



## DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources, Inc**

1302 Olive St.  
Concordia, KS 66901

ATTN: Pat Deenihan

### **Tinley #2-24**

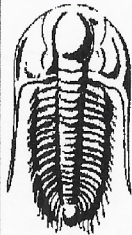
#### **24-2s-27w Decatur,KS**

Start Date: 2019.02.14 @ 01:56:00

End Date: 2019.02.14 @ 09:01:00

Job Ticket #: 65317                      DST #: 1

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65317

**DST#: 1**

ATTN: Pat Deenihan

Test Start: 2019.02.14 @ 01:56:00

## GENERAL INFORMATION:

Formation: **LKC "E - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:34:30

Time Test Ended: 09:01:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

**Interval: 3554.00 ft (KB) To 3682.00 ft (KB) (TVD)**

Reference Elevations: 2659.00 ft (KB)

Total Depth: 3682.00 ft (KB) (TVD)

2650.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8652 Outside**

Press@RunDepth: 281.24 psig @ 3555.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.02.14

End Date: 2019.02.14

Last Calib.: 2019.02.14

Start Time: 01:56:05

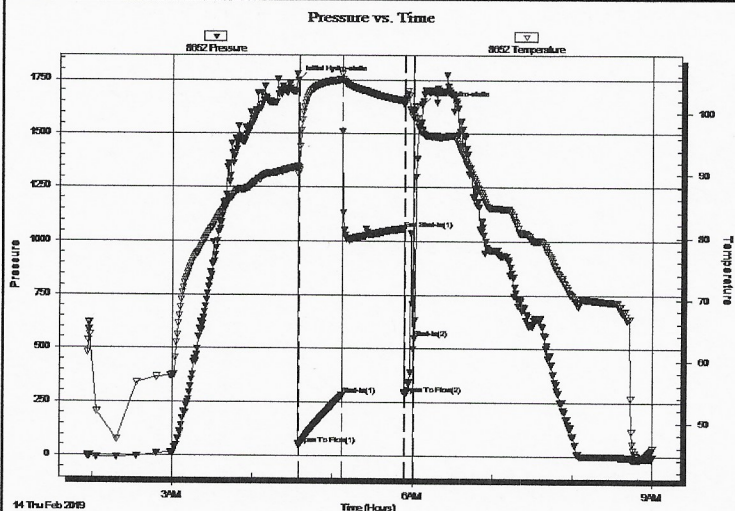
End Time: 09:00:59

Time On Btm: 2019.02.14 @ 04:34:00

Time Off Btm: 2019.02.14 @ 06:07:00

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 4 1/4 min., built to 68"  
45 - IS: Very weak surface blow back  
10 - FF: Blow built to BOB at 4 1/4 min., lost packer seat  
Pulled tool

## PRESSURE SUMMARY



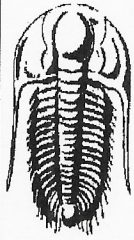
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1746.97	91.41	Initial Hydro-static
1	50.79	90.79	Open To Flow (1)
33	281.24	105.54	Shut-In(1)
80	1058.65	102.06	End Shut-In(1)
80	288.65	101.71	Open To Flow (2)
88	545.74	100.58	Shut-In(2)
93	1632.35	97.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
185.00	Mud 100%	2.60
685.00	WCM 73% <sub>m</sub> , 27% <sub>w</sub>	9.61
435.00	MCW 87% <sub>w</sub> , 13% <sub>m</sub>	6.10
125.00	WM 53% <sub>m</sub> , 47% <sub>w</sub>	1.75
0.00	Oil spots in tool	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

ATTN: Pat Deenihan

Job Ticket: 65317

**DST#: 1**

Test Start: 2019.02.14 @ 01:56:00

## GENERAL INFORMATION:

Formation: **LKC "E - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:34:30

Time Test Ended: 09:01:00

**Interval: 3554.00 ft (KB) To 3682.00 ft (KB) (TVD)**

Total Depth: 3682.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Reference Elevations: 2659.00 ft (KB)

2650.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 6625**

**Inside**

Press@RunDepth: psig @ 3555.00 ft (KB)

Start Date: 2019.02.14

End Date: 2019.02.14

Start Time: 01:56:05

End Time: 09:01:14

Capacity: 8000.00 psig

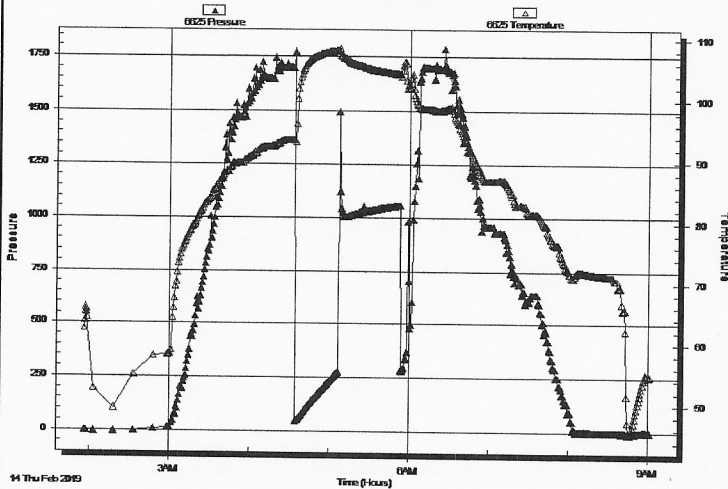
Last Calib.: 2019.02.14

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 4 1/4 min., built to 68"  
45 - IS: Very weak surface blow back  
10 - FF: Blow built to BOB at 4 1/4 min., lost packer seat  
Pulled tool

Pressure vs. Time



## PRESSURE SUMMARY

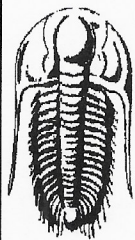
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

## Recovery

Length (ft)	Description	Volume (bbl)
185.00	Mud 100%	2.60
685.00	WCM 73% <sub>m</sub> , 27% <sub>w</sub>	9.61
435.00	MCW 87% <sub>w</sub> , 13% <sub>m</sub>	6.10
125.00	WM 53% <sub>m</sub> , 47% <sub>w</sub>	1.75
0.00	Oil spots in tool	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65317

**DST#:1**

ATTN: Pat Deenihan

Test Start: 2019.02.14 @ 01:56:00

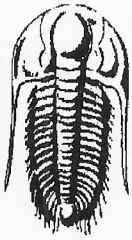
### Tool Information

Drill Pipe:	Length: 3534.00 ft	Diameter: 3.80 inches	Volume: 49.57 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 49.57 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3554.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	128.00 ft			
Tool Length:	161.00 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			3522.00	
Shut In Tool	5.00			3527.00	
Hydraulic tool	5.00			3532.00	
Jars	5.00			3537.00	
EM Tool	4.00			3541.00	
Safety Joint	3.00			3544.00	
Packer	5.00			3549.00	33.00 Bottom Of Top Packer
Packer	5.00			3554.00	
Packer - Shale	0.00			3554.00	
Stubb	1.00			3555.00	
Recorder	0.00	6625	Inside	3555.00	
Recorder	0.00	8652	Outside	3555.00	
Perforations	25.00			3580.00	
Blank Spacing	96.00			3676.00	
Perforations	3.00			3679.00	
Bullnose	3.00			3682.00	128.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>161.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Arcadian Resources, Inc

24-2s-27w Decatur,KS

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65317

**DST#: 1**

ATTN: Pat Deenihan

Test Start: 2019.02.14 @ 01:56:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

75000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	Mud 100%	2.595
685.00	WCM 73%m, 27%w	9.609
435.00	MCW 87%w, 13%m	6.102
125.00	WM 53%m, 47%w	1.753
0.00	Oil spots in tool	0.000

Total Length: 1430.00 ft

Total Volume: 20.059 bbl

Num Fluid Samples: 0

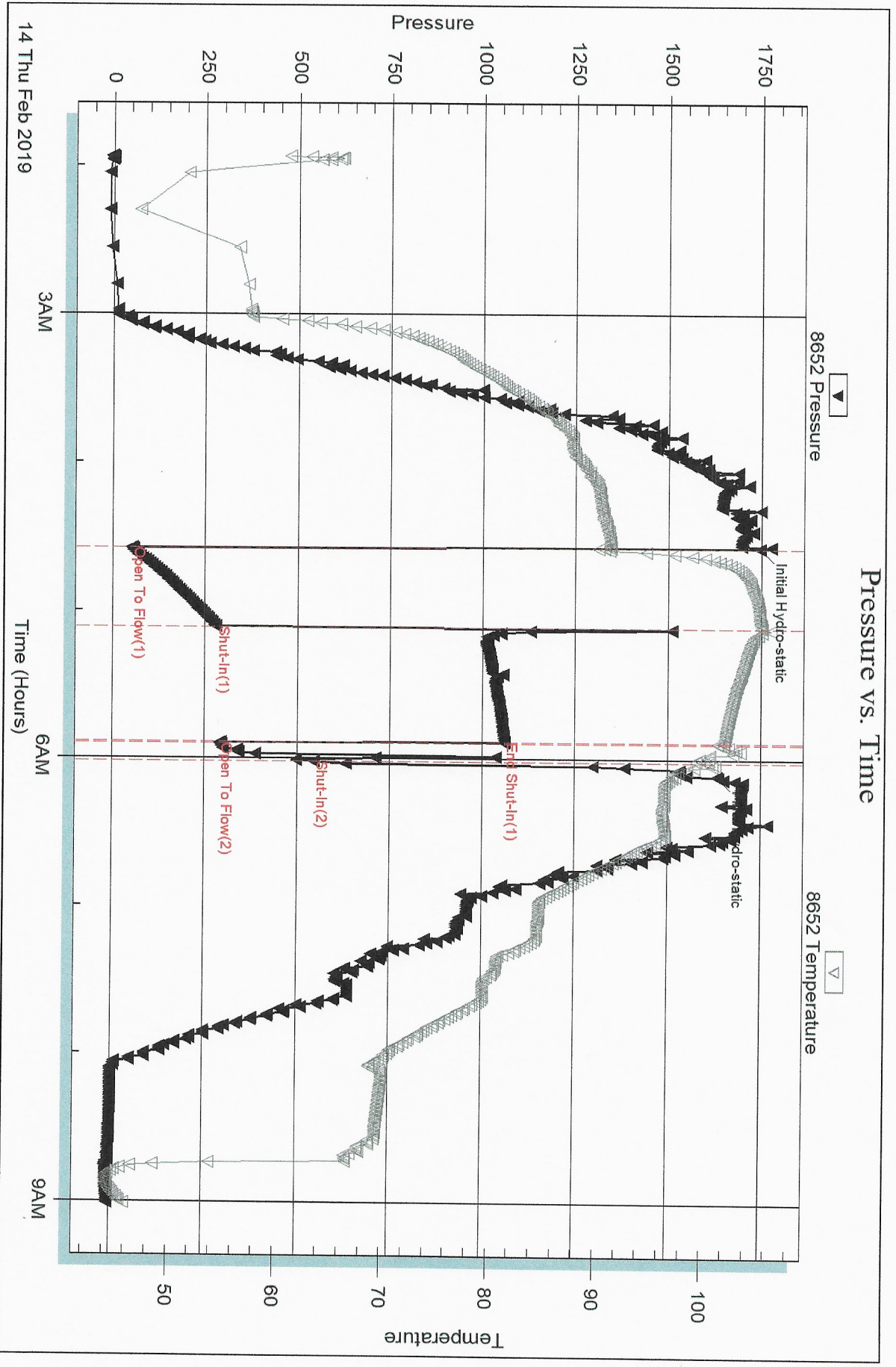
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .163 ohms @ 46.3 deg F Chlorides = 75,000 ppm



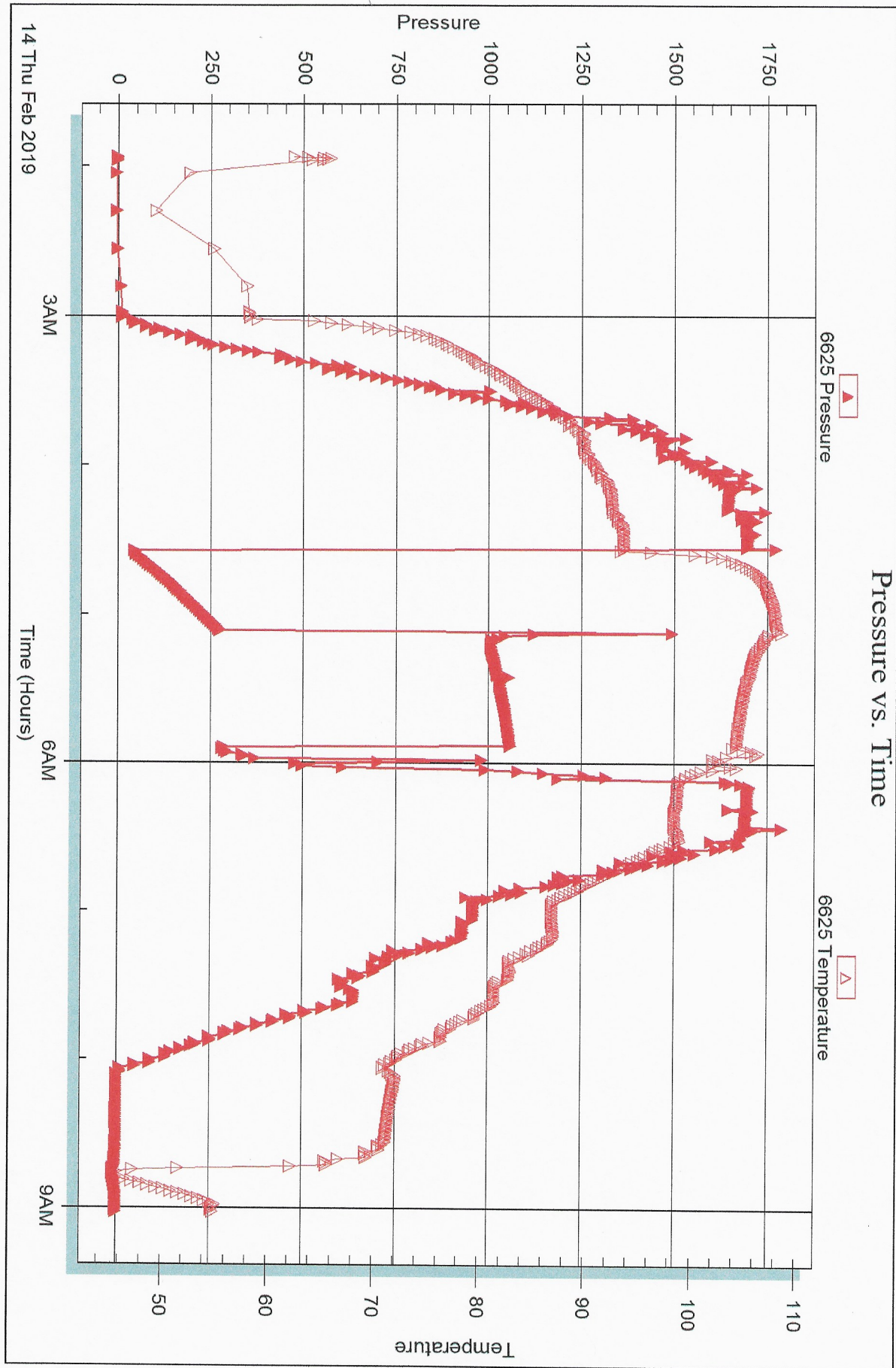
Serial #: 6625

Inside

Arcadian Resources, Inc

Tinley #2-24

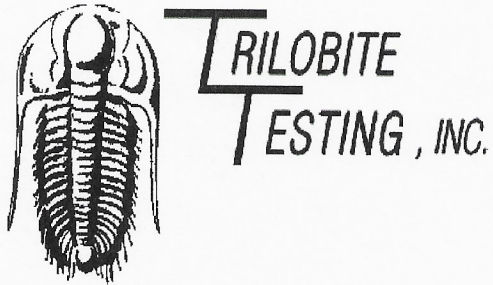
DST Test Number: 1



Trijobite Testing, Inc

Ref. No: 65317

Printed: 2019.02.18 @ 10:46:57



## DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources, Inc**

1302 Olive St.  
Concordia, KS 66901

ATTN: Pat Deenihan

### **Tinley #2-24**

#### **24-2s-27w Decatur,KS**

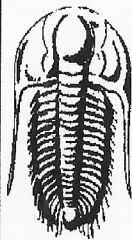
Start Date: 2019.02.14 @ 18:23:00

End Date: 2019.02.15 @ 02:39:45

Job Ticket #: 65318                      DST #: 2

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65318

**DST#: 2**

ATTN: Pat Deenihan

Test Start: 2019.02.14 @ 18:23:00

## GENERAL INFORMATION:

Formation: **LKC "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:35:00

Time Test Ended: 02:39:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

**Interval: 3677.00 ft (KB) To 3698.00 ft (KB) (TVD)**

Total Depth: 3698.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2659.00 ft (KB)

2650.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 6625 Inside**

Press@RunDepth: 1158.85 psig @ 3678.00 ft (KB)

Start Date: 2019.02.14

End Date: 2019.02.15

Start Time: 18:23:05

End Time: 02:39:44

Capacity: 8000.00 psig

Last Calib.: 2019.02.15

Time On Btm: 2019.02.14 @ 20:34:15

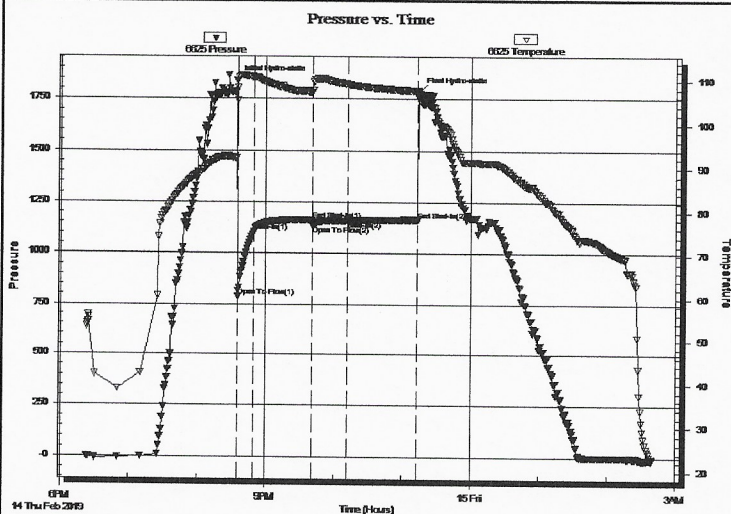
Time Off Btm: 2019.02.14 @ 23:15:00

**TEST COMMENT:** 15 - IF: Blow built to BOB (11") in 15 sec or less, built to 584 1/2"

45 - IS: No blow back

30 - FF: Blow built to BOB at 1 min., built to 71"

60 - FSI: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1837.65	92.37	Initial Hydro-static
1	785.65	105.41	Open To Flow (1)
16	1101.96	110.74	Shut-In(1)
67	1163.82	107.24	End Shut-In(1)
67	1131.60	107.24	Open To Flow (2)
97	1158.85	109.16	Shut-In(2)
159	1164.75	107.69	End Shut-In(2)
161	1785.33	105.37	Final Hydro-static

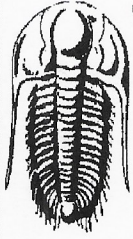
## Recovery

Length (ft)	Description	Volume (bbl)
2055.00	Water 97%w, 3%m	28.83
185.00	MCW 75%w, 25%m	2.60
235.00	WM 52%m, 48%w	3.30

## Gas Rates

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

\* Recovery from multiple tests



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Arcadian Resources, Inc  
 1302 Olive St.  
 Concordia, KS 66901  
 ATTN: Pat Deenihan

24-2s-27w Decatur, KS

**Tinley #2-24**

Job Ticket: 65318

**DST#: 2**

Test Start: 2019.02.14 @ 18:23:00

### GENERAL INFORMATION:

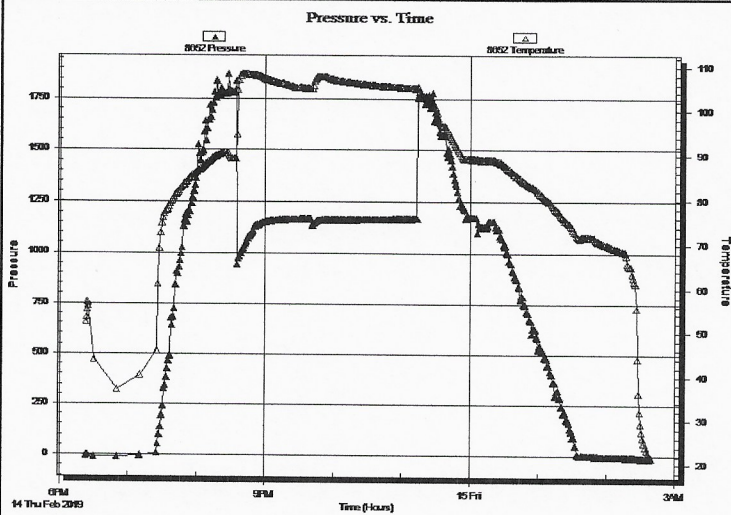
Formation: **LKC "L"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:35:00  
 Time Test Ended: 02:39:45  
 Interval: **3677.00 ft (KB) To 3698.00 ft (KB) (TVD)**  
 Total Depth: 3698.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 83  
 Reference Elevations: 2659.00 ft (KB)  
 2650.00 ft (CF)  
 KB to GR/CF: 9.00 ft

### Serial #: 8652

### Outside

Press@RunDepth: psig @ 3678.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.02.14 End Date: 2019.02.15 Last Calib.: 2019.02.15  
 Start Time: 18:23:05 End Time: 02:39:29 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 15 - IF: Blow built to BOB (11") in 15 sec or less, built to 584 1/2"  
 45 - IS: No blow back  
 30 - FF: Blow built to BOB at 1 min., built to 71"  
 60 - FS: No blow back



### PRESSURE SUMMARY

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

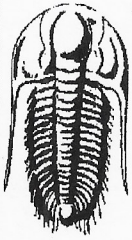
### Recovery

Length (ft)	Description	Volume (bbl)
2055.00	Water 97%w, 3% m	28.83
185.00	MCW 75%w, 25% m	2.60
235.00	WM 52% m, 48% w	3.30

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65318

**DST#: 2**

ATTN: Pat Deenihan

Test Start: 2019.02.14 @ 18:23:00

## Tool Information

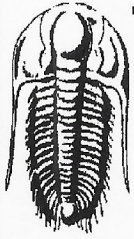
Drill Pipe:	Length: 3661.00 ft	Diameter: 3.80 inches	Volume: 51.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 51.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3677.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 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			3650.00	
Shut In Tool	5.00			3655.00	
Hydraulic tool	5.00			3660.00	
EM Tool	4.00			3664.00	
Safety Joint	3.00			3667.00	
Packer	5.00			3672.00	28.00 Bottom Of Top Packer
Packer	5.00			3677.00	
Packer - Shale	0.00			3677.00	
Stubb	1.00			3678.00	
Recorder	0.00	6625	Inside	3678.00	
Recorder	0.00	8652	Outside	3678.00	
Perforations	17.00			3695.00	
Bullnose	3.00			3698.00	21.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65318

**DST#: 2**

ATTN: Pat Deenihan

Test Start: 2019.02.14 @ 18:23:00

## 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:

97000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2055.00	Water 97%w, 3%m	28.826
185.00	MCW 75%w, 25%m	2.595
235.00	WM 52%m, 48%w	3.296

Total Length: 2475.00 ft      Total Volume: 34.717 bbl

Num Fluid Samples: 0

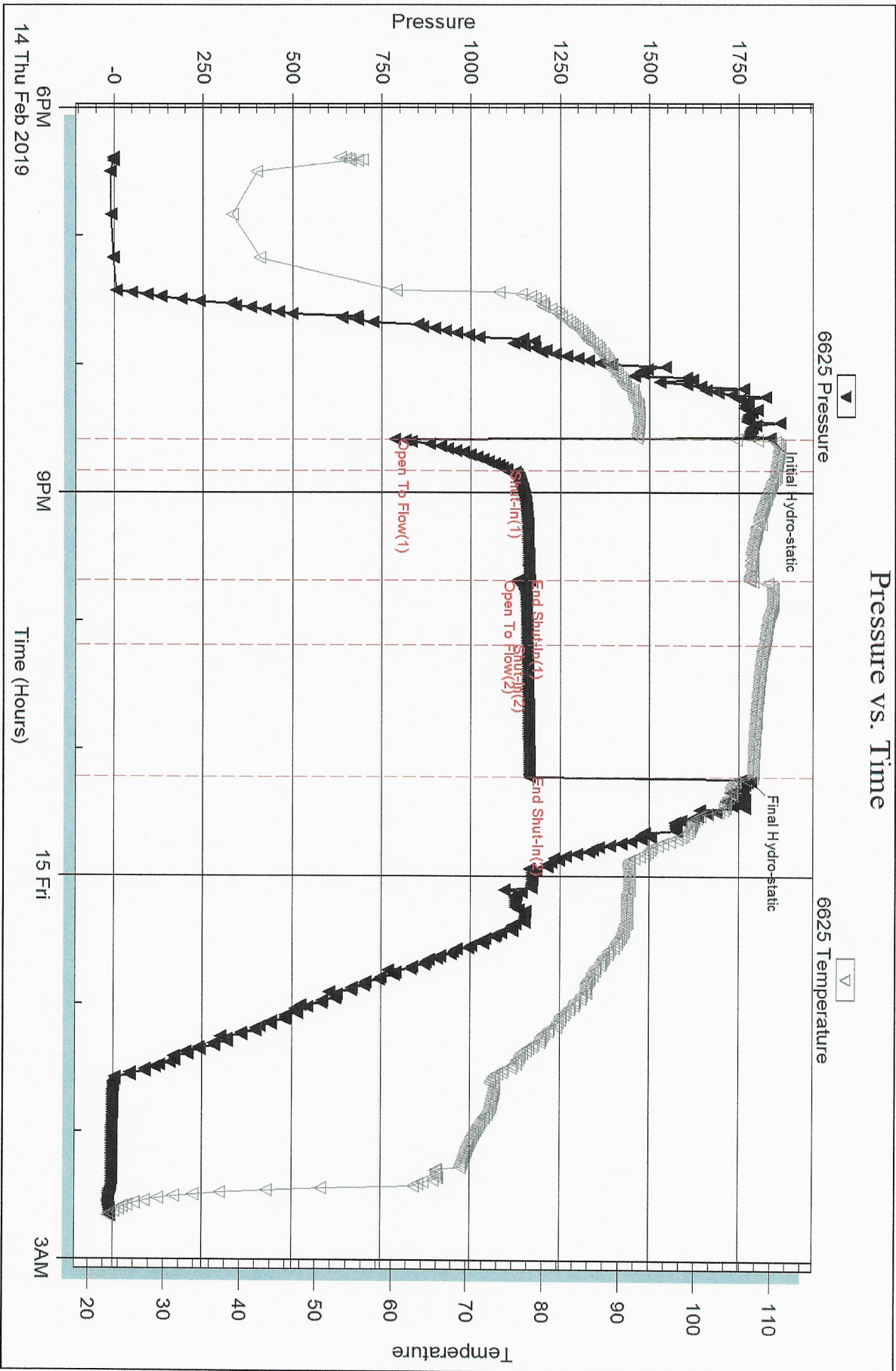
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .218 ohms @ 26 deg F Chlorides = 97,000 ppm

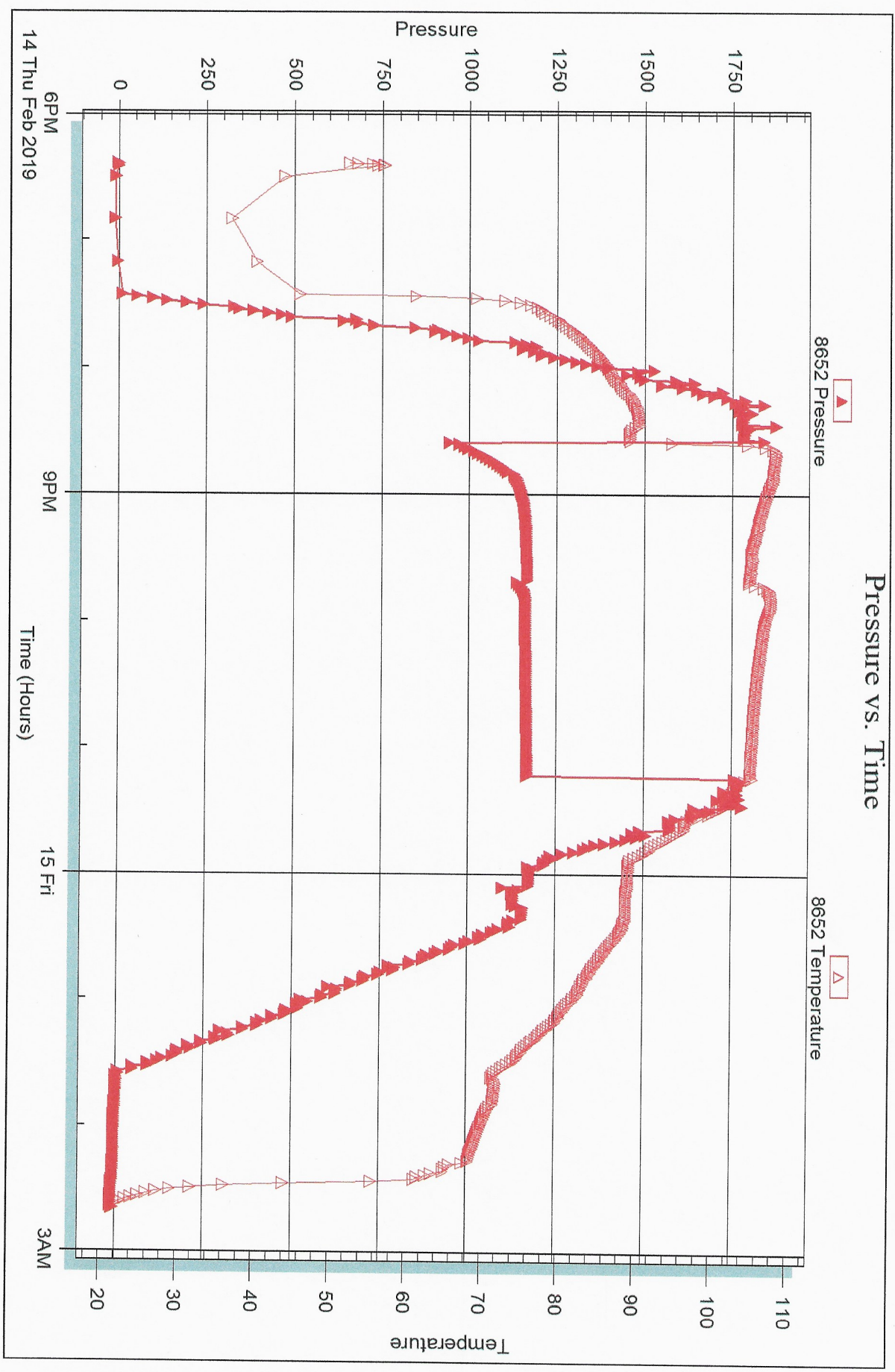


Serial #: 8652

Outside Arcadian Resources, Inc

Tinley #2-24

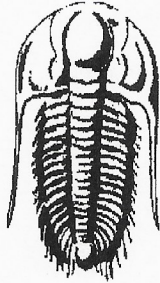
DST Test Number: 2



Triobite Testing, Inc

Ref. No: 65318

Printed: 2019.02.18 @ 10:46:30



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources, Inc**

1302 Olive St.  
Concordia, KS 66901

ATTN: Pat Deenihan

**Tinley #2-24**

**24-2s-27w Decatur,KS**

Start Date: 2019.02.16 @ 13:27:00

End Date: 2019.02.16 @ 20:54:15

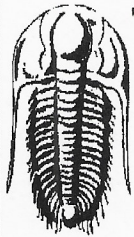
Job Ticket #: 65319                      DST #: 3

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.02.18 @ 10:45:56



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65319

**DST#: 3**

ATTN: Pat Deenihan

Test Start: 2019.02.16 @ 13:27:00

## GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:48:30

Time Test Ended: 20:54:15

**Interval: 3475.00 ft (KB) To 3528.00 ft (KB) (TVD)**

Total Depth: 3943.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle (Reset)

Tester: James Winder

Unit No: 83

Reference Elevations: 2659.00 ft (KB)

2650.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 8652**

**Outside**

Press@RunDepth: 45.60 psig @ 3476.00 ft (KB)

Start Date: 2019.02.16

End Date:

2019.02.16

Start Time: 13:27:05

End Time:

20:54:14

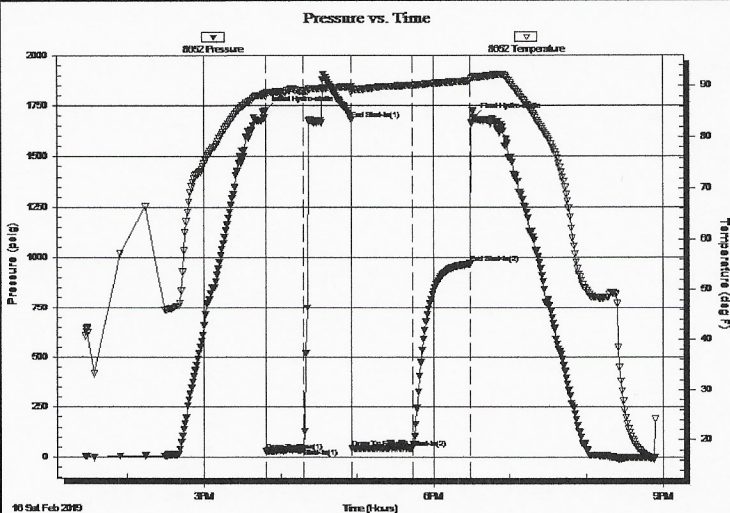
Capacity: 8000.00 psig

Last Calib.: 2019.02.16

Time On Btm: 2019.02.16 @ 15:48:15

Time Off Btm: 2019.02.16 @ 18:32:00

**TEST COMMENT:** 30 - IF: Blow built to 4"  
35 - IS: No blow back  
45 - FF: Blow built to 1"  
45 - FS: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1723.46	88.51	Initial Hydro-static
1	29.33	87.93	Open To Flow (1)
31	41.21	88.98	Shut-In(1)
68	1681.13	89.88	End Shut-In(1)
68	44.41	88.76	Open To Flow (2)
116	45.60	90.10	Shut-In(2)
162	969.51	91.02	End Shut-In(2)
164	1688.32	91.88	Final Hydro-static

## Recovery

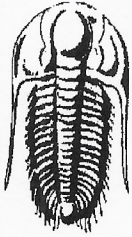
Length (ft)	Description	Volume (bbl)
55.00	WCM 89%m, 11%w	0.77

\* Recovery from multiple tests

## Gas Rates

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





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Arcadian Resources, Inc

24-2s-27w Decatur,KS

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65319

DST#: 3

ATTN: Pat Deenihan

Test Start: 2019.02.16 @ 13:27:00

### GENERAL INFORMATION:

Formation: LKC "A"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:48:30

Time Test Ended: 20:54:15

Test Type: Conventional Straddle (Reset)

Tester: James Winder

Unit No: 83

Interval: 3475.00 ft (KB) To 3528.00 ft (KB) (TVD)

Total Depth: 3943.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2659.00 ft (KB)

2650.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 3476.00 ft (KB)

Start Date: 2019.02.16

End Date:

2019.02.16

Capacity: 8000.00 psig

Last Calib.:

2019.02.16

Start Time: 13:27:05

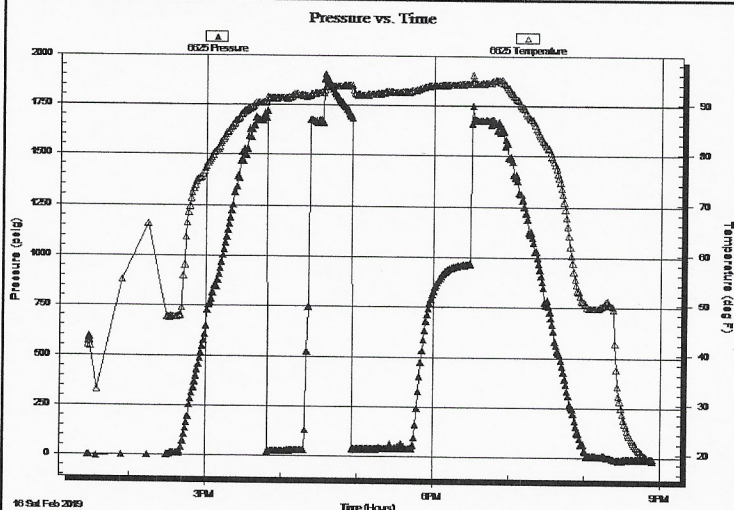
End Time:

20:54:44

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 4"  
35 - IS: No blow back  
45 - FF: Blow built to 1"  
45 - FS: No blow back



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
55.00	WCM 89% <sub>m</sub> , 11% <sub>w</sub>	0.77

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Arcadian Resources, Inc

24-2s-27w Decatur,KS

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65319

**DST#: 3**

ATTN: Pat Deenihan

Test Start: 2019.02.16 @ 13:27:00

## GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:48:30

Time Test Ended: 20:54:15

**Interval: 3475.00 ft (KB) To 3528.00 ft (KB) (TVD)**

Total Depth: 3943.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle (Reset)

Tester: James Winder

Unit No: 83

Reference Elevations: 2659.00 ft (KB)

2650.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 8167 Below (Straddle)**

Press@RunDepth: psig @ 3529.00 ft (KB)

Start Date: 2019.02.16

End Date: 2019.02.16

Start Time: 13:27:05

End Time: 20:53:14

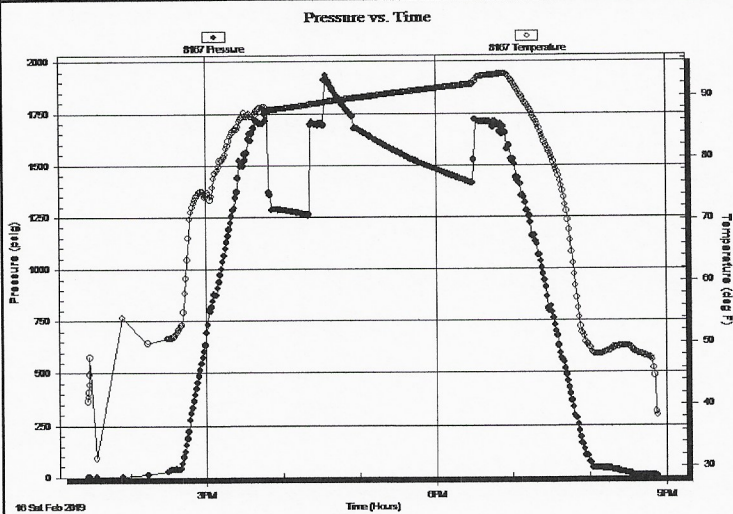
Capacity: 8000.00 psig

Last Calib.: 2019.02.16

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to 4"  
35 - IS: No blow back  
45 - FF: Blow built to 1"  
45 - FS: No blow back



## PRESSURE SUMMARY

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

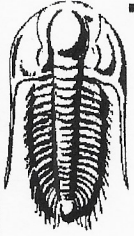
## Recovery

Length (ft)	Description	Volume (bbl)
55.00	WCM 89% <sub>m</sub> , 11% <sub>w</sub>	0.77

\* 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, Inc

**24-2s-27w Decatur, KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65319

**DST#: 3**

ATTN: Pat Deenihan

Test Start: 2019.02.16 @ 13:27:00

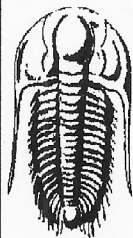
## Tool Information

Drill Pipe:	Length: 3446.00 ft	Diameter: 3.80 inches	Volume: 48.34 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 48.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3475.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	3528.00 ft			
Interval between Packers:	53.00 ft			
Tool Length:	501.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments: tool settled after turning for Initial Shut In and lost packer seat

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3443.00	
Shut In Tool	5.00			3448.00	
Hydraulic tool	5.00			3453.00	
Jars	5.00			3458.00	
EM Tool	4.00			3462.00	
Safety Joint	3.00			3465.00	
Packer	5.00			3470.00	33.00 Bottom Of Top Packer
Packer	5.00			3475.00	
Packer - Shale	0.00			3475.00	
Stubb	1.00			3476.00	
Recorder	0.00	6625	Inside	3476.00	
Recorder	0.00	8652	Outside	3476.00	
Perforations	10.00			3486.00	
Blank Spacing	33.00			3519.00	
Perforations	4.00			3523.00	
Blank Off Sub	1.00			3524.00	
Blank Spacing	4.00			3528.00	53.00 Tool Interval
Packer	0.00			3528.00	
Packer - Shale	0.00			3528.00	
Stubb	1.00			3529.00	
Recorder	0.00	8167	Below	3529.00	
Perforations	5.00			3534.00	
Blank Spacing	404.00			3938.00	
Perforations	2.00			3940.00	
Bullnose	3.00			3943.00	415.00 Bottom Packers & Anchor

**Total Tool Length: 501.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Arcadian Resources, Inc

**24-2s-27w Decatur,KS**

1302 Olive St.  
Concordia, KS 66901

**Tinley #2-24**

Job Ticket: 65319

**DST#: 3**

ATTN: Pat Deenihan

Test Start: 2019.02.16 @ 13:27:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
55.00	WCM 89% <sub>m</sub> , 11% <sub>w</sub>	0.772

Total Length: 55.00 ft      Total Volume: 0.772 bbl

Num Fluid Samples: 0

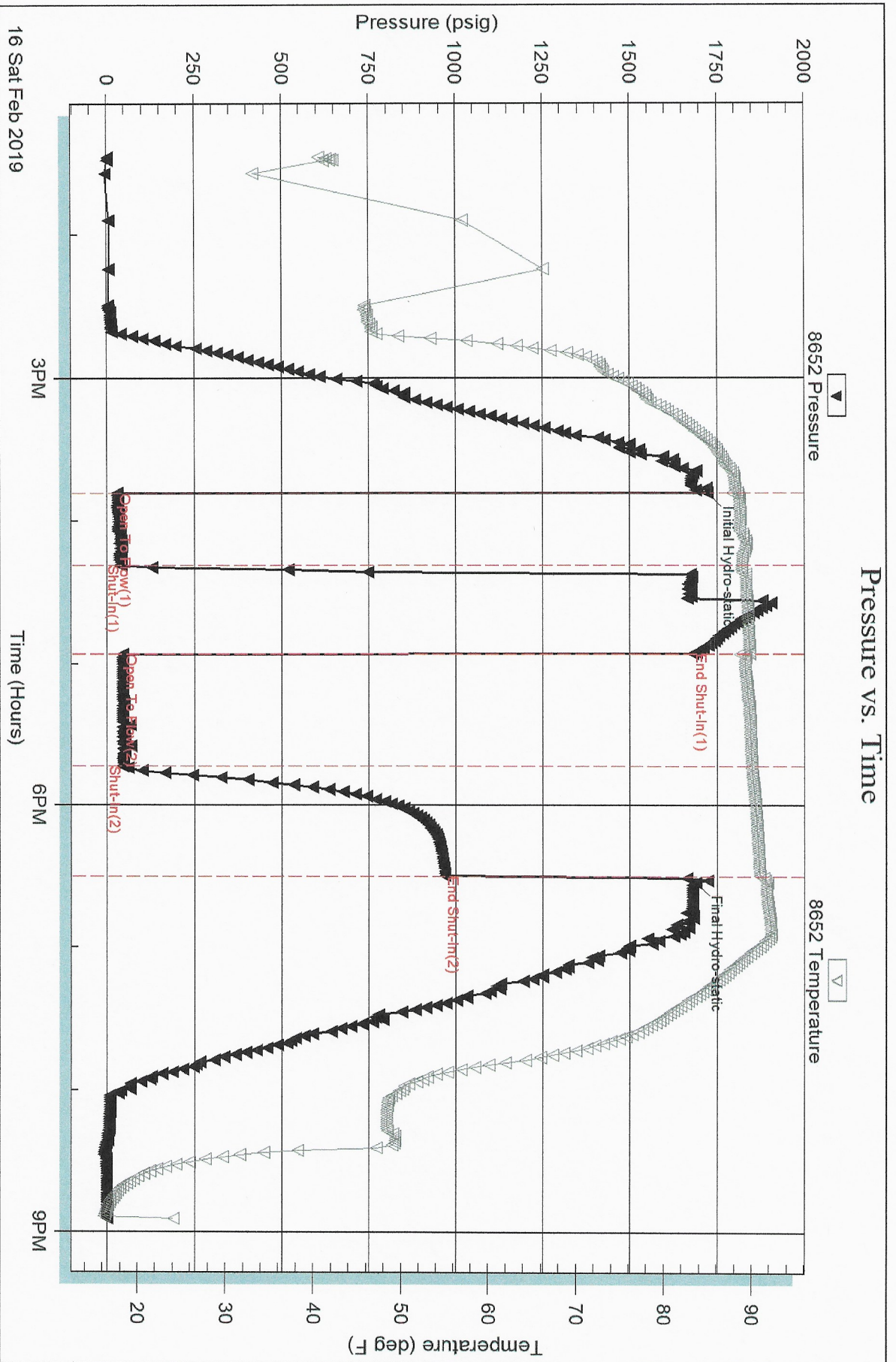
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Tool slid 2 minutes into initial shutin



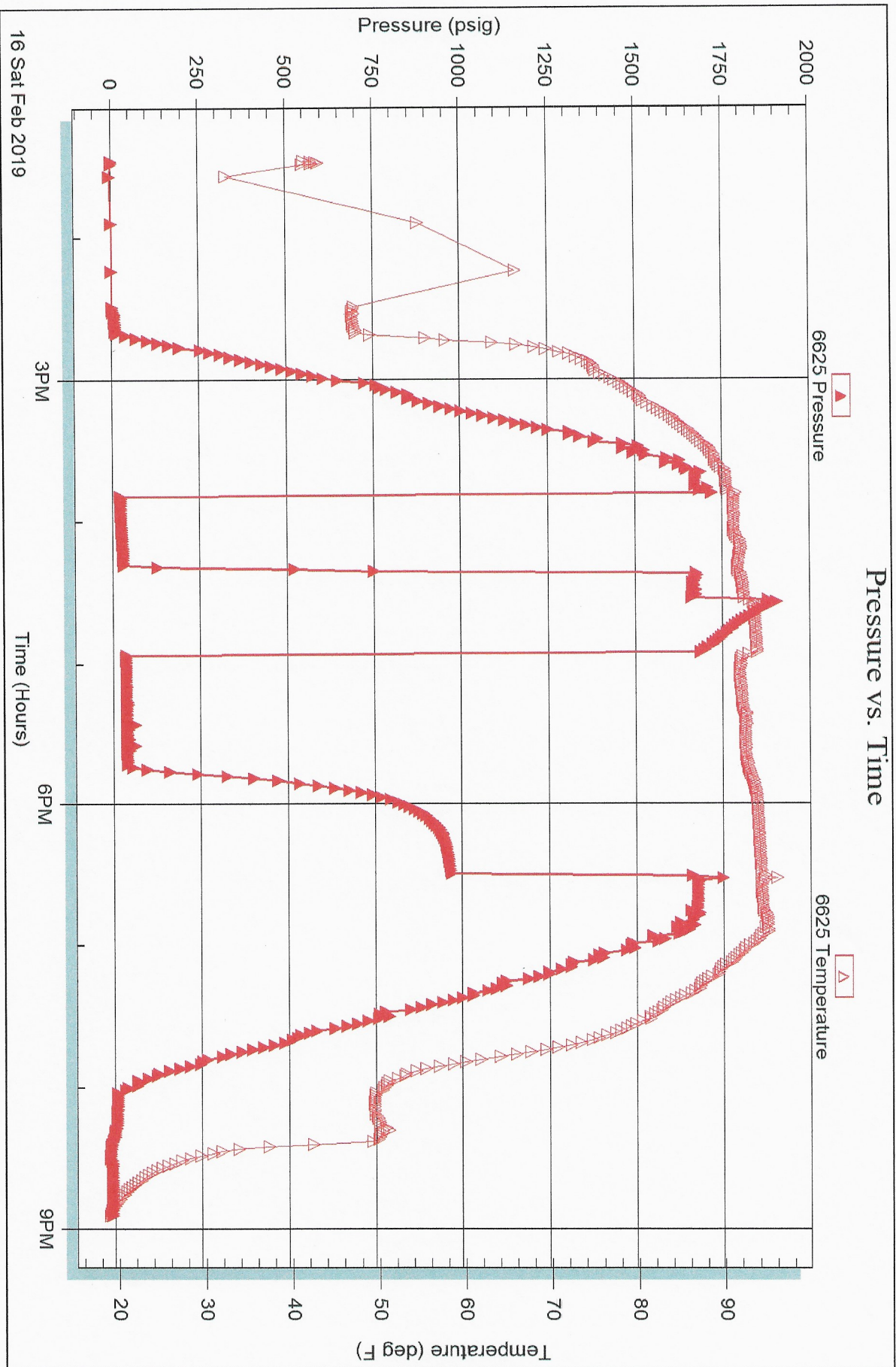
Serial #: 6625

Inside

Arcadian Resources, Inc

Trinley #2-24

DST Test Number: 3

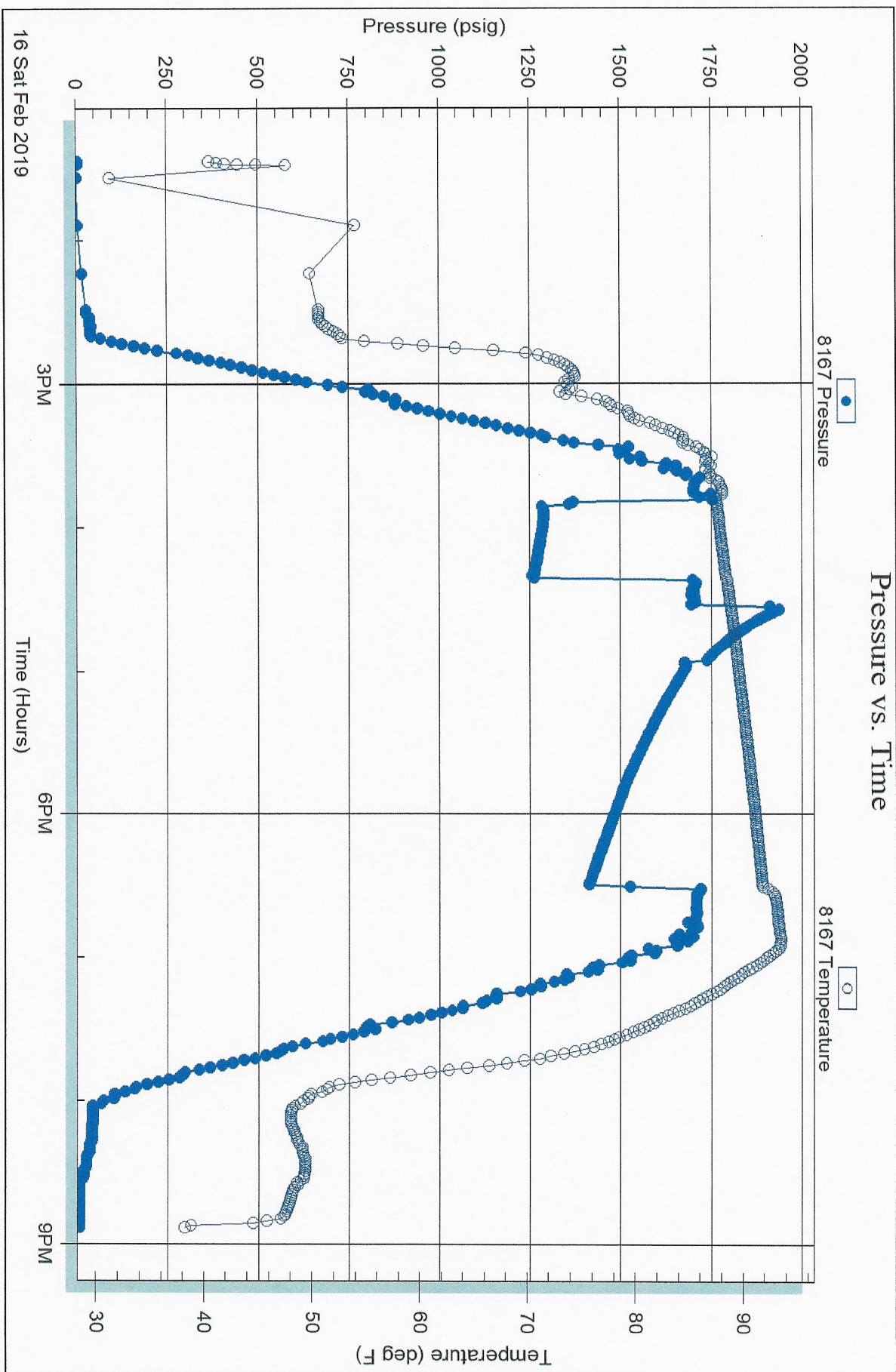


Serial #: 8167

Below (Strat) Iranian Resources, Inc

Tinley #2-24

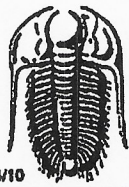
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 65319

Printed: 2019.02.18 @ 10:45:58



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 65317

Well Name & No. Tinley #2-24 Test No. 1 Date 2-13-19  
 Company Arcadian Resources Inc. Elevation 2659 KB 2650 GL  
 Address 1302 Olive St Concordia KS 66901  
 Co. Rep / Geo. Pat Deenihan Rig Duke #4  
 Location: Sec. 24 Twp 2s Rge. 27w Co. Decatur State KS

Interval Tested 3554 - 3682 Zone Tested Lans "E-K"  
 Anchor Length 128 Drill Pipe Run 3534 Mud Wt. 9.3  
 Top Packer Depth 3549 Drill Collars Run - Vls 55  
 Bottom Packer Depth 3554 (Shale) Wt. Pipe Run - WL 7.2  
 Total Depth 3682 Chlorides 750 ppm System LCM 4  
 Blow Description IF: Blow built to BOB(11") at 4 1/4 min., built to 68"  
ISI: Very weak surface blowback  
FF: Blow built to BOB at 4 1/4 min., lost packer seat  
Pulled tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>LWM</u>		<u>47</u>	<u>53</u>	
<u>435 <del>200</del></u>	<u>MCLW</u>		<u>87 <del>8</del></u>	<u>13 <del>13</del></u>	
<u>685</u>	<u>WCM</u>		<u>27</u>	<u>73</u>	
<u>185</u>	<u>Mud</u>			<u>100</u>	
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>
	<u>Oil Spots in tool</u>				

Rec Total 1430 BHT 101 Gravity \_\_\_\_\_ API RW .163 @ 46.3 °F Chlorides 75,000 ppm

(A) Initial Hydrostatic <u>1747</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>21:30</u>
(B) First Initial Flow <u>51</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:56</u> <u>4.4</u>
(C) First Final Flow <u>281</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:34</u>
(D) Initial Shut-In <u>1059</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>6:01</u>
(E) Second Initial Flow <u>289</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>9:00</u>
(F) Second Final Flow <u>546</u>	<input checked="" type="checkbox"/> Mileage <u>34RT</u> <u>34</u>	Comments _____
(G) Final Shut-In <u>-</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1632</u>	<input type="checkbox"/> Straddle _____	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>10?</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>-</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1659</u>
	Sub Total <u>1659</u>	MP/DST Disc't _____

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





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 65318

Well Name & No. Tinley #2-24 Test No. 2 Date 2-14-19  
 Company Arcadian Resources Inc Elevation 2659 KB 2650 GL  
 Address 1302 Olive St Concordia, KS 66901  
 Co. Rep / Geo. Pat Deenihan Rig Duke #4  
 Location: Sec. 24 Twp 2s Rge. 27w Co. Decatur State KS

Interval Tested 3677 - 3698 Zone Tested Lans. "L"  
 Anchor Length 21 Drill Pipe Run 3661 Mud Wt. 9.2  
 Top Packer Depth 3672 Drill Collars Run - Vis 61  
 Bottom Packer Depth 3677 (Shale) Wt. Pipe Run - WL 7.6  
 Total Depth 3698 Chlorides 2500 ppm System LCM 3

Blow Description IF: Blow built to BOB in 15 sec or less, built to 584 1/2"  
ISI: No blowback  
FF: Blow built to BOB at 1 min., built to 71"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>235</u>	<u>WM</u>		<u>48</u>	<u>52</u>	
<u>185</u>	<u>MCW</u>		<u>75</u>	<u>25</u>	
<u>2055</u>	<u>Water</u>		<u>97</u>	<u>3</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2475 BHT 108 Gravity \_\_\_\_\_ API RW 218 @ 26 °F Chlorides 97,000 ppm  
 (A) Initial Hydrostatic 1838  Test 1050 T-On Location 17:35 2/14  
 (B) First Initial Flow 786  Jars \_\_\_\_\_ T-Started 18:23  
 (C) First Final Flow 1102  Safety Joint Run for Emtool T-Open 20:35  
 (D) Initial Shut-In 1163  Circ Sub \_\_\_\_\_ T-Pulled 23:13  
 (E) Second Initial Flow 1132  Hourly Standby \_\_\_\_\_ T-Out 2:35 2/15  
 (F) Second Final Flow 1159  Mileage 34RT 34 Comments \_\_\_\_\_  
 (G) Final Shut-In 1165  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1785  Straddle \_\_\_\_\_

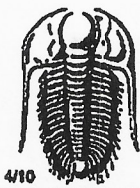
Initial Open 15  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 60

Shale Packer 250  EM Tool 350  
 Extra Packer \_\_\_\_\_  Ruined Shale Packer 350  
 Extra Recorder \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 700  
 Accessibility \_\_\_\_\_ Total 2034  
 Sub Total 1334 MP/DST Disc't \_\_\_\_\_

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

Our Representative James Winder

Triobite 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 note shall be paid for at cost by the party for whom the test is made.



# TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 65319

Well Name & No. Tinley #2-24 Test No. 3 Date 2-16-19  
 Company Arcadian Resources Inc. Elevation 2659 KB 2650 GL  
 Address 1302 Olive St. Concordia, KS 66901  
 Co. Rep / Geo. Pat Deenihan Rig Duke #4  
 Location: Sec. 24 Twp 2S Rge. 27W Co. Decatur State KS

Interval Tested 3475 - 3528 Zone Tested Lans. "A"  
 Anchor Length 53 Anchor 415 Tail Drill Pipe Run 3446 Mud Wt. 9.5  
 Top Packer Depth 3470 - 3475 (shale) Drill Collars Run - Vis 48  
 Bottom Packer Depth 3528 (shale) Wt. Pipe Run - WL 8.8  
 Total Depth 3943 Chlorides 4000 ppm System LCM 2 1/2

Blow Description IF: Blow built to 4"  
ISI: No blowback  
FF: Blow built to 1"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>55</u>	<u>WCM</u>		<u>11</u>	<u>89</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 55 BHT 91 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

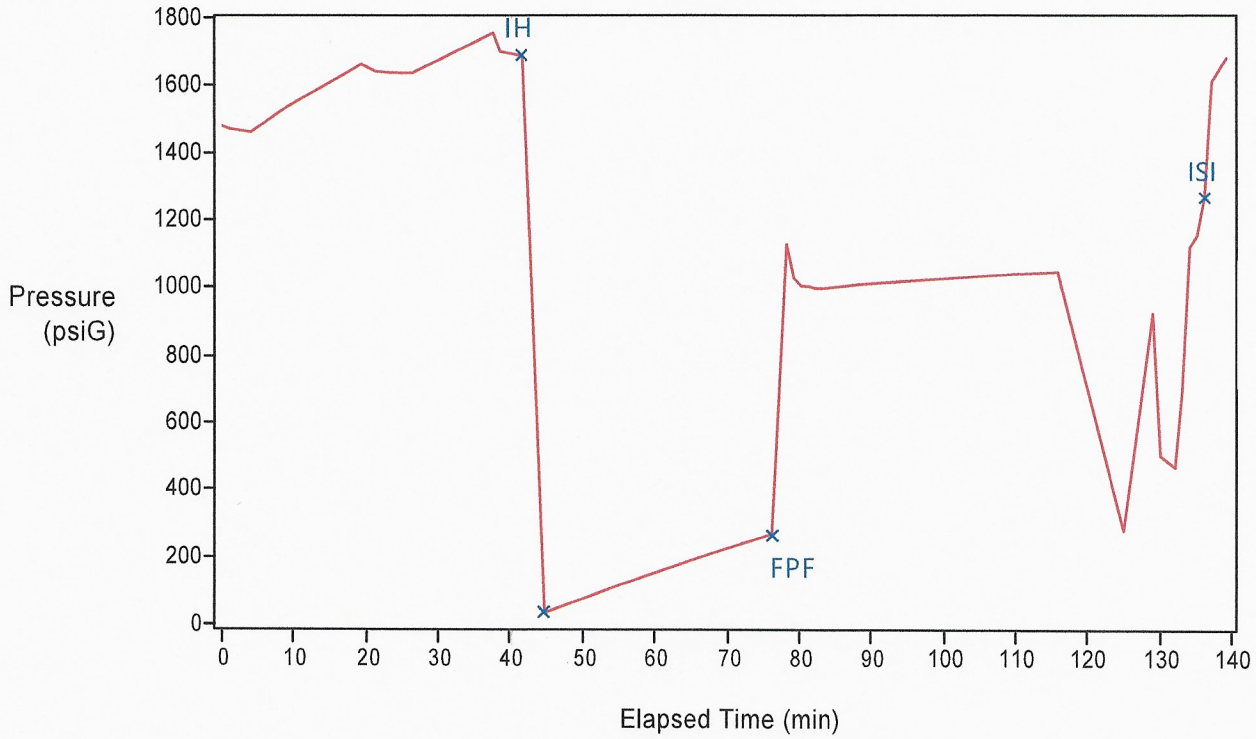
(A) Initial Hydrostatic 1723  Test 1050 T-On Location 10:45  
 (B) First Initial Flow 29  Jars 250 T-Started 13:27  
 (C) First Final Flow 41  Safety Joint 75 T-Open 15:48  
 (D) Initial Shut-In lost packer seat 1681  Circ Sub \_\_\_\_\_ T-Pulled 18:29  
 (E) Second Initial Flow 44  Hourly Standby \_\_\_\_\_ T-Out 21:30  
 (F) Second Final Flow 46  Mileage 34 RT 34 Comments \_\_\_\_\_  
 (G) Final Shut-In 970  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1688  Straddle 600  EM Tool 350  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_

Initial Open  30  
 Initial Shut-In 45 35  
 Final Flow 45  
 Final Shut-In 45

Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 2509  
 Sub Total \_\_\_\_\_  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Winder  
 Triobite 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.

Pressure Plot



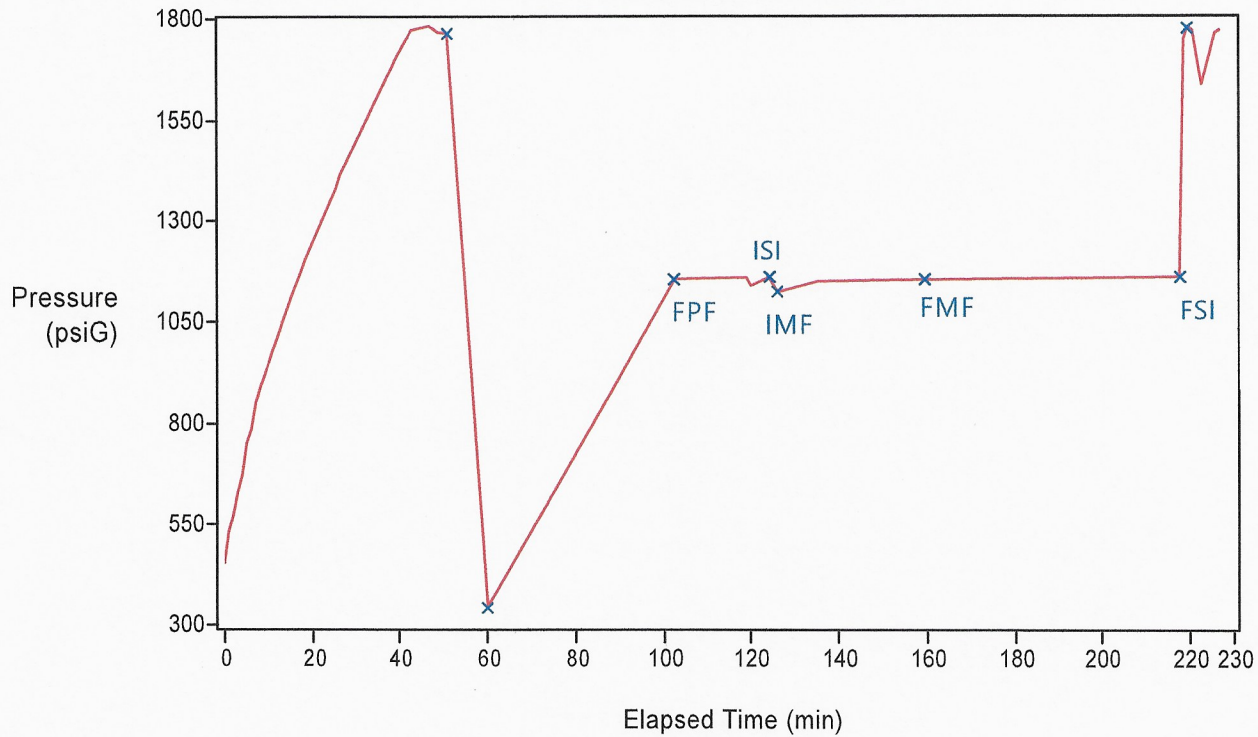
Company Name: Arcadian Resources Inc.  
 Ticket Number: 65317  
 Test Number: 1  
 Well Name: Tinley #2-24  
 Location: 24/2s/27w Decatur  
 Date: 2019/02/14  
 Formation Name: Lans. "E - K"  
 Formation Interval: 3554 - 3682  
 Gauge Depth: 3539  
 Atmospheric Pressure: 14.00 psi  
 Start Time: 03:50:58

Tag	Time (h:m:s)	Pressure (psiG)
Initial Hydrostatic (IH)	04:32:39	1687.20
Initial Pre-Flow (IPF)	04:35:42	33.60
Final Pre-Flow (FPF)	05:07:13	266.40
Initial Shut-In (ISI)	06:07:12	1266.00
Initial Main Flow (IMF)		
Final Main Flow (FMF)		
Final Shut-In (FSI)		
Final Hydrostatic (FH)		

Notes:

Phase	Duration (h:m:s)
Entire Test	02:19:17
Pre-Flow	00:31:31
First Shut-In	00:59:59
Main Flow	
Second Shut-In	

Pressure Plot



Company Name: Arcadian Resources Inc.  
 Ticket Number: 65318  
 Test Number: 2  
 Well Name: Tinley #2-24  
 Location: 24/2s/27w Decatur, KS  
 Date: 2019/02/14  
 Formation Name: Lans. "L"  
 Formation Interval: 3677 - 3698  
 Gauge Depth: 3662  
 Atmospheric Pressure: 14.00 psi  
 Start Time: 19:35:37

Tag	Time (h:m:s)	Pressure (psiG)
Initial Hydrostatic (IH)	20:26:27	1763.90
Initial Pre-Flow (IPF)	20:35:36	344.90
Final Pre-Flow (FPF)	21:18:18	1154.50
Initial Shut-In (ISI)	21:39:39	1158.10
Initial Main Flow (IMF)	21:41:41	1121.80
Final Main Flow (FMF)	22:15:14	1153.10
Final Shut-In (FSI)	23:13:12	1159.60
Final Hydrostatic (FH)	23:15:14	1778.00

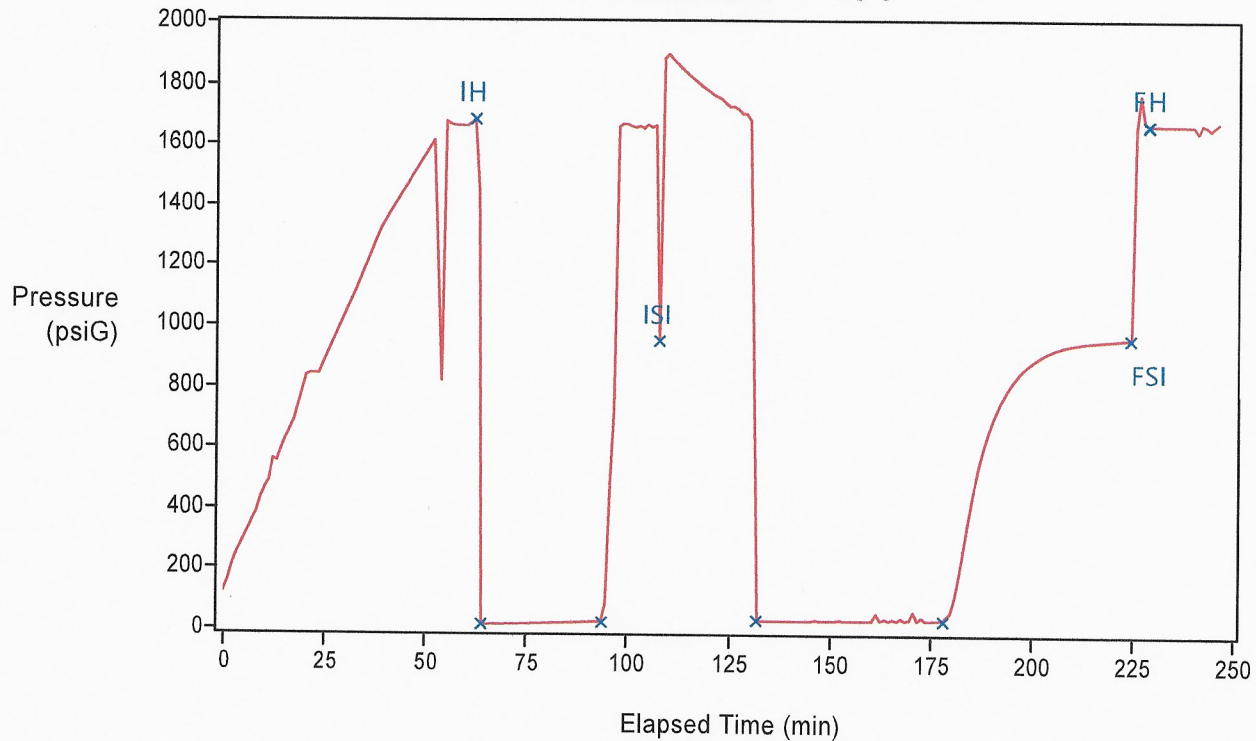
Notes:

Phase	Duration (h:m:s)
Entire Test	03:46:44
Pre-Flow	00:42:42
First Shut-In	00:21:21
Main Flow	00:33:33
Second Shut-In	00:57:58

# GeoPSI Data Monitoring ResPlot RT™

## Test Information

### Pressure Plot



Company Name: Arcadian Resources, Inc.  
 Ticket Number: 65319  
 Test Number: 3  
 Well Name: Tinley #2-24  
 Location: 24/2s/27w Decatur KS  
 Date: 2019/02/16  
 Formation Name: Lans. "A"  
 Formation Interval: 3475-3528  
 Gauge Depth: 3455  
 Atmospheric Pressure: 14.00 psi  
 Start Time: 14:45:31

Tag	Time (h:m:s)	Pressure (psiG)
Initial Hydrostatic (IH)	15:47:32	1682.20
Initial Pre-Flow (IPF)	15:49:34	14.00
Final Pre-Flow (FPF)	16:19:03	26.20
Initial Shut-In (ISI)	16:33:17	953.80
Initial Main Flow (IMF)	16:57:42	30.50
Final Main Flow (FMF)	17:43:27	34.30
Final Shut-In (FSI)	18:30:13	961.20
Final Hydrostatic (FH)	18:34:17	1668.90

Notes:

Phase	Duration (h:m:s)
Entire Test	04:06:03
Pre-Flow	00:29:29
First Shut-In	00:14:14
Main Flow	00:45:45
Second Shut-In	00:46:46