

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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> <i>(Submit ACO-4)</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	YOUNGMEYER 1-2
Doc ID	1366760

All Electric Logs Run

DIL
DUCP
MEL
BHCS
CBL

TREATMENT REPORT



HURRICANE SERVICES INC

Customer:	MURFIN	Date:	6/21/2017	Ticket No.:	50996
Field Rep:	DUKE				
Address:					
City, State:					
County, Zip:					

Field Order No.:		Open Hole:	12.25	Perf Depths (ft)	Perfs
Well Name:	YOUNGMEYER 1-2	Casing Depth:	478.27		
Location:	BEAUMONT	Casing Size:	8 5/8		
Formation:		Tubing Depth:			
Type of Service:	SURFACE	Tubing Size:			
Well Type:	OIL	Liner Depth:			
Age of Well:	NEW	Liner Size:			
Packer Type:		Liner Top:			
Packer Depth:		Liner Bottom:			
Treatment Via:		Total Depth:			
				Total Perfs	0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
	FLUID	N2/CO2	STP	ANNULUS				
12:00 AM					ON LOCATION SAFETY MEETING			
					SPOT IN AND RIG UP			
					RUN CASING			
					HOOK UP TO CASING			
	4.0		500.0		BREAK CIRCULATION			10.00
	4.0		400.0		MIX AND PUMP CEMENT			82.78
					STOP			
					RELEASE PLUG			
	4.0		400.0		DISPLACE			25.00
	2.0		300.0		SLOW RATE			
					STOP			28.76
2:45 AM			200.0		SHUT IN WELL			
					THANKS FOR YOUR BUSINESS			
					JAKE KEVIN AND MARK			
TOTAL:						-	-	126.53

SUMMARY

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
4.0	3.5	500.0	360.0

PRODUCTS USED

250 SACKS CLASS A 3%CC 2% GEL .25LB SX FLOSEAL

Treater: JAKE HEARD

Customer: DUKE

TREATMENT REPORT



HURRICANE SERVICES INC

Customer:	MURFIN	Date:	6/29/2017	Ticket No.:	50998
Field Rep:	MARK ROBEN				
Address:					
City, State:					
County, Zip:					

Field Order No.:	
Well Name:	YOUNGMEYER 1-2
Location:	BEAUMONT, KS
Formation:	
Type of Service:	LONGSTRING
Well Type:	OIL
Age of Well:	NEW
Packer Type:	
Packer Depth:	
Treatment Via:	CASING

Open Hole:	7 7/8 3117'
Casing Depth:	3105
Casing Size:	5.5 17#
Tubing Depth:	
Tubing Size:	
Liner Depth:	
Liner Size:	
Liner Top:	
Liner Bottom:	
Total Depth:	

Perf Depths (ft)	Perfs
Total Perfs	0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HGL (g/s)	FLUID (bbl/s)
	FLUID	N2/CO2	STP	ANNULUS				
					ON LOCATION SAFETY MEETING			
					SPOT IN AND RIG UP			
					WAIT ON RIG			
5:16 PM					HOOK UP TO CASING			
	5.0		400.0		PUMP WATER			5.00
	5.0		400.0		PUMP MUD FLUSH			12.00
	5.0		400.0		PUMP WATER			5.00
	2.0		200.0		PLUG RAT HOLE			6.80
	2.0		200.0		PLUG MOUSE			6.00
	4.5		450.0		MIX AND PUMP LEAD CEMENT			83.35
	4.5		200.0		MIX AND PUMP TAIL CEMENT			48.07
					STOP			
					WASH PUMP AND LINES			10.00
	7.0		400.0		RELEASE PLUG			1.00
	5.0		800.0		DISPLACE			48.00
	4.0		1,000.0		SEE LIFT			65.00
7:05 PM	4.0		2,000.0		BUMP PLUG			73.00
TOTAL:								362.22

SUMMARY

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
7.0	4.4	2,000.0	586.4

PRODUCTS USED

180 SX H-CON 180 SX H LONG

Treater: JAKE HEARD

Customer: MARK ROBEN

CEMENTING LOG

Company	Murfin	Lease	0	Well Name/No.	Youngmeyer 1-2
Type Job	Squeeze	Type & Amt Material	25 Sacks Class A + 1% CDI-26 25 Sacks Class A common		
Field	0	Ticket Number	50337		
CASING DATA					
Size	5.5	Type	J-55	Weight	17#
Casing Depths:	Top	Bottom	0		
Drill Pipe:	Size	Weight	Collars		
Open Hole:	Size	T.D. (ft)	0	P.8. to (ft)	
CAPACITY FACTORS					
Casing	Bbls/Lin. ft.	0.0232 Lin. ft./Bbl			
Open Holes	Bbls/Lin. ft.	Lin. ft./Bbl			
Tubing	Bbls/Lin. ft.	0.00387 Lin. ft./Bbl			
Annulus	Bbls/Lin. ft.	0.0178 Lin. ft./Bbl			
	Bbls/Lin. ft.	Lin. ft./Bbl			
Perforations	From (ft)	2864'	To	2866'	Amount 8 shots
CEMENT DATA					
Spacer Type					
Amt.	Sks Yield	ft ³ / _{in} Density (PPG)			
LEAD					
Pump Time (hrs)	Type		Class A + 1% CDI-26		Excess
Amt.	25 Sks Yield	1.48 ft ³ / _{in} Density (PPG)		14.2	
TAIL					
Pump Time (hrs)	Type		Class A		Excess
Amt.	25 Sks Yield	1.28 ft ³ / _{in} Density (PPG)		15	
WATER					
Lead	7.49 gals/sk	Tail	6.02 gals/sk	Total (Bbls.)	8.03
Pump Trucks Used					230
Bulk Equipment					241
Float Equipment: Manufacturer					
Shoe: Type					Depth
Float: Type					Depth
Centralizers: Quantity	Plugs: Top		Bottom		
Stage Collars					
Special Equipment					
Disp. Fluid Type	Fresh Water	Amt. (Bbls.)	5.6	Weight (PPG)	
Mud Type					Weight (PPG)

COMPANY REPRESENTATIVE Mark Robben CEMENTER Jake Heard

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	PUMPED/ TIME PERIOD	RATE (BBLs MIN.)	
11:00 AM						On location Safety meeting. Spot in and rig up
						Swab
						Hook up to tubing
	1800		5.5		3.5	Test packer
	600		29		4	Circulate Hole
	500		8		3.5	Pump Sand
	800		5		2	Get injection rate
	600		6.5		1.5	Mix and pump lead Cement
	300		5.7		3	Mix and pump tail Cement
						Stop
						Wash pump and lines
	1200		1		1	Start displacement
	1800		5.4		0.5	5.4 BBL out stop
	500		30		3.5	Reverse out
						Hook up to tubing
	1800		0.25		0.5	Pressure up to 1800
	1500					pressure up to 1500 and shut in
3:45 PM						Rig down and leave location

MDCI
 Youngmeyer #1-2
 1980 FNL 840 FEL
 Sec. 2-T29S-R8E
 1421' KB

Formation	Sample tops	Datum	Ref	Log Tops	Datum	Ref
Heebner	1160	+261	-36	1171	+250	-47
Lansing	1579	-158	-31	1557	-155	-28
Kansas City	1894	-473	-31	1890	-469	-27
BKC	2093	-672	-16	2090	-669	-13
Altamont	2215	-794	-23	2213	-792	-21
Ft Scott	2342	-921	-21	2341	-920	-20
Oakley	2450	-1029	-19	2448	-1027	-17
Mississippi	2661	-1240	-8	2660	-1239	-7
B. Cowley	2854	-1433	-19	2850	-1429	-15
Arbuckle	3034	-1613	-39	3030	-1609	-35
RTD	3120					
LTD				3117		



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Youngmeyer #1-2

2-29S-8E EIk,KS

Start Date: 2017.06.23 @ 21:32:54

End Date: 2017.06.24 @ 03:16:39

Job Ticket #: 59947 DST #: 1

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

Printed: 2017.06.29 @ 11:22:36



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

ATTN: Jeff Christian

Job Ticket: 59947

DST#: 1

Test Start: 2017.06.23 @ 21:32:54

GENERAL INFORMATION:

Formation: **Hertha**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:14:54

Time Test Ended: 03:16:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 2056.00 ft (KB) To 2069.00 ft (KB) (TVD)

Reference Elevations: 1421.00 ft (KB)

Total Depth: 2069.00 ft (KB) (TVD)

1412.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8159 Inside

Press@RunDepth: 505.10 psig @ 2057.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.23

End Date: 2017.06.24

Last Calib.: 2017.06.24

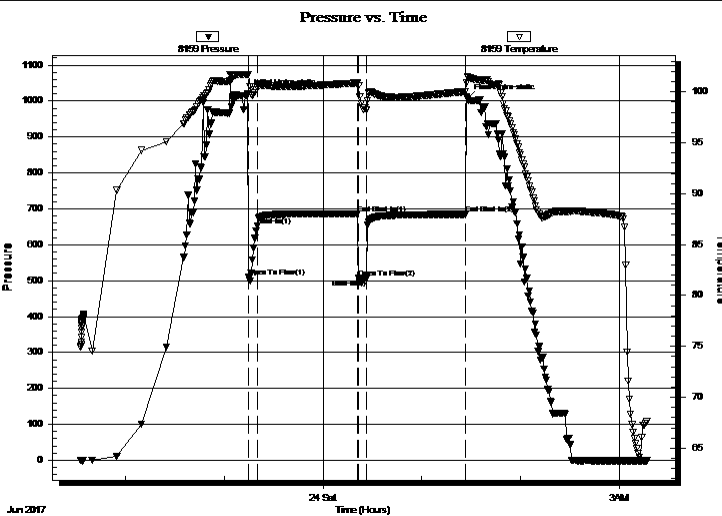
Start Time: 21:32:55

End Time: 03:16:39

Time On Btm: 2017.06.23 @ 23:14:09

Time Off Btm: 2017.06.24 @ 01:27:39

TEST COMMENT: IF: Strong Blow , BOB in 10 seconds
 IS: GTS in 5 minutes of Bleed Off, Blow Would Not Bleed Off
 FF: Strong Blow , BOB & GTS Immediate, Caught Sample
 FS: Would Not Bleed Off



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1020.71	101.70	Initial Hydro-static
1	510.93	101.67	Open To Flow (1)
6	652.28	100.42	Shut-In(1)
67	686.28	100.88	End Shut-In(1)
68	506.58	100.60	Open To Flow (2)
73	505.10	98.20	Shut-In(2)
133	684.82	100.04	End Shut-In(2)
134	1005.53	101.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2036 GIP	0.00
20.00	GCM 10%G 90%M	0.10

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59947

DST#: 1

ATTN: Jeff Christian

Test Start: 2017.06.23 @ 21:32:54

Tool Information

Drill Pipe:	Length: 1815.00 ft	Diameter: 3.80 inches	Volume: 25.46 bbl	Tool Weight: 2100.00 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: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 26.65 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	2056.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	39.00 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			2035.00	
Hydraulic tool	5.00			2040.00	
Jars	5.00			2045.00	
Safety Joint	2.00			2047.00	
Packer	5.00			2052.00	26.00 Bottom Of Top Packer
Packer	4.00			2056.00	
Stubb	1.00			2057.00	
Recorder	0.00	8159	Inside	2057.00	
Recorder	0.00	6806	Outside	2057.00	
Perforations	9.00			2066.00	
Bullnose	3.00			2069.00	13.00 Bottom Packers & Anchor

Total Tool Length: 39.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59947

DST#: 1

ATTN: Jeff Christian

Test Start: 2017.06.23 @ 21:32:54

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: 40.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2036 GIP	0.000
20.00	GCM 10%G 90%M	0.098

Total Length: 20.00 ft Total Volume: 1128.426 bbl

Num Fluid Samples: 0

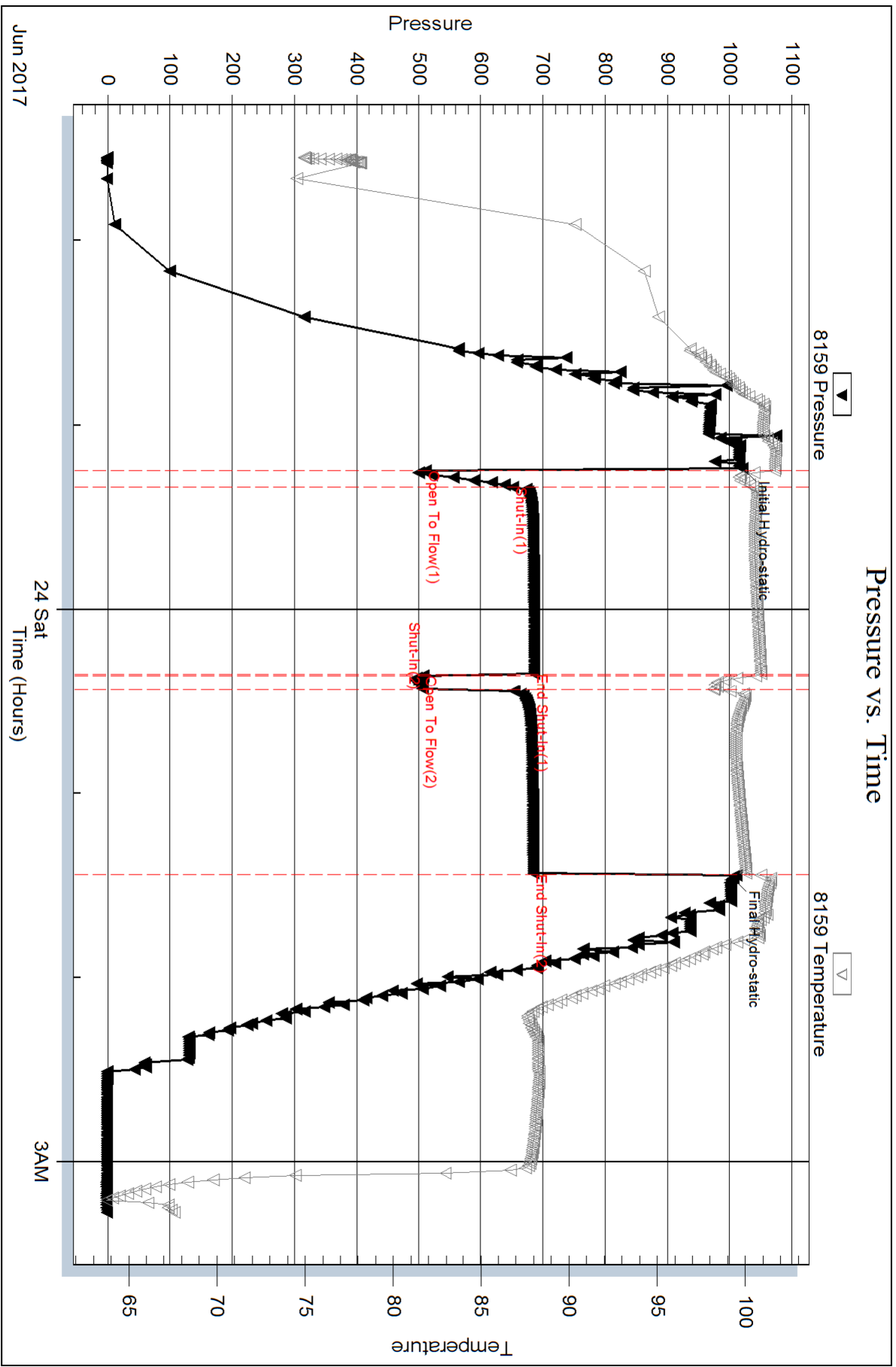
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

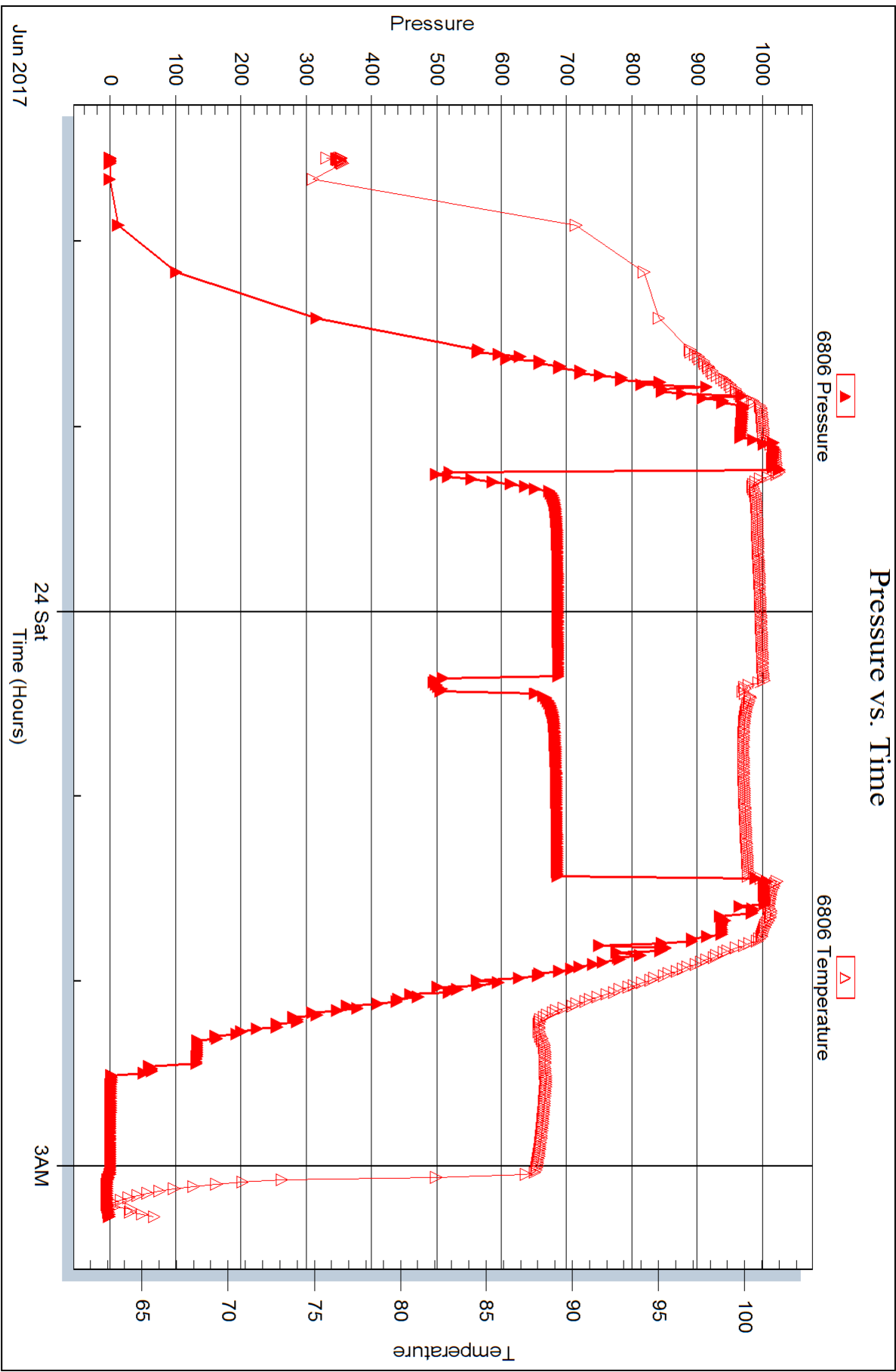


Serial #: 6806

Outside Murfin Drilling Co

Youngmeyer #1-2

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Youngmeyer #1-2

2-29S-8E EIk,KS

Start Date: 2017.06.25 @ 18:39:09

End Date: 2017.06.26 @ 02:45:39

Job Ticket #: 59948 DST #: 2

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

Printed: 2017.06.29 @ 11:21:19



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

2-29S-8E Elk, KS
Youngmeyer #1-2
 Job Ticket: 59948 **DST#: 2**
 Test Start: 2017.06.25 @ 18:39:09

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:45:54
 Time Test Ended: 02:45:39
 Interval: **2680.00 ft (KB) To 2698.00 ft (KB) (TVD)**
 Total Depth: 2698.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
 KB to GR/CF: 9.00 ft

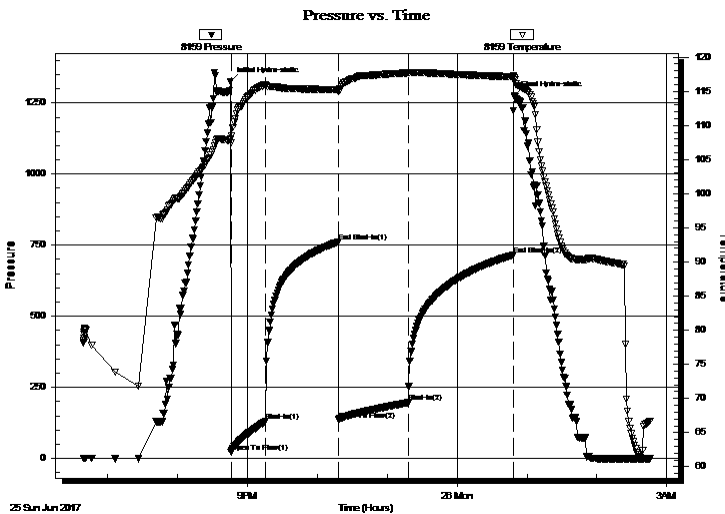
Serial #: 8159

Inside

Press@RunDepth: 196.06 psig @ 2681.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.25 End Date: 2017.06.26 Last Calib.: 2017.06.26
 Start Time: 18:39:10 End Time: 02:45:39 Time On Btm: 2017.06.25 @ 20:45:24
 Time Off Btm: 2017.06.26 @ 00:49:09

TEST COMMENT: IF: Fair Blow , Built to 7"
 IS: No Blow Back
 FF: Weak Blow , Built to 3"
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1324.56	108.00	Initial Hydro-static
1	22.02	107.50	Open To Flow (1)
31	130.55	115.87	Shut-In(1)
93	761.02	115.27	End Shut-In(1)
93	135.35	114.92	Open To Flow (2)
153	196.06	117.70	Shut-In(2)
243	714.95	117.18	End Shut-In(2)
244	1276.15	116.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
241.00	Water	1.19
92.00	MCW 36%M 64%W	1.29

* 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

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59948

DST#: 2

ATTN: Jeff Christian

Test Start: 2017.06.25 @ 18:39:09

Tool Information

Drill Pipe:	Length: 2418.00 ft	Diameter: 3.80 inches	Volume: 33.92 bbl	Tool Weight: 2100.00 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: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 35.11 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	2680.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	44.00 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			2659.00	
Hydraulic tool	5.00			2664.00	
Jars	5.00			2669.00	
Safety Joint	2.00			2671.00	
Packer	5.00			2676.00	26.00 Bottom Of Top Packer
Packer	4.00			2680.00	
Stubb	1.00			2681.00	
Recorder	0.00	8159	Inside	2681.00	
Recorder	0.00	6806	Outside	2681.00	
Perforations	14.00			2695.00	
Bullnose	3.00			2698.00	18.00 Bottom Packers & Anchor

Total Tool Length: 44.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59948

DST#: 2

ATTN: Jeff Christian

Test Start: 2017.06.25 @ 18:39:09

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:

12000 ppm

Viscosity: 40.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
241.00	Water	1.185
92.00	MCW 36%M 64%W	1.291

Total Length: 333.00 ft Total Volume: 2.476 bbl

Num Fluid Samples: 0

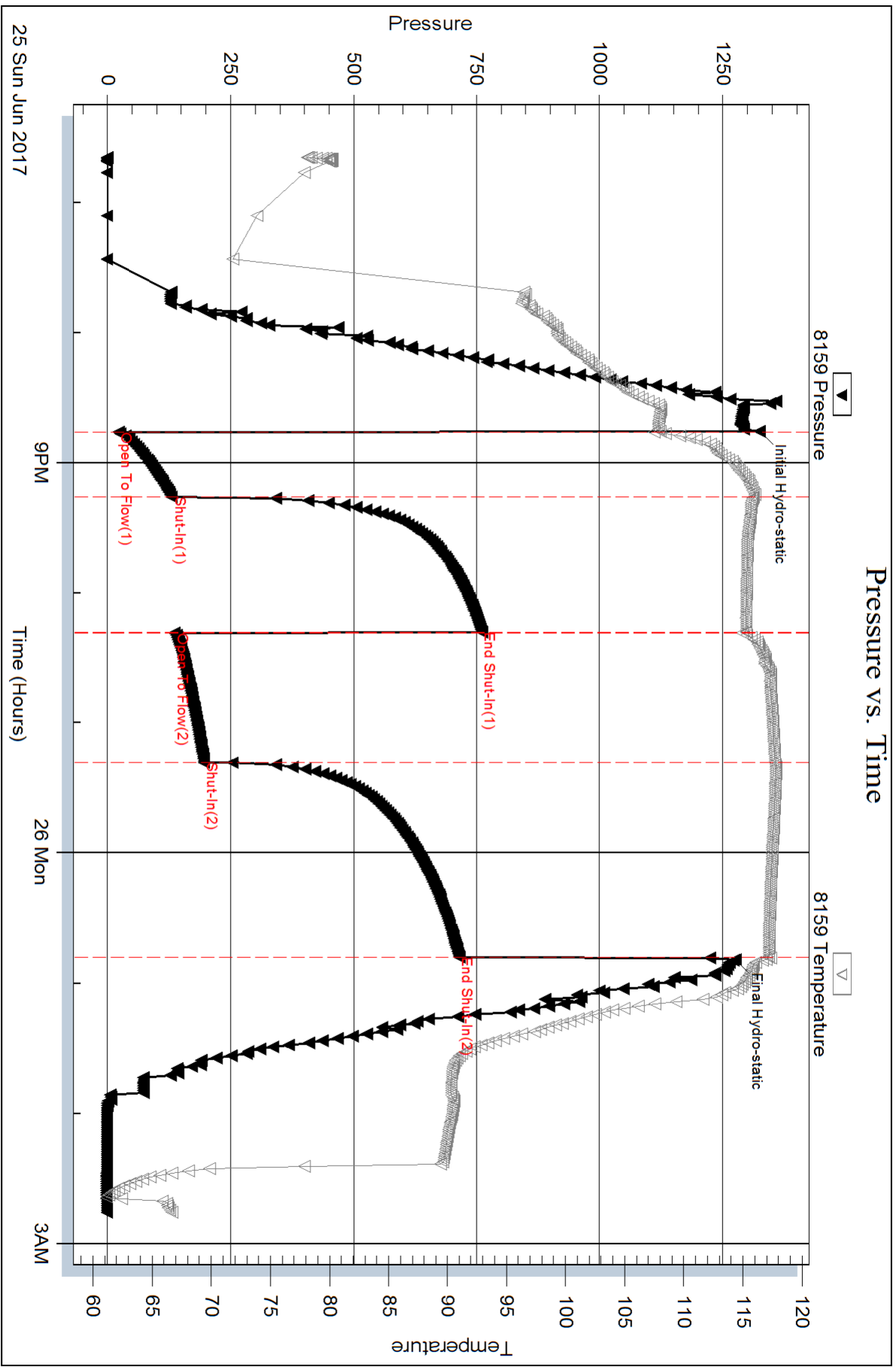
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .44 @ 85 degrees





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Youngmeyer #1-2

2-29S-8E EIk,KS

Start Date: 2017.06.26 @ 21:08:17

End Date: 2017.06.27 @ 05:13:17

Job Ticket #: 59949 DST #: 3

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

Printed: 2017.06.29 @ 11:19:35



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

2-29S-8E Elk, KS
Youngmeyer #1-2
 Job Ticket: 59949 **DST#: 3**
 Test Start: 2017.06.26 @ 21:08:17

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:51:17
 Time Test Ended: 05:13:17
 Interval: **2826.00 ft (KB) To 2870.00 ft (KB) (TVD)**
 Total Depth: 2870.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
 KB to GR/CF: 9.00 ft

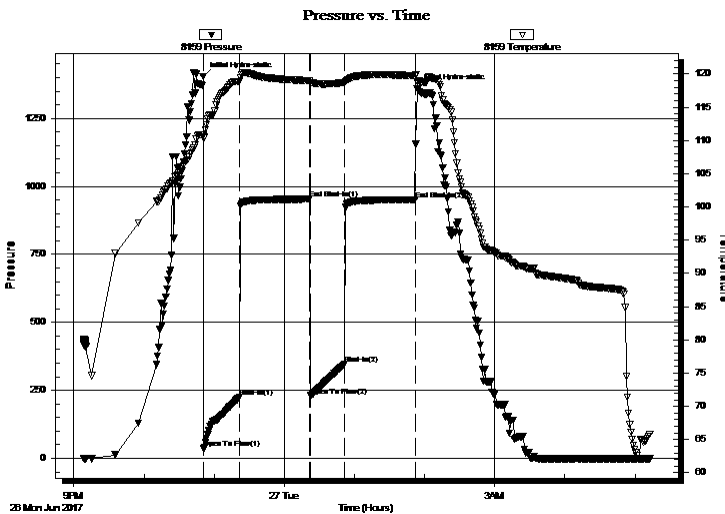
Serial #: 8159

Inside

Press@RunDepth: 347.13 psig @ 2827.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.26 End Date: 2017.06.27 Last Calib.: 2017.06.27
 Start Time: 21:08:18 End Time: 05:13:17 Time On Btm: 2017.06.26 @ 22:50:32
 Time Off Btm: 2017.06.27 @ 01:53:32

TEST COMMENT: IF: Fair Blow , BOB in 5 minutes
 IS: Weak 1" Blow Back
 FF: Fair Blow , BOB in 5 minutes
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1404.60	110.78	Initial Hydro-static
1	35.62	110.40	Open To Flow (1)
31	224.31	118.88	Shut-In(1)
91	953.18	118.95	End Shut-In(1)
92	230.23	118.73	Open To Flow (2)
122	347.13	118.72	Shut-In(2)
182	951.21	119.73	End Shut-In(2)
183	1358.31	118.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	140 GIP	0.00
241.00	GOCM 5%G 10%O 85%M	1.19
124.00	GMCO 5%G 20%M 75%O	1.74
474.00	GSY Oil 10%G 90%O	6.65

* 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

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59949

DST#: 3

ATTN: Jeff Christian

Test Start: 2017.06.26 @ 21:08:17

Tool Information

Drill Pipe:	Length: 2571.00 ft	Diameter: 3.80 inches	Volume: 36.06 bbl	Tool Weight: 2100.00 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: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 37.25 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	2826.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	70.00 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			2805.00	
Hydraulic tool	5.00			2810.00	
Jars	5.00			2815.00	
Safety Joint	2.00			2817.00	
Packer	5.00			2822.00	26.00 Bottom Of Top Packer
Packer	4.00			2826.00	
Stubb	1.00			2827.00	
Recorder	0.00	8159	Inside	2827.00	
Recorder	0.00	6806	Outside	2827.00	
Perforations	6.00			2833.00	
Change Over Sub	1.00			2834.00	
Drill Pipe	32.00			2866.00	
Change Over Sub	1.00			2867.00	
Bullnose	3.00			2870.00	44.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59949

DST#: 3

ATTN: Jeff Christian

Test Start: 2017.06.26 @ 21:08:17

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37.5 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	140 GIP	0.000
241.00	GOCM 5%G 10%O 85%M	1.185
124.00	GMCO 5%G 20%M 75%O	1.739
474.00	GSY Oil 10%G 90%O	6.649

Total Length: 839.00 ft

Total Volume: 9.573 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity w as 38 @ 65 degrees

Serial #: 8159

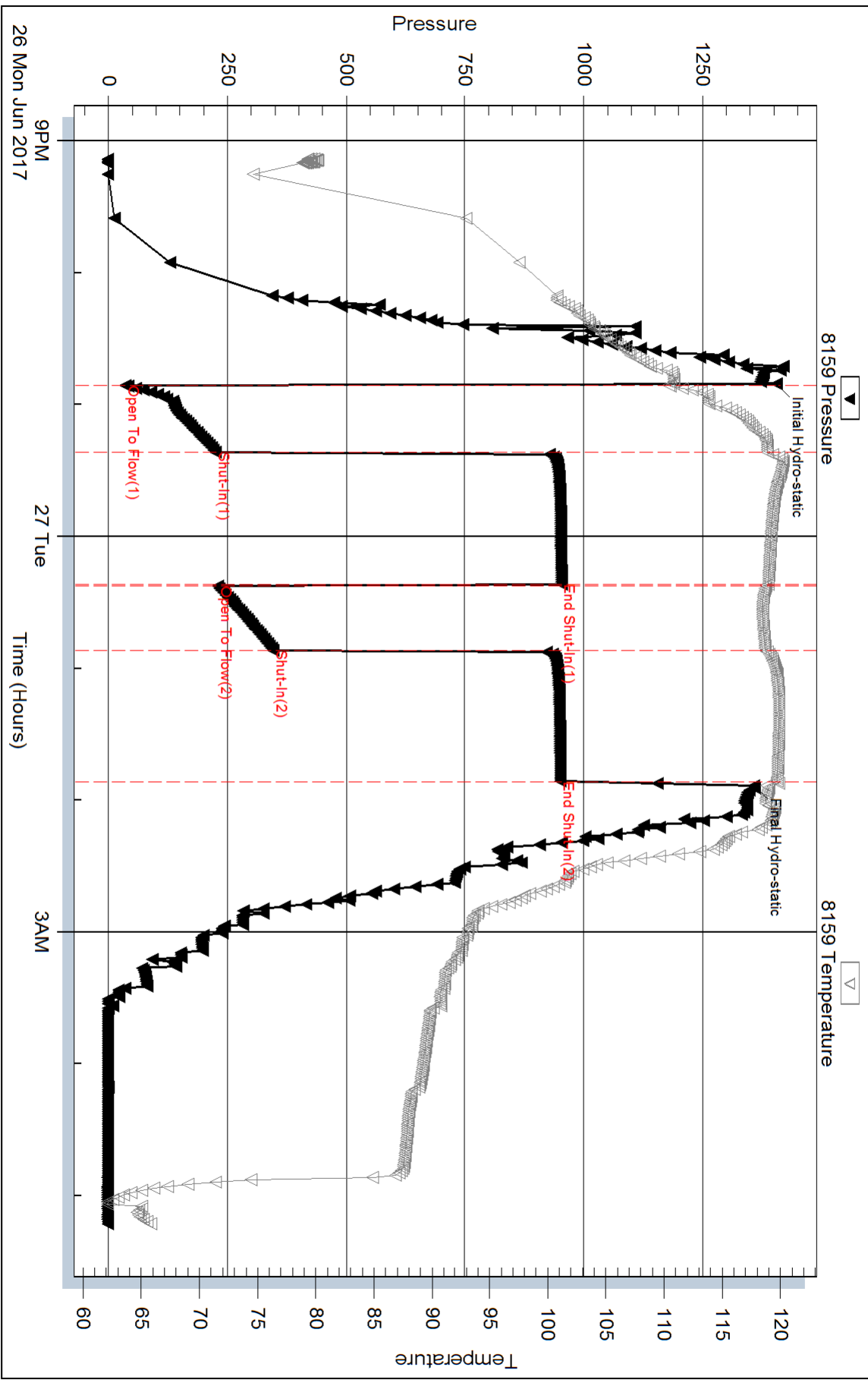
Inside

Murfin Drilling Co

Youngmeyer #1-2

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 59949

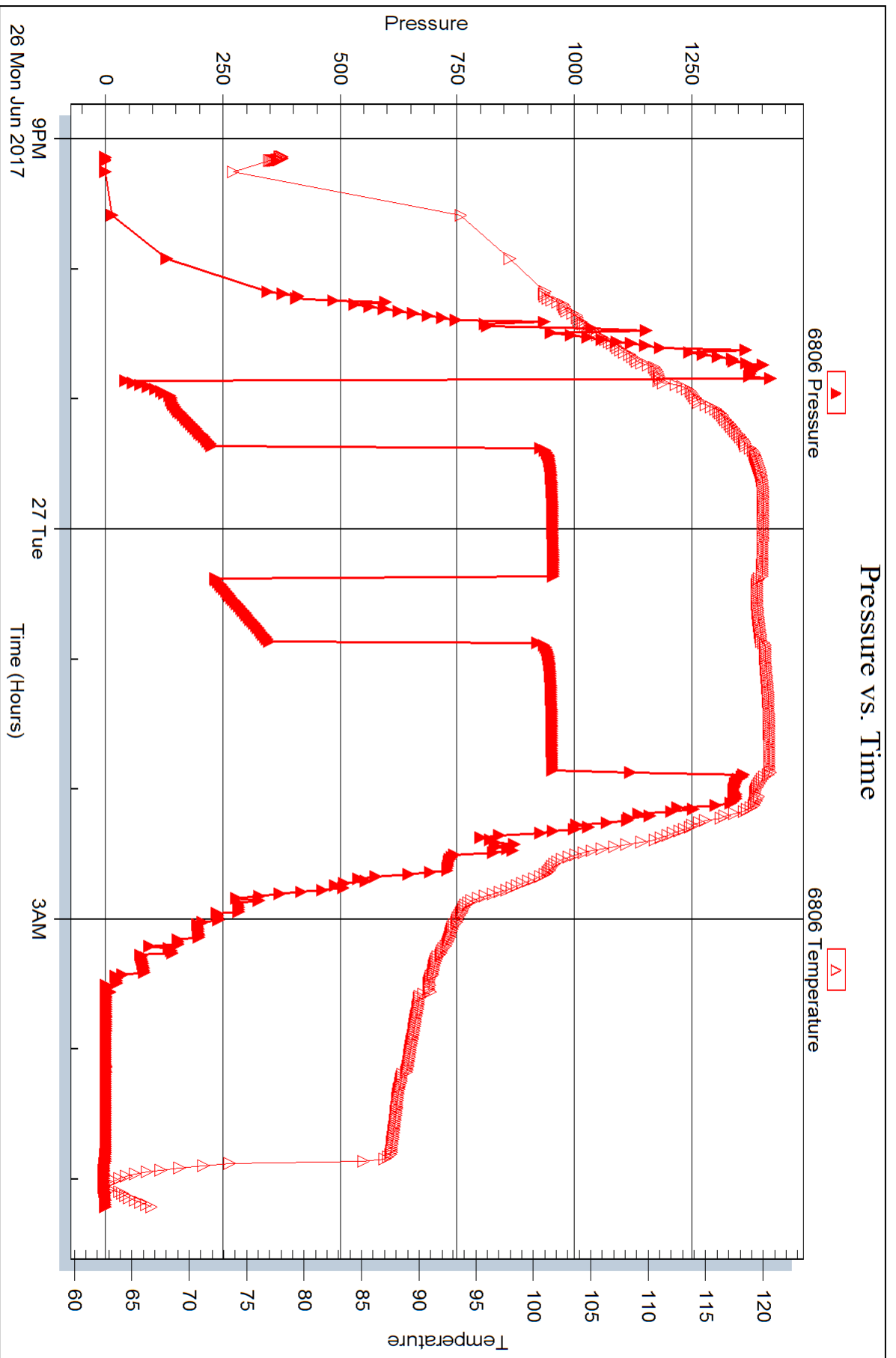
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Serial #: 6806

Outside Murfin Drilling Co

Youngmeyer #1-2

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Youngmeyer #1-2

2-29S-8E EIk,KS

Start Date: 2017.06.27 @ 21:15:29

End Date: 2017.06.28 @ 06:18:44

Job Ticket #: 59950 DST #: 4

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

Printed: 2017.06.29 @ 11:19:00



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

2-29S-8E Elk, KS
Youngmeyer #1-2
 Job Ticket: 59950 **DST#: 4**
 Test Start: 2017.06.27 @ 21:15:29

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:16:59
 Time Test Ended: 06:18:44
 Interval: **3013.00 ft (KB) To 3040.00 ft (KB) (TVD)**
 Total Depth: 3040.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
 KB to GR/CF: 9.00 ft

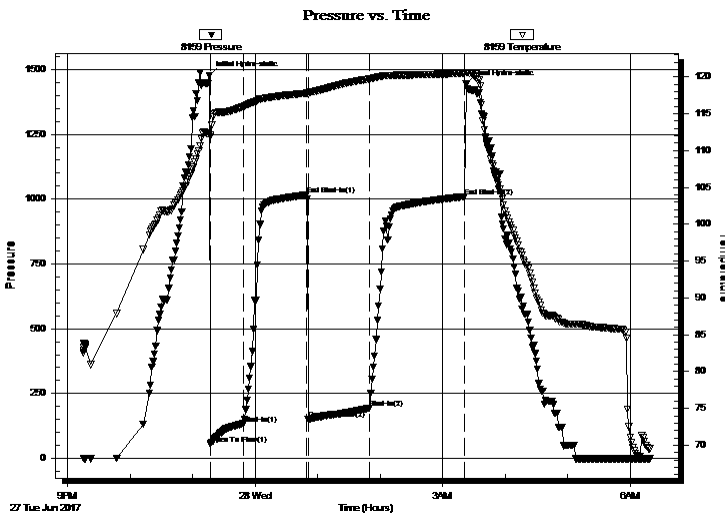
Serial #: 8159

Inside

Press@RunDepth: 193.12 psig @ 3014.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.27 End Date: 2017.06.28 Last Calib.: 2017.06.28
 Start Time: 21:15:30 End Time: 06:18:44 Time On Btm: 2017.06.27 @ 23:15:59
 Time Off Btm: 2017.06.28 @ 03:22:14

TEST COMMENT: IF: Fair Blow , BOB in 9 minutes
 IS: No Blow Back
 FF: Weak Blow , BOB in 48 minutes
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1476.44	112.16	Initial Hydro-static
1	54.08	111.87	Open To Flow (1)
33	133.24	116.00	Shut-In(1)
94	1016.06	117.78	End Shut-In(1)
95	150.50	117.60	Open To Flow (2)
154	193.12	119.72	Shut-In(2)
245	1009.21	120.45	End Shut-In(2)
247	1443.41	120.61	Final Hydro-static

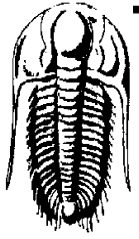
Recovery

Length (ft)	Description	Volume (bbl)
60.00	MCO 30%M 70%O	0.30
397.00	Oil	3.92

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

2-29S-8E Elk, KS
Youngmeyer #1-2
 Job Ticket: 59950 **DST#: 4**
 Test Start: 2017.06.27 @ 21:15:29

GENERAL INFORMATION:

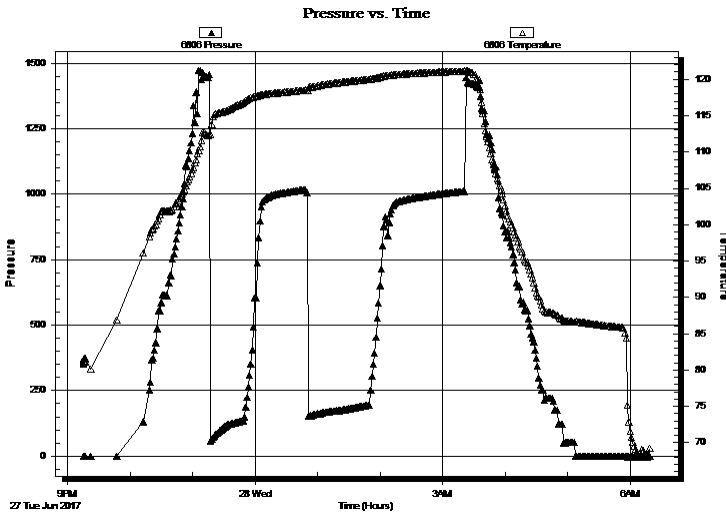
Formation: Arbuckle
Deviated: No **Whipstock:** ft (KB)
Time Tool Opened: 23:16:59
Time Test Ended: 06:18:44
Interval: 3013.00 ft (KB) To 3040.00 ft (KB) (TVD)
Total Depth: 3040.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches **Hole Condition:** Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 74
Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 6806 Outside

Press@RunDepth: psig @ 3014.00 ft (KB) **Capacity:** 8000.00 psig
Start Date: 2017.06.27 **End Date:** 2017.06.28 **Last Calib.:** 2017.06.28
Start Time: 21:15:30 **End Time:** 06:18:44 **Time On Btm:**
Time Off Btm:

TEST COMMENT: IF: Fair Blow , BOB in 9 minutes
 IS: No Blow Back
 FF: Weak Blow , BOB in 48 minutes
 FS: No Blow Back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MCO 30%M 70%O	0.30
397.00	Oil	3.92

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59950

DST#: 4

ATTN: Jeff Christian

Test Start: 2017.06.27 @ 21:15:29

Tool Information

Drill Pipe:	Length: 2762.00 ft	Diameter: 3.80 inches	Volume: 38.74 bbl	Tool Weight: 2100.00 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: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 39.93 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3013.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			2992.00	
Hydraulic tool	5.00			2997.00	
Jars	5.00			3002.00	
Safety Joint	2.00			3004.00	
Packer	5.00			3009.00	26.00 Bottom Of Top Packer
Packer	4.00			3013.00	
Stubb	1.00			3014.00	
Recorder	0.00	8159	Inside	3014.00	
Recorder	0.00	6806	Outside	3014.00	
Perforations	23.00			3037.00	
Bullnose	3.00			3040.00	27.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 59950

DST#: 4

ATTN: Jeff Christian

Test Start: 2017.06.27 @ 21:15:29

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 40.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MCO 30%M 70%O	0.295
397.00	Oil	3.920

Total Length: 457.00 ft Total Volume: 4.215 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity was 36.2 @ 64 degrees

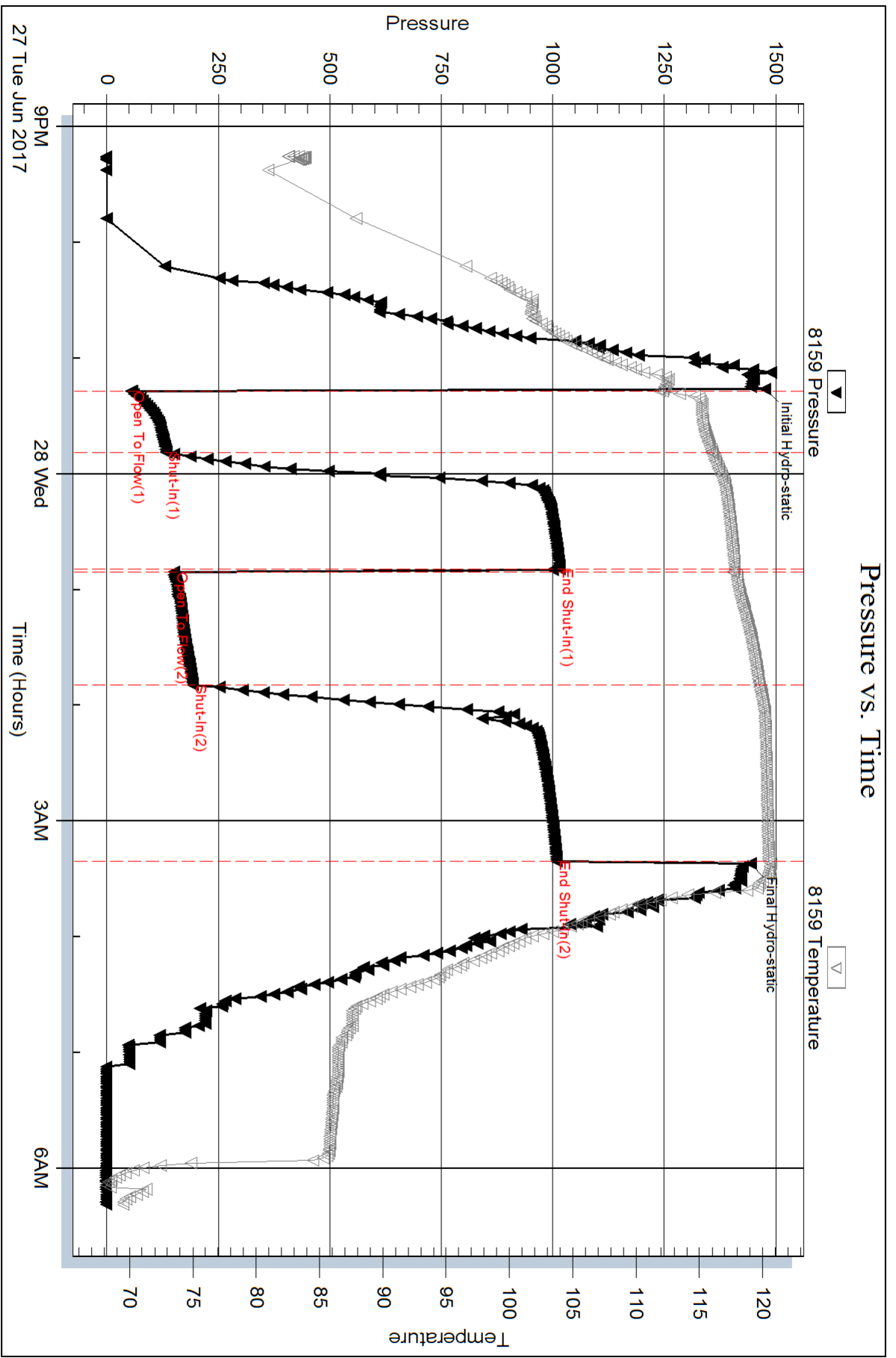
Serial #: 8159

Inside

Murfin Drilling Co

Youngmeyer #1-2

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 59950

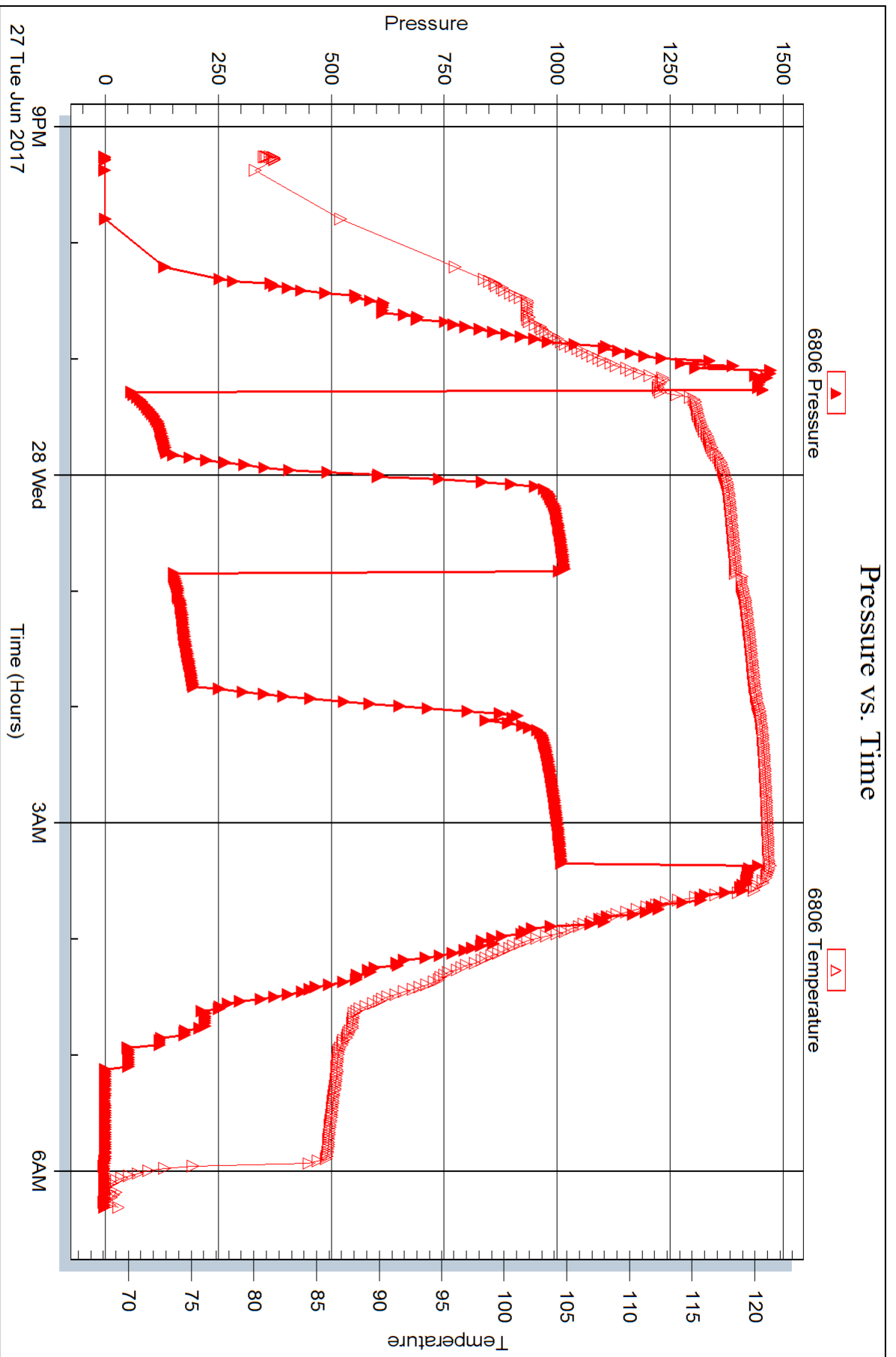
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Serial #: 6806

Outside Murfin Drilling Co

Youngmeyer #1-2

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Youngmeyer #1-2

2-29S-8E EIk,KS

Start Date: 2017.06.28 @ 12:36:51

End Date: 2017.06.28 @ 18:36:36

Job Ticket #: 63601 DST #: 5

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

Printed: 2017.06.29 @ 11:18:04



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

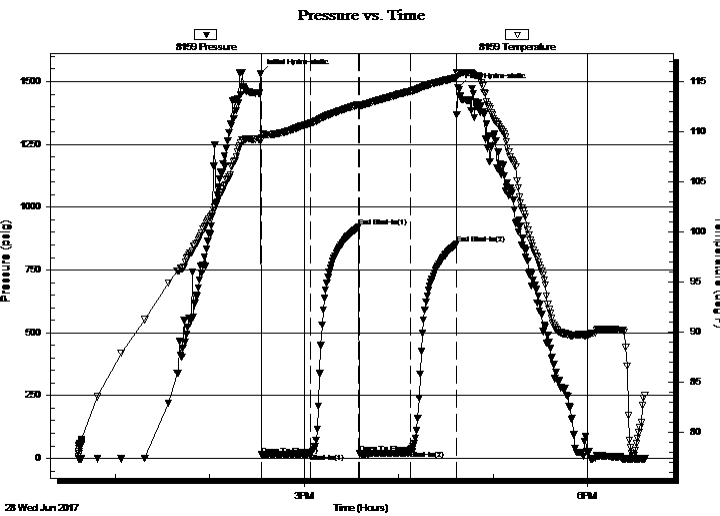
2-29S-8E Elk, KS
Youngmeyer #1-2
 Job Ticket: 63601 **DST#: 5**
 Test Start: 2017.06.28 @ 12:36:51

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:33:06
 Time Test Ended: 18:36:36
 Interval: **3040.00 ft (KB) To 3050.00 ft (KB) (TVD)**
 Total Depth: 3050.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8159 Inside
 Press@RunDepth: 31.46 psig @ 3041.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.06.28 End Date: 2017.06.28 Last Calib.: 2017.06.28
 Start Time: 12:36:52 End Time: 18:36:36 Time On Btm: 2017.06.28 @ 14:32:21
 Time Off Btm: 2017.06.28 @ 16:37:36

TEST COMMENT: IF: Weak Surface Blow
 IS: No Blow Back
 FF: No Blow
 FS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1529.97	109.27	Initial Hydro-static
1	13.77	109.34	Open To Flow (1)
32	19.19	110.85	Shut-In(1)
63	921.32	112.72	End Shut-In(1)
63	18.75	112.48	Open To Flow (2)
96	31.46	114.04	Shut-In(2)
125	853.63	115.38	End Shut-In(2)
126	1476.47	115.75	Final Hydro-static

Recovery

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

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

ATTN: Jeff Christian

Job Ticket: 63601

DST#: 5

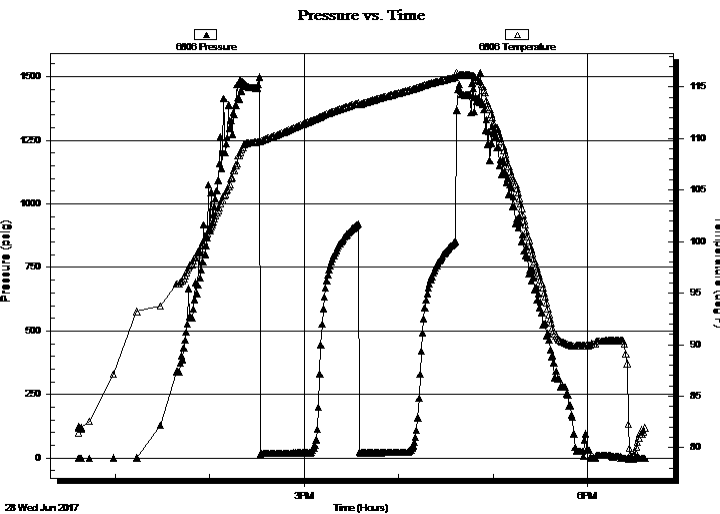
Test Start: 2017.06.28 @ 12:36:51

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:33:06
 Time Test Ended: 18:36:36
 Interval: **3040.00 ft (KB) To 3050.00 ft (KB) (TVD)**
 Total Depth: 3050.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1421.00 ft (KB)
 1412.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6806 Outside
 Press@RunDepth: psig @ 3041.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2017.06.28 End Date: 2017.06.28 Last Calib.: 2017.06.28
 Start Time: 12:36:52 End Time: 18:36:36 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak Surface Blow
 IS: No Blow Back
 FF: No Blow
 FS: No Blow Back



PRESSURE SUMMARY

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

Recovery

Gas Rates

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

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 63601

DST#: 5

ATTN: Jeff Christian

Test Start: 2017.06.28 @ 12:36:51

Tool Information

Drill Pipe:	Length: 2793.00 ft	Diameter: 3.80 inches	Volume: 39.18 bbl	Tool Weight: 2100.00 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: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 40.37 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3040.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	36.00 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			3019.00	
Hydraulic tool	5.00			3024.00	
Jars	5.00			3029.00	
Safety Joint	2.00			3031.00	
Packer	5.00			3036.00	26.00 Bottom Of Top Packer
Packer	4.00			3040.00	
Stubb	1.00			3041.00	
Recorder	0.00	8159	Inside	3041.00	
Recorder	0.00	6806	Outside	3041.00	
Perforations	6.00			3047.00	
Bullnose	3.00			3050.00	10.00 Bottom Packers & Anchor

Total Tool Length: 36.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

2-29S-8E Elk, KS

250 N Water Ste 300
Wichita, KS 67202

Youngmeyer #1-2

Job Ticket: 63601

DST#: 5

ATTN: Jeff Christian

Test Start: 2017.06.28 @ 12:36:51

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: 40.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

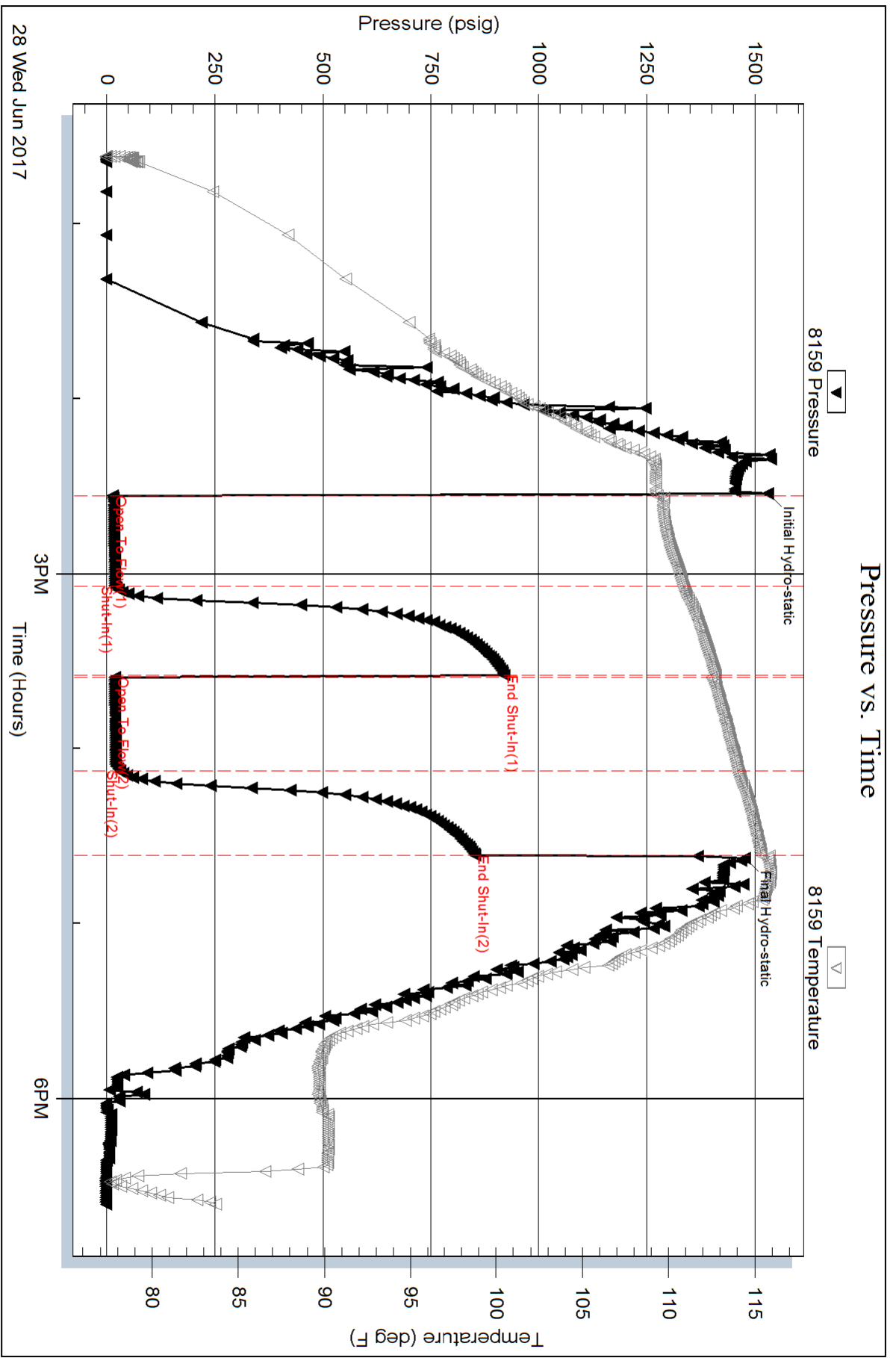
Serial #: 8159

Inside

Murfin Drilling Co

Youngmeyer #1-2

DST Test Number: 5

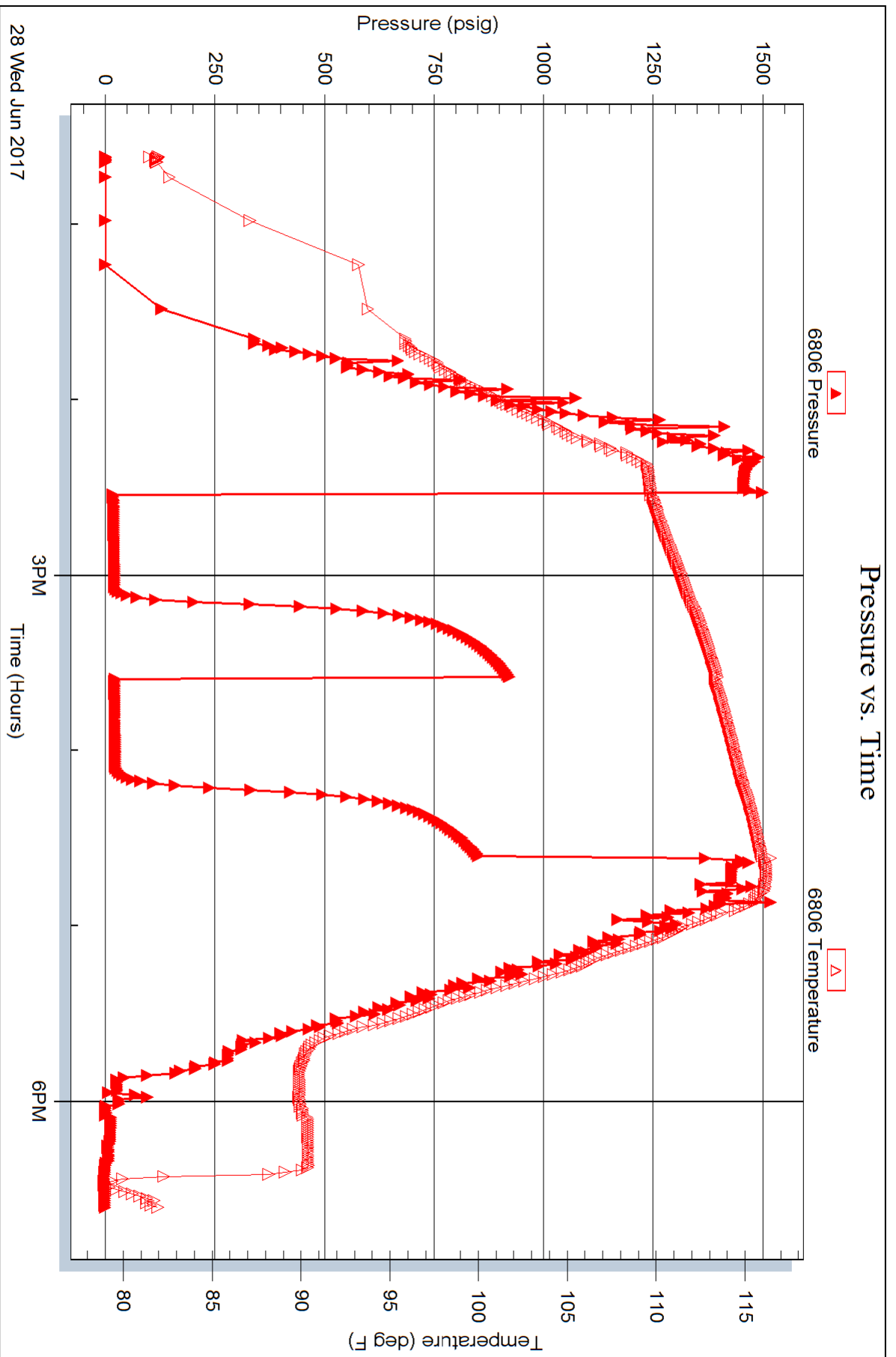


Serial #: 6806

Outside Murfin Drilling Co

Youngmeyer #1-2

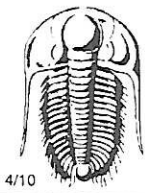
DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 63601

Printed: 2017.06.29 @ 11:18:06



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59947

Well Name & No. Youngmeyer 1-2 Test No. 1 Date 06/23/17
 Company Murfin Drilling CO Elevation 1421 KB 1412 GL
 Address 250 N. Water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Jeff Christian Rig C+G 2
 Location: Sec. 2 Twp. 29S Rge. 8E Co. EK State KS

Interval Tested 2056 - 2069 Zone Tested Hertha
 Anchor Length 13 Drill Pipe Run 1815 Mud Wt. 9.3
 Top Packer Depth 2051 Drill Collars Run 241 Vis 40
 Bottom Packer Depth 2056 Wt. Pipe Run 0 WL 9.6
 Total Depth 2069 Chlorides 700 ppm System LCM 3

Blow Description IF: Strong Blow, BOB in 10 seconds
ISI: GTS in 5 minutes of bleed off, Blow would NOT bleed off
FF: Strong Blow, BOB + GTS immediate, caught sample
FSI: would not bleed off

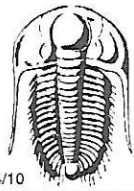
Rec	Feet of	%gas	%oil	%water	%mud
<u>2036</u>	<u>GIP</u>				
<u>20</u>	<u>GCM</u>	<u>10%</u>			<u>90</u>

Rec Total 20 BHT 101 Gravity NK API RW NK @ NK °F Chlorides NK ppm

(A) Initial Hydrostatic <u>1021</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>20:45</u>
(B) First Initial Flow <u>511</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>21:32</u>
(C) First Final Flow <u>652</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>23:14</u>
(D) Initial Shut-In <u>686</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>01:26</u>
(E) Second Initial Flow <u>506</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>03:16</u>
(F) Second Final Flow <u>505</u>	<input checked="" type="checkbox"/> Mileage <u>(280)</u> 210	Comments <u>NOTE 1</u>
(G) Final Shut-In <u>685</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1005</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>5</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>5</u>	<input type="checkbox"/> Day Standby	Total <u>1585</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1585</u>	

Approved By Jeff Christian Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59948

Well Name & No. Youngmeyer 1-2 Test No. 2 Date 06/25/17
 Company Martin Drilling Co. Elevation 1421 KB 1412 GL
 Address 250 N. Water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Jeff Christian Rig C+G 2
 Location: Sec. 2 Twp. 29S Rge. 8E Co. E1K State KS

Interval Tested ~~2670-2698~~ 2670-2698 Zone Tested Mississippi
 Anchor Length 18 Drill Pipe Run 2418 Mud Wt. 9.2
 Top Packer Depth 2675 Drill Collars Run 241 Vis 40
 Bottom Packer Depth 2680 Wt. Pipe Run 0 WL 8.6
 Total Depth 2698 Chlorides 700 ppm System LCM 3

Blow Description IF: Fair Blow, Built to 7 inches
ISI: NO Blow Back
FF: Weak Blow, Built to 3 inches
FST: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>92</u>	<u>MCW</u>		<u>64</u>	<u>36</u>	
<u>241</u>	<u>water</u>				

Rec Total 333 BHT 117 Gravity NK API RW .44 @ 85 °F Chlorides 12,000 ppm

(A) Initial Hydrostatic <u>1325</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>17:15</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>18:39</u>
(C) First Final Flow <u>130</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>20:45</u>
(D) Initial Shut-In <u>761</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>00:47</u>
(E) Second Initial Flow <u>135</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>02:45</u>
(F) Second Final Flow <u>196</u>	<input checked="" type="checkbox"/> Mileage <u>(280)</u> 210	Comments <u>Motel</u>
(G) Final Shut-In <u>715</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1276</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

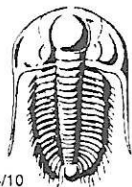
Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1585
 Total 1585
 MP/DST Disc't

Approved By Jeff Christian Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59949

Well Name & No. Youngmeyer 1-2 Test No. 3 Date 06/26/17
 Company Muffin Drilling Co Elevation 1421 KB 1412 GL
 Address 250 N. Water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Jeff Christian Rig C+G 2
 Location: Sec. 2 Twp. 29S Rge. 8E Co. E1K State KS

Interval Tested 2826 - 2870 Zone Tested Mississippi
 Anchor Length 44 Drill Pipe Run 2571 Mud Wt. 9.2
 Top Packer Depth 2821 Drill Collars Run 241 Vis 50
 Bottom Packer Depth 2826 Wt. Pipe Run 0 WL 8.2
 Total Depth 2870 Chlorides 700 ppm System LCM 2

Blow Description IF: Fair Blow, BOB in 5 minutes
ISI: Weak Inch Blow Back
FF: Fair Blow, BOB in 5 minutes
FSI:

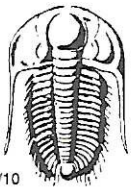
Rec	Feet of	%gas	%oil	%water	%mud
<u>140</u>	<u>GIP</u>				
<u>474</u>	<u>GST OIL</u>	<u>10%</u>	<u>90%</u>		
<u>124</u>	<u>GMCO</u>	<u>5%</u>	<u>75%</u>		<u>20%</u>
<u>241</u>	<u>GOCM</u>	<u>5%</u>	<u>10%</u>		<u>85%</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 839 BHT 119 Gravity 37.5 API RW DNK @ NK °F Chlorides NK ppm

(A) Initial Hydrostatic <u>1405</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>20:30</u>
(B) First Initial Flow <u>36</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>21:08</u>
(C) First Final Flow <u>224</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>22:51</u>
(D) Initial Shut-In <u>953</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>01:51</u>
(E) Second Initial Flow <u>230</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>05:13</u>
(F) Second Final Flow <u>347</u>	<input checked="" type="checkbox"/> Mileage <u>280</u> 210	Comments <u>Motel</u>
(G) Final Shut-In <u>951</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1358</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1585</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1585</u>	

Approved By Jeff Christian Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59950

Well Name & No. Youngmeyer 1-2 Test No. 4 Date 06/27/17
 Company Martin Drilling Co Elevation 1421 KB 1412 GL
 Address 250 N. Water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Jeff Christian Rig C+G 2
 Location: Sec. 2 Twp. 29S Rge. 8E Co. E1K State KS

Interval Tested 3013 - 3040 Zone Tested Arbuckle
 Anchor Length 27 Drill Pipe Run 2762 Mud Wt. 9.2
 Top Packer Depth 3008 Drill Collars Run 241 Vis 47
 Bottom Packer Depth 3013 Wt. Pipe Run 0 WL 7.8
 Total Depth 3040 Chlorides 900 ppm System LCM 3

Blow Description IF: Fair blow BOB in 9 minutes
ISI: NO Blow Back

FF: weak blow, BOB in 48 minutes

FSE: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>39</u>	<u>Oil</u>				
<u>60</u>	<u>MCO</u>		<u>70%</u>		<u>30</u>

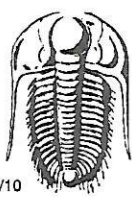
Rec Total 457 BHT 120 Gravity 35.8 API RW NIC @ NIC °F Chlorides NIC ppm

(A) Initial Hydrostatic 1476 Test 1050 T-On Location 20:30
 (B) First Initial Flow 54 Jars 250 T-Started 21:15
 (C) First Final Flow 133 Safety Joint 75 T-Open 23:16
 (D) Initial Shut-In 1016 Circ Sub _____ T-Pulled 03:20
 (E) Second Initial Flow 150 Hourly Standby _____ T-Out 06:17
 (F) Second Final Flow 193 Mileage (280) 210 Comments Motel
 (G) Final Shut-In 1009 Sampler _____
 (H) Final Hydrostatic 1443 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1835 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90
 Approved By Jeff Christ Our Representative _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63601**

Well Name & No. Youngmeyer 1-2 Test No. 5 Date 06/28/17
 Company Martin Drilling Co Elevation 1421 KB 1412 GL
 Address 250 N Water Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Jeff Christian Rig C+G 2
 Location: Sec. 2 Twp. 29S Rge. 8E Co. E1K State KS

Interval Tested 3040 - 3050 Zone Tested Arbuckle
 Anchor Length 3035 Drill Pipe Run 2793 Mud Wt. 9.3
 Top Packer Depth 3040 Drill Collars Run 241 Vis 58
 Bottom Packer Depth 3050 Wt. Pipe Run 0 WL 8.4
 Total Depth _____ Chlorides 700 ppm System LCM 1

Blow Description IF: weak surface Blow

ISI: NO Blow Back

FF: NO Blow

FSI: NO Blow Back

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

Rec Total 5 BHT 115 Gravity NIC API RW NIC @ NIC °F Chlorides NIC ppm

(A) Initial Hydrostatic 1530
 (B) First Initial Flow 14
 (C) First Final Flow 19
 (D) Initial Shut-In 921
 (E) Second Initial Flow 19
 (F) Second Final Flow 31
 (G) Final Shut-In 854
 (H) Final Hydrostatic 1476

Test 1050
 Jars 250
 Safety Joint 75
 Circ Sub _____
 Hourly Standby _____
 Mileage (280) 210
 Sampler _____
 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1585

T-On Location 12:00
 T-Started 12:36
 T-Open 14:33
 T-Pulled 16:36
 T-Out 18:36
 Comments Motel
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1585
 MP/DST Disc't _____

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

Approved By Jeff Christian

Our Representative [Signature]

