

Confidentiality Requested:

Yes  No

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

Form ACO-1

January 2018

**Form must be Typed**

**Form must be Signed**

**All blanks must be Filled**

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

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

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

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

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

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

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

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

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

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

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

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

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

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

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

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

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

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

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD  
 Plug Back  Liner  Conv. to GSW  Conv. to Producer

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

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

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

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

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

Spud Date or Date Reached TD Completion Date or Recompletion Date

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

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

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

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

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

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

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

Datum:  NAD27  NAD83  WGS84

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

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

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

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

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

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

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

Multiple Stage Cementing Collar Used?  Yes  No

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

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

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

**Drilling Fluid Management Plan**

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

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

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

Location of fluid disposal if hauled offsite:

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

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

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

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

**AFFIDAVIT**

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

Submitted Electronically

**KCC Office Use ONLY**

Confidentiality Requested

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

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

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

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

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

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

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

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</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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**CONSOLIDATED**  
Oil Well Services, LLC

REMIT TO  
Consolidated Oil Well Services, LLC  
Dept:970  
P.O.Box 4346  
Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884  
Chanute, KS 66720  
620/431-9210, 1-800/467-8676  
Fax 620/431-0012

Invoice

Invoice# 808786

Invoice Date: 10/10/16

Terms: Net 30

Page 1

VAL ENERGY

125 N. Market, Ste. 1110  
WICHITA KS 67202  
USA  
316-263-6688

HERRON KIRK UNIT 1-21

Tax: 242.63

Total: 4,581.86



**CONSOLIDATED**  
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

6816  
6718

TICKET NUMBER 51462  
LOCATION Ogley KS  
FOREMAN Miles Straw

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

**Invoice # 808786**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10-7-16	8576	Herron Kirk Unit 1-21	21	17S	33W	Scott
CUSTOMER Val Energy			3000 10 to 83 ft 4 Hwy set W to Herron 25 E.S.			
MAILING ADDRESS 125 N. Market, Ste. 1110			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY Wichita			753	Miles		
STATE KS			772 T-12A	Heithc	Stevan Odell	
ZIP CODE 67202						

JOB TYPE PTA HOLE SIZE 7 7/8" HOLE DEPTH 4700' CASING SIZE & WEIGHT \_\_\_\_\_  
CASING DEPTH \_\_\_\_\_ DRILL PIPE 4 1/2" TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
SLURRY WEIGHT 13.8 SLURRY VOL 1.42 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
DISPLACEMENT \_\_\_\_\_ DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety Meeting and rig upon WWD drilling R. is #2 Load hole Plus as ordered  
1st plug 50 SX @ 2340'  
2nd plug 80 SX @ 1380'  
3rd plug 50 SX @ 720'  
4th plug 50 SX @ 330' 300 SX 60/40 48 sel 7/8" Plu sec 1  
5th plug 20 SX @ 60'  
RH 30 SX  
MH 20 SX

Thanks Miles & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	1500. <sup>00</sup>	1500. <sup>00</sup>
CE0002	40	MILEAGE	7.15	286. <sup>00</sup>
CE0710	13,000 ton	Ton Mileage deliver	1.75	913.50
CE5829	300 SX	Lite-weight bland T 60/40 48 sel	16.1 <sup>00</sup>	4830. <sup>00</sup>
CE6075	75 #	Flo seal - Celloflake	3. <sup>00</sup>	225. <sup>00</sup>
CE8228	1	8 3/8" Woodson plug	165. <sup>00</sup>	165. <sup>00</sup>
			Subtotal	7889.50
			less 45% discount	3550.28
			Subtotal	4339.28
			SALES TAX	242.63
			ESTIMATED TOTAL	4581.86

Ravin 3737

AUTHORIZATION Martin Castro TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



**CONSOLIDATED**  
Oil Well Services, LLC

REMIT TO  
Consolidated Oil Well Services, LLC  
Dept:970  
P.O.Box 4346  
Houston, TX 77210-4346

MAIN OFFICE

P.O.Box884  
Chanute,KS 66720  
620/431-9210,1-800/467-8676  
Fax 620/431-0012

Invoice

Invoice#

808661

Invoice Date: 09/28/16

Terms: Net 30

Page 1

VAL ENERGY

125 N. Market, Ste. 1110  
WICHITA KS 67202  
USA  
316-263-6688

HERRON/KIRK UNIT 1-21

Tax: 215.05

Total: 4,090.35



**CONSOLIDATED**  
Oil Well Services, LLC

PO Box 684, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

TICKET NUMBER 51590  
LOCATION Oakley Ks  
FOREMAN Jerry Y

6729  
6627

Invoice # 808661 Ks

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
9-26-16	8576	Herron / Kirk Unit 1-2	21	17S	33W	Scott

CUSTOMER Val Energy  
MAILING ADDRESS 125 N. Market, Ste. 1110  
CITY Wichita STATE Ks ZIP CODE 67202

TRUCK #	DRIVER	TRUCK #	DRIVER
<u>731</u>	<u>Miles S</u>		
<u>566</u>	<u>WHD</u>		
<u>639</u>			

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 292 CASING SIZE & WEIGHT 8 5/8 24 #  
CASING DEPTH 291 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
SLURRY WEIGHT 14.8 SLURRY VOL 1.24 WATER gal/sk \_\_\_\_\_ CEMENT LEFT In CASING \_\_\_\_\_  
DISPLACEMENT 1766l DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting a rig up on WWC break circulation with rig tra  
mix 200SKs surface blend II wash up & displace with 1766l fresh water  
and shut in. Circulated approx 466l to pid

cement did circulate

Thank you  
Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
<u>CE0450</u>	<u>1</u>	<u>PUMP CHARGE</u>	<u>1500.00</u>	<u>1500.00</u>
<u>CE0002</u>	<u>40</u>	<u>MILEAGE</u>	<u>7.15</u>	<u>286.00</u>
<u>CE0711</u>	<u>9.4</u>	<u>ton mileage delivery</u>	<u>660.00</u>	<u>660.00</u>
<u>CC5871</u>	<u>200 SKS</u>	<u>surface blend II</u>	<u>23.00</u>	<u>4600.00</u>
			<u>Subtotal</u>	<u>7046.00</u>
			<u>-45%</u>	<u>3170.70</u>
			<u>Subtotal</u>	<u>3975.30</u>
			SALES TAX	<u>215.05</u>
			ESTIMATED TOTAL	<u>\$4090.35</u>

RAVIN 3737 AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy, Inc  
125 N Market St. Ste 1100  
Wichita, Ks 67202  
ATTN: Tim Priest

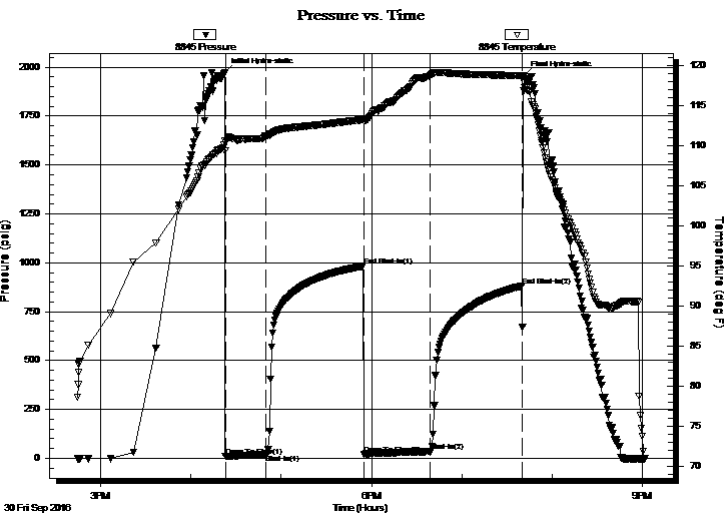
**21 17S 33W Scott, Ks**  
**Herron Kirk Unit1-21**  
Job Ticket: 65571 **DST#: 1**  
Test Start: 2016.09.30 @ 14:45:00

## GENERAL INFORMATION:

Formation: **LKC D-E**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 16:23:00  
Time Test Ended: 21:01:30  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Bradley Walter  
Unit No: 78  
Interval: **4027.00 ft (KB) To 4055.00 ft (KB) (TVD)**  
Reference Elevations: 2993.00 ft (KB)  
Total Depth: 4055.00 ft (KB) (TVD) 2988.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

**Serial #: 8845 Outside**  
Press@RunDepth: 34.88 psig @ 4028.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2016.09.30 End Date: 2016.09.30 Last Calib.: 2016.09.30  
Start Time: 14:45:05 End Time: 21:01:29 Time On Btm: 2016.09.30 @ 16:22:45  
Time Off Btm: 2016.09.30 @ 19:41:15

TEST COMMENT: IF: 1/4" blow .  
IS: No return.  
FF: Surface blow .  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1973.66	110.56	Initial Hydro-static
1	9.14	109.39	Open To Flow (1)
28	19.87	111.23	Shut-In(1)
92	982.94	113.24	End Shut-In(1)
93	22.00	113.04	Open To Flow (2)
136	34.88	118.73	Shut-In(2)
197	881.34	118.73	End Shut-In(2)
199	1958.04	117.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud 100m (oil spots)	0.22

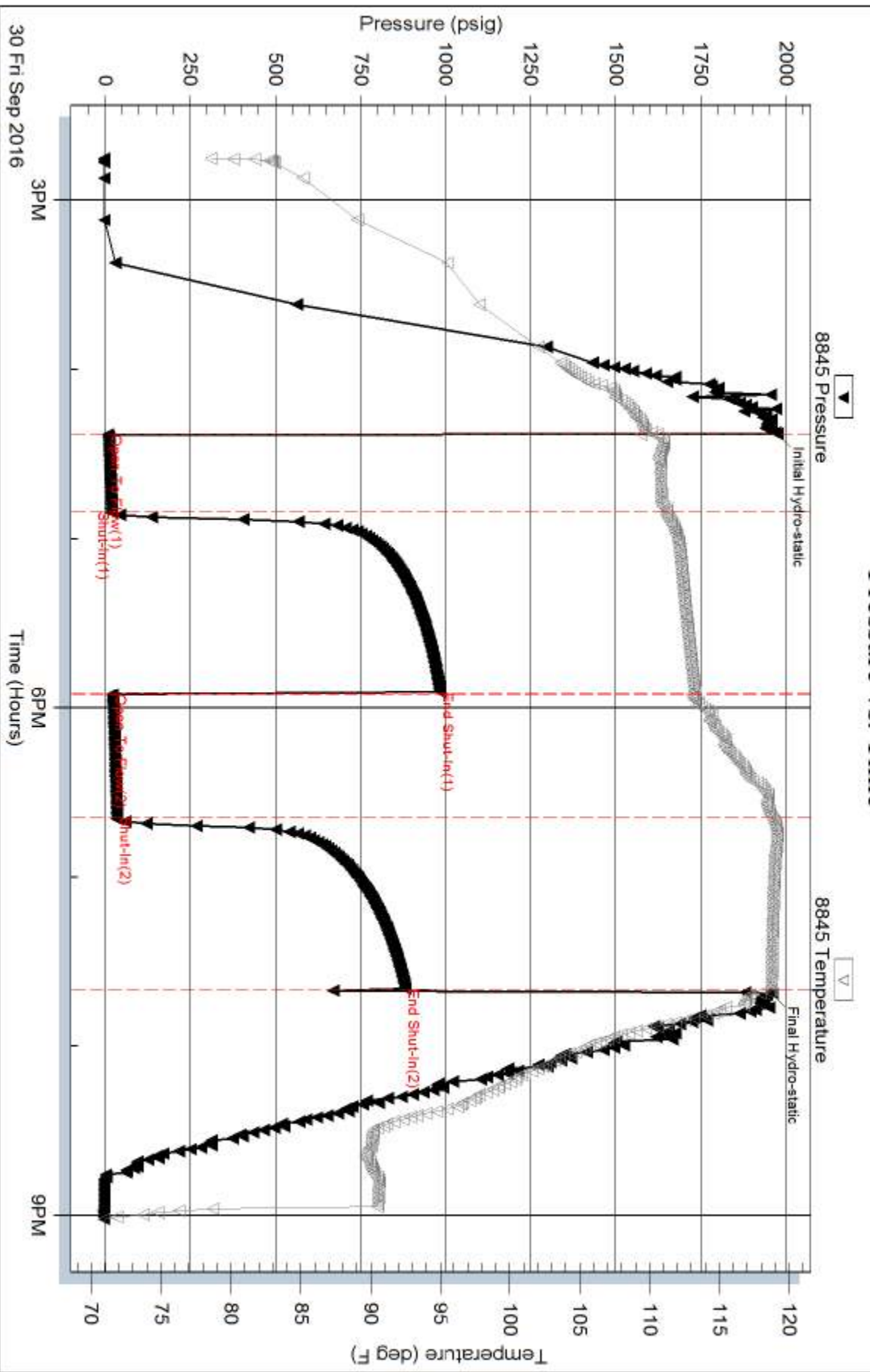
## Gas Rates

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





### Pressure vs. Time



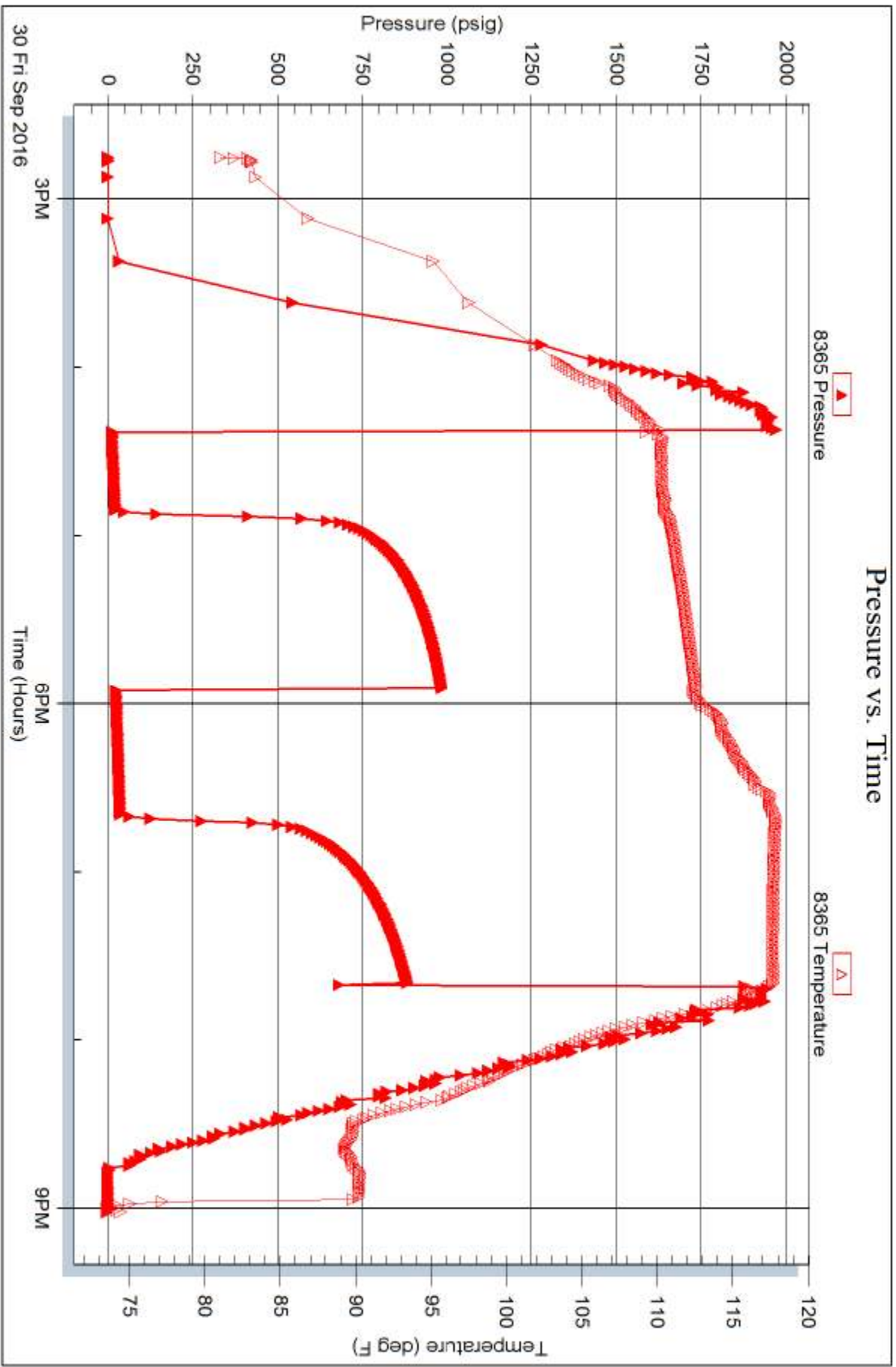
Serial #: 8365

Inside

Val Energy, Inc

Herron Kirk Unit1-21

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 65571

Printed: 2016.09.30 @ 22:58:19



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy, Inc  
 125 N Market St. Ste 1100  
 Wichita, Ks 67202  
 ATTN: Tim Priest

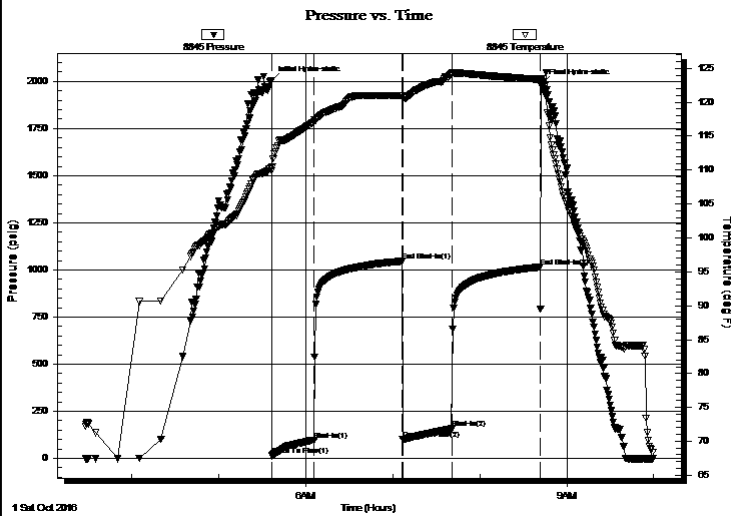
**21 17S 33W Scott, Ks**  
**Herron Kirk Unit1-21**  
 Job Ticket: 65573 **DST#: 2**  
 Test Start: 2016.10.01 @ 03:28:00

## GENERAL INFORMATION:

Formation: **LKC F**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:36:30  
 Time Test Ended: 09:59:45  
 Interval: **4048.00 ft (KB) To 4070.00 ft (KB) (TVD)**  
 Total Depth: 4070.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 2993.00 ft (KB)  
 2988.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8845 Outside**  
 Press@RunDepth: 157.13 psig @ 4049.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.10.01 End Date: 2016.10.01 Last Calib.: 2016.10.01  
 Start Time: 03:28:05 End Time: 09:59:44 Time On Btm: 2016.10.01 @ 05:36:15  
 Time Off Btm: 2016.10.01 @ 08:43:00

TEST COMMENT: IF: BOB @ 22 min.  
 IS: No return.  
 FF: BOB @ 30 min.  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2003.87	110.41	Initial Hydro-static
1	14.20	109.88	Open To Flow (1)
30	97.79	117.09	Shut-In(1)
90	1045.81	120.97	End Shut-In(1)
91	100.61	120.61	Open To Flow (2)
125	157.13	124.16	Shut-In(2)
186	1015.13	123.39	End Shut-In(2)
187	1990.35	122.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
315.00	mcw 10m 90w (oil spots)	3.34

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Val Energy, Inc

**21 17S 33W Scott, Ks**

125 N Market St. Ste 1100  
Wichita, Ks 67202

**Herron Kirk Unit1-21**

Job Ticket: 65573

**DST#: 2**

ATTN: Tim Priest

Test Start: 2016.10.01 @ 03:28:00

## 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:

42000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
315.00	mcw 10m 90w (oil spots)	3.344

Total Length: 315.00 ft      Total Volume: 3.344 bbf

Num Fluid Samples: 0

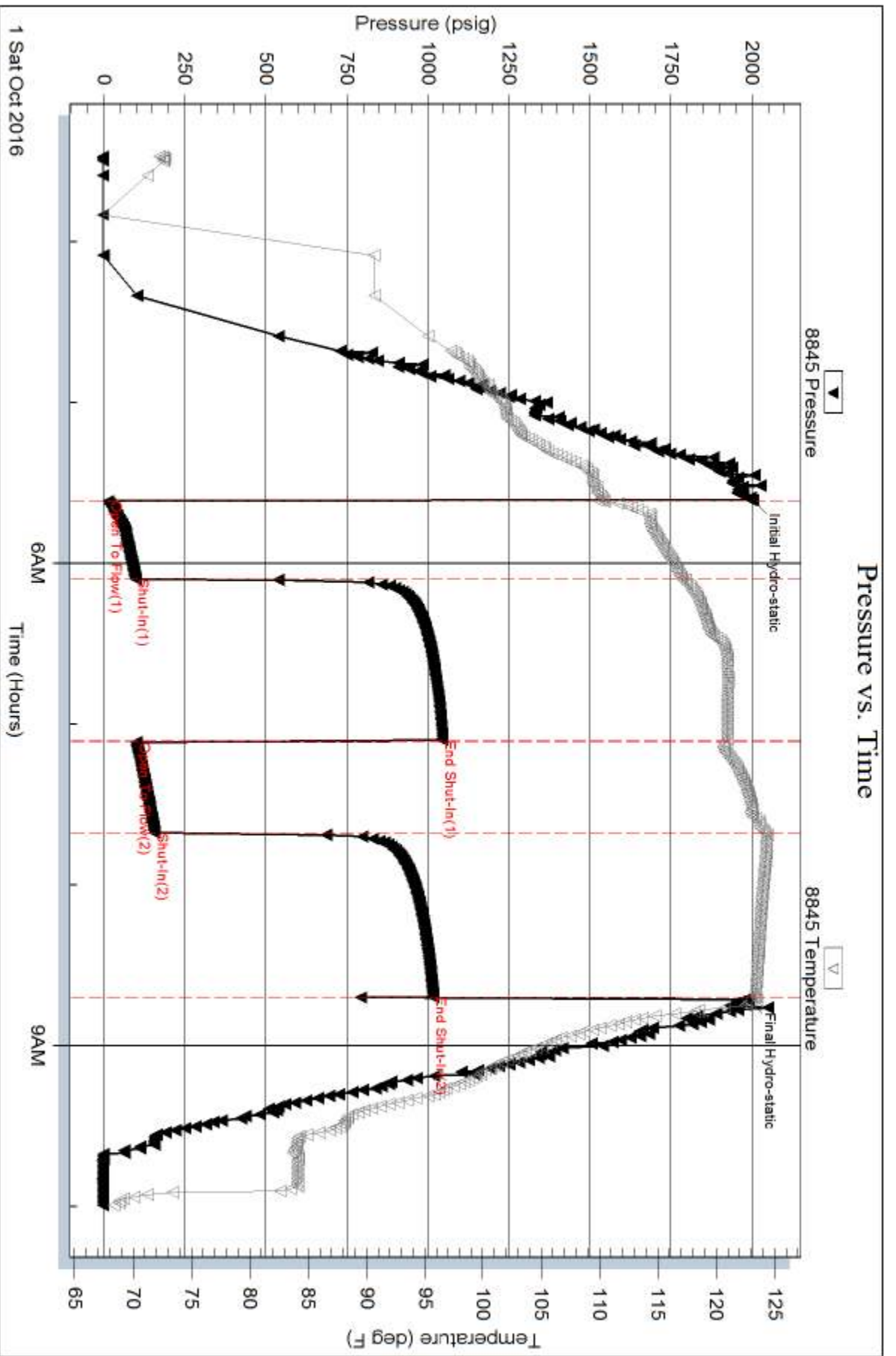
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .219 @ 56F = 42,000ppm











**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Val Energy, Inc

**21 17S 33W Scott, Ks**

125 N Market St. Ste 1100  
Wichita, Ks 67202

**Herron Kirk Unit1-21**

Job Ticket: 65574

**DST#: 3**

ATTN: Tim Priest

Test Start: 2016.10.01 @ 21:20:00

## 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:

59000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 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
1290.00	mcw 3m 97w (oil speks)	17.020

Total Length: 1290.00 ft      Total Volume: 17.020 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

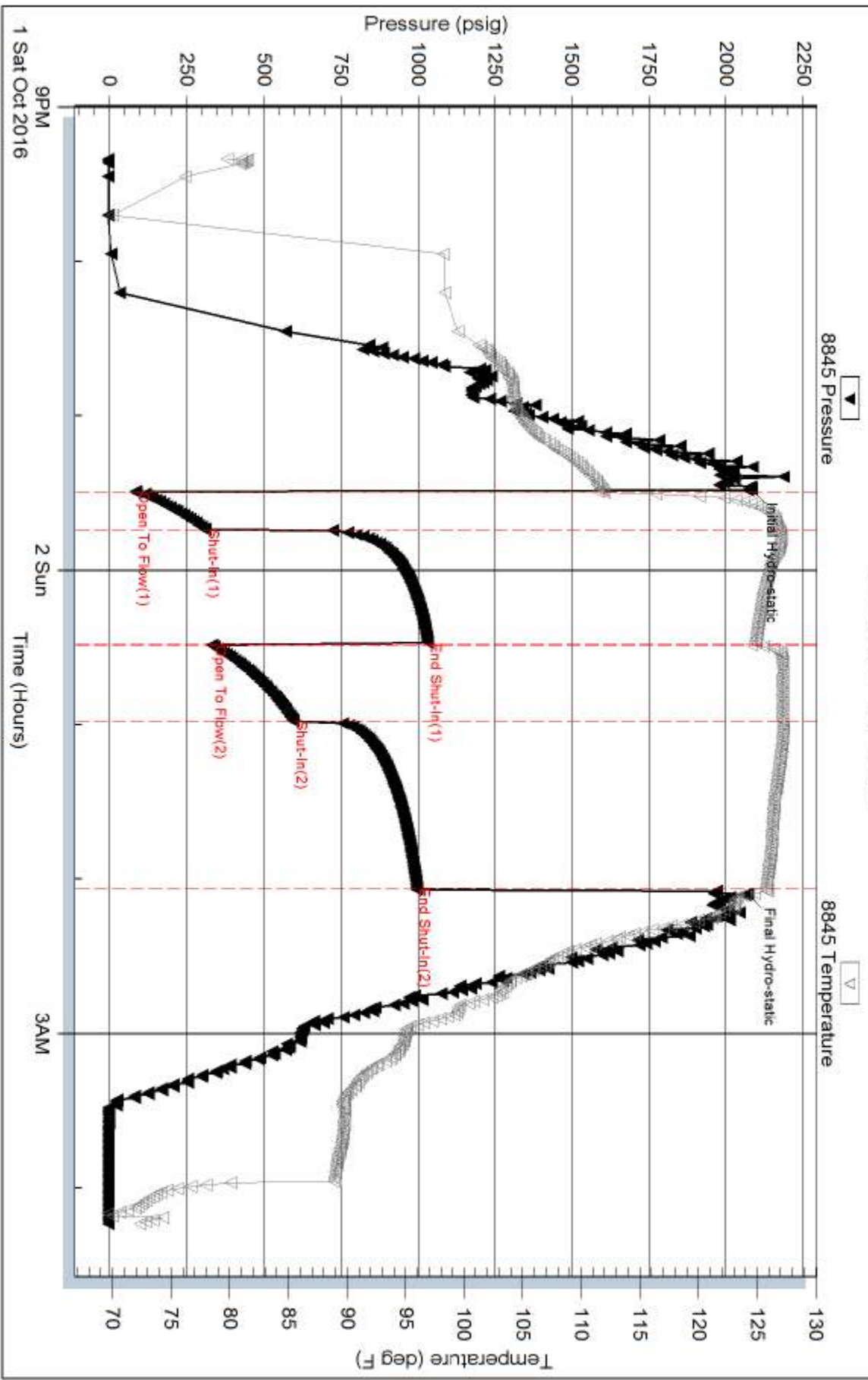
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .150 @ 60F = 59,000ppm

### Pressure vs. Time



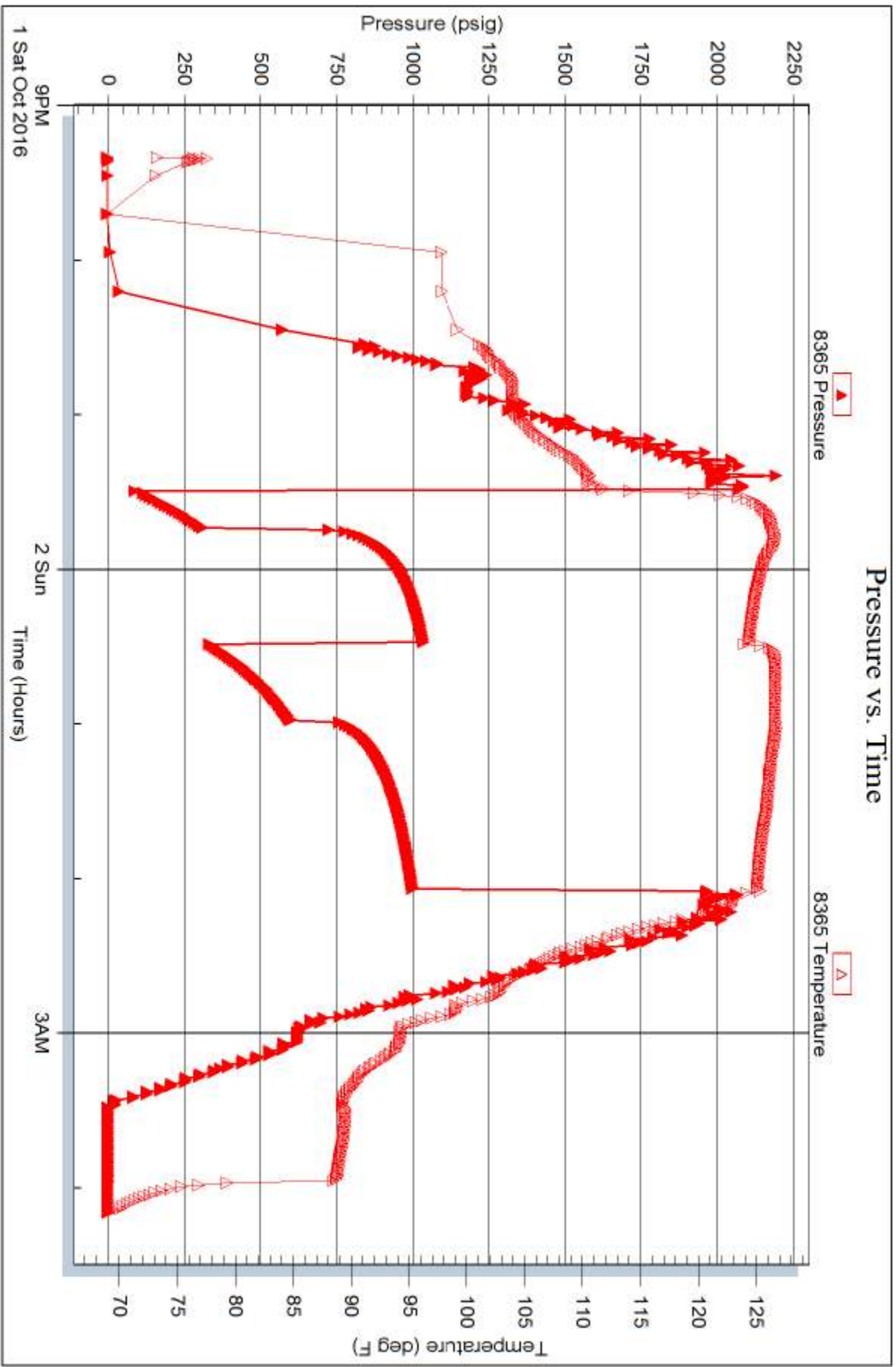
Serial #: 8365

Inside

Val Energy, Inc

Herron Kirk Unit1-21

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65574

Printed: 2016.10.02 @ 07:52:07



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy, Inc  
125 N Market St. Ste 1100  
Wichita, Ks 67202  
ATTN: Tim Priest

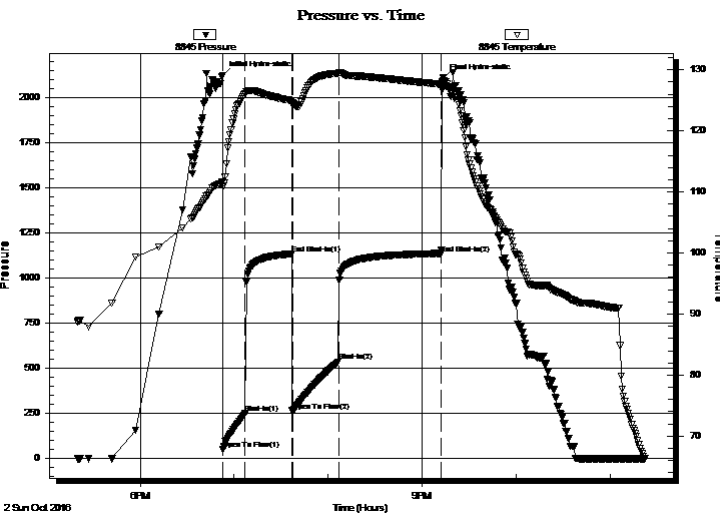
**21 17S 33W Scott, Ks**  
**Herron Kirk Unit1-21**  
Job Ticket: 65575 **DST#: 4**  
Test Start: 2016.10.02 @ 17:20:00

## GENERAL INFORMATION:

Formation: **LKC L**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 18:53:00  
Time Test Ended: 23:22:15  
Interval: **4252.00 ft (KB) To 4290.00 ft (KB) (TVD)**  
Total Depth: 4290.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78  
Reference Elevations: 2993.00 ft (KB)  
2988.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8845 Outside**  
Press@RunDepth: 536.17 psig @ 4253.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2016.10.02 End Date: 2016.10.02 Last Calib.: 2016.10.02  
Start Time: 17:20:05 End Time: 23:22:14 Time On Btm: 2016.10.02 @ 18:52:45  
Time Off Btm: 2016.10.02 @ 21:13:30

TEST COMMENT: IF: BOB @ 3 1/2 min.  
IS: No return.  
FF: BOB @ 4 min.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2123.13	111.66	Initial Hydro-static
1	47.85	110.94	Open To Flow (1)
15	247.91	126.03	Shut-In(1)
44	1133.16	124.92	End Shut-In(1)
45	260.99	124.63	Open To Flow (2)
74	536.17	129.44	Shut-In(2)
140	1135.55	127.63	End Shut-In(2)
141	2106.94	127.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1140.00	mcw 5m 95w (oil speks near top)	14.92

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy, Inc

**21 17S 33W Scott, Ks**

125 N Market St. Ste 1100  
Wichita, Ks 67202

**Herron Kirk Unit1-21**

Job Ticket: 65575

**DST#: 4**

ATTN: Tim Priest

Test Start: 2016.10.02 @ 17:20:00

### 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:

64000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

#### Recovery Table

Length ft	Description	Volume bbl
1140.00	mcw 5m 95w (oil speks near top)	14.916

Total Length: 1140.00 ft      Total Volume: 14.916 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

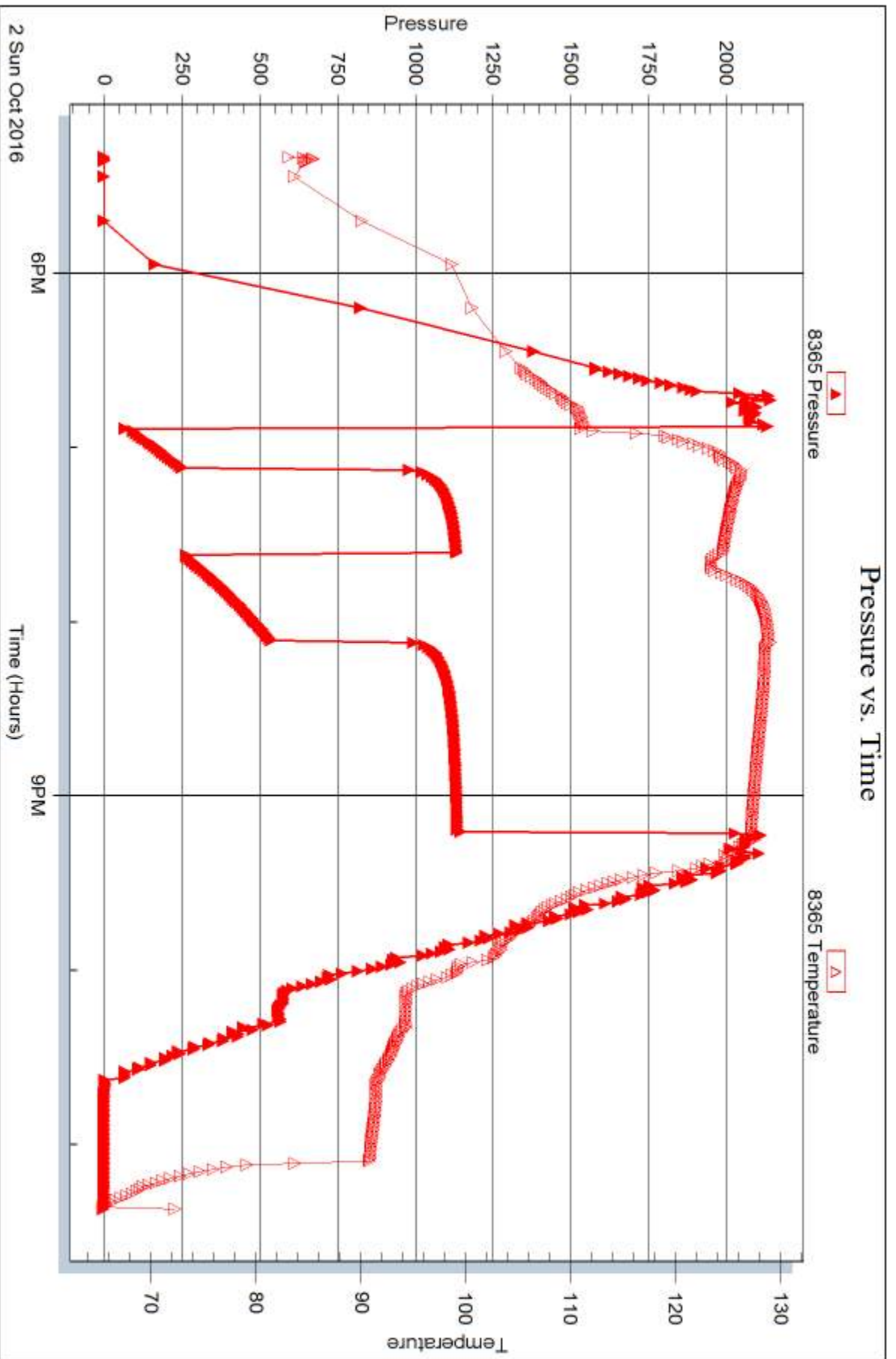
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .118 @ 68F = 64000ppm









**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy, Inc  
125 N Market St. Ste 1100  
Wichita, Ks 67202  
ATTN: Tim Priest

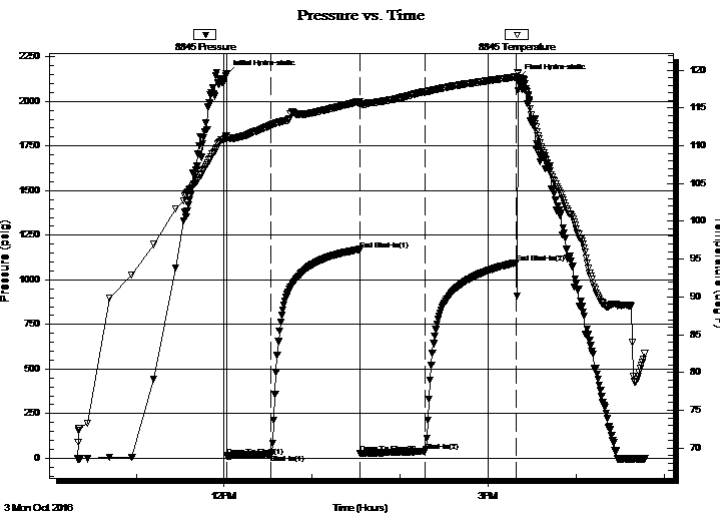
**21 17S 33W Scott, Ks**  
**Herron Kirk Unit1-21**  
Job Ticket: 57366 **DST#: 5**  
Test Start: 2016.10.03 @ 10:20:00

## GENERAL INFORMATION:

Formation: **Marmaton A**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 12:01:45  
Time Test Ended: 16:46:45  
Interval: **4317.00 ft (KB) To 4375.00 ft (KB) (TVD)**  
Total Depth: 4317.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Reference Elevations: 2993.00 ft (KB)  
2988.00 ft (CF)  
KB to GR/CF: 5.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78

**Serial #: 8845 Outside**  
Press@RunDepth: 38.52 psig @ 4318.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2016.10.03 End Date: 2016.10.03 Last Calib.: 2016.10.03  
Start Time: 10:20:05 End Time: 16:46:44 Time On Btm: 2016.10.03 @ 12:01:30  
Time Off Btm: 2016.10.03 @ 15:20:15

TEST COMMENT: IF: 1/2" blow.  
IS: No return.  
FF: Surface blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2152.21	111.36	Initial Hydro-static
1	12.97	110.77	Open To Flow (1)
31	23.75	112.70	Shut-In(1)
91	1169.84	115.82	End Shut-In(1)
91	26.81	115.37	Open To Flow (2)
136	38.52	117.11	Shut-In(2)
198	1095.88	119.09	End Shut-In(2)
199	2126.81	119.70	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud 100m (oil speks)	0.30

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Val Energy, Inc

**21 17S 33W Scott, Ks**

125 N Market St. Ste 1100  
Wichita, Ks 67202

**Herron Kirk Unit1-21**

Job Ticket: 57366

**DST#: 5**

ATTN: Tim Priest

Test Start: 2016.10.03 @ 10:20:00

## 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: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Mud 100m (oil speks)	0.295

Total Length: 60.00 ft      Total Volume: 0.295 bbl

Num Fluid Samples: 0

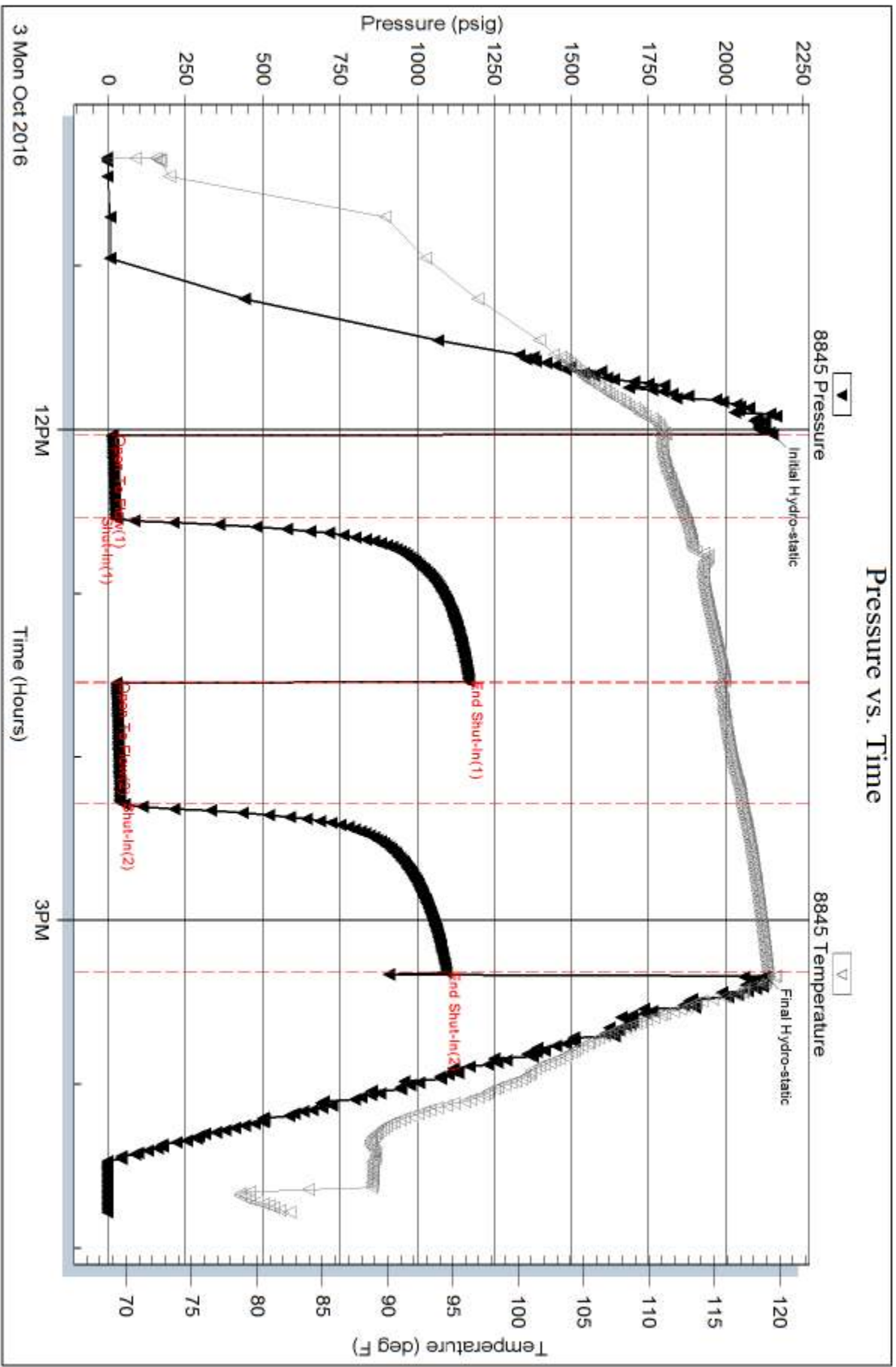
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



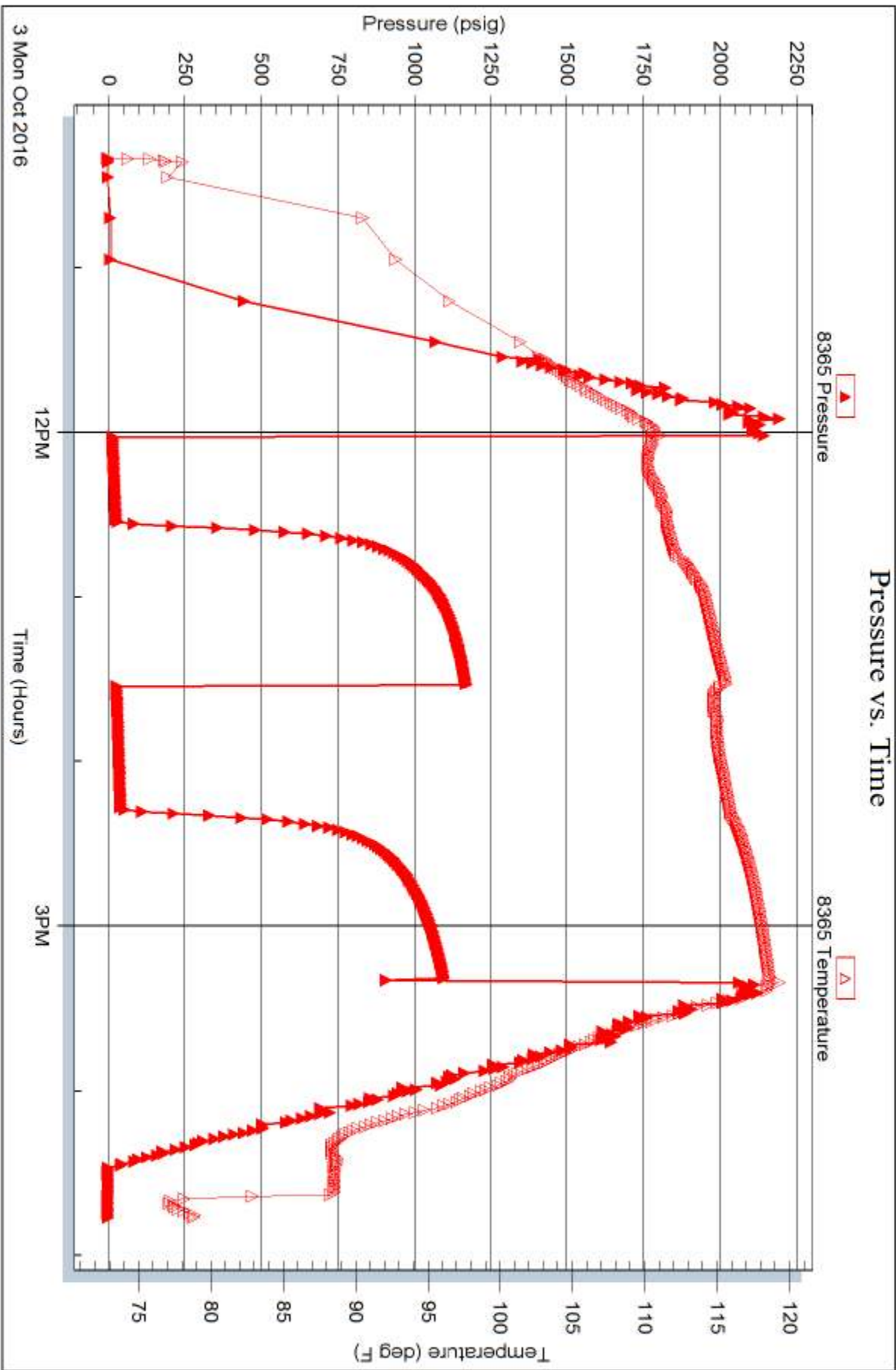
Serial #: 8365

Inside

Val Energy, Inc

Herron Kirk Unit1-21

DST Test Number: 5





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy, Inc  
125 N Market St. Ste 1100  
Wichita, Ks 67202  
ATTN: Tim Priest

**21 17S 33W Scott, Ks**  
**Herron Kirk Unit1-21**  
Job Ticket: 57367 **DST#: 6**  
Test Start: 2016.10.04 @ 02:48:00

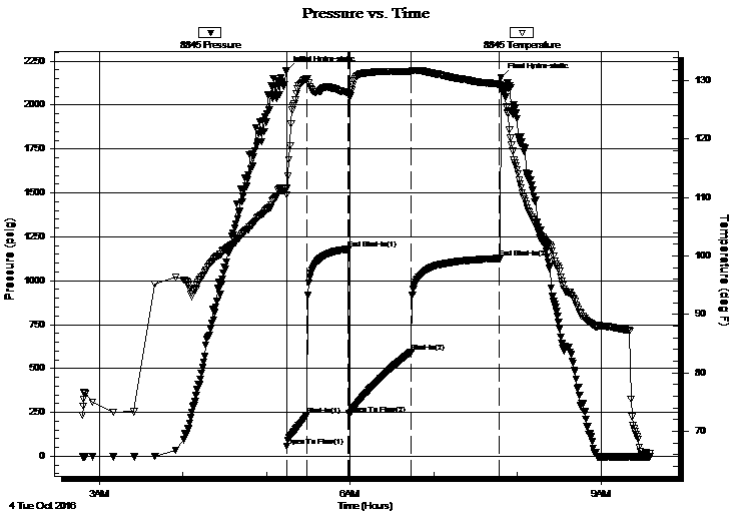
## GENERAL INFORMATION:

Formation: **Marmaton B-C**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 05:14:45  
Time Test Ended: 09:35:00  
Interval: **4372.00 ft (KB) To 4430.00 ft (KB) (TVD)**  
Total Depth: 4430.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78  
Reference Elevations: 2993.00 ft (KB)  
2988.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8845 Outside**  
Press@RunDepth: 595.17 psig @ 4373.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2016.10.04 End Date: 2016.10.04 Last Calib.: 2016.10.04  
Start Time: 02:48:05 End Time: 09:34:59 Time On Btm: 2016.10.04 @ 05:14:30  
Time Off Btm: 2016.10.04 @ 07:48:30

TEST COMMENT: IF: BOB @ 4 min.  
IS: No return.  
FF: BOB @ 4 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2197.87	111.57	Initial Hydro-static
1	57.47	110.53	Open To Flow (1)
15	233.73	130.31	Shut-In(1)
45	1179.70	127.93	End Shut-In(1)
45	241.97	127.57	Open To Flow (2)
90	595.17	131.58	Shut-In(2)
153	1127.52	129.38	End Shut-In(2)
154	2157.59	129.20	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1290.00	mcw 5m 95w (oil speks)	17.02

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Val Energy, Inc

**21 17S 33W Scott, Ks**

125 N Market St. Ste 1100  
Wichita, Ks 67202

**Herron Kirk Unit1-21**

Job Ticket: 57367

**DST#: 6**

ATTN: Tim Priest

Test Start: 2016.10.04 @ 02:48:00

## 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:

74000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 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
1290.00	mcw 5m 95w (oil speks)	17.020

Total Length: 1290.00 ft      Total Volume: 17.020 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

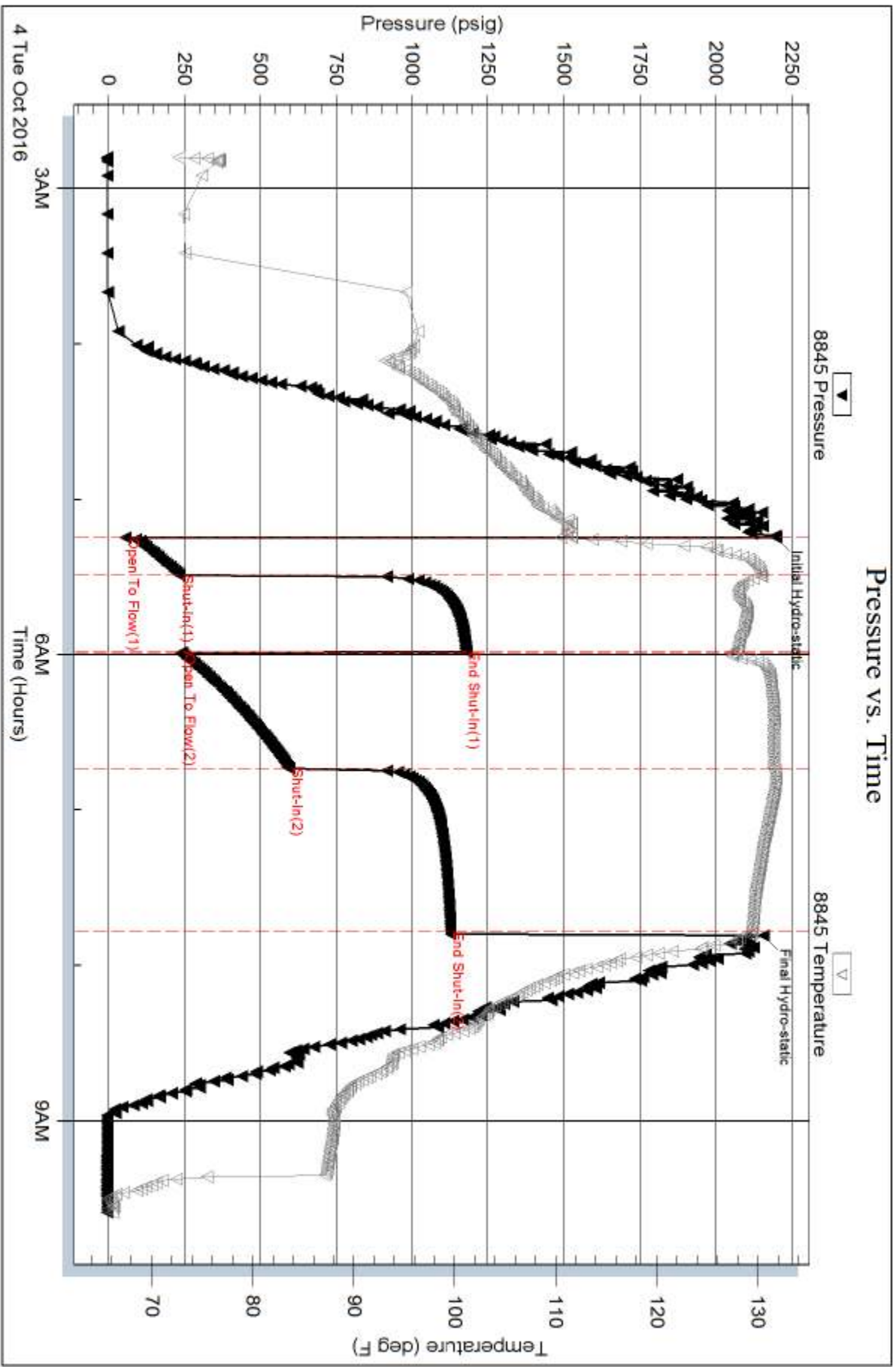
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .116 @ 63f = 74,000ppm





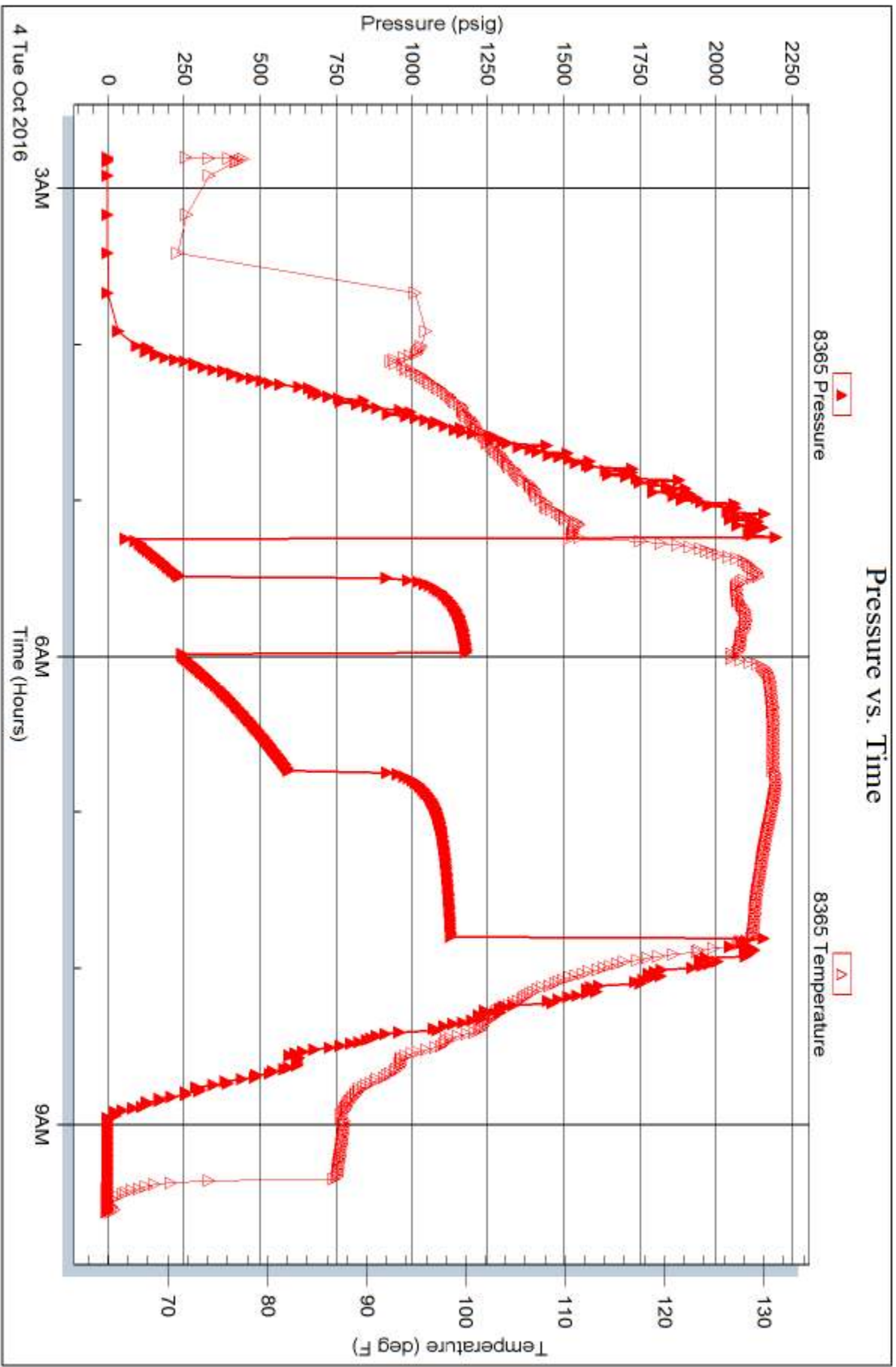
Serial #: 8365

Inside

Val Energy, Inc

Herron Kirk Unit1-21

DST Test Number: 6



Trilobite Testing, Inc

Ref. No: 57367

Printed: 2016.10.04 @ 10:00:06



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Val Energy, Inc  
125 N Market St. Ste 1100  
Wichita, Ks 67202  
ATTN: Tim Priest

**21 17S 33W Scott, Ks**  
**Herron Kirk Unit1-21**  
Job Ticket: 57368 **DST#: 7**  
Test Start: 2016.10.04 @ 21:58:00

## GENERAL INFORMATION:

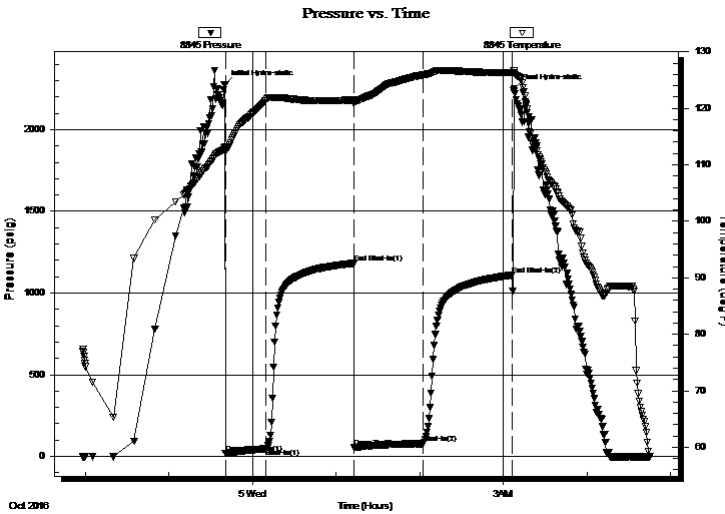
Formation: **Myric Station - Ft.**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 23:40:45  
Time Test Ended: 04:45:00  
Interval: **4465.00 ft (KB) To 4510.00 ft (KB) (TVD)**  
Total Depth: 4510.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78  
Reference Elevations: 2993.00 ft (KB)  
2988.00 ft (CF)  
KB to GR/CF: 5.00 ft

## Serial #: 8845 Outside

Press@RunDepth: 77.41 psig @ 4466.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2016.10.04 End Date: 2016.10.05 Last Calib.: 2016.10.05  
Start Time: 21:58:05 End Time: 04:44:59 Time On Btm: 2016.10.04 @ 23:40:15  
Time Off Btm: 2016.10.05 @ 03:07:45

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

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2274.69	113.15	Initial Hydro-static
1	17.94	112.79	Open To Flow (1)
30	47.21	121.40	Shut-In(1)
93	1181.95	121.47	End Shut-In(1)
93	53.91	121.22	Open To Flow (2)
142	77.41	125.92	Shut-In(2)
206	1109.88	126.30	End Shut-In(2)
208	2249.89	126.26	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
150.00	mcw 50m 50w (oil spots)	1.03
0.00	6" oil on top	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy, Inc

**21 17S 33W Scott, Ks**

125 N Market St. Ste 1100  
Wichita, Ks 67202

**Herron Kirk Unit1-21**

Job Ticket: 57368

**DST#: 7**

ATTN: Tim Priest

Test Start: 2016.10.04 @ 21:58:00

### 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:

34000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	mcw 50m 50w (oil spots)	1.029
0.00	6" oil on top	0.000

Total Length: 150.00 ft      Total Volume: 1.029 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .260 @ 55F = 34000ppm

