



DRILL STEM TEST REPORT

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

250 N. Water, Ste 300
Wichita KS 67202

ATTN: Saman Sharifaei

Theron #2-10

10-1s-37w Cheyenne,KS

Start Date: 2014.06.02 @ 04:50:00

End Date: 2014.06.02 @ 13:50:30

Job Ticket #: 58311 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.09 @ 13:52:48

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

Theron #2-10

DST # 1

LKC - 'B-D'

2014.06.02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne, KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58311

DST#: 1

ATTN: Saman Sharifaei

Test Start: 2014.06.02 @ 04:50:00

GENERAL INFORMATION:

Formation: **LKC - 'B-D'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:55:45

Time Test Ended: 13:50:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 4064.00 ft (KB) To 4120.00 ft (KB) (TVD)

Reference Elevations: 3103.00 ft (KB)

Total Depth: 4120.00 ft (KB) (TVD)

3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 6753

Inside

Press@RunDepth: 391.37 psig @ 4065.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.02

End Date: 2014.06.02

Last Calib.: 2014.06.02

Start Time: 04:50:05

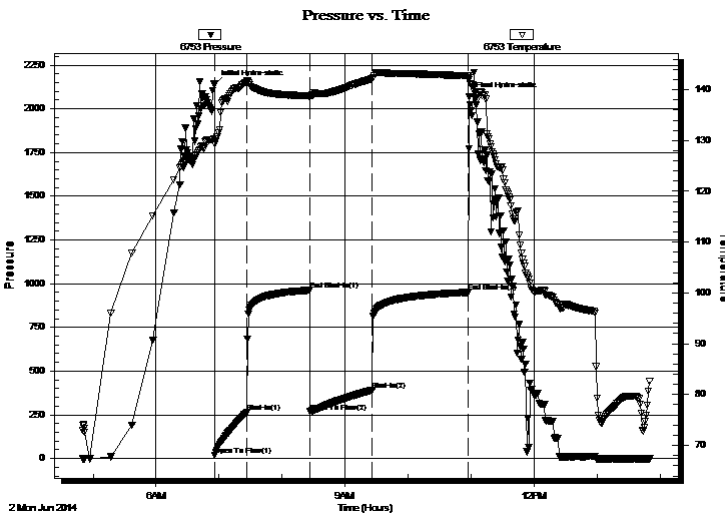
End Time: 13:50:30

Time On Btm: 2014.06.02 @ 06:55:30

Time Off Btm: 2014.06.02 @ 10:58:00

TEST COMMENT: 30 - IF - Surface blow built to bottom of the bucket in 25 mins.
60 - ISI - No Return
60 - FF - Surface blow built to bottom of the bucket in 27 mins.
90 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2140.93	130.27	Initial Hydro-static
1	20.38	129.25	Open To Flow (1)
31	263.52	141.48	Shut-In(1)
91	962.86	138.79	End Shut-In(1)
91	267.41	138.44	Open To Flow (2)
151	391.37	142.12	Shut-In(2)
242	950.46	142.70	End Shut-In(2)
243	2067.44	142.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
376.00	OCMW - 35M - 60W - 5o	1.85
460.00	OCMW - 25M - 65W - 10o	4.81

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

250 N. Water, Ste 300
Wichita KS 67202

ATTN: Saman Sharifaei

10-1s-37w Cheyenne,KS

Theron #2-10

Job Ticket: 58311

DST#: 1

Test Start: 2014.06.02 @ 04:50:00

GENERAL INFORMATION:

Formation: **LKC - 'B-D'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:55:45

Time Test Ended: 13:50:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: **4064.00 ft (KB) To 4120.00 ft (KB) (TVD)**

Total Depth: 4120.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3103.00 ft (KB)

3093.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8368

Inside

Press@RunDepth: psig @ 4065.00 ft (KB)

Start Date: 2014.06.02

End Date: 2014.06.02

Start Time: 04:50:05

End Time: 13:50:30

Capacity: 8000.00 psig

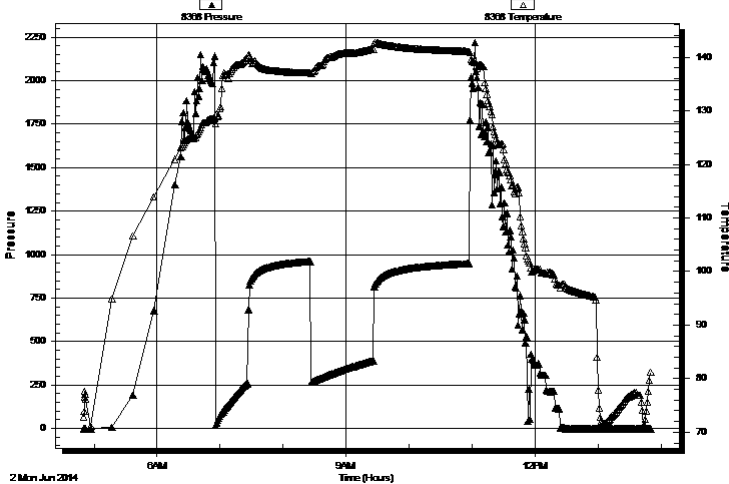
Last Calib.: 2014.06.02

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF - Surface blow built to bottom of the bucket in 25 mins.
60 - ISI - No Return
60 - FF - Surface blow built to bottom of the bucket in 27 mins.
90 - FSI - No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
376.00	OCMW - 35M - 60W - 5o	1.85
460.00	OCMW - 25M - 65W - 10o	4.81

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58311

DST#: 1

ATTN: Saman Sharifaei

Test Start: 2014.06.02 @ 04:50:00

Tool Information

Drill Pipe:	Length: 3488.27 ft	Diameter: 3.80 inches	Volume: 48.93 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: 556.48 ft	Diameter: 2.25 inches	Volume: 2.74 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 51.67 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.75 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4064.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 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			4042.00	
Hydraulic tool	5.00			4047.00	
Jars	5.00			4052.00	
Safety Joint	3.00			4055.00	
Packer	4.00			4059.00	27.00 Bottom Of Top Packer
Packer	5.00			4064.00	
Stubb	1.00			4065.00	
Recorder	0.00	8368	Inside	4065.00	
Recorder	0.00	6753	Inside	4065.00	
Perforations	18.00			4083.00	
Change Over Sub	1.00			4084.00	
Drill Pipe	31.00			4115.00	
Change Over Sub	1.00			4116.00	
Bullnose	4.00			4120.00	56.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58311

DST#: 1

ATTN: Saman Sharifaei

Test Start: 2014.06.02 @ 04:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
376.00	OCMW - 35M - 60W - 5o	1.849
460.00	OCMW - 25M - 65W - 10o	4.809

Total Length: 836.00 ft

Total Volume: 6.658 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

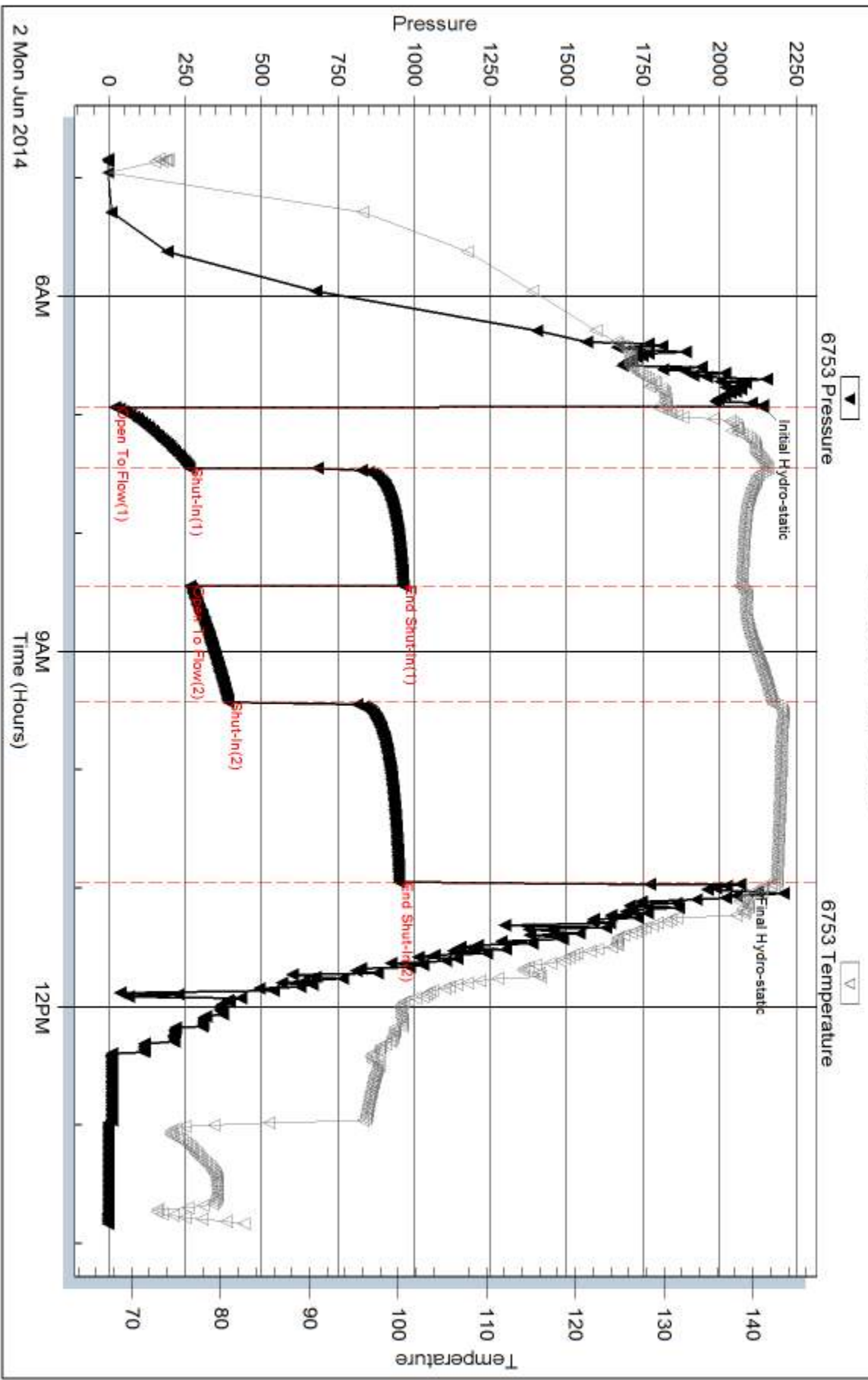
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



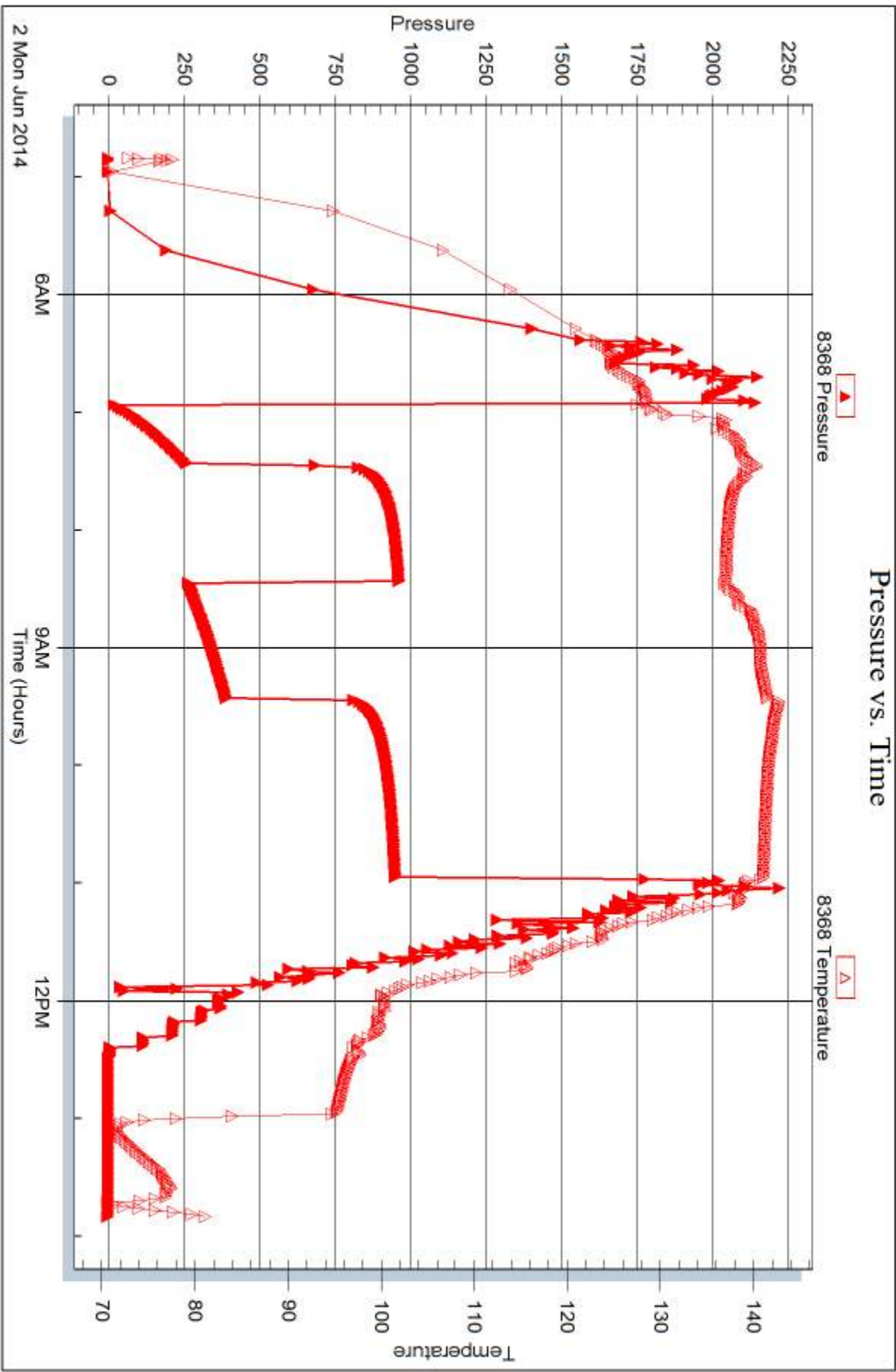
Serial #: 8368

Inside

Murfin Drilling Co., Inc.

Theron #2-10

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 58311

Printed: 2014.06.09 @ 13:52:49



DRILL STEM TEST REPORT

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

250 N. Water, Ste 300
Wichita KS 67202

ATTN: Saman Sharifaei

Theron #2-10

10-1s-37w Cheyenne,KS

Start Date: 2014.06.03 @ 06:23:00

End Date: 2014.06.03 @ 13:00:30

Job Ticket #: 58312 DST #: 2

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

Printed: 2014.06.09 @ 13:52:13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58312

DST#: 2

ATTN: Saman Sharifaei

Test Start: 2014.06.03 @ 06:23:00

GENERAL INFORMATION:

Formation: **LKC - 'G'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:06:45

Time Test Ended: 13:00:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 4130.00 ft (KB) To 4180.00 ft (KB) (TVD)

Reference Elevations: 3103.00 ft (KB)

Total Depth: 4180.00 ft (KB) (TVD)

3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 6753

Inside

Press@RunDepth: 67.02 psig @ 4131.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.03

End Date:

2014.06.03

Last Calib.: 2014.06.03

Start Time: 06:23:05

End Time:

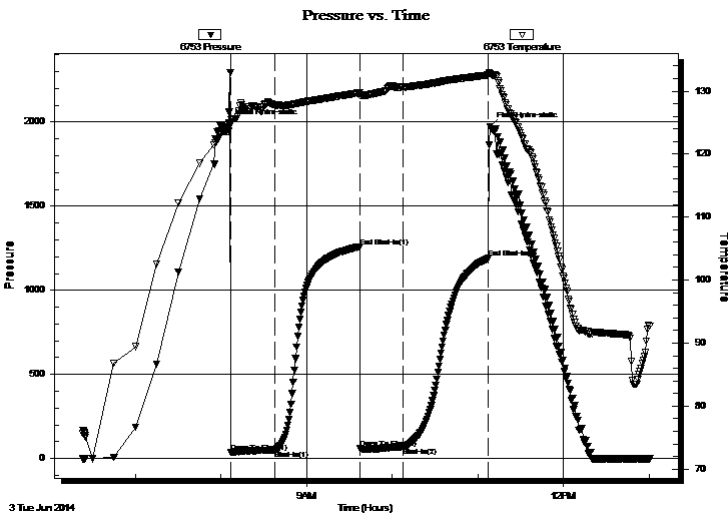
13:00:29

Time On Btm: 2014.06.03 @ 08:05:30

Time Off Btm: 2014.06.03 @ 11:08:45

TEST COMMENT: 30 - IF - Surface blow built to 2"
60 - ISI - No Return
30 - FF - Surface blow built to a little over 1/4"
60 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1992.66	123.62	Initial Hydro-static
2	37.01	124.77	Open To Flow (1)
33	50.07	127.82	Shut-In(1)
92	1258.49	129.73	End Shut-In(1)
93	58.51	129.26	Open To Flow (2)
123	67.02	130.59	Shut-In(2)
182	1191.02	132.56	End Shut-In(2)
184	1971.83	132.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
97.00	OCM - 85M - 15o	0.48
1.00	Free Oil - 100o	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne, KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58312

DST#: 2

ATTN: Saman Sharifaei

Test Start: 2014.06.03 @ 06:23:00

GENERAL INFORMATION:

Formation: **LKC - 'G'**

Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 08:06:45 Tester: Royal Fisher

Time Test Ended: 13:00:30 Unit No: #54

Interval: 4130.00 ft (KB) To 4180.00 ft (KB) (TVD) Reference Elevations: 3103.00 ft (KB)

Total Depth: 4180.00 ft (KB) (TVD) 3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

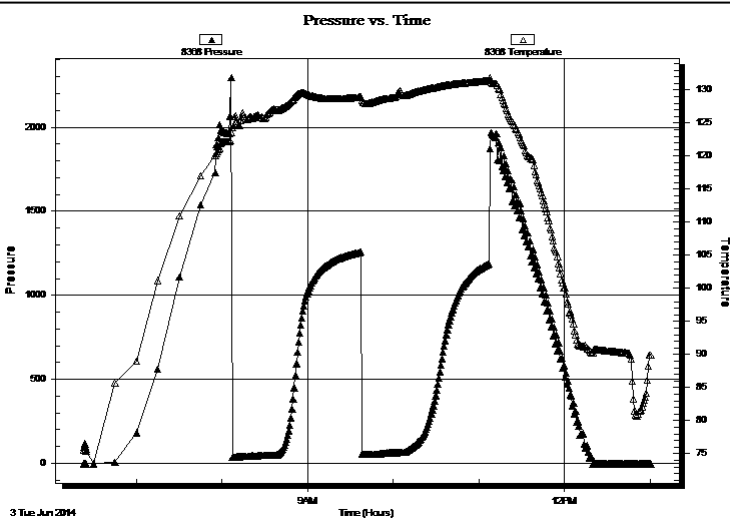
Serial #: 8368 Inside

Press@RunDepth: psig @ 4131.00 ft (KB) Capacity: 8000.00 psig

Start Date: 2014.06.03 End Date: 2014.06.03 Last Calib.: 2014.06.03

Start Time: 06:23:05 End Time: 13:00:29 Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF - Surface blow built to 2"
60 - ISI - No Return
30 - FF - Surface blow built to a little over 1/4"
60 - FSI - No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
97.00	OCM - 85M - 15o	0.48
1.00	Free Oil - 100o	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58312

DST#: 2

ATTN: Saman Sharifaei

Test Start: 2014.06.03 @ 06:23:00

Tool Information

Drill Pipe:	Length: 3550.74 ft	Diameter: 3.80 inches	Volume: 49.81 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: 556.48 ft	Diameter: 2.25 inches	Volume: 2.74 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 52.55 bbl</u>	Tool Chased 6.00 ft
Drill Pipe Above KB:	4.22 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4130.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4108.00	
Hydraulic tool	5.00			4113.00	
Jars	5.00			4118.00	
Safety Joint	3.00			4121.00	
Packer	4.00			4125.00	27.00 Bottom Of Top Packer
Packer	5.00			4130.00	
Stubb	1.00			4131.00	
Recorder	0.00	8368	Inside	4131.00	
Recorder	0.00	6753	Inside	4131.00	
Perforations	12.00			4143.00	
Change Over Sub	1.00			4144.00	
Drill Pipe	31.00			4175.00	
Change Over Sub	1.00			4176.00	
Bullnose	4.00			4180.00	50.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58312

DST#: 2

ATTN: Saman Sharifaei

Test Start: 2014.06.03 @ 06:23:00

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
97.00	OCM - 85M - 15o	0.477
1.00	Free Oil - 100o	0.005

Total Length: 98.00 ft Total Volume: 0.482 bbl

Num Fluid Samples: 0

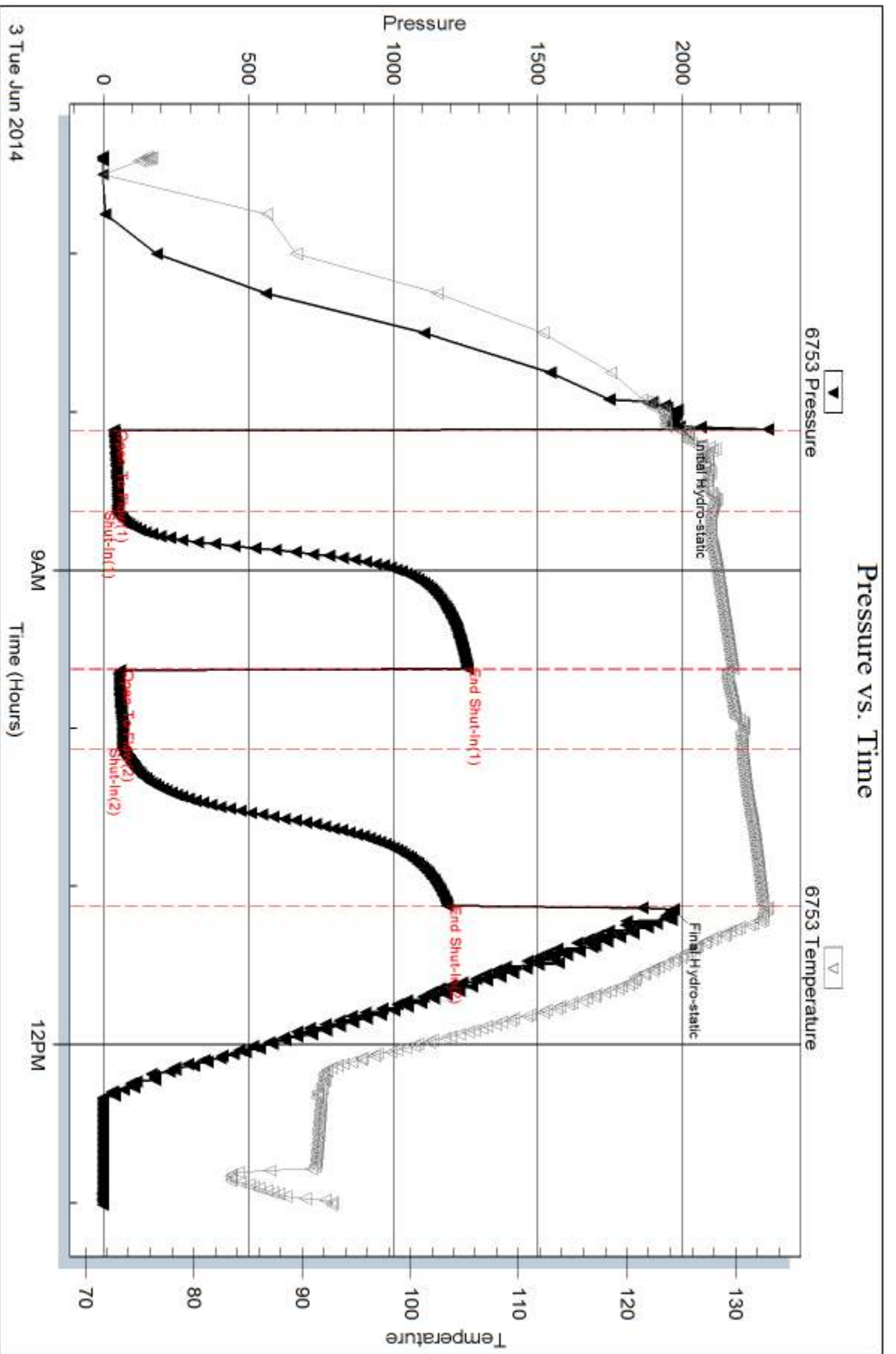
Num Gas Bombs: 0

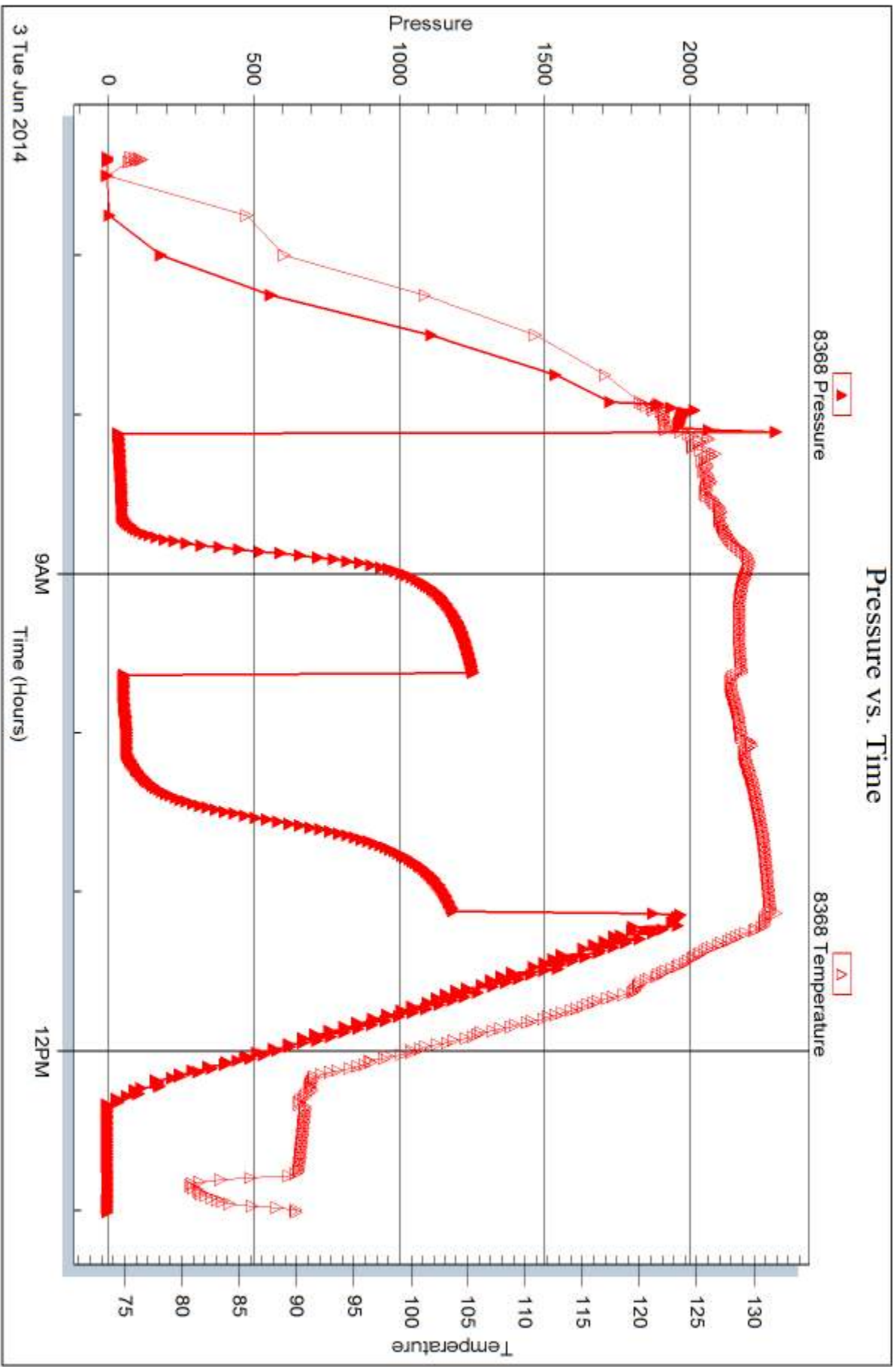
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N. Water, Ste 300
Wichita KS 67202

ATTN: Saman Sharifaei

Theron #2-10

10-1s-37w Cheyenne,KS

Start Date: 2014.06.04 @ 16:07:00

End Date: 2014.06.05 @ 01:07:30

Job Ticket #: 58313 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.09 @ 13:51:19



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58313

DST#: 3

ATTN: Saman Sharifaei

Test Start: 2014.06.04 @ 16:07:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:17:45

Time Test Ended: 01:07:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 4414.00 ft (KB) To 4464.00 ft (KB) (TVD)

Reference Elevations: 3103.00 ft (KB)

Total Depth: 4464.00 ft (KB) (TVD)

3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 6753

Inside

Press@RunDepth: 364.98 psig @ 4415.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.04

End Date:

2014.06.05

Last Calib.:

2014.06.04

Start Time:

16:07:05

End Time:

01:07:30

Time On Btm:

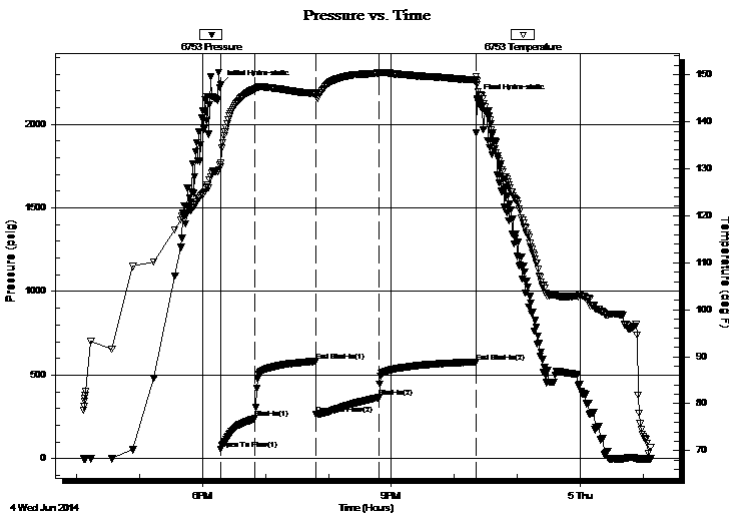
2014.06.04 @ 18:17:30

Time Off Btm:

2014.06.04 @ 22:21:30

TEST COMMENT: 30 - IF - Surface blow built to bottom of bucket in 4 mins.
60 - ISI - Return built to bottom of bucket in 25 mins.
60 - FF - Surface blow built to bottom of bucket in 11 mins
90 - FSI - Return built to bottom of bucket in 19 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2236.34	131.17	Initial Hydro-static
1	56.52	130.46	Open To Flow (1)
33	241.02	147.05	Shut-In(1)
91	582.48	146.05	End Shut-In(1)
91	263.85	145.67	Open To Flow (2)
151	364.98	150.36	Shut-In(2)
243	578.70	148.87	End Shut-In(2)
244	2152.65	148.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
188.00	OCM - 50M - 50o	0.92
805.00	Free Oil	7.94
0.00	1326 - GIP	0.00

Gas Rates

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



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Murfin Drilling Co., Inc.

250 N. Water, Ste 300
Wichita KS 67202

ATTN: Saman Sharifaei

10-1s-37w Cheyenne,KS

Theron #2-10

Job Ticket: 58313

DST#: 3

Test Start: 2014.06.04 @ 16:07:00

GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:17:45
 Time Test Ended: 01:07:30

Test Type: Conventional Bottom Hole (Initial)
 Tester: Royal Fisher
 Unit No: #54

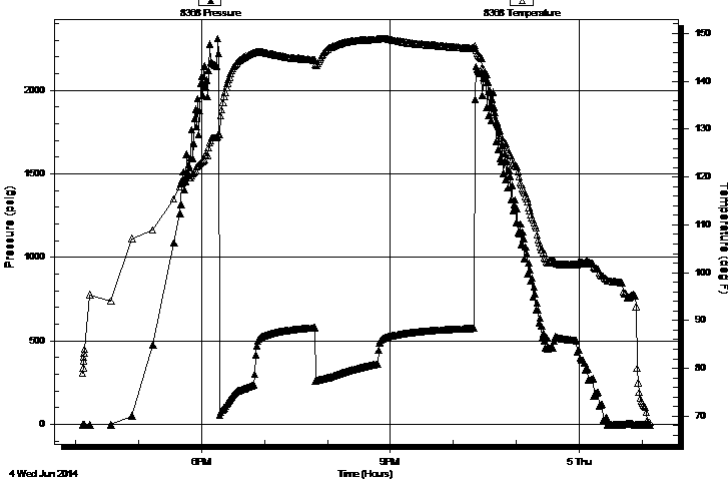
Interval: **4414.00 ft (KB) To 4464.00 ft (KB) (TVD)**
 Total Depth: 4464.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3103.00 ft (KB)
 3093.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8368 Inside
 Press@RunDepth: psig @ 4415.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.06.04 End Date: 2014.06.05 Last Calib.: 2014.06.05
 Start Time: 16:07:05 End Time: 01:07:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF - Surface blow built to bottom of bucket in 4 mins.
 60 - ISI - Return built to bottom of bucket in 25 mins.
 60 - FF - Surface blow built to bottom of bucket in 11 mins
 90 - FSI - Return built to bottom of bucket in 19 mins.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
188.00	OCM - 50M - 50o	0.92
805.00	Free Oil	7.94
0.00	1326 - GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58313

DST#: 3

ATTN: Saman Sharifaei

Test Start: 2014.06.04 @ 16:07:00

Tool Information

Drill Pipe:	Length: 3836.29 ft	Diameter: 3.80 inches	Volume: 53.81 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: 556.48 ft	Diameter: 2.25 inches	Volume: 2.74 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 56.55 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.77 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4414.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	77.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4392.00	
Hydraulic tool	5.00			4397.00	
Jars	5.00			4402.00	
Safety Joint	3.00			4405.00	
Packer	4.00			4409.00	27.00 Bottom Of Top Packer
Packer	5.00			4414.00	
Stubb	1.00			4415.00	
Recorder	0.00	8368	Inside	4415.00	
Recorder	0.00	6753	Inside	4415.00	
Perforations	12.00			4427.00	
Change Over Sub	1.00			4428.00	
Drill Pipe	31.00			4459.00	
Change Over Sub	1.00			4460.00	
Bullnose	4.00			4464.00	50.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

10-1s-37w Cheyenne,KS

250 N. Water, Ste 300
Wichita KS 67202

Theron #2-10

Job Ticket: 58313

DST#: 3

ATTN: Saman Sharifaei

Test Start: 2014.06.04 @ 16:07:00

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: 72.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
188.00	OCM - 50M - 50o	0.925
805.00	Free Oil	7.935
0.00	1326 - GIP	0.000

Total Length: 993.00 ft Total Volume: 8.860 bbl

Num Fluid Samples: 0

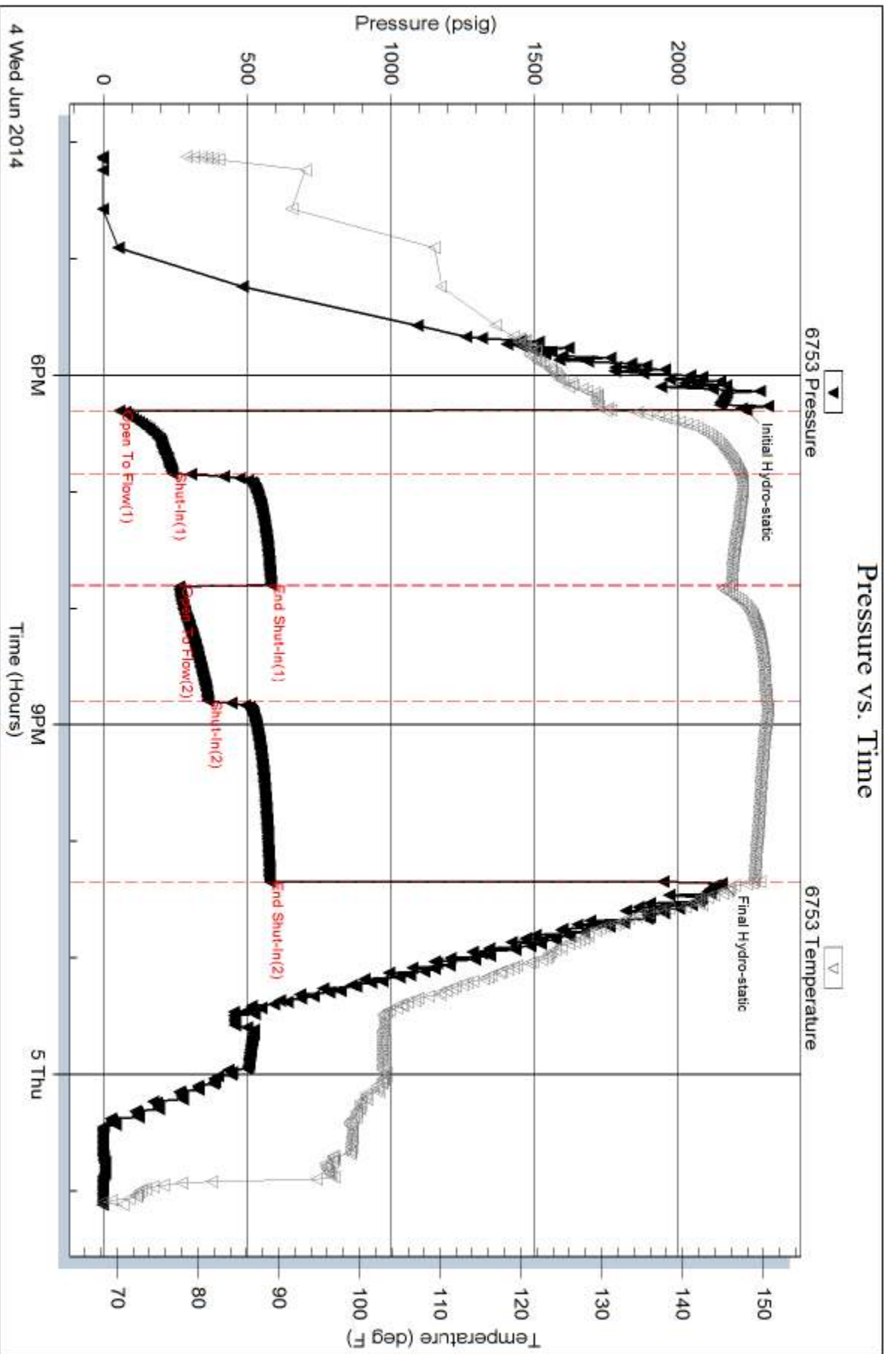
Num Gas Bombs: 0

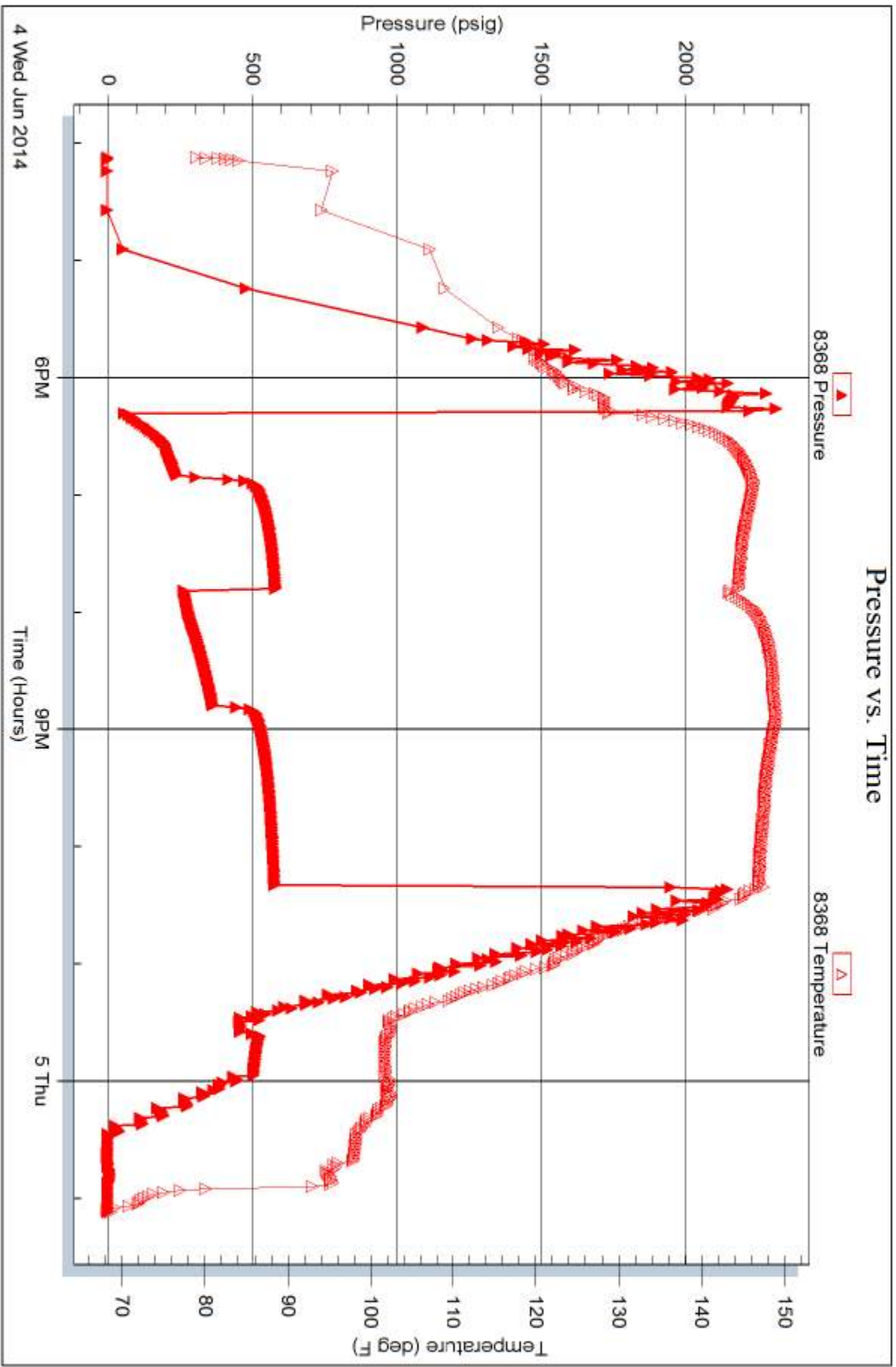
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58311

Well Name & No. Theron #2-10 Test No. 1 Date 6-2-14
 Company Murfin Drilling Co, Inc. Elevation 3103 KB 3093 GL
 Address 250 N. Water, Ste 300 Wichita Ks 67202
 Co. Rep / Geo. Saman Sharifaei Rig Murfin #4
 Location: Sec. 10 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4064-4120 Zone Tested LKC-B-D
 Anchor Length 56' Drill Pipe Run 3488.27' Mud Wt. 9.1
 Top Packer Depth 4059 Drill Collars Run 556.48' Vis 58
 Bottom Packer Depth 4064 Wt. Pipe Run 0 WL 6.0
 Total Depth 4120 Chlorides 600 ppm System LCM 5#

Blow Description IF - Surface blow built to bottom of bucket in 25 mins.
ISI - No Return
FF - Surface blow built to bottom of bucket in 27 mins.
FSL - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>410</u>	<u>OCmw</u>	<u>10</u>	<u>65</u>	<u>25</u>	
<u>376</u>	<u>OCmw</u>	<u>5</u>	<u>60</u>	<u>35</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 836 BHT 142°F Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2140 Test 1250 T-On Location 4:00am
 (B) First Initial Flow 20 Jars 250 T-Started 4:50am
 (C) First Final Flow 263 Safety Joint 75 T-Open 6:56am
 (D) Initial Shut-In 962 Circ Sub N/C T-Pulled 10:56am
 (E) Second Initial Flow 267 Hourly Standby _____ T-Out 1:50pm
 (F) Second Final Flow 391 Mileage 1.36 R/T 210.80 Comments _____
 (G) Final Shut-In 950 Sampler _____
 (H) Final Hydrostatic 2067 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1785.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1785.80

Approved By _____ Our Representative [Signature]

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



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1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58312

4/10

Well Name & No. Theron #2-10 Test No. 2 Date 6-3-14
 Company Murfin Drilling Co., Inc. Elevation 3103 KB 3093 GL
 Address 250 N. Water, Ste 300 Wichita Ks 67202
 Co. Rep / Geo. Saman Sharifaei Rig Murfin #14
 Location: Sec. 10 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4130 - 4180 Zone Tested LKC-G'
 Anchor Length 50' Drill Pipe Run 3550.74 Mud Wt. 9.4
 Top Packer Depth 4125 Drill Collars Run 556.48 Vis 54
 Bottom Packer Depth 4130 Wt. Pipe Run 0 WL 6.4
 Total Depth 4180 Chlorides 600 ppm System LCM 4#

Blow Description IF - Surface blow built up to 2"
ISI - No return
FF - Surface blow built to a little over a 1/4"
FST - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>97'</u>	<u>0cm</u>	<u>15</u>		<u>85</u>	
<u>1</u>	<u>Free Oil</u>	<u>100</u>			

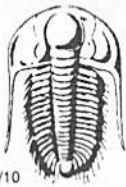
Rec Total 98' BHT 132°F Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1992 Test 1250 T-On Location 6:10 am
 (B) First Initial Flow 37 Jars 250 T-Started 6:23 am
 (C) First Final Flow 50 Safety Joint 75 T-Open 8:07 am
 (D) Initial Shut-In 1258 Circ Sub N/C T-Pulled 11:07 am
 (E) Second Initial Flow 58 Hourly Standby _____ T-Out 1:00 pm
 (F) Second Final Flow 67 Mileage 136 R/T 210.80 Comments Chased tool
 (G) Final Shut-In 1191 Sampler _____ 6' to bottom
 (H) Final Hydrostatic 1971 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 60 Ruined Packer _____
 Final Flow 30 Extra Copies _____
 Final Shut-In 60 Sub Total 0
 Sub Total 1785.80 Total 1785.80
 MP/DST Disc't _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **58313**

4/10

Well Name & No. Theron #2-10 Test No. 3 Date 6-4-14
 Company Murfin Drilling Co, Inc. Elevation 3108 KB 3093 GL
 Address 250 N. Water, Ste 300 Wichita Ks 67202
 Co. Rep / Geo. Saman Shari Faei Rig Murfin #14
 Location: Sec. 10 Twp. 1S Rge. 37W Co. Cheyenne State KS

Interval Tested 4414-4464 Zone Tested Pawnee
 Anchor Length 50' Drill Pipe Run 3836.29 Mud Wt. 9.2
 Top Packer Depth 4409 Drill Collars Run 556.48 Vis 72
 Bottom Packer Depth 4414 Wt. Pipe Run 0 WL 6.0
 Total Depth 4464 Chlorides 100 ppm System LCM 12#

Blow Description IF - surface blow built to bottom of the bucket in 4 mins.
ISI - Return built to bottom of the bucket in 25 mins.
FF - Surface blow built to bottom of bucket in 11 mins.
FSI - Return built to bottom of the bucket in 19 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>805</u>	<u>Free Oil</u>	<u>100</u>			
<u>188</u>	<u>OCM</u>	<u>50</u>		<u>50</u>	
<u> </u>	<u>1326'-GIP</u>				
<u> </u>	<u> </u>				
<u> </u>	<u> </u>				

Rec Total 993 BHT 148 Gravity 35 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic <u>2236</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>4:00pm</u>
(B) First Initial Flow <u>56</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>4:07pm</u>
(C) First Final Flow <u>241</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>6:18pm</u>
(D) Initial Shut-In <u>582</u>	<input checked="" type="checkbox"/> Circ Sub <u>Dropped bar 50</u>	T-Pulled <u>10:18pm</u>
(E) Second Initial Flow <u>263</u>	<input type="checkbox"/> Hourly Standby <u> </u>	T-Out <u>107</u>
(F) Second Final Flow <u>364</u>	<input checked="" type="checkbox"/> Mileage <u>136 R/T 210.80</u>	Comments <u>dropped bar</u>
(G) Final Shut-In <u>578</u>	<input type="checkbox"/> Sampler <u> </u>	
(H) Final Hydrostatic <u>2152</u>	<input type="checkbox"/> Straddle <u> </u>	<input type="checkbox"/> Ruined Shale Packer <u> </u>
	<input type="checkbox"/> Shale Packer <u> </u>	<input type="checkbox"/> Ruined Packer <u> </u>

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

Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1785.80

Total 1785.80
 MP/DST Disc't

Approved By Our Representative *[Signature]*

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