

1261233



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Geologist Report / Mud Logs	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

- Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
- Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
- Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i>	PRODUCTION INTERVAL: Top _____ Bottom _____
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:
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Form	ACO1 - Well Completion
Operator	Murfin Drilling Co., Inc.
Well Name	John 'A' 1-24
Doc ID	1261233

All Electric Logs Run

DIL
DUCP
MEL
BHCS
CBL



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO INC**

250 N Water STE 300
Wichita KS 67202

ATTN: Larry Nichol森

John "A" 1-24

24 1S 36W Rawlins KS

Start Date: 2015.06.14 @ 10:30:00

End Date: 2015.06.14 @ 18:07:30

Job Ticket #: 65058 DST #: 1

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

Printed: 2015.06.17 @ 16:27:53

Murfin Drilling CO INC
24 1S 36W Rawlins KS
John "A" 1-24
DST # 1
LKC "A-D"
2015.06.14



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling CO INC

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65058

DST#: 1

ATTN: Larry Nichol森

Test Start: 2015.06.14 @ 10:30:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:18:30

Time Test Ended: 18:07:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Robert Zodrow

Unit No: 66

Interval: 4152.00 ft (KB) To 4284.00 ft (KB) (TVD)

Reference Elevations: 3275.00 ft (KB)

Total Depth: 4284.00 ft (KB) (TVD)

3264.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6741

Inside

Press@RunDepth: 150.40 psig @ 4153.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.14

End Date:

2015.06.14

Last Calib.:

2015.06.14

Start Time: 10:30:05

End Time:

18:07:29

Time On Btm:

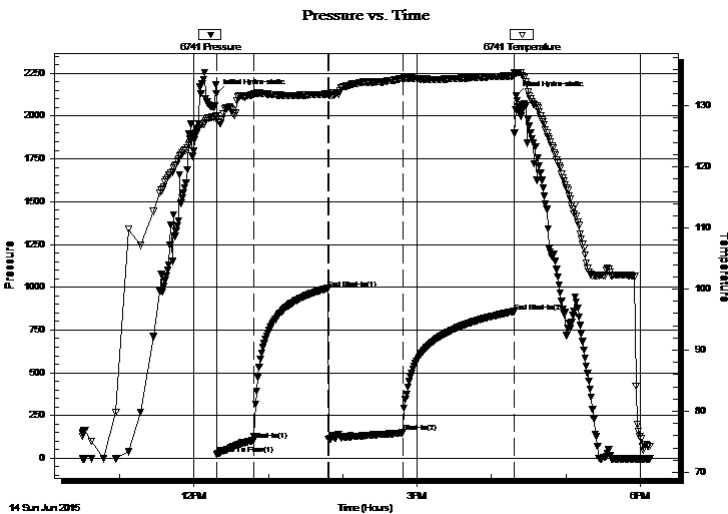
2015.06.14 @ 12:18:00

Time Off Btm:

2015.06.14 @ 16:20:00

TEST COMMENT: 30-IS- Blow built to 5"
60-IS- No return
60-FF- Blow built to 6"
90-FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2129.51	128.42	Initial Hydro-static
1	22.40	127.78	Open To Flow (1)
30	103.92	131.86	Shut-In(1)
90	991.94	131.93	End Shut-In(1)
91	112.78	131.66	Open To Flow (2)
151	150.40	134.51	Shut-In(2)
240	857.96	134.93	End Shut-In(2)
242	2116.75	135.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
275.00	OCM 15%O 85%M	2.20

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling CO INC

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65058

DST#: 1

ATTN: Larry Nichol森

Test Start: 2015.06.14 @ 10:30:00

Tool Information

Drill Pipe:	Length: 3973.00 ft	Diameter: 3.80 inches	Volume: 55.73 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: 90000.00 lb
			<u>Total Volume: 56.63 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4152.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	132.00 ft			
Tool Length:	159.00 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			4130.00	
Hydraulic tool	5.00			4135.00	
Jars	5.00			4140.00	
Safety Joint	3.00			4143.00	
Packer	5.00			4148.00	27.00 Bottom Of Top Packer
Packer	4.00			4152.00	
Stubb	1.00			4153.00	
Recorder	0.00	6741	Inside	4153.00	
Recorder	0.00	8521	Outside	4153.00	
Perforations	33.00			4186.00	
Change Over Sub	1.00			4187.00	
Drill Pipe	93.00			4280.00	
Change Over Sub	1.00			4281.00	
Bullnose	3.00			4284.00	132.00 Bottom Packers & Anchor

Total Tool Length: 159.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO INC

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65058

DST#: 1

ATTN: Larry Nicholzen

Test Start: 2015.06.14 @ 10:30:00

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: 7.18 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 10.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
275.00	OCM 15%O 85%M	2.200

Total Length: 275.00 ft Total Volume: 2.200 bbl

Num Fluid Samples: 0

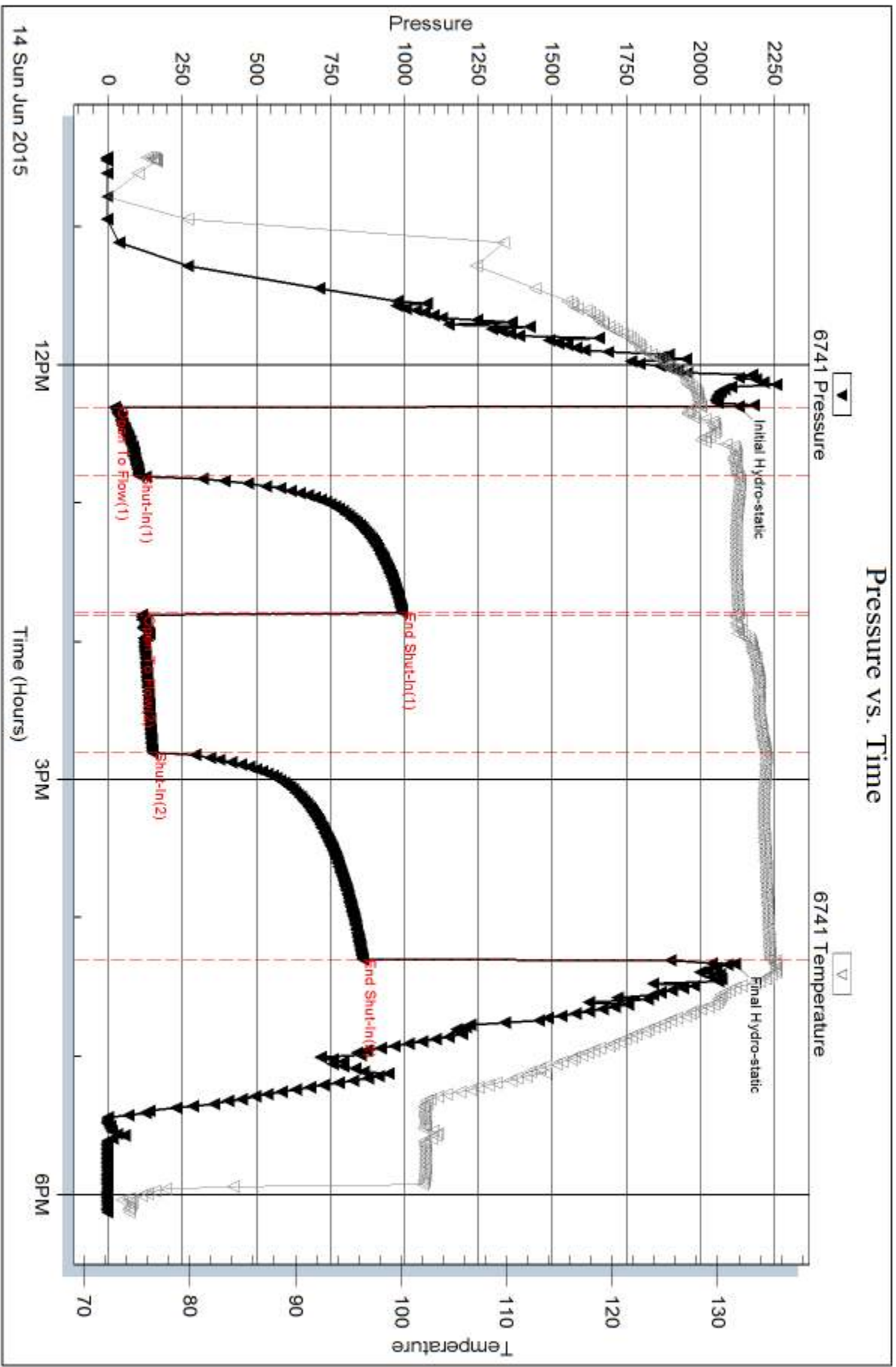
Num Gas Bombs: 0

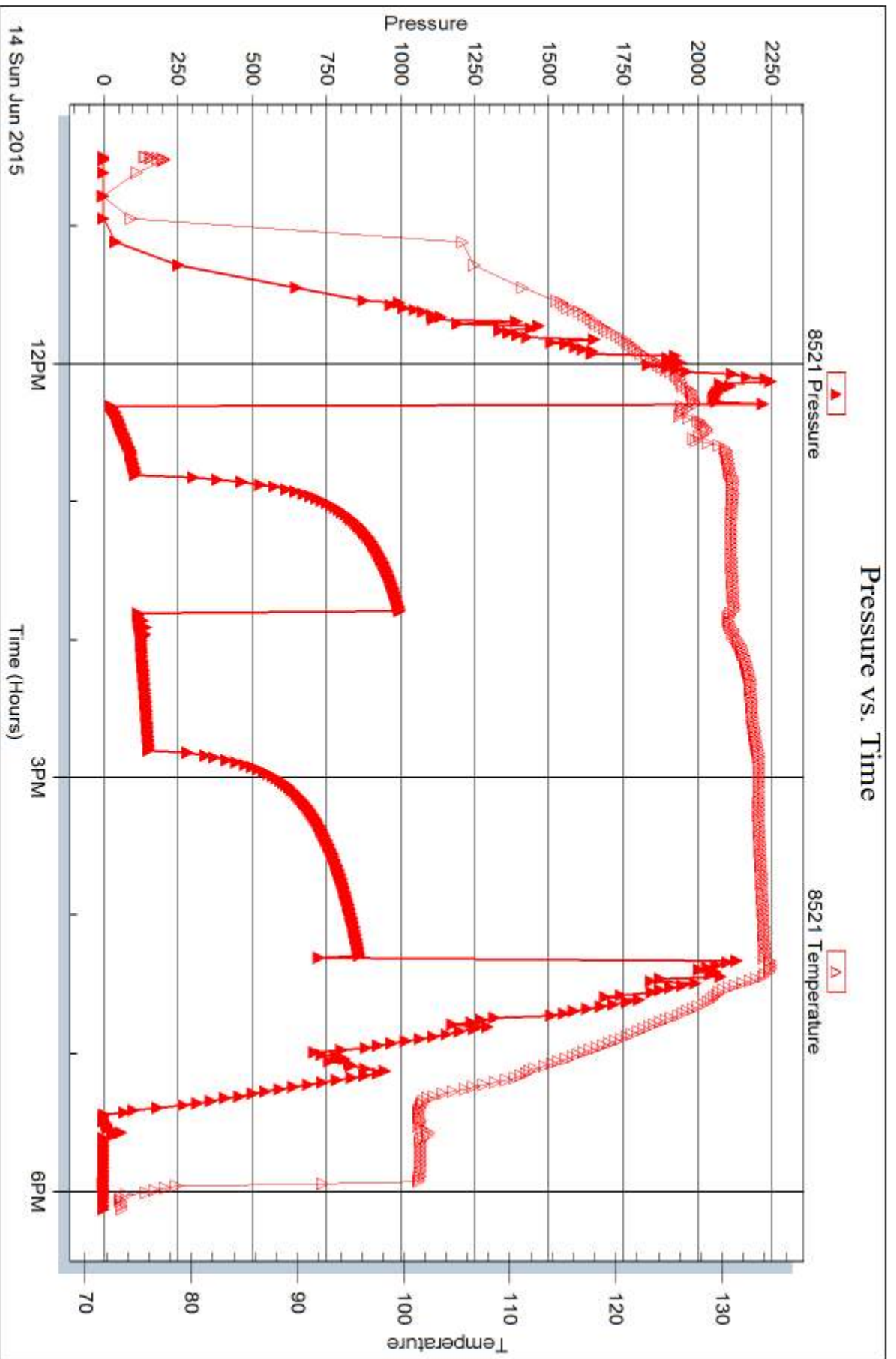
Serial #:

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: Larry Nichol森

John "A" 1-24

24 1S 36W Rawlins KS

Start Date: 2015.06.15 @ 06:00:00

End Date: 2015.06.15 @ 14:10:00

Job Ticket #: 65059 DST #: 2

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

Printed: 2015.06.17 @ 16:27:19

Murfin Drilling CO INC
24 1S 36W Rawlins KS
John "A" 1-24
DST # 2
LKC "D-G"
2015.06.15



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling CO INC

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65059

DST#: 2

ATTN: Larry Nichol森

Test Start: 2015.06.15 @ 06:00:00

GENERAL INFORMATION:

Formation: **LKC "D-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:21:00

Time Test Ended: 14:10:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 66

Interval: 4285.00 ft (KB) To 4350.00 ft (KB) (TVD)

Reference Elevations: 3275.00 ft (KB)

Total Depth: 4350.00 ft (KB) (TVD)

3264.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6741

Inside

Press@RunDepth: 19.66 psig @ 4286.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.15

End Date:

2015.06.15

Last Calib.:

2015.06.15

Start Time: 06:00:05

End Time:

14:09:59

Time On Btm:

2015.06.15 @ 08:20:30

Time Off Btm:

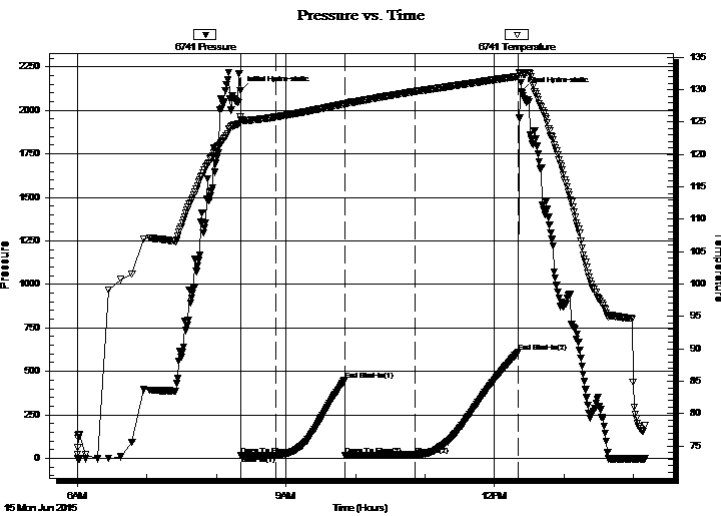
2015.06.15 @ 12:23:00

TEST COMMENT: 30-IS- Surface blow died in 17 mins

60-IS- No return

60-FF- No blow

90-FS- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.91	125.85	Initial Hydro-static
1	15.90	125.43	Open To Flow (1)
31	16.13	125.81	Shut-In(1)
90	449.69	127.82	End Shut-In(1)
91	17.70	127.78	Open To Flow (2)
151	19.66	129.73	Shut-In(2)
240	610.95	132.06	End Shut-In(2)
243	2107.66	132.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	MUD oil spots in tool	0.01

* 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

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65059

DST#: 2

ATTN: Larry Nichol森

Test Start: 2015.06.15 @ 06:00:00

Tool Information

Drill Pipe:	Length: 4094.00 ft	Diameter: 3.80 inches	Volume: 57.43 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: 88000.00 lb
			<u>Total Volume: 58.33 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4285.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	92.00 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			4263.00	
Hydraulic tool	5.00			4268.00	
Jars	5.00			4273.00	
Safety Joint	3.00			4276.00	
Packer	5.00			4281.00	27.00 Bottom Of Top Packer
Packer	4.00			4285.00	
Stubb	1.00			4286.00	
Recorder	0.00	6741	Inside	4286.00	
Recorder	0.00	8521	Outside	4286.00	
Perforations	28.00			4314.00	
Change Over Sub	1.00			4315.00	
Drill Pipe	31.00			4346.00	
Change Over Sub	1.00			4347.00	
Bullnose	3.00			4350.00	65.00 Bottom Packers & Anchor

Total Tool Length: 92.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO INC

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65059

DST#: 2

ATTN: Larry Nicholzen

Test Start: 2015.06.15 @ 06:00:00

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:

bbf

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 10.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
2.00	MUD oil spots in tool	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

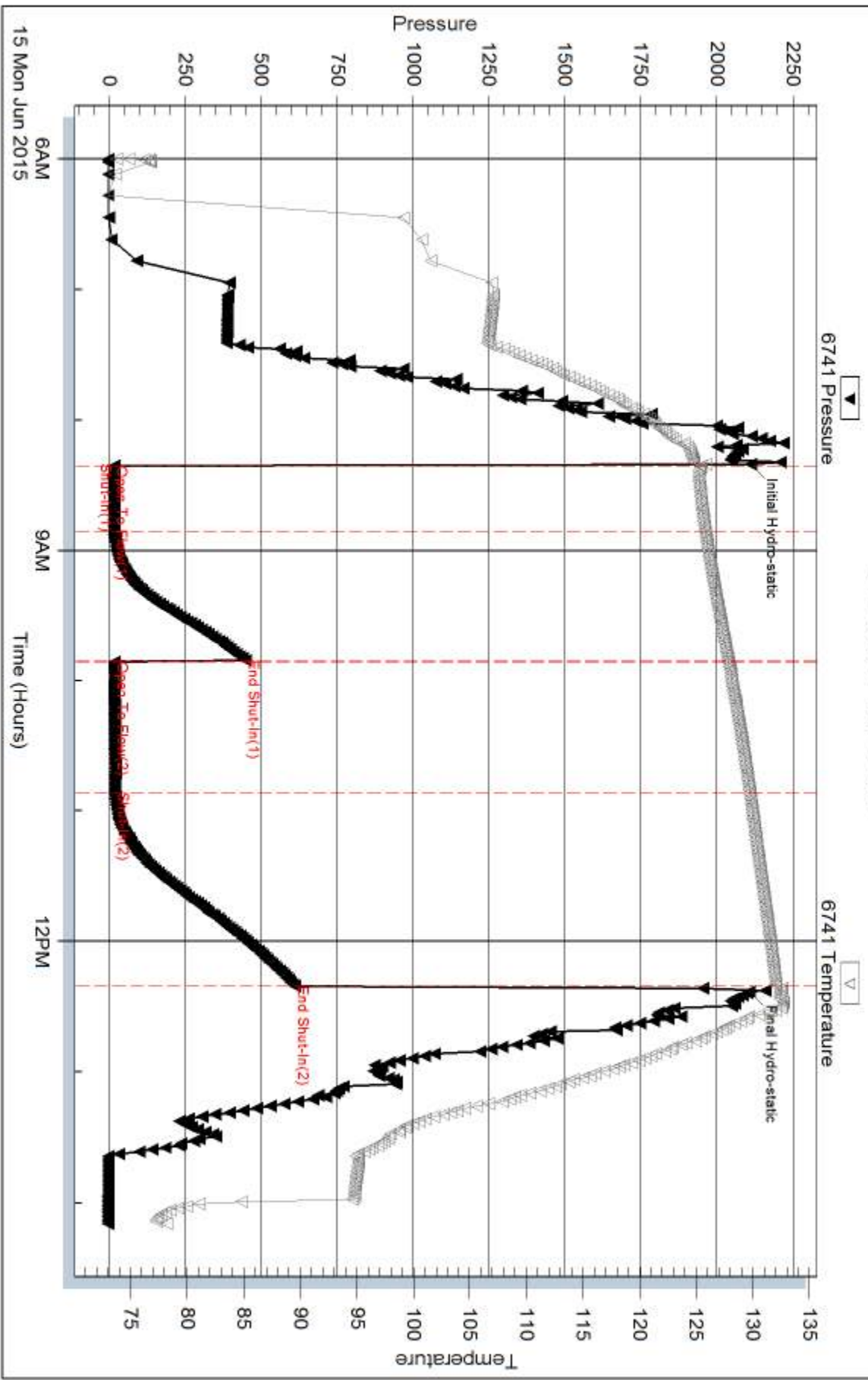
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

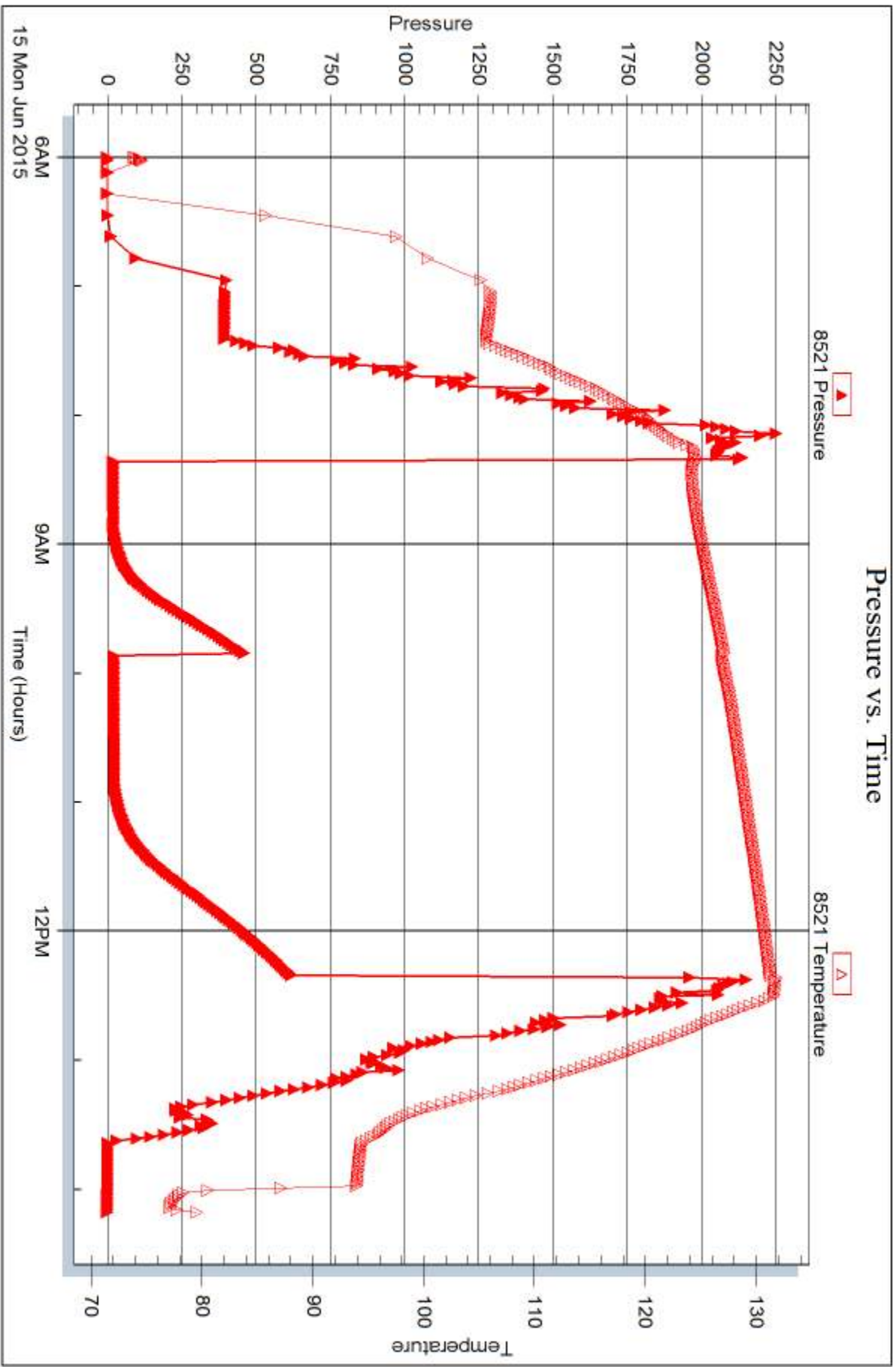


Serial #: 8521

Outside Murfin Drilling CO INC

John "A" 1-24

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling CO INC**

250 N Water STE 300
Wichita KS 67202

ATTN: Larry Nichol森

John "A" 1-24

24 1S 36W Rawlins KS

Start Date: 2015.06.16 @ 00:25:00

End Date: 2015.06.16 @ 08:35:30

Job Ticket #: 65060 DST #: 3

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

Printed: 2015.06.17 @ 16:26:35



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling CO INC

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65060

DST#: 3

ATTN: Larry Nichol森

Test Start: 2015.06.16 @ 00:25:00

GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:18:30

Time Test Ended: 08:35:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 66

Interval: 4341.00 ft (KB) To 4426.00 ft (KB) (TVD)

Reference Elevations: 3275.00 ft (KB)

Total Depth: 4284.00 ft (KB) (TVD)

3264.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6741

Inside

Press@RunDepth: 87.84 psig @ 4342.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.16

End Date:

2015.06.16

Last Calib.:

2015.06.16

Start Time: 00:25:05

End Time:

08:35:29

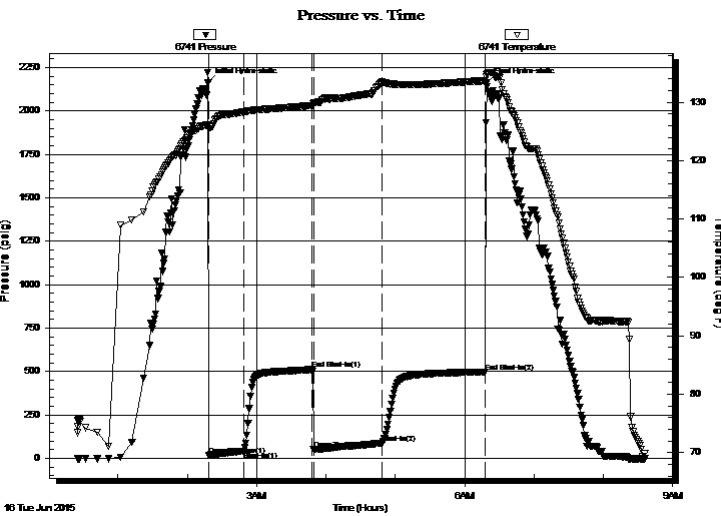
Time On Btm:

2015.06.16 @ 02:18:00

Time Off Btm:

2015.06.16 @ 06:19:00

TEST COMMENT: 30-IF- Blow built to 3 1/4"
60-ISI- No return
60-FF- Blow started in 24 mins built to 2 1/4"
90-FSI- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2163.68	126.11	Initial Hydro-static
1	16.49	125.38	Open To Flow (1)
31	41.63	128.31	Shut-In(1)
90	511.51	129.44	End Shut-In(1)
91	50.39	129.73	Open To Flow (2)
151	87.84	133.45	Shut-In(2)
240	497.16	133.71	End Shut-In(2)
241	2162.00	134.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	OCM 25%) 75%M	0.59
5.00	Clean Oil 100%O	0.02

* 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

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65060

DST#: 3

ATTN: Larry Nichol森

Test Start: 2015.06.16 @ 00:25:00

Tool Information

Drill Pipe:	Length: 4157.00 ft	Diameter: 3.80 inches	Volume: 58.31 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: 92000.00 lb
			<u>Total Volume: 59.21 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4341.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	112.00 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			4319.00	
Hydraulic tool	5.00			4324.00	
Jars	5.00			4329.00	
Safety Joint	3.00			4332.00	
Packer	5.00			4337.00	27.00 Bottom Of Top Packer
Packer	4.00			4341.00	
Stubb	1.00			4342.00	
Recorder	0.00	6741	Inside	4342.00	
Recorder	0.00	8521	Outside	4342.00	
Perforations	16.00			4358.00	
Change Over Sub	1.00			4359.00	
Drill Pipe	63.00			4422.00	
Change Over Sub	1.00			4423.00	
Bullnose	3.00			4426.00	85.00 Bottom Packers & Anchor

Total Tool Length: 112.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling CO INC

24 1S 36W Rawlins KS

250 N Water STE 300
Wichita KS 67202

John "A" 1-24

Job Ticket: 65060

DST#: 3

ATTN: Larry Nicholzen

Test Start: 2015.06.16 @ 00:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 10.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	OCM 25%) 75%M	0.590
5.00	Clean Oil 100%O	0.025

Total Length: 125.00 ft Total Volume: 0.615 bbl

Num Fluid Samples: 0

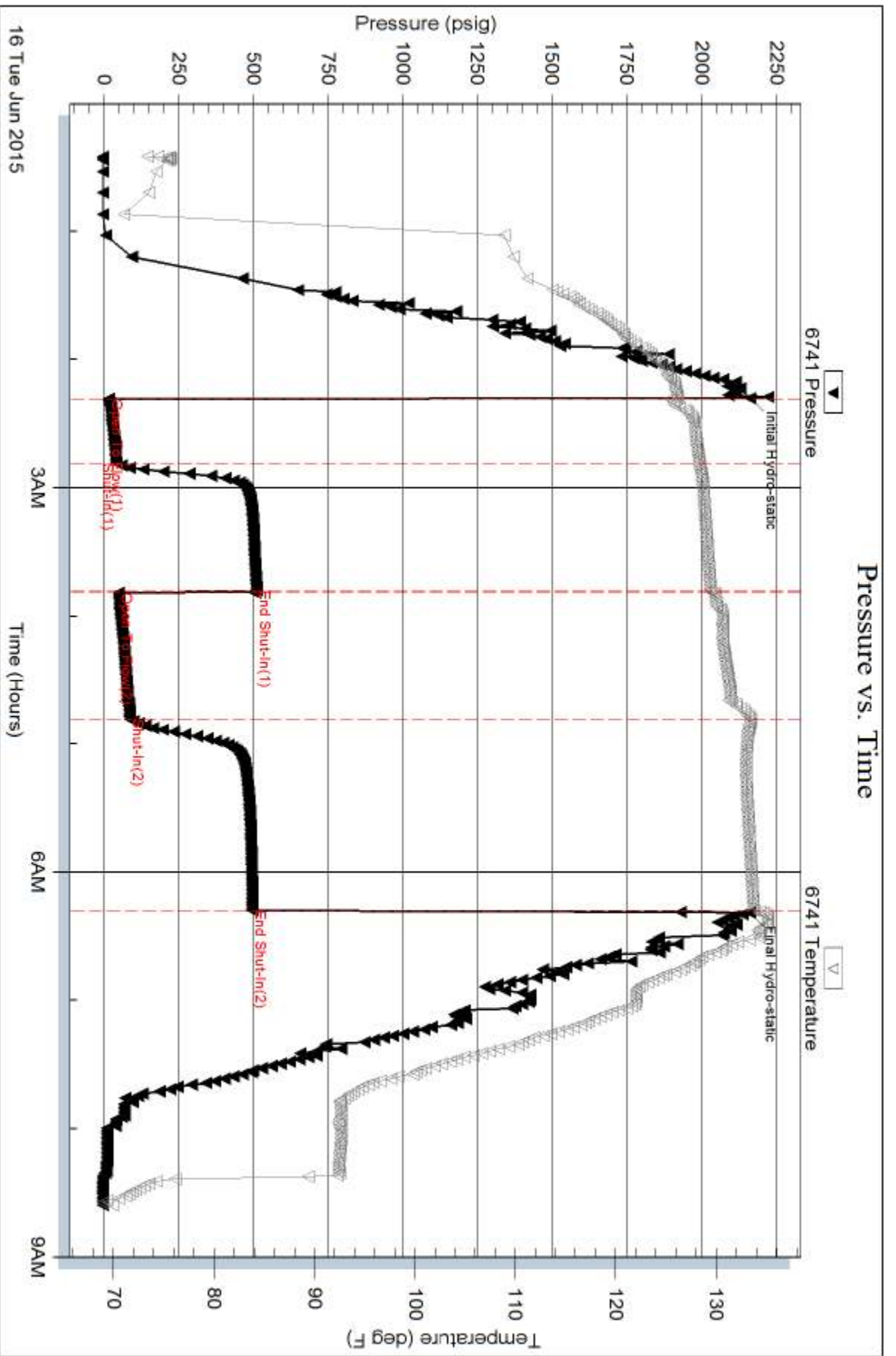
Num Gas Bombs: 0

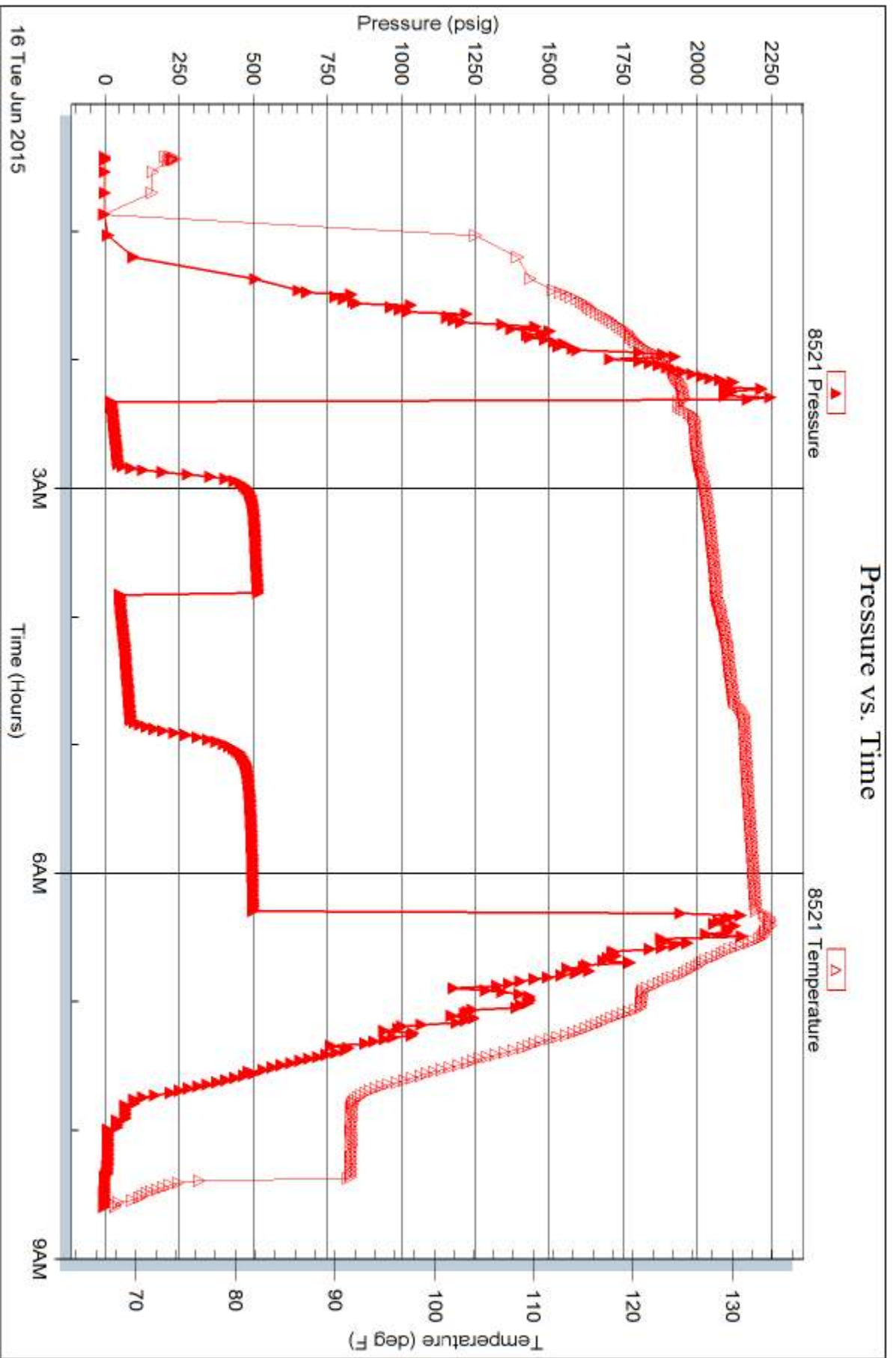
Serial #:

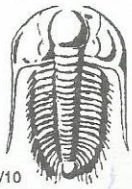
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **65058**

Well Name & No. John "A" # 1-24 Test No. 1 Date 6-14-2015
 Company Murfin Drilling Co. Inc. Elevation 3275 KB 3264 GL
 Address 250 N Water STE 300 Wichita KS 67202
 Co. Rep / Geo. Larry Nicholson Rig Murfin #2
 Location: Sec. 24 Twp. 15 Rge. 36 W Co. Rawlins State KS

Interval Tested 4152 — 4284 Zone Tested LKC "A-D"
 Anchor Length 132 Drill Pipe Run 3973 Mud Wt. 9.0
 Top Packer Depth 4148 Drill Collars Run 182 Vis 58
 Bottom Packer Depth 4152 (shake) Wt. Pipe Run 0 WL 7.2
 Total Depth 4284 Chlorides 700 ppm System LCM 10
 Blow Description IF - Blow built to 5"
ISI - No return
FF - Blow built to 6"
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>275</u>	<u>OCM</u>	<u>1.5</u>		<u>85</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 275 BHT 135 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2129</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>09:00</u> <u>6-14</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:30</u> <u>6-14</u>
(C) First Final Flow <u>104</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:18</u> <u>6-14</u>
(D) Initial Shut-In <u>992</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>16:18</u> <u>6-14</u>
(E) Second Initial Flow <u>113</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>18:07</u> <u>6-14</u>
(F) Second Final Flow <u>150</u>	<input checked="" type="checkbox"/> Mileage <u>108 RT</u> <u>108</u>	Comments <u>Stayed at the rig water hauler got stuck block the lease road Nobody could get in or out.</u>
(G) Final Shut-In <u>858</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2116</u>	<input checked="" type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Total <u>1833</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1833</u>	

Approved By _____ Our Representative Robert Zedner
 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. **65059**

Well Name & No. John "A" #1-24 Test No. 2 Date 6-15-2015
 Company Murfin Drilling Co Inc Elevation 3275 KB 3264 GL
 Address 250 N water STE 300 Wichita KS 67202
 Co. Rep / Geo. Larry Nichol森 Rig Murfin #2
 Location: Sec. 24 Twp. 1S Rge. 36W Co. Rawlins State KS

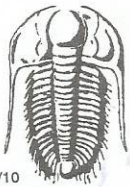
Interval Tested 4285 — 4350 Zone Tested LKC "D-D"
 Anchor Length 65 Drill Pipe Run 4094 Mud Wt. 9.0
 Top Packer Depth 4281 Drill Collars Run 182 Vis 58
 Bottom Packer Depth 4285 (shale) Wt. Pipe Run 0 WL 2.2
 Total Depth 4350 Chlorides 200 ppm System LCM 10
 Blow Description IF - surface blow died in 17 mins
ISI - NO return
FF - NO blow
FSI - NO return

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>mud oil spots in tool</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 132 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2112 Test 1150 T-On Location 05:30 6-15
 (B) First Initial Flow 15 Jars 250 T-Started 06:00 6-15
 (C) First Final Flow 16 Safety Joint 75 T-Open 08:21 6-15
 (D) Initial Shut-In 450 Circ Sub — T-Pulled 12:20 6-15
 (E) Second Initial Flow 17 Hourly Standby — T-Out ~~10:20~~ 14:10 6-15
 (F) Second Final Flow 19 Mileage 108 Comments —
 (G) Final Shut-In 610 Sampler —
 (H) Final Hydrostatic 2107 Straddle — Ruined Shale Packer —
 Shale Packer 250 Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder — Sub Total 0
 Day Standby — Total 1833
 Accessibility — MP/DST Disc't —
 Sub Total 1833

Approved By _____ Our Representative Robert Zedrow
 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. **65060**

Well Name & No. John "A" #1-24 Test No. 3 Date 6-16-2015
 Company Murfin Drilling CO Inc Elevation 3275 KB 3264 GL
 Address 250 N Water STE 300 Wichita KS, 67202
 Co. Rep / Geo. Larry NicholSEN Rig Murfin #2
 Location: Sec. 24 Twp. 1S Rge. 36W Co. Rawlins State KS

Interval Tested 4341 — 4426 Zone Tested LKC "H-J"
 Anchor Length 85 Drill Pipe Run 4157 Mud Wt. 9.0
 Top Packer Depth 4337 Drill Collars Run 182 Vis 58
 Bottom Packer Depth 4341 (shale) Wt. Pipe Run 0 WL 9.2
 Total Depth 4426 Chlorides 700 ppm System LCM 10
 Blow Description IF - Blow built to 3 1/4"
ISF - NO return
FF - Blow started in 24 mins built to 2 1/4"
FSI - NO return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Clean oil</u>	<u>100</u>			
<u>120</u>	<u>OCM</u>	<u>25</u>		<u>75</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 125 BHT 133 Gravity 32 API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2163 Test 1150 T-On Location 00:05 6-16
 (B) First Initial Flow 16 Jars 250 T-Started 00:25 6-16
 (C) First Final Flow 42 Safety Joint 75 T-Open 02:18 6-16
 (D) Initial Shut-In 571 Circ Sub _____ T-Pulled 06:18 6-16
 (E) Second Initial Flow 50 Hourly Standby _____ T-Out 08:35 6-16
 (F) Second Final Flow 88 Mileage 108 RT X 2 Comments Drove out loaded
 (G) Final Shut-In 497 Sampler 108+108 took at 12:00 on 6-17-15
 (H) Final Hydrostatic 2162 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1941
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1941

Approved By _____ Our Representative Robert Zedlow

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.

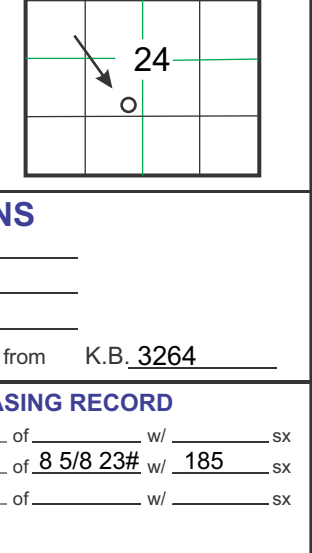
GEOLOGICAL REPORT

Larry A. Nicholson

NAD 83
39.948237
-101.308736

COMPANY & WELL
Murfur Drilling Co. John 'A' #1-24
LOCATION 1380' FSL 2310' FWL S2 SE NE SW
SEC 24 TWP 1S RGE 36W
COUNTY Rawlins STATE Ks

API # 15-153-21141 FIELD, Darkwing Southwest
LEASE John 'A' #1-24
LOCATION S2 SE NE SW
SURVEY 1380' FSL 2310' FWL
SECTION 24 TWP 1S RGE 36W
COUNTY Rawlins STATE Kansas



CONTRACTOR Murfur Drilling Company, Inc. Rig # 2
SPUD 5:30 pm 6-10-15 COMP. K.B. 3264
RTD 4776 11:43am 06-17-15 LTD 4776
MUD UP AT 3260 D.F. 3253
MUD TYPE Chemical_Morgan Acid All measurements from K.B. 3264

SAMPLES SAVED FROM 3600 TO RTD CASING RECORD
DRILLING TIME FROM 3600 TO RTD Surface of _____ wf _____ sx
SAMPLES EXAMINED FROM 3600 TO RTD Conductor 268 of 8.5/8 23H wf 185
GEOLOGICAL SUPERVISION FROM 3600 TO RTD Production of _____ wf _____ sx
WELL SITE GEOLOGIST LARRY A. NICHOLSON

ELECTRICAL SURVEYS Pioneer, Den, Neu, Dual, Micro, Sonic

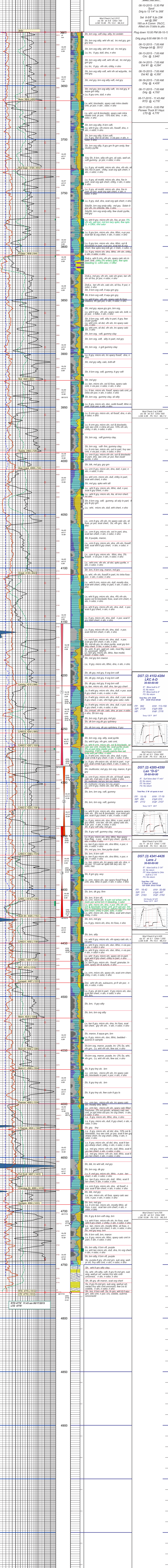
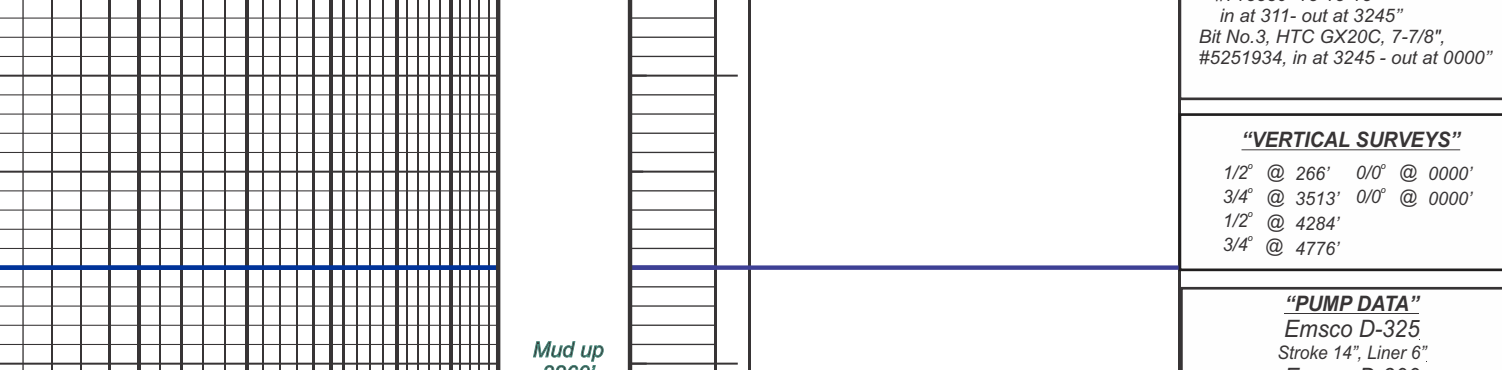
FORMATION	SAMPLE TOPS	SUBSEA DATUM	ELEC LOG TOPS	SUBSEA DATUM	REFERENCE WELL
Anhydrite	3172	+92	3172	+92	3158 +97 -5
B/Anhydrite	3202	+62	3202	+62	3190 +65 -3
Neva	3664	-400	3664	-400	3653 -398 -2
Forker	3808	-544	3808	-544	3794 -539 -5
Topeka	3992	-728	3992	-728	3976 -721 -7
Oread	4106	-842	4106	-842	4094 -839 -3
Lansing	4210	-946	4210	-946	4200 -945 -1
Stark Sh	4426	-1162	4426	-1162	4410 -1155 -7
BKC	4474	-1210	4474	-1210	4456 -1201 -9
Pawnee	4600	-1336	4600	-1336	4583 -1308 -8
Cherokee Sh	4680	-1416	4680	-1416	4663 -1408 -11
RTD	4776	-1512	4776	-1512	4781 -1525
LTD	4776	-1512	4776	-1512	4780 -1526

REFERENCE WELLS
A: Murfur Drilling - Burk Trust 'J' #1-25, 610' FNL 1590' FEL, Sec 25 T1S R36W KB 3255
B: _____

REMARKS & RECOMMENDATIONS:
Based on sample shows and dst results in the Lansing J zone, 5 1/2" csq was set.
*Note Rig and Loggers are on same depth. Good job by all.

LAN 7/92, Modified 5/05, 11/11, 4/12 Hanover, KS 66945 1inch = 25.4mm 8.5 x 9.5 216 mm x 2460 mm

LEGEND



COMPANY Murfur Drilling Company, Inc. LEASE John 'A' #1-24 S2 SE NE SW LOCATION 1380' FSL 2310' FWL SEC 24 TWP 1S RGE 36W COUNTY Rawlins STATE Ks

ELEVATIONS K.B. 3264 D.F. 3253 G.L. 3253 All measurements from K.B. 3264



acct.
Prod-MG



P.O. Box 205803
Dallas, TX 75320-5803

Voice: (832) 482-3742
Fax: (832) 482-3738

INVOICE

Invoice Number: 149843
Invoice Date: Jun 10, 2015
Page: 1

Federal Tax I.D.#: 20-8651475

Bill To:
Murfin Drlg. Co., Inc. 250 N. Water STE #300 Wichita, KS 67202

Customer ID	Field Ticket #	Payment Terms	
Murfin	64741	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Jun 10, 2015	7/10/15

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	John A #1-24		
185.00	CEMENT MATERIALS	Class A Common	17.90	3,311.50
522.00	CEMENT MATERIALS	Chloride	1.10	574.20
196.00	CEMENT SERVICE	Cubic Feet Charge	2.48	486.08
448.00	CEMENT SERVICE	Ton Mileage Charge	2.75	1,232.00
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	CEMENT SUPERVISOR	Andrew Forslund		
1.00	EQUIPMENT OPERATOR	Darren Racette		
1.00	OPERATOR ASSISTANT	Cory Brown		

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ 3,860.51 ✓

ONLY IF PAID ON OR BEFORE

Jul 10, 2015

Subtotal	7,721.03
Sales Tax	306.97
Total Invoice Amount	8,028.00
Payment/Credit Applied	
TOTAL	8,028.00

- 3860.51
OK 4167.49
JR

ALLIED OIL & GAS SERVICES, LLC 064741

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Dakley

DATE <u>6-10-15</u>	SEC. <u>24</u>	TWP. <u>15</u>	RANGE <u>36W</u>	CALLED OUT	ON LOCATION <u>8:00pm</u>	JOB START <u>9:30pm</u>	JOB FINISH <u>10:00pm</u>
LEASEE <u>John A</u>		WELL# <u>1-24</u>		LOCATION <u>Beardsley N TO AA</u>		COUNTY <u>Rowles</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (Circle one)				<u>3 1/2 W N into</u>			

CONTRACTOR Murfin 2 OWNER Same

TYPE OF JOB Surface

HOLE SIZE 12 1/4 TD. 263' CEMENT

CASING SIZE 8 3/8 DEPTH 266.23' AMOUNT ORDERED 185 sks com 3% CGG

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 16.03 BBL

EQUIPMENT

PUMP TRUCK CEMENTER Andrew Fastlund (Material Total @ 3885.70)

495-281 HELPER Darren Racette (1942.85/502)

BULK TRUCK

891 DRIVER Corey Brown

BULK TRUCK

DRIVER

COMMON 185 sks @ 17.90 3311.50
 POZMIX @
 GEL @
 CHLORIDE 5.22 # @ 1.10 574.20
 ASC @

Material Total @ 3885.70
 (1942.85/502)
 @
 @
 @
 @
 @
 @
 @
 @

HANDLING 196 cu/ft @ 2.48 486.08
 MILEAGE 2.25 to 4/mile 1232.00

REMARKS:

TOTAL

SERVICE

Cement did circulate

DEPTH OF JOB 266.26'

PUMP TRUCK CHARGE 1572.25

EXTRA FOOTAGE @

MILEAGE 50 miles @ 2.20 385.00

MANIFOLD @

Light vehicle @ 4.40 220.00

@

CHARGE TO: Murfin

(1917.66/502) TOTAL 3,833.33

STREET

CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

@
 @
 @
 @
 @

TOTAL

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)

TOTAL CHARGES 7,721.03

PRINTED NAME Andrew Racette DISCOUNT 3,860.51 (502) IF PAID IN 30 DAYS

SIGNATURE Andrew Racette 3860.51 Net.



P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300



Margo

Invoice

DATE	INVOICE #
6/18/2015	27194

BILL TO
Murfin Drilling Co Inc PO Box 661 Colby, KS 67701-0661
USED FOR <u>LC 103</u>
APPROVED <u>JT FH</u>

- Acidizing
- Cement
- Tool Rental

JOHN A

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1-24	Jones-A	Rawlins	Company Tools	Oil	Development	LongString	David E.

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	150	Miles	5.00	750.00
579D	Pump Charge - Top To Bottom LongString	1	Job	1,700.00	1,700.00
290	D-Air	6	Gallon(s)	42.00	252.00T
281	Mud Flush	500	Gallon(s)	1.25	625.00T
221	Liquid KCL (Clayfix)	4	Gallon(s)	25.00	100.00T
403-5	5 1/2" Cement Basket	3	Each	250.00	750.00T
406-5	5 1/2" Latch Down Plug & Baffle	1	Each	225.00	225.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill	1	Each	300.00	300.00T
409-5	5 1/2" Turbolizer	15	Each	75.00	1,125.00T
413-5	5 1/2" Roto Wall Scratcher	15	Each	35.00	525.00T
419-5	5 1/2" Rotating Head Rental	1	Each	200.00	200.00T
330	Swift Multi-Density Standard (MIDCON II)	300	Sacks	15.75	4,725.00T
325	Standard Cement	200	Sacks	12.25	2,450.00T
284	Calseal	10	Sack(s)	30.00	300.00T
283	Salt	1,082	Lb(s)	0.20	216.40T
285	CFR-1	141	Lb(s)	4.50	634.50T
276	Flocele	169	Lb(s)	2.25	380.25T
581D	Service Charge Cement	500	Sacks	1.50	750.00
583D	Drayage	3,704	Ton Miles	0.75	2,778.00
	Subtotal				18,786.15
	Sales Tax Rawlins County			7.90%	1,011.84

We Appreciate Your Business!

Total \$19,797.99



CHARGE TO:
 ADDRESS
 CITY, STATE, ZIP CODE

Murphy Drilling Co Inc

TICKET 27194

PAGE 1 OF 2

SERVICE LOCATIONS
 1. *Hays Ks*
 2. *Ness City Ks*
 3.
 4.

WELL PROJECT NO
 1-24
 CONTRACTOR
 Co Tools
 TICKET TYPE
 SERVICE
 SALES
 WELL TYPE
 Oil
 INVOICE INSTRUCTIONS

LEASE
 Jones "A"
 COUNTY/PARISH
 Rawlins
 RIG NAME/NO.
 Rig # 8
 JOB PURPOSE
 Development
 long string

STATE
 Ks
 SHIPPED VIA
 DELIVERED TO
 location
 WELL PERMIT NO.
 WELL LOCATION

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING		DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT							
575		1			150	mi			5.00	750.00
579		1		MILEAGE # 115	1	EA			1700.00	1700.00
290		1		Pump Charge - Top to Bottom	6	GAL			42.00	252.00
281		1		D-Air	500	GAL			1.25	625.00
221		1		Mudflush	4	BAW			25.00	100.00
403		1		liquid Kcl	3	EA	5 1/2		250.00	750.00
406		1		Cement Basket	1	EA			225.00	225.00
402		1		latchdown plug & baffle	1	EA			300.00	300.00
409		1		Insert Float Shoe w/ Autofill	15	EA			75.00	1125.00
413		1		Turbolizer	15	EA			35.00	525.00
419		1		Roto wall Scratcher	1	EA			200.00	200.00
		1		Rotating Head Rental						

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY**, and **LIMITED WARRANTY** provisions.
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS
 X *David Edgerton*
 DATE SIGNED
 TIME SIGNED A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?
 WE UNDERSTOOD AND MET YOUR NEEDS?
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?
 WE OPERATED THE EQUIPMENT AND PERFORMED THE JOB CALCULATIONS SATISFACTORILY?
 ARE YOU SATISFIED WITH OUR SERVICE?
 YES NO
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL
 P.1 6552
 P.2 12234
 Total 18786
 Rawlins
 TAX 7.996
 1,011.84
 TOTAL 19,797.99

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 APPROVAL
David Edgerton
 SWIFT OPERATOR
 Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 6-18-15 PAGE NO.

CUSTOMER Murkin Drilling WELL NO. 1-24 LEASE Jones "A" JOB TYPE Long String TICKET NO. 27194

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL/GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	530							On location w/ float Equip.
								5 1/2 RTD - 4776' Cent - 1-8, 10-12 Total Csg - 4768' 14, 16, 38, 61 Shoe - 21' BSKT - 15, 39, 62 Baffle - 4747'
	530							Start Running Csg
	635							Circ on Joint #61
	705							Continue Running Csg
	830							Circulate on Bottom
	930							Plug R & M
			0					Start Mud Flush - 500 gal
			12					Start KCl spacer - 20 BBL
	940	5.5	32/0			200		Start Cmt - 300 SMD 200 EA-2
	1030	5.5	200			0		End Cmt
	1035		0					Wash P&L / Drop Plug
	1040	5.5	0			0		Start Disp
			95					Cmt to Surface - 30 sks to pit
	1110	3	113.5			1200		End Disp. - pumped .5 BBLs past Volume never seen plug land - Released psi Did not flow back
								Thanks David, Austin, Tyler & Preston

MDCI
 John 'A' #1-24
 1380' FSL 2310' FWL
 Sec. 24-T1S-R36W
 3264' KB

Formation	Sample top	Datum	Ref	Log Top	Datum	Ref
Anhydrite	3173	+91	-6	3173	+91	-6
B/Anhydrite	3203	+61	-4	3203	+61	-4
Neva	3666	-402	-4	3664	-400	-2
Red Eagle	3732	-468	-9	3727	-463	-4
Foraker				3774	-510	-1
Topeka	3989	-725	-4	3992	-728	-7
Oread	4107	-843	-4	4106	-842	-3
Lansing	4213	-949	-4	4210	-946	-1
Stark	4427	-1163	-8	4426	-1162	-7
BKC	4470	-1206	-1	4475	-1211	-6
Pawnee	4593	-1329	-4	4600	-1336	-11
Cherokee	4675	-1411	-3	4681	-1417	-9
Mississippi	NR	----	----	NR	----	----
RTD	4776	-1512				
LTD				4776	-1512	