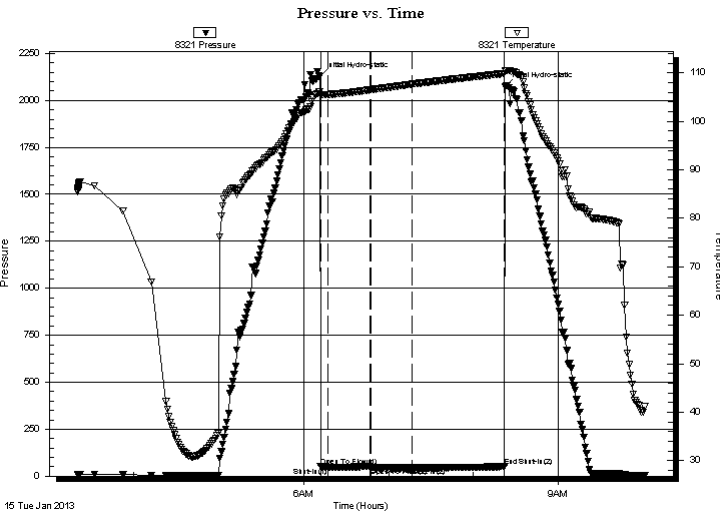
15-17s-23w Ness,KS
Sargent #1-15
Job Ticket: 50518 **DST#: 1**
Test Start: 2013.01.15 @ 03:20:24

GENERAL INFORMATION:

Formation: **Ft Scott**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:11:54
Time Test Ended: 10:00:54
Interval: **4310.00 ft (KB) To 4370.00 ft (KB) (TVD)**
Total Depth: 4370.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Jeff Brown
Unit No: 44
Reference Elevations: 2444.00 ft (KB)
2439.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8321 Inside
Press @ Run Depth: 44.16 psig @ 4347.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.01.15 End Date: 2013.01.15 Last Calib.: 2013.01.15
Start Time: 03:20:25 End Time: 10:00:54 Time On Btm: 2013.01.15 @ 06:11:24
Time Off Btm: 2013.01.15 @ 08:22:24

TEST COMMENT: IFP-Weak surface blow built to 1/8"
ISI-Dead no blow back
FFP-Surged then dead
FSI-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2126.49	106.07	Initial Hydro-static
1	52.82	105.34	Open To Flow (1)
6	47.49	105.54	Shut-In(1)
36	52.47	106.49	End Shut-In(1)
36	48.10	106.51	Open To Flow (2)
66	44.16	107.67	Shut-In(2)
131	50.69	109.86	End Shut-In(2)
131	2072.04	110.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud w ith oil spots	0.01

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co Inc
1700 N Waterfront Pkwy
Bldg 1200
Wichita Ks 67206
ATTN: Mark Shreve

15-17s-23w Ness,KS
Sargent #1-15
Job Ticket: 50518 **DST#: 1**
Test Start: 2013.01.15 @ 03:20:24

Tool Information

Drill Pipe:	Length: 4172.00 ft	Diameter: 3.80 inches	Volume: 58.52 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 75000.00 lb
		Total Volume: 59.11 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4310.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	88.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4283.00	
Shut In Tool	5.00			4288.00	
Hydraulic tool	5.00			4293.00	
Jars	5.00			4298.00	
Safety Joint	3.00			4301.00	
Packer	4.00			4305.00	28.00 Bottom Of Top Packer
Packer	5.00			4310.00	
Stubb	1.00			4311.00	
Perforations	3.00			4314.00	
Change Over Sub	1.00			4315.00	
Drill Pipe	31.00			4346.00	
Change Over Sub	1.00			4347.00	
Recorder	0.00	8321	Inside	4347.00	
Recorder	0.00	8737	Outside	4347.00	
Perforations	20.00			4367.00	
Bullnose	3.00			4370.00	60.00 Bottom Packers & Anchor
Total Tool Length:	88.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co Inc

15-17s-23w Ness,KS

1700 N Waterfront Pkw y
Bldg 1200
Wichita Ks 67206
ATTN: Mark Shreve

Sargent #1-15

Job Ticket: 50518

DST#: 1

Test Start: 2013.01.15 @ 03:20:24

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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud w ith oil spots	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8321

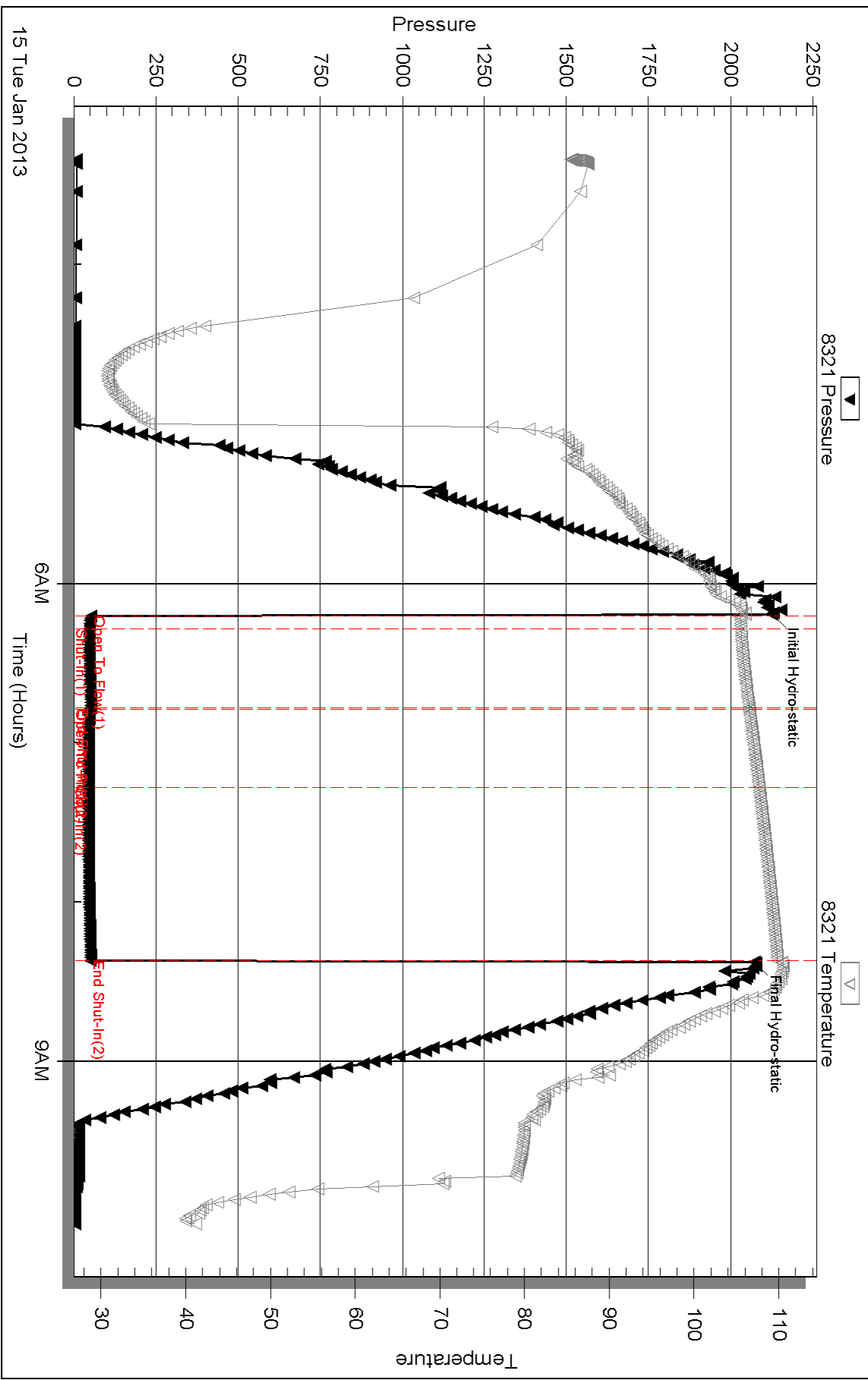
Inside

Mull Drilling Co Inc

Sargent #1-15

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50518

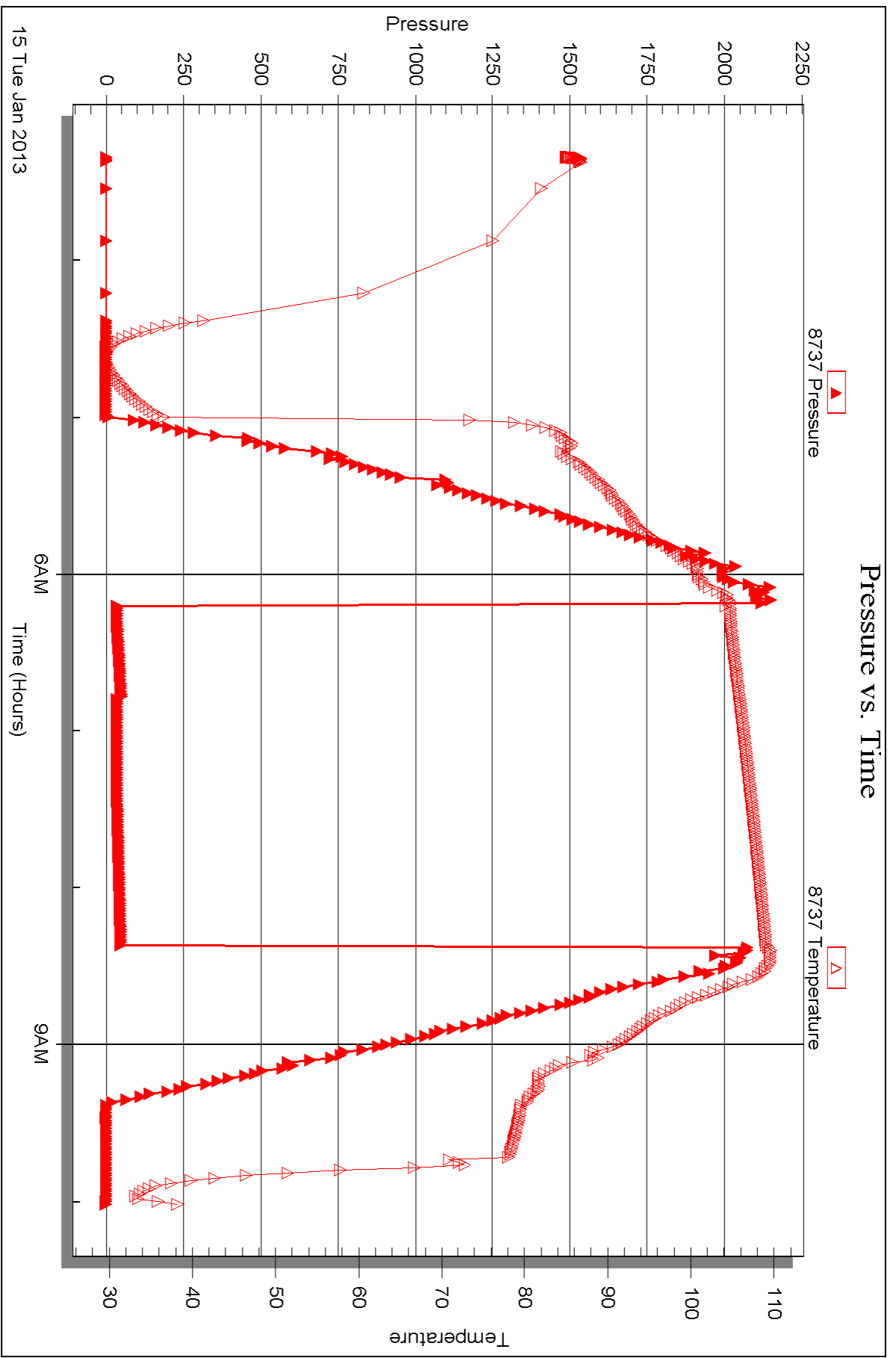
Printed: 2013.01.21 @ 08:46:35

Serial #: 8737

Outside Mull Drilling Co Inc

Sargent #1-15

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 50518

Printed: 2013.01.21 @ 08:46:36



DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co Inc**

1700 N Waterfront Pkwy
Bldg 1200
Wichita Ks 67206

ATTN: Mark Shreve

Sargent #1-15

15-17s-23w Ness,KS

Start Date: 2013.01.15 @ 20:09:11

End Date: 2013.01.16 @ 03:54:41

Job Ticket #: 50519 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 08:45:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mull Drilling Co Inc
 1700 N Waterfront Pkw y
 Bldg 1200
 Wichita Ks 67206
 ATTN: Mark Shreve

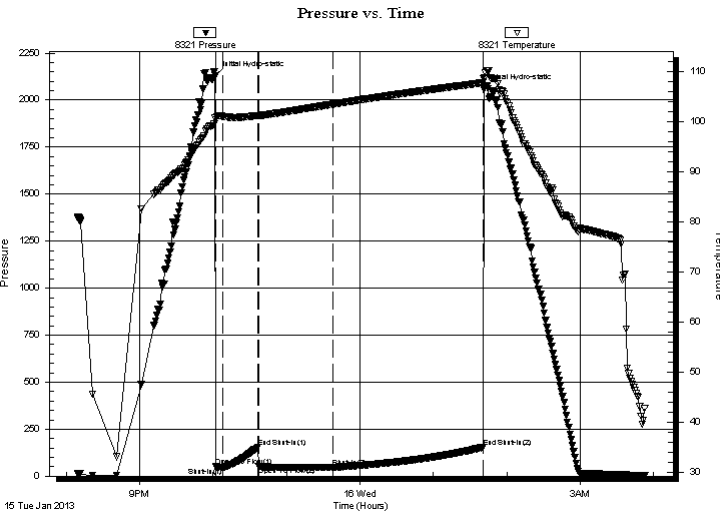
15-17s-23w Ness, KS
Sargent #1-15
 Job Ticket: 50519 **DST#: 2**
 Test Start: 2013.01.15 @ 20:09:11

GENERAL INFORMATION:

Formation: **Cherokee Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:02:11
 Time Test Ended: 03:54:41
 Interval: **4360.00 ft (KB) To 4430.00 ft (KB) (TVD)**
 Total Depth: 4430.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 2444.00 ft (KB)
 2439.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8321 Inside
 Press @ Run Depth: 47.45 psig @ 4398.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.15 End Date: 2013.01.16 Last Calib.: 2013.01.16
 Start Time: 20:09:12 End Time: 03:52:41 Time On Btm: 2013.01.15 @ 22:01:41
 Time Off Btm: 2013.01.16 @ 01:41:11

TEST COMMENT: IFP-Weak blow built to 1"
 ISI-Weak surface blow back
 FFP-Weak Surface blow built to 1/4"
 FSI-Weak surface blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2130.50	100.90	Initial Hydro-static
1	52.90	100.50	Open To Flow (1)
6	47.36	101.11	Shut-In(1)
35	152.30	101.28	End Shut-In(1)
36	52.72	101.26	Open To Flow (2)
97	47.45	103.54	Shut-In(2)
219	153.90	107.81	End Shut-In(2)
220	2059.31	108.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud w ith oil spots	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co Inc
1700 N Waterfront Pkwy
Bldg 1200
Wichita Ks 67206
ATTN: Mark Shreve

15-17s-23w Ness,KS
Sargent #1-15
Job Ticket: 50519 **DST#: 2**
Test Start: 2013.01.15 @ 20:09:11

Tool Information

Drill Pipe:	Length: 4235.00 ft	Diameter: 3.80 inches	Volume: 59.41 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 76000.00 lb
		Total Volume: 60.00 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4360.00 ft			Final 63000.00 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

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			4333.00	
Shut In Tool	5.00			4338.00	
Hydraulic tool	5.00			4343.00	
Jars	5.00			4348.00	
Safety Joint	3.00			4351.00	
Packer	4.00			4355.00	28.00 Bottom Of Top Packer
Packer	5.00			4360.00	
Stubb	1.00			4361.00	
Perforations	4.00			4365.00	
Change Over Sub	1.00			4366.00	
Drill Pipe	31.00			4397.00	
Change Over Sub	1.00			4398.00	
Recorder	0.00	8321	Inside	4398.00	
Recorder	0.00	8737	Outside	4398.00	
Perforations	29.00			4427.00	
Bullnose	3.00			4430.00	70.00 Bottom Packers & Anchor
Total Tool Length:	98.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co Inc

15-17s-23w Ness,KS

1700 N Waterfront Pkw y
Bldg 1200
Wichita Ks 67206
ATTN: Mark Shreve

Sargent #1-15

Job Ticket: 50519

DST#: 2

Test Start: 2013.01.15 @ 20:09:11

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud w ith oil spots	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8321

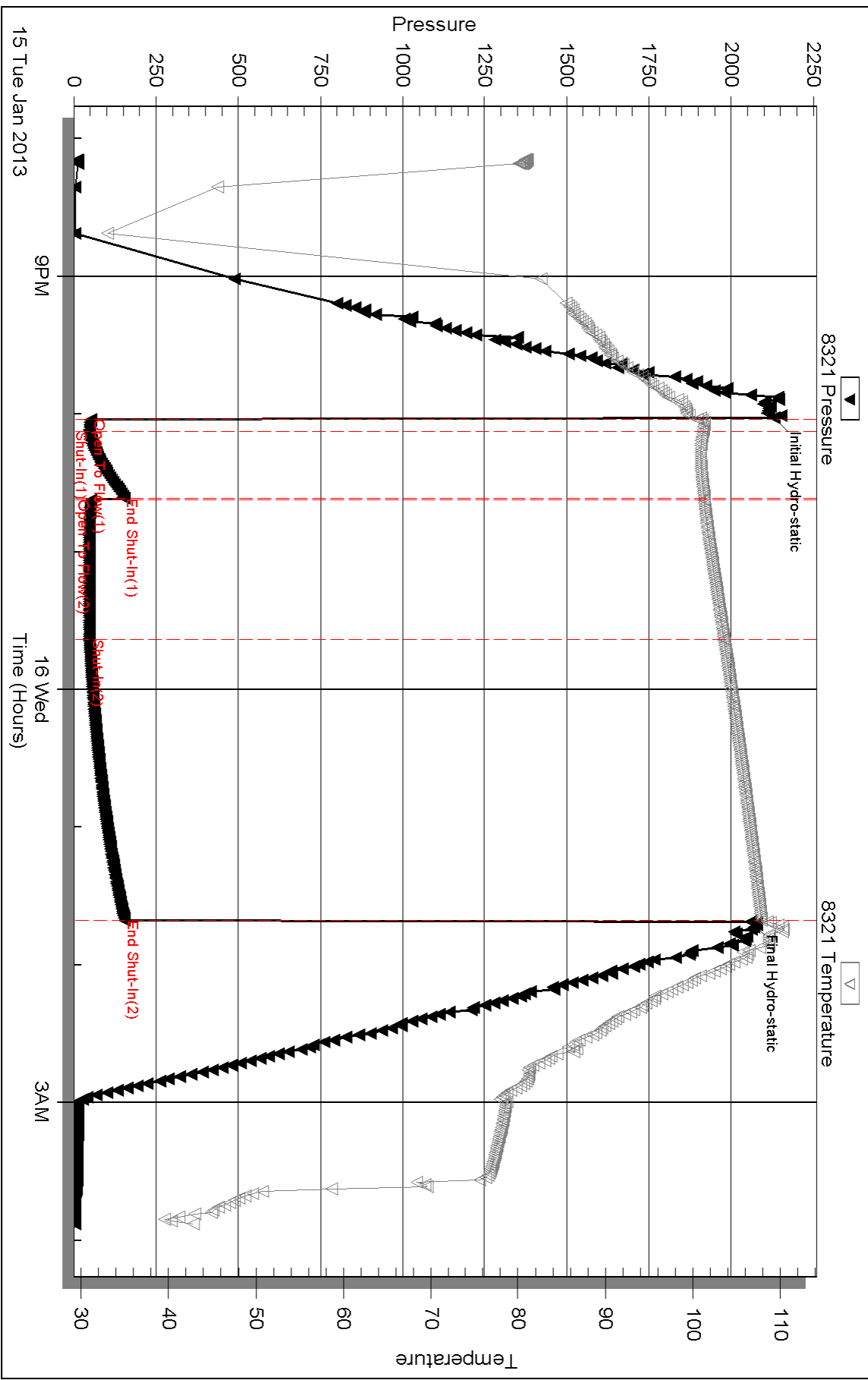
Inside

Mull Drilling Co Inc

Sargent #1-15

DST Test Number: 2

Pressure vs. Time

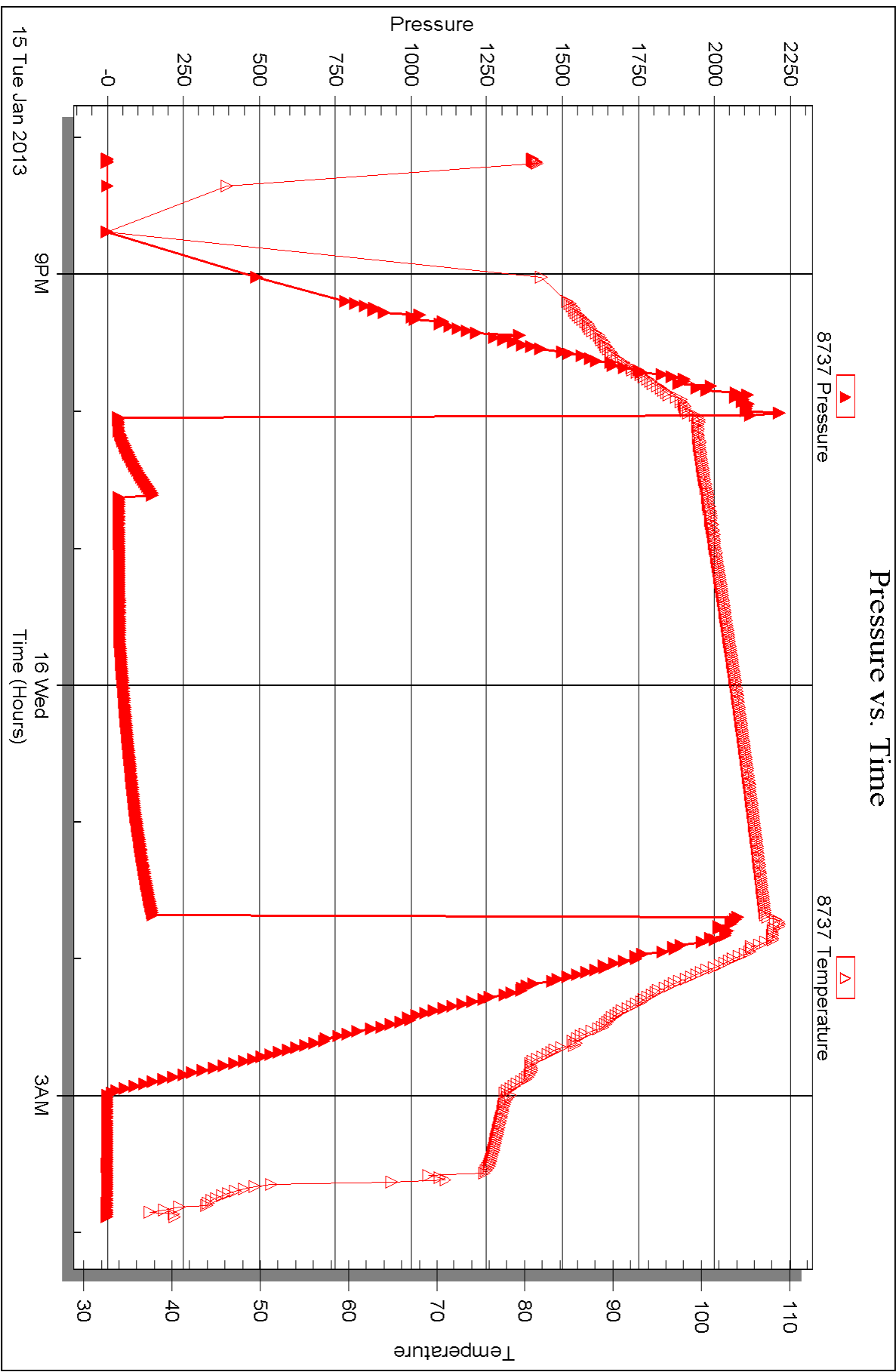


Serial #: 8737

Outside Mull Drilling Co Inc

Sargent #1-15

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co Inc**

1700 N Waterfront Pkwy
Bldg 1200
Wichita Ks 67206

ATTN: Mark Shreve

Sargent #1-15

15-17s-23w Ness,KS

Start Date: 2013.01.16 @ 10:15:47

End Date: 2013.01.16 @ 17:45:47

Job Ticket #: 50520 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.01.21 @ 08:45:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mull Drilling Co Inc
 1700 N Waterfront Pkw y
 Bldg 1200
 Wichita Ks 67206
 ATTN: Mark Shreve

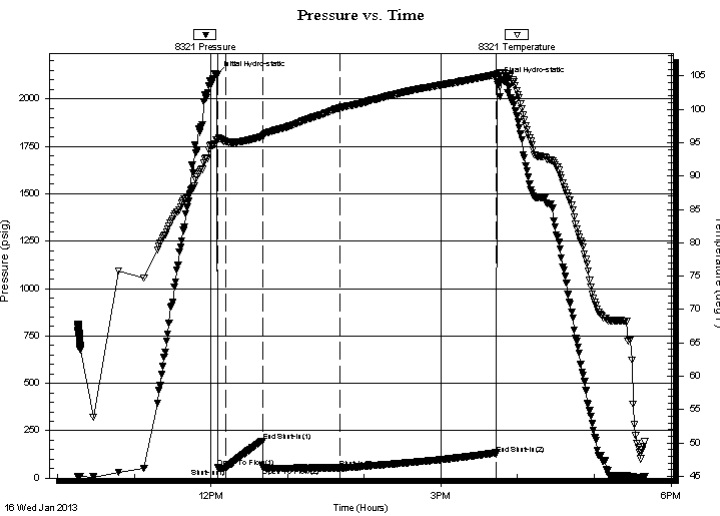
15-17s-23w Ness, KS
Sargent #1-15
 Job Ticket: 50520 **DST#: 3**
 Test Start: 2013.01.16 @ 10:15:47

GENERAL INFORMATION:

Formation: **Cherokee Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:05:17
 Time Test Ended: 17:45:47
 Interval: **4365.00 ft (KB) To 4440.00 ft (KB) (TVD)**
 Total Depth: 4440.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 2444.00 ft (KB)
 2439.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8321 Inside
 Press @ Run Depth: 53.63 psig @ 4404.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.16 End Date: 2013.01.16 Last Calib.: 2013.01.16
 Start Time: 10:15:48 End Time: 17:39:47 Time On Btm: 2013.01.16 @ 12:04:47
 Time Off Btm: 2013.01.16 @ 15:43:47

TEST COMMENT: IFP-Weak blow built to 1"
 ISI-Dead no blow back
 FFP-Weak surface blow built to 1/2"
 FSI-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2125.00	95.46	Initial Hydro-static
1	56.94	95.40	Open To Flow (1)
7	52.94	95.17	Shut-In(1)
36	195.96	95.93	End Shut-In(1)
36	57.35	95.94	Open To Flow (2)
96	53.63	100.21	Shut-In(2)
219	128.12	105.19	End Shut-In(2)
219	2090.48	105.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud w with a scum of oil	0.07

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mull Drilling Co Inc
 1700 N Waterfront Pkwy
 Bldg 1200
 Wichita Ks 67206
 ATTN: Mark Shreve

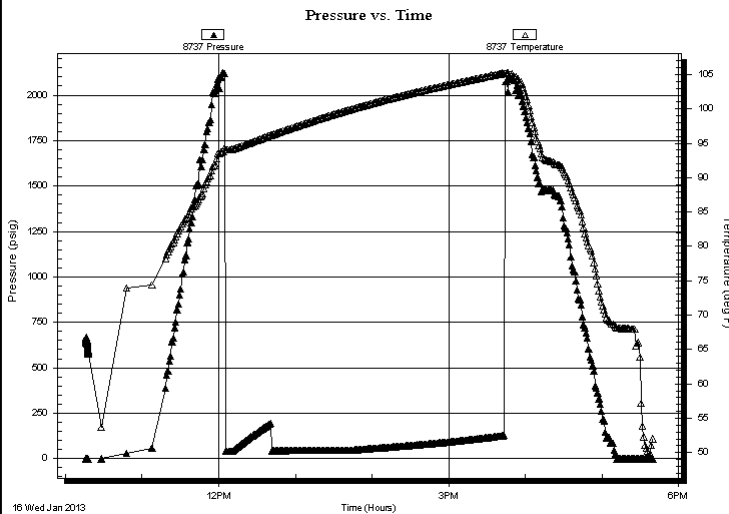
15-17s-23w Ness,KS
Sargent #1-15
 Job Ticket: 50520 **DST#: 3**
 Test Start: 2013.01.16 @ 10:15:47

GENERAL INFORMATION:

Formation: **Cherokee Sand**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 12:05:17
 Tester: Jeff Brown
 Time Test Ended: 17:45:47
 Unit No: 44
 Interval: **4365.00 ft (KB) To 4440.00 ft (KB) (TVD)**
 Reference Elevations: 2444.00 ft (KB)
 Total Depth: 4440.00 ft (KB) (TVD)
 2439.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 5.00 ft

Serial #: 8737 Outside
 Press @ Run Depth: psig @ 4404.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.16 End Date: 2013.01.16 Last Calib.: 2013.01.16
 Start Time: 10:15:59 End Time: 17:39:58 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Weak blow built to 1"
 ISI-Dead no blow back
 FFP-Weak surface blow built to 1/2"
 FSI-Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud w ith a scum of oil	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co Inc
1700 N Waterfront Pkwy
Bldg 1200
Wichita Ks 67206
ATTN: Mark Shreve

15-17s-23w Ness,KS
Sargent #1-15
Job Ticket: 50520 **DST#: 3**
Test Start: 2013.01.16 @ 10:15:47

Tool Information

Drill Pipe:	Length: 4235.00 ft	Diameter: 3.80 inches	Volume: 59.41 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume: 60.00 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4365.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	103.00 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	1.00			4338.00	
Shut In Tool	5.00			4343.00	
Hydraulic tool	5.00			4348.00	
Jars	5.00			4353.00	
Safety Joint	3.00			4356.00	
Packer	4.00			4360.00	28.00 Bottom Of Top Packer
Packer	5.00			4365.00	
Stubb	1.00			4366.00	
Perforations	5.00			4371.00	
Change Over Sub	1.00			4372.00	
Drill Pipe	31.00			4403.00	
Change Over Sub	1.00			4404.00	
Recorder	0.00	8321	Inside	4404.00	
Recorder	0.00	8737	Outside	4404.00	
Perforations	33.00			4437.00	
Bullnose	3.00			4440.00	75.00 Bottom Packers & Anchor
Total Tool Length:		103.00			



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co Inc

15-17s-23w Ness,KS

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Wichita Ks 67206
ATTN: Mark Shreve

Sargent #1-15

Job Ticket: 50520

DST#: 3

Test Start: 2013.01.16 @ 10:15:47

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: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud with a scum of oil	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8321

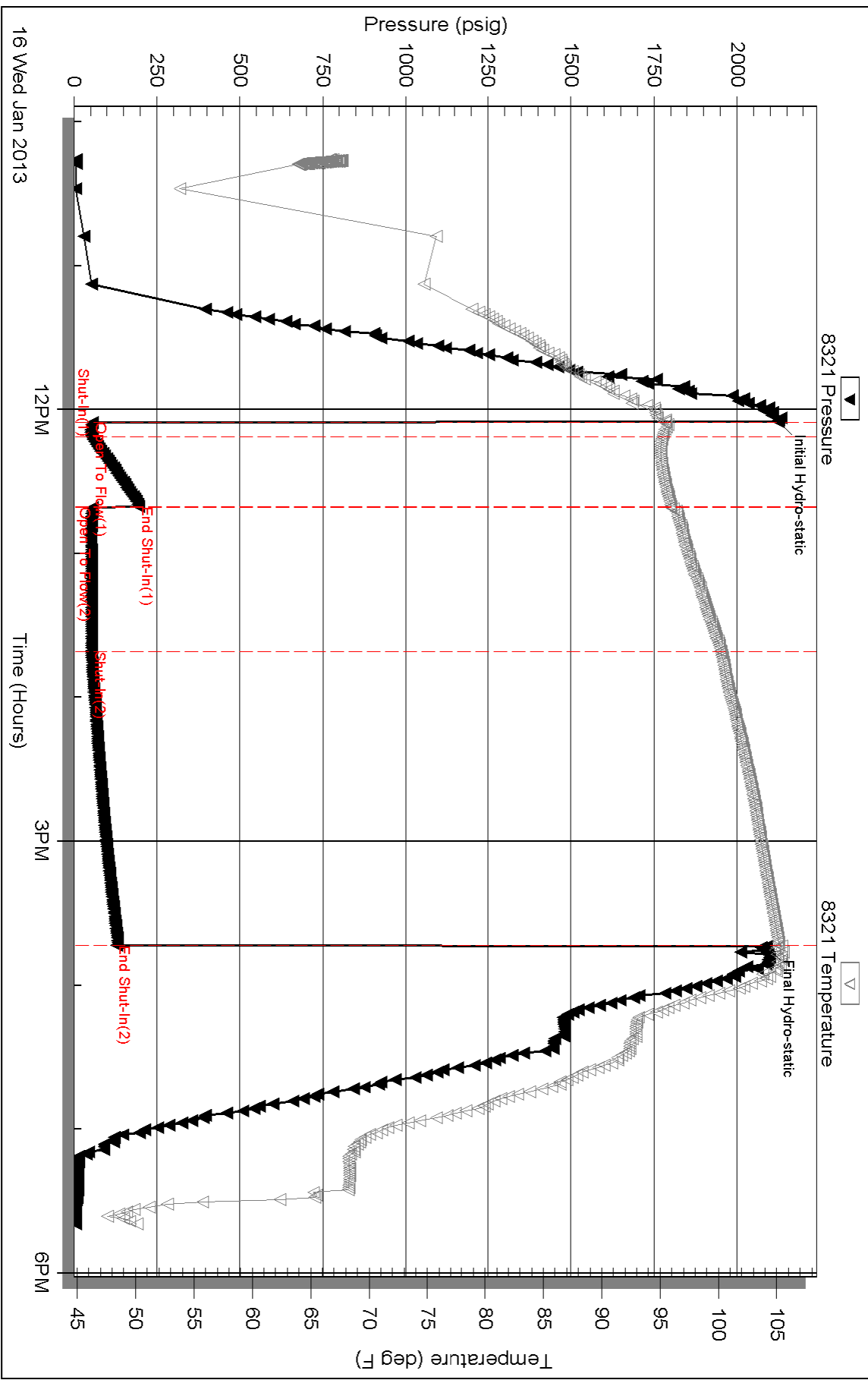
Inside

Mull Drilling Co Inc

Sargent #1-15

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50520

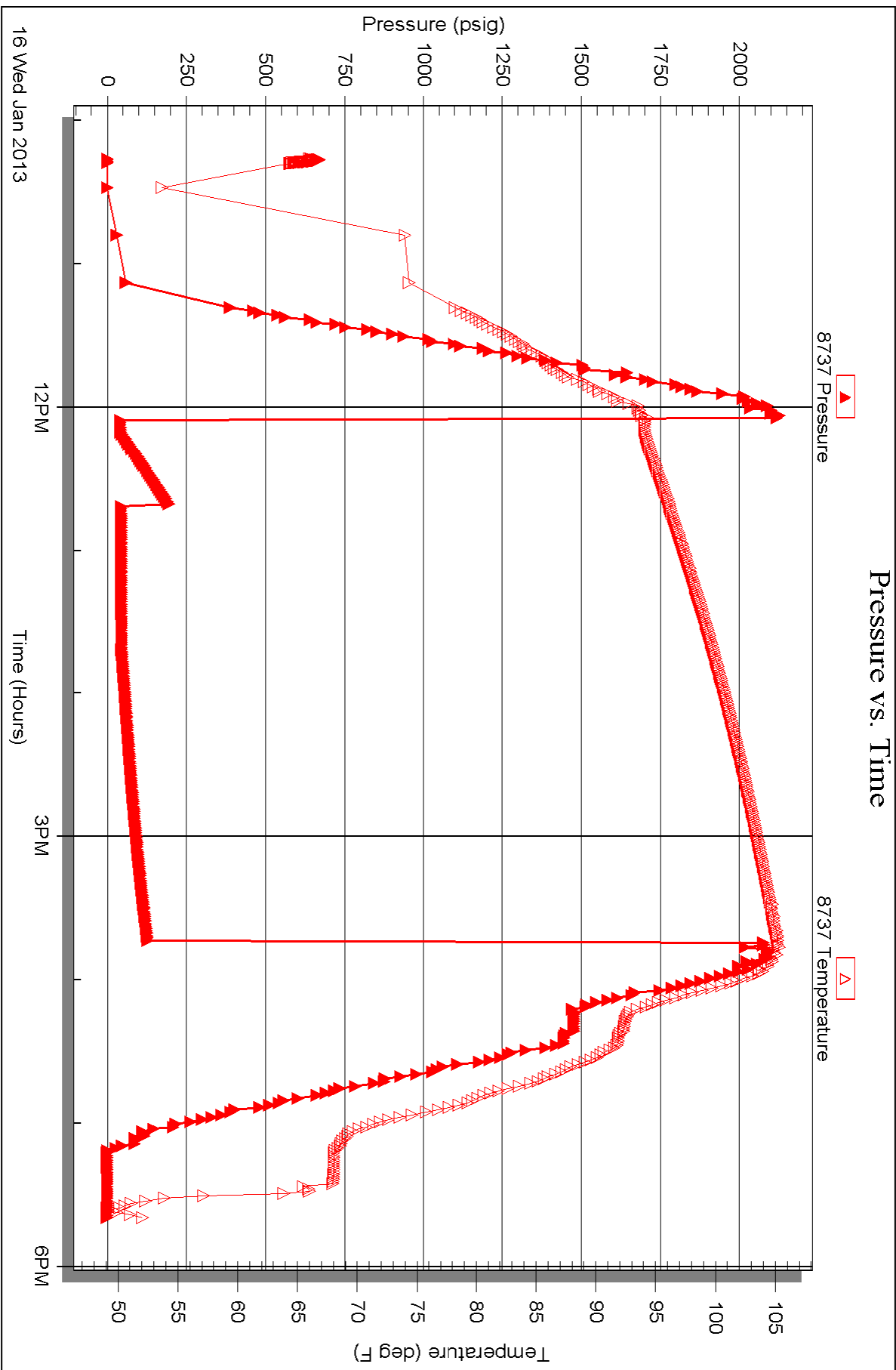
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Serial #: 8737

Outside Mull Drilling Co Inc

Sargent #1-15

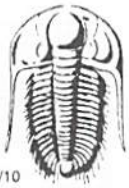
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 50520

Printed: 2013.01.21 @ 08:45:14



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **50518**

Well Name & No. SARGENT 1-15 Test No. 1 Date 1-15-13
 Company Mull Drilling Company INC Elevation 2444 KB 2439 GL
 Address 1700 N WATERFRONT PKWY BLDG 1200 WICHITA KS 67206 + 26637
 Co. Rep / Geo. Kevin Kessler Rig WW #10
 Location: Sec. 15 Twp. 17 S Rge. 23 W Co. Ness State KS

Interval Tested 4310-4370 Zone Tested Ft SCOTT
 Anchor Length 60 Drill Pipe Run 4172 Mud Wt. 9.1
 Top Packer Depth 4305 Drill Collars Run 120 Vis 46
 Bottom Packer Depth 4310 Wt. Pipe Run 0 WL 8.8
 Total Depth 4370 Chlorides 7200 ppm System LCM 1

Blow Description JH-Weak Surface Blow Built To 1/8 IN
1st-Dead No Blow Back
FP-Surged Then Dead
FSI-Dead NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud with oil spots</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 3 BHT 110 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>21 26</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>1:28</u>
(B) First Initial Flow <u>53</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>3:20</u>
(C) First Final Flow <u>47</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>6:12</u>
(D) Initial Shut-In <u>52</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>8:12</u>
(E) Second Initial Flow <u>48</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:00</u>
(F) Second Final Flow <u>44</u>	<input checked="" type="checkbox"/> Mileage <u>69x2</u> 213.90	Comments _____
(G) Final Shut-In <u>51</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>20 72</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer _____

Initial Open 5
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 60

Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Sub Total 1788.90

Sub Total 1788.90

Approved By _____ Our Representative Jeff Brown

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. 50519

Well Name & No. Sargent 1-15 Test No. 2 Date 1-15-13
 Company Mull Drilling Company INC Elevation 2444 KB 2439 GL
 Address 1700 N Waterfront Pkwy Bldg 1200 Wichita KS 67206
 Co. Rep / Geo. Kevin Kessler Rig WW #10
 Location: Sec. 15 Twp. 17S Rge. 23 W Co. Ness State KS

Interval Tested 4360-4430 Zone Tested Sherokee Sand
 Anchor Length 70 Drill Pipe Run 4235 Mud Wt. 9.2
 Top Packer Depth 4355 Drill Collars Run 120 Vis 47
 Bottom Packer Depth 4360 Wt. Pipe Run 0 WL 7.2
 Total Depth 4430 Chlorides 7000 ppm System LCM 1

Blow Description 1st-Weak Blow Built To 1 IN
2nd-Weak Surface Blow Back
3rd-Weak Surface Blow Built To 1/4 IN
4th-Weak Surface Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud with oil spots</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 10 BHT 108 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2131 Test 1250 T-On Location 19:00
 (B) First Initial Flow 53 Jars 250 T-Started 20:09
 (C) First Final Flow 47 Safety Joint 75 T-Open 22:03
 (D) Initial Shut-In 152 Circ Sub T-Pulled 1:38
 (E) Second Initial Flow 53 Hourly Standby T-Out 3:54
 (F) Second Final Flow 47 Mileage 213.90 Comments _____
 (G) Final Shut-In 154 Sampler _____
 (H) Final Hydrostatic 2059 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1788.90
 Accessibility _____ MP/DST Disc't _____

Initial Open 5
 Initial Shut-In 30
 Final Flow 60
 Final Shut-In 120
 Sub Total 1788.90

Approved By _____ Our Representative Jeff Brown

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50520

Well Name & No. SARGENT 1-15 Test No. 3 Date 1-16-13
 Company Mull Drilling Company INC Elevation 2444 KB 2439 GL
 Address 1700 N Waterfront Pkwy Bldg 1200 Wichita KS 67206
 Co. Rep / Geo. Kevin Kessler Rig WW #10
 Location: Sec. 15 Twp. 17S Rge. 23 W Co. Ness State KS

Interval Tested 4365-4440 Zone Tested Cherokee Sand
 Anchor Length 75 Drill Pipe Run 4235 Mud Wt. 9.0
 Top Packer Depth 4360 Drill Collars Run 120 Vis 50
 Bottom Packer Depth 4365 Wt. Pipe Run 0 WL 7.2
 Total Depth 4440 Chlorides 4600 ppm System LCM TR

Blow Description JFP-Weak Blow Built To 1 IN
1ST-Dead No Blow Back
JFP-Weak Surface Blow Built To 1/2 IN
1ST-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud with a scum of oil</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 105
 (A) Initial Hydrostatic 2125
 (B) First Initial Flow 57
 (C) First Final Flow 53
 (D) Initial Shut-In 196
 (E) Second Initial Flow 57
 (F) Second Final Flow 54
 (G) Final Shut-In 128
 (H) Final Hydrostatic 2091

Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm
 Test 1250
 Jars 250
 Safety Joint 75
 Circ Sub _____
 Hourly Standby _____
 Mileage 427.80
 Sampler _____
 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 2002.80

T-On Location 9:08
 T-Started 10:15
 T-Open 12:06
 T-Pulled 15:41
 T-Out 17:45
 Comments Loaded Tool's
@ 23:42 on 1-16-13
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 2002.80
 MP/DST Disc't _____

Initial Open 5
 Initial Shut-In 30
 Final Flow 60
 Final Shut-In 120

Approved By _____ Our Representative Jeff Brown

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