

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 Recompletion Date _____ 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	UHLAENDER 1-29
Doc ID	1371282

All Electric Logs Run

DIL
DUCP
MEL
BHCS

MDCI
 Uhlaender #1-29
 2310' FNL 1650'FEL
 Sec. 29-2S-35W
 3226' KB

Formation	Sample top	Datum	Ref	Log tops	Datum	Ref
Anhydrite	3055	+171	+11	3052	+174	+14
B/Anhydrite	3095	*131	+6	3098	+128	+3
Topeka	3936	-710	-3	3936	-710	-3
Oread	4046	-820	-1	4041	-815	+4
Lansing	4142	-916	-2	4136	-910	+4
Stark	4360	-1134	+1	4356	-1130	+5
Mound City	4410	-1184	+1	4405	-1179	+6
Ft Scott	4536	-1310	-1	4533	-1307	+2
Oakley	4609	-1383	flat	4605	-1379	+4
Mississippi	4792	-1566	NR	4792	-1566	NR
RTD	4890	-1664				
LTD				4890		

TREATMENT REPORT



HURRICANE SERVICES INC

Customer: Murfin Drilling Co. Inc.	Date: 8/21/2017	Ticket No.: 100788
Field Rep: Arturo		
Address:		
City, State:		
County, Zip:		

Field Order No.: 100788	Open Hole:	Perf Depths (ft)	Perfs
Well Name: Uhlaender # 1-29	Casing Depth: 345'		
Location: Beardsley	Casing Size: 8 5/8 23 Lb		
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: Casing	Total Depth: 347'		
		Total Perfs	0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
	FLUID	N2/CO2	STP	ANNULUS				
6:00 PM					Called Out			
8:45 PM					On Location W/Trucks Hold Safety Meeting			
					Spot & Set Up Trucks			
					TD=347' TP= 345'			
					Run 8 Jt's 8 5/8 23 Lb Cant Half Way # 1 Jt & Jt # 4			
9:45 PM					Start Casing			
11:05 PM					Casing on bottom			
11:15 PM					Hook Up To Casing Break Circulation With Rig			
11:30 PM	4.0			200.0	Start Pumping H2O			10.00
	4.0			150.0	Start Mix & Pump 285 Sacks Common 2% Gel 3% CC			69.00
	4.0			175.0	Start Displacement H2o			20.80
12:00 AM				200.0	Shut Down Circulate 16 Sacks To Pit			
					Close Valve on Casing			
					Wash Up Truck & Rack Up Truck			
12:30 AM					ON Location			
					Thank You			
					Please Call Again			
					Tony Cody Sheldon			
TOTAL:								99.80

SUMMARY

Max FI. Rate	Avg FI. Rate	Max PSI	Avg PSI
4.0	4.0	200.0	181.3

PRODUCTS USED

285 Sacks Common 2% Gel 3% Calcium Chloride

Treater: Tony P

Customer: Arturo

TREATMENT REPORT



HURRICANE SERVICES INC

Customer:	Murfin Drilling Company Inc.	Date:	8/29/2017	Ticket No.:	100793
Field Rep.:	Arturo				
Address:					
City, State:					
County, Zip:					

Field Order No.:	100793
Well Name:	Uhlender # 1-29
Location:	Beardsley
Formation:	
Type of Service:	PTA
Well Type:	Oil
Age of Well:	New
Packer Type:	
Packer Depth:	
Treatment Via:	Drill Pipe

Open Hole:	
Casing Depth:	
Casing Size:	
Tubing Depth:	3075'
Tubing Size:	4 1/2 16.6 Lb
Liner Depth:	
Liner Size:	
Liner Top:	
Liner Bottom:	
Total Depth:	

Perf Depths (ft)	Perfs
Total Perfs	0

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbbls)
	FLUID	N2/CO2	STP	ANNULUS				
3:30 PM					Called Out			
8:00 PM					On location with Trucks Hold Safety Meeting			
					Spot & Set Up Trucks			
					TD=			
					1 St Plug @ 3075' 50sk 60/40 4%Gel 1/4 Ps			
8:50 PM	3.9			150.0	Start Pumping H2O			15.00
	3.9			160.0	Start Mix & Pump 50 Sk 60/40 4%Gel 1/4 PS @ 13.8 Lb/Gal			12.65
	3.9			200.0	Start Displacement H2O			6.00
	7.0			260.0	Start Displacement Rig Mud			36.00
					Shut Down PDPOOH			
					2 nd Plug @ 2270' 100 Sk 60/40 4% Gel 1/4 PS			
9:35 PM	4.5			300.0	Start Pumping H2O			10.00
	4.5			350.0	Start Mix & Pump 100 Sk 60/40 4%Gel 1/4 PS @ 13.8 Lb/Gal			26.29
	3.9			175.0	Start Displacement H2O			3.00
	7.0			175.0	Start Displacement Rig Mud			21.80
					Shut Down PDPOOH			
					3 Rd Plug @ 400' 50 Sk 60/40 4% Gel 1/4 PS			
10:55 PM	4.0			150.0	Start Pumping H2O			6.00
					TOTAL:	-	-	161.30

SUMMARY

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
7.0	4.0	350.0	169.6

PRODUCTS USED

255 Sacks 60/40 4% Gel 1/4 Lb/Sk Phenoseal

Treater: Tony P

Customer: Arturo

Saman Sharifaie

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: **Martin Drilling Co., Inc.**
LEASE: **Ullricher #1-29**

FIELD: **Wildcat**
LOCATION: **2310 FNL & 1650' FEL**
SEC: **29** TWP: **2S** RGE: **35W**
COUNTY: **Randolph** STATE: **Kansas**
CONTRACTOR: **Martin Drilling #24**
RTPD: **08/21/17** COMP: **08/30/17**
WUD UP: **4890'** TYPE MUD: **Chemical**

SAMPLES SAVED FROM: **3330'** TO RTD
DRILLING TIME KEPT FROM: **3330'** TO RTD
SAMPLES EXAMINED FROM: **3330'** TO RTD

CONDUCTOR: **CASING**
SURFACE: **8-5/8" at 347'**
PRODUCTION: **N/A**

ELECTRICAL SURVEYS:
CND, DIL, MEL, Semic
GEOLOGICAL WELL: **Northern Lights - Sabeyger #1**

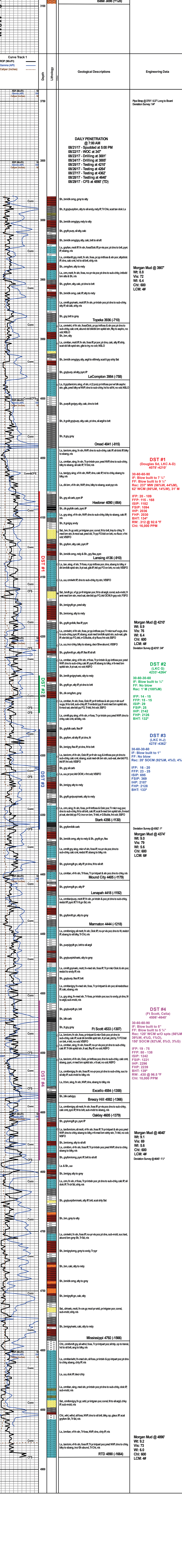
FORMATION: **Frontier / Trentline**

Formation	Sample Tops	E-log Tops	Strat Pos.
Anhydrite	3055 (+171)	3052 (+128)	+1.4
Base Anhydrite	3055 (+131)	3088 (+128)	+1
Toguski	3336 (-210)	3936 (-110)	-3
Oredal	4046 (-320)	4041 (-815)	-4
Ordal	4142 (-216)	4136 (-910)	-4
Stark	4360 (-134)	4356 (-130)	-3
Mount City	4410 (-134)	4405 (-179)	-6
FT Scott	4536 (-1307)	4533 (-1307)	-2
Mississippi	4792 (-1566)	4792 (-1566)	DNR

REMARKS: Due to poor shows of oil in multiple potential pay zones and negative DST results, it is recommended and agreed upon by all parties that this well be plugged and abandoned.

Respectfully Submitted,
API #15-153-21197
Saman Sharifaie
Petroleum Geologist

*Tops have been adjusted to electric logs



Morgan Mud @ 4640'
WT: 8.1
Vis: 69
WI: 5.6
Chl: 600
LCM: 4#
Deviation Survey @ 4640': 11°

Morgan Mud @ 4890'
WT: 9.2
Vis: 73
WI: 6.0
Chl: 600
LCM: 4#



DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Saman Sharifaie

Uhlaender #1-29

29-2s-35w Rawlins KS

Start Date: 2017.08.25 @ 09:04:00

End Date: 2017.08.25 @ 16:50:15

Job Ticket #: 63344 DST #: 1

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

Printed: 2017.08.29 @ 11:21:35



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63344

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2017.08.25 @ 09:04:00

GENERAL INFORMATION:

Formation: **Gorham Sd., LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:44:00

Time Test Ended: 16:50:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: **4078.00 ft (KB) To 4210.00 ft (KB) (TVD)**

Reference Elevations: 3226.00 ft (KB)

Total Depth: 4210.00 ft (KB) (TVD)

3221.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625

Inside

Press@RunDepth: 167.94 psig @ 4079.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.25 End Date: 2017.08.25

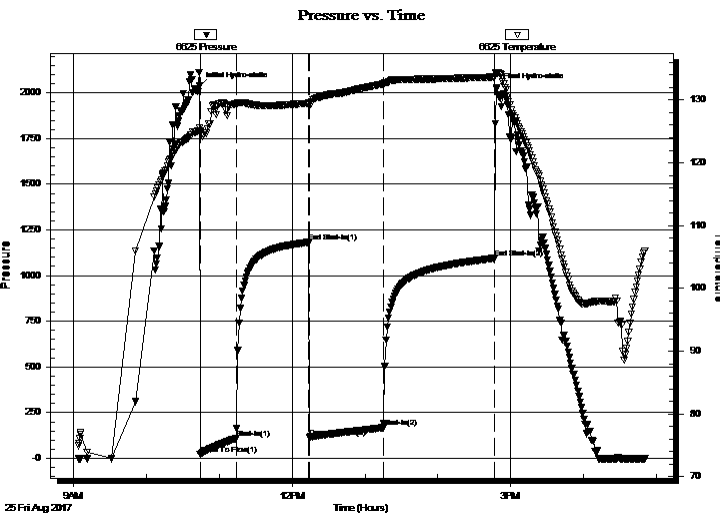
Last Calib.: 2017.08.25

Start Time: 09:04:05 End Time: 16:50:14

Time On Btm: 2017.08.25 @ 10:43:45

Time Off Btm: 2017.08.25 @ 14:48:00

TEST COMMENT: 30 - IF: Blow built to 7 1/4"
60 - IS: No blow back
60 - FF: Blow started at 4 1/2 min., built to 9 1/4"
90 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2036.49	125.49	Initial Hydro-static
1	20.15	125.09	Open To Flow (1)
31	109.39	129.34	Shut-In(1)
90	1182.06	129.50	End Shut-In(1)
91	114.71	129.31	Open To Flow (2)
152	167.94	132.54	Shut-In(2)
243	1094.48	133.67	End Shut-In(2)
245	2030.47	134.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
237.00	MW 56%w, 44%m	1.46
62.00	WCM 86%m, 14%w	0.87
31.00	Mud 100%	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N. Water STE 300
Wichita, KS 67202
ATTN: Saman Sharifaie

29-2s-35w Rawlins KS

Uhlaender #1-29

Job Ticket: 63344

DST#: 1

Test Start: 2017.08.25 @ 09:04:00

GENERAL INFORMATION:

Formation: **Gorham Sd., LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:44:00

Time Test Ended: 16:50:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 4078.00 ft (KB) To 4210.00 ft (KB) (TVD)

Reference Elevations: 3226.00 ft (KB)

Total Depth: 4210.00 ft (KB) (TVD)

3221.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8017

Outside

Press@RunDepth: psig @ 4079.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.25

End Date:

2017.08.25

Last Calib.:

2017.08.25

Start Time: 09:04:05

End Time:

16:49:59

Time On Btm:

Time Off Btm:

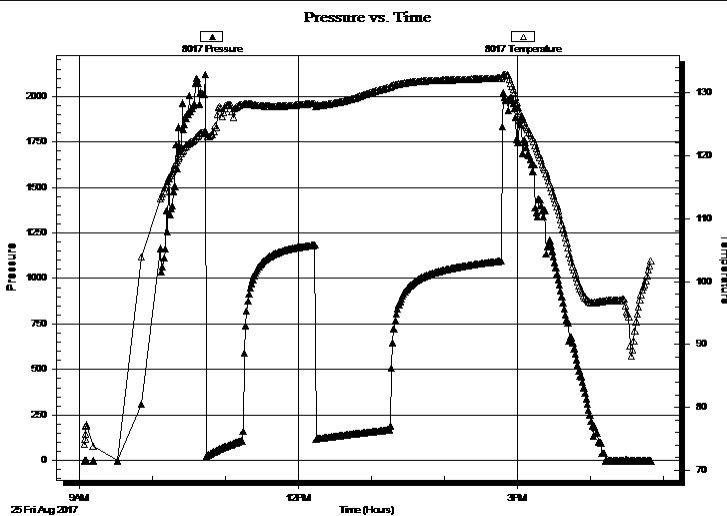
TEST COMMENT: 30 - IF: Blow built to 7 1/4"

60 - IS: No blow back

60 - FF: Blow started at 4 1/2 min., built to 9 1/4"

90 - FS: No blow back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
237.00	MW 56%w, 44%m	1.46
62.00	WCM 86%m, 14%w	0.87
31.00	Mud 100%	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63344

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2017.08.25 @ 09:04:00

Tool Information

Drill Pipe:	Length: 3867.00 ft	Diameter: 3.80 inches	Volume: 54.24 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 55.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4078.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	132.00 ft			
Tool Length:	161.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4050.00	
Shut In Tool	5.00			4055.00	
Hydraulic tool	5.00			4060.00	
Jars	5.00			4065.00	
Safety Joint	3.00			4068.00	
Packer	5.00			4073.00	29.00 Bottom Of Top Packer
Packer	5.00			4078.00	
Stubb	1.00			4079.00	
Recorder	0.00	6625	Inside	4079.00	
Recorder	0.00	8017	Outside	4079.00	
Perforations	29.00			4108.00	
Blank Spacing	96.00			4204.00	
Perforations	3.00			4207.00	
Bullnose	3.00			4210.00	132.00 Bottom Packers & Anchor

Total Tool Length: 161.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63344

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2017.08.25 @ 09:04:00

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:

16000 ppm

Viscosity: 76.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
237.00	MW 56%w , 44%m	1.457
62.00	WCM 86%m, 14%w	0.870
31.00	Mud 100%	0.435

Total Length: 330.00 ft Total Volume: 2.762 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .312 ohms @ 92.6

Chlorides = 16,000 ppm

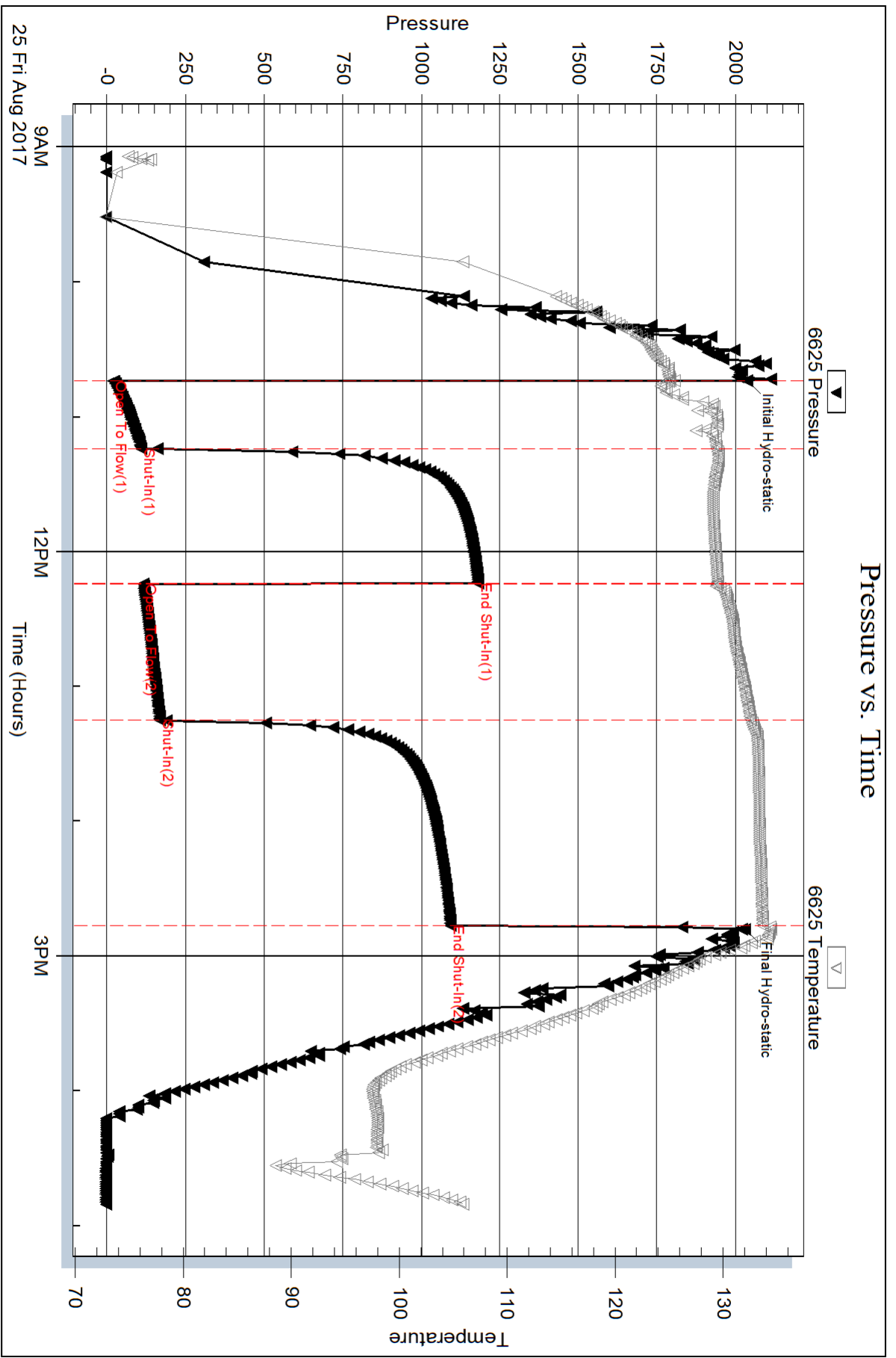
Serial #: 6625

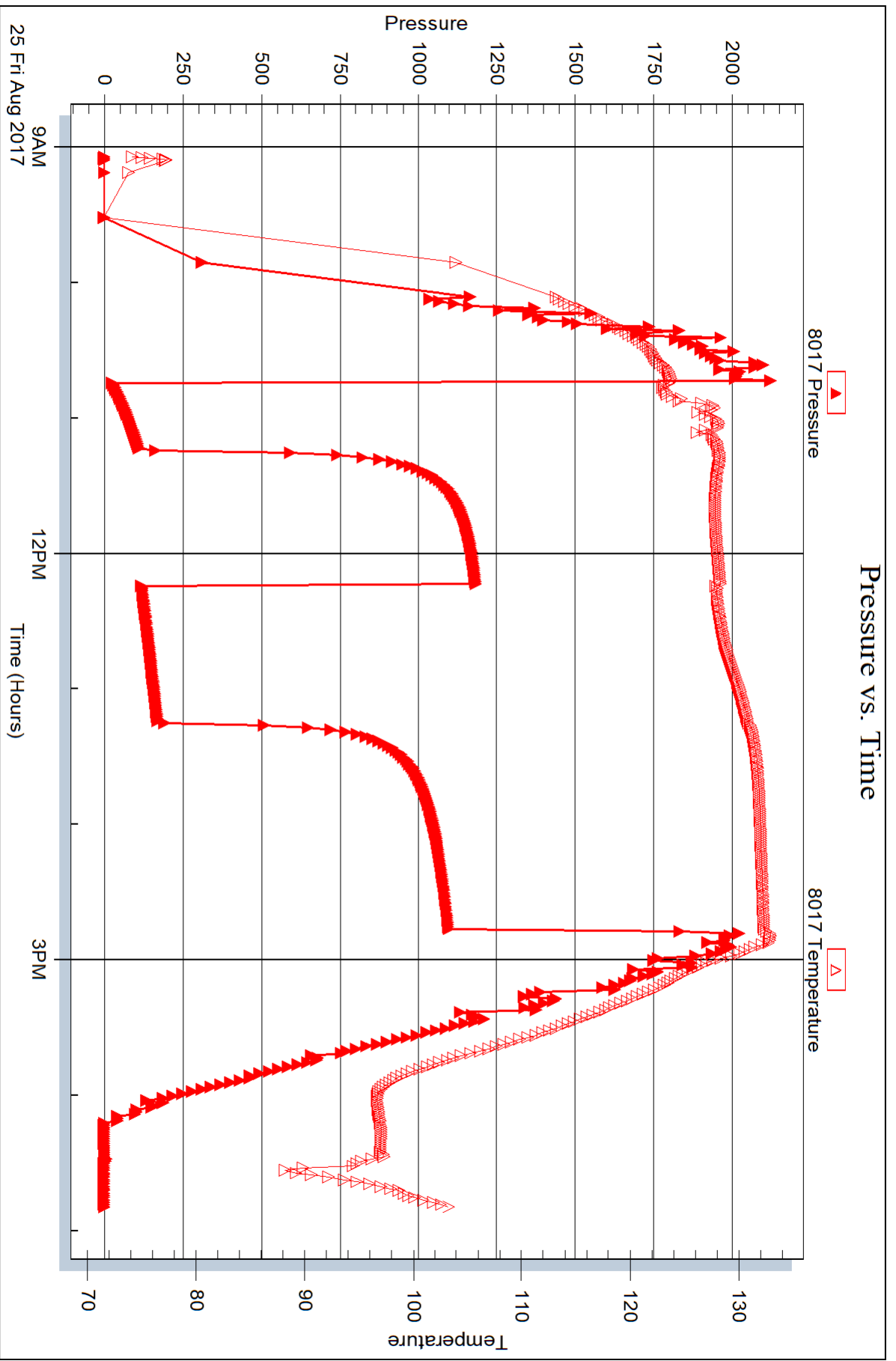
Inside

Murfin Drilling Co., Inc

Uhllander #1-29

DST Test Number: 1







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Saman Sharifaie

Uhlaender #1-29

29-2s-35w Rawlins KS

Start Date: 2017.08.26 @ 03:14:00

End Date: 2017.08.26 @ 09:54:00

Job Ticket #: 63345 DST #: 2

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

Printed: 2017.08.29 @ 11:20:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63345

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2017.08.26 @ 03:14:00

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:14:00

Time Test Ended: 09:54:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 4233.00 ft (KB) To 4264.00 ft (KB) (TVD)

Reference Elevations: 3226.00 ft (KB)

Total Depth: 4264.00 ft (KB) (TVD)

3221.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6625

Inside

Press@RunDepth: 15.26 psig @ 4234.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.26

End Date:

2017.08.26

Last Calib.:

2017.08.26

Start Time: 03:14:05

End Time:

09:53:59

Time On Btm:

2017.08.26 @ 05:13:45

Time Off Btm:

2017.08.26 @ 08:19:45

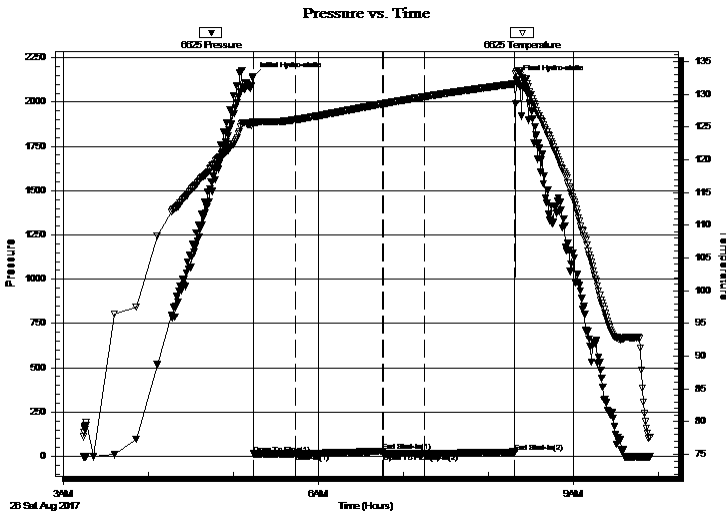
TEST COMMENT: 30 - IF: Blow built to 1/4", died back, dead at 26 min.

60 - IS: No blow

30 - FF: No blow

60 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2142.49	125.74	Initial Hydro-static
1	13.94	125.50	Open To Flow (1)
30	15.01	126.09	Shut-In(1)
92	29.09	128.52	End Shut-In(1)
92	15.03	128.54	Open To Flow (2)
122	15.26	129.63	Shut-In(2)
185	25.07	131.58	End Shut-In(2)
186	2125.78	133.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N. Water STE 300
Wichita, KS 67202
ATTN: Saman Sharifaie

29-2s-35w Rawlins KS

Uhlaender #1-29

Job Ticket: 63345

DST#: 2

Test Start: 2017.08.26 @ 03:14:00

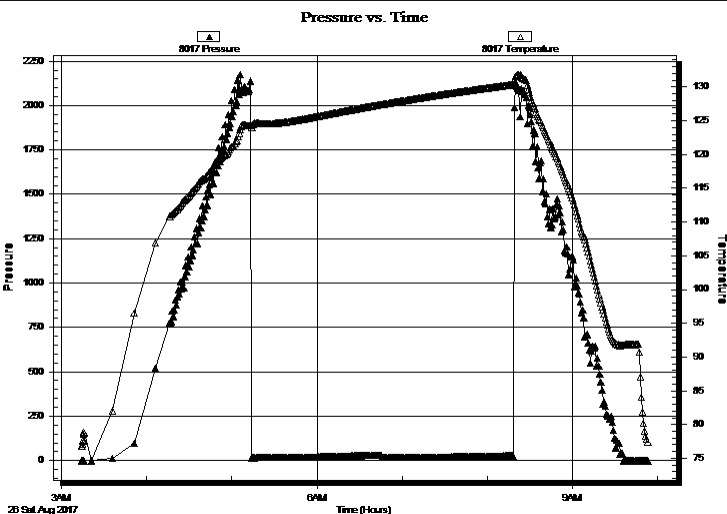
GENERAL INFORMATION:

Formation:	LKC "G"	Test Type:	Conventional Bottom Hole (Reset)
Deviated:	No Whipstock:	ft (KB)	
Time Tool Opened:	05:14:00	Tester:	James Winder
Time Test Ended:	09:54:00	Unit No:	83
Interval:	4233.00 ft (KB) To 4264.00 ft (KB) (TVD)	Reference Elevations:	3226.00 ft (KB)
Total Depth:	4264.00 ft (KB) (TVD)		3221.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition:	Fair
		KB to GR/CF:	5.00 ft

Serial #: 8017 **Outside**

Press@RunDepth:	psig @	4234.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2017.08.26	End Date:	2017.08.26	Last Calib.:	2017.08.26
Start Time:	03:14:05	End Time:	09:53:29	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: 30 - IF: Blow built to 1/4", died back, dead at 26 min.
60 - IS: No blow
30 - FF: No blow
60 - FS: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00

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., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63345

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2017.08.26 @ 03:14:00

Tool Information

Drill Pipe:	Length: 4024.00 ft	Diameter: 3.80 inches	Volume: 56.45 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose: 63000.00 lb
			<u>Total Volume: 57.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4233.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4205.00	
Shut In Tool	5.00			4210.00	
Hydraulic tool	5.00			4215.00	
Jars	5.00			4220.00	
Safety Joint	3.00			4223.00	
Packer	5.00			4228.00	29.00 Bottom Of Top Packer
Packer	5.00			4233.00	
Stubb	1.00			4234.00	
Recorder	0.00	6625	Inside	4234.00	
Recorder	0.00	8017	Outside	4234.00	
Perforations	27.00			4261.00	
Bullnose	3.00			4264.00	31.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63345

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2017.08.26 @ 03:14:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 72.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud 100%	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6625

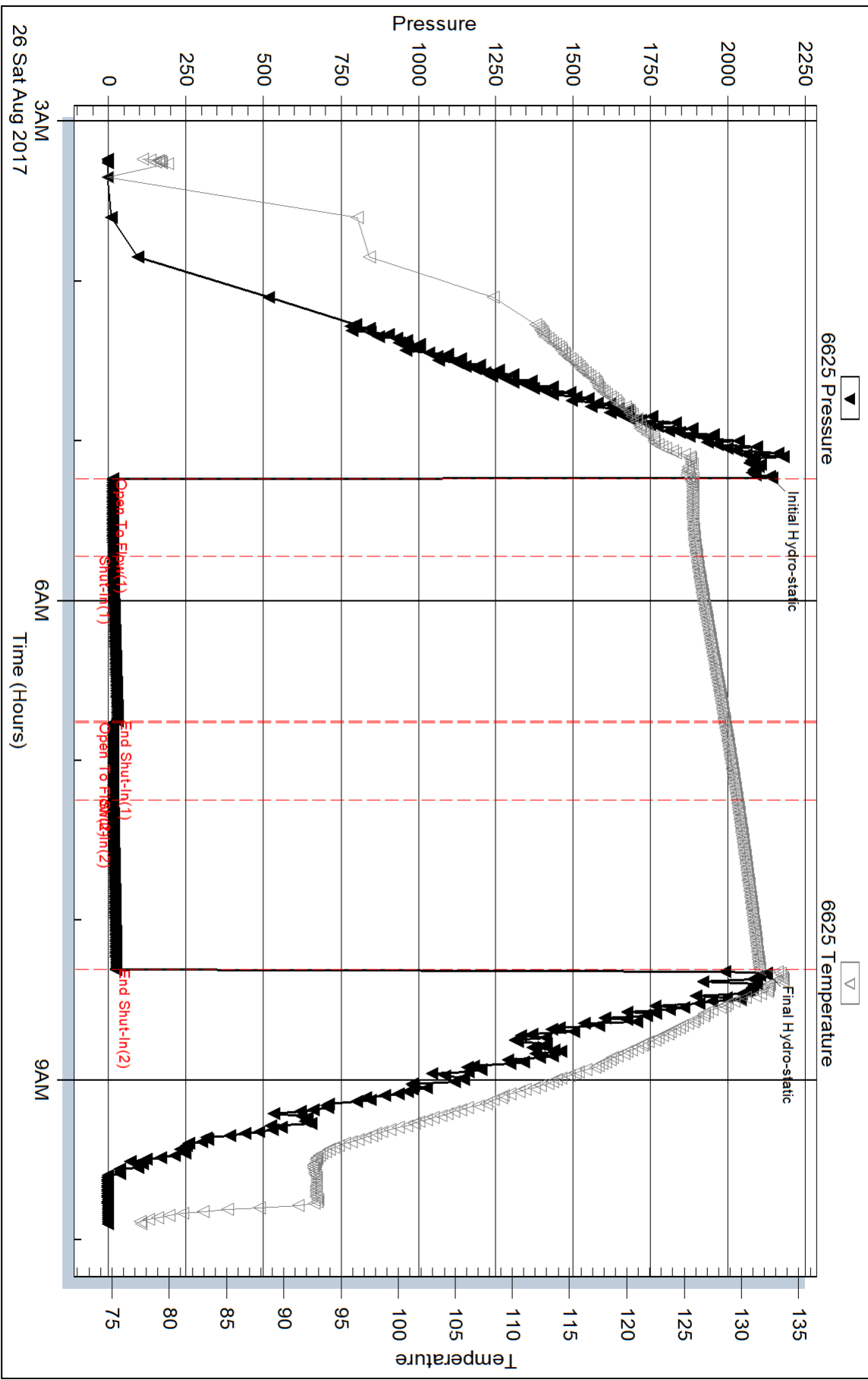
Inside

Murfin Drilling Co., Inc

Uhllander #1-29

DST Test Number: 2

Pressure vs. Time

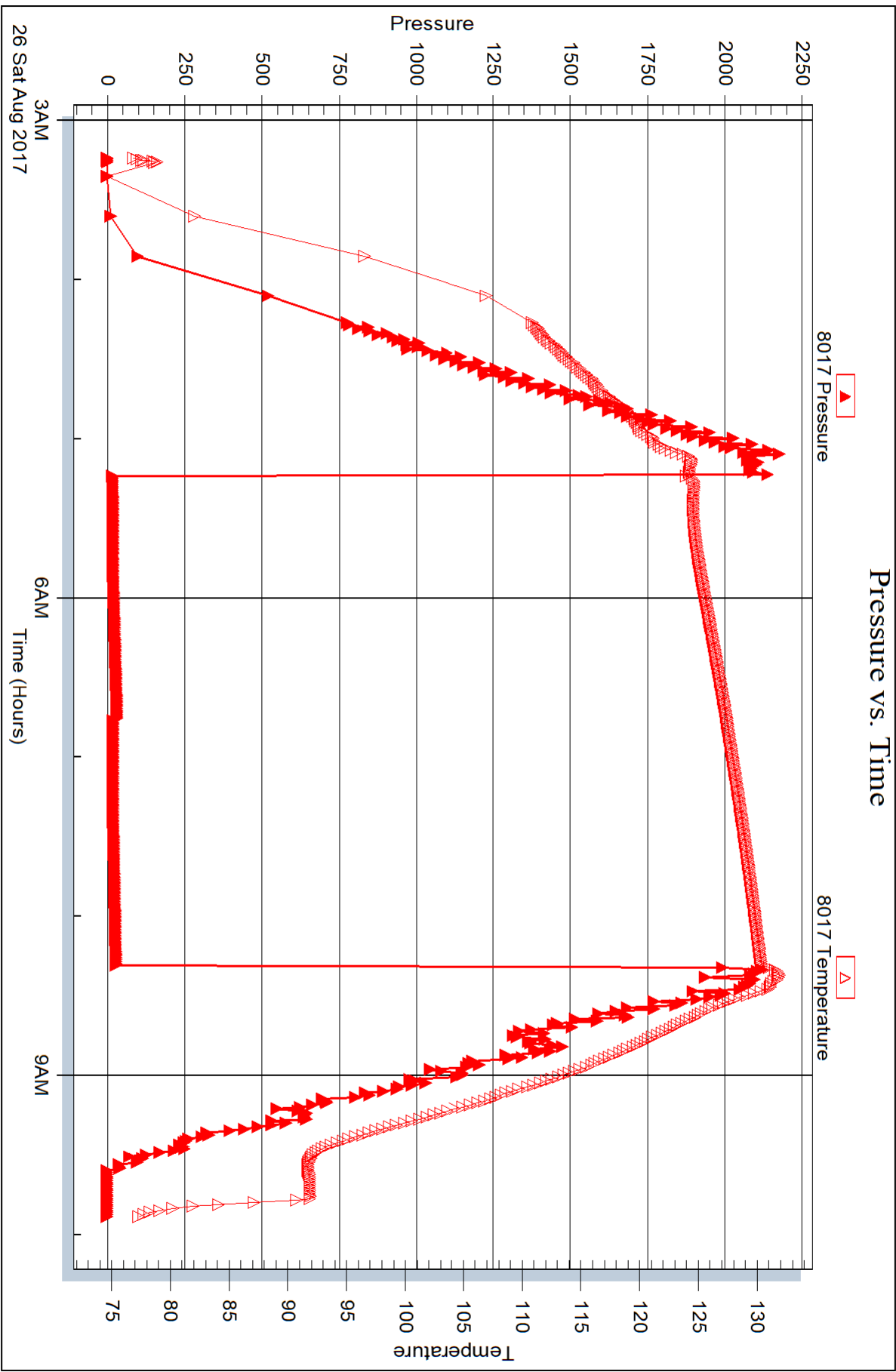


Serial #: 8017

Outside Murfin Drilling Co., Inc

Uhlender #1-29

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Saman Sharifaie

Uhlaender #1-29

29-2s-35w Rawlins KS

Start Date: 2017.08.26 @ 22:26:00

End Date: 2017.08.27 @ 05:26:00

Job Ticket #: 63346 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.08.29 @ 11:20:15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
 250 N. Water STE 300
 Wichita, KS 67202
 ATTN: Saman Sharifaie

29-2s-35w Rawlins KS

Uhlaender #1-29

Job Ticket: 63346

DST#: 3

Test Start: 2017.08.26 @ 22:26:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:29:30
 Time Test Ended: 05:26:00
 Interval: **4278.00 ft (KB) To 4362.00 ft (KB) (TVD)**
 Total Depth: 4362.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3226.00 ft (KB)
 3221.00 ft (CF)
 KB to GR/CF: 5.00 ft

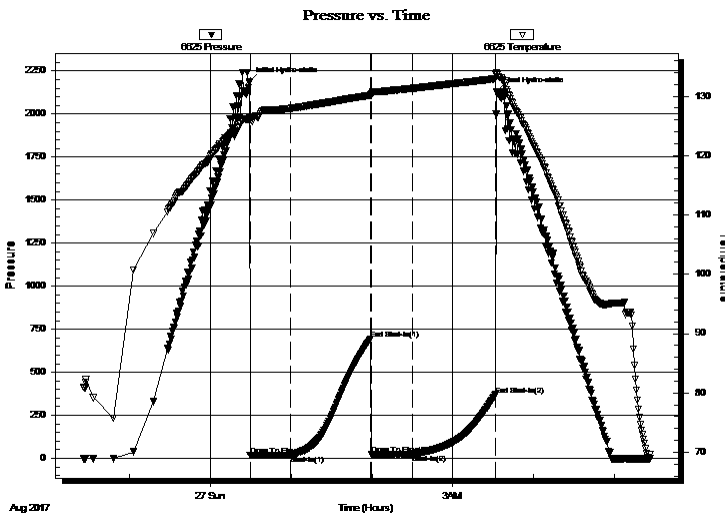
Serial #: 6625

Inside

Press@RunDepth: 24.65 psig @ 4279.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.26 End Date: 2017.08.27 Last Calib.: 2017.08.27
 Start Time: 22:26:05 End Time: 05:25:59 Time On Btm: 2017.08.27 @ 00:29:15
 Time Off Btm: 2017.08.27 @ 03:32:30

TEST COMMENT: 30 - IF: Blow built to 1", died back, dead at 30 min.
 60 - IS: No blow
 30 - FF: No blow
 60 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.59	126.41	Initial Hydro-static
1	16.32	126.11	Open To Flow (1)
30	19.77	127.93	Shut-In(1)
90	694.63	130.16	End Shut-In(1)
91	23.06	130.19	Open To Flow (2)
121	24.65	131.30	Shut-In(2)
183	368.94	132.93	End Shut-In(2)
184	2127.63	134.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SOCM 92%m, 4%o, 4%g	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., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63346

DST#: 3

ATTN: Saman Sharifaie

Test Start: 2017.08.26 @ 22:26:00

Tool Information

Drill Pipe:	Length: 4056.00 ft	Diameter: 3.80 inches	Volume: 56.90 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 57.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4278.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	113.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4250.00	
Shut In Tool	5.00			4255.00	
Hydraulic tool	5.00			4260.00	
Jars	5.00			4265.00	
Safety Joint	3.00			4268.00	
Packer	5.00			4273.00	29.00 Bottom Of Top Packer
Packer	5.00			4278.00	
Stubb	1.00			4279.00	
Recorder	0.00	6625	Inside	4279.00	
Recorder	0.00	8017	Outside	4279.00	
Perforations	15.00			4294.00	
Blank Spacing	64.00			4358.00	
Perforations	1.00			4359.00	
Bullnose	3.00			4362.00	84.00 Bottom Packers & Anchor

Total Tool Length: 113.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63346

DST#: 3

ATTN: Saman Sharifaie

Test Start: 2017.08.26 @ 22:26:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	SOCM 92% <i>m</i> , 4% <i>o</i> , 4% <i>g</i>	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

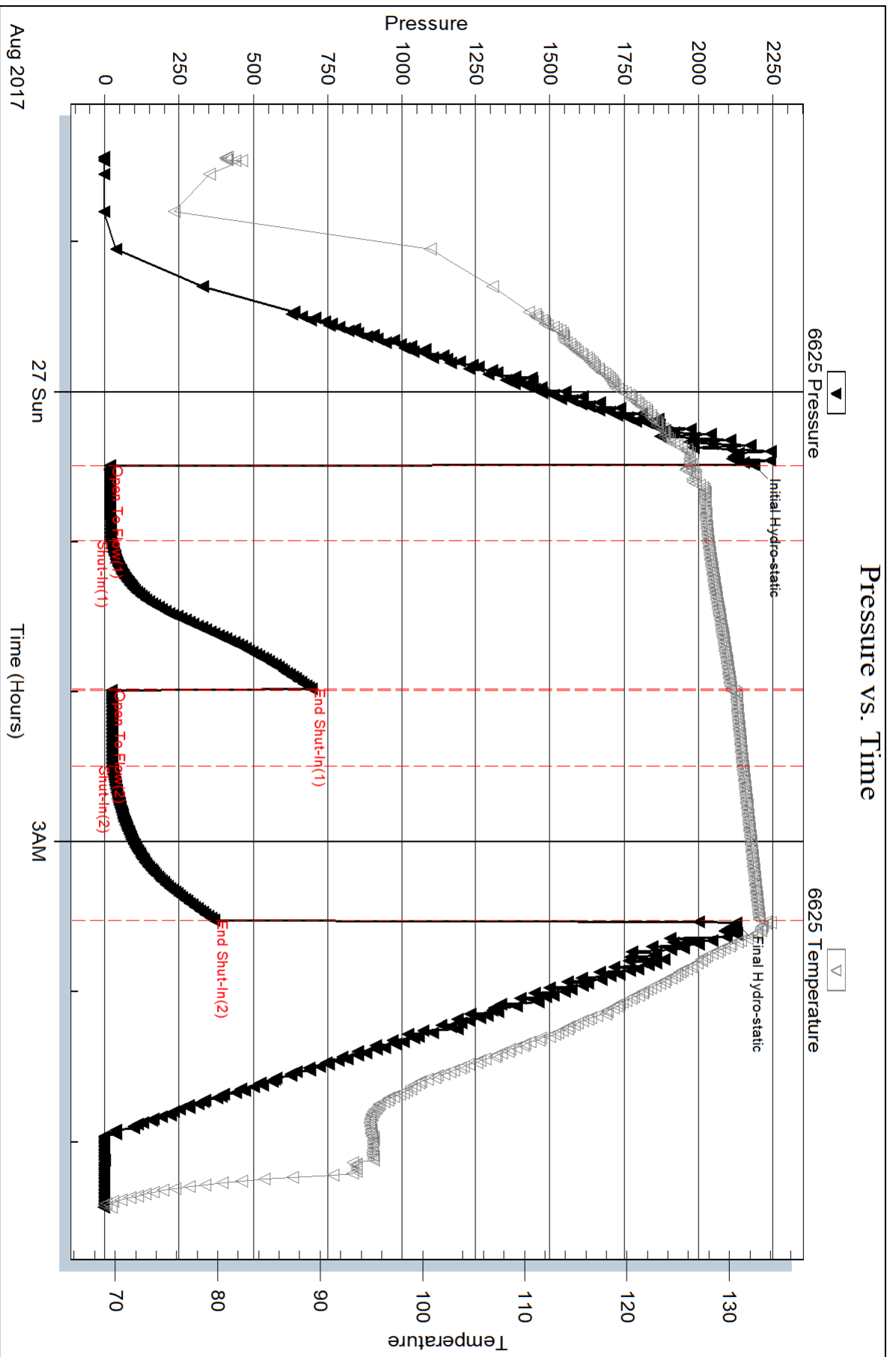
Num Gas Bombs: 0

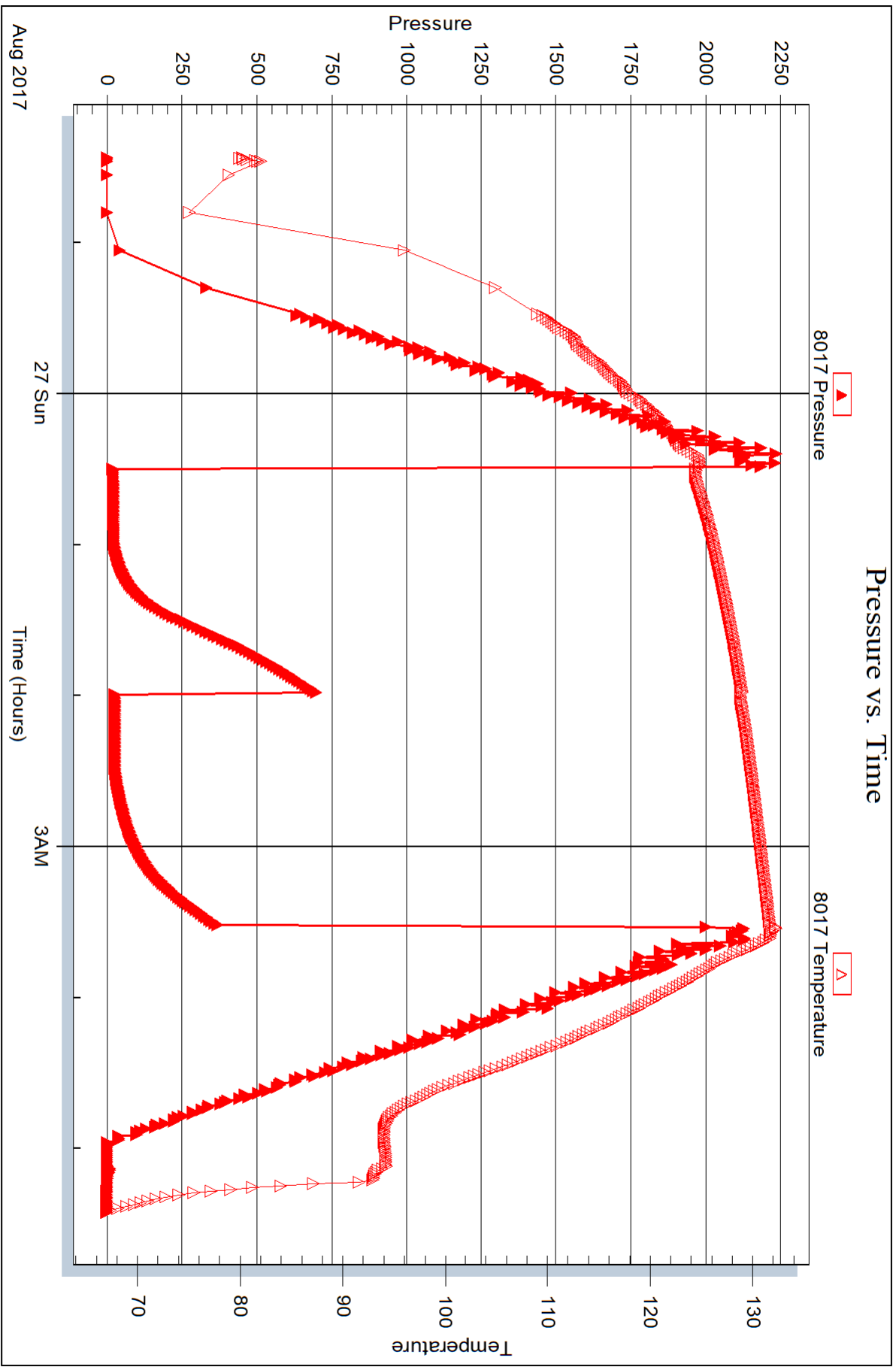
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

250 N. Water STE 300
Wichita, KS 67202

ATTN: Saman Sharifaie

Uhlaender #1-29

29-2s-35w Rawlins KS

Start Date: 2017.08.28 @ 09:30:00

End Date: 2017.08.28 @ 17:38:45

Job Ticket #: 63347 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.08.29 @ 11:17:52



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
 250 N. Water STE 300
 Wichita, KS 67202
 ATTN: Saman Sharifaie

29-2s-35w Rawlins KS

Uhlaender #1-29

Job Ticket: 63347

DST#: 4

Test Start: 2017.08.28 @ 09:30:00

GENERAL INFORMATION:

Formation: **Ft Scott, Celia**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:24:00
 Time Test Ended: 17:38:45
 Interval: **4506.00 ft (KB) To 4640.00 ft (KB) (TVD)**
 Total Depth: 4640.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3226.00 ft (KB)
 3221.00 ft (CF)
 KB to GR/CF: 5.00 ft

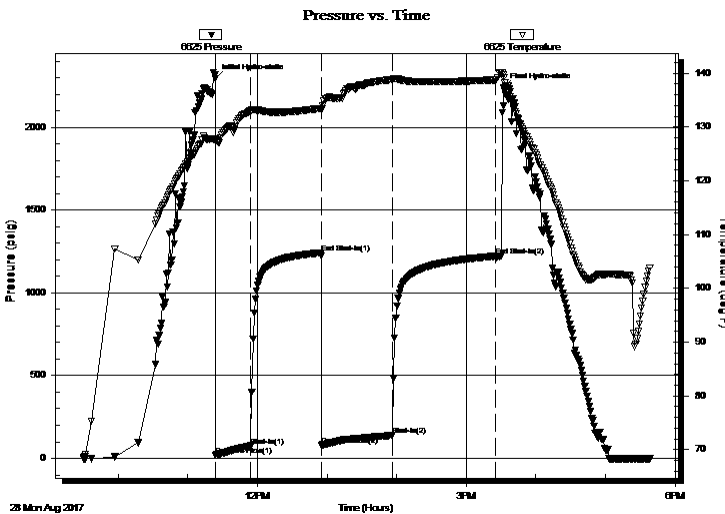
Serial #: 6625

Inside

Press@RunDepth: 138.30 psig @ 4507.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.28 End Date: 2017.08.28 Last Calib.: 2017.08.28
 Start Time: 09:30:05 End Time: 17:38:44 Time On Btm: 2017.08.28 @ 11:23:45
 Time Off Btm: 2017.08.28 @ 15:32:30

TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 5"
 60 - IS: No blow back
 60 - FF: Blow started at 7 min., built to 5 3/4"
 90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.86	127.76	Initial Hydro-static
1	19.26	127.50	Open To Flow (1)
31	75.46	132.97	Shut-In(1)
92	1242.33	133.45	End Shut-In(1)
92	80.35	133.31	Open To Flow (2)
153	138.30	138.82	Shut-In(2)
242	1221.44	138.75	End Shut-In(2)
249	2238.63	139.13	Final Hydro-static

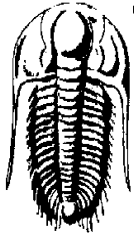
Recovery

Length (ft)	Description	Volume (bbl)
120.00	WCM w/Oil spots 56% _m , 39% _w , 4% _g	190.59
150.00	SOCM 92% _m , 5% _o , 3% _g	1.33

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
 250 N. Water STE 300
 Wichita, KS 67202
 ATTN: Saman Sharifaie

29-2s-35w Rawlins KS
Uhlaender #1-29
 Job Ticket: 63347 **DST#: 4**
 Test Start: 2017.08.28 @ 09:30:00

GENERAL INFORMATION:

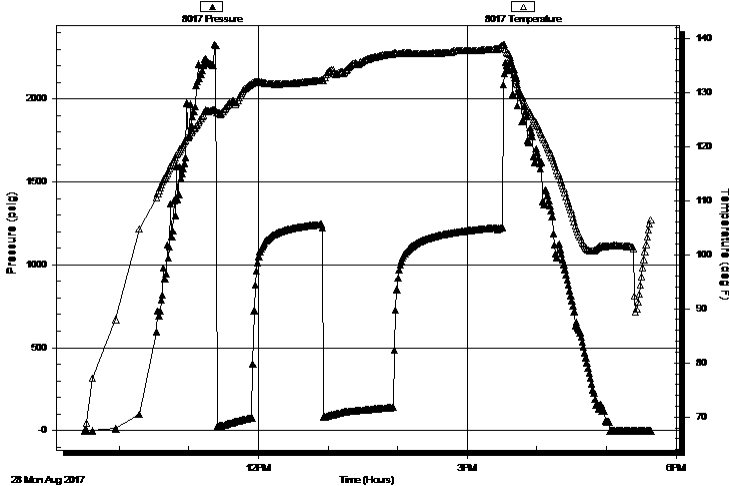
Formation:	Ft Scott, Celia		Test Type:	Conventional Bottom Hole (Reset)
Deviated:	No Whipstock:	ft (KB)	Tester:	James Winder
Time Tool Opened:	11:24:00		Unit No:	83
Time Test Ended:	17:38:45			
Interval:	4506.00 ft (KB) To 4640.00 ft (KB) (TVD)		Reference Elevations:	3226.00 ft (KB)
Total Depth:	4640.00 ft (KB) (TVD)			3221.00 ft (CF)
Hole Diameter:	7.88 inches	Hole Condition: Fair	KB to GR/CF:	5.00 ft

Serial #: 8017 Outside

Press@RunDepth:	psig @ 4507.00 ft (KB)	Capacity:	8000.00 psig
Start Date:	2017.08.28	End Date:	2017.08.28
Start Time:	09:30:05	End Time:	17:38:29
		Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 5"
 60 - IS: No blow back
 60 - FF: Blow started at 7 min., built to 5 3/4"
 90 - FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	WCM w/Oil spots 56% _m , 39% _w , 4% _g	190.59
150.00	SOCM 92% _m , 5% _o , 3% _g	1.33

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63347

DST#: 4

ATTN: Saman Sharifaie

Test Start: 2017.08.28 @ 09:30:00

Tool Information

Drill Pipe:	Length: 4305.00 ft	Diameter: 3.80 inches	Volume: 60.39 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 205.00 ft	Diameter: 2.25 inches	Volume: 1.01 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 61.40 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 67000.00 lb
Depth to Top Packer:	4506.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	134.00 ft			
Tool Length:	163.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4478.00	
Shut In Tool	5.00			4483.00	
Hydraulic tool	5.00			4488.00	
Jars	5.00			4493.00	
Safety Joint	3.00			4496.00	
Packer	5.00			4501.00	29.00 Bottom Of Top Packer
Packer	5.00			4506.00	
Stubb	1.00			4507.00	
Recorder	0.00	6625	Inside	4507.00	
Recorder	0.00	8017	Outside	4507.00	
Perforations	32.00			4539.00	
Blank Spacing	96.00			4635.00	
Perforations	2.00			4637.00	
Bullnose	3.00			4640.00	134.00 Bottom Packers & Anchor

Total Tool Length: 163.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc

29-2s-35w Rawlins KS

250 N. Water STE 300
Wichita, KS 67202

Uhlaender #1-29

Job Ticket: 63347

DST#: 4

ATTN: Saman Sharifaie

Test Start: 2017.08.28 @ 09:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

10000 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	WCM w/Oil spots 56% <i>m</i> , 39% <i>w</i> , 4% <i>g</i> , 1% <i>o</i>	0.590
150.00	SOCM 92% <i>m</i> , 5% <i>o</i> , 3% <i>g</i>	1.330

Total Length: 270.00 ft Total Volume: 1.920 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

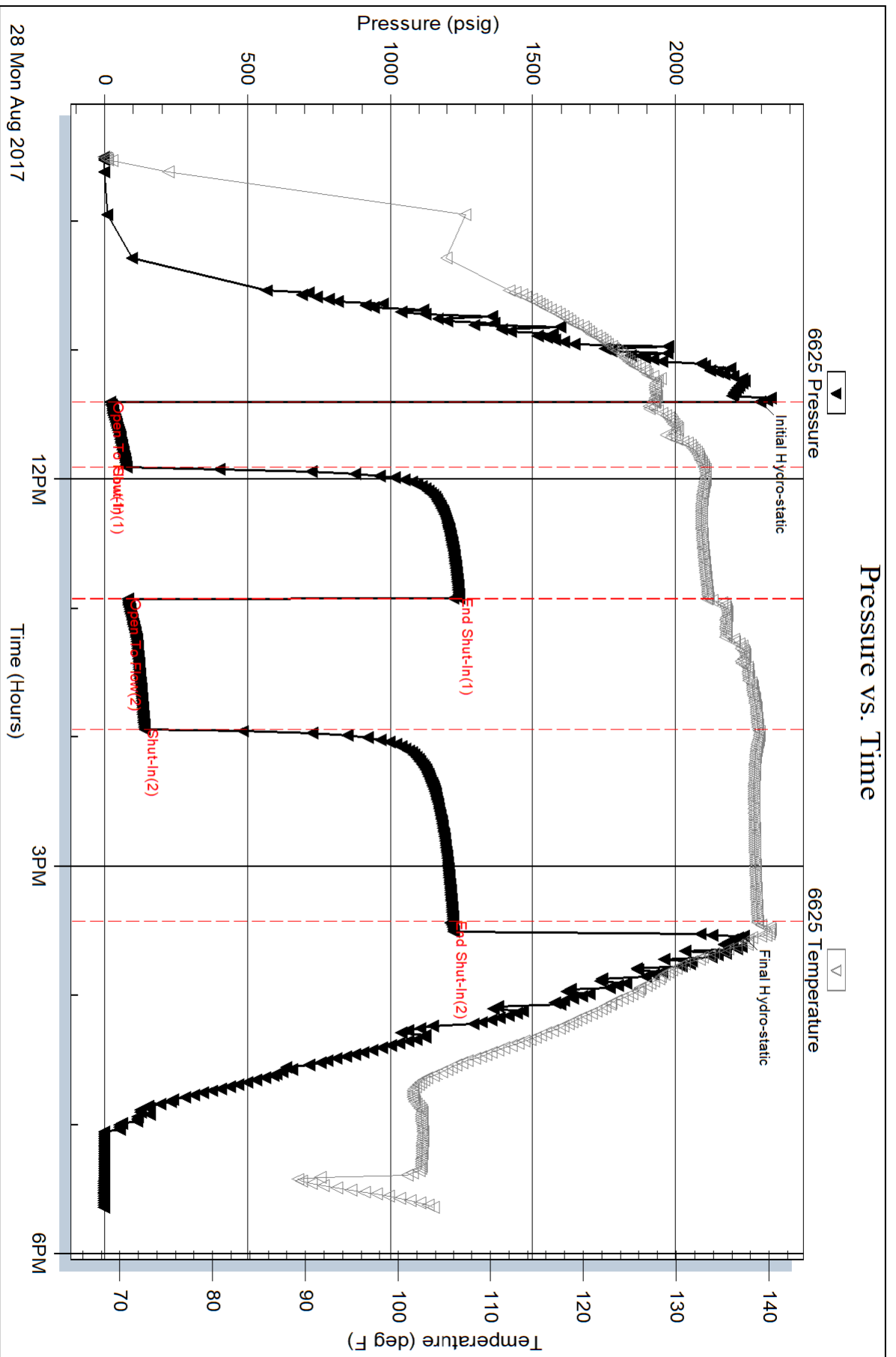
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .430 ohms @ 96.5 deg F

Chlorides = 10,000 ppm

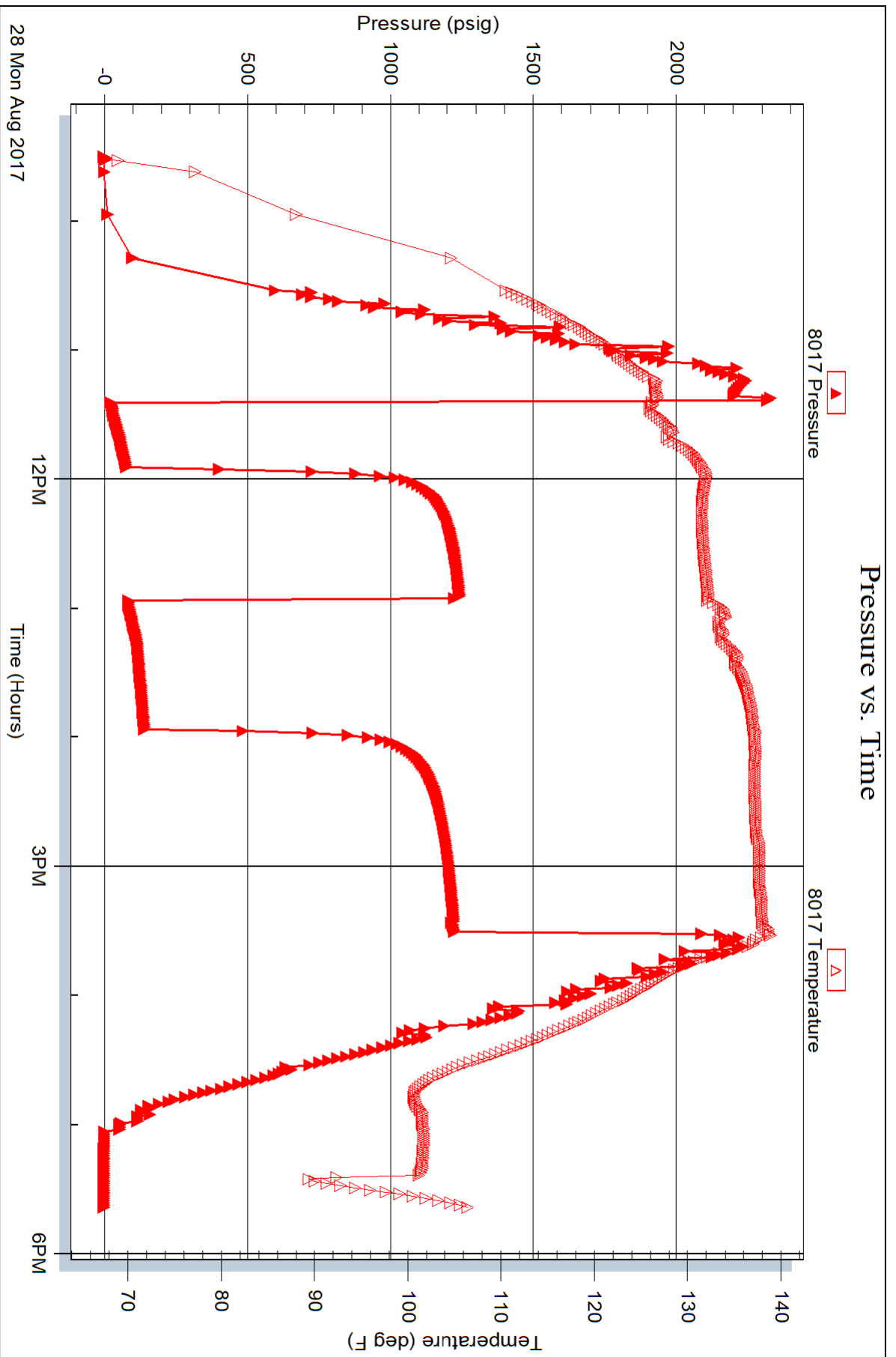


Serial #: 8017

Outside Murfin Drilling Co., Inc

Uhlender #1-29

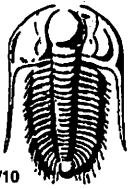
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 63347

Printed: 2017.08.29 @ 11:17:53



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63344

Well Name & No. Uhlender #1-29 Test No. 1 Date 8-25-17
 Company Murfin Drilling Co Inc Elevation 3226 KB 3221 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #24
 Location: Sec. 29 Twp. 2s Rge. 35w Co. Rawlins State KS

Interval Tested 4078-4210 Zone Tested Gorham sd - LKC-A-D
 Anchor Length 132 Drill Pipe Run 3867 Mud Wt. 8.9
 Top Packer Depth 4073 Drill Collars Run 205 Vis 76
 Bottom Packer Depth 4078 Wt. Pipe Run - WL 6.4
 Total Depth 4210 Chlorides 600 ppm System LCM 4
 Blow Description IF: Blow built to 7 1/4"
TSI: No blowback
FF: Blow started at 4 1/2 min., built to 9 1/4"
FSI: No blowback

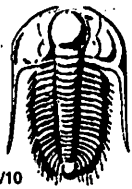
Rec	Feet of	%gas	%oil	%water	%mud
<u>31</u>	<u>mud</u>			<u>100</u>	
<u>62</u>	<u>WCM</u>		<u>14</u>	<u>86</u>	
<u>237</u>	<u>mw</u>		<u>56</u>	<u>44</u>	

Rec Total 330 BHT 134 Gravity API RW .312 @ 92.6° F Chlorides 16,000 ppm

(A) Initial Hydrostatic 2036 Test 1150 T-On Location 8:15
 (B) First Initial Flow 20 Jars 250 T-Started 9:04
 (C) First Final Flow 109 Safety Joint 75 T-Open 10:44
 (D) Initial Shut-In 1182 Circ Sub _____ T-Pulled 14:46
 (E) Second Initial Flow 115 Hourly Standby _____ T-Out 16:50
 (F) Second Final Flow 168 Mileage 98RT 73.50 Comments _____
 (G) Final Shut-In 1094 Sampler _____
 (H) Final Hydrostatic 2030 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1548.50

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 60 Ruined Packer _____
 Final Flow 60 Extra Copies _____
 Final Shut-In 90 Sub Total 0
 Total 1548.50
 MP/DST Disc't _____

Approved By _____ Our Representative James Winder
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63345

4/10

Well Name & No. Uhlaender # 1-29 Test No. 2 Date 8-26-17
 Company Murfin Drilling Co. Inc Elevation 3226 KB 3221 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #24
 Location: Sec. 29 Twp. 2s Rge. 35w Co. Rawlins State KS

Interval Tested 4233- 4264 Zone Tested LKC "6"
 Anchor Length 31 Drill Pipe Run 4024 Mud Wt. 9.0
 Top Packer Depth 4228 Drill Collars Run 205 Vis 72
 Bottom Packer Depth 4233 Wt. Pipe Run - WL 6.4
 Total Depth 4264 Chlorides 600 ppm System LCM 4

Blow Description IF: Blow built to 1/4", died back, dead at 26 min
ISI: No blow
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</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

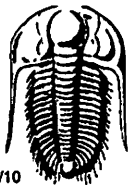
Rec Total 1 BHT 132 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2142 Test 1150 T-On Location 2:20
 (B) First Initial Flow 14 Jars 250 T-Started 3:14
 (C) First Final Flow 15 Safety Joint 75 T-Open 5:14
 (D) Initial Shut-In 29 Circ Sub _____ T-Pulled 8:18
 (E) Second Initial Flow 15 Hourly Standby _____ T-Out 9:55
 (F) Second Final Flow 15 Mileage 98 RT 73.50 Comments _____
 (G) Final Shut-In 25 Sampler _____
 (H) Final Hydrostatic 2126 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1548.50

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

Sub Total 1548.50 MP/DST Disc't _____

Approved By _____ Our Representative James Windle
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63346

Well Name & No. Uhlaender #1-29 Test No. 3 Date 8-26-17
 Company Murfin Drilling Co. Inc Elevation 3226 KB 3221 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #24
 Location: Sec. 29 Twp. 2s Rge. 35w Co. Rawlins State KS

Interval Tested 4278 - 4362 Zone Tested LKC "H-J"
 Anchor Length 84 Drill Pipe Run 4056 Mud Wt. 9.1
 Top Packer Depth 4273 Drill Collars Run 205 Vis 60
 Bottom Packer Depth 4278 Wt. Pipe Run - WL 6.8
 Total Depth 4362 Chlorides 800 ppm System LCM 4

Blow Description IF: Blow built to 1" died back, dead at 30 min.
ISI: No blow
FF: No blow
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>50cm</u>	<u>4</u>	<u>4</u>	<u>92</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 133 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

- (A) Initial Hydrostatic 2187
- (B) First Initial Flow 16
- (C) First Final Flow 20
- (D) Initial Shut-In 695
- (E) Second Initial Flow 23
- (F) Second Final Flow 25
- (G) Final Shut-In 369
- (H) Final Hydrostatic 2128

- Test 1150
 - Jars 250
 - Safety Joint 75
 - Circ Sub _____
 - Hourly Standby _____
 - Mileage 98RT 73.50
 - Sampler _____
 - Straddle _____
 - Shale Packer _____
 - Extra Packer _____
 - Extra Recorder _____
 - Day Standby _____
 - Accessibility _____
- Sub Total 1548.50

T-On Location 21:40 8/26
 T-Started 22:26
 T-Open 00:29
 T-Pulled 3:31
 T-Out 5:20 8/27

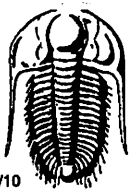
Comments _____

 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1548.50
 MP/DST Disc't _____

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

Approved By _____ Our Representative James Winder

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63347

Well Name & No. Uhlaender #1-29 Test No. 4 Date 8-28-17
 Company Murfin Drilling Co, Inc Elevation 3226 KB 3221 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Saman Sharifaie Rig Murfin #24
 Location: Sec. 29 Twp. 2s Rge. 35w Co. Rawlins State KS

Interval Tested 4506 - 4640 Zone Tested Ft. Sco #, Celia
 Anchor Length 134 Drill Pipe Run 4305 Mud Wt. 9.1
 Top Packer Depth 4501 Drill Collars Run 205 Vis 69
 Bottom Packer Depth 4506 Wt. Pipe Run - WL 5.6
 Total Depth 4640 Chlorides 600 ppm System LCM 4
 Blow Description IF: 1/2" Blow at open, built to 5"
ISI: No blowback
FF: Blow started at 7min., built to 5 3/4"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>50cm</u>	<u>3</u>	<u>5</u>	<u>-</u>	<u>92</u>
<u>120</u>	<u>50cm WCM w/oil spots</u>	<u>4</u>	<u>1</u>	<u>39</u>	<u>56</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 270 BHT 139 Gravity API RW 0.430 @ 96.5 °F Chlorides 10,000 ppm
 (A) Initial Hydrostatic 2296 Test 1150 T-On Location 8:45
 (B) First Initial Flow 19 Jars 250 T-Started 9:30
 (C) First Final Flow 75 Safety Joint 75 T-Open 11:24
 (D) Initial Shut-In 1242 Circ Sub _____ T-Pulled 15:25
 (E) Second Initial Flow 80 Hourly Standby _____ T-Out 17:35
 (F) Second Final Flow 138 Mileage 98RT 73.50
 (G) Final Shut-In 1221 Sampler _____
 (H) Final Hydrostatic 2239 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1548.50

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

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1548.50
 MP/DST Disc't _____

Approved By _____ Our Representative James Wisler
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