

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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Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	CHAFF 8
Doc ID	1432297

All Electric Logs Run

Gamma
Dual Induction
Porosity
Microresistivity



# GLOBAL OIL FIELD SERVICES, LLC

3422

REMIT TO 24 S. Lincoln  
Russell, KS 67665

SERVICE POINT: Russell KS

DATE <u>8-1-18</u>	SEC. <u>21</u>	TWP. <u>16</u>	RANGE <u>21W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>10:15 AM</u>
LEASE <u>Chaff</u>	WELL #. <u>8</u>	LOCATION <u>3 East of Brooknell 1/2 Northline</u>			COUNTY <u>NESS</u>	STATE	
OLD OR NEW (CIRCLE ONE)							

CONTRACTOR Royal Drilling Rig #1  
 TYPE OF JOB Surface  
 HOLE SIZE 12 1/4 T.D. 3051  
 CASING SIZE 8 5/8 DEPTH 3051  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX. MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. 25  
 PERFS  
 DISPLACEMENT

OWNER Berexco  
 CEMENT AMOUNT ORDERED 2205x Com 3%CC  
2% gel  
 COMMON @  
 POZMIX @  
 GEL @  
 CHLORIDE @  
 ASC @  
 HANDLING @  
 MILEAGE @  
 TOTAL

EQUIPMENT  
 PUMP TRUCK CEMENTER  
 # 409 HELPER Cody  
 BULK TRUCK DRIVER Tony L  
 # 411 DRIVER  
 BULK TRUCK DRIVER

REMARKS:  
Ran 7 ft of 8 5/8 casing + bit hooked to rig broke circulation hooked to pump truck pumped 2205 of cement + displaced 17 1/2 bbls of H2O + shut in

Cement did circulate to surface

CHARGE TO: Berexco  
 STREET  
 CITY STATE ZIP

Global Oil Field Services, LLC  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Doug Budig  
 SIGNATURE Douglas Budig

SERVICE  
 DEPTH OF JOB  
 PUMP TRUCK CHARGE  
 EXTRA FOOTAGE @  
 MILEAGE @  
 MANIFOLD @  
 TOTAL

PLUG & FLOAT EQUIPMENT  
 @  
 @  
 @  
 @  
 @  
 TOTAL

SALES TAX (if Any)  
 TOTAL CHARGES  
 DISCOUNT IF PAID IN 30 DAYS

# GLOBAL OIL FIELD SERVICES, LLC

0018192

REMIT TO 24 S. Lincoln  
Russell, KS 67665

SERVICE POINT: Russell

DATE <u>8-29-18</u>	SEC. <u>21</u>	TWP. <u>16</u>	RANGE <u>21</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>8:00 PM</u>
LEASE <u>choff</u>	WELL #. <u>8</u>	LOCATION <u>McLacken 3 N 4 W</u>			COUNTY <u>Wess</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR <u>Roy A1</u>	OWNER
TYPE OF JOB <u>Plug</u>	CEMENT AMOUNT ORDERED
HOLE SIZE <u>13</u>	T.D.
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2</u>	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS	
DISPLACEMENT	
EQUIPMENT	
PUMP TRUCK # <u>417</u>	CEMENTER HELPER <u>Bill</u>
BULK TRUCK #	DRIVER <u>CHRIS</u>
BULK TRUCK #	DRIVER

COMMON	@	
POZMIX	@	
GEL	@	
CHLORIDE	@	
ASC	@	
HANDLING	@	
MILEAGE	@	
TOTAL		

250 lbs 60/40 49.6 gal 4 # Placed

REMARKS:

1st plug @ 1700 w / 50#  
2nd plug @ 930 w / 80#  
3rd plug @ 330 w / 50#  
4th plug @ 40 w / 20#  
30 R.H.  
20 N.H.

CHARGE TO: Berexco LLC  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

Global Oil Field Services, LLC  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Doug Budig  
 SIGNATURE Doug Budig

SERVICE

DEPTH OF JOB	
PUMP TRUCK CHARGE	
EXTRA FOOTAGE	@
MILEAGE	@
MANIFOLD	@
TOTAL	

PLUG & FLOAT EQUIPMENT

<u>1-8 3 wood pls</u>	@	
	@	
	@	
	@	
TOTAL		

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES \_\_\_\_\_  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Berexco, LLC  
2020 N. Bramblewood  
Wichita KS 67206+1094  
ATTN: Jerry Smith

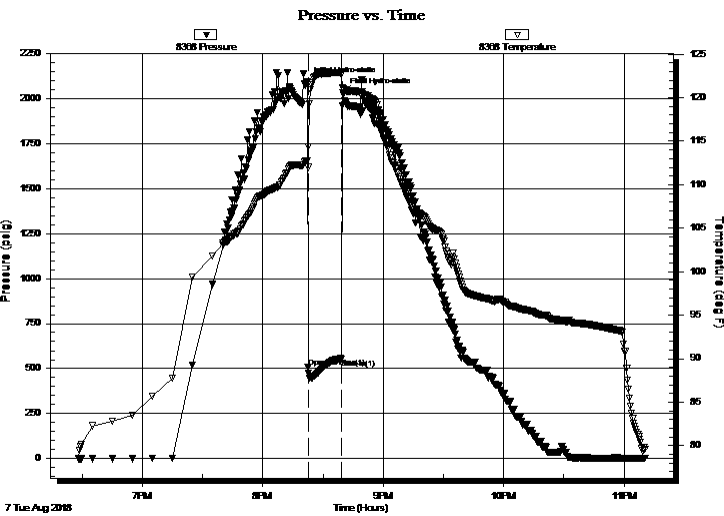
**21-16S-21W Ness KS**  
**Chaff #8**  
Job Ticket: 64578      **DST#: 1**  
Test Start: 2018.08.07 @ 18:28:00

## GENERAL INFORMATION:

Formation: **Cherokee 'A' Sand**  
Deviated: No Whipstock:      ft (KB)      Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 20:22:30      Tester: Spencer J. Staab  
Time Test Ended: 23:10:15      Unit No: 84  
**Interval: 4213.00 ft (KB) To 4228.00 ft (KB) (TVD)**      Reference Elevations: 2343.00 ft (KB)  
Total Depth: 4228.00 ft (KB) (TVD)      2336.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 7.00 ft

**Serial #: 8368**      **Inside**  
Press@RunDepth:      psig @ 4214.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2018.08.07      End Date: 2018.08.07      Last Calib.: 2018.08.07  
Start Time: 18:28:15      End Time: 23:10:15      Time On Btm: 2018.08.07 @ 20:22:15  
Time Off Btm: 2018.08.07 @ 20:40:00

**TEST COMMENT:** 15-IF-Strong Blow ; BOB 45 secs; Built to 100"  
Pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2093.83	112.75	Initial Hydro-static
1	508.62	112.00	Open To Flow (1)
17	554.07	122.70	Shut-In(1)
18	2030.42	121.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1000.00	GW 5%G 95%W	14.18
200.00	MW 50%M 50%W	2.84

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Berexco, LLC

**21-16S-21W Ness KS**

2020 N. Bramblewood  
Wichita KS 67206+1094

**Chaff #8**

Job Ticket: 64578

**DST#: 1**

ATTN: Jerry Smith

Test Start: 2018.08.07 @ 18:28:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

30000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1000.00	GW 5%G 95%W	14.175
200.00	MW 50%M 50%W	2.835

Total Length: 1200.00 ft      Total Volume: 17.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

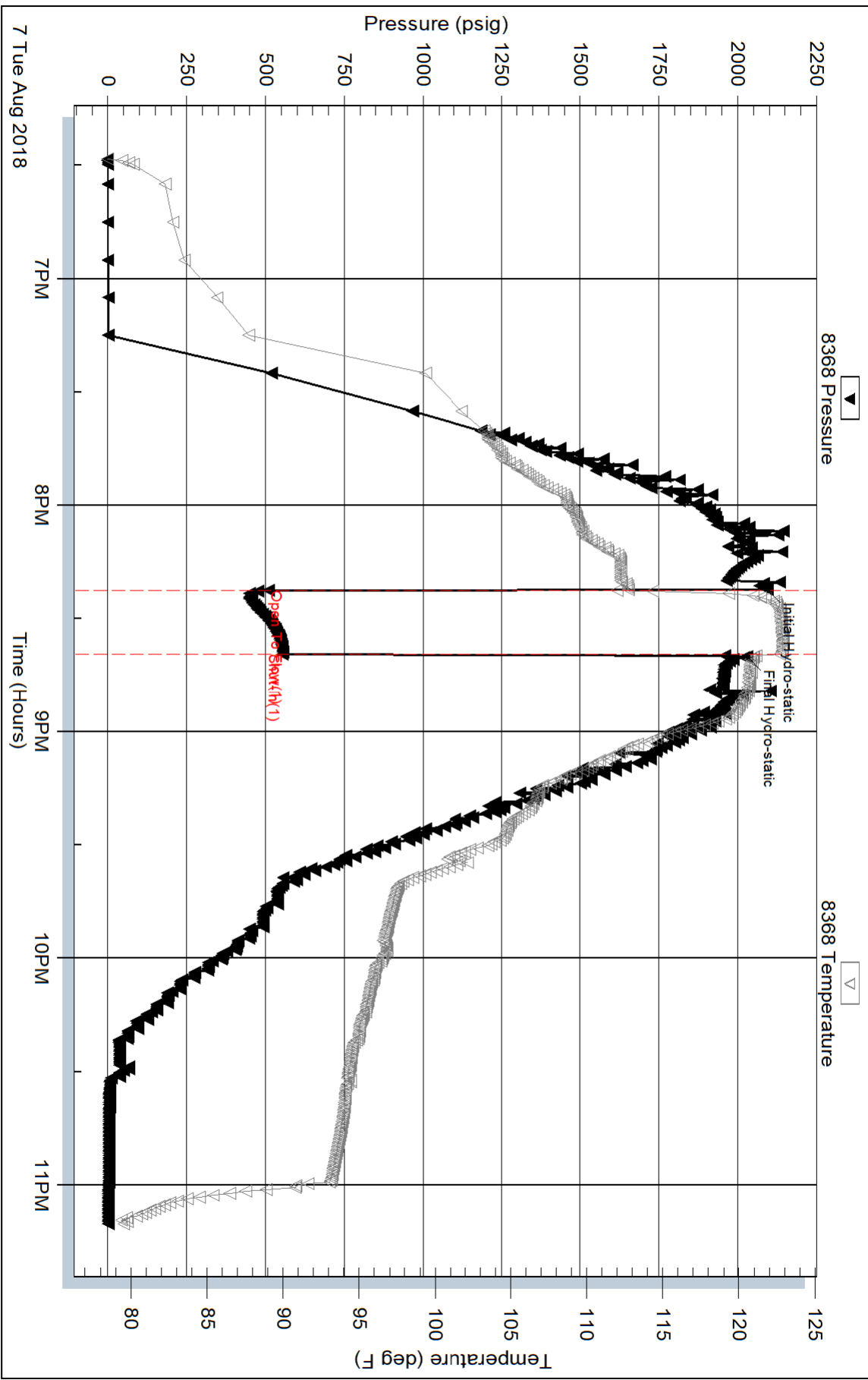
Laboratory Name:

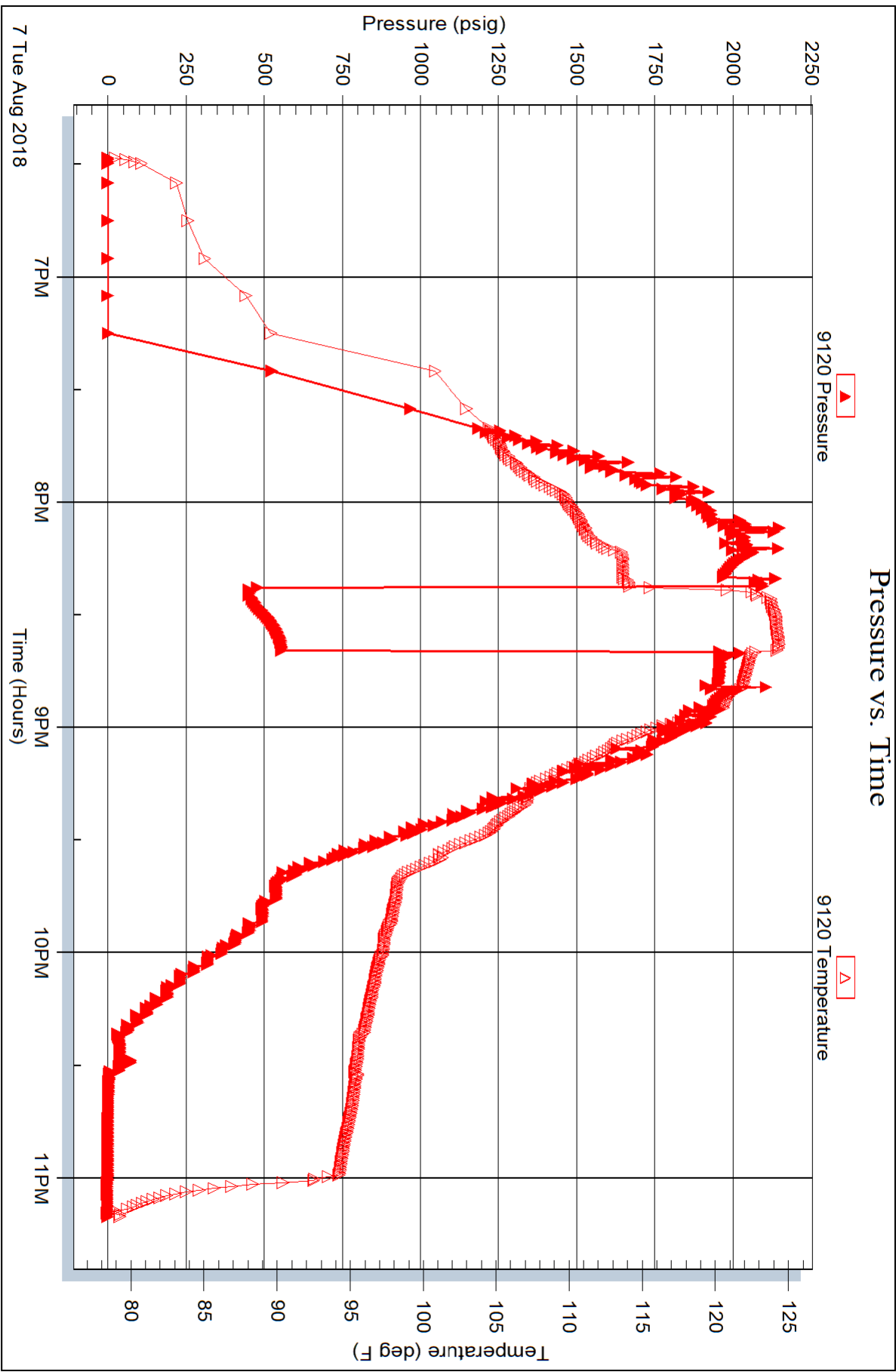
Laboratory Location:

Recovery Comments: 2#LCM

RW=.211@80F

### Pressure vs. Time







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Berexco, LLC  
 2020 N. Bramblewood  
 Wichita KS 67206+1094  
 ATTN: Jerry Smith

**21-16S-21W Ness KS**  
**Chaff #8**  
 Job Ticket: 64579      **DST#: 2**  
 Test Start: 2018.08.08 @ 05:41:00

## GENERAL INFORMATION:

Formation: **Cherokee 'B' Sand**  
 Deviated: No Whipstock:      ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 08:01:15      Tester: Spencer J. Staab  
 Time Test Ended: 12:37:00      Unit No: 84  
 Interval: **4239.00 ft (KB) To 4250.00 ft (KB) (TVD)**      Reference Elevations: 2343.00 ft (KB)  
 Total Depth: 4250.00 ft (KB) (TVD)      2336.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 7.00 ft

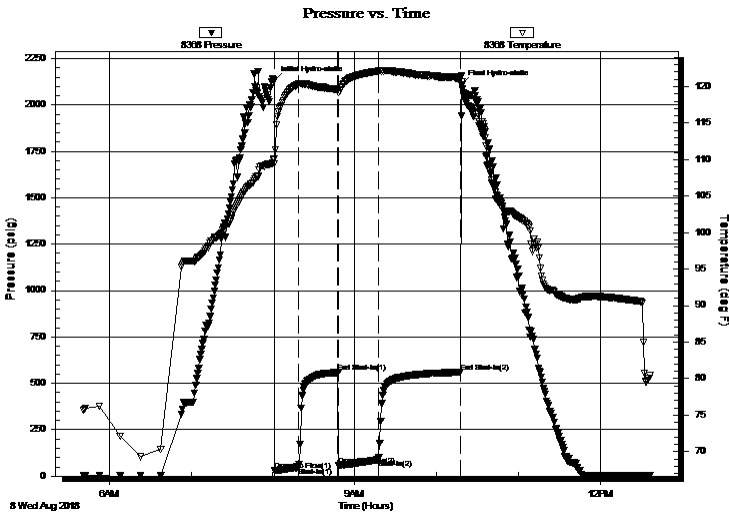
## Serial #: 8368

Inside

Press@RunDepth: 89.33 psig @ 4240.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.08.08      End Date: 2018.08.08      Last Calib.: 2018.08.08  
 Start Time: 05:41:15      End Time: 12:37:00      Time On Btm: 2018.08.08 @ 08:01:00  
 Time Off Btm: 2018.08.08 @ 10:18:45

TEST COMMENT: 15-IF-Weak; Built to 1&3/4"  
 30-ISI-No Return  
 30-FF-Weak; Built to 1&1/2"  
 60-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2132.15	110.09	Initial Hydro-static
1	29.31	109.46	Open To Flow (1)
18	47.97	120.32	Shut-In(1)
47	558.44	119.62	End Shut-In(1)
48	57.68	119.19	Open To Flow (2)
77	89.33	122.10	Shut-In(2)
137	559.02	121.27	End Shut-In(2)
138	2110.11	120.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
130.00	MW 50%M 50%W	1.84
15.00	SOCWM 3%O 39%W 58%M	0.21
15.00	Clean Oil 100%O	0.21
0.00	63 GIP 100%G	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Berexco, LLC

**21-16S-21W Ness KS**

2020 N. Bramblewood  
Wichita KS 67206+1094

**Chaff #8**

Job Ticket: 64579

**DST#: 2**

ATTN: Jerry Smith

Test Start: 2018.08.08 @ 05:41:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

39000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.15 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	MW 50%M 50%W	1.843
15.00	SOCWM 3%O 39%W 58%M	0.213
15.00	Clean Oil 100%O	0.213
0.00	63 GIP 100%G	0.000

Total Length: 160.00 ft

Total Volume: 2.269 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

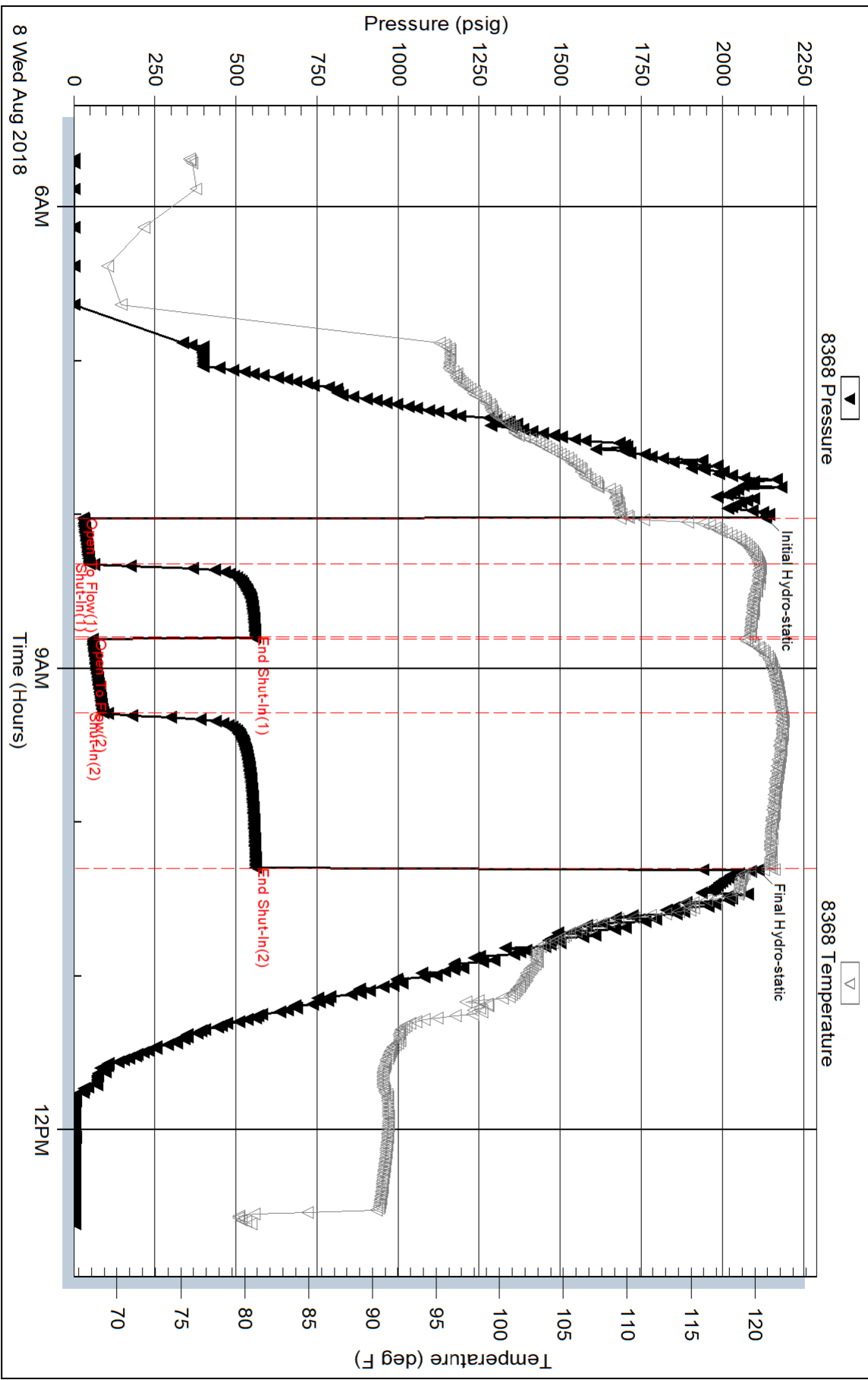
Laboratory Name:

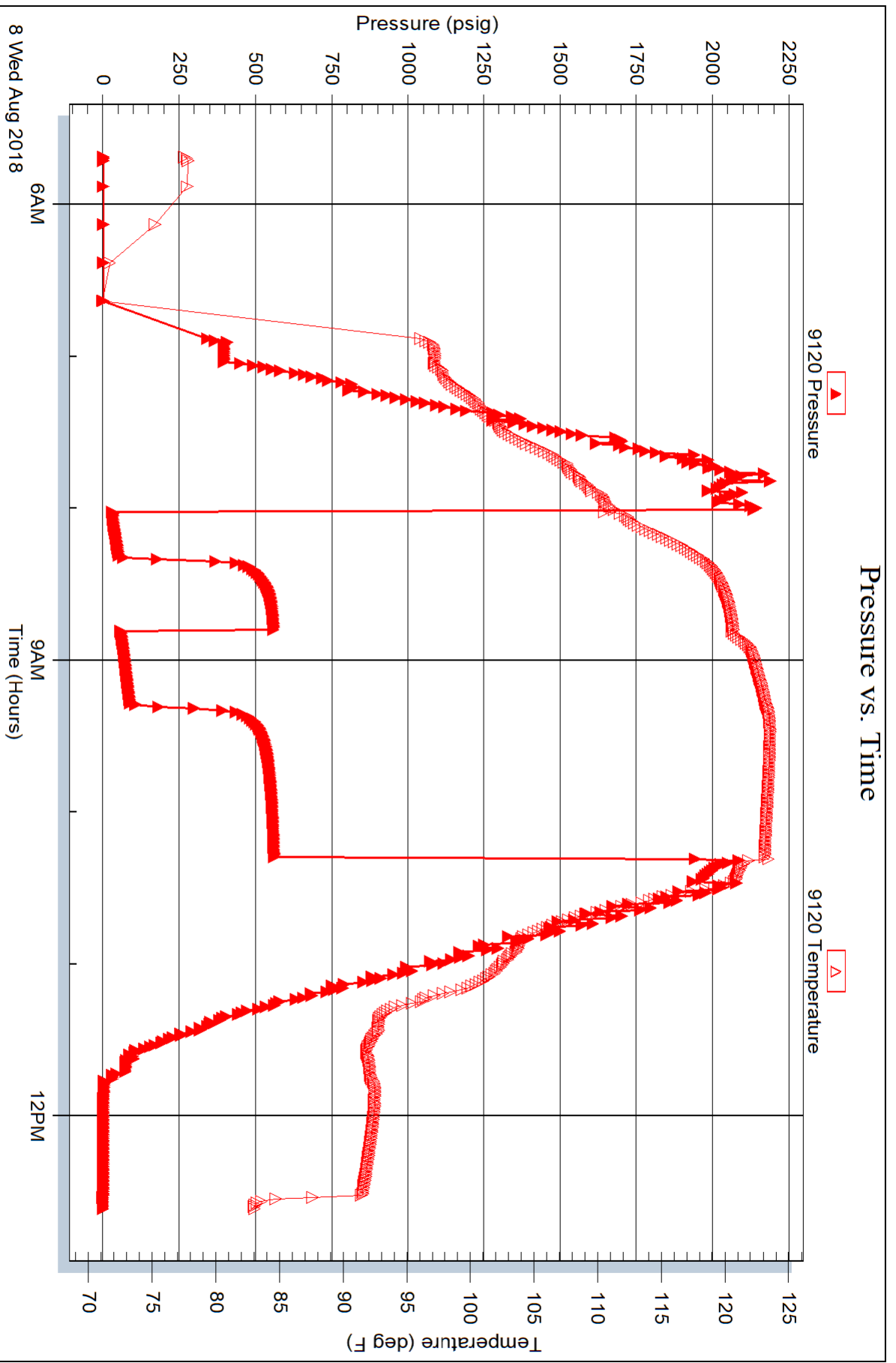
Laboratory Location:

Recovery Comments: 2#LCM

RW=.166@82F

### Pressure vs. Time









**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Berexco, LLC  
 2020 N. Bramblewood  
 Wichita KS 67206+1094  
 ATTN: Jerry Smith

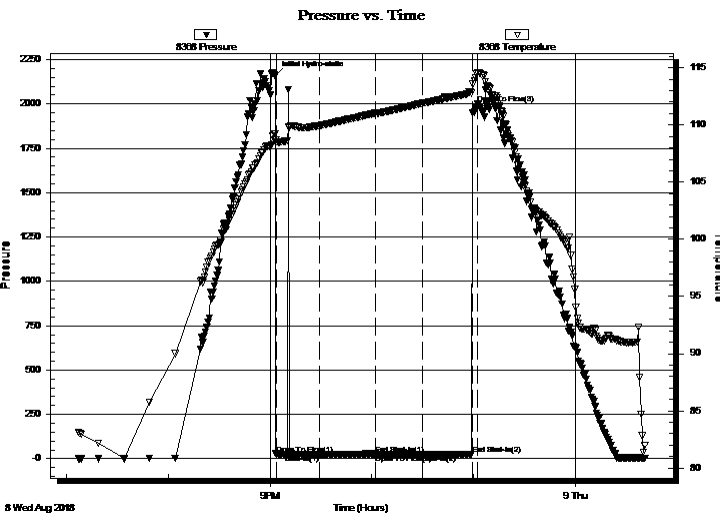
**21-16S-21W Ness KS**  
**Chaff #8**  
 Job Ticket: 64580      **DST#: 3**  
 Test Start: 2018.08.08 @ 19:07:00

## GENERAL INFORMATION:

Formation: **Cherokee 'C' Sand**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 21:03:30  
 Time Test Ended: 00:41:00  
 Interval: **4264.00 ft (KB) To 4275.00 ft (KB) (TVD)**  
 Total Depth: 4275.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Spencer J. Staab  
 Unit No: 84  
 Reference Elevations: 2343.00 ft (KB)  
 2336.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 8368**      **Inside**  
 Press@RunDepth: 22.68 psig @ 4265.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.08.08      End Date: 2018.08.09      Last Calib.: 2018.08.09  
 Start Time: 19:07:15      End Time: 00:41:00      Time On Btm: 2018.08.08 @ 21:03:00  
 Time Off Btm:

**TEST COMMENT:** 30-IF-Weak Surface; Died; Flushed tool; No Help  
 30-ISI-No Return  
 30-FF-NO Blow  
 30-FSI-No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2158.37	109.23	Initial Hydro-static
1	27.67	108.69	Open To Flow (1)
26	23.26	109.94	Shut-In(1)
59	27.67	111.03	End Shut-In(1)
60	24.01	111.02	Open To Flow (2)
87	22.68	111.90	Shut-In(2)
116	23.78	112.78	End Shut-In(2)
120	1999.79	114.59	Open To Flow (3)

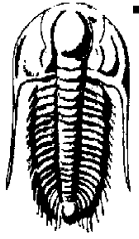
## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 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

Berexco, LLC  
 2020 N. Bramblewood  
 Wichita KS 67206+1094  
 ATTN: Jerry Smith

**21-16S-21W Ness KS**  
**Chaff #8**  
 Job Ticket: 64580      **DST#: 3**  
 Test Start: 2018.08.08 @ 19:07:00

### GENERAL INFORMATION:

Formation: <b>Cherokee 'C' Sand</b>	
Deviated: No Whipstock:      ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 21:03:30	Tester: Spencer J. Staab
Time Test Ended: 00:41:00	Unit No: 84
<b>Interval: 4264.00 ft (KB) To 4275.00 ft (KB) (TVD)</b>	Reference Elevations: 2343.00 ft (KB)
Total Depth: 4275.00 ft (KB) (TVD)	2336.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair	KB to GR/CF: 7.00 ft

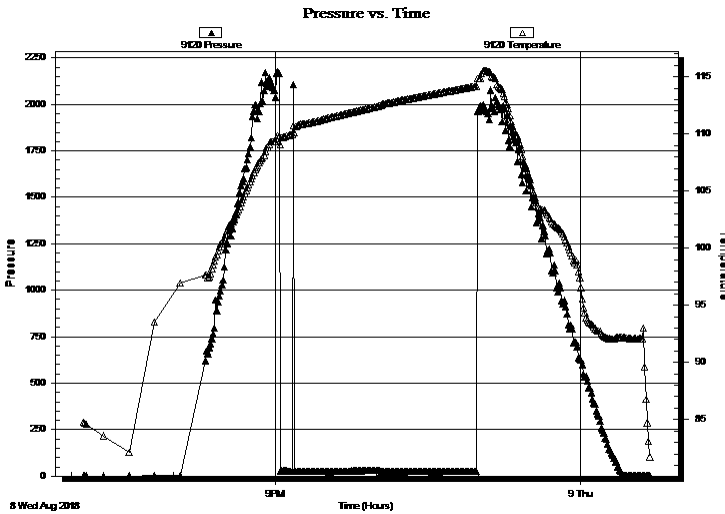
### Serial #: 9120

**Outside**

Press@RunDepth:      psig @ 4265.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2018.08.08      End Date: 2018.08.09	Last Calib.: 2018.08.09
Start Time: 19:07:15      End Time: 00:41:00	Time On Btm:
	Time Off Btm:

**TEST COMMENT:** 30-IF-Weak Surface; Died; Flushed tool; No Help  
 30-ISI-No Return  
 30-FF-NO Blow  
 30-FSI-No Return

### PRESSURE SUMMARY



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

### Recovery

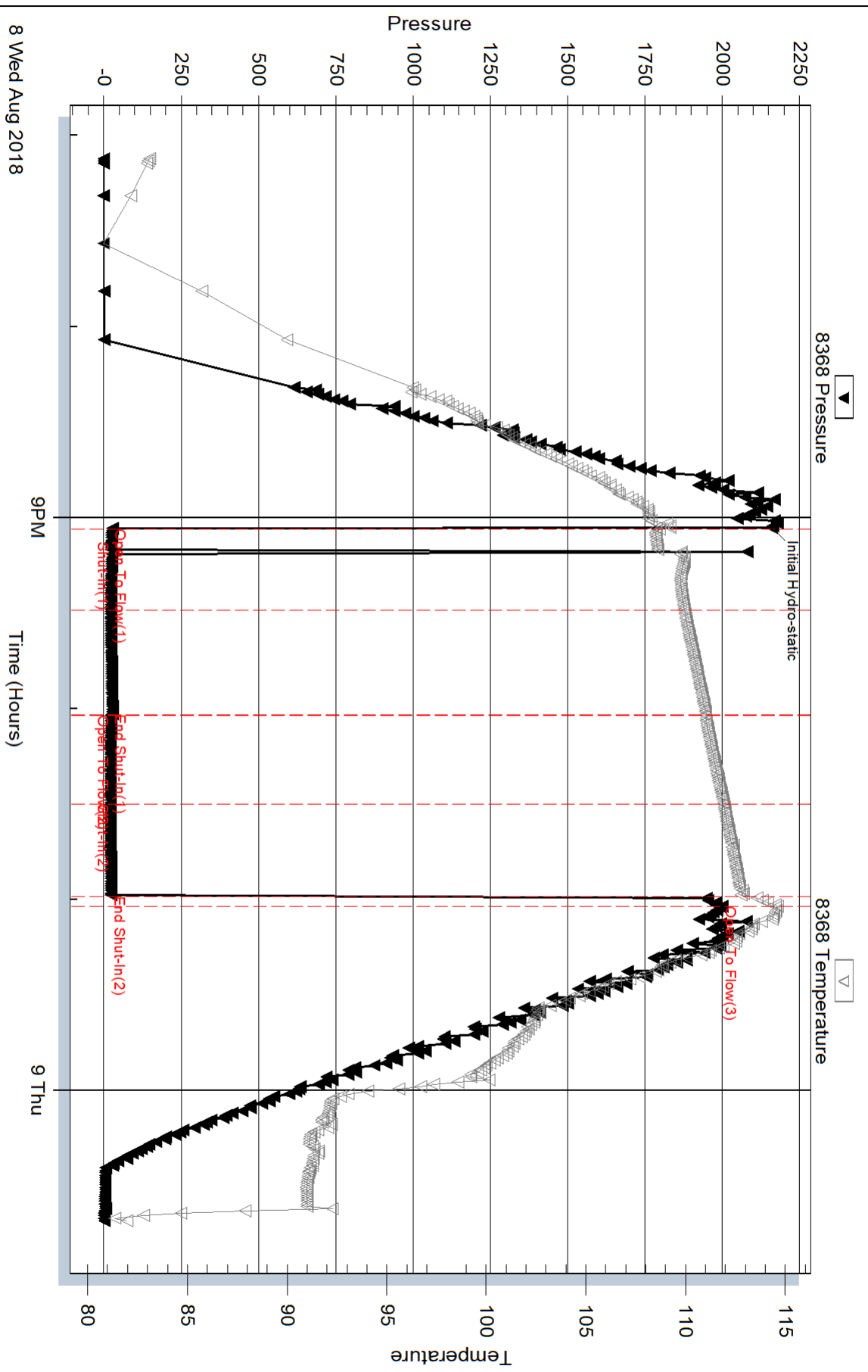
Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.14

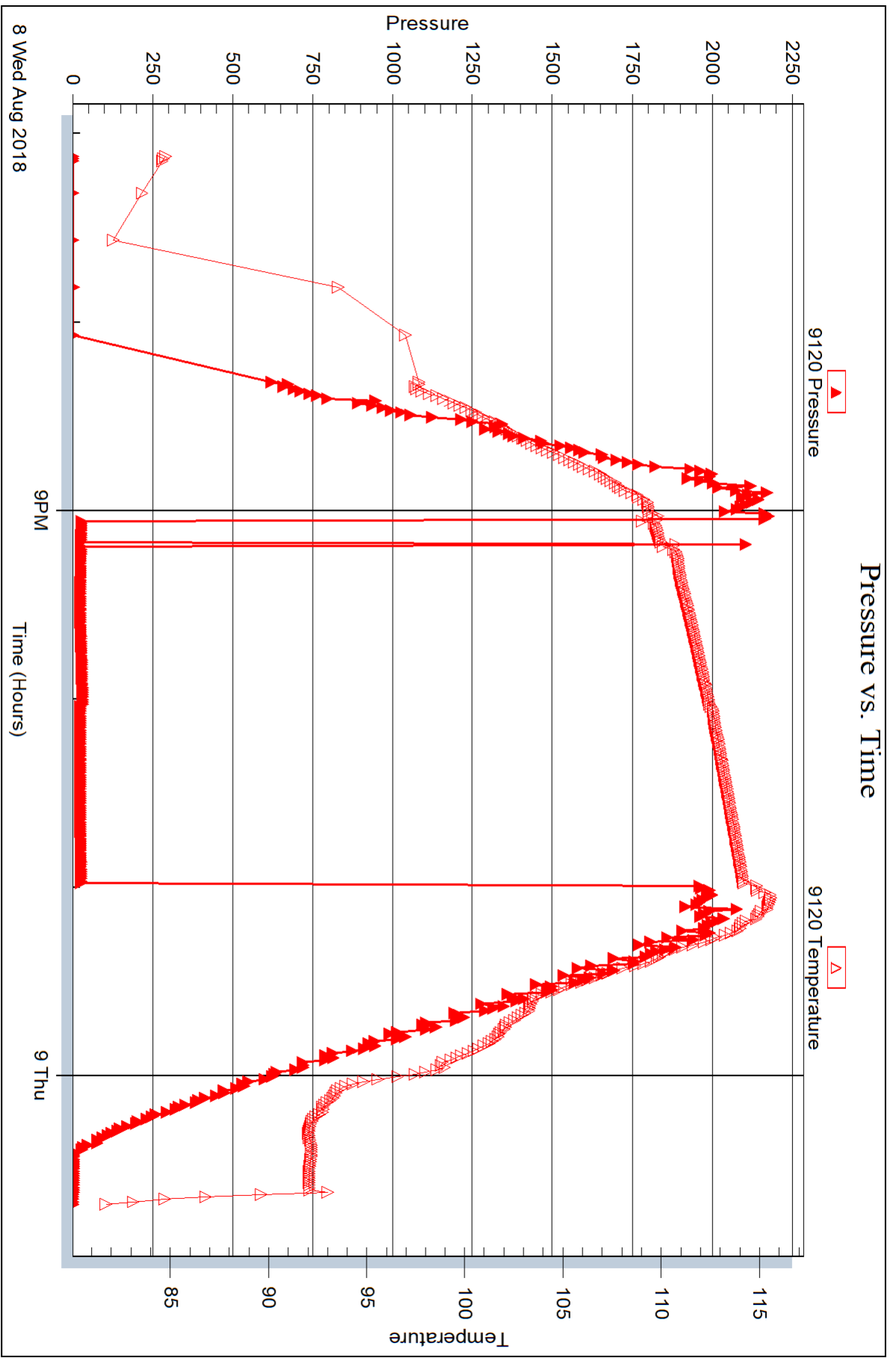
### Gas Rates

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

\* Recovery from multiple tests

# Pressure vs. Time





# JERRY A. SMITH

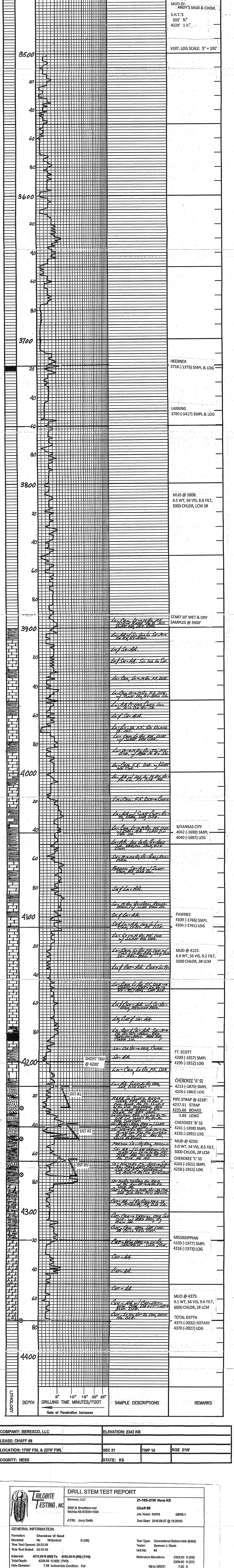
## CERTIFIED PETROLEUM GEOLOGIST

### GEOLOGISTS REPORT DRILLING TIME AND SAMPLE LOG

COMPANY: BEREXCO, LLC		ELEVATION: 2343 KB	
LEASE: CHAFF #8		FIELD: CHAFF #8	
LOCATION: 1700' FSL & 2270' FWL		SEC 21 TWP 16 RGE 21W	
COUNTY: NESS		STATE: KANSAS	
CONTINATOR: ROYAL DRUG, RIG #1		SURFACE: 8' 8" @ 305'	
S.P.L.D.: 7/11/2018		PRODUCTION: PEA	
MUD U.P.: 3400		TYPE MUD: CHEMICAL	
AP/NO: 18-185-282009		POWERS: DR. OILCOIL, INEL.	
SAMPLES SAVED FROM: 3800		TO: RTD	
DRILLING TIME KEPT FROM: 3800		TO: RTD	
SAMPLES EXAMINED FROM: 3800		TO: RTD	
GEOLOGICAL SUPERVISION FROM: 3440		TO: RTD	
GEOLOGIST ON WELL: JERRY A. SMITH		TO: RTD	
FORMATION TOYS		LOG	
HEBNER		3718 (-1375)	
LANISING		3780 (-1417)	
BARKANSAS CITY		4040 (-1697)	
FAVNIER		4104 (-1761)	
FT. SCOTT		4200 (-1857)	
CHEROKEE 'A' SS		4285 (-1922)	
CHEROKEE 'B' SS		4241 (-1888)	
CHEROKEE 'C' SS		4265 (-1922)	
MISSISSIPPIAN		4316 (-1973)	

### LEGEND

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COMPANY: BEREXCO, LLC	ELEVATION: 2343 KB
LEASE: CHAFF #8	
LOCATION: 1700' FSL & 2270' FWL	SEC 21 TWP 16 RGE 21W
COUNTY: NESS	STATE: KS

**DRILL STEM TEST REPORT**

Berexco, LLC  
2020 N. Bramblewood  
Wichita KS 67208-1094  
ATTN: Jerry Smith

**21-16S-21W Ness KS**  
**Chaff #8**  
Job Ticket: 64578 DST#1  
Test Start: 2018.08.07 @ 18:28:00

**GENERAL INFORMATION:**

Formation: Cherokee 'A' Sand  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 20:22:30  
Time Test Ended: 23:10:15  
Interval: 4213.00 ft (KB) To 4228.00 ft (KB) (TVD)  
Total Depth: 4228.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inchesHole Condition: Fair

Serial #: 8368 Inside  
Press@RunDepth: 69.33 psig @ 4214.00 ft (KB)  
Start Date: 2018.08.07 End Date: 2018.08.07  
Start Time: 18:28:00 End Time: 23:10:15

Capacity: 8000.00 psig  
Last Callb.: 2018.08.09  
Time On Bltr: 2018.08.07 @ 20:22:15  
Time Off Bltr: 2018.08.07 @ 20:40:00

**TEST COMMENT:** 15-F Strong Blow; BOB 45 secs; Bullt to 100" Pulled tool

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2093.83	110.09	Initial Hydro-static
1	2031.62	108.69	Open To Flow (1)
18	554.07	120.32	Shut-hl(1)
47	498.44	119.62	End Shut-hl(1)
48	57.68	119.10	Open To Flow (2)
77	89.33	122.10	Shut-hl(2)
137	259.02	121.27	End Shut-hl(2)
138	2110.11	120.71	Final Hydro-static

Length (ft)	Description	Volume (bbl)
1000.00	GW 5%G 95%W	14.16
200.00	MW 50%M 50%W	2.84

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

TriLOBITE Testing, Inc Ref. No: 64578 Printed: 2018.08.07 @ 23:21:02

**DRILL STEM TEST REPORT**

Berexco, LLC  
2020 N. Bramblewood  
Wichita KS 67208-1094  
ATTN: Jerry Smith

**21-16S-21W Ness KS**  
**Chaff #8**  
Job Ticket: 64579 DST#2  
Test Start: 2018.08.08 @ 05:41:00

**GENERAL INFORMATION:**

Formation: Cherokee 'B' Sand  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 08:01:15  
Time Test Ended: 12:37:00  
Interval: 4239.00 ft (KB) To 4250.00 ft (KB) (TVD)  
Total Depth: 4250.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inchesHole Condition: Fair

Serial #: 8368 Inside  
Press@RunDepth: 22.69 psig @ 4265.00 ft (KB)  
Start Date: 2018.08.08 End Date: 2018.08.08  
Start Time: 05:41:00 End Time: 12:37:00

Capacity: 8000.00 psig  
Last Callb.: 2018.08.09  
Time On Bltr: 2018.08.08 @ 08:01:00  
Time Off Bltr: 2018.08.08 @ 10:18:45

**TEST COMMENT:** 15-F Weak; Bullt to 1834" 30-FS No Return 30-FF Weak; Bullt to 1812" 60-FS No Return

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2158.37	109.23	Initial Hydro-static
1	27.67	108.69	Open To Flow (1)
26	23.26	109.94	Shut-hl(1)
59	27.67	111.03	End Shut-hl(1)
60	24.01	111.90	Open To Flow (2)
87	22.69	112.78	End Shut-hl(2)
116	23.78	112.78	End Shut-hl(2)
120	1999.79	114.59	Open To Flow (3)

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.14

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

TriLOBITE Testing, Inc Ref. No: 64579 Printed: 2018.08.08 @ 00:50:24

**DRILL STEM TEST REPORT**

Berexco, LLC  
2020 N. Bramblewood  
Wichita KS 67208-1094  
ATTN: Jerry Smith

**21-16S-21W Ness KS**  
**Chaff #8**  
Job Ticket: 64580 DST#3  
Test Start: 2018.08.08 @ 19:07:00

**GENERAL INFORMATION:**

Formation: Cherokee 'C' Sand  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 21:03:30  
Time Test Ended: 00:41:00  
Interval: 4264.00 ft (KB) To 4275.00 ft (KB) (TVD)  
Total Depth: 4275.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inchesHole Condition: Fair

Serial #: 8368 Inside  
Press@RunDepth: 22.69 psig @ 4265.00 ft (KB)  
Start Date: 2018.08.08 End Date: 2018.08.08  
Start Time: 19:07:00 End Time: 00:41:00

Capacity: 8000.00 psig  
Last Callb.: 2018.08.09  
Time On Bltr: 2018.08.08 @ 20:22:15  
Time Off Bltr:

**TEST COMMENT:** 30-F Weak Surface; Died; Flushed tool; No Htp 30-FS No Return 30-FF No Return

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2158.37	109.23	Initial Hydro-static
1	27.67	108.69	Open To Flow (1)
26	23.26	109.94	Shut-hl(1)
59	27.67	111.03	End Shut-hl(1)
60	24.01	111.90	Open To Flow (2)
87	22.69	112.78	End Shut-hl(2)
116	23.78	112.78	End Shut-hl(2)
120	1999.79	114.59	Open To Flow (3)

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%M	0.14

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

TriLOBITE Testing, Inc Ref. No: 64580 Printed: 2018.08.08 @ 00:50:24