

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

**Form must be Typed**

**Form must be Signed**

**All blanks must be Filled**

**WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Recompletion Date \_\_\_\_\_ Date Reached TD \_\_\_\_\_ Completion Date or Recompletion Date \_\_\_\_\_

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](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: **Arcadian Resources LLC**

1302 Olive St  
Concordia, KS 66901

ATTN: Sean Deenihan

### **Green High #1-27**

#### **27-27s-12w Pratt,KS**

Start Date: 2019.11.05 @ 23:59:09

End Date: 2019.11.06 @ 07:25:39

Job Ticket #: 65451                      DST #: 1

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

Printed: 2019.11.11 @ 14:57:14



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

ATTN: Sean Deenihan

Job Ticket: 65451

**DST#: 1**

Test Start: 2019.11.05 @ 23:59:09

## GENERAL INFORMATION:

Formation: **Lansing/KC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:20:39

Time Test Ended: 07:25:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Matt Smith

Unit No: 68

**Interval: 3890.00 ft (KB) To 3941.00 ft (KB) (TVD)**

Reference Elevations: 1772.00 ft (KB)

Total Depth: 3941.00 ft (KB) (TVD)

1760.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8931**

**Inside**

Press@RunDepth: 85.03 psig @ 3891.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.11.05

End Date:

2019.11.06

Last Calib.:

2019.11.06

Start Time:

23:59:14

End Time:

07:25:38

Time On Btm:

2019.11.06 @ 03:17:09

Time Off Btm:

2019.11.06 @ 05:27:39

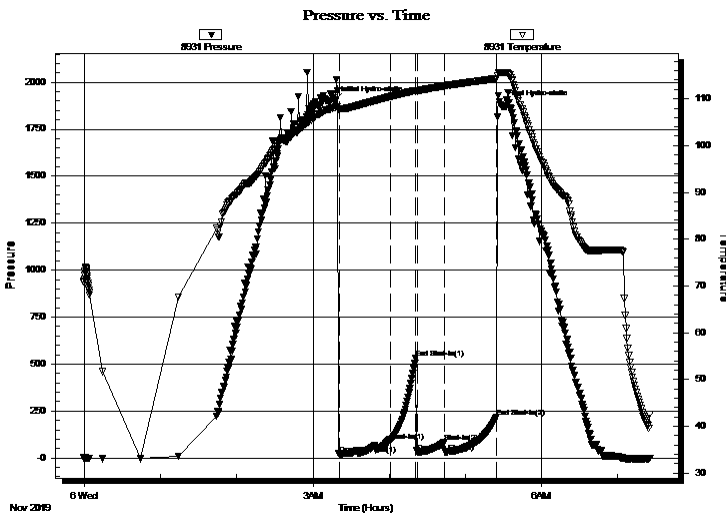
TEST COMMENT: IF: Weak Blow . Built to 1 1/2".

IS: No Blow .

FF: Weak Blow . Built to 3/4".

FS: No Blow .

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1900.80	108.16	Initial Hydro-static
4	21.60	107.89	Open To Flow (1)
44	90.88	110.46	Shut-In(1)
64	532.08	111.78	End Shut-In(1)
65	28.87	111.73	Open To Flow (2)
87	85.03	112.75	Shut-In(2)
128	218.48	114.33	End Shut-In(2)
131	1881.00	115.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	GOspecM 2%g 98%m	0.15

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65451

**DST#: 1**

ATTN: Sean Deenihan

Test Start: 2019.11.05 @ 23:59:09

## Tool Information

Drill Pipe:	Length: 3768.00 ft	Diameter: 3.80 inches	Volume: 52.86 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.80 inches	Volume: 0.91 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 53.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3890.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	76.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3866.00	
Shut In Tool	5.00			3871.00	
Hydraulic tool	5.00			3876.00	
Jars	5.00			3881.00	
Packer	4.00			3885.00	25.00 Bottom Of Top Packer
Packer	5.00			3890.00	
Stubb	1.00			3891.00	
Recorder	0.00	8931	Inside	3891.00	
Recorder	0.00	8788	Outside	3891.00	
Perforations	4.00			3895.00	
Change Over Sub	1.00			3896.00	
Blank Spacing	31.00			3927.00	
Change Over Sub	1.00			3928.00	
Perforations	10.00			3938.00	
Bullnose	3.00			3941.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 76.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Arcadian Resources LLC

**27-27s-12w Pratt,KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65451

**DST#: 1**

ATTN: Sean Deenihan

Test Start: 2019.11.05 @ 23:59:09

## 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:

4000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 4000.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	GOspecM 2%g 98%m	0.152

Total Length: 20.00 ft      Total Volume: 0.152 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

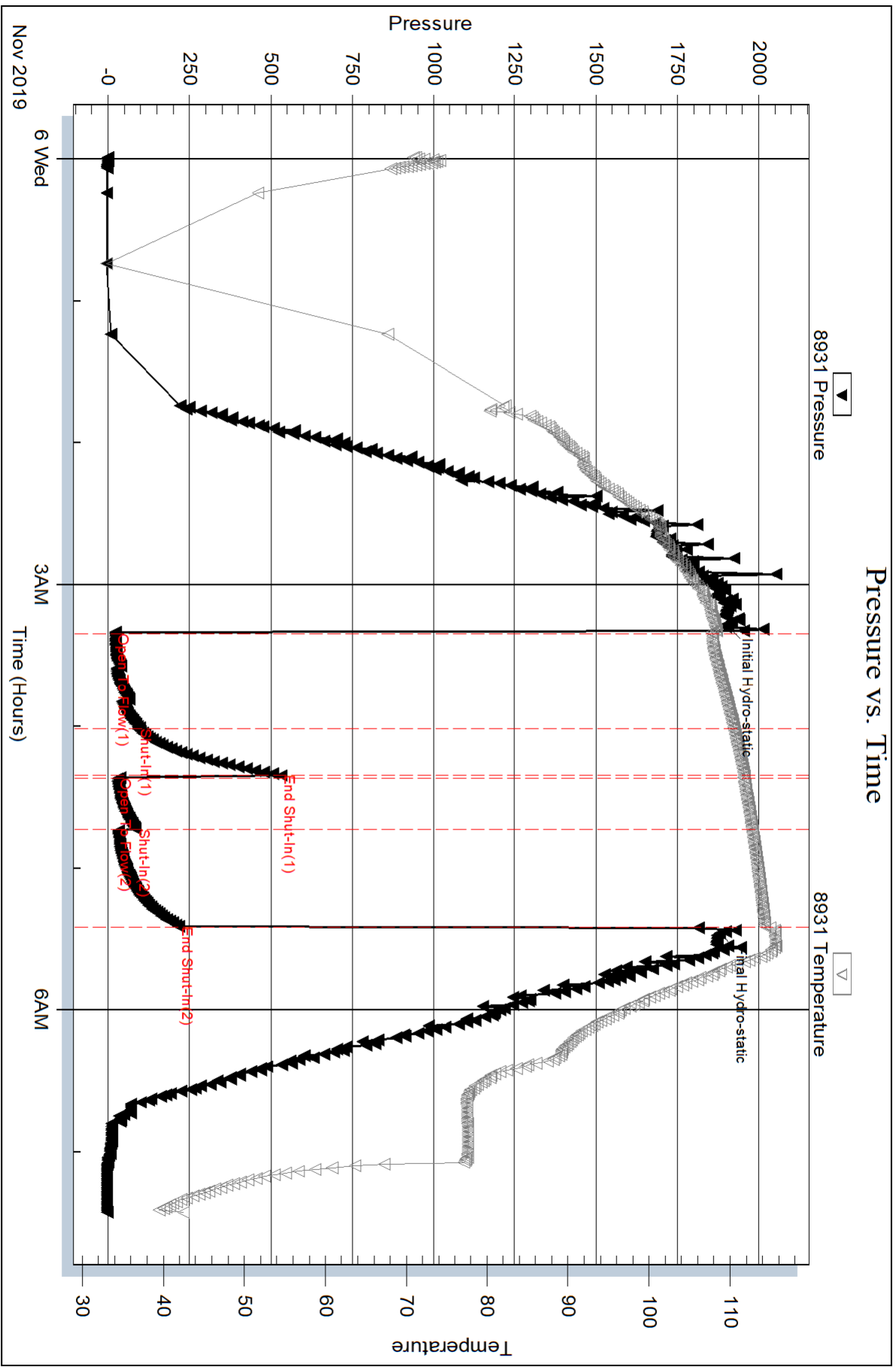
Serial #: None

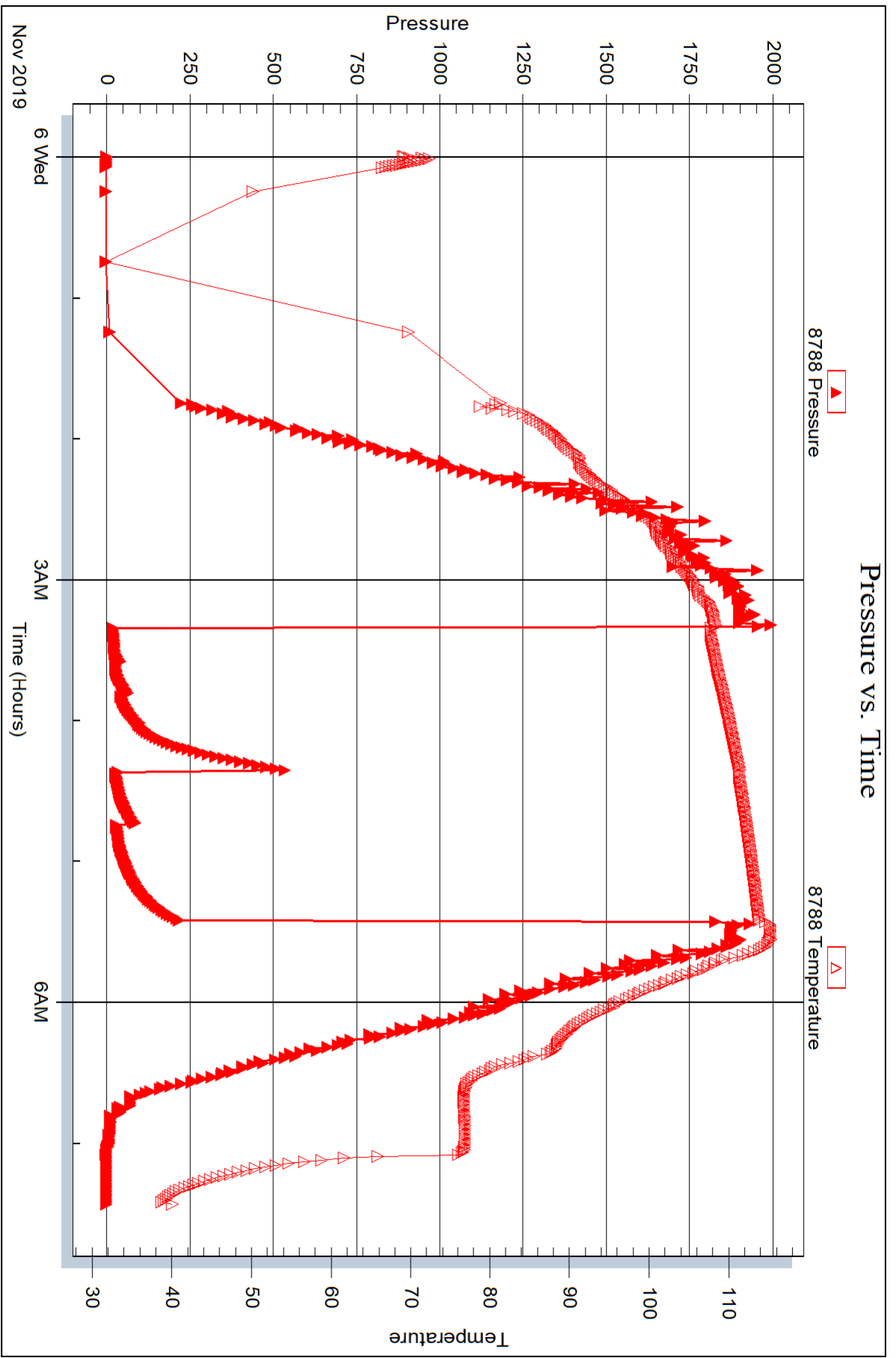
Laboratory Name:

Laboratory Location:

Recovery Comments: 10# LCM.









## DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St  
Concordia, KS 66901

ATTN: Sean Deenihan

### **Green High #1-27**

#### **27-27s-12w Pratt,KS**

Start Date: 2019.11.06 @ 16:19:27

End Date: 2019.11.06 @ 23:06:12

Job Ticket #: 65452                      DST #: 2

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

Printed: 2019.11.11 @ 14:52:40



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

ATTN: Sean Deenihan

Job Ticket: 65452

**DST#: 2**

Test Start: 2019.11.06 @ 16:19:27

## GENERAL INFORMATION:

Formation: **Marmontin**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:31:27

Time Test Ended: 23:06:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

**Interval: 3970.00 ft (KB) To 4035.00 ft (KB) (TVD)**

Reference Elevations: 1772.00 ft (KB)

Total Depth: 4035.00 ft (KB) (TVD)

1760.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8931**

**Inside**

Press@RunDepth: 80.34 psig @ 3971.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.11.06

End Date:

2019.11.06

Last Calib.:

2019.11.06

Start Time:

16:19:32

End Time:

23:06:11

Time On Btm:

2019.11.06 @ 18:26:12

Time Off Btm:

2019.11.06 @ 21:00:42

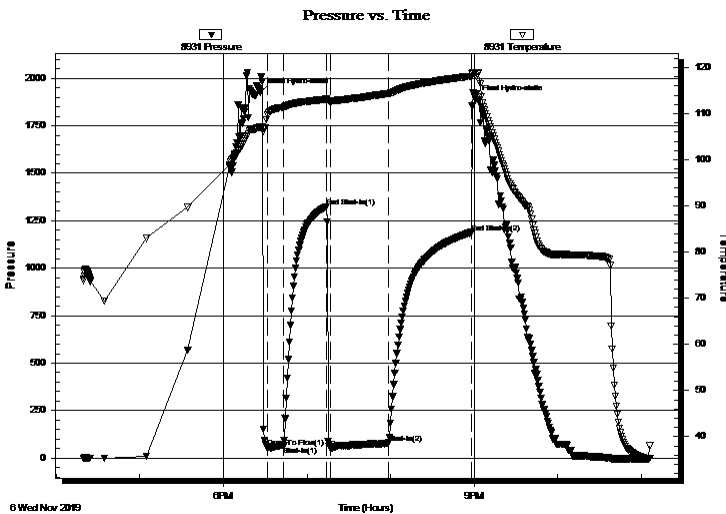
**TEST COMMENT:** IF: Strong Blow . B.O.B. in 45 secs. Built to 353.83".

IS: Weak Blow . Built to 1 1/2".

FF: Strong Blow . B.O.B. & G.T.S. immediately. Built to 216.52"., then Gauged Gas.

FS: Weak Blow . Built to 4.89".

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1926.47	107.05	Initial Hydro-static
6	55.68	109.70	Open To Flow (1)
17	64.40	111.37	Shut-In(1)
48	1323.71	113.13	End Shut-In(1)
51	53.79	112.65	Open To Flow (2)
93	80.34	114.37	Shut-In(2)
152	1187.34	118.11	End Shut-In(2)
155	1886.37	118.93	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	COCM 56%g 25%o 19%m	0.46
60.00	COCM 55%g 35%o 10%m	0.46
62.00	COCM 35%g 40%o 25%m	0.87
30.00	Clean Oil 100%o	0.42
0.00	G.I.P. 100%g 3739'	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	7.69	35.04
Last Gas Rate	0.25	6.67	33.43
Max. Gas Rate	0.25	7.69	35.04

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65452

**DST#: 2**

ATTN: Sean Deenihan

Test Start: 2019.11.06 @ 16:19:27

## Tool Information

Drill Pipe:	Length: 3831.00 ft	Diameter: 3.80 inches	Volume: 53.74 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.80 inches	Volume: 0.91 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 54.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3970.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3946.00	
Shut In Tool	5.00			3951.00	
Hydraulic tool	5.00			3956.00	
Jars	5.00			3961.00	
Packer	4.00			3965.00	25.00 Bottom Of Top Packer
Packer	5.00			3970.00	
Stubb	1.00			3971.00	
Recorder	0.00	8931	Inside	3971.00	
Recorder	0.00	8788	Outside	3971.00	
Perforations	7.00			3978.00	
Change Over Sub	1.00			3979.00	
Blank Spacing	31.00			4010.00	
Change Over Sub	1.00			4011.00	
Perforations	21.00			4032.00	
Bullnose	3.00			4035.00	65.00 Bottom Packers & Anchor

**Total Tool Length: 90.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Arcadian Resources LLC

**27-27s-12w Pratt,KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65452

**DST#: 2**

ATTN: Sean Deenihan

Test Start: 2019.11.06 @ 16:19:27

## 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:

9000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 9000.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	COCM 56%g 25%o 19%m	0.457
60.00	COCM 55%g 35%o 10%m	0.457
62.00	COCM 35%g 40%o 25%m	0.870
30.00	Clean Oil 100%o	0.421
0.00	G.I.P. 100%g 3739'	0.000

Total Length: 212.00 ft

Total Volume: 2.205 bbl

Num Fluid Samples: 1

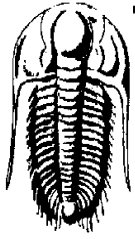
Num Gas Bombs: 1

Serial #: MAS PRATT

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity is 34.6 @ 60 Degrees Corrected.



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65452

**DST#: 2**

ATTN: Sean Deenihan

Test Start: 2019.11.06 @ 16:19:27

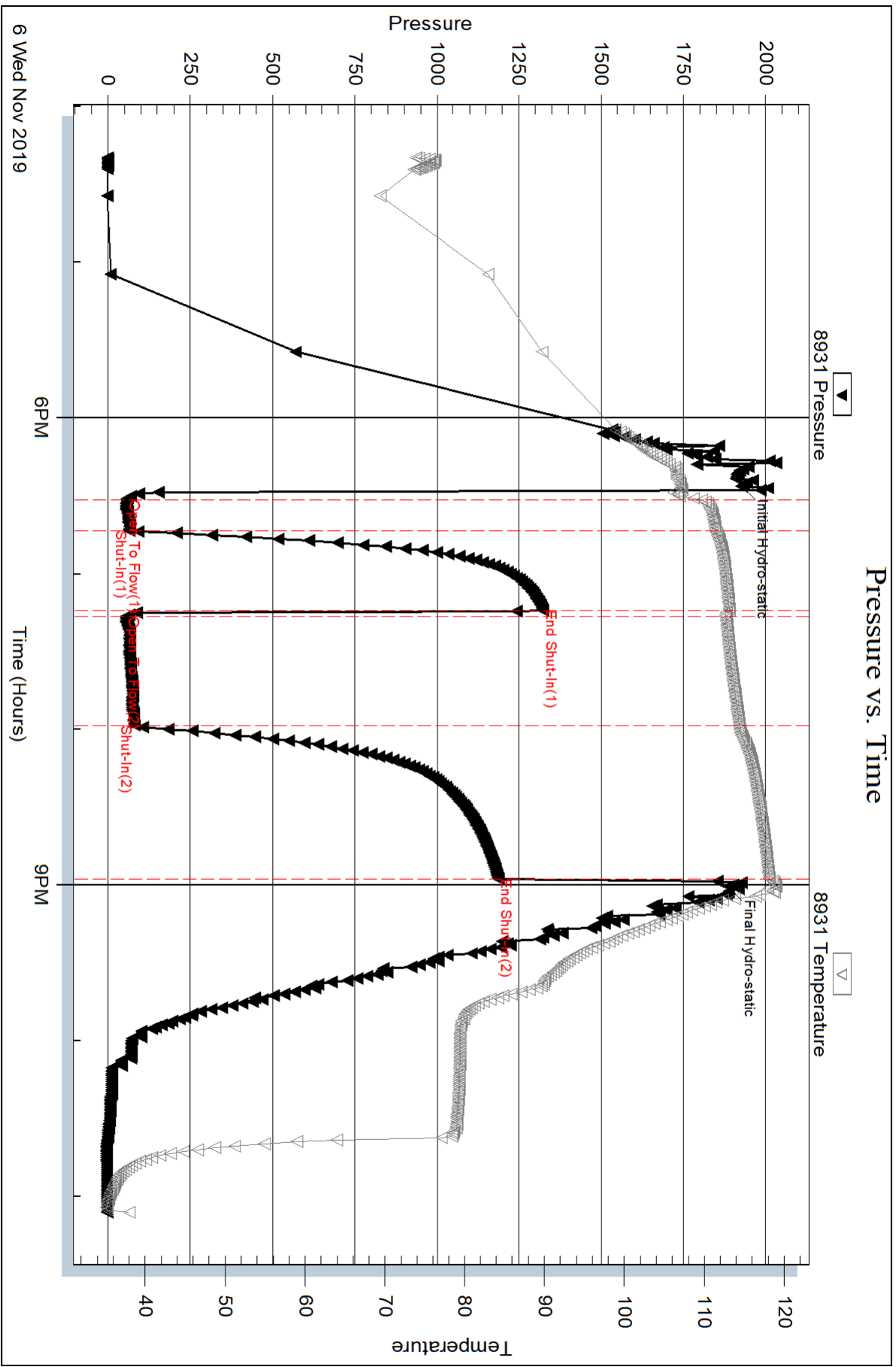
### Gas Rates Information

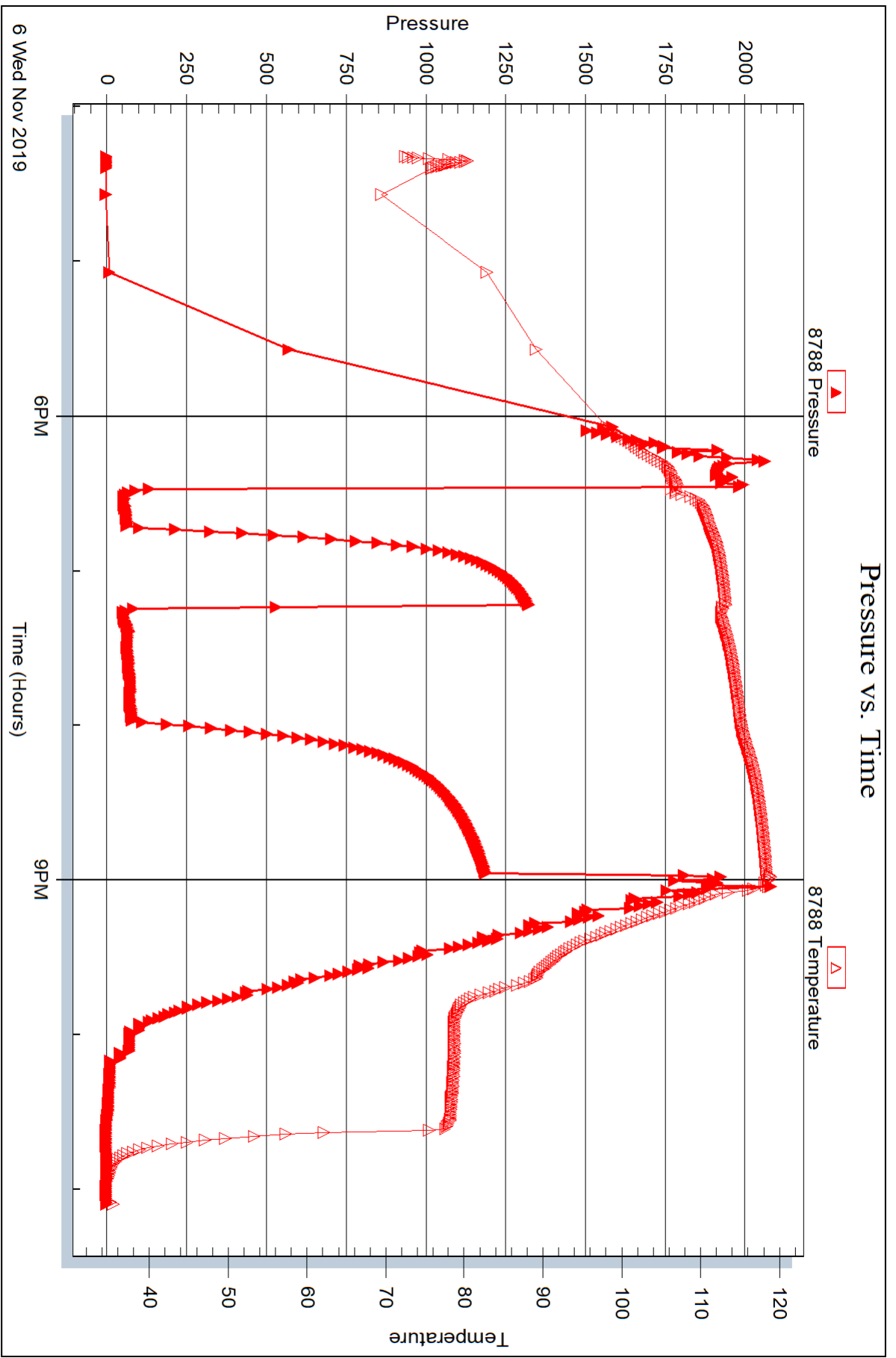
Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	7.69	35.04
2	10	0.25	7.69	35.04
2	20	0.25	7.57	34.85
2	30	0.25	6.99	33.93
2	40	0.25	6.67	33.43









## DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St  
Concordia, KS 66901

ATTN: Sean Deenihan

### **Green High #1-27**

#### **27-27s-12w Pratt,KS**

Start Date: 2019.11.08 @ 16:17:16

End Date: 2019.11.09 @ 01:31:16

Job Ticket #: 65454                      DST #: 4

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

Printed: 2019.11.11 @ 15:01:28



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

ATTN: Sean Deenihan

Job Ticket: 65454

**DST#: 4**

Test Start: 2019.11.08 @ 16:17:16

## GENERAL INFORMATION:

Formation: **Viola**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:41:46  
 Time Test Ended: 01:31:16  
 Interval: **4238.00 ft (KB) To 4374.00 ft (KB) (TVD)**  
 Total Depth: 4500.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Matt Smith  
 Unit No: 68  
 Reference Elevations: 1772.00 ft (KB)  
 1760.00 ft (CF)  
 KB to GR/CF: 12.00 ft

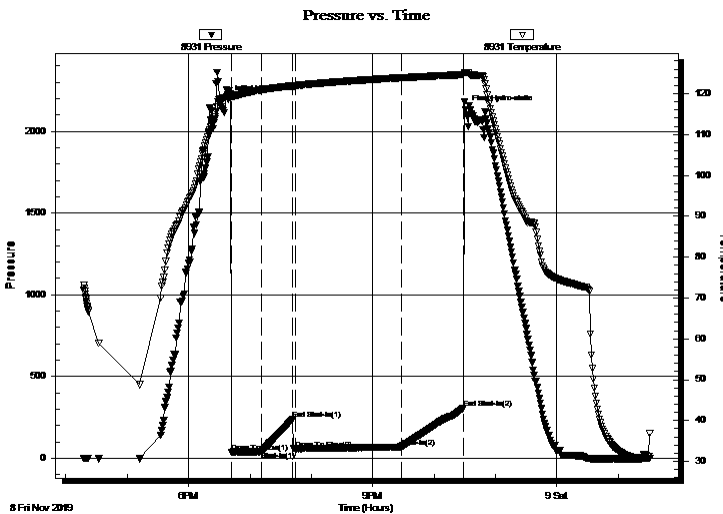
## Serial #: 8931

Inside

Press@RunDepth: 69.26 psig @ 4257.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.11.08 End Date: 2019.11.09 Last Calib.: 2019.11.09  
 Start Time: 16:17:21 End Time: 01:31:16 Time On Btm: 2019.11.08 @ 18:38:46  
 Time Off Btm: 2019.11.08 @ 22:30:46

TEST COMMENT: IF: Fair Blow . Built to 7.56".  
 IS: No Blow .  
 FF: Strong Blow . B.O.B. in 25 mins. Built to 27.20".  
 FS: Weak Blow . Surface - 1/8".

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2193.64	119.46	Initial Hydro-static
3	34.77	119.28	Open To Flow (1)
33	40.57	120.94	Shut-In(1)
63	237.36	121.93	End Shut-In(1)
66	57.04	121.94	Open To Flow (2)
169	69.26	123.88	Shut-In(2)
230	306.96	124.68	End Shut-In(2)
232	2133.44	125.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
61.00	GV/SOCM 5%g 3%o 92%m	0.46
30.00	OspecM 100%m	0.23
0.00	446' G.I.P. 100%g	0.00

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65454

**DST#: 4**

ATTN: Sean Deenihan

Test Start: 2019.11.08 @ 16:17:16

## Tool Information

Drill Pipe:	Length: 4117.00 ft	Diameter: 3.80 inches	Volume: 57.75 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.80 inches	Volume: 0.91 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 58.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4238.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	262.00 ft			
Tool Length:	287.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Straddle Test

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4214.00	
Shut In Tool	5.00			4219.00	
Hydraulic tool	5.00			4224.00	
Jars	5.00			4229.00	
Packer	5.00			4234.00	25.00 Bottom Of Top Packer
Packer	4.00			4238.00	
Stubb	1.00			4239.00	
Perforations	17.00			4256.00	
Change Over Sub	1.00			4257.00	
Recorder	0.00	8931	Inside	4257.00	
Recorder	0.00	8788	Outside	4257.00	
Blank Spacing	96.00			4353.00	
Change Over Sub	1.00			4354.00	
Perforations	15.00			4369.00	
Blank Off Sub	1.00			4370.00	
Packer	3.00			4373.00	262.00 Tool Interval
Packer	3.00			4376.00	
Stubb	1.00			4377.00	
Perforations	15.00			4392.00	
Change Over Sub	1.00			4393.00	
Blank Spacing	96.00			4489.00	
Change Over Sub	1.00			4490.00	
Perforations	7.00			4497.00	
Bullnose	3.00			4500.00	1000286.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>287.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65454

**DST#: 4**

ATTN: Sean Deenihan

Test Start: 2019.11.08 @ 16:17:16

## 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:

8000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 8000.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
61.00	GVSOCM 5%g 3%o 92%m	0.465
30.00	OspecM 100%m	0.228
0.00	446' G.I.P. 100%g	0.000

Total Length: 91.00 ft      Total Volume: 0.693 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: None

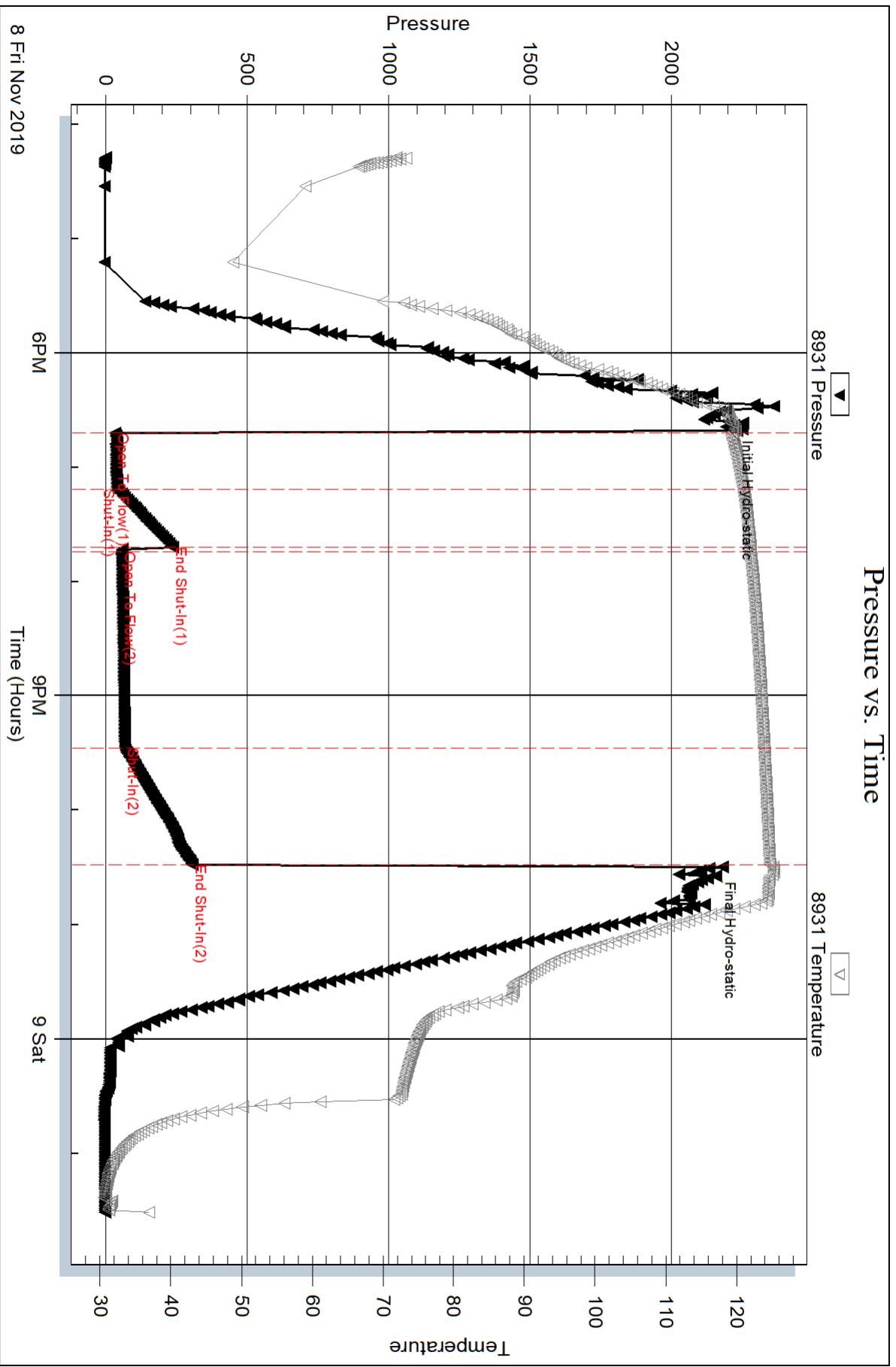
Laboratory Name:

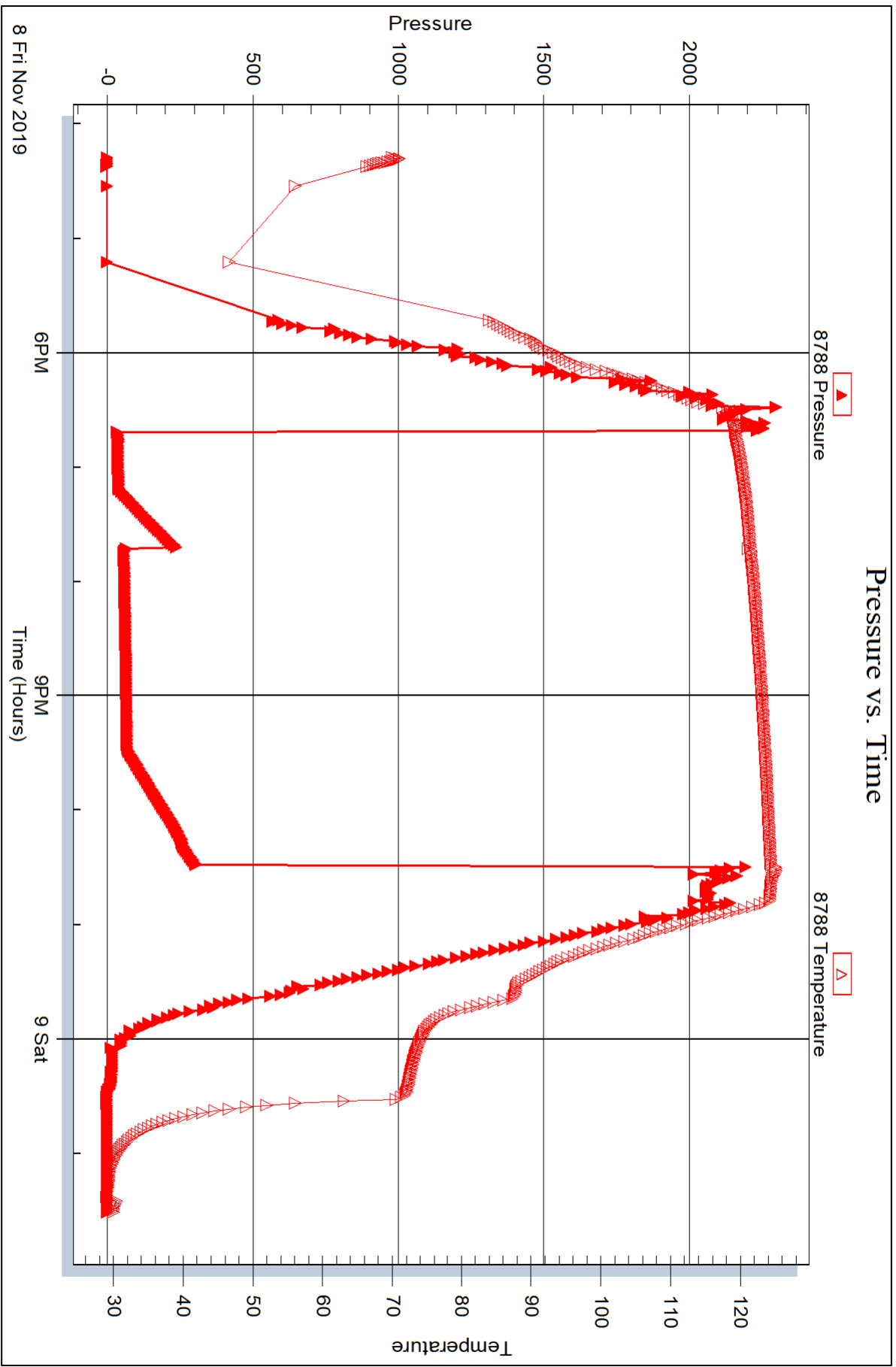
Laboratory Location:

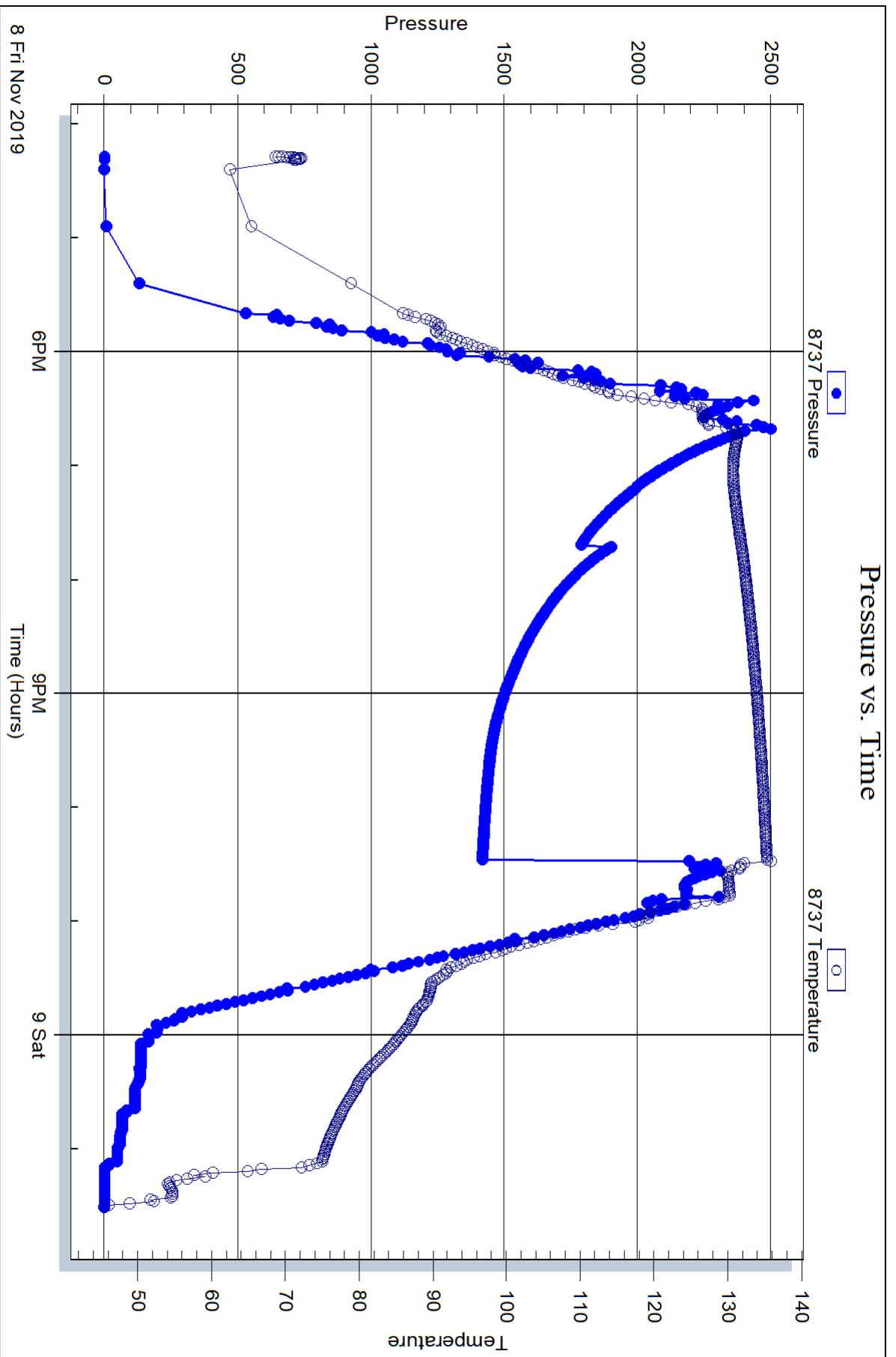
Recovery Comments: 446 Ft of G.I.P.



### Pressure vs. Time









## DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources LLC**

1302 Olive St  
Concordia, KS 66901

ATTN: Sean Deenihan

### **Green High #1-27**

#### **27-27s-12w Pratt,KS**

Start Date: 2019.11.07 @ 08:16:15

End Date: 2019.11.07 @ 15:02:00

Job Ticket #: 65452                      DST #: 3

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

Printed: 2019.11.11 @ 14:30:19



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

ATTN: Sean Deenihan

Job Ticket: 65452

**DST#: 3**

Test Start: 2019.11.07 @ 08:16:15

## GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:03:15

Time Test Ended: 15:02:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

**Interval: 4075.00 ft (KB) To 4144.00 ft (KB) (TVD)**

Reference Elevations: 1772.00 ft (KB)

Total Depth: 4144.00 ft (KB) (TVD)

1760.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 8931**

**Inside**

Press@RunDepth: 41.67 psig @ 4076.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.11.07

End Date:

2019.11.07

Last Calib.:

2019.11.07

Start Time:

08:16:20

End Time:

15:01:59

Time On Btm:

2019.11.07 @ 10:59:45

Time Off Btm:

2019.11.07 @ 13:19:15

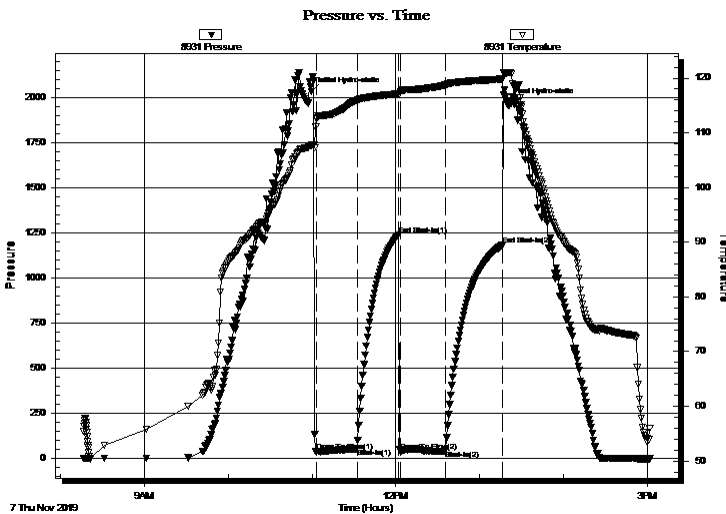
**TEST COMMENT:** IF: Strong Blow . B.O.B. in 30-45 secs. Built to 340.52".

IS: Weak Blow . Surface to 1/4".

FF: Strong Blow . B.O.B. & G.T.S., immediate. Built to 388" then Gauged Gas.

FSI: Weak Blow . Surface t 1/8".

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2032.86	107.72	Initial Hydro-static
4	37.30	112.51	Open To Flow (1)
33	53.26	115.91	Shut-In(1)
63	1238.02	117.13	End Shut-In(1)
64	39.92	117.60	Open To Flow (2)
96	41.67	118.72	Shut-In(2)
137	1179.99	119.82	End Shut-In(2)
140	1971.22	120.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	GOSM 5%g 95%m	0.84
0.00	GTS	0.00

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	12.00	96.71
Last Gas Rate	0.25	1.01	24.45
Max. Gas Rate	0.38	12.00	96.71





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65452

**DST#: 3**

ATTN: Sean Deenihan

Test Start: 2019.11.07 @ 08:16:15

## Tool Information

Drill Pipe:	Length: 3957.00 ft	Diameter: 3.80 inches	Volume: 55.51 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.80 inches	Volume: 0.91 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 56.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4075.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4051.00	
Shut In Tool	5.00			4056.00	
Hydraulic tool	5.00			4061.00	
Jars	5.00			4066.00	
Packer	4.00			4070.00	25.00 Bottom Of Top Packer
Packer	5.00			4075.00	
Stubb	1.00			4076.00	
Recorder	0.00	8931	Inside	4076.00	
Recorder	0.00	8788	Outside	4076.00	
Perforations	6.00			4082.00	
Change Over Sub	1.00			4083.00	
Blank Spacing	32.00			4115.00	
Change Over Sub	1.00			4116.00	
Perforations	25.00			4141.00	
Bullnose	3.00			4144.00	69.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Arcadian Resources LLC

**27-27s-12w Pratt,KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65452

**DST#: 3**

ATTN: Sean Deenihan

Test Start: 2019.11.07 @ 08:16:15

## 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:

8500 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 8500.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
110.00	GOSM 5%g 95%m	0.838
0.00	GTS	0.000

Total Length: 110.00 ft      Total Volume: 0.838 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #: MASPRATT

Laboratory Name:

Laboratory Location:

Recovery Comments: G.T.S. 3847 FT





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Arcadian Resources LLC

**27-27s-12w Pratt, KS**

1302 Olive St  
Concordia, KS 66901

**Green High #1-27**

Job Ticket: 65452

**DST#: 3**

ATTN: Sean Deenihan

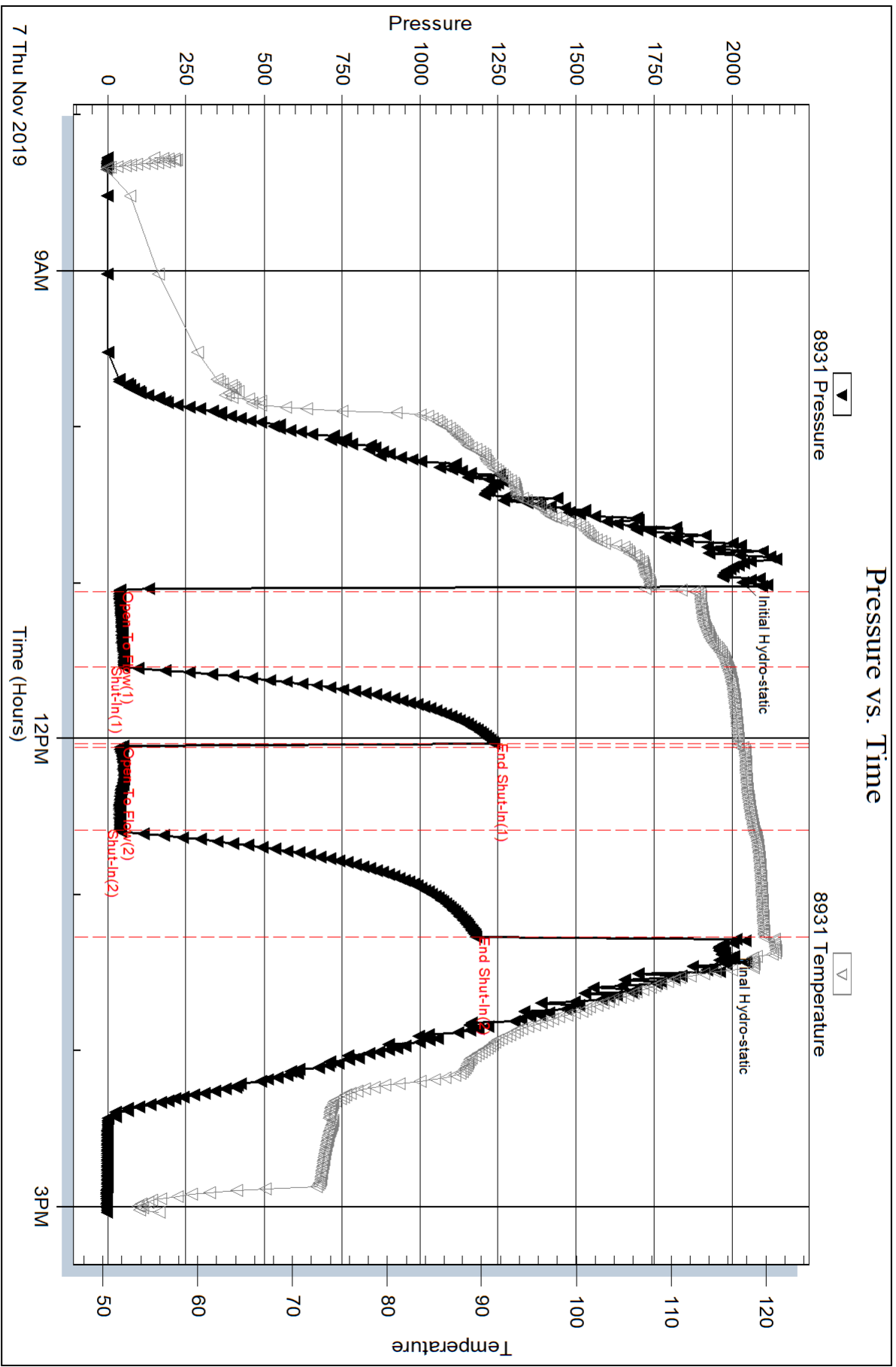
Test Start: 2019.11.07 @ 08:16:15

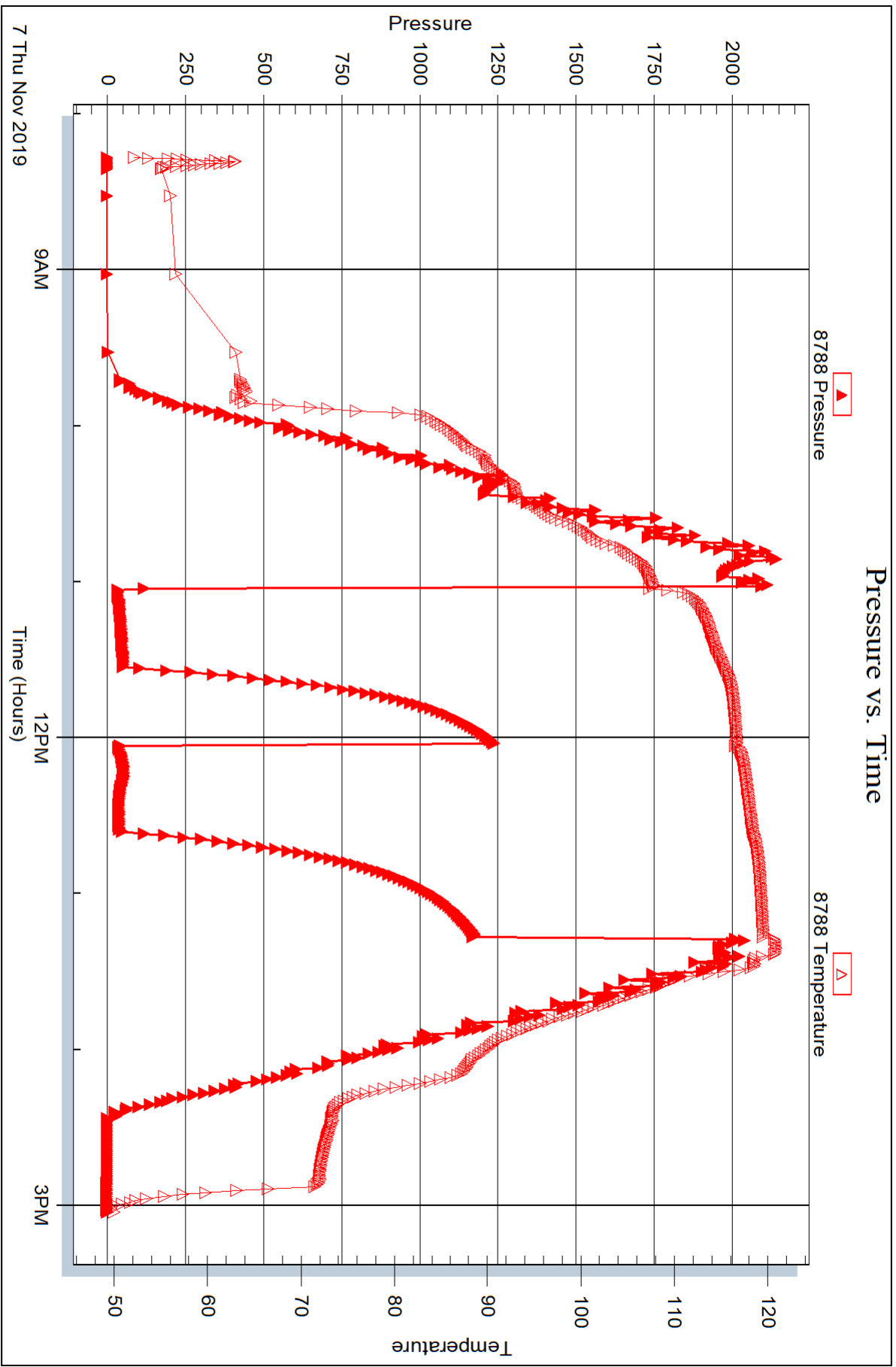
### Gas Rates Information

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	0.38	12.00	96.71
2	20	0.38	2.69	62.61
2	30	0.25	1.01	24.45







# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 65451

Well Name & No. Green High # 1-27 Test No. 1 Date 11/05/19  
 Company Arcadian Resources, LLC Elevation 1772 KB 1760 GL  
 Address 1302 Olive St. Concordia, KS. 66901  
 Co. Rep / Geo. Sean Deenihan Rig Fossil #3  
 Location: Sec. 27 Twp 27S Rgs. 12W Co. Pratt State KS.

Interval Tested 3890 - 3941 Zone Tested Lansing/KC.  
 Anchor Length 51' Drill Pipe Run 3768 Mud Wt. 8.8  
 Top Packer Depth 3885 Drill Collars Run 120 Vls 53  
 Bottom Packer Depth 3890 WL Pipe Run 0 WL 8.8  
 Total Depth 3941 Chlorides 4000 ppm System LCM 10<sup>4</sup>

Blow Description IF: Weak Blow. Built to 1 1/2".  
ISI: NO Blow.  
FF: Weak Blow. Built to 3/4".  
FSI: NO Blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>60 spec M</u>	<u>2</u>		<u>98</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20' Fluid BHT 108° Gravity N/A API RW N/A °F Chlorides 4000 ppm

(A) Initial Hydrostatic <u>1901</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>2040</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2359</u>
(C) First Final Flow <u>91</u>	<input type="checkbox"/> Safety Joint	T-Open <u>0320</u>
(D) Initial Shut-In <u>532</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0530</u>
(E) Second Initial Flow <u>29</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0725</u>
(F) Second Final Flow <u>85</u>	<input checked="" type="checkbox"/> Mileage <u>20</u> → 20	Comments <u>Pulled Tight - Circled</u>
(G) Final Shut-In <u>219</u>	<input type="checkbox"/> Sampler	<u>1 1/2 hrs.</u>
(H) Final Hydrostatic <u>1881</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> EM Tool

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

Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility

Sub Total 1470

MP/DST Disc1

Approved By \_\_\_\_\_ Our Representative W. Deenihan

Tribolite Testing Inc. shall not be liable for damaged or any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 65452

Well Name & No. Green High #1-27 Test No. 2 Date 11/06/19  
 Company ARCADIAN RESOURCES, LLC Elevation 1772 KB 1760 GL  
 Address 1302 Olive St. Concordia, KS. 66901  
 Co. Rep / Geo. Sean Deenihan Rig Fossil #3  
 Location: Sec. 27 Twp 27S Rge. 12W Co. Pratt State KS.

Interval Tested 3970 - 4035 Zone Tested Mississippi - Marmartin  
 Anchor Length 65' Drill Pipe Run 3831 Mud Wt. 9.2  
 Top Packer Depth 3965 Drill Collars Run 120 Vis SI  
 Bottom Packer Depth 3970 Wt. Pipe Run 8 WL 11.2  
 Total Depth 4035 Chlorides 9000 ppm System LCM 10#

Blow Description IF: Strong Blow. B.O.B. in 45sec. Built to 353.83"  
ISI: Weak blow. Built to 1 1/2"  
FF: Strong Blow. B.O.B. immediate & G.I.S.I. immediate. Built to 216.52" Caused G.B.  
FSI: Weak Blow. Built to 4.89"

Rec	Feet of	%gas	%oil	%water	%mud
<u>3739'</u>	<u>G.I.P.</u>	<u>100</u>			
<u>30'</u>	<u>Clean Oil</u>		<u>100</u>		
<u>62'</u>	<u>GOCM</u>	<u>35</u>	<u>40</u>		<u>25</u>
<u>60'</u>	<u>GOCM</u>	<u>55</u>	<u>35</u>		<u>10</u>
<u>60'</u>	<u>GOCM</u>	<u>56</u>	<u>25</u>		<u>19</u>

Rec Total 212' Fluid BHT 109° Gravity 34.6 @ 60° API RW N/A @ — ° F Chlorides 9000 ppm

(A) Initial Hydrostatic <u>1926</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>1525</u>
(B) First Initial Flow <u>56</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1619</u>
(C) First Final Flow <u>64</u>	<input type="checkbox"/> Safety Joint	T-Open <u>1831</u>
(D) Initial Shut-In <u>1324</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2105</u>
(E) Second Initial Flow <u>54</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2306</u>
(F) Second Final Flow <u>80</u>	<input checked="" type="checkbox"/> Mileage <u>209</u> 20	Comments
(G) Final Shut-In <u>1187</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1886</u>	<input type="checkbox"/> Straddle	

Initial Open 30 15  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 60

Sub Total 1570 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative Matthew J. Smith  
 Tritobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 65453

Well Name & No. Green High # 1-27 Test No. 3 Date 11/02/19  
 Company Arcadian Resources, LLC. Elevation 1772 KB 1760 GL  
 Address 1302 Olive St. Concordia, KS. 66901  
 Co. Rep / Geo. Sean Deenihan Rig Fossil #3  
 Location: Sec. 27 Twp 27S Rge. 12W Co. PRATT State KS.

Interval Tested 4075 - 4144 Zone Tested Mississippi  
 Anchor Length 69' Drill Pipe Run 3957 Mud Wt. 9.3  
 Top Packer Depth 4070 Drill Collars Run 120 Vis 62  
 Bottom Packer Depth 4075 Wt. Pipe Run 18 WL 10.0  
 Total Depth 4144 Chlorides 8500 ppm System LCM 10#

Blow Description IF: Strong Blow. B.O.B. in 30-45 sec. Built to 340.52".  
ISI: Weak Blow. Surface to 1/4".  
FF: Strong Blow. B.O.B. at GITSI immediate. Built to 388" then gauged Gas.  
FSI: Weak Blow. Surface to 1/8".

Rec	Feet of	%gas	%oil	%water	%mud
<u>3847</u>	<u>G.I.P.</u>	<u>100</u>			
<u>110</u>	<u>GOSM</u>	<u>5</u>			<u>95</u>

Rec Total 110' Fluid BHT 112° Gravity N/A API RW N/A @ — °F Chlorides 8500 ppm

- (A) Initial Hydrostatic 2033
- (B) First Initial Flow 37
- (C) First Final Flow 53
- (D) Initial Shut-In 1238
- (E) Second Initial Flow 40
- (F) Second Final Flow 42
- (G) Final Shut-In 1180
- (H) Final Hydrostatic 1971

- Test 1300
- Jars 250
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage 209 20
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1570

- T-On Location 0732
- T-Started 0816
- T-Open 1103
- T-Pulled 1320
- T-Out 1502

- Comments \_\_\_\_\_
- EM Tool
  - Ruined Shale Packer
  - Ruined Packer
  - Extra Copies
  - Sub Total 0
  - Total 1570

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

Approved By \_\_\_\_\_

Our Representative Matthew A. Smith

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 65454

Well Name & No. Green High # 1-27 Test No. 4 Date 11/08/19  
 Company Acadian Resources, LLC. Elevation 1772 KB 1760 GL  
 Address 1302 Olive St. Concordia, KS. 66901  
 Co. Rep / Geo. Sean Deenihan Rig Fossil #3  
 Location: Sec. 27 Twp 27S Rge. 12W Co. Pratt State Ks.

Interval Tested 4238 - 4374 Zone Tested Viola  
 Anchor Length 136' / Tail 126' Drill Pipe Run 4117 Mud Wt. 9.3  
 Top Packer Depth 4233 Drill Collars Run 120 Vls 56  
 Bottom Packer Depth 4238 Wt. Pipe Run 2 WL 9.6  
 Total Depth 4500 Chlorides 8000 ppm System LCM 7<sup>th</sup>

Blow Description IF: Fair Blow. Built to 7.56"  
ISI: No Blow.  
FF: Strong Blow. B.O.B. in 25 mins. Built to 27.20"  
FSI: Weak Blow. Surface to 1/8"

Rec	Feet of	%gas	%oil	%water	%mud
<u>446</u>	<u>G.I.Pi</u>	<u>100</u>			
<u>30</u>	<u>Dspec m</u>				<u>100</u>
<u>61</u>	<u>GVSOCM</u>	<u>5</u>	<u>3</u>		<u>92</u>

Rec Total 91' fluid BHT 119° Gravity N/A API RW N/A @ - °F Chlorides 8000 ppm  
 (A) Initial Hydrostatic 2194  Test 1300 T-On Location 1500  
 (B) First Initial Flow 35  Jars 250 T-Started 1617  
 (C) First Final Flow 41  Safety Joint \_\_\_\_\_ T-Open 1841  
 (D) Initial Shut-In 237  Circ Sub \_\_\_\_\_ T-Pulled 2245  
 (E) Second Initial Flow 57  Hourly Standby \_\_\_\_\_ T-Out 0131  
 (F) Second Final Flow 69  Mileage 209 20 +20 Comments @ 3:20 pm went to get more pens @ shop.  
 (G) Final Shut-In 307  Sampler \_\_\_\_\_ Geo Request  
 (H) Final Hydrostatic 2133  Straddle 600  EM Tool \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  
 Final Flow 105  Extra Recorder \_\_\_\_\_  
 Final Shut-In 60  Day Standby \_\_\_\_\_  
 Sub Total 2190  Accessibility \_\_\_\_\_  
 Total 2190  MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Matthew S. [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.



# HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.  
250 N. Water, Suite 200  
Wichita, KS 67202  
316-303-9515

Customer:  
ARCADIAN RESOURCES LLC  
1302 OLIVE ST  
CONCORDIA, KS 66901

Invoice Date: 11/1/2019  
Invoice #: 0344936  
Lease Name: Green High  
Well #: 1-27 (New)  
County: Pratt  
Job Number: ICT2698  
District: El Dorado

Date/Description	HRS/QTY	Rate	Total
Surface	0.000	0.000	0.00
Heavy Eq Mileage	10.000	3.400	34.00
Light Eq Mileage	10.000	1.700	17.00
Ton Mileage-Minimum	1.000	255.000	255.00
Cement pump	1.000	637.500	637.50
H-325 <i>280 5x5.</i>	280.000	17.000	4,760.00

*Cement  
Surface*

**Total** 5,703.50

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 1/2% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**











## HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.  
250 N. Water, Suite 200  
Wichita, KS 67202  
316-303-9515

Customer:  
ARCADIAN RESOURCES LLC  
1302 OLIVE ST  
CONCORDIA, KS 66901

Invoice Date: 11/9/2019  
Invoice #: 0345128  
Lease Name: Green High  
Well #: 1-27 (New)  
County: Pratt  
Job Number: ICT2754  
District: El Dorado

Date/Description	HRS/QTY	Rate	Total
Longstring	0.000	0.000	0.00
Cement pump	1.000	1,275.000	1,275.00
Heavy Eq Mileage	10.000	3.400	34.00
Light Eq Mileage	10.000	1.700	17.00
Ton Mileage-Minimum	1.000	255.000	255.00
HSC Blend	200.000	20.400	4,080.00
Mud flush	500.000	0.850	425.00
Cement baskets 5 1/2"	1.000	255.000	255.00
5 1/2" Turbolizers	7.000	68.000	476.00
5 1/2" Floatshoe-Flapper AFU	1.000	318.750	318.75
5 1/2" LD Plug & Baffle	1.000	297.500	297.50

**Total** 7,433.25

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 1/2% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**

250 N. Water St., Suite #200  
Wichita, KS 67202



**HURRICANE SERVICES INC**

Customer	Arcadian Resources		Lease & Well #	Green High #1-27		Date	11/9/2019	
Service District	El Dorado		County & State	Pratt Co., KS	Legals S/T/R	27-27S-12W		Job #
Job Type	Longstring	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> No	Ticket #
Equipment #	Driver	<b>Job Safety Analysis - A Discussion of Hazards &amp; Safety Procedures</b>						
91	Fuzzy	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging			
289	Justin	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection			
189	Mark	<input checked="" type="checkbox"/> Safety Footwear	<input checked="" type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input checked="" type="checkbox"/> Specific Job Sequence/Expectations			
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input checked="" type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations			
		<input checked="" type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below				
<b>Comments</b>								

Product/ Service Code	Description	Unit of Measure	Quantity	List Price/Unit	Gross Amount	Item Discount	Net Amount
C015	Cement Pump	ea	1.00				\$1,275.00
M010	Heavy Equipment Mileage	mi	10.00				\$34.00
M015	Light Equipment Mileage	mi	10.00				\$17.00
M025	Ton Mileage- Minimum	each	1.00				\$255.00
CP031	HSC	sack	200.00				\$4,080.00
CP170	Mud Flush	gal	500.00				\$425.00
FE130	5 1/2" Cement Basket	ea	1.00				\$255.00
FE135	5 1/2 Turbolizers	ea	7.00				\$476.00
FE145	5 1/2" Float Shoe - AFU Flapper Type	ea	1.00				\$318.75
FE170	5 1/2" Latch Down Plug & Baffle	ea	1.00				\$297.50

<b>Customer Section: On the following scale how would you rate Hurricane Services Inc.?</b>				<b>Gross:</b>		<b>Net:</b> \$7,433.25	
<b>Based on this job, how likely is it you would recommend HSI to a colleague?</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely				<b>Total Taxable</b>	\$ -	<b>Tax Rate:</b>	
				<b>Sale Tax:</b>	\$ -	<b>Total:</b> \$ 7,433.25	
				State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.			
				HSI Representative: <i>Fuzzy</i>			

**TERMS:** Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X \_\_\_\_\_ **CUSTOMER AUTHORIZATION SIGNATURE**









**HURRICANE SERVICES INC**

Customer	Arcadian Res LLC	Lease & Well #	Green High 1-27	Date	11-9-19
Service District	GL Dorado FS	County & State	Platt, KS	Legals S/T/R	27-27-12
Job Type	Production <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No	Job #	707-2754
Equipment #	Driver	Ticket #			

Equipment #		Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
#289	Justin	<input checked="" type="checkbox"/> Hard hat	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging	
#189	Mark	<input type="checkbox"/> H2S Monitor	<input type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection	
#91	Fuzzy	<input type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input checked="" type="checkbox"/> Specific Job Sequence/Expectations	
		<input type="checkbox"/> PRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations	
		<input checked="" type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below		

**Comments**

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
C010	Cement Pump	each	1	
M010	HEAVY Equip mileage	mile	10	
M015	Light Equip mileage	mile	10	
M025	Ton mileage maximum	TM	120	
R0031	HSC Lowspring	SK	200	
CP170	Mud Flush	gal	500	
FE135	S 1/2 - Turbolizers	each	7	
FE145	S 1/2 - AFU Frontshop	each	1	
FE170	S 1/2 - hatchdown Plus + BASKET	each	1	
FE185	S 1/2 - Basket (reciprocating)	each	1	
				<b>6558<sup>16</sup></b>

Customer Section: On the following scale how would you rate Hurricane Services Inc.?

Based on this job, how likely is it you would recommend HSI to a colleague?

1  2  3  4  5  6  7  8  9  10 Unlikely Extremely Likely

Thank You - Fuzzy & Crew

Total Taxable	\$ -	Tax Rate:	
Net:	\$0.00	Sale Tax:	\$ -
State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.		Total:	\$ -

HSI Representative:

**TERMS:** Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1.5% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X \_\_\_\_\_ **CUSTOMER AUTHORIZATION SIGNATURE**





**CEMENT TREATMENT REPORT**

Customer: Arcadian Resources LLC	Well: Green High 1-27	Ticket: JCT 2754
City, State:	County: Pratt	Date: 11-9-19
Field Rep: Budch Drylie	S-T-R: 27-27-12	Service: EL Doyado, KS

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4502 ft
Casing Size:	5 1/2 in
Casing Depth:	4504 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	104.3 bbls

Slurry	
Weight:	14.6 #/sx
Water / Sx:	6.97 gal/sx
Yield:	1.56 ft <sup>3</sup> /sx
Bbls / Ft.:	32.4
Depth:	4504 ft
Volume:	41.6 bbls
Excess:	%
Total Slurry:	41.6 bbls
Total Sacks:	150 sx

Cement Blend		
Product	%	#
Class A	100	14100
Gel	290	282
Gypsum	690	846
Metso		
KolSeal	5 #	250
PhenoSeal	1 1/2 #	75
Salt	10	870
Total		-

TIME	RATE	PSI	BBLs	REMARKS	TIME	RATE	PSI	BBLs	REMARKS
9:00				arr loc safety meeting	16:10		1300	106	Plus down @ 106 @ 4.5
11:15				run float equip					800* list 1300* land
13:40				hook rig up to circ					float held
14:00				Drop Ball + circ	16:15				
14:15				Ball thru @ 425 # Circ 1 hr					THANK YOU Fuzzy & crew
15:15				Pump 533 water Pump 500 gal mud flush Pump 5 BBL water					
15:20				Pump 30 cement in RH Pump 205K cement in MH					
15:30				Mix 150 sacks cement					
15:40				wash pump lines					
15:45				Drop plug + displace 106 BBLs					

CREW		UNIT	SUMMARY		
Cementer:	Fuzzy	91	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Justin	289	#DIV/0! bpm	#DIV/0! psi	- bbls
Bulk #1:	Mark	189			
Bulk #2:					



# Sean Deenihan

## Petroleum Geologist

### GEOLOGIST'S REPORT

#### DRILLING TIME AND SAMPLE LOG

COMPANY	Arcadian Resources, LLC	ELEVATIONS	KB 1772'
LEASE	Green High #1-27	DF	
FIELD		GL 1760'	
LOCATION	732' FSL & 1327' FWL	Measurements Are All From Kelly Bushing	
SEC	27 TWP 27 S RGE 12 W		
COUNTY	Prairie STATE Kansas		
CONTRACTOR	Fossil Drilling Rig #3		
SPUD	COMP	CASING	CONDUCTOR
RTD	4500' LTD 4502'		
MUD UP	TYPE MUD Chemical		
SAMPLES SAVED FROM	3400' TO RTD		
DRILLING TIME KEPT FROM	3400' TO RTD		
SAMPLES EXAMINED FROM	3400' TO RTD		
GEOLOGICAL SUPERVISION FROM	3330'		
REFERENCE WELL	CND/DIL MIC		

REMARKS Based on sample analysis, log evaluation, and DST results, the Green High #1-27 was completed with 5.5" production casing.

Respectfully Submitted,  
Sean P. Deenihan

