

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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E 22nd St N# 700
Box 783188
Wichita KS 67278

ATTN: Max Lovely

Bangerter 12-C #1

12-16-38w Wichita,KS

Start Date: 2018.05.26 @ 12:30:15

End Date: 2018.05.26 @ 19:34:30

Job Ticket #: 63601 DST #: 1

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

Printed: 2018.06.01 @ 11:15:18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration
 8100 E 22nd St # 700
 Box 783188
 Wichita KS 67278
 ATTN: Max Lovely

12-16-38w Wichita, KS

Bangerter 12-C #1

Job Ticket: 63601

DST#: 1

Test Start: 2018.05.26 @ 12:30:15

GENERAL INFORMATION:

Formation: **LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:18:00

Time Test Ended: 19:34:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

Interval: 4087.00 ft (KB) To 4130.00 ft (KB) (TVD)

Reference Elevations: 3431.00 ft (KB)

Total Depth: 4130.00 ft (KB) (TVD)

3426.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8374 Outside

Press@RunDepth: 718.17 psig @ 4125.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.26

End Date: 2018.05.26

Last Calib.: 2018.05.26

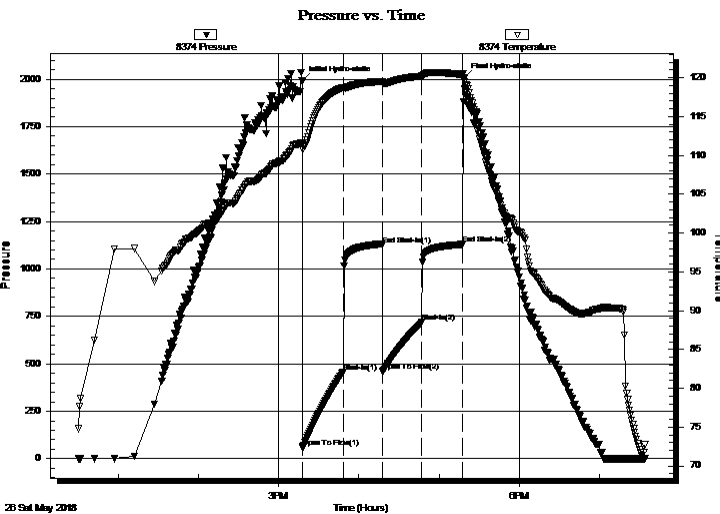
Start Time: 12:30:15

End Time: 19:34:30

Time On Btm: 2018.05.26 @ 15:17:45

Time Off Btm: 2018.05.26 @ 17:18:45

TEST COMMENT: IF: Built to 102" blow (lpro)
 IS: No return blow
 FF: Built to 80" blow (lpro) BOB 4 min.
 FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1991.16	111.67	Initial Hydro-static
1	58.21	110.80	Open To Flow (1)
31	456.63	118.75	Shut-In(1)
60	1127.22	119.47	End Shut-In(1)
60	459.35	119.29	Open To Flow (2)
90	718.17	120.20	Shut-In(2)
120	1129.42	120.38	End Shut-In(2)
121	2005.27	120.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	w cm with oil spots 25%w 75%m	0.42
310.00	w cm 25%w 75%m	4.35
1116.00	sw 100%sw	15.65

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration
 8100 E 22nd St # 700
 Box 783188
 Wichita KS 67278
 ATTN: Max Lovely

12-16-38w Wichita, KS

Bangerter 12-C #1

Job Ticket: 63601 **DST#: 1**
 Test Start: 2018.05.26 @ 12:30:15

GENERAL INFORMATION:

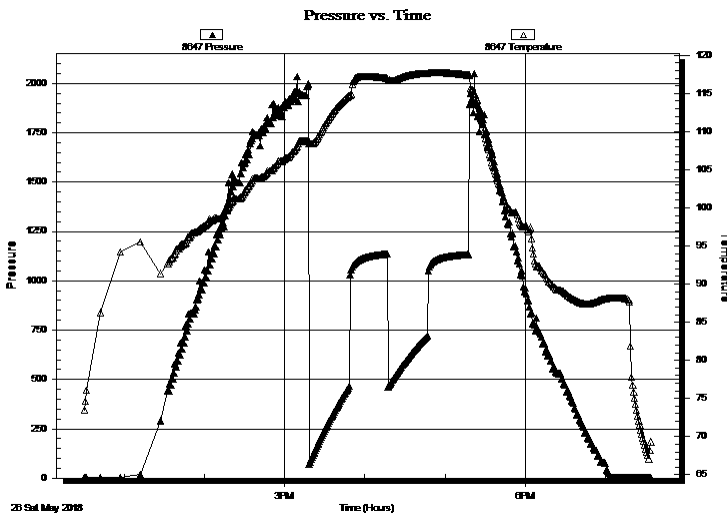
Formation: **LKC A**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 15:18:00 Tester: Mike Roberts
 Time Test Ended: 19:34:30 Unit No: 81
 Interval: **4087.00 ft (KB) To 4130.00 ft (KB) (TVD)** Reference Elevations: 3431.00 ft (KB)
 Total Depth: 4130.00 ft (KB) (TVD) 3426.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: psig @ 4125.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.05.26 End Date: 2018.05.26 Last Calib.: 2018.05.26
 Start Time: 12:30:15 End Time: 19:34:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Built to 102" blow (lpro)
 IS: No return blow
 FF: Built to 80" blow (lpro) BOB 4 min.
 FS: No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	w cm with oil spots 25%w 75%m	0.42
310.00	w cm 25%w 75%m	4.35
1116.00	sw 100%sw	15.65

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita KS 67278
ATTN: Max Lovely

12-16-38w Wichita,KS
Bangerter 12-C #1
Job Ticket: 63601 **DST#: 1**
Test Start: 2018.05.26 @ 12:30:15

Tool Information

Drill Pipe:	Length: 4094.00 ft	Diameter: 3.80 inches	Volume: 57.43 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 57.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	35.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	4087.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	71.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4060.00	
Shut In Tool	5.00			4065.00	
Hydraulic tool	5.00			4070.00	
Jars	5.00			4075.00	
Safety Joint	3.00			4078.00	
Packer	5.00			4083.00	28.00 Bottom Of Top Packer
Packer	4.00			4087.00	
Stubb	1.00			4088.00	
Perforations	3.00			4091.00	
Change Over Sub	1.00			4092.00	
Drill Pipe	32.00			4124.00	
Change Over Sub	1.00			4125.00	
Recorder	0.00	8647	Inside	4125.00	
Recorder	0.00	8374	Outside	4125.00	
Bullnose	5.00			4130.00	43.00 Bottom Packers & Anchor

Total Tool Length: 71.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita KS 67278
ATTN: Max Lovely

12-16-38w Wichita,KS
Bangerter 12-C #1
Job Ticket: 63601 **DST#: 1**
Test Start: 2018.05.26 @ 12:30:15

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: 12100 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.37 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 2000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	w cm w ith oil spots 25%w 75%m	0.421
310.00	w cm 25%w 75%m	4.348
1116.00	sw 100%sw	15.655

Total Length: 1456.00 ft Total Volume: 20.424 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

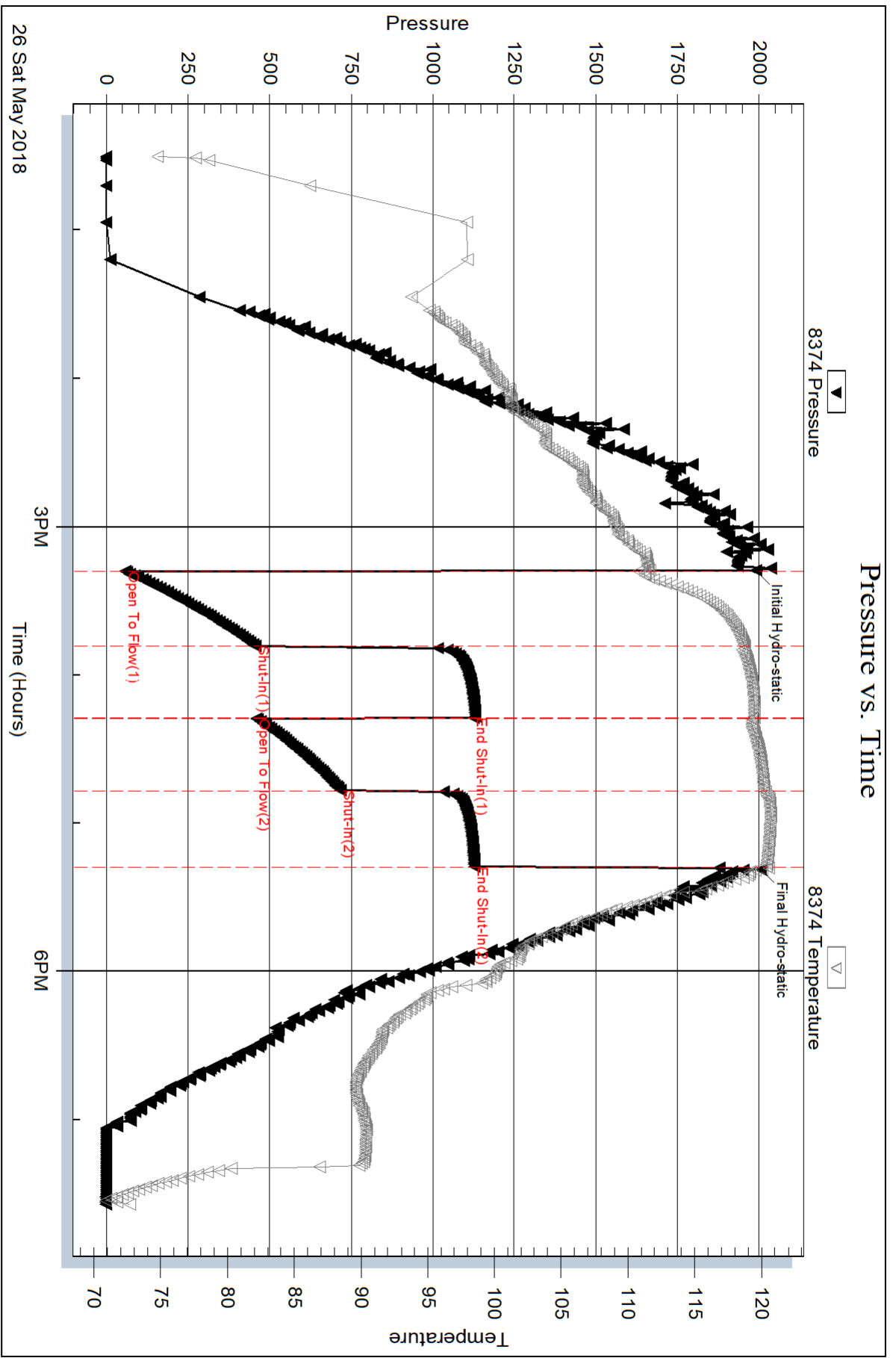
Recovery Comments: RW= .509@ 86.7= 12,100 ppm

Serial #: 8374

Outside Ritchie Exploration

Bangerter 12-C-#1

DST Test Number: 1



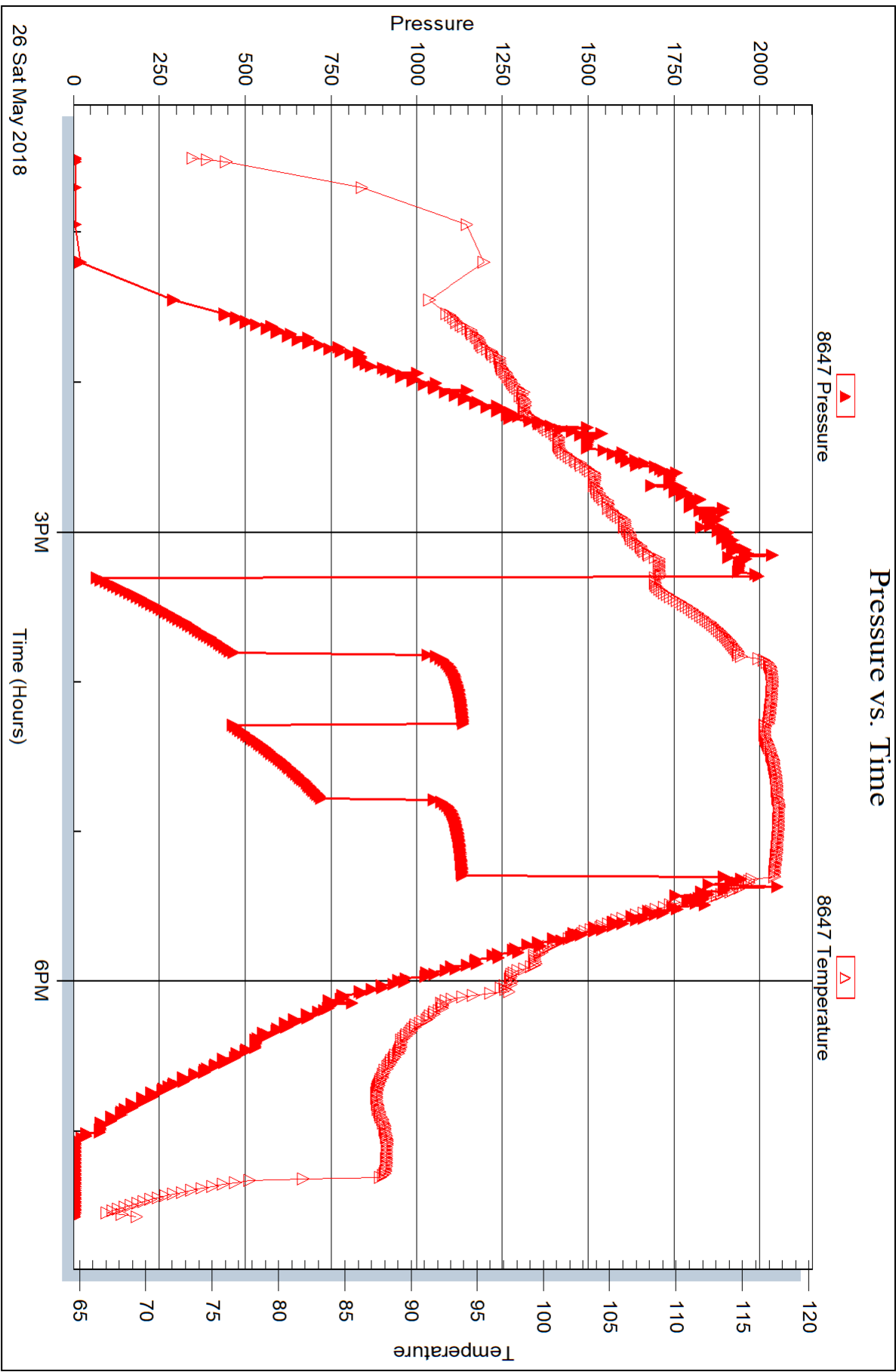
Serial #: 8647

Inside

Ritchie Exploration

Bangerter 12-C#1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E 22nd St N# 700
Box 783188
Wichita KS 67278

ATTN: Max Lovely

Bangerter 12-C #1

12-16-38w Wichita,KS

Start Date: 2018.05.29 @ 01:25:15

End Date: 2018.05.29 @ 08:14:45

Job Ticket #: 63602 DST #: 2

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

Printed: 2018.06.01 @ 11:14:49



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration
 8100 E 22nd St N# 700
 Box 783188
 Wichita KS 67278
 ATTN: Max Lovely

12-16-38w Wichita, KS

Bangerter 12-C #1

Job Ticket: 63602 **DST#: 2**

Test Start: 2018.05.29 @ 01:25:15

GENERAL INFORMATION:

Formation: **Altamont Zones**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:45:00

Time Test Ended: 08:14:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4558.00 ft (KB) To 4638.00 ft (KB) (TVD)

Reference Elevations: 3431.00 ft (KB)

Total Depth: 4638.00 ft (KB) (TVD)

3426.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8647

Inside

Press@RunDepth: 34.62 psig @ 4626.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.29 End Date: 2018.05.29

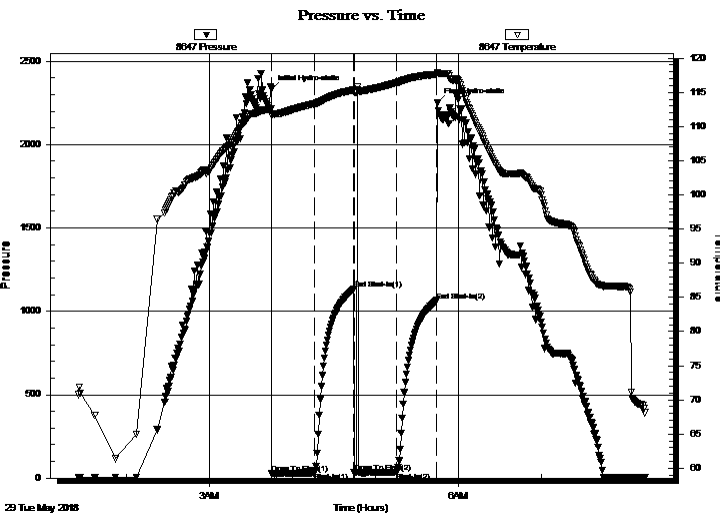
Last Calib.: 2018.05.29

Start Time: 01:25:15 End Time: 08:14:45

Time On Btm: 2018.05.29 @ 03:44:45

Time Off Btm: 2018.05.29 @ 05:44:45

TEST COMMENT: IF:Weak surface blow that died
 IS:No return blow
 FF:No blow ----flushed tool--no blow
 FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2331.41	112.55	Initial Hydro-static
1	26.72	111.64	Open To Flow (1)
31	32.19	113.30	Shut-In(1)
60	1131.87	115.33	End Shut-In(1)
60	32.43	115.02	Open To Flow (2)
90	34.62	116.34	Shut-In(2)
120	1063.45	117.64	End Shut-In(2)
120	2248.40	117.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud w ith oil spots 100% m	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita KS 67278
ATTN: Max Lovely

12-16-38w Wichita, KS

Bangerter 12-C #1

Job Ticket: 63602

DST#: 2

Test Start: 2018.05.29 @ 01:25:15

GENERAL INFORMATION:

Formation: **Altamont Zones**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:45:00

Time Test Ended: 08:14:45

Interval: 4558.00 ft (KB) To 4638.00 ft (KB) (TVD)

Total Depth: 4638.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Reference Elevations: 3431.00 ft (KB)

3426.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8374 **Outside**

Press@RunDepth: psig @ 4626.00 ft (KB)

Start Date: 2018.05.29

End Date:

2018.05.29

Start Time: 01:25:15

End Time:

08:14:45

Capacity: 8000.00 psig

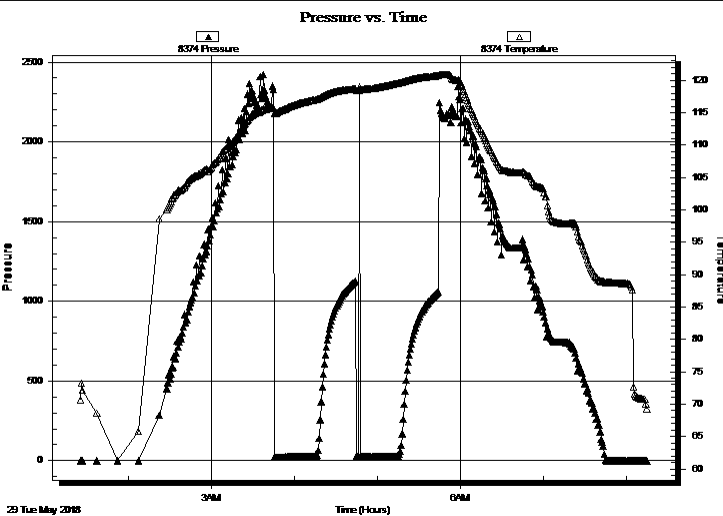
Last Calib.:

2018.05.29

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak surface blow that died
IS: No return blow
FF: No blow ----flushed tool--no blow
FS: No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud w ith oil spots 100% m	0.14

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita KS 67278
ATTN: Max Lovely

12-16-38w Wichita,KS

Bangerter 12-C #1

Job Ticket: 63602

DST#: 2

Test Start: 2018.05.29 @ 01:25:15

Tool Information

Drill Pipe:	Length: 4560.00 ft	Diameter: 3.80 inches	Volume: 63.96 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 83000.00 lb
			<u>Total Volume: 63.96 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4558.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.00 ft			
Tool Length:	101.00 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			4531.00	
Shut In Tool	5.00			4536.00	
Hydraulic tool	5.00			4541.00	
Jars	5.00			4546.00	
Safety Joint	3.00			4549.00	
Packer	5.00			4554.00	28.00 Bottom Of Top Packer
Packer	4.00			4558.00	
Stubb	1.00			4559.00	
Perforations	1.00			4560.00	
Change Over Sub	1.00			4561.00	
Drill Pipe	64.00			4625.00	
Change Over Sub	1.00			4626.00	
Recorder	0.00	8647	Inside	4626.00	
Recorder	0.00	8374	Outside	4626.00	
Bullnose	5.00			4631.00	73.00 Bottom Packers & Anchor

Total Tool Length: 101.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

12-16-38w Wichita,KS

8100 E 22nd St N# 700
Box 783188
Wichita KS 67278
ATTN: Max Lovely

Bangerter 12-C #1

Job Ticket: 63602

DST#: 2

Test Start: 2018.05.29 @ 01:25:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud w ith oil spots 100% m	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

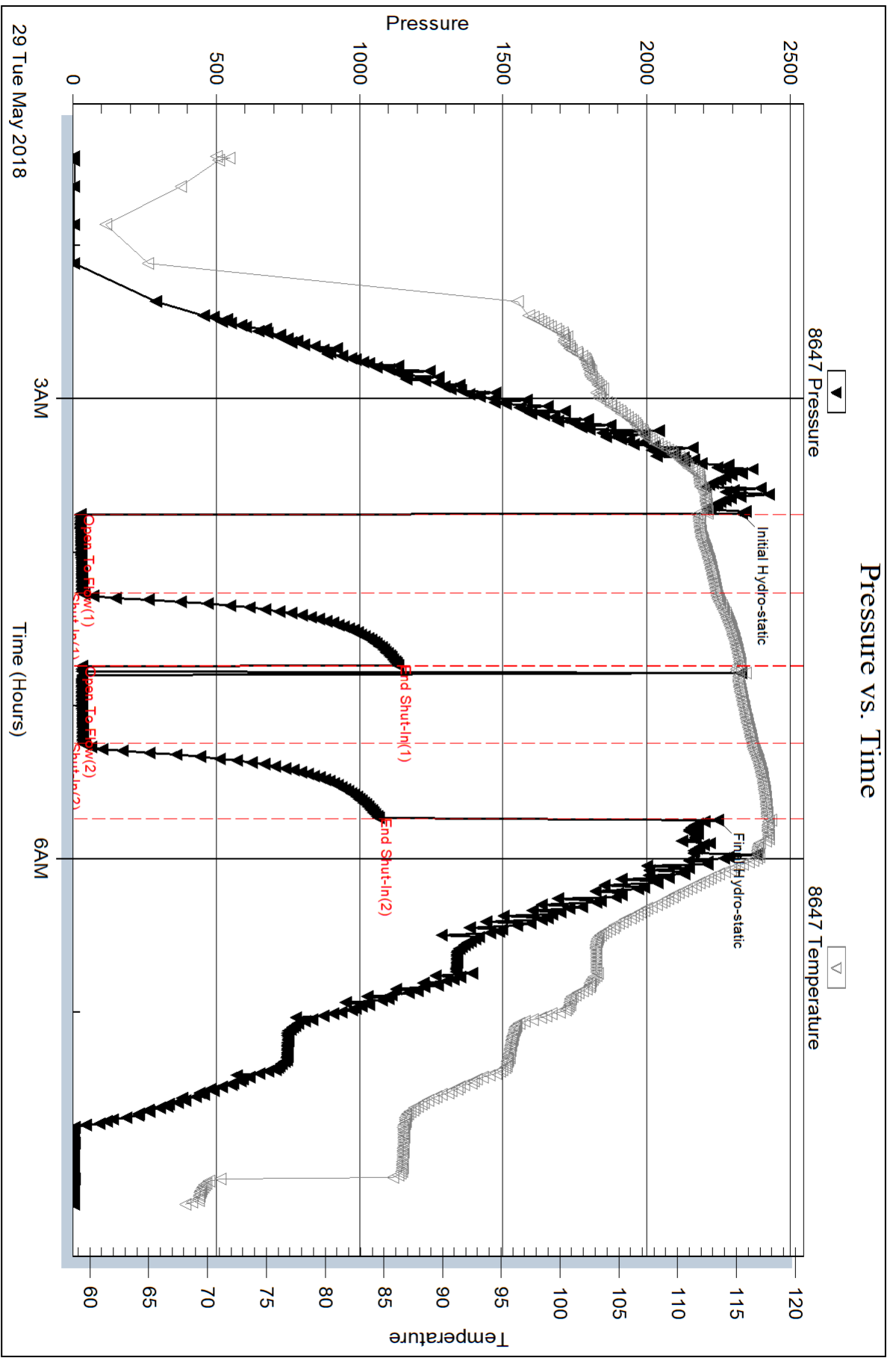
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

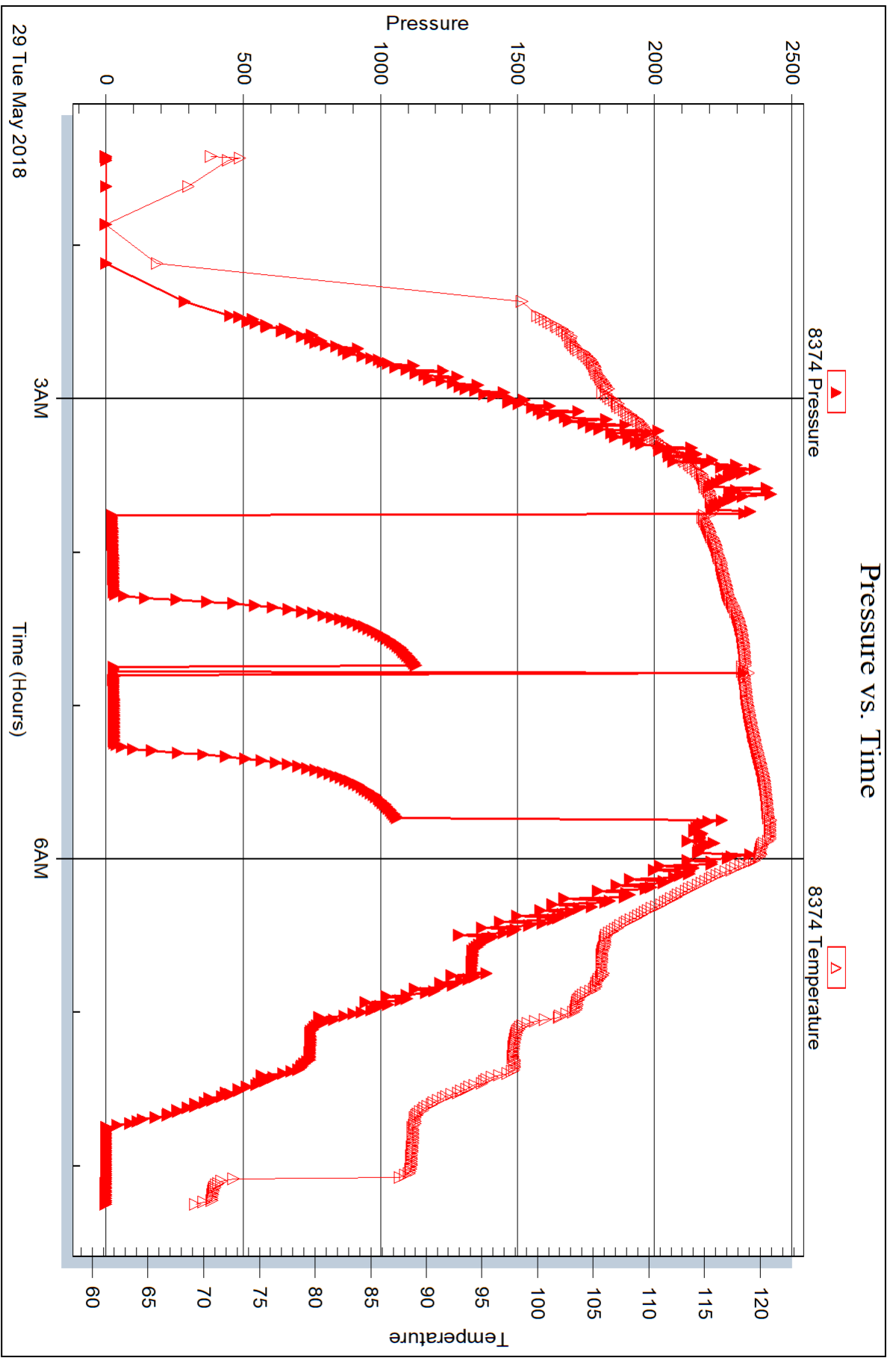


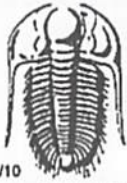
Serial #: 8374

Outside Ritchie Exploration

Bangerter 12-C#1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63601

Well Name & No. Bangerter 12-C #1 Test No. 1 Date 5-26-18
 Company Ritchie Exploration Elevation 3431 KB 3428 GL
 Address 8100 E 22nd St N # 200 Box 783188 Wichita KS 67278
 Co. Rep / Geo. Max Lovely Rig Duke 1
 Location: Sec. 12 Twp 16 Rge. 38W Co. Wichita State KS

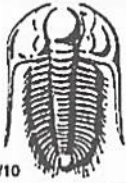
Interval Tested 4087-4130 Zone Tested Lansing A
 Anchor Length 43 Drill Pipe Run 4094 Mud Wt. 8.6
 Top Packer Depth 4082 Drill Collars Run Ø Vis 48
 Bottom Packer Depth 4087 Wt. Pipe Run Ø WL 6.4
 Total Depth 4130 Chlorides 2000 ppm System LCM 2
 Blow Description IF: Built to 102" (Ipra)
IS: No Return Blow
FF: Built to 80" (Ipra) BOB in 4 Min
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>WCM with oil spots</u>		<u>25</u>	<u>75</u>	
<u>310</u>			<u>25</u>	<u>75</u>	
<u>1114</u>			<u>100</u>		

Rec Total ~~1456~~ 1456 BHT 120 Gravity 1150 API RW 509 @ 86.7° F Chlorides 12,100 ppm
 (A) Initial Hydrostatic 1991 Test 1150 T-On Location 11:08
 (B) First Initial Flow 58 Jars 250 T-Started 12:30
 (C) First Final Flow 456 Safety Joint 75 T-Open 15:17
 (D) Initial Shut-In 1127 Circ Sub _____ T-Pulled 17:17
 (E) Second Initial Flow 459 Hourly Standby _____ T-Out 19:34
 (F) Second Final Flow 718 Mileage 94RT 94 Comments _____
 (G) Final Shut-In 1129 Sampler _____
 (H) Final Hydrostatic 2005 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1569.00
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1569

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. 63602

Well Name & No. Bangerter 12-C#1 Test No. 2 Date 5-28-18
 Company Ritchie Exploration Elevation 3431 KB 3428 GL
 Address 8100 E 22nd St. N #700 Box 783/88 Wichita KS 67228
 Co. Rep / Geo. Max Lovely Rig Duke 1
 Location: Sec. 12 Twp 16 Rge. 38W Co. Wichita State KS

Interval Tested 4558-4631 Zone Tested Altamont Zones
 Anchor Length 73 Drill Pipe Run 4560 Mud Wt. 9.5
 Top Packer Depth 4553 Drill Collars Run 0 Vls 48
 Bottom Packer Depth 4558 Wt. Pipe Run 0 WL 8.8
 Total Depth 4631 Chlorides 4800 ppm System LCM 2

Blow Description IF: Weak Surface Blow that Died
IS: No Return Blow
FF: No Blow Flushed Tool - No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>MUD with oil spots</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 10 BHT 118 Gravity — API RW — @ — ° F Chlorides — ppm
 (A) Initial Hydrostatic 2331 Test 1150 T-On Location 022:45
 (B) First Initial Flow 26 Jars 250 T-Started 01:25
 (C) First Final Flow 32 Safety Joint 75 T-Open 03:45
 (D) Initial Shut-In 1131 Circ Sub NC T-Pulled 05:45
 (E) Second Initial Flow 32 Hourly Standby _____ T-Out 08:14
 (F) Second Final Flow 34 Mileage 94 RT X 2 Comments Loaded tools
 (G) Final Shut-In 1063 Sampler 94+94 at 01:00 on
 (H) Final Hydrostatic 2248 Straddle _____ 6-1-18
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Day Standby 1.5d 15.25h
 Accessibility 2.5d 4.75h
 Sub Total 1663
 Sub Total 508.33 +1600
 Total 3771.33
 MP/DST Disc't _____

Approved By _____ Our Representative Mike Roberts

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#1 Bangerter 12C

343' FSL & 925' FWL

13' N & 65' W of SE SW SW Section 12-16S-38W

Wichita County, Kansas

API# 15-203-20335-0000

Elevation: GL: 3,419', KB: 3,431'

Sample Tops			Ref. Well
Anhydrite	2618'	+813	+14
B/Anhydrite	2637'	+794	+13
Stotler	3674'	-243	+20
Heebner	4049'	-618	+20
Toronto	4070'	-639	+20
Lansing	4101'	-670	+20
Muncie	4287'	-856	+26
Stark	4383'	-952	+27
Hush	4439'	-1008	+26
BKC	4490'	-1059	+25
Marmaton	4539'	-1108	+21
Altamont	4551'	-1120	+23
Pawnee	4635'	-1204	+17
Myrick	4673'	-1242	+21
Ft. Scott	4690'	-1259	+20
Cherokee	4717'	-1286	+21
Johnson	4814'	-1383	+20
Morrow	4884'	-1453	+24
Mississippian	4994'	-1563	+51
RTD	5085'	-1654	



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

10717
 10608

TICKET NUMBER 55184
 LOCATION Dakley Ks
 FOREMAN Walt Dinkel

FIELD TICKET & TREATMENT REPORT
 CEMENT

Invoice #813203

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
5-22-18	7173	Bangarter #1-12-C	12	16S	38W	Wichita	
CUSTOMER		Leoti north to Rel B west to stop sign 1/2 mi.		TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS		P.O. Box 783188		731	Cory Davis	566	Paul Williams
CITY		STATE	ZIP CODE	697			
Wichita		KS	67278-3188				

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 268' CASING SIZE & WEIGHT 8 5/8 - 23#
 CASING DEPTH 267 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT In CASING 15 to 20'
 DISPLACEMENT 15 3/4 DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 Bpm

REMARKS: Safety Meeting, Rig up on Duke #1, Circ Casing on bottom, mix 190 slks com, 3% cc - 2% gel, Displace 15 3/4 BBL H₂O, Shut in Cement Did Circ 4 BBL to Pot.

Thank You
 Walt & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CC0471	1	PUMP CHARGE	1,150.00	1,150.00
CC0002	50	MILEAGE	7.15	357.50
CC0710	8.93	Ton Mileage Delivery	175	1,561.75
CC5871	190 slks	Surface Blend II	24.00	4,560.00
				6,849.00
		Less 30% Disc.		2,054.70
				4,794.30
		SALES TAX		271.32
		ESTIMATED TOTAL		5,065.62

Ravin 3737

AUTHORIZATION Mike Godfrey TITLE Pusher 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.



PRESSURE PUMPING LLC
PO Box 884, Chanute, KS 66720
820-431-9210 or 800-467-8676

SM-10841
PO-16902
FT-10730

TICKET NUMBER 55104
LOCATION Oakley KS
FOREMAN Jerry

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice # 813361 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6-1-18	7173	Bingarter #1-12c	12	16 ^s	38 ^w	Wichita
CUSTOMER Ritchie Exp.			Leah N to D, W to Z, N to C, W			
MAILING ADDRESS P.O. Box 783188			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY Wichita			STATE KS	ZIP CODE 67278-3188	566	Nellie
					535	Jerry

JOB TYPE plug HOLE SIZE 7 7/8 HOLE DEPTH 4400 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: Softly mixing & rig upon Duke 1 plug as ordered with 300SKs
60/40 4% 1/4 # flo seal
50SKs @ 2660'
80SKs @ 1750'
50SKs @ 975'
50SKs @ 290'
20SKs @ 60'
20SKs MH 30SKs RH

Thank you
Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE 0451	1	PUMP CHARGE	1900.00	1900.00
CE 0002	50	MILEAGE	7.15	357.50
CE 0710	12.9	van mileage delivery	1.75	1128.75
CC 5829	300SKs	lite blend V	16.00	4800.00
CC 6075	75 #	flo seal	3.00	225.00
			subtotal	8411.25
			-30%	2523.38
			subtotal	5887.88
			8.5 %	SALES TAX 298.99
			ESTIMATED TOTAL	6,186.87

Raylin 3737

AUTHORIZATION [Signature] TITLE Pusher DATE 6-1-18

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.

