

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](mailto: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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## DRILL STEM TEST REPORT

Prepared For: **JEL Resources LLC**

21941 E. Ridge Trail Circle  
Aurora, CO 80016

ATTN: Justin Carter

**JL Hullman #1-3**

**3-22S-13W Stafford,KS**

Start Date: 2018.01.10 @ 00:26:00

End Date: 2018.01.10 @ 06:15:09

Job Ticket #: 63269                      DST #: 1

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

Printed: 2018.01.15 @ 14:46:51



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford, KS**

**JL Hullman #1-3**

Job Ticket: 63269 **DST#: 1**

Test Start: 2018.01.10 @ 00:26:00

## GENERAL INFORMATION:

Formation: **LKC B-C**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:23:20  
 Time Test Ended: 06:15:09  
 Interval: **3400.00 ft (KB) To 3440.00 ft (KB) (TVD)**  
 Total Depth: 3440.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72  
 Reference Elevations: 1897.00 ft (KB)  
 1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 8653

Inside

Press@RunDepth: 58.81 psig @ 3401.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.10 End Date: 2018.01.10 Last Calib.: 2018.01.10  
 Start Time: 00:26:01 End Time: 06:15:10 Time On Btm: 2018.01.10 @ 02:21:50  
 Time Off Btm: 2018.01.10 @ 04:40:30

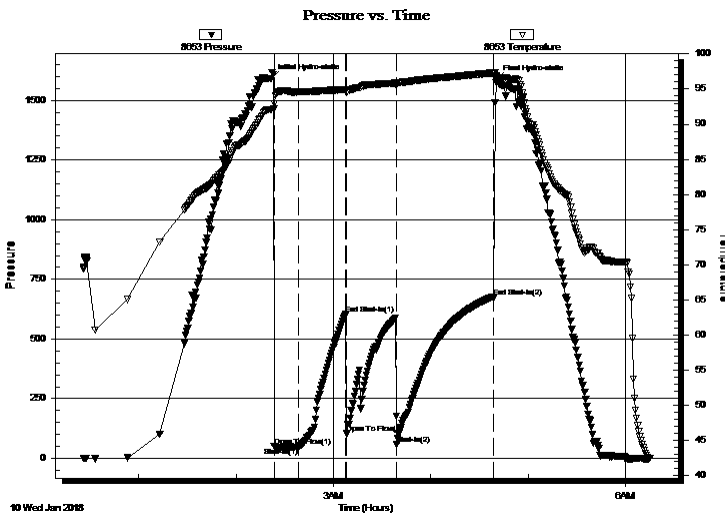
TEST COMMENT: IFP 15 Minutes Slid 10' - Blow at 5 1/2" at open - Blow built to 7"

ISI 30 Minutes No blow back

FFP 30 Minutes Weak surging blow built to 1/2" then occasional light surge throughout No further build

FSI 60 Minutes No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1590.72	92.10	Initial Hydro-static
2	49.79	92.26	Open To Flow (1)
17	45.29	94.61	Shut-In(1)
46	604.48	94.94	End Shut-In(1)
47	103.32	94.57	Open To Flow (2)
78	58.81	95.57	Shut-In(2)
137	674.24	97.31	End Shut-In(2)
139	1587.38	96.74	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud 100%	0.84

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**

**JL Hullman #1-3**

Job Ticket: 63269

**DST#: 1**

Test Start: 2018.01.10 @ 00:26:00

## GENERAL INFORMATION:

Formation: **LKC B-C**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:23:20  
 Time Test Ended: 06:15:09  
 Interval: **3400.00 ft (KB) To 3440.00 ft (KB) (TVD)**  
 Total Depth: 3440.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72  
 Reference Elevations: 1897.00 ft (KB)  
 1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8737**

**Outside**

Press@RunDepth: 680.36 psig @ 3402.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.10 End Date: 2018.01.10 Last Calib.: 2018.01.10  
 Start Time: 00:26:01 End Time: 06:15:10 Time On Btm: 2018.01.10 @ 02:21:50  
 Time Off Btm: 2018.01.10 @ 04:40:40

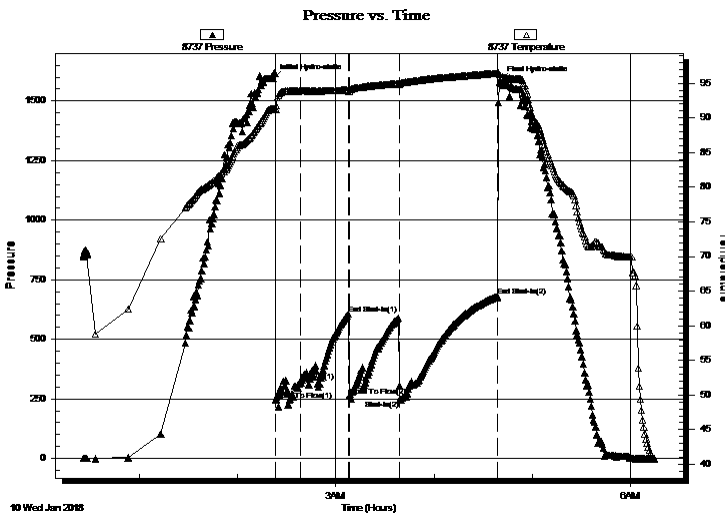
**TEST COMMENT:** IFP 15 Minutes Slid 10' - Blow at 5 1/2" at open - Blow built to 7"

ISI 30 Minutes No blow back

FFP 30 Minutes Weak surging blow built to 1/2" then occasional light surge throughout No further build

FSI 60 Minutes No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1592.52	91.35	Initial Hydro-static
2	246.27	91.23	Open To Flow (1)
17	323.92	93.91	Shut-In(1)
46	606.81	94.05	End Shut-In(1)
47	261.12	93.89	Open To Flow (2)
78	243.29	94.92	Shut-In(2)
137	680.36	96.46	End Shut-In(2)
139	1583.97	96.02	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud 100%	0.84

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63269      **DST#: 1**  
Test Start: 2018.01.10 @ 00:26:00

**Tool Information**

Drill Pipe:	Length: 3390.00 ft	Diameter: 3.80 inches	Volume: 47.55 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 47.55 bbl</u>	Tool Chased	10.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	41000.00 lb
Depth to Top Packer:	3400.00 ft			Final	41000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	67.00 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			3374.00	
Shut In Tool	5.00			3379.00	
Hydraulic tool	5.00			3384.00	
Jars	5.00			3389.00	
Safety Joint	2.00			3391.00	
Packer	5.00			3396.00	27.00      Bottom Of Top Packer
Packer	4.00			3400.00	
Recorder	1.00	8653	Inside	3401.00	
Recorder	1.00	8737	Outside	3402.00	
Perforations	35.00			3437.00	
Bullnose	3.00			3440.00	40.00      Bottom Packers & Anchor

**Total Tool Length: 67.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63269      **DST#: 1**  
Test Start: 2018.01.10 @ 00:26:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 44.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.94 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4400.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

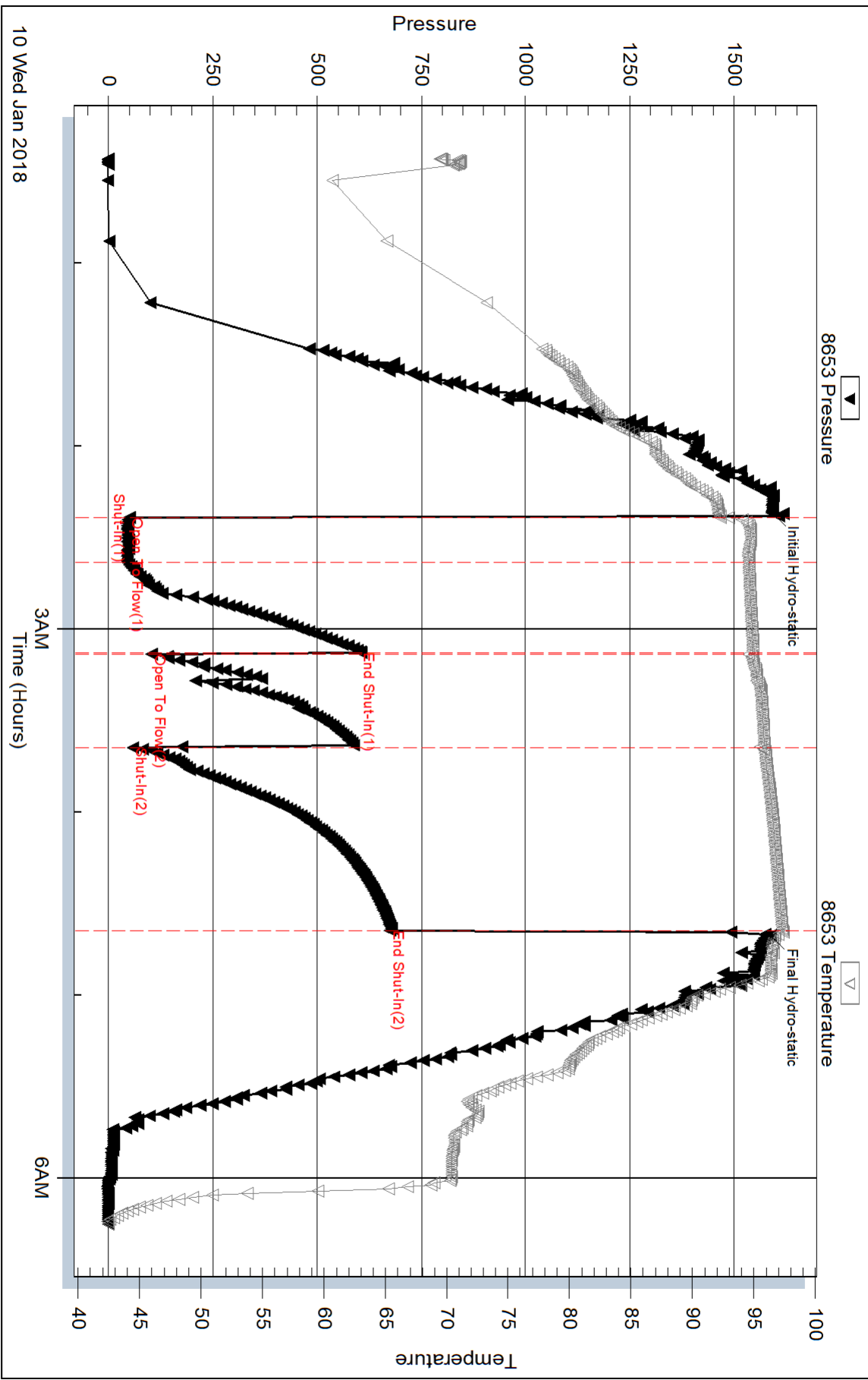
Recovery Table

Length ft	Description	Volume bbl
60.00	Mud 100%	0.842

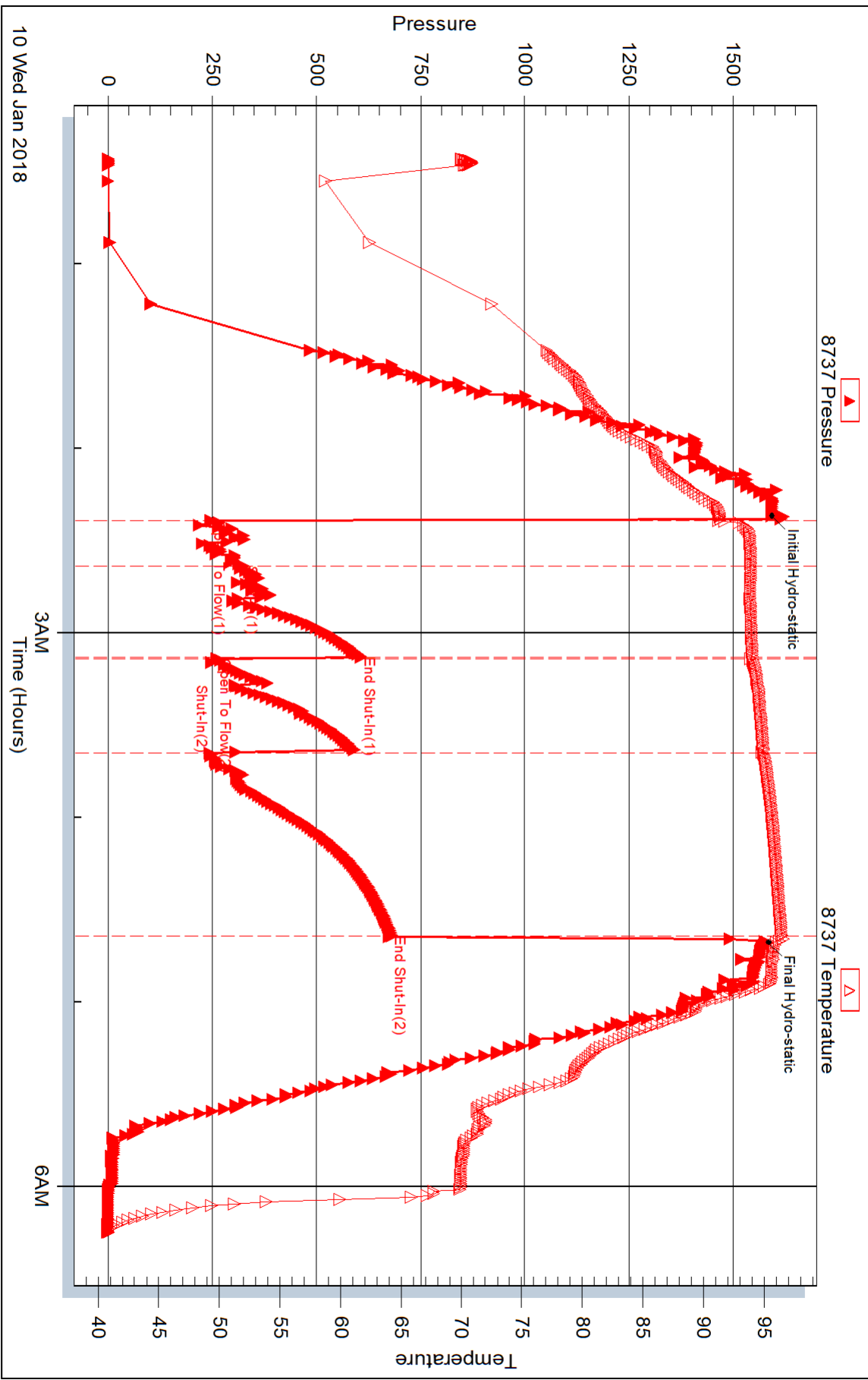
Total Length: 60.00 ft      Total Volume: 0.842 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **JEL Resources LLC**

21941 E. Ridge Trail Circle  
Aurora, CO 80016

ATTN: Justin Carter

**JL Hullman #1-3**

**3-22S-13W Stafford,KS**

Start Date: 2018.01.10 @ 21:19:00

End Date: 2018.01.11 @ 02:54:00

Job Ticket #: 63270                      DST #: 2

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

Printed: 2018.01.15 @ 14:25:44



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford,KS**

**JL Hullman #1-3**

Job Ticket: 63270

**DST#: 2**

Test Start: 2018.01.10 @ 21:19:00

## GENERAL INFORMATION:

Formation: **LKC H-J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:51:00  
 Time Test Ended: 02:54:00  
 Interval: **3494.00 ft (KB) To 3552.00 ft (KB) (TVD)**  
 Total Depth: 3552.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72  
 Reference Elevations: 1897.00 ft (KB)  
 1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

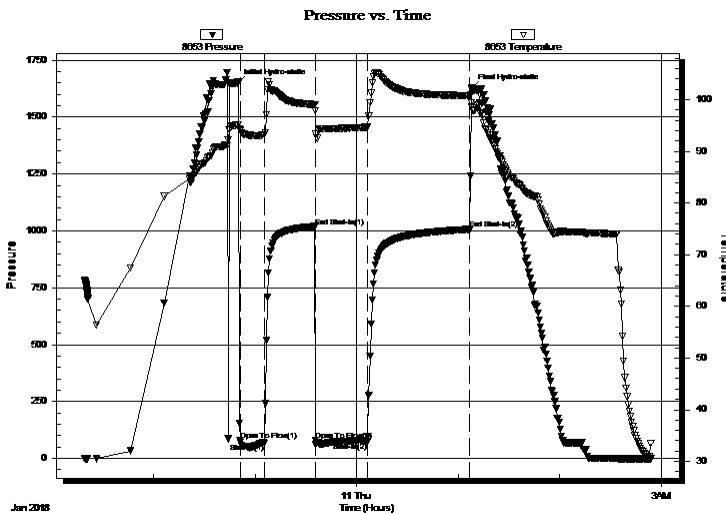
## Serial #: 8653

Inside

Press@RunDepth: 70.08 psig @ 3495.00 ft (KB)  
 Start Date: 2018.01.10 End Date: 2018.01.11  
 Start Time: 21:19:01 End Time: 02:54:00  
 Capacity: 8000.00 psig  
 Last Calib.: 2018.01.11  
 Time On Btm: 2018.01.10 @ 22:49:40  
 Time Off Btm: 2018.01.11 @ 01:07:40

TEST COMMENT: IFP 15 Minutes BOB in 10 seconds GTS in 3 minutes  
 ISI 30 Minutes No blow Back  
 FFP 30 Minutes BOB in 5 seconds  
 FSI 60 Mintues Blow back built to 2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1647.44	95.04	Initial Hydro-static
2	78.67	94.05	Open To Flow (1)
16	67.35	93.18	Shut-In(1)
46	1019.24	99.07	End Shut-In(1)
46	79.51	97.85	Open To Flow (2)
77	70.08	94.67	Shut-In(2)
138	1006.65	100.80	End Shut-In(2)
138	1626.31	99.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	MWCO Mud 10% Water 30% Oil 60%	0.84
90.00	WOCM Water 20% Oil 30% Mud 50%	1.26

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	18.00	51.40
Last Gas Rate	0.25	20.00	54.57
Max. Gas Rate	0.25	20.00	54.57



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford,KS**

**JL Hullman #1-3**

Job Ticket: 63270      **DST#: 2**  
 Test Start: 2018.01.10 @ 21:19:00

## GENERAL INFORMATION:

Formation: **LKC H-J**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 22:51:00  
 Time Test Ended: 02:54:00  
 Interval: **3494.00 ft (KB) To 3552.00 ft (KB) (TVD)**  
 Total Depth: 3552.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72  
 Reference Elevations: 1897.00 ft (KB)  
 1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

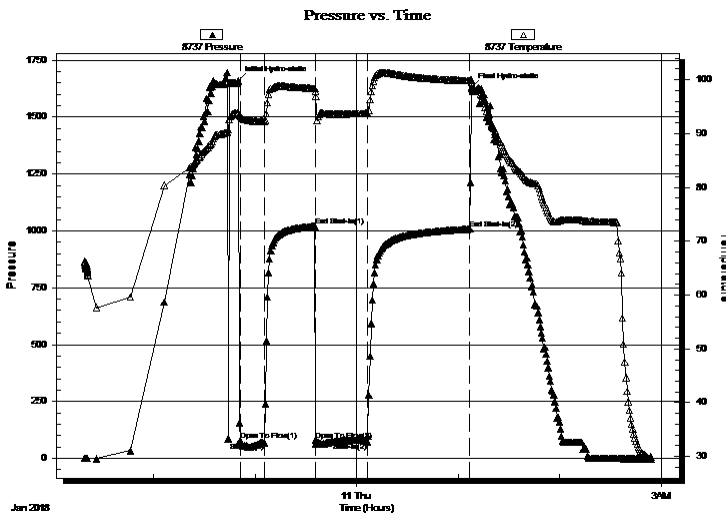
## Serial #: 8737

**Outside**

Press@RunDepth: 1007.96 psig @ 3496.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.01.10      End Date: 2018.01.11      Last Calib.: 2018.01.11  
 Start Time: 21:19:01      End Time: 02:54:00      Time On Btm: 2018.01.10 @ 22:50:10  
 Time Off Btm: 2018.01.11 @ 01:07:40

**TEST COMMENT:** IFP 15 Minutes BOB in 10 seconds GTS in 3 minutes  
 ISI 30 Minutes No blow Back  
 FFP 30 Minutes BOB in 5 seconds  
 FSI 60 Mintues Blow back built to 2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1658.21	93.93	Initial Hydro-static
1	79.68	93.35	Open To Flow (1)
15	69.32	92.35	Shut-In(1)
46	1020.43	98.38	End Shut-In(1)
46	82.13	97.91	Open To Flow (2)
76	73.22	93.81	Shut-In(2)
137	1007.96	99.85	End Shut-In(2)
138	1630.64	99.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	MWCO Mud 10% Water 30% Oil 60%	0.84
90.00	WOCM Water 20% Oil 30% Mud 50%	1.26

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	18.00	51.40
Last Gas Rate	0.25	20.00	54.57
Max. Gas Rate	0.25	20.00	54.57



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63270      **DST#: 2**  
Test Start: 2018.01.10 @ 21:19:00

**Tool Information**

Drill Pipe:	Length: 3492.00 ft	Diameter: 3.80 inches	Volume: 48.98 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 48.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3494.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.71 ft			
Tool Length:	84.71 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3468.00	
Shut In Tool	5.00			3473.00	
Hydraulic tool	5.00			3478.00	
Jars	5.00			3483.00	
Safety Joint	2.00			3485.00	
Packer	5.00			3490.00	27.00      Bottom Of Top Packer
Packer	4.00			3494.00	
Recorder	1.00	8653	Inside	3495.00	
Recorder	1.00	8737	Outside	3496.00	
Perforations	19.00			3515.00	
Change Over Sub	1.00			3516.00	
Drill Pipe	31.71			3547.71	
Change Over Sub	1.00			3548.71	
Bullnose	3.00			3551.71	57.71      Bottom Packers & Anchor

**Total Tool Length: 84.71**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63270      **DST#: 2**  
Test Start: 2018.01.10 @ 21:19:00

## 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: 76.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5300.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MWCO Mud 10% Water 30% Oil 60%	0.842
90.00	WOCM Water 20% Oil 30% Mud 50%	1.262

Total Length: 150.00 ft      Total Volume: 2.104 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford, KS**  
**JL Hullman #1-3**  
Job Ticket: 63270      **DST#: 2**  
Test Start: 2018.01.10 @ 21:19:00

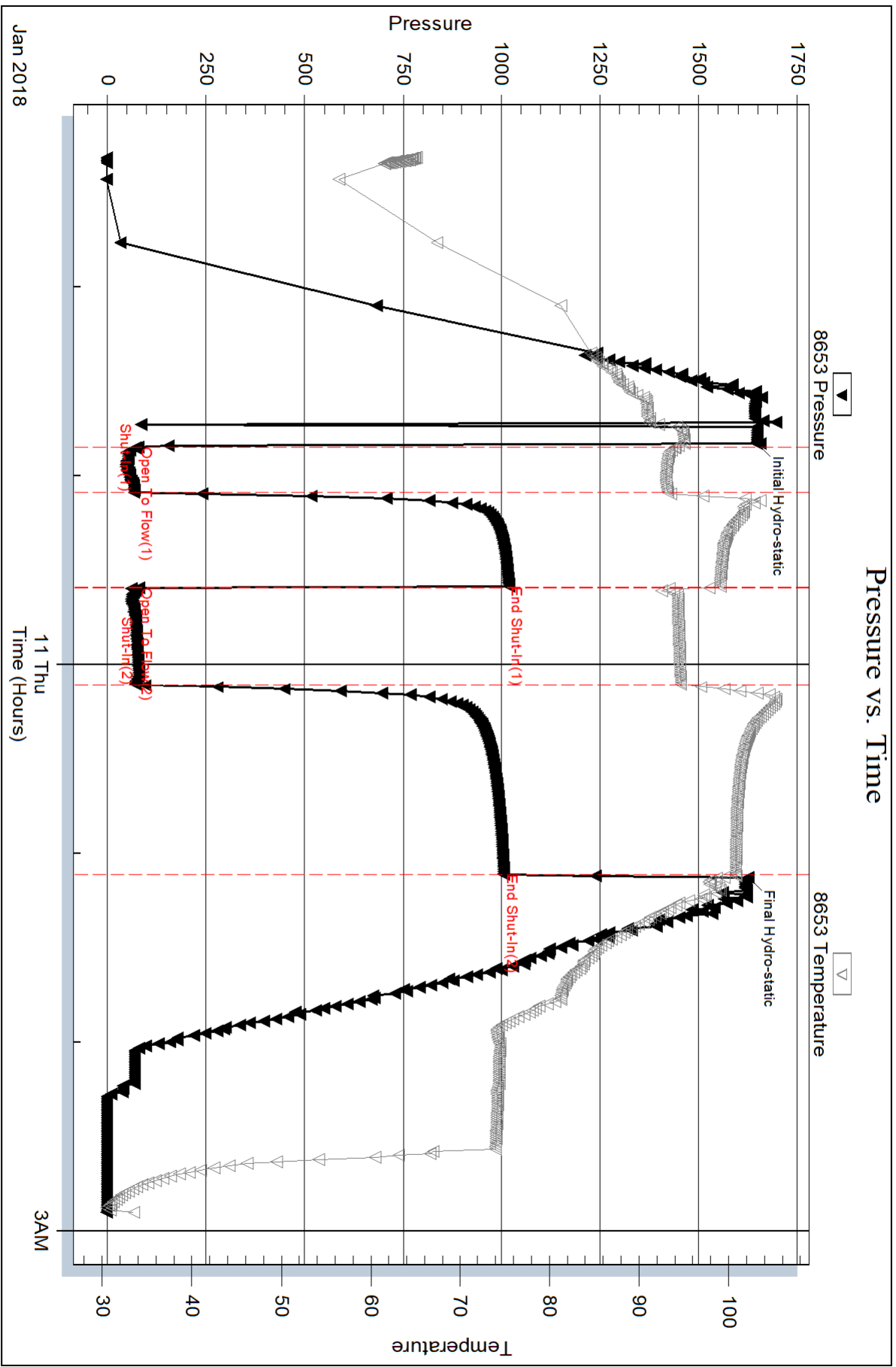
### Gas Rates Information

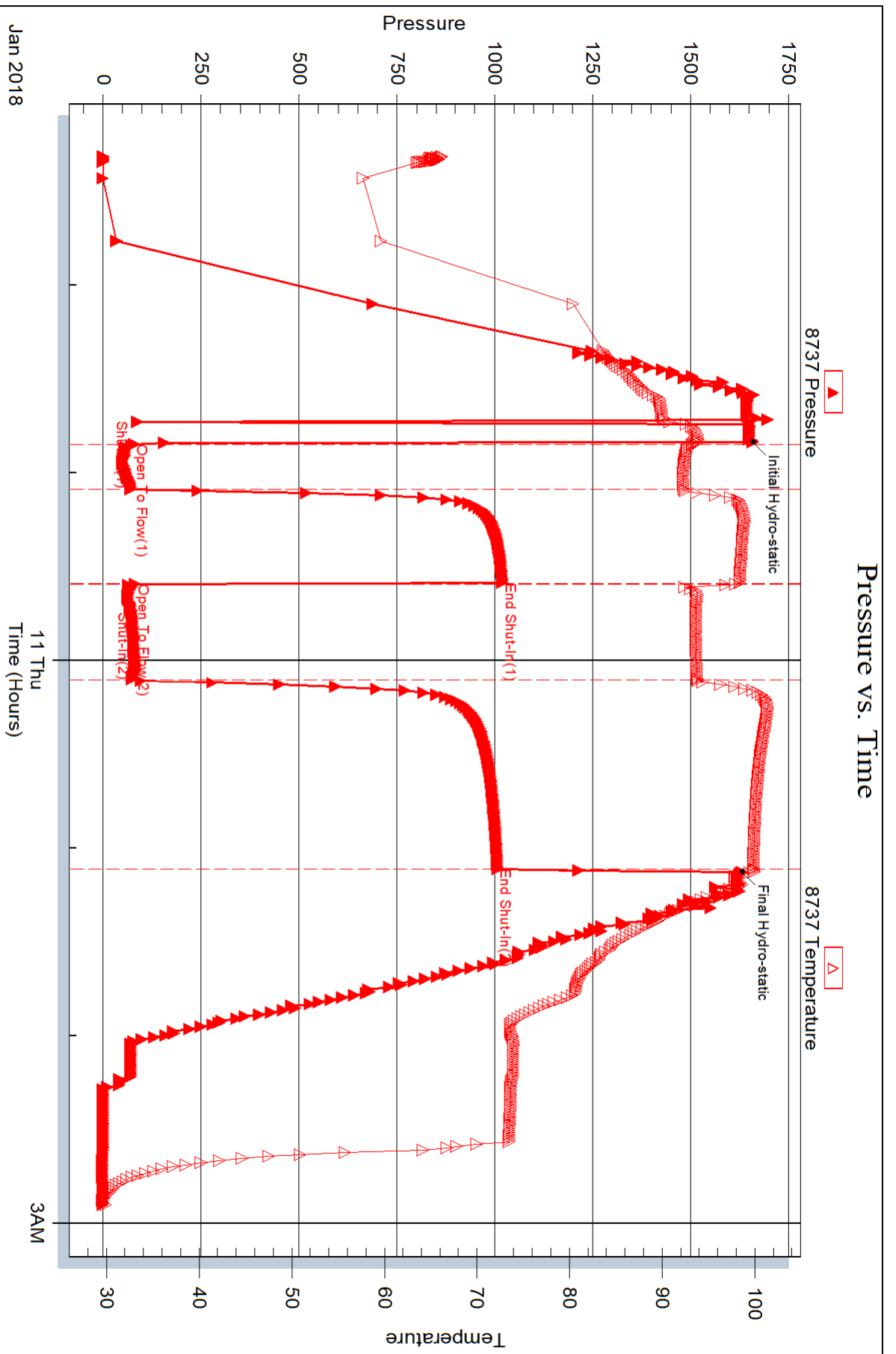
Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	18.00	51.40
2	20	0.25	20.00	54.57
2	30	0.25	20.00	54.57









## DRILL STEM TEST REPORT

Prepared For: **JEL Resources LLC**

21941 E. Ridge Trail Circle  
Aurora, CO 80016

ATTN: Justin Carter

**JL Hullman #1-3**

**3-22S-13W Stafford,KS**

Start Date: 2018.01.11 @ 16:14:00

End Date: 2018.01.11 @ 22:50:50

Job Ticket #: 63271                      DST #: 3

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

Printed: 2018.01.15 @ 14:36:43



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford, KS**

**JL Hullman #1-3**

Job Ticket: 63271

**DST#: 3**

Test Start: 2018.01.11 @ 16:14:00

## GENERAL INFORMATION:

Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 17:51:20  
 Time Test Ended: 22:50:50  
 Interval: **3634.00 ft (KB) To 3700.00 ft (KB) (TVD)**  
 Total Depth: 3700.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72  
 Reference Elevations: 1897.00 ft (KB)  
 1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

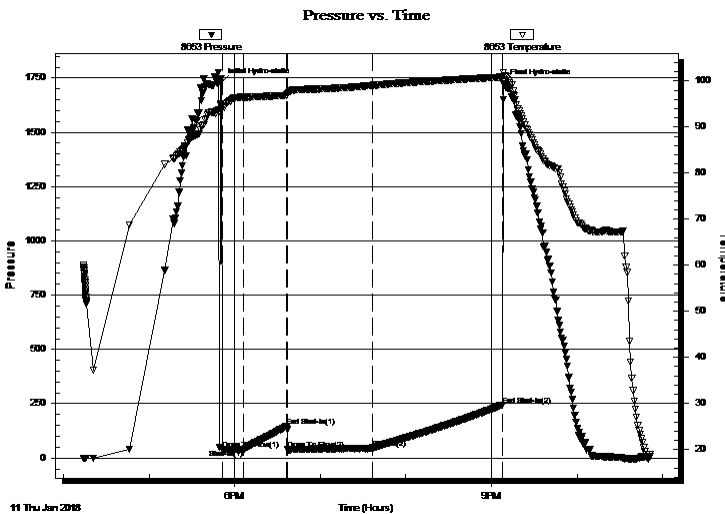
## Serial #: 8653

Inside

Press@RunDepth: 44.49 psig @ 3635.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.11 End Date: 2018.01.11 Last Calib.: 2018.01.11  
 Start Time: 16:14:01 End Time: 22:50:50 Time On Btm: 2018.01.11 @ 17:50:20  
 Time Off Btm: 2018.01.11 @ 21:08:30

TEST COMMENT: IFP 15 Minutes Slid 10' - Reset tool blow built to 4 1/2"  
 ISI 30 Minutes No blow back  
 FFP 60 Minutes Blow built to BOB in 40 minutes  
 FSI 90 Minutes No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1727.48	95.02	Initial Hydro-static
1	39.84	94.64	Open To Flow (1)
16	38.97	96.49	Shut-In(1)
47	146.64	96.92	End Shut-In(1)
47	38.53	97.23	Open To Flow (2)
106	44.49	99.05	Shut-In(2)
198	244.91	100.88	End Shut-In(2)
199	1723.29	101.87	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	120' GIP	0.00
60.00	Mud 100%	0.84

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford, KS**

**JL Hullman #1-3**

Job Ticket: 63271

**DST#: 3**

Test Start: 2018.01.11 @ 16:14:00

## GENERAL INFORMATION:

Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 17:51:20 Tester: Ken Swinney  
 Time Test Ended: 22:50:50 Unit No: 72  
 Interval: **3634.00 ft (KB) To 3700.00 ft (KB) (TVD)** Reference Elevations: 1897.00 ft (KB)  
 Total Depth: 3700.00 ft (KB) (TVD) 1887.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 10.00 ft

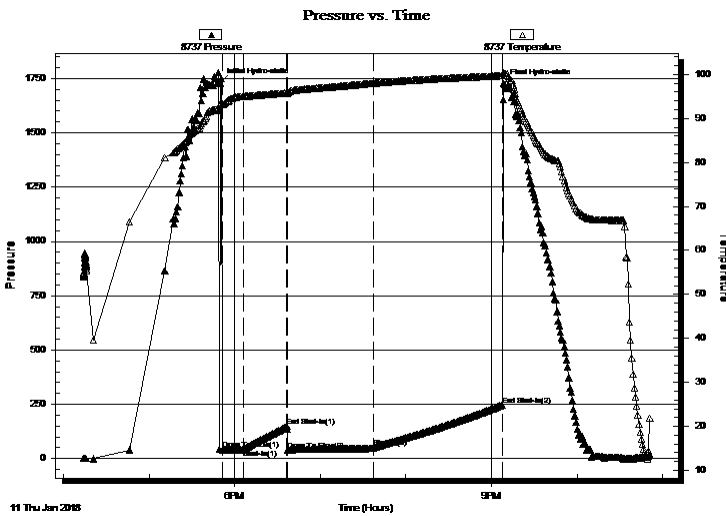
## Serial #: 8737

**Outside**

Press@RunDepth: 247.50 psig @ 3636.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.11 End Date: 2018.01.11 Last Calib.: 2018.01.11  
 Start Time: 16:14:01 End Time: 22:51:00 Time On Btm: 2018.01.11 @ 17:50:10  
 Time Off Btm: 2018.01.11 @ 21:08:30

**TEST COMMENT:** IFP 15 Minutes Slid 10' - Reset tool blow built to 4 1/2"  
 ISI 30 Minutes No blow back  
 FFP 60 Minutes Blow built to BOB in 40 minutes  
 FSI 90 Minutes No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1729.12	93.32	Initial Hydro-static
2	41.05	93.28	Open To Flow (1)
16	41.42	95.03	Shut-In(1)
47	148.92	95.77	End Shut-In(1)
47	40.24	95.81	Open To Flow (2)
108	50.04	98.02	Shut-In(2)
198	247.50	99.75	End Shut-In(2)
199	1725.87	100.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	120' GIP	0.00
60.00	Mud 100%	0.84

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63271      **DST#: 3**  
Test Start: 2018.01.11 @ 16:14:00

**Tool Information**

Drill Pipe:	Length: 3617.00 ft	Diameter: 3.80 inches	Volume: 50.74 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 50.74 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3634.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.70 ft			
Tool Length:	92.70 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3608.00	
Shut In Tool	5.00			3613.00	
Hydraulic tool	5.00			3618.00	
Jars	5.00			3623.00	
Safety Joint	2.00			3625.00	
Packer	5.00			3630.00	27.00      Bottom Of Top Packer
Packer	4.00			3634.00	
Recorder	1.00	8653	Inside	3635.00	
Recorder	1.00	8737	Outside	3636.00	
Perforations	27.00			3663.00	
Change Over Sub	1.00			3664.00	
Drill Pipe	31.70			3695.70	
Change Over Sub	1.00			3696.70	
Bullnose	3.00			3699.70	65.70      Bottom Packers & Anchor

**Total Tool Length: 92.70**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63271      **DST#: 3**  
Test Start: 2018.01.11 @ 16:14:00

## Mud and Cushion Information

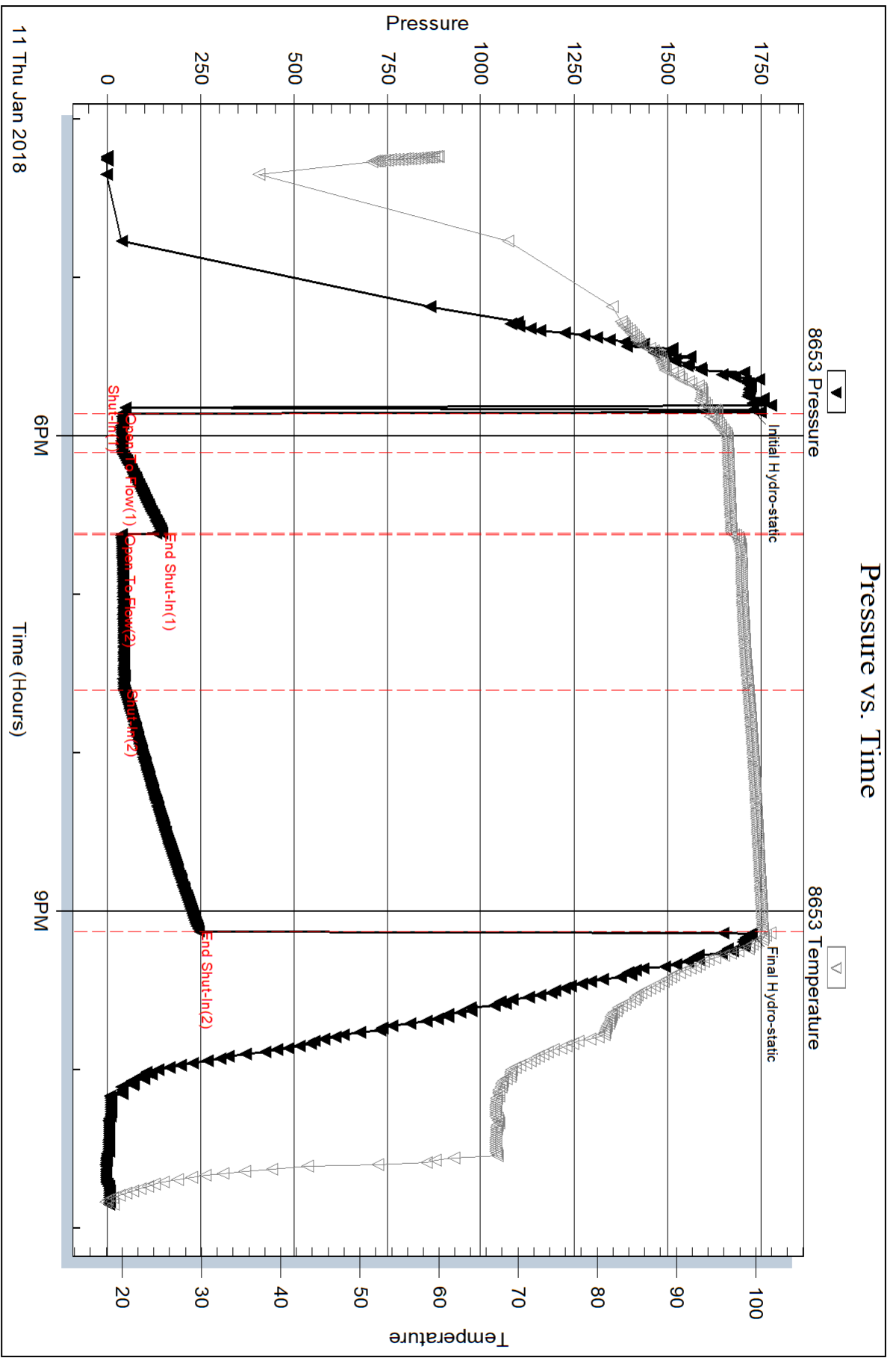
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.95 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

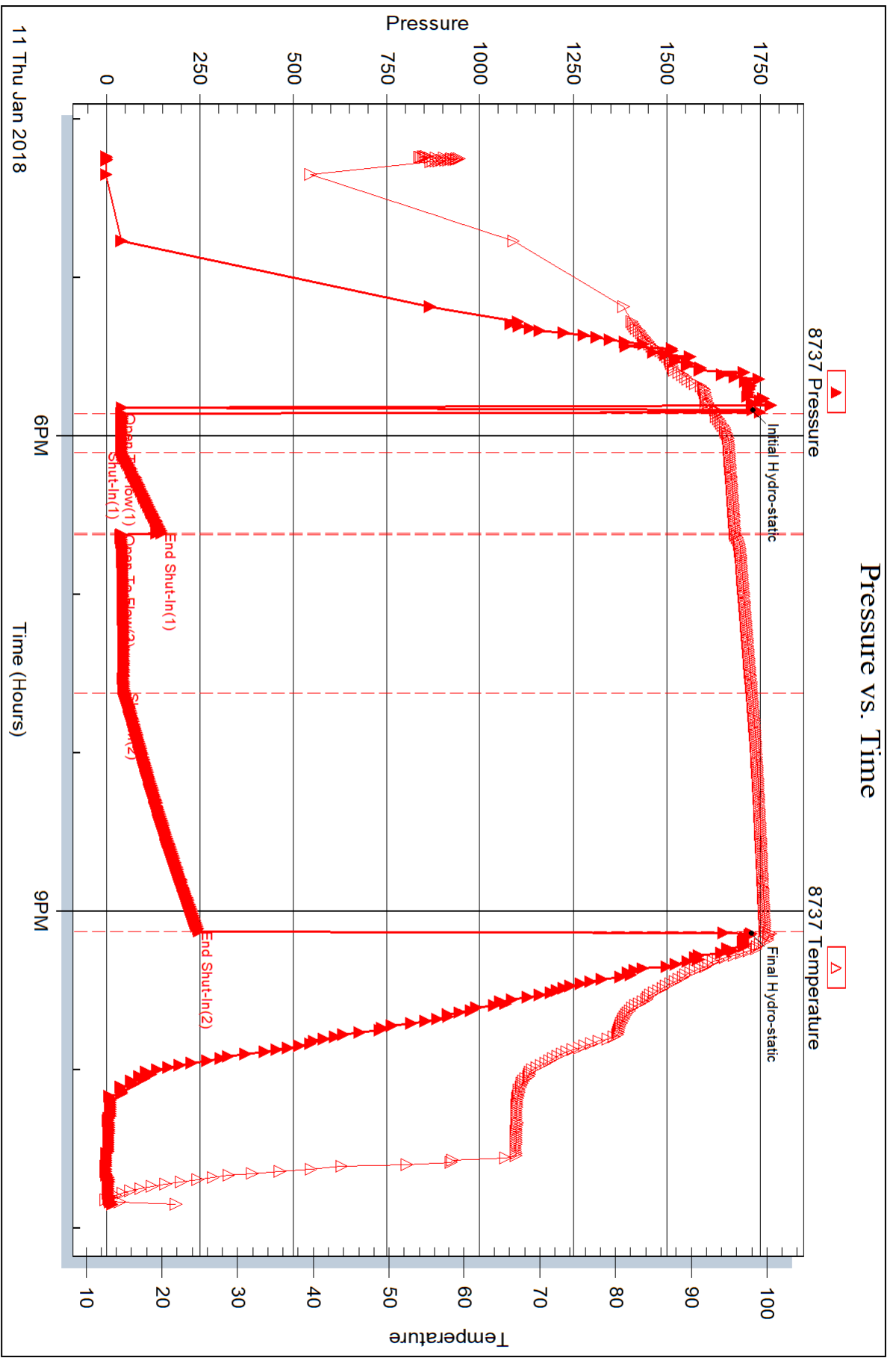
Recovery Table

Length ft	Description	Volume bbl
0.00	120' GIP	0.000
60.00	Mud 100%	0.842

Total Length: 60.00 ft      Total Volume: 0.842 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **JEL Resources LLC**

21941 E. Ridge Trail Circle  
Aurora, CO 80016

ATTN: Justin Carter

**JL Hullman #1-3**

**3-22S-13W Stafford,KS**

Start Date: 2018.01.12 @ 11:18:00

End Date: 2018.01.12 @ 17:45:39

Job Ticket #: 63272                      DST #: 4

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

Printed: 2018.01.15 @ 14:36:19



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**

**JL Hullman #1-3**

Job Ticket: 63272

**DST#: 4**

Test Start: 2018.01.12 @ 11:18:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:03:09

Time Test Ended: 17:45:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

**Interval: 3704.00 ft (KB) To 3772.00 ft (KB) (TVD)**

Reference Elevations: 1897.00 ft (KB)

Total Depth: 3772.00 ft (KB) (TVD)

1887.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8653**

**Inside**

Press@RunDepth: 1046.86 psig @ 3705.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.01.12

End Date:

2018.01.12

Last Calib.:

2018.01.12

Start Time: 11:18:07

End Time:

17:45:39

Time On Btm:

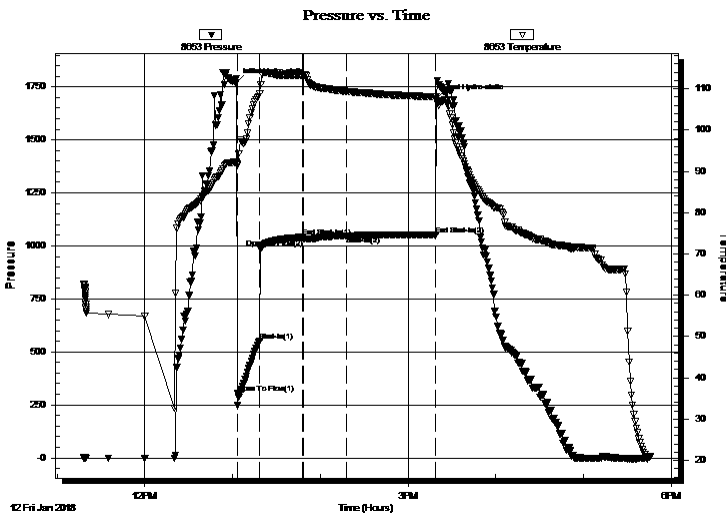
2018.01.12 @ 13:02:29

Time Off Btm:

2018.01.12 @ 15:19:29

**TEST COMMENT:** IFP 15 Minutes BOB in 1 minute  
ISI 30 Minutes No blow back  
FFP 30 Minutes Blow built to 4" then died to 3"  
FSI 60 Minutes Light surface blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1769.12	92.19	Initial Hydro-static
1	304.70	91.45	Open To Flow (1)
16	552.04	108.75	Shut-In(1)
46	1040.68	113.29	End Shut-In(1)
46	1032.73	113.29	Open To Flow (2)
76	1046.86	109.35	Shut-In(2)
137	1052.82	108.06	End Shut-In(2)
137	1693.95	108.02	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	75' GIP	0.00
496.00	GMCOW Mud 5% Oil 15% Gas 30% Water	6.96%
603.00	GMCOW Mud 20% Gas 20% Oil 25% Water	8.465%

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford,KS**

**JL Hullman #1-3**

Job Ticket: 63272

**DST#: 4**

Test Start: 2018.01.12 @ 11:18:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:03:09  
 Time Test Ended: 17:45:39  
 Interval: **3704.00 ft (KB) To 3772.00 ft (KB) (TVD)**  
 Total Depth: 3772.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72  
 Reference Elevations: 1897.00 ft (KB)  
 1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

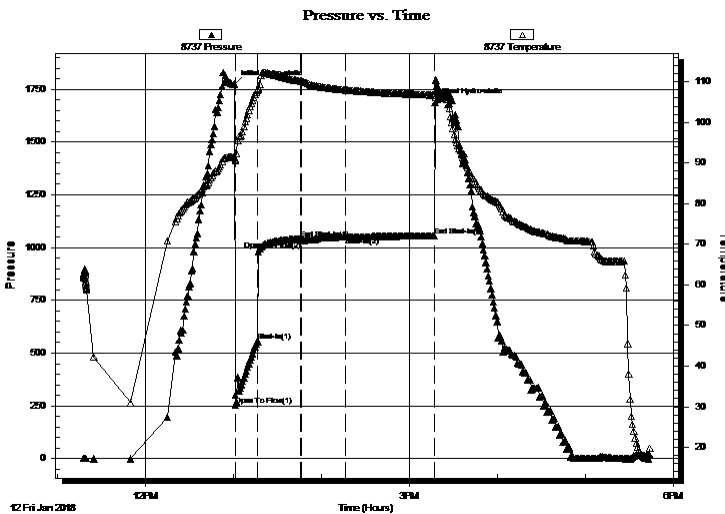
## Serial #: 8737

**Outside**

Press@RunDepth: 1054.72 psig @ 3706.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.12 End Date: 2018.01.12 Last Calib.: 2018.01.12  
 Start Time: 11:18:01 End Time: 17:44:10 Time On Btm: 2018.01.12 @ 13:01:00  
 Time Off Btm: 2018.01.12 @ 15:17:40

TEST COMMENT: IFP 15 Minutes BOB in 1 minute  
 ISI 30 Minutes No blow back  
 FFP 30 Minutes Blow built to 4" then died to 3"  
 FSI 60 Minutes Light surface blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1773.80	91.50	Initial Hydro-static
1	252.79	90.95	Open To Flow (1)
16	554.48	108.13	Shut-In(1)
46	1042.63	110.22	End Shut-In(1)
46	1032.80	110.20	Open To Flow (2)
76	1049.35	107.98	Shut-In(2)
137	1054.72	106.74	End Shut-In(2)
137	1686.15	107.02	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	75' GIP	0.00
496.00	GMCOW Mud 5% Oil 15% Gas 30% Water	6.96%
603.00	GMCOW Mud 20% Gas 20% Oil 25% Water	8.465%

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63272      **DST#: 4**  
Test Start: 2018.01.12 @ 11:18:00

**Tool Information**

Drill Pipe:	Length: 3706.00 ft	Diameter: 3.80 inches	Volume: 51.99 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 51.99 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3704.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	67.71 ft				
Tool Length:	94.71 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
Change Over Sub	1.00			3678.00	
Shut In Tool	5.00			3683.00	
Hydraulic tool	5.00			3688.00	
Jars	5.00			3693.00	
Safety Joint	2.00			3695.00	
Recorder	5.00			3700.00	
Packer	4.00			3704.00	27.00      Bottom Of Top Packer
Recorder	1.00	8653	Inside	3705.00	
Recorder	1.00	8737	Outside	3706.00	
Perforations	29.00			3735.00	
Change Over Sub	1.00			3736.00	
Drill Pipe	31.71			3767.71	
Change Over Sub	1.00			3768.71	
Bullnose	3.00			3771.71	67.71      Anchor Tool

**Total Tool Length: 94.71**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63272      **DST#: 4**  
Test Start: 2018.01.12 @ 11:18:00

## Mud and Cushion Information

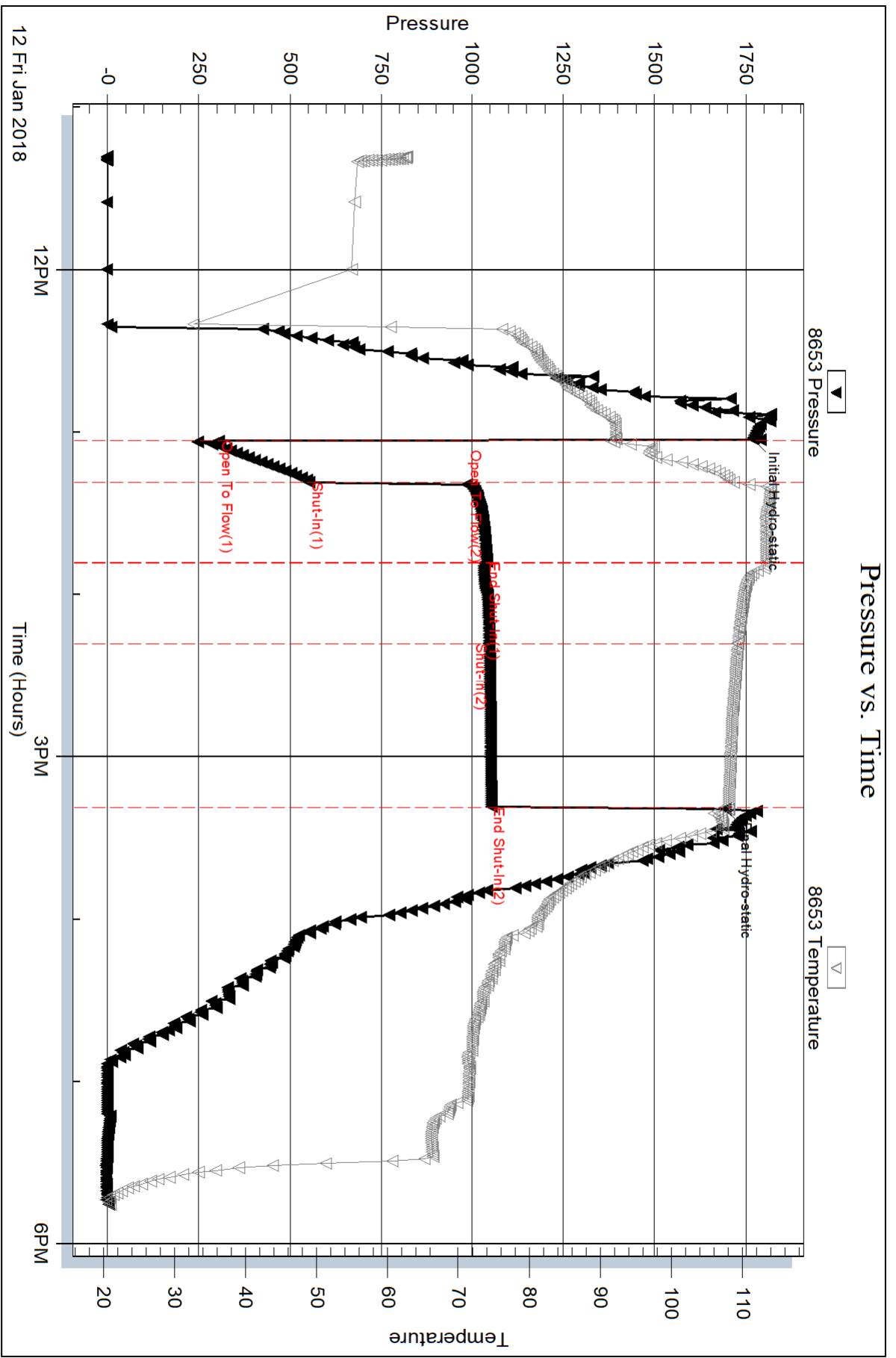
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	18000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.36 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: 1.00 inches			

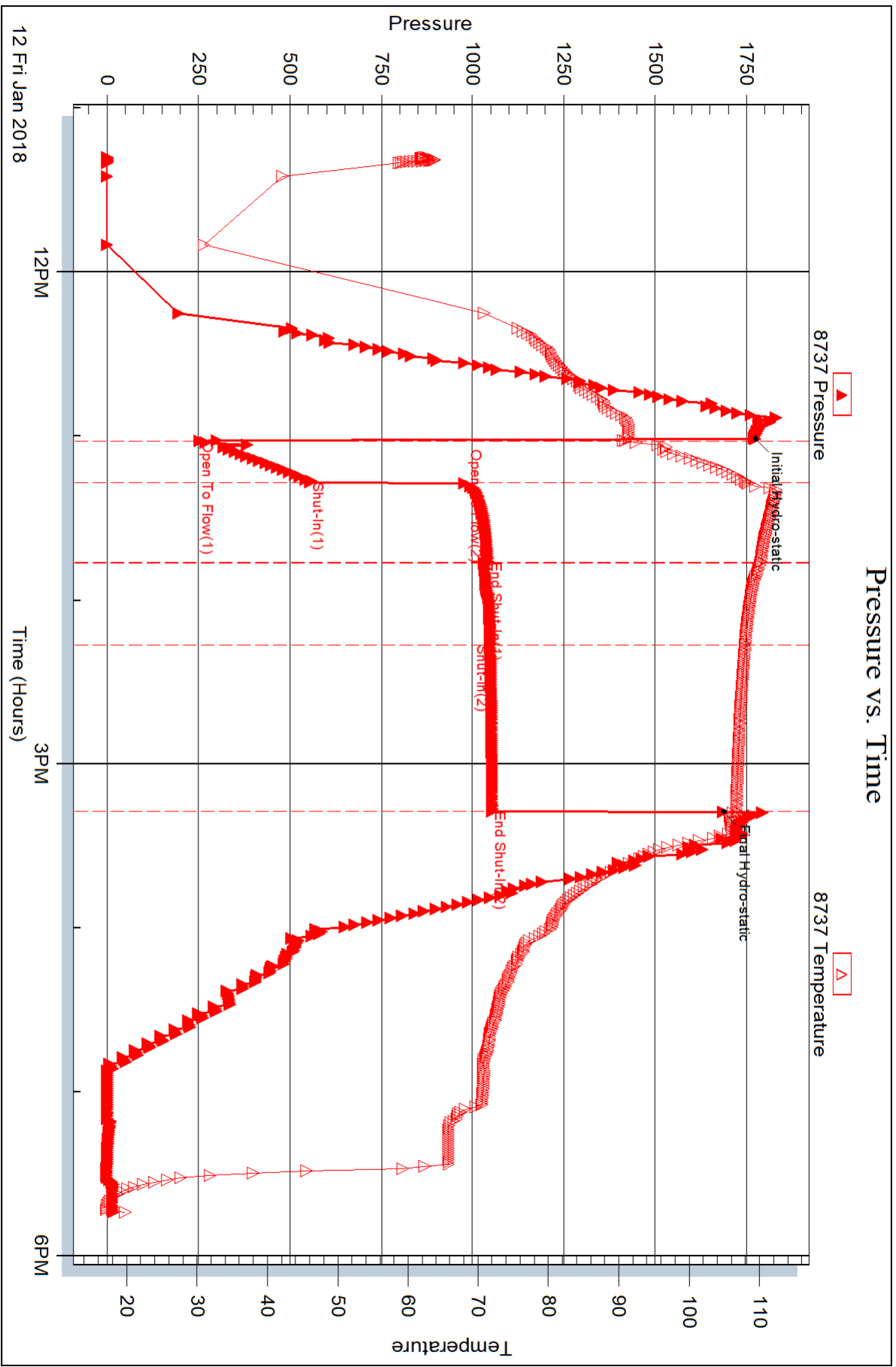
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	75' GIP	0.000
496.00	GMCOV Mud 5% Oil 15% Gas 30% Water 50	6.958
603.00	GMCOV Mud 20% Gas 20% Oil 25% Water 3	8.459

Total Length: 1099.00 ft      Total Volume: 15.417 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: Recovery Resistivity .880 ohms @ 29 deg.









## DRILL STEM TEST REPORT

Prepared For: **JEL Resources LLC**

21941 E. Ridge Trail Circle  
Aurora, CO 80016

ATTN: Justin Carter

**JL Hullman #1-3**

**3-22S-13W Stafford,KS**

Start Date: 2018.01.13 @ 06:56:00

End Date: 2018.01.13 @ 13:12:39

Job Ticket #: 63273                      DST #: 5

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

Printed: 2018.01.15 @ 14:35:56



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford, KS**

**JL Hullman #1-3**

Job Ticket: 63273

**DST#: 5**

Test Start: 2018.01.13 @ 06:56:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:04:10

Time Test Ended: 13:12:39

Test Type: Conventional Straddle (Initial)

Tester: Ken Swinney

Unit No: 72 Great Bend/30

**Interval: 3754.00 ft (KB) To 3760.00 ft (KB) (TVD)**

Reference Elevations: 1897.00 ft (KB)

Total Depth: 3760.00 ft (KB) (TVD)

1887.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8653**

**Inside**

Press@RunDepth: 156.81 psig @ 3754.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.01.13

End Date:

2018.01.13

Last Calib.:

2018.01.13

Start Time: 06:56:01

End Time:

13:12:40

Time On Btm:

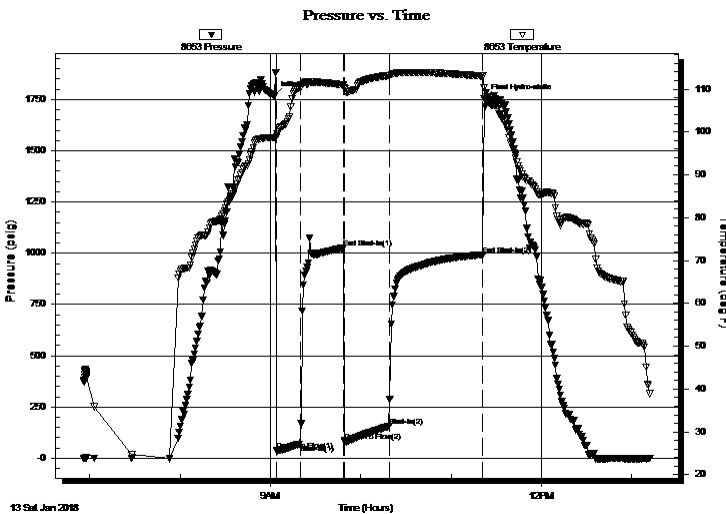
2018.01.13 @ 09:02:50

Time Off Btm:

2018.01.13 @ 11:22:00

**TEST COMMENT:** IFP 15 Minutes BOB in 3 1/2 minutes  
ISI 30 Minutes BOB in 13 minutes  
FFP 30 Minutes BOB in 2 minutes  
FSI 60 Minutes BOB in 19 minutes

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1766.69	98.70	Initial Hydro-static
2	37.97	98.90	Open To Flow (1)
17	69.27	110.49	Shut-In(1)
46	1025.57	110.93	End Shut-In(1)
47	84.65	110.42	Open To Flow (2)
77	156.81	113.08	Shut-In(2)
139	992.53	113.03	End Shut-In(2)
140	1752.69	110.43	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	1134' GIP	0.00
806.00	GMCO Mud 10% Gas 20% Oil 70%	11.31
124.00	VGWMCO Water 10% Mud 15% Oil 30%	1.7445%

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford, KS**

**JL Hullman #1-3**

Job Ticket: 63273

**DST#: 5**

Test Start: 2018.01.13 @ 06:56:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:04:10  
 Time Test Ended: 13:12:39  
 Interval: **3754.00 ft (KB) To 3760.00 ft (KB) (TVD)**  
 Total Depth: 3760.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Initial)  
 Tester: Ken Swinney  
 Unit No: 72 Great Bend/30  
 Reference Elevations: 1897.00 ft (KB)  
 1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

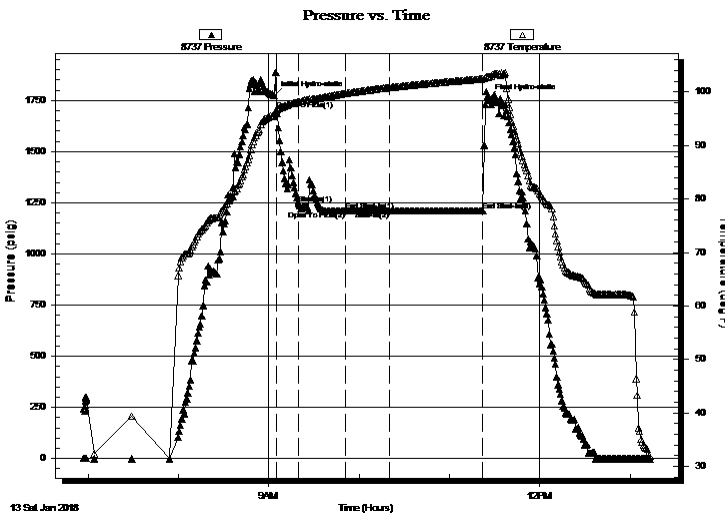
## Serial #: 8737

**Below (Straddle)**

Press@RunDepth: 1210.49 psig @ 3761.74 ft (KB)  
 Start Date: 2018.01.13 End Date: 2018.01.13  
 Start Time: 06:57:01 End Time: 13:13:40  
 Capacity: 8000.00 psig  
 Last Calib.: 2018.01.13  
 Time On Btm: 2018.01.13 @ 09:03:50  
 Time Off Btm: 2018.01.13 @ 11:26:00

TEST COMMENT: IFP 15 Minutes BOB in 3 1/2 minutes  
 ISI 30 Minutes BOB in 13 minutes  
 FFP 30 Minutes BOB in 2 minutes  
 FSI 60 Minutes BOB in 19 minutes

## PRESSURE SUMMARY



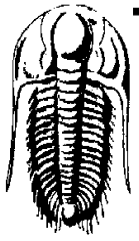
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1772.35	95.60	Initial Hydro-static
2	1702.93	96.68	Open To Flow (1)
17	1246.78	98.19	Shut-In(1)
47	1210.53	99.74	End Shut-In(1)
48	1210.11	99.75	Open To Flow (2)
77	1209.55	100.84	Shut-In(2)
139	1210.49	102.47	End Shut-In(2)
143	1760.15	102.85	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	1134' GIP	0.00
806.00	GMCO Mud 10% Gas 20% Oil 70%	11.31
124.00	VGWMCO Water 10% Mud 15% Oil 30%	1.7445%

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

3-22S-13W Stafford,KS

JL Hullman #1-3

Job Ticket: 63273

**DST#: 5**

Test Start: 2018.01.13 @ 06:56:00

## GENERAL INFORMATION:

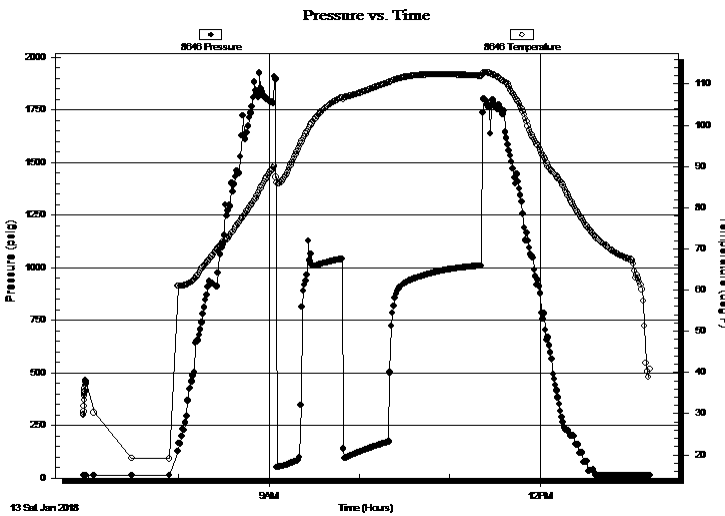
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Initial)  
 Time Tool Opened: 09:04:10 Tester: Ken Swinney  
 Time Test Ended: 13:12:39 Unit No: 72 Great Bend/30  
 Interval: **3754.00 ft (KB) To 3760.00 ft (KB) (TVD)** Reference Elevations: 1897.00 ft (KB)  
 Total Depth: 3760.00 ft (KB) (TVD) 1887.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: **8646** Outside

Press@RunDepth: psig @ 3754.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2018.01.13 End Date: 2018.01.13	Last Calib.: 1899.12.30
Start Time: 06:56:55 End Time: 13:13:14	Time On Btm:
	Time Off Btm:

TEST COMMENT: IFP 15 Minutes BOB in 3 1/2 minutes  
 ISI 30 Minutes BOB in 13 minutes  
 FFP 30 Minutes BOB in 2 minutes  
 FSI 60 Minutes BOB in 19 minutes

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	1134' GIP	0.00
806.00	GMCO Mud 10% Gas 20% Oil 70%	11.31
124.00	VGWMCO Water 10% Mud 15% Oil 30%	1.7445%

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
 Job Ticket: 63273      **DST#: 5**  
 Test Start: 2018.01.13 @ 06:56:00

**Tool Information**

Drill Pipe:	Length: 3739.00 ft	Diameter: 3.80 inches	Volume: 52.45 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 52.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.68 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3754.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	3826.72 ft			
Interval between Packers:	72.72 ft			
Tool Length:	97.40 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3730.32	
Shut In Tool	5.00			3735.32	
Hydraulic tool	5.00			3740.32	
Jars	5.00			3745.32	
Safety Joint	2.00			3747.32	
Packer	5.00			3752.32	24.68      Bottom Of Top Packer
Packer	1.68			3754.00	
Recorder	0.00	8653	Inside	3754.00	
Recorder	0.00	8646	Outside	3754.00	
Perforations	2.00			3756.00	
Packer (test side)	3.14			3759.14	
Packer (tail side)	1.60			3760.74	
Blank Off Sub	1.00			3761.74	
Recorder	0.00	8737	Below	3761.74	
Change Over Sub	1.46			3763.20	
Drill Pipe	63.52			3826.72	72.72      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>97.40</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

JEL Resources LLC  
21941 E. Ridge Trail Circle  
Aurora, CO 80016  
ATTN: Justin Carter

**3-22S-13W Stafford,KS**  
**JL Hullman #1-3**  
Job Ticket: 63273      **DST#: 5**  
Test Start: 2018.01.13 @ 06:56:00

## Mud and Cushion Information

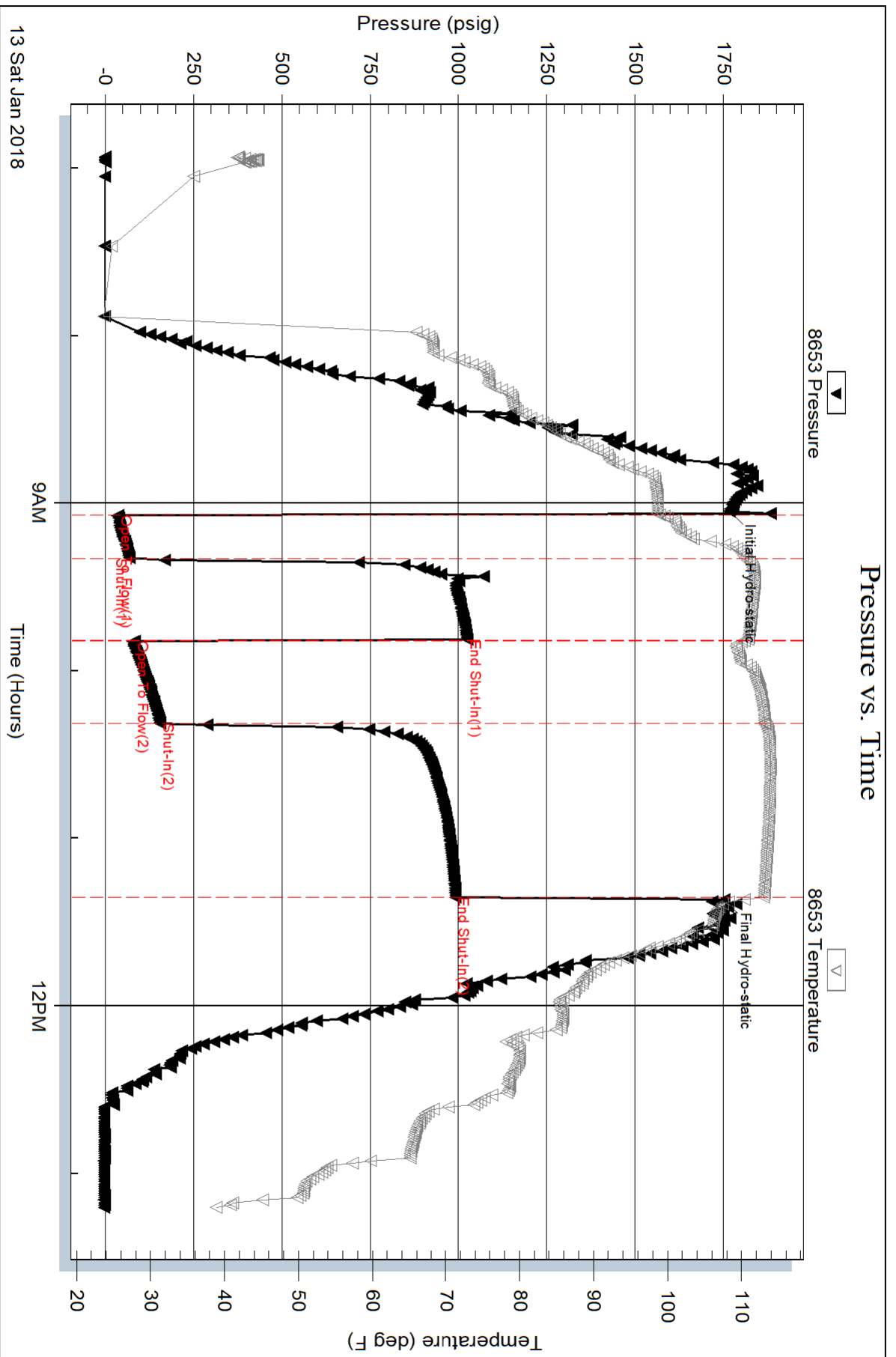
Mud Type: Gel Chem	Cushion Type:	Oil API: 30 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 10.35 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 8000.00 ppm		
Filter Cake: 1.00 inches		

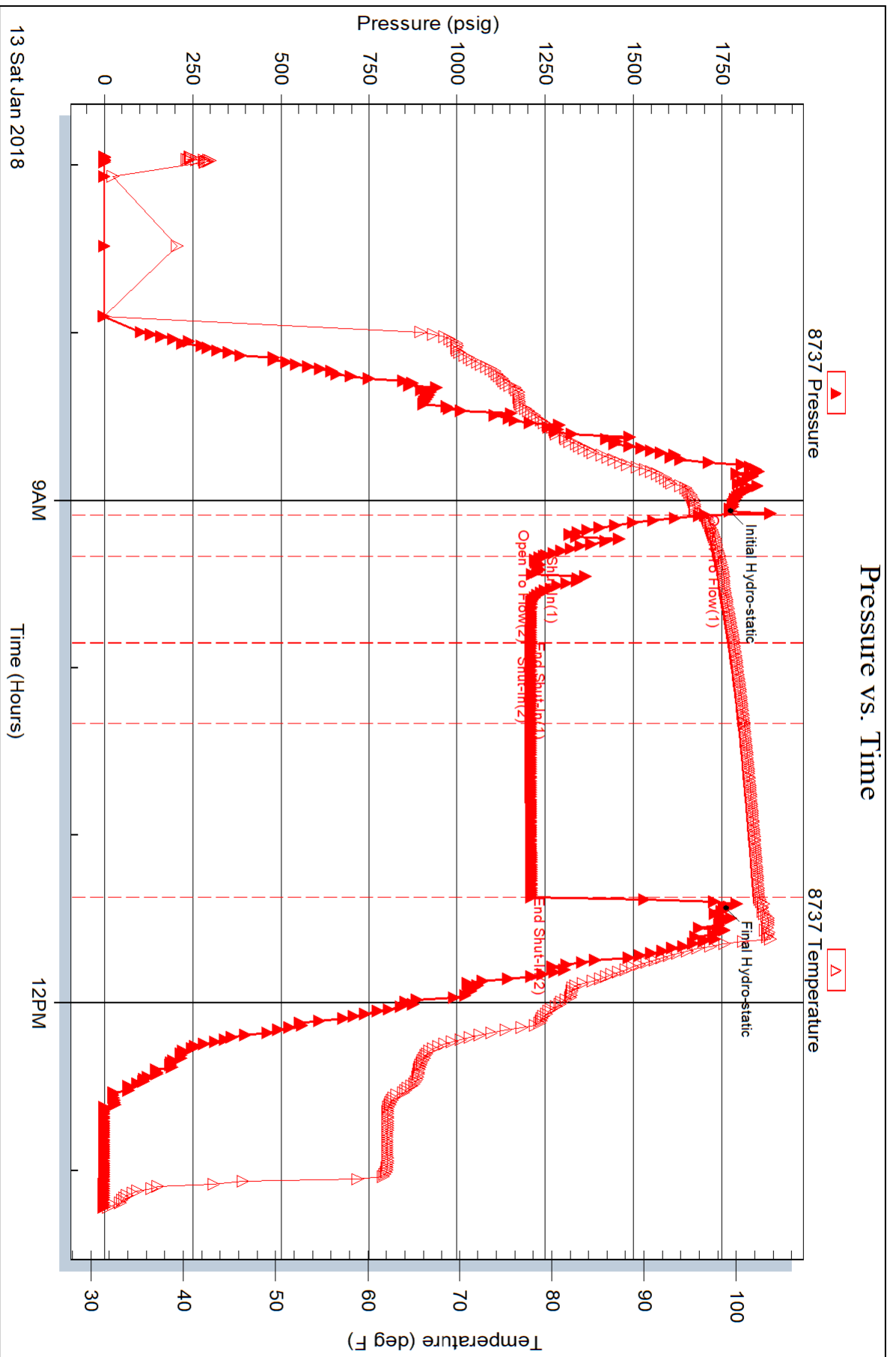
## Recovery Information

Recovery Table

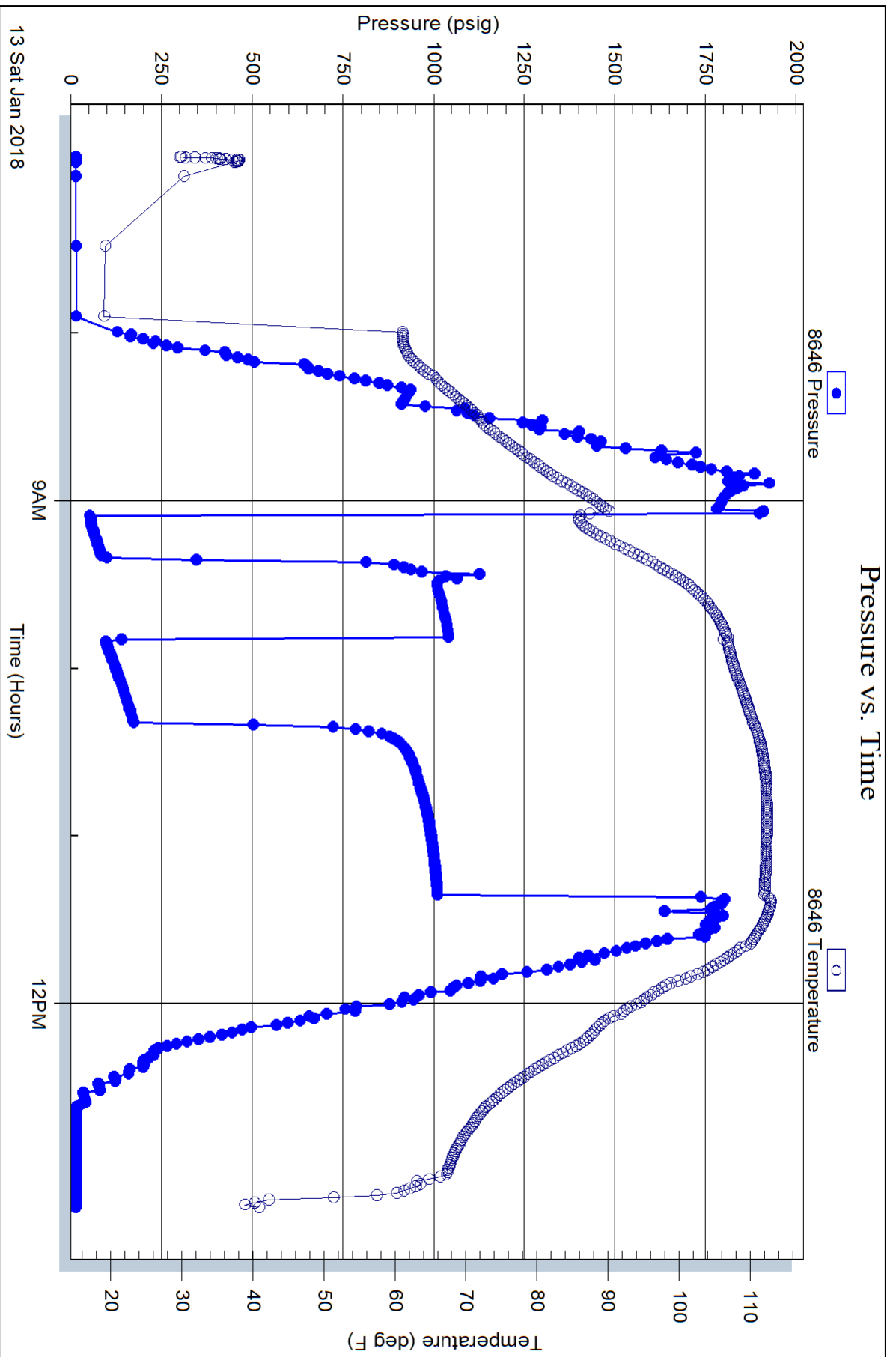
Length ft	Description	Volume bbl
0.00	1134' GIP	0.000
806.00	GMCO Mud 10% Gas 20% Oil 70%	11.306
124.00	VGWMCO Water 10% Mud 15% Oil 30% Gas	1.739

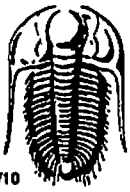
Total Length: 930.00 ft      Total Volume: 13.045 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:











# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63269

Well Name & No. ~~J.L. Hullman 1-3~~ J.L. Hullman 1-3 Test No. 1 Date 10 JAN 18  
 Company JEL Resources LLC Elevation 1897 KB 1887 GL  
 Address 21941 East Ridge Trail Circle Aurora CO 80016  
 Co. Rep / Geo. Justin Carter Rig Southwind Rig 2  
 Location: Sec. 3 Twp. 22S Rge. 13W Co. Stafford State KS

Interval Tested 3400-3440 Zone Tested Lansing/Kansas City zones B+C  
 Anchor Length 40 Drill Pipe Run 3390 Mud Wt. 8.6  
 Top Packer Depth 3395 Drill Collars Run - Vis 44  
 Bottom Packer Depth 3400 Wt. Pipe Run - WL 8.0  
 Total Depth 3440 Chlorides 4400 ppm System LCM 1#

Blow Description I.F. Slide 10 ft. Blow at 5 1/2 inch at open built to 7 inch  
I.S.I No blowback  
F.F. Surging build to 1/2 inch occasional surge throughout no further build  
F.S.I No blowback

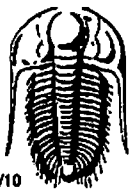
Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60 BHT 97 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1540</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location _____
(B) First Initial Flow <u>49</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:26 am</u>
(C) First Final Flow <u>45</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2:23 am</u>
(D) Initial Shut-In <u>604</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>4:38 am</u>
(E) Second Initial Flow <u>103</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>6:17 am</u>
(F) Second Final Flow <u>58</u>	<input checked="" type="checkbox"/> Mileage <u>30</u> <u>22.50</u>	Comments _____
(G) Final Shut-In <u>674</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1587</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1397.50</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1397.50</u>	

Approved By [Signature] Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63270

Well Name & No. J.L. Hullman 1-3 Test No. 2 Date 10 JAN 18  
 Company JEL Resources LLC Elevation 1897 KB 1897 GL  
 Address 2194 E Ridge Trail Circle Aurora CO 80016  
 Co. Rep / Geo. Justin Carter Rig Southwind Rig 1  
 Location: Sec. 3 Twp. 22S Rge. 13W Co. Stafford State KS

Interval Tested 3494-3552 Zone Tested Lansing/Kansas City zones H-J  
 Anchor Length 58 Drill Pipe Run 3492 Mud Wt. 8.7  
 Top Packer Depth 3489 Drill Collars Run — Vis 76  
 Bottom Packer Depth 3494 Wt. Pipe Run — WL 8.0  
 Total Depth 3552 Chlorides 5300 ppm System LCM 1#

Blow Description I.F. Blow to B.O.B. in 10 seconds / Gas to surface 3 minutes  
F.S.I. No blow back

F.F. Blow to B.O.B. in 5 seconds

F.S.I. Blow back built to 2 inches

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>Mud cut Watery O.I</u>	<u>60</u>	<u>30</u>	<u>10</u>	<u>10</u>
<u>90</u>	<u>Water cut Oily Mud</u>	<u>30</u>	<u>20</u>	<u>50</u>	<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 150 BHT 100 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

- (A) Initial Hydrostatic 1647
- (B) First Initial Flow 78
- (C) First Final Flow 67
- (D) Initial Shut-In 1019
- (E) Second Initial Flow 79
- (F) Second Final Flow 70
- (G) Final Shut-In 1006
- (H) Final Hydrostatic 1626

- Test 1050
- Jars 250
- Safety Joint 75
- Circ Sub \_\_\_\_\_
- Hourly Standby \_\_\_\_\_
- Mileage 30 22.50
- Sampler \_\_\_\_\_
- Straddle \_\_\_\_\_
- Shale Packer \_\_\_\_\_
- Extra Packer \_\_\_\_\_
- Extra Recorder \_\_\_\_\_
- Day Standby \_\_\_\_\_
- Accessibility \_\_\_\_\_
- Sub Total 1397.50

T-On Location 8:05 pm  
 T-Started 9:19 pm  
 T-Open 10:51 pm  
 T-Pulled 1:06 am  
 T-Out 2:54 am

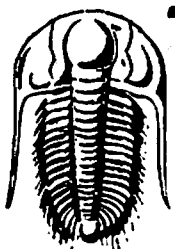
Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1397.50  
 MP/DST Disc't \_\_\_\_\_

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 60

Approved By [Signature]

Our Representative [Signature]

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**TRILOBITE TESTING L.L.C.**

P.O. Box 362 • Hays, Kansas 67601 • (913) 625-4778

**GAS VOLUME REPORT**

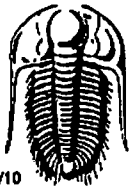
JEL Resources LLC  
OPERATOR

J.L. Hullman #1-3  
WELL NAME AND NO.

2  
DST NO.

Min.	In. of Water PSIG	Orifice Size	MCF/D	Min.	In. of Water PSIG	Orifice Size	MCF/D
				10	18 psi	1/4	51.399
				20	20 psi	1/4	54.572
				30	20 psi	1/4	54.572

Remarks:



# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63271

Well Name & No. J.L. Hallman 1-3 Test No. 3 Date 11 JAN 18  
 Company JEL Resources LLC Elevation 1897 KB 1887 GL  
 Address 21941 E Ridge Trail Circle Aurora CO 80016  
 Co. Rep / Geo. Justin Carter Rig Southward 2.7 1  
 Location: Sec. 3 Twp. 22S Rge. 13W Co. Stafford State KS

Interval Tested 3634-3700 Zone Tested Viola  
 Anchor Length 66 Drill Pipe Run 3617 Mud Wt. 8.9  
 Top Packer Depth 3629 Drill Collars Run — Vis 45  
 Bottom Packer Depth 3634 Wt. Pipe Run — WL 8.0  
 Total Depth 3700 Chlorides 6500 ppm System LCM 1 #

Blow Description I.F. Slide 10 ft. / Reset tool blow built to 4 1/2"

I.S.I No blow back

F.F. Bbw built to BOB in 40 minutes

F.S.I No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>6IP</u>	<u>100</u>			
<u>60</u>	<u>Mud</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 180 BHT 100 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

- (A) Initial Hydrostatic 1727
- (B) First Initial Flow 39
- (C) First Final Flow 38
- (D) Initial Shut-In 146
- (E) Second Initial Flow 38
- (F) Second Final Flow 49
- (G) Final Shut-In 244
- (H) Final Hydrostatic 1723

- Test 1050
- Jars 250
- Safety Joint 75
- Circ Sub \_\_\_\_\_
- Hourly Standby \_\_\_\_\_
- Mileage 30 22.50
- Sampler \_\_\_\_\_
- Straddle \_\_\_\_\_
- Shale Packer \_\_\_\_\_
- Extra Packer \_\_\_\_\_
- Extra Recorder \_\_\_\_\_
- Day Standby \_\_\_\_\_
- Accessibility \_\_\_\_\_
- Sub Total 1397.50

T-On Location 3:04 pm  
 T-Started 4:14 pm  
 T-Open 5:51 pm  
 T-Pulled 9:06 pm  
 T-Out 10:50 pm

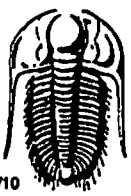
Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1397.50  
 MP/DST Disc't \_\_\_\_\_

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 60  
 Final Shut-In 90

Approved By [Signature]

Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63272

Well Name & No. JL Hullman 1-3 Test No. 4 Date 12 JAN 18  
 Company JEL Resources LLC Elevation 1897 KB 1887 GL  
 Address 21941 E Ridge Trail Circle Aurora CO 80016  
 Co. Rep / Geo. Justin Carter Rig Southwind Rig 1  
 Location: Sec. 3 Twp. 22S Rge. 13W Co. Stafford State KS

Interval Tested 3704-3772 Zone Tested Arbuckle  
 Anchor Length 68 Drill Pipe Run 3706 Mud Wt. 9.0  
 Top Packer Depth 3699 Drill Collars Run — Vis 54  
 Bottom Packer Depth 3709 Wt. Pipe Run — WL 10.4  
 Total Depth 3772 Chlorides 8000 ppm System LCM 1#

Blow Description I.F. Blow built to BOB in 1 minute  
I.S.I No blow back  
F.F. Blow built to 4 inch died to 3 inch  
F.S.I Light surface blow back

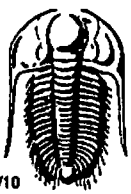
Rec	Feet of	%gas	%oil	%water	%mud
<u>75</u>	<u>Gas in Pipe</u>	<u>100</u>			
<u>496</u>	<u>Mud &amp; oil cut Gassy water</u>	<u>30</u>	<u>15</u>	<u>50</u>	<u>5</u>
<u>603</u>	<u>Muddy Gassy, Oily Water</u>	<u>20</u>	<u>25</u>	<u>35</u>	<u>20</u>

Rec Total 1099 BHT 108 Gravity \_\_\_\_\_ API RW 880 @ 79 °F Chlorides 18,000 ppm

(A) Initial Hydrostatic <u>1769</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>8:30 am</u>
(B) First Initial Flow <u>304</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>11:18 am</u>
(C) First Final Flow <u>552</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1:02 pm</u>
(D) Initial Shut-In <u>1040</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>3:17 am</u>
(E) Second Initial Flow <u>1032</u>	<input type="checkbox"/> Hourly Standby _____	T-Out _____
(F) Second Final Flow <u>1046</u>	<input checked="" type="checkbox"/> Mileage <u>30</u> 22.50	Comments _____
(G) Final Shut-In <u>1052</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1693</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>15</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total _____
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby _____	Total _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1397.50</u>	

Approved By Justin Carter Our Representative \_\_\_\_\_

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63273

Well Name & No. JL Hullman 1-3 Test No. 5 Date 13 JAN 18  
 Company JEL Resources LLC Elevation 1897 KB 1887 GL  
 Address 21941 E Ridge Trail Circle Aurora CO 80016  
 Co. Rep / Geo. Justin Carter Rig Southwind Rig 1  
 Location: Sec. 3 Twp. 22S Rge. 13W Co. Stafford State KS

Interval Tested 3754-3760 Zone Tested Aiduckle  
 Anchor Length 6 Drill Pipe Run 3740 Mud Wt. 9.0  
 Top Packer Depth 3749 Drill Collars Run - Vis 54  
 Bottom Packer Depth 3754 Wt. Pipe Run - WL 10.4  
 Total Depth 3829 Chlorides 8000 ppm System LCM 1#

Blow Description I.F. Blow built to BOB in 3 1/2 minutes  
I.S.I. Blow back built to BOB in 13 minutes  
F.F. Blow built to BOB in 2 minutes  
F.S.I. Blow back built to BOB in 19 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>1134</u>	<u>GIP</u>	<u>100</u>			
<u>806</u>	<u>Mud cut Gassy Oil</u>	<u>20</u>	<u>70</u>		<u>10</u>
<u>124</u>	<u>Water &amp; mud cut oily Gas</u>	<u>45</u>	<u>30</u>	<u>10</u>	<u>15</u>

Rec Total 930 BHT 113 Gravity 30 API RW @ ° F Chlorides ppm  
 (A) Initial Hydrostatic 1766  Test 1050 T-On Location 6:10 am  
 (B) First Initial Flow 37  Jars 250 T-Started 6:56 am  
 (C) First Final Flow 69  Safety Joint 75 T-Open 9:05 am  
 (D) Initial Shut-In 1025  Circ Sub \_\_\_\_\_ T-Pulled 11:20 am  
 (E) Second Initial Flow 84  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow 156  Mileage 30 22.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 992  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1752  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1997.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub-Total 1997.50

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 60

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.

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 457

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-14-19	3	22	13	Stallford	KS		1:15 AM

Location 281 + K-19 1/4 E N into

Lease JL Hullman	Well No. 1-3	Owner To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Contractor		
Type Job Production String		
Hole Size 7 7/8	T.D. 3828'	Charge To JEL Resources
Csg. 5 1/2	Depth 3826'	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. 21.26	Shoe Joint 21.26	Cement Amount Ordered 175 sx Q Pro-C

Meas Line	Displace 90 1/2 bbl	10% salt 5% gilsonite
EQUIPMENT		Common 175 Q pro-c

Pumptrk 20	No. Cementer Helper Brett	Poz. Mix
Bulktrk	No. Driver Driver Glenn	Gel.
Bulktrk	No. Driver Driver Doug	Calcium

JOB SERVICES & REMARKS		Hulls
Remarks:		Salt 14
Rat Hole - 30 sx		Flowseal
Mouse Hole - 15 sx		Kol-Seal 750 #
Centralizers 1, 3, 5, 7, 9, 11, 13 + 15		Mud CLR 48 - 500 gal
Baskets 9		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand
		Handling
		Mileage

Ran 3826' of 5 1/2 casing + Egt cin		FLOAT EQUIPMENT
Mixed 500 Gal Mud Flush		Guide Shoe
Plugged Rat + Mouse hole		Centralizer - 8 tarbas
Mixed 130 sx Q-Pro-C		Baskets - 1
Displaced 90 1/2 bbl H2O		AFU Inserts
Lift pressure @ 700 lbs		Float Shoe - 1
Landed plug @ 1500 lbs		Latch Down - 1

	Pumptrk Charge prod string	Tax
	Mileage 15	Discount
		Total Charge
X Signature [Signature]		



# JUSTIN D. CARTER

## CONSULTING GEOLOGIST

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

Well Name: JL HULLMAN 1-3  
Well Id:  
Location: W/2, E/2, SW, SW Sec. 3 - 22S - 13W Stafford Co., KS  
License Number: 15-185-24006-0000  
Spud Date: 01/05/18  
Surface Coordinates: 600' FSL & 900' FWL  
Region: Gates  
Drilling Completed: 01/12/18

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 1887'      K.B. Elevation (ft): 1897'  
Logged Interval (ft): 3100'      To: 3830'      Total Depth (ft): 3830'  
Formation: LANSING, ARBUCKLE  
Type of Drilling Fluid: Chemical Mud

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### OPERATOR

Company: JEL RESOURCES, LLC  
Address: 21941 E. Ridge Trail Circle  
Aurora, CO 80016  
Co. Rep.: Mr. Michael Connelly

### GEOLOGIST

Name: Justin D. Carter  
Company: Consulting Geologist  
Address: 1640 N. Roosevelt Ave.  
Liberal, KS 67901  
Phone: 620-655-1187

### Comments

Drilling Contractor: Southwind Drilling Co. Rig #1  
Tool Pusher: Wes Pfaff

8 5/8" surface casing set at 312'

Mud: MudCo  
Engineer: Rick Hughes

Gas Detection: Blue Stem

DSTs: Trilobite Testing  
Tester: Kenny Swinney

Open-Hole Loggers: ELI Wireline



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

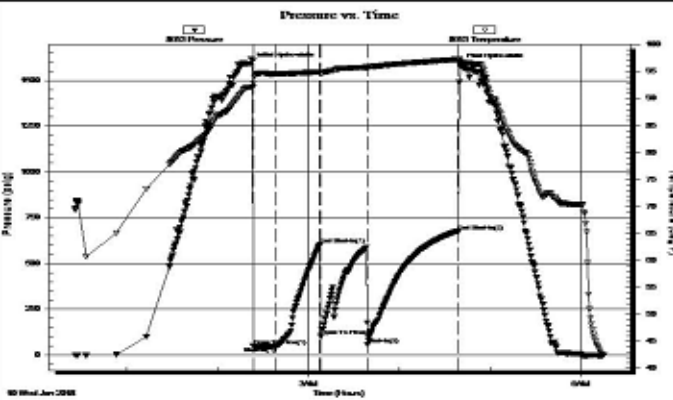
3/22S/13W/Stafford  
**J.L. Hullman #1-3**  
 Job Ticket: 63269 **DST#: 1**  
 Test Start: 2018.01.10 @ 00:26:00

**GENERAL INFORMATION:**

Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 02:23:20 Tester: Ken Swinney  
 Time Test Ended: 06:15:09 Unit No: 72 Great Bend/30  
 Interval: **3400.00 ft (KB) To 3440.00 ft (KB) (TVD)** Reference Elevations: 1897.00 ft (KB)  
 Total Depth: 3440.00 ft (KB) (TVD) 1887.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Poor KB to GR/CF: 10.00 ft

**Serial #: 8653 Inside**  
 Press@RunDepth: 58.81 psig @ 3401.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.10 End Date: 2018.01.10 Last Calib.: 2018.01.10  
 Start Time: 00:26:01 End Time: 06:15:10 Time On Btm: 2018.01.10 @ 02:21:50  
 Time Off Btm: 2018.01.10 @ 04:40:30

**TEST COMMENT:** I.F. 15 Minutes/ 10 foot slide/ Blow at 5 1/2 inches at open/ Blow built to 7 inches  
 I.S.L 30 Minutes/ No blow back  
 F.F. 30 Minutes/ Weak surging blow built to 1/2 inch then occasional light surge throughout/ No further build  
 F.S.L 60 Minutes/ No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1590.72	92.10	Initial Hydro-static
2	49.79	92.26	Open To Flow (1)
17	45.29	94.61	Shut-In(1)
46	604.48	94.94	End Shut-In(1)
47	103.32	94.57	Open To Flow (2)
78	58.81	95.57	Shut-In(2)
137	674.24	97.31	End Shut-In(2)
139	1587.38	96.74	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	Mud 100%	0.84

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

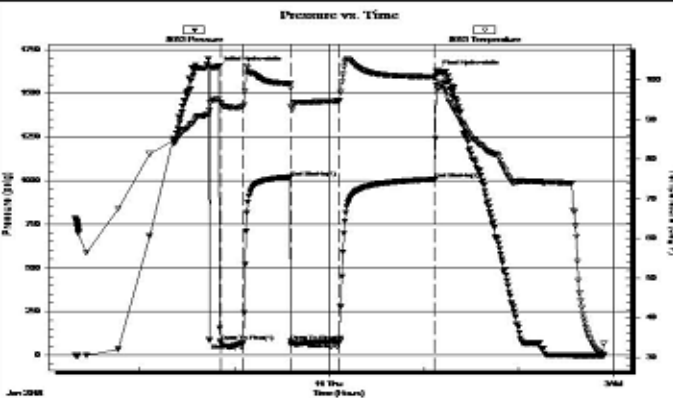
3/22S/13W/Stafford  
**J.L. Hullman #1-3**  
 Job Ticket: 63270 **DST#: 2**  
 Test Start: 2018.01.10 @ 21:19:00

### GENERAL INFORMATION:

Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 22:51:00 Tester: Ken Swinney  
 Time Test Ended: 02:54:00 Unit No: 72 Great Bend/30  
 Interval: **3494.00 ft (KB) To 3552.00 ft (KB) (TVD)** Reference Elevations: 1897.00 ft (KB)  
 Total Depth: 3552.00 ft (KB) (TVD) 1887.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

**Serial #: 8653 Inside**  
 Press@RunDepth: 70.08 psig @ 3495.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.10 End Date: 2018.01.11 Last Calib.: 2018.01.11  
 Start Time: 21:19:01 End Time: 02:54:00 Time On Btm: 2018.01.10 @ 22:49:40  
 Time Off Btm: 2018.01.11 @ 01:07:40

**TEST COMMENT:** I.F. 15 Minutes/ Blow built to BOB in 10 seconds/ Gas to surface in 3 minutes  
 I.S.L 30 Minutes/ No blow Back  
 F.F. 30 Minutes/ Blow built to BOB in 5 seconds  
 F.S.L 60 Minutes/ Blow back built to 2 inches



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1647.44	95.04	Initial Hydro-static
2	78.67	94.05	Open To Flow (1)
16	67.35	93.18	Shut-In(1)
46	1019.24	99.07	End Shut-In(1)
46	79.51	97.85	Open To Flow (2)
77	70.08	94.67	Shut-In(2)
138	1006.65	100.80	End Shut-In(2)
138	1626.31	99.47	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud cut Watery Oil	0.84
0.00	Mud 10% Water 30% Oil 60%	0.00
90.00	Water cut Oily Mud	1.26
0.00	Water 20% Oil 30% Mud 50%	0.00

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mc/d)
First Gas Rate	0.25	18.00	51.40
Last Gas Rate	0.25	20.00	54.57
Max. Gas Rate	0.25	20.00	54.57



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

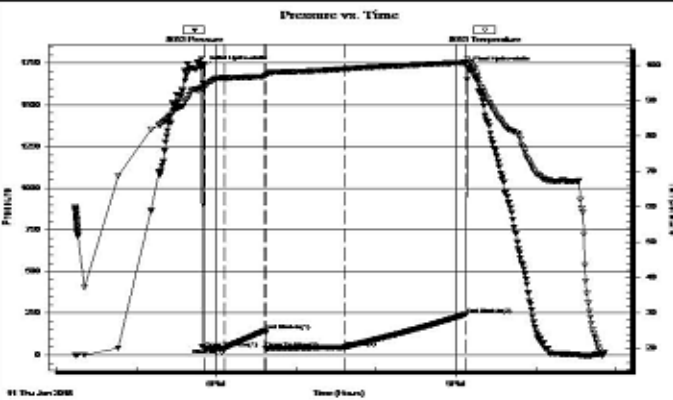
3/22S/13W/Stafford  
**J.L. Hullman #1-3**  
 Job Ticket: 63271      **DST#: 3**  
 Test Start: 2018.01.11 @ 16:14:00

**GENERAL INFORMATION:**

Formation: **Viola**  
 Deviated: No      Whipstock:      ft (KB)  
 Time Tool Opened: 17:51:20  
 Time Test Ended: 22:50:50  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 72 Great Bend/ 30  
 Interval: **3634.00 ft (KB) To 3700.00 ft (KB) (TVD)**  
 Total Depth: 3700.00 ft (KB) (TVD)  
 Reference Elevations: 1897.00 ft (KB)  
 Hole Diameter: 7.80 inches      Hole Condition: Poor      1887.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8653      Inside**  
 Press@RunDepth: 44.49 psig @ 3635.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.01.11      End Date: 2018.01.11      Last Calib.: 2018.01.11  
 Start Time: 16:14:01      End Time: 22:50:50      Time On Btm: 2018.01.11 @ 17:50:20  
 Time Off Btm: 2018.01.11 @ 21:08:30

**TEST COMMENT:** I.F. 15 Minutes/ Slide 10 feet/ Reset tool blow built to 4 1/2 inches  
 I.S.L 30 Minutes/ No blow back  
 F.F. 60 Minutes/ Blow built to BOB in 40 minutes  
 F.S.L 90 Minutes/ No blow back



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1727.48	95.02	Initial Hydro-static
1	39.84	94.64	Open To Flow (1)
16	38.97	96.49	Shut-In(1)
47	146.64	96.92	End Shut-In(1)
47	38.53	97.23	Open To Flow (2)
106	44.49	99.05	Shut-In(2)
198	244.91	100.88	End Shut-In(2)
199	1723.29	101.87	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
120.00	Gas in Pipe	1.68
60.00	Mud 100%	0.84

**Gas Rates**

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

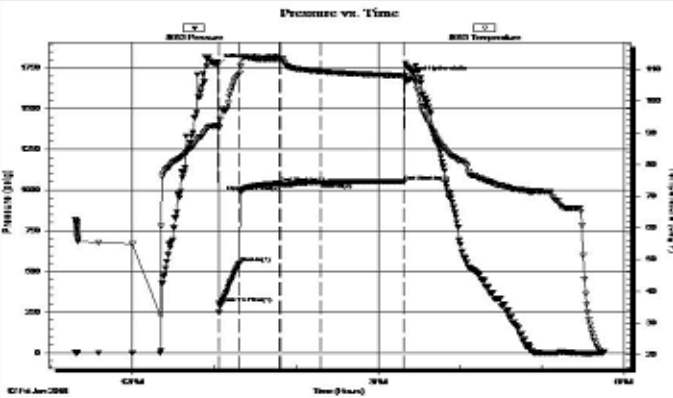
3/22S/13W/Stafford  
**J.L. Hullman #1-3**  
 Job Ticket: 63272 **DST#: 4**  
 Test Start: 2018.01.12 @ 11:18:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 13:03:09 Tester: Ken Swinney  
 Time Test Ended: 17:45:39 Unit No: 72 Great Bend/ 30  
 Interval: **3704.00 ft (KB) To 3772.00 ft (KB) (TVD)** Reference Elevations: 1897.00 ft (KB)  
 Total Depth: 3772.00 ft (KB) (TVD) 1887.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

**Serial #: 8653 Inside**  
 Press@RunDepth: 1046.86 psig @ 3705.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.01.12 End Date: 2018.01.12 Last Calib.: 2018.01.12  
 Start Time: 11:18:07 End Time: 17:45:39 Time On Btm: 2018.01.12 @ 13:02:29  
 Time Off Btm: 2018.01.12 @ 15:19:29

**TEST COMMENT:** I.F. 15 Minutes/ Blow built to BOB in 1 minute  
 I.S.L 30 Minutes/ No blow back  
 F.F. 30 Minutes/ Blow built to 4 inches then died to 3 inches  
 F.S.L 60 Minutes/ Light surface blow back



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1769.12	92.19	Initial Hydro-static
1	304.70	91.45	Open To Flow (1)
16	552.04	108.75	Shut-In(1)
46	1040.68	113.29	End Shut-In(1)
46	1032.73	113.29	Open To Flow (2)
76	1046.86	109.35	Shut-In(2)
137	1052.82	108.06	End Shut-In(2)
137	1693.95	108.02	Final Hydro-static

Length (ft)	Description	Volume (bbl)
75.00	Gas in Pipe	1.05
496.00	Mud & Oil cut Gassy Water	6.96
0.00	Mud 5% Oil 15% Gas 30% Water 50%	0.00
603.00	Muddy Gassy Oily Water	8.46
0.00	Mud 20% Gas 20% Oil 25% Water 35%	0.00

Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

JEL Resources LLC  
 21941 E. Ridge Trail Circle  
 Aurora, CO 80016  
 ATTN: Justin Carter

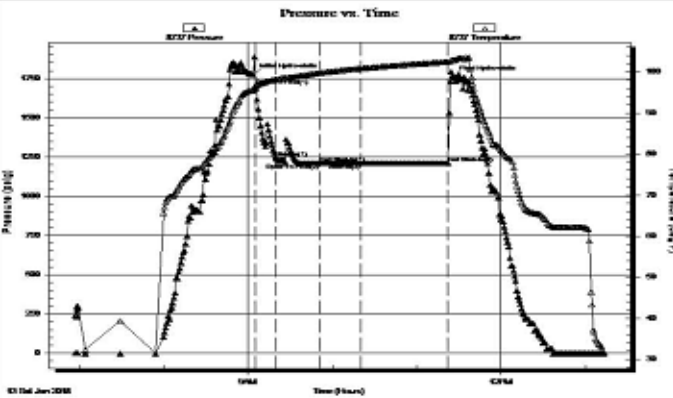
3/22S/13W/Stafford  
**J.L. Hullman #1-3**  
 Job Ticket: 63273      **DST#: 5**  
 Test Start: 2018.01.13 @ 06:56:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock      ft (KB)  
 Test Type: Conventional Straddle (Initial)  
 Time Tool Opened: 09:04:10      Tester: Ken Swinney  
 Time Test Ended: 13:12:39      Unit No: 72 Great Bend/30  
 Interval: **3754.00 ft (KB) To 3760.00 ft (KB) (TVD)**      Reference Elevations: 1897.00 ft (KB)  
 Total Depth: 3760.00 ft (KB) (TVD)      1887.00 ft (CF)  
 Hole Diameter: 7.80 inches      Hole Condition: Fair      KB to GR/CF: 10.00 ft

**Serial #: 8737 Below (Straddle)**  
 Press@RunDepth: 1210.49 psig @ 3761.74 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.01.13      End Date: 2018.01.13      Last Calib.: 2018.01.13  
 Start Time: 06:57:01      End Time: 13:13:40      Time On Btm: 2018.01.13 @ 09:03:50  
 Time Off Btm: 2018.01.13 @ 11:26:00

**TEST COMMENT:** I.F. 15 Minutes/ Blow built to BOB in 3 1/2 minutes  
 I.S.L 30 Minutes/ Blow back built to BOB in 13 minutes  
 F.F. 30 Minutes/ Blow built to BOB in 2 minutes  
 F.S.L 60 Minutes/ Blow back built to BOB in 19 minutes



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1772.35	95.60	Initial Hydro-static
2	1702.93	96.68	Open To Flow (1)
17	1246.78	98.19	Shut-In(1)
47	1210.53	99.74	End Shut-In(1)
48	1210.11	99.75	Open To Flow (2)
77	1209.55	100.84	Shut-In(2)
139	1210.49	102.47	End Shut-In(2)
143	1760.15	102.85	Final Hydro-static

Length (ft)	Description	Volume (bbl)
0.00	1134 feet of GIP	0.00
806.00	Mud cut Gassy Oil	11.31
0.00	Mud 10% Gas 20% Oil 70%	0.00
124.00	Water & Mud cut Oily Gas	1.74
0.00	Water 10% Mud 15% Oil 30% Gas 45%	0.00

Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)

Trilobite Testing, Inc

Ref. No: 63273

Printed: 2018.01.13 @ 14:04:13

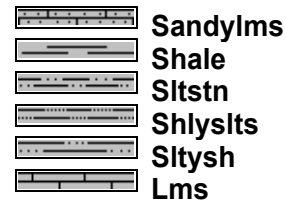
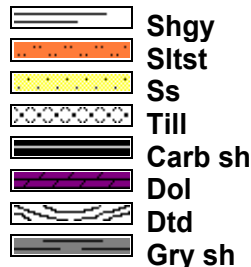
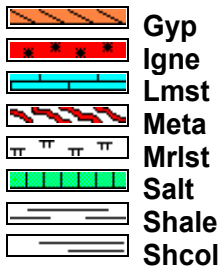
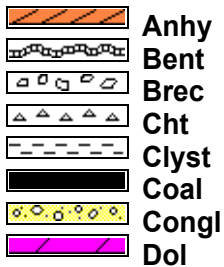
**Remarks**

After careful review of the sample log, electric logs, and DST reports, the decision was made to run 5 1/2" casing to do further testing of the L/KC and Arbuckle.

Respectfully submitted,

**Justin D. Carter**  
 Consulting Geologist

### ROCK TYPES

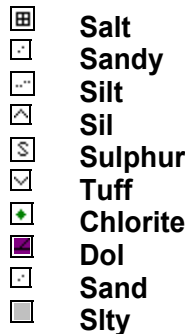


### ACCESSORIES

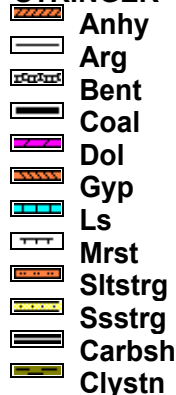
#### FOSSIL



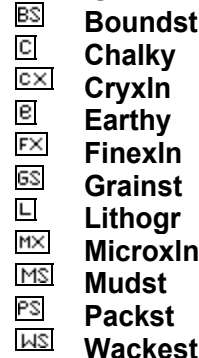
#### MINERAL



#### STRINGER

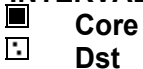


#### TEXTURE

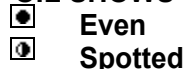


### OTHER SYMBOLS

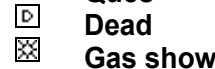
#### INTERVALS



#### OIL SHOWS



#### Ques



Curve Track 1		Depth	Lithology	Oil Shows	Geological Descriptions	Remarks	
ROP (min/ft)	Gamma (API)					TG (units)	C1-C5 (units)
0	150	0				0	200
		7000					

TOP ANHYDRITE 741' (+1156')

BASE ANHYDRITE 764' (+1133')

DEPTH BREAK

ROP (min/ft)	10
Gamma (API)	150

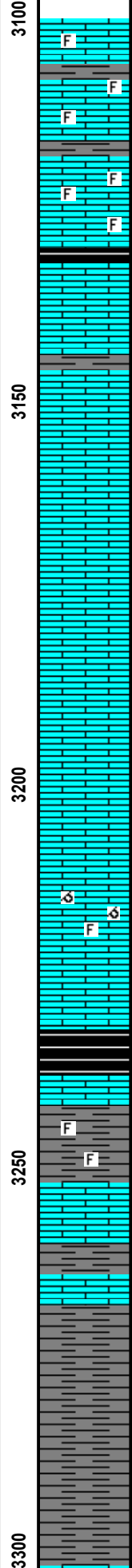
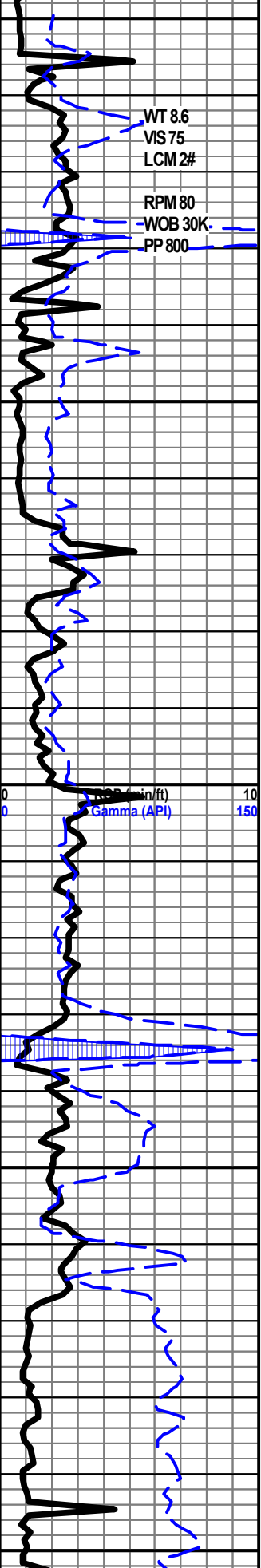
DISPLACE HOLE @2977'

GEOLOGIST ON LOCATION 11:00 A.M. 01/08/18

BIT #2  
JZ 7 7/8"  
HA23X  
SN: 1703855  
3/14s

TG, C1-C5 200





LS- CRM LT CRM, HRD, VF-XLN, SUB-SUCRO MTRX THRU, IMBED FOSS FRAGS SCAT THRU, NO FLO, NO VIS POR

LS- GY LT TN, HRD TO BRITT IP, VF-XLN, SUB-SUCRO MTRX THRU, IMBED BLK FOSS FRAGS SCAT THRU, NO FLO, NO VIS POR

LS- BFF, HRD DNS, VF-XLN, RE-XLN MTRX THRU, NO FLO, NO VIS POR

LS- TN, BRITT, MDF-XLN, SUCRO MTRX THRU, NO FLO, NO VIS CUT, FR INTER-XLN POR THRU, NS

LS- CRM, HRD DNS, VF/CRYPTO-XLN, RE-XLN MTRX IP, TR VFINE CALC XLS, NO FLO, NO VIS POR

LS- TN CRM, BRITT, MD/F-XLN, SUB-SUCRO TO SUCRO MTRX THRU, NO FLO, NO VIS CUT, FR INTER-XLN POR THRU, NS

LS- LT TN, HRD DNS, F-XLN, SUB-SUCRO MTRX THRU, TR IMBED SH, NO FLO, TR INTER-XLN POR, NS

LS- TN LT GY, BRITT, F-XLN, SUCRO MTRX THRU, TR IMBED FOSS FRAGS, NO FLO, NO VIS CUT, PR/FR INTER-XLN POR THRU TO TR OOMLD POR, TR BLK RESIDUAL STAIN

**HEEBNER 3232' (-1335')**

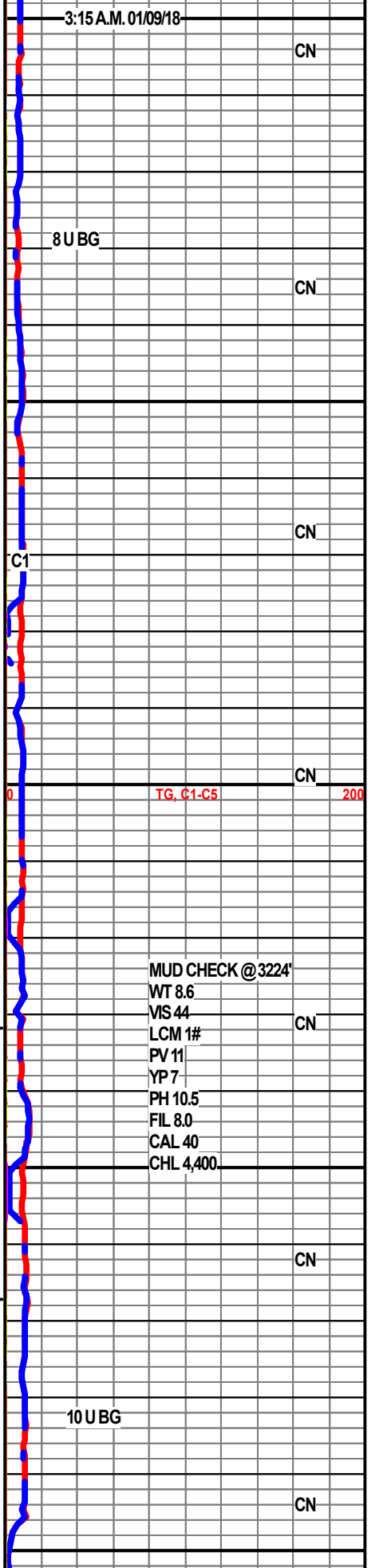
SH- GY GRN, FRM, BLKY, LMY, IMBED FOSS IP

LS- VLT CRM, HRD, FVF-XLN, RE-XLN MTRX IP TO SUB-SUCRO MTRX IP, TR SFT WHT CHLK, NO FLO, NO VIS POR

**DOUGLAS 3267' (-1370')**

SH- LT GRNISH GY, SFT, SLTY, BLKY

SH- LT GRN GY, A/A



SH- GRN GY, FRM TO SFT, BLKY, SLTY IP TO LMY IP

CN

SH- GY, FRM TO SFT IP, BLKY, SLTY

**BROWN LIME 3357' (-1460')**

CN

LS- BRN TN, HRD DNS, VF-XLN, RE-XLN MTRX THRU, NO FLO, NO VIS POR

**LANSING 3377' (-1480')**

LS- CRM, HRD DNS, FVF-XLN, SUB-SUCRO MTRX THRU TO TR RE-XLN MTRX, TR SFT WHT CHLK, NO FLO, NO VIS CUT, TR INTER-XLN POR, NS

CN

TRIP OUT FOR HOLE IN PIPE @ 3396'

LS- WHT TN, HRD, FVF-XLN, SUCRO MTRX THRU TO TR SUB-CHLKY, TR IMBED FOSS FRAGS, YEL GLD FLO IN 90%, FR FLUSH TO TR BLU STRM CUT, TR OOMLD POR TO TR INTER-XLN POR, TN STAIN IN 30%, FR ODOR, NSFO

TG, C1-C5

200

LS- CRM WHT, HRD TO BRITT IP, FVF-XLN, SUCRO MTRX IP TO SUB-CHLKY IP, TR OOL, YEL GLD FLO IN 40%, GD FLUSH TO FR MLKY BLU STRM CUT, FR INTER-XLN POR IP TO TR OOMLD POR, STAIN IN 30%, FAINT ODOR, NSFO

CN

SH- GY, FRM, BLKY, SLTY IP TO WXY IP

12:00 A.M. 01/10/18

LS- CRM, HRD DNS, VF-XLN, RE-XLN MTRX IP TO SUB-SUCRO MTRX IP, TR IMBED FOSS FRAGS, TR SFT WHT CHLK, NO FLO, TR INTER-FOSS POR TO TR INTER-XLN POR, NS

MUD CHECK @ 3449'

WT 8.7

VIS 76

LCM 1#

PV 22

YP 23

PH 11.0

FIL 8.0

CAL 40

CHL 5,300

CN

LS- CRM TN, MOTT, BRITT TO HRD IP, FVF-XLN, GRST THRU, IMBED OOL IP, NO FLO, TR INTER-OOL POR TO PR OOMLD POR, TR STAIN, NO ODOR

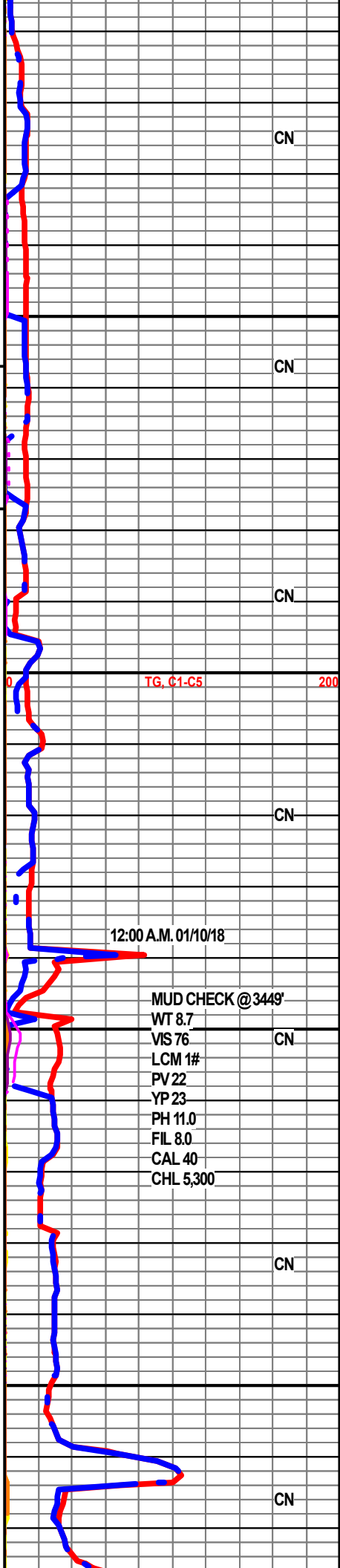
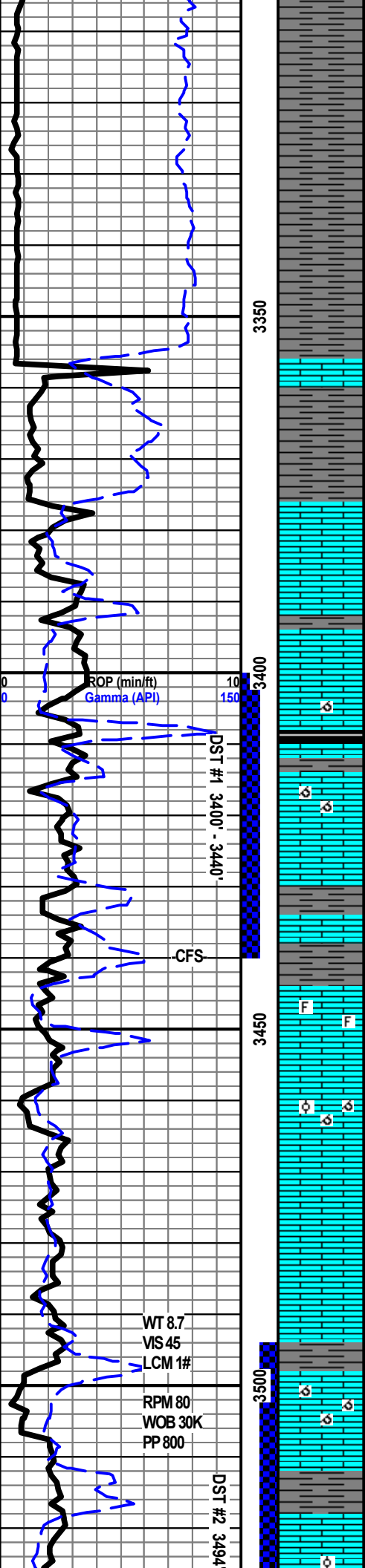
LS- CRM BFF, HRD DNS, VF/CRYPTO-XLN, RE-XLN MTRX IP, TR FINE CALC XLS, NO FLO, NO VIS POR

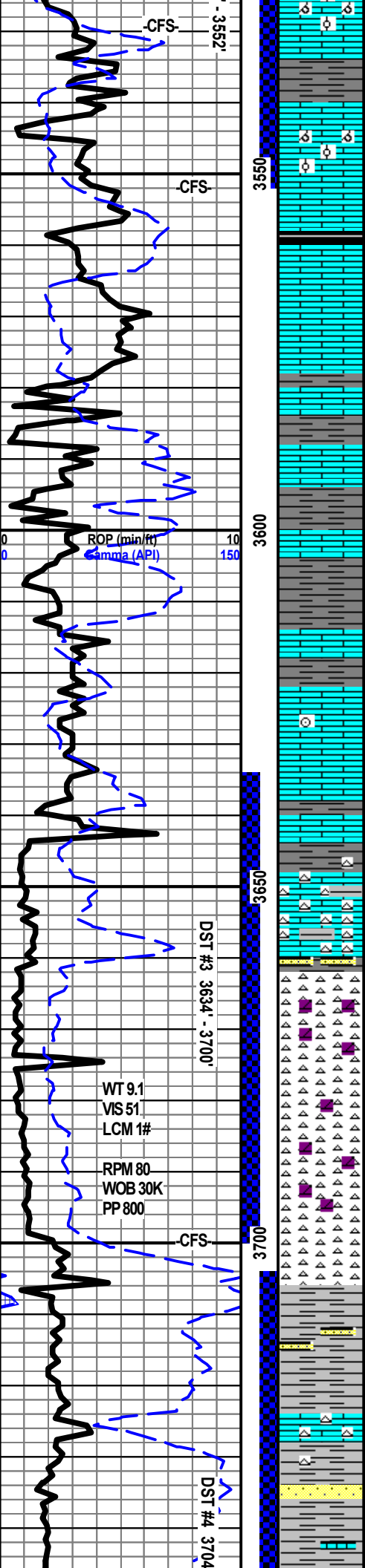
CN

LS- WHT CRM, BRITT, VF-XLN, SUB-SUCRO MTRX THRU, OOMLD, DLL YEL GLD FLO IN 20%, FR FLUSH TO FR BLU STRM CUT, FR OOMLD POR THRU, BLK STAIN IN 30%, FAIR ODOR, NSFO

CN

LS- WHT CRM, BRITT, VF-XLN, SUB-SUCRO TO GRST, OOL IP, OOMLD IP, TR SFT WHT CHLK, DLL YEL GLD FLO IN 40%, FR FLUSH TO FR BLU STRM CUT, FR





WHT CRM, BLK YEL GLD FLO IN 40%, TR FLOSH TO FR GLD STRM CUT, FR OOMILD POR TO FR INTER-OOL POR IP, STAIN IN 40%, FR/GD ODOR, NSF

LS- WHT CRM, BRITT, VF-XLN, SUB-SUCRO MTRX THRU, OOMILD IP, OOL SCAT THRU, TR BRIT YEL GLD FLO, FR/GD FLUSH CUT TO FR BLU STRM CUT, FR OOMILD POR IP TO FR INTER-OOL POR IP, LIVE OIL STAIN IP TO TR FREE OIL, FAIR ODOR

LS- CRM, HRD DNS, VF-XLN, RE-XLN MTRX IP TO SUB-SUCRO MTRX IP, TR VUGS, YEL GLD FLO IN 40%, GD FLUSH TO GD BLU STRM CUT, TR INTER-VUG POR IP, TN/BLK STAIN IN 70% TO TR LIVE OIL STAIN, STRNG ODOR

**BASE K.C. 3594' (-1697')**

SH- GRN GY, SFT, LMY WXY, TR PYR

SH- GRN, FRM, BLKY, SLTY THRU TO TR LMY

LS- CRM, HRD DNS, VF/CRYPTO-XLN, RE-XLN MTRX IP, TR IMBED FOSS (CRIN), NO FLO, NO VIS POR

CHRT- RD OPQ CRM, DNS, FRAC IP

3656' LMY DOLO- CRM GY MOTT, BRITT TO HRD IP, F-XLN, SUCRO MTRX THRU, BRIT YEL GLD FLO IN 80%, GD FLUSH TO GD FAST STRM BLU CUT, PR INTER-XLN POR THRU, TR STAIN, STRNG ODOR

**VIOLA 3661' (-1764')**

CHRT- WHT OPQ, HRD DNS, TR TRIP, TR SFT WHT CHLK, YEL GLD FLO IN 60%, FR FLUSH TO FR SLO MLKY BLU STRM CUT, TR FRAC POR, BLK STAIN IN 70%, GD FREE OIL STRNG ODOR

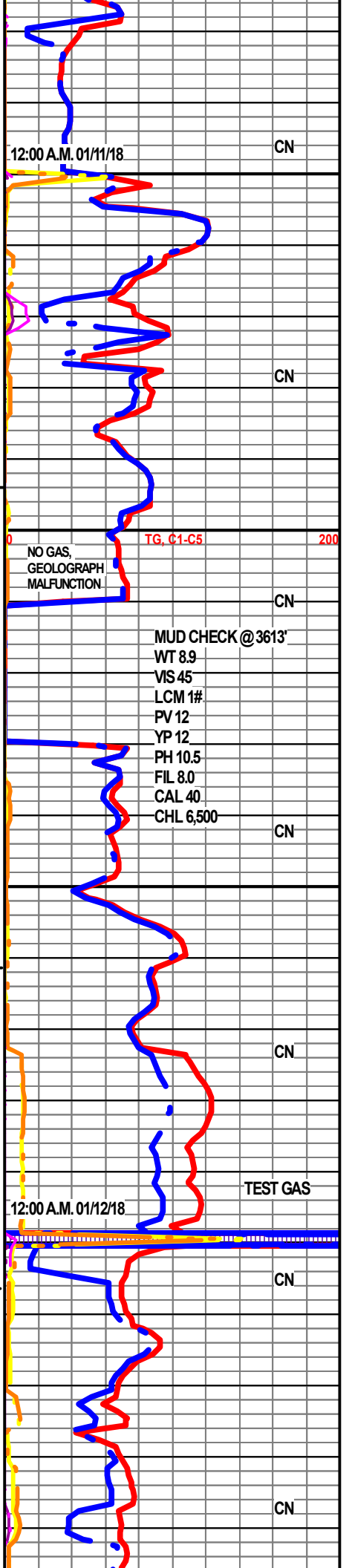
CHRT- WHT TN, HRD DNS, TN F-GRN DOLO IP, YEL GLD FLO IN 50%, FR FLUSH TO FR BLU STRM CUT, TR INTER-XLN POR IN DOLO, TN STAIN IN 40%, FR ODOR, GD FREE OIL

**SIMPSON 3706' (-1809')**

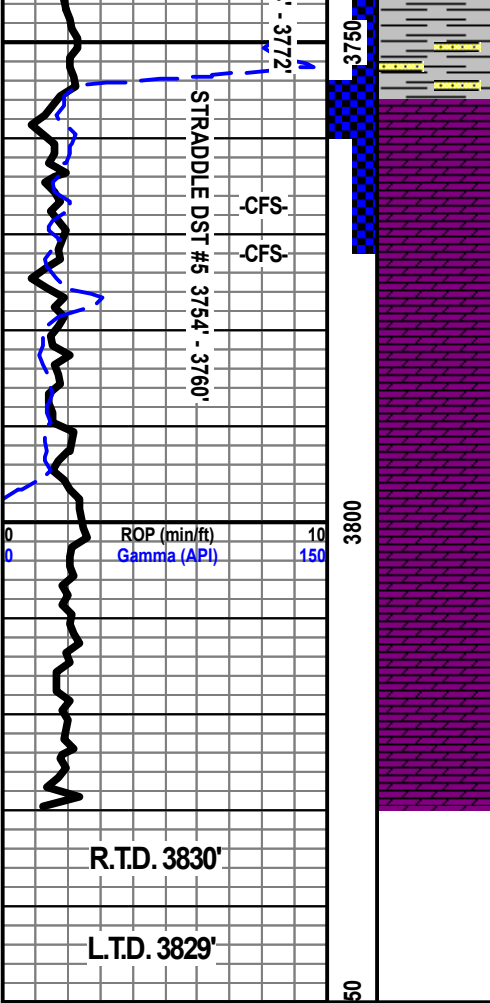
SH- GRN, FRM TO SFT IP, WXYTEXT, BLKY TO FISS IP

SS- TN CRM, BRITT, MD-GRN, FR SRT, RND TO SUB-RND GRNS, CALC CMNT, IMBED GY SH IP, NO FLO, PR/FR INTER-GRN POR, TR BLK STAIN, NO ODOR

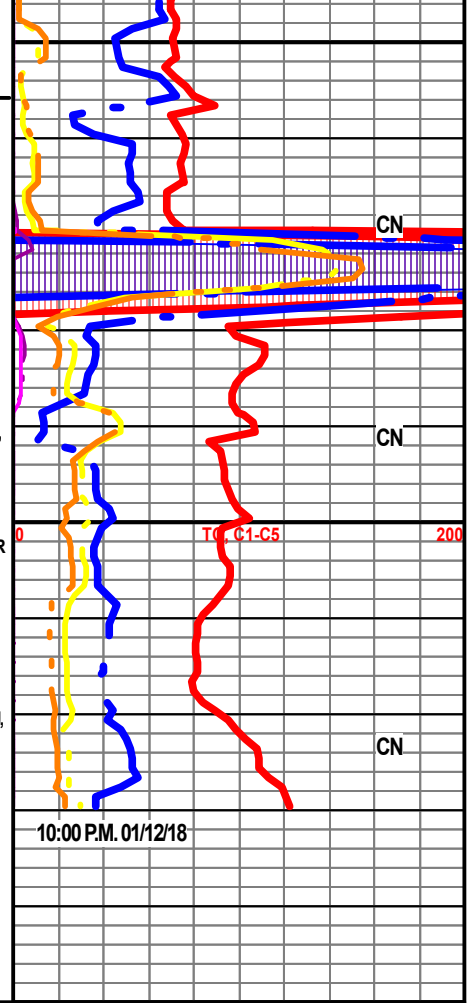
SS- CRM TN, FRI, CORSE/F-GRN, PR SRT, RND TO SUB-ANG GRNS, CALC CMNT, ABDT CLR QTZ GRNS IP, IMBED GY SH IP, NO FLO, PR INTER-GRN POR THRU



# ARBUCKLE 3756' (-1859')



- ① DOLO- BRN, HRD DNS, F-XLN, SUCRO MTRX THRU, YEL GLD FLO SCAT THRU, FR FLUSH TO GD FAST BLU STRM CUT, PR INTER-XLN POR THRU, BRN STAIN THRU, STRNG ODOR, FREE OIL
- DOLO- BRN, HRD DNS, MIDF-XLN, SUCRO MTRX THRU, YEL GLD FLO IN 90%, FR FLUSH TO FR FAST BLU STRM CUT, PR/FR INTER-XLN POR THRU, BRN STAIN THRU, STRNG ODOR, FREE OIL
- 3778' DOLO- TN BLK, HRD DNS, F-XLN, SUCRO MTRX THRU, BRIT YEL GLD FLO WHEN CUT, GD FLUSH TO GD BLU STRM CUT, PR INTER-XLN POR SCAT THRU, LIVE STAIN THRU, FREE OIL, STRNG ODOR
- DOLO- BFF TN, HRD DNS, CORSE-XLN, RE-XLN MTRX, BRIT YEL GLD FLO IN 50%, GD CUT, FR/GD INTER-XLN POR SCAT THRU, TR CHLK, BLK STAIN IP, FR ODOR,
- DOLO- BFF; HRD DNS, CORSE/MID-XLN, RE-XLN MTRX THRU, TR YEL GLD FLO, PR CUT, FR INTER-XLN POR THRU, DEAD BLK STAIN IP, FR ODOR, NSFO
- DOLO- LT CRM BFF; HRD, CORSE-XLN, RE-XLN MTRX, SFT WHT CHLK SCAT THRU, NO FLO, NO VIS CUT, GD INTER-XLN POR THRU, DEAD BLK STAIN IP, PR ODOR



R.T.D. 3830'

L.T.D. 3829'

10:00 P.M. 01/12/18

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 627

Cell 785-324-1041

Date	1-5-18	Sec.	3	Twp.	22	Range	13	County	Stafford	State	Ks	On Location		Finish	10:15 PM
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Lease John Hullman Well No. 1-3 Location Great Bend - 14S to K-19 Hwy, 1000' E

Contractor Southwind Owner N/A  
 Type Job Surface To Quality Oilwell Cementing, 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. 312' Charge To JEL Resources LLC.

Csg. 8 5/8" Depth 312' Street 21941 East Ridge Trail Circle

Tbg. Size \_\_\_\_\_ Depth \_\_\_\_\_ City Aurora State Co 80016

Tool \_\_\_\_\_ Depth \_\_\_\_\_ The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 20' Shoe Joint 20' Cement Amount Ordered 450 80/20 3% CC 2% Gel

Meas Line \_\_\_\_\_ Displace 18 3/4 BCS 1/2# Flo-seal used 380

EQUIPMENT		Common
Pumptrk	16 No. Cementer Helper <u>Travis</u>	300
Bulktrk	21 No. Driver <u>Doug</u>	Poz. Mix 80.
Bulktrk	p.u. No. Driver <u>Rick</u>	Gel. 7
		Calcium 14

JOB SERVICES & REMARKS  
 Remarks: Cement did Circulate

Rat Hole \_\_\_\_\_ Flowseal 225

Mouse Hole Let Collar Full for Kol-Seal \_\_\_\_\_

Centralizers 15 min. before Mud CLR 48 \_\_\_\_\_

Baskets Jetting Collar CFL-117 or CD110 CAF 38 \_\_\_\_\_

D/V or Port Collar \_\_\_\_\_ Sand \_\_\_\_\_

Used 380 Handling 450

Mileage \_\_\_\_\_

FLOAT EQUIPMENT

Guide Shoe \_\_\_\_\_

Centralizer \_\_\_\_\_

Baskets \_\_\_\_\_

AFU Inserts \_\_\_\_\_

Float Shoe \_\_\_\_\_

Latch Down \_\_\_\_\_

Pumptrk Charge Surface

Mileage 15

Tax \_\_\_\_\_  
 Discount \_\_\_\_\_  
 Total Charge \_\_\_\_\_

X Signature [Signature]

