KOLAR Document ID: 1368762

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 # 3911
Name: Rama Operating Co., Inc.
Address 1: 101 S MAIN ST
Address 2:
City: STAFFORD State: KS Zip: 67578 + 1429
Contact Person: Robin L. Austin
Phone: (620) 234-5191
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: Josh Austin
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 #:

09/23/2017 Spud Date or Recompletion Date
09/28/2017 Date Reached TD
10/12/2017 Completion Date or Recompletion Date

API No.: 15-053-21357-00-00
Spot Description:
NE - SE - NW - NW Sec. 34 Twp. 16 S. R. 10 ☐ East ☑ West
675 Feet from ☑ North / ☐ South Line of Section
1210 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Ellsworth
Lease Name: SCHROEDER "C" Well #: 9
Field Name: Stoltenberg
Producing Formation: Arbuckle
Elevation: Ground: 1828 Kelly Bushing: 1839
Total Vertical Depth: 3284 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 392 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: 4200 ppm Fluid volume: 160 bbls
Dewatering method used: Evaporated
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: 12/04/2017
☑ **Confidential Release Date:** 12/04/2019
☐ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 12/04/2017

Operator Name: Rama Operating Co., Inc. Lease Name: SCHROEDER "C" Well #: 9

Sec. 34 Twp. 16 S. R. 10 ☐ East ☑ West County: Ellsworth

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 *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☐ Yes	☑ No
Geologist Report / Mud Logs	☑ Yes	☐ No

List All E. Logs Run:

☐ Log Formation (Top), Depth and Datum ☑ Sample

Name	Top	Datum
Heebner	2855	-1016
Brown Lime	2960	-1121
Lansing	2983	-1144
Base Lansing	3249	-1410
Arbuckle	3270	-1431
RTD	3284	-1445

CASING RECORD ☑ New ☐ 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
Surface	12.250	8.625	23	392	60/40	350	2% gel 3% CC
Production	7.875	5.5	15.5	3278	AA-2	150	2% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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: 10/21/2017	Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*					
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:	
		Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☑ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	3278	3284

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
	3278	3284			

TUBING RECORD:	Size:	Set At:	Packer At:	
	2.375	3270		

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Rama Operating Co., Inc.
Well Name	SCHROEDER "C" 9
Doc ID	1368762

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.250	8.625	23	392	60/40	350	2% gel 3% CC
Production	7.875	5.5	15.5	3278	AA-2	150	2% CC

Joshua R. Austin
Petroleum Geologist
report for
RAMA Operating CO., Inc

COMPANY: RAMA Operating Company, Inc.

LEASE: Schroeder 'C' 9

FIELD: Stoltenberg

LOCATION: Ne-Se-Nw-Nw (675' FNL & 1210' FWL, 40' SE)

SEC: 34 TWSP: 16s RGE: 10w

COUNTY: Ellsworth STATE: Kansas

KB: 1839' GL: 1828'

API # 15-053-21357-00-00

CONTRACTOR: Sterling Drilling (rig #4)

Spud: 09/22/2017 Comp: 09/28/2017

RTD: 3284' LTD: N/A

Mud Up: 2507' Type Mud: Chemical was displaced

Samples Saved From: 2500' to RTD

Drilling Time Kept From: 2500' to RTD

Samples Examined From: 2500' to RTD

Geological Supervision From: 2640' to RTD

Geologist on Well: Josh Austin

Surface Casing: 8 5/8" @392'

Production Casing: 5 1/2"@3278'

Electronic Surveys: Electric logs not ran

NOTES

on the basis of the positive drill stem test and structural position, it was recommended to run 5 1/2" production casing to Rotary Total Depth 3284 to open hole complete the Arbuckle. No electric logs were ran.

RAMA Operating Co., Inc.
well comparison sheet

	DRILLING WELL		COMPARISON WELL			COMPARISON WELL		
	Schroeder C 9		Schroeder C 8			Schroeder C 7		
	1839 KB		1825 KB		Structural Relationship	1825 KB		Structural Relationship
Formation	Sample	Sub-Sea	Log	Sub-Sea	Sample	Log	Sub-Sea	Sample
Topeka	2601	-762	2588	-763	1	2592	-767	5
Heebner	2855	-1016	2838	-1013	-3	2843	-1018	2
Toronto	2873	-1034	2856	-1031	-3			
Douglas	2884	-1045	2868	-1043	-2			
Brown Lime	2960	-1121	2945	-1120	-1	2950	-1125	4
Lansing	2983	-1144	2967	-1142	-2	2973	-1148	4
Base KC	3249	-1410	3234	-1409	-1			
Arbuckle	3270	-1431	3255	-1430	-1	3263	-1438	7
Total Depth	3284	-1445	3350	-1525		3338	-1513	

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578
ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62647 **DST#: 1**

Test Start: 2017.09.27 @ 16:14:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:05:02
Time Test Ended: 21:12:17

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Great Bend/60

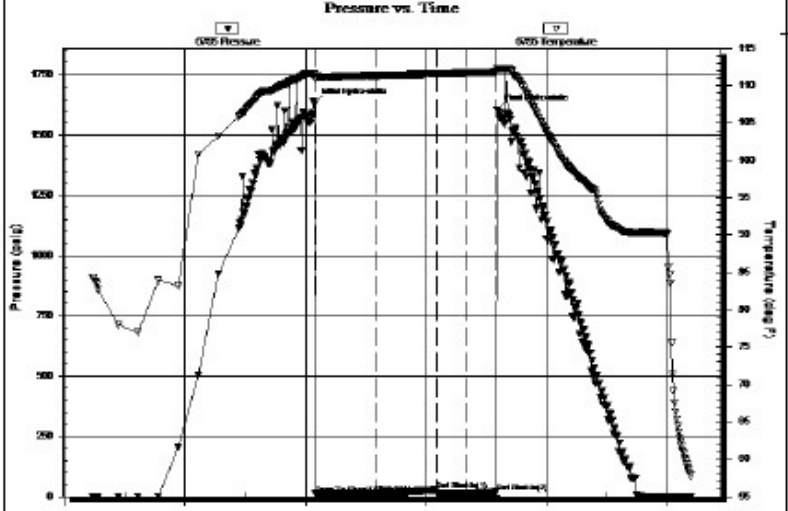
Interval: 3240.00 ft (KB) To 3278.00 ft (KB) (TVD)
Total Depth: 3278.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 1839.00 ft (KB)
1828.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6755 Inside
Press@RunDepth: 12.01 psig @ 3241.00 ft (KB)
Start Date: 2017.09.27 End Date: 2017.09.27
Start Time: 16:14:01 End Time: 21:12:17

Capacity: psig
Last Calib.: 2017.09.27
Time On Btm: 2017.09.27 @ 18:04:32
Time Off Btm: 2017.09.27 @ 19:35:32

TEST COMMENT: I.F. 30 Minutes/ Weak surface blow died in 7 1/2 minutes
I.S.I. 30 Minutes/ No blow back
F.F. 15 Minutes/ Dead no blow
F.S.I. 15 Minutes/ No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1629.18	111.58	Initial Hydro-static
1	10.00	110.85	Open To Flow (1)
31	11.68	111.37	Shut-In(1)
61	27.30	111.56	End Shut-In(1)
61	12.00	111.57	Open To Flow (2)
76	12.01	111.67	Shut-In(2)
91	18.00	111.83	End Shut-In(2)
91	1605.20	112.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578
ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62648 **DST#: 2**

Test Start: 2017.09.28 @ 02:42:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:11:32
Time Test Ended: 08:54:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Great Bend/60

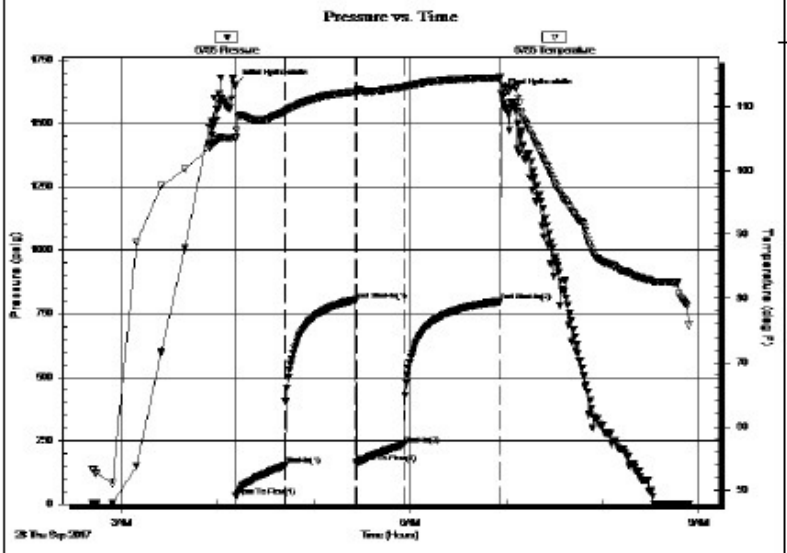
Interval: 3278.00 ft (KB) To 3284.00 ft (KB) (TVD)
Total Depth: 3284.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 1839.00 ft (KB)
1828.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6755 **Inside**
Press@RunDepth: 234.11 psig @ 3280.00 ft (KB)
Start Date: 2017.09.28 End Date: 2017.09.28
Start Time: 02:42:01 End Time: 08:54:02

Capacity: psig
Last Calib.: 2017.09.28
Time On Btm: 2017.09.28 @ 04:11:17
Time Off Btm: 2017.09.28 @ 06:56:47

TEST COMMENT: I.F. 30 Minutes/ Blow built to BOB in 4 minutes
I.S.I. 45 Minutes/ 2 inch blow back
F.F. 30 Minutes/ Blow built to BOB in 8 minutes
F.F. 60 Mintues/ No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1654.88	105.06	Initial Hydro-static
1	30.07	105.10	Open To Flow (1)
31	151.21	109.15	Shut-In(1)
75	803.76	112.31	End Shut-In(1)
76	161.06	112.07	Open To Flow (2)
105	234.11	112.99	Shut-In(2)
165	798.72	114.46	End Shut-In(2)
166	1617.19	114.60	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
62.00	Mud cut gassy Oil	0.30
0.00	Mud 20% Gas 20% Oil 60%	0.00
589.00	Gassy Oil	6.91
0.00	Gas 30% Oil 70%	0.00
0.00	403 feet of GIP	0.00

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

ROCK TYPES

Cht, Dolsec, Lmst fw7>, shale, grn, shale, gry, Carbon Sh, shale, red, Ss, Sltst

OTHER SYMBOLS

DST
- DST Int
- DST alt
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

Curve Track #1
ROP (min/ft)
Gamma (API)
Cal (in)
1:240 Imperial

Depth | Intervals
Cored Interval
DST Interval

DST

Lithology

Oil Show

Geological Descriptions

TG, C1 - C5
Total Gas (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
1:240 Imperial

0 ROP (min/ft) 5
0 Gamma (API) 150
6 Cal (in) 16

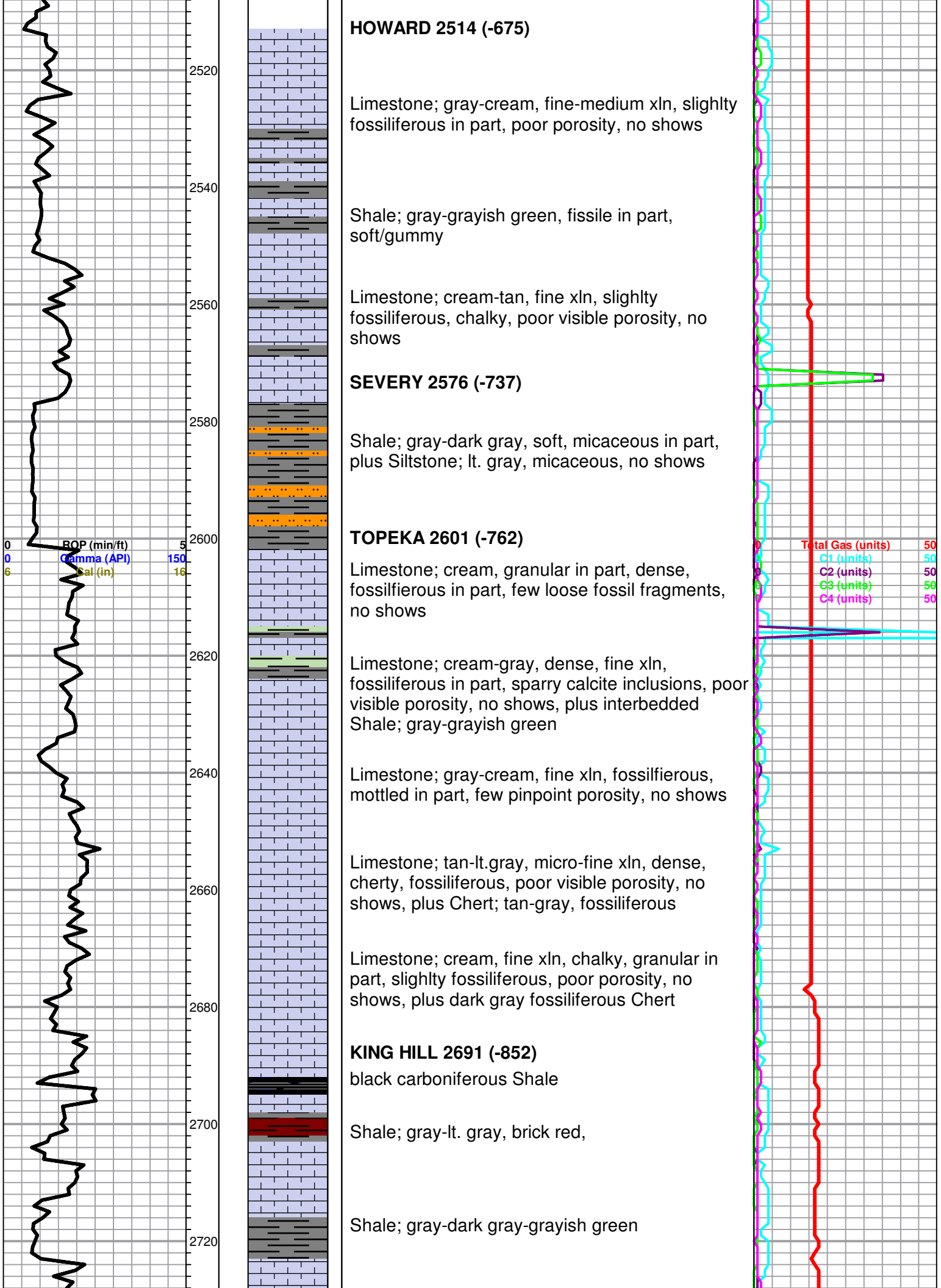
0 Total Gas (units) 50
0 C1 (units) 50
0 C2 (units) 50
0 C3 (units) 50
0 C4 (units) 50

2400
2420
2440
2460
2480
2500

ANHYDRITE 608 (+1231)
B/ ANHYDRITE 613 (+1226)

Start 20' wet and dry sample at 2500'

Displace hole at 2507'



HOWARD 2514 (-675)

Limestone; gray-cream, fine-medium xln, slighlty fossiliferous in part, poor porosity, no shows

Shale; gray-grayish green, fissile in part, soft/gummy

Limestone; cream-tan, fine xln, slighlty fossiliferous, chalky, poor visible porosity, no shows

SEVERY 2576 (-737)

Shale; gray-dark gray, soft, micaceous in part, plus Siltstone; lt. gray, micaceous, no shows

TOPEKA 2601 (-762)

Limestone; cream, granular in part, dense, fossilfierous in part, few loose fossil fragments, no shows

Limestone; cream-gray, dense, fine xln, fossiliferous in part, sparry calcite inclusions, poor visible porosity, no shows, plus interbedded Shale; gray-grayish green

Limestone; gray-cream, fine xln, fossilfierous, mottled in part, few pinpoint porosity, no shows

Limestone; tan-lt.gray, micro-fine xln, dense, cherty, fossiliferous, poor visible porosity, no shows, plus Chert; tan-gray, fossiliferous

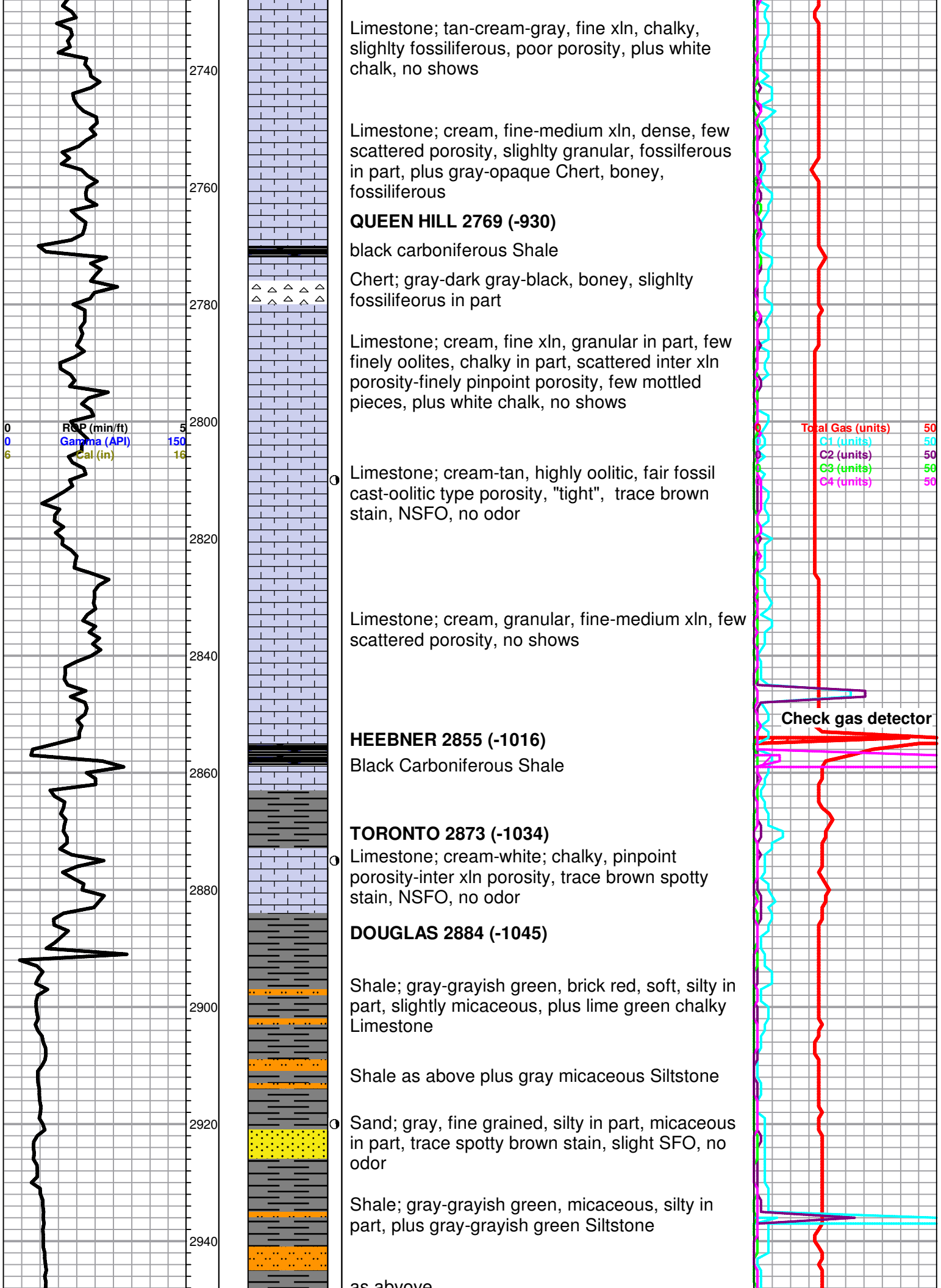
Limestone; cream, fine xln, chalky, granular in part, slighlty fossiliferous, poor porosity, no shows, plus dark gray fossiliferous Chert

KING HILL 2691 (-852)

black carboniferous Shale

Shale; gray-lt. gray, brick red,

Shale; gray-dark gray-grayish green



Limestone; tan-cream-gray, fine xln, chalky, slighlty fossiliferous, poor porosity, plus white chalk, no shows

Limestone; cream, fine-medium xln, dense, few scattered porosity, slighlty granular, fossilferous in part, plus gray-opaque Chert, boney, fossiliferous

QUEEN HILL 2769 (-930)

black carboniferous Shale

Chert; gray-dark gray-black, boney, slighlty fossilifeorus in part

Limestone; cream, fine xln, granular in part, few finely oolites, chalky in part, scattered inter xln porosity-finely pinpoint porosity, few mottled pieces, plus white chalk, no shows

Limestone; cream-tan, highly oolitic, fair fossil cast-oolitic type porosity, "tight", trace brown stain, NSFO, no odor

Limestone; cream, granular, fine-medium xln, few scattered porosity, no shows

HEEBNER 2855 (-1016)

Black Carboniferous Shale

TORONTO 2873 (-1034)

Limestone; cream-white; chalky, pinpoint porosity-inter xln porosity, trace brown spotty stain, NSFO, no odor

DOUGLAS 2884 (-1045)

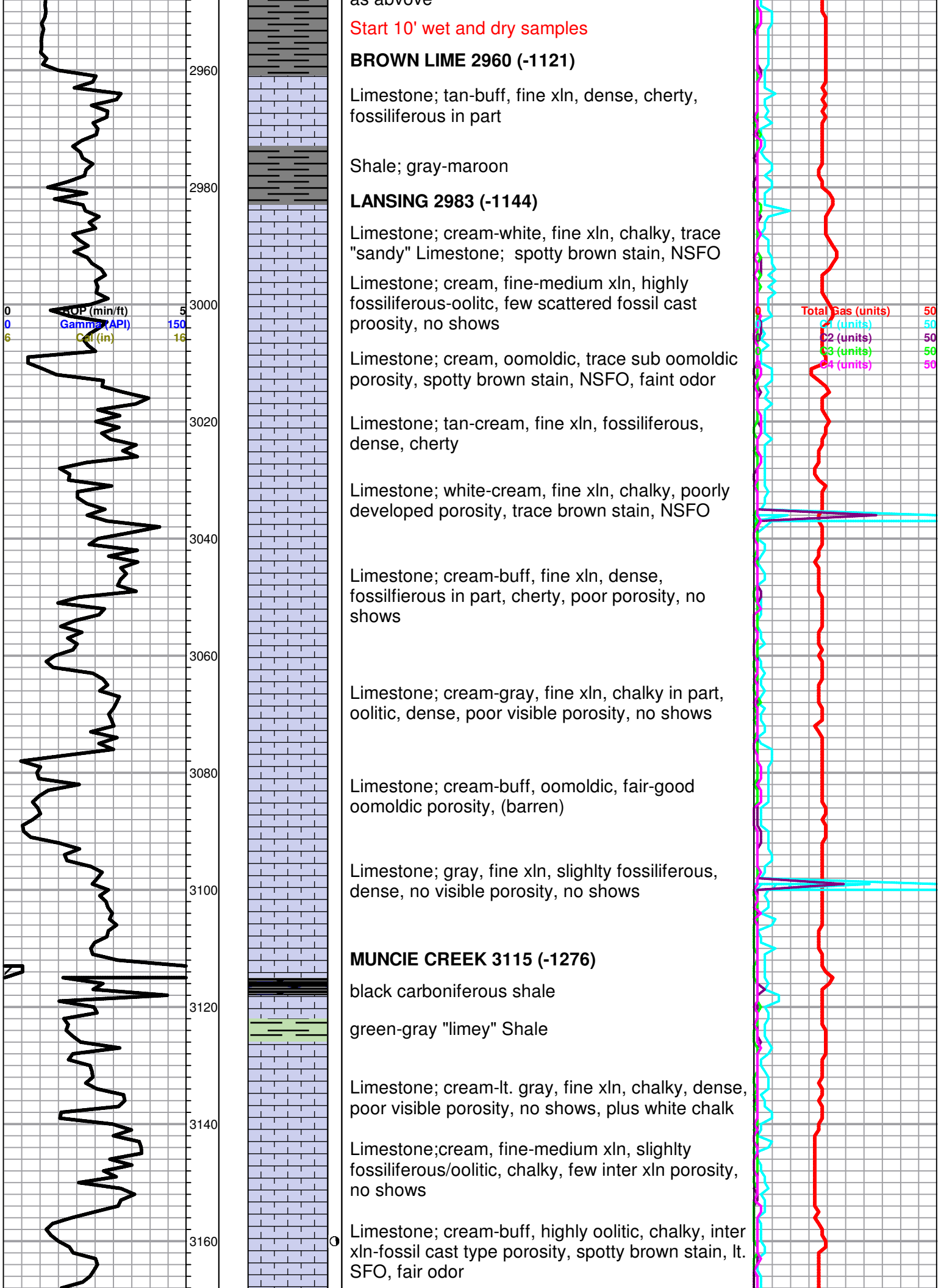
Shale; gray-grayish green, brick red, soft, silty in part, slightly micaceous, plus lime green chalky Limestone

Shale as above plus gray micaceous Siltstone

Sand; gray, fine grained, silty in part, micaceous in part, trace spotty brown stain, slight SFO, no odor

Shale; gray-grayish green, micaceous, silty in part, plus gray-grayish green Siltstone

as abvove



as above

Start 10' wet and dry samples

BROWN LIME 2960 (-1121)

Limestone; tan-buff, fine xln, dense, cherty, fossiliferous in part

Shale; gray-maroon

LANSING 2983 (-1144)

Limestone; cream-white, fine xln, chalky, trace "sandy" Limestone; spotty brown stain, NSFO

Limestone; cream, fine-medium xln, highly fossiliferous-oolitc, few scattered fossil cast proosity, no shows

Limestone; cream, oomoldic, trace sub oomoldic porosity, spotty brown stain, NSFO, faint odor

Limestone; tan-cream, fine xln, fossiliferous, dense, cherty

Limestone; white-cream, fine xln, chalky, poorly developed porosity, trace brown stain, NSFO

Limestone; cream-buff, fine xln, dense, fossilfierous in part, cherty, poor porosity, no shows

Limestone; cream-gray, fine xln, chalky in part, oolitic, dense, poor visible porosity, no shows

Limestone; cream-buff, oomoldic, fair-good oomoldic porosity, (barren)

Limestone; gray, fine xln, slighlty fossiliferous, dense, no visible porosity, no shows

MUNCIE CREEK 3115 (-1276)

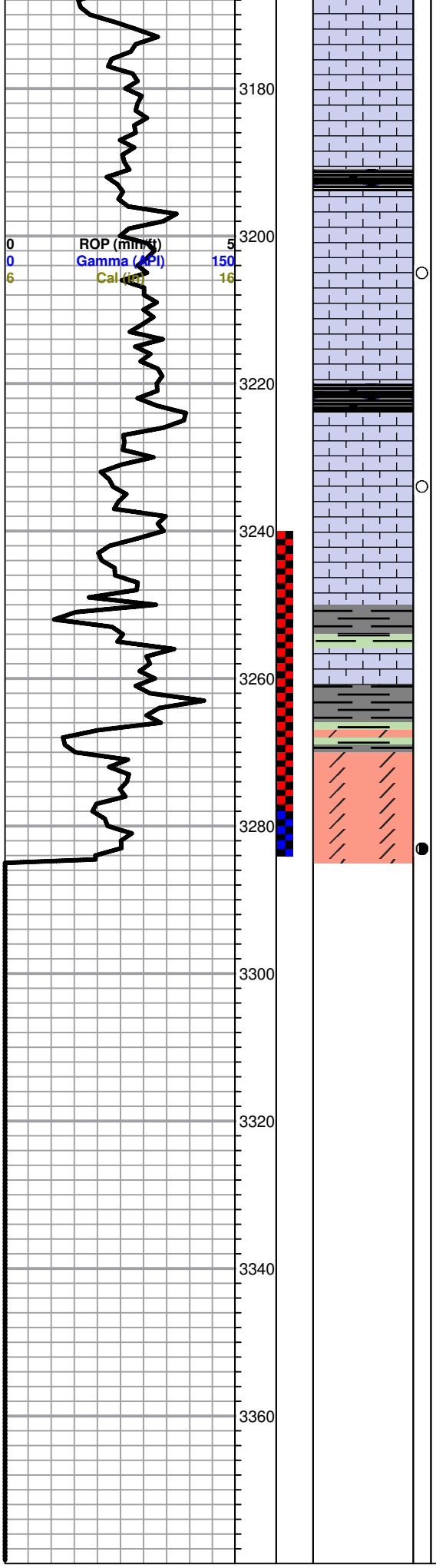
black carboniferous shale

green-gray "limey" Shale

Limestone; cream-lt. gray, fine xln, chalky, dense, poor visible porosity, no shows, plus white chalk

Limestone;cream, fine-medium xln, slighlty fossiliferous/oolitic, chalky, few inter xln porosity, no shows

Limestone; cream-buff, highly oolitic, chalky, inter xln-fossil cast type porosity, spotty brown stain, lt. SFO, fair odor



Plus white chalk

Limestone; lt. gray, fine xln, dense, poor visible porosity, cherty in part, no shows

STARK SHALE 3189 (-1350)

black carboniferous shale

Limestone, tan-brown, lt. gray, fine xln, dense, cherty, questionable trace brown edge staining, NSFO, no odor

HUSHPUCKNEY SHALE 3222 (-1383)

black carboniferous shale

Limestone; gray-cream, fine xln, chalky, inter xln-pinpoint porosity, trace spotty brown stain, NSFO, very faint odor

BASE KANSAS CITY 3249 (-1410)

gray-grayish green soft shale, micaceous in part

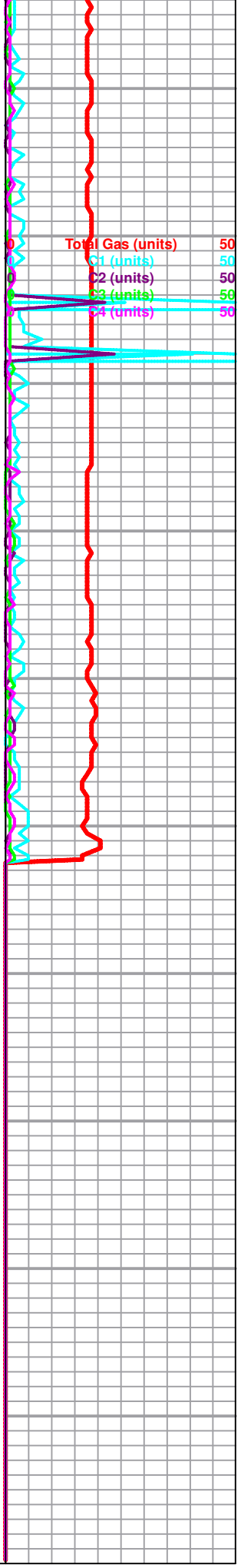
Shale; grey-green

ARBUCKLE 3270 (-1431)

Dolomtie; tan, fine xln, dense, cherty, poor porosity,noshows

Dolomite; cream-buff, fine-medium xln, fair rhombic to inter xln type porosity, trace free oil

Dolomite; cream-tan, fine-medium xln, good rhombic to inter xln porosity, lt. brown stain, SFO/ saturated sample when broke, strong odor



DST #1 3240-3278 (30-30-15-15)
Blow; weak, died after 7 min
Recovery; 1' mud
Pressure; ISIP 27, FSIP 18, IFP 10-11, FFP 12-12

DST #2 3278-3284 (30-45-30-60)
Blow; BOB 4 min, 2" blow back
Final; BOB 8 min, no blow back
Recovery;
403' GIP
589' Clean Gassy Oil
62' Mud cut Gassy Oil
Pressure;
ISIP: 803
FSIP: 798
IFP: 30-151
FFP: 161-234
HSH: 1654-1617

ASiC
Energy services, L.P.

TREATMENT REPORT

Customer: Ross Operating Co. Inc.	Lease No.	Date: 9/28/2017	
Lease: Schroeder C	Well #: 9		
Field Order #: 15272	Station: Pratt, KS	Casing: 5½	Depth: 3278
County: Ellsworth	State: KS		
Type Job: 2 42/5½ Long String	Formation: 3284	Legal Description: 34-16-10	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size: 5½	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
Depth: 3278	Depth	From	To	Pre Pad	Max		5 Min.
Volume: 78	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: 3264	Packer Depth	From	To	Flush: Freshwater	Gas Volume		Total Load

Customer Representative: Josh | Station Manager: Justin Westerman | Treater: Darin Franklin

Service Units	92911	84981	19843	19889	19860						
Driver Names	Darin	McGrew	McGrew	Clymer	Clymer						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
2:45pm					On location / Safety meeting
					150sk AA2 Cement + .25% Cello Flake
					.25% Defoamer, .5 FLA, 5pps Gilsonite
					5% Gypsum, 15.0 pps, 1.42 yield, 6.04 water
					50sk 60/40 Poz, 2% Gel
					14.4 pps, 1.26 yield, 5.74 water
8:00pm	300		5	4½	Pump 5 bbls water
	300		12	4½	Pump 12 bbls Flush
	300		5	4½	Pump 5 bbls water
	300		38	4½	mix 150sk AA2 Cement
					Shut down
					Wash pump & lines & Release Plug
	200		0	5	Start displacement
	400		45	5	Lift Pressure
	700		67	3	Slow Rate
9:45pm	1500		77	3	Bump Plug
					Float - Held
	50		7	3	Plug Rat hole
	50		5	3	Plug mouse hole
					Job Complete / Darin & Crew
					Thank you!!!

Taylor Printing, Inc. 620-672-3656

BASIC energy services, L.P.

TREATMENT REPORT

Customer KAMA Operating (LLC)	Lease No.		Date 9-23-17		
Lease Schroeder C	Well # 9				
Field Order # 15505	Station Pratt	Casing 8 5/8	Depth 392.40	County Ellsworth	State KS
Type Job 2-42 8 5/8 SURFACE		Formation RTD 395		Legal Description 34-16-10	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 8 5/8	Tubing Size	Shots/Ft		Acid CMT 350 SKS	60/40 POZ	RATE	PRESS	ISIP
Depth 392.40	Depth	From	To	Pre Pad 290 gal	Max 6			5 Min.
Volume 24.7	Volume	From	To	Pad	Min			10 Min.
Max Press 350	Max Press	From	To	Frac	Avg			15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth 392.40	Packer Depth	From	To	Flush 23.7	Gas Volume			Total Load

Customer Representative	Randy Ginest	Station Manager	Westerman		Treater	Matt A					
Service Units	83353		54981	20920		19903	7376				
Driver Names	Matt A		Graves			Cobb					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
9:10					On location / Safety Meeting
					run 8 5/8 23# csng.
10:57					csng on bottom
11:04					Hook to csng / Break circ w. Rig
11:13	250		3	6	Pump 3 bbl water
11:15	200		80	5	Mix 350 sks 60/40 Poz
11:30			—		release Plug
11:32			—	5	start displacement
11:42			23.7		Plug down, shut in well
					Cmt to surface
					Job complete
					Thank You!
					Mike Matt
					Scott + Cole

10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383

Taylor Printing, Inc. 620-672-3656

DRILL STEM TEST REPORT

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578
ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62647 **DST#: 1**

Test Start: 2017.09.27 @ 16:14:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:05:02
Time Test Ended: 21:12:17

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Great Bend/60

Interval: 3240.00 ft (KB) To 3278.00 ft (KB) (TVD)
Total Depth: 3278.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

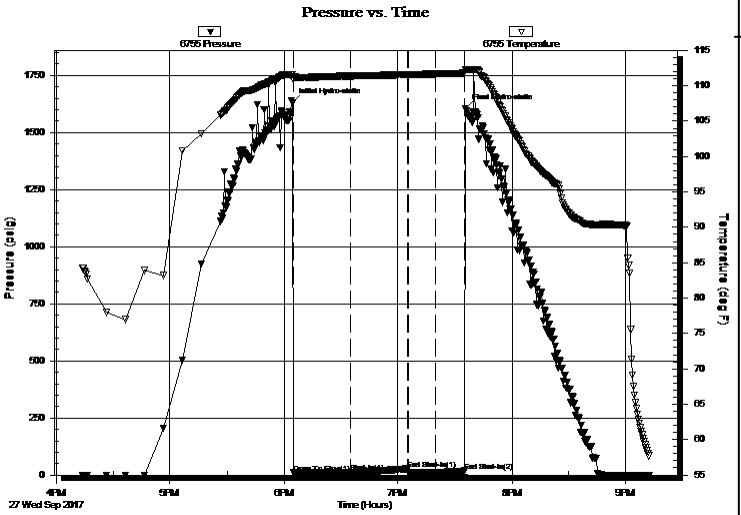
Reference Elevations: 1839.00 ft (KB)
1828.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6755 **Inside**

Press@RunDepth: 12.01 psig @ 3241.00 ft (KB)
Start Date: 2017.09.27 End Date: 2017.09.27
Start Time: 16:14:01 End Time: 21:12:17

Capacity: psig
Last Calib.: 2017.09.27
Time On Btm: 2017.09.27 @ 18:04:32
Time Off Btm: 2017.09.27 @ 19:35:32

TEST COMMENT: I.F. 30 Minutes/ Weak surface blow died in 7 1/2 minutes
I.S.I. 30 Minutes/ No blow back
F.F. 15 Minutes/ Dead no blow
F.S.I. 15 Minutes/ No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1629.18	111.58	Initial Hydro-static
1	10.00	110.85	Open To Flow (1)
31	11.68	111.37	Shut-In(1)
61	27.30	111.56	End Shut-In(1)
61	12.00	111.57	Open To Flow (2)
76	12.01	111.67	Shut-In(2)
91	18.00	111.83	End Shut-In(2)
91	1605.20	112.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578
ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62647 **DST#: 1**

Test Start: 2017.09.27 @ 16:14:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:05:02
Time Test Ended: 21:12:17

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Great Bend/60

Interval: 3240.00 ft (KB) To 3278.00 ft (KB) (TVD)
Total Depth: 3278.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 1839.00 ft (KB)
1828.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8322 **Outside**
Press@RunDepth: 19.25 psig @ 3242.00 ft (KB)
Start Date: 2017.09.27 End Date: 2017.09.27
Start Time: 16:14:01 End Time: 21:12:17

Capacity: psig
Last Calib.: 2017.09.27
Time On Btm: 2017.09.27 @ 18:04:32
Time Off Btm: 2017.09.27 @ 19:35:47

TEST COMMENT: I.F. 30 Minutes/ Weak surface blow died in 7 1/2 minutes
I.S.I. 30 Minutes/ No blow back
F.F. 15 Minutes/ Dead no blow
F.S.I. 15 Minutes/ No blow back

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1630.13	111.13	Initial Hydro-static
1	11.66	110.52	Open To Flow (1)
31	13.00	111.02	Shut-In(1)
61	29.04	111.24	End Shut-In(1)
61	13.54	111.24	Open To Flow (2)
76	13.55	111.34	Shut-In(2)
91	19.25	111.50	End Shut-In(2)
92	1600.88	111.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578

ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62647 **DST#: 1**

Test Start: 2017.09.27 @ 16:14:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

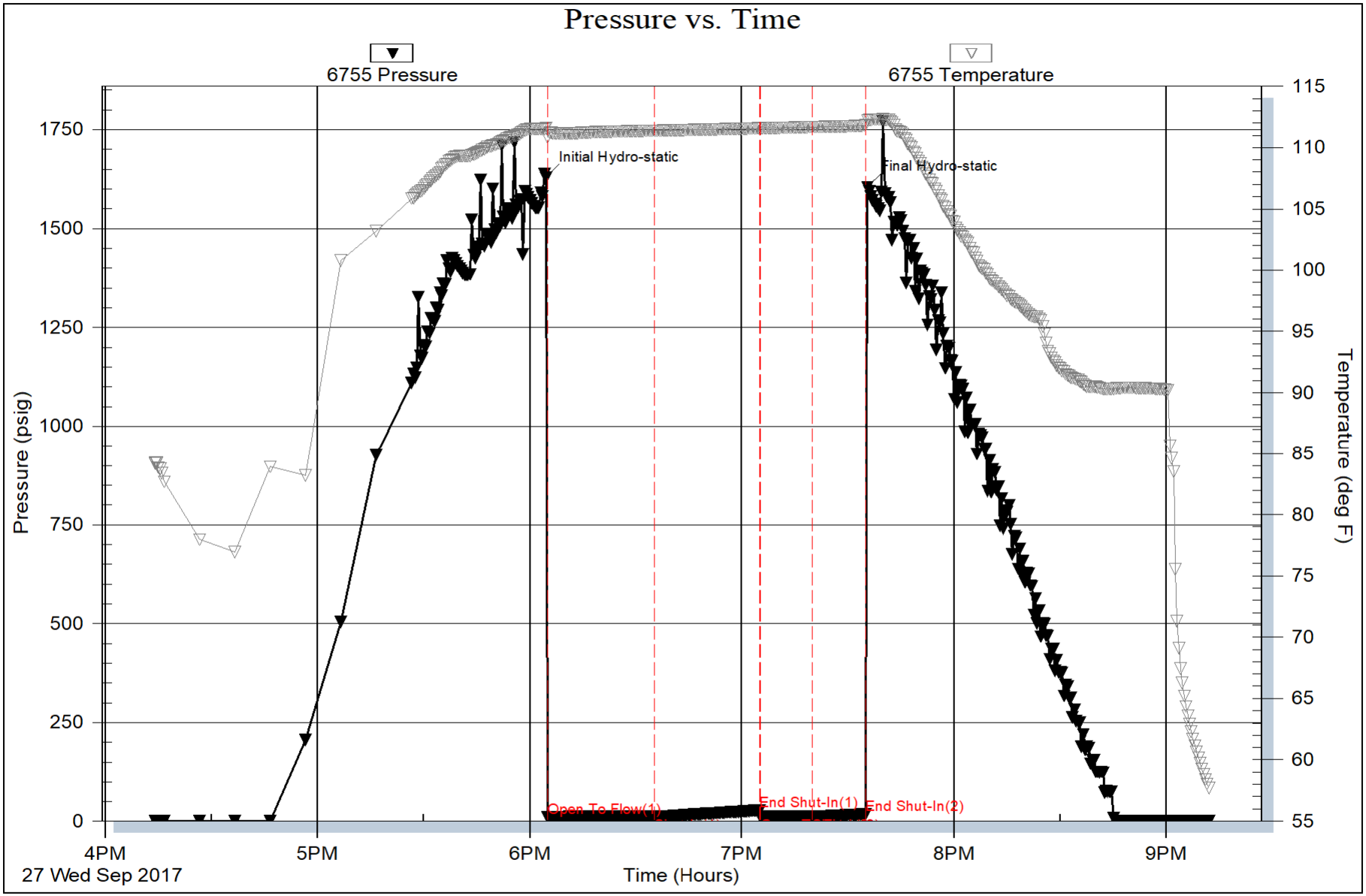
Recovery Table

Length ft	Description	Volume bbl
1.00	Mud 100%	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

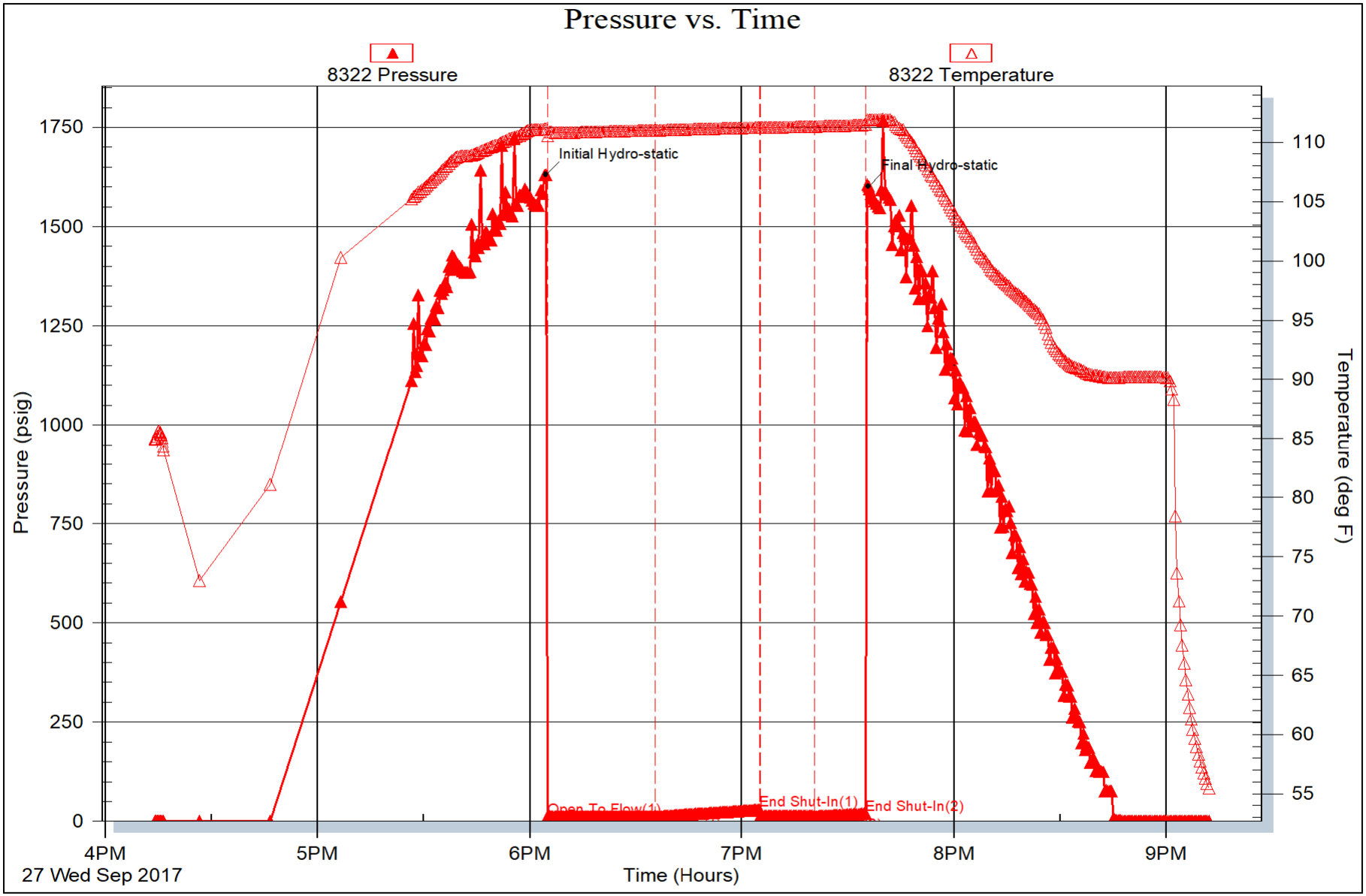
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6755 **Inside** Rama Operating Company Inc. Schroeder C #9 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 62647 Printed: 2017.09.27 @ 21:59:10

Serial #: 8322 **Outside** Rama Operating Company Inc. Schroeder C #9 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 62647 Printed: 2017.09.27 @ 21:59:11

DRILL STEM TEST REPORT

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578
ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62648 **DST#: 2**

Test Start: 2017.09.28 @ 02:42:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:11:32
Time Test Ended: 08:54:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Great Bend/60

Interval: 3278.00 ft (KB) To 3284.00 ft (KB) (TVD)
Total Depth: 3284.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

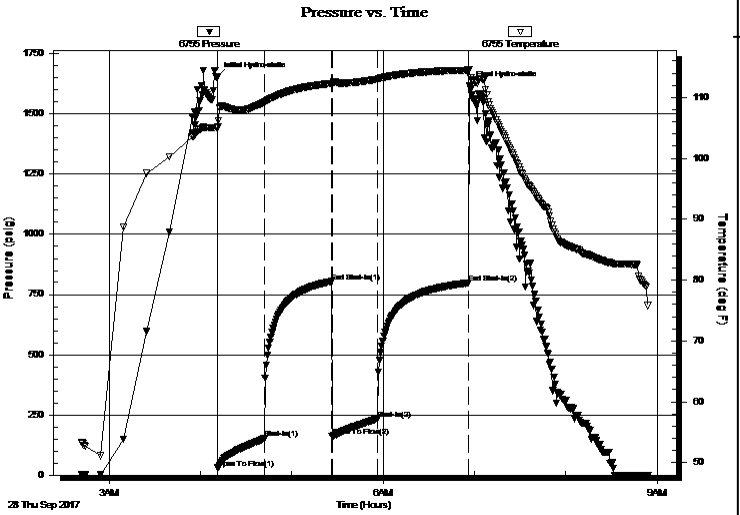
Reference Elevations: 1839.00 ft (KB)
1828.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6755 **Inside**

Press@RunDepth: 234.11 psig @ 3280.00 ft (KB)
Start Date: 2017.09.28 End Date: 2017.09.28
Start Time: 02:42:01 End Time: 08:54:02

Capacity: psig
Last Calib.: 2017.09.28
Time On Btm: 2017.09.28 @ 04:11:17
Time Off Btm: 2017.09.28 @ 06:56:47

TEST COMMENT: I.F. 30 Minutes/ Blow built to BOB in 4 minutes
I.S.I. 45 Minutes/ 2 inch blow back
F.F. 30 Minutes/ Blow built to BOB in 8 minutes
F.F. 60 Mintues/ No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1654.88	105.06	Initial Hydro-static
1	30.07	105.10	Open To Flow (1)
31	151.21	109.15	Shut-In(1)
75	803.76	112.31	End Shut-In(1)
76	161.06	112.07	Open To Flow (2)
105	234.11	112.99	Shut-In(2)
165	798.72	114.46	End Shut-In(2)
166	1617.19	114.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	Mud cut gassy Oil	0.30
0.00	Mud 20% Gas 20% Oil 60%	0.00
589.00	Gassy Oil	6.91
0.00	Gas 30% Oil 70%	0.00
0.00	403 feet of GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578
ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62648 **DST#: 2**

Test Start: 2017.09.28 @ 02:42:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:11:32
Time Test Ended: 08:54:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72 Great Bend/60

Interval: 3278.00 ft (KB) To 3284.00 ft (KB) (TVD)
Total Depth: 3284.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

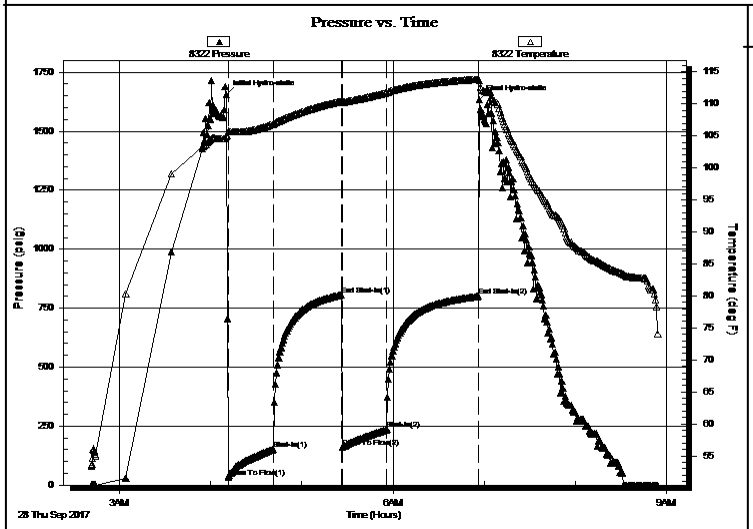
Reference Elevations: 1839.00 ft (KB)
1828.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8322 **Outside**

Press@RunDepth: 800.58 psig @ 3281.00 ft (KB)
Start Date: 2017.09.28 End Date: 2017.09.28
Start Time: 02:42:01 End Time: 08:54:02

Capacity: psig
Last Calib.: 2017.09.28
Time On Btm: 2017.09.28 @ 04:10:47
Time Off Btm: 2017.09.28 @ 06:57:02

TEST COMMENT: I.F. 30 Minutes/ Blow built to BOB in 4 minutes
I.S.I. 45 Minutes/ 2 inch blow back
F.F. 30 Minutes/ Blow built to BOB in 8 minutes
F.F. 60 Mintues/ No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1653.91	105.01	Initial Hydro-static
1	34.41	105.65	Open To Flow (1)
31	153.40	106.89	Shut-In(1)
76	805.61	110.37	End Shut-In(1)
76	161.32	110.30	Open To Flow (2)
106	236.14	111.78	Shut-In(2)
166	800.58	113.84	End Shut-In(2)
167	1634.84	113.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	Mud cut gassy Oil	0.30
0.00	Mud 20% Gas 20% Oil 60%	0.00
589.00	Gassy Oil	6.91
0.00	Gas 30% Oil 70%	0.00
0.00	403 feet of GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Rama Operating Company Inc.

101 S Main Street
Stafford Kansas
67578

ATTN: Josh Austin

34/16S/10W/Ellsworth

Schroeder C #9

Job Ticket: 62648 **DST#: 2**

Test Start: 2017.09.28 @ 02:42:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	44 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

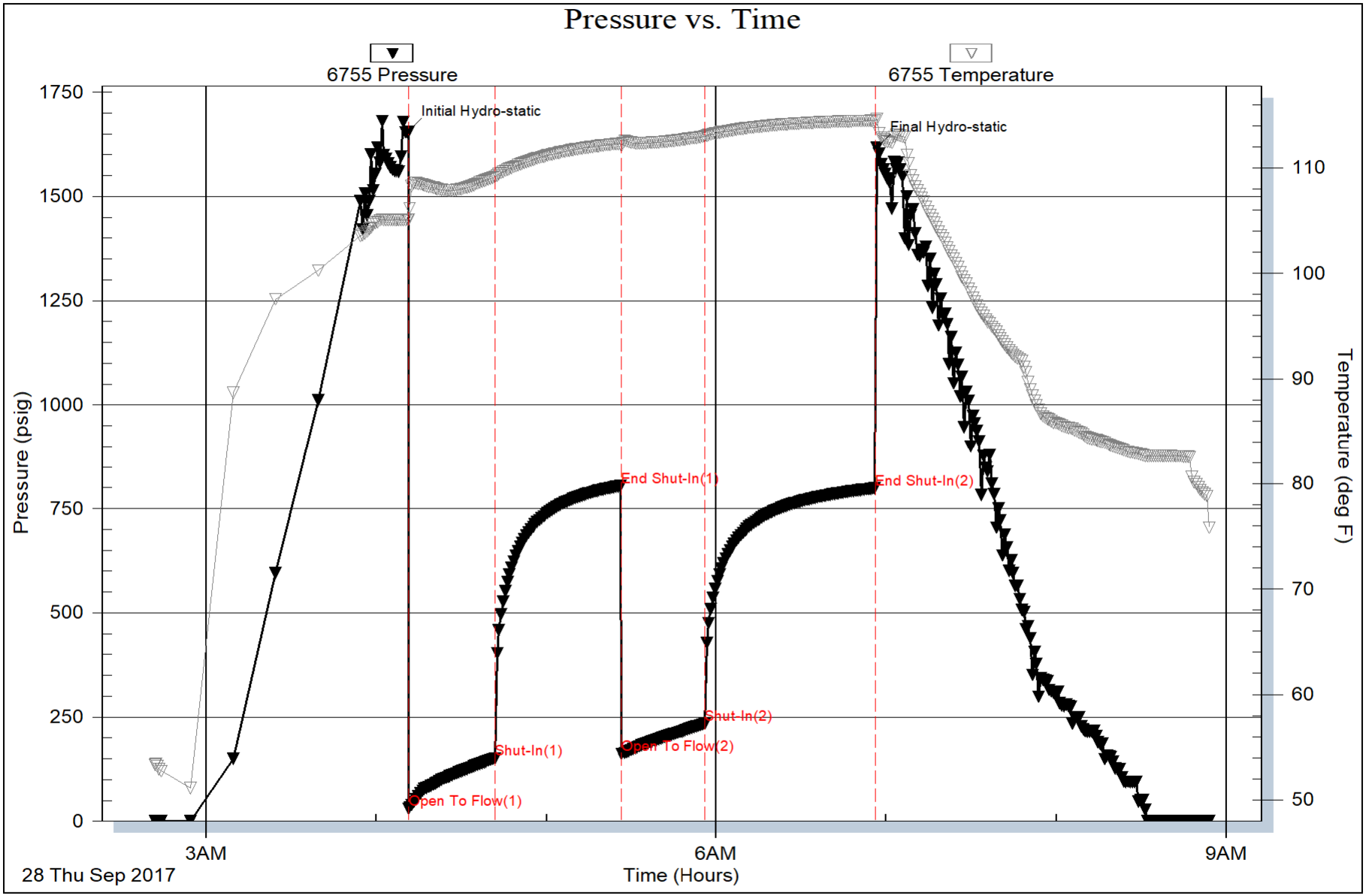
Recovery Table

Length ft	Description	Volume bbl
62.00	Mud cut gassy Oil	0.305
0.00	Mud 20% Gas 20% Oil 60%	0.000
589.00	Gassy Oil	6.914
0.00	Gas 30% Oil 70%	0.000
0.00	403 feet of GIP	0.000

Total Length: 651.00 ft Total Volume: 7.219 bbl

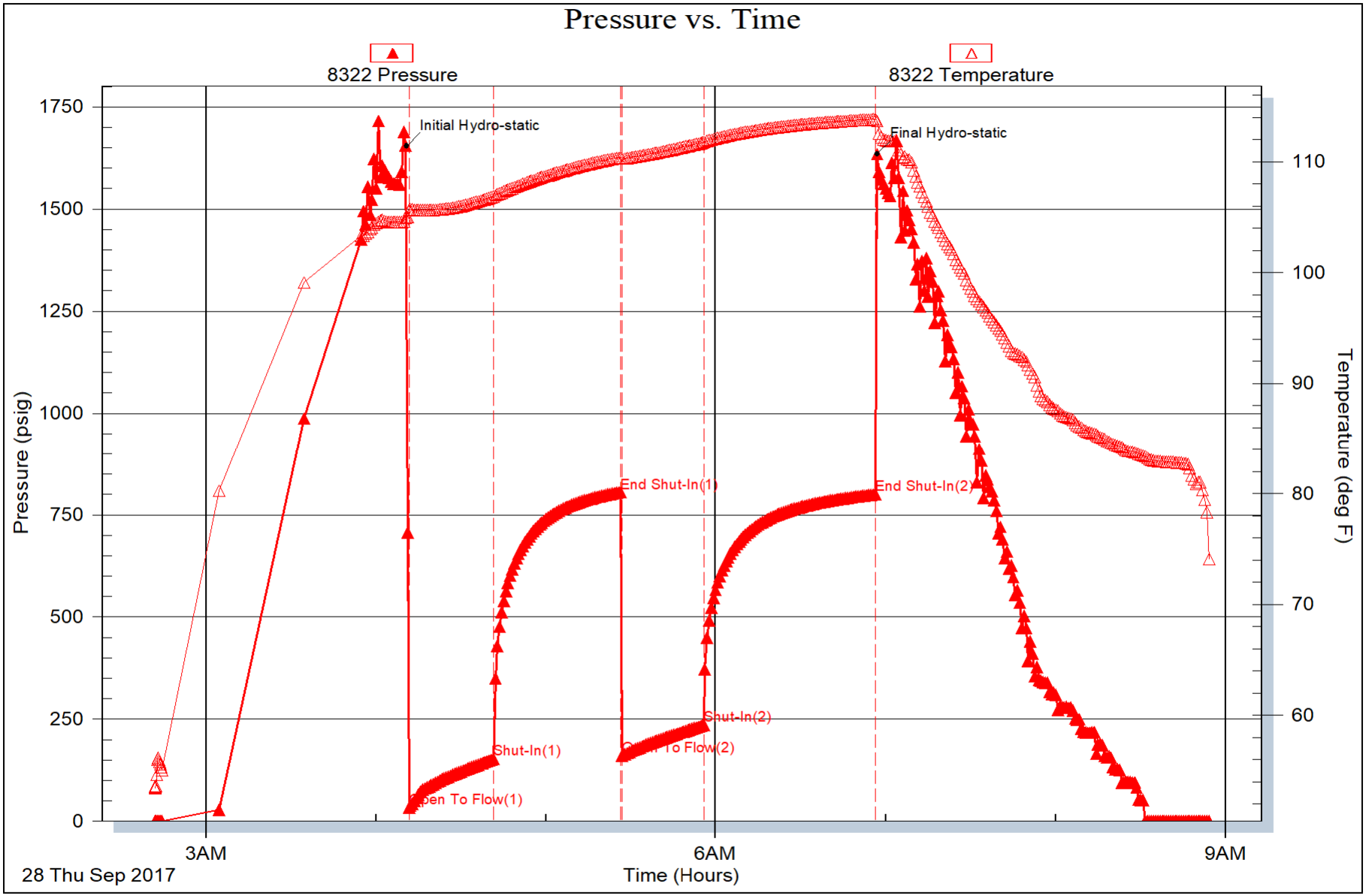
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6755 **Inside** Rama Operating Company Inc. Schroeder C #9 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 62648 Printed: 2017.09.28 @ 10:22:44

Serial #: 8322 **Outside** Rama Operating Company Inc. Schroeder C #9 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 62648 Printed: 2017.09.28 @ 10:22:44