

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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom

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	Rama Operating Co., Inc.
Well Name	FISHER 1-23
Doc ID	1474524

Tops

Name	Top	Datum
Heebner	3370	-1449
Brown Lime	3514	-1593
Lansing	3540	-1619
Base Lansing	3808	-1887
Viola	3894	-1973
Simpson	4026	-2105
Arbuckle	4064	-2143
RTD	4069	-2149

Form	ACO1 - Well Completion
Operator	Rama Operating Co., Inc.
Well Name	FISHER 1-23
Doc ID	1474524

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3809-22	400 gal 15 % MCA	
	CIBP		
4	4166-73		



Joshua R. Austin

Petroleum Geologist

report for

RAMA Operating CO., Inc



COMPANY: RAMA Operating Company, Inc.

LEASE: FISHER #1-23

FIELD: ST. JOHN

LOCATION: 2310' FSL & 1830' FEL (W2-NE-NW-SE)

SEC: 23 **TWSP:** 24s **RGE:** 13w

COUNTY: Stafford **STATE:** Kansas

KB: 1921' **GL:** 1910'

API # 15-185-24060-00-00

CONTRACTOR: Sterling Drilling (rig #4)

Spud: 10/07/2019 **Comp:** 10/15/2019

RTD: 4069' **LTD:** 4070'

Mud Up: 2978' **Type Mud:** Chemical was displaced

Samples Saved From: 3100' to RTD

Drilling Time Kept From: 1600' to RTD

Samples Examined From: 3100' to RTD

Geological Supervision From: 3200' to RTD

Geologist on Well: Josh Austin

Surface Casing: 8 5/8" @ 307'

Production Casing: 5 1/2" @ 4063'

Electronic Surveys: Pioneer Energy Services

NOTES

On the basis of the positive structural position and drill stem test it was recommended by all parties involved in the Fisher 1-23 to run 5 1/2" production casing to further test the Arbuckle and Lansing zones.

RAMA Operating Company Inc.

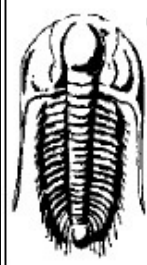
Well Comparison Sheet

DRILLING WELL

COMPARISON WELL

COMPARISON WELL

1921 KB					1907 KB				1906 KB				
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	
Anhydrite	730	1191	728	1193									
Heebner	3369	-1448	3370	-1449						3357	-1451	3	2
Toronto	3389	-1468	3384	-1463						3374	-1468	0	5
Douglas	3409	-1488	3404	-1483									
Brown Lime	3515	-1594	3514	-1593						3494	-1588	-6	-5
Lansing	3542	-1621	3540	-1619	3528	-1621	0	2		3525	-1619	-2	0
BKC	3813	-1892	3808	-1887									
Viola	3896	-1975	3894	-1973	3895	-1988	13	15		3891	-1985	10	12
Simpson	4023	-2102	4026	-2105	4010	-2103	1	-2		4016	-2110	8	5
Arbuckle	4064	-2143	N/A	N/A	4065	-2158	15	N/A		4064	-2158	15	N/A
Total Depth	4069	-2148	4070	-2149	4087	-2180				4084	-2178		



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

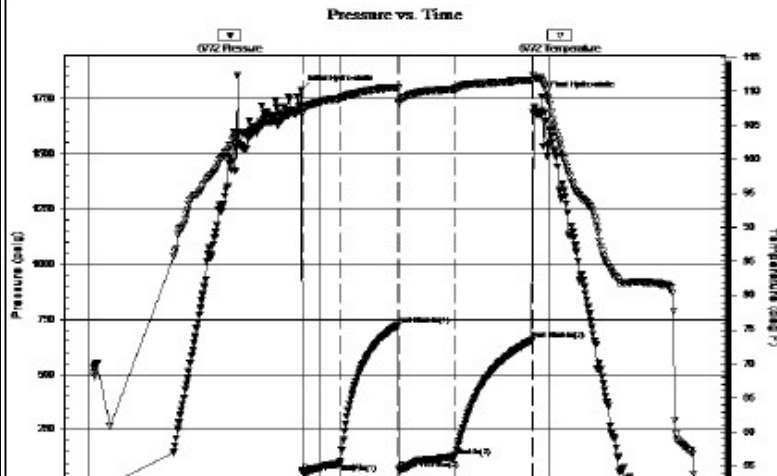
Rama Operating Co 23-24s-12w
 101 S. Main st stafford KS 67578+1429 **Fisher #1-23**
 ATTN: Josh Austin Job Ticket: 65703 **DST#: 1**
Test Start: 2019.10.11 @ 18:04:00

GENERAL INFORMATION:

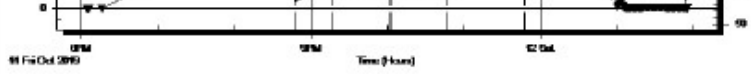
Formation: **Lansing A-D**
 Deviated: **No Whipstock:** ft (KB)
 Test Type: **Conventional Bottom Hole (Initial)**
 Time Tool Opened: **20:47:20**
 Tester: **Benny Mulligan**
 Time Test Ended: **01:56:00**
 Unit No: **66**
 Interval: **3548.00 ft (KB) To 3598.00 ft (KB) (TVD)**
 Reference Elevations: **1921.00 ft (KB)**
 Total Depth: **3598.00 ft (KB) (TVD)**
 1910.00 ft (CF)
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**
 KB to GR/CF: **11.00 ft**

Serial #: 6772 **Inside**
 Press@RunDepth: **125.70 psig @ 3549.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2019.10.11** End Date: **2019.10.12** Last Calib.: **2019.10.12**
 Start Time: **18:04:01** End Time: **01:56:00** Time On Btm: **2019.10.11 @ 20:46:10**
 Time Off Btm: **2019.10.11 @ 23:55:30**

TEST COMMENT: IF-30-BOB 1min total build of 226"
 IS-45- no blow back
 FF-45- BOB 35secs total build of 259"
 FSI-60- gts w hen bled off no blow back



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.19	107.15	Initial Hydro-static
2	58.45	106.87	Open To Flow (1)
31	98.18	108.99	Shut-In(1)
76	723.08	110.47	End Shut-In(1)
77	68.01	108.02	Open To Flow (2)
121	125.70	110.31	Shut-In(2)
182	654.95	111.56	End Shut-In(2)
190	1757.09	111.10	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
120.00	GHOCM 40%G 40%O 20%M	0.59
120.00	GHOCM 20%G 40%O 40%M	0.72
60.00	GVSOCM 5%G 5%O 90%M	0.84
0.00	GIP 3030'	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Rama Operating Co
 101 S. Main st stafford KS 67578+1429
 ATTN: Josh Austin

23-24s-12w
Fisher #1-23
 Job Ticket: 65704 **DST#: 2**
 Test Start: 2019.10.12 @ 13:44:00

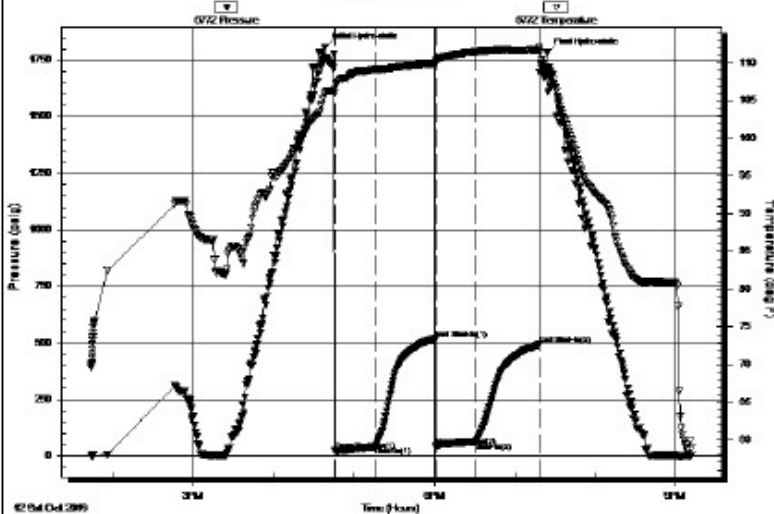
GENERAL INFORMATION:

Formation: **Lansing H**
 Deviated: **No Whipstock** ft (KB)
 Time Tool Opened: 16:46:00
 Time Test Ended: 21:12:30
 Interval: **3669.00 ft (KB) To 3685.00 ft (KB) (TVD)**
 Total Depth: **3685.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**
 Test Type: **Conventional Bottom Hole (Initial)**
 Tester: **Benny Mulligan**
 Unit No: **66**
 Reference Elevations: **1921.00 ft (KB)**
 1910.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 6772 **Inside**
 Press@RunDepth: **64.90 psig @ 3670.00 ft (KB)**
 Start Date: **2019.10.12** End Date: **2019.10.12**
 Start Time: **13:44:01** End Time: **21:12:30**
 Capacity: **8000.00 psig**
 Last Calib.: **2019.10.12**
 Time On Btn: **2019.10.12 @ 16:38:20**
 Time Off Btn: **2019.10.12 @ 19:24:20**

TEST COMMENT: IF-30-BOB 19mns 30secs total build of 16"
 ISI-45- no blow back
 FF-30- built to 9 1/2 "
 FSI-45- no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1804.79	105.90	Initial Hydro-static
8	24.29	106.00	Open To Flow (1)
38	42.09	109.15	Shut-In(1)
83	519.81	109.88	End Shut-In(1)
83	44.89	110.06	Open To Flow (2)
113	64.90	111.46	Shut-In(2)
160	493.03	111.69	End Shut-In(2)
167	1781.01	109.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OSWM 5%O 75%W 20%M	0.30
30.00	GOSM 5%G 1%O 94%M	0.15
0.00	GIP 150'	0.00

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Rama Operating Co
 101 S. Main St
 Stafford KS 67578+1429
 ATTN: Josh Austin

23-24s-12w Stafford,KS
Fisher #1-23
 Job Ticket: 65705 DST#: 3
 Test Start: 2019.10.14 @ 00:58:00

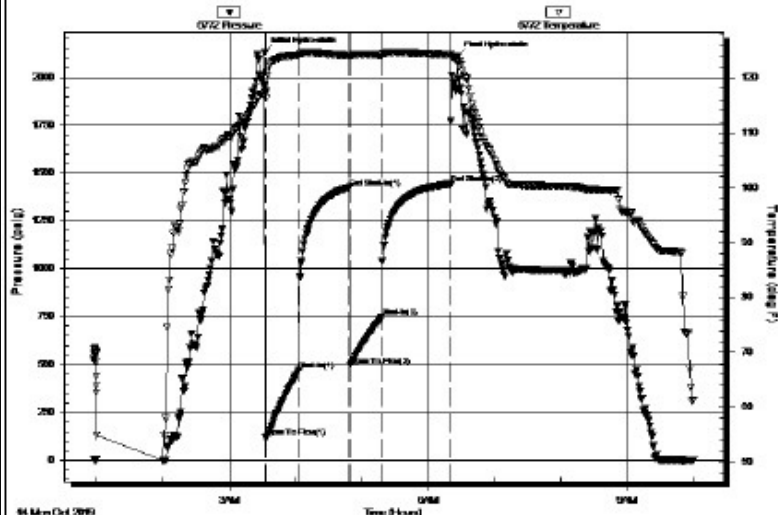
GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: **No** Whipstock: **ft (KB)**
 Time Tool Opened: **03:33:20**
 Time Test Ended: **10:00:19**
 Interval: **4064.00 ft (KB) To 4069.00 ft (KB) (TVD)**
 Total Depth: **4069.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**
 Test Type: **Conventional Bottom Hole (Initial)**
 Tester: **Benny Mulligan**
 Unit No: **66**
 Reference Elevations: **1921.00 ft (KB)**
 1910.00 ft (CF)
 KB to GR/CF: **11.00 ft**

Serial #: 6772 **Inside**
 Press@RunDepth: **745.85 psig @ 4065.00 ft (KB)**
 Start Date: **2019.10.14** End Date: **2019.10.14**
 Start Time: **00:58:01** End Time: **10:00:19**
 Capacity: **8000.00 psig**
 Last Calib.: **2019.10.14**
 Time On Btm: **2019.10.14 @ 03:32:20**
 Time Off Btm: **2019.10.14 @ 06:26:09**

TEST COMMENT: IF-30-BOB 1min total build of 178"
 IS-45-11" of blow back
 FF-30- BOB 40secs total build of 155"
 FSI-60- 1 1/2" of blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2131.06	117.21	Initial Hydro-static
1	123.09	116.32	Open To Flow (1)
31	471.87	124.07	Shut-In(1)
77	1424.66	124.04	End Shut-In(1)
77	494.26	123.64	Open To Flow (2)
106	745.85	124.18	Shut-In(2)
168	1442.33	124.26	End Shut-In(2)
174	2105.97	123.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 20%G 20%O 60%M	0.30

Gas Rates

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

1975.00	GCO 20%G 80%O	26.19
0.00	GIP 425'	0.00

ROCK TYPES

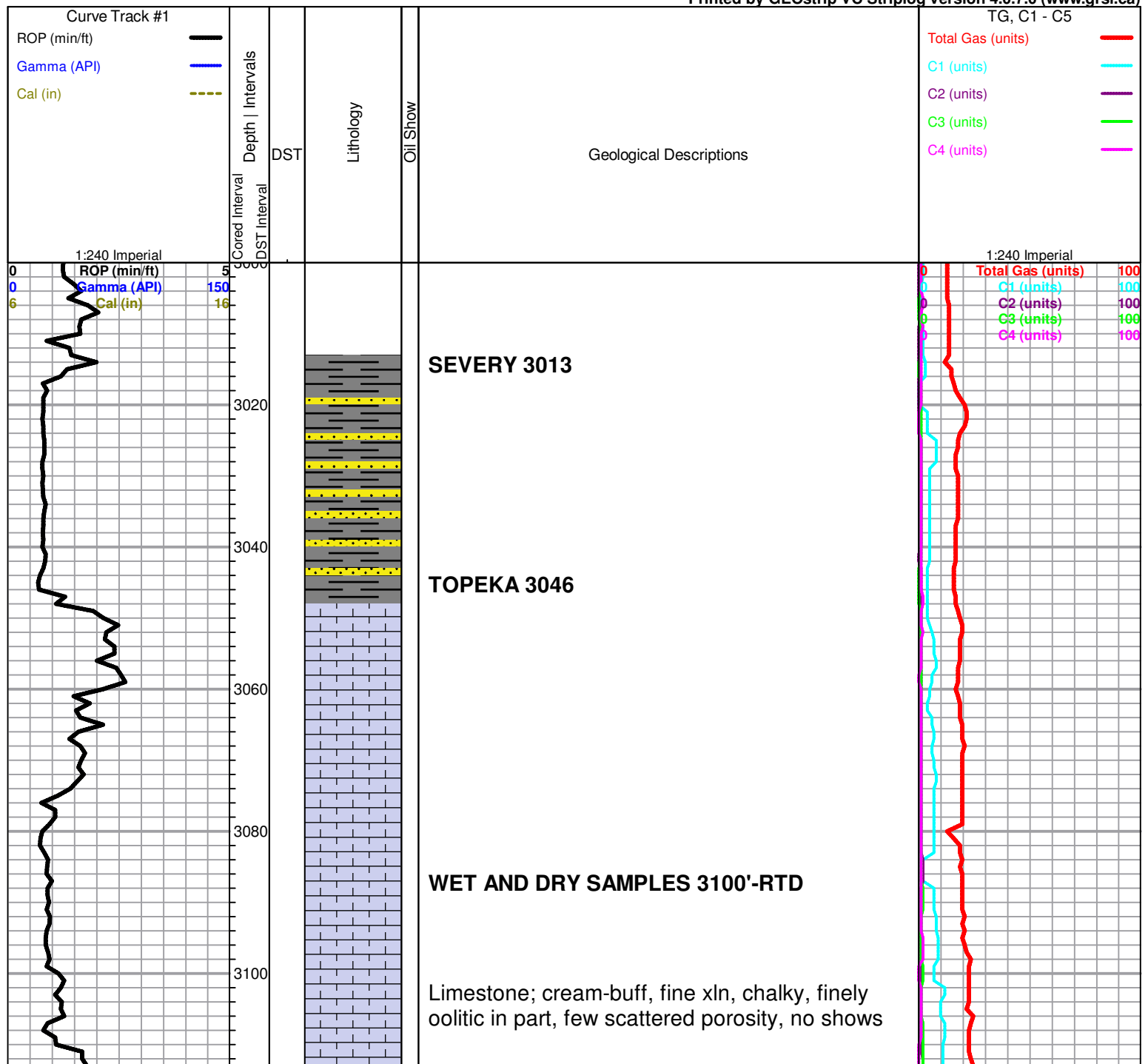
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Cht vari	sdy lmst	shale, gry	Ss
Chtcongl	Lmst fw7>	Carbon Sh	

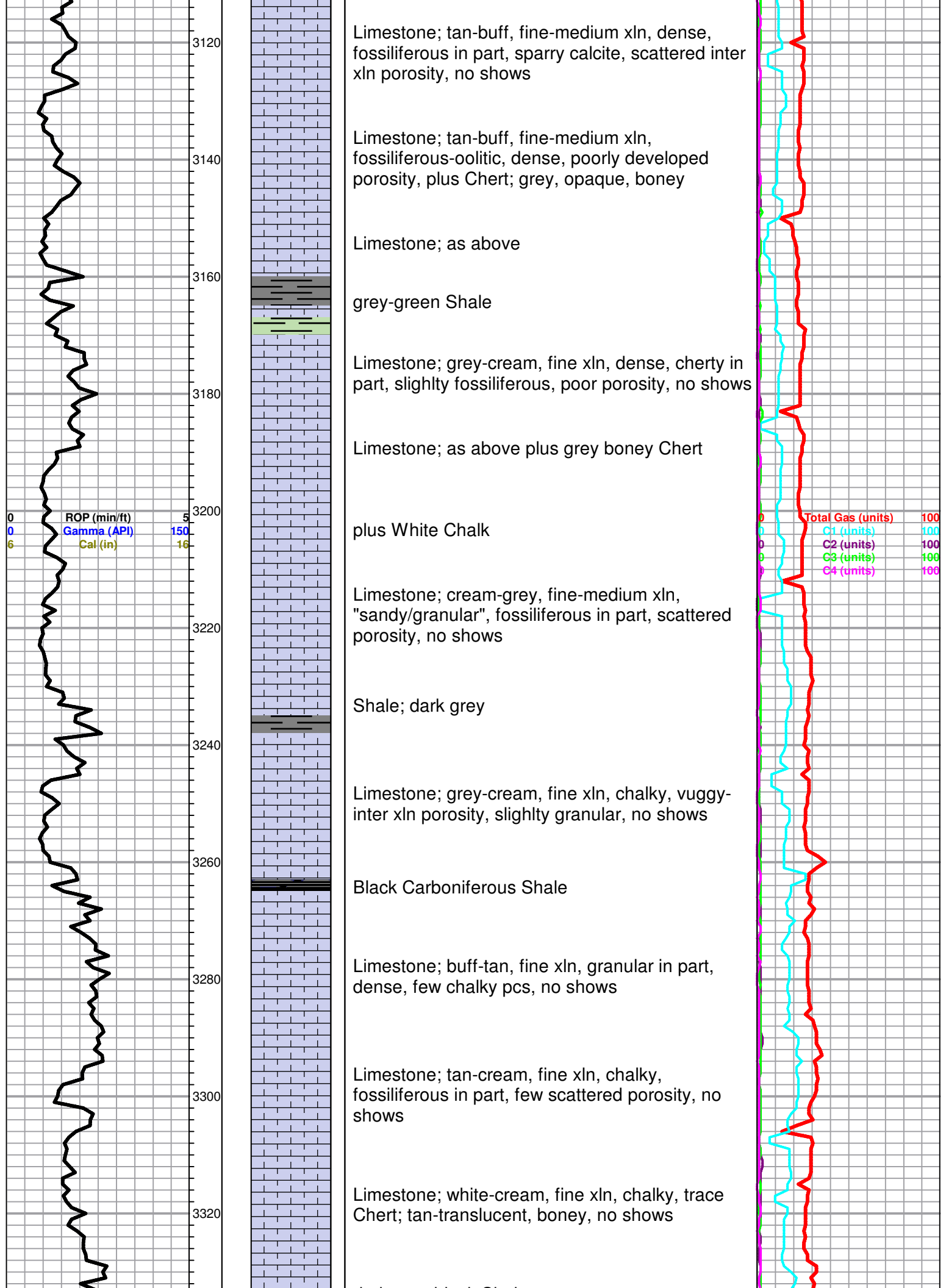
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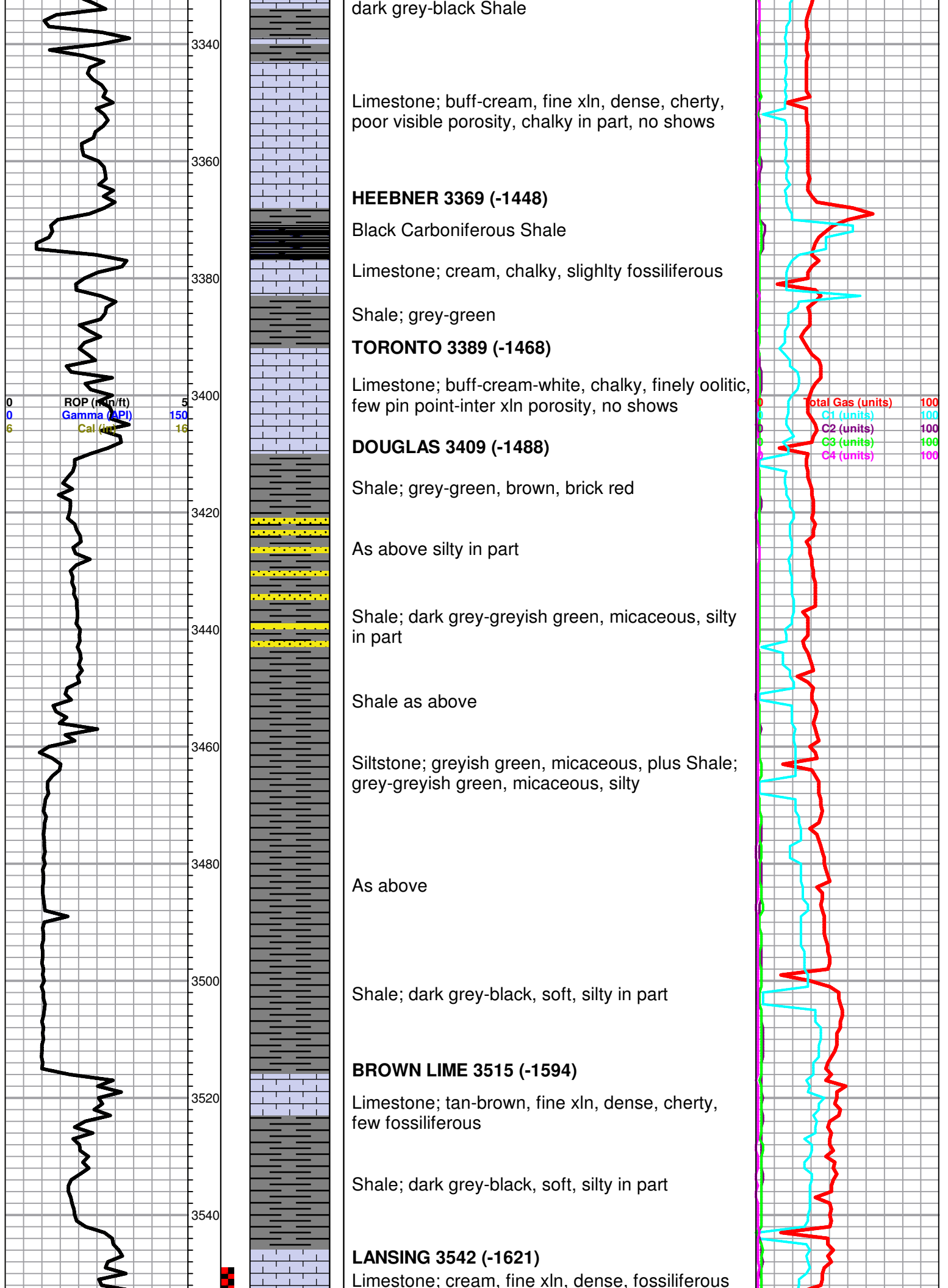
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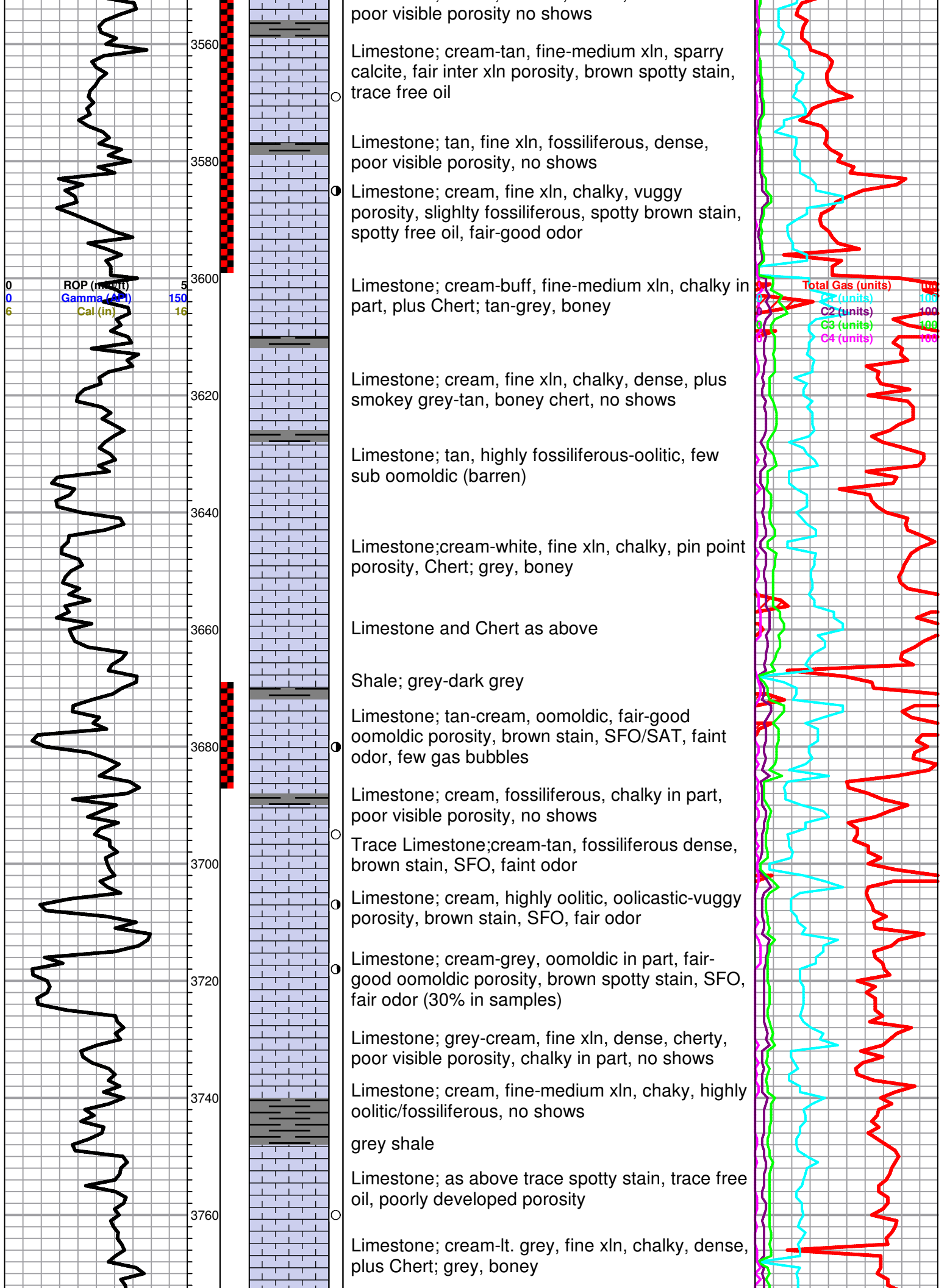
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- DST alt
- Core
- tail pipe

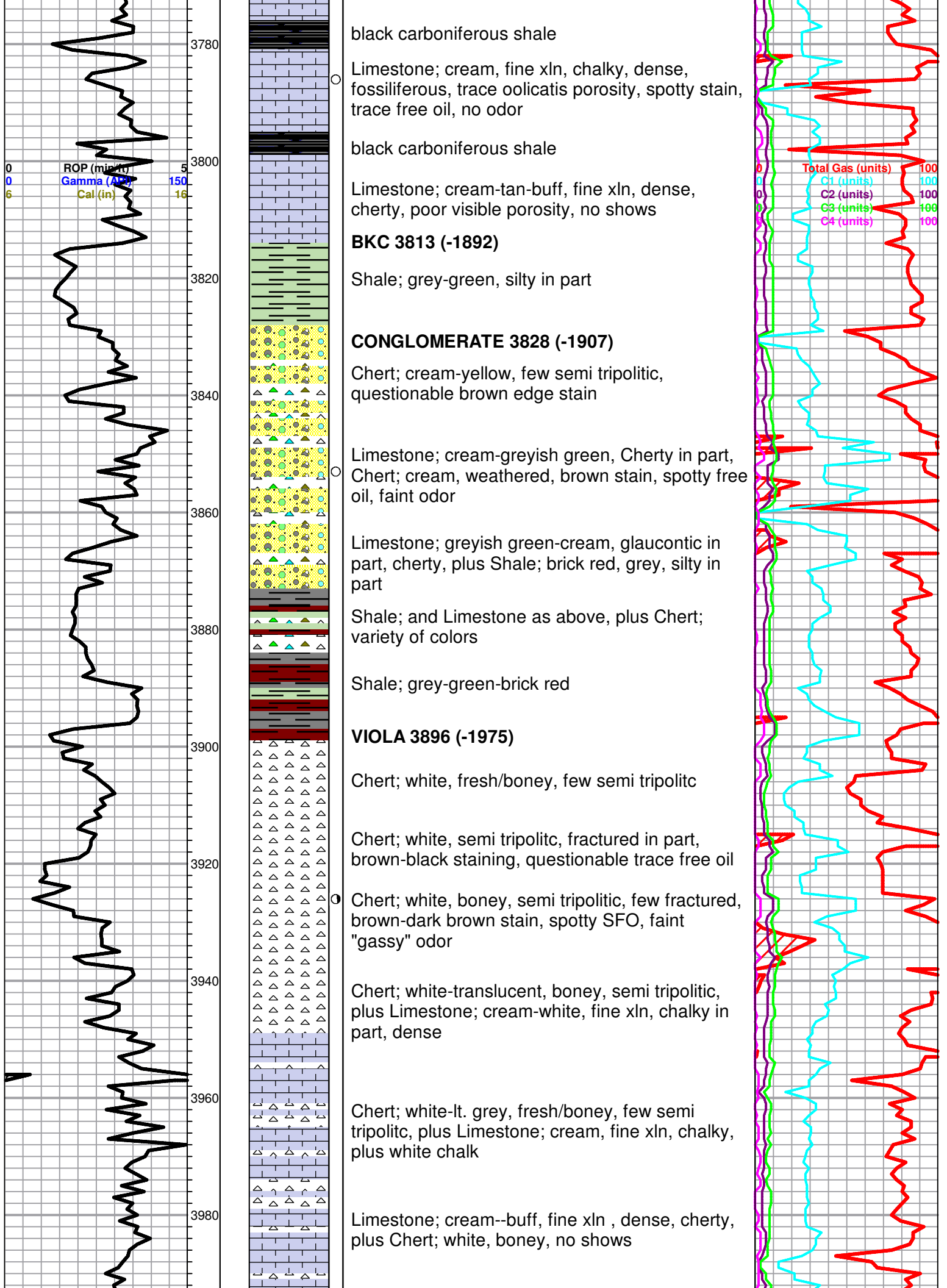
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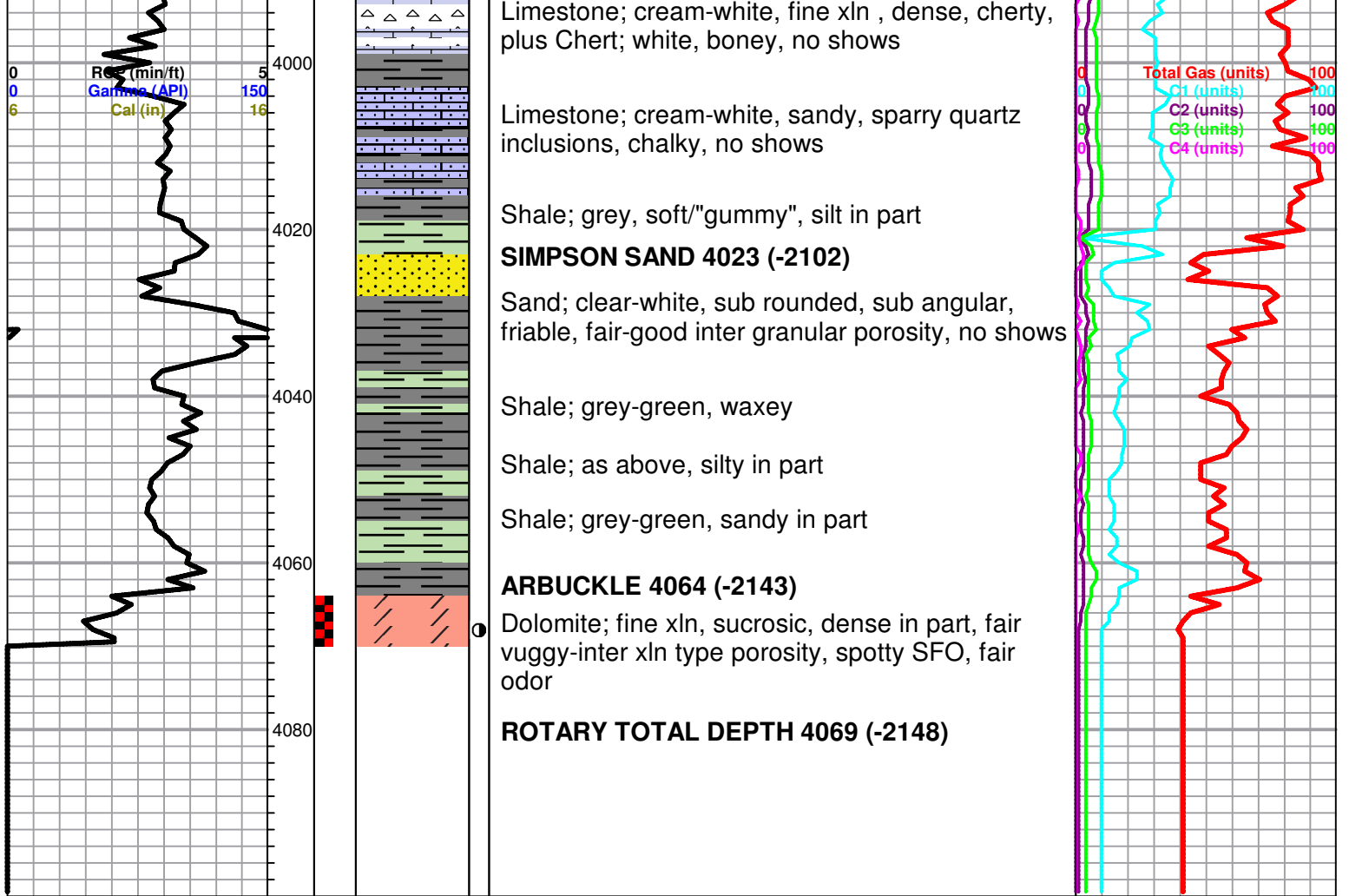














DRILL STEM TEST REPORT

Prepared For: **Rama Operating Co**

101 S. Main St
Stafford KS 67578+1429

ATTN: Josh Austin

Fisher #1-23

23-24s-12w Stafford,KS

Start Date: 2019.10.11 @ 18:04:00

End Date: 2019.10.12 @ 01:56:00

Job Ticket #: 65703 DST #: 1

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

Printed: 2019.10.14 @ 14:29:18

Rama Operating Co
23-24s-12w Stafford,KS
Fisher #1-23
DST # 1
LKC A-D
2019.10.11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Rama Operating Co
101 S. Main St
Stafford KS 67578+1429
ATTN: Josh Austin

23-24s-12w Stafford,KS

Fisher #1-23

Job Ticket: 65703

DST#: 1

Test Start: 2019.10.11 @ 18:04:00

GENERAL INFORMATION:

Formation: **LKC A-D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:47:20
 Time Test Ended: 01:56:00
 Interval: **3548.00 ft (KB) To 3598.00 ft (KB) (TVD)**
 Total Depth: 3598.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Benny Mulligan
 Unit No: 66
 Reference Elevations: 1921.00 ft (KB)
 1910.00 ft (CF)
 KB to GR/CF: 11.00 ft

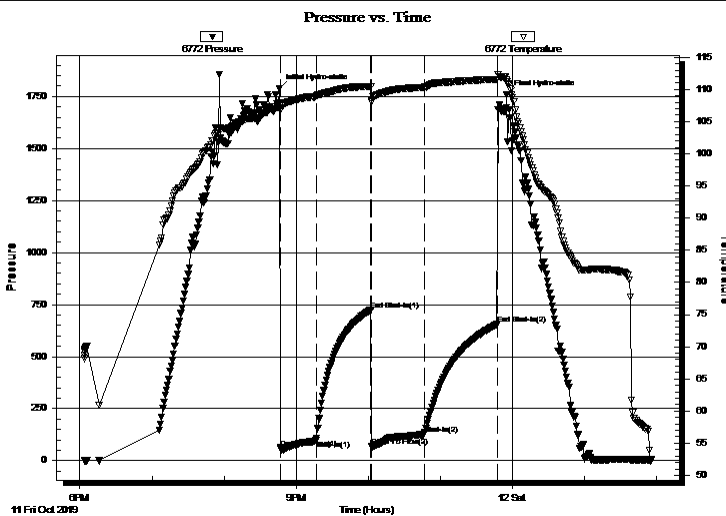
Serial #: 6772

Inside

Press@RunDepth: 125.70 psig @ 3549.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.10.11 End Date: 2019.10.12 Last Calib.: 2019.10.12
 Start Time: 18:04:01 End Time: 01:56:00 Time On Btm: 2019.10.11 @ 20:46:10
 Time Off Btm: 2019.10.11 @ 23:55:30

TEST COMMENT: IF-30-BOB 1 min total build of 226"
 ISI-45- no blow back
 FF-45- BOB 35 secs total build of 259"
 FSI-60- GTS w hen bled off no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.19	107.15	Initial Hydro-static
2	58.45	106.87	Open To Flow (1)
31	98.18	108.99	Shut-In(1)
76	723.08	110.47	End Shut-In(1)
77	68.01	108.02	Open To Flow (2)
121	125.70	110.31	Shut-In(2)
182	654.95	111.56	End Shut-In(2)
190	1757.09	111.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GHOCM 40%G 40%O 20%M	0.59
120.00	GHOCM 20%G 40%O 40%M	0.72
60.00	GVSOCM 5%G 5%O 90%M	0.84
0.00	GIP 3030'	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Rama Operating Co
101 S. Main St
Stafford KS 67578+1429
ATTN: Josh Austin

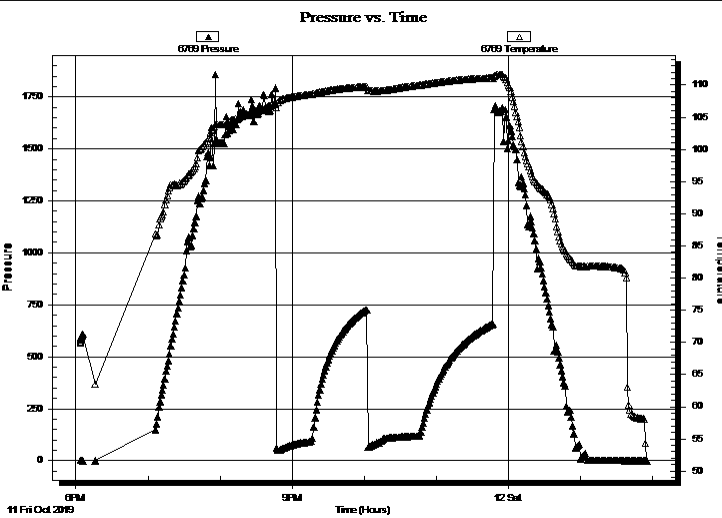
23-24s-12w Stafford, KS
Fisher #1-23
Job Ticket: 65703 **DST#: 1**
Test Start: 2019.10.11 @ 18:04:00

GENERAL INFORMATION:

Formation: **LKC A-D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:47:20
Time Test Ended: 01:56:00
Interval: **3548.00 ft (KB) To 3598.00 ft (KB) (TVD)**
Total Depth: 3598.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Benny Mulligan
Unit No: 66
Reference Elevations: 1921.00 ft (KB)
1910.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6769 Outside
Press@RunDepth: psig @ 3549.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.10.11 End Date: 2019.10.12 Last Calib.: 2019.10.12
Start Time: 18:04:01 End Time: 01:56:00 Time On Btm:
Time Off Btm:

TEST COMMENT: IF-30-BOB 1 min total build of 226"
ISI-45- no blow back
FF-45- BOB 35 secs total build of 259"
FSI-60- GTS w hen bled off no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GHOCM 40%G 40%O 20%M	0.59
120.00	GHOCM 20%G 40%O 40%M	0.72
60.00	GVSOCM 5%G 5%O 90%M	0.84
0.00	GIP 3030'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65703

DST#: 1

ATTN: Josh Austin

Test Start: 2019.10.11 @ 18:04:00

Tool Information

Drill Pipe:	Length: 3330.00 ft	Diameter: 3.80 inches	Volume: 46.71 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 226.00 ft	Diameter: 2.25 inches	Volume: 1.11 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 47.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	3548.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	70.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3529.00	
Shut In Tool	5.00			3534.00	
Hydraulic tool	5.00			3539.00	
Packer	5.00			3544.00	20.00 Bottom Of Top Packer
Packer	4.00			3548.00	
Stubb	1.00			3549.00	
Recorder	0.00	6772	Inside	3549.00	
Recorder	0.00	6769	Outside	3549.00	
Perforations	12.00			3561.00	
Change Over Sub	1.00			3562.00	
Drill Pipe	32.00			3594.00	
Change Over Sub	1.00			3595.00	
Bullnose	3.00			3598.00	50.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65703

DST#: 1

ATTN: Josh Austin

Test Start: 2019.10.11 @ 18:04:00

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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	GHOCM 40%G 40%O 20%M	0.590
120.00	GHOCM 20%G 40%O 40%M	0.718
60.00	GVSOCM 5%G 5%O 90%M	0.842
0.00	GIP 3030'	0.000

Total Length: 300.00 ft

Total Volume: 2.150 bbl

Num Fluid Samples: 0

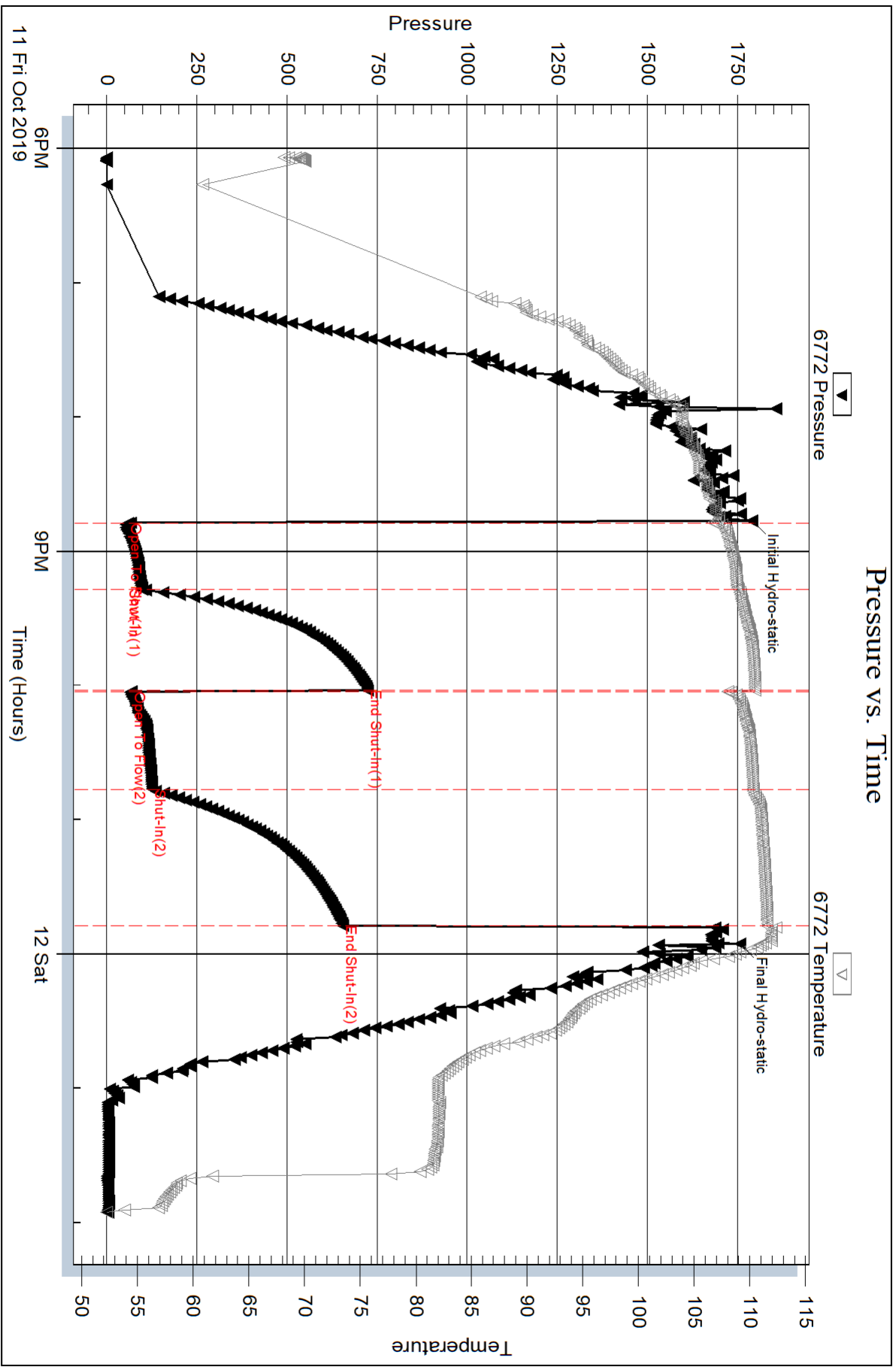
Num Gas Bombs: 0

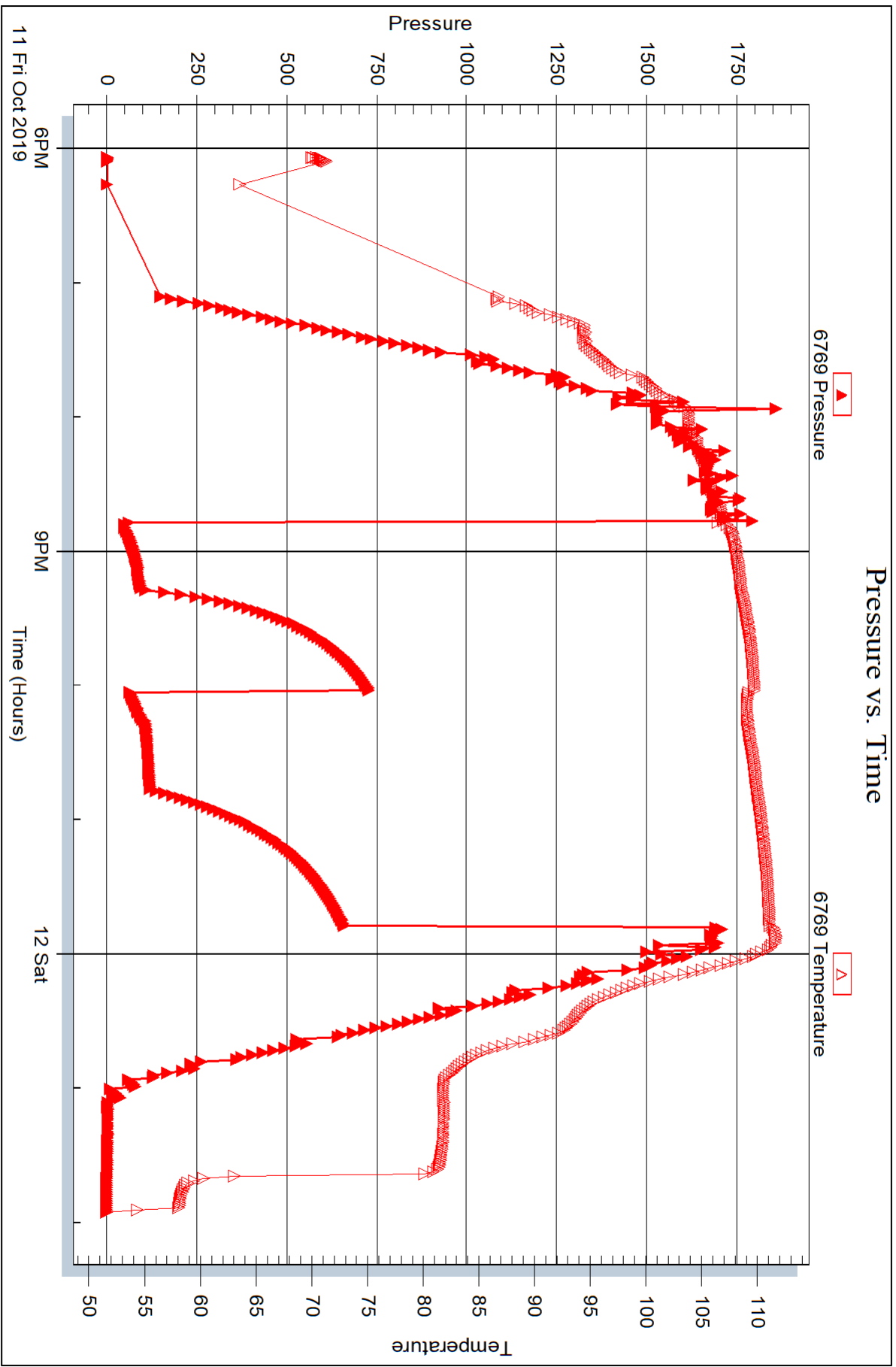
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Rama Operating Co**

101 S. Main St
Stafford KS 67578+1429

ATTN: Josh Austin

Fisher #1-23

23-24s-12w Stafford,KS

Start Date: 2019.10.12 @ 13:44:00

End Date: 2019.10.12 @ 21:12:30

Job Ticket #: 65704 DST #: 2

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

Printed: 2019.10.14 @ 14:27:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65704

DST#: 2

ATTN: Josh Austin

Test Start: 2019.10.12 @ 13:44:00

GENERAL INFORMATION:

Formation: **LKC H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:46:00

Time Test Ended: 21:12:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: 3669.00 ft (KB) To 3685.00 ft (KB) (TVD)

Reference Elevations: 1921.00 ft (KB)

Total Depth: 3685.00 ft (KB) (TVD)

1910.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6772 Inside

Press@RunDepth: 64.90 psig @ 3670.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.10.12

End Date:

2019.10.12

Last Calib.: 2019.10.12

Start Time: 13:44:01

End Time:

21:12:30

Time On Btm: 2019.10.12 @ 16:38:20

Time Off Btm: 2019.10.12 @ 19:24:20

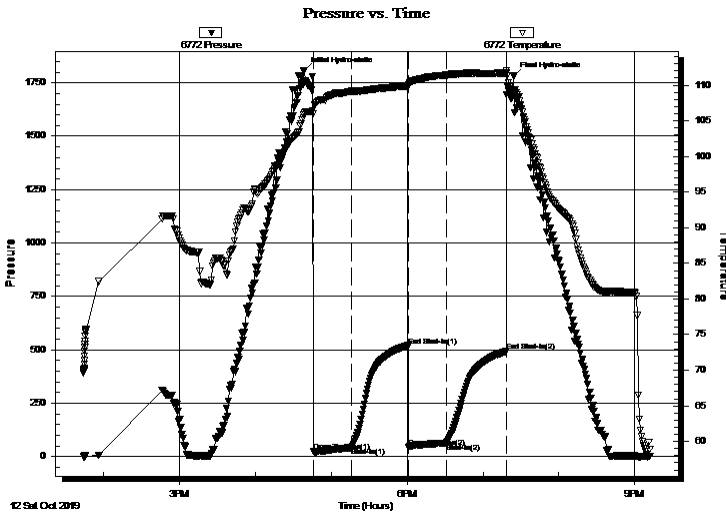
TEST COMMENT: IF-30-BOB 19 mns 30 secs total build of 16"

ISI-45- no blow back

FF-30- built to 9 1/2 "

FSI-45- no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1804.79	105.90	Initial Hydro-static
8	24.29	106.00	Open To Flow (1)
38	42.09	109.15	Shut-In(1)
83	519.81	109.88	End Shut-In(1)
83	44.89	110.06	Open To Flow (2)
113	64.90	111.46	Shut-In(2)
160	493.03	111.69	End Shut-In(2)
167	1781.01	109.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OSWM 5%O 75%W 20%M	0.30
30.00	GOSM 5%G 1%O 94%M	0.15
0.00	GIP 150'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Rama Operating Co
101 S. Main St
Stafford KS 67578+1429
ATTN: Josh Austin

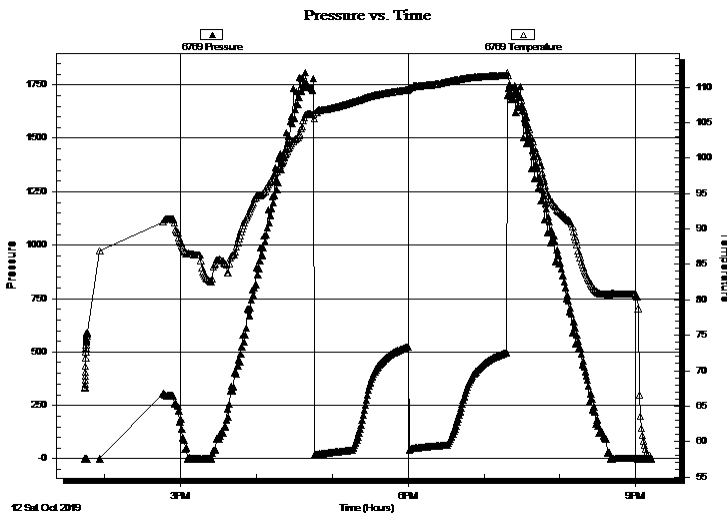
23-24s-12w Stafford,KS
Fisher #1-23
Job Ticket: 65704 **DST#: 2**
Test Start: 2019.10.12 @ 13:44:00

GENERAL INFORMATION:

Formation: **LKC H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:46:00
Time Test Ended: 21:12:30
Interval: **3669.00 ft (KB) To 3685.00 ft (KB) (TVD)**
Total Depth: 3685.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1921.00 ft (KB)
1910.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6769 Outside
Press@RunDepth: psig @ 3670.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.10.12 End Date: 2019.10.12 Last Calib.: 2019.10.12
Start Time: 13:44:01 End Time: 21:12:30 Time On Btm:
Time Off Btm:

TEST COMMENT: IF-30-BOB 19 mns 30 secs total build of 16"
ISI-45- no blow back
FF-30- built to 9 1/2 "
FSI-45- no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OSWM 5%O 75%W 20%M	0.30
30.00	GOSM 5%G 1%O 94%M	0.15
0.00	GIP 150'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65704

DST#: 2

ATTN: Josh Austin

Test Start: 2019.10.12 @ 13:44:00

Tool Information

Drill Pipe:	Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 226.00 ft	Diameter: 2.25 inches	Volume: 1.11 bbl	Weight to Pull Loose:	71000.00 lb
			<u>Total Volume: 49.22 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	3669.00 ft			Final	69000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	16.00 ft				
Tool Length:	36.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3650.00	
Shut In Tool	5.00			3655.00	
Hydraulic tool	5.00			3660.00	
Packer	5.00			3665.00	20.00 Bottom Of Top Packer
Packer	4.00			3669.00	
Stubb	1.00			3670.00	
Recorder	0.00	6772	Inside	3670.00	
Recorder	0.00	6769	Outside	3670.00	
Perforations	12.00			3682.00	
Bullnose	3.00			3685.00	16.00 Bottom Packers & Anchor
Total Tool Length:	36.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65704

DST#: 2

ATTN: Josh Austin

Test Start: 2019.10.12 @ 13:44:00

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:

50000 ppm

Viscosity: 76.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OSWM 5%O 75%W 20%M	0.295
30.00	GOSM 5%G 1%O 94%M	0.148
0.00	GIP 150'	0.000

Total Length: 90.00 ft Total Volume: 0.443 bbl

Num Fluid Samples: 0

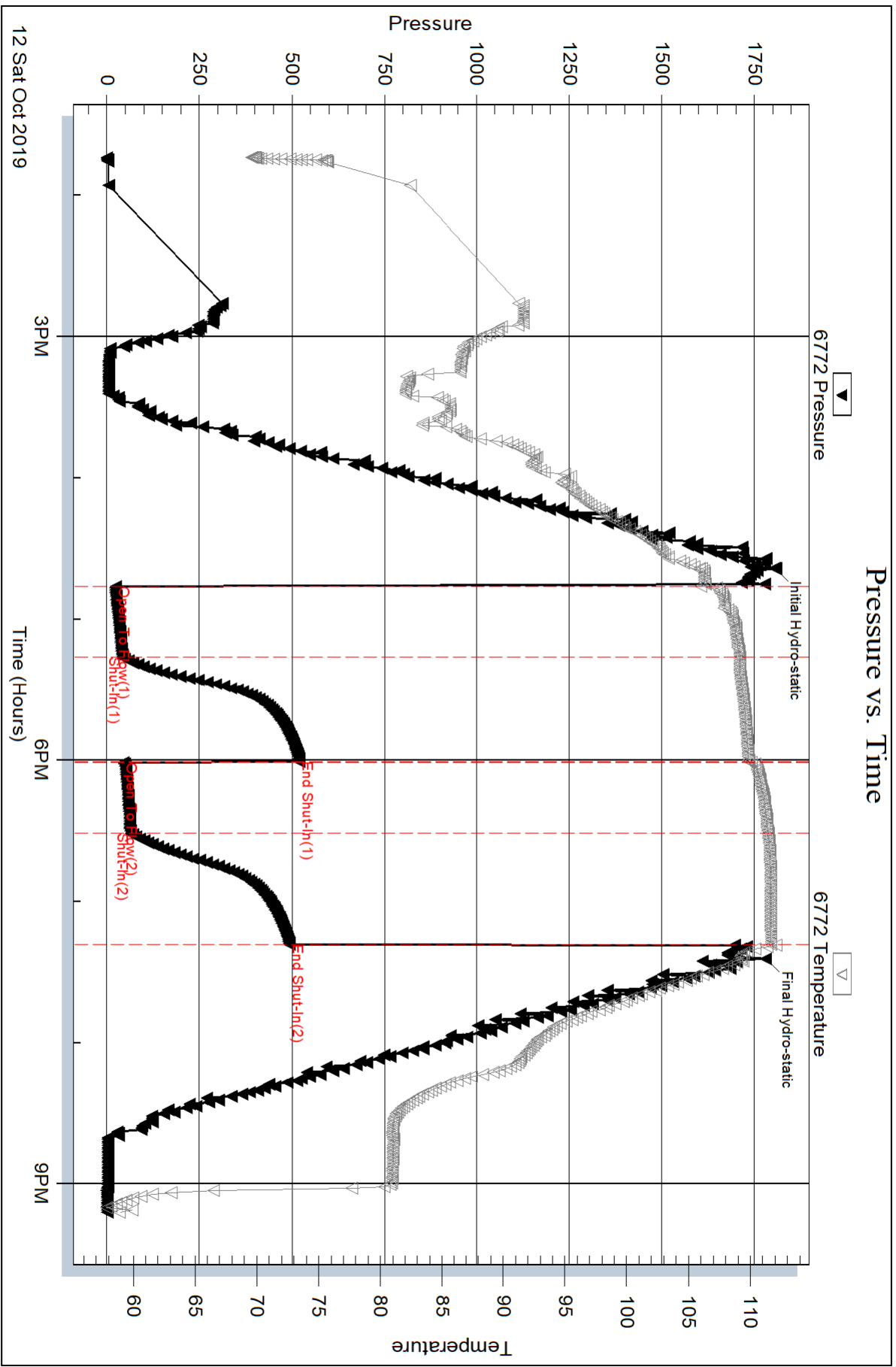
Num Gas Bombs: 0

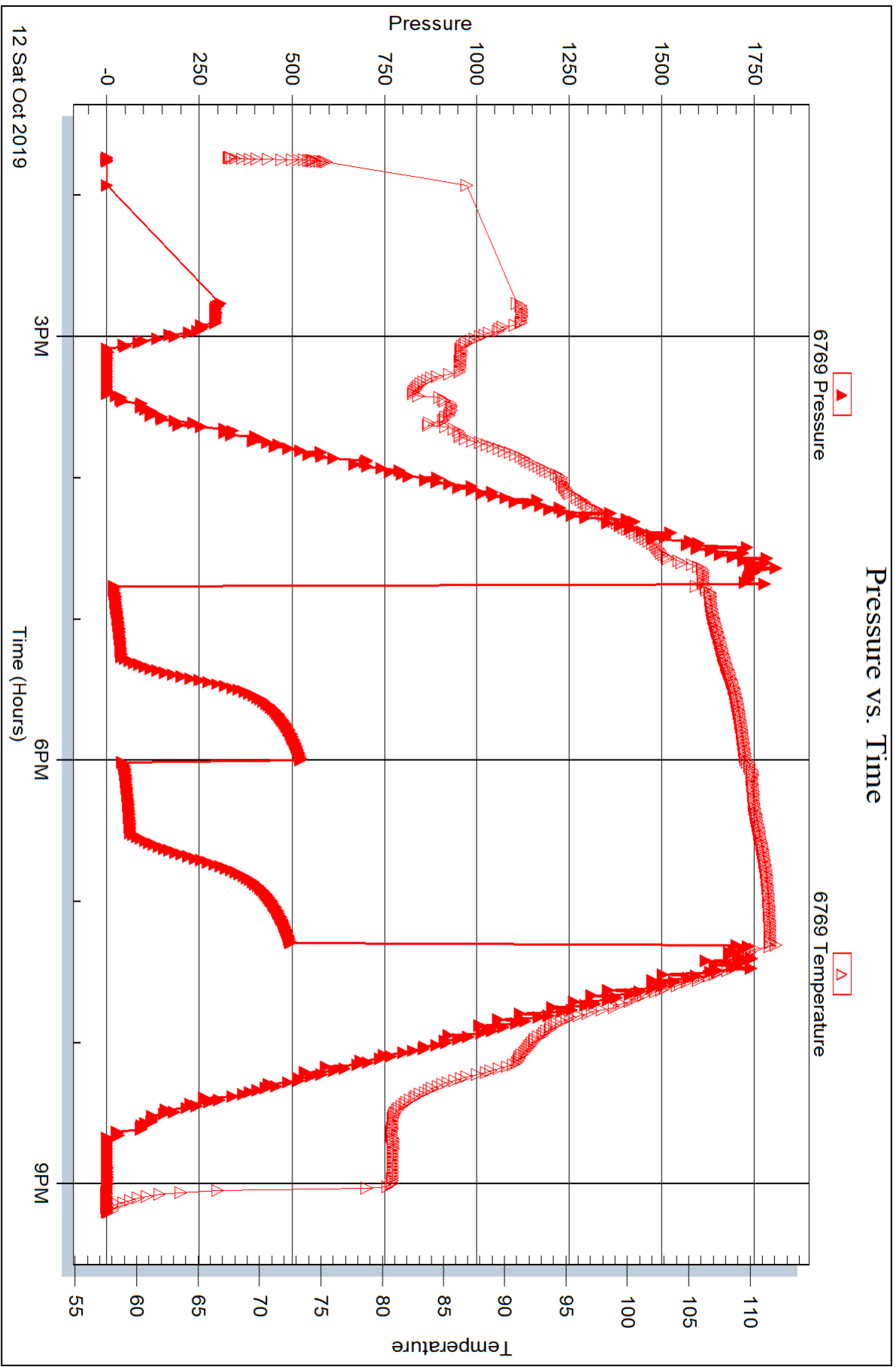
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 0.175@63.1







DRILL STEM TEST REPORT

Prepared For: **Rama Operating Co**

101 S. Main St
Stafford KS 67578+1429

ATTN: Josh Austin

Fisher #1-23

23-24s-12w Stafford,KS

Start Date: 2019.10.14 @ 00:58:00

End Date: 2019.10.14 @ 10:00:19

Job Ticket #: 65705 DST #: 3

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

Printed: 2019.10.14 @ 14:26:43



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65705

DST#: 3

ATTN: Josh Austin

Test Start: 2019.10.14 @ 00:58:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:33:20

Time Test Ended: 10:00:19

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: 4064.00 ft (KB) To 4069.00 ft (KB) (TVD)

Reference Elevations: 1921.00 ft (KB)

Total Depth: 4069.00 ft (KB) (TVD)

1910.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6772

Inside

Press@RunDepth: 745.85 psig @ 4065.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.10.14

End Date:

2019.10.14

Last Calib.:

2019.10.14

Start Time: 00:58:01

End Time:

10:00:19

Time On Btm:

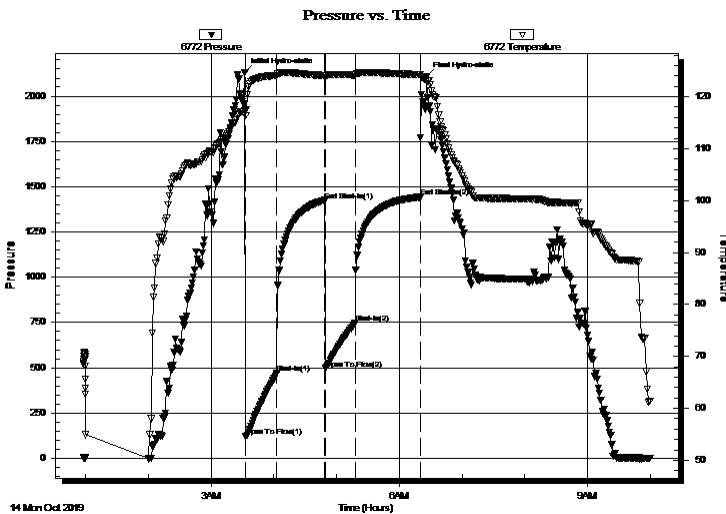
2019.10.14 @ 03:32:20

Time Off Btm:

2019.10.14 @ 06:26:09

TEST COMMENT: IF-30-BOB 1 min total build of 178"
ISI-45-11" of blow back
FF-30- BOB 40 secs total build of 155"
FSI-60- 1 1/2" of blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2131.06	117.21	Initial Hydro-static
1	123.09	116.32	Open To Flow (1)
31	471.87	124.07	Shut-In(1)
77	1424.66	124.04	End Shut-In(1)
77	494.26	123.64	Open To Flow (2)
106	745.85	124.18	Shut-In(2)
168	1442.33	124.26	End Shut-In(2)
174	2105.97	123.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 20%G 20%O 60%M	0.30
1975.00	GCO 20%G 80%O	26.19
0.00	GIP 425'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65705

DST#: 3

ATTN: Josh Austin

Test Start: 2019.10.14 @ 00:58:00

Tool Information

Drill Pipe:	Length: 3840.00 ft	Diameter: 3.80 inches	Volume: 53.87 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 226.00 ft	Diameter: 2.25 inches	Volume: 1.11 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 54.98 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4064.00 ft			Final	76000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	5.00 ft				
Tool Length:	25.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4045.00	
Shut In Tool	5.00			4050.00	
Hydraulic tool	5.00			4055.00	
Packer	5.00			4060.00	20.00 Bottom Of Top Packer
Packer	4.00			4064.00	
Stubb	1.00			4065.00	
Recorder	0.00	6772	Inside	4065.00	
Recorder	0.00	6769	Outside	4065.00	
Perforations	1.00			4066.00	
Bullnose	3.00			4069.00	5.00 Bottom Packers & Anchor
Total Tool Length:	25.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Rama Operating Co

23-24s-12w Stafford,KS

101 S. Main St
Stafford KS 67578+1429

Fisher #1-23

Job Ticket: 65705

DST#: 3

ATTN: Josh Austin

Test Start: 2019.10.14 @ 00:58:00

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:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.49 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 20%G 20%O 60%M	0.295
1975.00	GCO 20%G 80%O	26.192
0.00	GIP 425'	0.000

Total Length: 2035.00 ft Total Volume: 26.487 bbl

Num Fluid Samples: 0

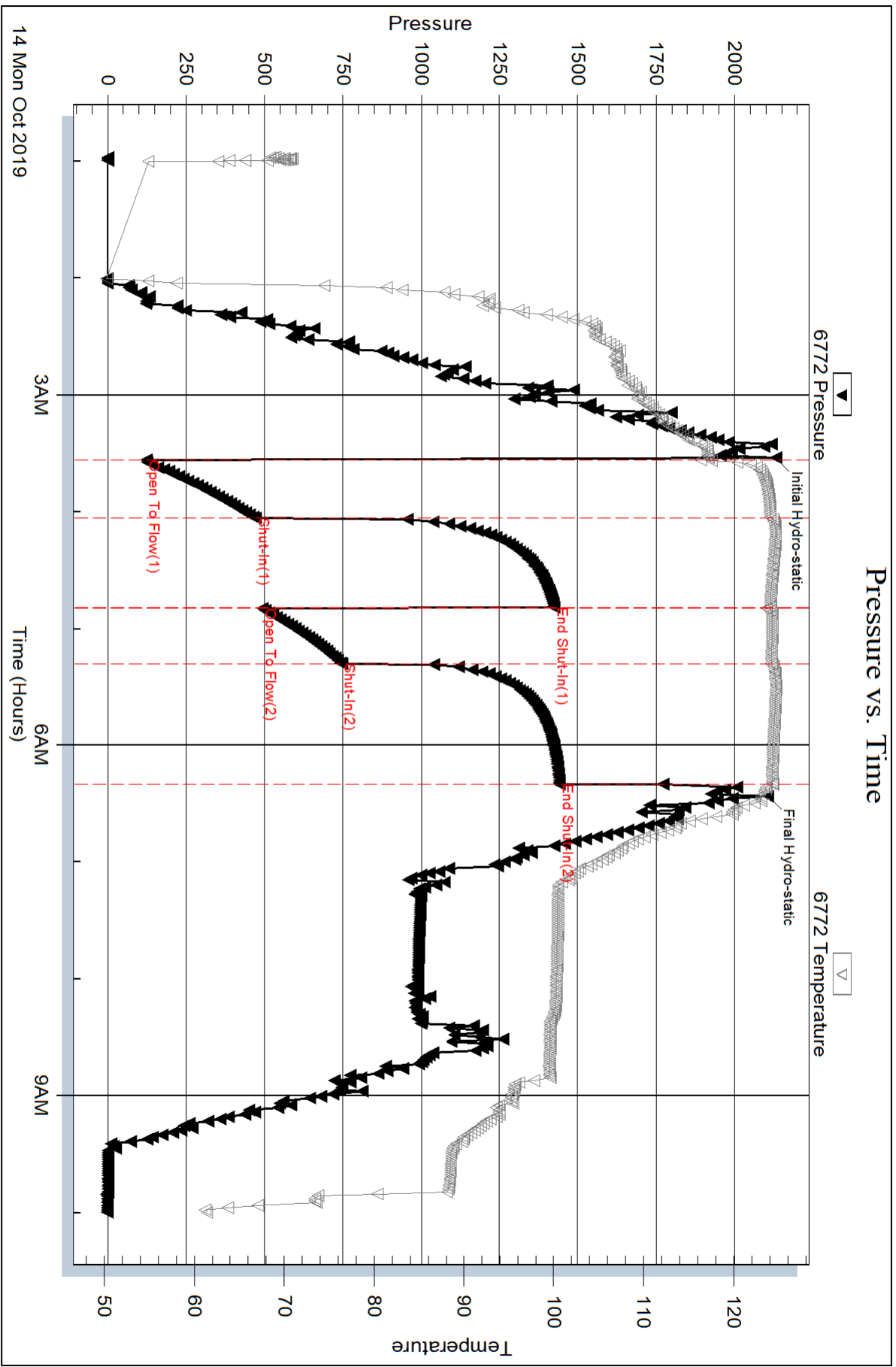
Num Gas Bombs: 0

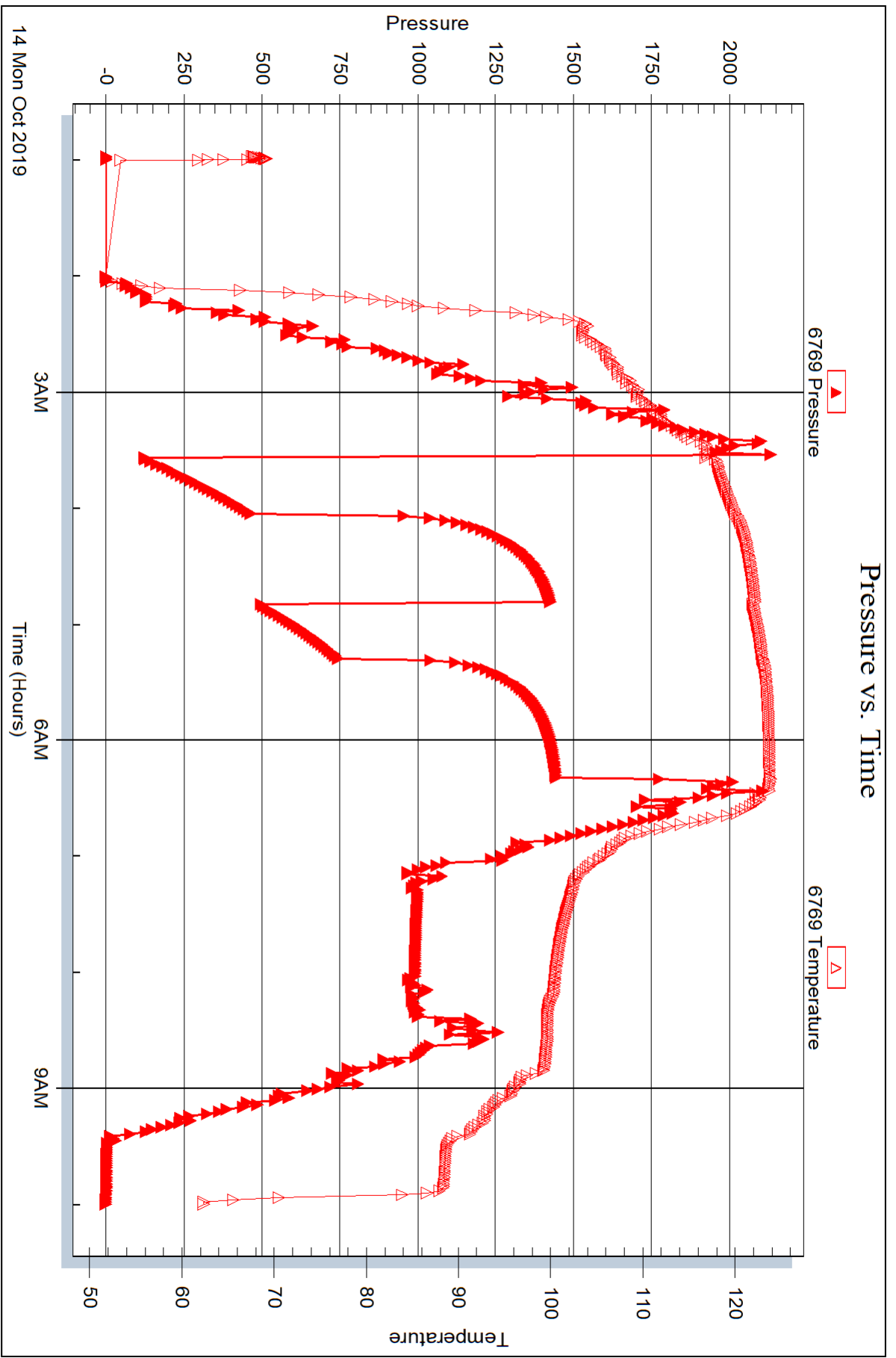
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65703

Well Name & No. ~~XXXXX~~ Fisher #1-23 Test No. 1 Date 10/11/2019
 Company RAMA Operating Co Elevation 1921 KB 1910 GL
 Address 101 S. Main St. Stafford, KS 67578+1429
 Co. Rep / Geo. Josh Austin Rig Sterling Rig 4
 Location: Sec. 23 Twp 24s Rge. 12w Co. Stafford State KS

Interval Tested 3548-3598 Zone Tested Lansing A-D
 Anchor Length 50' Drill Pipe Run 3330 Mud Wt. 9.2
 Top Packer Depth 3543 Drill Collars Run 226 Vis 61
 Bottom Packer Depth 3548 Wt. Pipe Run --- WL 8.0
 Total Depth 3598 Chlorides 4000 ppm System LCM Trc

Blow Description IF - BOB 1 min total build of 226"
ISI - no blow back
FF - BOB 35 secs total build of 259"
FST - GTS when ~~bleed off~~ bled off no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>GV.S.O.C.M.</u>	<u>5</u>	<u>5</u>	<u>90</u>	<u>0</u>
<u>120</u>	<u>G.H.O.C.M.</u>	<u>20</u>	<u>40</u>	<u>40</u>	<u>0</u>
<u>120</u>	<u>G.H.O.C.M.</u>	<u>40</u>	<u>40</u>	<u>20</u>	<u>0</u>
<u>---</u>	<u>GEP 3030'</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>
<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>

Rec Total 300' BHT 111° Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic 1789 Test 1200 T-On Location 4:27 pm
 (B) First Initial Flow 58 Jars --- T-Started 6:04
 (C) First Final Flow 98 Safety Joint --- T-Open 8:47
 (D) Initial Shut-In 723 Circ Sub --- T-Pulled 11:47
 (E) Second Initial Flow 68 Hourly Standby --- T-Out 1:55 AM
 (F) Second Final Flow 125 Mileage 62 mi RT 62 Comments ---
 (G) Final Shut-In 654 Sampler ---
 (H) Final Hydrostatic 1757 Straddle --- EM Tool ---

Initial Open 30 Shale Packer --- Ruined Shale Packer ---
 Initial Shut-In 45 Extra Packer --- Ruined Packer ---
 Final Flow 45 Extra Recorder --- Extra Copies ---
 Final Shut-In 60 Day Standby --- Sub Total 0
 Sub Total 1262 Accessibility --- Total 1262
 MP/DST Disc't ---

Approved By --- Our Representative Benny Mulligan

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65704

Well Name & No. Fisher #1-23 Test No. 2 Date 10/12/2019
 Company Rama Operating Co. Elevation 1921 KB 1910 GL
 Address 101 S. main st. Stafford, KS 67578+1429
 Co. Rep / Geo. Josh Austin Rig Sterling Rig 4
 Location: Sec. 23 Twp 24s Rge. 12w Co. Stafford State KS

Interval Tested 3669-3685 Zone Tested Lansing "H"
 Anchor Length 16' Drill Pipe Run 3430 Mud Wt. 9.0
 Top Packer Depth 3664 Drill Collars Run 226 Vis 76
 Bottom Packer Depth 3669 Wt. Pipe Run _____ WL 8.0
 Total Depth 3685 Chlorides 5000 ppm System LCM 0#
 Blow Description IF - BOB 19mins 30sec total build of 16"
#SI - no blow back
FE - built to 9 1/2"
FSTI - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>605m</u>	<u>5</u>	<u>1</u>	<u>94</u>	<u>0</u>
<u>60</u>	<u>05Wm</u>	<u>0</u>	<u>5</u>	<u>75</u>	<u>20</u>
____	<u>GIP 150'</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
____	____	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
____	____	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Rec Total 90' BHT 109° Gravity _____ API RW 175 @ 63.1 °F Chlorides 50,000 ppm

(A) Initial Hydrostatic <u>1804</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>1:08 p.m</u>
(B) First Initial Flow <u>24</u>	<input type="checkbox"/> Jars _____	T-Started <u>1:44</u>
(C) First Final Flow <u>42</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>4:46</u>
(D) Initial Shut-In <u>519</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>7:16</u>
(E) Second Initial Flow <u>44</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>9:13</u>
(F) Second Final Flow <u>64</u>	<input checked="" type="checkbox"/> Mileage <u>62mi RT 62</u>	Comments _____
(G) Final Shut-In <u>493</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1781</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> EM Tool _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1262</u>
	Sub Total <u>1262</u>	MP/DST Disc't _____

Approved By _____ Our Representative Benny Mulligan

Tribolite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65705

Well Name & No. Fisher #1-23 Test No. 5 Date 10/14/2019
 Company Rama Operating Co Elevation 1921 KB 1910 GL
 Address 101 S. Main St. Stafford, KS 67578+1429
 Co. Rep / Geo. Josh Austin Rig Sterling Rig 4
 Location: Sec. 23 Twp 24s Rge. 12w Co. Stafford State KS

Interval Tested 4064-4069 Zone Tested Arbuckle
 Anchor Length 5' Drill Pipe Run 3840 Mud Wt. 9.3
 Top Packer Depth ~~4064~~ 4059 Drill Collars Run 226 Vis 55
 Bottom Packer Depth 4064 Wt. Pipe Run _____ WL 9.5
 Total Depth 4069 Chlorides 8,600 ppm System LCM 0#
 Blow Description IF-BOB 1min total build of 178"
FST-11" of blow back
FF-BOB 40secs total build of 155"
FST-1 1/2" blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>1975</u>	<u>G.C.O.</u>	<u>20</u>	<u>80</u>		
<u>60</u>	<u>G.O.C.M</u>	<u>20</u>	<u>20</u>		<u>60</u>
	<u>GIP 425'</u>				

Rec Total 2035' BHT 123 Gravity 39 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2131</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>12:48 AM</u>
(B) First Initial Flow <u>123</u>	<input type="checkbox"/> Jars <u>_____</u>	T-Started <u>12:58</u>
(C) First Final Flow <u>471</u>	<input type="checkbox"/> Safety Joint <u>_____</u>	T-Open <u>3:34</u>
(D) Initial Shut-In <u>1424</u>	<input type="checkbox"/> Circ Sub <u>_____</u>	T-Pulled <u>6:20</u>
(E) Second Initial Flow <u>494</u>	<input type="checkbox"/> Hourly Standby <u>_____</u>	T-Out <u>10:01</u>
(F) Second Final Flow <u>745</u>	<input checked="" type="checkbox"/> Mileage <u>62mi RT 62</u>	Comments <u>damaged top packer rubber / loaded tools after test</u>
(G) Final Shut-In <u>1442</u>	<input type="checkbox"/> Sampler <u>_____</u>	<input type="checkbox"/> EM Tool <u>_____</u>
(H) Final Hydrostatic <u>2105</u>	<input type="checkbox"/> Straddle <u>_____</u>	<input type="checkbox"/> Ruined Shale Packer <u>_____</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>_____</u>	<input checked="" type="checkbox"/> Ruined Packer <u>320</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer <u>_____</u>	<input type="checkbox"/> Extra Copies <u>_____</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>_____</u>	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby <u>_____</u>	Total <u>1682</u>
	<input type="checkbox"/> Accessibility <u>_____</u>	MP/DST Disc't <u>_____</u>
	Sub Total <u>1362</u>	

Approved By _____ Our Representative Benny Mulligan

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

Customer <i>Dama Operating</i>	Lease No. <i>1-23</i>	Date <i>10-7-2019</i>
Lease <i>Fisher</i>	Well # <i>1-23</i>	
Field Order # <i>18348</i>	Station <i>Pratt, KS. # 1718</i>	Casing <i>8 5/8</i>
Type Job <i>Surface</i>	Depth <i>307</i>	County <i>Stoddard</i>
	Formation	State <i>Kansas</i>
		Legal Description <i>23-245-1361</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>8 5/8</i>								
Depth <i>307'</i>	Depth	From	To	Pre Pad	Max		5 Min.	
Volume <i>18.28</i>	Volume	From	To	Pad	Min		10 Min.	
Max Press	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <i>287'</i>	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative <i>Larry Salaga</i>	Station Manager <i>Timothy [unclear]</i>	Treater <i>Carl BAKIN</i>
Service Units <i>27463 76959 19860</i>		
Driver Names <i>Ron G. Jose Diaz</i>		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
					<i>3:30 PM 15" Rig up</i>
					<i>Run 307' 8 5/8" casing (24)</i>
					<i>Break circulation with Rig</i>
<i>12:00 AM</i>	<i>100</i>	<i>BAD</i>	<i>3</i>	<i>3</i>	<i>Start freshwater</i>
	<i>100</i>		<i>59</i>	<i>5</i>	<i>Run 25' x 40' R2 + Additives</i>
					<i>cement in</i>
					<i>Start displacement</i>
	<i>100</i>		<i>18.25</i>	<i>3</i>	<i>Run 18 1/4 Bbls water</i>
	<i>100</i>				<i>shut in</i>
<i>12:30</i>					<i>Cement did circulate</i>
					<i>Thank you</i>

Customer RAMA OPERATING	Lease No.	Date 10-15-19
Lease Fisher	Well # 1-23	
Field Order # 15581	Station PRATT	Casing RTP 4064
Type Job 2-42 5 1/2" LONG STRING	Depth 4064	County STARK CO MO
	Formation LTD 4070 14.9 SHU	State MO
		Legal Description 23-245-13W

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
4064	4064	From	To	125 SA AA-2				5 Min.
4064	4064	From	To	Pre Pad RAMA	Max			10 Min.
4064	4064	From	To	Pad 50 SA W	Min			15 Min.
4064	4064	From	To	Frac 47.5	Avg			
4064	4064	From	To		HHP Used			Annulus Pressure
4064	4064	From	To	Flush 98.9	Gas Volume			Total Load

Customer Representative RANDY GIBST	Station Manager WESTMAN	Treater MATTAI
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Service Units 83353	84950	20920	19959	21010
Driver Names MATTAI	MATTAI	MATTAI	RICARDO	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1:50					ON LOCATION / SARRY meeting
3:15					run 5 1/2" 14# csg w PACER shoe
5:55					turbos 1, 3, 5, 7, 9
6:00					Csgs ON BOTTOM
7:19	2000				HOOK TO Csg / BREAK wire w. Rig
7:20	300		12	5	Set PACER shoe
7:23			5	5	Pump 12 bbl mud flush
7:24	175		33	5	Pump 5 bbl water
7:32			4	4	Mix 125 SA AA-2
7:36	175		-	6	WASH Pump + Line / Diab Plug
7:53	300		80	5.5	START displacement
7:54	500		89	3	1st Pressure
7:56	1,500		98.9		slow rate
8:05			7+5		plug down
					plug rat + mouse hole
					circ thru JOB
					JOB COMPLETE
					Thank You!
					Mike Mattai
					E. Druard + Ricardo