

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	MAHER 'A' 1-32
Doc ID	1449692

All Electric Logs Run

DIL
DUCP
MEL
BHCS

Robert D. Hendrix

Petroleum Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY **Murfin Drilling Co. Inc.**

LEASE **Maheer 'A' #1-32**

FIELD **Beaver Creek East**

LOCATION **1800' fml & 1980' fel**

SEC **32** TWP **1S** RGE **31W**

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

CONTRACTOR **Murfin Drilling Co. Inc. Rig #7**

SPUD **1/25/2019** COMP **2/2/2019**

RTD **4/20/21** LTD **4/20/21**

MUD UP **3173'** TYPE MUD **Chemical**

SAMPLES SAVED FROM **3560'** TO **TD**

DRILLING TIME KEPT FROM **3460'** TO **TD**

SAMPLES EXAMINED FROM **3460'** TO **TD**

GEOLOGICAL SUPERVISION FROM **3468'**

GEOLOGIST ON WELL **Robert D. Hendrix**

Comp Per/Dual Induction Microdon
Sonic Pioneer Energy Services

FORMATION TOPS

ANHYDRITE **2572 (+226)**

TOPEKA **3562 (-767)**

HEEBNER **3724 (-929)**

LANSING **3756 (-963)**

STARK **3954 (-1159)**

MOUND CITY **4007 (-1212)**

FT. SCOTT **4099 (-1304)**

OAKLEY **4198 (-1403)**

ELEVATIONS

KB **2795'**

DF

GL **2790'**

Measurements Are All From **Kelly Bushing**

CASING

CONDUCTOR

SURFACE **8'-5/8" at 304'**

PRODUCTION **NA**

ELECTRICAL SURVEYS

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

TO **TD**

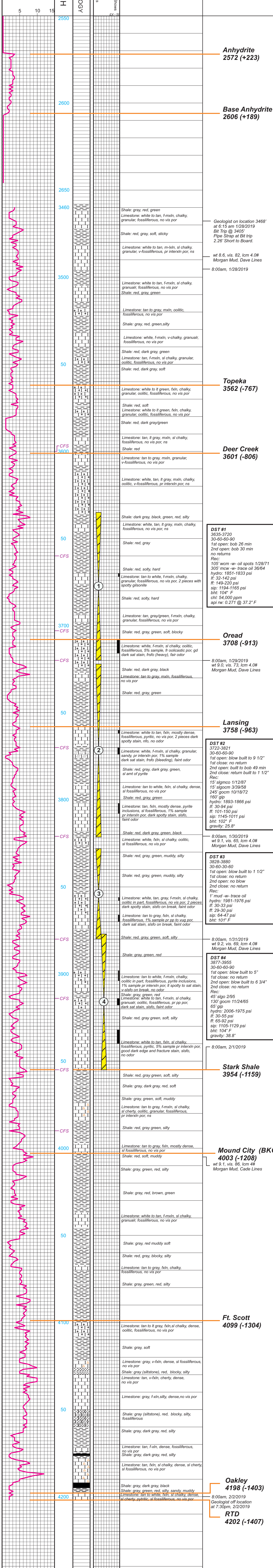
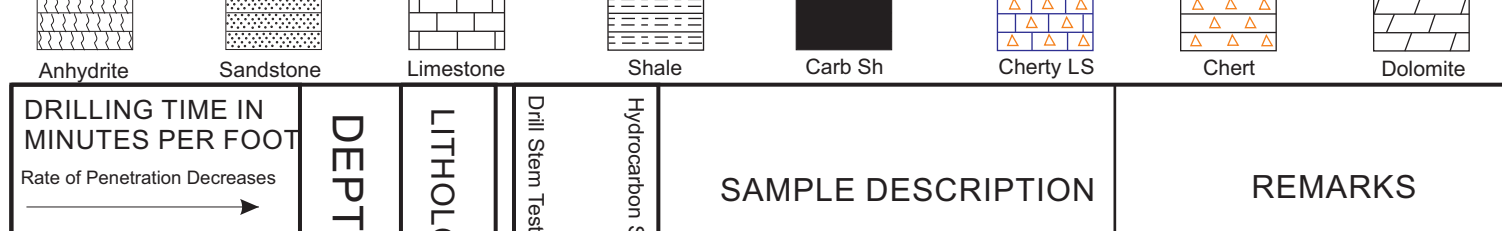
TO **TD**

TO **TD**

TO **TD**

REMARKS: Due to poor results on DST's and all zones of interest were tested. The decision was made to Plug and Abandon this well.

LEGEND





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Maher 'A' #1-32

32-1s-31w Rawlins,KS

Start Date: 2019.01.29 @ 05:45:00

End Date: 2019.01.29 @ 14:57:45

Job Ticket #: 65310 DST #: 1

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

Printed: 2019.02.04 @ 08:31:12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65310

DST#: 1

ATTN: Robert Hendrix

Test Start: 2019.01.29 @ 05:45:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:33:15

Time Test Ended: 14:57:45

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: 3635.00 ft (KB) To 3720.00 ft (KB) (TVD)

Reference Elevations: 2795.00 ft (KB)

Total Depth: 3720.00 ft (KB) (TVD)

2790.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 220.10 psig @ 3636.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.29 End Date: 2019.01.29

Last Calib.: 2019.01.29

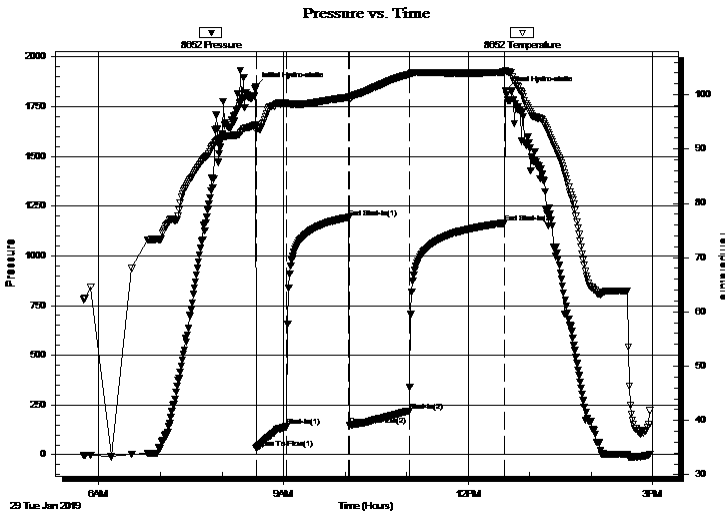
Start Time: 05:45:05 End Time: 14:57:45

Time On Btm: 2019.01.29 @ 08:33:00

Time Off Btm: 2019.01.29 @ 12:36:15

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 26 min., built to 12 1/4"
60 - IS: No blow back
60 - FF: Blow built to BOB at 30 min., built to 21 3/4"
90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1850.67	94.53	Initial Hydro-static
1	32.37	93.41	Open To Flow (1)
30	141.42	98.39	Shut-In(1)
91	1193.82	99.53	End Shut-In(1)
92	148.90	99.15	Open To Flow (2)
150	220.10	103.77	Shut-In(2)
243	1164.62	104.15	End Shut-In(2)
244	1832.64	104.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
305.00	MCW w/trace oil 64%w , 36%m	2.37
105.00	WCM w/Oil spots 71%m, 28%w	1.47

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65310

DST#: 1

ATTN: Robert Hendrix

Test Start: 2019.01.29 @ 05:45:00

Tool Information

Drill Pipe:	Length: 3422.00 ft	Diameter: 3.80 inches	Volume: 48.00 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 49.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	3635.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 ft			
Tool Length:	114.00 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			3607.00	
Shut In Tool	5.00			3612.00	
Hydraulic tool	5.00			3617.00	
Jars	5.00			3622.00	
Safety Joint	3.00			3625.00	
Packer	5.00			3630.00	29.00 Bottom Of Top Packer
Packer	5.00			3635.00	
Stubb	1.00			3636.00	
Recorder	0.00	6625	Inside	3636.00	
Recorder	0.00	8652	Outside	3636.00	
Perforations	16.00			3652.00	
Blank Spacing	65.00			3717.00	
Bullnose	3.00			3720.00	85.00 Bottom Packers & Anchor

Total Tool Length: 114.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Mahe'r 'A' #1-32

Job Ticket: 65310

DST#: 1

ATTN: Robert Hendrix

Test Start: 2019.01.29 @ 05:45:00

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:

54000 ppm

Viscosity: 73.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
305.00	MCW w/trace oil 64%w , 36%m	2.365
105.00	WCM w/Oil spots 71%m, 28%w	1.473

Total Length: 410.00 ft Total Volume: 3.838 bbf

Num Fluid Samples: 0

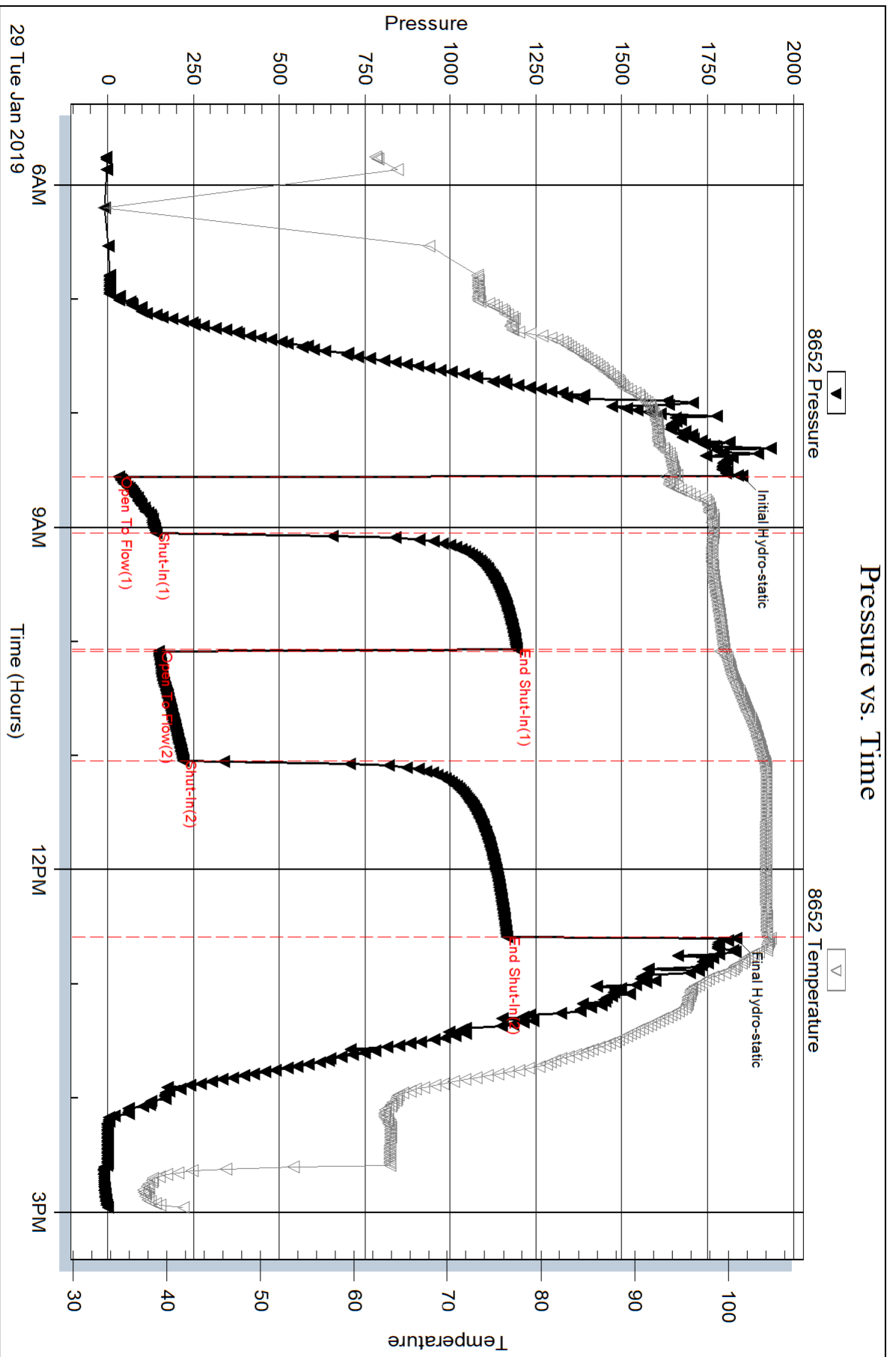
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .271 ohms @ 37.2 deg F Chlorides = 54,000 ppm



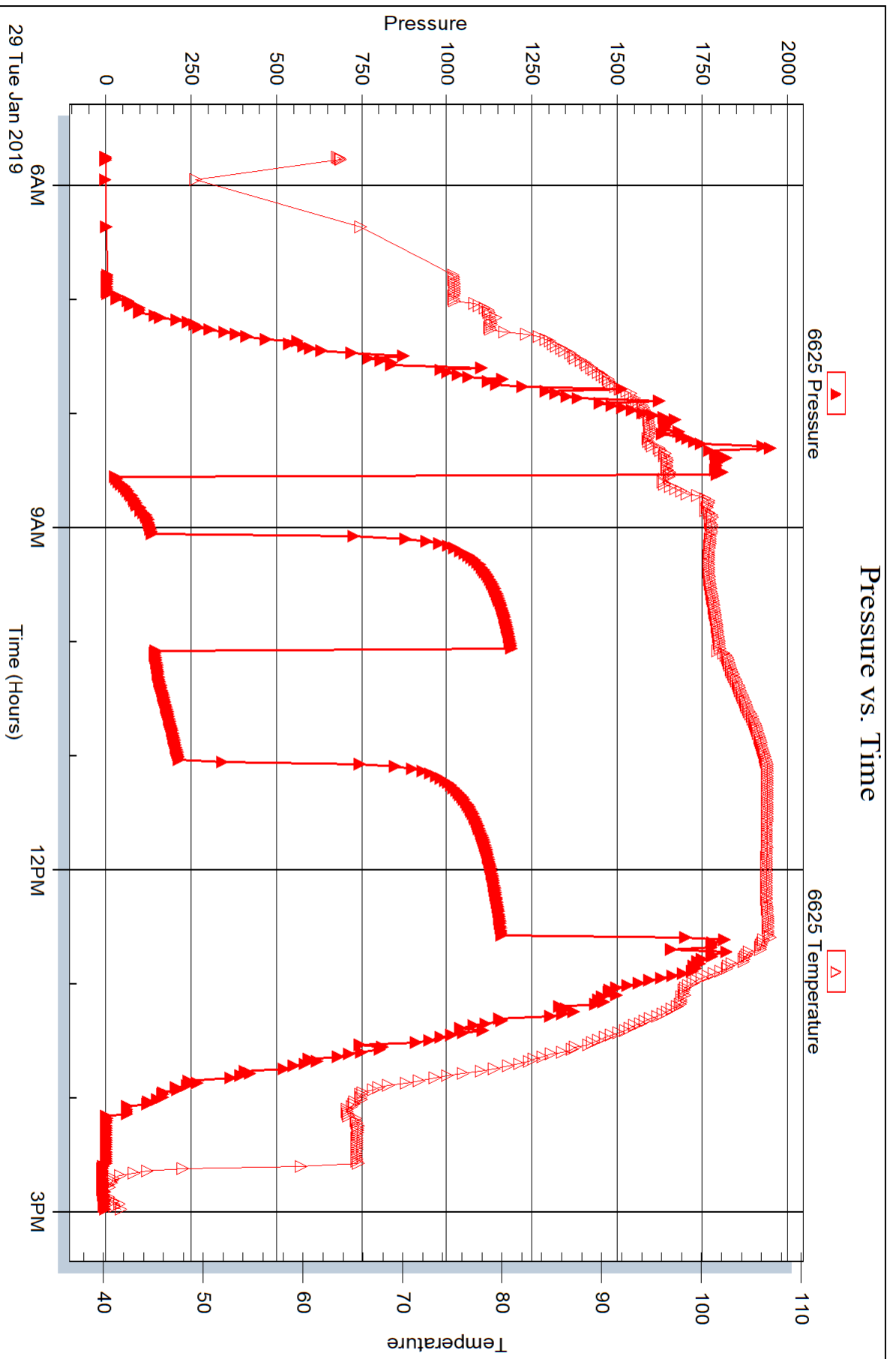
Serial #: 6625

Inside

Murfin Drilling Co., Inc.

Maier 'A' #1-32

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 65310

Printed: 2019.02.04 @ 08:31:13



DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Maher 'A' #1-32

32-1s-31w Rawlins,KS

Start Date: 2019.01.30 @ 05:15:00

End Date: 2019.01.30 @ 13:42:00

Job Ticket #: 65311 DST #: 2

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

Printed: 2019.02.04 @ 08:30:49



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc.

32-1s-31w Rawlins, KS

250 N Water STE 300
Wichita, KS 67202

Maheer 'A' #1-32

Job Ticket: 65311

DST#: 2

ATTN: Robert Hendrix

Test Start: 2019.01.30 @ 05:15:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:20:45

Time Test Ended: 13:42:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 3722.00 ft (KB) To 3821.00 ft (KB) (TVD)

Reference Elevations: 2795.00 ft (KB)

Total Depth: 3821.00 ft (KB) (TVD)

2790.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8652 Outside

Press@RunDepth: 149.59 psig @ 3723.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.01.30

End Date: 2019.01.30

Last Calib.: 2019.01.30

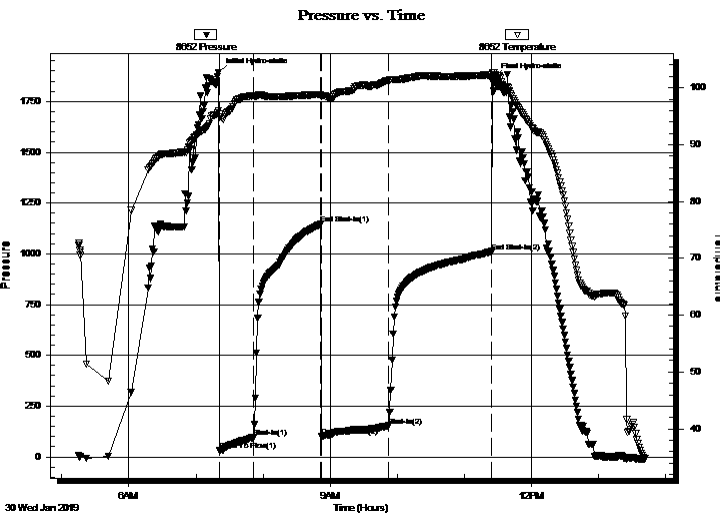
Start Time: 05:15:05

End Time: 13:41:59

Time On Btm: 2019.01.30 @ 07:20:30

Time Off Btm: 2019.01.30 @ 11:27:15

TEST COMMENT: 30 - IF: Blow built to 9 1/2"
60 - IS: No blow back
60 - FF: Blow built to BOB (11") at 49 min., built to 13 1/4"
90 - FS: Blow back built to 1 1/2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.25	96.05	Initial Hydro-static
1	30.22	94.86	Open To Flow (1)
31	94.14	98.57	Shut-In(1)
91	1145.04	98.85	End Shut-In(1)
92	101.41	98.50	Open To Flow (2)
152	149.59	101.27	Shut-In(2)
244	1011.20	102.25	End Shut-In(2)
247	1866.48	102.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
245.00	GOCM 72% <i>m</i> , 18% <i>o</i> , 10% <i>g</i>	1.52
15.00	OCM 58% <i>m</i> , 39% <i>o</i> , 3% <i>g</i>	0.21
15.00	MCO 87% <i>o</i> , 12% <i>m</i> , 1% <i>g</i>	0.21
0.00	GIP = 160'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65311

DST#: 2

ATTN: Robert Hendrix

Test Start: 2019.01.30 @ 05:15:00

Tool Information

Drill Pipe:	Length: 3487.00 ft	Diameter: 3.80 inches	Volume: 48.91 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 49.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	3722.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	99.00 ft			
Tool Length:	128.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3694.00	
Shut In Tool	5.00			3699.00	
Hydraulic tool	5.00			3704.00	
Jars	5.00			3709.00	
Safety Joint	3.00			3712.00	
Packer	5.00			3717.00	29.00 Bottom Of Top Packer
Packer	5.00			3722.00	
Stubb	1.00			3723.00	
Recorder	0.00	6625	Inside	3723.00	
Recorder	0.00	8652	Outside	3723.00	
Perforations	30.00			3753.00	
Blank Spacing	65.00			3818.00	
Bullnose	3.00			3821.00	99.00 Bottom Packers & Anchor

Total Tool Length: 128.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65311

DST#: 2

ATTN: Robert Hendrix

Test Start: 2019.01.30 @ 05:15:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 6.39 in³
Resistivity: ohm.m
Salinity: 1500.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 25.8 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

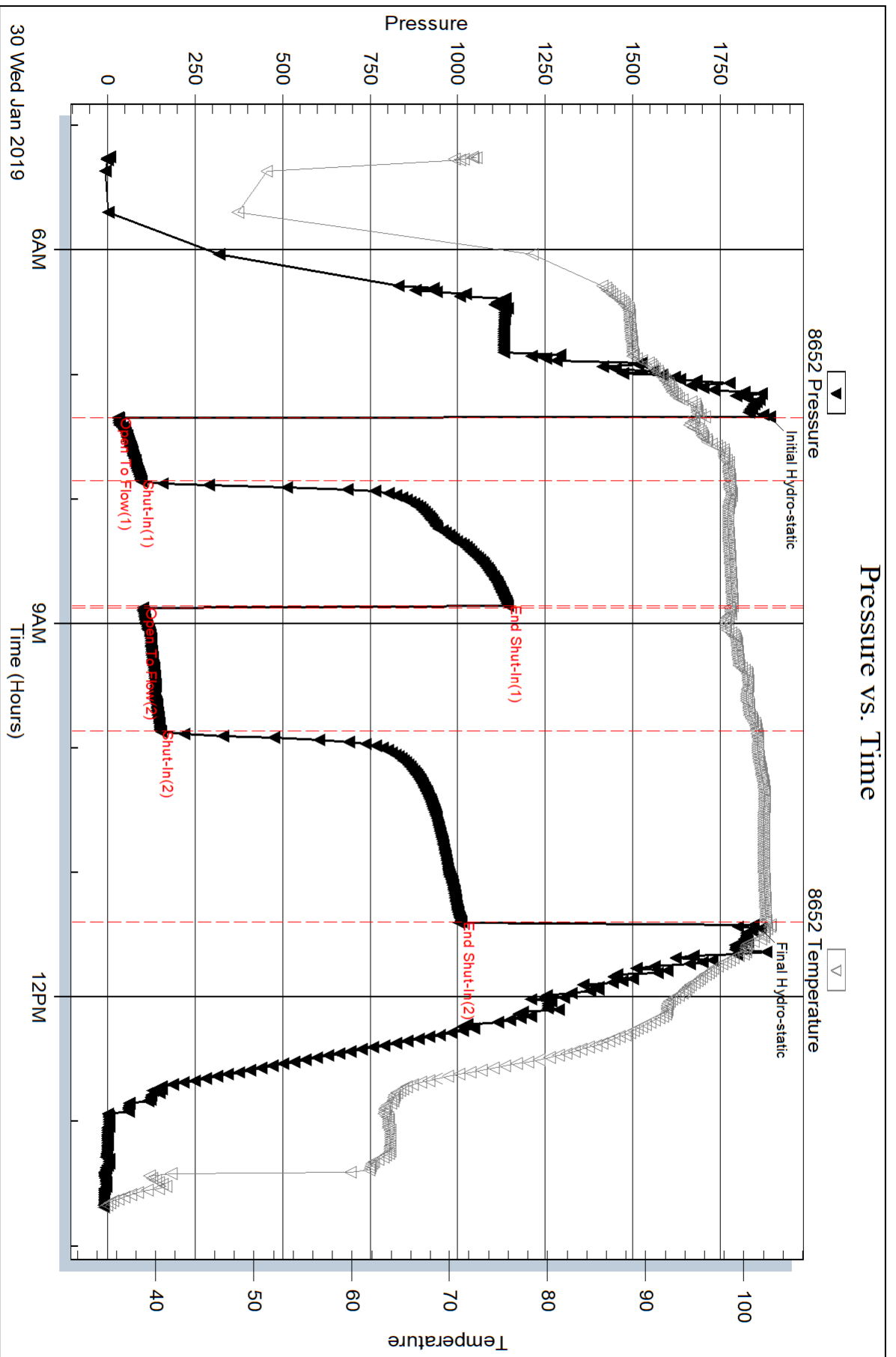
Length ft	Description	Volume bbl
245.00	GOCM 72% <i>m</i> , 18% <i>o</i> , 10% <i>g</i>	1.524
15.00	OCM 58% <i>m</i> , 39% <i>o</i> , 3% <i>g</i>	0.210
15.00	MCO 87% <i>o</i> , 12% <i>m</i> , 1% <i>g</i>	0.210
0.00	GIP = 160'	0.000

Total Length: 275.00 ft Total Volume: 1.944 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity = 23.4 api @ 36 deg F Corrected Gravity = 25.8 api



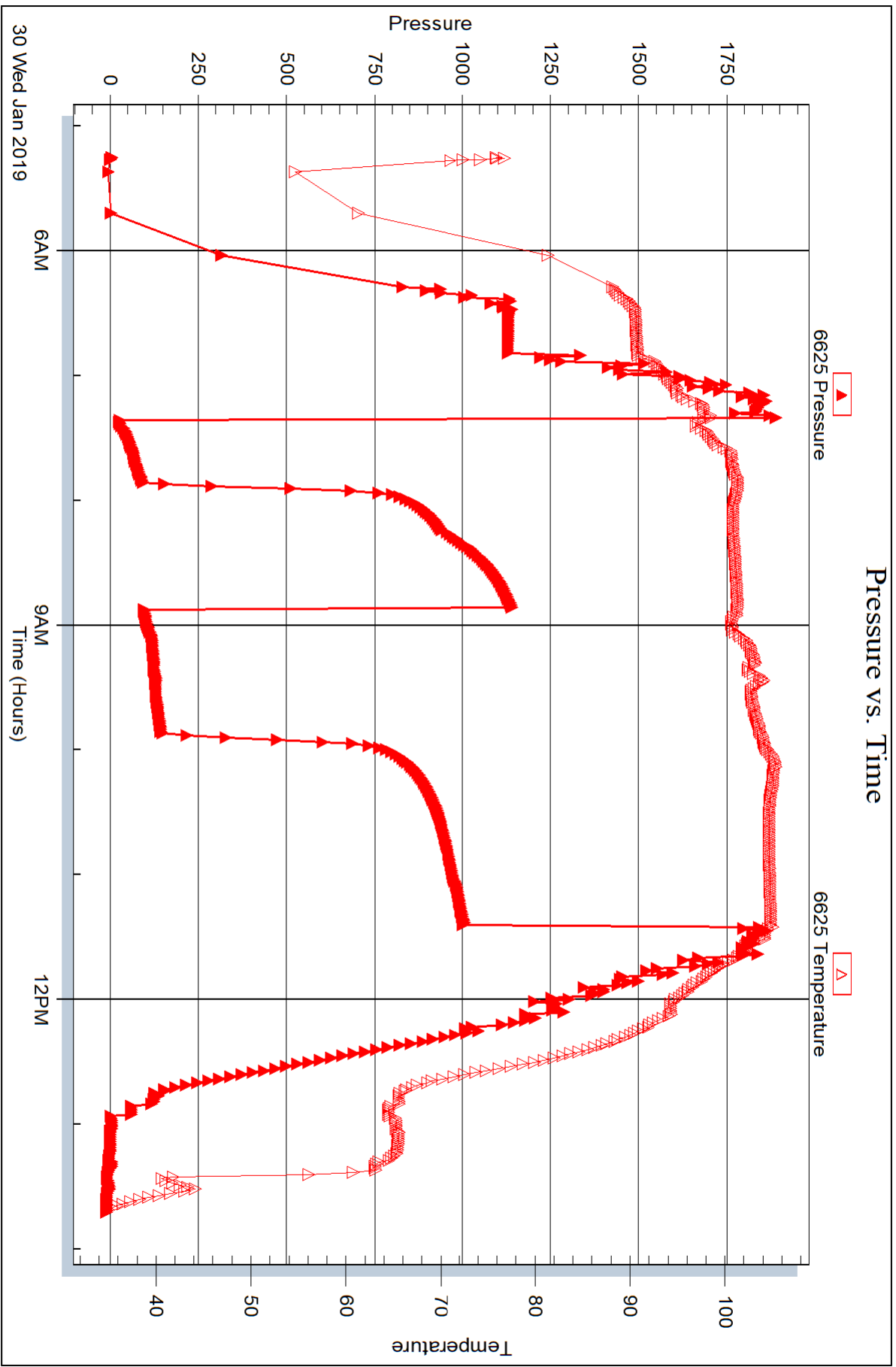
Serial #: 6625

Inside

Murfin Drilling Co., Inc.

Maier 'A' #1-32

DST Test Number: 2





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Maher 'A' #1-32

32-1s-31w Rawlins,KS

Start Date: 2019.01.31 @ 00:20:00

End Date: 2019.01.31 @ 06:58:00

Job Ticket #: 65312 DST #: 3

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

Printed: 2019.02.04 @ 08:30:25



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

32-1s-31w Rawlins, KS

Maheer 'A' #1-32

Job Ticket: 65312

DST#: 3

Test Start: 2019.01.31 @ 00:20:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 02:12:30
 Time Test Ended: 06:58:00
 Interval: **3828.00 ft (KB) To 3880.00 ft (KB) (TVD)**
 Total Depth: 3880.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 2795.00 ft (KB)
 2790.00 ft (CF)
 KB to GR/CF: 5.00 ft

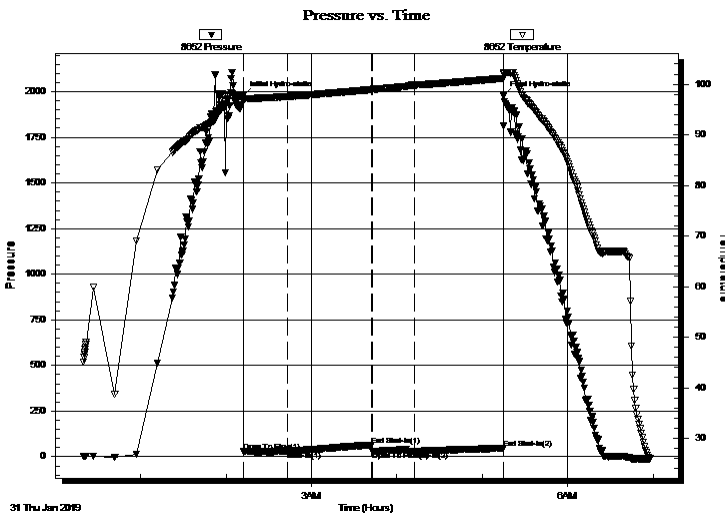
Serial #: 8652

Outside

Press@RunDepth: 29.95 psig @ 3829.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.31 End Date: 2019.01.31 Last Calib.: 2019.01.31
 Start Time: 00:20:05 End Time: 06:57:59 Time On Btm: 2019.01.31 @ 02:12:15
 Time Off Btm: 2019.01.31 @ 05:15:00

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 1/2"
 60 - IS: No blow back
 30 - FF: No blow
 60 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.95	97.82	Initial Hydro-static
1	29.70	96.82	Open To Flow (1)
31	32.70	97.57	Shut-In(1)
90	64.16	98.94	End Shut-In(1)
91	29.08	98.97	Open To Flow (2)
120	29.95	99.84	Shut-In(2)
183	47.07	101.14	End Shut-In(2)
183	1976.13	102.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud w /trace oil 100%m	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65312

DST#: 3

ATTN: Robert Hendrix

Test Start: 2019.01.31 @ 00:20:00

Tool Information

Drill Pipe:	Length: 3614.00 ft	Diameter: 3.80 inches	Volume: 50.69 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 51.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	3828.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			3800.00	
Shut In Tool	5.00			3805.00	
Hydraulic tool	5.00			3810.00	
Jars	5.00			3815.00	
Safety Joint	3.00			3818.00	
Packer	5.00			3823.00	29.00 Bottom Of Top Packer
Packer	5.00			3828.00	
Stubb	1.00			3829.00	
Recorder	0.00	6625	Inside	3829.00	
Recorder	0.00	8652	Outside	3829.00	
Perforations	15.00			3844.00	
Blank Spacing	33.00			3877.00	
Bullnose	3.00			3880.00	52.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65312

DST#: 3

ATTN: Robert Hendrix

Test Start: 2019.01.31 @ 00:20:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud w /trace oil 100%m	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

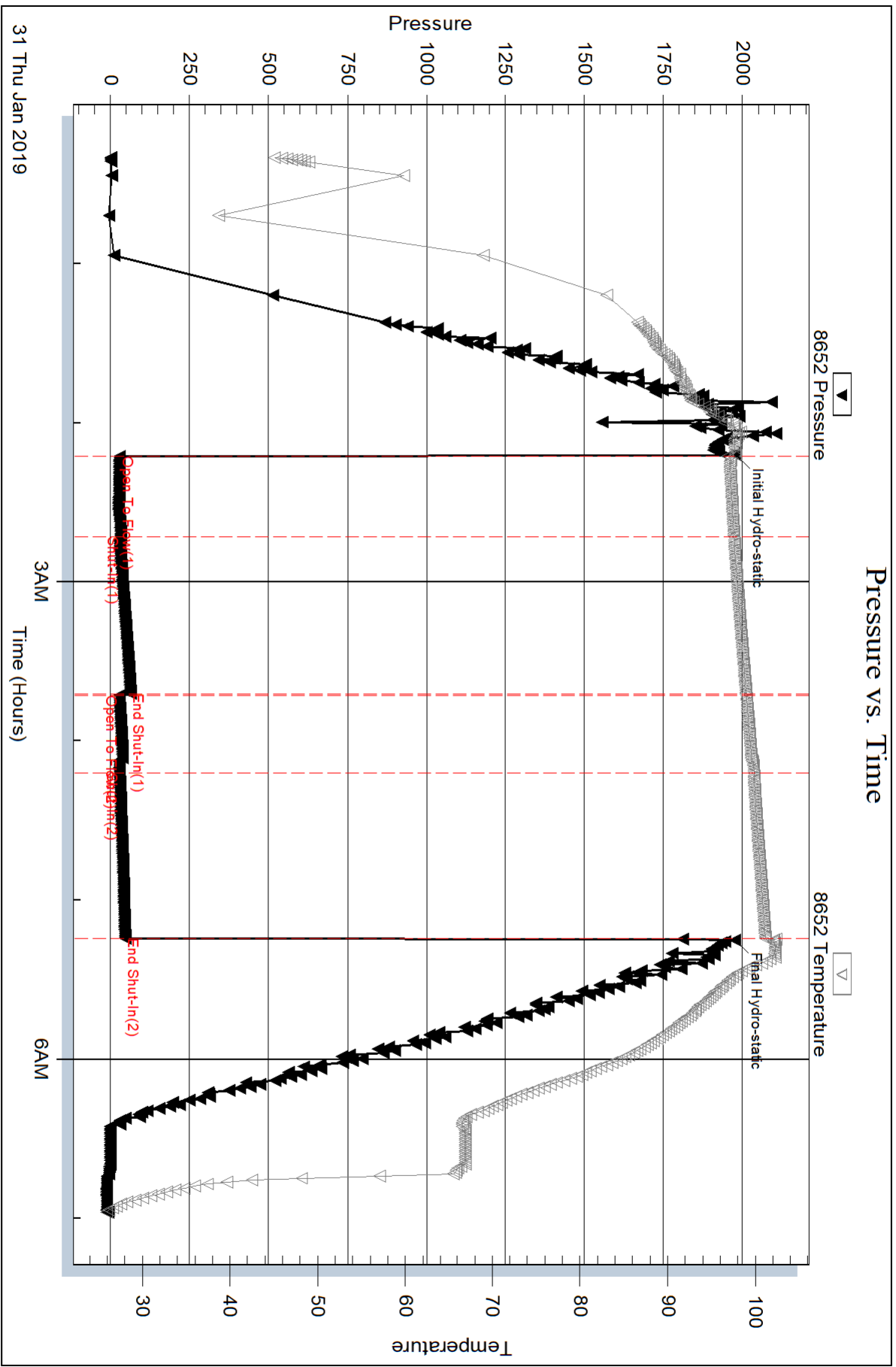
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



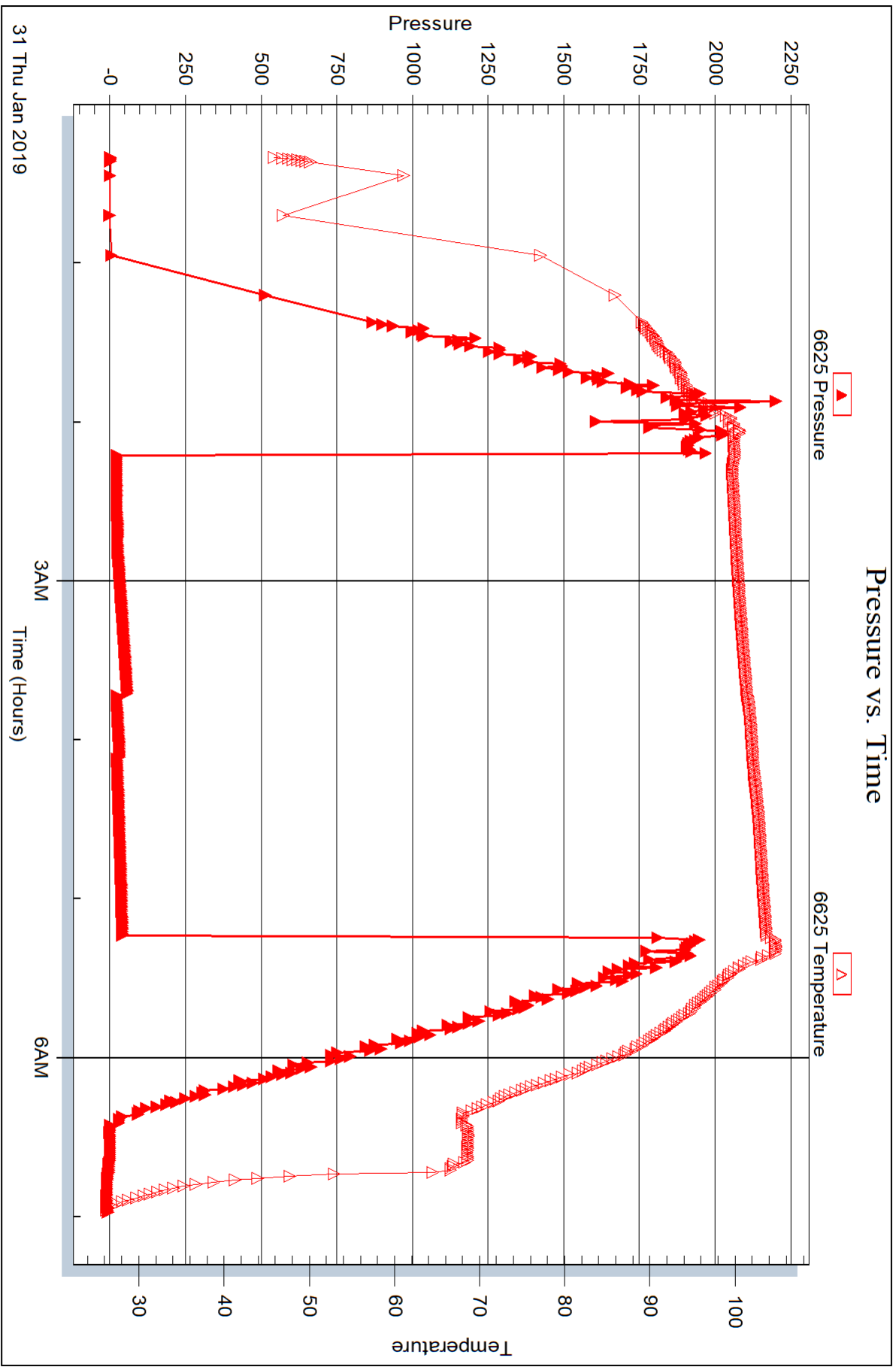
Serial #: 6625

Inside

Murfin Drilling Co., Inc.

Maier 'A' #1-32

DST Test Number: 3





DRILL STEM TEST REPORT

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

250 N Water STE 300
Wichita, KS 67202

ATTN: Robert Hendrix

Maher 'A' #1-32

32-1s-31w Rawlins,KS

Start Date: 2019.01.31 @ 21:12:00

End Date: 2019.02.01 @ 05:04:30

Job Ticket #: 65313 DST #: 4

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

Printed: 2019.02.04 @ 08:29:59



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

32-1s-31w Rawlins, KS

Maher 'A' #1-32

Job Ticket: 65313

DST#: 4

Test Start: 2019.01.31 @ 21:12:00

GENERAL INFORMATION:

Formation: **LKC "H - J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:14:30
 Time Test Ended: 05:04:30
 Interval: **3877.00 ft (KB) To 3955.00 ft (KB) (TVD)**
 Total Depth: 3955.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 2795.00 ft (KB)
 2790.00 ft (CF)
 KB to GR/CF: 5.00 ft

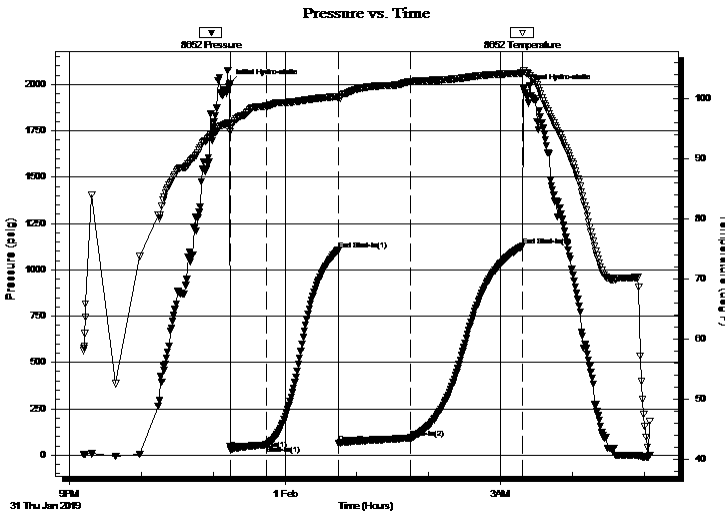
Serial #: 8652

Outside

Press@RunDepth: 92.21 psig @ 3878.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.01.31 End Date: 2019.02.01 Last Calib.: 2019.02.01
 Start Time: 21:12:05 End Time: 05:04:29 Time On Btm: 2019.01.31 @ 23:14:00
 Time Off Btm: 2019.02.01 @ 03:19:15

TEST COMMENT: 30 - IF: 1/2" Blow at open, built to 5"
 60 - IS: No blow back
 60 - FF: Blow built to 6 3/4"
 90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2005.68	95.95	Initial Hydro-static
1	29.68	95.13	Open To Flow (1)
31	54.61	98.69	Shut-In(1)
91	1104.95	100.30	End Shut-In(1)
91	65.36	99.96	Open To Flow (2)
151	92.21	102.76	Shut-In(2)
245	1128.71	104.18	End Shut-In(2)
246	1975.16	104.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
130.00	GOCM 65% _m , 24% _o , 11% _g	0.64
45.00	Oil 95% _o , 3% _m , 2% _g	0.22
0.00	GIP = 65'	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65313

DST#: 4

ATTN: Robert Hendrix

Test Start: 2019.01.31 @ 21:12:00

Tool Information

Drill Pipe:	Length: 3647.00 ft	Diameter: 3.80 inches	Volume: 51.16 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 52.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	3877.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	107.00 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			3849.00	
Shut In Tool	5.00			3854.00	
Hydraulic tool	5.00			3859.00	
Jars	5.00			3864.00	
Safety Joint	3.00			3867.00	
Packer	5.00			3872.00	29.00 Bottom Of Top Packer
Packer	5.00			3877.00	
Stubb	1.00			3878.00	
Recorder	0.00	6625	Inside	3878.00	
Recorder	0.00	8652	Outside	3878.00	
Perforations	9.00			3887.00	
Blank Spacing	65.00			3952.00	
Bullnose	3.00			3955.00	78.00 Bottom Packers & Anchor

Total Tool Length: 107.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc.

32-1s-31w Rawlins,KS

250 N Water STE 300
Wichita, KS 67202

Maher 'A' #1-32

Job Ticket: 65313

DST#: 4

ATTN: Robert Hendrix

Test Start: 2019.01.31 @ 21:12:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 69.00 sec/qt
Water Loss: 6.39 in³
Resistivity: ohm.m
Salinity: 2000.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 38.8 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

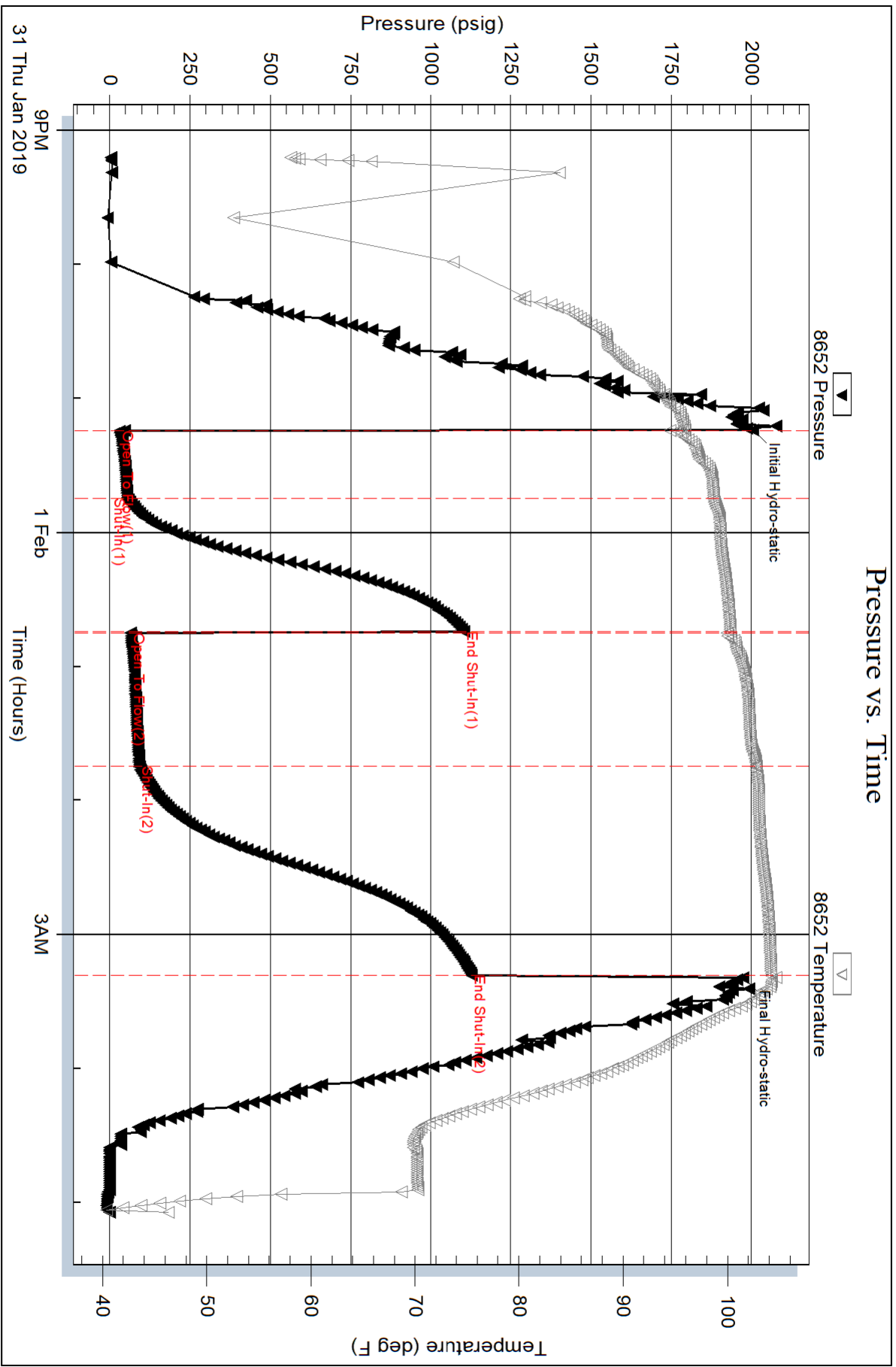
Length ft	Description	Volume bbl
130.00	GOCM 65% <i>m</i> , 24% <i>o</i> , 11% <i>g</i>	0.639
45.00	Oil 95% <i>o</i> , 3% <i>m</i> , 2% <i>g</i>	0.221
0.00	GIP = 65'	0.000

Total Length: 175.00 ft Total Volume: 0.860 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity = 36 api @ 32 deg F Corrected Gravity = 38.8 api



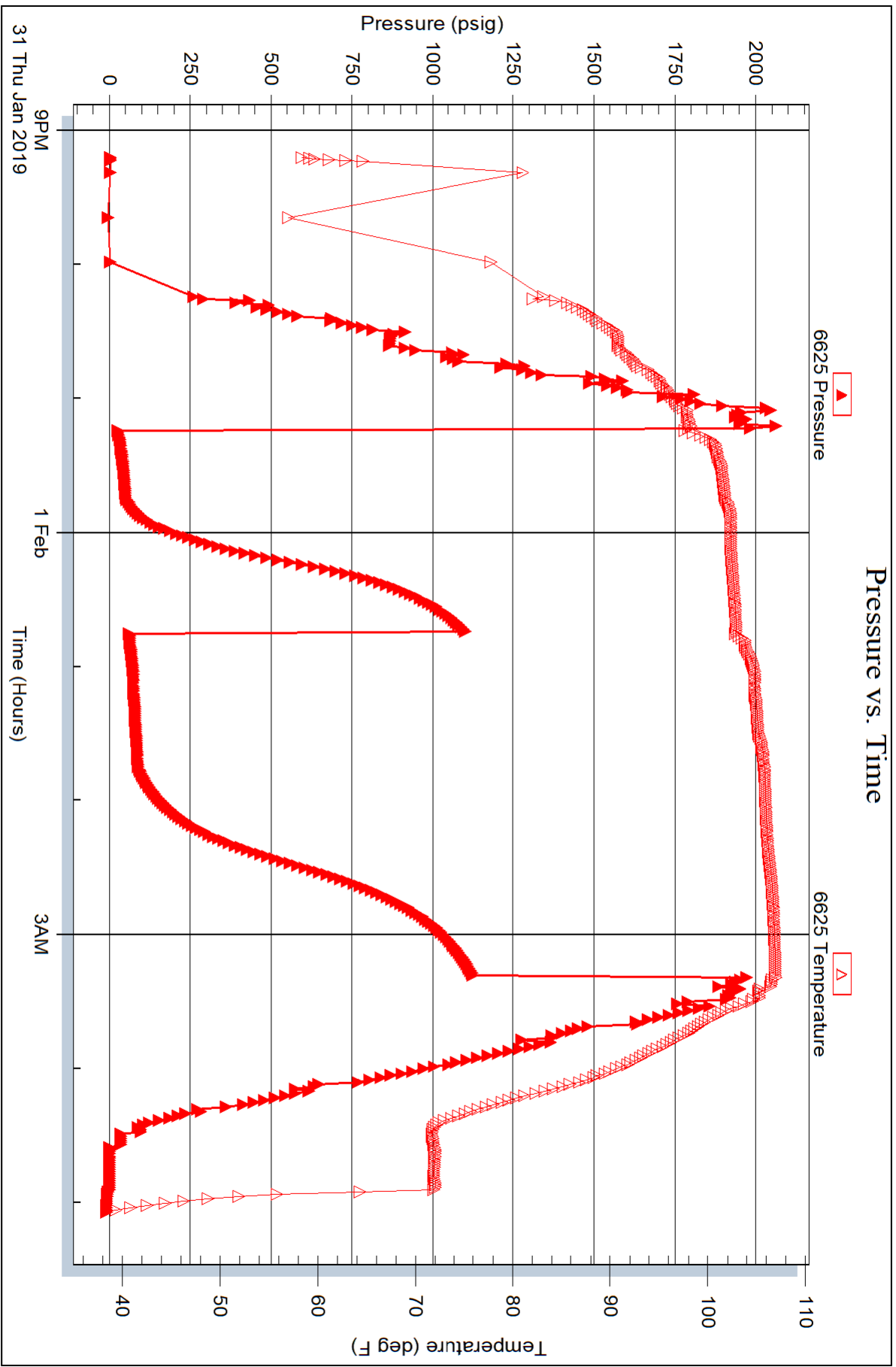
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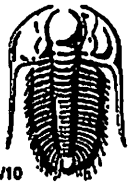
Inside

Murfin Drilling Co., Inc.

Mahef 'A' #1-32

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65310

Well Name & No. Maheer 'A' #1-32 Test No. 1 Date 1-29-19
 Company Murfin Drilling Co. Inc Elevation 2795 KB 2790 GL
 Address 250 N Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #7
 Location: Sec. 32 Twp 1S Rge. 31W Co. Rawlins State KS

Interval Tested 3635-3720 Zone Tested Oread
 Anchor Length 85 Drill Pipe Run 3422 Mud Wt. 9.0
 Top Packer Depth 3630 Drill Collars Run ~~250~~ 210 Vis 73
 Bottom Packer Depth 3635 Wt. Pipe Run - WL 6.0
 Total Depth 3720 Chlorides 900 ppm System LCM 4
 Blow Description IF: Blow built to BOB (11") at 26 min, built to 12 1/4"
ISI: No blowback
FF: Blow built to BOB at 30 min, built to 21 3/4"
FSI: No blowback

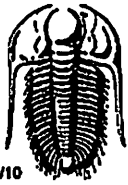
Rec	Feet of	%gas	%oil	%water	%mud
<u>105</u>	<u>WCM w/oil spots</u>	<u>1</u>	<u>28</u>	<u>71</u>	
<u>305</u>	<u>MCW w/trace oil</u>	<u>trace</u>	<u>64</u>	<u>36</u>	

Rec Total 410 BHT 104 Gravity API RW 271 @ 37.2° F Chlorides ~~2000~~ 54000 ppm

(A) Initial Hydrostatic <u>1851</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>4:00</u>
(B) First Initial Flow <u>32</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>5:45</u>
(C) First Final Flow <u>142</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>8:33</u>
(D) Initial Shut-In <u>1194</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>12:35</u>
(E) Second Initial Flow <u>149</u>	<input checked="" type="checkbox"/> Hourly Standby <u>.75h 60</u>	T-Out <u>14:50</u>
(F) Second Final Flow <u>220</u>	<input checked="" type="checkbox"/> Mileage <u>46RT</u> 46	Comments <u>Told OB at 5:00</u>
(G) Final Shut-In <u>1165</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1833</u>	<input type="checkbox"/> Straddle _____	
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> EM Tool _____
	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Accessibility _____	Total <u>1481</u>
Final Shut-In <u>90</u>	Sub Total <u>1481</u>	MP/DST Disc't _____

Approved By Rh. Hendrix Our Representative James Winder

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. 65311

Well Name & No. Maher 'A' #1-32 Test No. 2 Date 1-30-19
 Company Murfin Drilling Co Inc Elevation 2795 KB 2790 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #7
 Location: Sec. 32 Twp 1s Rge. 31w Co. Rawlins State KS

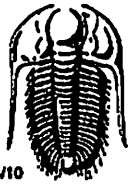
Interval Tested 3722 - 3821 Zone Tested LKC "A-D"
 Anchor Length 99 Drill Pipe Run 3487 Mud Wt. 9.1
 Top Packer Depth 3717 Drill Collars Run 210 Vls 65
 Bottom Packer Depth 3722 Wt. Pipe Run - WL 6.4
 Total Depth 3821 Chlorides 1500 ppm System LCM 4
 Blow Description IF: Blow built to 9 1/2"
ISI: No blowback
FF: Blow built to BOR (11") at 49 min., built to 13 1/4"
FSI: Blowback built to 1 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>mco</u>	<u>1</u>	<u>87</u>	<u>-</u>	<u>12</u>
<u>15</u>	<u>ocm</u>	<u>3</u>	<u>39</u>	<u>-</u>	<u>58</u>
<u>245</u>	<u>60cm</u>	<u>10</u>	<u>18</u>	<u>-</u>	<u>72</u>
<u> </u>	<u>GIP=160'</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Rec Total 275 BHT 102 Gravity 25.8 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1893 Test 1050 T-On Location 4:15
 (B) First Initial Flow 30 Jars 250 T-Started 5:15
 (C) First Final Flow 94 Safety Joint 75 T-Open 7:20
 (D) Initial Shut-In 1145 Circ Sub T-Pulled 11:24
 (E) Second Initial Flow 101 Hourly Standby T-Out 13:40
 (F) Second Final Flow 150 Mileage 46 RT 46 Comments
 (G) Final Shut-In 1011 Sampler
 (H) Final Hydrostatic 1866 Straddle EM Tool
 Shale Packer Ruined Shale Packer
 Extra Packer Ruined Packer
 Extra Recorder Extra Copies
 Day Standby Sub Total 0
 Accessibility Total 1421
 Sub Total 1421 MP/DST Disc't

Approved By: R.S. Whig Our Representative James Winder
 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. 65312

Well Name & No. Maheer 'A' #1-32 Test No. 3 Date 1-31-19
 Company Murfin Drilling Co Inc Elevation 2795 KB 2790 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #7
 Location: Sec. 32 Twp 1s Rge. 31w Co. Rawlins State KS

Interval Tested 3828 - 3880 Zone Tested LKC "6"
 Anchor Length 52 Drill Pipe Run 3614 Mud Wt. 9.1
 Top Packer Depth 3823 Drill Collars Run 210 Vls 65
 Bottom Packer Depth 3828 Wt. Pipe Run - WL 6.4
 Total Depth 3880 Chlorides 1500 ppm System LCM 4

Blow Description IF: 1/4" Blow at open, built to 1/2"
ISI: No blowback
FF: No blow
FSI: No blow

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

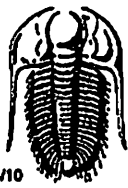
Rec Total 1 BHT 101 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1981 Test 1050 T-On Location 23:40 730
 (B) First Initial Flow 30 Jars 250 T-Started 00:20
 (C) First Final Flow 33 Safety Joint 75 T-Open 2:12
 (D) Initial Shut-In 64 Circ Sub _____ T-Pulled 5:14
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 6:55
 (F) Second Final Flow 30 Mileage 46 RT 46 Comments _____
 (G) Final Shut-In 47 Sampler _____
 (H) Final Hydrostatic 1976 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30 EM Tool _____
 Initial Shut-In 60 Ruined Shale Packer _____
 Final Flow 30 Ruined Packer _____
 Final Shut-In 60 Extra Copies _____
 Sub Total 0
 Total 1421
 Sub Total 1421 MP/DST Disc't _____

Approved By Rh D. [Signature] Our Representative James [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. 65313

Well Name & No. Maier 'A' #1-32 Test No. 4 Date 1-31-19
 Company Murfin Drilling Co. Inc Elevation 2795 KB 2790 GL
 Address 250 N. Water STE 300 Wichita, KS 67202
 Co. Rep / Geo. Robert Hendrix Rig Murfin #7
 Location: Sec. 32 Twp 1s Rge. 31w Co. Rawlins State KS

Interval Tested 3877-3955 Zone Tested Lans. "H-J"
 Anchor Length 78 Drill Pipe Run 3647 Mud Wt. 9.2
 Top Packer Depth 3872 Drill Collars Run 210 Vis 69
 Bottom Packer Depth 3877 Wt. Pipe Run - WL 6.4
 Total Depth 3955 Chlorides 2000 ppm System LCM 4
 Blow Description IF: 1/2" Blow at open, built to 5"
ISI: No blowback

FF: Blow built to 6 3/4"
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Oil</u>	<u>2</u>	<u>95</u>	<u>3</u>	<u></u>
<u>130</u>	<u>GOCm</u>	<u>11</u>	<u>24</u>	<u>65</u>	<u></u>
<u></u>	<u>GIP = 65'</u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

Rec Total 175 BHT 104 Gravity 38.8 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 2006 Test 1050 T-On Location 20:10
 (B) First Initial Flow 30 Jars 250 T-Started 21:12
 (C) First Final Flow 55 Safety Joint 75 T-Open 23:14
 (D) Initial Shut-In 1105 Circ Sub T-Pulled 3:18
 (E) Second Initial Flow 65 Hourly Standby T-Out 5:05
 (F) Second Final Flow 92 Mileage 46RT 46 Comments
 (G) Final Shut-In 1129 Sampler
 (H) Final Hydrostatic 1975 Straddle EM Tool
 Shale Packer Ruined Shale Packer
 Extra Packer Ruined Packer
 Extra Recorder Extra Copies
 Day Standby Sub Total 0
 Accessibility Total 1421
 Sub Total 1421 MP/DST Disc't

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

Approved By Rh S. H. H. Our Representative James Winters

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.



CEMENT TREATMENT REPORT

Customer: <i>Messner Drilling</i>	Well: Mahe A 1-32	Ticket: ICT1768
City, State: Wichita Ks	County: <i>Rawlins</i>	Date: 2/2/2019
Field Rep: Arturo	S-T-R: <i>32-18-31</i>	Service: Cement

Downhole Information	
Hole Size:	7 7/8
Hole Depth:	4200
Casing Size:	
Casing Depth:	
Tubing / Liner:	
Depth:	
Tool / Packers:	
Depth:	ft
Displacement:	bbls

Slurry	
Weight:	13.6 # / sx
Water / Sx:	7 gal / sx
Yield:	1.42 ft³ / sx
Bbls / Ft.:	
Depth:	ft
Volume:	bbls
Excess:	%
Total Slurry:	64.5 bbls
Total Sacks:	255 sx

Cement Blend		
Product	%	#
Class A	60.0	14382
Gel	4.0	880
Fly ash	40.0	7548
Metso		
KolSeal		
PhonoSeal	0.3	64
Salt		
Total		22,874

TIME	RATE	PSI	BBLs	REMARKS	TIME	RATE	PSI	BBLs	REMARKS
10:30 PM				Arrive on location					
10:35 PM				Safety meeting					
10:45 PM				Rig up					
11:30 PM	4.6	400.0	12.6	Mix 60 sks @ 1.42 yeild @ 2590					
11:45 PM	4.0	300.0	36.8	Displace					
11:50 PM				Rig pulls pipe					
12:00 AM	5.0	350.0	26.3	Mix 100 sks @ 2075					
12:15 AM	3.8	300.0	29.5	Displace					
12:20 AM				Rig pulls pipe					
1:00 AM	4.0	200.0	12.6	Mix 50 sks @ 355					
1:10 AM	3.0	200.0	6.0	Displace					
1:15 AM				Rig pulls pipe					
1:45 AM			14.0	Mix 10 sks OC, 30 RH, 15 MH					
2:15 AM				Wash up					
2:30 AM				Rig down					
2:45 AM				Depart					

Arturo

CREW	UNIT
Comerter: Travis Williams	26
Pump Operator: Josh Mosier	231
Bulk #1: Daryl Martinez	181/254
Bulk #2:	

SUMMARY		
Average Rate	Average Pressure	Total Fluid
4.03333 bpm	291.67 psi	135.70 bbls

MDCI
 Maher 'A' #1-32
 1800' FNL 1980' FEL
 Sec. 32-1S-31W
 2795' KB

Formation	Sample top	Datum	Ref	Log tops	Datum	Ref
Anhydrite	2572	+223	-4	2569	+226	-1
B/Anhydrite	2606	+189	-2	2606	+189	-2
Topeka	3562	-767	-2	3565	-770	-5
Heebner	3724	-929	-4	3724	-929	-5
Lansing	3758	-963	-6	3756	-961	-4
Stark	3954	-1159	-4	3954	-1159	-4
Mound City	4003	-1208	-1	4003	-1208	-1
Ft. Scott	4099	-1304	-2	4100	-1305	-3
Oakley	4198	-1403	-3			
RTD	4202					
LTD				4202		