



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 672020

ATTN: Rocky Milford

Walter 'A' #2-1

1-1s-36w Rawlins,KS

Start Date: 2015.11.08 @ 21:25:00

End Date: 2015.11.09 @ 04:36:00

Job Ticket #: 62856 DST #: 1

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

Printed: 2015.11.13 @ 16:14:21



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 672020
ATTN: Rocky Milford

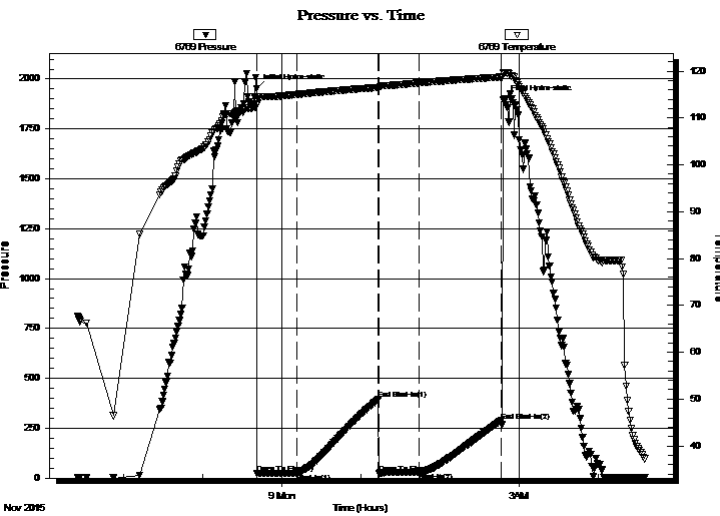
1-1s-36w Rawlins,KS
Walter 'A' #2-1
Job Ticket: 62856 **DST#: 1**
Test Start: 2015.11.08 @ 21:25:00

GENERAL INFORMATION:

Formation: **Stotler**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:41:15
Time Test Ended: 04:36:00
Interval: **3842.00 ft (KB) To 3982.00 ft (KB) (TVD)**
Total Depth: 3982.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 83
Reference Elevations: 3273.00 ft (KB)
3262.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6769 Inside
Press@RunDepth: 28.03 psig @ 3843.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.08 End Date: 2015.11.09 Last Calib.: 2015.11.09
Start Time: 21:25:05 End Time: 04:35:59 Time On Btm: 2015.11.08 @ 23:41:00
Time Off Btm: 2015.11.09 @ 02:48:30

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 3/4", died back to weak surface blow
60 - ISI: No blow back
30 - FF: No blow
60 - FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1952.23	112.83	Initial Hydro-static
1	22.60	113.05	Open To Flow (1)
31	25.62	115.04	Shut-In(1)
93	395.57	116.53	End Shut-In(1)
93	25.49	116.44	Open To Flow (2)
124	28.03	117.49	Shut-In(2)
186	287.55	118.74	End Shut-In(2)
188	1899.46	119.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.02

Gas Rates

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



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TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 672020
ATTN: Rocky Milford

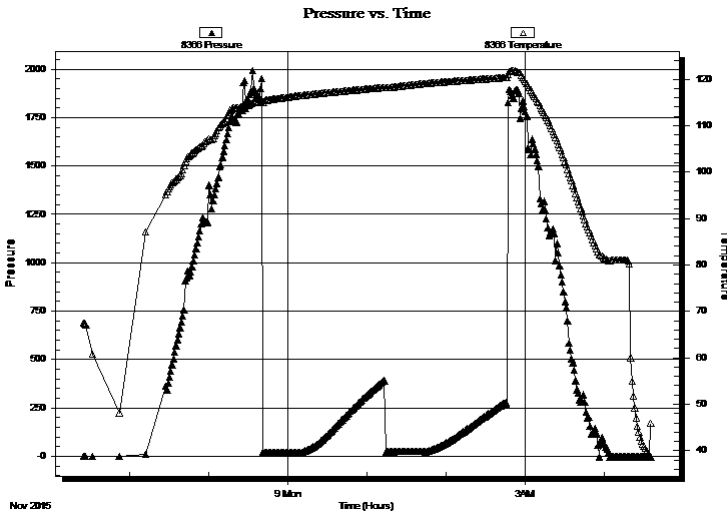
1-1s-36w Rawlins,KS
Walter 'A' #2-1
Job Ticket: 62856 **DST#: 1**
Test Start: 2015.11.08 @ 21:25:00

GENERAL INFORMATION:

Formation: **Stotler**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:41:15
Time Test Ended: 04:36:00
Interval: **3842.00 ft (KB) To 3982.00 ft (KB) (TVD)**
Total Depth: 3982.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 83
Reference Elevations: 3273.00 ft (KB)
3262.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8366 Outside
Press@RunDepth: psig @ 3843.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.08 End Date: 2015.11.09 Last Calib.: 2015.11.09
Start Time: 21:25:05 End Time: 04:35:29 Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 3/4", died back to weak surface blow
60 - IS: No blow back
30 - FF: No blow
60 - FS: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62856

DST#: 1

ATTN: Rocky Milford

Test Start: 2015.11.08 @ 21:25:00

Tool Information

Drill Pipe:	Length: 3657.00 ft	Diameter: 3.80 inches	Volume: 51.30 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: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 52.20 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3842.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	140.00 ft			
Tool Length:	168.00 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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Shut In Tool	5.00			3819.00	
Hydraulic tool	5.00			3824.00	
Jars	5.00			3829.00	
Safety Joint	3.00			3832.00	
Packer	5.00			3837.00	28.00 Bottom Of Top Packer
Packer	5.00			3842.00	
Stubb	1.00			3843.00	
Recorder	0.00	6769	Inside	3843.00	
Recorder	0.00	8366	Outside	3843.00	
Perforations	8.00			3851.00	
Blank Spacing	128.00			3979.00	
Bullnose	3.00			3982.00	140.00 Bottom Packers & Anchor

Total Tool Length: 168.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62856

DST#: 1

ATTN: Rocky Milford

Test Start: 2015.11.08 @ 21:25:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

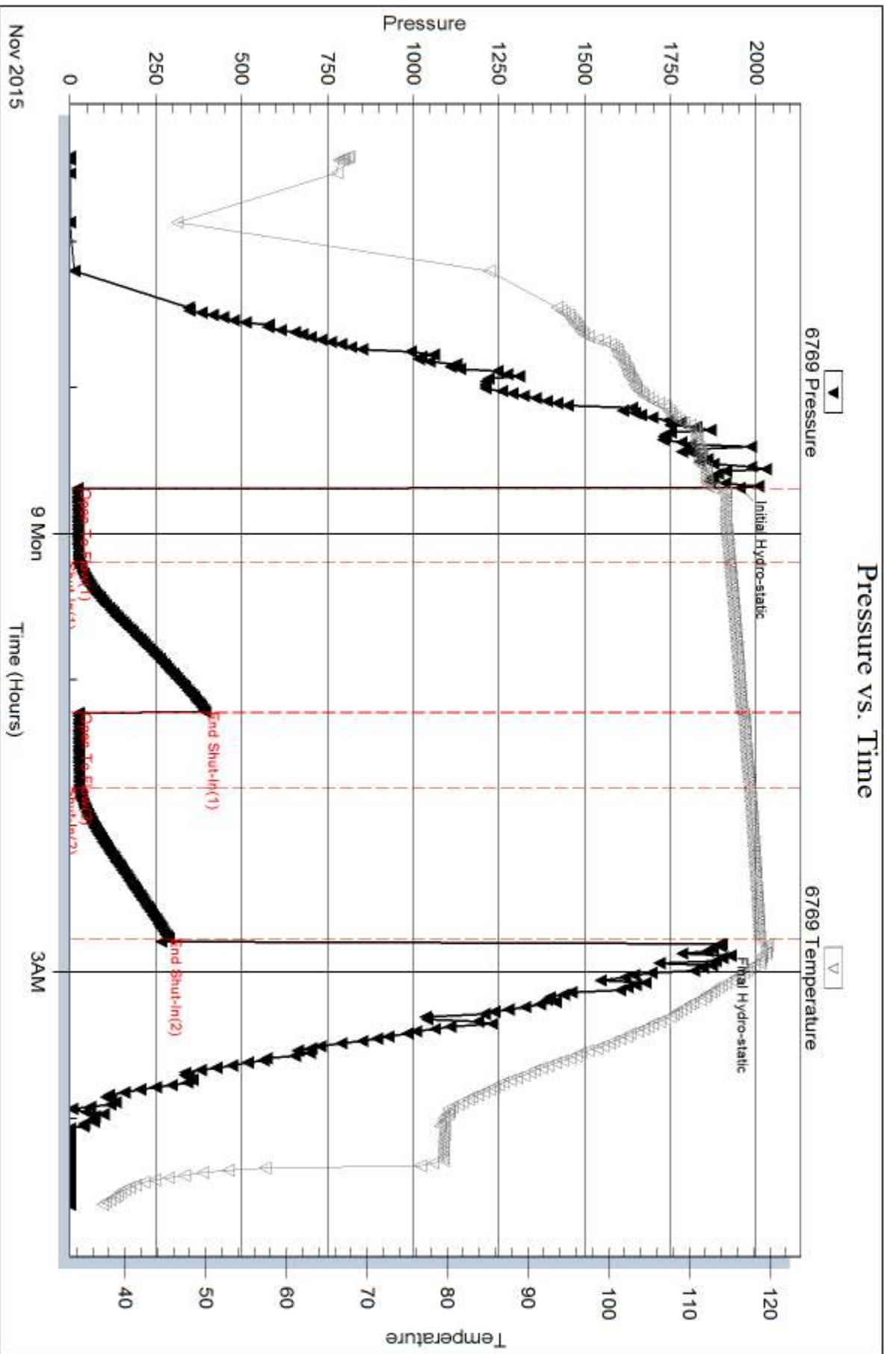
Num Gas Bombs: 0

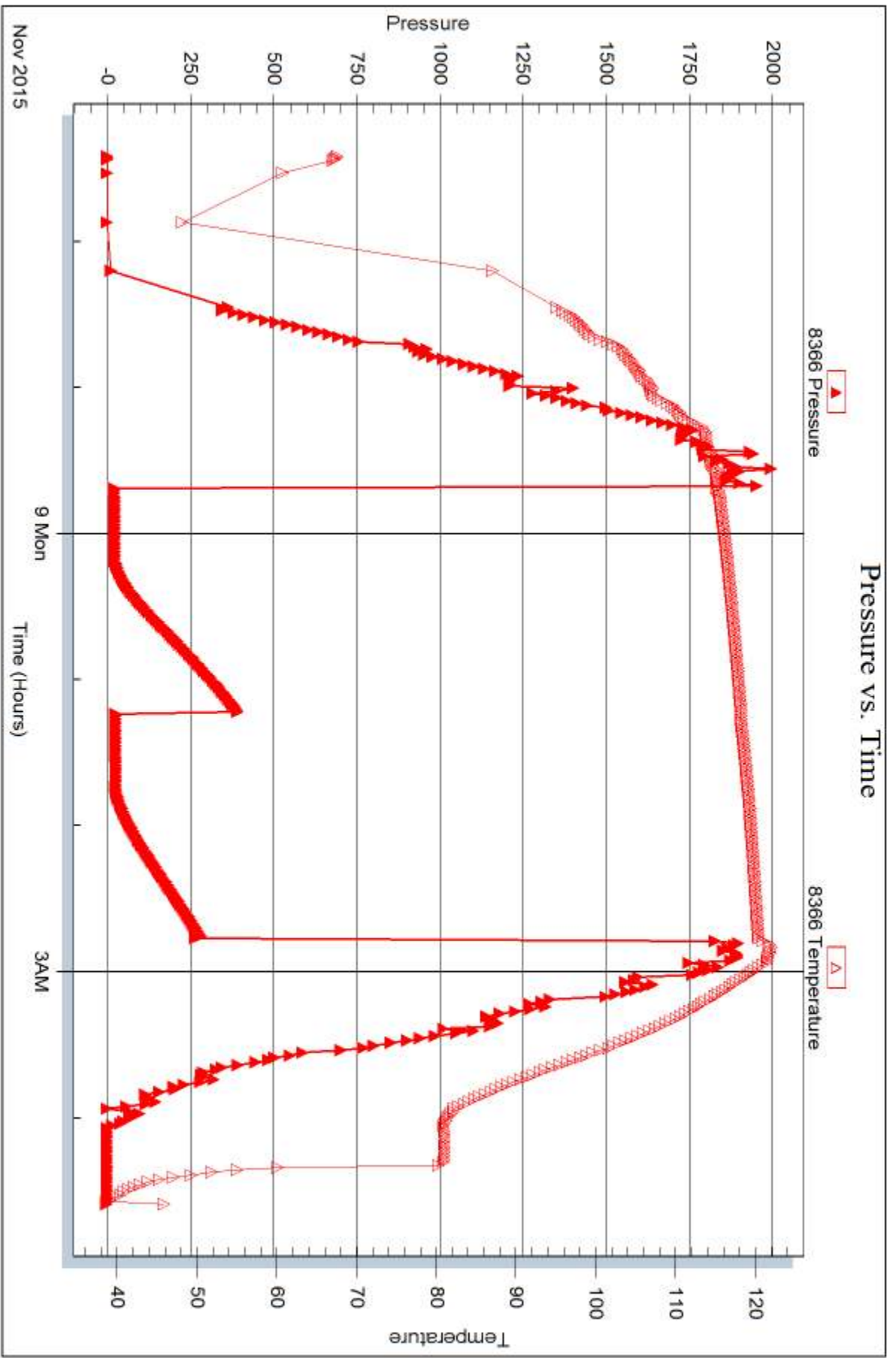
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 672020

ATTN: Rocky Milford

Walter 'A' #2-1

1-1s-36w Rawlins,KS

Start Date: 2015.11.10 @ 00:15:00

End Date: 2015.11.10 @ 07:11:00

Job Ticket #: 62857 DST #: 2

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

Printed: 2015.11.13 @ 16:13:51



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 672020
ATTN: Rocky Milford

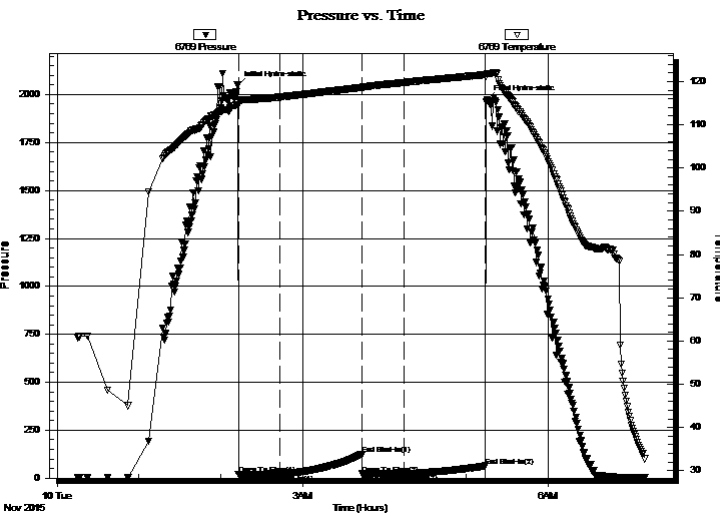
1-1s-36w Rawlins,KS
Walter 'A' #2-1
Job Ticket: 62857 **DST#: 2**
Test Start: 2015.11.10 @ 00:15:00

GENERAL INFORMATION:

Formation: **Oread**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:12:45
Time Test Ended: 07:11:00
Interval: **4083.00 ft (KB) To 4138.00 ft (KB) (TVD)**
Total Depth: 4138.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 83
Reference Elevations: 3273.00 ft (KB)
3262.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6769 Inside
Press@RunDepth: 22.59 psig @ 4084.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.10 End Date: 2015.11.10 Last Calib.: 2015.11.10
Start Time: 00:15:05 End Time: 07:10:59 Time On Btm: 2015.11.10 @ 02:12:30
Time Off Btm: 2015.11.10 @ 05:15:00

TEST COMMENT: 30 - IF: Blow built to 1/4", died back to weak surface blow
60 - IS: No blow back
30 - FF: No blow
60 - FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2048.13	114.27	Initial Hydro-static
1	20.05	114.72	Open To Flow (1)
31	21.60	116.39	Shut-In(1)
91	125.90	118.63	End Shut-In(1)
92	21.80	118.63	Open To Flow (2)
122	22.59	119.76	Shut-In(2)
182	63.65	121.57	End Shut-In(2)
183	1972.34	121.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%	0.01

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water STE 300
Wichita, KS 672020

ATTN: Rocky Milford

1-1s-36w Rawlins,KS

Walter 'A' #2-1

Job Ticket: 62857

DST#: 2

Test Start: 2015.11.10 @ 00:15:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:12:45

Time Test Ended: 07:11:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4083.00 ft (KB) To 4138.00 ft (KB) (TVD)

Reference Elevations: 3273.00 ft (KB)

Total Depth: 4138.00 ft (KB) (TVD)

3262.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8366 Outside

Press@RunDepth: psig @ 4084.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.10

End Date:

2015.11.10

Last Calib.:

2015.11.10

Start Time: 00:15:05

End Time:

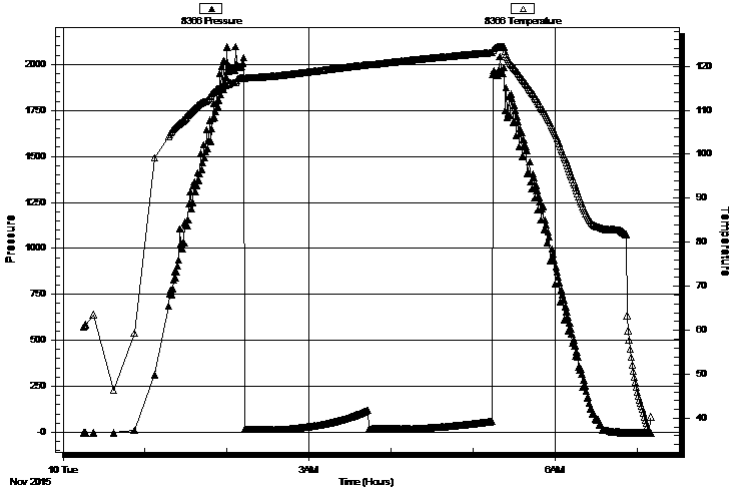
07:09:59

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 1/4", died back to weak surface blow
60 - IS: No blow back
30 - FF: No blow
60 - FS: No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%	0.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62857

DST#: 2

ATTN: Rocky Milford

Test Start: 2015.11.10 @ 00:15:00

Tool Information

Drill Pipe:	Length: 3901.00 ft	Diameter: 3.80 inches	Volume: 54.72 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: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 55.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4083.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4060.00	
Hydraulic tool	5.00			4065.00	
Jars	5.00			4070.00	
Safety Joint	3.00			4073.00	
Packer	5.00			4078.00	28.00 Bottom Of Top Packer
Packer	5.00			4083.00	
Packer - Shale	0.00			4083.00	
Stubb	1.00			4084.00	
Recorder	0.00	6769	Inside	4084.00	
Recorder	0.00	8366	Outside	4084.00	
Perforations	18.00			4102.00	
Blank Spacing	33.00			4135.00	
Bullnose	3.00			4138.00	55.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62857

DST#: 2

ATTN: Rocky Milford

Test Start: 2015.11.10 @ 00:15:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud 100%	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

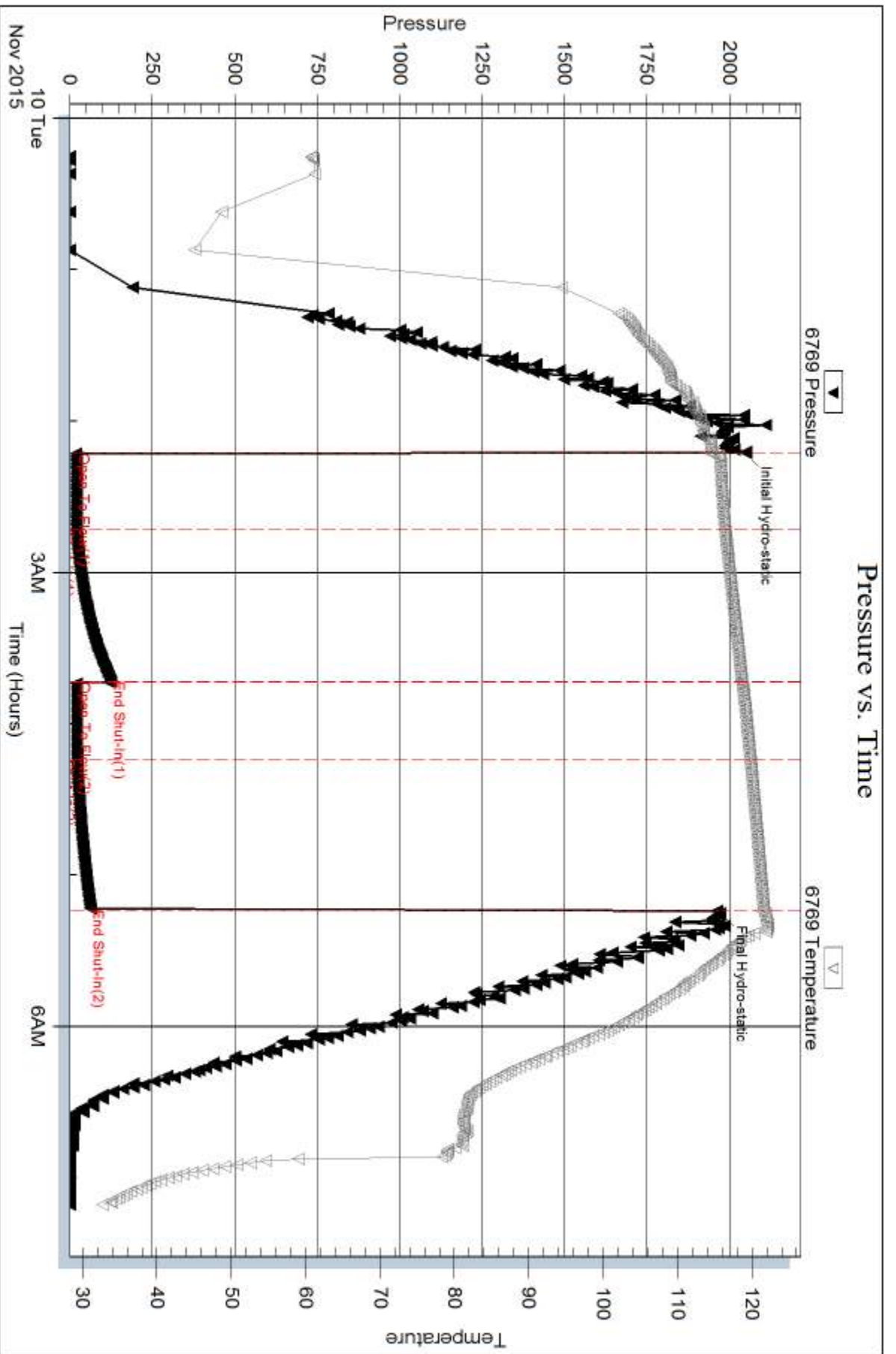
Num Gas Bombs: 0

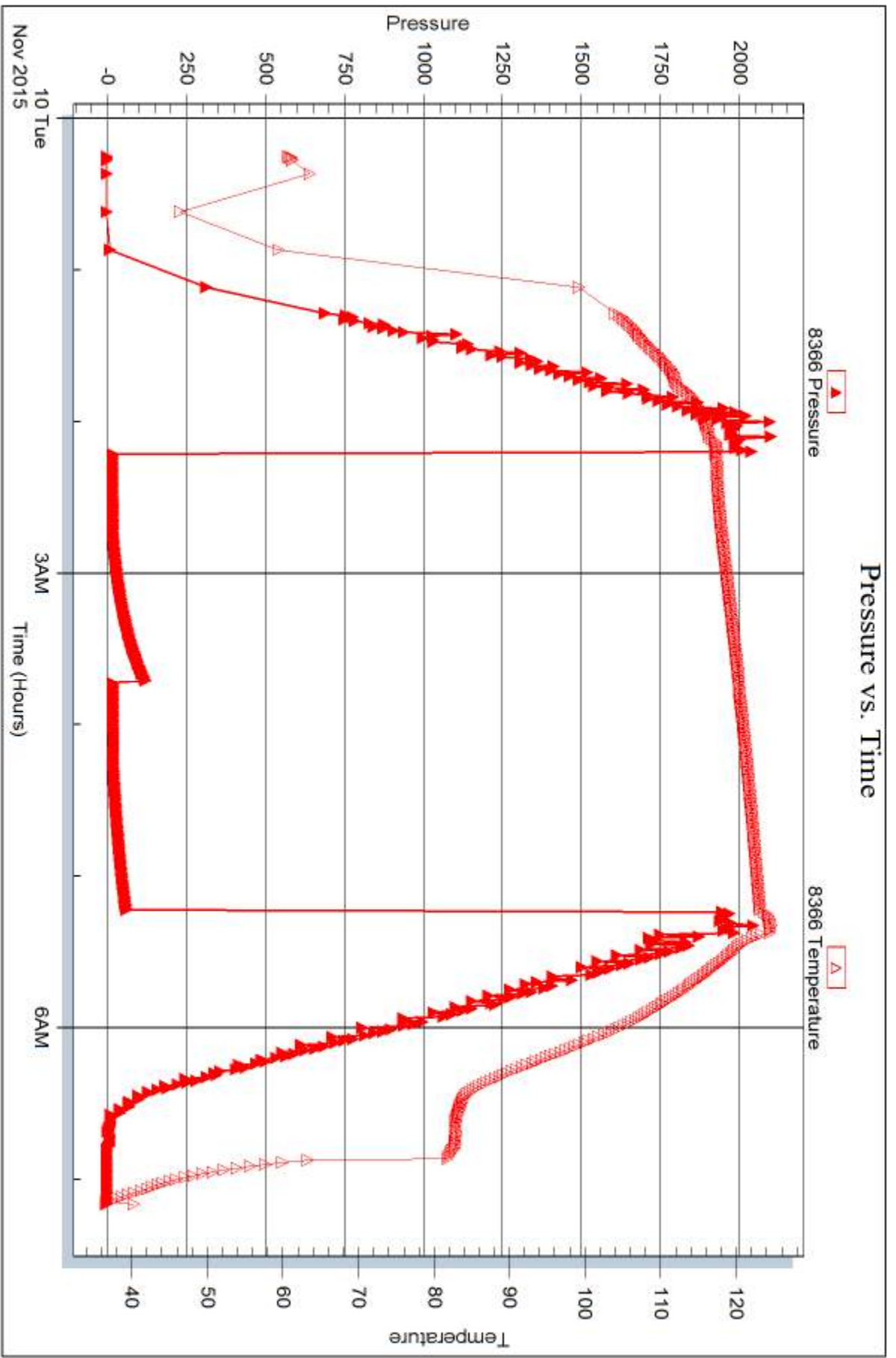
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 672020

ATTN: Rocky Milford

Walter 'A' #2-1

1-1s-36w Rawlins,KS

Start Date: 2015.11.11 @ 02:50:00

End Date: 2015.11.11 @ 10:44:00

Job Ticket #: 62858 DST #: 3

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

Printed: 2015.11.13 @ 16:13:27

Murfin Drilling Co., Inc. 1-1s-36w Rawlins,KS Walter 'A' #2-1 DST # 3 LKC "A - D" 2015.11.11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62858

DST#: 3

ATTN: Rocky Milford

Test Start: 2015.11.11 @ 02:50:00

GENERAL INFORMATION:

Formation: **LKC "A - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:35:30

Time Test Ended: 10:44:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4158.00 ft (KB) To 4285.00 ft (KB) (TVD)

Reference Elevations: 3273.00 ft (KB)

Total Depth: 4285.00 ft (KB) (TVD)

3262.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6769

Inside

Press@RunDepth: 59.98 psig @ 4159.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.11

End Date:

2015.11.11

Last Calib.:

2015.11.11

Start Time: 02:50:05

End Time:

10:43:59

Time On Btm:

2015.11.11 @ 04:35:00

Time Off Btm:

2015.11.11 @ 08:37:45

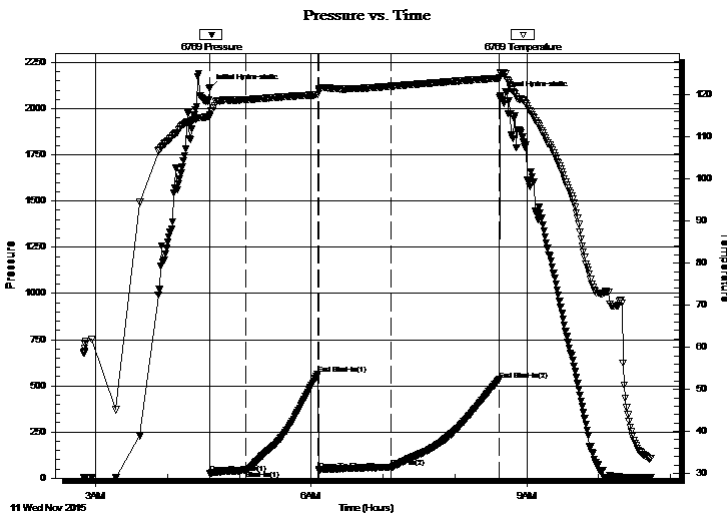
TEST COMMENT: 30 - IF: Surface blow, dead at 4 min., Fixed leak @ 15 min., blow built to 1/2"

60 - IS: No blow back

60 - FF: Blow built to 3 1/2"

90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2108.90	114.85	Initial Hydro-static
1	25.40	115.22	Open To Flow (1)
31	41.62	118.87	Shut-In(1)
91	564.02	120.03	End Shut-In(1)
92	44.11	121.35	Open To Flow (2)
152	59.98	122.05	Shut-In(2)
242	532.50	123.96	End Shut-In(2)
243	2070.32	125.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	OCM 66% m, 31% o, 3% g	0.37
10.00	SMCO 93% o, 5% m, 2% g	0.05
0.00	GIP = 100'	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62858

DST#: 3

ATTN: Rocky Milford

Test Start: 2015.11.11 @ 02:50:00

Tool Information

Drill Pipe:	Length: 3966.00 ft	Diameter: 3.80 inches	Volume: 55.63 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: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 56.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4158.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	127.00 ft			
Tool Length:	155.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: had loose connection at hoses during IF
found and fixed at 15 min.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4135.00	
Hydraulic tool	5.00			4140.00	
Jars	5.00			4145.00	
Safety Joint	3.00			4148.00	
Packer	5.00			4153.00	28.00 Bottom Of Top Packer
Packer	5.00			4158.00	
Stubb	1.00			4159.00	
Recorder	0.00	6769	Inside	4159.00	
Recorder	0.00	8366	Outside	4159.00	
Perforations	26.00			4185.00	
Blank Spacing	97.00			4282.00	
Bullnose	3.00			4285.00	127.00 Bottom Packers & Anchor

Total Tool Length: 155.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62858

DST#: 3

ATTN: Rocky Milford

Test Start: 2015.11.11 @ 02:50:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 61.00 sec/qt
Water Loss: 5.57 in³
Resistivity: ohm.m
Salinity: 700.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 31.2 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	OCM 66% <i>m</i> , 31% <i>o</i> , 3% <i>g</i>	0.369
10.00	SMCO 93% <i>o</i> , 5% <i>m</i> , 2% <i>g</i>	0.049
0.00	GIP = 100'	0.000

Total Length: 85.00 ft Total Volume: 0.418 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

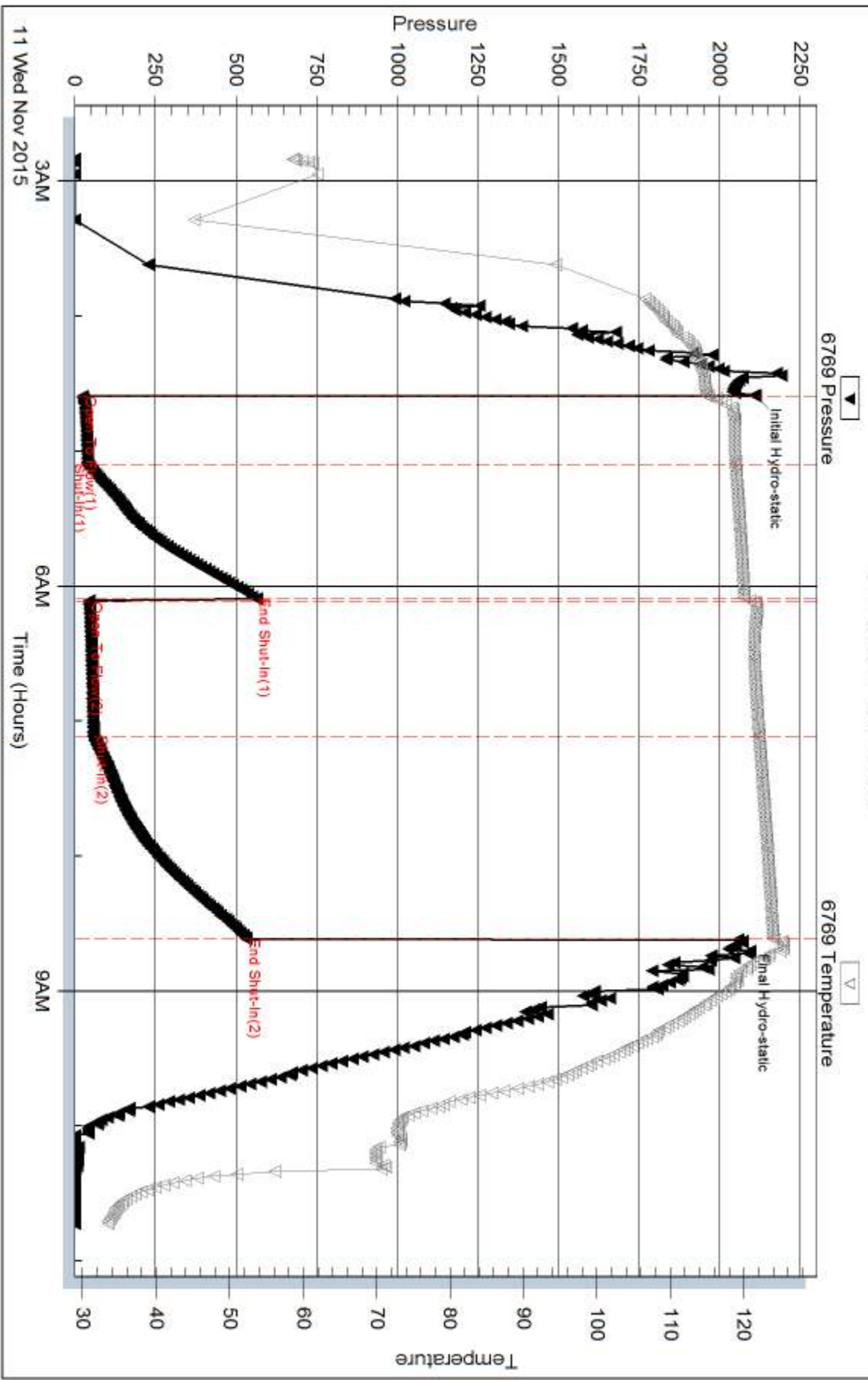
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 30 api @ 38 deg F
Corrected Gravity = 31.2 api

Pressure vs. Time

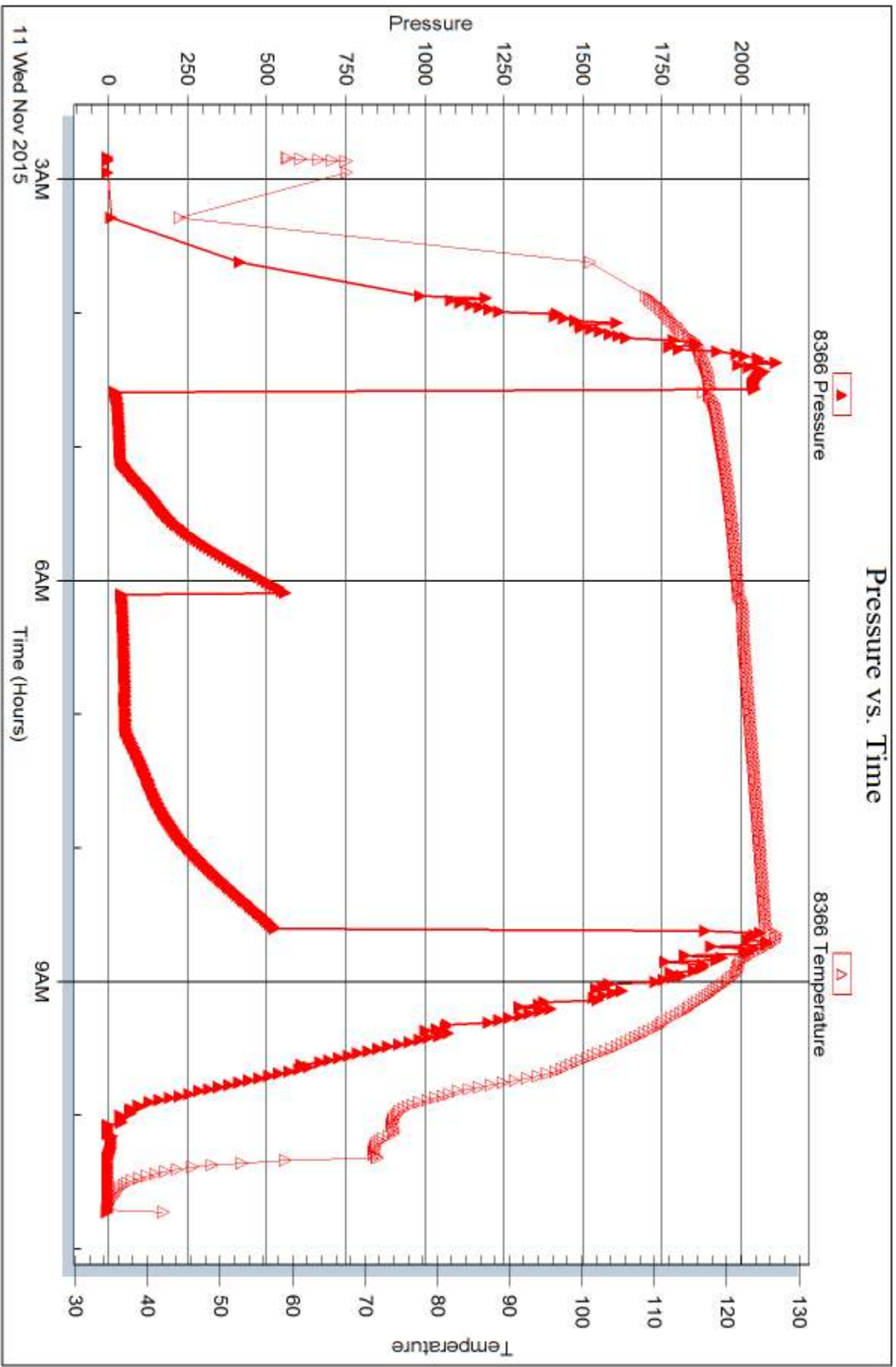


Serial #: 8366

Outside Murfin Drilling Co., Inc.

Walter 'A' #2-1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 62858

Printed: 2015.11.13 @ 16:13:29



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 672020

ATTN: Rocky Milford

Walter 'A' #2-1

1-1s-36w Rawlins,KS

Start Date: 2015.11.11 @ 21:47:00

End Date: 2015.11.12 @ 05:04:00

Job Ticket #: 62859 DST #: 4

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

Printed: 2015.11.13 @ 16:13:03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
250 N. Water STE 300
Wichita, KS 672020
ATTN: Rocky Milford

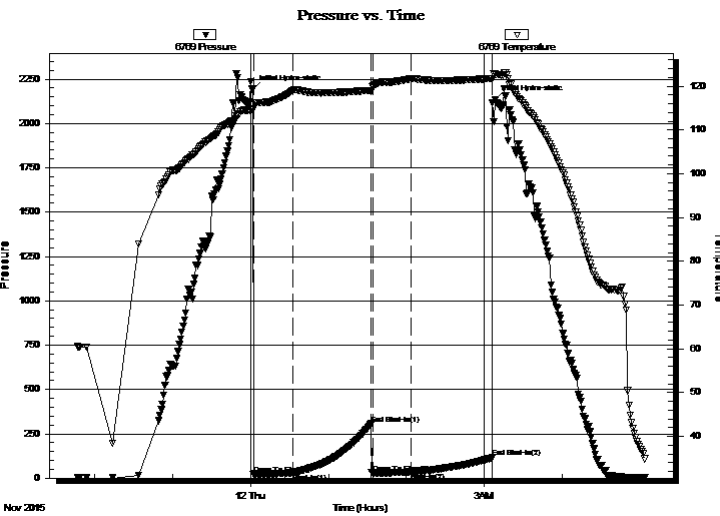
1-1s-36w Rawlins,KS
Walter 'A' #2-1
Job Ticket: 62859 **DST#: 4**
Test Start: 2015.11.11 @ 21:47:00

GENERAL INFORMATION:

Formation: **LKC "G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:02:15
Time Test Ended: 05:04:00
Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 83
Interval: **4281.00 ft (KB) To 4345.00 ft (KB) (TVD)**
Reference Elevations: 3273.00 ft (KB)
Total Depth: 4345.00 ft (KB) (TVD) 3262.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 6769 Inside
Press@RunDepth: 31.79 psig @ 4282.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.11 End Date: 2015.11.12 Last Calib.: 2015.11.12
Start Time: 21:47:05 End Time: 05:03:59 Time On Btm: 2015.11.12 @ 00:02:00
Time Off Btm: 2015.11.12 @ 03:08:15

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 1"
60 - IS: No blow back
30 - FF: No blow
60 - FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2191.50	114.66	Initial Hydro-static
1	20.79	114.84	Open To Flow (1)
31	26.85	118.96	Shut-In(1)
91	306.82	119.03	End Shut-In(1)
92	26.53	119.87	Open To Flow (2)
122	31.79	121.66	Shut-In(2)
184	114.70	121.75	End Shut-In(2)
187	2132.58	122.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	SOCM 96% m, 3% o, 1% g	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62859

DST#: 4

ATTN: Rocky Milford

Test Start: 2015.11.11 @ 21:47:00

Tool Information

Drill Pipe:	Length: 4092.00 ft	Diameter: 3.80 inches	Volume: 57.40 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: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 58.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4281.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	92.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4258.00	
Hydraulic tool	5.00			4263.00	
Jars	5.00			4268.00	
Safety Joint	3.00			4271.00	
Packer	5.00			4276.00	28.00 Bottom Of Top Packer
Packer	5.00			4281.00	
Stubb	1.00			4282.00	
Recorder	0.00	6769	Inside	4282.00	
Recorder	0.00	8366	Outside	4282.00	
Perforations	26.00			4308.00	
Blank Spacing	34.00			4342.00	
Bullnose	3.00			4345.00	64.00 Bottom Packers & Anchor

Total Tool Length: 92.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62859

DST#: 4

ATTN: Rocky Milford

Test Start: 2015.11.11 @ 21:47:00

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	SOCM 96% m, 3% o, 1% g	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

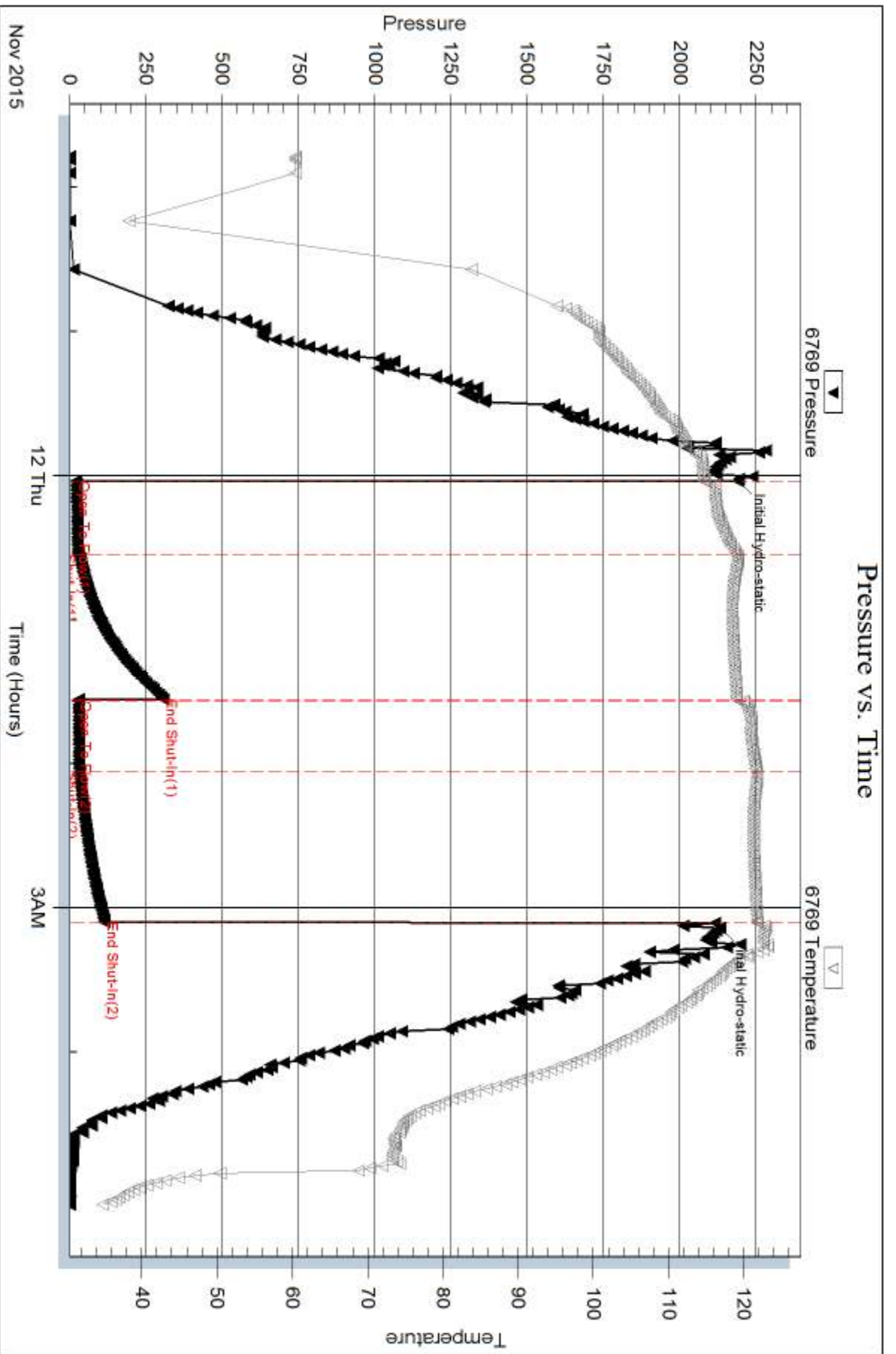
Num Gas Bombs: 0

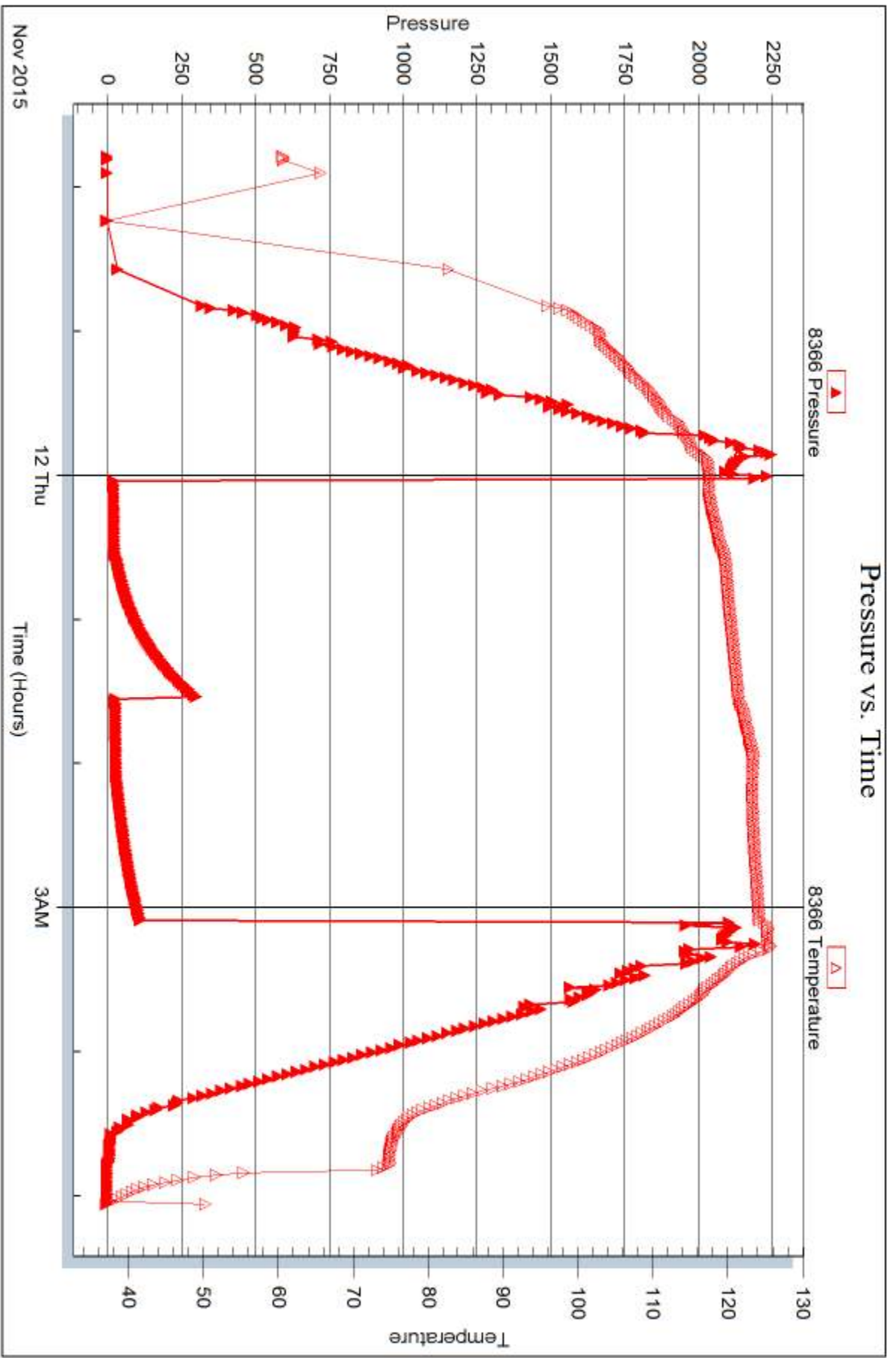
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 672020

ATTN: Rocky Milford

Walter 'A' #2-1

1-1s-36w Rawlins,KS

Start Date: 2015.11.12 @ 19:10:00

End Date: 2015.11.13 @ 03:34:15

Job Ticket #: 62860 DST #: 5

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

Printed: 2015.11.13 @ 16:12:28

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

Walter 'A' #2-1

DST # 5

LKC "G prime - J"

2015.11.12



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.
 250 N. Water STE 300
 Wichita, KS 67202
 ATTN: Rocky Milford

1-1s-36w Rawlins,KS
Walter 'A' #2-1
 Job Ticket: 62860 **DST#: 5**
 Test Start: 2015.11.12 @ 19:10:00

GENERAL INFORMATION:

Formation: **LKC "G prime - J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:03:30
 Time Test Ended: 03:34:15
 Interval: **4338.00 ft (KB) To 4433.00 ft (KB) (TVD)**
 Total Depth: 4433.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3273.00 ft (KB)
 3262.00 ft (CF)
 KB to GR/CF: 11.00 ft

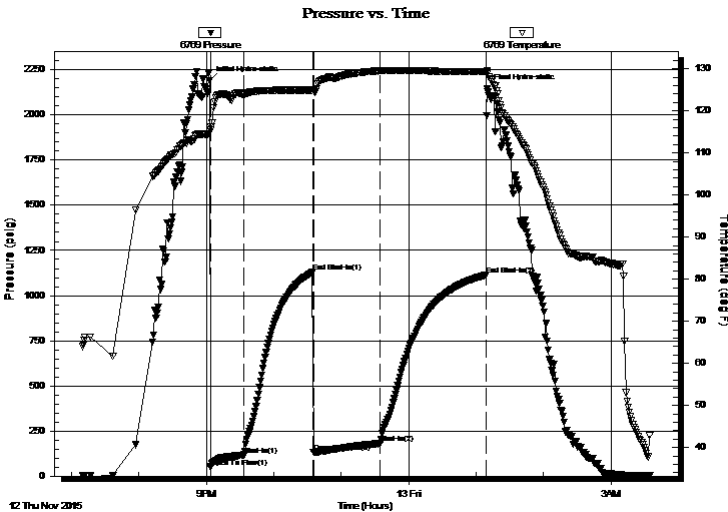
Serial #: 6769

Inside

Press@RunDepth: 181.69 psig @ 4339.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.11.12 End Date: 2015.11.13 Last Calib.: 2015.11.13
 Start Time: 19:10:05 End Time: 03:34:14 Time On Btm: 2015.11.12 @ 21:03:15
 Time Off Btm: 2015.11.13 @ 01:09:45

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 10 min. (Diesel in bucket)
 60 - IS: Blow back built to 5"
 60 - FF: Blow built to BOB at 9 1/4 min.
 90 - FS: Blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2189.26	114.98	Initial Hydro-static
1	47.66	115.42	Open To Flow (1)
31	117.97	123.78	Shut-In(1)
92	1129.17	124.85	End Shut-In(1)
93	131.06	124.77	Open To Flow (2)
152	181.69	129.51	Shut-In(2)
246	1113.26	129.28	End Shut-In(2)
247	2143.99	129.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
215.00	GOCM 67% m, 16% o, 17% g	1.36
95.00	SMCO 92% o, 4% m, 4% g	1.33
110.00	GO 79% o, 20% g, 1% m	1.54
0.00	GIP = 575'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

1-1s-36w Rawlins, KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62860

DST#: 5

ATTN: Rocky Milford

Test Start: 2015.11.12 @ 19:10:00

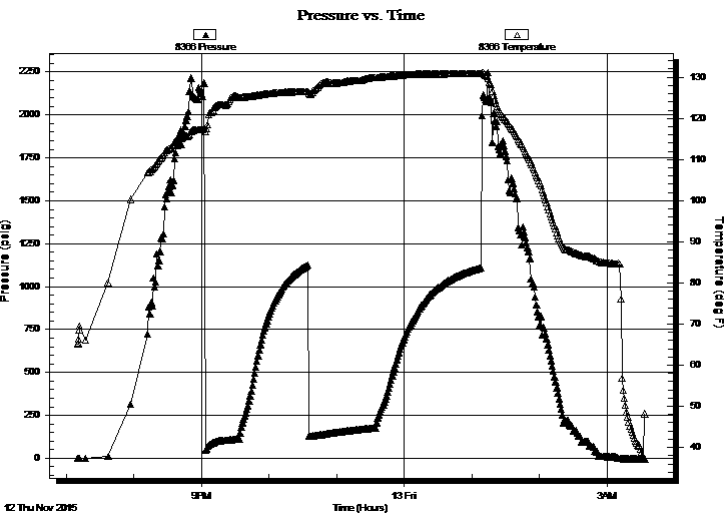
GENERAL INFORMATION:

Formation: **LKC "G prime - J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:03:30
 Time Test Ended: 03:34:15
 Interval: **4338.00 ft (KB) To 4433.00 ft (KB) (TVD)**
 Total Depth: 4433.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3273.00 ft (KB)
 3262.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8366 Outside

Press@RunDepth: psig @ 4339.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.11.12 End Date: 2015.11.13 Last Calib.: 2015.11.13
 Start Time: 19:10:05 End Time: 03:33:29 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 10 min. (Diesel in bucket)
 60 - IS: Blow back built to 5"
 60 - FF: Blow built to BOB at 9 1/4 min.
 90 - FS: Blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
215.00	GOCM 67% m, 16% o, 17% g	1.36
95.00	SMCO 92% o, 4% m, 4% g	1.33
110.00	GO 79% o, 20% g, 1% m	1.54
0.00	GIP = 575'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62860

DST#: 5

ATTN: Rocky Milford

Test Start: 2015.11.12 @ 19:10:00

Tool Information

Drill Pipe:	Length: 4155.00 ft	Diameter: 3.80 inches	Volume: 58.28 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: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 59.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4338.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	95.00 ft			
Tool Length:	123.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4315.00	
Hydraulic tool	5.00			4320.00	
Jars	5.00			4325.00	
Safety Joint	3.00			4328.00	
Packer	5.00			4333.00	28.00 Bottom Of Top Packer
Packer	5.00			4338.00	
Stubb	1.00			4339.00	
Recorder	0.00	6769	Inside	4339.00	
Recorder	0.00	8366	Outside	4339.00	
Perforations	26.00			4365.00	
Blank Spacing	65.00			4430.00	
Bullnose	3.00			4433.00	95.00 Bottom Packers & Anchor

Total Tool Length: 123.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

1-1s-36w Rawlins,KS

250 N. Water STE 300
Wichita, KS 672020

Walter 'A' #2-1

Job Ticket: 62860

DST#: 5

ATTN: Rocky Milford

Test Start: 2015.11.12 @ 19:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
215.00	GOCM 67% <i>m</i> , 16% <i>o</i> , 17% <i>g</i>	1.358
95.00	SMCO 92% <i>o</i> , 4% <i>m</i> , 4% <i>g</i>	1.333
110.00	GO 79% <i>o</i> , 20% <i>g</i> , 1% <i>m</i>	1.543
0.00	GIP = 575'	0.000

Total Length: 420.00 ft Total Volume: 4.234 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

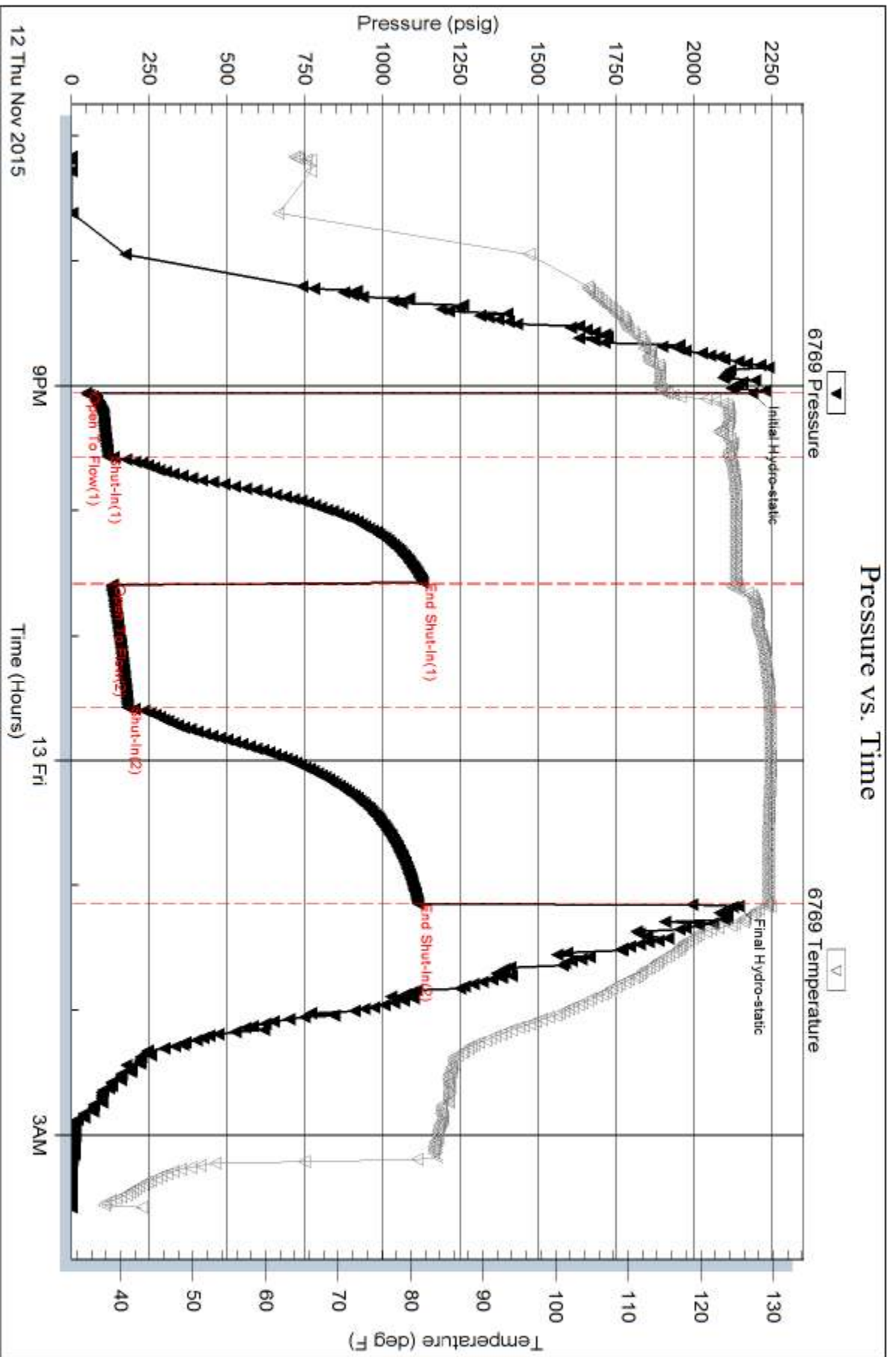
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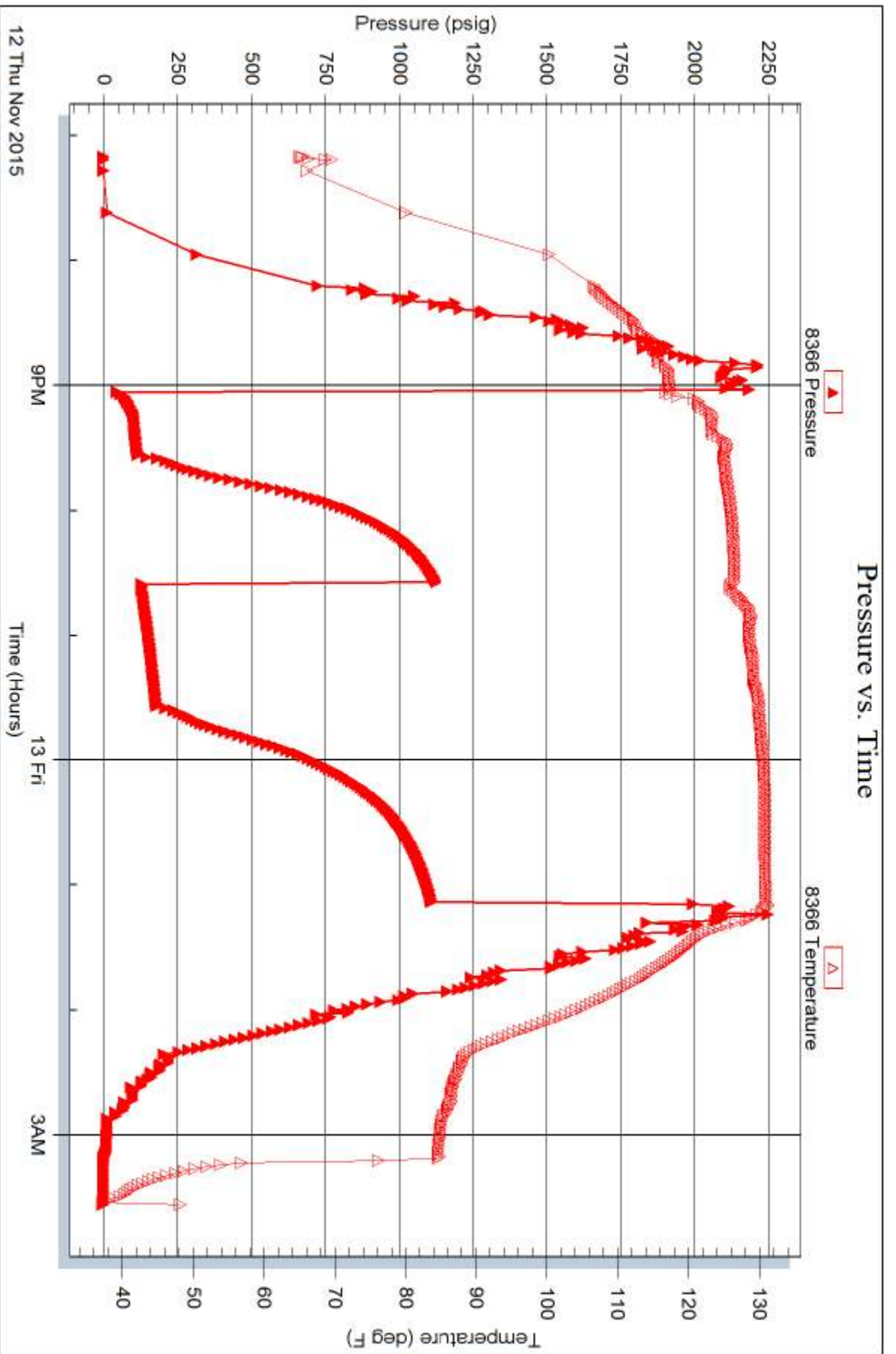
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 31.8 api @ 40 deg F

Corrected Gravity = 33.8 api







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62856

Well Name & No. Walter 'A' # 2-1 Test No. 1 Date 11-8-15
 Company Murfin Drilling Co, Inc Elevation 3273 KB 3262 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #2
 Location: Sec. 1 Twp. 1S Rge. 36w Co. Rawlins State KS

Interval Tested 3842 - 3982 Zone Tested Stotler
 Anchor Length 140 Drill Pipe Run 3657 Mud Wt. 9.1
 Top Packer Depth 3837 Drill Collars Run 182 Vis 56
 Bottom Packer Depth ~~3837~~ 3842 Wt. Pipe Run - WL 5.6
 Total Depth 3982 Chlorides 700 ppm System LCM 6
 Blow Description IF: 1/4" Blow at open, built to 3/4", died back to weak surface blow
ISI: No blowback
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</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	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 119 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1952 Test 1050 T-On Location 20:00 1/8
 (B) First Initial Flow 23 Jars 250 T-Started 21:25
 (C) First Final Flow 26 Safety Joint 75 T-Open 23:41
 (D) Initial Shut-In 396 Circ Sub _____ T-Pulled 2:46
 (E) Second Initial Flow 25 Hourly Standby _____ T-Out 4:30 1/9
 (F) Second Final Flow 28 Mileage 110 RT 110 Comments _____
 (G) Final Shut-In 288 Sampler _____
 (H) Final Hydrostatic 1899 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1485
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1485

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

Approved By Rocky Milford Our Representative James Windes

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. 62857

Well Name & No. Walter 'A' #2-1 Test No. 2 Date 11/9/15
 Company Murfin Drilling Co. Inc Elevation 3273 KB 3262 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #2
 Location: Sec. 1 Twp. 1S Rge. 36w Co. Rawlins State KS

Interval Tested 4083 - 4138 Zone Tested Oread
 Anchor Length 55 Drill Pipe Run 3901 Mud Wt. 9.2
 Top Packer Depth 4078 Drill Collars Run 182 Vis 51
 Bottom Packer Depth 4083 (shale) Wt. Pipe Run - WL 6.8
 Total Depth 4138 Chlorides 700 ppm System LCM 10
 Blow Description IF: Blow built to 1/4", died back to weak surface blow
ISI: No blowback
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</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	Feet of	%gas	%oil	%water	%mud

Rec Total 2 BHT 122 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2048 Test 1150 T-On Location 23:15 1/9
 (B) First Initial Flow 20 Jars 250 T-Started 00:15
 (C) First Final Flow 22 Safety Joint 75 T-Open 2:12
 (D) Initial Shut-In 126 Circ Sub _____ T-Pulled 5:15
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 7:05 1/10
 (F) Second Final Flow 23 Mileage 110RT 110 Comments _____
 (G) Final Shut-In 64 Sampler _____
 (H) Final Hydrostatic 1972 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1835
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1835

Approved By Robert Milford Our Representative James Winder
 Trilobite Testing Inc. shall not be liable for damaged or 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. 62858

Well Name & No. Walter 'A' #2-1 Test No. 3 Date 11-11-15
 Company Murfin Drilling Co. Inc. Elevation 3273 KB 3262 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #2
 Location: Sec. 1 Twp. 15 Rge. 36w Co. Rawlins State KS

Interval Tested 4158-4285 Zone Tested LKC "A-D"
 Anchor Length 127 Drill Pipe Run 3966 Mud Wt. 9.1
 Top Packer Depth 4153 Drill Collars Run 182 Vis 61
 Bottom Packer Depth 4158 Wt. Pipe Run - WL 5.6
 Total Depth 4285 Chlorides 700 ppm System LCM 10

Blow Description IF: Surface blow, dead at 4 min. Fixed leak, blow built to 1/2"
ISI: No blowback
FF: Blow built to 3 1/2"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>SMCO</u>	<u>2</u>	<u>93</u>	<u>-</u>	<u>5</u>
<u>75</u>	<u>OCM</u>	<u>3</u>	<u>31</u>	<u>-</u>	<u>66</u>
	<u>GIP = 100'</u>				

Rec Total 85 BHT 124 Gravity 31.2 API RW 2 @ °F Chlorides ppm

(A) Initial Hydrostatic 2109 Test 1150 T-On Location 1:45
 (B) First Initial Flow 25 Jars 250 T-Started 2:50
 (C) First Final Flow 42 Safety Joint 75 T-Open 4:35
 (D) Initial Shut-In 564 Circ Sub T-Pulled 8:36
 (E) Second Initial Flow 44 Hourly Standby T-Out 10:45

(F) Second Final Flow 60 Mileage 110RT 110 Comments loose base connection
 (G) Final Shut-In 533 Sampler on IF: Fixed at 15 min.
 (H) Final Hydrostatic 2070 Straddle

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Extra Recorder Sub Total 0
 Day Standby Total 1585
 Accessibility MP/DST Disc't

Sub Total 1585

Approved By Rocky Milford Our Representative James Winder
 TriLOBite Testing Inc. shall not be liable for damaged or 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. 62859

Well Name & No. Walter 'A' #2-1 Test No. 4 Date 11-11-15
 Company Murfin Drilling Co. Inc. Elevation 3273 KB 3262 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #2
 Location: Sec. 1 Twp. 1S Rge. 36w Co. Rawlins State KS

Interval Tested 4281 - 4345 Zone Tested LKC "G"
 Anchor Length 64 Drill Pipe Run 4092 Mud Wt. 9.3
 Top Packer Depth 4276 Drill Collars Run 182 Vis 58
 Bottom Packer Depth 4281 Wt. Pipe Run - WL 5.6
 Total Depth 4345 Chlorides 700 ppm System LCM 8

Blow Description IF: 1/4" Blow at open, built to 1" (Diesel in bucket)
ISI: No blowback
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>50cm</u>	<u>1</u>	<u>3</u>	<u>96</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 15 BHT 122 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2192 Test 1150 T-On Location 21:00 1/11
 (B) First Initial Flow 21 Jars 250 T-Started 21:47
 (C) First Final Flow 27 Safety Joint 75 T-Open 00:02
 (D) Initial Shut-In 307 Circ Sub _____ T-Pulled 3:05
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 5:00 1/12
 (F) Second Final Flow 32 Mileage 110RT 110 Comments _____
 (G) Final Shut-In 115 Sampler _____
 (H) Final Hydrostatic 2133 Straddle _____
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer 320
 Extra Recorder _____ Extra Copies _____
 Initial Open 30 Day Standby _____ Sub Total 0
 Initial Shut-In 60 Accessibility _____ Total 1905
 Final Flow 30 Sub Total 1585 MP/DST Disc't _____
 Final Shut-In 60

Approved By Rocky Milford Our Representative James Windsor
 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 of 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. 62860

Well Name & No. Walter 'A' #2-1 Test No. 5 Date 11-12-15
 Company Murfin Drilling Co. Inc Elevation 3273 KB 3262 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Rocky Milford Rig Murfin #2
 Location: Sec. 1 Twp. 1S Rge. 36w Co. Rawlins State KS

Interval Tested 4338 - 4433 Zone Tested LKC "G prime - J"
 Anchor Length 95 Drill Pipe Run 4155 Mud Wt. 9.4
 Top Packer Depth 4333 Drill Collars Run 182 Vis 56
 Bottom Packer Depth 4338 Wt. Pipe Run - WL 6.0
 Total Depth 4433 Chlorides 700 ppm System LCM 8
 Blow Description IF: Blow built to BOB (11") at 10min. (Diesel in bucket)
ISI: Blowback built to 5"
FF: Blow built to BOB at 9 1/4 min
FSI: Blowback built to 6"

Rec	Feet of	%gas	%oil	%water	%mud
<u>110</u>	<u>GO</u>	<u>20</u>	<u>79</u>	<u>-</u>	<u>1</u>
<u>95</u>	<u>SMCO</u>	<u>4</u>	<u>92</u>	<u>-</u>	<u>4</u>
<u>215</u>	<u>60cm</u>	<u>17</u>	<u>16</u>	<u>-</u>	<u>67</u>
	<u>GIP = 575'</u>				

Rec Total 420 BHT 129 Gravity 33.8 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 2189 Test 1150 T-On Location 18:30
 (B) First Initial Flow 48 Jars 250 T-Started 19:10
 (C) First Final Flow 118 Safety Joint 75 T-Open 21:03
 (D) Initial Shut-In 1129 Circ Sub T-Pulled 1:08
 (E) Second Initial Flow 131 Hourly Standby T-Out 3:25
 (F) Second Final Flow 182 Mileage 110RTx2 220 Comments
 (G) Final Shut-In 1113 Sampler
 (H) Final Hydrostatic 2144 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1695
 Accessibility MP/DST Disc't
 Sub Total 1695

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

Approved By Rocky Milford Our Representative James Winkler
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