



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Sam Sharifaie

Ruder "A " # 2-1

1-11s-24w Trego,KS

Start Date: 2012.11.24 @ 19:08:01

End Date: 2012.11.25 @ 02:14:20

Job Ticket #: 51528 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.28 @ 09:30:12

Murfin Drilling Co Inc
1-11s-24w Trego,KS
Ruder "A " # 2-1
DST # 1
LKC " B "
2012.11.24



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A" # 2-1
Job Ticket: 51528 **DST#: 1**
Test Start: 2012.11.24 @ 19:08:01

GENERAL INFORMATION:

Formation: **LKC " B "**
Deviated: No Whipstock: 2296.00 ft (KB)
Time Tool Opened: 21:45:20
Time Test Ended: 02:14:20
Interval: **3666.00 ft (KB) To 3685.00 ft (KB) (TVD)**
Total Depth: 3685.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 41
Reference Elevations: 2296.00 ft (KB)
2291.00 ft (CF)
KB to GR/CF: 5.00 ft

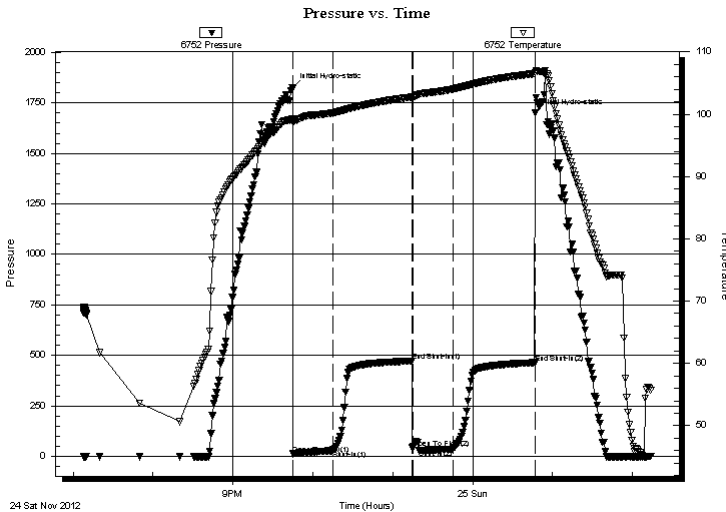
Serial #: 6752

Inside

Press @ RunDepth: 37.22 psig @ 3667.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.11.24 End Date: 2012.11.25 Last Calib.: 2012.11.25
Start Time: 19:08:01 End Time: 02:14:20 Time On Btm: 2012.11.24 @ 21:45:00
Time Off Btm: 2012.11.25 @ 00:47:00

TEST COMMENT: 30-IFP- Surface Blow Building to 1" in 12 min
60-ISIP- No Blow
30-FFP- Surface Blow Building to 1/4"
60-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1823.73	99.18	Initial Hydro-static
1	12.26	98.70	Open To Flow (1)
30	29.12	100.21	Shut-In(1)
90	471.71	102.76	End Shut-In(1)
90	40.57	102.72	Open To Flow (2)
120	37.22	104.00	Shut-In(2)
182	463.82	106.50	End Shut-In(2)
182	1698.94	106.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	WCM 40%w 60%m show of oil	0.30
8.00	W & OCM 14%w 18%o 68%m	0.11

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51528 **DST#: 1**
Test Start: 2012.11.24 @ 19:08:01

Tool Information

Drill Pipe:	Length: 3615.00 ft	Diameter: 3.80 inches	Volume: 50.71 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 50.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3666.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	46.00 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			3644.00	
Hydraulic tool	5.00			3649.00	
Jars	5.00			3654.00	
Safety Joint	2.00			3656.00	
Packer	5.00			3661.00	27.00 Bottom Of Top Packer
Packer	5.00			3666.00	
Stubb	1.00			3667.00	
Recorder	0.00	6752	Inside	3667.00	
Recorder	0.00	8322	Outside	3667.00	
Perforations	15.00			3682.00	
Bullnose	3.00			3685.00	19.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51528 **DST#: 1**
Test Start: 2012.11.24 @ 19:08:01

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:	49000 ppm
Viscosity: 78.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.95 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	WCM 40%w 60%m show of oil	0.297
8.00	W & OCM 14%w 18%o 68%m	0.112

Total Length: 48.00 ft Total Volume: 0.409 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: .255 @ 43

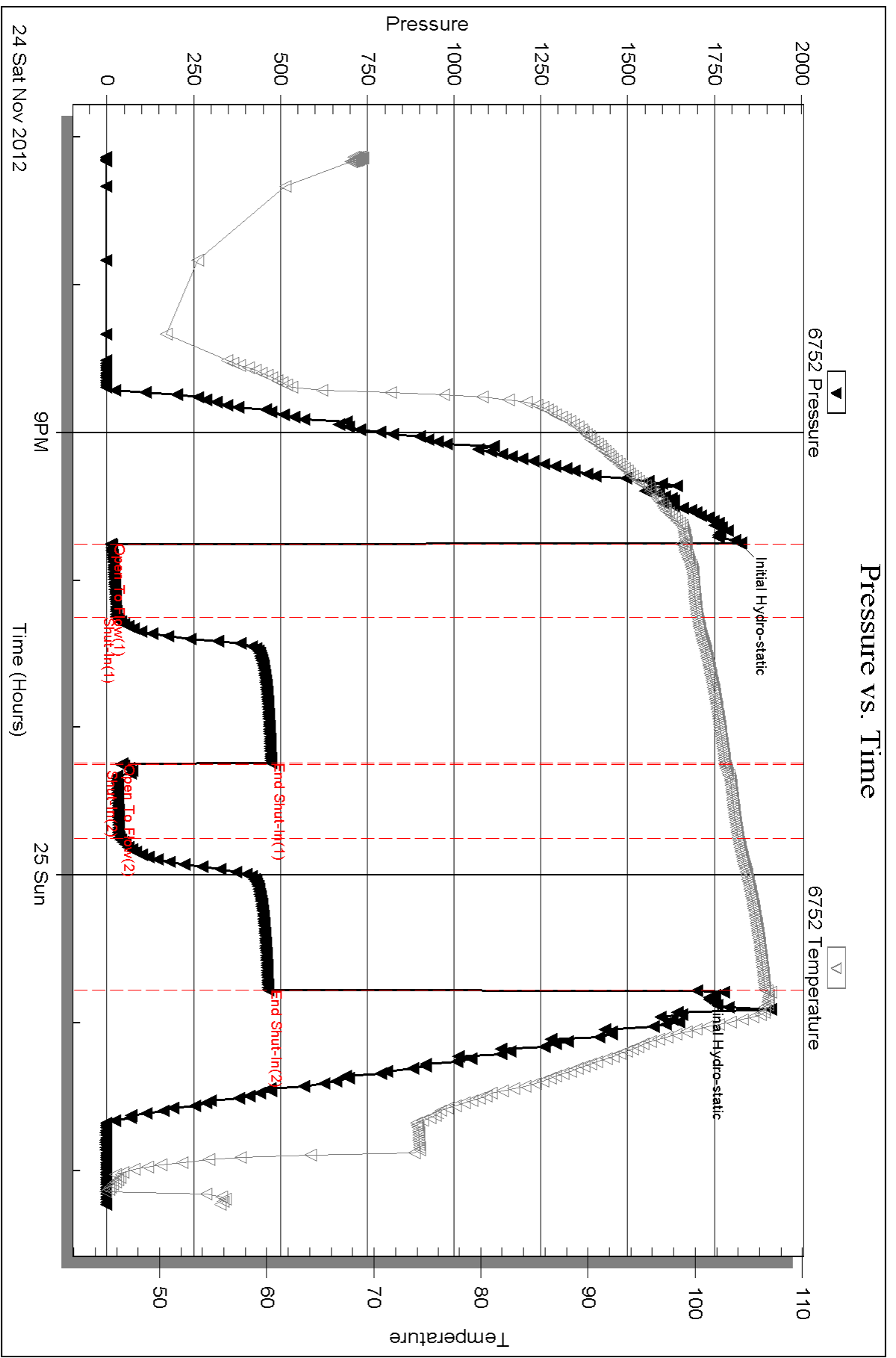
Serial #: 6752

Inside

Murfin Drilling Co Inc

Ruder "A" # 2-1

DST Test Number: 1

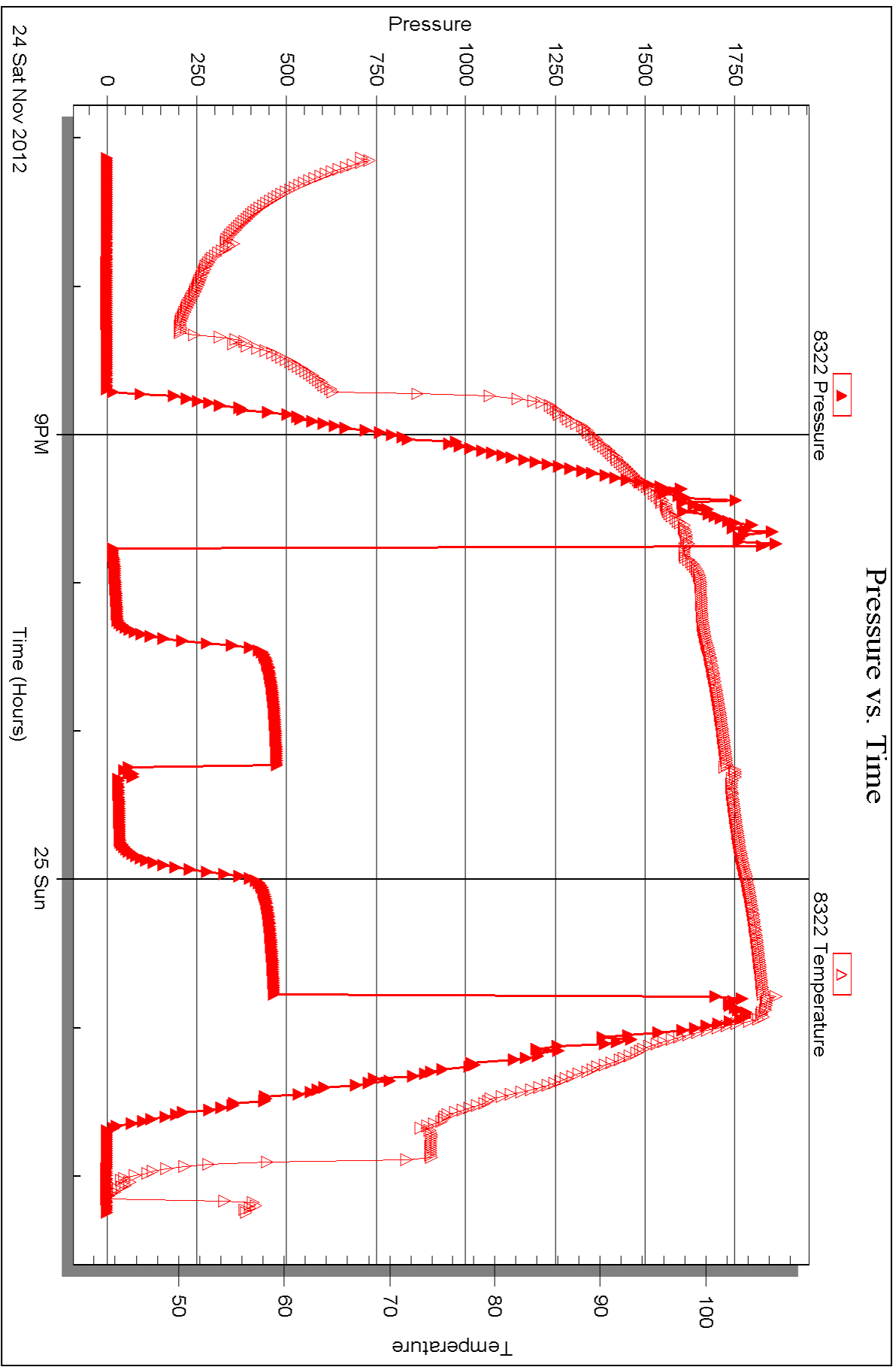


Serial #: 8322

Outside Murfin Drilling Co Inc

Ruder "A" # 2-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Sam Sharifaie

Ruder "A " # 2-1

1-11s-24w Trego,KS

Start Date: 2012.11.25 @ 12:34:00

End Date: 2012.11.25 @ 19:15:00

Job Ticket #: 51529 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.28 @ 09:29:27

Murfin Drilling Co Inc

1-11s-24w Trego,KS

Ruder "A " # 2-1

DST # 2

LKC " D - G "

2012.11.25



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202-1216
 ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A" # 2-1
 Job Ticket: 51529 **DST#: 2**
 Test Start: 2012.11.25 @ 12:34:00

GENERAL INFORMATION:

Formation: **LKC " D - G "**
 Deviated: No Whipstock: 2296.00 ft (KB)
 Time Tool Opened: 14:17:45
 Time Test Ended: 19:15:00
 Interval: **3684.00 ft (KB) To 3750.00 ft (KB) (TVD)**
 Total Depth: 3750.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 41
 Reference Elevations: 2296.00 ft (KB)
 2291.00 ft (CF)
 KB to GR/CF: 5.00 ft

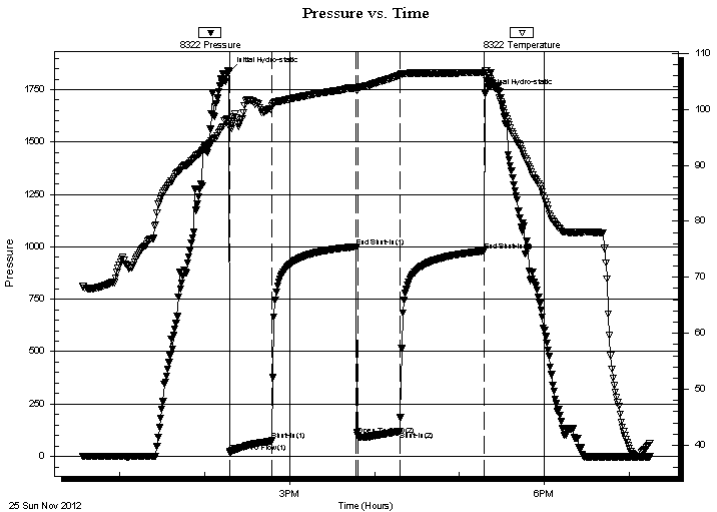
Serial #: 8322

Outside

Press @ Run Depth: 119.84 psig @ 3685.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.11.25 End Date: 2012.11.25 Last Calib.: 2012.11.25
 Start Time: 12:34:05 End Time: 19:14:44 Time On Btm: 2012.11.25 @ 14:17:40
 Time Off Btm: 2012.11.25 @ 17:18:00

TEST COMMENT: 30-IFP- Very Weak Surging Surface Blow
 60-ISIP- No Blow
 30-FFP- Very Weak Surging Surface Blow
 60-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1836.83	97.77	Initial Hydro-static
1	19.14	96.63	Open To Flow (1)
30	74.88	100.66	Shut-In(1)
90	1000.73	103.78	End Shut-In(1)
91	99.61	103.65	Open To Flow (2)
121	119.84	106.09	Shut-In(2)
180	980.42	106.55	End Shut-In(2)
181	1728.71	106.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
206.00	MCW 40%w 60%m Show of Oil	2.63

* 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
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51529 **DST#: 2**
Test Start: 2012.11.25 @ 12:34:00

Tool Information

Drill Pipe:	Length: 3646.00 ft	Diameter: 3.80 inches	Volume: 51.14 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 51.28 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3684.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	93.00 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			3662.00	
Hydraulic tool	5.00			3667.00	
Jars	5.00			3672.00	
Safety Joint	2.00			3674.00	
Packer	5.00			3679.00	27.00 Bottom Of Top Packer
Packer	5.00			3684.00	
Stubb	1.00			3685.00	
Recorder	0.00	6752	Inside	3685.00	
Recorder	0.00	8322	Outside	3685.00	
Perforations	28.00			3713.00	
Change Over Sub	1.00			3714.00	
Blank Spacing	32.00			3746.00	
Change Over Sub	1.00			3747.00	
Bullnose	3.00			3750.00	66.00 Bottom Packers & Anchor

Total Tool Length: 93.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51529 **DST#: 2**
Test Start: 2012.11.25 @ 12:34:00

Mud and Cushion Information

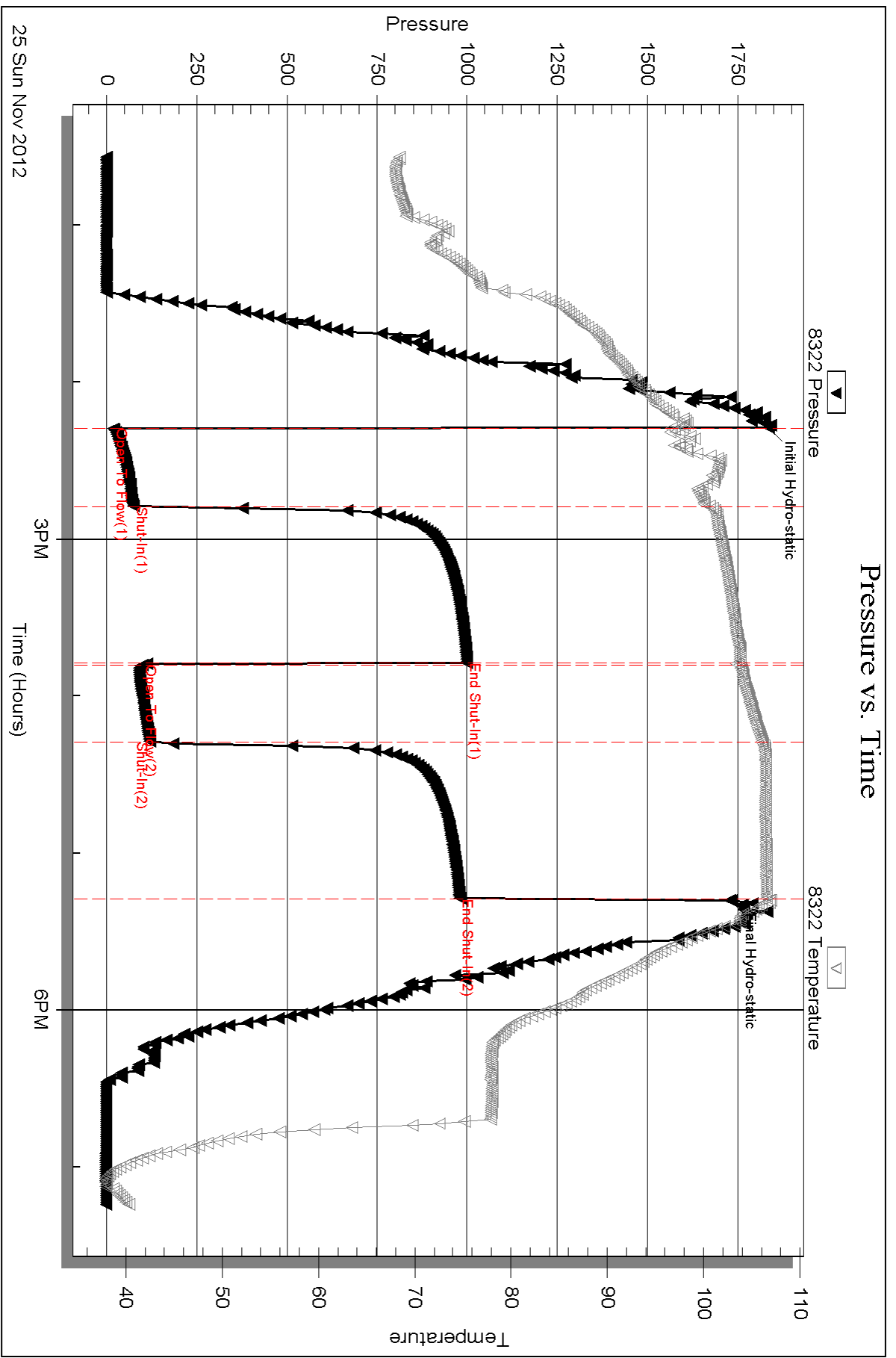
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.37 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2600.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
206.00	MCW 40%w 60%m Show of Oil	2.625

Total Length: 206.00 ft Total Volume: 2.625 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 67202-1216

ATTN: Sam Sharifaie

Ruder "A " # 2-1

1-11s-24w Trego,KS

Start Date: 2012.11.26 @ 04:36:00

End Date: 2012.11.26 @ 10:50:00

Job Ticket #: 51530 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.28 @ 09:28:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water Ste 300
 Wichita KS 67202-1216
 ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A" # 2-1
 Job Ticket: 51530 **DST#: 3**
 Test Start: 2012.11.26 @ 04:36:00

GENERAL INFORMATION:

Formation: **LKC " H & I "**
 Deviated: No Whipstock: 2296.00 ft (KB)
 Time Tool Opened: 06:26:00
 Time Test Ended: 10:50:00
 Interval: **3757.00 ft (KB) To 3820.00 ft (KB) (TVD)**
 Total Depth: 3820.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 41
 Reference Elevations: 2296.00 ft (KB)
 2291.00 ft (CF)
 KB to GR/CF: 5.00 ft

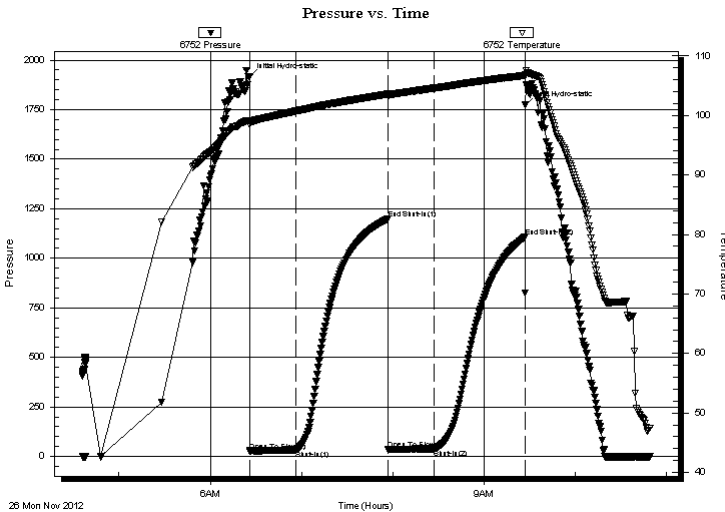
Serial #: 6752

Inside

Press @ RunDepth: 38.69 psig @ 3758.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.11.26 End Date: 2012.11.26 Last Calib.: 2012.11.26
 Start Time: 04:36:01 End Time: 10:49:30 Time On Btm: 2012.11.26 @ 06:25:50
 Time Off Btm: 2012.11.26 @ 09:27:10

TEST COMMENT: 30-IFP- Surface Blow Building to 1/2" in 5 min. Died Back in 7 min.
 60-ISIP- No Blow
 30-FFP- Surface Blow Died in 5 min.
 60-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1914.06	99.18	Initial Hydro-static
1	27.05	98.46	Open To Flow (1)
31	32.87	100.71	Shut-In(1)
91	1197.16	103.59	End Shut-In(1)
92	35.79	103.44	Open To Flow (2)
121	38.69	104.59	Shut-In(2)
181	1107.15	106.73	End Shut-In(2)
182	1772.27	106.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil Speck Mud	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
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51530 **DST#: 3**
Test Start: 2012.11.26 @ 04:36:00

Tool Information

Drill Pipe:	Length: 3711.00 ft	Diameter: 3.80 inches	Volume: 52.06 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 52.20 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3757.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	90.00 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			3735.00	
Hydraulic tool	5.00			3740.00	
Jars	5.00			3745.00	
Safety Joint	2.00			3747.00	
Packer	5.00			3752.00	27.00 Bottom Of Top Packer
Packer	5.00			3757.00	
Stubb	1.00			3758.00	
Recorder	0.00	6752	Inside	3758.00	
Recorder	0.00	8322	Outside	3758.00	
Perforations	25.00			3783.00	
Change Over Sub	1.00			3784.00	
Blank Spacing	32.00			3816.00	
Change Over Sub	1.00			3817.00	
Bullnose	3.00			3820.00	63.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51530 **DST#: 3**
Test Start: 2012.11.26 @ 04:36:00

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: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Oil Speck Mud	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:

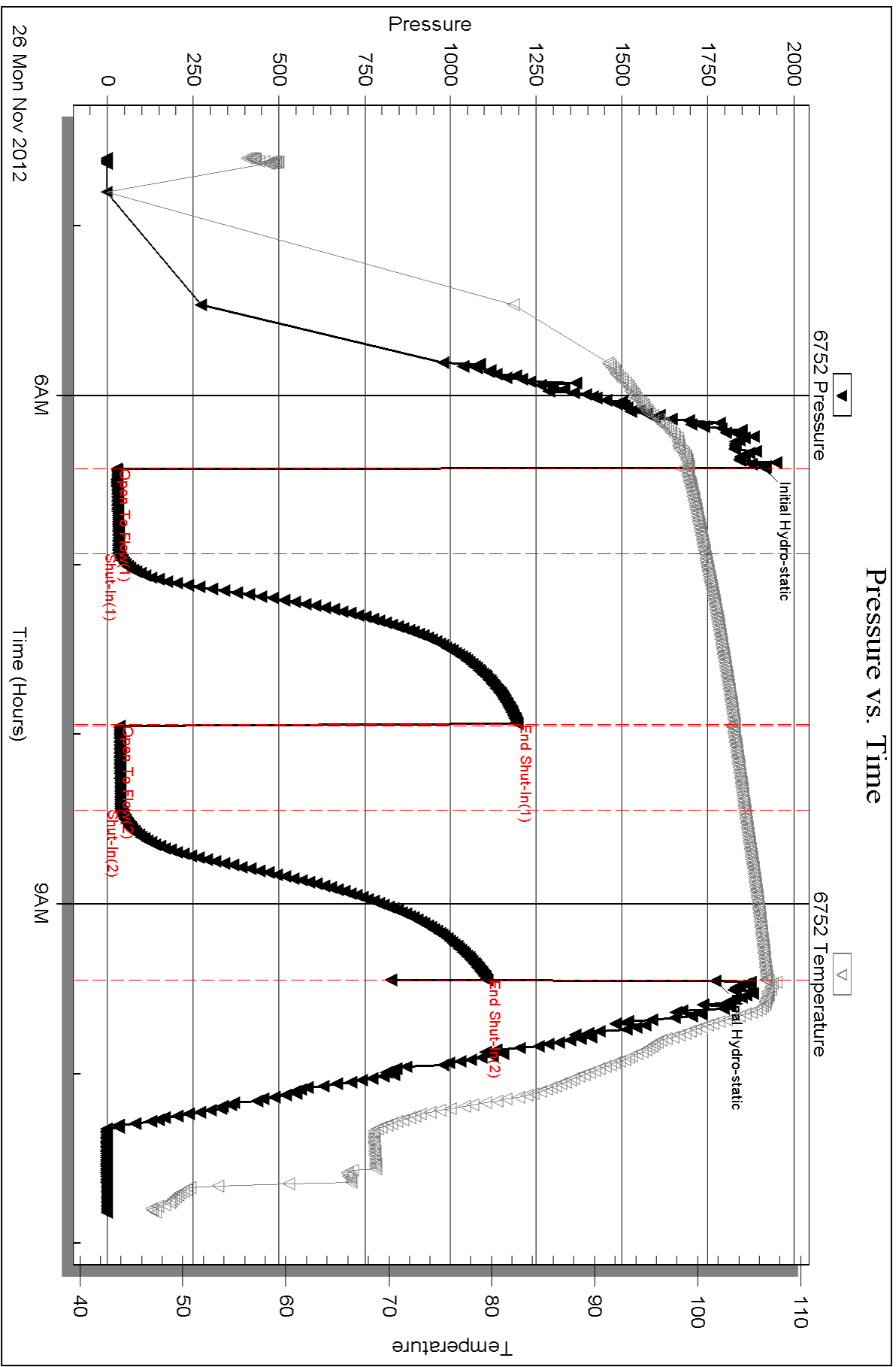
Serial #: 6752

Inside

Murfin Drilling Co Inc

Ruder "A" # 2-1

DST Test Number: 3

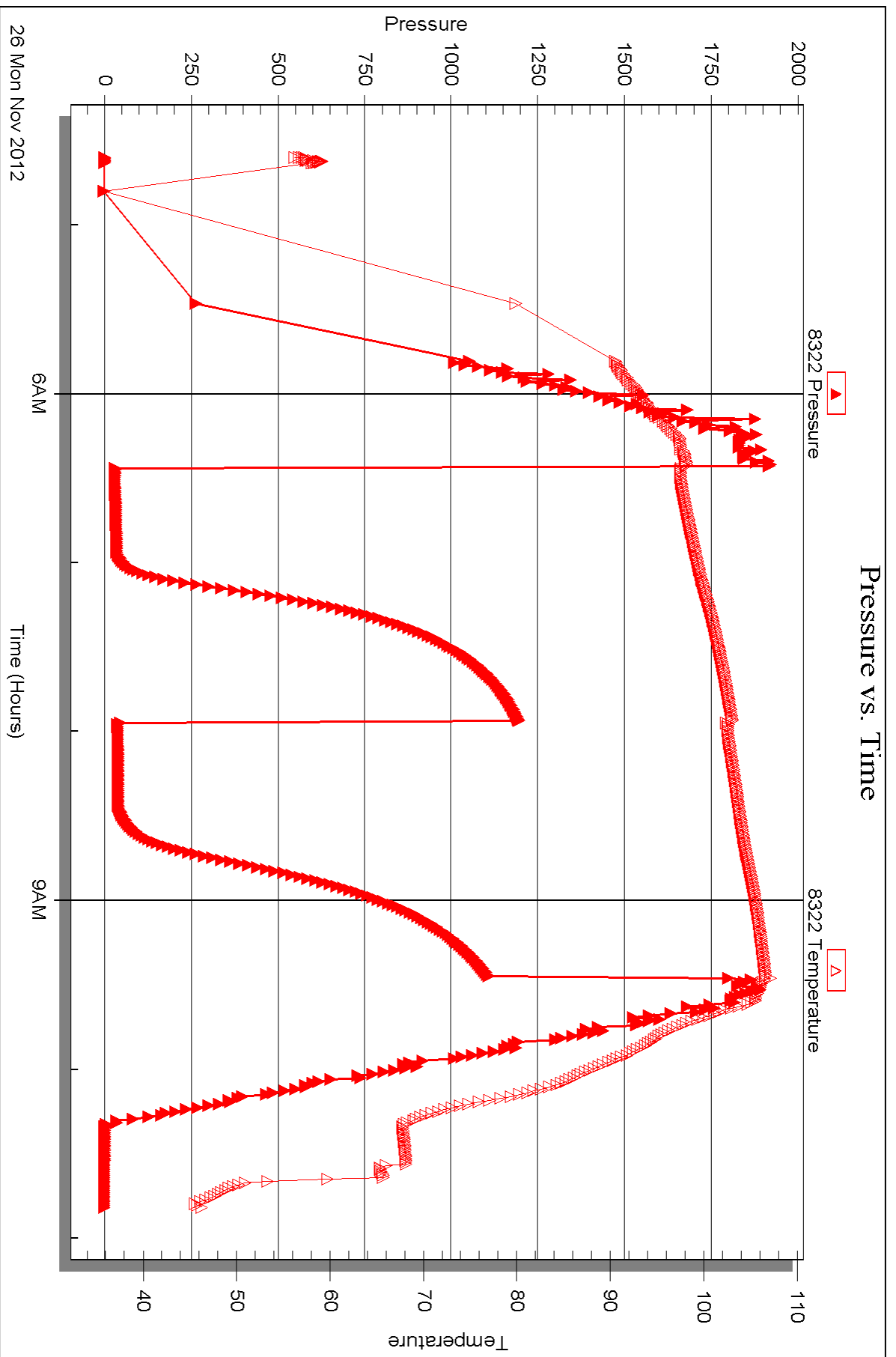


26 Mon Nov 2012

6AM

Time (Hours)

9AM



26 Mon Nov 2012

6AM

Time (Hours)

9AM



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water Ste 300
Wichita KS 67202-1216

ATTN: Sam Sharifaie

Ruder "A " # 2-1

1-11s-24w Trego,KS

Start Date: 2012.11.26 @ 18:33:00

End Date: 2012.11.27 @ 03:33:00

Job Ticket #: 51531 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.28 @ 09:28:00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

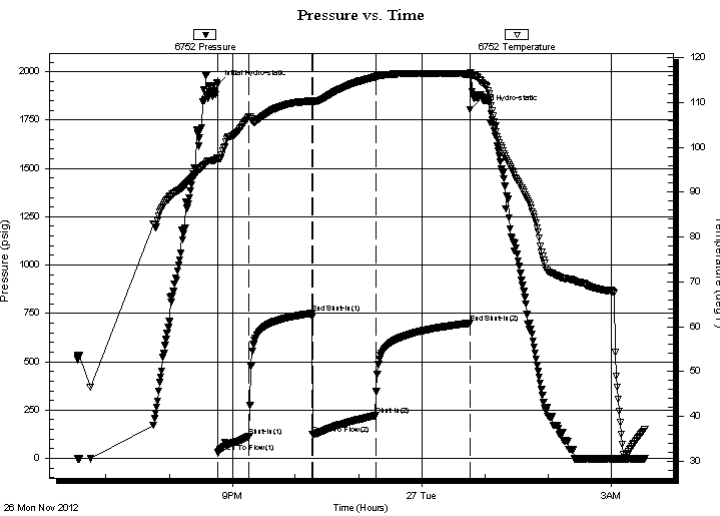
1-11s-24w Trego,KS
Ruder "A" # 2-1
Job Ticket: 51531 **DST#: 4**
Test Start: 2012.11.26 @ 18:33:00

GENERAL INFORMATION:

Formation: **LKC " J & K "**
Deviated: No Whipstock: 2296.00 ft (KB)
Time Tool Opened: 20:46:30
Time Test Ended: 03:33:00
Interval: **3814.00 ft (KB) To 3860.00 ft (KB) (TVD)**
Total Depth: 3860.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41
Reference Elevations: 2296.00 ft (KB)
2291.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6752 Inside
Press @ Run Depth: 221.10 psig @ 3815.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.11.26 End Date: 2012.11.27 Last Calib.: 2012.11.27
Start Time: 18:33:01 End Time: 03:32:00 Time On Btm: 2012.11.26 @ 20:46:20
Time Off Btm: 2012.11.27 @ 00:46:20

TEST COMMENT: 30-IFP- BOB in 8 min
60-ISIP- Surface Blow Building to 3/4" in 10 min Died Back in 27 min.
60-FFP- BOB in 14 min
90-FSIP- Surface Blow Building to 1/2" in 12 min Died Back in 40 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1935.30	97.78	Initial Hydro-static
1	29.23	97.45	Open To Flow (1)
30	113.10	106.88	Shut-In(1)
90	750.01	110.38	End Shut-In(1)
90	123.25	110.25	Open To Flow (2)
150	221.10	115.76	Shut-In(2)
240	699.42	116.38	End Shut-In(2)
240	1803.21	116.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
252.00	MCW 10% m 90% w	3.27
63.00	GOMCW 15% g 15% o 30% m 40% w	0.88
146.00	MCO 30% m 70% o	2.05
0.00	484 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51531 **DST#: 4**
Test Start: 2012.11.26 @ 18:33:00

Tool Information

Drill Pipe:	Length: 3775.00 ft	Diameter: 3.80 inches	Volume: 52.95 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 53000.00 lb
			<u>Total Volume: 53.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3814.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	73.00 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			3792.00	
Hydraulic tool	5.00			3797.00	
Jars	5.00			3802.00	
Safety Joint	2.00			3804.00	
Packer	5.00			3809.00	27.00 Bottom Of Top Packer
Packer	5.00			3814.00	
Stubb	1.00			3815.00	
Recorder	0.00	6752	Inside	3815.00	
Recorder	0.00	8322	Outside	3815.00	
Perforations	8.00			3823.00	
Change Over Sub	1.00			3824.00	
Blank Spacing	32.00			3856.00	
Change Over Sub	1.00			3857.00	
Bullnose	3.00			3860.00	46.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water Ste 300
Wichita KS 67202-1216
ATTN: Sam Sharifaie

1-11s-24w Trego,KS
Ruder "A " # 2-1
Job Ticket: 51531 **DST#: 4**
Test Start: 2012.11.26 @ 18:33:00

Mud and Cushion Information

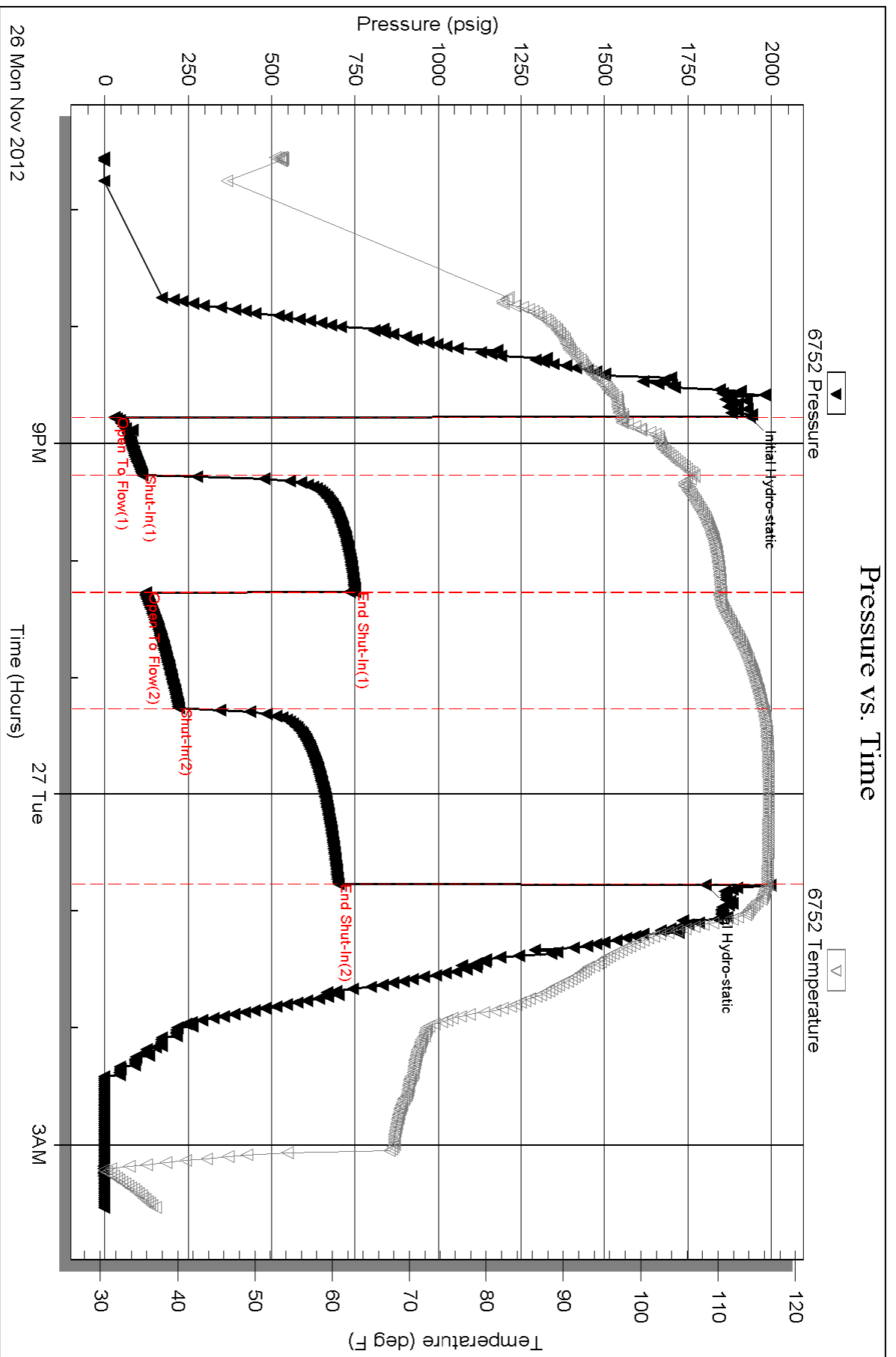
Mud Type: Gel Chem	Cushion Type:	Oil API: 27 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 51000 ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.39 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 3000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
252.00	MCW 10%m 90%w	3.271
63.00	GOMCW 15%g 15%o 30%m 40%w	0.884
146.00	MCO 30%m 70%o	2.048
0.00	484 GIP	0.000

Total Length: 461.00 ft Total Volume: 6.203 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .262 @ 40

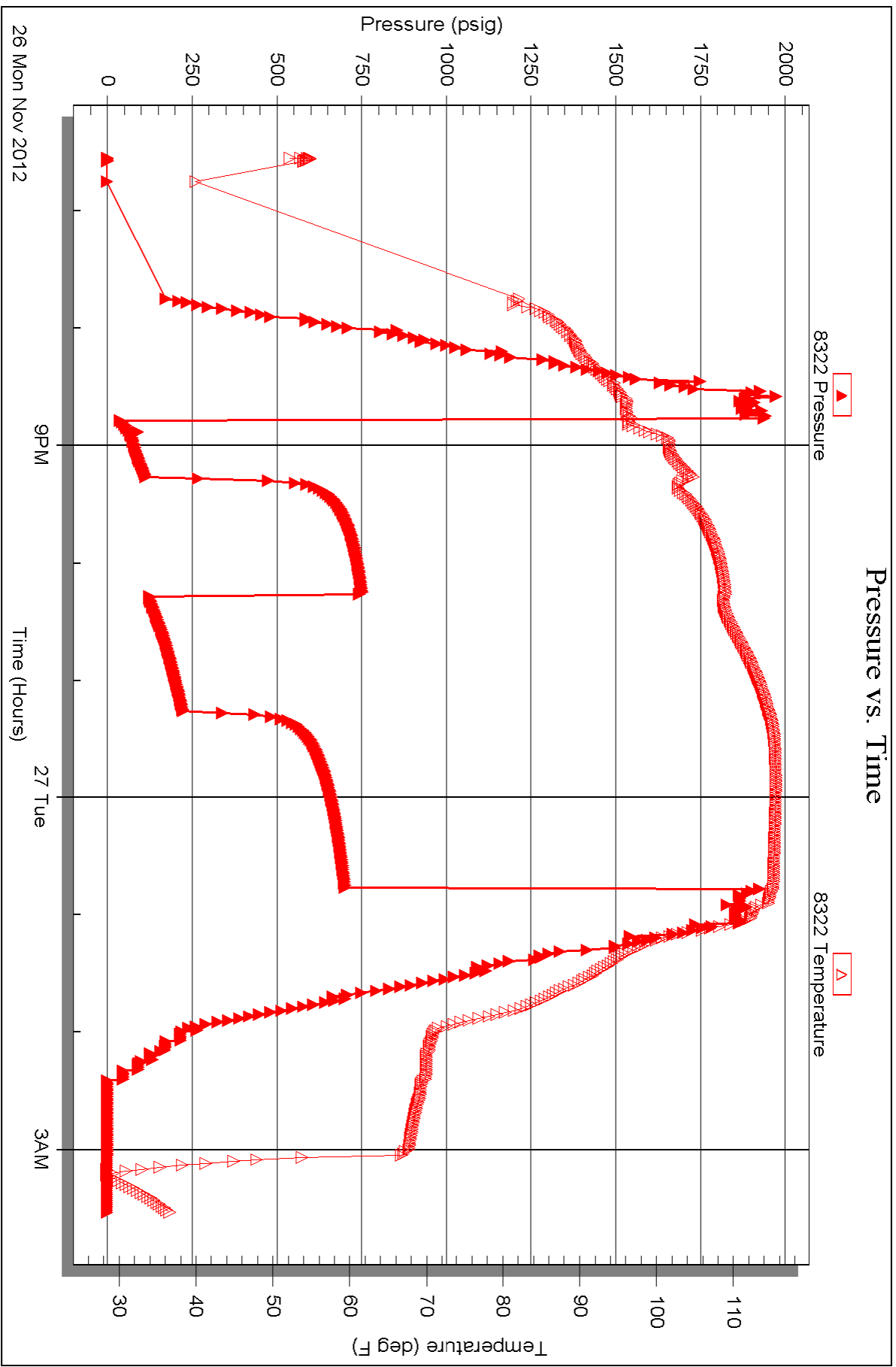


Serial #: 8322

Outside Murfin Drilling Co Inc

Ruder "A" # 2-1

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51528

Well Name & No. Ruder A #2-1 Test No. 1 Date 11-24-12
 Company Murfin Drilling Co. Inc. Elevation 2296 KB 2291 GL
 Address 250 N. WATER St & 300 Wichita Ks, 67202-1216
 Co. Rep / Geo. SAMAN SHARIFAIE Rig MURFIN #16
 Location: Sec. 1 Twp. 11^S Rge. 24^W Co. Trego State KS

Interval Tested 3666-3685 Zone Tested LKC "B"
 Anchor Length 19 Drill Pipe Run 3615 Mud Wt. 8.7
 Top Packer Depth 3661 Drill Collars Run 29 Vis 78
 Bottom Packer Depth 3666 Wt. Pipe Run 0 WL 6.0
 Total Depth 3685 Chlorides 2500 ppm System LCM 0

Blow Description IFP - SURFACE Blow Building to 1in in 12min.
FSIP - No Blow
FFP - SURFACE Blow Building to 1/4in.
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>WCM Show of Oil</u>		<u>40</u>	<u>60</u>	
<u>8</u>	<u>W & OCM</u>	<u>18</u>	<u>14</u>	<u>68</u>	

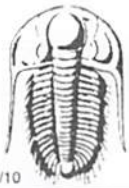
Rec Total 48 BHT 106 Gravity _____ API RW 1255 @ 43 °F Chlorides 49000 ppm

(A) Initial Hydrostatic 1823 Test 1150 T-On Location 18:32
 (B) First Initial Flow 12 Jars 250 T-Started 19:08
 (C) First Final Flow 29 Safety Joint 75 T-Open 21:45
 (D) Initial Shut-In 471 Circ Sub T-Pulled 00:45
 (E) Second Initial Flow 40 Hourly Standby T-Out 02:15
 (F) Second Final Flow 37 Mileage 84 RT 130.20
 (G) Final Shut-In 463 Sampler
 (H) Final Hydrostatic 1698 Straddle

Initial Open 30 Shale Packer
 Initial Shut-In 60 Extra Packer
 Final Flow 30 Extra Recorder
 Final Shut-In 60 Day Standby
 Sub Total 1605.20 Accessibility
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51529

Well Name & No. Ruder A # 2-1 Test No. 2 Date 11-25-12
 Company Murfin Drilling Co. Inc. Elevation 2296 KB 2291 GL
 Address 250N. WATER STe 300 WICHITA KS. 67202-1216
 Co. Rep / Geo. SAMAN SHARIFAIE Rig Murfin # 16
 Location: Sec. 1 Twp. 11^s Rge. 24^w Co. Trego State K5

Interval Tested 3684 - 3750 Zone Tested LKC "D-2"
 Anchor Length 66 Drill Pipe Run 3646 Mud Wt. 9.0
 Top Packer Depth 3679 Drill Collars Run 29 Vis 64
 Bottom Packer Depth 3684 Wt. Pipe Run Ø WL 6.4
 Total Depth 3750 Chlorides 2600 ppm System LCM Ø

Blow Description IFP - Very Weak Surging Blow
ISIP - No Blow
FFP - Very Weak Surging Blow
FSIP - No Blow

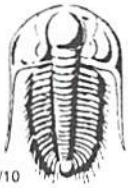
Rec	Feet of	%gas	%oil	%water	%mud
<u>206</u>	<u>WCM show of oil</u>		<u>40</u>	<u>60</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 206 BHT 106 Gravity _____ API RW 1212 @ 50 ° F Chlorides 50000 ppm

(A) Initial Hydrostatic <u>1836</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:33</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:34</u>
(C) First Final Flow <u>74</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>14:18</u>
(D) Initial Shut-In <u>1000</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>17:18</u>
(E) Second Initial Flow <u>99</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>19:15</u>
(F) Second Final Flow <u>119</u>	<input checked="" type="checkbox"/> Mileage <u>130.20</u>	Comments _____
(G) Final Shut-In <u>980</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1728</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1605.20</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1605.20</u>	

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51530

4/10

Well Name & No. Rader A # 2-1 Test No. 3 Date 11-26-12
 Company Murfin Drilling Co. Inc. Elevation 2296 KB 2291 GL
 Address 250 N. WATER Ste 300 WICHITA KS, 67202-1216
 Co. Rep / Geo. SAMAN SHARIFAIE Rig Murfin #16
 Location: Sec. 1 Twp. 11s Rge. 24w Co. Trego State K5

Interval Tested 3757-3820 Zone Tested LRC "H & I"
 Anchor Length 63 Drill Pipe Run 3711 Mud Wt. 9.2
 Top Packer Depth 3752 Drill Collars Run 29 Vis 59
 Bottom Packer Depth 3757 Wt. Pipe Run 0 WL 6.4
 Total Depth 3820 Chlorides 3000 ppm System LCM 0

Blow Description IFP - SURFACE Blow Building to 1/2 in. in 5 min. Died Back in 7 min.
ISIP - No Blow
FFP - SURFACE Blow Died Back in 5 min
FSIP - No Blow

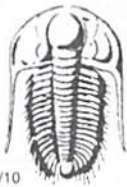
Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Oil Speck Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 1060 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1914</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>04:03</u>
(B) First Initial Flow <u>27</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>04:36</u>
(C) First Final Flow <u>32</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>06:27</u>
(D) Initial Shut-In <u>1197</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>09:27</u>
(E) Second Initial Flow <u>35</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>10:50</u>
(F) Second Final Flow <u>38</u>	<input checked="" type="checkbox"/> Mileage <u>130.20</u>	Comments _____
(G) Final Shut-In <u>1107</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1772</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1605.20</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1605.20</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51531

4/10

Well Name & No. Ruder A #2-1 Test No. 4 Date 11-26-12
 Company Murfin Drilling Co., Inc Elevation 2296 KB 2291 GL
 Address 250 N. Water Ste 300 Wichita KS, 67202-1216
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #16
 Location: Sec. 1 Twp. 11^s Rge. 24^w Co. Trego State KS

Interval Tested 3814-3860 Zone Tested LKC "J&K"
 Anchor Length 46 Drill Pipe Run 3775 Mud Wt. 9.2
 Top Packer Depth 3809 Drill Collars Run 29 Vis 59
 Bottom Packer Depth 3814 Wt. Pipe Run 0 WL 6.4
 Total Depth 3860 Chlorides 3000 ppm System LCM 0

Blow Description IFP - BOB in 8min
ISIP - Surface Blow Building to 3/4 in. in 10min. Died Back in 27min
FFP - BOB in 14min
FSIP - Surface Blow Building to 1/2 in. in 12min. Died Back in 40min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>252</u>	<u>mcw</u>		<u>90</u>	<u>10</u>	
<u>63</u>	<u>20mcw</u>	<u>15</u>	<u>15</u>	<u>40</u>	<u>30</u>
<u>146</u>	<u>mco</u>		<u>70</u>	<u>30</u>	
	<u>484 DIP</u>				

Rec Total 461 BHT 116 Gravity 27 API RW 262 @ 40 °F Chlorides 51000 ppm

(A) Initial Hydrostatic 1935 Test 1150 T-On Location 17:45
 (B) First Initial Flow 29 Jars 250 T-Started 18:33
 (C) First Final Flow 113 Safety Joint 75 T-Open 20:47
 (D) Initial Shut-In 750 Circ Sub _____ T-Pulled 00:47
 (E) Second Initial Flow 123 Hourly Standby _____ T-Out 03:33
 (F) Second Final Flow 221 Mileage 130.20 Comments _____
 (G) Final Shut-In 699 Sampler _____
 (H) Final Hydrostatic 1803 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1605.20
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 1605.20

Approved By _____ Our Representative [Signature]

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