

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	Darrah Oil Company, LLC
Well Name	YOUNKIN 1-10
Doc ID	1530806

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated neutron/porosity



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Co, LLC
 125 N Market
 Ste 1425
 Wichita, Ks 67202
 ATTN: Seth Evenson

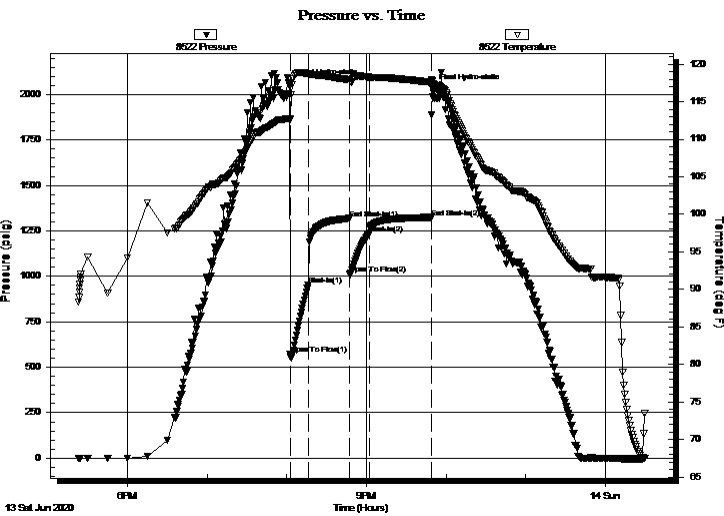
10 14s 34w Logan Ks
Younklin 1-10
 Job Ticket: 66576 **DST#: 1**
 Test Start: 2020.06.13 @ 17:23:00

GENERAL INFORMATION:

Formation: **LKC- k-L**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 20:02:15 Tester: Bradley Walter
 Time Test Ended: 00:29:30 Unit No: 78
 Interval: **4073.00 ft (KB) To 4170.00 ft (KB) (TVD)** Reference Elevations: 2938.00 ft (KB)
 Total Depth: 4170.00 ft (KB) (TVD) 2927.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 1235.35 psig @ 4074.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.06.13 End Date: 2020.06.14 Last Calib.: 2020.06.14
 Start Time: 17:23:05 End Time: 00:29:29 Time On Btm: 2020.06.13 @ 20:02:00
 Time Off Btm: 2020.06.13 @ 21:49:30

TEST COMMENT: 15- IF- BOB @ 1 min- 218" blow .
 30- IS- No return.
 15- FF- BOB @ 45 sec 122" blow
 45- FSI- No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.24	112.76	Initial Hydro-static
1	570.82	112.57	Open To Flow (1)
14	952.32	118.65	Shut-In(1)
45	1317.95	117.90	End Shut-In(1)
46	1012.48	117.85	Open To Flow (2)
61	1235.35	118.24	Shut-In(2)
107	1323.84	117.59	End Shut-In(2)
108	2030.49	117.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2190.00	smcw 2m 98w	28.52
540.00	mcw 15m 85w	7.57

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Darrah Oil Co, LLC

10 14s 34w Logan Ks

125 N Market
Ste 1425
Wichita, Ks 67202
ATTN: Seth Evenson

Younkin 1-10

Job Ticket: 66576

DST#: 1

Test Start: 2020.06.13 @ 17:23:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 49.00 sec/qt
Water Loss: 7.98 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

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

Oil API: 0 deg API
Water Salinity: 29000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2190.00	smcw 2m 98w	28.515
540.00	mcw 15m 85w	7.575

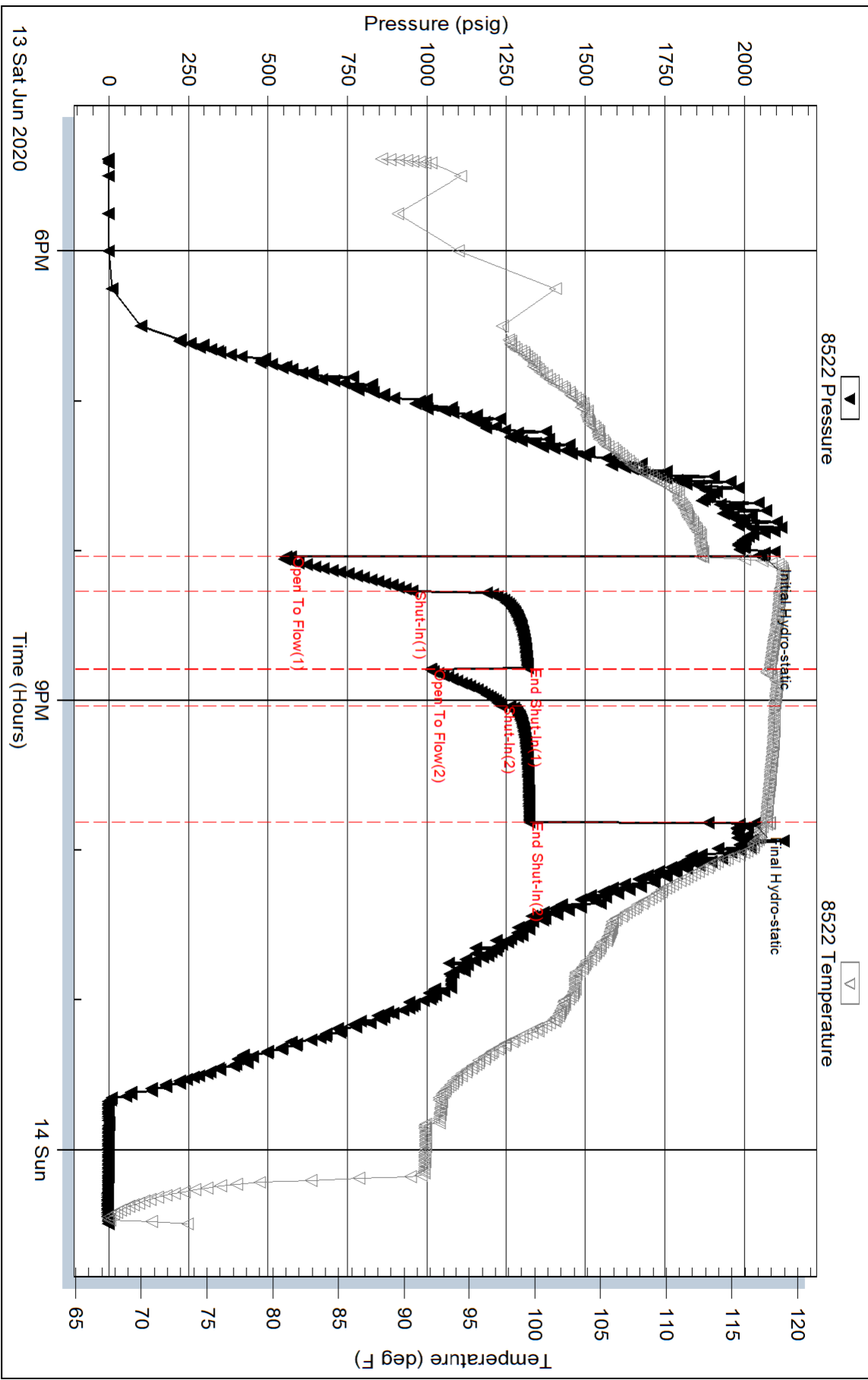
Total Length: 2730.00 ft Total Volume: 36.090 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: rw is .240 @ 70f = 29000ppm

Pressure vs. Time

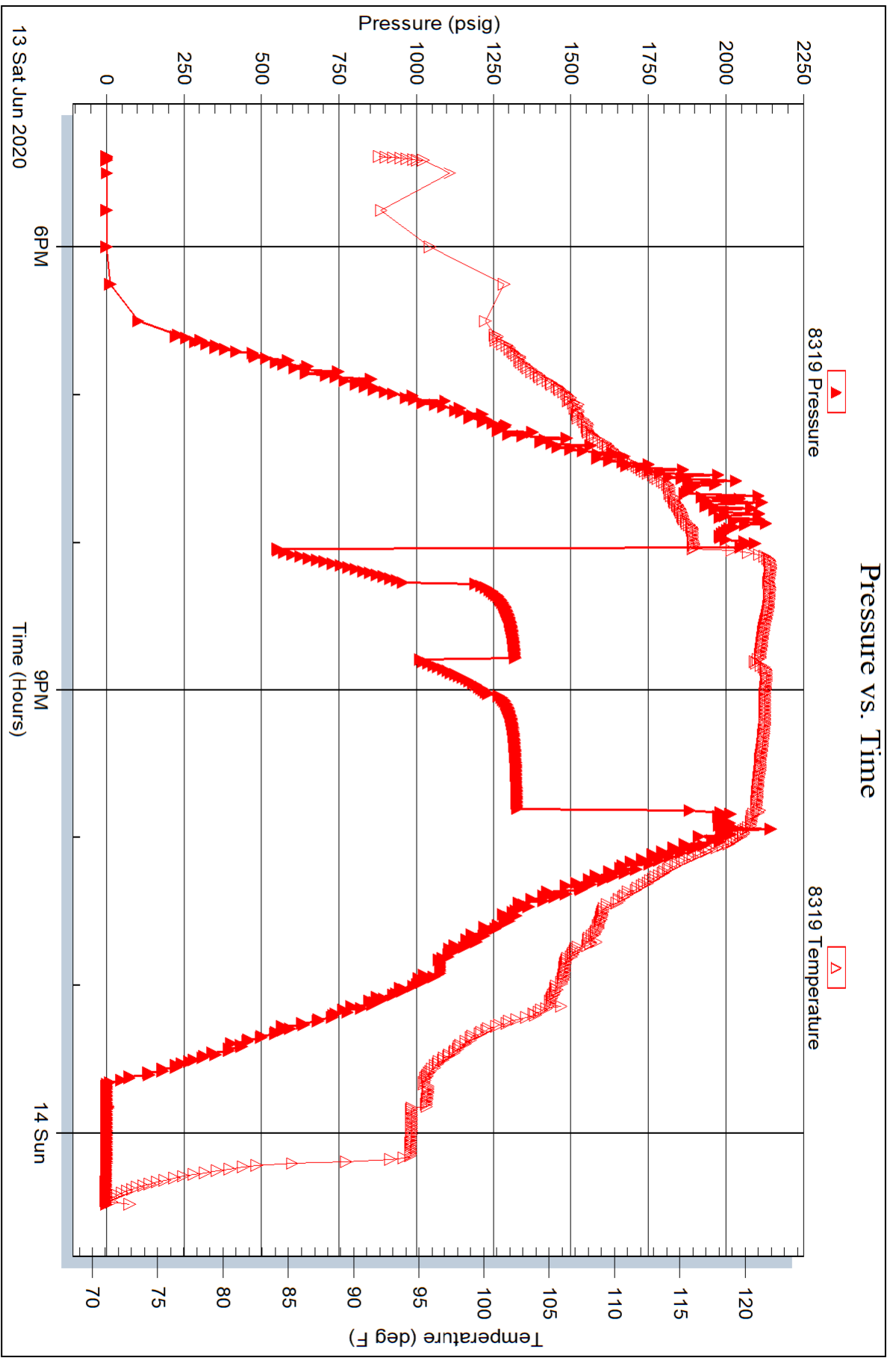


Serial #: 8319

Outside Darrah Oil Co, LLC

Younkin 1-10

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Co, LLC
 125 N Market
 Ste 1425
 Wichita, Ks 67202
 ATTN: Seth Evenson

10 14s 34w Logan Ks
Younklin 1-10
 Job Ticket: 66577 **DST#: 2**
 Test Start: 2020.06.14 @ 13:36:00

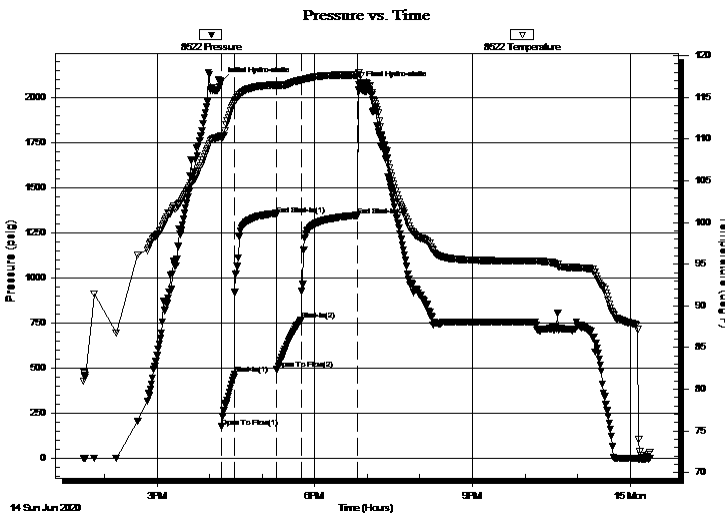
GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:13:45
 Time Test Ended: 00:23:30
 Interval: **4207.00 ft (KB) To 4284.00 ft (KB) (TVD)**
 Total Depth: 4284.00 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: 2938.00 ft (KB)
 2927.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 767.38 psig @ 4208.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.06.14 End Date: 2020.06.15 Last Calib.: 2020.06.15
 Start Time: 13:36:05 End Time: 00:23:30 Time On Btm: 2020.06.14 @ 16:13:15
 Time Off Btm: 2020.06.14 @ 18:50:30

TEST COMMENT: 15- IF: BOB @ 1.5 min. built to 117".
 45- IS: BOB return. @ 23 min.
 30- FF BOB @ 1 min.
 60- FSI: BOB @ 21 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2088.59	110.39	Initial Hydro-static
1	174.19	110.09	Open To Flow (1)
16	464.30	114.38	Shut-In(1)
64	1349.26	116.46	End Shut-In(1)
64	493.52	116.42	Open To Flow (2)
92	767.38	117.07	Shut-In(2)
156	1347.76	117.64	End Shut-In(2)
158	2069.82	117.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	gmco 30g 30m 40o	0.59
1800.00	go 25g 75o	24.14
0.00	200' 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

Darrah Oil Co, LLC

10 14s 34w Logan Ks

125 N Market
Ste 1425
Wichita, Ks 67202
ATTN: Seth Evenson

Younkin 1-10

Job Ticket: 66577

DST#: 2

Test Start: 2020.06.14 @ 13:36:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	gmco 30g 30m 40o	0.590
1800.00	go 25g 75o	24.138
0.00	200' GIP	0.000

Total Length: 1920.00 ft Total Volume: 24.728 bbl

Num Fluid Samples: 0

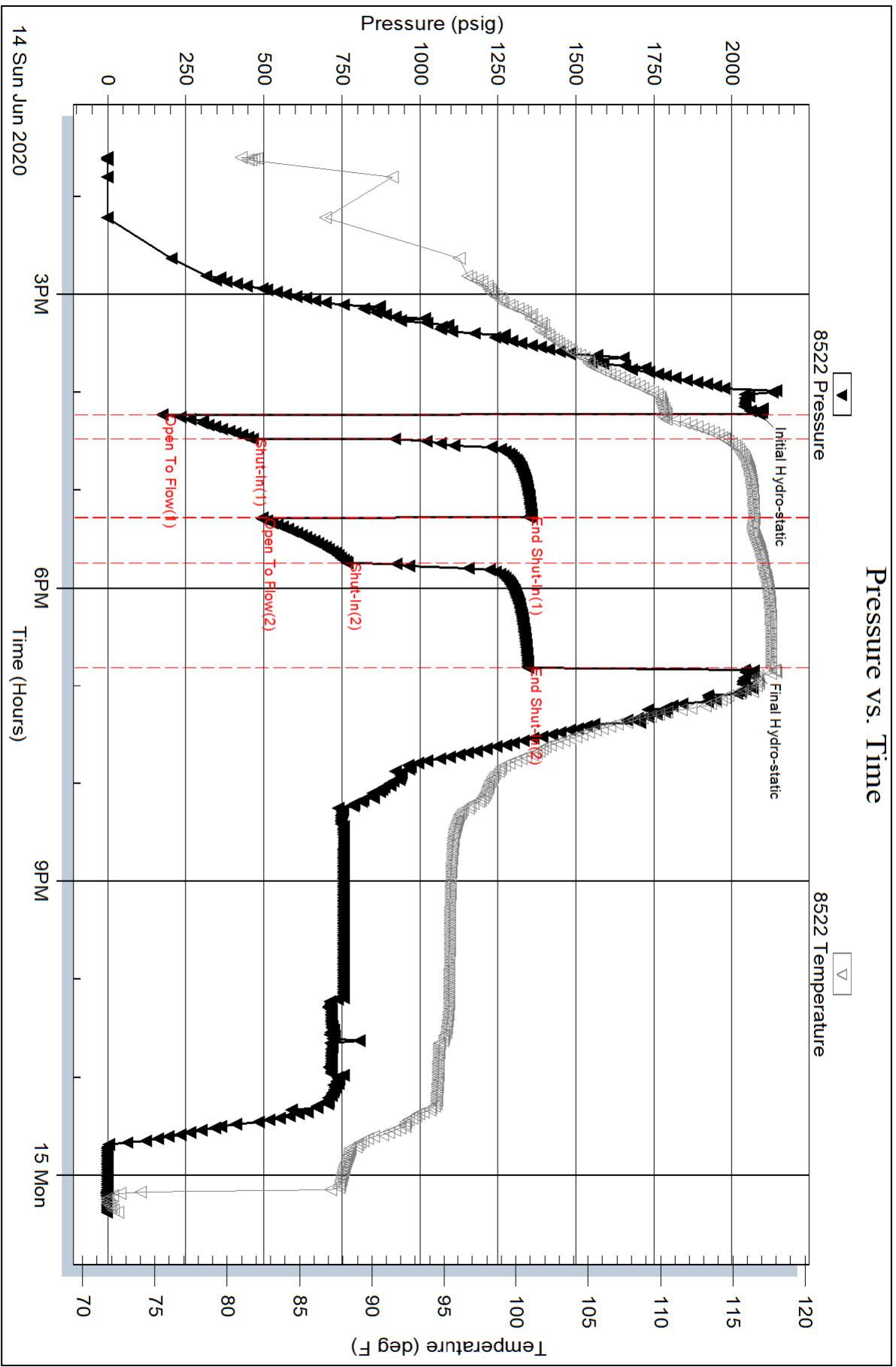
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

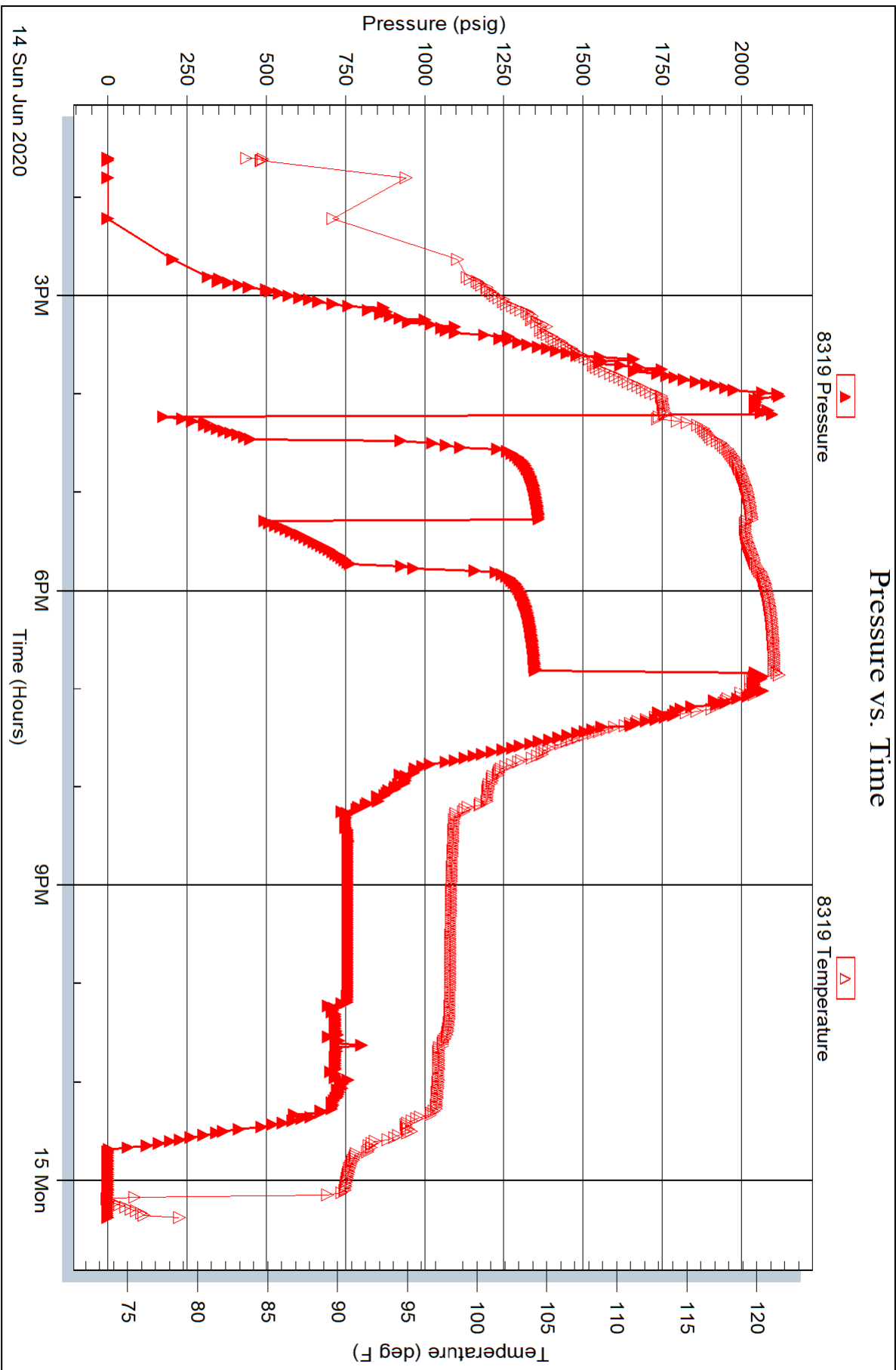


Serial #: 8319

Outside Darrah Oil Co. LLC

Younkin 1-10

DST Test Number: 2





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Darrah Oil Co, LLC

10 14s 34w Logan Ks

125 N Market
Ste 1425
Wichita, Ks 67202
ATTN: Seth Evenson

Younklin 1-10

Job Ticket: 66578

DST#: 3

Test Start: 2020.06.15 @ 13:03:00

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:

13000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
300.00	w cm 25w 75m w/oil spots	2.004

Total Length: 300.00 ft Total Volume: 2.004 bbf

Num Fluid Samples: 0

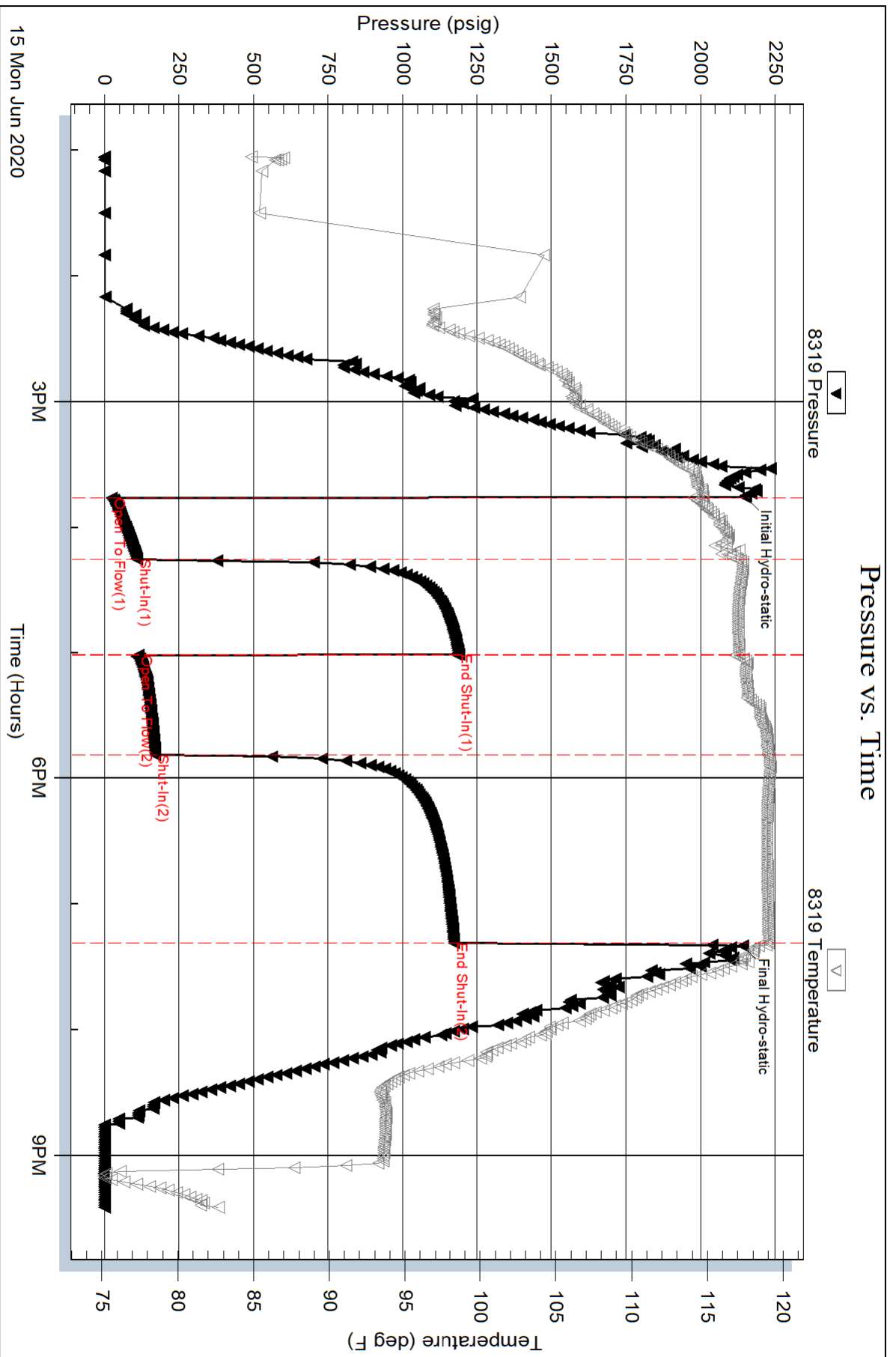
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .442 @ 77f = 13000ppm



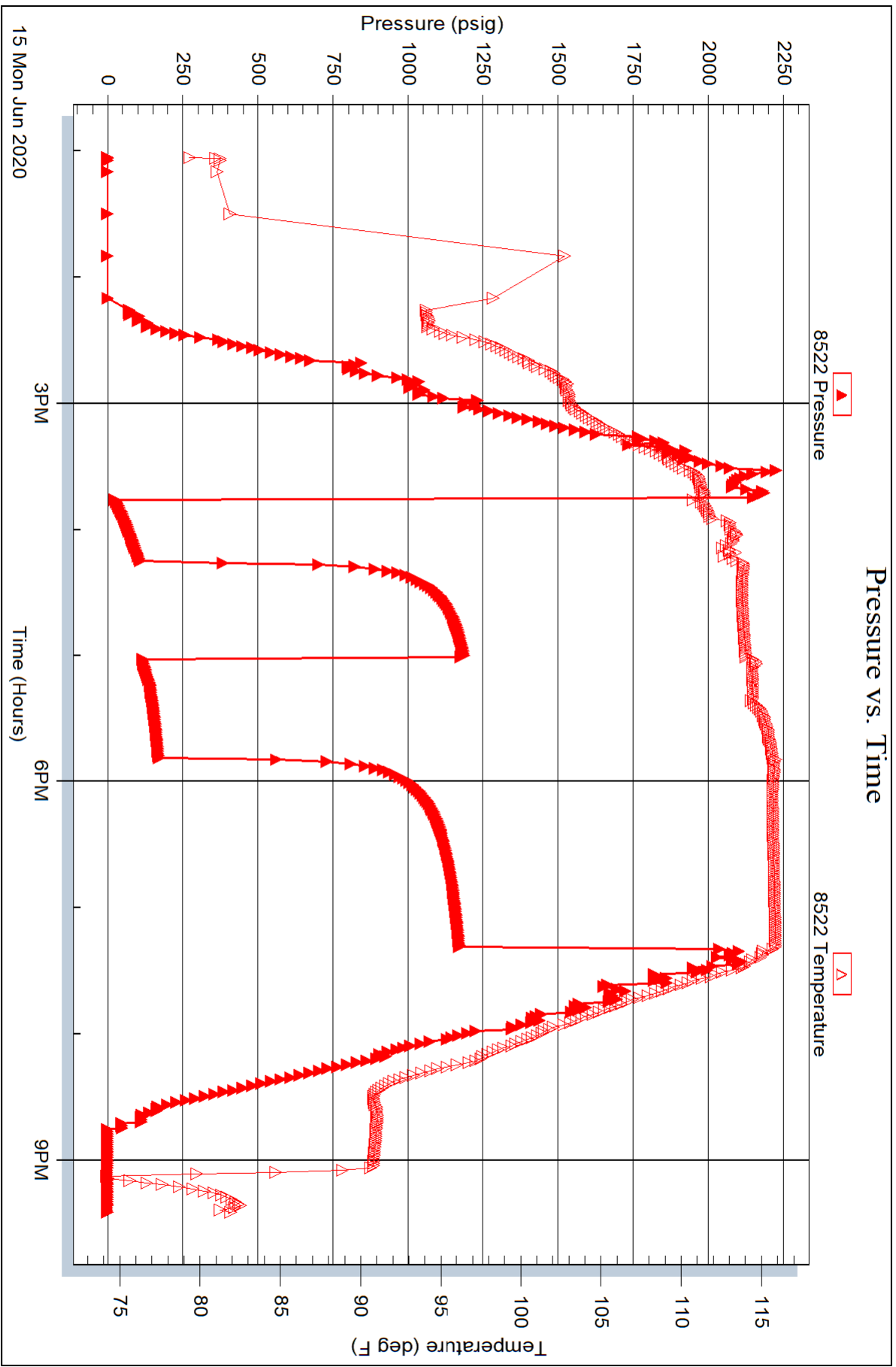
Serial #: 8522

Inside

Darrah Oil Co. LLC

Younkin 1-10

DST Test Number: 3





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Co, LLC
 125 N Market
 Ste 1425
 Wichita, Ks 67202
 ATTN: Seth Evenson

10 14s 34w Logan Ks
Younklin 1-10
 Job Ticket: 66579 **DST#: 4**
 Test Start: 2020.06.16 @ 07:53:00

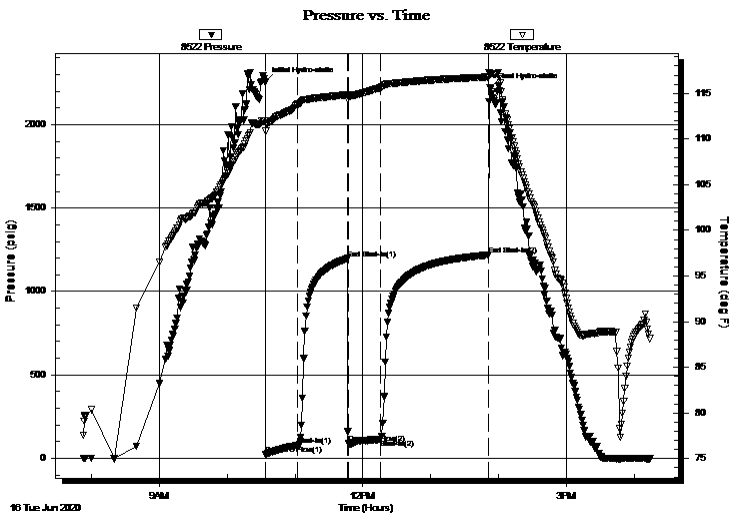
GENERAL INFORMATION:

Formation: **Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:34:15
 Time Test Ended: 16:14:00
 Interval: **4398.00 ft (KB) To 4460.00 ft (KB) (TVD)**
 Total Depth: 4460.00 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: 2938.00 ft (KB)
 2927.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8522 Inside
 Press@RunDepth: 114.32 psig @ 4399.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.06.16 End Date: 2020.06.16 Last Calib.: 2020.06.16
 Start Time: 07:53:05 End Time: 16:13:59 Time On Btm: 2020.06.16 @ 10:34:00
 Time Off Btm: 2020.06.16 @ 13:52:30

TEST COMMENT: 30- IF: 11" blow .
 45- IS: No return.
 30- FF: 12" blow .
 90- FSI: 1/2" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2259.11	111.98	Initial Hydro-static
1	22.05	110.86	Open To Flow (1)
28	77.79	113.82	Shut-In(1)
73	1197.37	114.87	End Shut-In(1)
74	87.63	114.67	Open To Flow (2)
102	114.32	115.62	Shut-In(2)
198	1219.25	116.80	End Shut-In(2)
199	2221.06	117.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
230.00	gmco 20g 30m 50o	1.13
20.00	go 25g 75o	0.17
0.00	110' 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

Darrah Oil Co, LLC

10 14s 34w Logan Ks

125 N Market
Ste 1425
Wichita, Ks 67202
ATTN: Seth Evenson

Younkin 1-10

Job Ticket: 66579

DST#: 4

Test Start: 2020.06.16 @ 07:53:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 8000.00 ppm
Filter Cake: 1.00 inches

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

Oil API: 35 deg API
Water Salinity: 0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
230.00	gmco 20g 30m 50o	1.131
20.00	go 25g 75o	0.171
0.00	110' GIP	0.000

Total Length: 250.00 ft Total Volume: 1.302 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

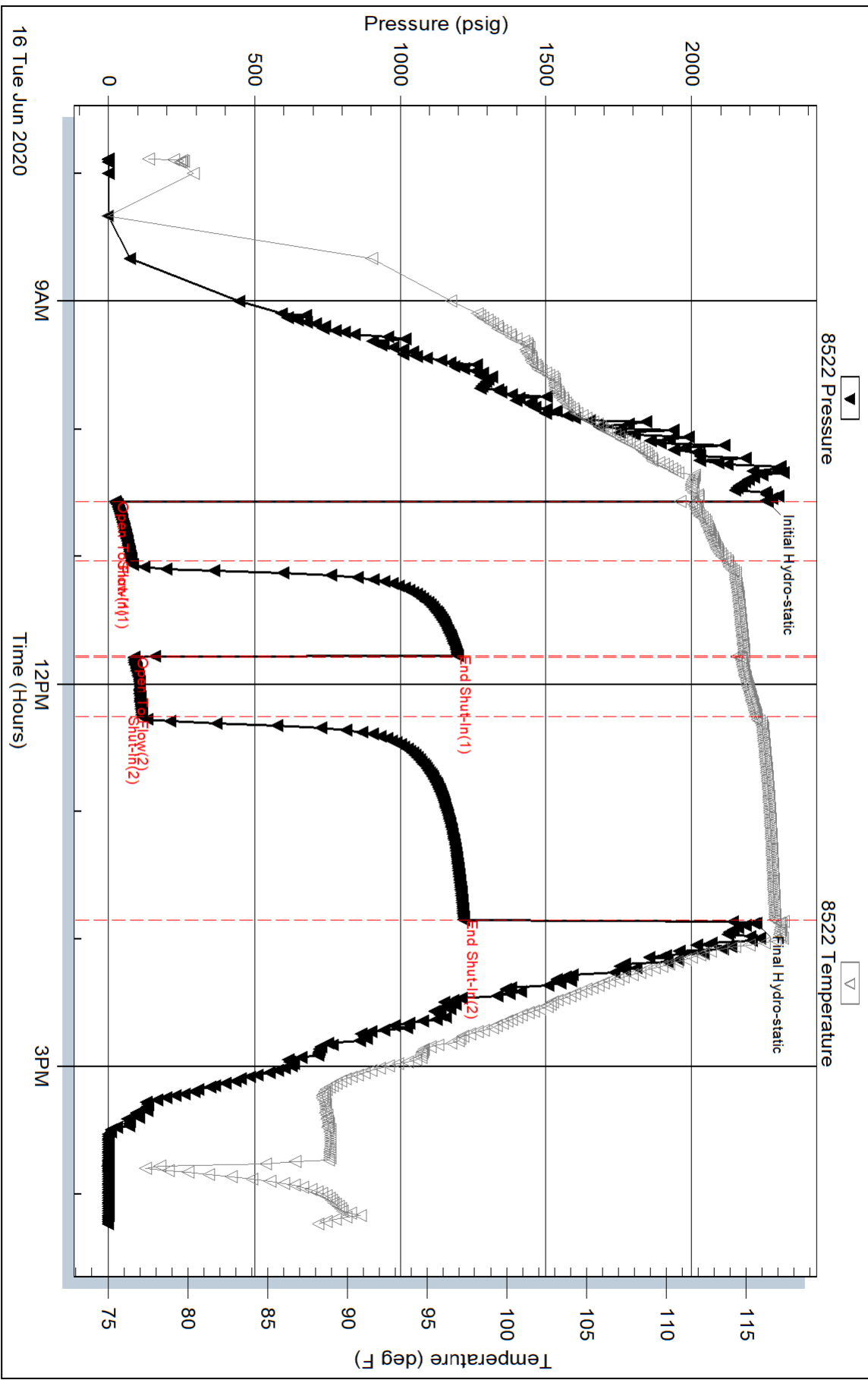
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

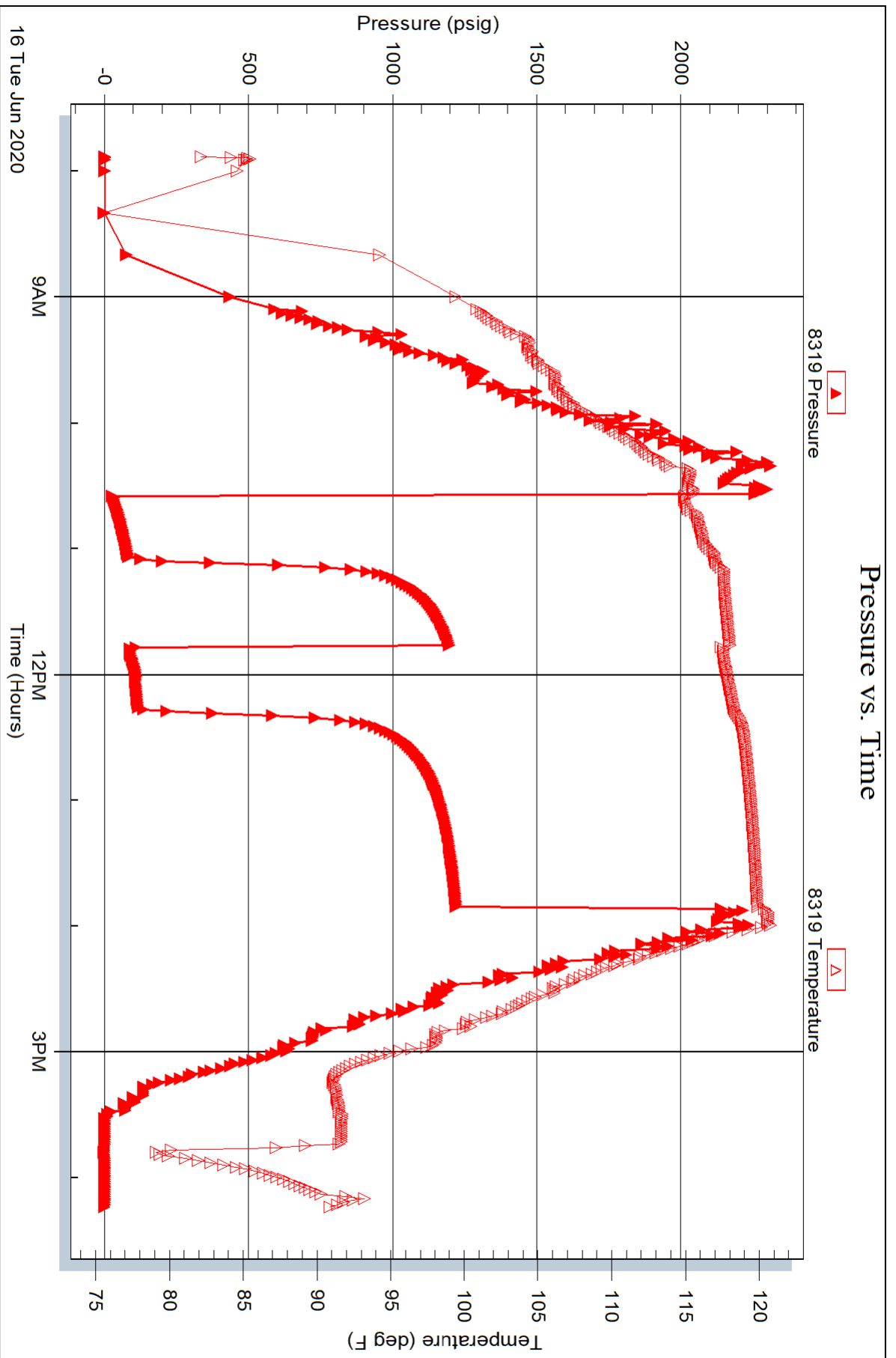


Serial #: 8319

Outside Darrah Oil Co, LLC

Younkin 1-10

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 66579

Printed: 2020.06.16 @ 16:31:58



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Darrah Oil Co, LLC
 125 N Market
 Ste 1425
 Wichita, Ks 67202
 ATTN: Seth Evenson

10 14s 34w Logan Ks
Younklin 1-10
 Job Ticket: 66580 **DST#: 5**
 Test Start: 2020.06.17 @ 01:15:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:21:00
 Time Test Ended: 06:39:00
 Interval: **4463.00 ft (KB) To 4485.00 ft (KB) (TVD)**
 Total Depth: 4485.00 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: 2938.00 ft (KB)
 2927.00 ft (CF)
 KB to GR/CF: 11.00 ft

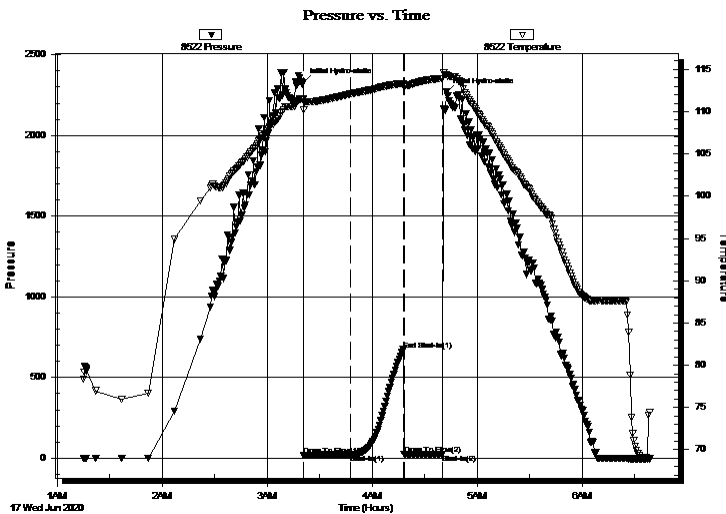
Serial #: 8522

Inside

Press@RunDepth: 21.44 psig @ 4464.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.06.17 End Date: 2020.06.17 Last Calib.: 2020.06.17
 Start Time: 01:15:05 End Time: 06:38:59 Time On Btm: 2020.06.17 @ 03:20:45
 Time Off Btm: 2020.06.17 @ 04:42:30

TEST COMMENT: 30- IF: Surface blow .
 30- IS: No return.
 20- FF: No blow .
 Pulled test

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2326.78	111.46	Initial Hydro-static
1	17.86	110.20	Open To Flow (1)
27	21.44	112.11	Shut-In(1)
57	672.38	113.34	End Shut-In(1)
58	22.54	112.92	Open To Flow (2)
80	23.47	113.95	Shut-In(2)
82	2268.39	114.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m (oil spots)	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

Darrah Oil Co, LLC

10 14s 34w Logan Ks

125 N Market
Ste 1425
Wichita, Ks 67202
ATTN: Seth Evenson

Younkin 1-10

Job Ticket: 66580

DST#: 5

Test Start: 2020.06.17 @ 01:15:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100m (oil spots)	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:

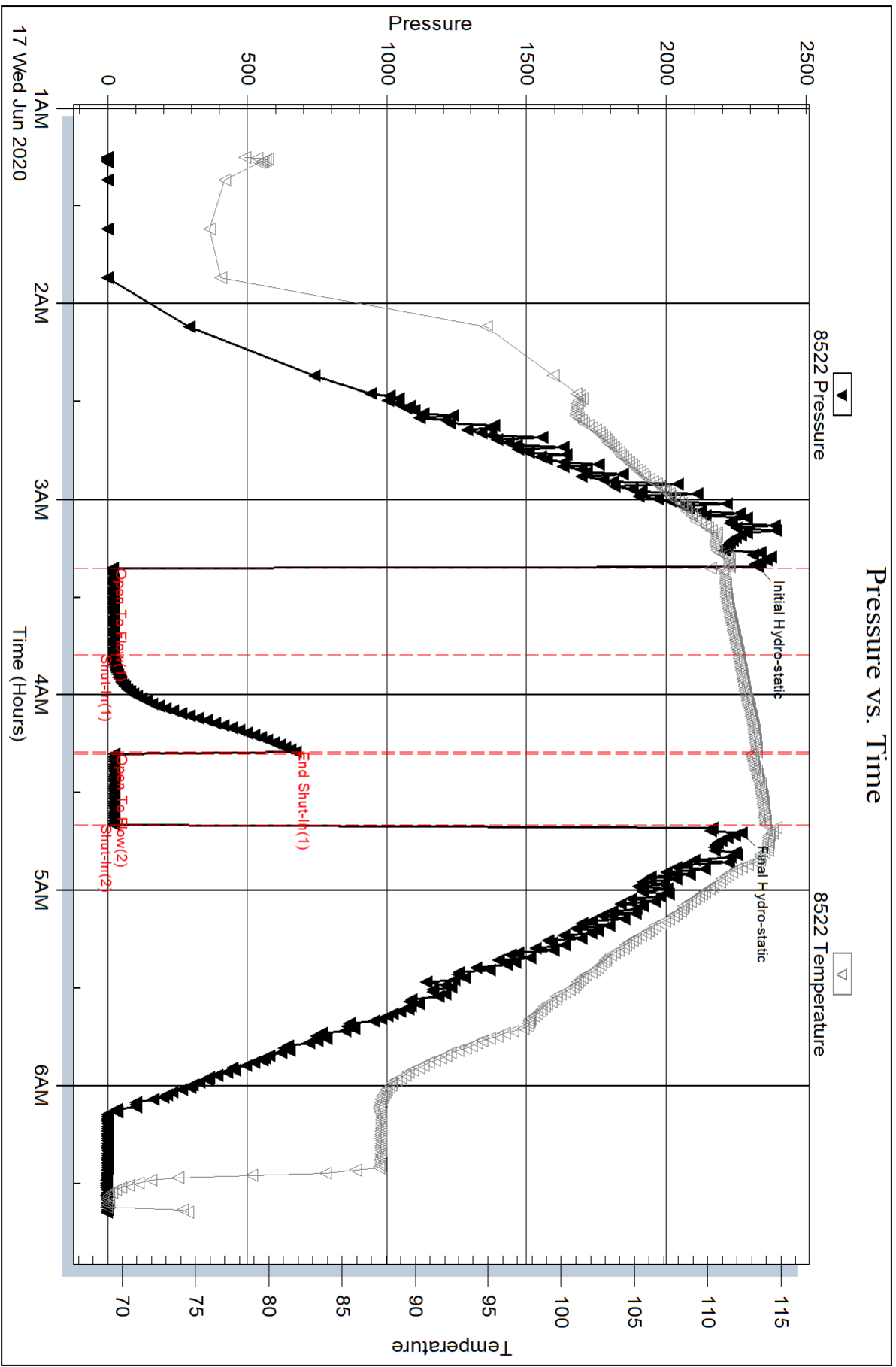
Serial #: 8522

Inside

Darrah Oil Co. LLC

Younkin 1-10

DST Test Number: 5

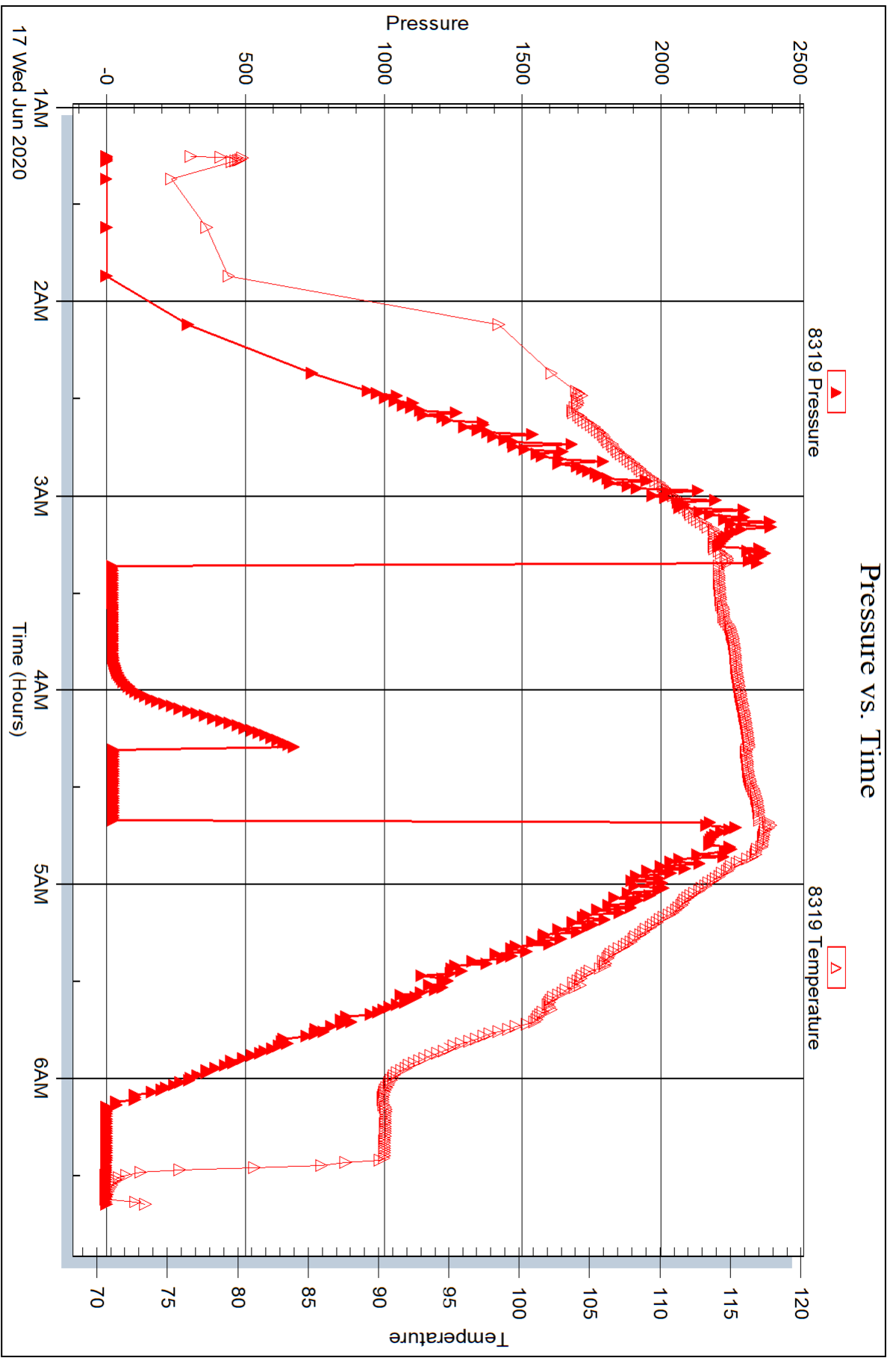


Serial #: 8319

Outside Darrah Oil Co. LLC

Younkin 1-10

DST Test Number: 5





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Darrah Oil Co, LLC
125 N Market
Ste 1425
Wichita, Ks 67202
ATTN: Seth Evenson

10 14s 34w Logan Ks
Younkin 1-10
Job Ticket: 66581 **DST#: 6**
Test Start: 2020.06.18 @ 01:20:00

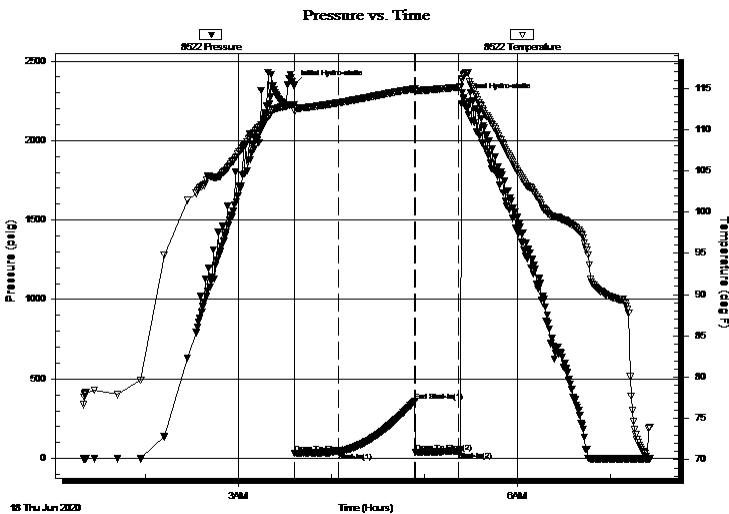
GENERAL INFORMATION:

Formation: **Morrow - Mississippi**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 03:36:15 Tester: Bradley Walter
Time Test Ended: 07:25:15 Unit No: 78
Interval: 4466.00 ft (KB) To 4575.00 ft (KB) (TVD) Reference Elevations: 2938.00 ft (KB)
Total Depth: 4575.00 ft (KB) (TVD) 2927.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8522 Inside
Press@RunDepth: 36.69 psig @ 4467.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2020.06.18 End Date: 2020.06.18 Last Calib.: 2020.06.18
Start Time: 01:20:05 End Time: 07:25:14 Time On Btm: 2020.06.18 @ 03:36:00
Time Off Btm: 2020.06.18 @ 05:24:45

TEST COMMENT: 30- IF: 1" blow .
45- IS: No return.
30- FF: No blow .
Pulled test.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2349.29	113.03	Initial Hydro-static
1	30.47	112.24	Open To Flow (1)
29	36.69	113.25	Shut-In(1)
78	360.11	114.93	End Shut-In(1)
78	39.01	114.60	Open To Flow (2)
106	43.48	115.12	Shut-In(2)
109	2271.36	116.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m (oil spots)	0.10

* 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 Co, LLC

10 14s 34w Logan Ks

125 N Market
Ste 1425
Wichita, Ks 67202
ATTN: Seth Evenson

Younkin 1-10

Job Ticket: 66581

DST#: 6

Test Start: 2020.06.18 @ 01:20:00

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: 51.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
20.00	Mud 100m (oil spots)	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbf

Num Fluid Samples: 0

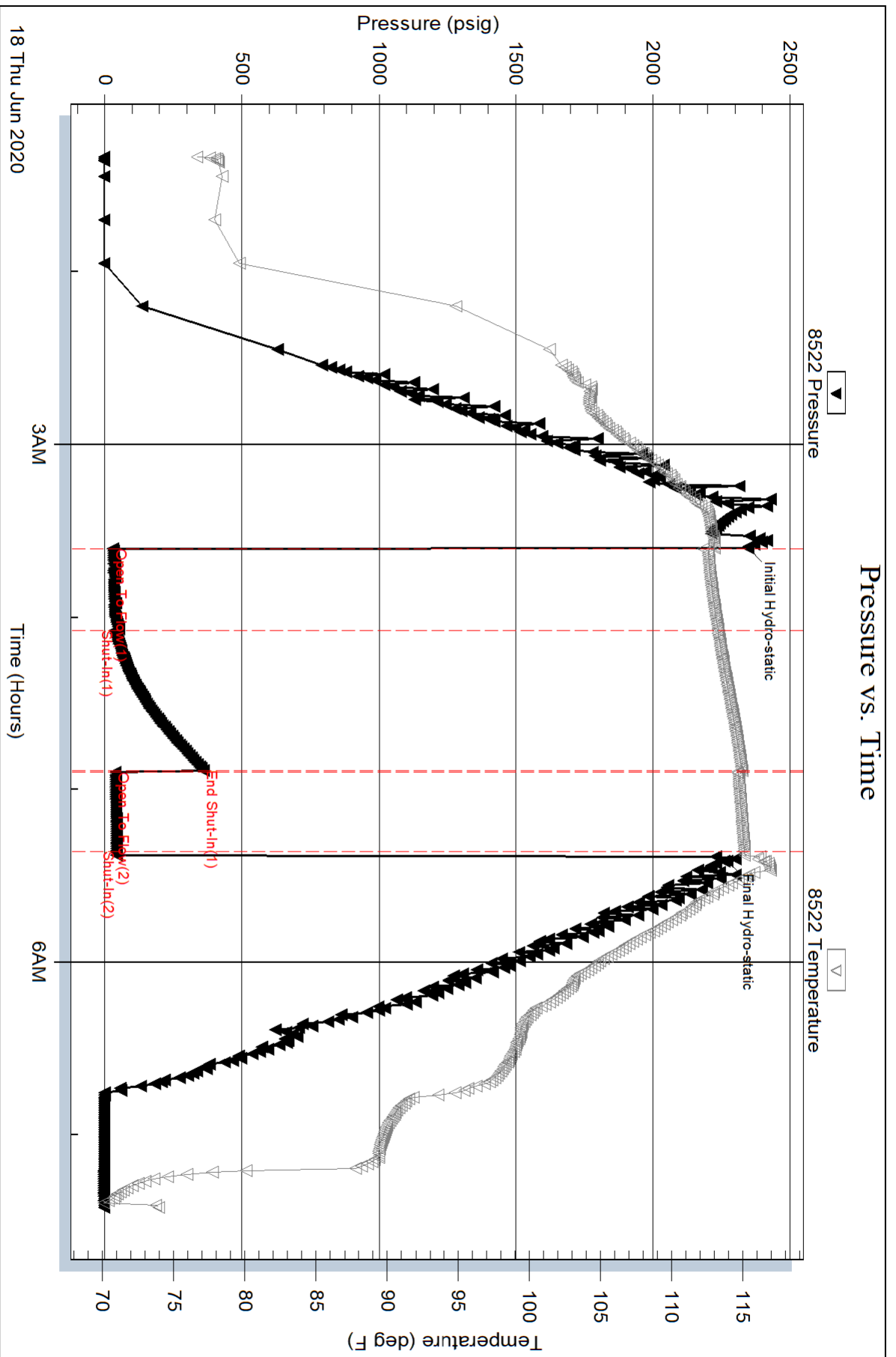
Num Gas Bombs: 0

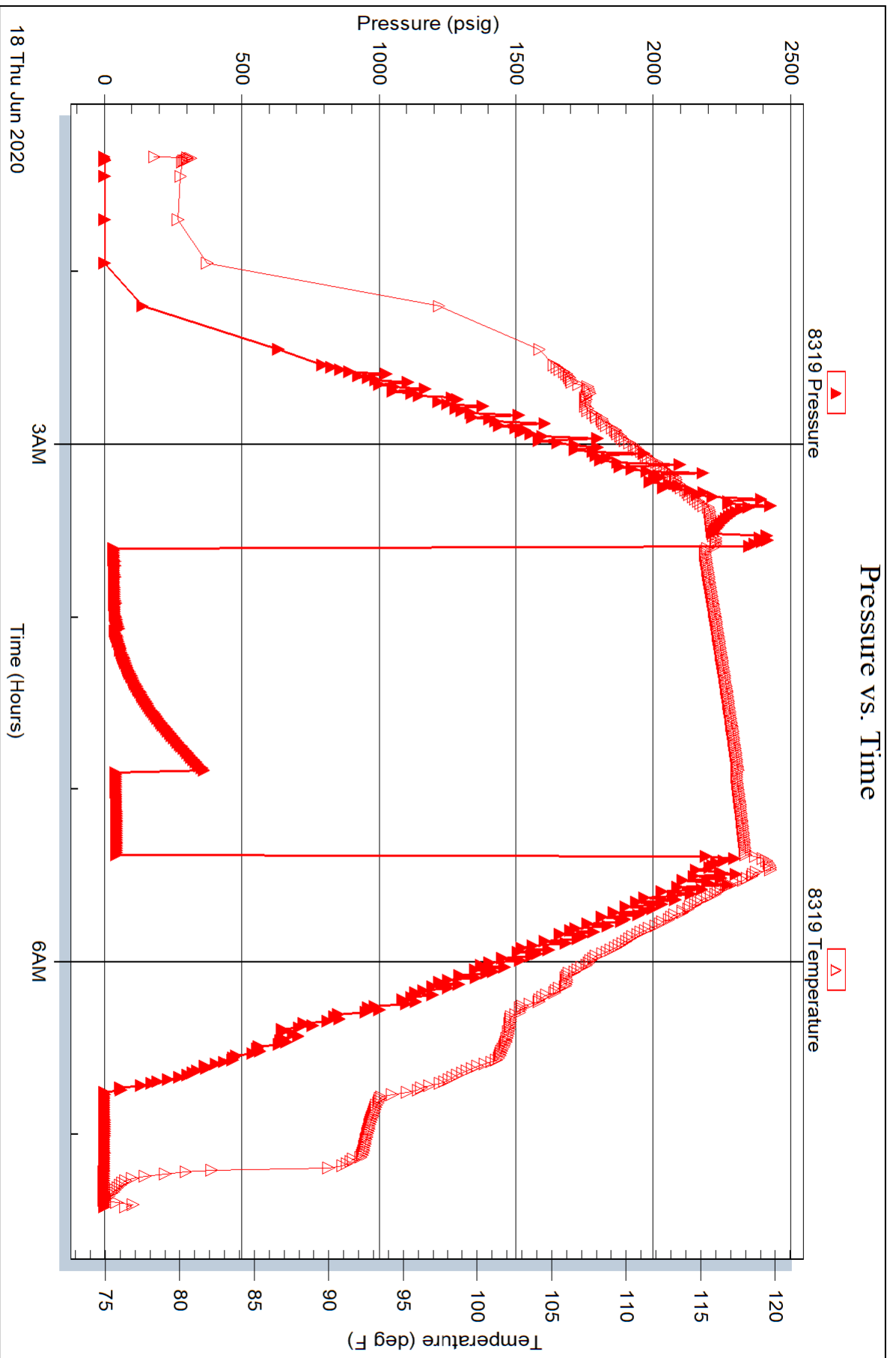
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







Well-Site Geologists

Seth L. Evenson

Darrah Oil

125 N. Market, Suite #1425
Wichita, Kansas 67202

Software: HMG Strata Log

HMG Software LLC

PO Box 20658, Albuquerque, NM 87154

505-320-3432 www.hmgsoftwarellc.com

Operator

Darrah Oil Company

Well Name

Younkin #1-10

Operator Address

125 N. Market, Suite #1425
Wichita, Kansas 67202

Well Information

Field: Wildcat

Region: Sec 10 T14S R34W Logan County, KS

Coordinates: Lat: 38.851026 Lon: -101.076557

Location: NE/NE/NE/SE

State: Kansas

API Index: 15-109-21604

Rig Operator: Murfin Drilling Company- Rig #21

Ground Elevation(ft): 2927.0

KB Elevation(ft): 2938.0

Spud Date: 6/10/2020

Drilling Concluded: 6/18/2020

Darrah Oil Company Geologist(s):

Seth L. Evenson

Rig Supervisor(s):

Juan Tinoco

Hole Data

7 7/8 inch vertical hole drilled to 4675 ft. MD, using water and bentonite gel mud as drilling fluid.



There were no downhole problems of any significance encountered while drilling the Younkin #1-10

Casing Data

8.625 in surface set @ 265 ft. with 165 sks

5.5 inch production set @ approx 4642 ft. with 200 sks

Log Images

-  Bit Trip
-  Midnight
-  Gas Show
-  Oil Show
-  Casing Show
-  AM Report
-  PM Report
-  Tight Connection
-  Fracture
-  Formation TOP
-  Formation MEMBER
-  Pressure Test
-  Carbonaceous
-  Calcite
-  Kaolinite
-  Survey
-  Pyrite
-  Fossil
-  Connection

Lithology

-  Anhydrite
-  Bentonite
-  Breccia
-  Carbonaceous Shale
-  Golite
-  Chert
-  Claystone
-  Coal
-  Conglomerate
-  Dolomite
-  Fault or Fracture
-  Glauconite
-  Gypsum
-  Limestone
-  Marlstone
-  Mudstone
-  Salt
-  Sandstone
-  Shale
-  Siltstone

Graph Curves

Graph #1
ROP (min/ft)
Gamma (API)

Intervals

-  Show
-  Connections
-  Tops
-  Slide
-  Rotate
-  Core
-  Recovered Core

DST #1

4073' - 4170'
KC K & L zn
15-30-15-45
IHP= 2061#
IFP= 571# - 952#
ISIP= 1318#

DST #2

4207' - 4284'
Altamont
15-45-30-60
IHP= 2089#
IFP= 174# - 464#
ISIP= 1349#

DST #3

4286' - 4400'
Pawnee - Ft. Scott
30-45-45-90
IHP= 2150#
IFP= 25# - 110#
ISIP= 1190#

FFP= 1012# - 1235#
FSIP= 1324#
FHP= 2030#

FHP= 494# - /6 /#
FSIP= 1348#
FHP= 2070#

FFP= 114# - 171#
FSIP= 1174#
FHP= 2141#

Rec: 540' MCW (85% W)
2190' VSMCW (98% W)

Rec: 200' GIP
1800' GCO (25% G, 75% O)
120' G&MCO (30% G, 40% O, 30% M)

Rec: 300' WCM (25% W) w/oil spots

DST #4

4398' - 4460'

Johnson zn

30-45-30-90

IHP= 2259#

IFP= 22# - 78#

ISIP= 1197#

FFP= 88# - 114#

FSIP= 1219#

FHP= 2221#

Rec: 110' GIP

20' GCO (25% G, 75% O)

230' G&MCO (20% G, 50% O, 30% M)

DST #5

4463' -4485'

Cherokee Sand

30-30-20-

IHP= 2327#

IFP= 18# - 21#

ISIP= 672#

FFP= 22# -23#

FSIP= N/A (Pulled test)

FHP= 2268#

Rec: 10' OSM

DST #6

4466' - 4574'

Morrow - Miss

30-45-30-

IHP= 2349#

IFP= 30# - 37#

ISIP= 360#

FFP= 39# - 43#

FSIP= N/A (Pulled test)

FHP= 2271#

Rec: 20' OSM

Tops (e-log)

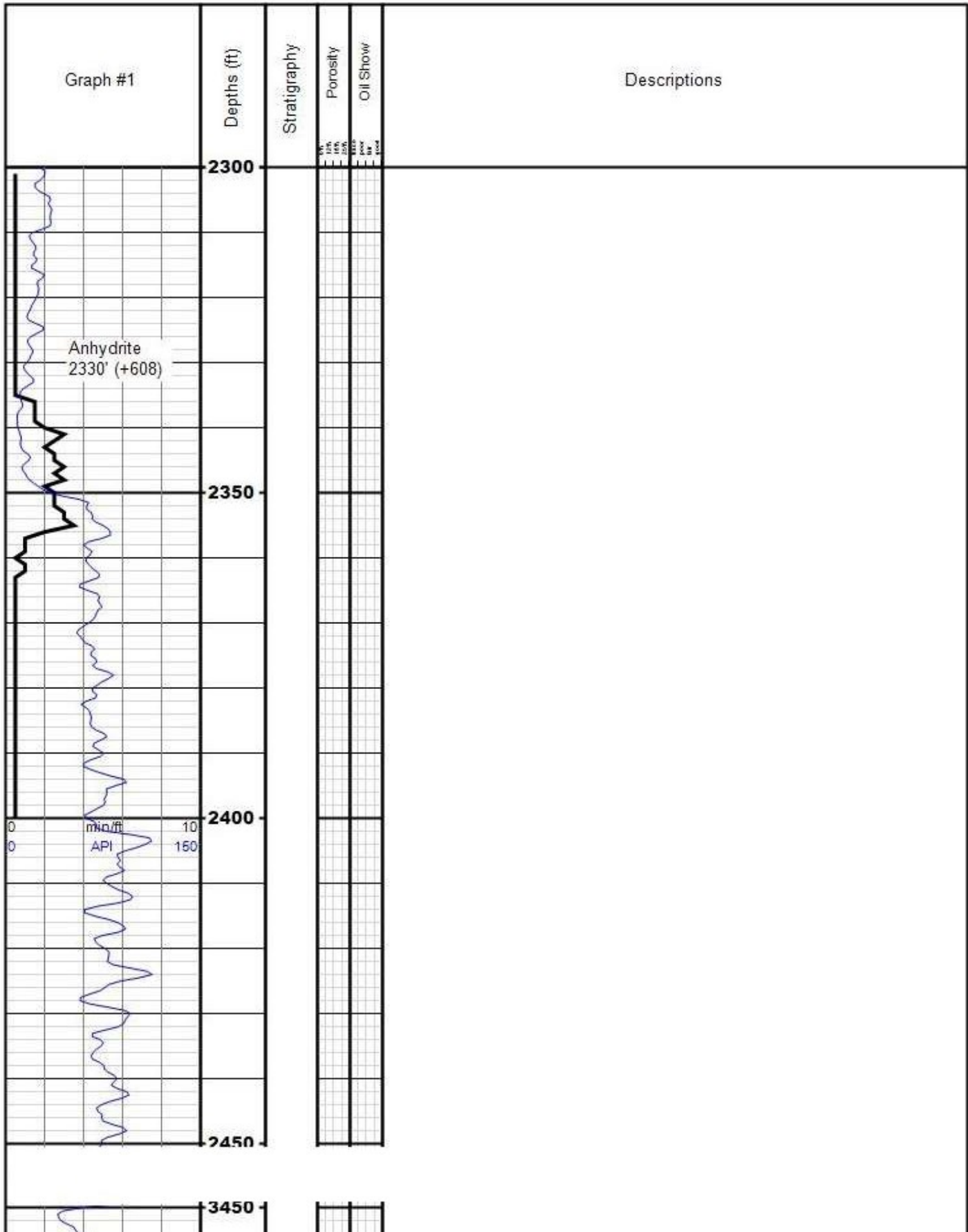
Anhydrite	2330' (+608)
Topeka	3526' (-588)
Tecumseh	3658' (-720)
Oread	3722' (-784)
Heebner	3774' (-836)
Toronto	3789' (-851)
Lansing	3824' (-886)
Muncie Crk	3987' (-1049)
H zone	4004' (-1066)
Stark	4077' (-1139)
K zone	4087' (-1149)
Hushpuckney	4118' (-1180)
Base KC	4168' (-1230)
Marmaton	4198' (-1260)
Altamont	4223' (-1285)
Pawnee	4289' (-1351)
Myrick Station	4323' (-1385)
Ft. Scott	4346' (-1408)
Johnson zn	4409' (-1471)
Cherokee snd	4472' (-1534)
Morrowan	4480' (-1542)
Mississippian	4531' (-1593)

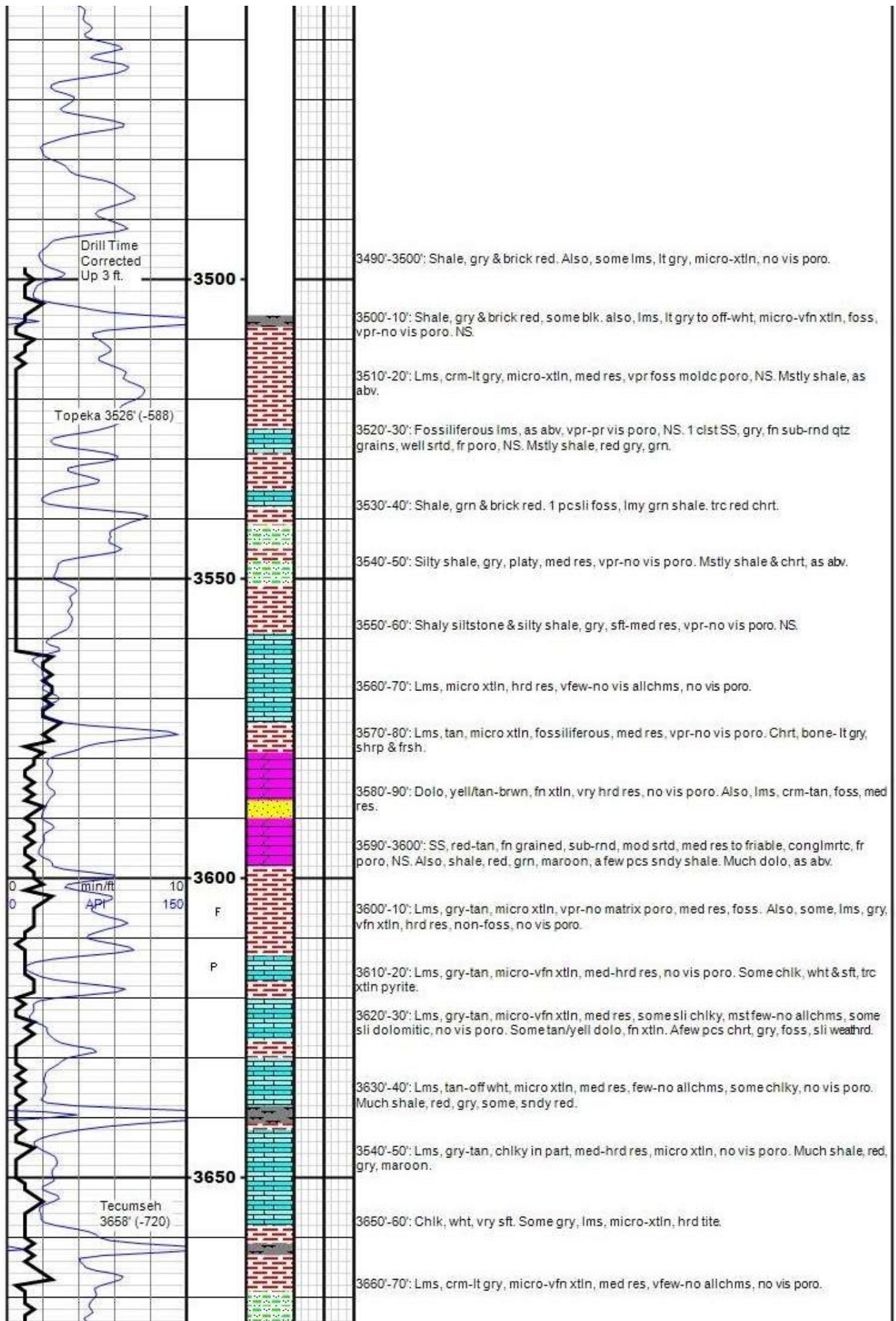
Tops(sample)

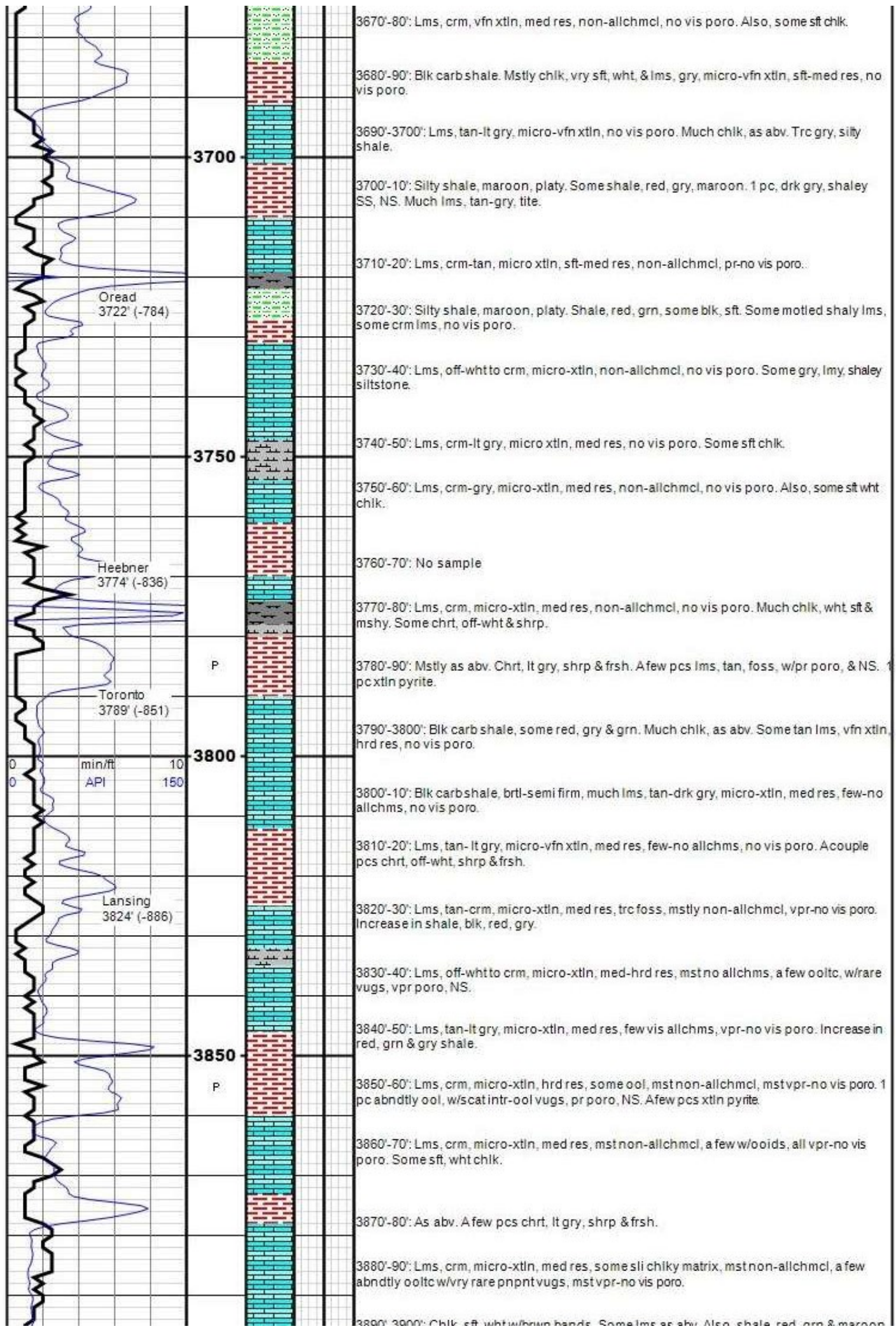
Anhydrite	2336' (+602)
Oread	3724' (-786)
Heebner	3780' (-842)
Lansing	3828' (-890)
Muncie Crk	3992' (-1054)
Stark	4080' (-1142)
Hushpuckney	4124' (-1186)
Base KC	4171' (-1233)
Pawnee	4295' (-1357)
Ft. Scott	4352' (-1414)
Morrowan	4486' (-1548)
Mississippian	4534' (-1596)

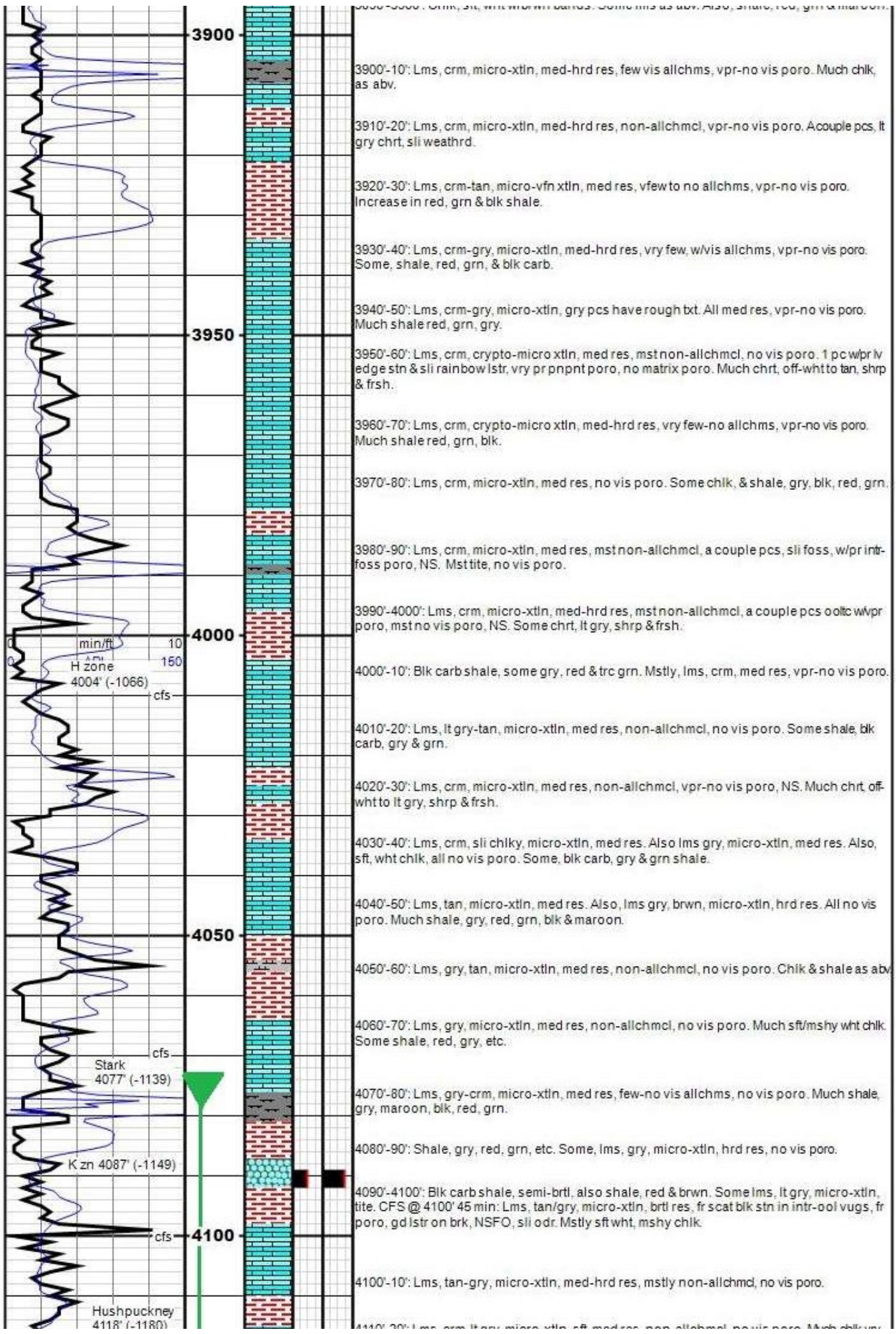
Due to the positive results of Drill-Stem tests #2 & #4, of the Altamont & Johnson zones respectively; it was decided to run 5.5 inch production casing in order to further evaluate and complete

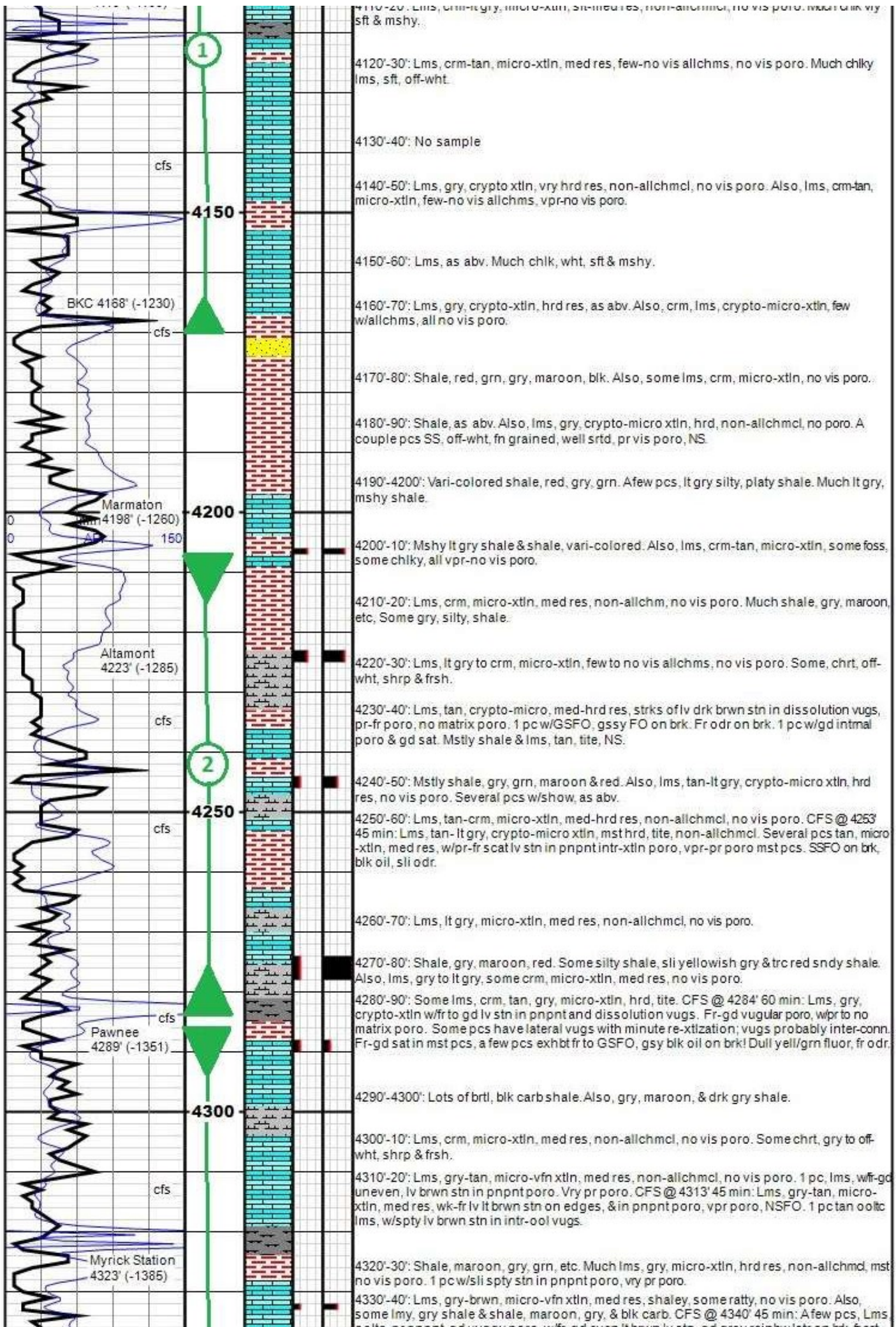
the Younkin #1-10 for commercial production.

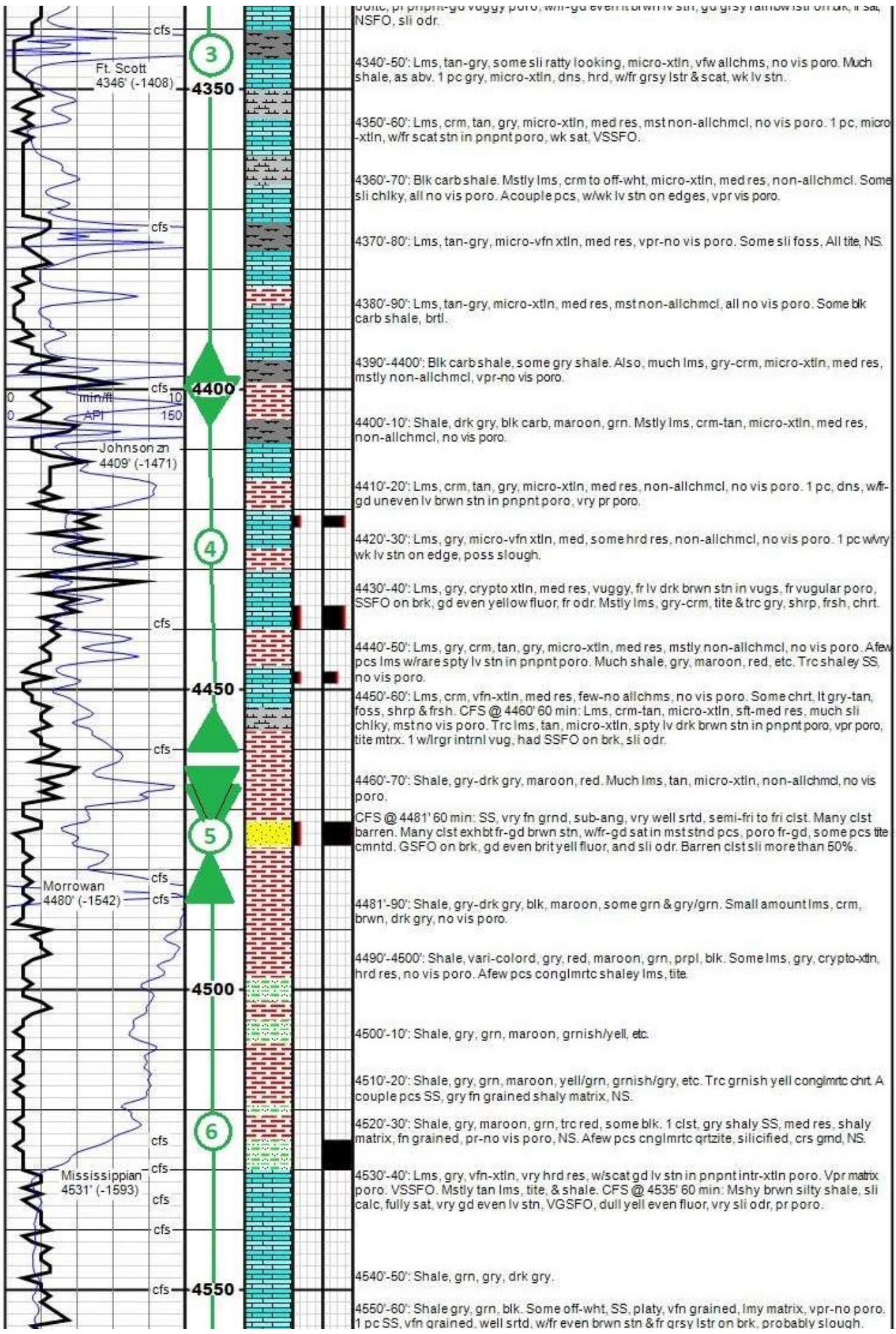


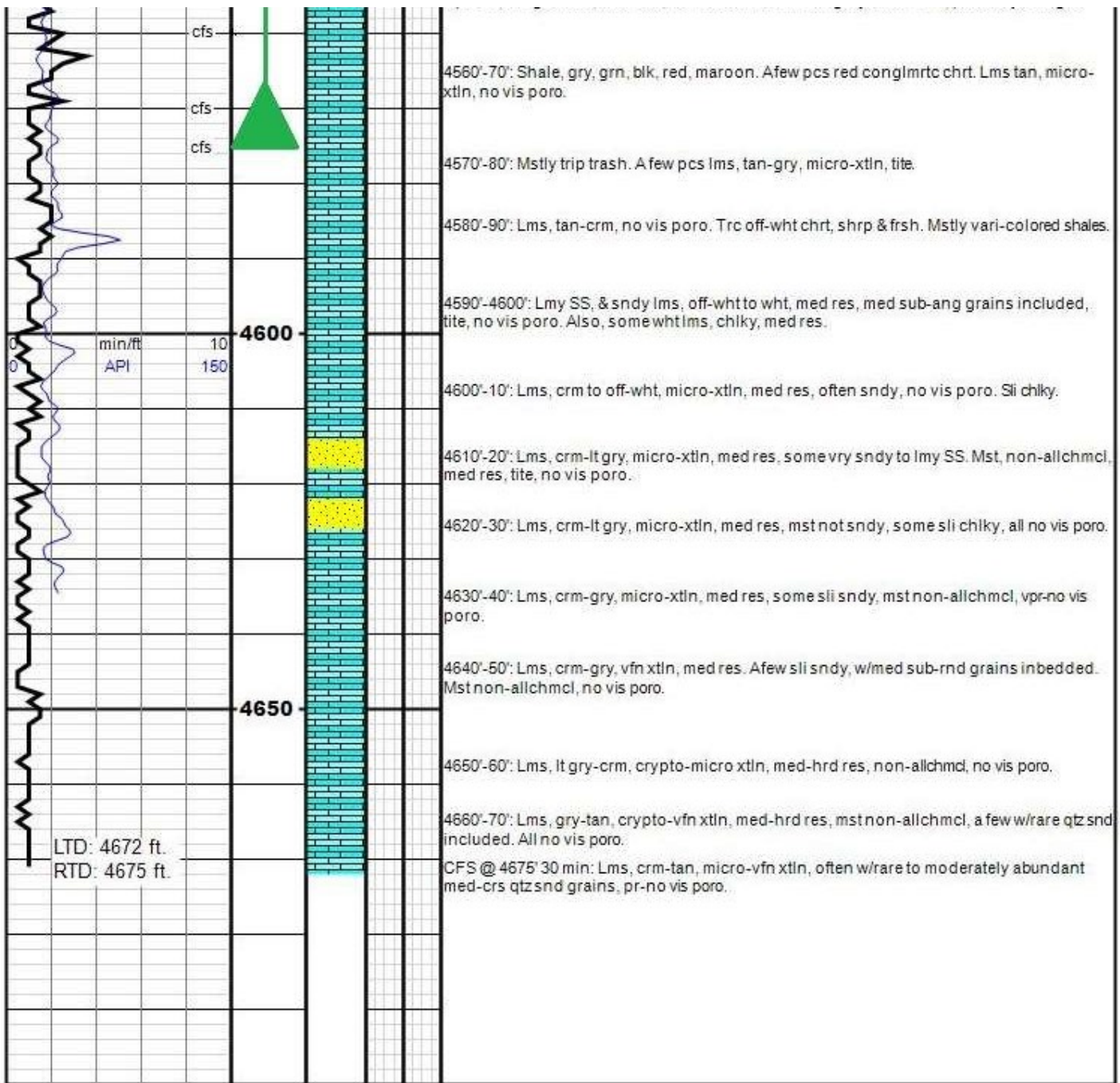




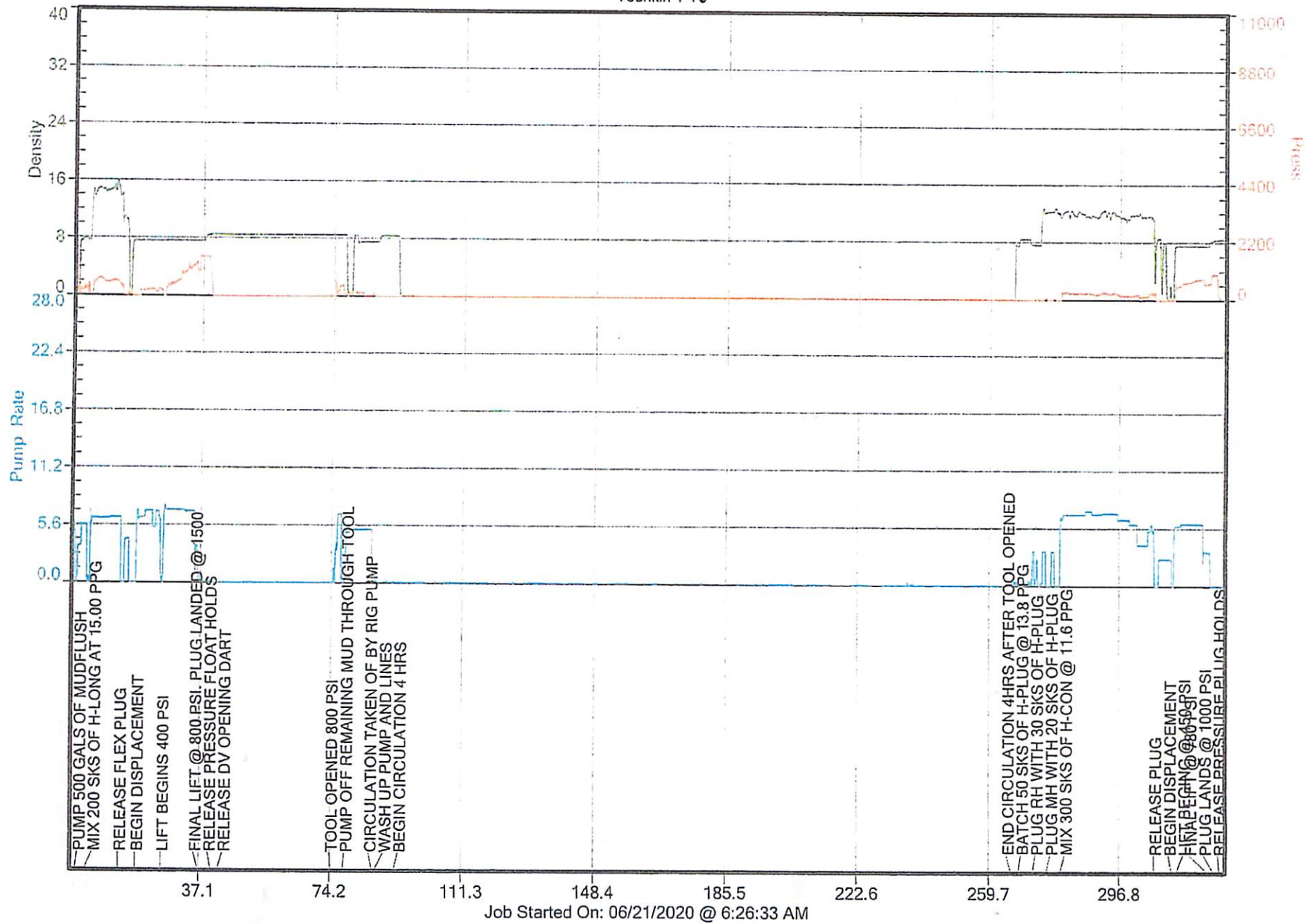








Darrah Oil Co
 Younkin 1-10





CEMENT TREATMENT REPORT

Customer: Darrah Oil Company	Well: Younkir. 1-10	Ticket: ICT3713
City, State: Oakley KS	County: Logan	Date: 6/19/2020
Field Rep: Seth Evanson	S-T-R: 10-145-34W	Service: 2 STAGE

Downhole Information	
Hole Size:	7 7/8 In
Hole Depth:	4675 ft
Casing Size:	5 1/2 In
Casing Depth:	4646.89 ft
Tubing / Liner:	In
Depth:	ft
DV TOOL	2307 FT
Depth:	ft
Displacement:	55.4 bbls

Calculated Slurry	
Weight:	15/11.4 # / SK
Water / Sk:	6.03/18.09 gal / SK
Yield:	1.42/2.95/ft ² / SK
Bbls / Ft:	0.0309
Depth:	4646.89 ft
Annular Volume:	143.58 bbls
Excess:	35%/85%
Total Slurry:	220.9 bbls
Total Sacks:	545 SK

Product	%/#	#
Class A		
Poz		
Gel		
CaCl		
Gypsum		
Metso		
ICol Seal		
Flo Seal		
Salt (bww)		
Total		-

TIME	RATE	PSI	BBLs	REMARKS
211P	7.0	300.0	197.0	PUMPED 300 SKS OF H- CON @ 2307 FT THROUGH DV TOOL
240P				SHUT IN WELL WASHED UP TRUCK/ LOADED PLUG IN HEAD
245P	6.0	450.0	55.4	DISPLACED WITH H2O
260P				GOT CEMENT AROUND WITH 10 BBLs CEMENT APPROX TO PIT
255P	3.5	700.0	55.4	LANDED PLUG PRESSERED OU TO 1000 PSI
300P		1,000.0		RELEASED PRESSURE TO TRUCK GOT 1 BBL BACK TO TRUCK
305P				RIGGED DOWN
348P				OFF LOCATION

CREW		UNIT	SUMMARY		
Comentor:	Josh M/ Dane R	73	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Jesse Jones	230	5.5 bpm	633 psi	268 bbls
Bulk #1:	John Polley	194/254			
Bulk #2:	Mike R	242			



CEMENT TREATMENT REPORT			
Customer:	Darrah Oil Company	Well:	Younkln 1-10
City, State:	Oakley Ks	County:	Logan
Field Rep:	Seth Evenson	S-T-R:	10-145-34-W
		Ticket:	ICT3713
		Date:	6/19/2020
		Service:	2 STAGE

Downhole Information	Calculated Slurry	Product	% / #	#
Hole Size: 7 7/8 in	Weight: 15/11.4 # / sk	Class A		
Hole Depth: 4675 ft	Water / Sk: 6.03/18.09 gal / sk	Poz		
Casing Size: 5 1/2 in	Yield: 1.42/2.05/ft ³ / sk	Got		
Casing Depth: 4646.09 ft	Bbls / Ft: 0.0309	CaCl		
Tubing / Liner: in	Depth: 4646.09 ft	Gypsum		
Depth: ft	Annular Volume: 143.58 bbls	Metro		
DV TOOL: 2307 FT	Excess: 35%/85%	Kol Seal		
Depth: ft	Total Slurry: 220.9 bbls	Flo Seal		
Displacement: 107.8 bbls	Total Sacks: 545 sk	Salt (bww)		
		Total		

TIME	RATE	PSI	BBLs	REMARKS
330A				Arrival
335A				SAFETY MEETING
340A				RIG UP TRUCKS
345A				CASING CREW WAS SETTING UP
400A				PUT FLOAT SHOE @ 4646.09 FT PUT BAFFLE @ 4610.44 FT
405A				PUT CENTRALIZER ON 4TH 6TH 11TH JOINTS CEMENT BASKET ON 8TH JOINT
520A				PUT CEMENT BASKET ON BOTTOM OF 53 RD JOINT
530A				PUT DV TOOL ON TOP OF 53RD JOINT @2387 FT
645A				RIG FINISHED RUNNING CAS'NG
650A				DROPPED BALL
655A				PUT 5 1/2 CASING HEAD/MANIFOLD/WASH UP TEE ON
700A				CIRCULATED HOLE WITH RIG PUMP
709A				BALL BROKE THROUGH @ 600 PSI
922A				BROKE CIRCULATION/HOOKED UP TRUCK TO WELL
932A	5.0	300.0	5.0	H2O AHEAD
933A	3.5	210.0	5.0	PUMPED MUD FLUSH
935A	3.5	220.0	5.0	CLEANED TANKS WITH H2O
937A	6.2	520.0	55.0	MIXED 17 SCKS OF H-LONG @ 4610.44 FT
950A	7.0	280.0	42.0	DISPLACED WITH H2O
957A	7.0	380.0	64.0	DISPLACED WITH MUD
1007A	3.5	800.0	106.0	LANDED PLUG PRESSERED OU TO 1500 PSI
1014A				DROPPED BOMB
1047A	1.3	800.0	0.5	OPEN DV TOOL
1055A				CIRCULATED HOLE WITH RIG PUMP
200P	3.5	150.0	5.0	H2O AHEAD
207P	3.3	150.0	6.3	30 SKS H-PLUG IN RT
210P	3.3	200.0	6.3	20 SKS H-PLUG IN MH

	CREW		UNIT	SUMMARY		
				Average Rate	Average Pressure	Total Fluid
Cementeri	Josh M/ Dane R		73	4.26102 bpm	365 psi	300 bbls
Pump Operator	JESSE JONES		230			
Bulk #1	JOHN POLLEY		194/254			
Bulk #2	MIKE R		242			

POSTED

3613A Y Road
Madison, KS 66860
Ph: 620-437-2661
Fax: 620-437-2881



104 Prairie Plaza Parkway
Garnett, KS 66032
Ph: 785-448-3100
Fax: 785-448-3102

FED ID# 48-1214033
MC ID# 165290

Remit to: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202

YOUNKINTR2

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

Invoice Date: 6/9/2020
Invoice #: 0347914
Lease Name: YOUNKIN
Well #: 1-10 (NEW)
County: LOGAN, KS
JOB#: ICT3640

Revised

9308

Date/Description	HRS/QTY	Rate	Total
Surface			
Cement Pump	1	562.50	562.50
Heavy Eq Mileage	30	3.00	90.00
Light Eq Mileage	30	1.50	45.00
Ton Mileage	229	1.13	257.63
Cement Pozmix 60/40	175	9.75	1,706.25

PAID	
CK. NO. <i>13363</i>	DATE <i>7/28/20</i>

Net Invoice	2,661.38
Sales Tax	
Total	<u><u>2,661.38</u></u>

All invoices are due upon receipt. Interest at the rate of 1 1/2% per month may be charged on all invoices not paid within 30 days from date of invoice.

250 N. Water St., Suite #200
Wichita, KS 67202



HURRICANE SERVICES INC

Customer	Darrah Oil Company	Lease & Well #	Younkin 1-10	Date	6/9/2020																																																
Service District	Oakley KS	County & State	Logan Ks	Legals S/T/R Now Well?	10-145-34W																																																
Job Type	Surface	<input checked="" type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD		<input checked="" type="checkbox"/> YES <input type="checkbox"/> No	Job #																																																
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures																																																			
73	Jesse Jones	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging																																																
230	Josh Mosier	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection																																																
230	John Polley	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations																																																
242	Kate Ochs	<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations																																																
		<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below																																																	
<table border="1"> <thead> <tr> <th>Product/Service Code</th> <th>Description</th> <th>Unit of Measure</th> <th>Quantity</th> <th>List Price/Unit</th> <th>Gross Amount</th> <th>Item Discount</th> <th>Net Amount</th> </tr> </thead> <tbody> <tr> <td>c010</td> <td>Cement Pump</td> <td>ea</td> <td>1.00</td> <td></td> <td></td> <td></td> <td>\$562.50</td> </tr> <tr> <td>m010</td> <td>Heavy Equipment Mileage</td> <td>mi</td> <td>30.00</td> <td></td> <td></td> <td></td> <td>\$90.00</td> </tr> <tr> <td>m015</td> <td>Light Equipment Mileage</td> <td>mi</td> <td>30.00</td> <td></td> <td></td> <td></td> <td>\$45.00</td> </tr> <tr> <td>m020</td> <td>Ton Mileage</td> <td>tm</td> <td>229.00</td> <td></td> <td></td> <td></td> <td>\$287.03</td> </tr> <tr> <td>cp070</td> <td>60%40%2%</td> <td>tkc</td> <td>175.00</td> <td></td> <td></td> <td></td> <td>\$1,706.25</td> </tr> </tbody> </table>						Product/Service Code	Description	Unit of Measure	Quantity	List Price/Unit	Gross Amount	Item Discount	Net Amount	c010	Cement Pump	ea	1.00				\$562.50	m010	Heavy Equipment Mileage	mi	30.00				\$90.00	m015	Light Equipment Mileage	mi	30.00				\$45.00	m020	Ton Mileage	tm	229.00				\$287.03	cp070	60%40%2%	tkc	175.00				\$1,706.25
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Customer Section: On the following scale how would you rate Hurricane Services Inc.?				Gross: \$2,861.38		Net: \$2,861.38																																															
Based on this job, how likely is it you would recommend HSI to a colleague?				Total Taxable \$ -	Tax Rate:	Total: \$ 2,681.38																																															
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.		Sale Tax: \$ - Total: \$ 2,681.38																																															
Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely				HSI Representative: <i>Josh Mosier</i>																																																	

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to effect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment is in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X _____ **CUSTOMER AUTHORIZATION SIGNATURE**

