



1155405

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

August 16, 2013

Leon Rodak
Murfin Drilling Co., Inc.
250 N WATER STE 300
WICHITA, KS 67202-1216

Re: ACO1
API 15-153-20922-00-00
Sacred Heart 1-36
SW/4 Sec.36-05S-33W
Rawlins County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Leon Rodak

		MDCI Sacred Heart #1-36 330' FSL 2310' FWL Sec. 36-5S-33W 3154' KB					MDCI Schroeder #1-25 900' FSL 330' FWL Sec. 25-5S-33W 3108' KB	
Formation	Sample top	Datum	Ref	Log Top	Datum	Ref	Log Top	Datum
Anhydrite	2771	+383	+17	2766	+388	+22	2742	+366
B/Anhydrite	2806	+348	+16	2801	+353	+21	2776	+332
Topeka	3834	-680	+12	3830	-676	+16	3800	-692
Heebner	4007	-853	+11	4006	-852	+12	3972	-864
Lansing	4054	-900	+12	4038	-894	+18	4020	-912
Stark	4233	-1079	+13	4229	-1075	+17	4200	-1092
BKC	4288	-1134	+10	4286	-1132	+12	4252	-1144
Pawnee	4415	-1261	+7	4414	-1260	+8	4376	-1268
Cherokee	4490	-1336	+9	4490	-1336	+9	4453	-1345
Mississippi	4612	-1485	+13	4616	-1462	+9	4579	-1471
RTD	4710						4725	
LTD				4709			4728	



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.04.28 @ 01:10:00

End Date: 2013.04.28 @ 08:44:30

Job Ticket #: 50663 DST #: 1

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

Printed: 2013.05.03 @ 09:58:10

Murfin Drilling Co. 36 5 33 Rawlins,KS Sacred Heart #1-36 DST # 1 Toronto-LKC A 2013.04.28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co.

36 5 33 Rawlins, KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

ATTN: Robert Hendrix

Job Ticket: 50663

DST#: 1

Test Start: 2013.04.28 @ 01:10:00

GENERAL INFORMATION:

Formation: **Toronto-LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:10:30

Time Test Ended: 08:44:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Charles Kreuzer Jr.

Unit No: 61

Interval: 4006.00 ft (KB) To 4094.00 ft (KB) (TVD)

Reference Elevations: 3154.00 ft (KB)

Total Depth: 4094.00 ft (KB) (TVD)

3142.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 8791 Inside

Press @ Run Depth: psig @ 4007.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.28

End Date:

2013.04.28

Last Calib.:

2013.04.28

Start Time: 01:10:01

End Time:

08:44:30

Time On Btm:

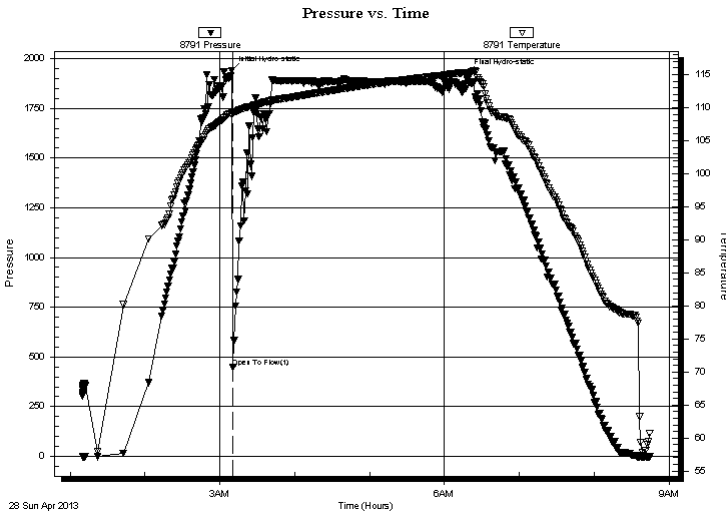
2013.04.28 @ 03:09:30

Time Off Btm:

2013.04.28 @ 06:18:00

TEST COMMENT: IF: Strong blow, Built to B.O.B in 45 sec.
IS: Bled off, No blow back over 60 mins.
FF Strong blow, Built to B.O.B in 2 mins.
FS: Bled off, No blow back over 60 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.33	109.34	Initial Hydro-static
1	449.18	109.14	Open To Flow (1)
189	1922.08	115.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2604.00	mud-100%	34.40

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50663

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 01:10:00

Tool Information

Drill Pipe:	Length: 3761.00 ft	Diameter: 3.80 inches	Volume: 52.76 bbl	Tool Weight:	2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 53.91 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4006.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	88.00 ft				
Tool Length:	111.00 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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Hydraulic tool	5.00			3988.00	
Jars	5.00			3993.00	
Safety Joint	3.00			3996.00	
Packer	5.00			4001.00	23.00 Bottom Of Top Packer
Packer	5.00			4006.00	
Stubb	1.00			4007.00	
Recorder	0.00	8791	Inside	4007.00	
Recorder	0.00	8651	Outside	4007.00	
Perforations	19.00			4026.00	
change Over Sub	1.00			4027.00	
Drill Pipe	63.00			4090.00	
Change Over Sub	1.00			4091.00	
Bullnose	3.00			4094.00	88.00 Bottom Packers & Anchor

Total Tool Length: 111.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50663

DST#: 1

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 01:10:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 25000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2604.00	mud-100%	34.396

Total Length: 2604.00 ft Total Volume: 34.396 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

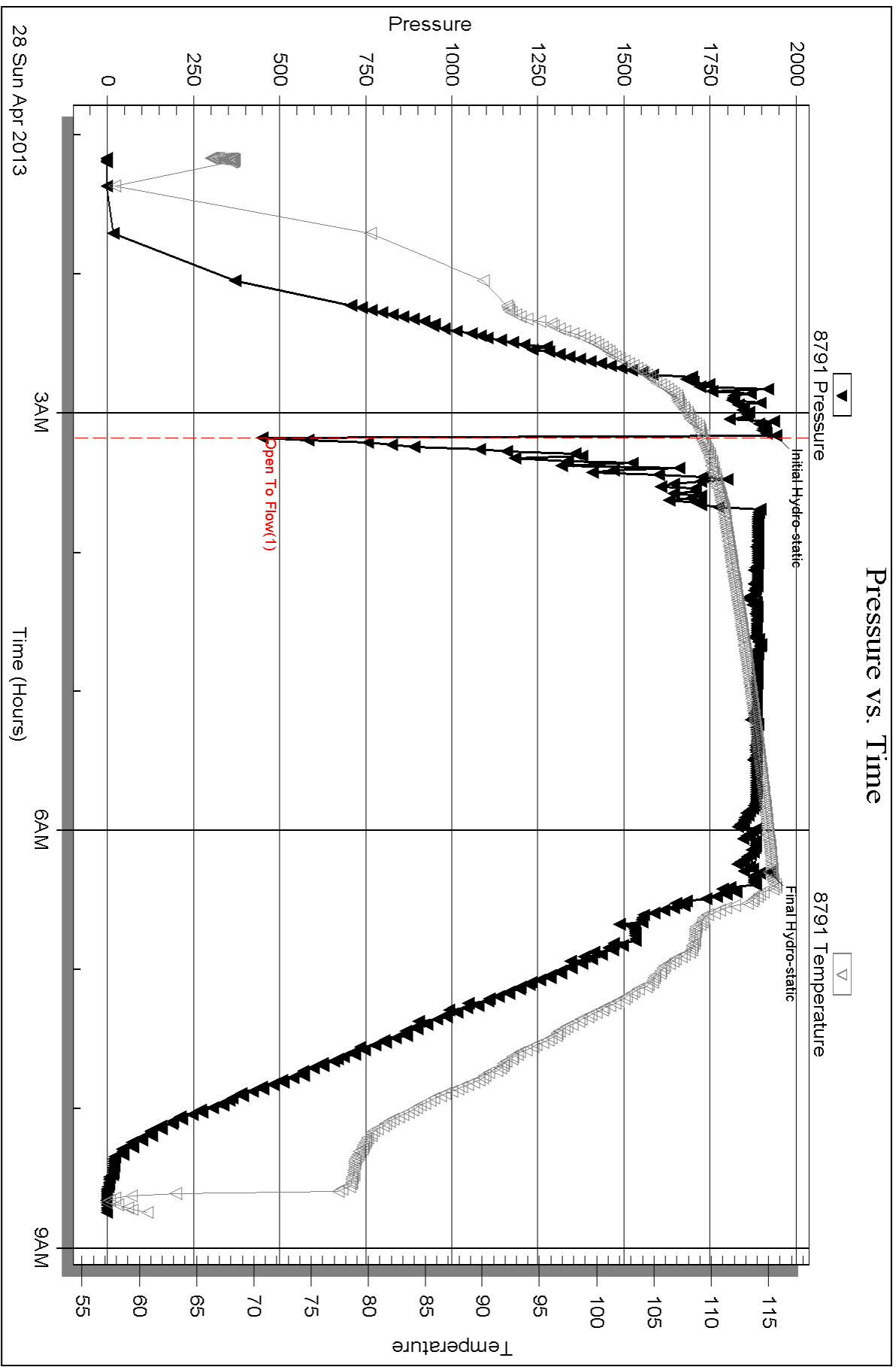
Serial #: 8791

Inside

Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 1



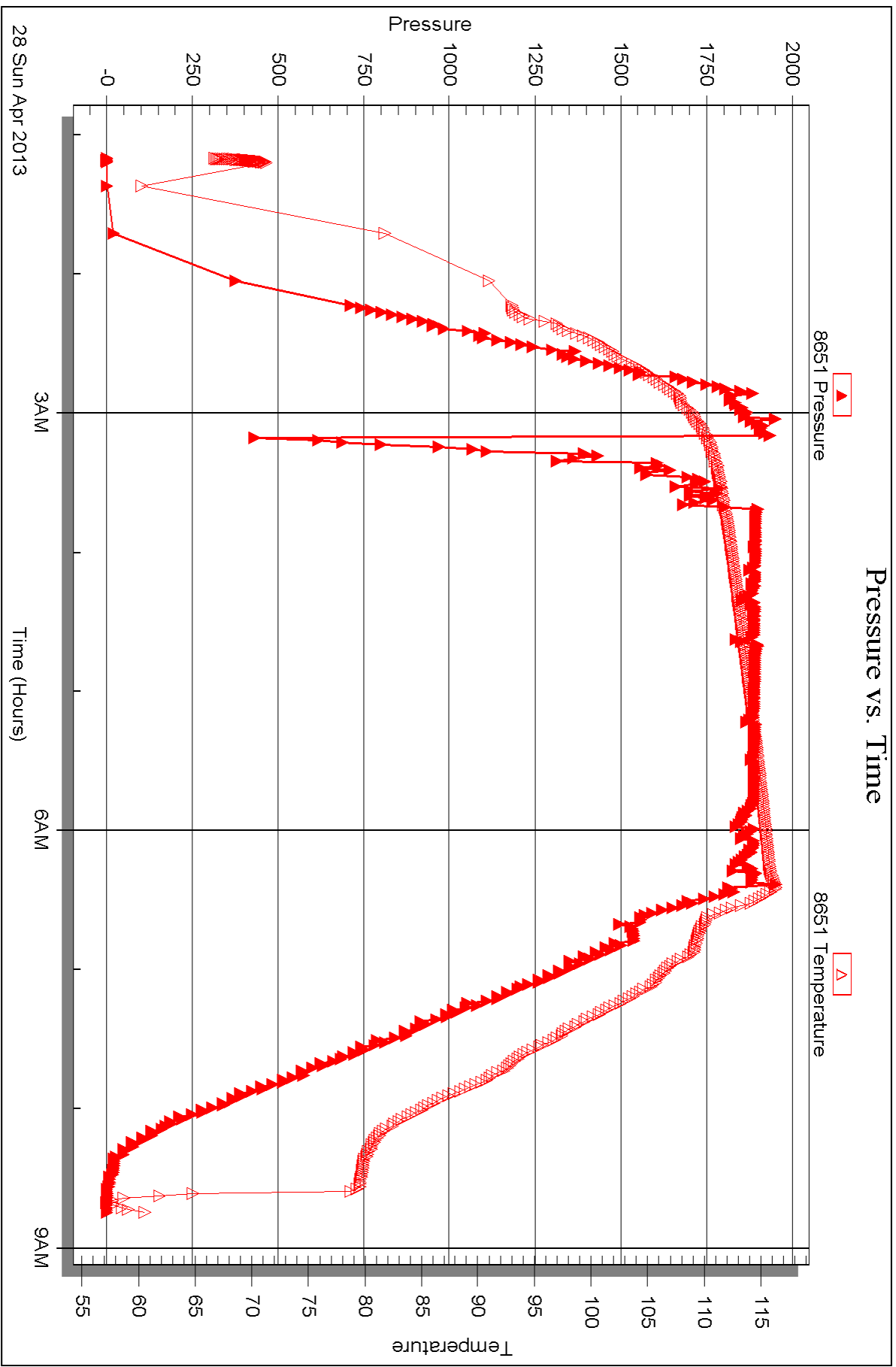
Serial #: 8651

Outside

Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.04.28 @ 13:00:00

End Date: 2013.04.28 @ 18:37:30

Job Ticket #: 50664 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.03 @ 09:56:34

Murfin Drilling Co.
36 5 33 Rawlins,KS
Sacred Heart #1-36
DST # 2
Toronto-LKC A
2013.04.28



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50664

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 13:00:00

Tool Information

Drill Pipe:	Length: 3769.00 ft	Diameter: 3.80 inches	Volume: 52.87 bbl	Tool Weight:	2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose:	84000.00 lb
			<u>Total Volume: 54.02 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4000.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	94.00 ft				
Tool Length:	117.00 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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Hydraulic tool	5.00			3982.00	
Jars	5.00			3987.00	
Safety Joint	3.00			3990.00	
Packer	5.00			3995.00	23.00 Bottom Of Top Packer
Packer	5.00			4000.00	
Stubb	1.00			4001.00	
Recorder	0.00	8791	Inside	4001.00	
Recorder	0.00	8651	Outside	4001.00	
Perforations	25.00			4026.00	
change Over Sub	1.00			4027.00	
Drill Pipe	63.00			4090.00	
Change Over Sub	1.00			4091.00	
Bullnose	3.00			4094.00	94.00 Bottom Packers & Anchor

Total Tool Length: 117.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50664

DST#: 2

ATTN: Robert Hendrix

Test Start: 2013.04.28 @ 13:00:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1612.00	mud-100%	20.480

Total Length: 1612.00 ft Total Volume: 20.480 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

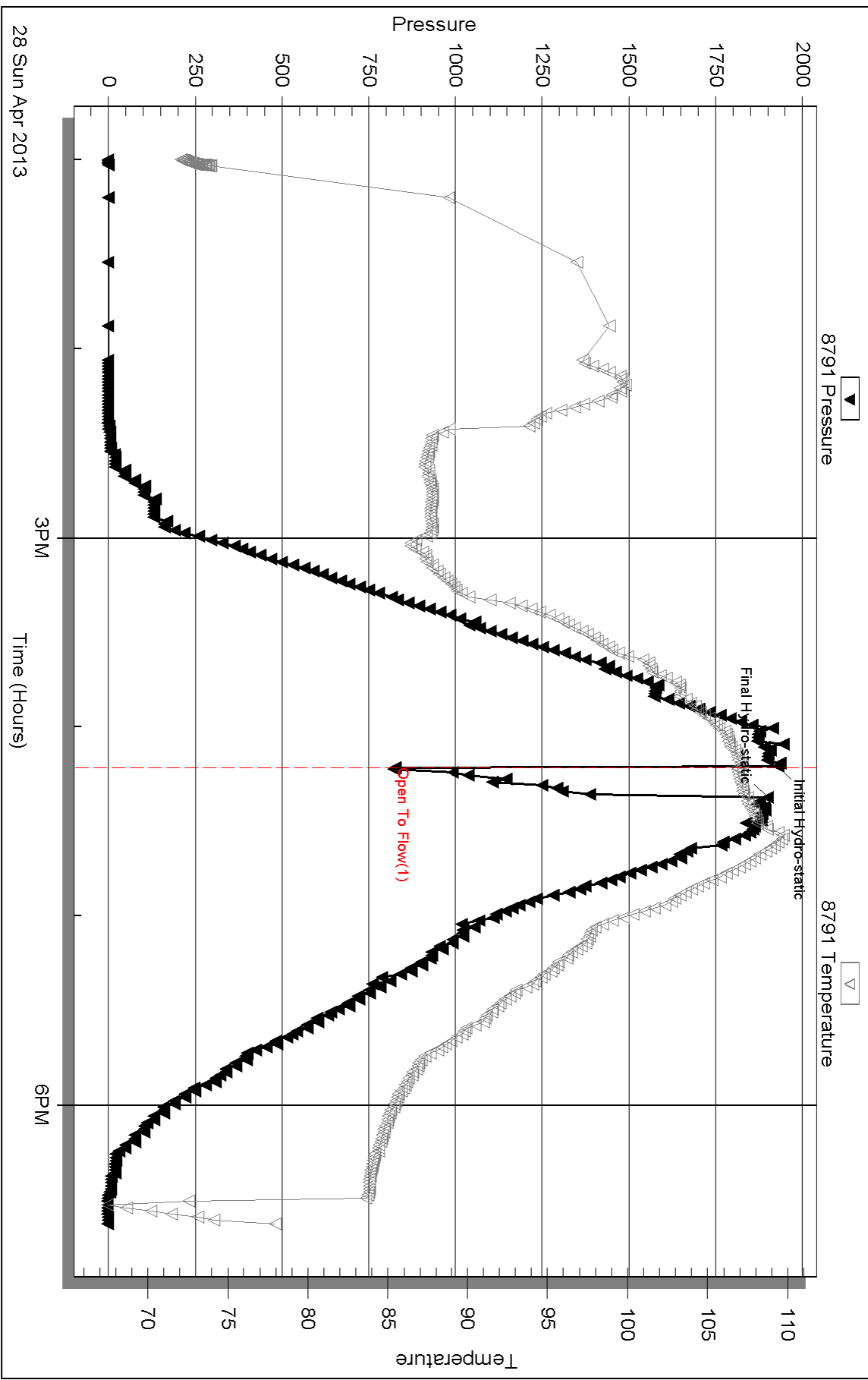
Inside

Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50664

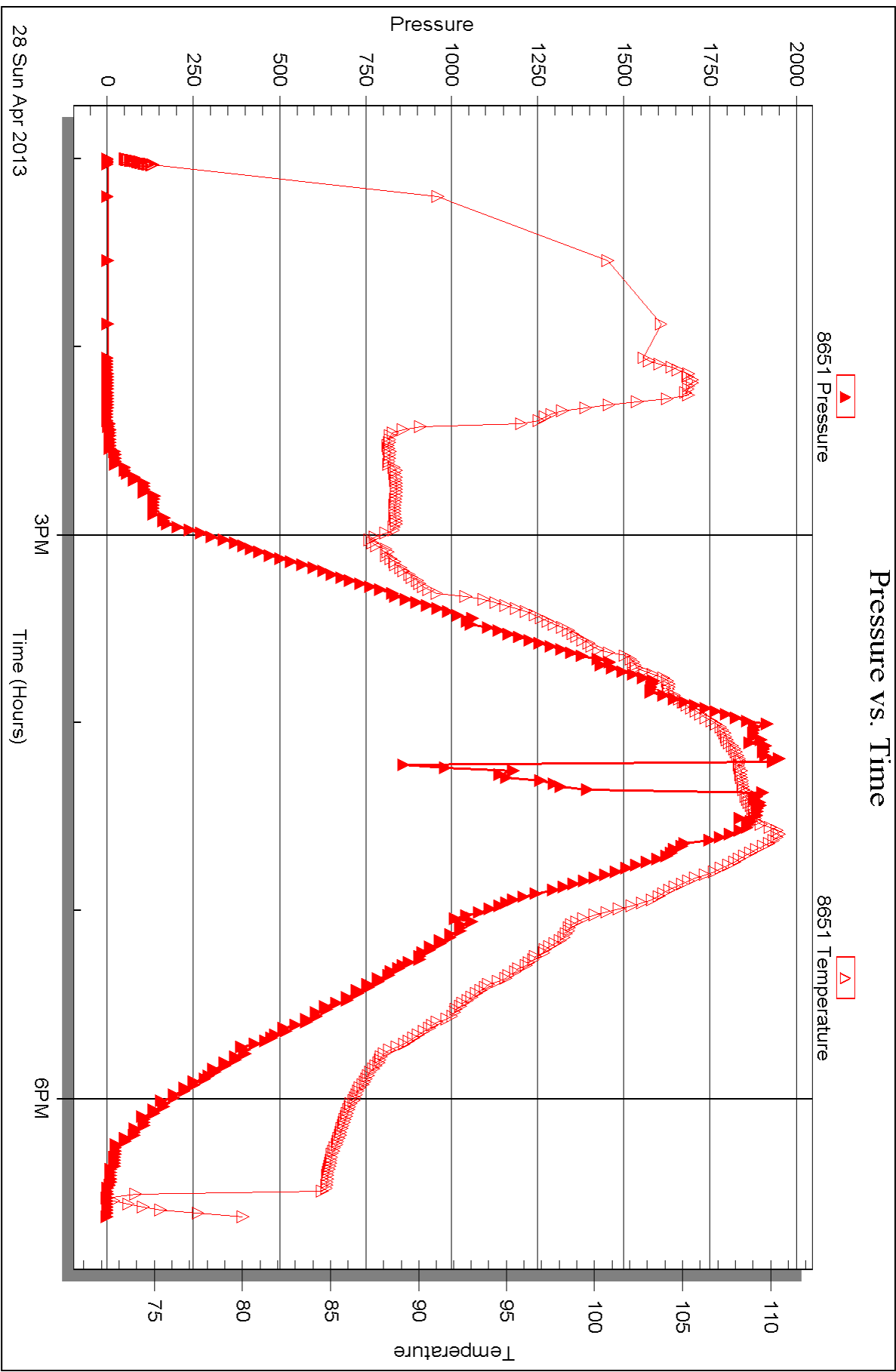
Printed: 2013.05.03 @ 09:56:37

Serial #: 8651

Outside Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.04.29 @ 19:00:00

End Date: 2013.04.30 @ 02:56:25

Job Ticket #: 50665 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.03 @ 09:55:35

Murfin Drilling Co. 36 5 33 Rawlins,KS Sacred Heart #1-36 DST # 3 LKC-J,K 2013.04.29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.

36 5 33 Rawlins, KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

ATTN: Robert Hendrix

Job Ticket: 50665

DST#: 3

Test Start: 2013.04.29 @ 19:00:00

GENERAL INFORMATION:

Formation: **LKC-J,K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:03:56

Time Test Ended: 02:56:25

Test Type: Conventional Bottom Hole (Reset)

Tester: Charles Kreutzer Jr.

Unit No: 61

Interval: 4192.00 ft (KB) To 4262.00 ft (KB) (TVD)

Reference Elevations: 3154.00 ft (KB)

Total Depth: 4262.00 ft (KB) (TVD)

3142.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 93.82 psig @ 4193.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.29

End Date: 2013.04.30

Last Calib.: 2013.04.30

Start Time: 19:00:01

End Time: 02:56:25

Time On Btm: 2013.04.29 @ 21:01:56

Time Off Btm: 2013.04.30 @ 01:02:55

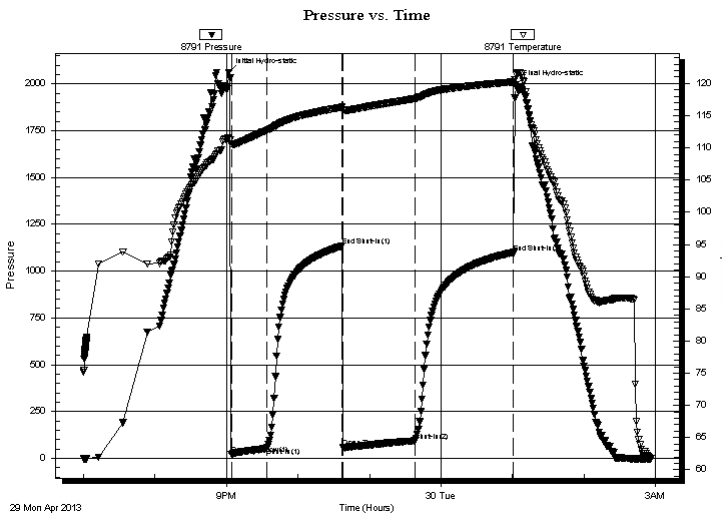
TEST COMMENT: IF: Weak blow, Built to 2 in. over 30 mins.

IS: No blow back over 60 mins.

FF: Weak blow, Built to 3 in. over 20 mins. Started to die in 30 mins, Dead in 60 mins.

FS: No blow back over 90 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.39	111.58	Initial Hydro-static
2	23.00	110.62	Open To Flow (1)
32	60.65	112.72	Shut-In(1)
95	1133.70	116.31	End Shut-In(1)
96	57.51	115.88	Open To Flow (2)
156	93.82	117.67	Shut-In(2)
239	1099.44	120.25	End Shut-In(2)
241	1996.43	121.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	gmco-5%g25%o70%m	0.30
62.00	gocm-10%g40%m50%o	0.30
62.00	go-10%g90%o	0.30

* 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.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50665

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.04.29 @ 19:00:00

Tool Information

Drill Pipe:	Length: 3948.00 ft	Diameter: 3.80 inches	Volume: 55.38 bbl	Tool Weight: 2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 56.53 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4192.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	98.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4169.00	
Hydraulic tool	5.00			4174.00	
Jars	5.00			4179.00	
Safety Joint	3.00			4182.00	
Packer	5.00			4187.00	28.00 Bottom Of Top Packer
Packer	5.00			4192.00	
Stubb	1.00			4193.00	
Recorder	0.00	8791	Inside	4193.00	
Recorder	0.00	8651	Outside	4193.00	
Perforations	3.00			4196.00	
change Over Sub	1.00			4197.00	
Drill Pipe	61.00			4258.00	
Change Over Sub	1.00			4259.00	
Bullnose	3.00			4262.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50665

DST#: 3

ATTN: Robert Hendrix

Test Start: 2013.04.29 @ 19:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.49 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	gmco-5%g25%o70%m	0.305
62.00	gocm-10%g40%m50%o	0.305
62.00	go-10%g90%o	0.305

Total Length: 186.00 ft Total Volume: 0.915 bbl

Num Fluid Samples: 0

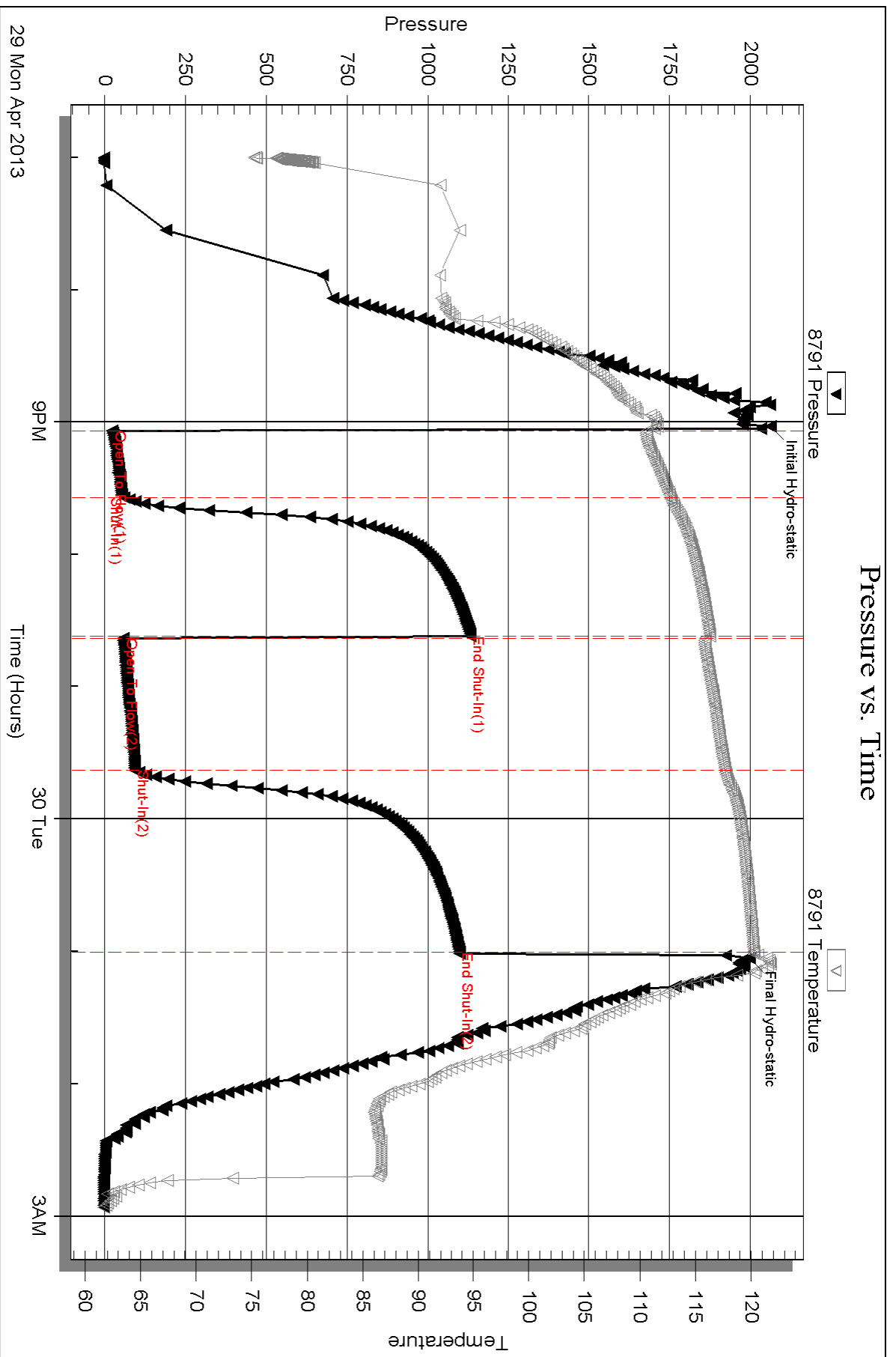
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 33@80=31 gravity

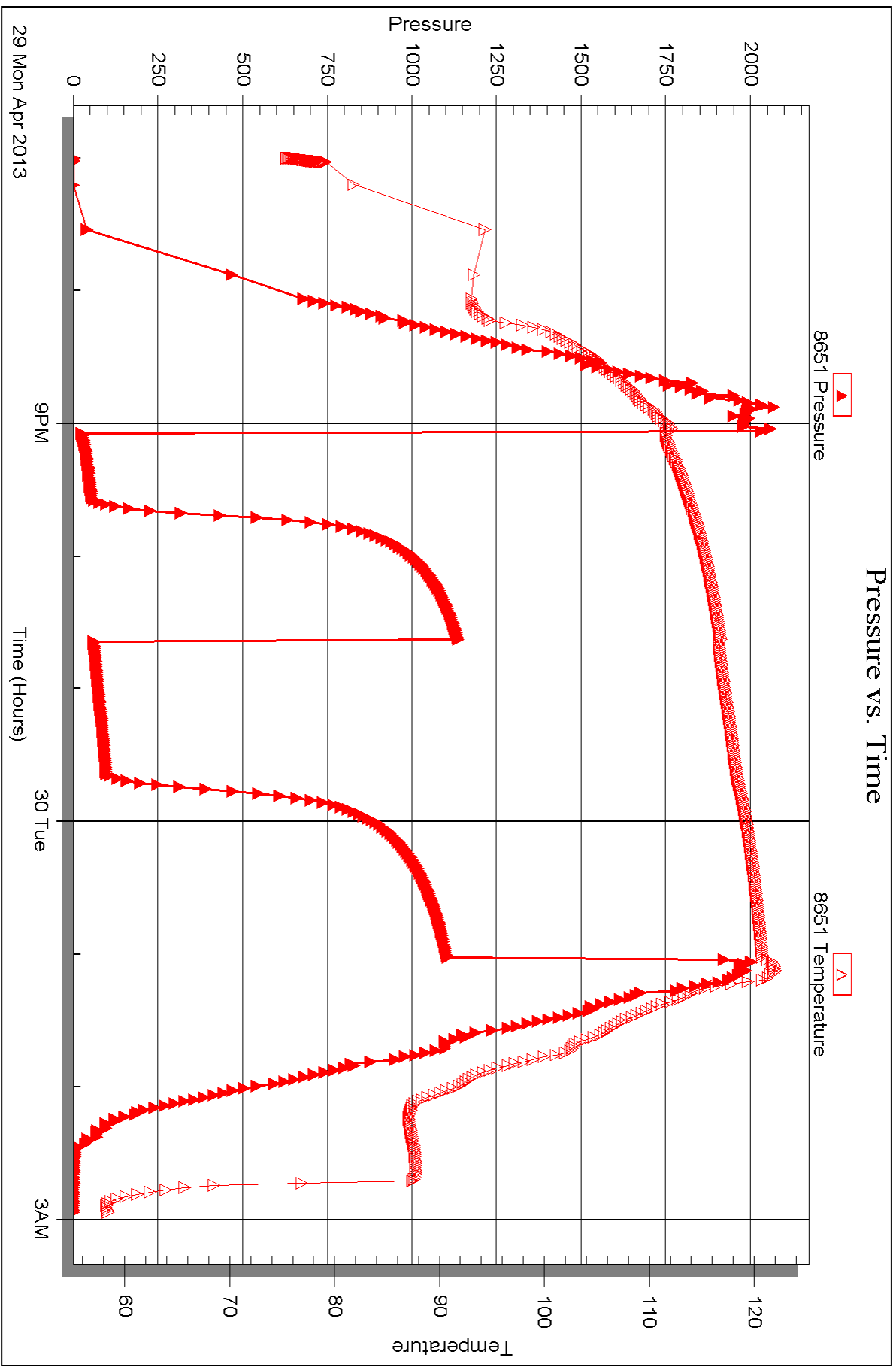


Serial #: 8651

Outside Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co.**

250 N. Water STE. 300
Wichita KS 67202

ATTN: Robert Hendrix

Sacred Heart #1-36

36 5 33 Rawlins,KS

Start Date: 2013.05.01 @ 15:00:00

End Date: 2013.05.01 @ 21:51:30

Job Ticket #: 50666 DST #: 4

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

Printed: 2013.05.03 @ 09:54:49

Murfin Drilling Co. 36 5 33 Rawlins,KS Sacred Heart #1-36 DST # 4 Cherokee 2013.05.01



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co.
250 N. Water STE. 300
Wichita KS 67202
ATTN: Robert Hendrix

36 5 33 Rawlins,KS
Sacred Heart #1-36
Job Ticket: 50666 **DST#: 4**
Test Start: 2013.05.01 @ 15:00:00

GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:58:00
Time Test Ended: 21:51:30
Interval: **4385.00 ft (KB) To 4522.00 ft (KB) (TVD)**
Total Depth: 4522.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Charles Kreutzer Jr.
Unit No: 61
Reference Elevations: 3154.00 ft (KB)
3142.00 ft (CF)
KB to GR/CF: 12.00 ft

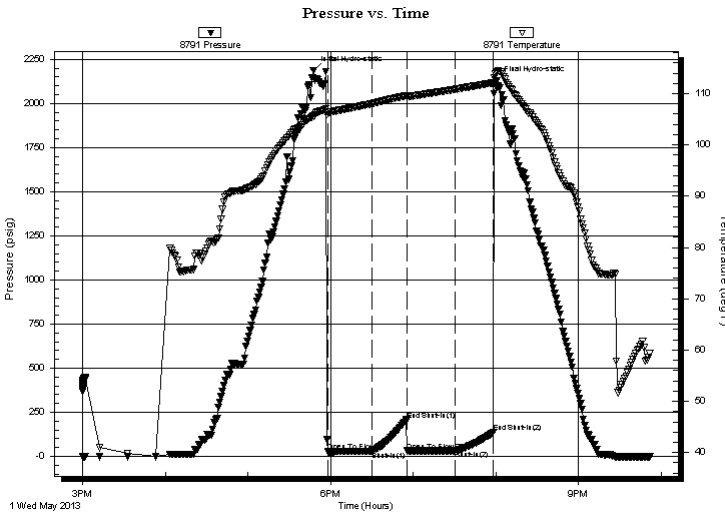
Serial #: 8791

Inside

Press @ Run Depth: 32.87 psig @ 4386.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.05.01 End Date: 2013.05.01 Last Calib.: 2013.05.01
Start Time: 15:00:01 End Time: 21:51:30 Time On Btm: 2013.05.01 @ 17:47:30
Time Off Btm: 2013.05.01 @ 20:01:00

TEST COMMENT: IF: Weak surface blow, Died in 15 mins.
IS: No blow back over 30 mins.
FF: No blow over 30 mins.
FS: No blow back over 30 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.94	105.59	Initial Hydro-static
11	26.68	106.42	Open To Flow (1)
43	30.33	108.05	Shut-In(1)
68	207.51	109.61	End Shut-In(1)
68	31.37	109.53	Open To Flow (2)
103	32.87	110.80	Shut-In(2)
131	135.85	112.09	End Shut-In(2)
134	2129.55	114.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud-100%m	0.10

* 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.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50666

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.05.01 @ 15:00:00

Tool Information

Drill Pipe:	Length: 4138.00 ft	Diameter: 3.80 inches	Volume: 58.05 bbl	Tool Weight: 2400.00 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.20 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4385.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	137.00 ft			
Tool Length:	160.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Hydraulic tool	5.00			4367.00	
Jars	5.00			4372.00	
Safety Joint	3.00			4375.00	
Packer	5.00			4380.00	23.00 Bottom Of Top Packer
Packer	5.00			4385.00	
Stubb	1.00			4386.00	
Recorder	0.00	8791	Inside	4386.00	
Recorder	0.00	8651	Outside	4386.00	
Perforations	5.00			4391.00	
change Over Sub	1.00			4392.00	
Drill Pipe	126.00			4518.00	
Change Over Sub	1.00			4519.00	
Bullnose	3.00			4522.00	137.00 Bottom Packers & Anchor

Total Tool Length: 160.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co.

36 5 33 Rawlins,KS

250 N. Water STE. 300
Wichita KS 67202

Sacred Heart #1-36

Job Ticket: 50666

DST#: 4

ATTN: Robert Hendrix

Test Start: 2013.05.01 @ 15:00:00

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: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud-100%m	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

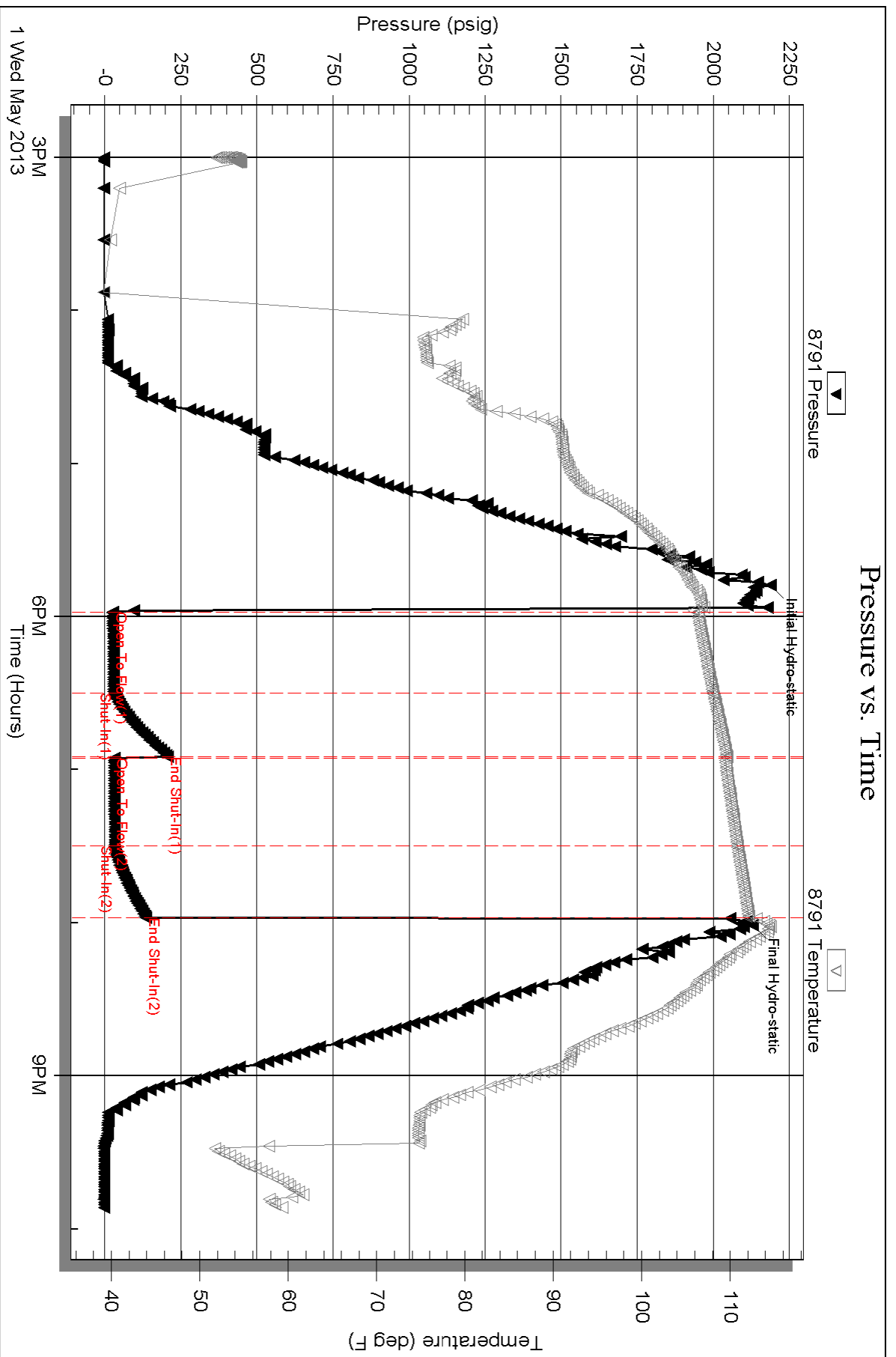
Serial #: 8791

Inside

Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 4

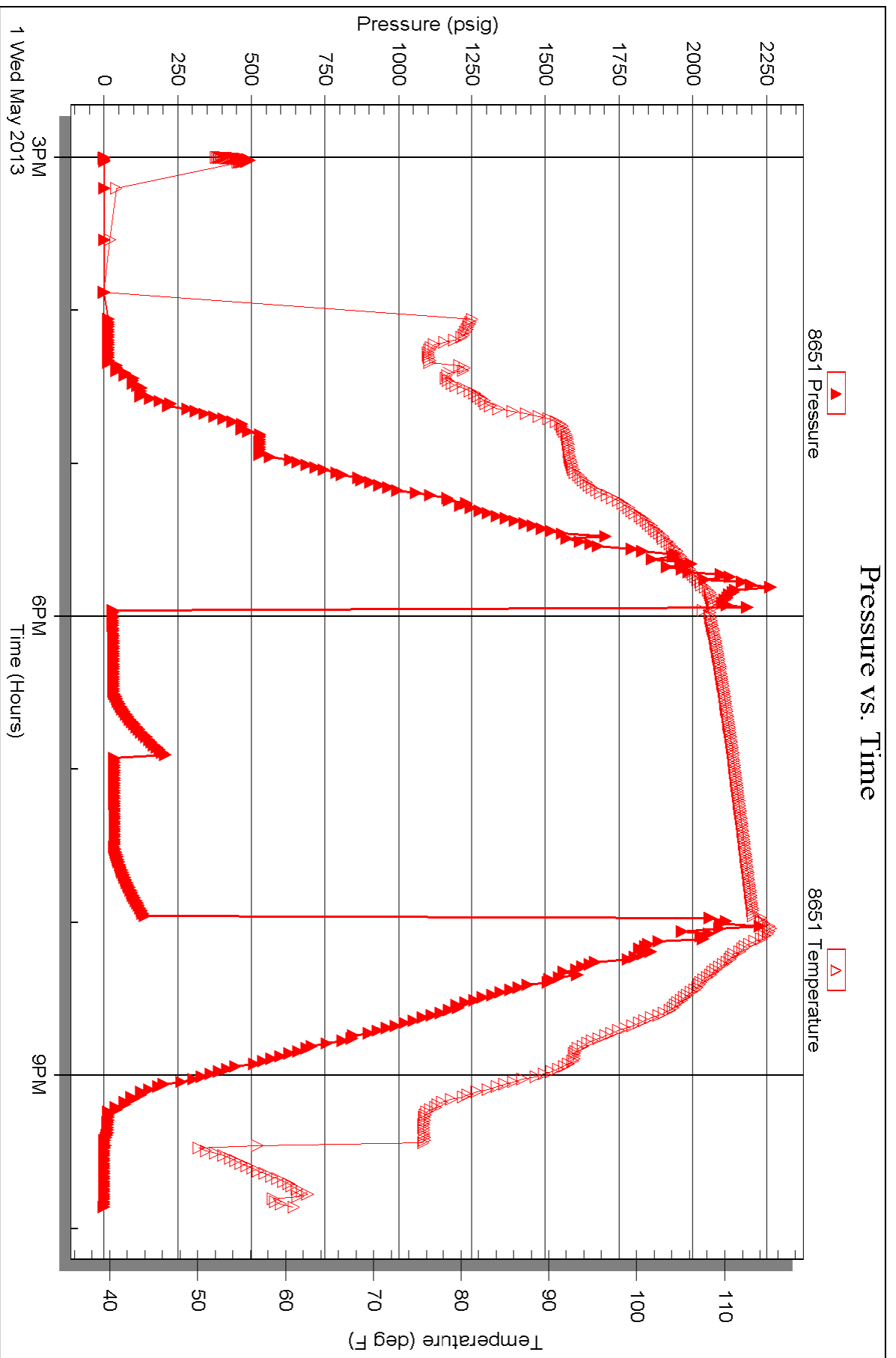


Serial #: 8651

Outside Murfin Drilling Co.

Sacred Heart #1-36

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50663

Well Name & No. Sacred Heart # 1-36 Test No. 1 Date 4-27-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3192 GL
 Address 250 N. Water Ste. 300 Wichita Ks 67202
 Co. Rep / Geo. Robert Hendrix Rig MURFIN #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. RAWLINS State _____

Interval Tested 4006 4094 Zone Tested Top - LKC-B
 Anchor Length _____ 8888 Drill Pipe Run 3761 Mud Wt. 88
 Top Packer Depth _____ Drill Collars Run 234 Vis 69
 Bottom Packer Depth _____ Wt. Pipe Run -0- WL 4.8
 Total Depth _____ 4094 Chlorides 2500 ppm System LCM 8#

Blow Description IF: Strong blow, Built to B.O.B in 45 secs.
ISI: Bleed off, No blow back over 60 mins.
FF: Strong blow, Built to B.O.B in 2 mins. Died back to 7 in. over 30 mins.
FSI: Bleed off, No blow back over 60 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2604</u>	<u>mud</u>				<u>100</u>
_____	_____				
_____	_____				
_____	_____				
_____	_____				

Rec Total 2604 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test 1050 T-On Location 4-27 23:40
 (B) First Initial Flow _____ Jars 250 T-Started 4-28 1:10
 (C) First Final Flow _____ Safety Joint 75 T-Open _____ 3:10
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____ 6:15
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out _____ 8:44
 (F) Second Final Flow _____ Mileage 50 x 2 = 100 x 1.55 = 155 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic _____ Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open _____ 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In _____ 60 Day Standby _____ Total 1530
 Final Flow _____ 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ 60 _____
 Sub Total 1530

Approved By _____ Our Representative Chad Key
 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. 50664

Well Name & No. Sacred Heart #1-36 Test No. 2 Date 4-28-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3142 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67207
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. Rawlins State KS

Interval Tested 4000 4094 Zone Tested Top - LKC.B
 Anchor Length 94 Drill Pipe Run 3769 Mud Wt. 8.8
 Top Packer Depth 3995 Drill Collars Run 234 Vis 69
 Bottom Packer Depth 4600 Wt. Pipe Run 0 WL 4.8
 Total Depth 4094 Chlorides 2500 ppm System LCM 8#

Blow Description Set tool mud held for 5 mins. Had Bottom Bucket in 1 min. After 5 mins mud started to drop slowly, Refilled Hole. Mud started falling faster pulled tool.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1612</u>	<u>mud</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1612 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1929 Test 1050 T-On Location 4-27 23:46
 (B) First Initial Flow 826 Jars 250 T-Started 4-28 13:00
 (C) First Final Flow _____ Safety Joint 75 T-Open _____ 16:13
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____ 15:25
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out _____ 18:37
 (F) Second Final Flow _____ Mileage 0 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1980 Straddle _____ Ruined Shale Packer _____

Initial Open 15 Shale Packer _____ Ruined Packer _____
 Initial Shut-In _____ Extra Packer _____ Extra Copies _____
 Final Flow _____ Extra Recorder _____ Sub Total 0
 Final Shut-In _____ Day Standby _____ Total 1375
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1375

Approved By _____ Our Representative Chad [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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50665

Well Name & No. Sacred Heart #1-36 Test No. 3 Date 4-30-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3142 GL
 Address 250 N. Water Ste. 300 Wichita KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. Rawlins State Ks

Interval Tested 4192 4262 Zone Tested LRC-J, K
 Anchor Length 70 Drill Pipe Run 3958 Mud Wt. 8.9
 Top Packer Depth 4187 Drill Collars Run 234 Vis 50
 Bottom Packer Depth 4192 Wt. Pipe Run -0- WL 6.5
 Total Depth 4262 Chlorides 3,000 ppm System LCM 10#

Blow Description IF: Weak blow, Built to 2 in over 30 mins.
ISI: No blow back over 80 mins.
FF: Weak blow, Built to 3 in. over 20 mins. started to die in 30 mins, Dead in 60 mins
FSD: No blow back in 90 mins.

Rec	Feet of	%gas	%oil	%water	%mud
62	90	10%	90%		
62	90CM	10%	50%		40%
62	9MCO	5%	25%		70%
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud

Rec Total 186 BHT 117 Gravity 31 API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2061 Test 1250 T-On Location 19:00
 (B) First Initial Flow 23 Jars 250 T-Started 19:00
 (C) First Final Flow 61 Safety Joint 75 T-Open 21:30
 (D) Initial Shut-In 1134 Circ Sub T-Pulled 4:30 1:05
 (E) Second Initial Flow 58 Hourly Standby T-Out 2:58
 (F) Second Final Flow 94 Mileage 50X2 = 100X 1.55 155 Comments Had to change out H/P.
 (G) Final Shut-In 1099 Sampler tool check O-Rings in station
 (H) Final Hydrostatic 1996 Straddle
 Ruined Shale Packer
 Ruined Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1730 MP/DST Disc't

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Sub Total 1730

Approved By _____ Our Representative Chris Hufsch

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. 50666

Well Name & No. Sacred Heart #1-36 Test No. 4 Date 5-1-2013
 Company Murfin Drilling Co. Elevation 3154 KB 3142 GL
 Address 250 N. Water Ste. 300 Wichita Ks. 67207
 Co. Rep / Geo. Robert Hendrix Rig Murfin #2
 Location: Sec. 36 Twp. 5 Rge. 33 Co. Rawlins State KS

Interval Tested 4385 4522 Zone Tested Cherokee
 Anchor Length 137 Drill Pipe Run 4138 Mud Wt. 9.1
 Top Packer Depth 4380 Drill Collars Run 234 Vis 75
 Bottom Packer Depth 4385 Wt. Pipe Run - 0- WL 6.6
 Total Depth 4522 Chlorides 3,000 ppm System LCM 80#

Blow Description IF: Weak surface blow, Died in 15 mins.

ISI: No blow back

FF: No blow

FBI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 116 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2187 Test 1250 T-On Location 14:15
 (B) First Initial Flow 27 Jars 250 T-Started 15:00
 (C) First Final Flow 30 Safety Joint 75 T-Open 17:58
 (D) Initial Shut-In 208 Circ Sub _____ T-Pulled 19:55
 (E) Second Initial Flow 31 Hourly Standby _____ T-Out 21:51
 (F) Second Final Flow 33 Mileage 155 Comments _____
 (G) Final Shut-In 136 Sampler _____
 (H) Final Hydrostatic 2130 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Extra Packer _____
 Initial Shut-In 30 Extra Recorder _____
 Final Flow 30 Day Standby 1 day 1d 11.25h
 Final Shut-In 30 Accessibility _____
 Sub Total 1730 Sub Total 375
 Total 2105 MP/DST Disc't _____

Approved By _____ Our Representative Chad Hendrix
 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.



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

Invoice Number: 136024
Invoice Date: May 3, 2013
Page: 1

*act.
Prod - LH*

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

OPERATOR PAY MDC
LEASE: RB

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Murfin	60167	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	May 3, 2013	6/2/13

Quantity	Item	Description	Unit Price	Amount
132.00	MAT	<u>Sacred Heart #1-36</u> Class A Common	17.90	2,362.80
88.00	MAT	Pozmix	9.35	822.80
8.00	MAT	Gel	23.40	187.20
55.00	MAT	Flo Seal	2.97	163.35
236.30	SER	Cubic Feet	2.48	586.02
394.80	SER	Ton Mileage	2.60	1,026.48
1.00	SER	<u>Rotary Plug</u>	2,483.59	2,483.59
40.00	SER	Pump Truck Mileage	7.70	308.00
40.00	SER	Light Vehicle Mileage	4.40	176.00
1.00	EQP	8.5/8 Wooden Plug	107.64	107.64
1.00	CEMENTER	Alan Ryan		
1.00	EQUIP OPER	Wayne McHghy		
1.00	OPER ASSIST	Chris Helpingstine		

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

\$ 2,878.35 *35%*

ONLY IF PAID ON OR BEFORE
May 28, 2013

Subtotal	8,223.88
Sales Tax	662.02
Total Invoice Amount	8,885.90
Payment/Credit Applied	
TOTAL	8,885.90

OK

2878.35

6007.55

6006

ALLIED OIL & GAS SERVICES, LLC 060167

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Oakley KJ

DATE <u>5/3/13</u>	SEC <u>36</u>	TWP <u>5</u>	RANGE <u>33</u>	CALLED OUT	ON LOCATION	JOB START <u>2:30 PM</u>	JOB FINISH <u>3:30 PM</u>
LEASE <u>Sacred Heart</u>	WELL # <u>1-36</u>	LOCATION <u>Colby N70 CL 4 1/2 E N10</u>			COUNTY <u>Hawkins</u>	STATE <u>KI</u>	
OLD OR NEW (Circle one)							

CONTRACTOR MurFin 2

TYPE OF JOB PTA Rotary

HOLE SIZE 7 7/8 T.D.

CASING SIZE 8 5/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

OWNER Same

CEMENT AMOUNT ORDERED 220.60/40 470 gal

1 1/2 PLO Seal

EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan

422 HELPER Wayne McElbighy

BULK TRUCK DRIVER Chris Helplingline

347

BULK TRUCK DRIVER

COMMON	<u>132</u>	@ <u>17.20</u>	<u>2362.80</u>
POZMIX	<u>88</u>	@ <u>9.25</u>	<u>822.80</u>
GEL	<u>8</u>	@ <u>23.40</u>	<u>187.20</u>
CHLORIDE		@	
ASC		@	
<u>FLO Seal 55 10</u>		@ <u>2.22</u>	<u>163.20</u>
HANDLING <u>2362 CF</u>		@ <u>2.42</u>	<u>586.02</u>
MILBAGE <u>2.50 700/mile 7.87</u>		<u>700x</u>	<u>1026.48</u>
TOTAL			<u>5148.65</u>

REMARKS:

25 SK @ 2790'

100 SK @ 2040'

40 SK @ 380'

10 SK @ 40'

30 SK Best Hole

15 SK Mouse Hole

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			<u>2483.59</u>
EXTRA FOOTAGE	@		
MILBAGE <u>40</u>	@ <u>7.20</u>		<u>308.00</u>
MANIFOLD	@		
<u>ATE Vehicle 40</u>	@ <u>4.40</u>		<u>176.00</u>
TOTAL			<u>2967.59</u>

CHARGE TO: MurFin Drilling Co

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>8 5/8 Wood Plug</u>	@	<u>107.00</u>
	@	
	@	
	@	
	@	
TOTAL		<u>107.00</u>

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.

PRINTED NAME Arnold Cabera

SIGNATURE Arnold Cabera

SALES TAX (If Any) _____

TOTAL CHARGES 8,223.88

DISCOUNT 2,878.35 IF PAID IN 30 DAYS

5,345.53 Net.

PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

act.
Prod - LH

INVOICE

Invoice Number: 136024

Invoice Date: May 3, 2013

Page: 1

PROD COPY

OPERATOR PAY MDC
LEASE: RB

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

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
Murfin	60167	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	May 3, 2013	6/2/13

Quantity	Item	Description	Unit Price	Amount
132.00	MAT	Sacred Heart #1-36 Class A Common	17.90	2,362.80
88.00	MAT	Pozmix	9.35	822.80
8.00	MAT	Gel	23.40	187.20
55.00	MAT	Flo Seal	2.97	163.35
236.30	SER	Cubic Feet	2.48	586.02
394.80	SER	Ton Mileage	2.60	1,026.48
1.00	SER	Rotary Plug	2,483.59	2,483.59
40.00	SER	Pump Truck Mileage	7.70	308.00
40.00	SER	Light Vehicle Mileage	4.40	176.00
1.00	EQP	8.5/8 Wooden Plug	107.64	107.64
1.00	CEMENTER	Alan Ryan		
1.00	EQUIP OPER	Wayne McGhghy		
1.00	OPER ASSIST	Chris Helpingstine		

Account	Unit	W	No.	Amount	Description
ID203	3	7480.0001		6007.55	PTA #1-36

Subtotal	8,223.88
Sales Tax	662.02
Total Invoice Amount	8,885.90
Payment/Credit Applied	
TOTAL	8,885.90

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

\$ 2,878.35 **35%**

ONLY IF PAID ON OR BEFORE
May 28, 2013

Rec'd Acct. 6-4-13.

OKD

2878.35

6007.55

6006

ALLIED OIL & GAS SERVICES, LLC 060167

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Oakley, KS

DATE <u>5/3/13</u>	SEC <u>36</u>	TWP. <u>5</u>	RANGE <u>33</u>	CALLED OUT	ON LOCATION	JOB START <u>2:30 PM</u>	JOB FINISH <u>3:30 PM</u>
LEASE <u>Sacred Heart</u>	WELL# <u>1-36</u>	LOCATION <u>Colby N70 CL 4 1/2 E Ninto</u>			COUNTY <u>Hawkins</u>	STATE <u>KI</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Murfin 2
 TYPE OF JOB PTA Rotary
 HOLE SIZE 7 7/8 T.D.
 CASING SIZE 8 5/8 DEPTH
 TUBING SIZE DEPTH
 DRILL PIPE 4 1/2 DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT

OWNER Same
 CEMENT AMOUNT ORDERED 220.60/40 470 gal
119 Flt Seal

EQUIPMENT
 PUMP TRUCK CEMENTER Alan Ryan
 # 422 HELPER Wayne McElroy
 BULK TRUCK
 # 347 DRIVER Chris Helms
 BULK TRUCK
 # DRIVER

COMMON <u>132</u>	@ <u>17.20</u>	<u>2362.80</u>
POZMIX <u>88</u>	@ <u>9.25</u>	<u>822.80</u>
GEL <u>8</u>	@ <u>23.40</u>	<u>187.20</u>
CHLORIDE	@	
ASC	@	
<u>Flt Seal 55-10</u>	@ <u>2.22</u>	<u>165.25</u>
	@	
	@	
	@	
	@	
	@	
HANDLING <u>2362</u> CF	@ <u>2.48</u>	<u>586.02</u>
MILEAGE <u>2.87</u> miles @ <u>7.87</u>		<u>22.60</u>
		TOTAL <u>5148.85</u>

REMARKS:

25 5/8 @ 2790'
10 5/8 @ 2040'
40 5/8 @ 380'
10 5/8 @ 40'
30 5/8 But Hole
15 5/8 Mouse Hole

SERVICE

DEPTH OF JOB		
PUMP TRUCK CHARGE		<u>2483.59</u>
EXTRA FOOTAGE	@	
MILEAGE <u>40</u>	@ <u>7.20</u>	<u>308.00</u>
MANIFOLD	@	
<u>LTR Vehicle 40</u>	@ <u>4.40</u>	<u>176.00</u>
	@	
		TOTAL <u>2967.59</u>

CHARGE TO: Murfin Drilling Co
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>8 5/8 Wood Plug</u>	@	<u>107.64</u>
	@	
	@	
	@	
	@	
		TOTAL <u>107.64</u>

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.

PRINTED NAME Arnold Cabrera
 SIGNATURE Arnold Cabrera

SALES TAX (if Any) _____
 TOTAL CHARGES 8,223.88
 DISCOUNT 2,878.35 IF PAID IN 30 DAYS
5,345.53 Net.

Robert D. Hendrix

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY **Murfin Drilling Co. Inc.**

LEASE **Sacred Heart #1-36**

FIELD **Wildcat**

LOCATION **330' fs & 2310' fw1**

SEC **36** TWP **5s** RGE **33w**

COUNTY **Rawlins** STATE **Kansas**

CONTRACTOR **Murfin Drilling Co. Rig #2**

SPUD **4/22/2013** COMP **5/2/2013**

RTD **4/27/13** LTD **4/27/13**

MUD UP **3311'** TYPE MUD **Chemical**

SAMPLES SAVED FROM **3740'** TO **TD**

DRILLING TIME KEPT FROM **3740'** TO **TD**

SAMPLES EXAMINED FROM **3740'** TO **TD**

GEOLOGICAL SUPERVISION FROM **3675'**

GEOLOGIST ON WELL **Robert D. Hendrix**

INDUSTRIAL/POSSIBLY/MICRO/SOME
PIONEER WIRELINE

FORMATION TOPS

ELECTRIC LOG

SAMPLE

ANHYDRITE

TOPEKA

HEEBNER SHALE

LANSSING

STARK SHALE

PAWNEE

CHEROKEE SHALE

MISSISSIPPI

ELEVATIONS

KB **3154'**

DF

GL **3143'**

Measurements Are All From **Kelly Bushing**

CASING

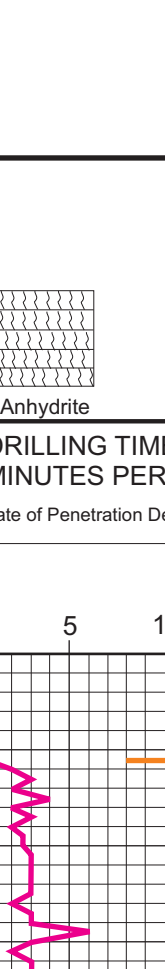
CONDUCTOR

SURFACE **8-18" at 308'**

PRODUCTION **None**

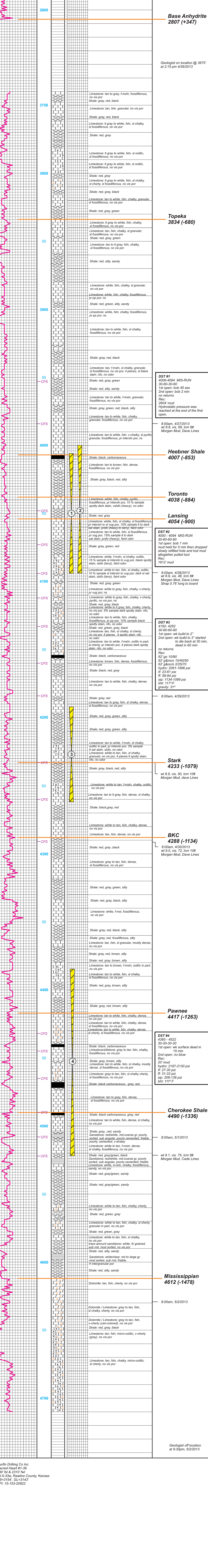
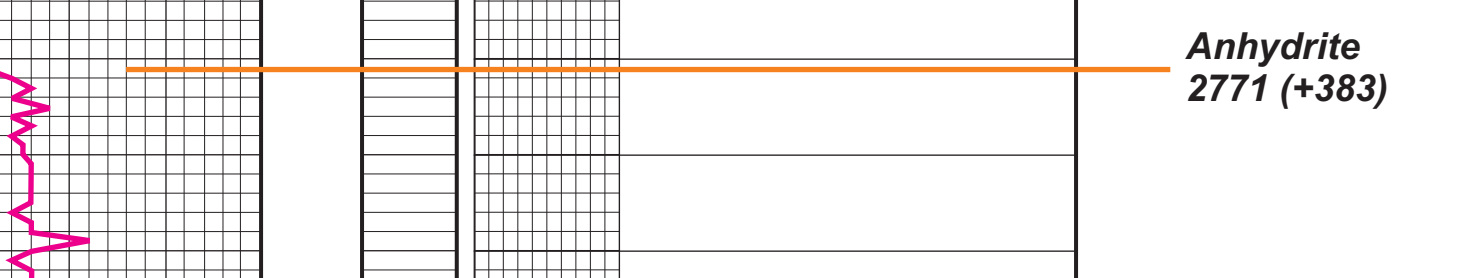
ELECTRICAL SURVEYS

APR # **15-153-20922**



REMARKS:

LEGEND



DST #1
4006-4094 MIS-RUN
30-60-30-60
1st open: bob 45 sec
2nd open: bob 2 min
no returns
Rec: 2604' mud
Hydrostatic pressure was reached at the end of the first open.
8:00am, 4/27/2013
wt 8.8, vis. 48, lcm 8#
Morgan Mud, Dave Lines

DST #2
4000 - 4094 MIS-RUN
30-60-60-90
1st open: bob 1 min
mud held for 5 min then dropped slowly refilled hole and lost mud altogether pulled tool
Rec: 1612' mud
8:00am, 4/28/2013
wt 8.9, vis. 48, lcm 8#
Morgan Mud, Dave Lines
Strap 0.76' long to board

DST #3
4192-4262
30-60-60-90
1st open: wk build to 2"
2nd open: wk build to 2"
to die back at 30 min,
dead in 60 min
no returns
Rec:
62' go 10/90
62' g&mco 10/40/50
62' g&ocm 2/25/70
hydro: 2061-1996 psi
lf: 23-61 psi
ff: 58-94 psi
sip: 1134-1099 psi
bht: 117°F
gravity: 31°
8:00am, 4/29/2013

DST #4
4385 - 4522
30-30-30-30
1st open: wk surface dead in 15 min
2nd open: no blow
Rec:
20' mud
hydro: 2187-2130 psi
lf: 27-30 psi
ff: 31-33 psi
sip: 208-136 psi
bht: 111°F
8:00am, 5/1/2013

wt 9.1, vis. 75, lcm 8#
Morgan Mud, Cade Lines

8:00am, 5/2/2013