



## DRILL STEM TEST REPORT

Prepared For: **Val Energy**

125 N Market STE. 1710  
Wichita KS 67202

ATTN: John Goldsmith

### **CJK #1-17**

#### **17-17s-33w Scott Co. KS**

Start Date: 2014.12.16 @ 03:27:15

End Date: 2014.12.16 @ 11:07:15

Job Ticket #: 58558                      DST #: 1

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

Printed: 2014.12.19 @ 16:13:09



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy  
125 N Market STE. 1710  
Wichita KS 67202  
ATTN: John Goldsmith

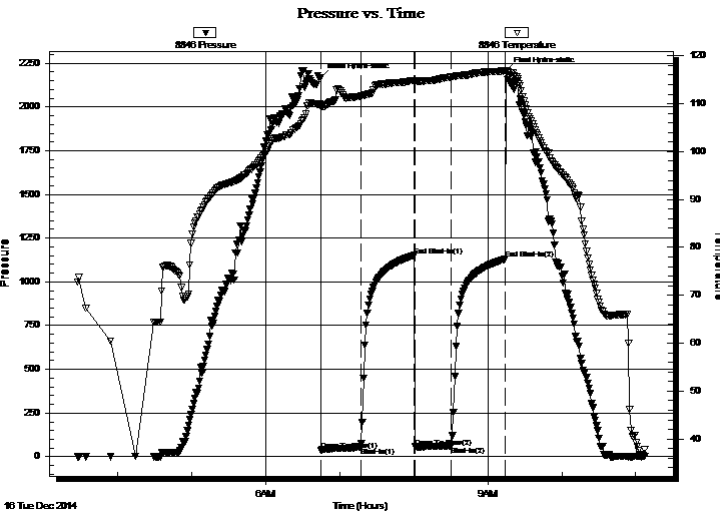
**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
Job Ticket: 58558 **DST#: 1**  
Test Start: 2014.12.16 @ 03:27:15

## GENERAL INFORMATION:

Formation: **Marmaton**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 06:44:30  
Time Test Ended: 11:07:15  
Interval: **4381.00 ft (KB) To 4449.00 ft (KB) (TVD)**  
Total Depth: 4449.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Mike Roberts  
Unit No: 65  
Reference Elevations: 3064.00 ft (KB)  
3055.00 ft (CF)  
KB to GR/CF: 9.00 ft

**Serial #: 8846 Inside**  
Press@RunDepth: 62.86 psig @ 4386.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.12.16 End Date: 2014.12.16 Last Calib.: 2014.12.16  
Start Time: 03:27:15 End Time: 11:07:15 Time On Btm: 2014.12.16 @ 06:44:15  
Time Off Btm: 2014.12.16 @ 09:15:15

TEST COMMENT: IF: Built to 1" blow  
IS: No return blow  
FF: No blow  
FS: No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2166.64	109.87	Initial Hydro-static
1	38.28	109.31	Open To Flow (1)
33	53.86	111.56	Shut-In(1)
77	1150.87	114.88	End Shut-In(1)
77	56.64	114.62	Open To Flow (2)
106	62.86	115.58	Shut-In(2)
151	1130.53	116.97	End Shut-In(2)
151	2205.04	116.97	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	mud with 2" real thick oil on top	0.30

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy  
125 N Market STE. 1710  
Wichita KS 67202  
ATTN: John Goldsmith

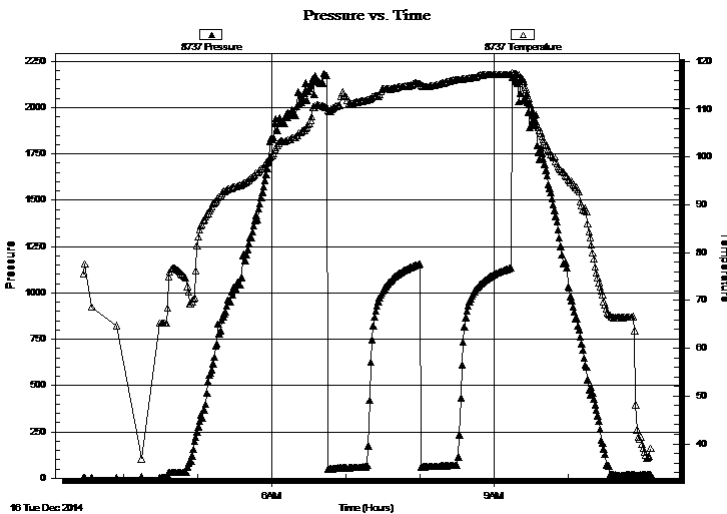
**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
Job Ticket: 58558 **DST#: 1**  
Test Start: 2014.12.16 @ 03:27:15

## GENERAL INFORMATION:

Formation: **Marmaton**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 06:44:30 Tester: Mike Roberts  
Time Test Ended: 11:07:15 Unit No: 65  
**Interval: 4381.00 ft (KB) To 4449.00 ft (KB) (TVD)** Reference Elevations: 3064.00 ft (KB)  
Total Depth: 4449.00 ft (KB) (TVD) 3055.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

**Serial #: 8737 Outside**  
Press@RunDepth: psig @ 4386.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.12.16 End Date: 2014.12.16 Last Calib.: 2014.12.16  
Start Time: 03:27:15 End Time: 11:07:30 Time On Btm:  
Time Off Btm:

TEST COMMENT: IF: Built to 1" blow  
IS: No return blow  
FF: No blow  
FS: No return blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	mud with 2" real thick oil on top	0.30

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Val Energy  
125 N Market STE. 1710  
Wichita KS 67202  
ATTN: John Goldsmith

**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
Job Ticket: 58558      **DST#: 1**  
Test Start: 2014.12.16 @ 03:27:15

**Tool Information**

Drill Pipe:	Length: 4318.00 ft	Diameter: 3.80 inches	Volume: 60.57 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 62.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 60.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4381.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	96.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

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

Change Over Sub	1.00			4354.00	
Shut In Tool	5.00			4359.00	
Hydraulic tool	5.00			4364.00	
Jars	5.00			4369.00	
Safety Joint	3.00			4372.00	
Packer	5.00			4377.00	28.00 Bottom Of Top Packer
Packer	4.00			4381.00	
Stubb	1.00			4382.00	
Perforations	4.00			4386.00	
Recorder	0.00	8846	Inside	4386.00	
Recorder	0.00	8737	Outside	4386.00	
Change Over Sub	1.00			4387.00	
Blank Spacing	31.00			4418.00	
Change Over Sub	1.00			4419.00	
Perforations	25.00			4444.00	
Bullnose	5.00			4449.00	68.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>96.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy **17-17s-33w Scott Co. KS**  
 125 N Market STE. 1710 **CJK #1-17**  
 Wichita KS 67202 Job Ticket: 58558 **DST#: 1**  
 ATTN: John Goldsmith Test Start: 2014.12.16 @ 03:27:15

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.74 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 1.00 inches			

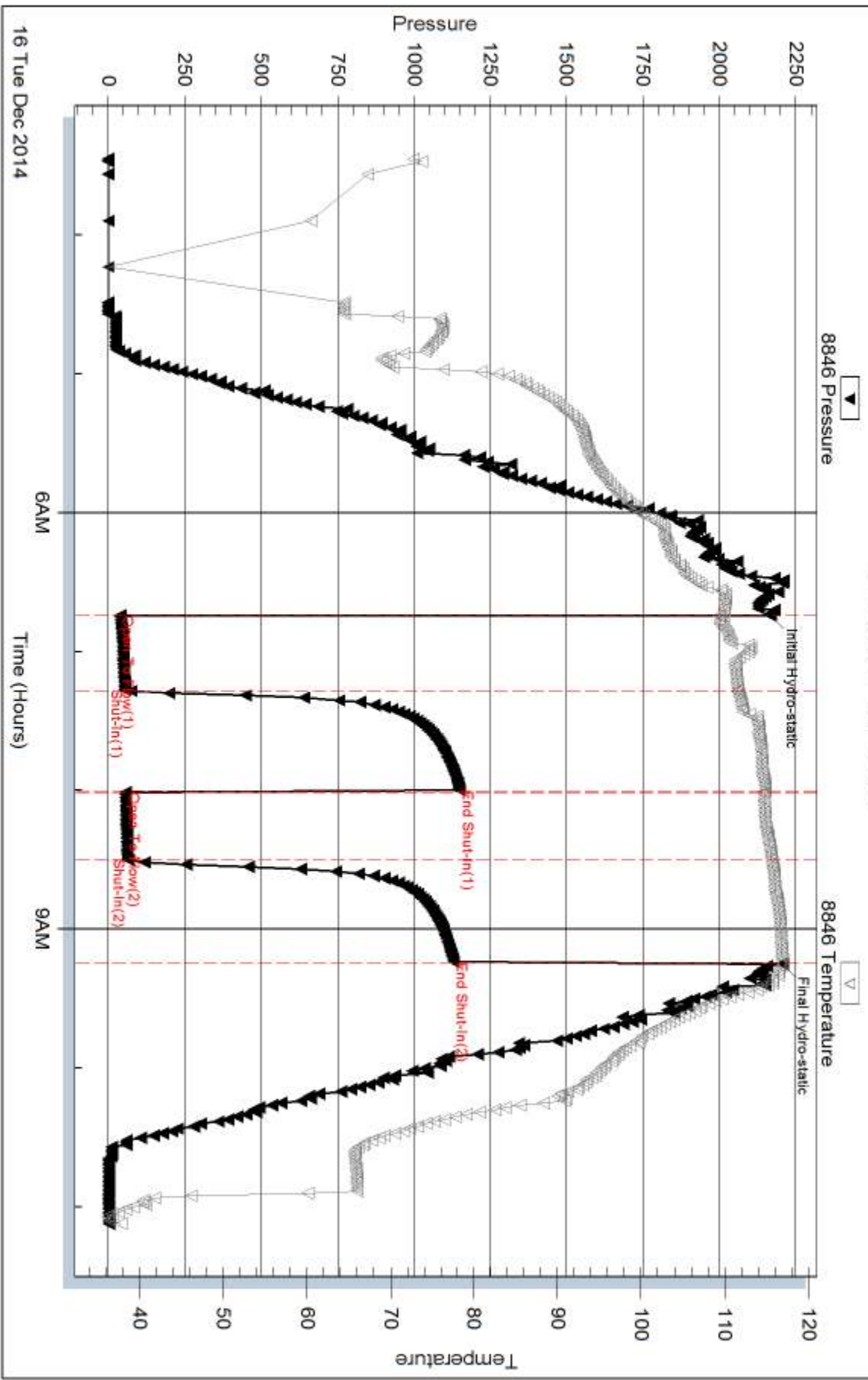
### Recovery Information

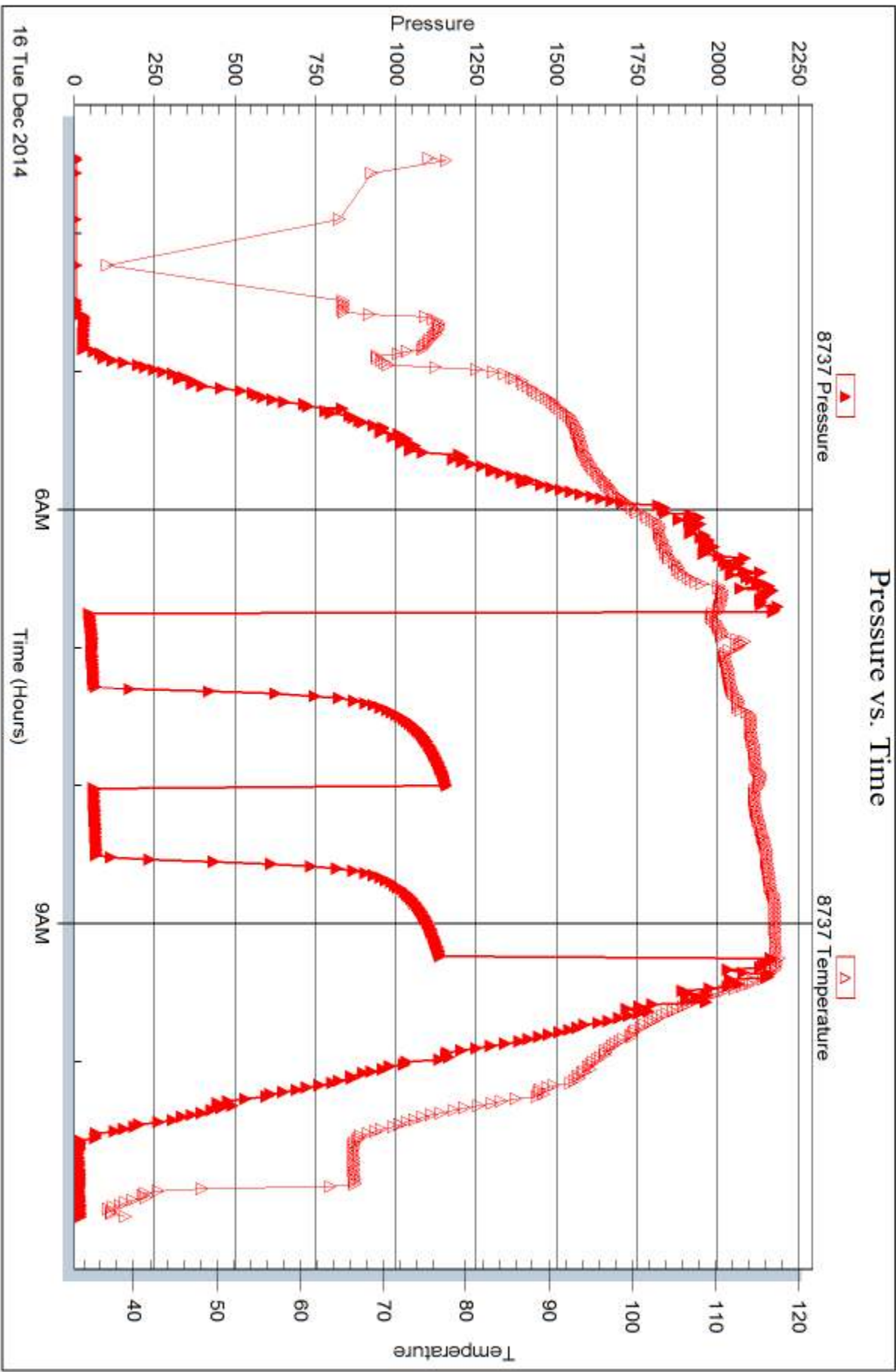
Recovery Table

Length ft	Description	Volume bbl
62.00	mud with 2" real thick oil on top	0.305

Total Length: 62.00 ft      Total Volume: 0.305 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Val Energy**

125 N Market STE. 1710  
Wichita KS 67202

ATTN: John Goldsmith

### **CJK #1-17**

#### **17-17s-33w Scott Co. KS**

Start Date: 2014.12.17 @ 05:41:15

End Date: 2014.12.17 @ 10:27:30

Job Ticket #: 58559                      DST #: 2

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

Printed: 2014.12.19 @ 16:12:49





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy  
 125 N Market STE. 1710  
 Wichita KS 67202  
 ATTN: John Goldsmith

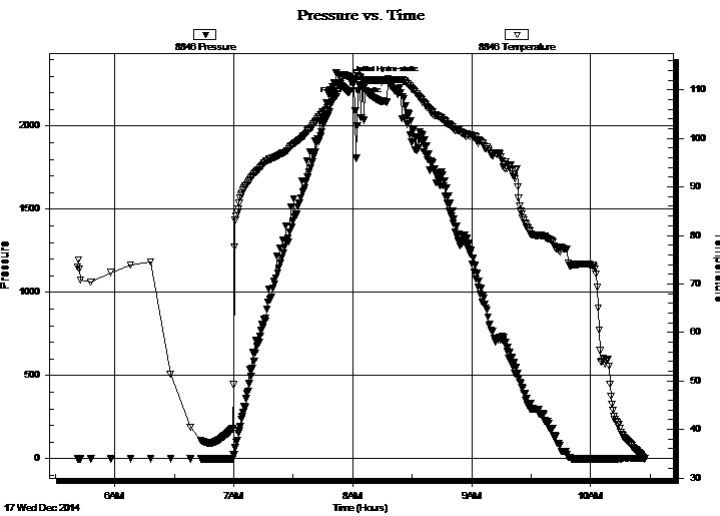
**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
 Job Ticket: 58559 **DST#: 2**  
 Test Start: 2014.12.17 @ 05:41:15

## GENERAL INFORMATION:

Formation: **Ft.Scott**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened:  
 Time Test Ended: 10:27:30  
 Interval: **4440.00 ft (KB) To 4572.00 ft (KB) (TVD)**  
 Total Depth: 4572.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 65  
 Reference Elevations: 3064.00 ft (KB)  
 3055.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 8846 Inside**  
 Press@RunDepth: psig @ 4445.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.12.17 End Date: 2014.12.17 Last Calib.: 2014.12.17  
 Start Time: 05:41:15 End Time: 10:27:30 Time On Btm: 2014.12.17 @ 07:58:45  
 Time Off Btm: 2014.12.17 @ 08:17:45

TEST COMMENT: IF:PACKER FAILURE  
 IS:  
 FF:  
 FS:



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2276.26	112.47	Initial Hydro-static
19	2286.61	112.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
620.00	mud 100%m	8.13

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy  
 125 N Market STE. 1710  
 Wichita KS 67202  
 ATTN: John Goldsmith

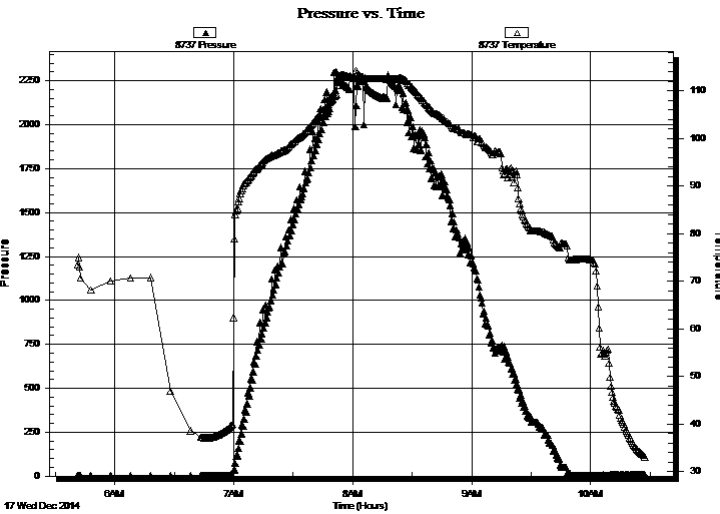
**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
 Job Ticket: 58559 **DST#: 2**  
 Test Start: 2014.12.17 @ 05:41:15

## GENERAL INFORMATION:

Formation: **Ft.Scott**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened:  
 Time Test Ended: 10:27:30  
 Interval: **4440.00 ft (KB) To 4572.00 ft (KB) (TVD)**  
 Total Depth: 4572.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 65  
 Reference Elevations: 3064.00 ft (KB)  
 3055.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 8737 Outside**  
 Press@RunDepth: psig @ 4445.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.12.17 End Date: 2014.12.17 Last Calib.: 2014.12.17  
 Start Time: 05:41:15 End Time: 10:27:30 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF:PACKER FAILURE  
 IS:  
 FF:  
 FS:



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
620.00	mud 100%m	8.13

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Val Energy  
125 N Market STE. 1710  
Wichita KS 67202  
ATTN: John Goldsmith

**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
Job Ticket: 58559      **DST#: 2**  
Test Start: 2014.12.17 @ 05:41:15

**Tool Information**

Drill Pipe:	Length: 4381.00 ft	Diameter: 3.80 inches	Volume: 61.45 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 62.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 61.75 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	4440.00 ft			Final	71000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	132.00 ft				
Tool Length:	160.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

**Tool Description**

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

Change Over Sub	1.00			4413.00	
Shut In Tool	5.00			4418.00	
Hydraulic tool	5.00			4423.00	
Jars	5.00			4428.00	
Safety Joint	3.00			4431.00	
Packer	5.00			4436.00	28.00      Bottom Of Top Packer
Packer	4.00			4440.00	
Stubb	1.00			4441.00	
Perforations	4.00			4445.00	
Recorder	0.00	8846	Inside	4445.00	
Recorder	0.00	8737	Outside	4445.00	
Change Over Sub	1.00			4446.00	
Blank Spacing	95.00			4541.00	
Change Over Sub	1.00			4542.00	
Perforations	25.00			4567.00	
Bullnose	5.00			4572.00	132.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>160.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Val Energy **17-17s-33w Scott Co. KS**

125 N Market STE. 1710  
Wichita KS 67202

**CJK #1-17**

Job Ticket: 58559

**DST#: 2**

ATTN: John Goldsmith

Test Start: 2014.12.17 @ 05:41:15

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 7.94 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

0 deg API

Water Salinity: 0 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
620.00	mud 100%m	8.132

Total Length: 620.00 ft      Total Volume: 8.132 bbl

Num Fluid Samples: 0

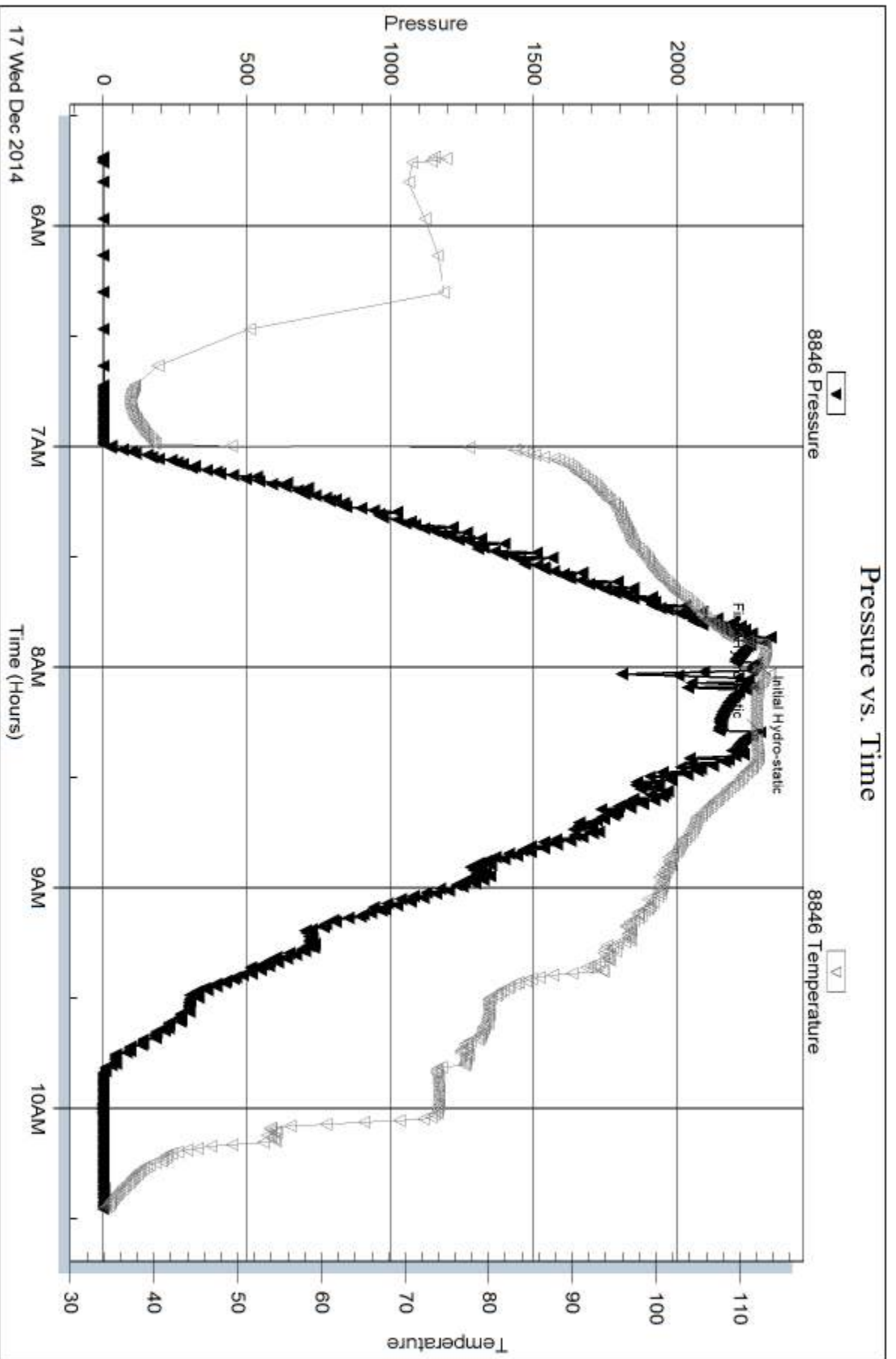
Num Gas Bombs: 0

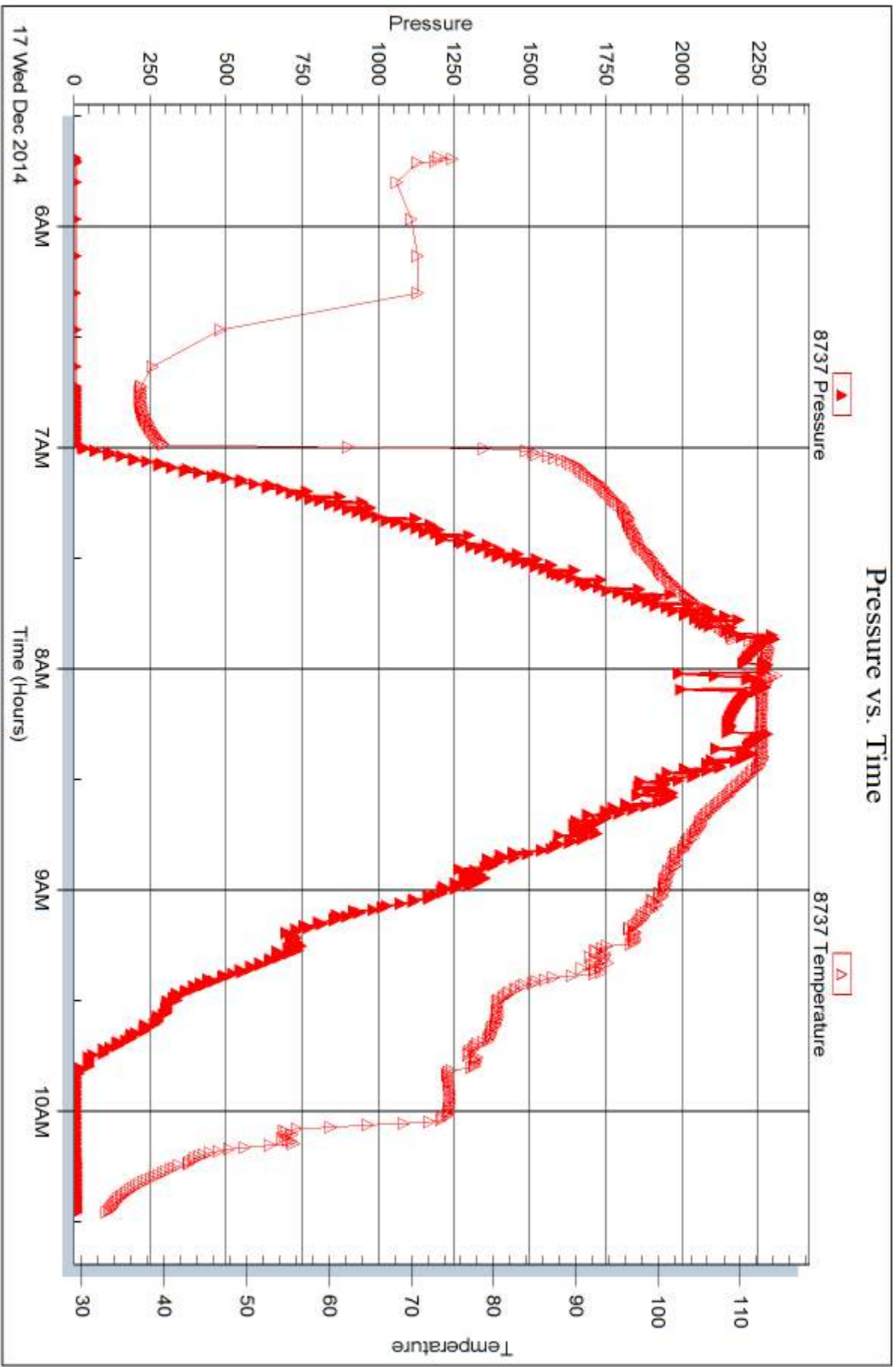
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Val Energy**

125 N Market STE. 1710  
Wichita KS 67202

ATTN: John Goldsmith

### **CJK #1-17**

#### **17-17s-33w Scott Co. KS**

Start Date: 2014.12.17 @ 10:42:15

End Date: 2014.12.17 @ 18:36:15

Job Ticket #: 58560                      DST #: 3

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

Printed: 2014.12.19 @ 16:12:27



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy  
 125 N Market STE. 1710  
 Wichita KS 67202  
 ATTN: John Goldsmith

**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
 Job Ticket: 58560 **DST#: 3**  
 Test Start: 2014.12.17 @ 10:42:15

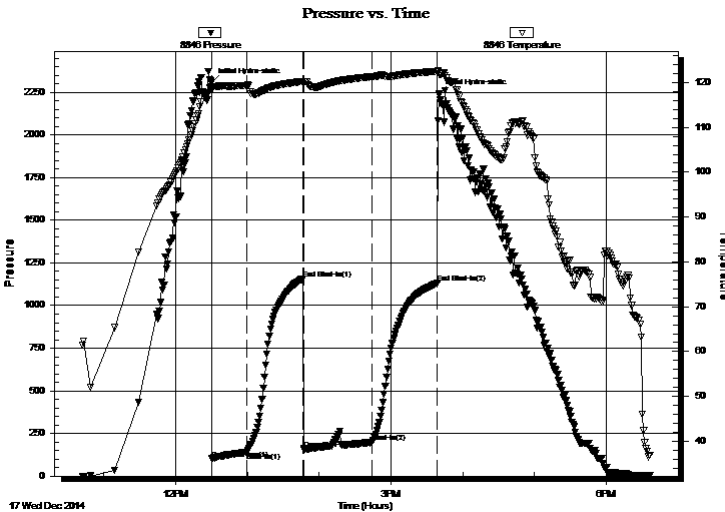
## GENERAL INFORMATION:

Formation: **Ft. Scott**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 12:30:15 Tester: Mike Roberts  
 Time Test Ended: 18:36:15 Unit No: 65  
 Interval: **4430.00 ft (KB) To 4572.00 ft (KB) (TVD)** Reference Elevations: 3064.00 ft (KB)  
 Total Depth: 4572.00 ft (KB) (TVD) 3055.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

**Serial #: 8846 Inside**  
 Press@RunDepth: 198.42 psig @ 4435.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.12.17 End Date: 2014.12.17 Last Calib.: 2014.12.17  
 Start Time: 10:42:15 End Time: 18:36:15 Time On Btm: 2014.12.17 @ 12:30:00  
 Time Off Btm: 2014.12.17 @ 15:40:00

TEST COMMENT: IF:BOB in 15 min.  
 IS:Built to weak surface blow  
 FF:BOB in 5 min.  
 FS:No return blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2306.30	119.17	Initial Hydro-static
1	100.77	118.13	Open To Flow (1)
30	139.85	119.40	Shut-In(1)
77	1157.36	120.25	End Shut-In(1)
77	154.87	120.12	Open To Flow (2)
135	198.42	121.31	Shut-In(2)
189	1131.41	122.52	End Shut-In(2)
190	2242.89	121.93	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cgm 2%w 3%g 40%m 55%o	0.30
124.00	ocmg 15%o 40%m 45%g	1.74
62.00	gcom 5%g 5%o 90%m	0.87
20.00	mud 100%m	0.28

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

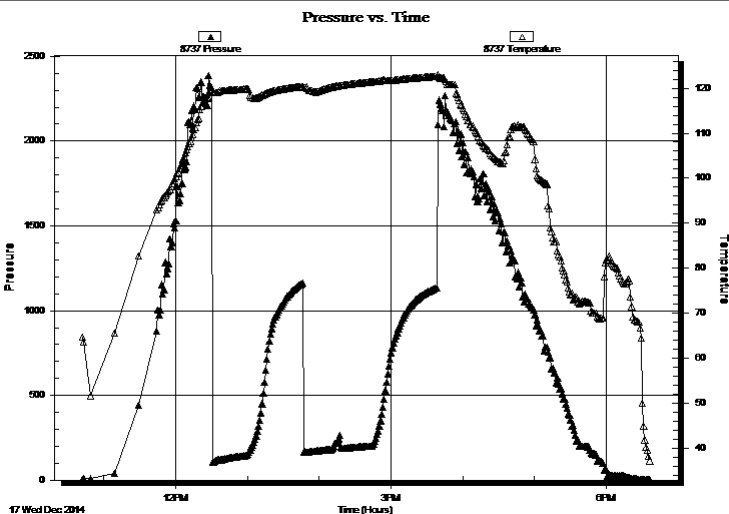
Val Energy **17-17s-33w Scott Co. KS**  
 125 N Market STE. 1710 **CJK #1-17**  
 Wichita KS 67202  
 Job Ticket: 58560 **DST#: 3**  
 ATTN: John Goldsmith Test Start: 2014.12.17 @ 10:42:15

## GENERAL INFORMATION:

**Formation:** **Ft. Scott**  
 Deviated: No Whipstock: ft (KB) **Test Type:** Conventional Bottom Hole (Reset)  
 Time Tool Opened: 12:30:15 **Tester:** Mike Roberts  
 Time Test Ended: 18:36:15 **Unit No:** 65  
**Interval:** **4430.00 ft (KB) To 4572.00 ft (KB) (TVD)** **Reference Elevations:** 3064.00 ft (KB)  
 Total Depth: 4572.00 ft (KB) (TVD) **3055.00 ft (CF)**  
 Hole Diameter: 7.88 inches **Hole Condition:** Fair **KB to GR/CF:** 9.00 ft

**Serial #: 8737 Outside**  
 Press@RunDepth: psig @ 4435.00 ft (KB) **Capacity:** 8000.00 psig  
 Start Date: 2014.12.17 End Date: 2014.12.17 **Last Calib.:** 2014.12.17  
 Start Time: 10:42:15 End Time: 18:36:15 **Time On Btm:**  
**Time Off Btm:**

**TEST COMMENT:** IF:BOB in 15 min.  
 IS:Built to weak surface blow  
 FF:BOB in 5 min.  
 FS:No return blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cgm 2%w 3%g 40%m 55%o	0.30
124.00	ocmg 15%o 40%m 45%g	1.74
62.00	gcom 5%g 5%o 90%m	0.87
20.00	mud 100%m	0.28

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Val Energy  
125 N Market STE. 1710  
Wichita KS 67202  
ATTN: John Goldsmith

**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
Job Ticket: 58560      **DST#: 3**  
Test Start: 2014.12.17 @ 10:42:15

## Tool Information

Drill Pipe:	Length: 4361.00 ft	Diameter: 3.80 inches	Volume: 61.17 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 62.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 61.47 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	64000.00 lb
Depth to Top Packer:	4430.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	142.00 ft				
Tool Length:	170.00 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			4403.00	
Shut In Tool	5.00			4408.00	
Hydraulic tool	5.00			4413.00	
Jars	5.00			4418.00	
Safety Joint	3.00			4421.00	
Packer	5.00			4426.00	28.00      Bottom Of Top Packer
Packer	4.00			4430.00	
Stubb	1.00			4431.00	
Perforations	4.00			4435.00	
Recorder	0.00	8846	Inside	4435.00	
Recorder	0.00	8737	Outside	4435.00	
Change Over Sub	1.00			4436.00	
Blank Spacing	125.00			4561.00	
Change Over Sub	1.00			4562.00	
Perforations	5.00			4567.00	
Bullnose	5.00			4572.00	142.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>170.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy **17-17s-33w Scott Co. KS**  
 125 N Market STE. 1710 **CJK #1-17**  
 Wichita KS 67202 Job Ticket: 58560 **DST#: 3**  
 ATTN: John Goldsmith Test Start: 2014.12.17 @ 10:42:15

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	w cgm 2%w 3%g 40%m 55%o	0.305
124.00	ocmg 15%o 40%m 45%g	1.739
62.00	gcom 5%g 5%o 90%m	0.870
20.00	mud 100%m	0.281

Total Length: 268.00 ft Total Volume: 3.195 bbl  
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:  
 Laboratory Name: Laboratory Location:  
 Recovery Comments:

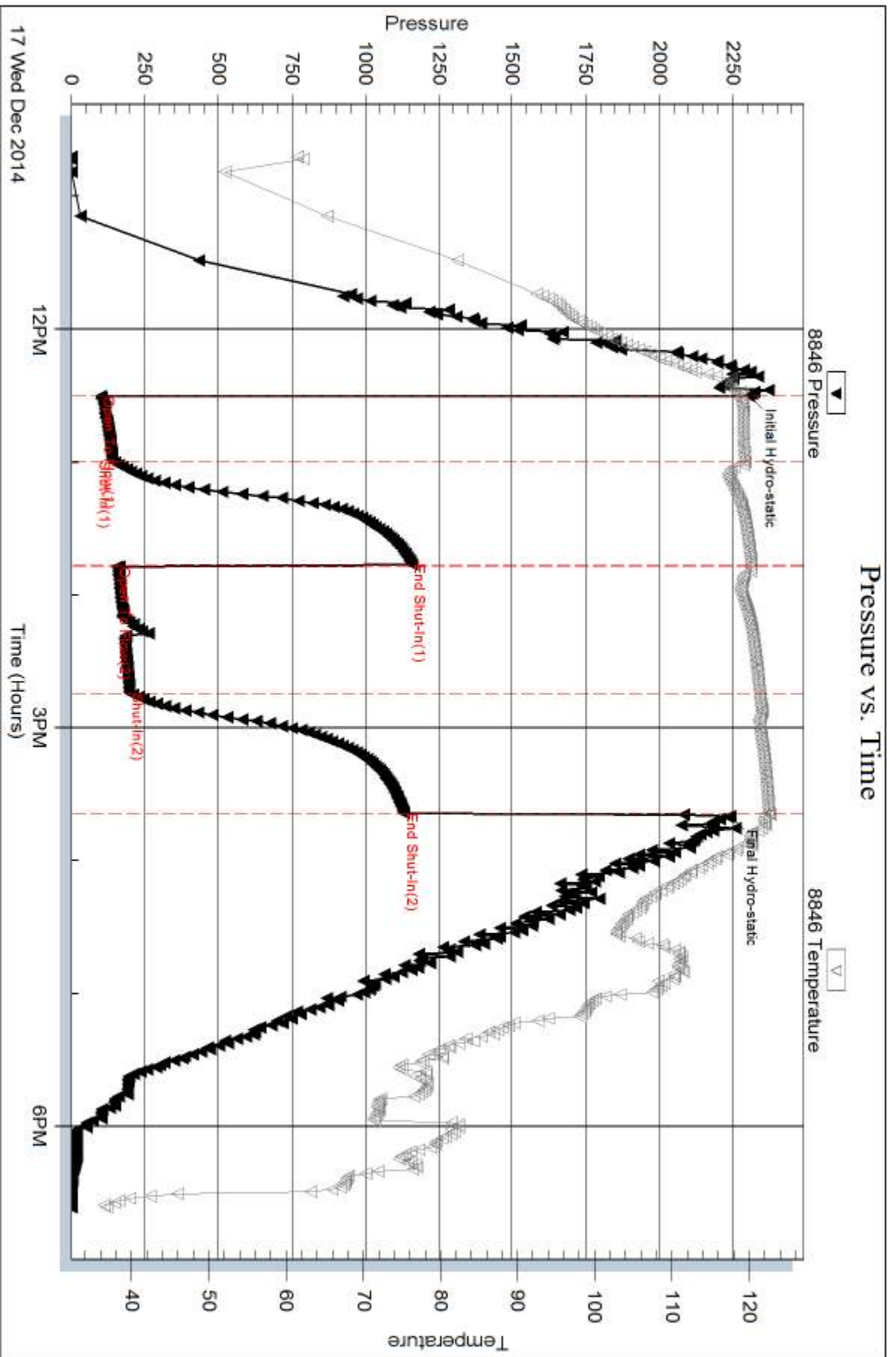
Serial #: 8846

Inside

Val Energy

CAK #1-17

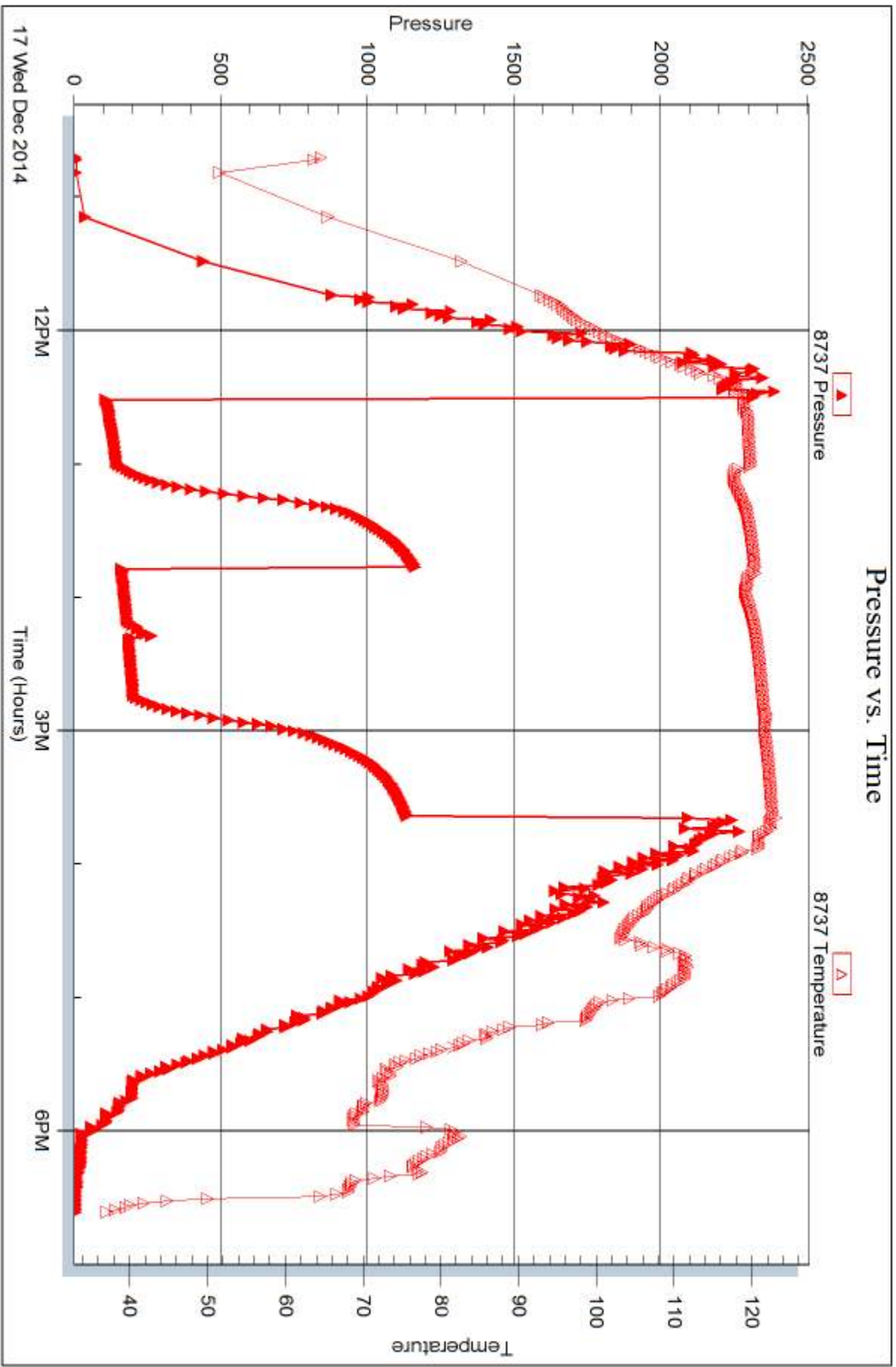
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58560

Printed: 2014, 12, 19 @ 16:12:28





## DRILL STEM TEST REPORT

Prepared For: **Val Energy**

125 N Market STE. 1710  
Wichita KS 67202

ATTN: John Goldsmith

**CJK #1-17**

**17-17s-33w Scott Co. KS**

Start Date: 2014.12.18 @ 08:41:15

End Date: 2014.12.18 @ 15:33:30

Job Ticket #: 58561                      DST #: 4

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

Printed: 2014.12.19 @ 16:11:56



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy  
 125 N Market STE. 1710  
 Wichita KS 67202  
 ATTN: John Goldsmith

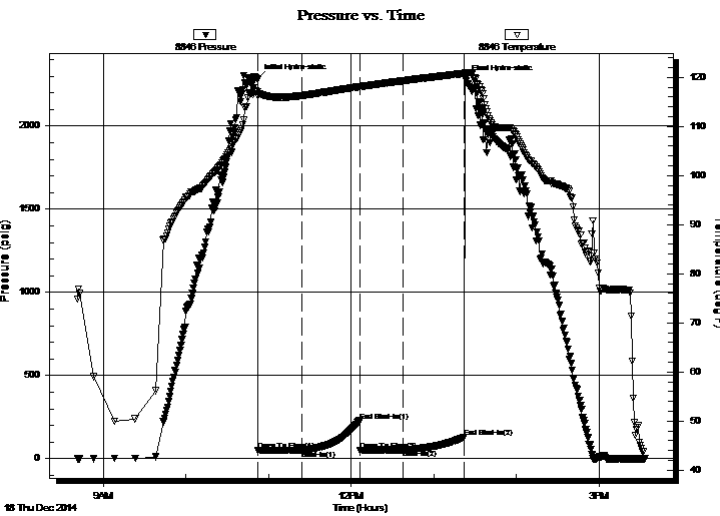
**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
 Job Ticket: 58561 **DST#: 4**  
 Test Start: 2014.12.18 @ 08:41:15

## GENERAL INFORMATION:

Formation: **Johnson**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:52:15  
 Time Test Ended: 15:33:30  
**Interval: 4572.00 ft (KB) To 4650.00 ft (KB) (TVD)**  
 Total Depth: 4572.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Mike Roberts  
 Unit No: 65  
 Reference Elevations: 3064.00 ft (KB)  
 3055.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 8846 Inside**  
 Press@RunDepth: 54.29 psig @ 4576.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.12.18 End Date: 2014.12.18 Last Calib.: 2014.12.18  
 Start Time: 08:41:15 End Time: 15:33:30 Time On Btm: 2014.12.18 @ 10:52:00  
 Time Off Btm: 2014.12.18 @ 13:22:30

TEST COMMENT: IF: Built to 1/2" blow  
 IS: No return blow  
 FF: No blow  
 FS: No return blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2287.55	117.05	Initial Hydro-static
1	49.70	116.16	Open To Flow (1)
32	52.83	116.28	Shut-In(1)
75	226.22	118.15	End Shut-In(1)
75	53.11	118.09	Open To Flow (2)
106	54.29	119.31	Shut-In(2)
150	130.59	120.80	End Shut-In(2)
151	2282.10	120.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	ocm 2%o 98%m	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy  
125 N Market STE. 1710  
Wichita KS 67202  
ATTN: John Goldsmith

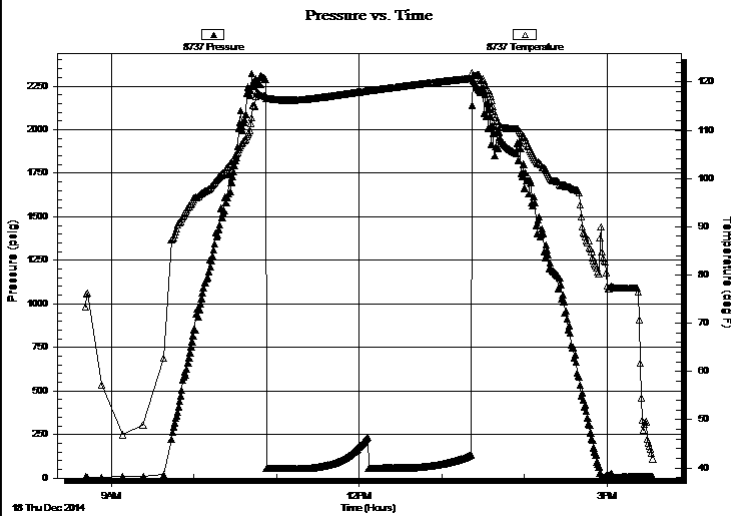
**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
Job Ticket: 58561      **DST#: 4**  
Test Start: 2014.12.18 @ 08:41:15

## GENERAL INFORMATION:

Formation: <b>Johnson</b>			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 10:52:15		Tester: Mike Roberts	
Time Test Ended: 15:33:30		Unit No: 65	
<b>Interval: 4572.00 ft (KB) To 4650.00 ft (KB) (TVD)</b>		Reference Elevations: 3064.00 ft (KB)	
Total Depth: 4572.00 ft (KB) (TVD)		3055.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 9.00 ft	

<b>Serial #: 8737</b>	<b>Outside</b>		
Press@RunDepth: psig @ 4576.00 ft (KB)		Capacity: 8000.00 psig	
Start Date: 2014.12.18	End Date: 2014.12.18	Last Calib.: 2014.12.18	
Start Time: 08:41:15	End Time: 15:33:15	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: IF: Built to 1/2" blow  
IS: No return blow  
FF: No blow  
FS: No return blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	ocm 2%o 98%m	0.01

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Val Energy  
125 N Market STE. 1710  
Wichita KS 67202  
ATTN: John Goldsmith

**17-17s-33w Scott Co. KS**  
**CJK #1-17**  
Job Ticket: 58561      **DST#: 4**  
Test Start: 2014.12.18 @ 08:41:15

## Tool Information

Drill Pipe:	Length: 4508.00 ft	Diameter: 3.80 inches	Volume: 63.24 bbl	Tool Weight:	1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 62.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 63.54 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	64000.00 lb
Depth to Top Packer:	4572.00 ft			Final	64000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	78.00 ft				
Tool Length:	106.00 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			4545.00	
Shut In Tool	5.00			4550.00	
Hydraulic tool	5.00			4555.00	
Jars	5.00			4560.00	
Safety Joint	3.00			4563.00	
Packer	5.00			4568.00	28.00      Bottom Of Top Packer
Packer	4.00			4572.00	
Stubb	1.00			4573.00	
Perforations	3.00			4576.00	
Recorder	0.00	8846	Inside	4576.00	
Recorder	0.00	8737	Outside	4576.00	
Change Over Sub	1.00			4577.00	
Blank Spacing	62.00			4639.00	
Change Over Sub	1.00			4640.00	
Perforations	5.00			4645.00	
Bullnose	5.00			4650.00	78.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>106.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy **17-17s-33w Scott Co. KS**  
 125 N Market STE. 1710 **CJK #1-17**  
 Wichita KS 67202 Job Ticket: 58561 **DST#: 4**  
 ATTN: John Goldsmith Test Start: 2014.12.18 @ 08:41:15

### Mud and Cushion Information

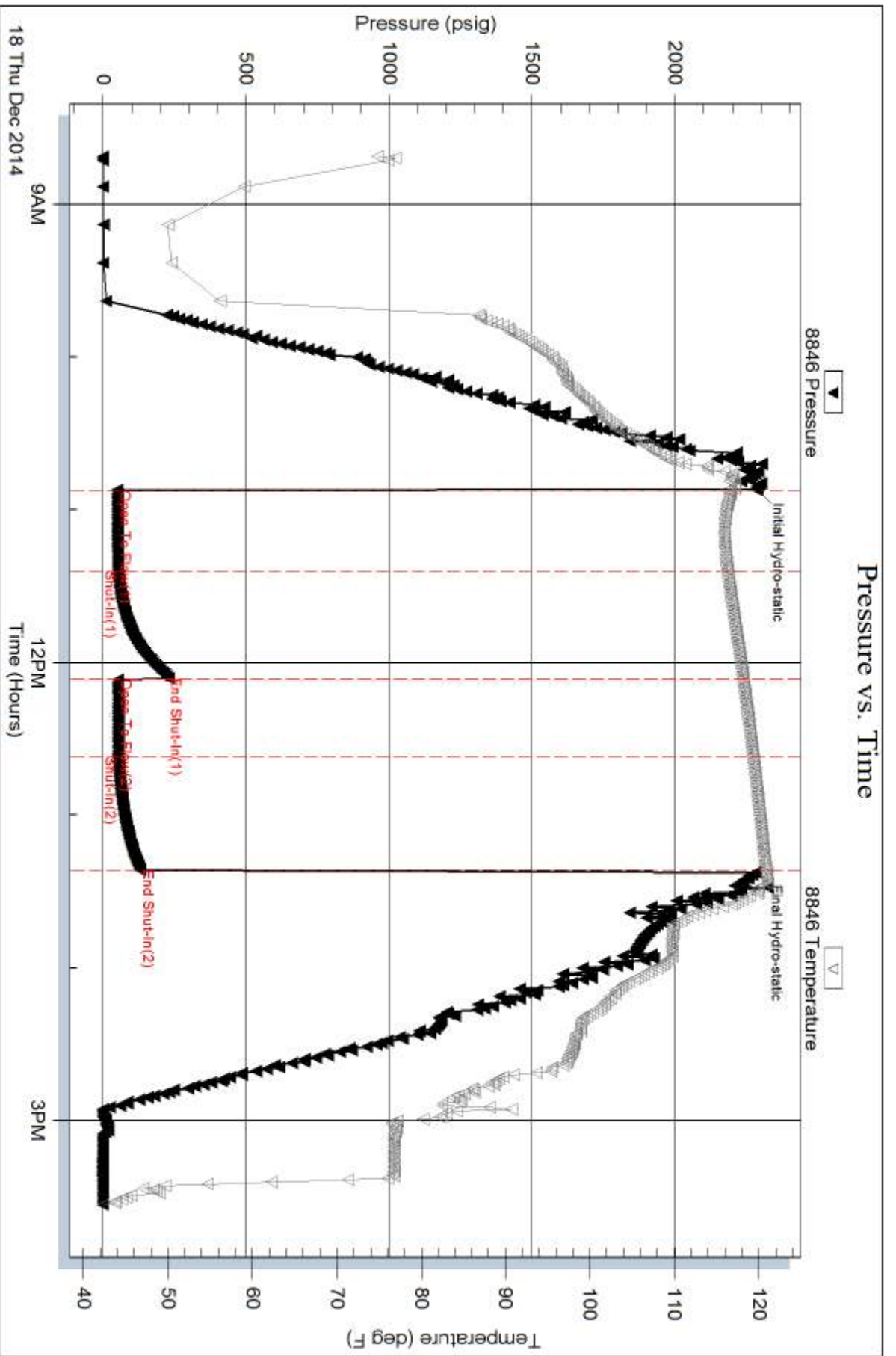
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 68.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: 1.00 inches			

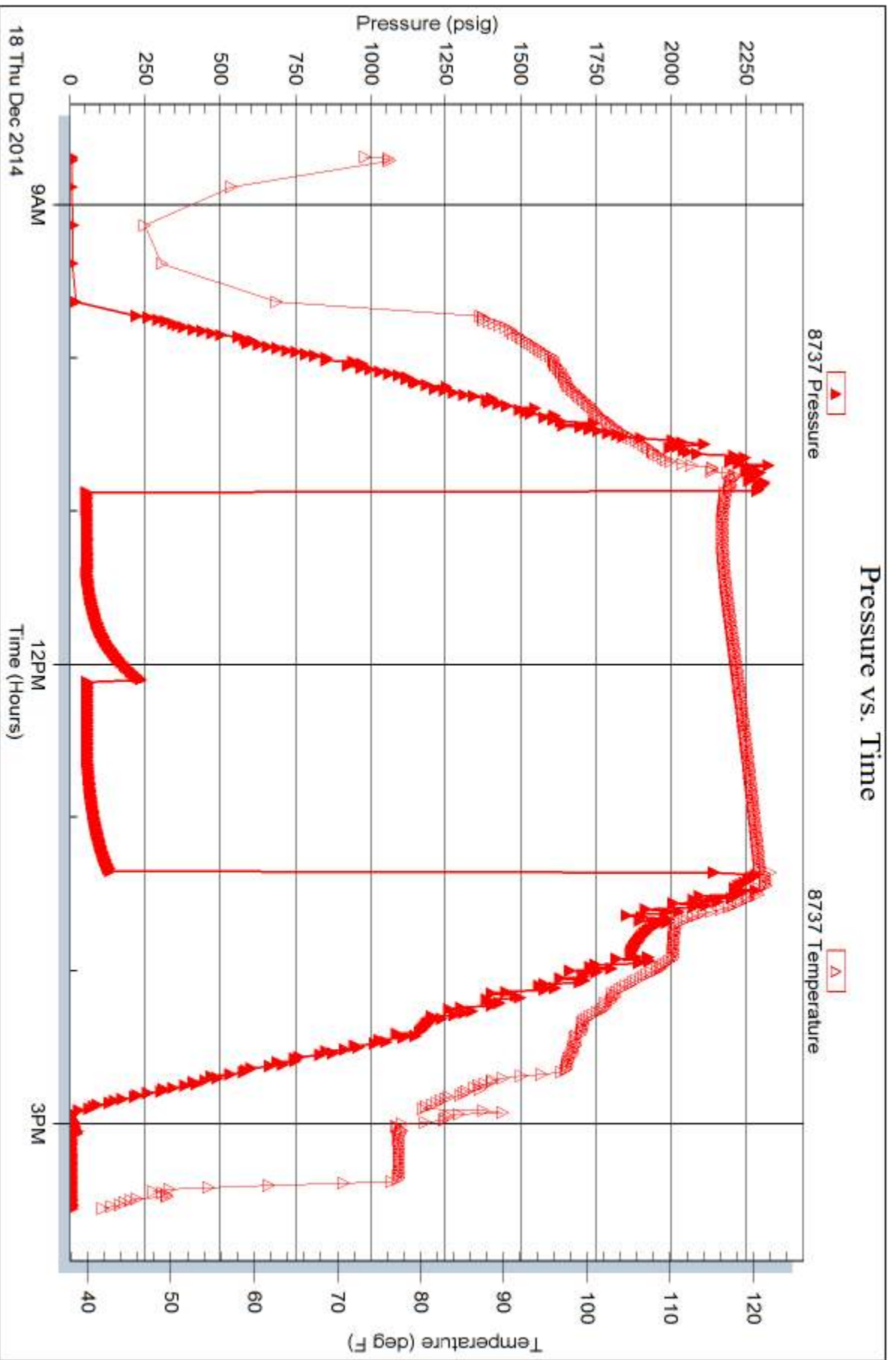
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	ocm 2%o 98%m	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58558

4/10

Well Name & No. 1-17 LSK Test No. 1 Date 12-16-14  
 Company Val Energy Elevation 3064 KB 3055 GL  
 Address 125 N Market STE 1710 Wichita KS 67202  
 Co. Rep / Geo. John Goldsmith Rig Val 4  
 Location: Sec. 17 Twp. 17S Rge. 33W Co. SCOTT State KS

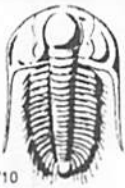
Interval Tested 4381-4449 Zone Tested Marmaton  
 Anchor Length 68 Drill Pipe Run 4318 Mud Wt. 9.3  
 Top Packer Depth 4376 Drill Collars Run 62 Vis 50  
 Bottom Packer Depth 4381 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4449 Chlorides 5000 ppm System LCM 1  
 Blow Description IF: Built to 1" Blow  
IS: No Return Blow  
FF: No Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	Feet of <u>MUD with <del>2"</del> 2" Thick Oil on top</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT 117 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2146</u>	<input checked="" type="checkbox"/> Test <u>1250.00</u>	T-On Location <u>01:00</u>
(B) First Initial Flow <u>38</u>	<input checked="" type="checkbox"/> Jars <u>250.00</u>	T-Started <u>03:27</u>
(C) First Final Flow <u>53</u>	<input checked="" type="checkbox"/> Safety Joint <u>75.00</u>	T-Open <u>06:45</u>
(D) Initial Shut-In <u>1150</u>	<input checked="" type="checkbox"/> Circ Sub <u>NL</u>	T-Pulled <u>09:15</u>
(E) Second Initial Flow <u>56</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>11:07</u>
(F) Second Final Flow <u>62</u>	<input checked="" type="checkbox"/> Mileage <u>30RT 46.50/-</u>	Comments _____
(G) Final Shut-In <u>1130</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>2205</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1621.50</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
Approved By <u>[Signature]</u>	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>\$1621.50/-</u>	
	Our Representative <u>[Signature]</u>	

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 of 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. 58559

4/10

Well Name & No. CJK 1-17 Test No. 2 Date 12-17-14  
 Company Val Energy Elevation 3064 KB 3055 GL  
 Address 125 N. Market STE 1710 Wichita KS 67202  
 Co. Rep / Geo. John Goldsmith Rig Val#4  
 Location: Sec. 17 Twp. 17S Rge. 33W Co. SCOTT State KS

Interval Tested 4440-4572 Zone Tested Ft. SCOTT  
 Anchor Length 132 Drill Pipe Run 4381 Mud Wt. 9.3  
 Top Packer Depth 4435 Drill Collars Run 62 Vis 56  
 Bottom Packer Depth 4440 Wt. Pipe Run Ø WL 8.0  
 Total Depth 4572 Chlorides 6000 ppm System LCM 1  
 Blow Description IF: Packer Failure  
IS:  
FF:  
FS:

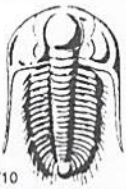
Rec	Feet of	%gas	%oil	%water	%mud
<u>620</u>	<u>MUD</u>			<u>100</u>	

Rec Total 620 BHT 110 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 2276  Test 1050 1250.00/- T-On Location 04:00  
 (B) First Initial Flow —  Jars 250.00/- T-Started 05:41  
 (C) First Final Flow —  Safety Joint 75.00/- T-Open 08:01  
 (D) Initial Shut-In —  Circ Sub — T-Pulled 08:10  
 (E) Second Initial Flow —  Hourly Standby — T-Out 10:27  
 (F) Second Final Flow —  Mileage 30RT 46.50/- Comments —  
 (G) Final Shut-In —  Sampler —  
 (H) Final Hydrostatic 2284  Straddle —  Ruined Shale Packer —  
 Shale Packer —  Ruined Packer —  
 Extra Packer —  Extra Copies —  
 Extra Recorder — Sub Total 0  
 Day Standby — Total 1421.50  
 Accessibility 1421.50 MP/DST Disc't —  
 Sub Total 1421.50/-

Approved By — Our Representative Mike Roberts

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. 58560

Well Name & No. CJK 1-17 Test No. 3 Date 12-12-14  
 Company Val Energy Elevation 3064 KB 3055 GL  
 Address 125 N. Market STE 1710 Wichita KS 67202  
 Co. Rep / Geo. John Goldsmith Rig Val #4  
 Location: Sec. 17 Twp. 17S Rge. 33W Co. SCOTT State KS

Interval Tested 4430-4572 Zone Tested FT Scott  
 Anchor Length 142' Drill Pipe Run 4361 Mud Wt. 9.3  
 Top Packer Depth 4425 Drill Collars Run 62 Vis 56  
 Bottom Packer Depth 4430 Wt. Pipe Run φ WL 8.0  
 Total Depth 4572 Chlorides 6000 ppm System LCM 1

Blow Description IF: BOB in 15 Min.  
IS: Weak Surface Blow  
FF: BOB in 5 Min  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MUD</u>			<u>100</u>	
<u>62</u>	<u>geom</u>	<u>5</u>	<u>5</u>	<u>90</u>	
<u>124</u>	<u>OC mg</u>	<u>45</u>	<u>15</u>	<u>40</u>	
<u>62</u>	<u>wcgm</u>	<u>3</u>	<u>55</u>	<u>2</u>	<u>40</u>

Rec Total 268 BHT 123 Gravity — API RW — @ — °F Chlorides — ppm

- (A) Initial Hydrostatic 2306
- (B) First Initial Flow 100
- (C) First Final Flow 139
- (D) Initial Shut-In 1157
- (E) Second Initial Flow 154
- (F) Second Final Flow 198
- (G) Final Shut-In 1131
- (H) Final Hydrostatic 2242

- Test 1250.00/-
  - Jars 250.00/-
  - Safety Joint 75.00/-
  - Circ Sub NC
  - Hourly Standby
  - Mileage
  - Sampler
  - Straddle
  - Shale Packer
  - Extra Packer
  - Extra Recorder
  - Day Standby
  - Accessibility
- Sub Total 1575

- T-On Location Skipped from DST #2
- T-Started 10:42
- T-Open 12:32
- T-Pulled 15:32
- T-Out 18:36

Comments \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_

Ruined Packer \_\_\_\_\_

Extra Copies \_\_\_\_\_

Sub Total 0

Total 1575.00

MP/DST Disc't \_\_\_\_\_

Initial Open 30

Initial Shut-In 45

Final Flow 45

Final Shut-In 60

Approved By [Signature] Our Representative [Signature]

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **58561**

4/10

Well Name & No. CJK 1-17 Test No. 4 Date 12-18-14  
 Company Val Energy Elevation 3064 KB 3055 GL  
 Address 125 N. Market STE 1710 Wichita KS 67202  
 Co. Rep / Geo. John Goldsmith Rig Val 4  
 Location: Sec. 17 Twp. 17S Rge. 33W Co. SCOTT State KS

Interval Tested 4572-4650 Zone Tested Johnson  
 Anchor Length 78 Drill Pipe Run 4508 Mud Wt. 9.4  
 Top Packer Depth 4567 Drill Collars Run 62 Vis 68  
 Bottom Packer Depth 4572 Wt. Pipe Run Ø WL 9.6  
 Total Depth 4650 Chlorides 8000 ppm System LCM 2  
 Blow Description IF: Built to 1/2" Blow  
IS: No Return Blow  
FF: No Blow  
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>0cm</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 2 BHT 121 Gravity ✓ API RW ✓ @ ✓ °F Chlorides ✓ ppm

(A) Initial Hydrostatic <u>2287</u>	<input checked="" type="checkbox"/> Test <u>1250.00</u>	T-On Location <u>07:20</u>
(B) First Initial Flow <u>49</u>	<input checked="" type="checkbox"/> Jars <u>250.00</u>	T-Started <u>08:41</u>
(C) First Final Flow <u>52</u>	<input checked="" type="checkbox"/> Safety Joint <u>75.00</u>	T-Open <u>10:52</u>
(D) Initial Shut-In <u>224</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>13:22</u>
(E) Second Initial Flow <u>53</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>15:33</u>
(F) Second Final Flow <u>54</u>	<input checked="" type="checkbox"/> Mileage <u>30 46.50</u>	Comments
(G) Final Shut-In <u>130</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2282</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1621.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>\$1621.50</u>	

Approved By [Signature] Our Representative Mike Roberts

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.