

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
--	---

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	Culbreath Oil & Gas Company, Inc.
Well Name	BREEDEN 1-30
Doc ID	1424869

All Electric Logs Run

Directional
Micro
Resistivity
Porosity
Sonic





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

Jm 11394  
PO-17778  
FT-11282

TICKET NUMBER 55248  
LOCATION Oakley, KS  
FOREMAN Walt Dunkel

FIELD TICKET & TREATMENT REPORT  
CEMENT

Invoice # 813921

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
8-11-18	2727	Breedan 1-30	30	95	26 W	Sheridan	
CUSTOMER		MAILING ADDRESS		TRUCK #	DRIVER	TRUCK #	DRIVER
Colbreath		3501 South Yale Avenue		758	Cory Wilson		
CITY		STATE	ZIP CODE	566	Miles Shaw		
Tulsa		OK	74135	17	Walt Dunkel		

JOB TYPE	PTA	HOLE SIZE	7 7/8	HOLE DEPTH	1-5+E	CASING SIZE & WEIGHT	
CASING DEPTH		DRILL PIPE		TUBING		OTHER	
SLURRY WEIGHT	13.5	SLURRY VOL		WATER gal/sk		CEMENT LEFT IN CASING	
DISPLACEMENT		DISPLACEMENT PSI		MIX PSI		RATE	

REMARKS: Safety Meeting, rig up on Southwind #8, Plug as ordered

50 SKS @ 2270'	
100 SKS @ 1375'	2.55 SKS 60# Upton, 4% Gel, 1/4" # Flor Seal
50 SKS @ 315'	
10 SKS @ 40' w/ Plug	
30 SKS in RH	
15 SKS in WH	

Thank You  
Walt Dunkel

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
Co0450	1	PUMP CHARGE	1,500.00	1,500.00
Co0002	40	MILEAGE	7.15	286.00
Co0710	10.97	Ton mileage Delivery	1.75	768.00
CC5829	2.55 SKS	Lite-Weight Blend V	16.00	4080.00
CC6075	64#	Flor Seal	3.00	192.00
CP8228	1	8 5/8 Woodson Plug	165.00	165.00
				6,991.00
			-30%	2,097.30
				4,893.70
		8.5%	SALES TAX	264.00
			ESTIMATED TOTAL	5,157.70

AVIN 3737  
AUTHORIZATION Walt Dunkel 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.



PRESSURE PUMPING LLC

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

11282  
11172

TICKET NUMBER 55231  
LOCATION Oakley Ks  
FOREMAN Jerry Y

FIELD TICKET & TREATMENT REPORT  
CEMENT

Invoice # 813809 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
8-4-18	2777	Breeders 1-30	30	9S	26 <sup>W</sup>	Sheridan	
CUSTOMER		Mailing Address		TRUCK #	DRIVER	TRUCK #	DRIVER
Culbreath		3501 South Yale Avenue		731	Cory D		
CITY		STATE	ZIP CODE	693	Neil W		
Tulsa		OK	74135	535	Jerry Y		

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 268 CASING SIZE & WEIGHT 8 5/8 2.3 #  
 CASING DEPTH 266 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.8 SLURRY VOL 1.24 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
 DISPLACEMENT 15 1/2 bbl DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting & rig up on Southwind 8 circulate casing mix 275 sks  
common 38 cc 28 gal wash up & displace with 15 1/2 bbl H2O & shut in  
approx 6 bbl to pot

cement did  
circulate

Thank you  
Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0471	1	PUMP CHARGE	1150.00	1150.00
CE0002	40	MILEAGE	7.15	286.00
CE0710	1293	ton mileage delivery	1.75	905.10
CC5871	275 sks	surface blend II	24.00	6600.00
			Subtotal	8941.10
			-308	2682.33
			Subtotal	6258.77
			SALES TAX	392.70
			ESTIMATED TOTAL	6651.47

RAVIN 3737 AUTHORIZATION William Sedor 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.





## DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil & Gas Co Inc**

3501 S Yale Ave  
Tulsa OK 74135-8014

ATTN: Larry Nicholson

### **Breeden #1-30**

#### **30-9s-26w Sheridan,KS**

Start Date: 2018.08.09 @ 01:48:00

End Date: 2018.08.09 @ 08:57:00

Job Ticket #: 63748                      DST #: 1

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

Printed: 2018.08.10 @ 15:22:36





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63748

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 01:48:00

## GENERAL INFORMATION:

Formation: **LKC " B - D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:53:31

Time Test Ended: 08:57:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

**Interval: 3854.00 ft (KB) To 3895.00 ft (KB) (TVD)**

Reference Elevations: 2661.00 ft (KB)

Total Depth: 3895.00 ft (KB) (TVD)

2651.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8645 Outside**

Press@RunDepth: 22.60 psig @ 3860.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.09 End Date: 2018.08.09

Last Calib.: 2018.08.09

Start Time: 01:48:01 End Time: 08:57:01

Time On Btm: 2018.08.09 @ 03:53:16

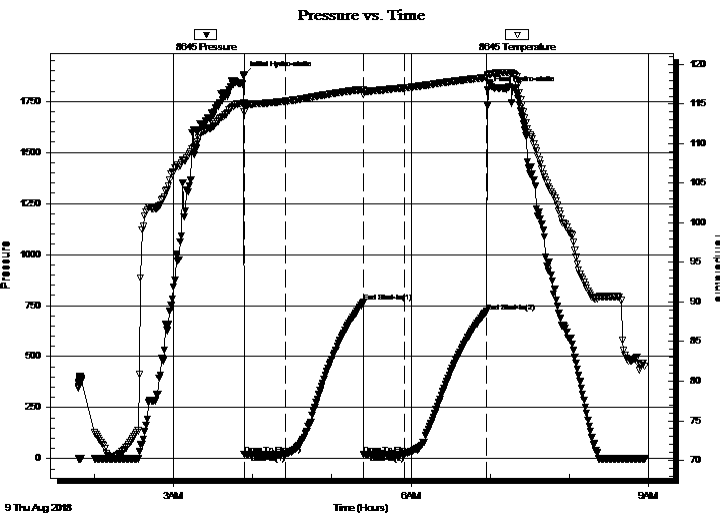
Time Off Btm: 2018.08.09 @ 06:57:46

**TEST COMMENT:** 30-IFP- 3/4". Blow Died Back in 10 min. -- Dead in 27 min.

60-ISIP- No Blow

30-FFP- No Blow

60-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1877.81	115.22	Initial Hydro-static
1	22.33	113.99	Open To Flow (1)
32	22.11	115.37	Shut-In(1)
91	765.15	116.87	End Shut-In(1)
91	22.88	116.20	Open To Flow (2)
122	22.60	117.06	Shut-In(2)
184	720.97	118.34	End Shut-In(2)
185	1804.96	118.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100% Oil Spots in Tool	0.14

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63748

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 01:48:00

## GENERAL INFORMATION:

Formation: **LKC "B - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:53:31

Time Test Ended: 08:57:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

**Interval: 3854.00 ft (KB) To 3895.00 ft (KB) (TVD)**

Reference Elevations: 2661.00 ft (KB)

Total Depth: 3895.00 ft (KB) (TVD)

2651.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6731**

**Inside**

Press@RunDepth: psig @ 3860.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.09

End Date:

2018.08.09

Last Calib.:

2018.08.09

Start Time: 01:48:01

End Time:

08:57:01

Time On Btm:

Time Off Btm:

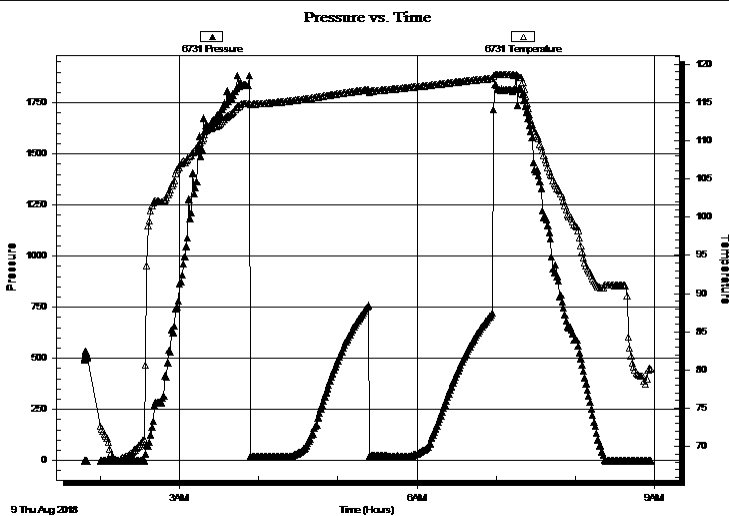
TEST COMMENT: 30-IFP- 3/4". Blow Died Back in 10 min. -- Dead in 27 min.

60-ISIP- No Blow

30-FFP- No Blow

60-FSIP- No Blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100% Oil Spots in Tool	0.14

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63748

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 01:48:00

## Tool Information

Drill Pipe:	Length: 3845.00 ft	Diameter: 3.80 inches	Volume: 53.94 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 53.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3854.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	69.00 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			3827.00	
Shut In Tool	5.00			3832.00	
Hydraulic tool	5.00		Inside	3837.00	
Jars	5.00			3842.00	
Safety Joint	2.00			3844.00	
Packer	5.00			3849.00	28.00 Bottom Of Top Packer
Packer	5.00			3854.00	
Stubb	1.00			3855.00	
Perforations	4.00			3859.00	
Change Over Sub	1.00			3860.00	
Recorder	0.00	8645	Outside	3860.00	
Recorder	0.00	6731	Inside	3860.00	
Drill Pipe	31.00			3891.00	
Change Over Sub	1.00			3892.00	
Bullnose	3.00			3895.00	41.00 Bottom Packers & Anchor

**Total Tool Length: 69.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63748

**DST#: 1**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 01:48:00

## 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:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 3.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100% Oil Spots in Tool	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

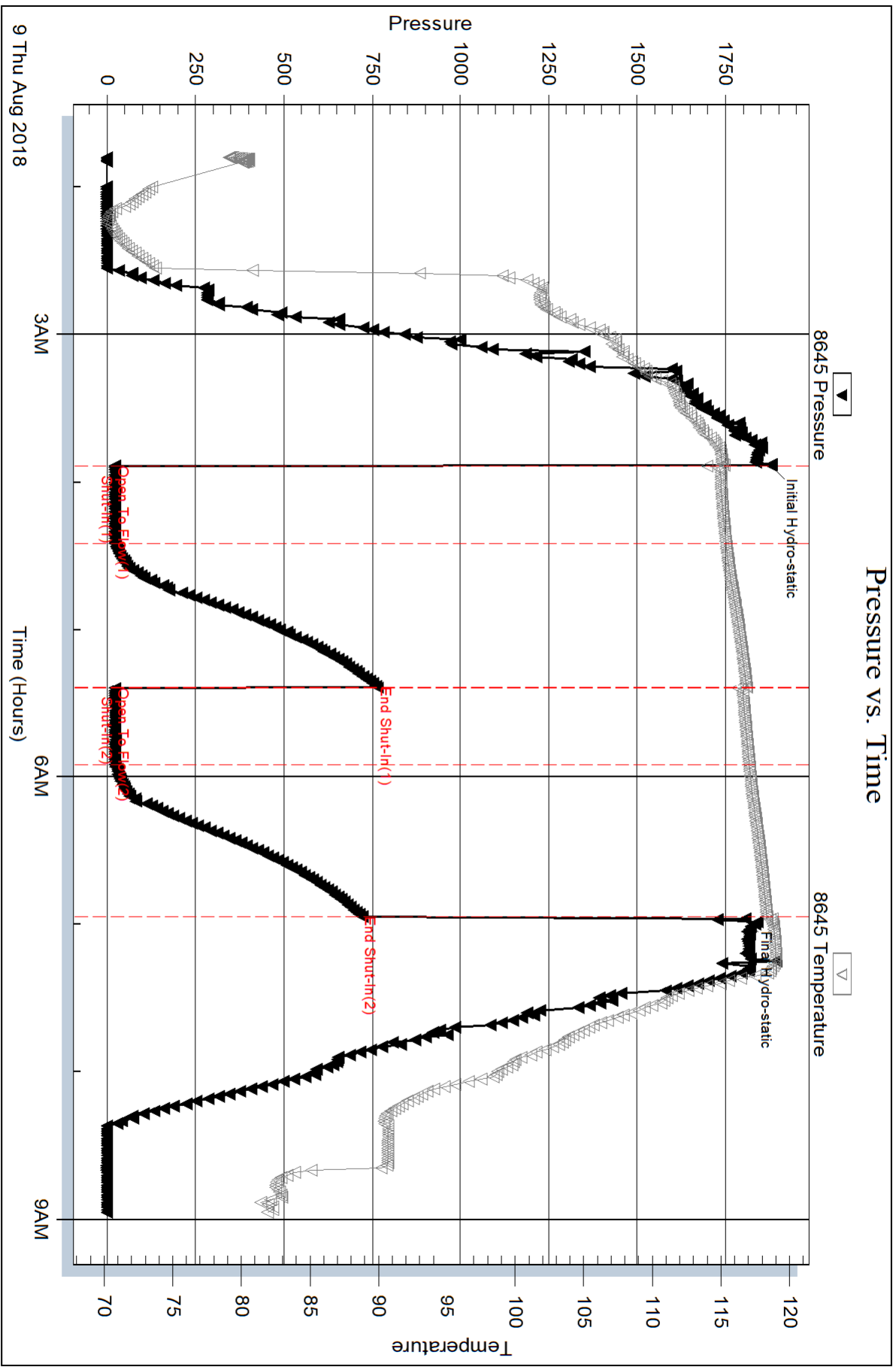
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



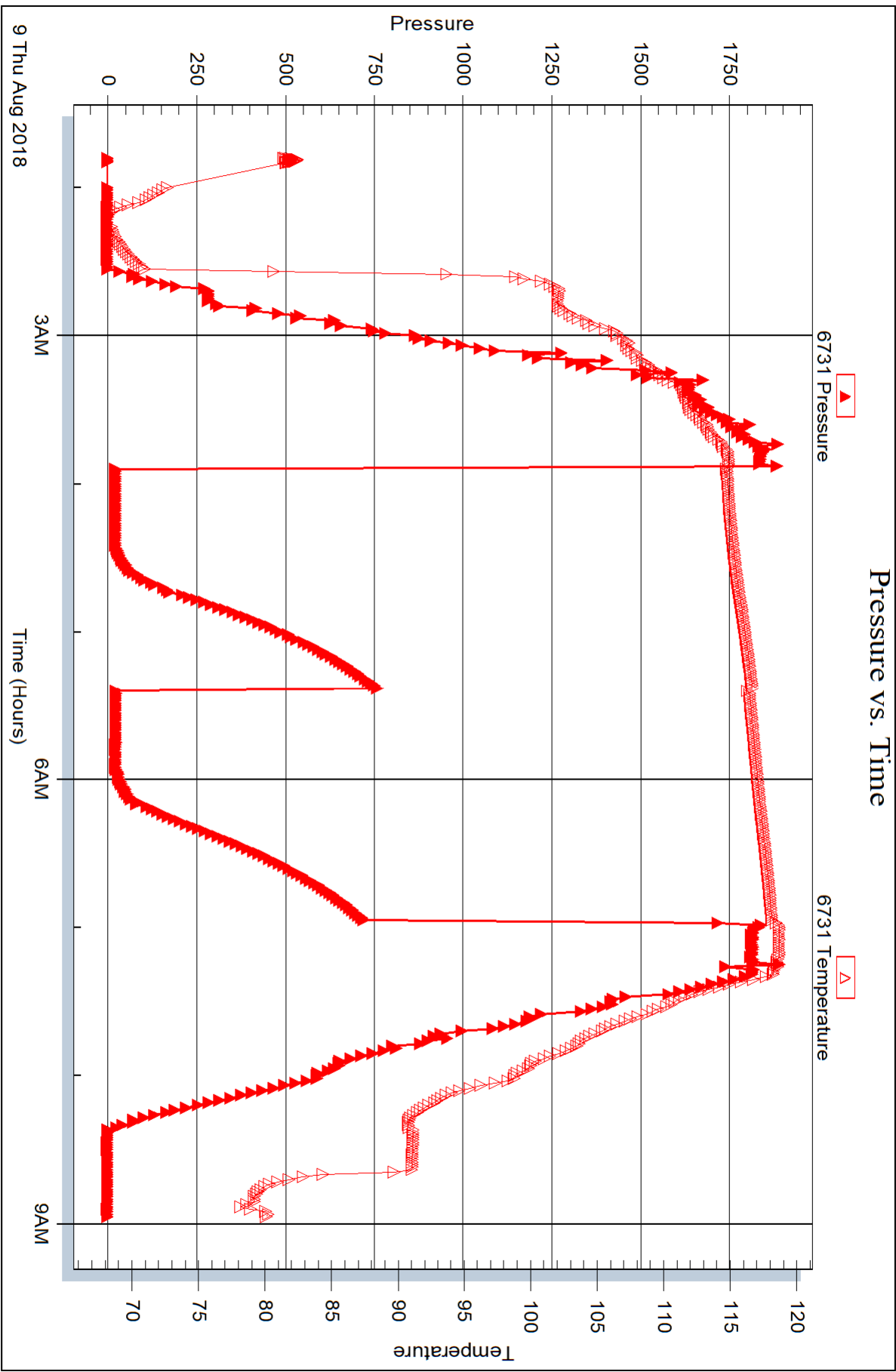
Serial #: 6731

Inside

Culbreath Oil & Gas Co Inc

Breeden #1-30

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Culbreath Oil & Gas Co Inc**

3501 S Yale Ave  
Tulsa OK 74135-8014

ATTN: Larry Nicholson

### **Breeden #1-30**

#### **30-9s-26w Sheridan,KS**

Start Date: 2018.08.09 @ 21:28:00

End Date: 2018.08.10 @ 03:58:00

Job Ticket #: 63749                      DST #: 2

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

Printed: 2018.08.10 @ 15:21:20



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63749

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 21:28:00

## GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:27:16

Time Test Ended: 03:58:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

**Interval: 3948.00 ft (KB) To 3981.00 ft (KB) (TVD)**

Reference Elevations: 2661.00 ft (KB)

Total Depth: 3981.00 ft (KB) (TVD)

2651.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8645**

**Outside**

Press@RunDepth: 21.69 psig @ 3953.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.09

End Date:

2018.08.10

Last Calib.:

2018.08.10

Start Time: 21:28:01

End Time:

03:58:01

Time On Btm:

2018.08.09 @ 23:27:01

Time Off Btm:

2018.08.10 @ 02:28:16

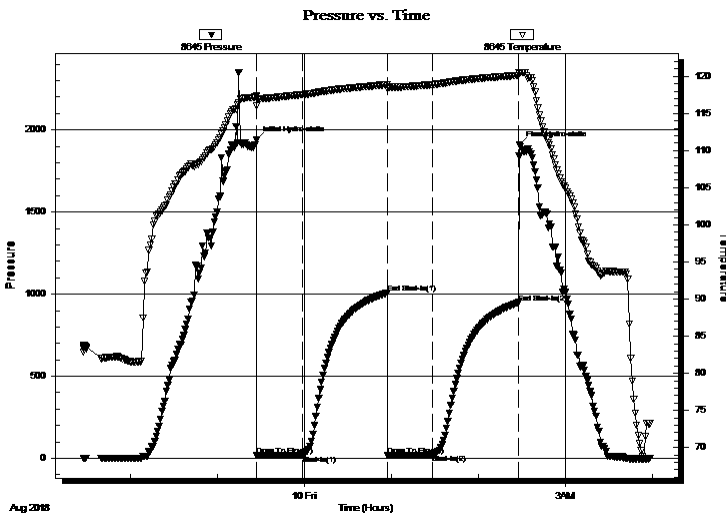
**TEST COMMENT:** 30-IFP- Weak Surface Blow -- Dead in 8 min.

60-ISIP- No Blow

30-FFP- No Blow

60-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1937.49	117.35	Initial Hydro-static
1	19.22	115.99	Open To Flow (1)
32	21.14	117.52	Shut-In(1)
90	1007.32	118.88	End Shut-In(1)
91	18.12	118.35	Open To Flow (2)
122	21.69	118.88	Shut-In(2)
181	948.64	120.13	End Shut-In(2)
182	1906.98	120.48	Final Hydro-static

## Recovery

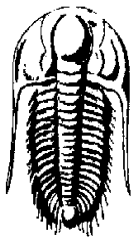
Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.07

\* Recovery from multiple tests

## Gas Rates

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





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

## DRILL STEM TEST REPORT

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63749

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 21:28:00

### GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:27:16

Time Test Ended: 03:58:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

**Interval: 3948.00 ft (KB) To 3981.00 ft (KB) (TVD)**

Reference Elevations: 2661.00 ft (KB)

Total Depth: 3981.00 ft (KB) (TVD)

2651.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6731** Inside

Press@RunDepth: psig @ 3953.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.09

End Date:

2018.08.10

Last Calib.:

2018.08.10

Start Time: 21:28:01

End Time:

03:58:01

Time On Btm:

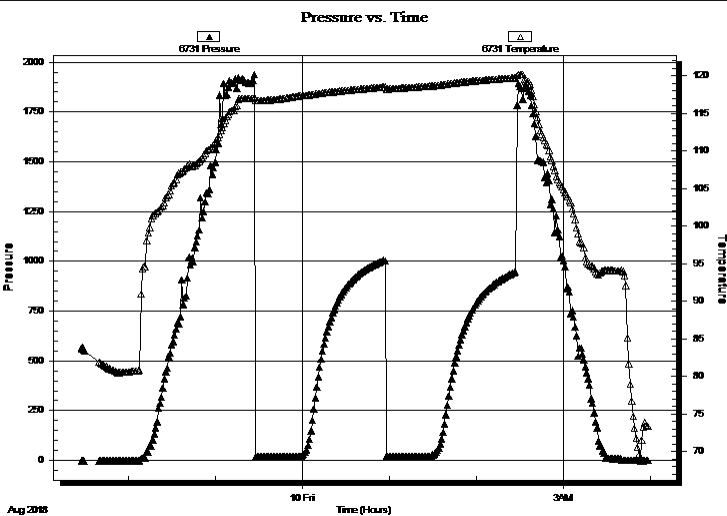
Time Off Btm:

TEST COMMENT: 30-IFP- Weak Surface Blow -- Dead in 8 min.

60-ISIP- No Blow

30-FFP- No Blow

60-FSIP- No Blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.07

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63749

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 21:28:00

## Tool Information

Drill Pipe:	Length: 3941.00 ft	Diameter: 3.80 inches	Volume: 55.28 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 55.28 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3948.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	61.00 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			3921.00	
Shut In Tool	5.00			3926.00	
Hydraulic tool	5.00		Inside	3931.00	
Jars	5.00			3936.00	
Safety Joint	2.00			3938.00	
Packer	5.00			3943.00	28.00 Bottom Of Top Packer
Packer	5.00			3948.00	
Stubb	1.00			3949.00	
Perforations	4.00			3953.00	
Recorder	0.00	8645	Outside	3953.00	
Recorder	0.00	6731	Inside	3953.00	
Perforations	25.00			3978.00	
Bullnose	3.00			3981.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 61.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Culbreath Oil & Gas Co Inc

**30-9s-26w Sheridan,KS**

3501 S Yale Ave  
Tulsa OK 74135-8014

**Breeden #1-30**

Job Ticket: 63749

**DST#: 2**

ATTN: Larry Nicholson

Test Start: 2018.08.09 @ 21:28:00

## 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:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 3.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

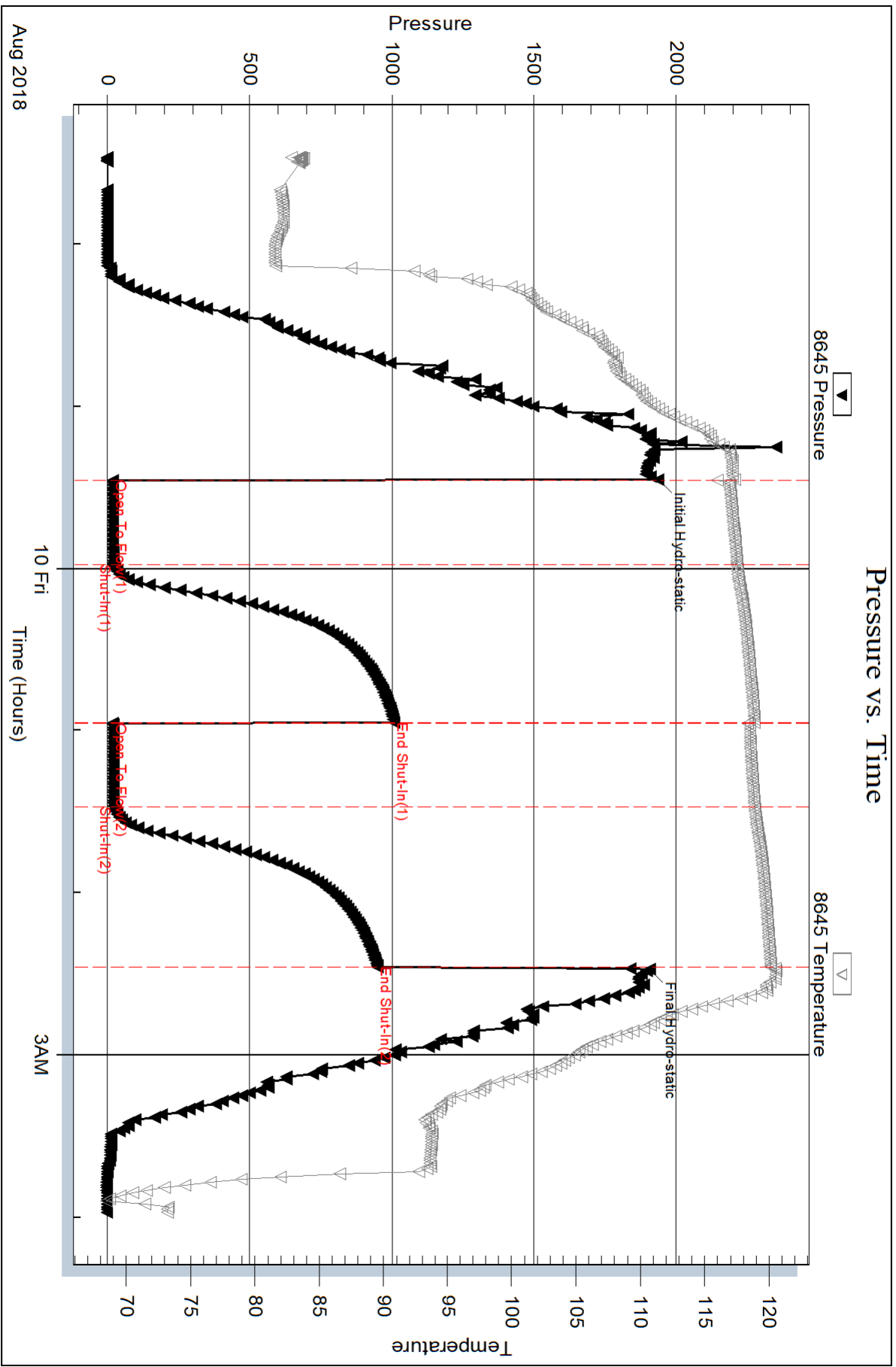
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



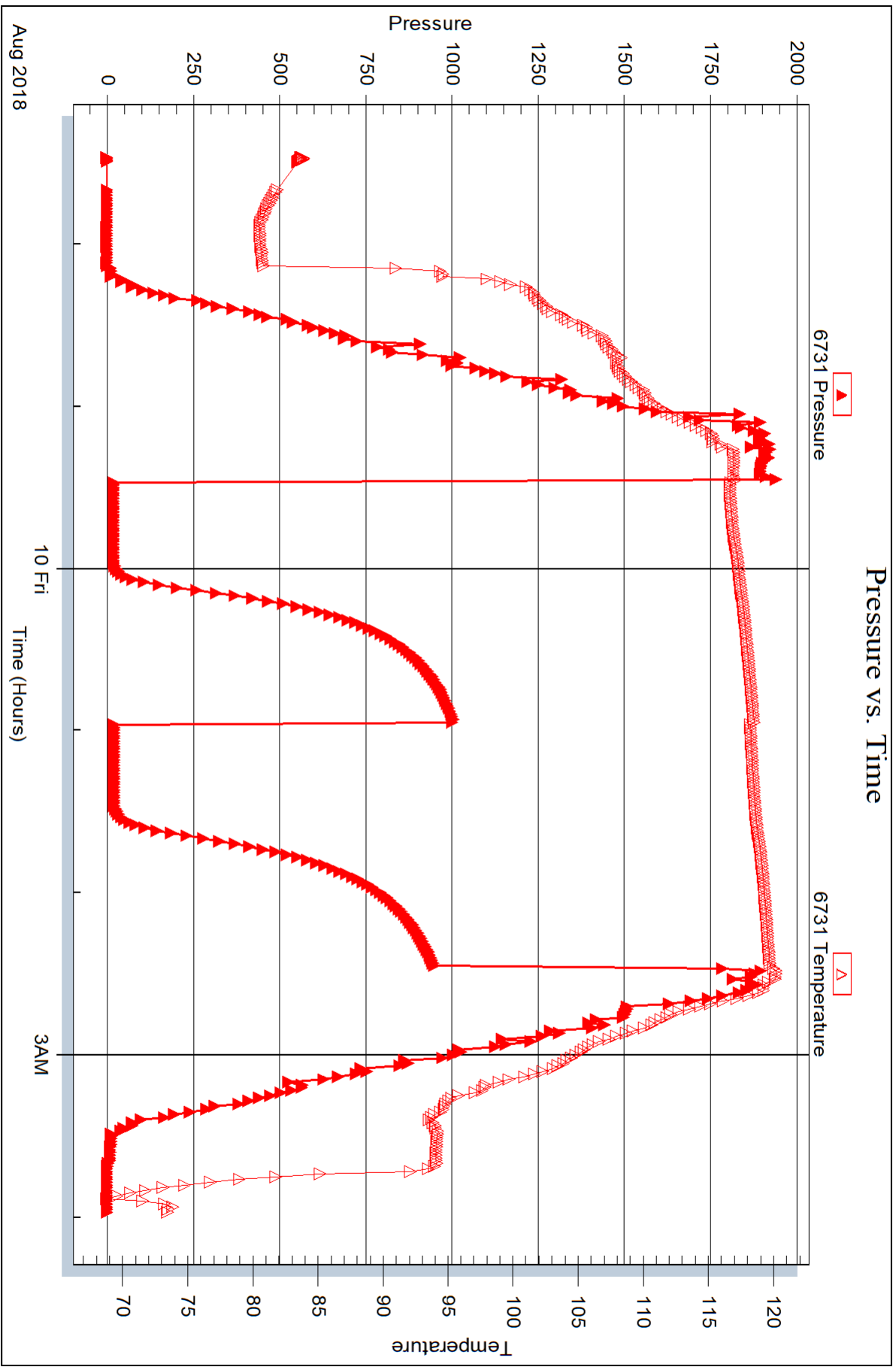
Serial #: 6731

Inside

Culbreath Oil & Gas Co Inc

Breeden #1-30

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63749

Printed: 2018.08.10 @ 15:21:21