



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1254227
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1254227

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Customer Missouri American Energy		Lease No.		Date 1-8-15	
Lease #		Well # 1			
Field Order # 11903	Station 1111	Casing # 57	Depth 17,000	County Vernon	State OK
Type Job Acid Wash			Formation	Legal Description	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
Depth	Depth	From	To	Pre Pad	Max		5 Min.	
Volume	Volume	From	To	Pad	Min		10 Min.	
Max Press	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative	Station Manager	Treater
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Service Units	Driver Names
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Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:00					Start of treatment
10:05					Flow 500 gpm / 1000 psi
10:10					Pressure rising
10:15					Flow 500 gpm / 1100 psi
10:20					Pressure rising
10:25					Flow 500 gpm / 1200 psi
10:30					Pressure rising
10:35					Flow 500 gpm / 1300 psi
10:40					Pressure rising
10:45					Flow 500 gpm / 1400 psi
10:50					Pressure rising
10:55					Flow 500 gpm / 1500 psi
11:00					Pressure rising
11:05					Flow 500 gpm / 1600 psi
11:10					Pressure rising
11:15					Flow 500 gpm / 1700 psi
11:20					Pressure rising
11:25					Flow 500 gpm / 1800 psi
11:30					Pressure rising
11:35					Flow 500 gpm / 1900 psi
11:40					Pressure rising
11:45					Flow 500 gpm / 2000 psi
11:50					Pressure rising
11:55					Flow 500 gpm / 2100 psi
12:00					Pressure rising

QUALITY WELL SERVICE, INC.

6286

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410

Fax 620-672-3663

Rich's Cell 620-727-3409

Brady's Cell 620-727-6964

Date	12-28-14	Sec.	15	Twp.	29s	Range	09w	County	Kingman	State	KS	On Location	4:15pm	Finish	5:45pm				
Lease	Mervin	Well No.	1	Location 54 9 Zandbird, 7 1/2 S, 3 1/4 W, s/into															
Contractor	Sterling #4				Owner Messenger Permo.														
Type Job	Surface				To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.														
Hole Size	12 1/4		T.D.		227														
Csg.	8 5/8		23 1/2		Depth		223									Charge To	Messenger		
Tbg. Size					Depth		Street												
Tool					Depth		City State												
Cement Left in Csg.	20'		Shoe Joint		NA														
Meas Line					Displace		13 Bbls Fresh H ₂ O									Cement Amount Ordered		225sx 60:40: 2% gel + 3% cc +	
EQUIPMENT													1/4" # Flowseal						
Pumptrk	6	No.	Richard M		Common											135			
Bulktrk	7	No.	Dorek B		Poz. Mix											90			
Bulktrk		No.			Gel.											4			
Pickup		No.	David F.		Calcium											7			
JOB SERVICES & REMARKS													Hulls						
Rat Hole													Salt						
Mouse Hole													Flowseal 56.25						
Centralizers													Kol-Seal						
Baskets													Mud CLR 48						
D/V or Port Collar													CFL-117 or CD110 CAF 38						
Pipe on Btm, Back Circ.													Sand						
Pump Spacers, Mix 225sx 60 40 Blend													Handling 236						
Stop-Release Plug, Start Disp. w/													Mileage 40						
Fresh H ₂ O, Washup on Plug, See increase													FLOAT EQUIPMENT						
in PST, slow rate, stop pump at													Guide Shoe						
13 Bbls total Disp., Shut in, Cement D ₂													Centralizer						
Circ. to cellar													Baskets						
													AFU Inserts						
													Float Shoe						
													Latch-Down Service supervisor						
													1-WCP - 8 5/8						
													LMV 40						
													Pumptrk Charge Surface						
													Mileage 40x2						
													Tax						
													Discount						
													Total Charge						
Signature <i>Henry J. Salgado</i>																			



DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum Inc.**

525 S. Main
Kingman KS 67068

ATTN: Jon Messenger

Merven #1

15-29s-9w Kingman,KS

Start Date: 2015.01.02 @ 13:20:41

End Date: 2015.01.02 @ 20:34:41

Job Ticket #: 59733 DST #: 1

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

Printed: 2015.01.09 @ 09:17:58



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Messenger Petroleum Inc.

15-29s-9w Kingman,KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59733

DST#: 1

ATTN: Jon Messenger

Test Start: 2015.01.02 @ 13:20:41

GENERAL INFORMATION:

Formation: **Douglas**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:11:41

Time Test Ended: 20:34:41

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 80

Interval: 3390.00 ft (KB) To 3471.00 ft (KB) (TVD)

Reference Elevations: 1700.00 ft (KB)

Total Depth: 3471.00 ft (KB) (TVD)

1691.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8352 Outside

Press@RunDepth: 590.76 psig @ 3391.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.02

End Date:

2015.01.02

Last Calib.:

2015.01.02

Start Time: 13:20:46

End Time:

20:34:40

Time On Btm:

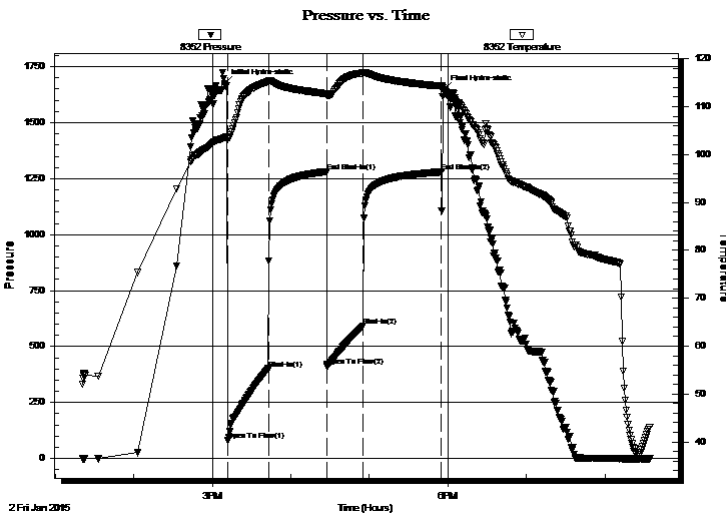
2015.01.02 @ 15:09:26

Time Off Btm:

2015.01.02 @ 17:56:41

TEST COMMENT: IF:Strong blow . B.O.B. in 3 mins.
IS:No blow .
FF:Strong blow . B.O.B. in 2 mins.
FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1672.88	103.56	Initial Hydro-static
3	78.96	103.37	Open To Flow (1)
34	401.15	115.19	Shut-In(1)
78	1281.61	112.66	End Shut-In(1)
79	413.54	112.42	Open To Flow (2)
106	590.76	117.02	Shut-In(2)
166	1280.45	114.26	End Shut-In(2)
168	1646.09	113.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
320.00	SW	2.51
570.00	GCMW / w o specs 8%g 17%m 75%w	8.00
255.00	SO&GC,MW 1%o 4%g 38%m 57%w	3.58
70.00	Drilg.mud	0.98

Gas Rates

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



DRILL STEM TEST REPORT

Messenger Petroleum Inc.

15-29s-9w Kingman, KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59733 **DST#: 1**

ATTN: Jon Messenger

Test Start: 2015.01.02 @ 13:20:41

GENERAL INFORMATION:

Formation: **Douglas**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:11:41

Time Test Ended: 20:34:41

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 80

Interval: 3390.00 ft (KB) To 3471.00 ft (KB) (TVD)

Reference Elevations: 1700.00 ft (KB)

Total Depth: 3471.00 ft (KB) (TVD)

1691.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8370 **Inside**

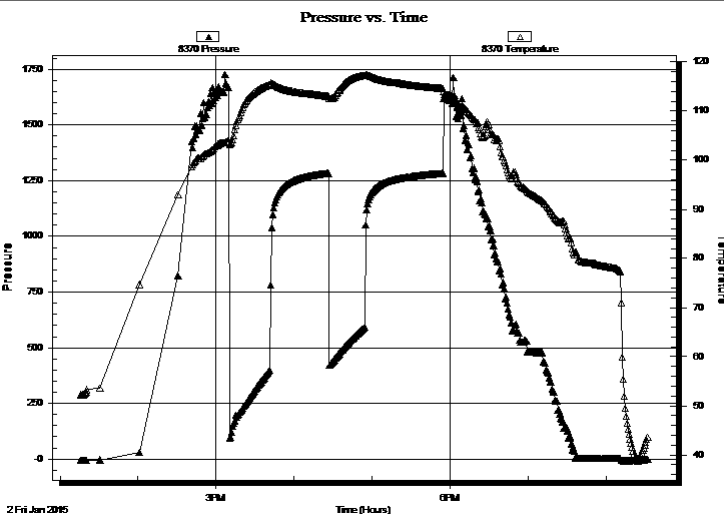
Press@RunDepth: psig @ 3391.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.02 End Date: 2015.01.02 Last Calib.: 2015.01.02

Start Time: 13:15:50 End Time: 20:31:29 Time On Btm: Time Off Btm:

TEST COMMENT: IF: Strong blow . B.O.B. in 3 mins.
IS: No blow .
FF: Strong blow . B.O.B. in 2 mins.
FS: No blow .



2 Fri Jan 2015

PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
320.00	SW	2.51
570.00	GCMW / w o specs 8%g 17%m 75%w	8.00
255.00	SO&GC, MW 1%o 4%g 38%m 57%w	3.58
70.00	Drilg. mud	0.98

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Messenger Petroleum Inc.

15-29s-9w Kingman,KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59733

DST#: 1

ATTN: Jon Messenger

Test Start: 2015.01.02 @ 13:20:41

Tool Information

Drill Pipe:	Length: 3160.00 ft	Diameter: 3.80 inches	Volume: 44.33 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 79000.00 lb
			<u>Total Volume: 45.40 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3390.00 ft			Final 69500.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	81.00 ft			
Tool Length:	109.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3363.00	
Shut In Tool	5.00			3368.00	
Hydraulic tool	5.00			3373.00	
Jars	5.00			3378.00	
Safety Joint	3.00			3381.00	
Packer	4.00			3385.00	28.00 Bottom Of Top Packer
Packer	5.00			3390.00	
Stubb	1.00			3391.00	
Recorder	0.00	8352	Outside	3391.00	
Recorder	0.00	8370	Inside	3391.00	
Perforations	6.00			3397.00	
Blank Spacing	63.00			3460.00	
Perforations	6.00			3466.00	
Bullnose	5.00			3471.00	81.00 Bottom Packers & Anchor

Total Tool Length: 109.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Messenger Petroleum Inc.

15-29s-9w Kingman,KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59733

DST#: 1

ATTN: Jon Messenger

Test Start: 2015.01.02 @ 13:20:41

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:

79000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
320.00	SW	2.512
570.00	GCMW / w o specs 8%g 17%m 75%w	7.996
255.00	SO&GC,MW 1%o 4%g 38%m 57%w	3.577
70.00	Drig.mud	0.982

Total Length: 1215.00 ft Total Volume: 15.067 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

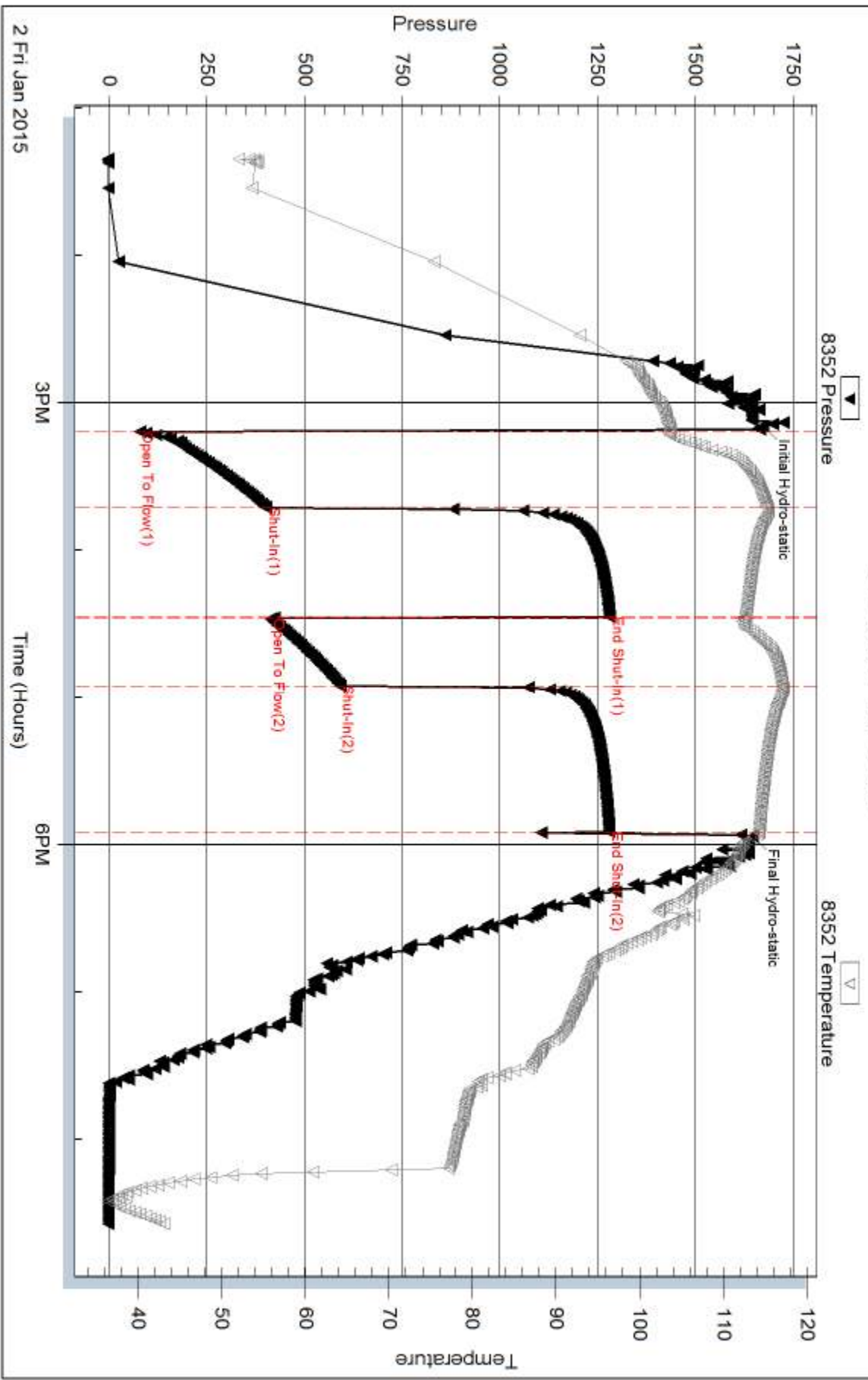
Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .18ohms@39 deg

Pressure vs. Time



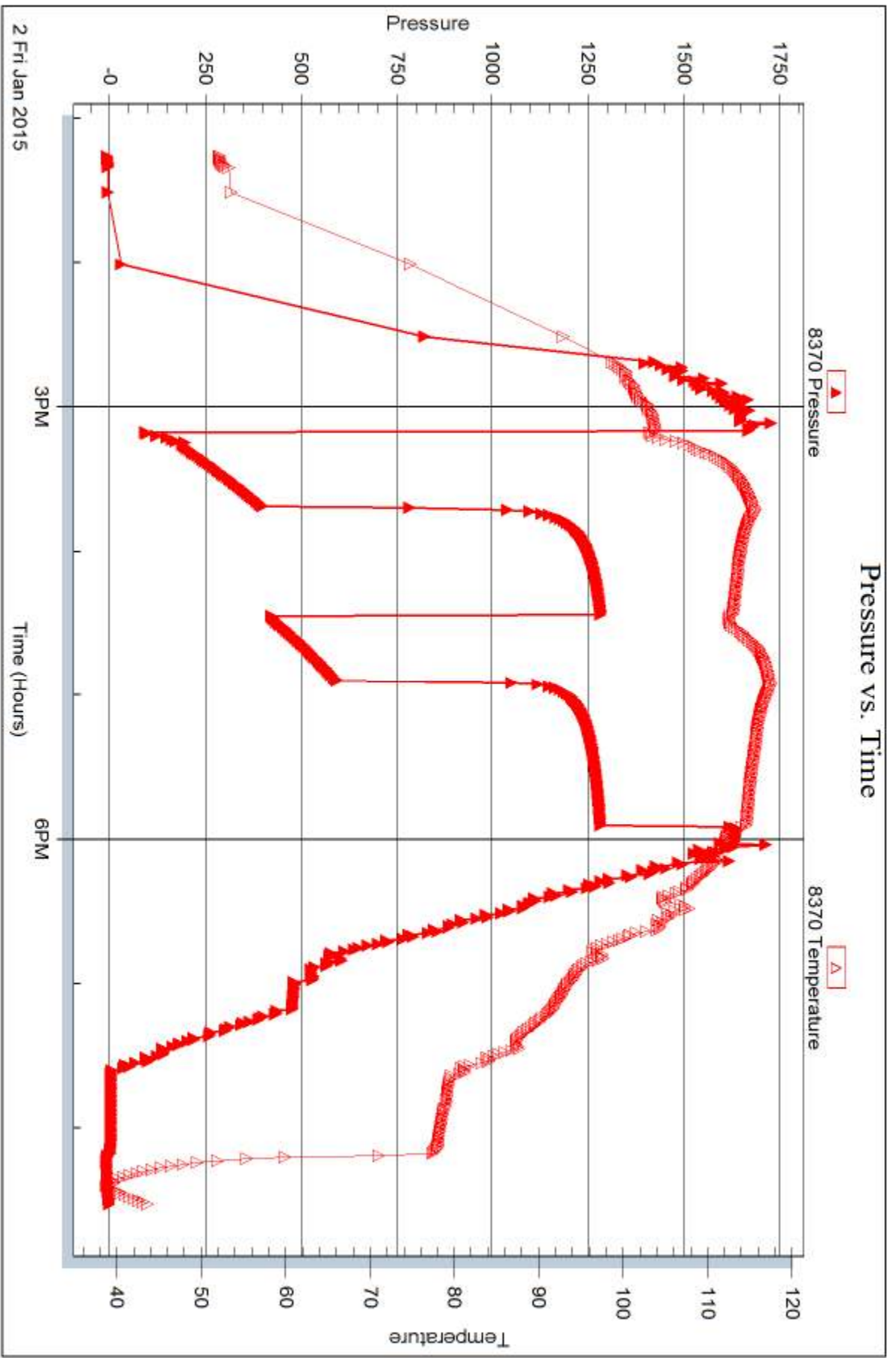
Serial #: 8370

Inside

Messenger Petroleum Inc.

Merven #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 59733

Printed: 2015.01.09 @ 09:17:59



DRILL STEM TEST REPORT

Prepared For: **Messenger Petroleum Inc.**

525 S. Main
Kingman KS 67068

ATTN: Jon Messenger

Merven #1

15-29s-9w Kingman,KS

Start Date: 2015.01.05 @ 08:13:12

End Date: 2015.01.05 @ 16:54:57

Job Ticket #: 59734 DST #: 2

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

Printed: 2015.01.09 @ 09:16:53



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Messenger Petroleum Inc.

15-29s-9w Kingman,KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59734

DST#: 2

ATTN: Jon Messenger

Test Start: 2015.01.05 @ 08:13:12

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:51:42

Time Test Ended: 16:54:57

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 80

Interval: 4204.00 ft (KB) To 4218.00 ft (KB) (TVD)

Reference Elevations: 1700.00 ft (KB)

Total Depth: 4218.00 ft (KB) (TVD)

1691.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8352 Outside

Press@RunDepth: 99.85 psig @ 4205.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.05 End Date: 2015.01.05

Last Calib.: 2015.01.05

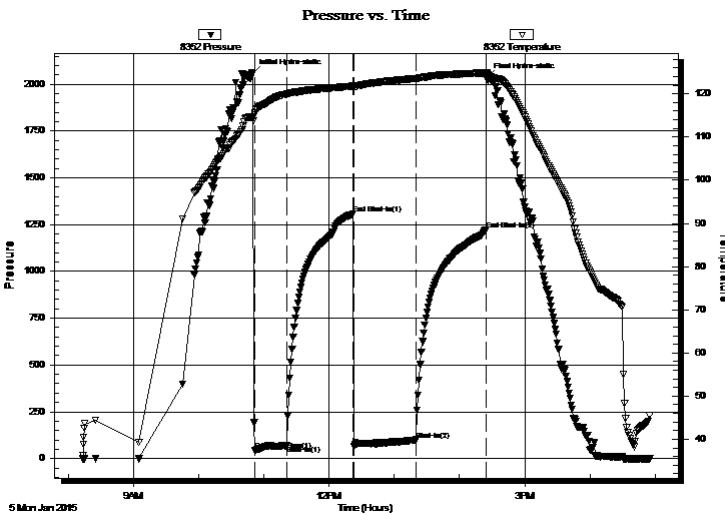
Start Time: 08:13:17 End Time: 16:54:57

Time On Btm: 2015.01.05 @ 10:49:42

Time Off Btm: 2015.01.05 @ 14:25:12

TEST COMMENT: IF:Strong blow . B.O.B. in 20 secs.
IS:Fair to strong blow . GTS in 50 mins.
FF:Strong blow . (see gas flow report)
FS:Strong blow . B.O.B.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2057.91	114.64	Initial Hydro-static
2	44.20	115.19	Open To Flow (1)
32	69.09	119.95	Shut-In(1)
93	1305.70	121.78	End Shut-In(1)
94	63.06	121.55	Open To Flow (2)
151	99.85	123.56	Shut-In(2)
215	1223.02	124.87	End Shut-In(2)
216	2034.72	124.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	GOCMW 8%g 3%o 13%m 76%w	0.61
125.00	GOCWM 22%g 4%o 22%w 52%m	0.92
50.00	GOCM 10%g 12%o 78%m	0.70

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	3.00	27.74
Last Gas Rate	0.25	2.00	26.14
Max. Gas Rate	0.25	3.00	27.74



DRILL STEM TEST REPORT

Messenger Petroleum Inc.

15-29s-9w Kingman, KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59734

DST#: 2

ATTN: Jon Messenger

Test Start: 2015.01.05 @ 08:13:12

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:51:42

Time Test Ended: 16:54:57

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 80

Interval: 4204.00 ft (KB) To 4218.00 ft (KB) (TVD)

Total Depth: 4218.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1700.00 ft (KB)

1691.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 8370 **Inside**

Press@RunDepth: psig @ 4205.00 ft (KB)

Start Date: 2015.01.05

End Date:

2015.01.05

Start Time: 08:08:32

End Time:

16:52:12

Capacity: 8000.00 psig

Last Calib.:

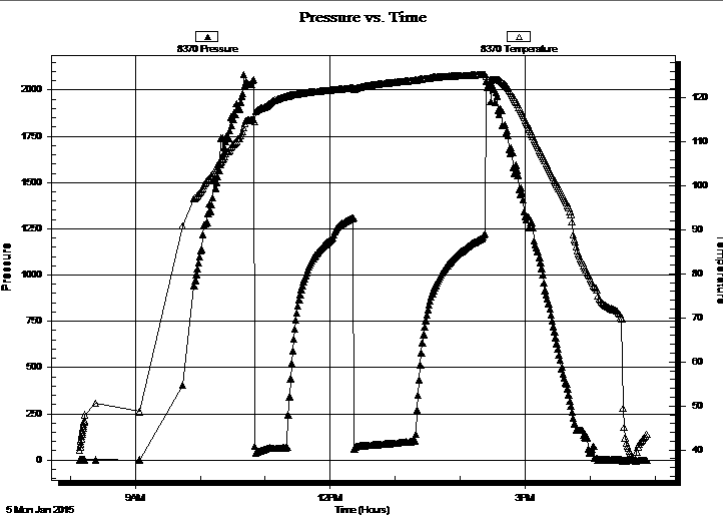
2015.01.05

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:Strong blow . B.O.B. in 20 secs.
IS:Fair to strong blow . GTS in 50 mins.
FF:Strong blow . (see gas flow report)
FS:Strong blow . B.O.B.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
125.00	GOCMW 8%g 3%o 13%m 76%w	0.61
125.00	GOCWM 22%g 4%o 22%w 52%m	0.92
50.00	GOCM 10%g 12%o 78%m	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	3.00	27.74
Last Gas Rate	0.25	2.00	26.14
Max. Gas Rate	0.25	3.00	27.74

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Messenger Petroleum Inc.

15-29s-9w Kingman,KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59734

DST#: 2

ATTN: Jon Messenger

Test Start: 2015.01.05 @ 08:13:12

Tool Information

Drill Pipe:	Length: 3986.00 ft	Diameter: 3.80 inches	Volume: 55.91 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 56.98 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4204.00 ft			Final	73000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	42.00 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			4177.00	
Shut In Tool	5.00			4182.00	
Hydraulic tool	5.00			4187.00	
Jars	5.00			4192.00	
Safety Joint	3.00			4195.00	
Packer	4.00			4199.00	28.00 Bottom Of Top Packer
Packer	5.00			4204.00	
Stubb	1.00			4205.00	
Recorder	0.00	8352	Outside	4205.00	
Recorder	0.00	8370	Inside	4205.00	
Perforations	8.00			4213.00	
Bullnose	5.00			4218.00	14.00 Bottom Packers & Anchor

Total Tool Length: 42.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Messenger Petroleum Inc.

15-29s-9w Kingman,KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59734

DST#: 2

ATTN: Jon Messenger

Test Start: 2015.01.05 @ 08:13:12

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:

94000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	GOCMW 8%g 3%o 13%m 76%w	0.615
125.00	GOCWM 22%g 4%o 22%w 52%m	0.915
50.00	GOCM 10%g 12%o 78%m	0.701

Total Length: 300.00 ft Total Volume: 2.231 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: gp-2

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments: Rw .19 ohms@33 deg.



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Messenger Petroleum Inc.

15-29s-9w Kingman,KS

525 S. Main
Kingman KS 67068

Merven #1

Job Ticket: 59734

DST#: 2

ATTN: Jon Messenger

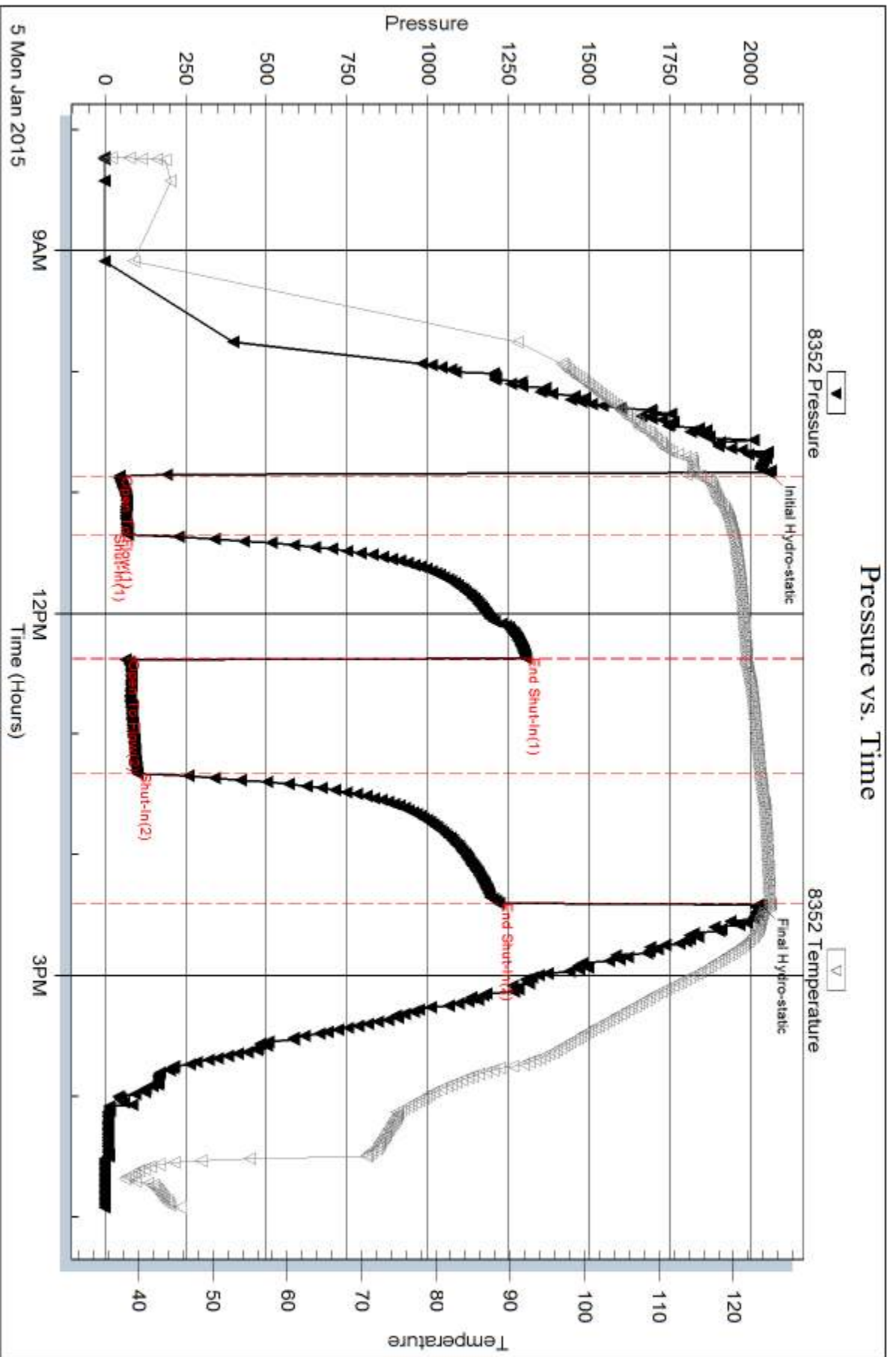
Test Start: 2015.01.05 @ 08:13:12

Gas Rates Information

Temperature: 54 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	3.00	27.74
2	20	0.25	3.00	27.74
2	30	0.25	3.00	27.74
2	40	0.25	3.00	27.74
2	50	0.25	3.00	27.74
2	60	0.25	2.00	26.14



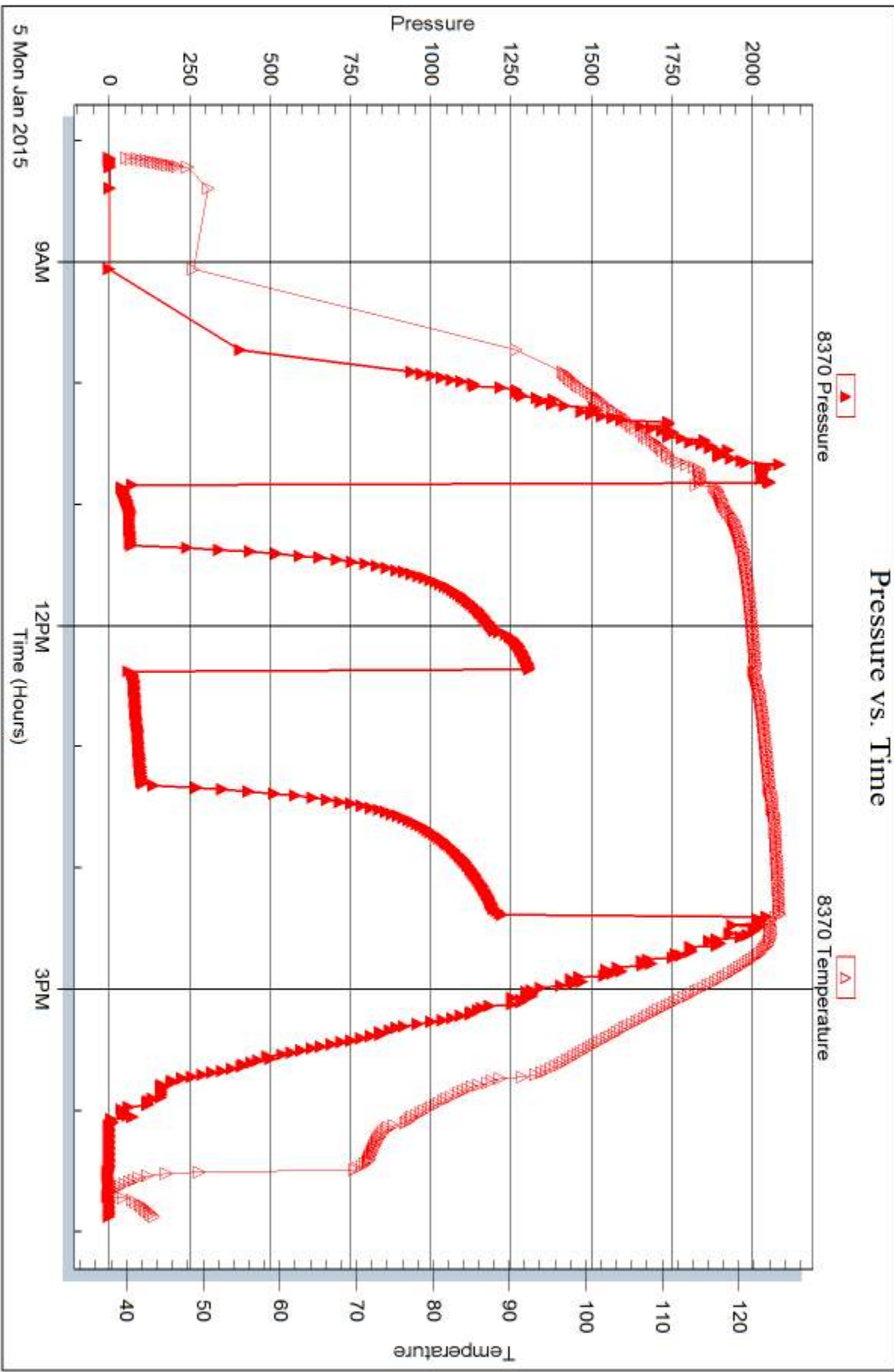
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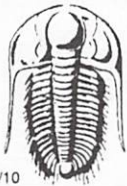
Inside

Messenger Petroleum Inc.

Merven #1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59733

4/10

Well Name & No. MERVEN #1 Test No. 1 Date 1-2-15
 Company MESSENGER PETROLEUM INC. Elevation 1700 KB 1691 GL
 Address 525 S. MAIN, KINGMAN KS. 67068
 Co. Rep / Geo. SON MESSENGER Rig STERLING DRILG. #4
 Location: Sec. 15 Twp. 29S Rge. 9W Co. KINGMAN State KS.

Interval Tested 3390 - 3471' Zone Tested DOUGLASS
 Anchor Length 81' Drill Pipe Run 3160 Mud Wt. 9.2
 Top Packer Depth 3385' Drill Collars Run 217' Vis 46
 Bottom Packer Depth 3390' Wt. Pipe Run 0 WL 10.0cc
 Total Depth 3471' Chlorides 3,000 ppm System LCM 0
 Blow Description IF: Strong blow B.O.B. in 3 mins. ISI: No blow.

FF: Strong blow B.O.B. in 2 mins. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>Drilg Mud</u>				
<u>255</u>	<u>50' GCMW</u>	<u>4</u>	<u>1</u>	<u>57</u>	<u>38</u>
<u>570</u>	<u>GCMW/w ospees.</u>	<u>8</u>		<u>75</u>	<u>17</u>
<u>320</u>	<u>SW</u>				
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1215 BHT 114 Gravity N/A API RW .18 @ 39° F Chlorides 79,000 ppm
 (A) Initial Hydrostatic 1673 Test 1050 T-On Location 1211
 (B) First Initial Flow 79 Jars 250 T-Started 1320
 (C) First Final Flow 401 Safety Joint 75 T-Open 1511
 (D) Initial Shut-In 1282 Circ Sub _____ T-Pulled 1759
 (E) Second Initial Flow 414 Hourly Standby _____ T-Out 2034
 (F) Second Final Flow 591 Mileage 76rt 76 Comments _____
 (G) Final Shut-In 1280 Sampler _____
 (H) Final Hydrostatic 1646 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 45 Extra Recorder _____ Sub Total 0
 Final Flow 30 Day Standby _____ Total 1451
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 1451

Approved By: [Signature] 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. 59734

4/10

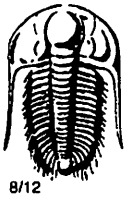
Well Name & No. MERVEN #1 Test No. 2 Date 1-5-15
 Company MESSENGER PETROLEUM INC. Elevation 1700 KB 1691 GL
 Address 525 S. MAIN, KINGMAN KS 67068
 Co. Rep / Geo. Tom MESSENGER Rig STERLING DRILL #4
 Location: Sec. 13 Twp. 29S Rge. 9W Co. KINGMAN State KS.

Interval Tested 4204-4218' Zone Tested MISS.
 Anchor Length 14' Drill Pipe Run 3986 Mud Wt. 9.2
 Top Packer Depth 4799' Drill Collars Run 217 Vis 58
 Bottom Packer Depth 4204' Wt. Pipe Run 0 WL 10.2cc
 Total Depth 4218' Chlorides 6500 ppm System LCM 2#
 Blow Description IF: Strong blow B.O.B. in 20 sec. ISI: Fair to strong blow. GTS in 50 mins.
FF: Strong blow. (See gas flow report) FSI: Strong blow - B.O.B.

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>GOCM</u>	<u>10</u>	<u>12</u>	<u>78</u>	
<u>125</u>	<u>GOCWM</u>	<u>22</u>	<u>4</u>	<u>22</u>	<u>52</u>
<u>125</u>	<u>GOCMW</u>	<u>8</u>	<u>3</u>	<u>76</u>	<u>13</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 300 FLUIDS BHT 1250 Gravity N/A API RW 19 @ 33 °F Chlorides 94000 ppm
 (A) Initial Hydrostatic 2058 Test 1150 T-On Location 0604
 (B) First Initial Flow 44 Jars 250 T-Started 0813
 (C) First Final Flow 69 Safety Joint 75 T-Open 1051
 (D) Initial Shut-In 1306 Circ Sub _____ T-Pulled 1426
 (E) Second Initial Flow 63 Hourly Standby _____ T-Out 1654
 (F) Second Final Flow 100 Mileage 152 Comments _____
 (G) Final Shut-In 1223 Sampler _____ loaded tools 1/6
 (H) Final Hydrostatic 2035 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 1116.67
 Day Standby 2d 9.5h Total 2743.67
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1627

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged or 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

Gas Volume Report

MESSENGER PETL. INC.
Operator

MERVEN #1
Well Name and No.

2
DST No.

INITIAL FLOW				FINAL FLOW			
Min.	Ins. of Water PSIG	Orifice Size	M ³ CF/D	Min.	Ins. of Water PSIG	Orifice Size	M ³ CF/D
				10	3	1/4"	28
				20	3	1/4"	28
				30	3	1/4"	28
			GTS 50 MINS INTO	40	3	1/4"	28
			ISIP	50	3	1/4"	28
				60	2	1/4"	26

Remarks: