

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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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

DNR Oil & Gas Inc.
 PO Box 4507
 Englewood, CO 80155
 ATTN: Tim Lauer

23/1s/41w Cheyenne, KS
Zuege #13-23
 Job Ticket: 65368 **DST#: 1**
 Test Start: 2019.05.05 @ 01:30:00

GENERAL INFORMATION:

Formation: **Tarkio - Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:15:45
 Time Test Ended: 09:22:00
 Interval: **4278.00 ft (KB) To 4420.00 ft (KB) (TVD)**
 Total Depth: 4420.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3583.00 ft (KB)
 3578.00 ft (CF)
 KB to GR/CF: 5.00 ft

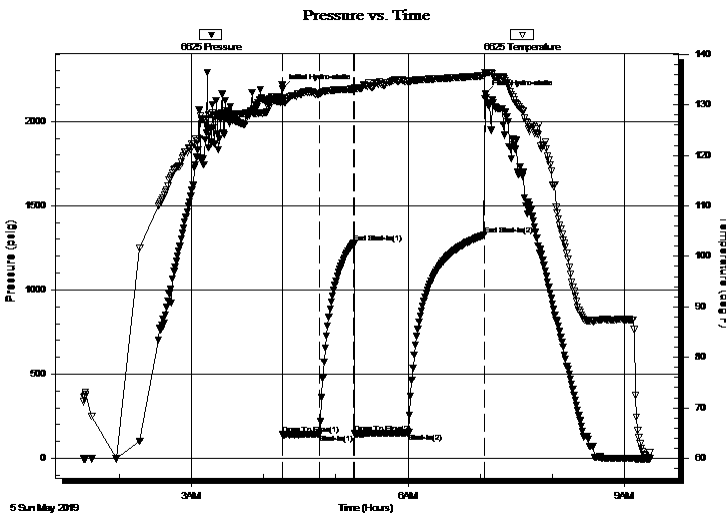
Serial #: 6625

Inside

Press@RunDepth: 151.27 psig @ 4279.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.05.05 End Date: 2019.05.05 Last Calib.: 2019.05.05
 Start Time: 01:30:05 End Time: 09:21:59 Time On Btm: 2019.05.05 @ 04:15:30
 Time Off Btm: 2019.05.05 @ 07:04:45

TEST COMMENT: 30 - IF: Blow built to 1 1/2"
 30 - IS: No blow back
 45 - FF: Blow built to 1/2"
 60 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2192.13	131.20	Initial Hydro-static
1	140.51	130.79	Open To Flow (1)
31	144.85	132.22	Shut-In(1)
60	1278.71	133.10	End Shut-In(1)
61	146.07	133.33	Open To Flow (2)
106	151.27	134.51	Shut-In(2)
168	1325.47	135.77	End Shut-In(2)
170	2161.73	136.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	Mud 100%	1.73

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNR Oil & Gas Inc.

23/1s/41w Cheyenne, KS

PO Box 4507
Englewood, CO 80155

Zuege #13-23

Job Ticket: 65368

DST#: 1

ATTN: Tim Lauer

Test Start: 2019.05.05 @ 01:30:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 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
260.00	Mud 100%	1.734

Total Length: 260.00 ft Total Volume: 1.734 bbl

Num Fluid Samples: 0

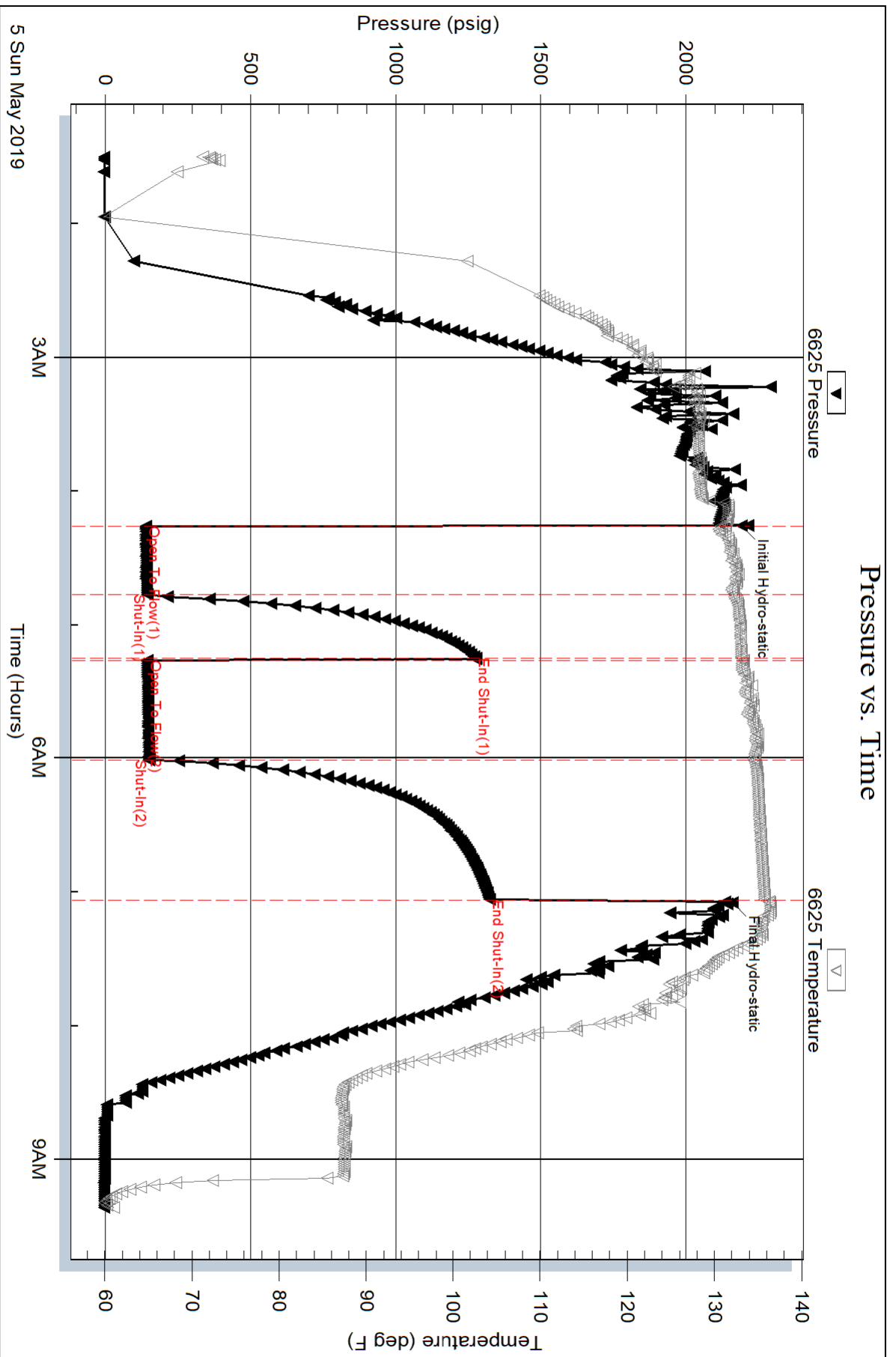
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

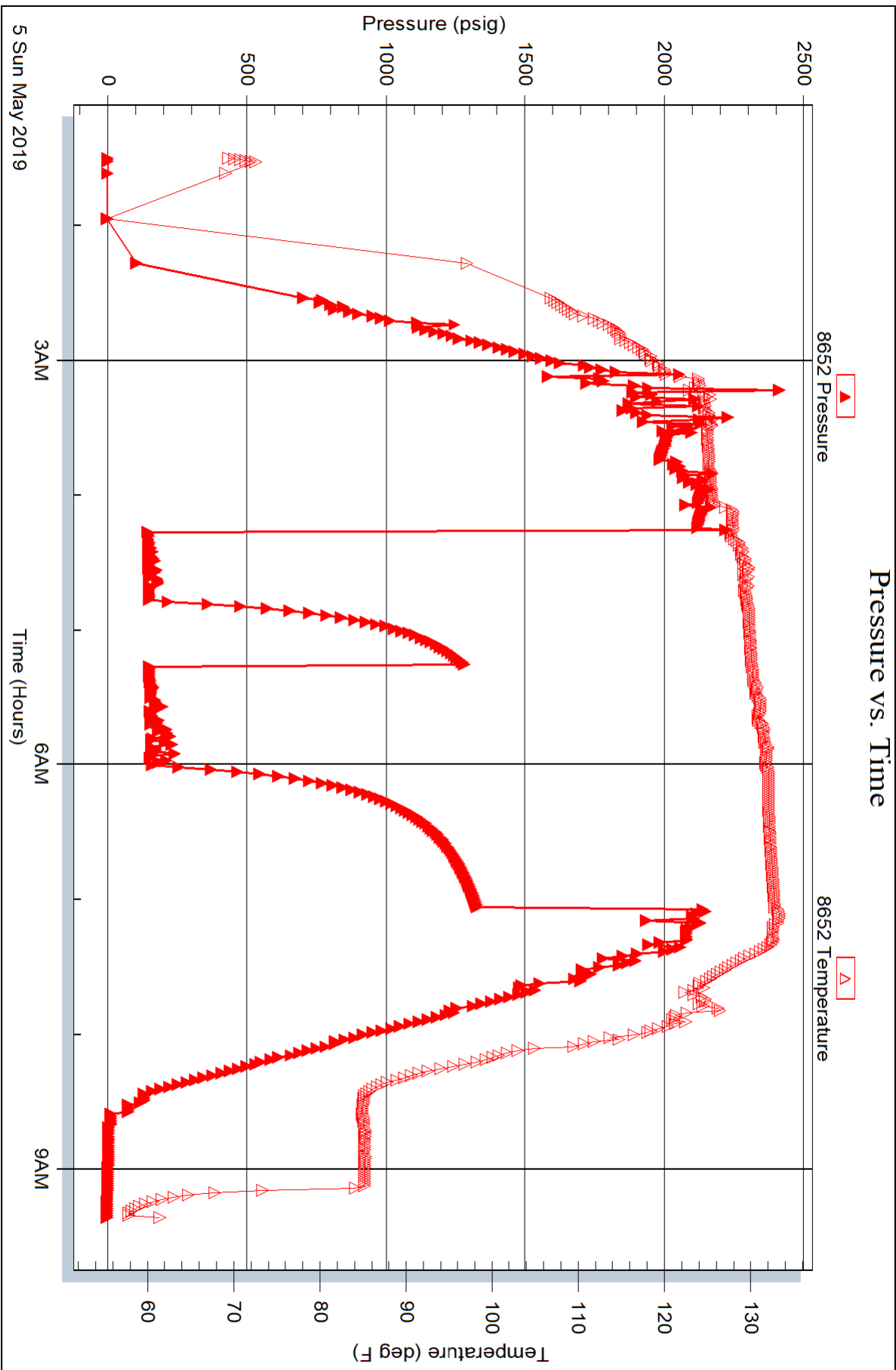


Serial #: 8652

Outside DNR Oil & Gas Inc.

Zuege #13-23

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

DNR Oil & Gas Inc.
 PO Box 4507
 Englewood, CO 80155
 ATTN: Tim Lauer

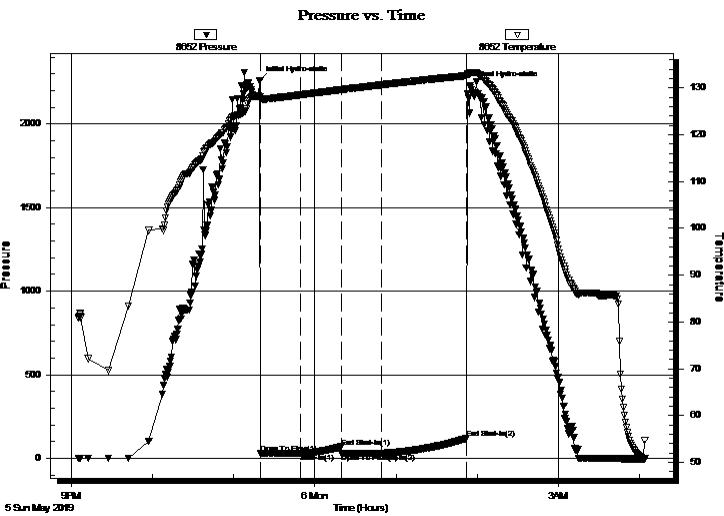
23/1s/41w Cheyenne, KS
Zuege #13-23
 Job Ticket: 65369 **DST#: 2**
 Test Start: 2019.05.05 @ 21:05:00

GENERAL INFORMATION:

Formation: **Deer Creek - Oread**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:19:45
 Time Test Ended: 04:04:15
 Interval: **4410.00 ft (KB) To 4490.00 ft (KB) (TVD)**
 Total Depth: 4490.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3583.00 ft (KB)
 3578.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8652 Outside
 Press@RunDepth: 30.51 psig @ 4411.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.05.05 End Date: 2019.05.06 Last Calib.: 2019.05.06
 Start Time: 21:05:05 End Time: 04:04:14 Time On Btm: 2019.05.05 @ 23:19:15
 Time Off Btm: 2019.05.06 @ 01:55:00

TEST COMMENT: 30 - IF: 1/4" Blow at open, built slightly, died back to 1/8"
 30 - IS: No blow back
 30 - FF: No blow
 60 - FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2260.59	128.20	Initial Hydro-static
1	27.97	127.43	Open To Flow (1)
30	30.48	128.53	Shut-In(1)
61	69.05	129.62	End Shut-In(1)
61	28.89	129.63	Open To Flow (2)
90	30.51	130.65	Shut-In(2)
154	120.28	132.64	End Shut-In(2)
156	2228.24	133.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNR Oil & Gas Inc.

23/1s/41w Cheyenne, KS

PO Box 4507
Englewood, CO 80155

Zuege #13-23

Job Ticket: 65369

DST#: 2

ATTN: Tim Lauer

Test Start: 2019.05.05 @ 21:05:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 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
10.00	Mud 100%	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

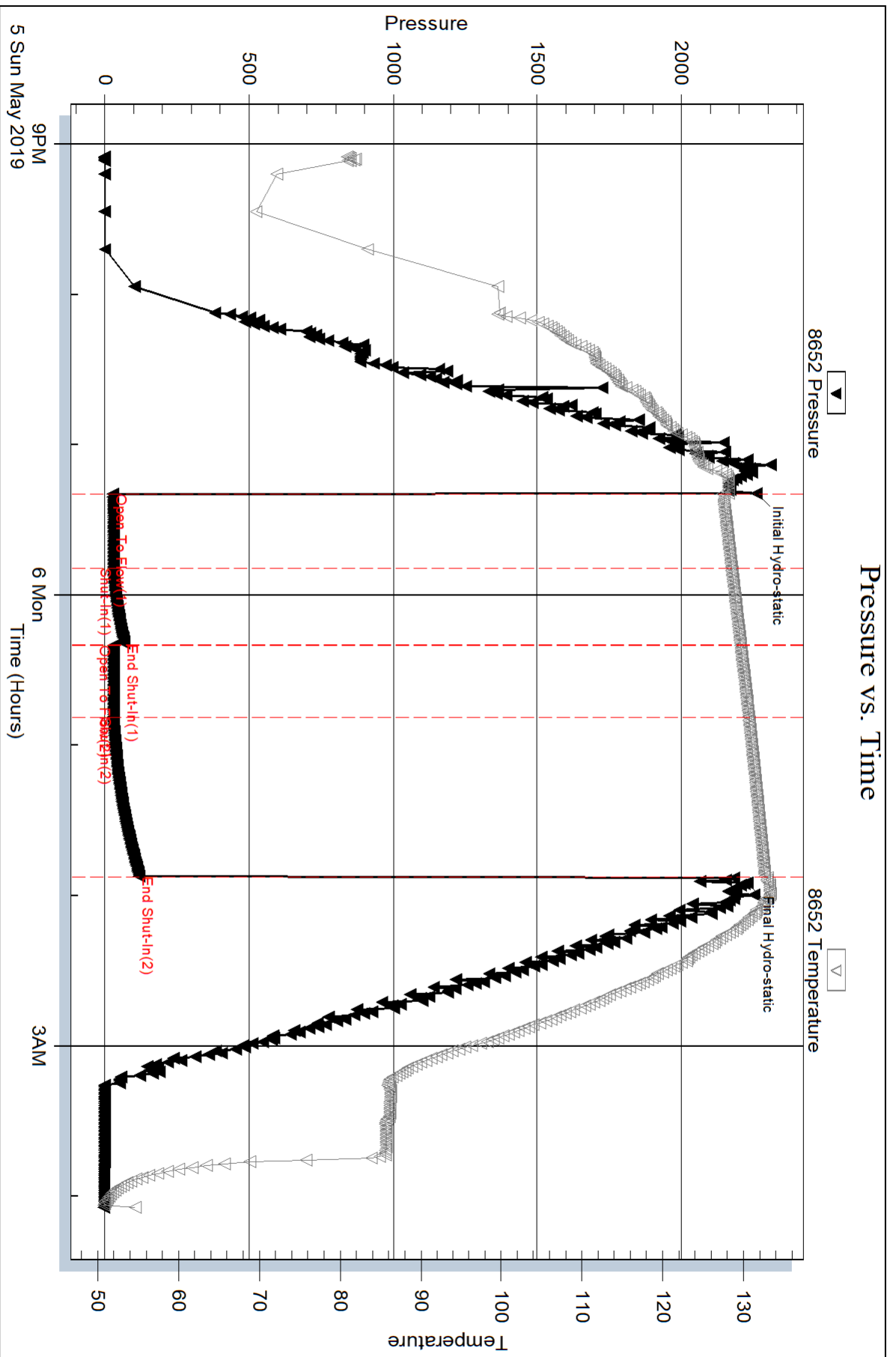
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



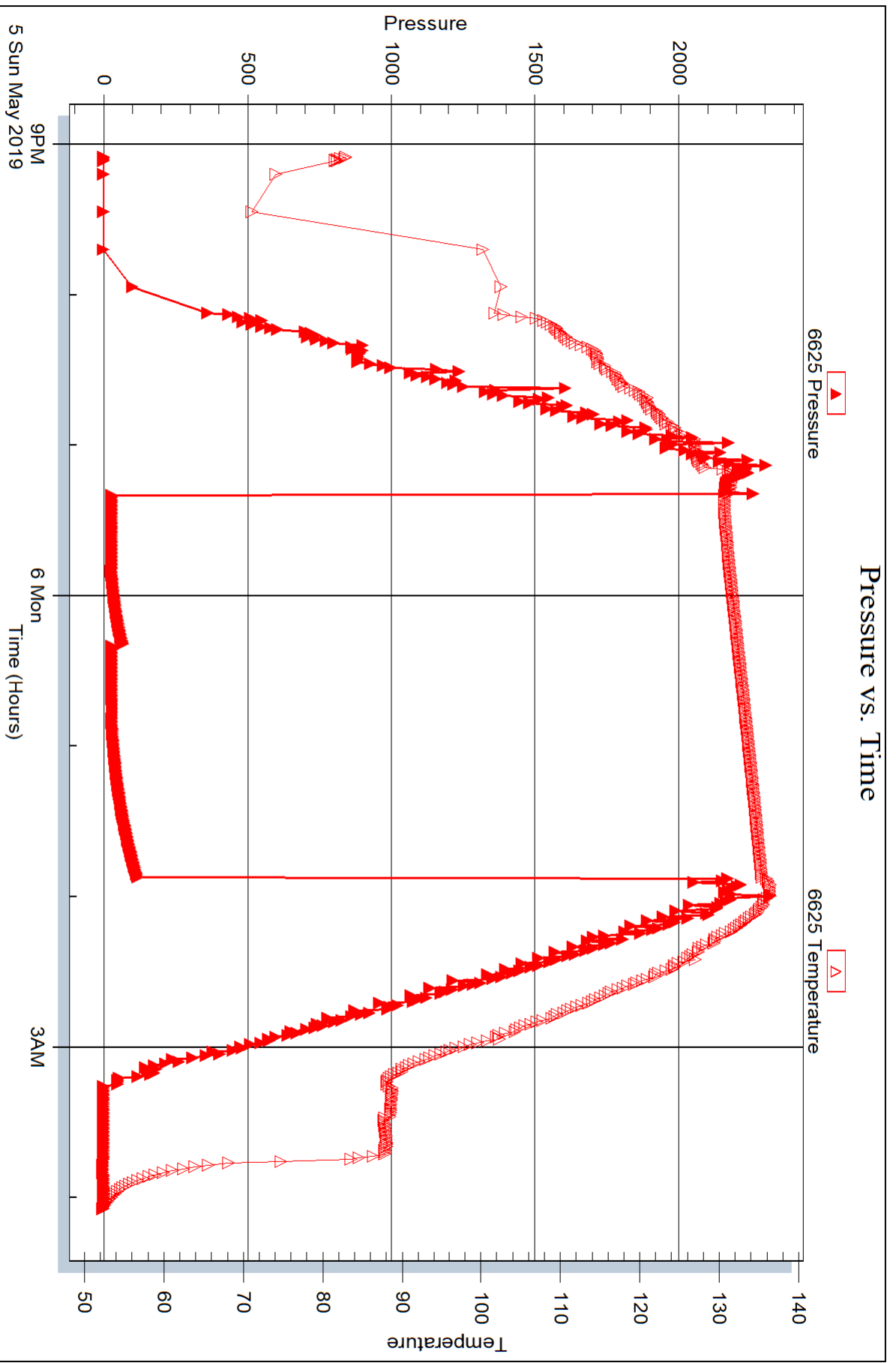
Serial #: 6625

Inside

DNR Oil & Gas Inc.

Zuege #13-23

DST Test Number: 2





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

DNR Oil & Gas Inc.
 PO Box 4507
 Englewood, CO 80155
 ATTN: Tim Lauer

23/1s/41w Cheyenne, KS
Zuege #13-23
 Job Ticket: 65370 **DST#: 3**
 Test Start: 2019.05.06 @ 22:29:00

GENERAL INFORMATION:

Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:35:30
 Time Test Ended: 05:16:30
 Interval: **4580.00 ft (KB) To 4650.00 ft (KB) (TVD)**
 Total Depth: 4650.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3583.00 ft (KB)
 3578.00 ft (CF)
 KB to GR/CF: 5.00 ft

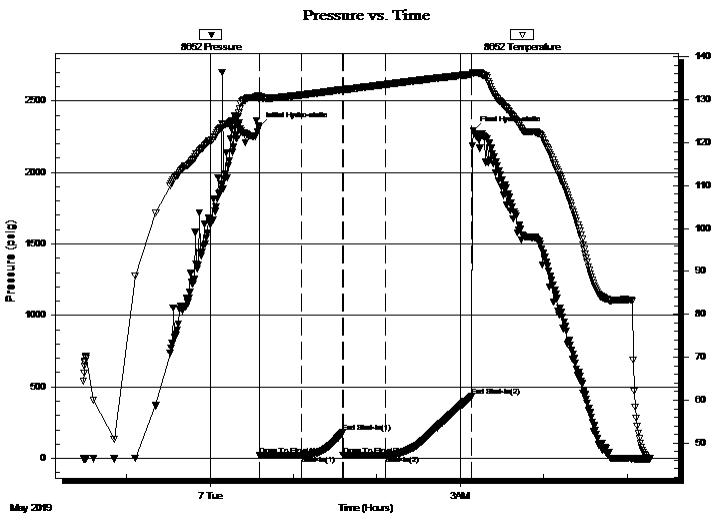
Serial #: 8652

Outside

Press@RunDepth: 22.98 psig @ 4581.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.05.06 End Date: 2019.05.07 Last Calib.: 2019.05.07
 Start Time: 22:29:05 End Time: 05:16:29 Time On Btm: 2019.05.07 @ 00:35:15
 Time Off Btm: 2019.05.07 @ 03:09:30

TEST COMMENT: 30 - IF: Blow built to just under 1"
 30 - IS: No blow back
 30 - FF: No blow
 60 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2320.42	130.98	Initial Hydro-static
1	20.55	130.00	Open To Flow (1)
31	21.94	131.14	Shut-In(1)
60	179.74	132.39	End Shut-In(1)
61	21.41	132.35	Open To Flow (2)
91	22.98	133.57	Shut-In(2)
153	434.28	135.94	End Shut-In(2)
155	2291.77	136.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100%	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNR Oil & Gas Inc.

23/1s/41w Cheyenne, KS

PO Box 4507
Englewood, CO 80155

Zuege #13-23

Job Ticket: 65370

DST#: 3

ATTN: Tim Lauer

Test Start: 2019.05.06 @ 22:29:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 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
2.00	Mud 100%	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

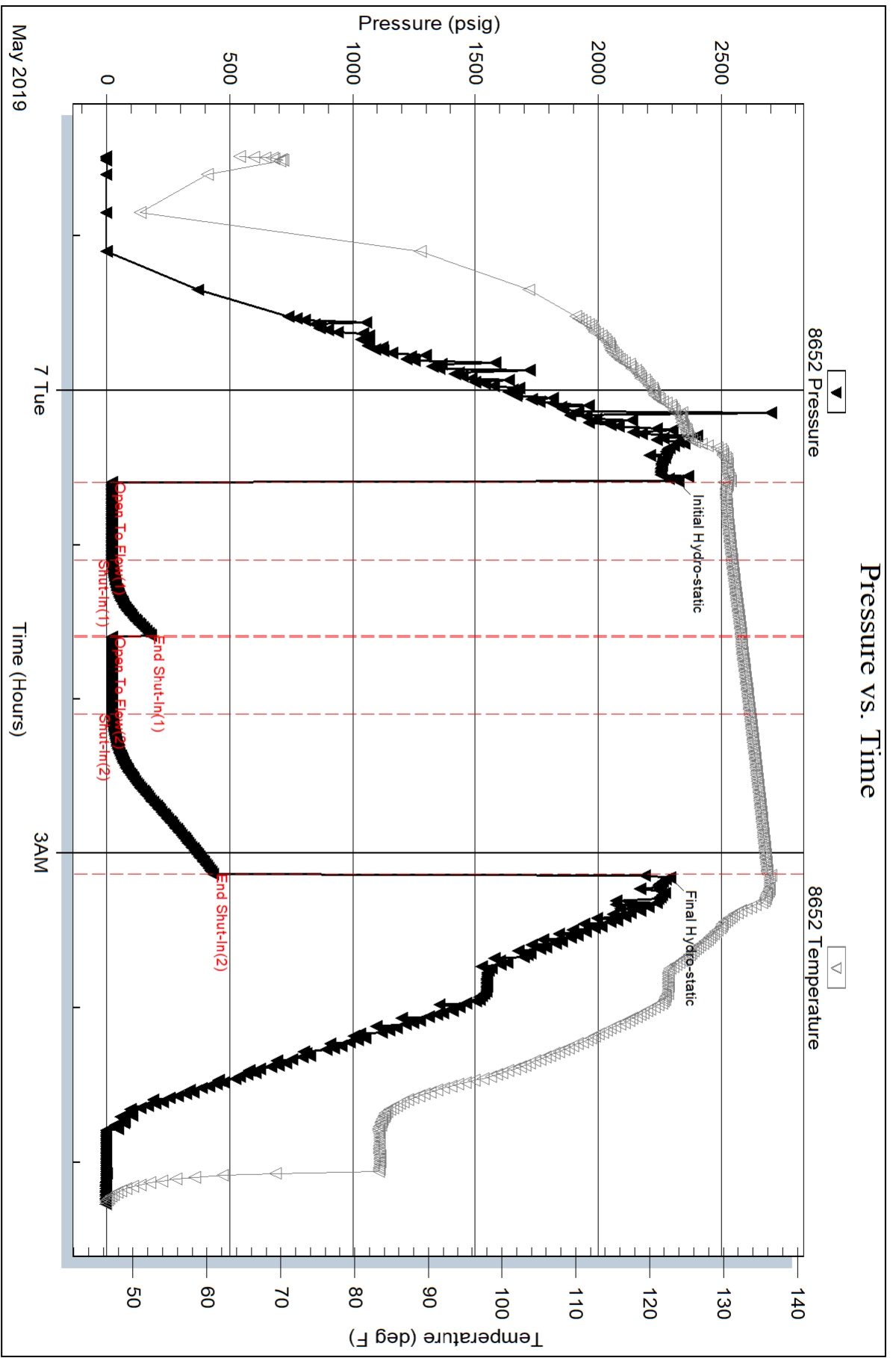
Num Gas Bombs: 0

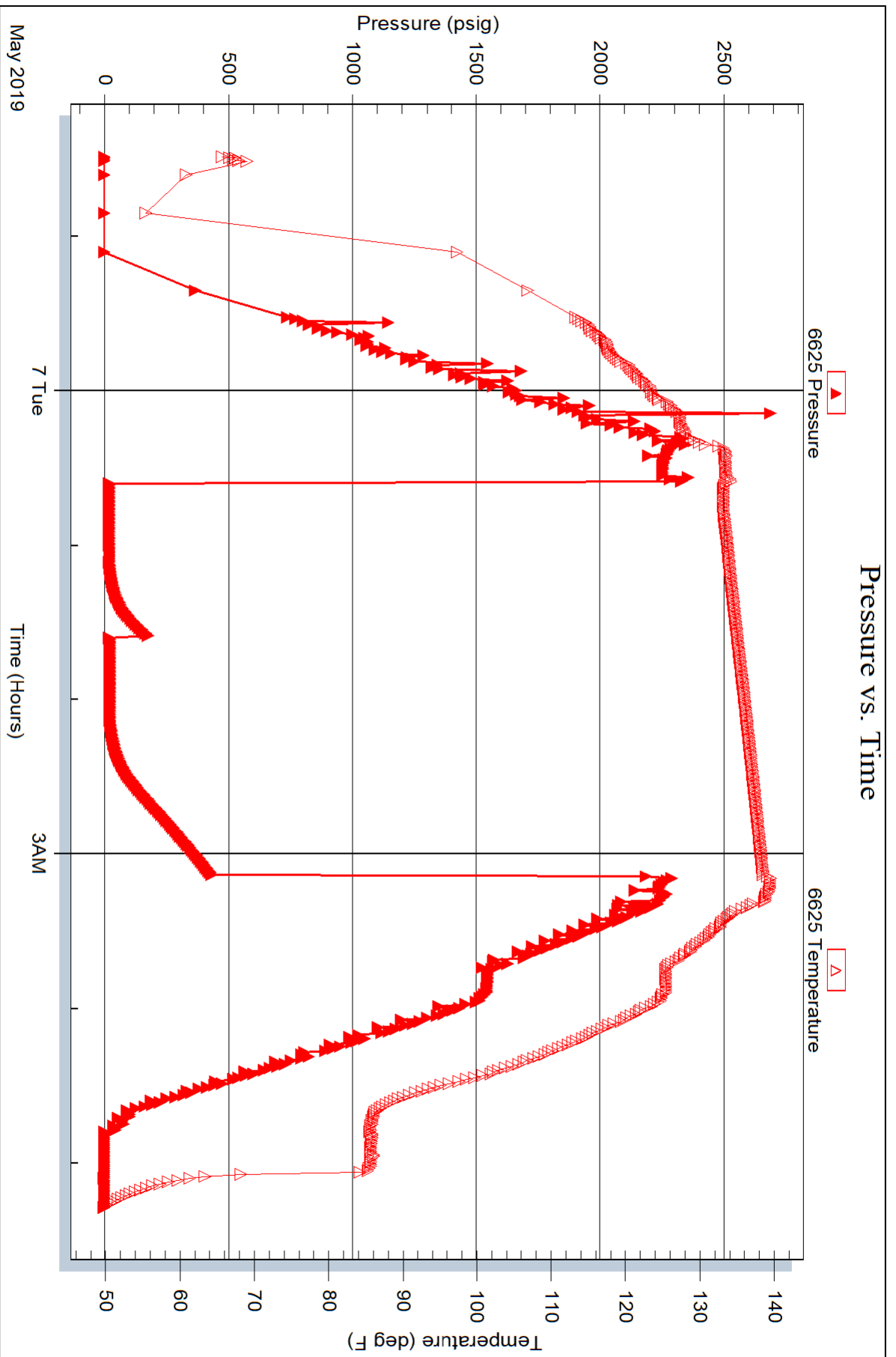
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

DNR Oil & Gas Inc.
PO Box 4507
Englewood, CO 80155
ATTN: Tim Lauer

23/1s/41w Cheyenne, KS

Zuege #13-23

Job Ticket: 65371

DST#: 4

Test Start: 2019.05.08 @ 01:43:00

GENERAL INFORMATION:

Formation: **LKC "H - K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:02:45
 Time Test Ended: 09:47:30
 Interval: **4714.00 ft (KB) To 4820.00 ft (KB) (TVD)**
 Total Depth: 4820.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3583.00 ft (KB)
 3578.00 ft (CF)
 KB to GR/CF: 5.00 ft

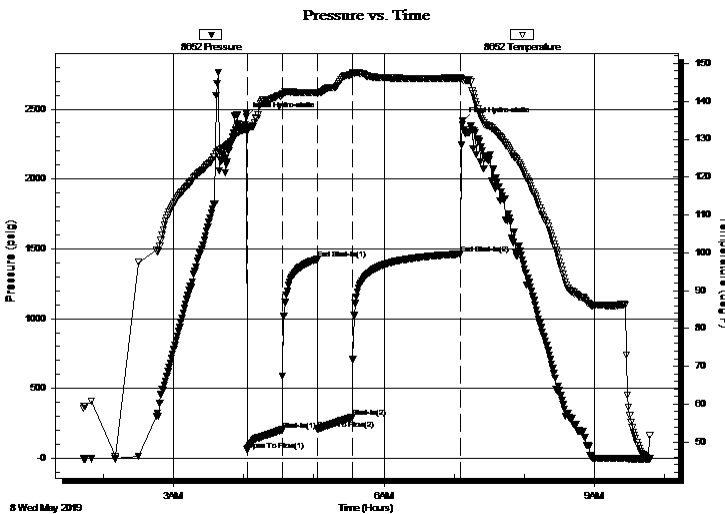
Serial #: 8652

Outside

Press@RunDepth: 295.67 psig @ 4715.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.05.08 End Date: 2019.05.08 Last Calib.: 2019.05.08
 Start Time: 01:43:05 End Time: 09:47:29 Time On Btm: 2019.05.08 @ 04:02:30
 Time Off Btm: 2019.05.08 @ 07:07:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 18 min., built to 17 1/2"
 30 - IS: No blow back
 30 - FF: Blow built to BOB at 22 min., built to 14 3/4"
 90 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2444.42	132.68	Initial Hydro-static
1	61.84	131.98	Open To Flow (1)
31	203.79	141.81	Shut-In(1)
61	1424.96	142.33	End Shut-In(1)
61	210.55	142.18	Open To Flow (2)
91	295.67	147.26	Shut-In(2)
183	1463.34	146.18	End Shut-In(2)
185	2413.49	145.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	WCM 80%w, 20%w	0.30
312.00	MCW 70%w, 30%m	3.01
63.00	WCM 64%w, 33%w, 3%g	0.88
160.00	Mud 100%	2.24

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

DNR Oil & Gas Inc.

23/1s/41w Cheyenne,KS

PO Box 4507
Englewood, CO 80155

Zuege #13-23

Job Ticket: 65371

DST#: 4

ATTN: Tim Lauer

Test Start: 2019.05.08 @ 01:43:00

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:

15500 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 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 bbbl
60.00	WCM 80% _m , 20% _w	0.295
312.00	MCW 70% _w , 30% _m	3.010
63.00	WCM 64% _m , 33% _w , 3% _g	0.884
160.00	Mud 100%	2.244

Total Length: 595.00 ft

Total Volume: 6.433 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .634 ohms @ 47.3 deg F Chlorides = 15,500 ppm

