

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	Culbreath Oil & Gas Company, Inc.
Well Name	RIEDEL 1-5
Doc ID	1358327

All Electric Logs Run

CND
DUAL
MICRO
SONIC

Form	ACO1 - Well Completion
Operator	Culbreath Oil & Gas Company, Inc.
Well Name	RIEDEL 1-5
Doc ID	1358327

Tops

Name	Top	Datum
Anhydrite	2269	+384
B/ Anhydrite	2302	+351
Topeka	3628	-976
Heebner	3842	-1189
Lansing	3881	-1228
Muncie Crek	3999	-1346
Stark Sh	4066	1413
BKC	4108	-1455
Marmaton	4141	-1488

Form	ACO1 - Well Completion
Operator	Culbreath Oil & Gas Company, Inc.
Well Name	RIEDEL 1-5
Doc ID	1358327

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4078-82	250 g MA, 2000 g 15% NE	4082
4	4016-4018	250 g MA, 1	4018
4	3921-3925	250 gal MA 2500 gal 15% NE	3925
4	3910-3913	250 gal MA	3913

Summary of Changes

Lease Name and Number: RIEDEL 1-5

API/Permit #: 15-179-21423-00-00

Doc ID: 1358327

Correction Number: 1

Approved By: Karen Ritter

Field Name	Previous Value	New Value
Approved Date	01/19/2017	06/26/2017
Completion Or Recompletion Date	11/1/2016	01/01/2017
Save Link	../..kcc/detail/operatorEditDetail.cfm?docID=1327763	../..kcc/detail/operatorEditDetail.cfm?docID=1358327

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1327763
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL 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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



00-10s-26w-999
CRD NO.

00-10s-26w
DMT NO.

PRO-STAKE

Construction Site Staking

LLC

13168
INVOICE NO.



Culbreath Oil & Gas Company, Inc.
OPERATOR

Sheridan County, KS
COUNTY

5 10s 26w
Sec. Twp. Rng.

Reidel #1-5
LEASE NAME

2310' ENL - 1450' FEL
LOCATION SPOT

2643.6'
GR. ELEVATION

SCALE: 1" = 1000'
DATE STAKED: Oct. 10th, 2016
MEASURED BY: Kent C.
DRAWN BY: Norby S.
AUTHORIZED BY: Kevin H.
DATE REVISED:

P.O. Box 2324 Garden City, Kansas 67846
Office/Fax: (620) 276-6159 – Cell: (620) 272-1499
burt@prostakellc.com

LEGEND

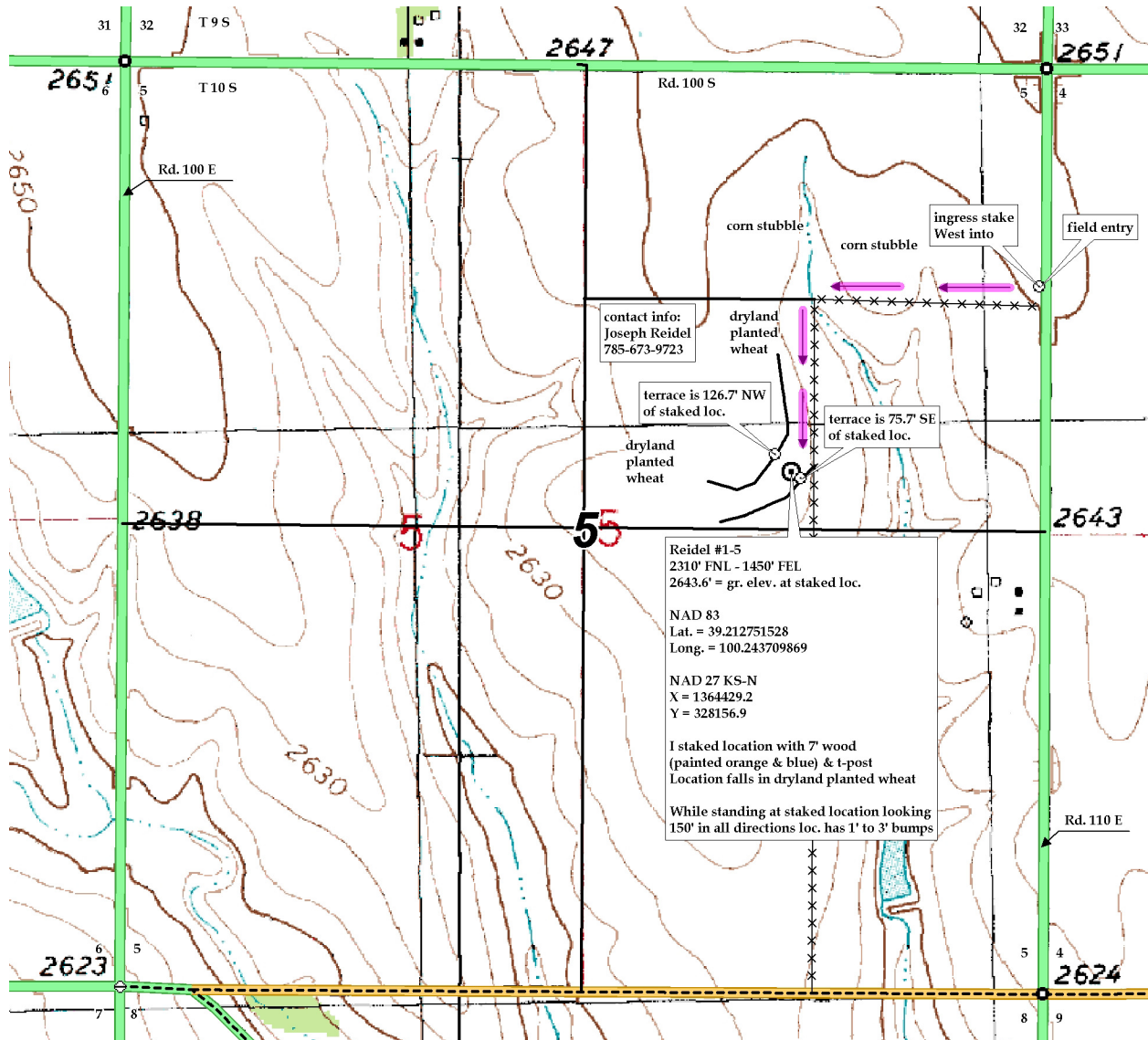
- ⊙ irr. well
- ⊕ water hydrant
- ⊙ tank battery
- ⊙ staked loc.
- ⊙ prod. well/aband. well
- house
- building
- G— gas line
- W— water line
- E— transmission powerline
- 3 phase powerline
- single phase powerline
- x—x—x— fence
- ▬ gravel/sand rd.
- ▬ gravel trail/lease rd.
- ▬ dirt rd.
- ▬ dirt trail/lease rd.
- ▬ Hwy/blacktop rd.

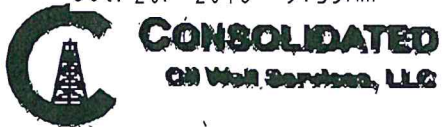


DIRECTIONS: From NW side of Quinter, KS at the intersection of Old Hwy 40 & Castle Rock Rd. – Now go 4 miles North on Castle Rock Rd. – Now go 5 miles North on Rd. 100 E to the SE corner of section 5-10s-26w – Now go 0.8 mile North on Rd. 100 E to ingress stake West into – Now go approx. 1300' / 0.2 mile West through corn stubble – Now go approx. 910' South through terraced dryland planted wheat – Now go approx. 180' SW through dryland planted wheat, into staked location.

Final ingress must be verified with landowner or operator.

*This drawing does not constitute a monumented survey or a land survey plat.
This drawing is for construction purposes only.*





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

FIELD TICKET & TREATMENT REPORT
CEMENT

TICKET NUMBER 51627
LOCATION Oakley Ks
FOREMAN Walt Dinkel

6867
6769

INVOICE # 800840

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10-18-16	2777	Riedel 1-5	5	10 ^S	26 ^W	Sheridan
CUSTOMER		Culbreath Oil & Gas		Ks		
MAILING ADDRESS		3501 South Yale Avenue		Sheridan		
CITY		Tulsa		Ks		
STATE		OK		Ks		
ZIP CODE		74135		Ks		

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 270' CASING SIZE & WEIGHT 8 5/8 - 24#
 CASING DEPTH 270 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 15-20'
 DISPLACEMENT 16 BBL DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPM

REMARKS: Safety meeting, Rig up on Southwind #, Give casing on bottom, mix 190-sks com, 3% cc, 2% bel, Displace w/ 16-BBL H2O, Shut in

Cement Dial Circ
2 sks to Rt

Thank You
Walt + crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
Ceo491 ✓	1	PUMP CHARGE	1,150.00	1,150.00 ✓
Ceo002 ✓	40	MILEAGE	7.15	286.00 ✓
Ceo711 ✓	8.93	Ton Mileage Delivery	73.35	660.00 ✓
CE5871 ✓	190 SKS	Surface Blend II	23.00	4,370.00 ✓
		Subtotal =		6,466.00
		Less 45% Disc		- 2,909.90
				3,556.10
		SALES TAX		210.31 ✓
		ESTIMATED TOTAL		\$3766.61 ✓

Revin 8737
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



CONSOLIDATED
Oil Well Services, LLC

6932
6831

TICKET NUMBER 51464
LOCATION Oakley OK
FOREMAN Walter Shaw

FIELD TICKET & TREATMENT REPORT
CEMENT

Walt Dinhol
Invoice #808910 US

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

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
10-29-16	2777	Redel 1-5	5	10S	26W	Sheridan

CUSTOMER	MAILING ADDRESS	CITY	STATE	ZIP CODE
Culbreath Oil & Gas Co	3501 South Yale Avenue	Tulsa	OK	74135

TRUCK #	DRIVER	TRUCK #	DRIVER
753	Cory D		
566	Stevan O		
772T-129	Walt D		

JOB TYPE 2 Stage HOLE SIZE 7 7/8" HOLE DEPTH 4249' CASING SIZE & WEIGHT 5 1/2" 15.5#
 CASING DEPTH 4249' DRILL PIPE _____ TUBING _____ OTHER Duked @ 2286
 SLURRY WEIGHT 14.6/11.4 SLURRY VOL 1.42/1.8 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 99 1/2/54 1/2 DISPLACEMENT PSI 750/500 MAX PSI 1600/1500 RATE _____

REMARKS: Safety meeting and riser on South wind drilling Rig #8 Float equipment
Scratchers on snt # 3, 4, 5, 6, 7, 8, 9, 10, 12, 45 Duked
on top of snt # 40 Baskets on snt # 13, 40. Run in 101 snt's to bottom Circulate resin
Mix 175SX OWC 5 1/2" seal. Shutdown clear pump and lines displace 50 bbls water 99 1/2 bbls mud
with 750 psi. 1:1. Plus land @ 99 1/2 bbls + 1500 psi. Circulate 3 hrs pump mud flush mix 375 SX
60/40 8 1/4" flow down casing Cement did circulate

Mix 305x RH 205x MH 60/40 8 1/4" flow Thanks Walter & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0453	1	PUMP CHARGE	2800.00	2800.00
CE0002	25	MILEAGE	7.15	178.75
CE0710	26.72 tons	Ton mileage delivery	1.75	1169.00
CC5831	425 Sx	60/40 8 1/2 gal	17.50	7437.50
CC5862	175 Sx	Thixoblend #1 OWC	26.00	4550.00
CC6075	107 #	Celo Hake Flo Seal	3.00	321.00
CC6125	1000 gal	Mud Flush	.65	650.00
CC5300	2 gal	VCL	39.00	78.00
CP8254	1	5 1/2" Latchdown Assm	400.00	400.00
CP8485	1	5 1/2" AFU Float Shoe	585.00	585.00
CP8554	7	5 1/2" Centralizers	81.00	567.00
CP8629	2	5 1/2" Baskets	385.00	770.00
CP8801	1	5 1/2" bit tool	5970.00	5970.00
CP8676	26	5 1/2" Scratchers	75.00	1950.00
			Subtotal	27426.25
			less 40% discount	16455.75
			Subtotal	16455.75
			SALES TAX	1187.20
			ESTIMATED TOTAL	17642.95

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

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 57374

DST#: 1

ATTN: Richard Bell

Test Start: 2016.10.23 @ 19:07:00

GENERAL INFORMATION:

Formation: **LKC - A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:15

Time Test Ended: 03:12:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 3853.00 ft (KB) To 3877.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 3977.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8845 Outside

Press@RunDepth: 35.57 psig @ 3854.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.23

End Date:

2016.10.24

Last Calib.:

2016.10.24

Start Time:

19:07:05

End Time:

03:12:14

Time On Btm:

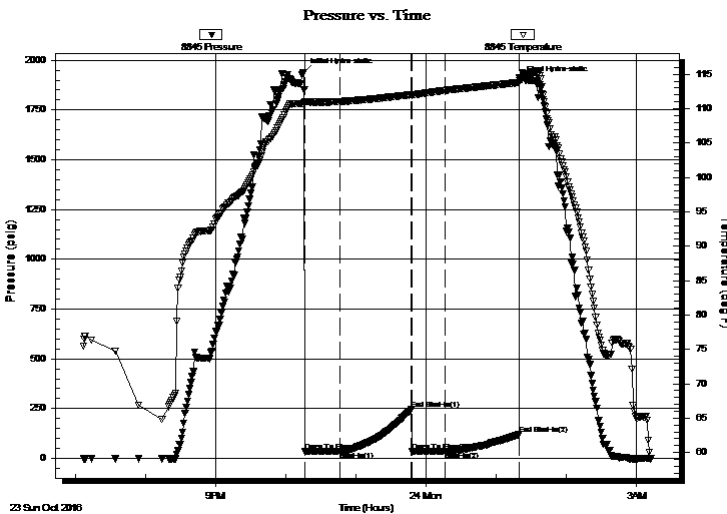
2016.10.23 @ 22:15:30

Time Off Btm:

2016.10.24 @ 01:20:00

TEST COMMENT: IF: 1/2" blow , receded to surface.
IS: No return.
FF: Surface blow . died in 10 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1938.56	110.88	Initial Hydro-static
1	34.37	110.85	Open To Flow (1)
31	35.16	111.04	Shut-In(1)
92	245.74	112.03	End Shut-In(1)
93	35.08	111.99	Open To Flow (2)
121	35.57	112.65	Shut-In(2)
184	120.70	113.81	End Shut-In(2)
185	1899.43	114.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud 100m	0.56

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 57374

DST#: 1

ATTN: Richard Bell

Test Start: 2016.10.23 @ 19:07:00

GENERAL INFORMATION:

Formation: **LKC - A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:15

Time Test Ended: 03:12:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 3853.00 ft (KB) To 3877.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 3977.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8365

Inside

Press@RunDepth: psig @ 3854.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.23

End Date:

2016.10.24

Last Calib.:

2016.10.24

Start Time: 19:07:05

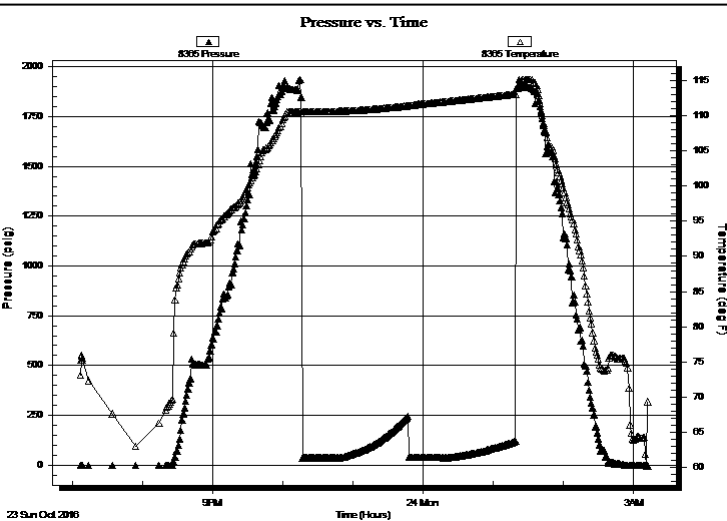
End Time:

03:12:14

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 1/2" blow, receded to surface.
IS: No return.
FF: Surface blow. died in 10 min.
FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud 100m	0.56

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 57374

DST#: 1

ATTN: Richard Bell

Test Start: 2016.10.23 @ 19:07:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	mud 100m	0.561

Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 0

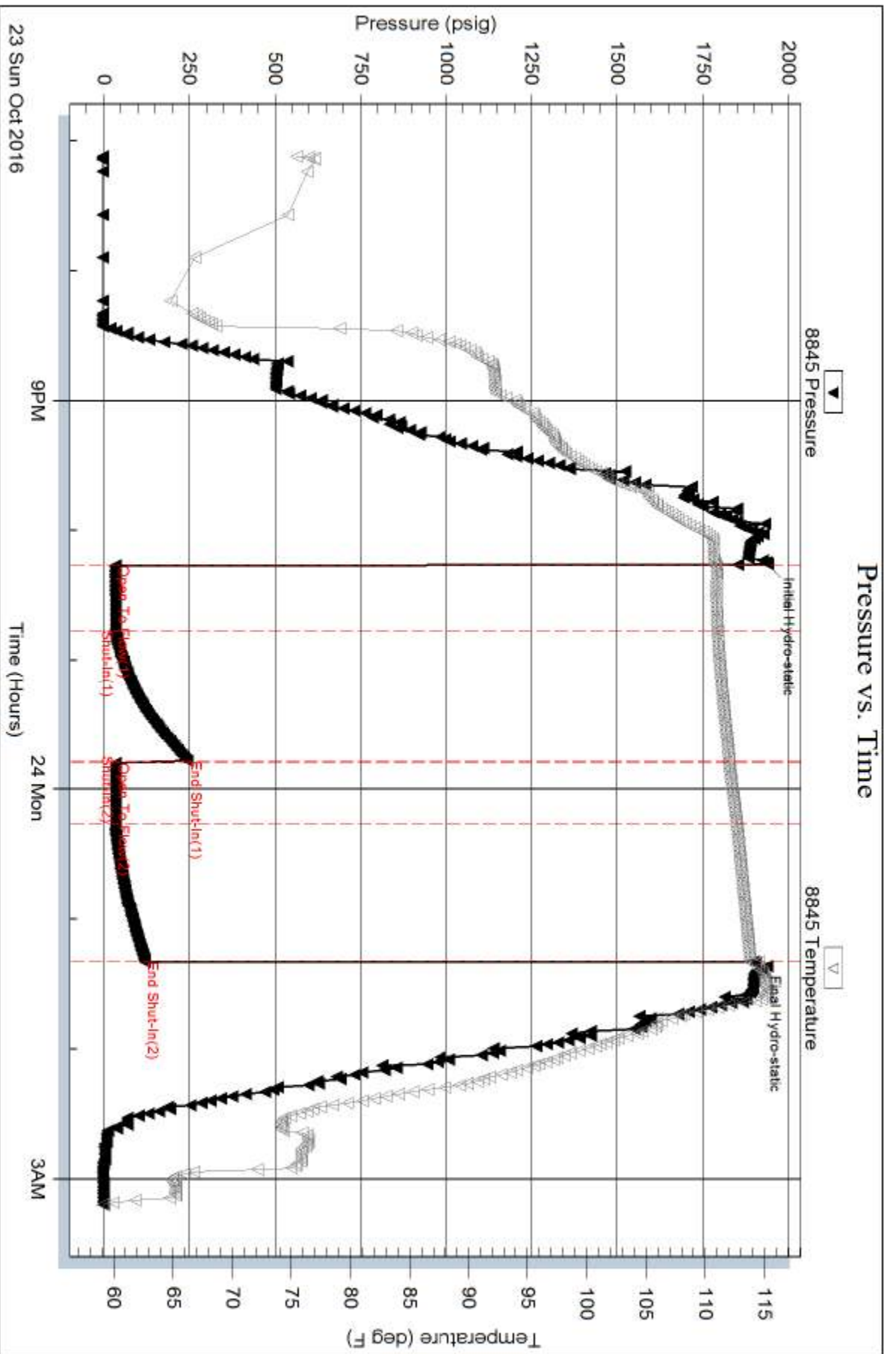
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



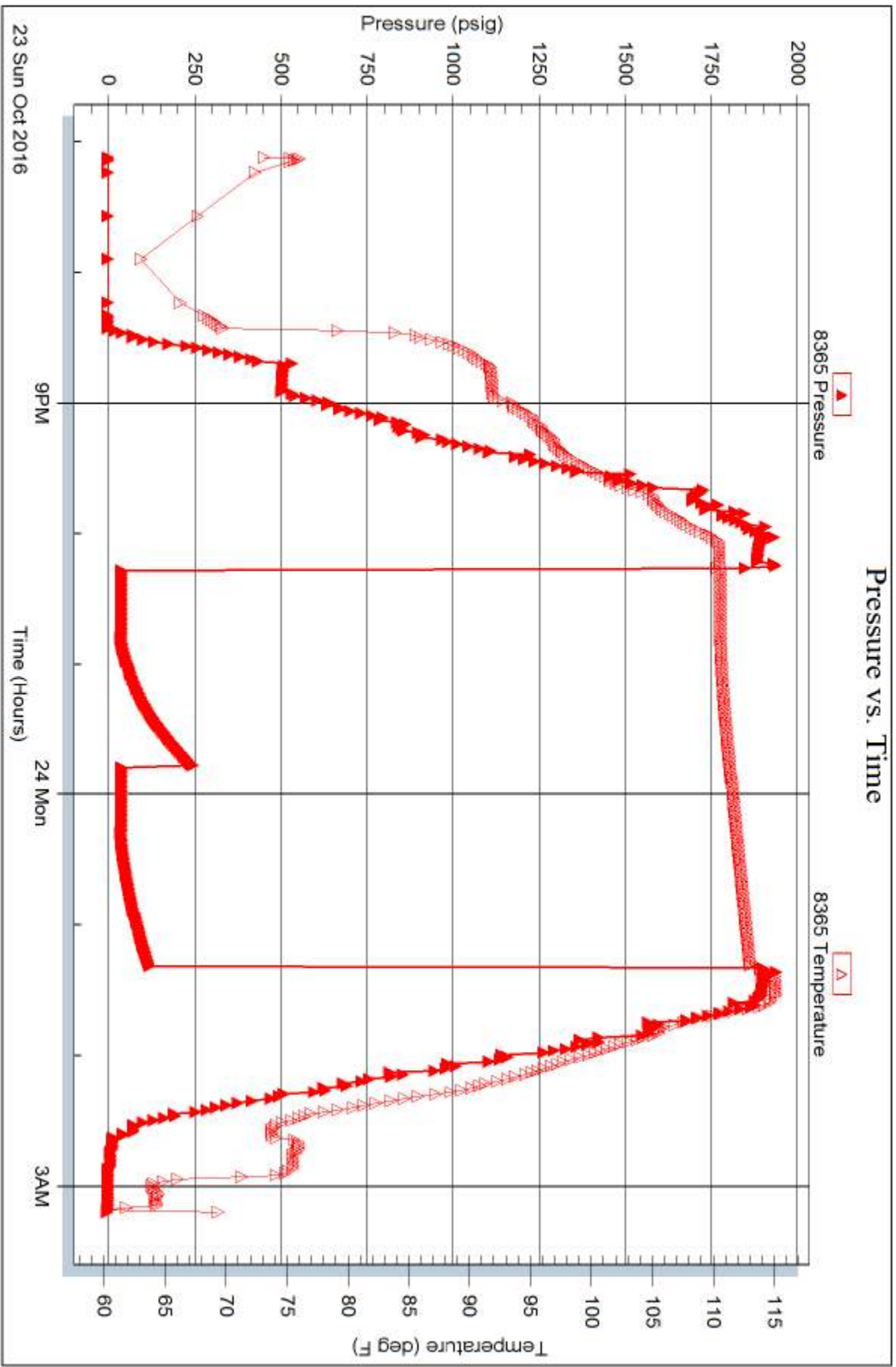
Serial #: 8365

Inside

Culbreath Oil & Gas Co, Inc

Riedel #1-5

DST Test Number: 1





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 57375

DST#: 2

ATTN: Richard Bell

Test Start: 2016.10.24 @ 10:58:00

GENERAL INFORMATION:

Formation: **LKC - B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:56:00

Time Test Ended: 20:47:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 3878.00 ft (KB) To 3894.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 3894.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8845 Outside

Press@RunDepth: 524.39 psig @ 3879.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.24

End Date:

2016.10.24

Last Calib.:

2016.10.24

Start Time: 09:58:05

End Time:

19:47:45

Time On Btm:

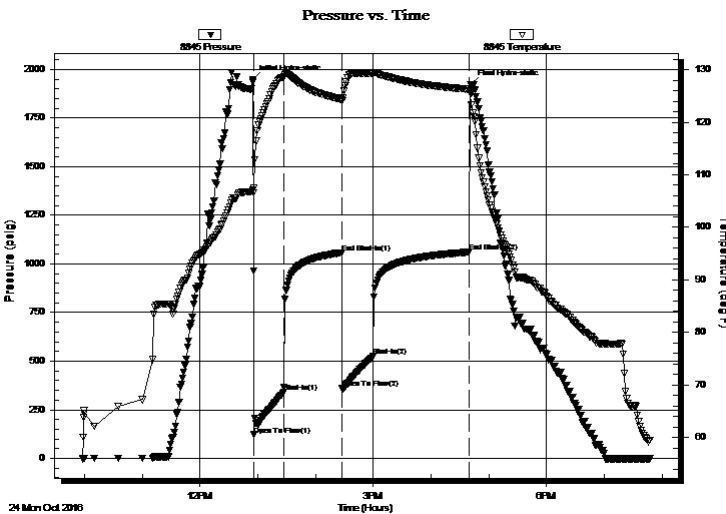
2016.10.24 @ 12:55:00

Time Off Btm:

2016.10.24 @ 16:41:00

TEST COMMENT: IF: BOB @ 1 minute.
IS: BOB @ 12 min.
FF: BOB @ open.
FS: BOB @ 15 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1946.77	107.06	Initial Hydro-static
1	121.20	107.42	Open To Flow (1)
32	339.59	128.61	Shut-In(1)
92	1058.40	124.35	End Shut-In(1)
93	359.94	124.16	Open To Flow (2)
125	524.39	129.30	Shut-In(2)
225	1060.60	126.28	End Shut-In(2)
226	1920.17	125.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	gocm 20g 30o 50m	0.84
1330.00	go 30g 70o	18.66
0.00	2270' GIP	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

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 57375

DST#: 2

ATTN: Richard Bell

Test Start: 2016.10.24 @ 10:58:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 8.79 in³
Resistivity: ohm.m
Salinity: 1000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 36 deg API
Water Salinity: 0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	gocm 20g 30o 50m	0.842
1330.00	go 30g 70o	18.656
0.00	2270' GIP	0.000

Total Length: 1390.00 ft Total Volume: 19.498 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

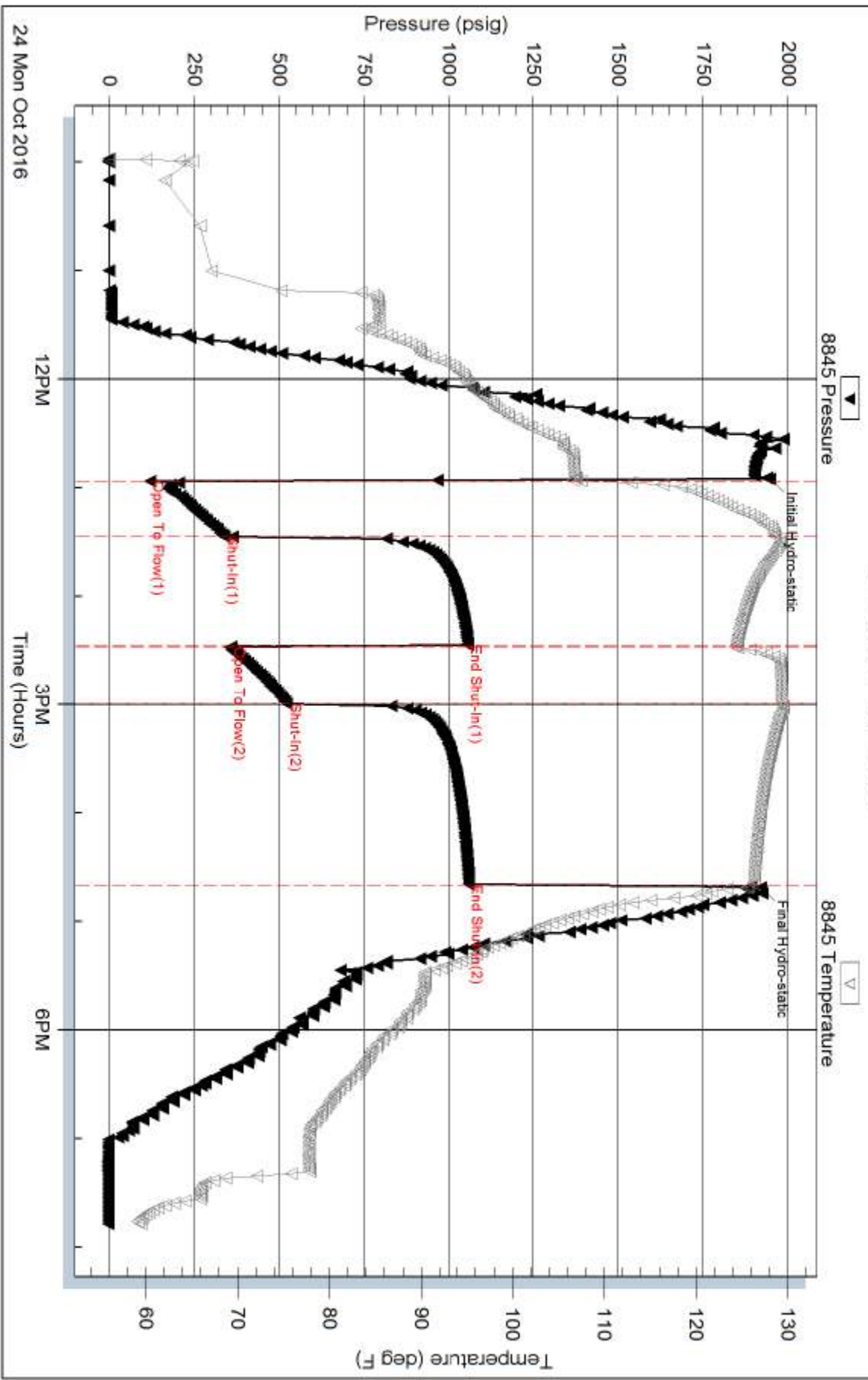
Serial #: 8845

Outside Culbreath Oil & Gas Co, Inc

Riedel #1-5

DST Test Number: 2

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 57375

Printed: 2016.10.24 @ 20:46:56

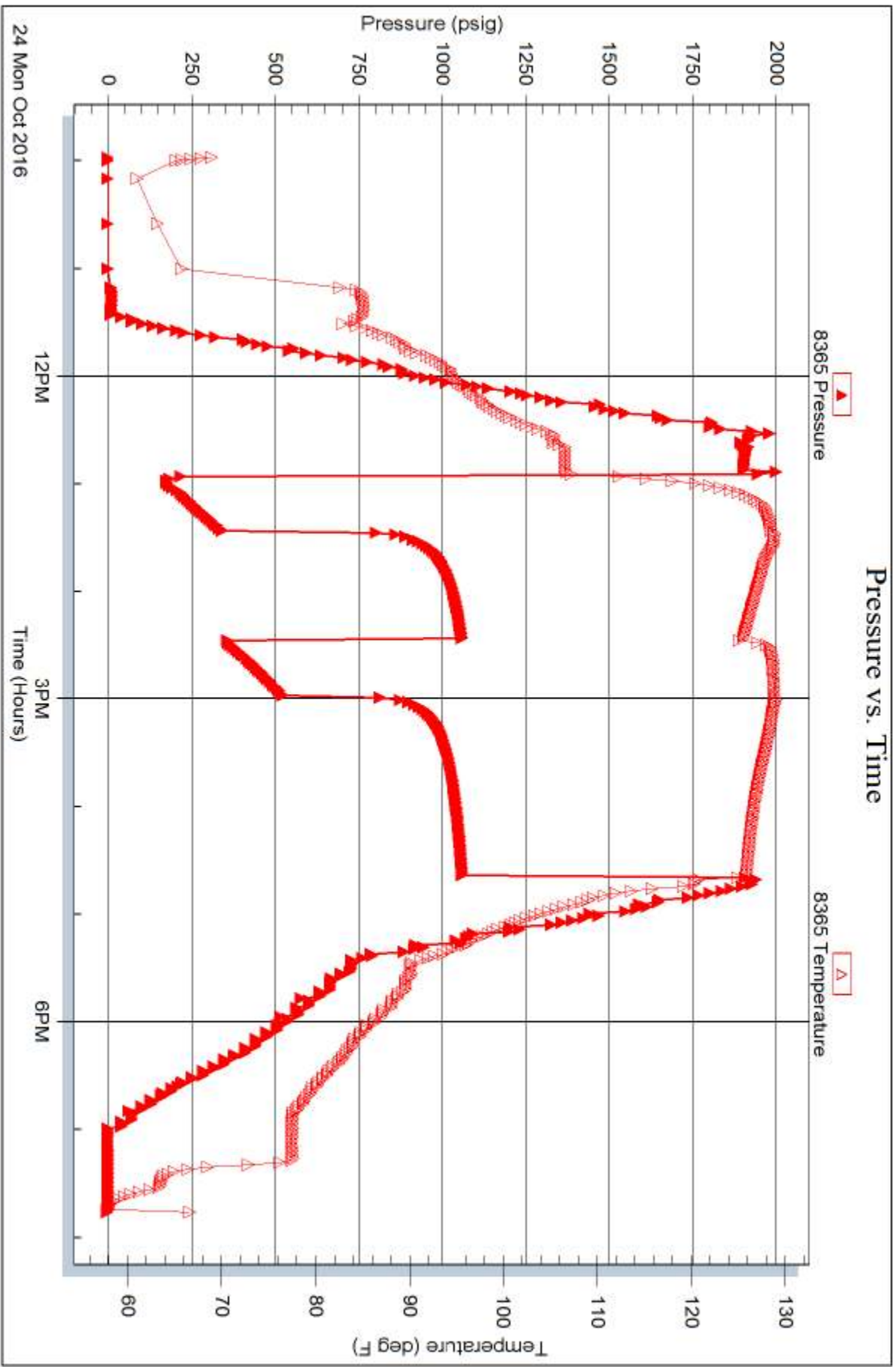
Serial #: 8365

Inside

Culbreath Oil & Gas Co, Inc

Riedel #1-5

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 57375

Printed: 2016.10.24 @ 20:46:56



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63453

DST#: 3

ATTN: Richard Bell

Test Start: 2016.10.25 @ 02:38:00

GENERAL INFORMATION:

Formation: **LKC - D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:50:00

Time Test Ended: 11:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 3894.00 ft (KB) To 3915.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 3915.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8365

Inside

Press@RunDepth: 293.05 psig @ 3895.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.25

End Date:

2016.10.25

Last Calib.:

2016.10.25

Start Time: 02:48:05

End Time:

11:31:15

Time On Btm:

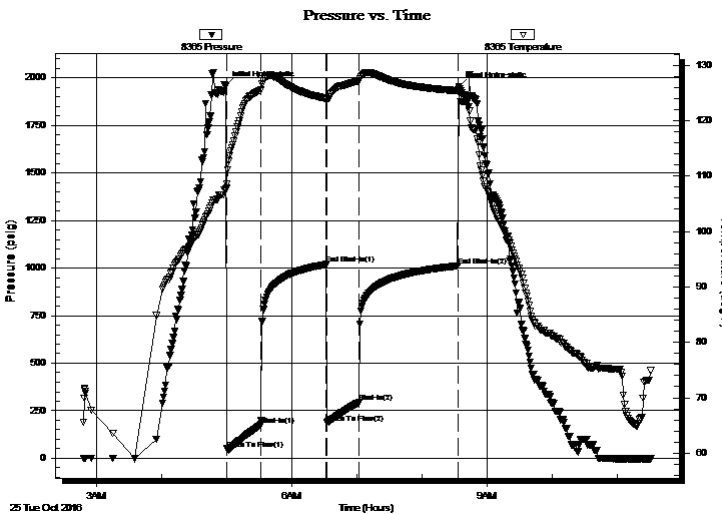
2016.10.25 @ 04:59:00

Time Off Btm:

2016.10.25 @ 08:34:00

TEST COMMENT: IF: BOB @ 1 min.
IS: BOB @ 12 min.
FF: BOB @ open
FS: BOB @ 12 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1957.70	107.68	Initial Hydro-static
1	48.75	108.54	Open To Flow (1)
33	176.11	125.52	Shut-In(1)
93	1018.99	124.03	End Shut-In(1)
94	185.95	123.73	Open To Flow (2)
123	293.05	127.16	Shut-In(2)
214	1011.48	125.39	End Shut-In(2)
215	1954.52	125.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	gmco 30g 25m 45o	1.26
680.00	go 40g 60o	9.54
0.00	3020 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63453

DST#: 3

ATTN: Richard Bell

Test Start: 2016.10.25 @ 02:38:00

GENERAL INFORMATION:

Formation: **LKC - D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:50:00

Time Test Ended: 11:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 3894.00 ft (KB) To 3915.00 ft (KB) (TVD)

Total Depth: 3915.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2653.00 ft (KB)

2643.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8845

Outside

Press@RunDepth: psig @ 3895.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.25

End Date:

2016.10.25

Last Calib.:

2016.10.25

Start Time: 02:48:05

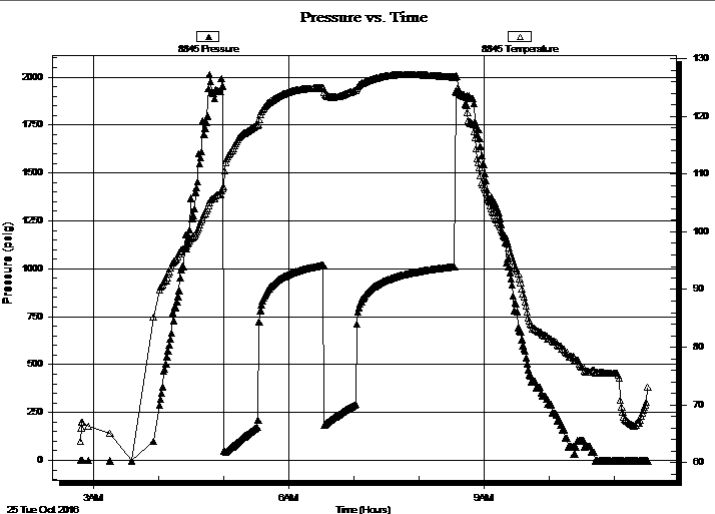
End Time:

11:31:15

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB @ 1 min.
IS: BOB @ 12 min.
FF: BOB @ open
FS: BOB @ 12 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
90.00	gmco 30g 25m 45o	1.26
680.00	go 40g 60o	9.54
0.00	3020 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63453

DST#: 3

ATTN: Richard Bell

Test Start: 2016.10.25 @ 02:38:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	gmco 30g 25m 45o	1.262
680.00	go 40g 60o	9.539
0.00	3020 GIP	0.000

Total Length: 770.00 ft Total Volume: 10.801 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

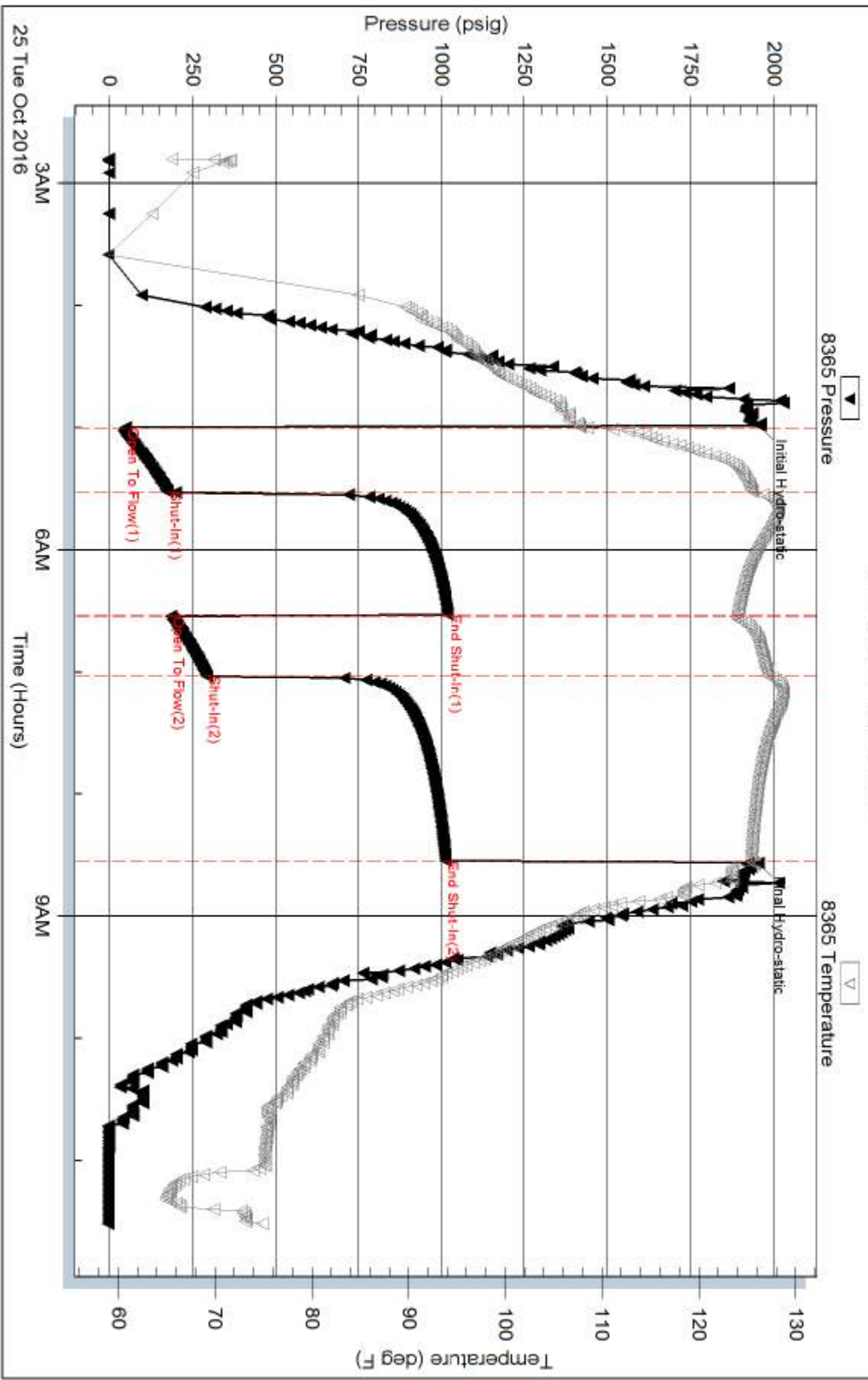
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

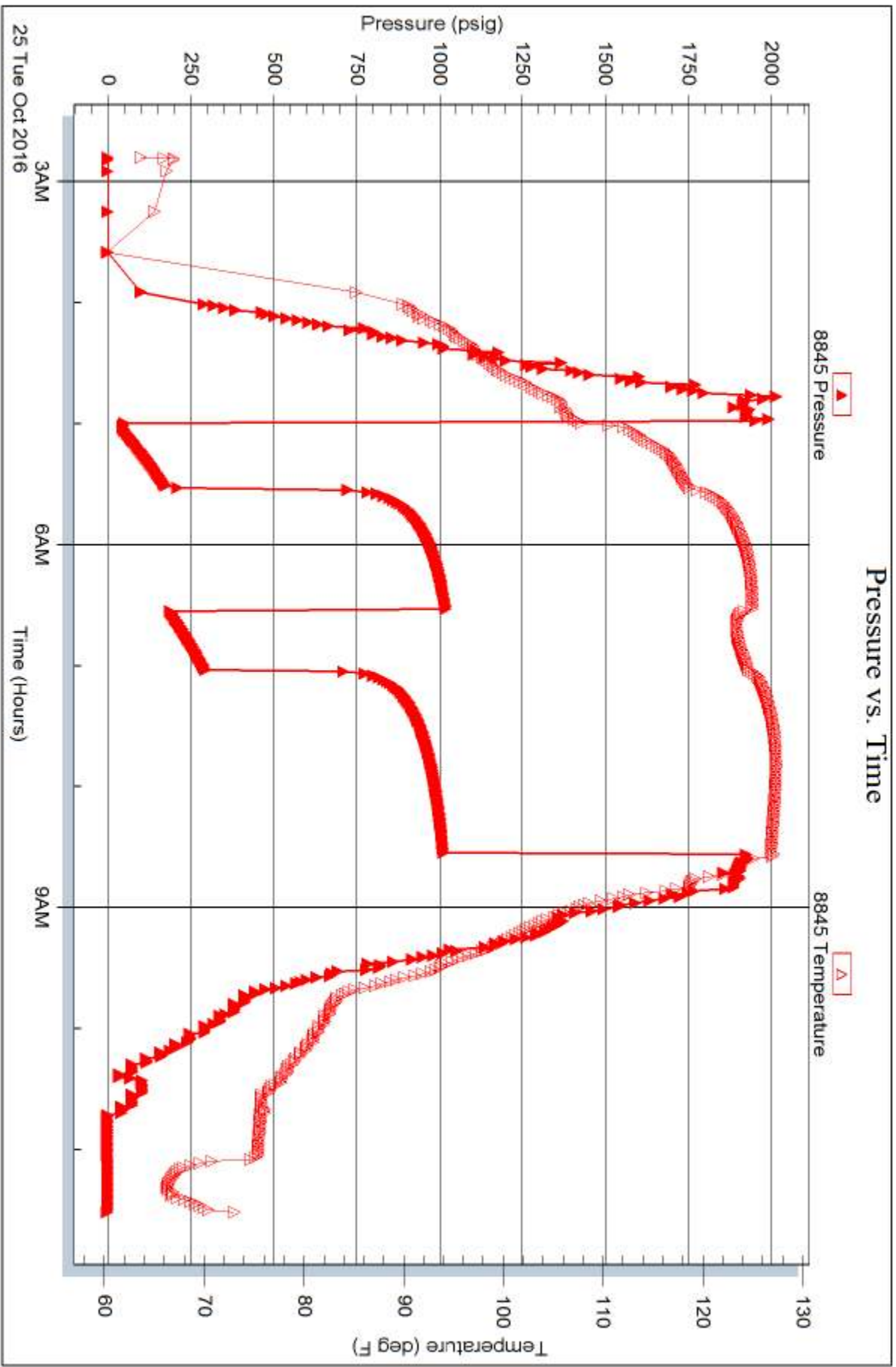


Serial #: 8845

Outside Culbreath Oil & Gas Co, Inc

Riedel #1-5

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 63453

Printed: 2016.10.25 @ 12:03:26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63454

DST#: 4

ATTN: Richard Bell

Test Start: 2016.10.25 @ 20:20:00

GENERAL INFORMATION:

Formation: **LKC- E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:17:00

Time Test Ended: 04:00:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 3920.00 ft (KB) To 3943.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 3943.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8365

Inside

Press @ Run Depth: 164.69 psig @ 3921.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.25

End Date:

2016.10.26

Last Calib.:

2016.10.26

Start Time: 20:20:05

End Time:

04:00:44

Time On Btm:

2016.10.25 @ 22:16:30

Time Off Btm:

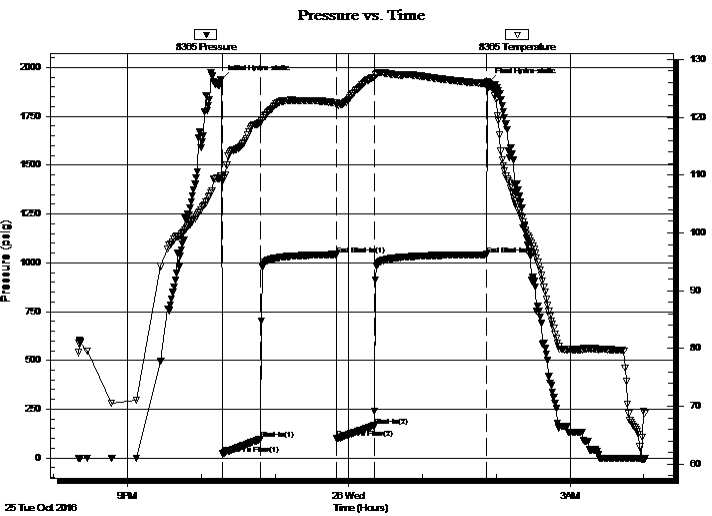
2016.10.26 @ 01:53:30

TEST COMMENT: IF: BOB @ 20 minutes.

IS: Surface return. died @ 20 minutes.

FF: 9" blow.

FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.03	109.81	Initial Hydro-static
1	21.33	108.99	Open To Flow (1)
32	95.25	119.02	Shut-In(1)
94	1042.67	122.49	End Shut-In(1)
94	99.36	122.21	Open To Flow (2)
124	164.69	126.93	Shut-In(2)
216	1042.28	125.87	End Shut-In(2)
217	1923.13	125.22	Final Hydro-static

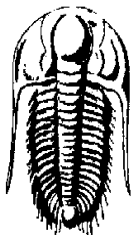
Recovery

Length (ft)	Description	Volume (bbl)
300.00	somcw 2o 10m 88w	4.21
20.00	oil 100o	0.28
0.00	940 GIP	0.00

* 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

301 S Yale Ave.
Tulsa, Ok 74135

ATTN: Richard Bell

5 10s 26w Sheridan, Ks

Riedel #1-5

Job Ticket: 63454

DST#: 4

Test Start: 2016.10.25 @ 20:20:00

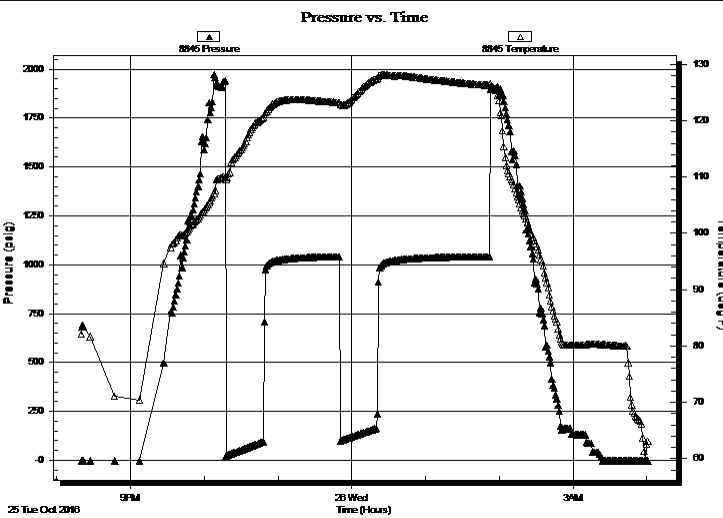
GENERAL INFORMATION:

Formation: **LKC- E-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:17:00
 Time Test Ended: 04:00:45
 Interval: **3920.00 ft (KB) To 3943.00 ft (KB) (TVD)**
 Total Depth: 3943.00 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: 2653.00 ft (KB)
 2643.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8845 Outside

Press @ Run Depth:	psig @ 3921.00 ft (KB)	Capacity:	8000.00 psig
Start Date:	2016.10.25	End Date:	2016.10.26
Start Time:	20:20:05	End Time:	04:00:44
		Time On Btm:	
		Time Off Btm:	

TEST COMMENT: IF: BOB @ 20 minutes.
 IS: Surface return. died @ 20 minutes.
 FF: 9" blow.
 FS: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
300.00	somcw 2o 10m 88w	4.21
20.00	oil 100o	0.28
0.00	940 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63454

DST#: 4

ATTN: Richard Bell

Test Start: 2016.10.25 @ 20:20:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	somcw 2o 10m 88w	4.208
20.00	oil 100o	0.281
0.00	940 GIP	0.000

Total Length: 320.00 ft Total Volume: 4.489 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

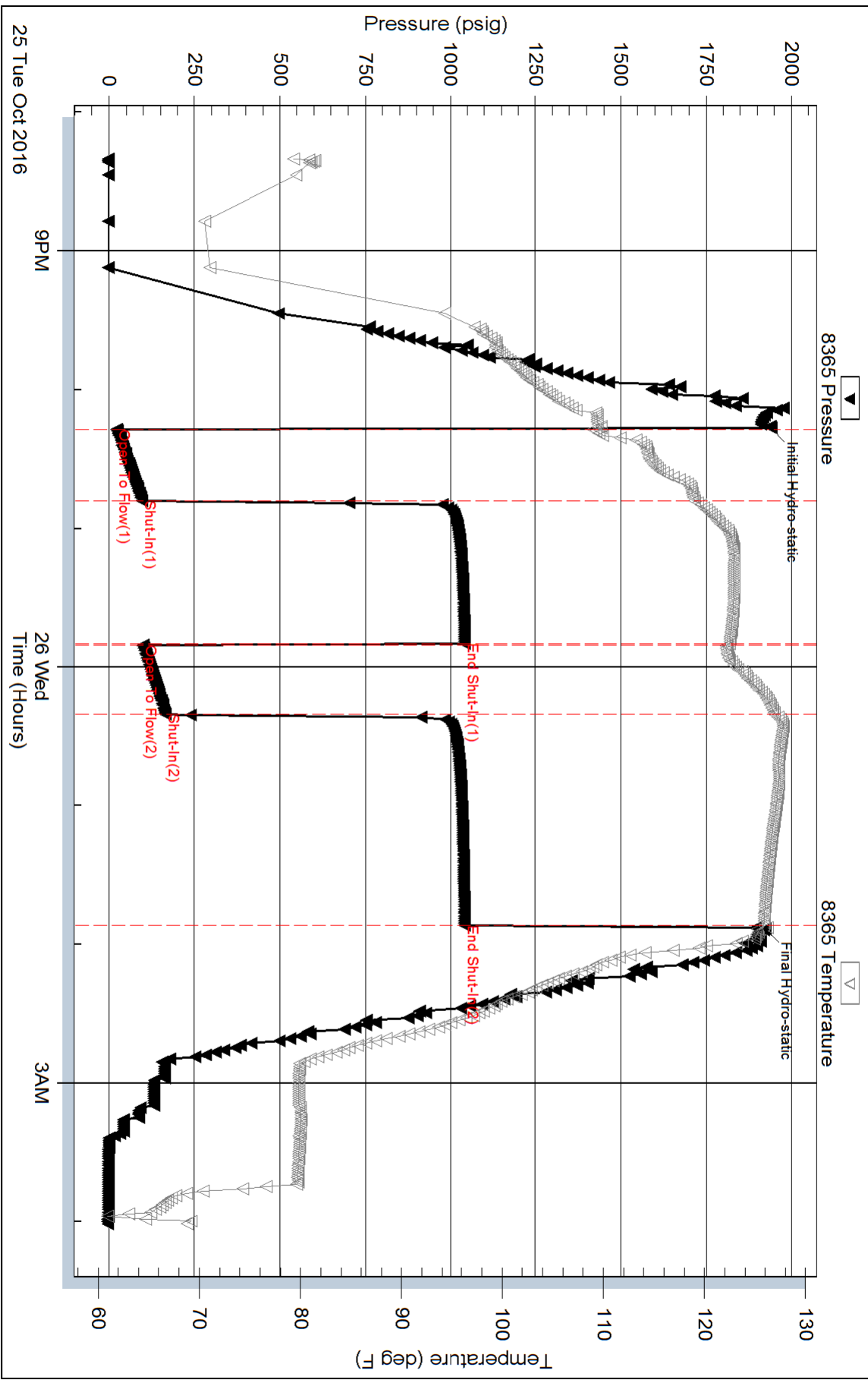
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .259 @ 61F = 31000ppm

Pressure vs. Time



Serial #: 8845

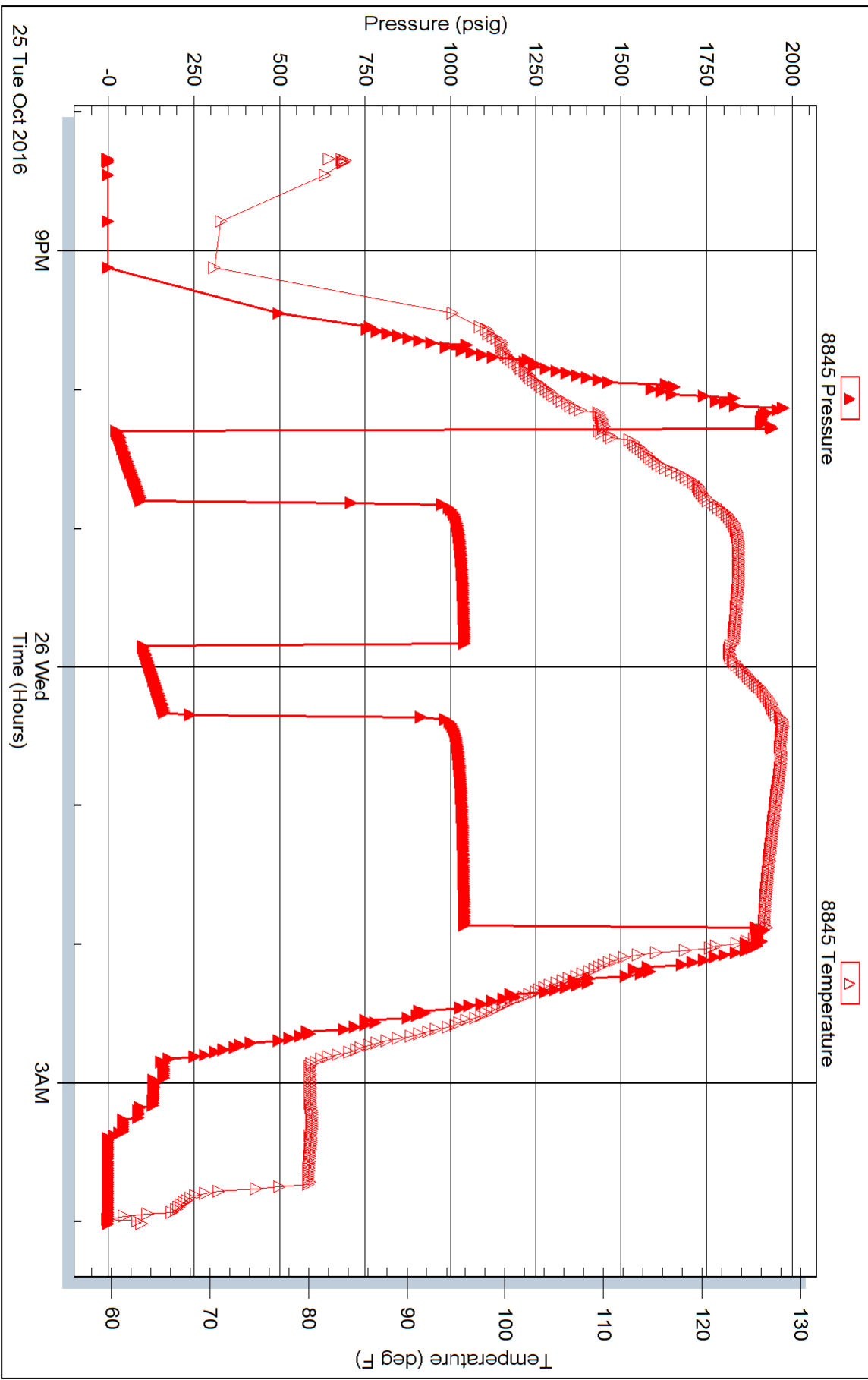
Outside

Culbreath Oil & Gas Co, Inc

Riedel #1-5

DST Test Number: 4

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 63454

Printed: 2016.10.26 @ 06:56:03



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63455

DST#: 5

ATTN: Richard Bell

Test Start: 2016.10.26 @ 13:40:00

GENERAL INFORMATION:

Formation: **LKC - H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:08:45

Time Test Ended: 22:30:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 3978.00 ft (KB) To 4006.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 4006.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8365

Inside

Press @ Run Depth: 144.43 psig @ 3979.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.26

End Date:

2016.10.26

Last Calib.:

2016.10.26

Start Time: 13:40:05

End Time:

22:30:15

Time On Btm:

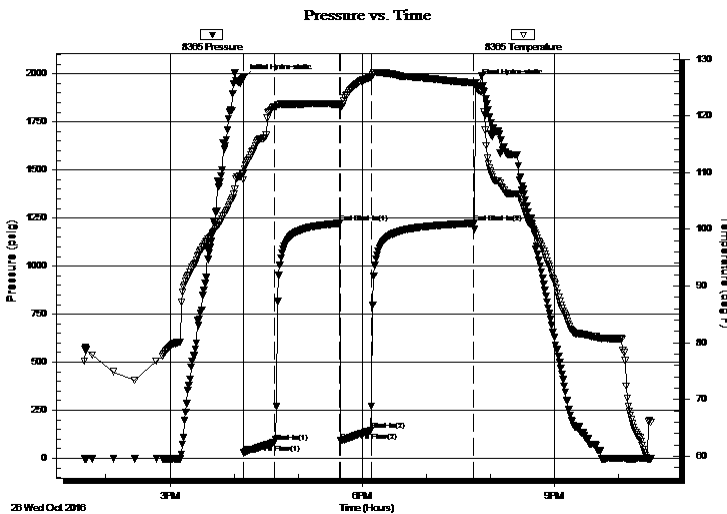
2016.10.26 @ 16:08:30

Time Off Btm:

2016.10.26 @ 19:45:45

TEST COMMENT: IF: BOB @ 4 min.
IS: 1" return died @ 20 minutes.
FF: BOB @ 6 min.
FS: 7" return Died @ 32 minutes.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1977.47	109.82	Initial Hydro-static
1	28.30	108.75	Open To Flow (1)
30	84.56	121.65	Shut-In(1)
91	1222.72	122.05	End Shut-In(1)
92	91.45	121.41	Open To Flow (2)
120	144.43	126.80	Shut-In(2)
216	1223.05	125.79	End Shut-In(2)
218	1948.58	125.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
210.00	go 40g 60o	2.95
150.00	gmco 40g 30m 30o	2.10
0.00	1340' GIP	0.00

* 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

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63455

DST#: 5

ATTN: Richard Bell

Test Start: 2016.10.26 @ 13:40:00

GENERAL INFORMATION:

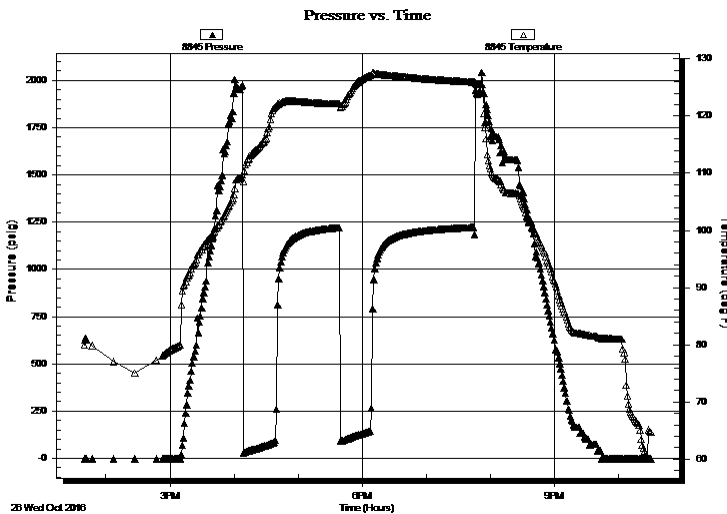
Formation: LKC - H		Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock:	ft (KB)	Tester: Bradley Walter
Time Tool Opened: 16:08:45		Unit No: 78
Time Test Ended: 22:30:15		
Interval: 3978.00 ft (KB) To 4006.00 ft (KB) (TVD)		Reference Elevations: 2653.00 ft (KB)
Total Depth: 4006.00 ft (KB) (TVD)		2643.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 10.00 ft

Serial #: 8845 Outside

Press@RunDepth: psig @ 3979.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2016.10.26	End Date: 2016.10.26
Start Time: 13:40:05	End Time: 22:30:30
	Last Calib.: 2016.10.26
	Time On Btm:
	Time Off Btm:

TEST COMMENT: IF: BOB @ 4 min.
IS: 1" return died @ 20 minutes.
FF: BOB @ 6 min.
FS: 7" return Died @ 32 minutes.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
210.00	go 40g 60o	2.95
150.00	gmco 40g 30m 30o	2.10
0.00	1340' GIP	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

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63455

DST#: 5

ATTN: Richard Bell

Test Start: 2016.10.26 @ 13:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1750.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
210.00	go 40g 60o	2.946
150.00	gmco 40g 30m 30o	2.104
0.00	1340' GIP	0.000

Total Length: 360.00 ft Total Volume: 5.050 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

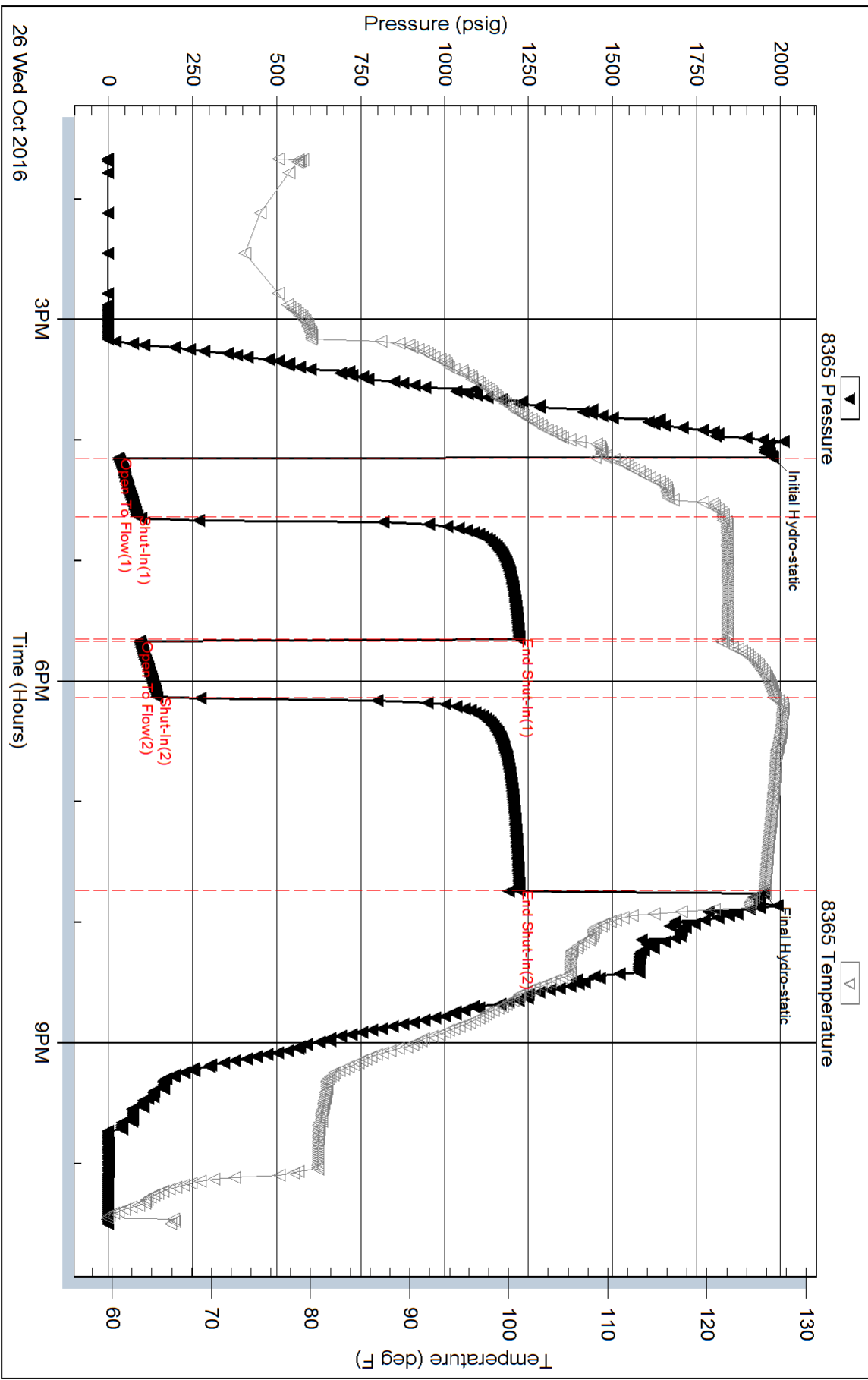
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

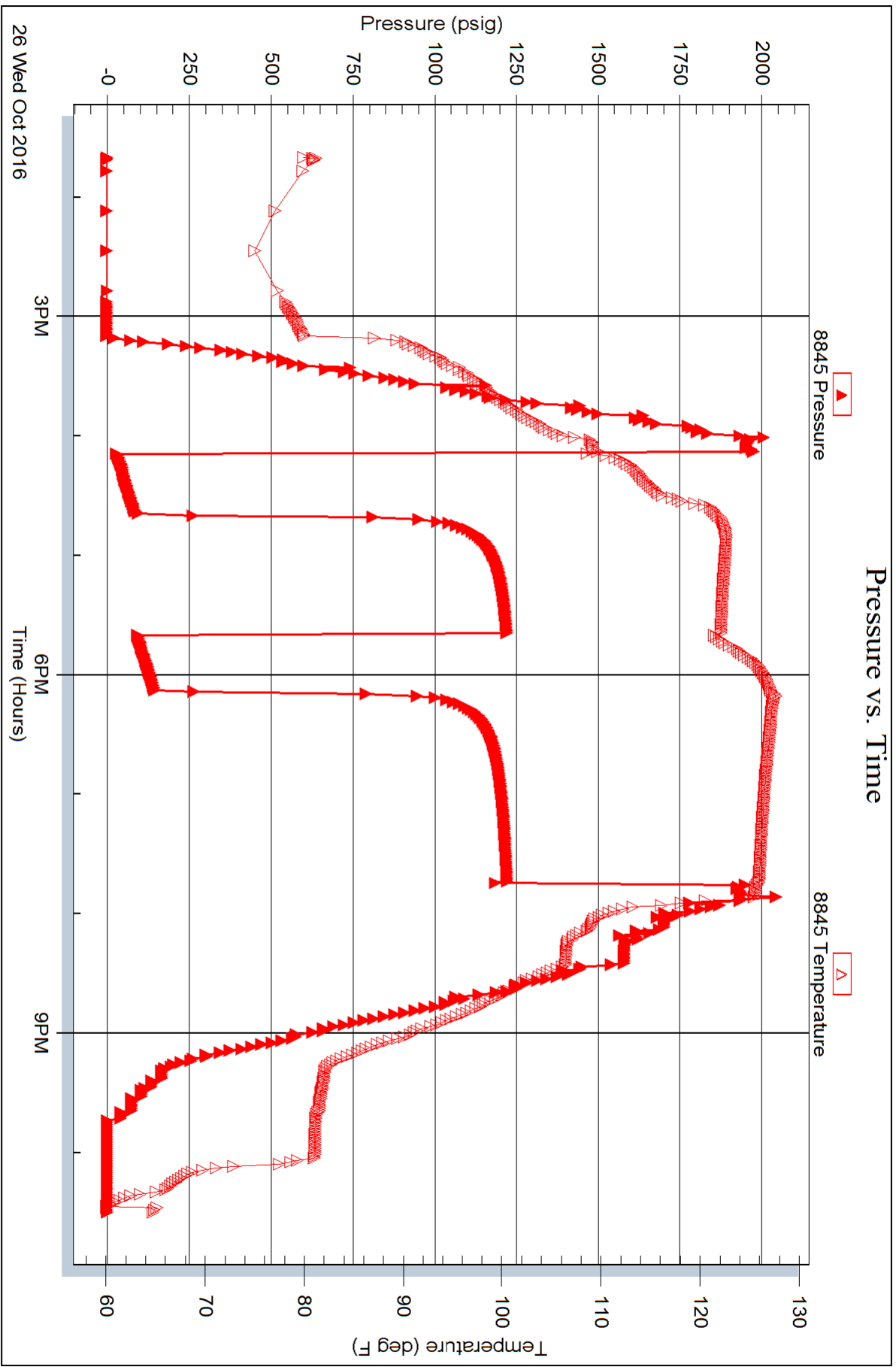


Serial #: 8845

Outside Culbreath Oil & Gas Co, Inc

Riedel #1-5

DST Test Number: 5





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63456

DST#: 6

ATTN: Richard Bell

Test Start: 2016.10.27 @ 12:35:00

GENERAL INFORMATION:

Formation: **LKC - K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:47:00

Time Test Ended: 22:11:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4046.00 ft (KB) To 4070.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 4070.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8845 Outside

Press@RunDepth: 194.01 psig @ 4047.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.27

End Date:

2016.10.27

Last Calib.:

2016.10.27

Start Time: 12:35:05

End Time:

22:11:15

Time On Btm:

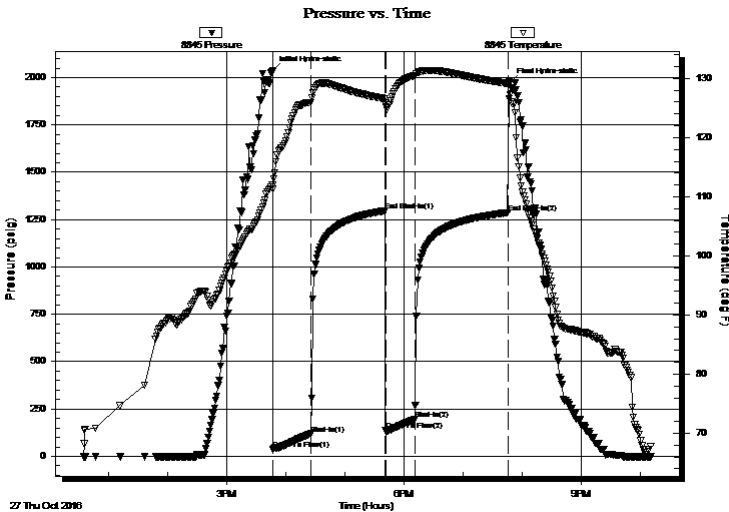
2016.10.27 @ 15:46:45

Time Off Btm:

2016.10.27 @ 19:47:45

TEST COMMENT: IF: BOB @ 4 min.
IS: BOB @ 16 min, receded to 2".
FF: BOB @ 7 min.
FS: BOB @ 25 minutes receded to 4".

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2037.81	111.94	Initial Hydro-static
1	35.20	111.27	Open To Flow (1)
39	119.22	125.97	Shut-In(1)
114	1296.99	126.56	End Shut-In(1)
115	136.73	125.82	Open To Flow (2)
145	194.01	130.52	Shut-In(2)
239	1286.80	129.14	End Shut-In(2)
241	1975.21	127.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	gmco 30g 35m 35o	1.12
440.00	go 30g 70o	6.17
0.00	1600' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63456

DST#: 6

ATTN: Richard Bell

Test Start: 2016.10.27 @ 12:35:00

GENERAL INFORMATION:

Formation: **LKC - K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:47:00

Time Test Ended: 22:11:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4046.00 ft (KB) To 4070.00 ft (KB) (TVD)

Reference Elevations: 2653.00 ft (KB)

Total Depth: 4070.00 ft (KB) (TVD)

2643.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8365 Inside

Press@RunDepth: psig @ 4047.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.10.27 End Date: 2016.10.27

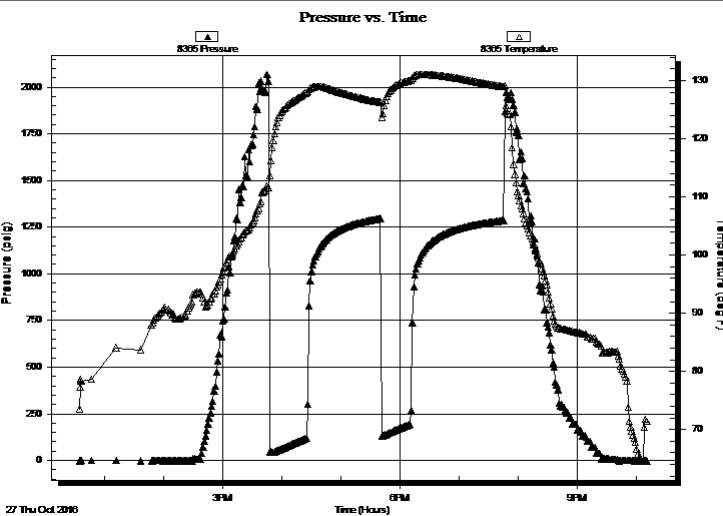
Last Calib.: 2016.10.27

Start Time: 12:35:05 End Time: 22:11:15

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB @ 4 min.
IS: BOB @ 16 min, receded to 2".
FF: BOB @ 7 min.
FS: BOB @ 25 minutes receded to 4".



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
80.00	gmco 30g 35m 35o	1.12
440.00	go 30g 70o	6.17
0.00	1600' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Culbreath Oil & Gas Co, Inc

5 10s 26w Sheridan, Ks

301 S Yale Ave.
Tulsa, Ok 74135

Riedel #1-5

Job Ticket: 63456

DST#: 6

ATTN: Richard Bell

Test Start: 2016.10.27 @ 12:35:00

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:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
80.00	gmco 30g 35m 35o	1.122
440.00	go 30g 70o	6.172
0.00	1600' GIP	0.000

Total Length: 520.00 ft Total Volume: 7.294 bbl

Num Fluid Samples: 0

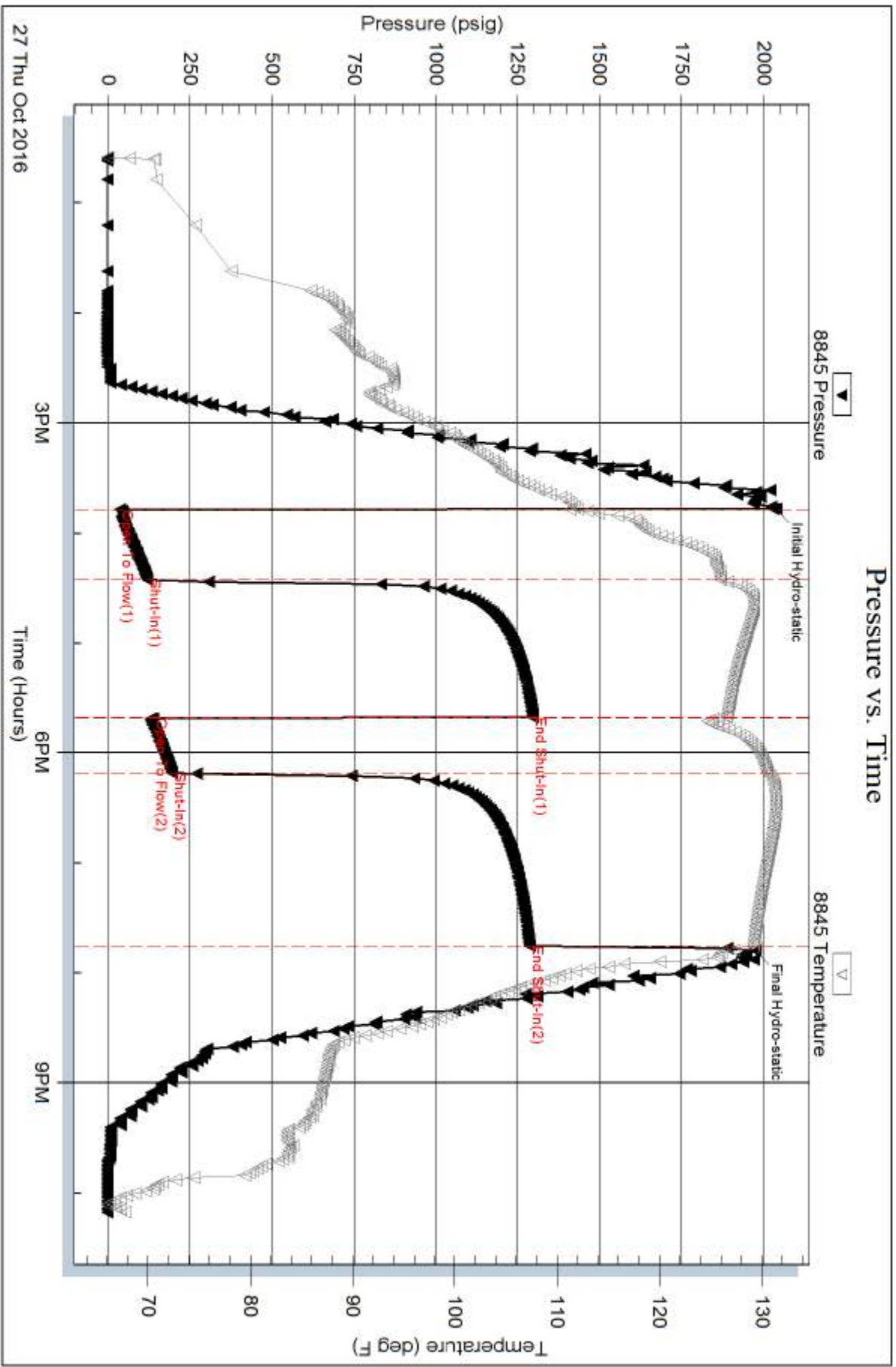
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



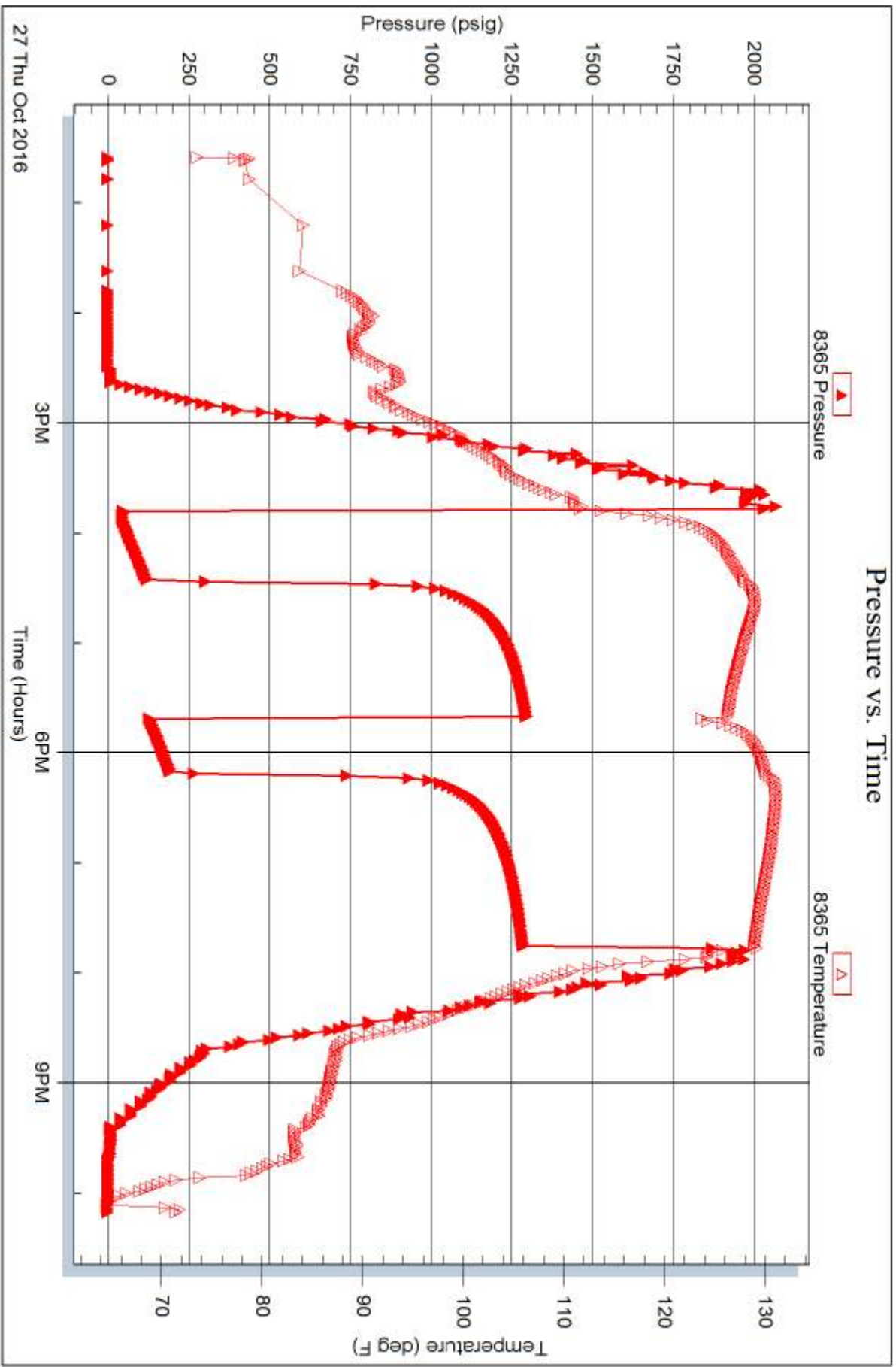
Serial #: 8365

Inside

Culbreath Oil & Gas Co, Inc

Riedel #1-5

DST Test Number: 6



Trilobite Testing, Inc

Ref. No: 63456

Printed: 2016.10.28 @ 07:22:51