

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 Recompletion Date

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

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

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

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

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

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

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

Datum:  NAD27  NAD83  WGS84

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

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

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

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

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

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

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

Multiple Stage Cementing Collar Used?  Yes  No

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

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

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

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

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

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

Location of fluid disposal if hauled offsite:

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

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

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

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

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

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

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

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

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

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

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

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

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

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

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

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

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Darrah Oil Company, LLC
Well Name	LONG 3-22
Doc ID	1467673

All Electric Logs Run

Dual Ind
Sonic
Micro
Porosity



V52122



**HURRICANE SERVICES INC**

V52122  
MAR 15 2019

Remit To: Hurricane Services, Inc.  
250 N. Water, Suite 200  
Wichita, KS 67202  
316-303-9515

Customer:  
DARRAH OIL  
C/O JOHN JAY DARRAH JR  
PO BOX 2786  
WICHITA, KS 67201-2786

Invoice Date: 3/9/2019  
Invoice #: 0340823  
Lease Name: Long  
Well #: 3-22 (New)  
County: Decatur  
Job Number: ICT1833

Date/Description	HRS/QTY	Rate	Total
ICT1833 Surface	0.000	0.000	0.00
Heavy Eq Mileage	160.000	3.120	499.20
Light Eq Mileage	80.000	1.560	124.80
Ton Mileage	696.000	1.170	814.32
Cement pump #231	1.000	585.000	585.00
Cement Data Acquisition	1.000	195.000	195.00
H-325	174.000	15.600	2,714.40

82300/100  
CEMENT

**Total** 4,932.72

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 1/4% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**











**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur,KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65348

**DST#: 4**

Test Start: 2019.03.21 @ 00:39:00

## GENERAL INFORMATION:

Formation: **LKC " B - F "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:14:10

Time Test Ended: 06:39:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

**Interval: 3532.00 ft (KB) To 3583.00 ft (KB) (TVD)**

Reference Elevations: 2627.00 ft (KB)

Total Depth: 3583.00 ft (KB) (TVD)

2622.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8959**

**Inside**

Press@RunDepth: 38.29 psig @ 3533.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.03.21

End Date:

2019.03.21

Last Calib.:

2019.03.21

Start Time: 00:39:01

End Time:

06:39:40

Time On Btm:

2019.03.21 @ 02:14:00

Time Off Btm:

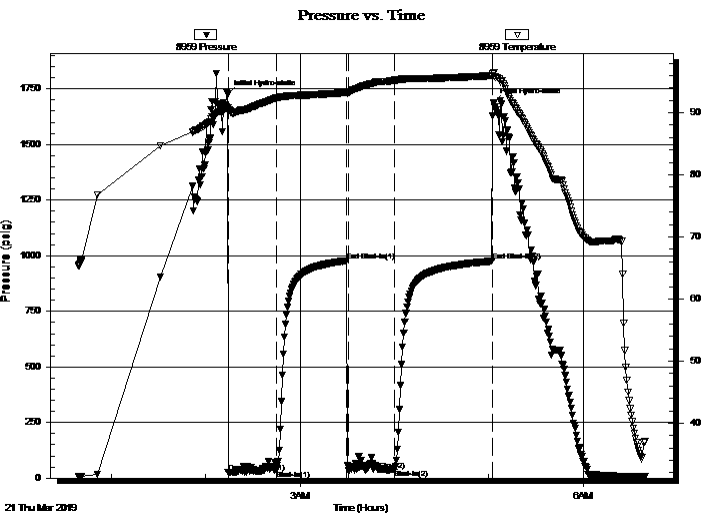
2019.03.21 @ 05:03:20

**TEST COMMENT:** 30-IF-S.blow built to 2 1/4"

45-ISI-No blow

30-FF-S.blow @ 2 mins built to 1 1/2"

60-FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1725.83	90.84	Initial Hydro-static
1	24.37	90.27	Open To Flow (1)
31	35.12	92.37	Shut-In(1)
76	976.67	93.24	End Shut-In(1)
77	33.92	93.29	Open To Flow (2)
106	38.29	95.23	Shut-In(2)
169	975.15	95.97	End Shut-In(2)
170	1688.31	96.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	SOSM 1%O, 99%M	0.49
0.00	Tool Sample SOSM 2%O, 98%M	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**

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur,KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65348

**DST#: 4**

Test Start: 2019.03.21 @ 00:39:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 61.00 sec/qt

Water Loss: 6.40 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	SOSM 1%O, 99%M	0.491
0.00	Tool Sample SOSM 2%O, 98%M	0.000

Total Length: 35.00 ft      Total Volume: 0.491 bbl

Num Fluid Samples: 0

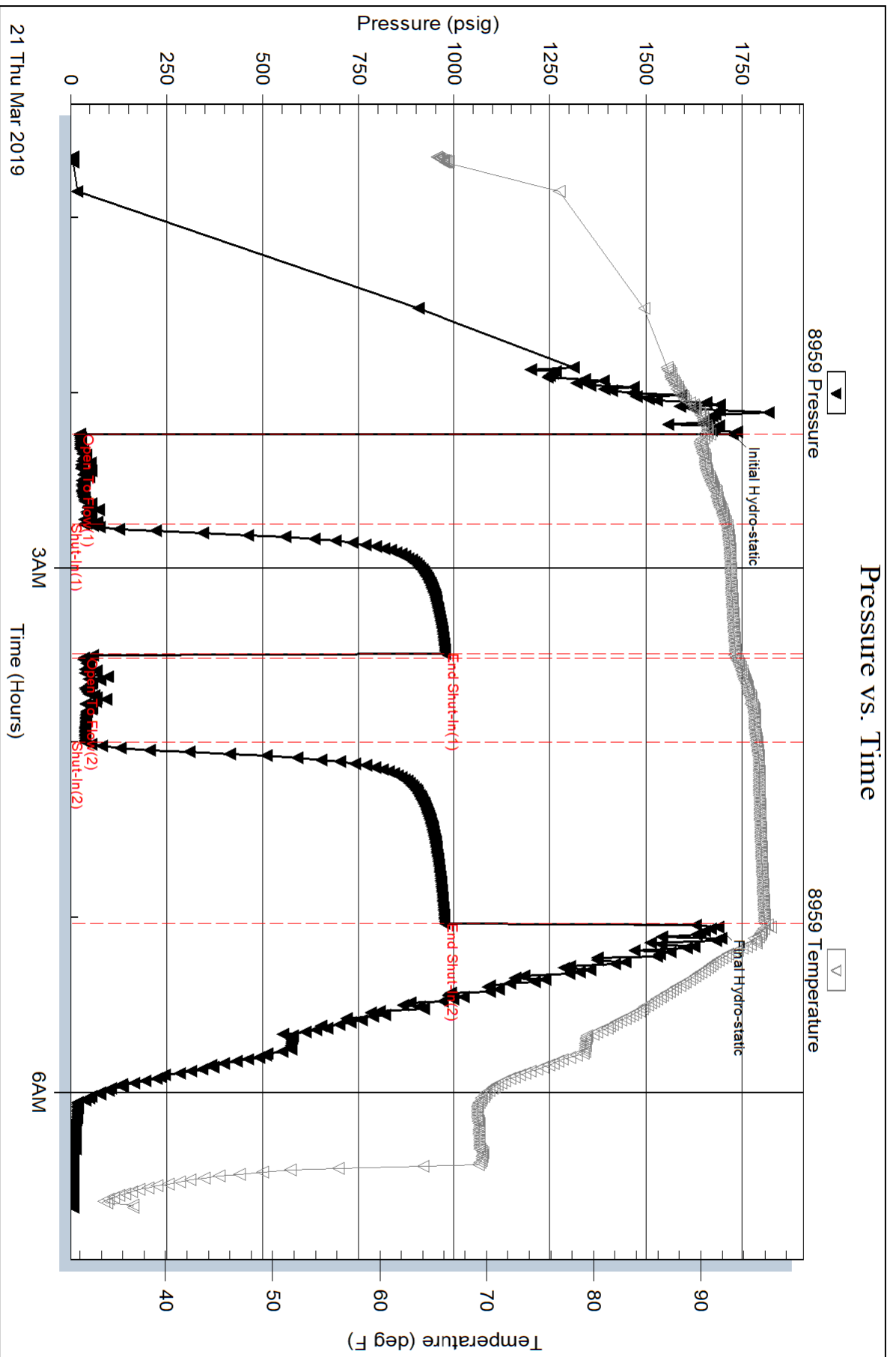
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

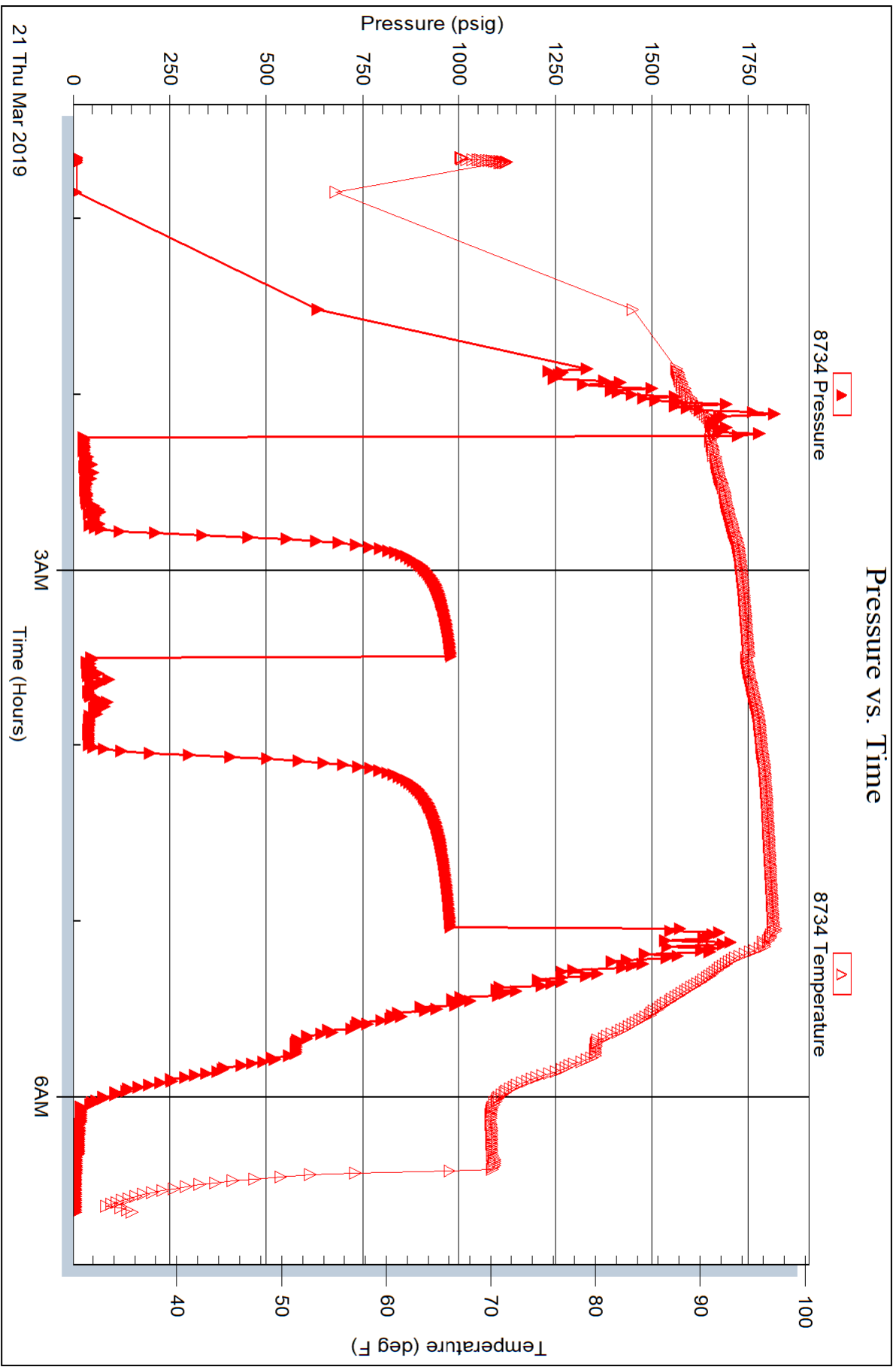


Serial #: 8734

Outside Darrah Oil Company LLC

Long #3-22

DST Test Number: 4







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur, KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65349

**DST#: 5**

Test Start: 2019.03.22 @ 04:23:00

## GENERAL INFORMATION:

Formation: **LKC " G - L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:20:30

Time Test Ended: 09:34:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

**Interval: 3574.00 ft (KB) To 3718.00 ft (KB) (TVD)**

Reference Elevations: 2627.00 ft (KB)

Total Depth: 3718.00 ft (KB) (TVD)

2622.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8959**

**Inside**

Press@RunDepth: 327.24 psig @ 3575.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.03.22

End Date:

2019.03.22

Last Calib.:

2019.03.22

Start Time: 04:23:01

End Time:

09:34:10

Time On Btm:

2019.03.22 @ 06:18:20

Time Off Btm:

2019.03.22 @ 07:22:40

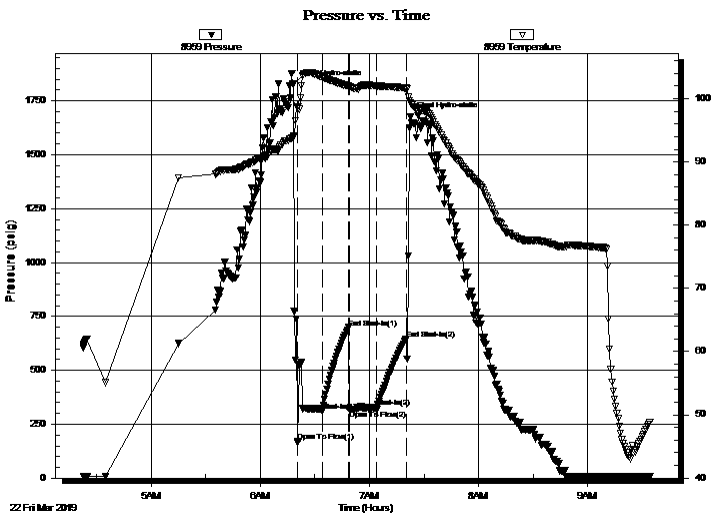
**TEST COMMENT:** 15-IF-4" blow built to B.O.B (12 inches) 15 secs (blow increased to 78 3/4" & decreased to 76 1/2")

15-ISI-No blow

15-FF-S.blow @ 5 mins built to 1 1/2"

15-FSI-No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1825.67	93.92	Initial Hydro-static
3	171.21	98.58	Open To Flow (1)
16	309.50	103.39	Shut-In(1)
31	698.44	102.00	End Shut-In(1)
31	316.65	101.85	Open To Flow (2)
46	327.24	102.04	Shut-In(2)
62	644.33	101.66	End Shut-In(2)
65	1674.16	99.35	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
185.00	HMCW 25%M, 75%W	2.60
250.00	HWCM 44%W, 56%M	3.51
200.00	100%Mud	2.81
0.00	Tool Sample SOSWM 1%O, 49%W, 50%N.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**

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur,KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65349

**DST#: 5**

Test Start: 2019.03.22 @ 04:23:00

## 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:

63000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
185.00	HMCW 25%M, 75%W	2.595
250.00	HWCM 44%W, 56%M	3.507
200.00	100%Mud	2.805
0.00	Tool Sample SOSWM 1%O, 49%W, 50%M	0.000

Total Length: 635.00 ft      Total Volume: 8.907 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .227 @ 40 degs = 63,000 PPM

Serial #: 8959

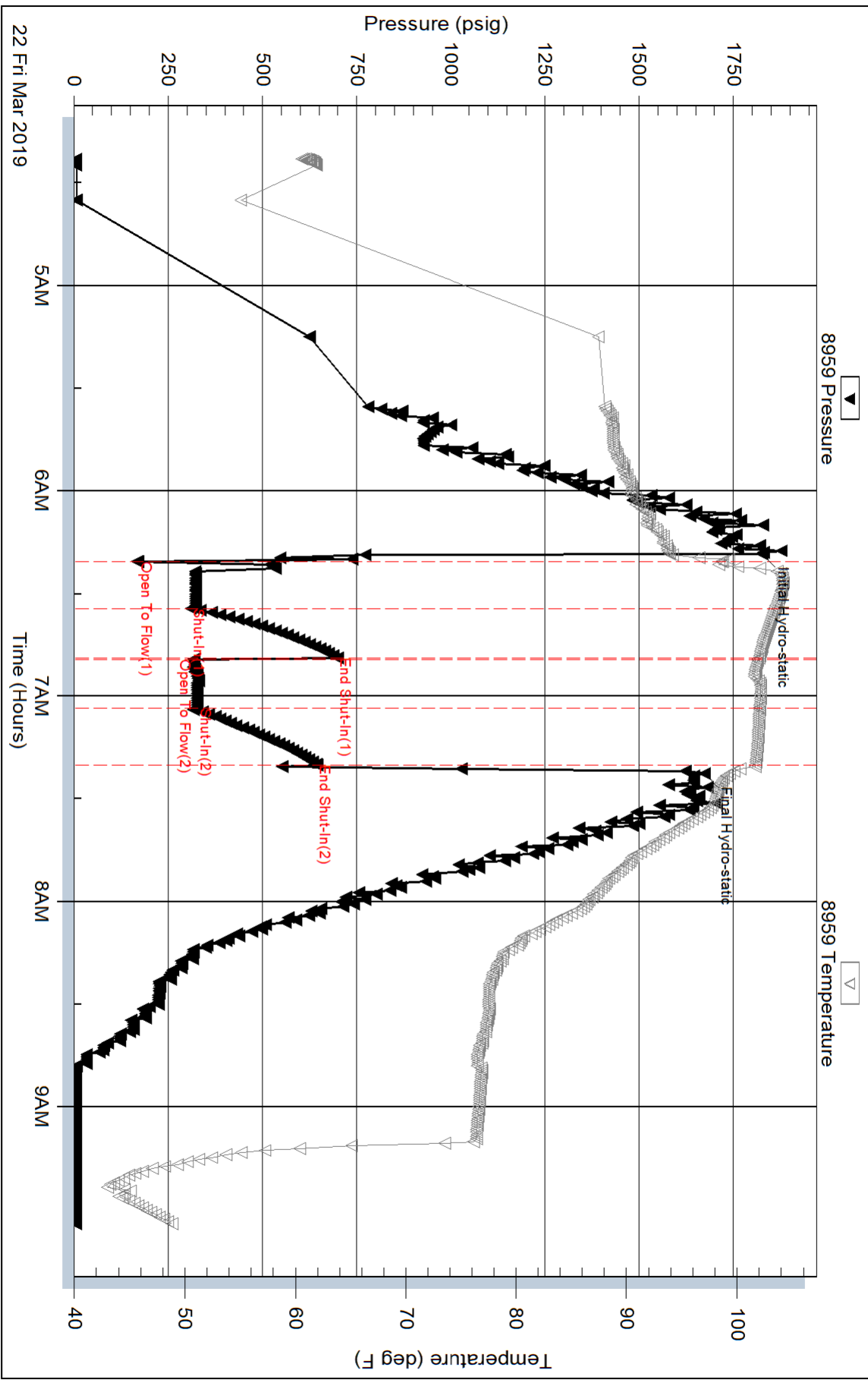
Inside

Darrah Oil Company LLC

Long #3-22

DST Test Number: 5

### Pressure vs. Time





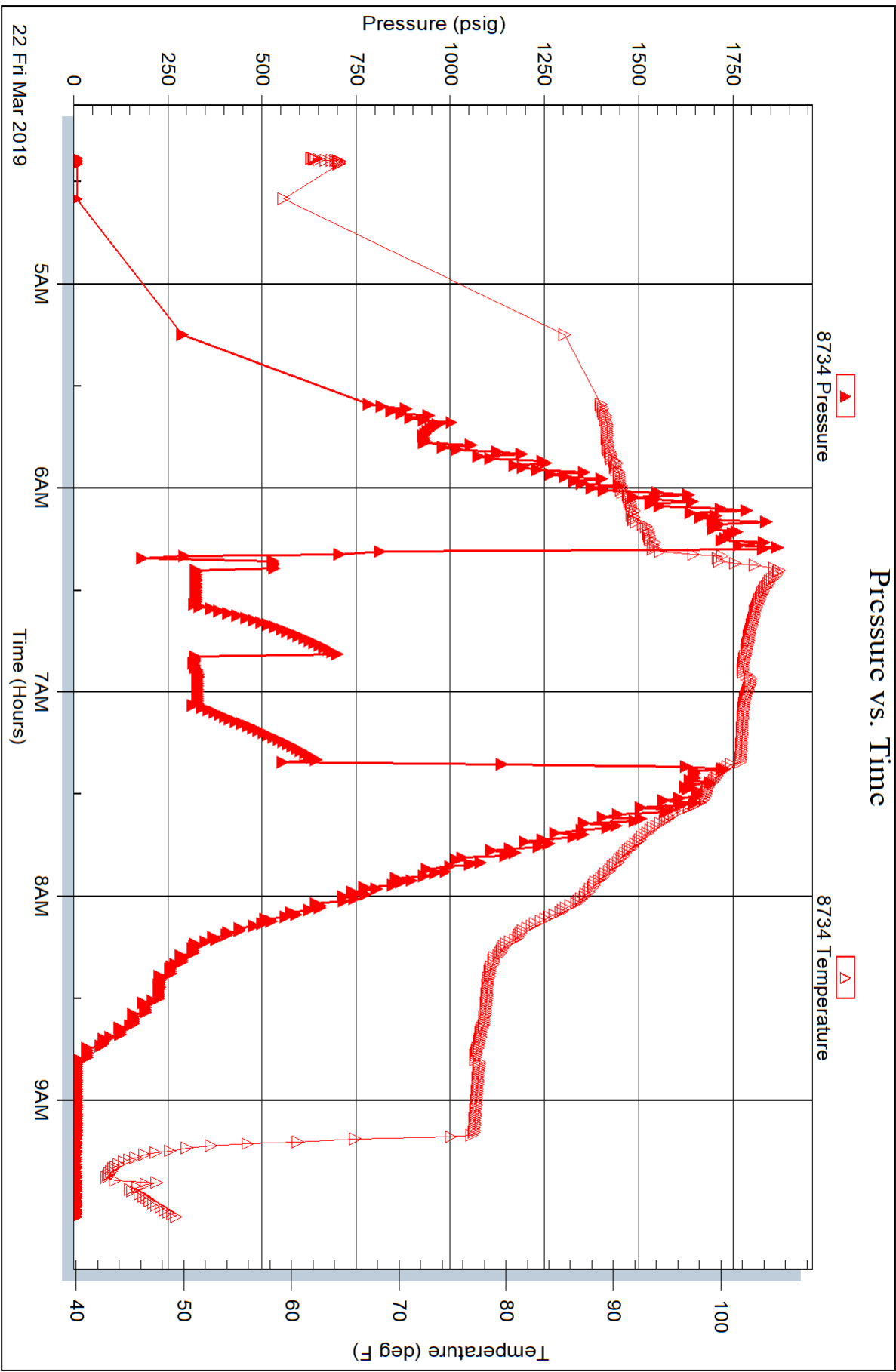
Serial #: 8734

Outside

Darrah Oil Company LLC

Long #3-22

DST Test Number: 5





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur,KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65345

**DST#: 1**

Test Start: 2019.03.18 @ 11:42:00

## GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:35:20

Time Test Ended: 18:12:50

Test Type: Conventional Bottom Hole (Initial)

Tester: Martine Salinas

Unit No: 82

**Interval: 3463.00 ft (KB) To 3474.00 ft (KB) (TVD)**

Reference Elevations: 2627.00 ft (KB)

Total Depth: 3474.00 ft (KB) (TVD)

2622.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**

Press@RunDepth: 27.14 psig @ 3464.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.03.18

End Date:

2019.03.18

Last Calib.: 2019.03.18

Start Time: 11:42:01

End Time:

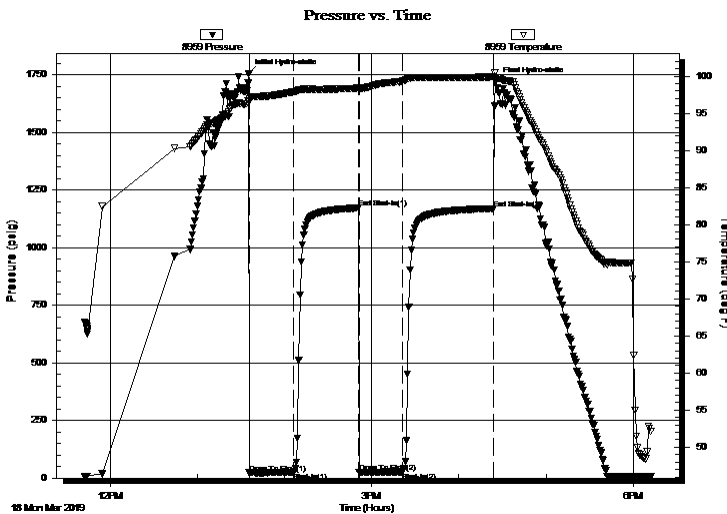
18:12:50

Time On Btm: 2019.03.18 @ 13:35:10

Time Off Btm: 2019.03.18 @ 16:25:30

**TEST COMMENT:** 30-IF-S.blow built to 1"  
45-ISI-No blow  
30-FF-Weak surface blow built to 1/2"  
60-FSI-No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1757.17	97.18	Initial Hydro-static
1	22.88	96.65	Open To Flow (1)
31	25.35	97.87	Shut-In(1)
76	1172.80	98.39	End Shut-In(1)
76	25.78	98.08	Open To Flow (2)
106	27.14	99.32	Shut-In(2)
169	1170.36	99.91	End Shut-In(2)
171	1721.88	99.80	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 3%O, 97%M	0.14
0.00	Tool Sample OSM 5%O 95%M	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur,KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65345

**DST#: 1**

Test Start: 2019.03.18 @ 11:42:00

## 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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OSM 3%O, 97%M	0.140
0.00	Tool Sample OSM 5%O 95%M	0.000

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:



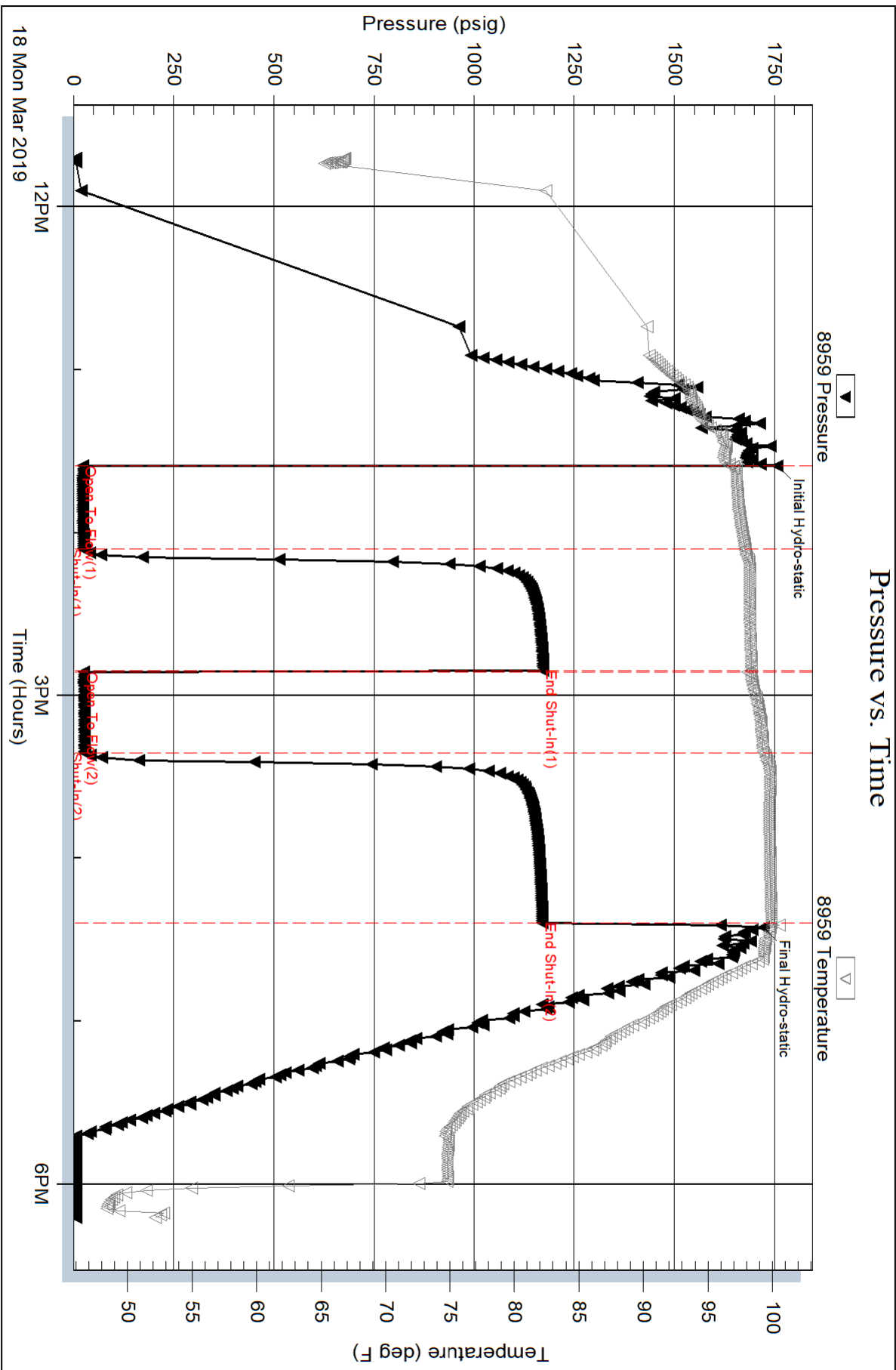
Serial #: 8959

Inside

Darrah Oil Company LLC

Long #3-22

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 65345

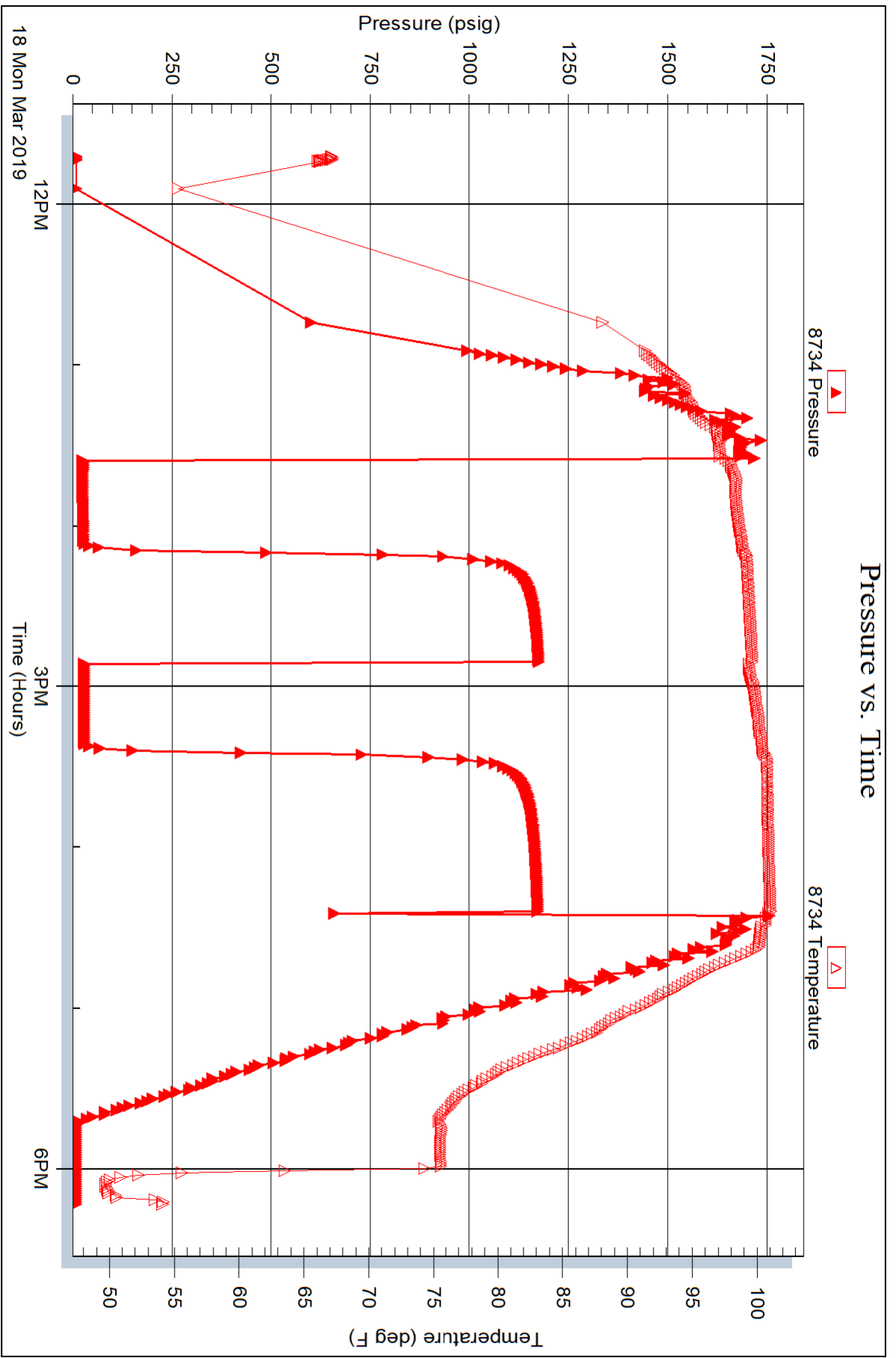
Printed: 2019.03.18 @ 21:51:20

Serial #: 8734

Outside Darrah Oil Company LLC

Long #3-22

DST Test Number: 1





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur, KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65346

**DST#: 2**

Test Start: 2019.03.19 @ 12:03:00

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:35:20

Time Test Ended: 17:57:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

**Interval: 3479.00 ft (KB) To 3518.00 ft (KB) (TVD)**

Reference Elevations: 2627.00 ft (KB)

Total Depth: 3518.00 ft (KB) (TVD)

2622.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**

Press@RunDepth: 32.68 psig @ 3480.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.03.19

End Date: 2019.03.19

Last Calib.: 2019.03.19

Start Time: 12:03:01

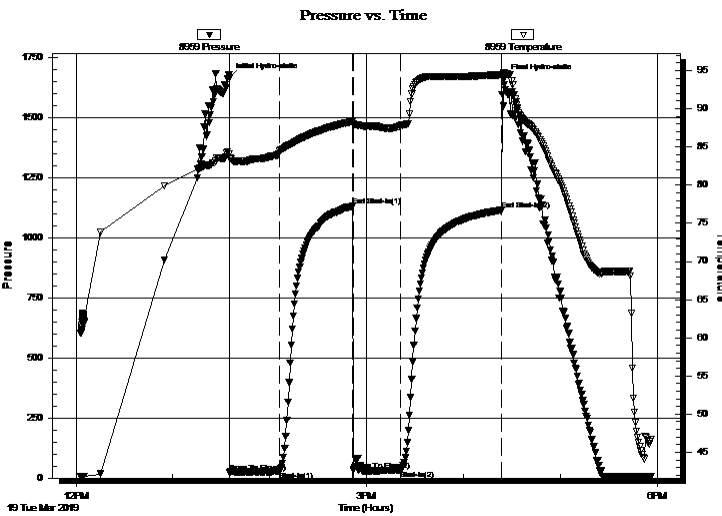
End Time: 17:57:00

Time On Btm: 2019.03.19 @ 13:35:00

Time Off Btm: 2019.03.19 @ 16:25:09

**TEST COMMENT:** 30-IF-S.blow built to 1 3/4"  
45-ISI-S.blow back @ 26 mins built to 1/8"  
30-FF-S.blow built to 1 1/4"  
60-FSI-S.blow back @ 22 mins, maintained surface blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1663.65	84.06	Initial Hydro-static
1	25.14	83.59	Open To Flow (1)
31	27.01	84.47	Shut-In(1)
77	1130.53	88.35	End Shut-In(1)
77	31.61	88.08	Open To Flow (2)
106	32.68	87.75	Shut-In(2)
169	1114.07	94.45	End Shut-In(2)
171	1659.64	94.75	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
25.00	SOSWM 1%O, 39%W, 60%M	0.35
0.00	Tool Sample OSWM 3%O, 47%W, 50%M	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

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur,KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65346

**DST#: 2**

Test Start: 2019.03.19 @ 12:03:00

### 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:

39000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
25.00	SOSWM 1%O, 39%W, 60%M	0.351
0.00	Tool Sample OSWM 3%O, 47%W, 50%M	0.000

Total Length: 25.00 ft Total Volume: 0.351 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .279 @ 48.2 degs = 39,000 PPM

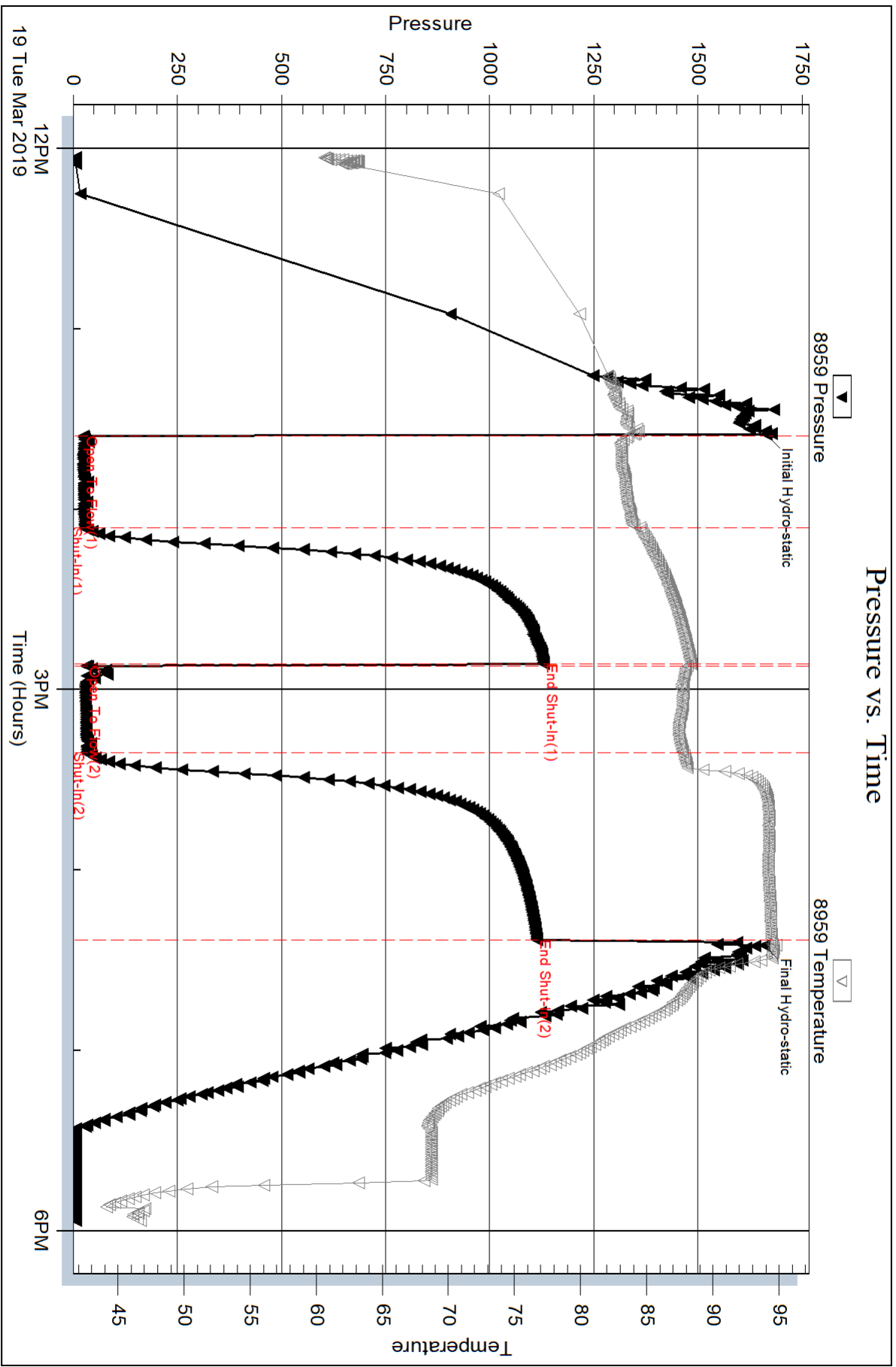
Serial #: 8959

Inside

Darrah Oil Company LLC

Long #3-22

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 65346

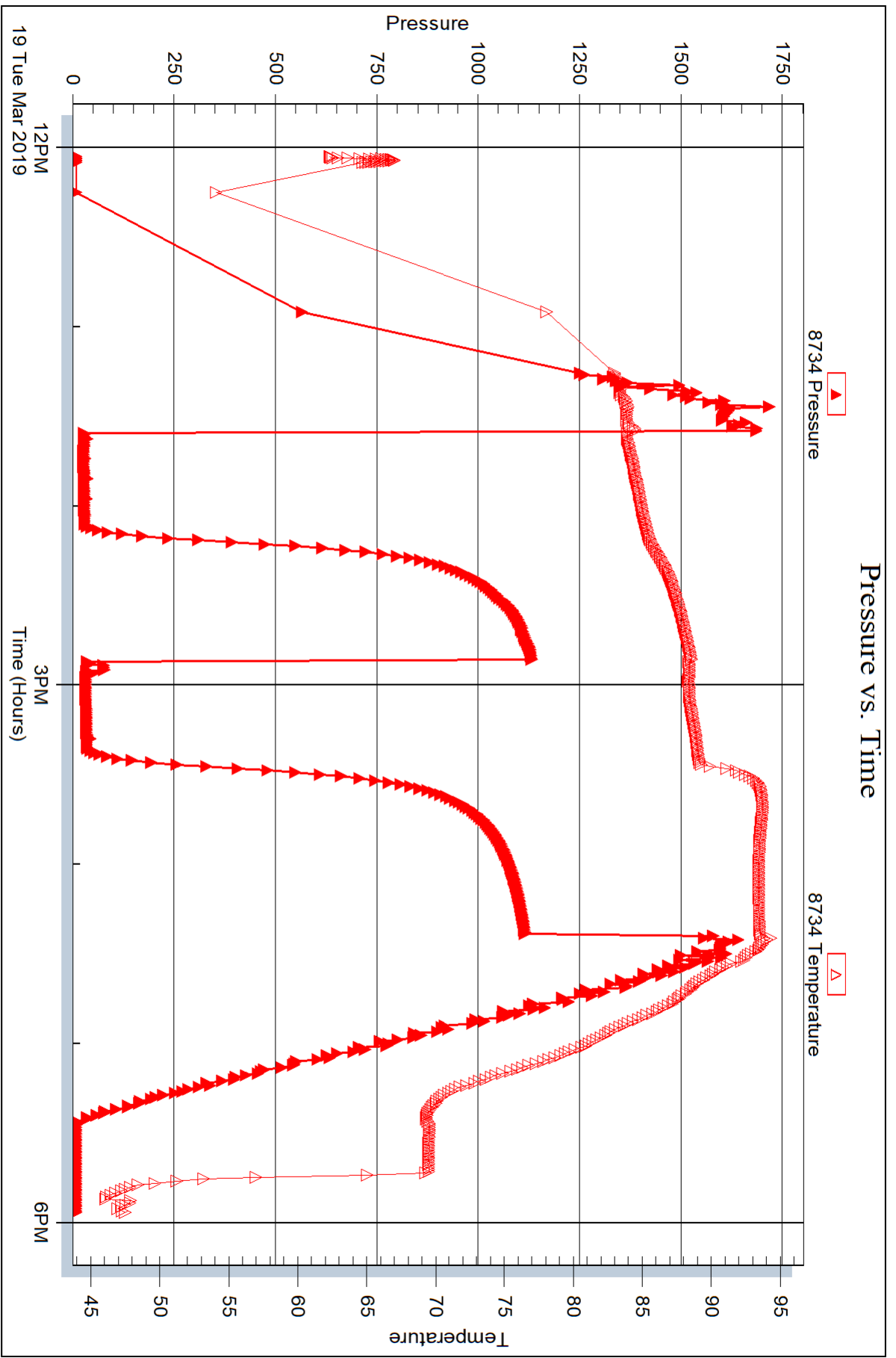
Printed: 2019.03.20 @ 11:04:57

Serial #: 8734

Outside Darrah Oil Company LLC

Long #3-22

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 65346

Printed: 2019.03.20 @ 11:04:57



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Darrah Oil Company LLC

**22 - 2S. - 27W Decatur, KS**

125 N. Market  
Suite 1425  
Wichita, KS 67202  
ATTN: Roger Martin

**Long # 3-22**

Job Ticket: 65347

**DST#: 3**

Test Start: 2019.03.20 @ 04:23:00

## GENERAL INFORMATION:

Formation: **Lansing " A "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:03:40

Time Test Ended: 10:22:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

**Interval: 3516.00 ft (KB) To 3531.00 ft (KB) (TVD)**

Reference Elevations: 2627.00 ft (KB)

Total Depth: 3531.00 ft (KB) (TVD)

2622.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8959**

**Inside**

Press@RunDepth: 31.42 psig @ 3517.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.03.20

End Date: 2019.03.20

Last Calib.: 2019.03.20

Start Time: 04:23:00

End Time: 10:22:20

Time On Btm: 2019.03.20 @ 06:03:30

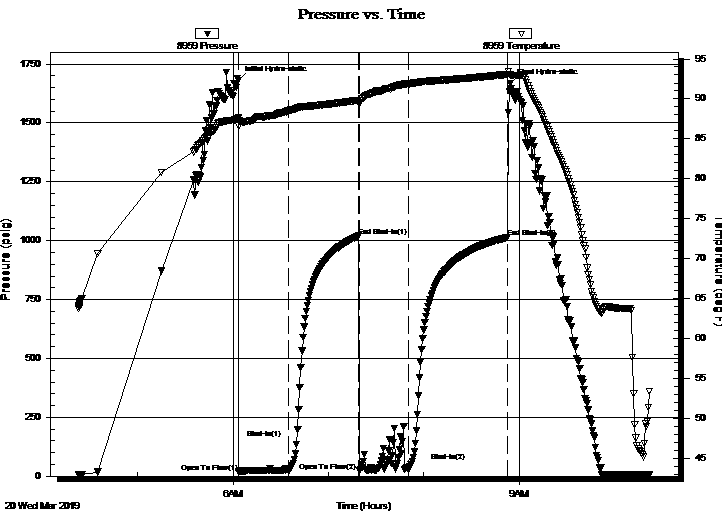
Time Off Btm: 2019.03.20 @ 08:54:20

TEST COMMENT: 30-IF-S.blow built to 1 1/4"

45-ISI-No blow

30-FF-S.blow @ 5 mins built to 1/4"

60-FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1679.49	87.63	Initial Hydro-static
1	20.77	86.63	Open To Flow (1)
32	24.05	88.49	Shut-In(1)
76	1019.43	89.83	End Shut-In(1)
76	24.44	89.31	Open To Flow (2)
107	31.42	91.85	Shut-In(2)
170	1013.82	93.06	End Shut-In(2)
171	1667.14	92.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
7.00	SOSM 1%O, 99%M	0.10
0.00	Tool Sample SOSM 1%O, 99%M	0.00

## Gas Rates

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

\* Recovery from multiple tests

Serial #: 8959

Inside

Darrah Oil Company LLC

Long #3-22

DST Test Number: 3

# Pressure vs. Time

