

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) (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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TIME 30

BASIC

energy services, L.P.

TREATMENT REPORT

Customer <i>Woolsey Operations</i>	Lease No.	Date <i>12/9/2018</i>	
Lease <i>SM958</i>	Well # <i>1</i>		
Field Order # <i>17478</i>	Station <i>P992115</i>	Casing	Depth
Type Job <i>242/8 5/8 Surface</i>	Formation	County <i>Kingsman</i>	State <i>KS</i>
		Legal Description <i>21-308-72</i>	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
<i>8 3/8</i>				Pre Pad	Max		5 Min.
Depth <i>267</i>	Depth	From	To	Pad	Min		10 Min.
Volume <i>17</i>	Volume	From	To	Frac	Avg		15 Min.
Max Press <i>300</i>	Max Press	From	To		HHP Used		Annulus Pressure
Well Connection	Annulus Vol.	From	To	Flush <i>Water</i>	Gas Volume		Total Load
Plug Depth <i>247</i>	Packer Depth	From	To				

Customer Representative <i>Alvin Dick</i>	Station Manager <i>Justin Westerman</i>	Treater <i>Darin Franklin</i>
--	--	----------------------------------

Service Units	<i>92511</i>	<i>78982</i>	<i>19843</i>	<i>19903</i>	<i>19862</i>				
Driver Names	<i>Darin</i>	<i>Brian</i>	<i>Brian</i>	<i>David</i>	<i>David</i>				

Time	Casing Pressure	Tubing Pressure	Bbbs. Pumped	Rate	Service Log
<i>5:30pm</i>					<i>On location / safety meeting</i>
					<i>225SK 60/40 P02, 3%acc, 2%losses, 1/4 HCP</i>
					<i>14.8 pp9, 1.21 yield, 5.18 water</i>
<i>11:15pm</i>	<i>200</i>		<i>3</i>	<i>5</i>	<i>Pump 3 bbbs water</i>
	<i>200</i>		<i>48</i>	<i>5</i>	<i>Mix 225SK Cement</i>
	<i>200</i>		<i>15</i>	<i>3</i>	<i>Displace water</i>
<i>11:45pm</i>					<i>Shut in</i>
					<i>Cement & circulate - 10 bbbs</i>
					<i>Job complete / Darin & crew</i>
					<i>Thank you!!</i>



BASICTM
ENERGY SERVICES

Knox City Yard #1711
P.O. Box 115 Knox City, Texas 79529
Office: 940-658-1366

PRESSURE PUMPING

Job Report

Customer: Woolsey Operating			Cement Pump No.: 14982			Cementer: Justin Trussell		
Address: 0			Ticket #: 1711-09125A			Bulk Truck: 74564		
City, State, Zip: 0			Job Type: Dryhole					
Service District: 1711			Well Type: Oil					
Lease Name.: Smarsh			Well No.: 1		County: Kingman		State: Kansas	
Size of Hole: 7 7/8			Hole Cap.: 0.0602		Packer		Casing	
Size Casing		Casing Wt.		Casing Cap.		Retainer		TD
Size Tubing 4 1/2		Tubing Wt.		Tubing Cap. 0.01422		Perfs		DV Tool
	# of sacks	PPG	Yeild	Water Req.	Class	Additives		
Stage 1 Lead	175	13.78	1.43	6.92	60/40	4% GEL		
Tail								
Stage 2 Lead								
Tail								
Time	Rate (BPM)	Volume (BBLs)	Pressure (PSI)		Description of Operation and Materials			
			T	C				
								SAFTEY MEETING
								RIG UP
	3.5	15				180		PUMP PAD 1150' 35sks
	3.5	9				180		PUMP CEMENT
	3.5	8				200		FLUSH W/MUD
								TUH
	3.5	15				150		PUMP PAD 750' 35sks
	3.5	9				150		PUMP CEMENT
	3.5	3				200		FLUSH W/MUD
								TUH
	3.5	15				150		PUMP PAD 302' 35sks
	3.5	9				150		PUMP CEMENT
	3.5	2				150		FLUSH W/MUD
								TUH
	3	15				110		PUMP PAD 60' 25sks
	3	6.5				110		PUMP CEMENT
								TOH
	2.5	6.5				80		FILL RAT HOLE 25sks
	2.5	5				80		FILL MOUSE HOLE 20sks
								WASH UP
								RIG DOWN
Customer Signature:						Basic Representative: Justin Trussell		
						Customer Representative:		0
						Date of Service:		3/4/2019

10:15 AM
12/20/2019



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Operating Co
125 N Market Ste 1000
Wichita, KS 67202
ATTN: Bill Klaver

21-30S-7W Kingman

Smarsh 1

Job Ticket: 64883

DST#: 1

Test Start: 2018.12.17 @ 15:14:00

GENERAL INFORMATION:

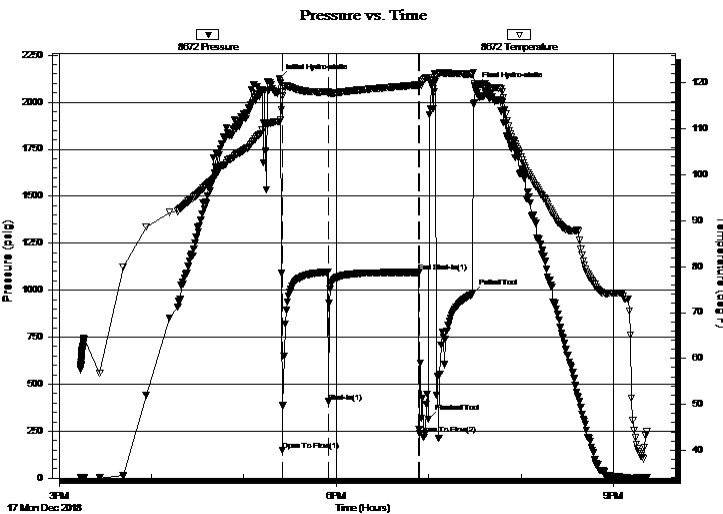
Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:25:02
 Time Test Ended: 21:22:02
 Interval: **4224.00 ft (KB) To 4236.00 ft (KB) (TVD)**
 Total Depth: 4236.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1520.00 ft (KB)
 1512.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8672

Inside

Press@RunDepth: 406.07 psig @ 4225.00 ft (KB) Capacity: psig
 Start Date: 2018.12.17 End Date: 2018.12.17 Last Calib.: 2018.12.17
 Start Time: 15:14:01 End Time: 21:22:02 Time On Btm: 2018.12.17 @ 17:23:02
 Time Off Btm: 2018.12.17 @ 19:30:02

TEST COMMENT: IF: Weak Blow , Built to 4 1/2 inches
 IS: No Blow Back
 FF: Weak Surface Blow , Flushed Tool , Weak Blow , Pulled Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2126.38	111.62	Initial Hydro-static
2	148.16	117.17	Open To Flow (1)
32	406.07	117.74	Shut-In(1)
91	1094.70	119.56	End Shut-In(1)
91	235.91	119.36	Open To Flow (2)
97	313.41	121.04	Flushed Tool
126	978.46	121.89	Pulled Tool
128	2081.17	119.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	Mud	1.12

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

21-30S-7W Kingman

125 N Market Ste 1000
Wichita, KS 67202

Smarsh 1

Job Ticket: 64883

DST#: 1

ATTN: Bill Klaver

Test Start: 2018.12.17 @ 15:14:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	Mud	1.122

Total Length: 80.00 ft Total Volume: 1.122 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

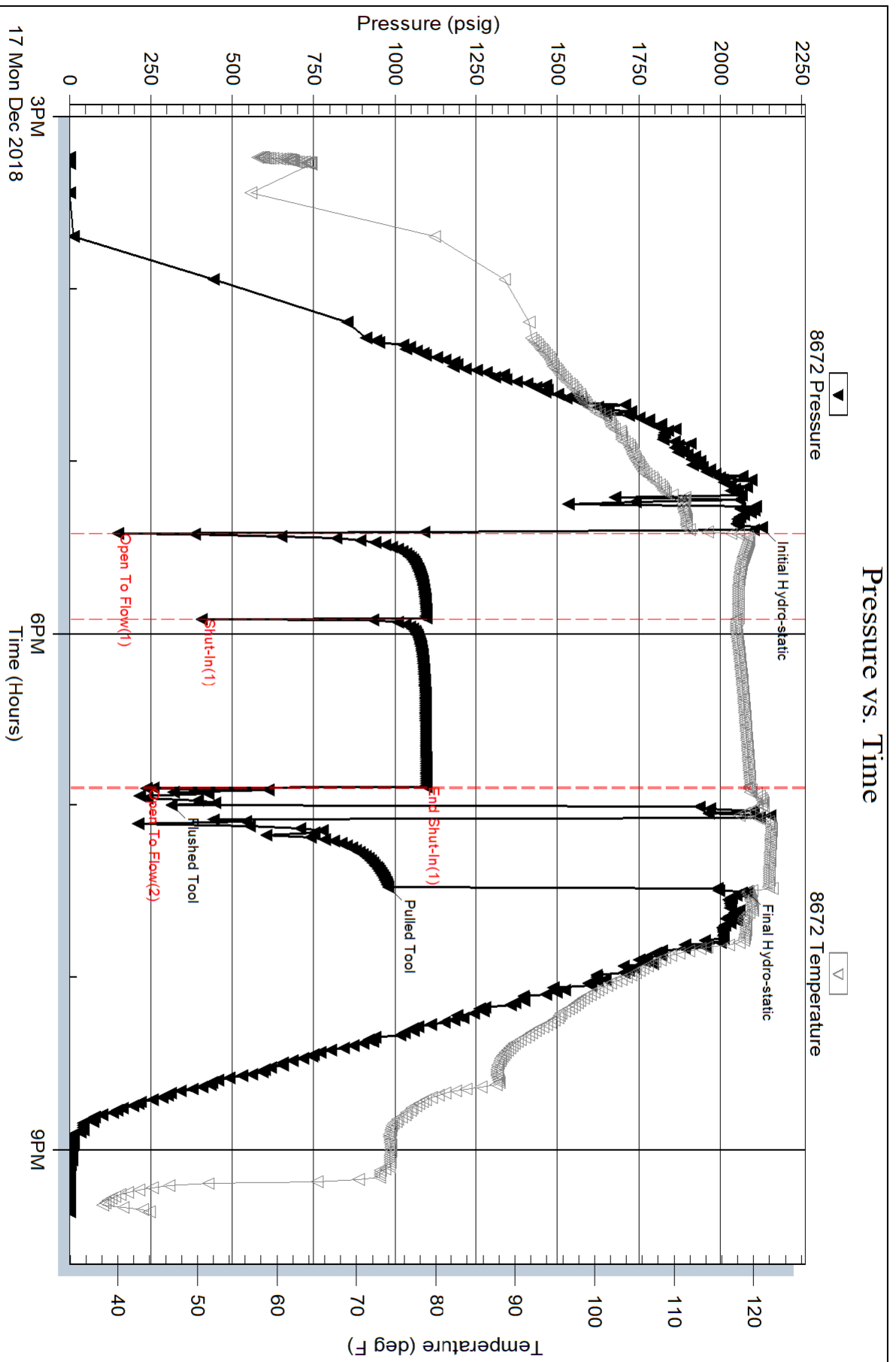
Serial #:

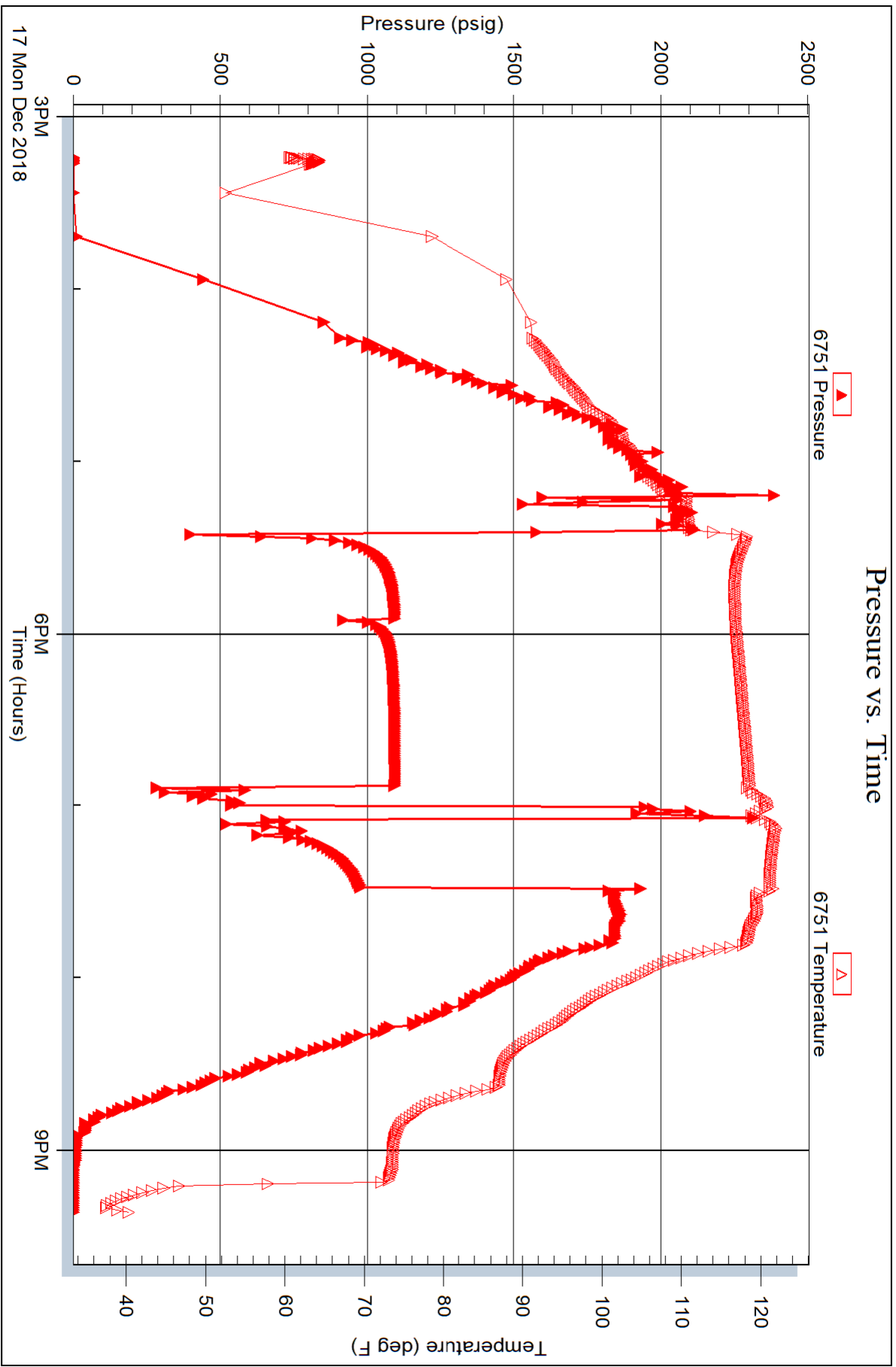
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Woolsey Operating Co
125 N Market Ste 1000
Wichita, KS 67202
ATTN: Bill Klaver

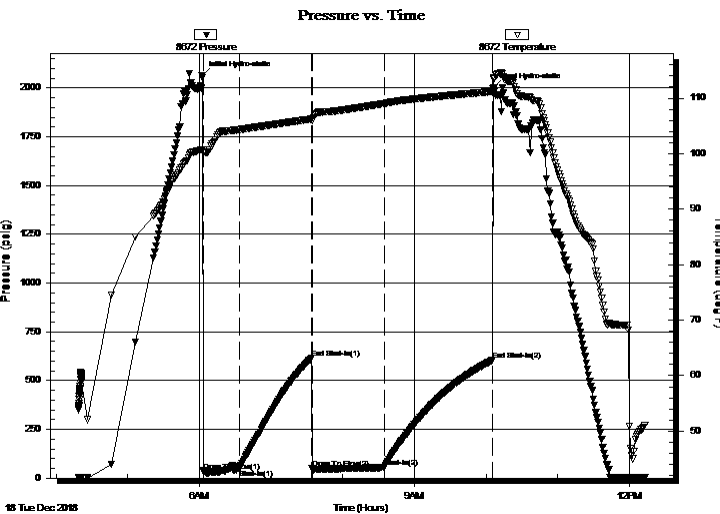
21-30S-7W Kingman
Smarsh 1
Job Ticket: 64884 **DST#: 2**
Test Start: 2018.12.18 @ 04:19:00

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:03:17
Time Test Ended: 12:13:02
Interval: **4116.00 ft (KB) To 4236.00 ft (KB) (TVD)**
Total Depth: 4236.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Leal Cason
Unit No: 74
Reference Elevations: 1520.00 ft (KB)
1512.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8672 Inside
Press@RunDepth: 54.05 psig @ 4117.00 ft (KB) Capacity: psig
Start Date: 2018.12.18 End Date: 2018.12.18 Last Calib.: 2018.12.18
Start Time: 04:19:01 End Time: 12:13:02 Time On Btm: 2018.12.18 @ 06:02:17
Time Off Btm: 2018.12.18 @ 10:06:32

TEST COMMENT: IF: Fair Blow , BOB in 12 minutes, Built to 29 1/2 inches
IS: No Blow Back
FF: Strong Blow , BOB Immediate, Built to 78 inches
FS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2062.87	100.70	Initial Hydro-static
1	37.28	100.12	Open To Flow (1)
31	44.24	104.30	Shut-In(1)
92	613.46	106.18	End Shut-In(1)
92	48.53	105.98	Open To Flow (2)
153	54.05	109.01	Shut-In(2)
243	604.12	111.20	End Shut-In(2)
245	1999.34	113.40	Final Hydro-static

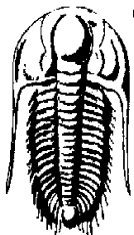
Recovery

Length (ft)	Description	Volume (bbl)
0.00	1028 GIP	0.00
70.00	GCM 5%G 95%M	0.98

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co

21-30S-7W Kingman

125 N Market Ste 1000
Wichita, KS 67202

Smarsh 1

ATTN: Bill Klaver

Job Ticket: 64884

DST#: 2

Test Start: 2018.12.18 @ 04:19:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:03:17

Time Test Ended: 12:13:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4116.00 ft (KB) To 4236.00 ft (KB) (TVD)

Reference Elevations: 1520.00 ft (KB)

Total Depth: 4236.00 ft (KB) (TVD)

1512.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6751 Outside

Press@RunDepth: psig @ 4117.00 ft (KB)

Capacity: psig

Start Date: 2018.12.18 End Date: 2018.12.18

Last Calib.: 2018.12.18

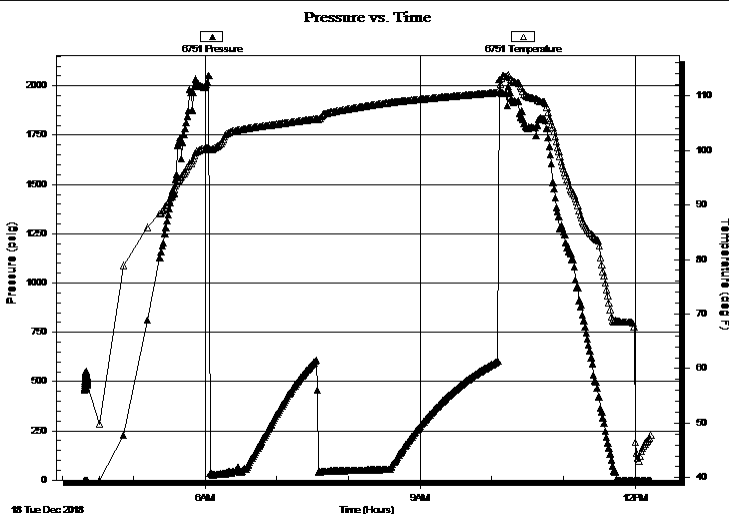
Start Time: 04:19:01 End Time: 12:13:02

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Fair Blow , BOB in 12 minutes, Built to 29 1/2 inches
IS: No Blow Back
FF: Strong Blow , BOB Immediate, Built to 78 inches
FS: No Blow Back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1028 GIP	0.00
70.00	GCM 5%G 95%M	0.98

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

21-30S-7W Kingman

125 N Market Ste 1000
Wichita, KS 67202

Smarsh 1

Job Ticket: 64884

DST#: 2

ATTN: Bill Klaver

Test Start: 2018.12.18 @ 04:19:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1028 GIP	0.000
70.00	GCM 5%G 95%M	0.982

Total Length: 70.00 ft Total Volume: 0.982 bbl

Num Fluid Samples: 0

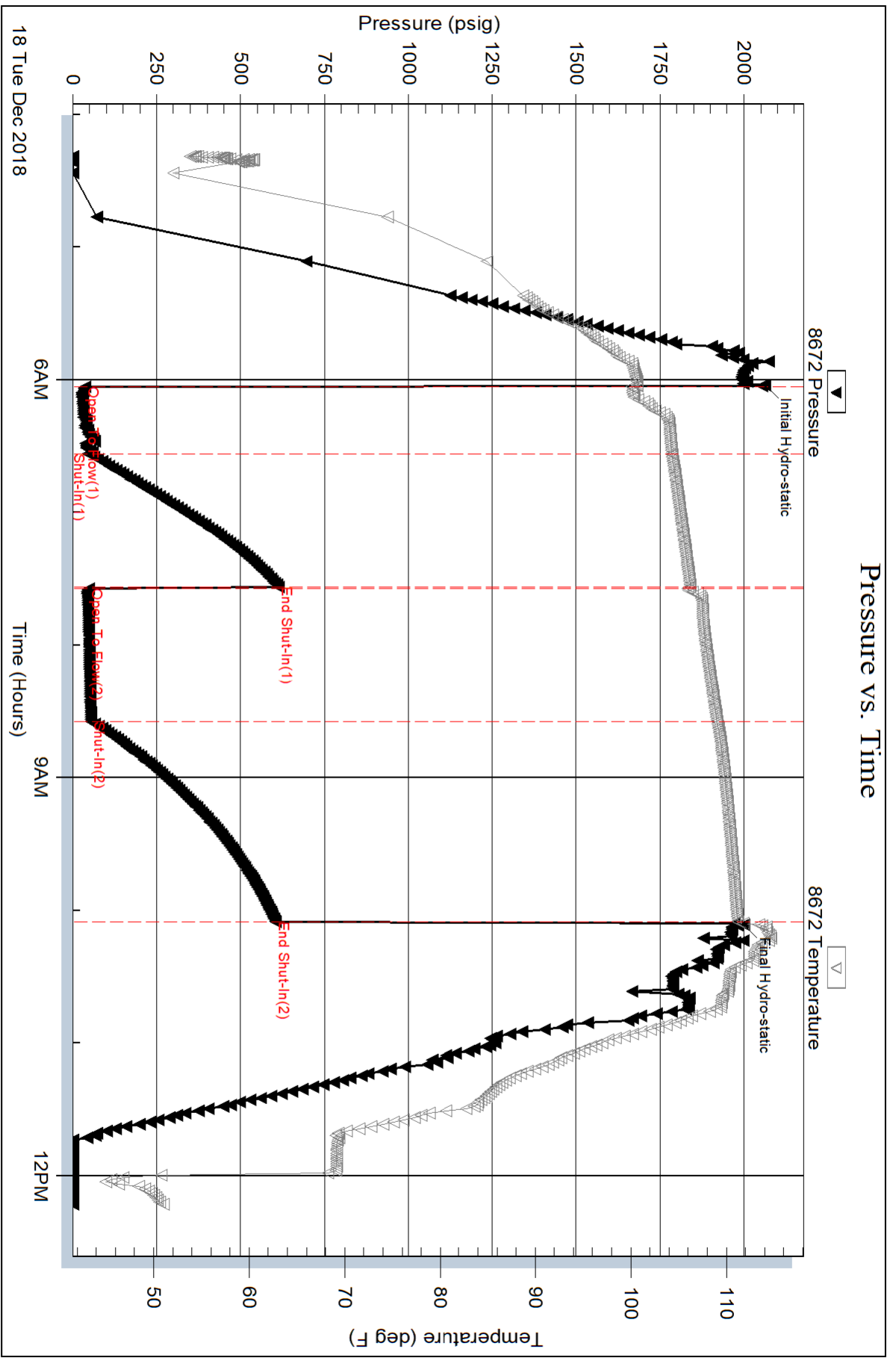
Num Gas Bombs: 0

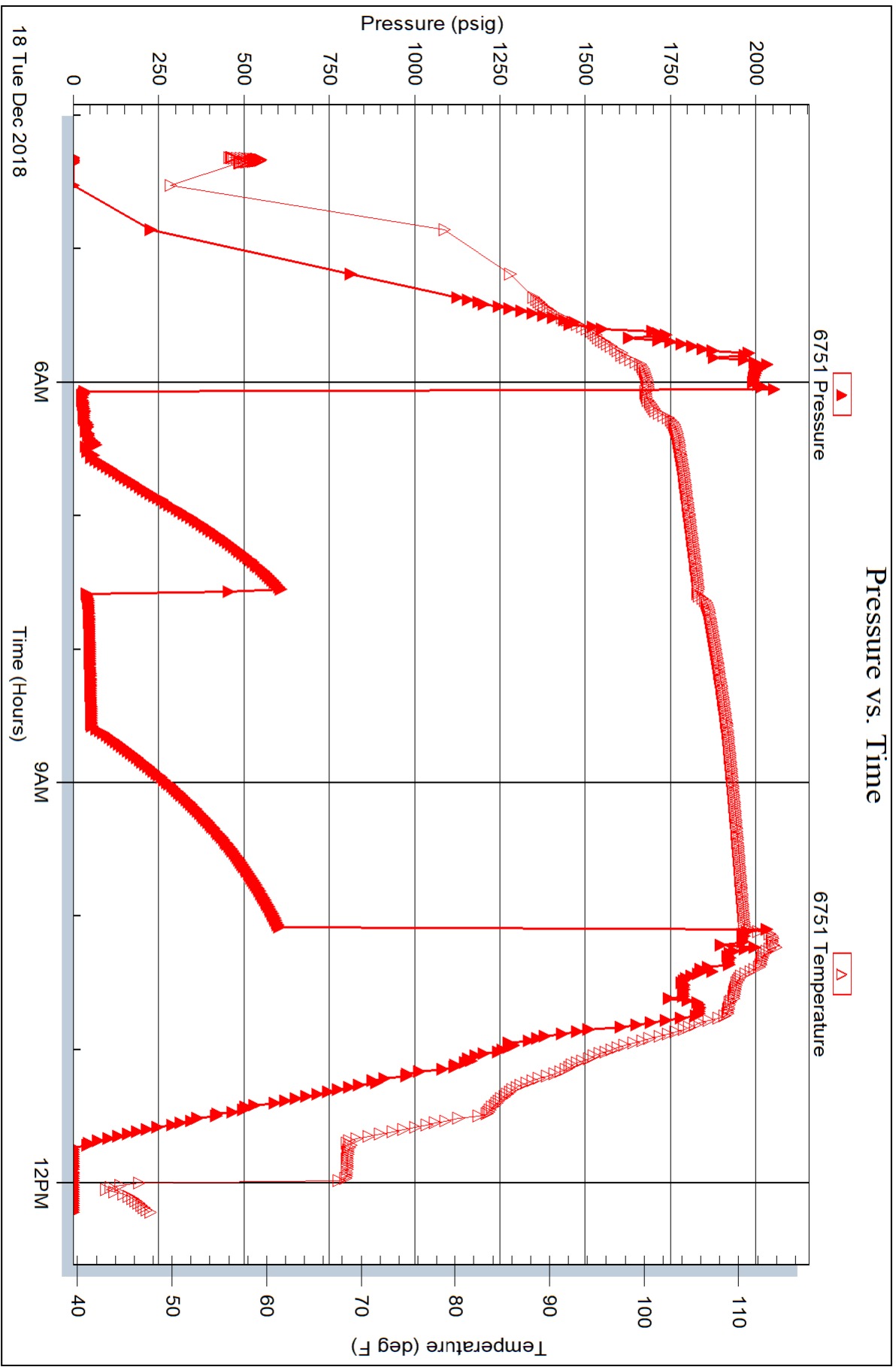
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co
 125 N Market Ste 1000
 Wichita, KS 67202
 ATTN: Bill Klaver

21-30S-7W Kingman

Smarsh 1

Job Ticket: 64885

DST#: 3

Test Start: 2018.12.18 @ 21:56:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:47

Time Test Ended: 06:04:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4236.00 ft (KB) To 4250.00 ft (KB) (TVD)

Reference Elevations: 1520.00 ft (KB)

Total Depth: 4250.00 ft (KB) (TVD)

1512.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8672

Inside

Press@RunDepth: 58.98 psig @ 4237.00 ft (KB)

Capacity: psig

Start Date: 2018.12.18

End Date:

2018.12.19

Last Calib.:

2018.12.19

Start Time: 21:56:01

End Time:

06:04:02

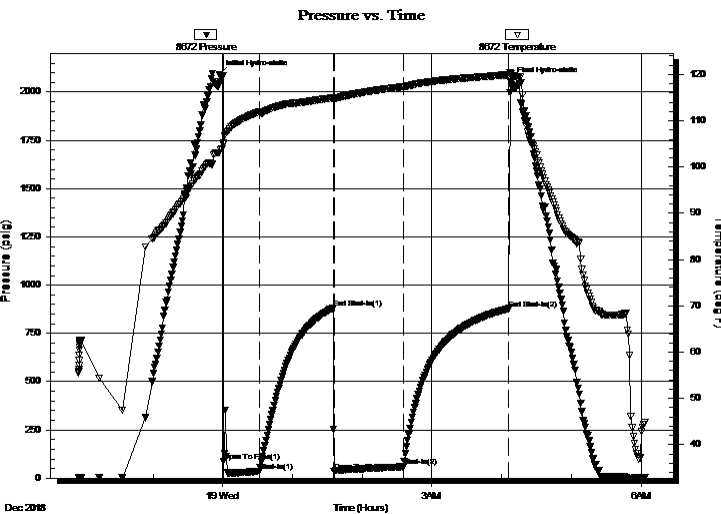
Time On Btm:

2018.12.18 @ 23:57:17

Time Off Btm:

2018.12.19 @ 04:08:02

TEST COMMENT: IF: Strong Blow , BOB in 4 minutes, Built to 70 1/2 inches
 IS: No Blow Back
 FF: Strong Blow , BOB Immediate, Built to 206 inches
 FS: 2 inch Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2088.88	103.08	Initial Hydro-static
4	88.38	105.16	Open To Flow (1)
35	35.68	111.89	Shut-In(1)
98	881.60	114.85	End Shut-In(1)
99	35.16	114.74	Open To Flow (2)
159	58.98	117.33	Shut-In(2)
250	878.98	119.95	End Shut-In(2)
251	2054.11	120.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1296 GIP	0.00
90.00	SOMCW 6%O 24%M 70%W	1.26

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co
 125 N Market Ste 1000
 Wichita, KS 67202
 ATTN: Bill Klaver

21-30S-7W Kingman
Smarsh 1
 Job Ticket: 64885 **DST#: 3**
 Test Start: 2018.12.18 @ 21:56:00

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 00:00:47 Tester: Leal Cason
 Time Test Ended: 06:04:02 Unit No: 74
 Interval: **4236.00 ft (KB) To 4250.00 ft (KB) (TVD)** Reference Elevations: 1520.00 ft (KB)
 Total Depth: 4250.00 ft (KB) (TVD) 1512.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

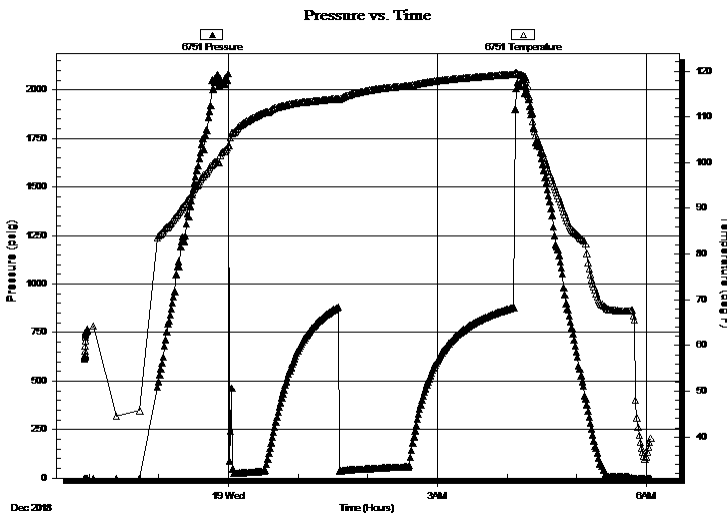
Serial #: 6751

Outside

Press@RunDepth: psig @ 4237.00 ft (KB) Capacity: psig
 Start Date: 2018.12.18 End Date: 2018.12.19 Last Calib.: 2018.12.19
 Start Time: 21:56:01 End Time: 06:04:02 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 4 minutes, Built to 70 1/2 inches
 IS: No Blow Back
 FF: Strong Blow , BOB Immediate, Built to 206 inches
 FS: 2 inch Blow Back

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1296 GIP	0.00
90.00	SOMCW 6%O 24%M 70%W	1.26

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

21-30S-7W Kingman

125 N Market Ste 1000
Wichita, KS 67202

Smarsh 1

Job Ticket: 64885

DST#: 3

ATTN: Bill Klaver

Test Start: 2018.12.18 @ 21:56:00

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:

80000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1296 GIP	0.000
90.00	SOMCW 6%O 24%M 70%W	1.262

Total Length: 90.00 ft Total Volume: 1.262 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

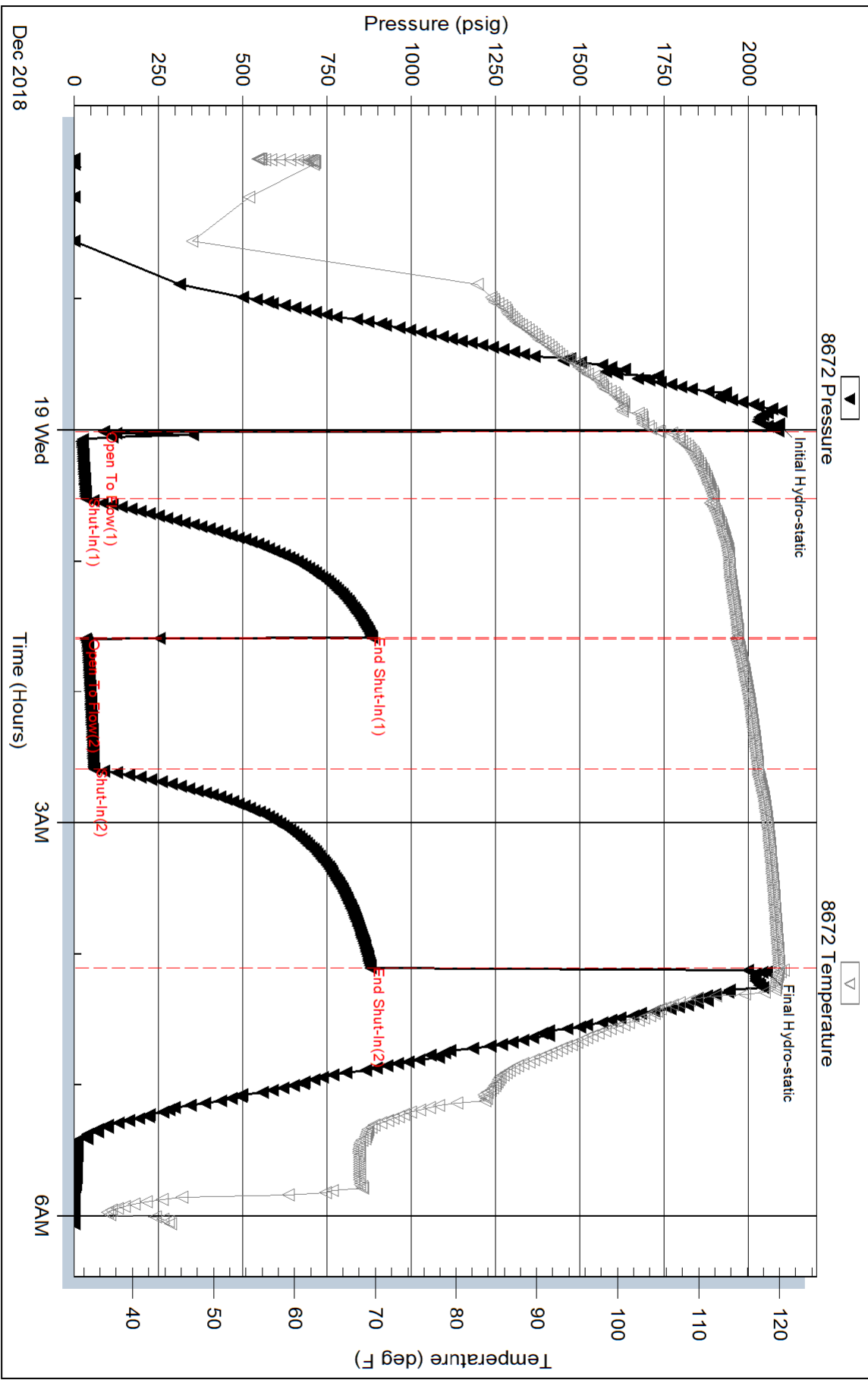
Serial #:

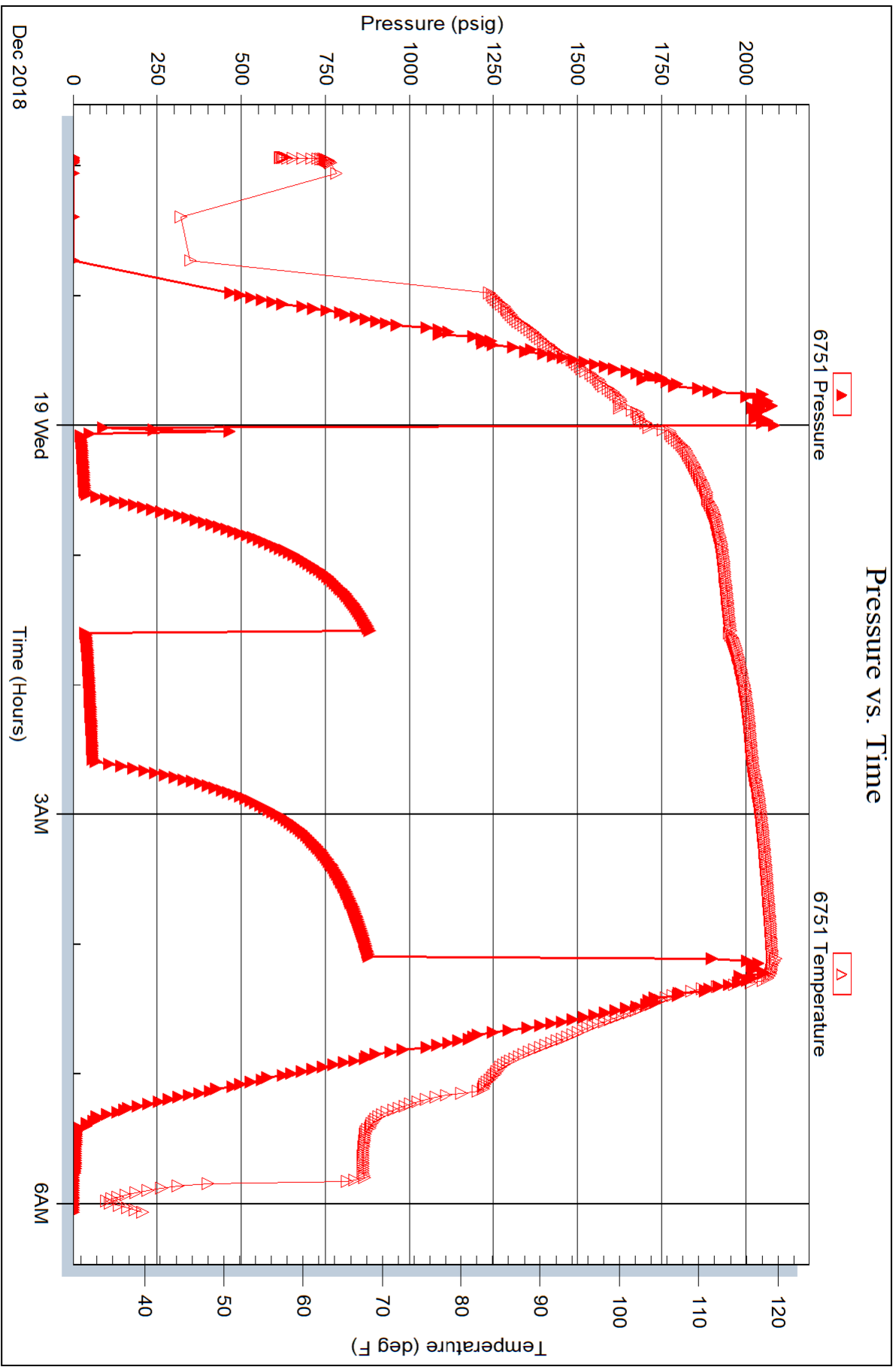
Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .18 @ 38 degrees

Pressure vs. Time





Woolsey Operating Company, LLC

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: **SMARSH #1**
 Location: **Section 21 - Township 30 South - Range 7 West** Region: **Kingman County**
 License Number: **33166** Spud Date: **December 8, 2018** Drilling Completed: **December 19, 2018**
 Surface Coordinates: **520° FN/L & 2470° FELL**
 Bottom Hole Coordinates: **W/2 NW NE**
 Ground Elevation (ft): **1512'** K.B. Elevation (ft): **1520'**
 Logged Interval (ft): **3200'** To: **4352'** Total Depth (ft): **4352'**
 Formation: **Shawnee Grp into Mississippian**
 Type of Drilling Fluid: **Printed by NUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com**

OPERATOR

Company: **Woolsey Operating Company, LLC**
 Address: **125 N. Market, Suite 1000
 Wichita, KS 67202**

GEOLOGIST

Name: **Bill Klaver**
 Company: **Woolsey Operating Co. LLC**
 Address: **125 N. Market, Wichita Kansas, 67202**

COMMENTS

Surface Casing: Spud 10:15 pm on 12/8/2018, set 6 joints of 8 5/8" X 23#/ft new casing at 270' KB (tally 363') w/225 x 60/40 poz, 2% gel, 3% cc (by Basic). Plug down 11:45 am on 12/9/2018. Cement dtd circulate to surface. Production Casing: P&A, none ran.
 Deviation Surveys: 1 at 270', 3/4 at 764', 1 at 1300', 1/4 at 1803', 3/4 at 2303', 1 at 3060', 1 at 3312', 3/4 at 3816', 1 at 4236', 1 at 4432'
 Pipe Strap @ 4236', Strap: 4254.69', Board: 4257.11', Strap 2.42' sho nt. No corrections were made to the board.
 Duke Rig #8 Bit Record:
 1) 12 1/4" RR in at 0' out at 270'
 2) 7 7/8" JZ A1004 in at 270' out at 4250', 146 hours
 3) 7 7/8" JZ HA23 in at 4250 out at 4352', 5 hours
 Gas Detector: Pason System
 Mud System: Mud-Co, Brad Bortz, Engineer
 DSTs: Triobite Testing, Leal Cason, Tester
 E-Logs: ELI, Dual Induction Laterolog w/SP, CILS-FDC W/PE, GR and Calper, Jeff Luebbers, Engineer

DSTs

DST #1 Mississippi, 4224'-4236', 30"-60"-out, Tool opened at bridge about 90' off bottom, tool slid 10' to bottom while opening, 4 1/2' blow during FFP, 1 1/2' blow during FFP, Rec: 80' mud, IHP 2126, IFF 148-406, ICIIP 1095, FFP 235-NA, FCIP N/A, FHP 2081. Both flow periods indicated severe plugging, test considered a misrun.
 DST #2 Mississippi, 4116'-4236', 30"-60"-90"-out, SB BOB in 12 minutes, Rec: 1028' GP, 70' GCM (5%G, 95%M), IHP 2063, IFF 37-44, ICIIP 623, FHP 604, FHP 1999, BHT 114 degrees.
 DST #3 Mississippi, 4236'-4250', 30"-60"-90"-out, SB BOB in 4 minutes, Rec: 1296' GIP, 90 SOMCW (6%O, 24%M, 70%W), API Rv .18 @38 deg, chl: 80,000 ppm, IHP 2088, IFF 88-36, ICIIP 882, FFP 35-59, FCIP 879, FHP 2054, BHT 121 degrees.

CREWS

Duke Drilling Rig 8 12 Hour Pushers
 Matt Smith, Tim Amel, Tool Pushers
 Gerald Adams, Terry Adams, Daylights
 Mathew Wright, Daniel Olson, Morning

ROCK TYPES

Anhy	Shy dolo	Siltst	Shale 3
Bent	Dol	Ss	Silty dol
Brec	Gyp	Black sh	Dol 2
Calt	Sdy fmst	Gry sh	Granite wash
Cyst	Mfret	Shale	Lmst
Coal	Salt	Shylst	Calc dol
Congl	Shale	Slysh	Shale 3
Rdy dolo		Ss 2	

ACCESSORIES

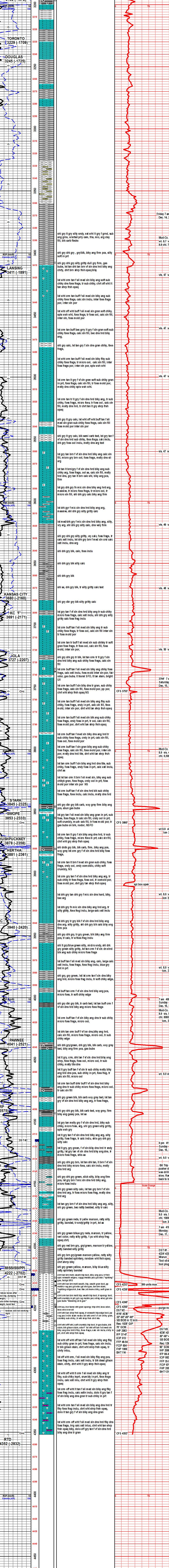
Chlorite	Pellet	Grysh
Dol	Pellet	Gryst
Sand	Pisolate	Lms
Silty	Strom	Sandylms
	Plant	Sh
	Fuss	Siltstn
	Oomotic	
	STRINGER	
	Anhy	
	Arg	
	Bent	
	Coal	
	Dol	
	Gyp	
	Lms	
	Mfret	
	Siltstrg	
	Calbst	
	Clystrn	
	Dol	
		Boundst
		Chalky
		Cryxln
		Earthy
		Finexln
		Grainst
		Lithogr
		Microxln
		Mudst
		Packst
		Wackest

MINERAL
 Anhy
 Arg
 Bit
 Brefracg
 Calc
 Carb
 Chtdk
 Chtit
 Dol
 Ferr
 Glau
 Gyp
 Meat
 Nodule
 Phos
 Pyr
 Salt
 Sandy
 Silt

FOSSIL
 Algae
 Amph
 Belm
 Bioclst
 Brach
 Bryozoa
 Cephal
 Coral
 Crin
 Echin
 Fish
 Foram
 Fossil
 Gastro
 Oolite
 Ostra

Texture
 Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest

Curve Track 1
 ROP (min/ft)
 Gamma (API)



Woolsey Operating Company LLC
 520° FN/L & 2470° FELL
 W/2 NW NE
 Sec. 21-Twp 30S-Rge 7W
 Kingman County, Kansas
 Filed: Sp/way Grabs
 GL 1512' KB 1530
 API # 15-05-2239-00-00