

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

November 2016

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	Falcon Exploration, Inc.
Well Name	CHESTER REXFORD 1-35(NE)
Doc ID	1276192

All Electric Logs Run

DIL
MEL
CNL/CND
BHCS



DRILL STEM TEST REPORT

Prepared For: **FALCON EXPLORATION INC.**

125 NORTH MARKET SUITE 1252

ATTN: DAVE WILLIAMS

CHESTER-REXFORD 1-35

35-27S-30W GRAY

Start Date: 2015.10.12 @ 20:59:00

End Date: 2015.10.13 @ 00:00:00

Job Ticket #: 01239 DST #: 1

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2015.10.13 @ 06:22:57

FALCON EXPLORATION INC.

35-27S-30W GRAY

CHESTER-REXFORD 1-35

DST # 1

STOTLER

2015.10.12



DRILL STEM TEST REPORT

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

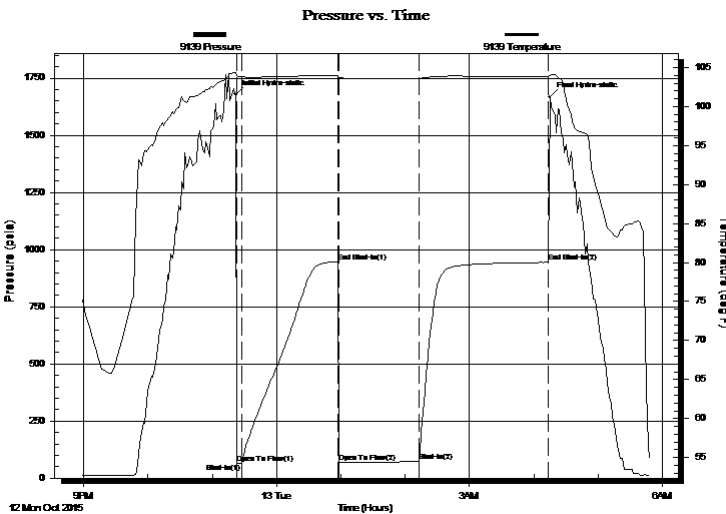
35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01239 **DST#: 1**
 Test Start: 2015.10.12 @ 20:59:00

GENERAL INFORMATION:

Formation: **STOTLER**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:23:00
 Time Test Ended: 00:00:00
 Interval: **3449.00 ft (KB) To 3525.00 ft (KB) (TVD)**
 Total Depth: 3525.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: GENE BUDIG
 Unit No: 1
 Reference Elevations: 2805.00 ft (KB)
 2792.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 9139 Outside
 Press@RunDepth: 944.61 psia @ 3520.40 ft (KB) Capacity: 5000.00 psia
 Start Date: 2015.10.12 End Date: 2015.10.13 Last Calib.: 2015.10.13
 Start Time: 20:58:00 End Time: 05:48:30 Time On Btm: 2015.10.12 @ 23:21:30
 Time Off Btm: 2015.10.13 @ 04:15:00

TEST COMMENT: 1ST OPENING 5 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GLLON BUCKET IN 4 1/2 MINUTES
 1ST SHUT-IN 90 MINUTES-NO BLOW BACK
 2ND OPENING 75 MINUTES- BOTTOM OF THE BUCKET IMMEDIA TELY DECREASED TO FAIR BLOW
 2NMD SHUT-IN 90 MINUTES- LLLFAIR BLOW BACCK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1678.34	104.36	Initial Hydro-static
2	66.79	103.91	Open To Flow (1)
6	65.32	103.79	Shut-In(1)
96	946.97	103.95	End Shut-In(1)
97	69.70	103.69	Open To Flow (2)
172	75.93	103.59	Shut-In(2)
292	944.61	103.82	End Shut-In(2)
294	1667.24	104.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	DRILLING MUD	0.37

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	15.75	5.89
Last Gas Rate	0.13	23.75	8.89
Max. Gas Rate	0.13	23.75	8.89



DRILL STEM TEST REPORT

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

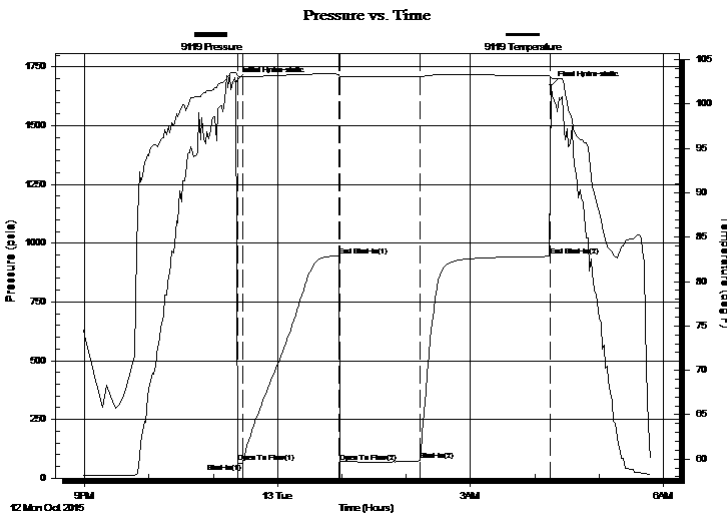
35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01239 **DST#: 1**
 Test Start: 2015.10.12 @ 20:59:00

GENERAL INFORMATION:

Formation: **STOTLER**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:23:00
 Time Test Ended: 00:00:00
 Interval: **3449.00 ft (KB) To 3525.00 ft (KB) (TVD)**
 Total Depth: 3525.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: GENE BUDIG
 Unit No: 1
 Reference Elevations: 2805.00 ft (KB)
 2792.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 9119 Inside
 Press@RunDepth: 944.49 psia @ 3520.40 ft (KB) Capacity: 5000.00 psia
 Start Date: 2015.10.12 End Date: 2015.10.13 Last Calib.: 2015.10.13
 Start Time: 20:58:00 End Time: 05:48:30 Time On Btm: 2015.10.12 @ 23:21:00
 Time Off Btm: 2015.10.13 @ 04:15:00

TEST COMMENT: 1ST OPENING 5 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GLLON BUCKET IN 4 1/2 MINUTES
 1ST SHUT-IN 90 MINUTES-NO BLOW BACK
 2ND OPENING 75 MINUTES- BOTTOM OF THE BUCKET IMMEDIA TELY DECREASED TO FAIR BLOW
 2NMD SHUT-IN 90 MINUTES- LLLFAIR BLOW BACCK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1685.52	103.56	Initial Hydro-static
2	66.13	103.16	Open To Flow (1)
6	64.31	103.06	Shut-In(1)
96	946.78	103.38	End Shut-In(1)
98	69.37	103.12	Open To Flow (2)
172	75.07	103.05	Shut-In(2)
293	944.49	103.21	End Shut-In(2)
294	1671.14	102.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	DRILLING MUD	0.37

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	15.75	5.89
Last Gas Rate	0.13	23.75	8.89
Max. Gas Rate	0.13	23.75	8.89



DRILL STEM TEST REPORT

TOOL DIAGRAM

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01239 **DST#: 1**
 Test Start: 2015.10.12 @ 20:59:00

Tool Information

Drill Pipe:	Length: 3378.00 ft	Diameter: 3.80 inches	Volume: 47.38 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.86 inches	Volume: - bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3449.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.40 ft			
Tool Length:	105.40 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3425.00	
Hydraulic tool	5.00			3430.00	
Jars	7.00			3437.00	
Safety Joint	2.00		Fluid	3439.00	
Top Packer	5.00			3444.00	
Packer	5.00			3449.00	29.00 Bottom Of Top Packer
Anchor	5.00			3454.00	
Change Over Sub	0.75			3454.75	
Drill Pipe	31.90			3486.65	
Change Over Sub	0.75			3487.40	
Anchor	33.00			3520.40	
Recorder	0.00	9119	Inside	3520.40	
Recorder	0.00	9139	Outside	3520.40	
Bullnose	5.00			3525.40	76.40 Anchor Tool

Total Tool Length: 105.40



DRILL STEM TEST REPORT

FLUID SUMMARY

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01239 **DST#: 1**
 Test Start: 2015.10.12 @ 20:59:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3400.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	DRILLING MUD	0.365

Total Length: 65.00 ft Total Volume: 0.365 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



DRILL STEM TEST REPORT

GAS RATES

FALCON EXPLORATION INC.
125 NORTH MARKET SUITE 1252
ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
Job Ticket: 01239 DST#: 1
Test Start: 2015.10.12 @ 20:59:00

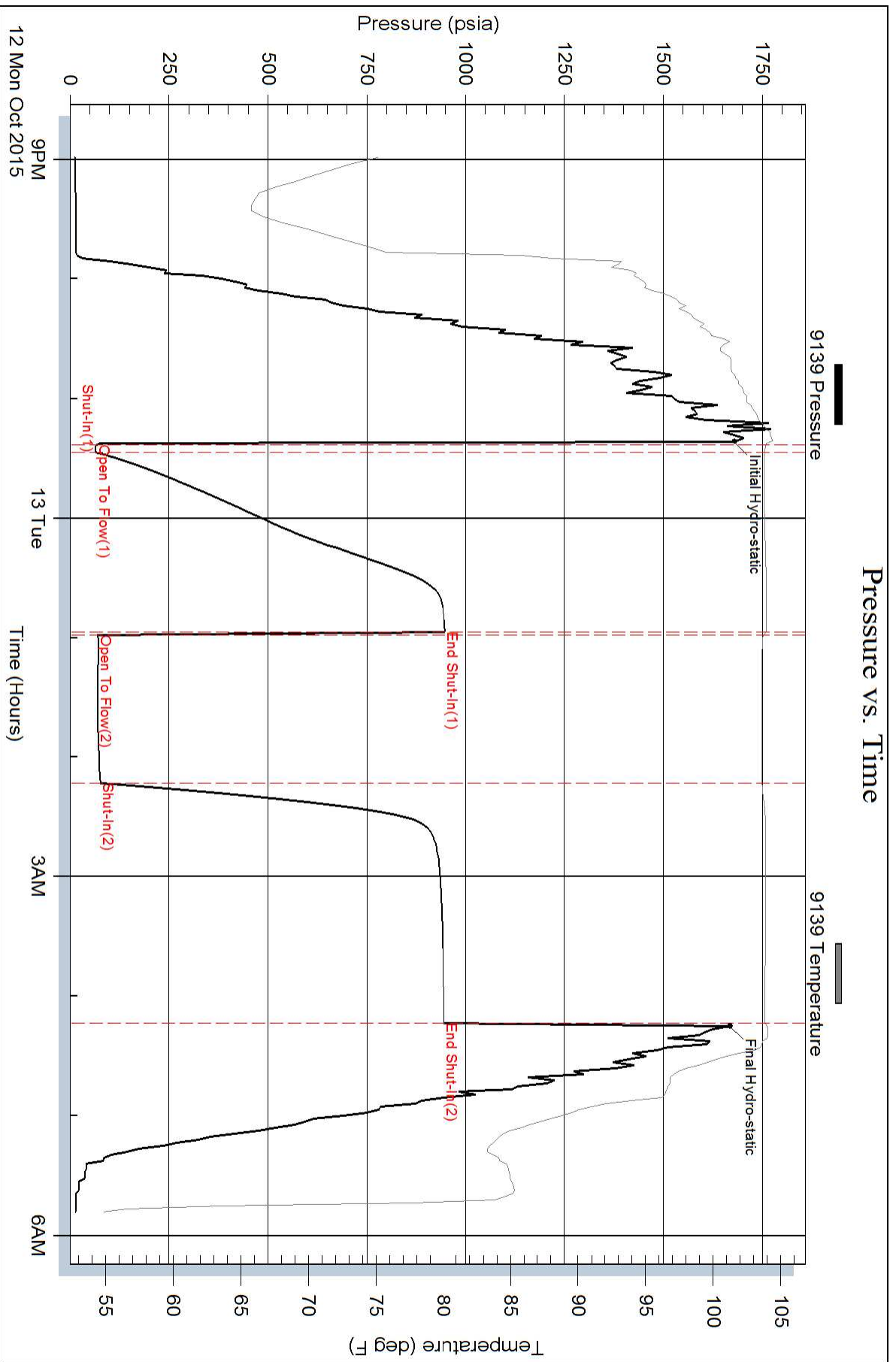
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

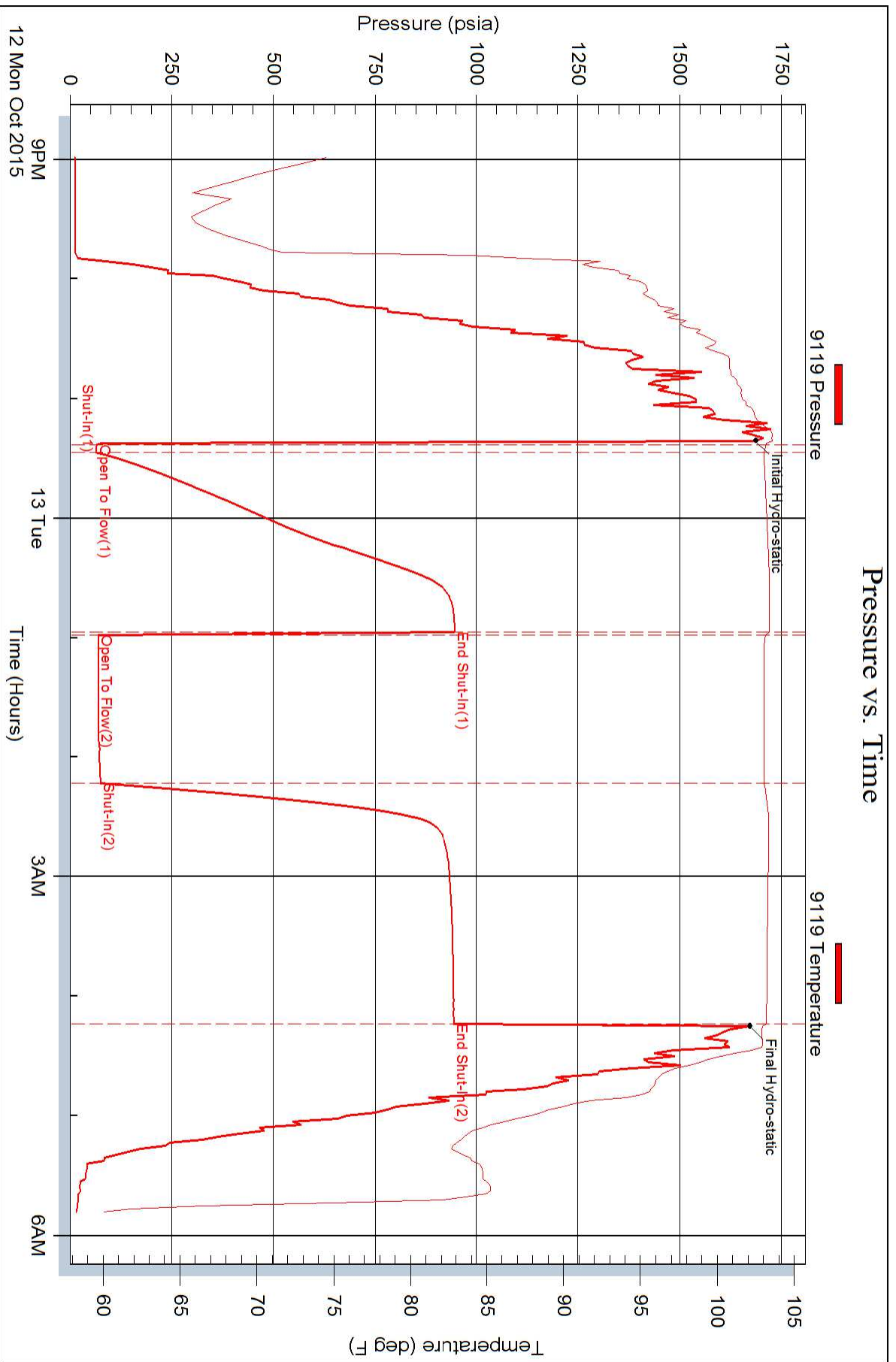
Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
2	40	0.13	15.75	5.89
2	50	0.13	20.25	7.58
2	60	0.13	22.85	8.55
2	70	0.13	23.75	8.89

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **FALCON EXPLORATION INC.**

125 NORTH MARKET SUITE 1252

ATTN: DAVE WILLIAMS

CHESTER-REXFORD 1-35

35-27S-30W GRAY

Start Date: 2015.10.13 @ 11:57:00

End Date: 2015.10.13 @ 00:00:00

Job Ticket #: 01240 DST #: 2

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2015.10.13 @ 19:11:00



DRILL STEM TEST REPORT

TOOL DIAGRAM

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01240 **DST#: 2**
 Test Start: 2015.10.13 @ 11:57:00

Tool Information

Drill Pipe:	Length: 3474.00 ft	Diameter: 3.80 inches	Volume: 48.73 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 49.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3540.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3516.00	
Hydraulic tool	5.00			3521.00	
Jars	7.00			3528.00	
Safety Joint	2.00		Fluid	3530.00	
Top Packer	5.00			3535.00	
Packer	5.00			3540.00	29.00 Bottom Of Top Packer
Anchor	15.00			3555.00	
Recorder	0.00	9119	Inside	3555.00	
Recorder	0.00	9139	Outside	3555.00	
Bullnose	5.00			3560.00	20.00 Anchor Tool
Total Tool Length:	49.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01240 **DST#: 2**
 Test Start: 2015.10.13 @ 11:57:00

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: 68.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.40 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4200.00 ppm			
Filter Cake: 1.00 inches			

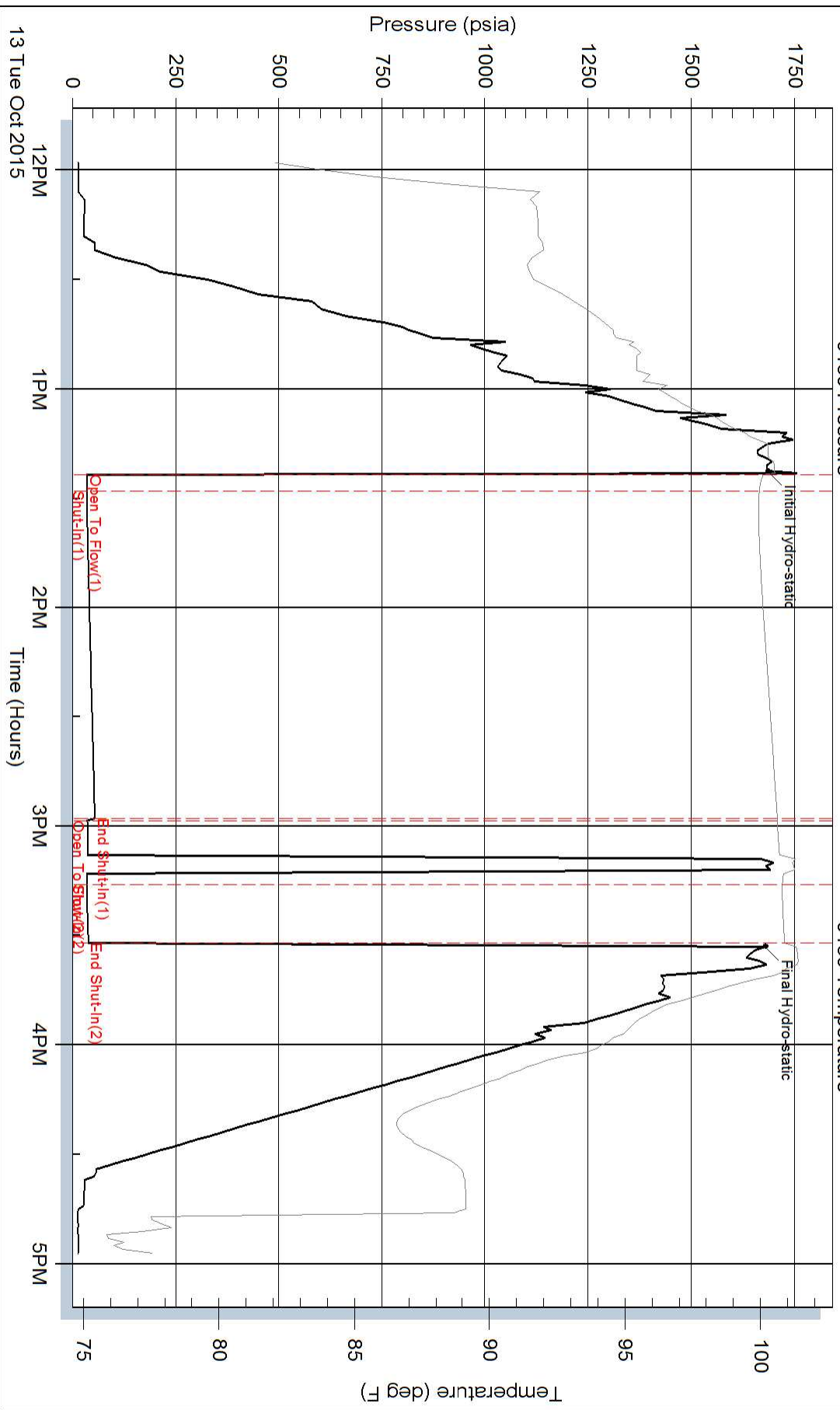
Recovery Information

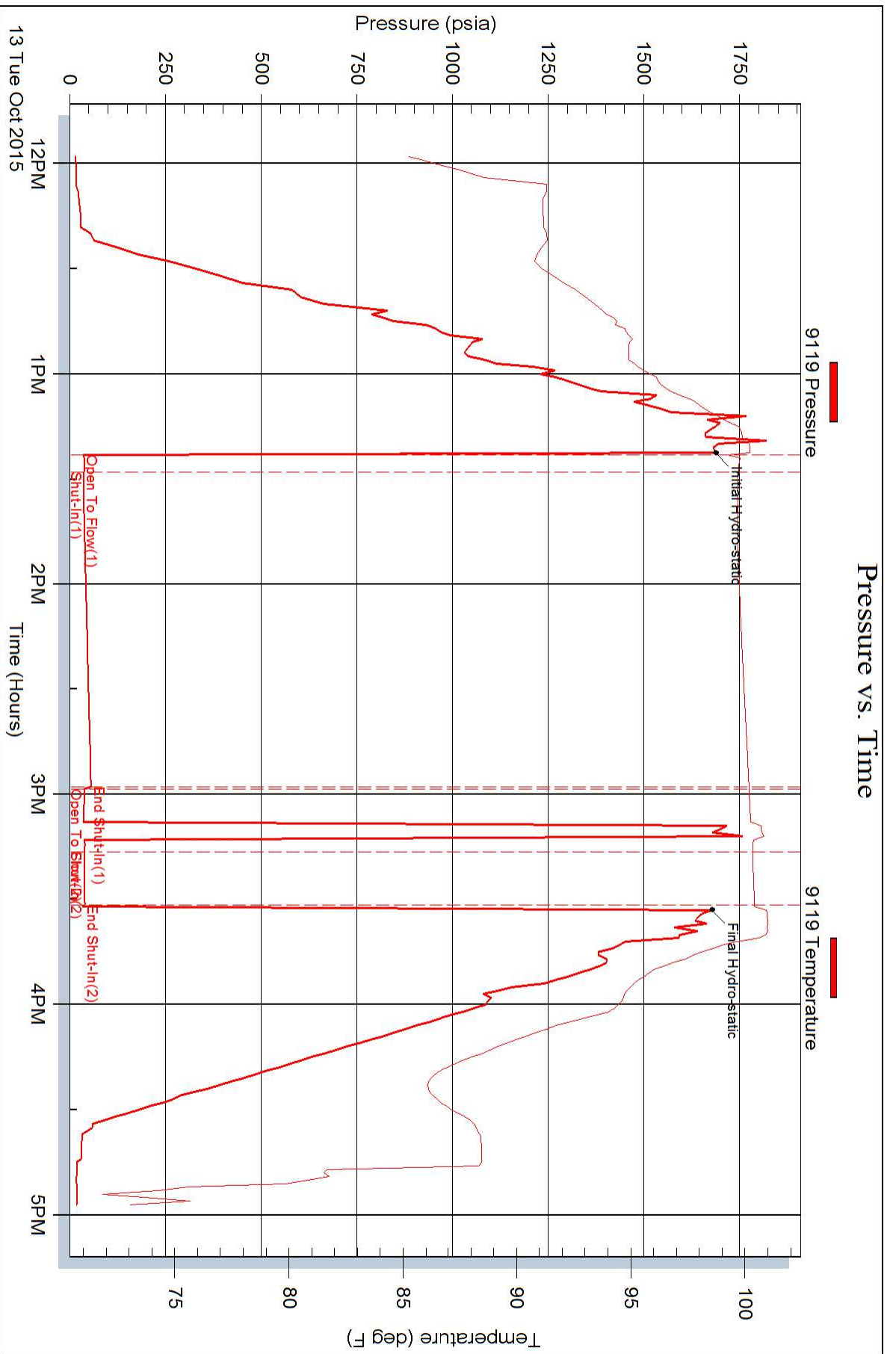
Recovery Table

Length ft	Description	Volume bbl
0.00	RECOVERY WAS FLUSH WITH THE TOP OF 1	0.000
0.00	SHUT-IN DRILLING MUD WAS IN THE SHUT-IN	0.000

Total Length: ft Total Volume: bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **FALCON EXPLORATION INC.**

125 NORTH MARKET SUITE 1252

ATTN: DAVE WILLIAMS

CHESTER-REXFORD 1-35

35-27S-30W GRAY

Start Date: 2015.10.15 @ 04:38:00

End Date: 2015.10.15 @ 00:00:00

Job Ticket #: 01241 DST #: 3

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2015.10.15 @ 15:48:40



DRILL STEM TEST REPORT

TOOL DIAGRAM

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01241 **DST#: 3**
 Test Start: 2015.10.15 @ 04:38:00

Tool Information

Drill Pipe:	Length: 4047.00 ft	Diameter: 3.80 inches	Volume: 56.77 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 720000.0 lb
			<u>Total Volume: 57.07 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4106.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4082.00	
Hydraulic tool	5.00			4087.00	
Jars	7.00			4094.00	
Safety Joint	2.00		Fluid	4096.00	
Top Packer	5.00			4101.00	
Packer	5.00			4106.00	29.00 Bottom Of Top Packer
Anchor	26.00			4132.00	
Recorder	0.00	9119	Inside	4132.00	
Recorder	0.00	9139	Outside	4132.00	
Bullnose	5.00			4137.00	31.00 Anchor Tool
Total Tool Length:	60.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01241 **DST#: 3**
 Test Start: 2015.10.15 @ 04:38:00

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: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4600.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
700.00	WATER CHLORIDES 68,000	9.273
150.00	MUD	2.104

Total Length: 850.00 ft Total Volume: 11.377 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

GAS RATES

FALCON EXPLORATION INC.
125 NORTH MARKET SUITE 1252
ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
Job Ticket: 01241 **DST#: 3**
Test Start: 2015.10.15 @ 04:38:00

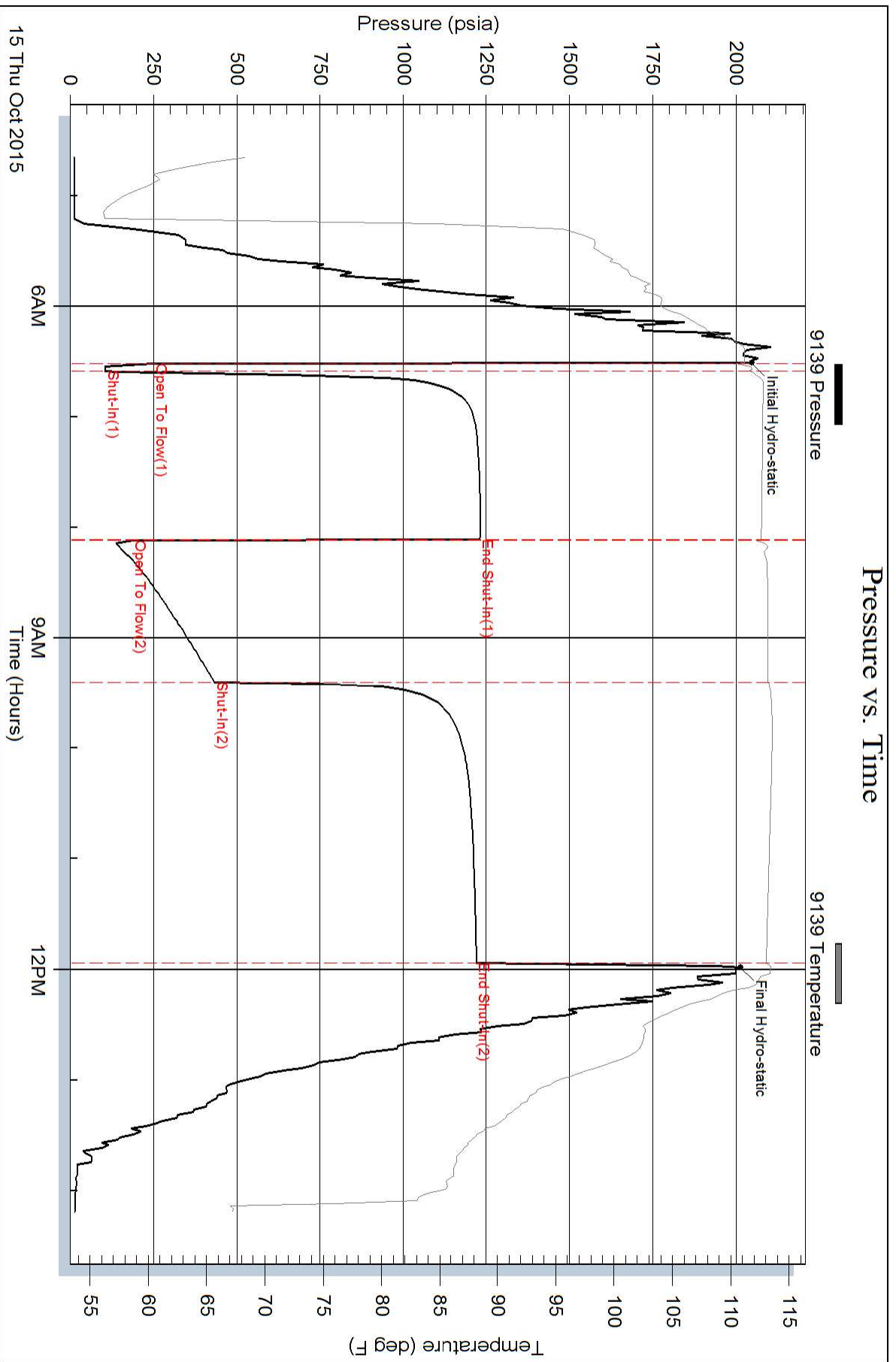
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

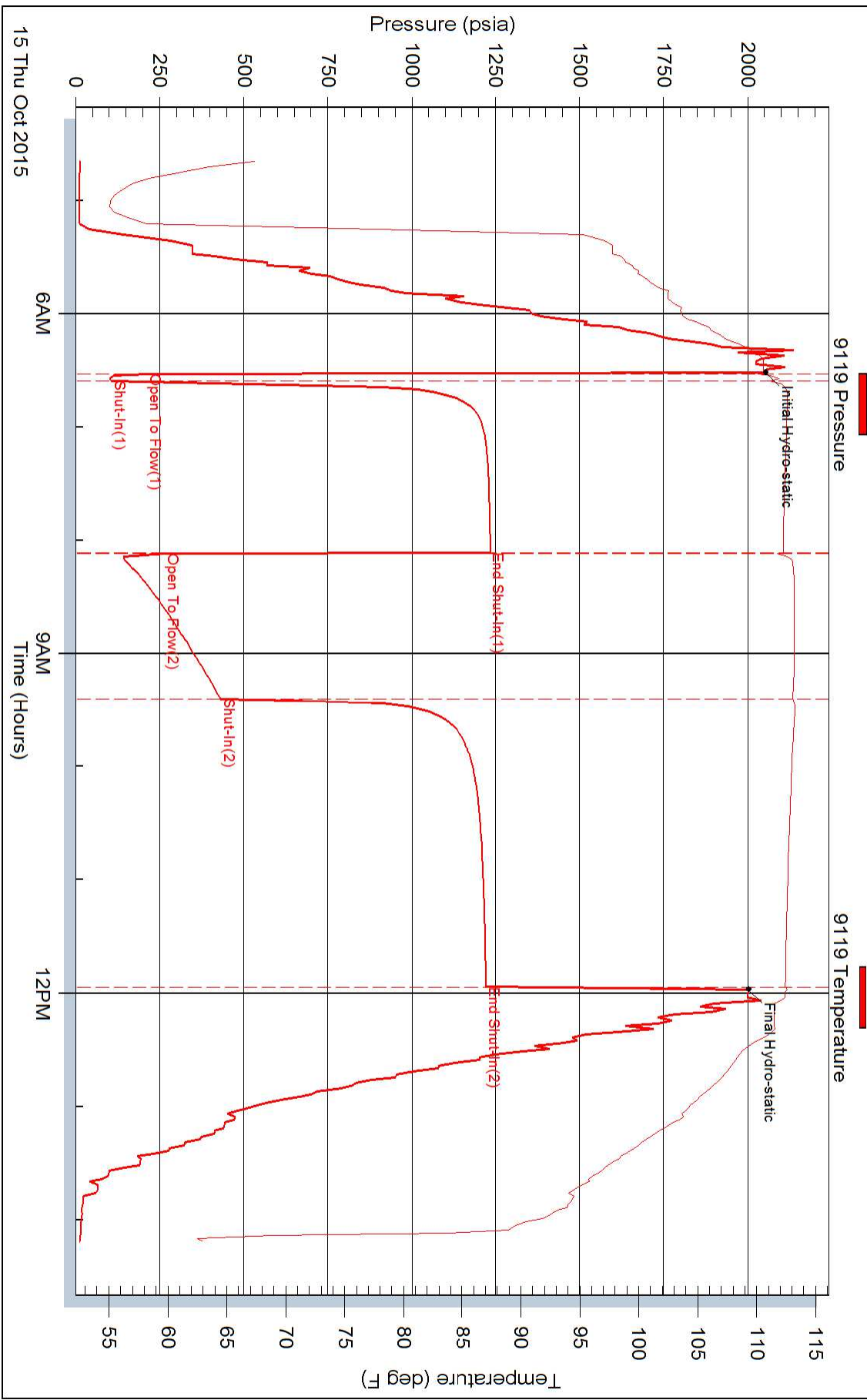
Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
2	10	0.13	58.65	21.95
2	20	0.13	75.00	28.07
2	30	0.13	91.80	34.36
2	40	0.13	89.00	33.31
2	50	0.13	85.00	31.81
2	60	0.13	75.00	28.07
2	70	0.13	71.00	26.57

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **FALCON EXPLORATION INC.**

125 NORTH MARKET SUITE 1252

ATTN: DAVE WILLIAMS

CHESTER-REXFORD 1-35

35-27S-30W GRAY

Start Date: 2015.10.18 @ 10:01:00

End Date: 2015.10.18 @ 00:00:00

Job Ticket #: 01242 DST #: 4

Eagle Testers

1309 Patton Road Great Bend, Kansas 67530

620-791-7394

Printed: 2015.10.18 @ 15:40:14



DRILL STEM TEST REPORT

TOOL DIAGRAM

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01242 **DST#: 4**
 Test Start: 2015.10.18 @ 10:01:00

Tool Information

Drill Pipe:	Length: 4750.00 ft	Diameter: 3.80 inches	Volume: 66.63 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4815.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: inches		

Tool Comments: WHEN WE WENT TO TURN THE TOOL THE ELEVATORS WERE NOT SLACKED OFF WRAPPED THE HOSE AROUND THE DRILL PIPE SLACKED OFF I THOUGHT WE WENT A LITTLE MORE THAN 2 ROUNDS DRILL THOUGHT ONLY ONE ROUND TURNED IT 4 MORE TIMES PUT THE SHUT-IN TOOL IN THE FINAL STAG. FINAL FLOW AND FINAL SHUT-IN ARE INVALID

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4791.00	
Hydraulic tool	5.00			4796.00	
Jars	7.00			4803.00	
Safety Joint	2.00		Fluid	4805.00	
Top Packer	5.00			4810.00	
Packer	5.00			4815.00	29.00 Bottom Of Top Packer
Anchor	25.00			4840.00	
Recorder	0.00	9119	Inside	4840.00	
Recorder	0.00	9139	Outside	4840.00	
Bullnose	5.00			4845.00	30.00 Anchor Tool
Total Tool Length:	59.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01242 **DST#: 4**
 Test Start: 2015.10.18 @ 10:01:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2600.00 ppm			
Filter Cake: 1.00 inches			

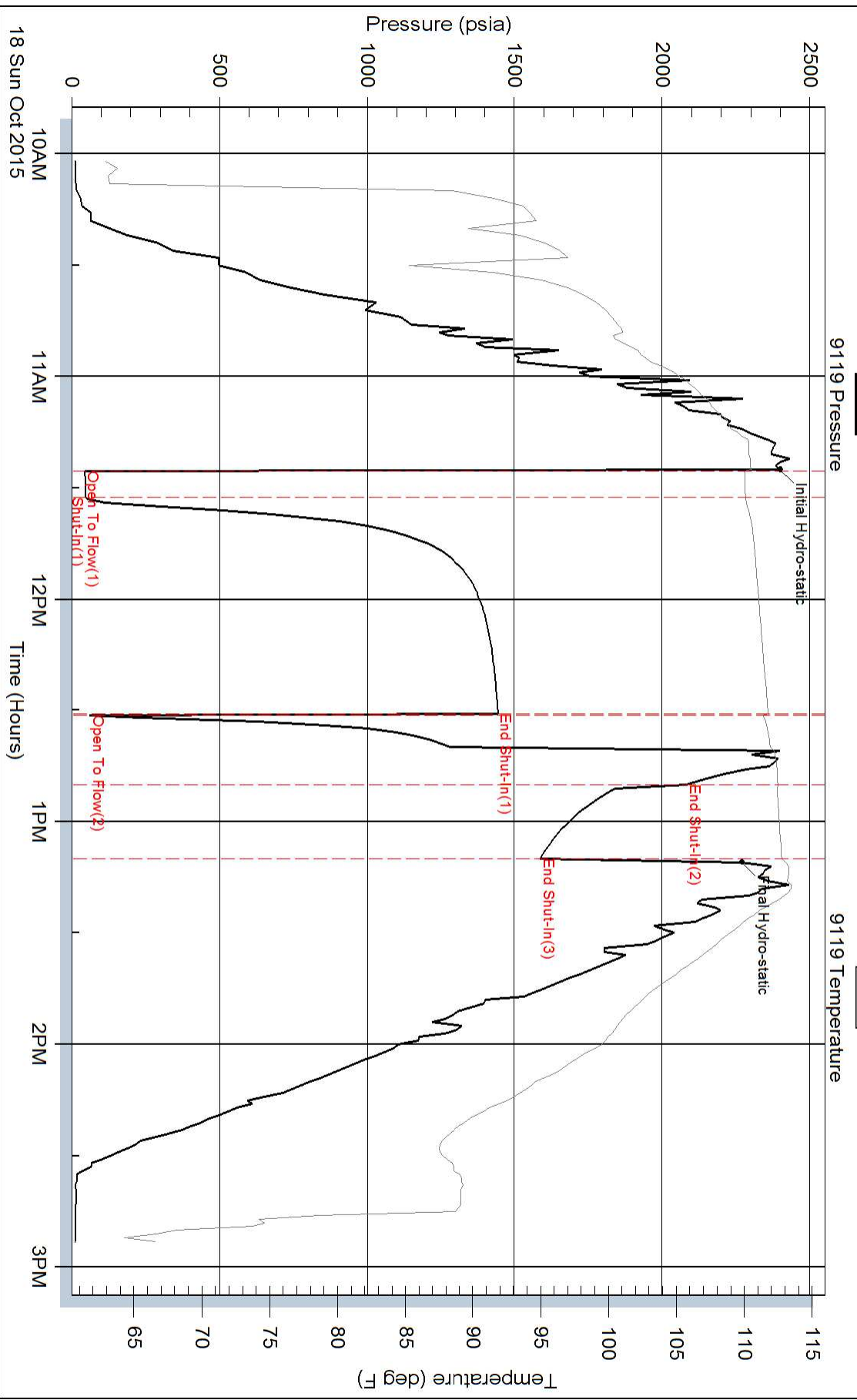
Recovery Information

Recovery Table

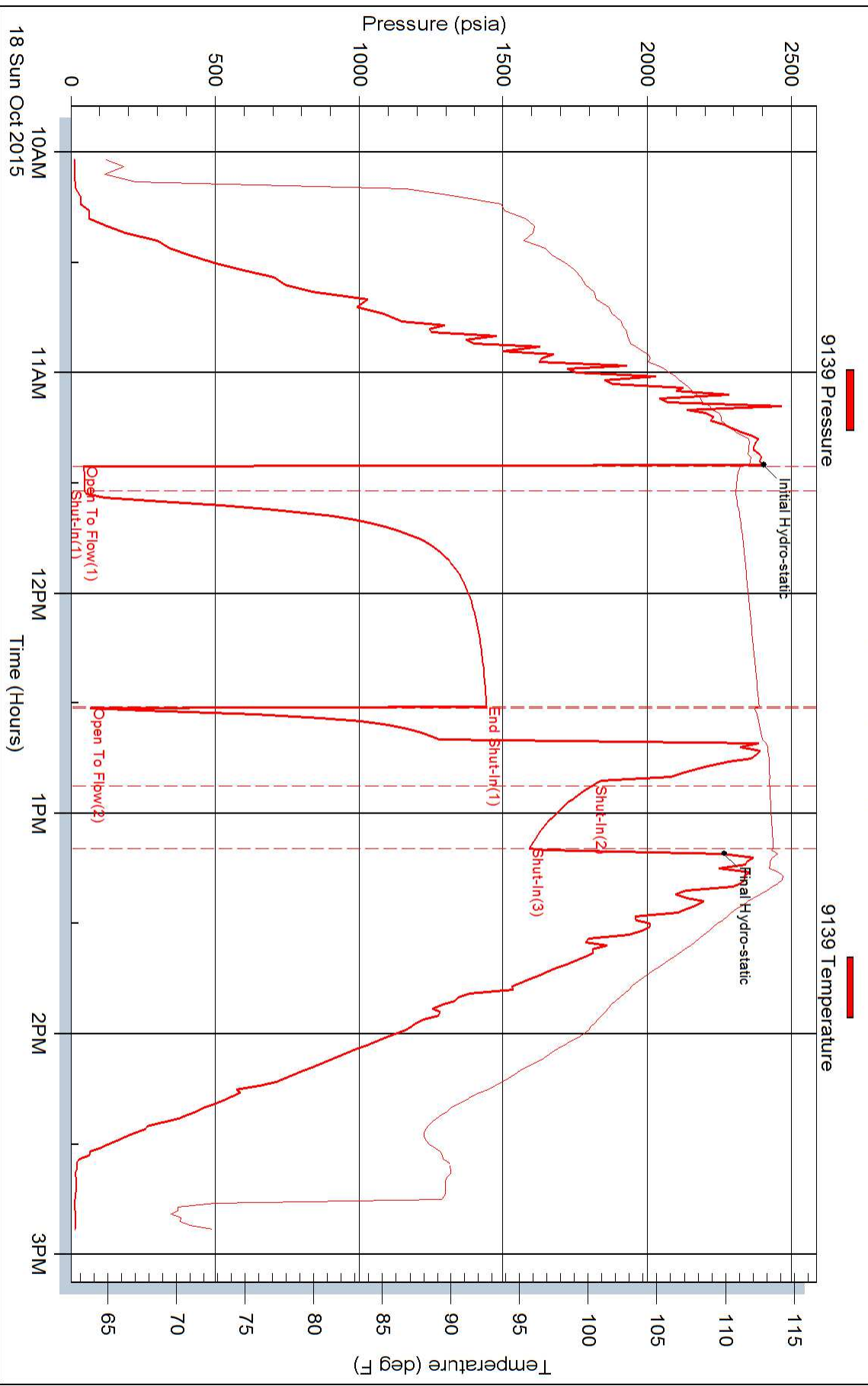
Length ft	Description	Volume bbl
5.00	DRILLING MUD	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **FALCON EXPLORATION INC.**

125 NORTH MARKET SUITE 1252

ATTN: DAVE WILLIAMS

CHESTER-REXFORD 1-35

35-27S-30W GRAY

Start Date: 2015.10.20 @ 13:58:00

End Date: 2015.10.20 @ 20:10:00

Job Ticket #: 01243 DST #: 5

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2015.10.20 @ 20:23:41



DRILL STEM TEST REPORT

TOOL DIAGRAM

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01243 **DST#: 5**
 Test Start: 2015.10.20 @ 13:58:00

Tool Information

Drill Pipe:	Length: 5067.00 ft	Diameter: 3.80 inches	Volume: 71.08 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 84000.00 lb
			Total Volume: 71.38 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	5150.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	101.39 ft			
Tool Length:	130.39 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5126.00	
Hydraulic tool	5.00			5131.00	
Jars	7.00			5138.00	
Safety Joint	2.00		Fluid	5140.00	
Top Packer	5.00			5145.00	
Packer	5.00			5150.00	29.00 Bottom Of Top Packer
Anchor	6.00			5156.00	
Change Over Sub	0.75			5156.75	
Drill Pipe	63.89			5220.64	
Change Over Sub	0.75			5221.39	
Anchor	25.00			5246.39	
Recorder	0.00	9119	Inside	5246.39	
Recorder	0.00	9139	Outside	5246.39	
Bullnose	5.00			5251.39	101.39 Anchor Tool
Total Tool Length:	130.39				



DRILL STEM TEST REPORT

FLUID SUMMARY

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01243 **DST#: 5**
 Test Start: 2015.10.20 @ 13:58:00

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: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.40 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2400.00 ppm			
Filter Cake: 1.00 inches			

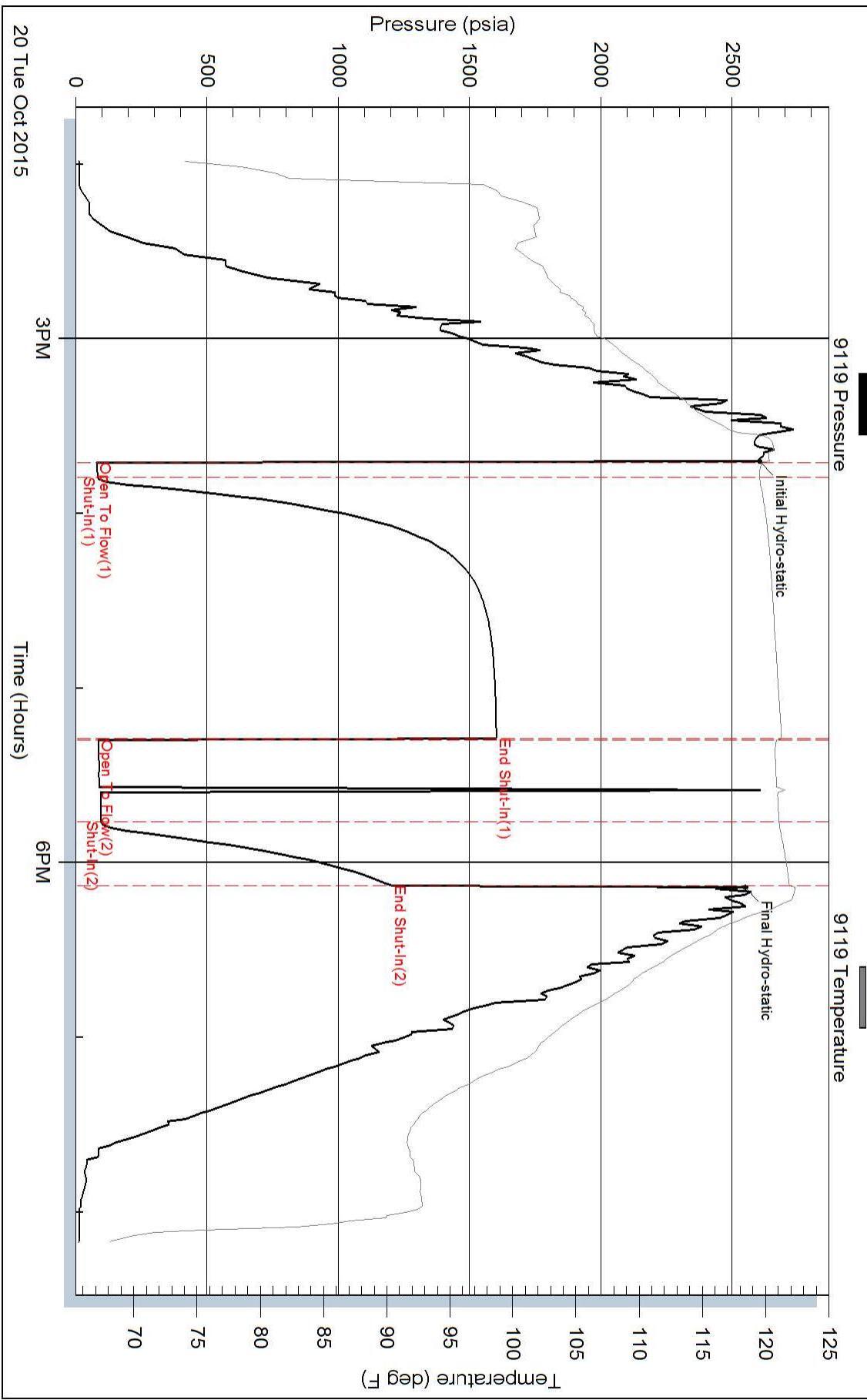
Recovery Information

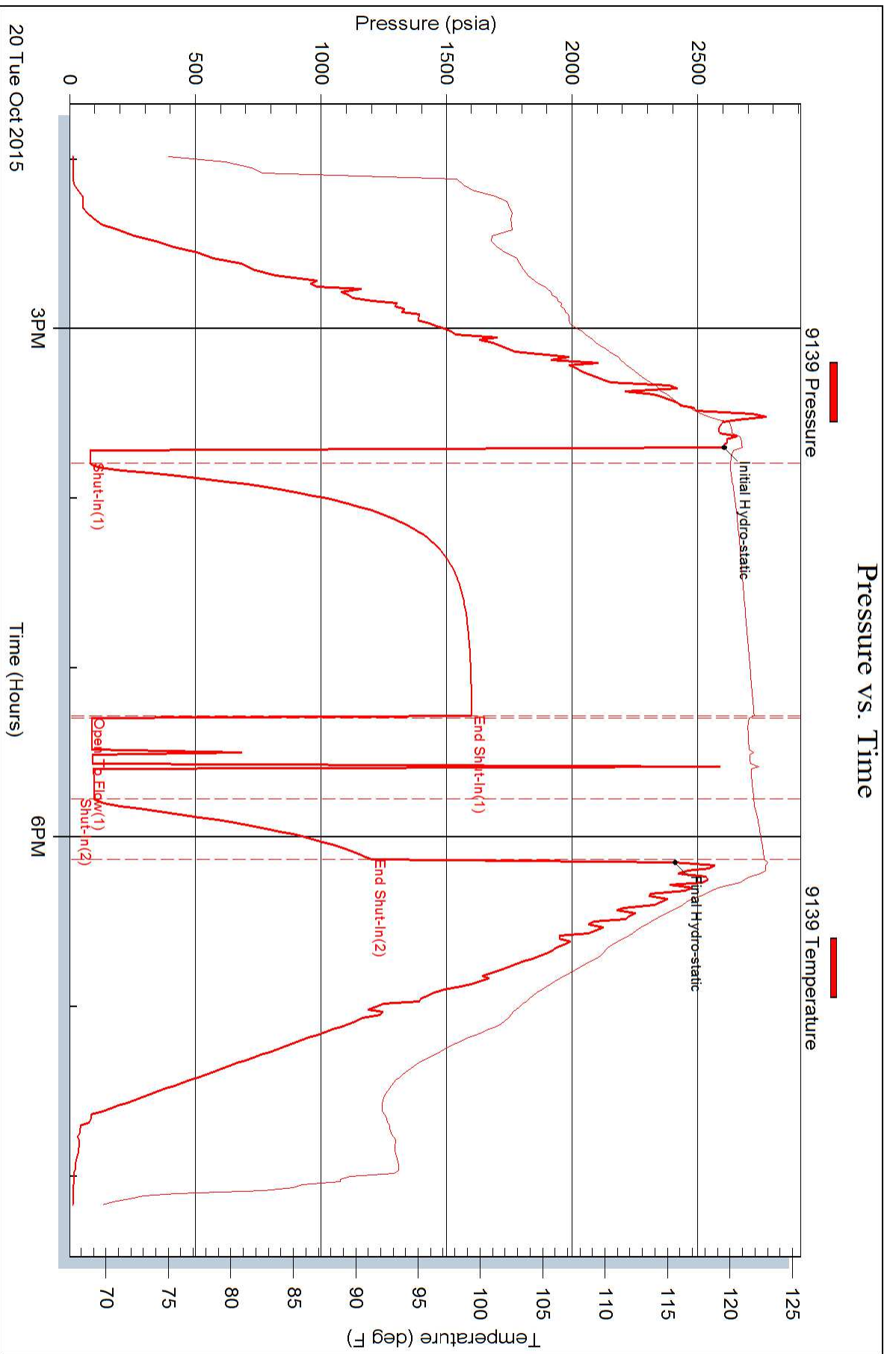
Recovery Table

Length ft	Description	Volume bbl
30.00	DRILLING MUD	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **FALCON EXPLORATION INC.**

125 NORTH MARKET SUITE 1252

ATTN: DAVE WILLIAMS

CHESTER-REXFORD 1-35

35-27S-30W GRAY

Start Date: 2015.10.21 @ 08:43:00

End Date: 2015.10.21 @ 15:12:00

Job Ticket #: 01244 DST #: 6

Eagle Testers

1309 Patton Road Great Bend, Kansas 67530

620-791-7394

Printed: 2015.10.21 @ 14:32:13



DRILL STEM TEST REPORT

TOOL DIAGRAM

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01244 **DST#: 6**
 Test Start: 2015.10.21 @ 08:43:00

Tool Information

Drill Pipe:	Length: 5196.00 ft	Diameter: 3.80 inches	Volume: 72.89 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 86000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	5266.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5242.00	
Hydraulic tool	5.00			5247.00	
Jars	7.00			5254.00	
Safety Joint	2.00		Fluid	5256.00	
Top Packer	5.00			5261.00	
Packer	5.00			5266.00	29.00 Bottom Of Top Packer
Anchor	24.00			5290.00	
Recorder	0.00	9119	Inside	5290.00	
Recorder	0.00	9139	Outside	5290.00	
Bullnose	5.00			5295.00	29.00 Anchor Tool
Total Tool Length:	58.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01244 **DST#: 6**
 Test Start: 2015.10.21 @ 08:43:00

Mud and Cushion Information

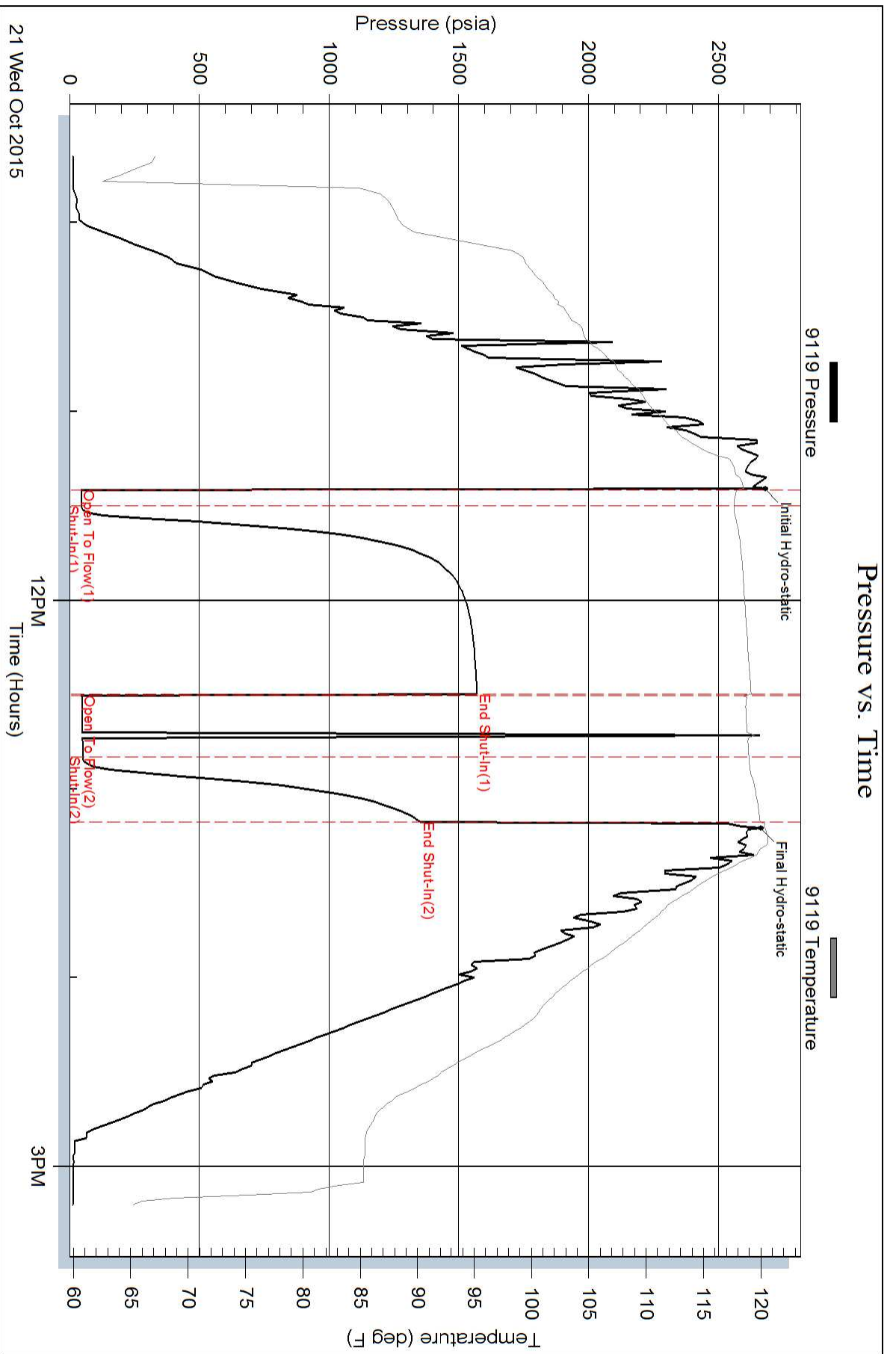
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.40 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 1200.00 ppm			
Filter Cake: 1.00 inches			

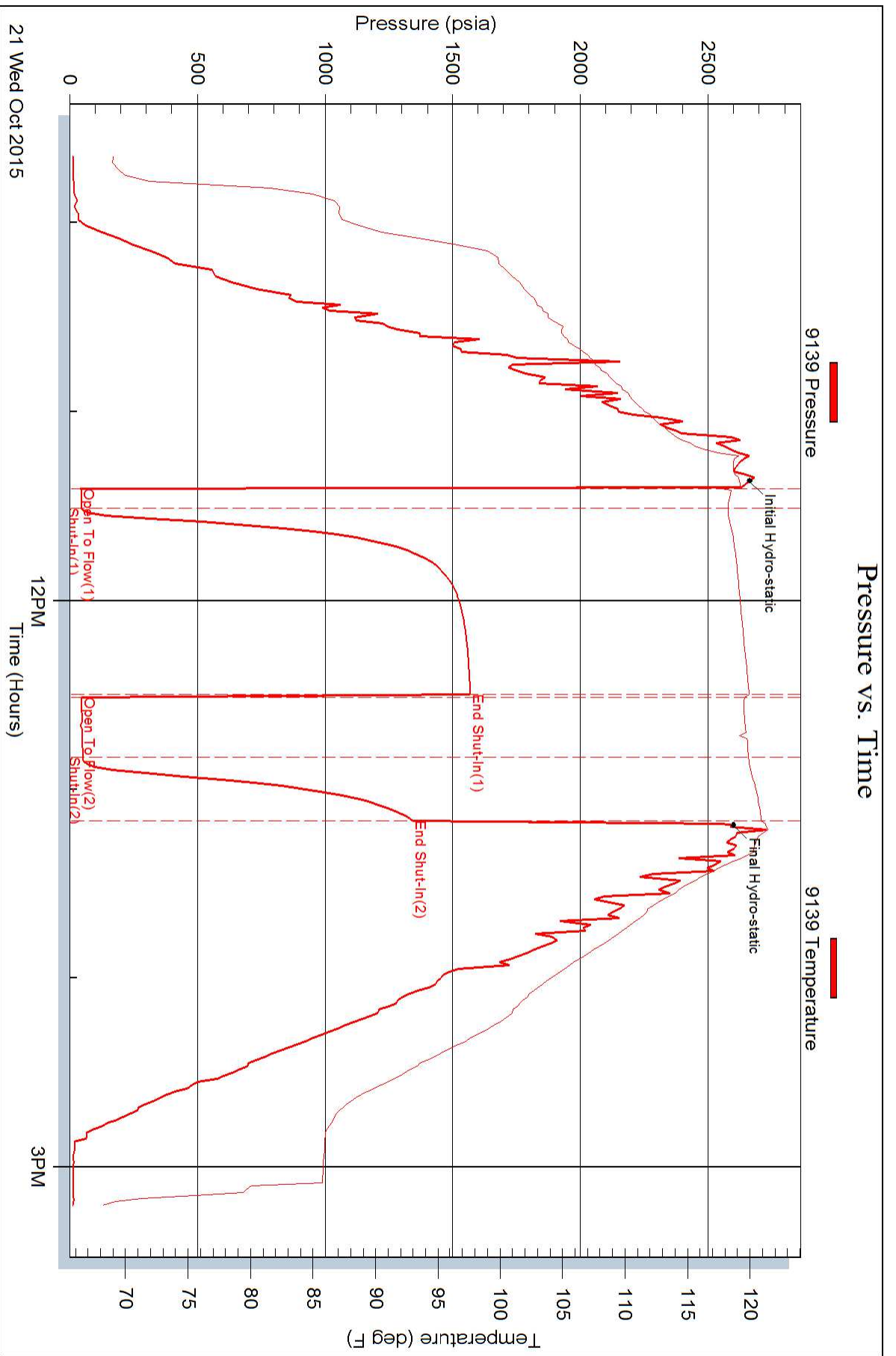
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	DRILLKING MUD	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **FALCON EXPLORATION INC.**

125 NORTH MARKET SUITE 1252

ATTN: DAVE WILLIAMS

CHESTER-REXFORD 1-35

35-27S-30W GRAY

Start Date: 2015.10.22 @ 09:41:00

End Date: 2015.10.22 @ 16:09:00

Job Ticket #: 01245 DST #: 7

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2015.10.22 @ 16:25:59



DRILL STEM TEST REPORT

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

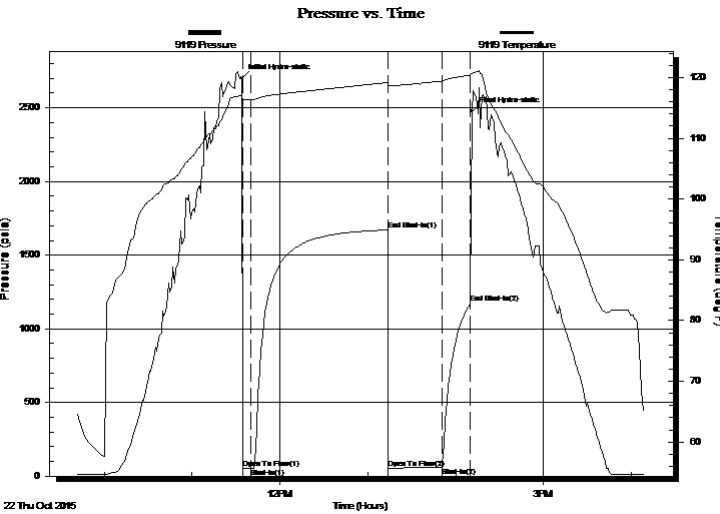
35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01245 **DST#: 7**
 Test Start: 2015.10.22 @ 09:41:00

GENERAL INFORMATION:

Formation: **MISSISSIPPI-SALEM**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 11:35:00 Tester: GENE BUDIG
 Time Test Ended: 16:09:00 Unit No: 1
Interval: 5338.00 ft (KB) To 5378.00 ft (KB) (TVD) Reference Elevations: 2805.00 ft (KB)
 Total Depth: 5378.00 ft (KB) (TVD) 2792.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 13.00 ft

Serial #: 9119 Inside
 Press@RunDepth: 1173.31 psia @ 5373.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2015.10.22 End Date: 2015.10.22 Last Calib.: 2015.10.22
 Start Time: 09:41:00 End Time: 16:09:00 Time On Btm: 2015.10.22 @ 11:34:00
 Time Off Btm: 2015.10.22 @ 14:11:00

TEST COMMENT: 1ST OPENING 7 MINUTES VERY WEAK SURFACE BLOW THROUGH OUT
 1ST SHUT-IN 90 MINUTES-NO BLOW BACK
 2ND OPENING 39 MINUTES-NO BLOW-FLUSHED TOOL-GOOD SURGE-NO HELP
 2ND SHUT-IN 20 MINUTES-NO BLOW BACK



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2699.70	117.05	Initial Hydro-static
1	50.13	116.41	Open To Flow (1)
7	52.06	116.34	Shut-In(1)
100	1671.27	119.18	End Shut-In(1)
100	53.98	118.56	Open To Flow (2)
137	59.97	119.44	Shut-In(2)
156	1173.31	120.41	End Shut-In(2)
157	2476.06	120.74	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
15.00	DRILLING MUD	0.07

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



DRILL STEM TEST REPORT

FALCON EXPLORATION INC.

35-27S-30W GRAY

125 NORTH MARKET SUITE 1252

CHESTER-REXFORD 1-35

ATTN: DAVE WILLIAMS

Job Ticket: 01245

DST#: 7

Test Start: 2015.10.22 @ 09:41:00

GENERAL INFORMATION:

Formation: **MISSISSIPPI-SALEM**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:35:00

Time Test Ended: 16:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: 5338.00 ft (KB) To 5378.00 ft (KB) (TVD)

Reference Elevations: 2805.00 ft (KB)

Total Depth: 5378.00 ft (KB) (TVD)

2792.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

Serial #: 9139

Outside

Press@RunDepth: 1176.31 psia @ 5373.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2015.10.22

End Date:

2015.10.22

Last Calib.:

2015.10.22

Start Time: 09:41:00

End Time:

16:09:30

Time On Btm:

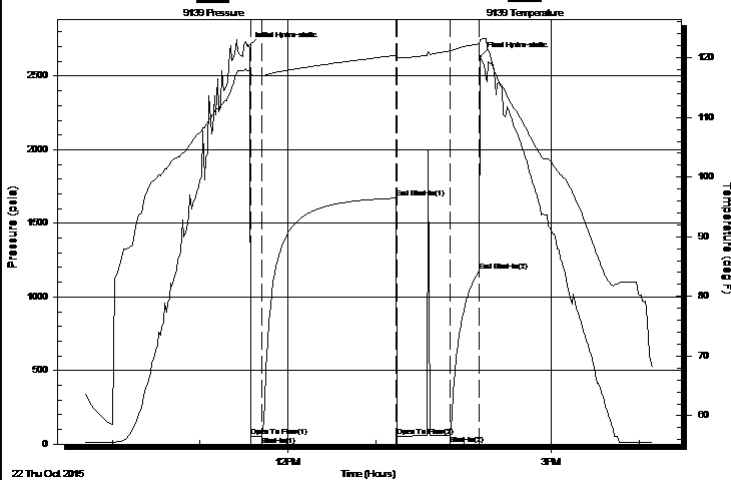
2015.10.22 @ 11:33:00

Time Off Btm:

2015.10.22 @ 14:11:30

TEST COMMENT: 1ST OPENING 7 MINUTES VERY WEAK SURFACE BLOW THROUGH OUT
 1ST SHUT-IN 90 MINUTES-NO BLOW BACK
 2ND OPENING 39 MINUTES-NO BLOW-FLUSHED TOOL-GOOD SURGE-NO HELP
 2ND SHUT-IN 20 MINUTES-NO BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2700.65	117.86	Initial Hydro-static
2	51.68	116.53	Open To Flow (1)
9	52.53	116.96	Shut-In(1)
101	1670.55	120.38	End Shut-In(1)
102	55.65	119.99	Open To Flow (2)
138	59.61	121.16	Shut-In(2)
158	1176.31	122.34	End Shut-In(2)
159	2631.80	123.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	DRILLING MUD	0.07

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01245 **DST#: 7**
 Test Start: 2015.10.22 @ 09:41:00

Tool Information

Drill Pipe:	Length: 5258.00 ft	Diameter: 3.80 inches	Volume: 73.76 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 60.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 74.06 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	5338.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	69.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5314.00	
Hydraulic tool	5.00			5319.00	
Jars	7.00			5326.00	
Safety Joint	2.00		Fluid	5328.00	
Top Packer	5.00			5333.00	
Packer	5.00			5338.00	29.00 Bottom Of Top Packer
Anchor	35.00			5373.00	
Recorder	0.00	9119	Inside	5373.00	
Recorder	0.00	9139	Outside	5373.00	
Bullnose	5.00			5378.00	40.00 Anchor Tool
Total Tool Length:	69.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

FALCON EXPLORATION INC.
 125 NORTH MARKET SUITE 1252
 ATTN: DAVE WILLIAMS

35-27S-30W GRAY
CHESTER-REXFORD 1-35
 Job Ticket: 01245 **DST#: 7**
 Test Start: 2015.10.22 @ 09:41:00

Mud and Cushion Information

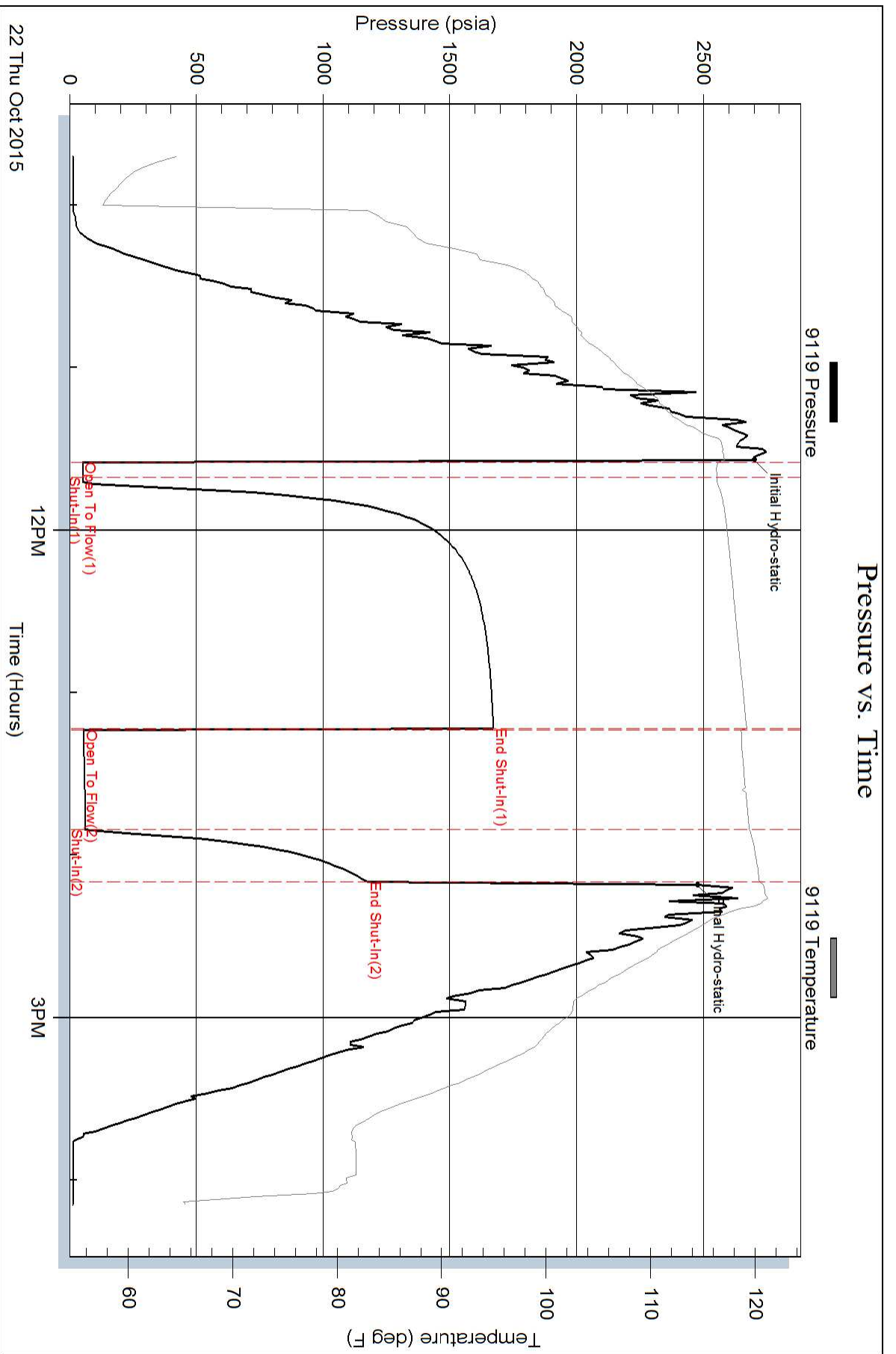
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 1900.00 ppm			
Filter Cake: 1.00 inches			

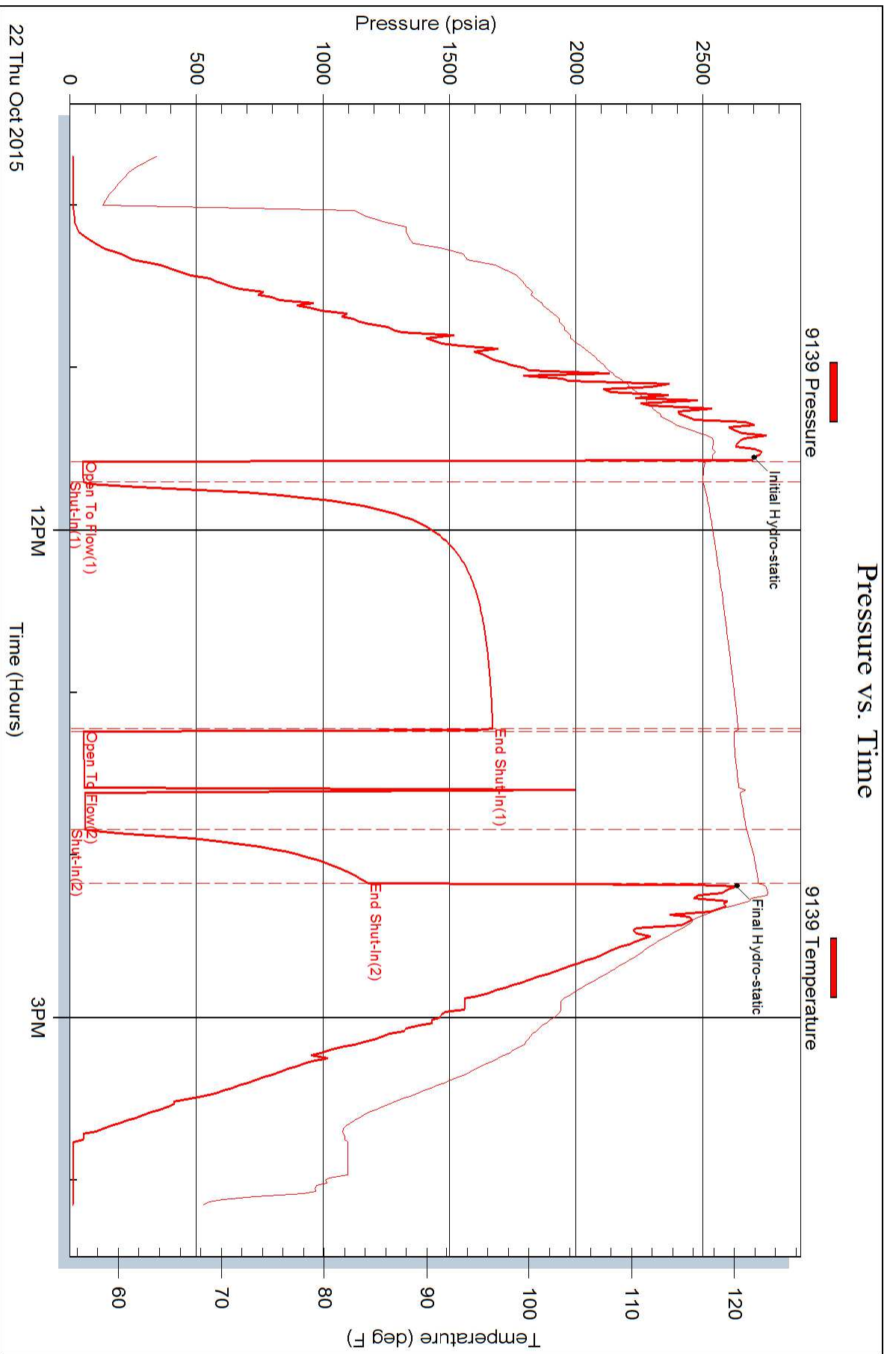
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	DRILLING MUD	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







**Scale 1:240 (5"=100') Imperial
Measured Depth Log**

Well Name: CHESTER REXFORD #1-35 (NE)
API: #15-069-20,495-00-00
Location: SE-SE-NE 1/4 of SEC. 35 - 27 S.-30 W.
License Number: KCC #5316
Spud Date: 10/07/2015
Surface Coordinates: SPOT: 2310' FNL & 330' FEL

Region: GRAY CO., KS.
Drilling Completed: 10/23/2015

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2792' **K.B. Elevation (ft):** 2805'
Logged Interval (ft): 1829' **To:** 5450' **Total Depth (ft):** 5450'
Formation: MISSISSIPPAN "SALEM (SPERGEN)"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 3183'.

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Falcon Exploration, Inc.; KCC LIC. NO. # 5316
Address: 125 North Market Street, Ste. #1252
Wichita, Kansas 67202

GEOLOGIST

Name: David P. Williams, P. G.
Company: DW Energy, LLC (DWE)
Address: 312 North Broadview Street
Wichita, Kansas 67208

CASING & DEVIATION SURVEY'S

Surface Casing: Spud at 8:45 PM on 10/07/15. Drilled 12-1/4" hole to 1833'. Ran 43 joints of new 24#, 8-5/8" casing. Tallied 1810.29', set at 1828.79' KB. Welded straps on GS & bottom 3 joints, tacked all collars. Float insert in top of 1st collar. Baskets on #2 & #7. Centralizers (5) 1,3,12,25,33. Cemented with 400 sacks A-Con: 3% CC; 1/4# Poly, then tailed with 150 sks Common Class A; 2% CC, 1/4# poly. Plug down at 1:15 AM on 10/10/15. Basic Energy Services Ticket #06557. Cement did circulate to surface.

Deviation Survey's: @ 1833' = 1 degree; @ 3525' = 1 degree; @ 3525' = 1 degree; @ 4137' = 3/4 degree; @ 4845' = 1/2 degree;

DSTs

~~ DST #1 ~ Interval: 3449'-3525'. Times: 5"-90"-75"-120". Blow: IF= Fair Inc to BOB/5". No Blow Back During ISIP. FF= BOB/Instant & GTS/36". Fair Blowback During FSIP. Recovery: 65' Drilling Mud. Gas Gauge= @ 50"=5.89 Mcf; @ 60"=8.89 Mcf; @ 70"=8.89 Mcf (Gas Will Burn). Pressures: IH=1686#; FH=1671#; IF=66-64#; FF=69-75#; ISIP= 947#; FSIP=945#; Temp.=104 degrees F..

~~ DST # 2 ~ Interval: 3540'-3560'. Times: 5"-90"-18"-15" Blow: IF V. Weak Surface = 1/4"/ Died/4.5"; FF= No Blow-Flushed Tool @ 10" (Had Good Surge) & No Blow. Recovery: 0' Drilling Mud (Fluid At Top Of Tool). Pressures: IH=1685#; IH=1678#; IF=34-35#; FF=54-36#; ISIP= 54#; FSIP=38#; Temp.=101 degrees F..

~~ DST #3 ~ Interval: 4106'-4136'. Blow: 5"-90"-81"-150"; Blow: IF= Strong/ BOB /30" Sec. No Blow Back During ISIP. FF= Strong Blow BOB/GTS @ 8"(See Gas Gauge Below). Good Blow Back During FSIP. Rec: 850' TF: (700' Wtr) & 150' Drilling Mud. Pressures: IH=2045#; FH=2012#; IF=249-105#; FF=187-433#; ISIP=1230#; FSIP=1220#; Chl.=68,000 Ppm; Temp.=113 degrees F.; RW= 0.07 @ 113 degrees F.. FF Gas Gauge:@ 10"=21.95 Mcf; @ 20"=28.07 Mcf; @ 30"=34.36 Mcf; @ 40"=33.31 Mcf; @ 50"= 31.81 Mcf; @ 60"=28.07 Mcf; @ 70"=26.57 Mcf; Gas Will Burn (w/Blue FlameTip).

~~ DST # 4 ~ Interval: 4815'- 4845'. Times: 5"-60"-20"-20" Blow: IF V. Weak Surface = 1/4" Died/3"; FF= No Blow-Flushed Tool @ 10" (Twice w/Good Surges) & No Blow. Recovery: 5' Drilling Mud. Note: FF & FSIP Are INVALID (At End Of ISIP the DST Tool Was Over-Rotated Causing The Tool To Go Into FSIP Mode). Therefore, FF & FSIP Pressures Are Invalid. Pressures: IH=2402#; FH=2266#; IF=44-45#; FF=Invalid; ISIP= 1442#; FSIP= Invalid; Temp.=114 degrees F..


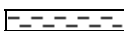

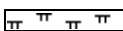
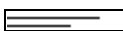
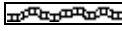




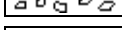



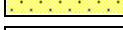
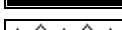


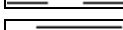
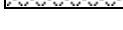




~~ DST # 5 ~ Interval: 5150'- 5251' Times: 5"-90"-30"-20" Blow: IF V. Weak Surface Blow; FF= No Blow-Flushed Tool @ 10" (w/Good Surge) & No Blow. Recovery: 30' Drilling Mud. Pressures: IH =2603#; FH=2548#; IF=80-82#; FF=86-96#; ISIP= 1602#; FSIP=1203#; Temp.=122 degrees F..

~~ DST #6 ~ Interval: 5150'- 5251'. Times: 5"-60"-20"-20". Blow: IF V. Weak Surface Blow/4.5" & Died; ISIP=No Blow Back. FF= No Blow-Flushed Tool @ 10" (w/Good Surge) & No Blow. FSIP=No Blow Back. Recovery: 15' Drilling Mud. Pressures: IH=2679#; FH=2662#; IF=43-44#; FF=46-49#; ISIP= 1570#; FSIP=1352#; Temp.=120 degrees F..

~~ DST # 7 ~ Interval: 5338'- 5278'. Times: 7"-90"-39"-20" Blow: IF V. Weak Surface Blow; ISIP= No Blow Back. FF= No Blow-Flushed Tool @ 10" (w/Good Surge) & No Blow. FSIP= No Blow Back. Recovery: 15' Drilling Mud. Pressures: IH= 2701#; FH= 2632#; IF=52-53#; FF=56-60#; ISIP=1671#; FSIP= 1176#; Temp.=123 degrees F..

Comments

ROCK TYPES

	Anhy		Clyst		Gry shale		Mrlst		Shgy
	Bent		Coal		Gyp		Red shale		Sltst
	Brec		Congl		Igne		Salt		Ss
	Carb sh		Dol		Lmst		Shale		Till
	Cht		Grn sh		Meta		Shcol		

ACCESSORIES

- MINERAL**
- Anhy
 - Arggrn
 - Arg
 - Bent
 - Bit
 - Breclfrag
 - Calc
 - Carb
 - Chtdk
 - Chtlt
 - Dol
 - Feldspar
 - Ferrpel
 - Ferr
 - Glau
 - Gyp

- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

- FOSSIL**
- Algae
 - Amph

- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Fuss
- Gastro
- Oolite
- Oomold
- Ostra
- Pelec

- Pellet
- Pisolite
- Plant
- Strom

- STRINGER**
- Anhy
 - Arg
 - Bent
 - Coal
 - Dol
 - Gyp
 - Ls
 - Mrst
 - Sltstrg
 - Ssstrg

- TEXTURE**
- Boundst
 - Chalky
 - Cryxln
 - Earthy
 - Finexln
 - Grainst
 - Lithogr
 - Microxln
 - Mudst
 - Packst
 - Wackest

OTHER SYMBOLS

- POROSITY**
- Earthy
 - Fenest
 - Fracture
 - Inter
 - Moldic
 - Organic
 - Pinpoint

- Ø (porosity)
- Vuggy

- SORTING**
- Well
 - Moderate
 - Poor

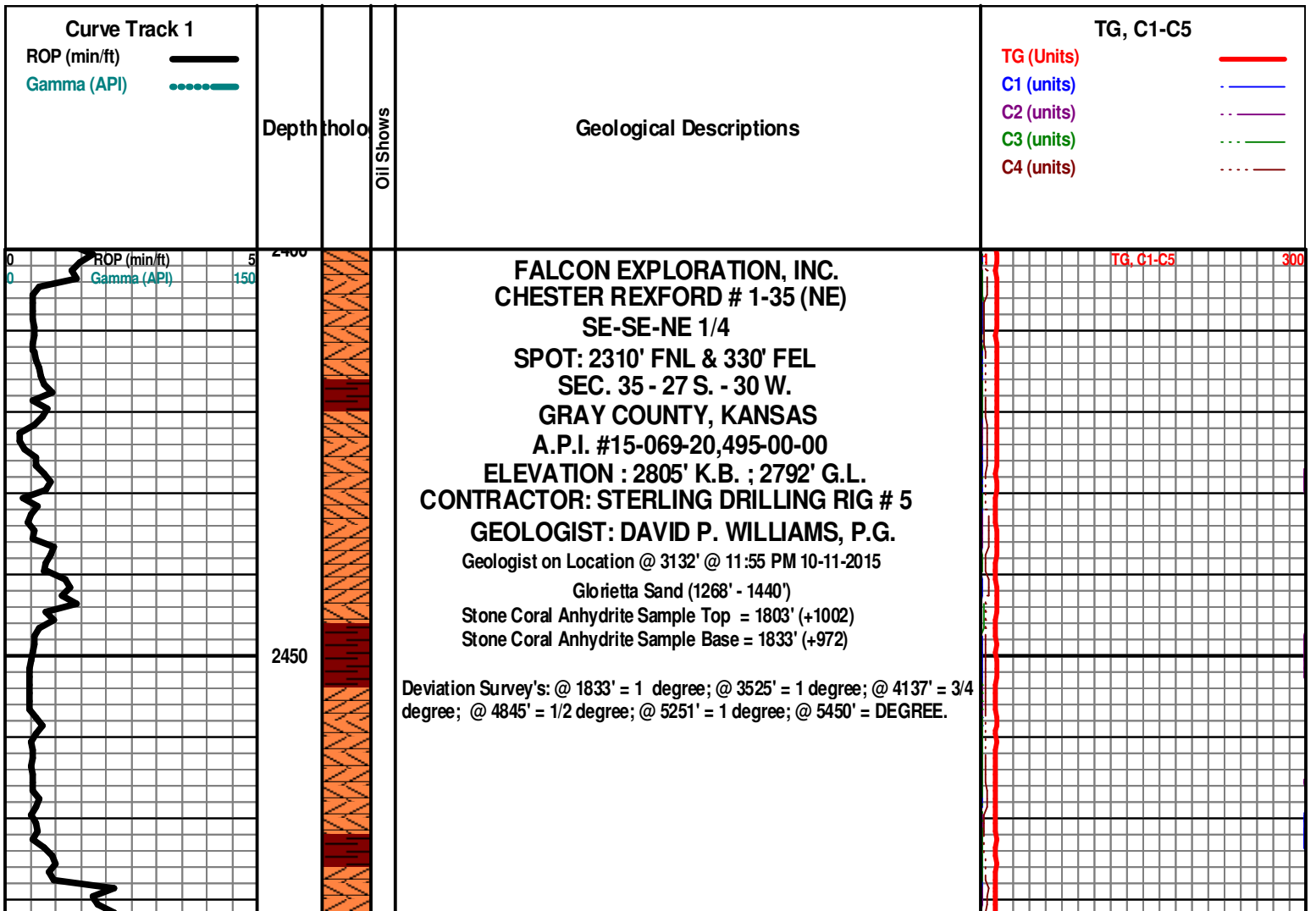
- ROUNDING**
- Rounded
 - Subrnd
 - Subang
 - Angular

- OIL SHOW**
- Gas show

- Even
- Spotted
- Ques
- Dead

- INTERVAL**
- Dst
 - Dst_alt

- EVENT**
- Rft
 - Sidewall



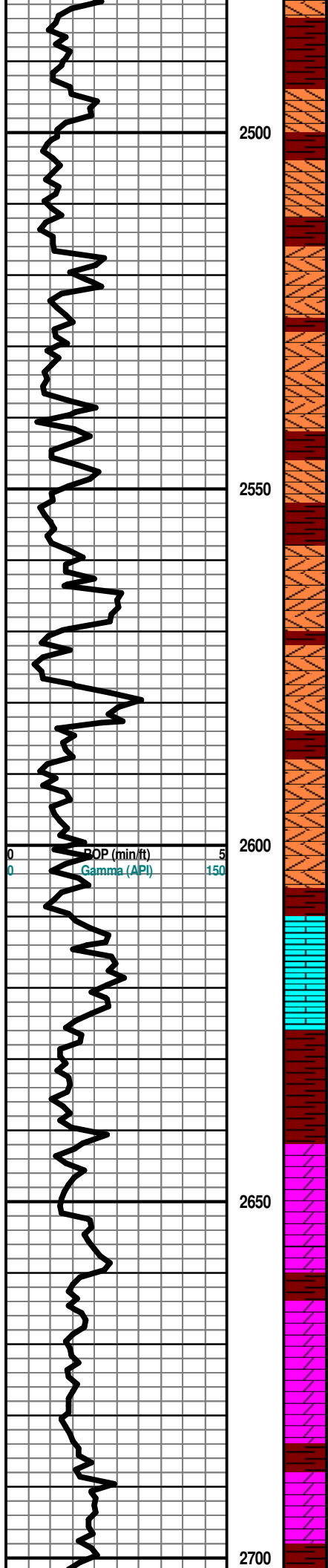
2500

2550

2600

2650

2700



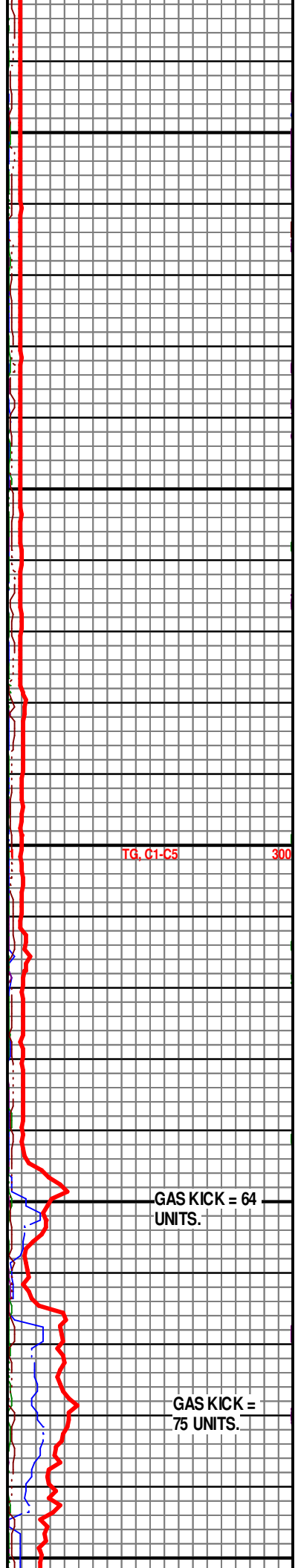
CHASE GROUP 2642' (+ 163)

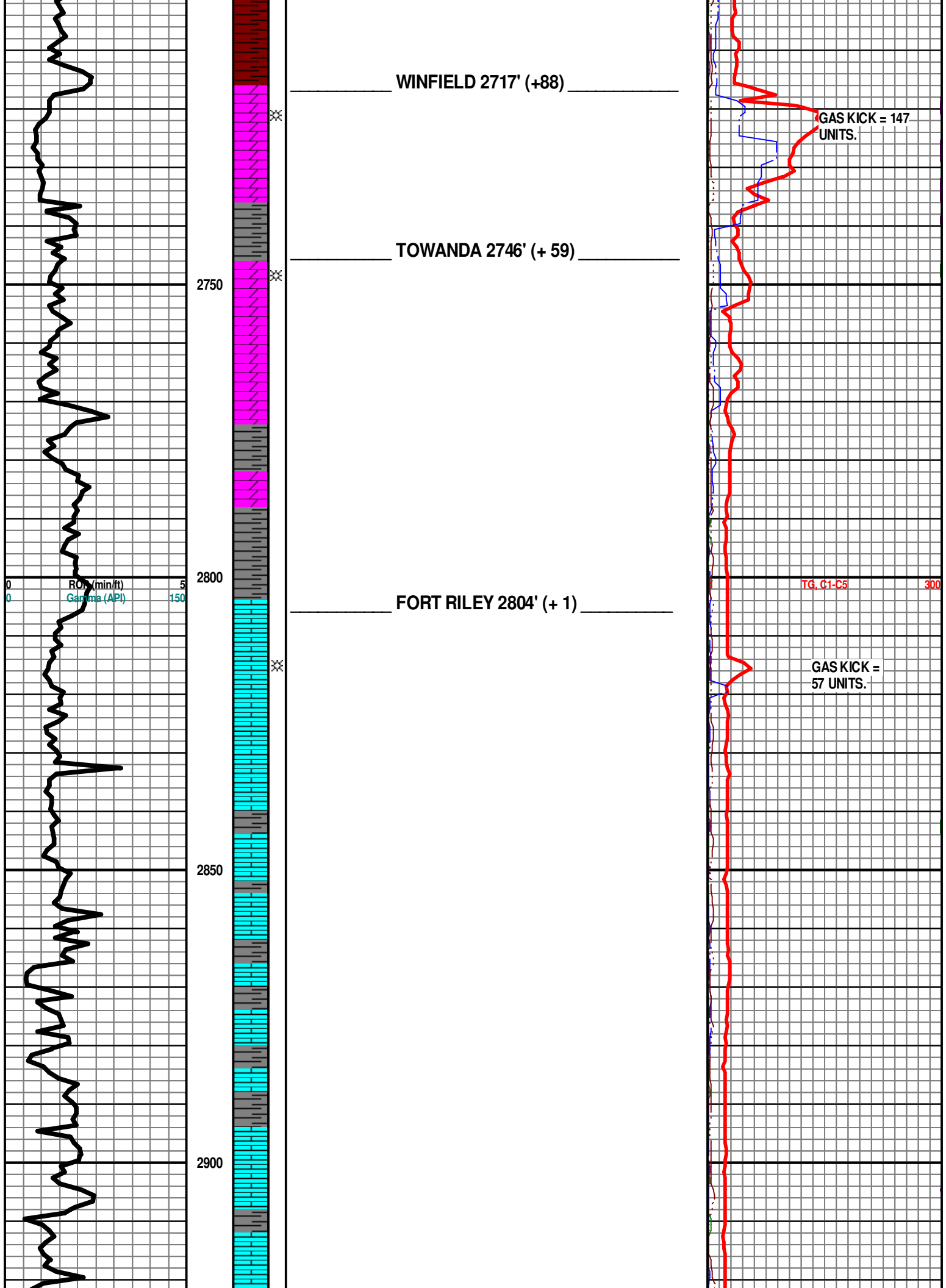
KRIDER 2660' (+ 145)

TG, C1-C5 300

GAS KICK = 64 UNITS.

GAS KICK = 75 UNITS.





WINFIELD 2717' (+88)

GAS KICK = 147 UNITS.

TOWANDA 2746' (+ 59)

2750

2800

FORT RILEY 2804' (+ 1)

TG, C1-C5 300

GAS KICK = 57 UNITS.

2850

2900

RO (min/ft)
Gamma (API)

5
150

2950

3000

3050

3100

WREFORD 2986' (- 181)

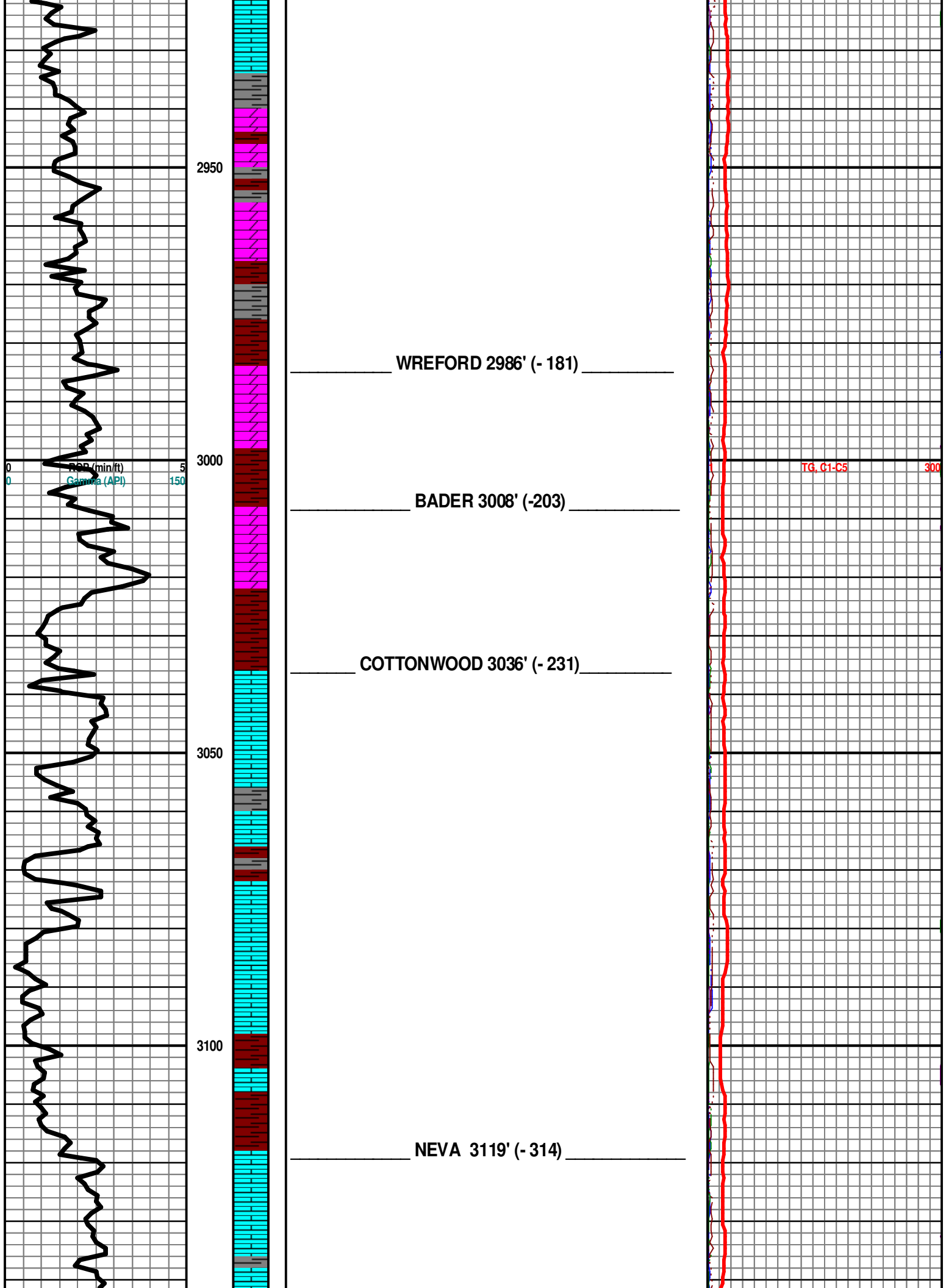
BADER 3008' (-203)

COTTONWOOD 3036' (- 231)

NEVA 3119' (- 314)

TG, C1-C5

300



3150
3200
3250
3300
3350

RED EAGLE 3172' (- 367)

BASE COUNCIL GROVE 3204' (- 399)

FORAKER 3248' (- 443)

ADMIRE GROUP 3350' (- 545)

Displaced mud system at 3183'.

TG, C1-C5 300

Mudco Ck @
3405' @ 9:15 AM
10/12/15
Vis = 56;
WT = 8.7#;
PV = 17;
YP = 18;
WL = 8.0;
Cake = 1;
Chl = 3,400;
Cal = 20;
Sol = 2.7%
LCM = 2#;
DMC = \$3,972.48;
CMC = \$17,280.15

~ ~ DST # 1 ~ ~
Interval: 3449'-3525'
Times: 5'-90''-75''-120''

ROP (min/ft) 5
Gamma (API) 150

Scale Change
ROP (min/ft) 10
Gamma (API) 150

Note: All Samples Have Been Lagged To Depth By Calculated Time.

START 10' SAMPLE EXAMINATION AT 3400'.

Ls Wht-Crm-Gry Microxln-Fxln Poor OOM Ø (w/Small OOL in pl) Poor Devel Chalky Cht Gry Op Shp Vit Fos (Crin) Chalk (Abd) Sh Gry-Char Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Gry Fxln Med OOM Ø (w/Small Leached OOL in pl) Fair-Med Devel Cht Gry Op (w/Spicule Includ) Shp Vit Chalk (Abd) Sh Gry-Char Soft No Odor No Flor No Stn NS

Ls Crm-Tan Microxln Dns Micrite Cht Gry Op (w/Spicule Includ) Shp Vit Chalk (Abd) Sh Gry-Char Soft No Odor No Flor No Stn NS

Ls Crm-Tan Microxln-Fxln Dns Micrite Grad Poor Ixln Ø Cht Gry Op (w/Spicule Includ) Shp Vit Chalk (Abd) Sh Gry-Char Soft No Odor No Flor No Stn NS

Ls Crm-Tan Microxln Dns Micrite Grad Fxln Poor OOM Ø (w/Poor Tr Leached OOL in pl) Poor Devel Cht Gry Op (w/Spicule Includ) Shp Vit Chalk (Abd) Sh Gry-Char Soft No Odor No Flor No Stn NS

Ls Crm-Tan-Lt Brn Microxln Dns Micrite Grad Fxln Poor-Fair Ixln & OOM Ø (w/Tr Fair Leached OOL in pl) Fair Devel Fos (Fuss) Chalky Sh Gry-Char Soft No Odor No Flor No Stn NS

Ls Crm-Tan-Lt Brn Microxln Dns Micrite Grad Fxln Poor Ixln & OOM Ø (w/Poor-Fair Leached OOL in pl) Poor Devel Chalky Sh Maroon (Wash Red)-Gry-Char Soft No Odor No Flor No Stn NS

ROOT SHALE 3456' (-651)

Sh Gry (V Abd)-Maroon (Wash Red) Soft Ls Crm-Tan-Lt Brn Microxln Dns Micrite Chalky No Odor No Flor No Stn NS

Sh Gry (V Abd)-Maroon (Wash Red) Soft Ls Crm-Tan-Lt Brn Microxln Dns Micrite Chalky No Odor No Flor No Stn NS

Sh Gry (V Abd)-Maroon (Wash Red) Soft Ls Crm-Tan-Lt Brn Microxln Dns Micrite Chalky No Odor No Flor No Stn NS

Sh Gry (V Abd)-Maroon (Wash Red) Soft Ls Crm-Tan-Lt Brn Microxln Dns Micrite Chalky No Odor No Flor No Stn NS

STOTLER 3486' (-681)

30" CFS @ 3525' Ls Wht-Crm-Gry Microxln Dns Micrite Grad Fxln Poor-Fair Ixln Ø Grad Fair OOM Ø (w/Small Leached OOids in pl) Poor-Fair Leaching Poor-Fair Develop Fair Dissolu Chalk Scat Flor (Lt Grn > 15% of Tray) Fos (Fuss) Sh Char-Gry-Red-No Odor No Stn NS

60" CFS @ 3525' Ls Wht-Crm-Gry Microxln Dns Micrite Grad Fxln Poor-Fair Ixln Ø Grad Fair OOM Ø (w/Small Leached OOids in pl) Poor Leaching Poor Develop Poor Dissolu ? Frac Ø Cht Wht-Gry (w Spicule Includ) Chalk Scat Flor (Lt Grn > 20% of Tray) Sh Char-Gry-Red-No Odor No Stn SSG

TARKIO 3534' (-729)

30" CFS @ 3560' Ls Wht-Crm-Gry Microxln Dns Micrite Grad Fxln Poor Ixln Ø ? Frac Ø Cht Gry Op Shp Vit Chalky Fos (Crin) Faint ? Scat Flor (Lt Grn > 10% of Tray) Sh Char-Gry Sli ? Odor No Stn SSG

60" CFS @ 3560' s Wht-Crm-Gry Microxln Dns Micrite Grad Fxln Poor Ixln Ø ? Frac Ø Cht Gry Op Shp Vit Chalky Faint ? Scat Flor (Lt Grn > 10% of Tray) Sh Char-Gry Sli ? Odor No Stn SSG

Ls Crm-Tan Microxln Dns Micrite Chalk (Abd) Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Crm-Tan Microxln Dns Micrite Chalk (V Abd) Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

Blow: IF= Fair Inc to BOB/5'. No Blow Back During ISIP. FF= BOB/Instant & GTS/36". Fair Blowback During FSIP. Recovery: 65' Drilling Mud.

Gas Gauges=
@ 50" = 5.89 Mcf;
@ 60" = 8.89 Mcf;
@ 70" = 8.89 Mcf;
(Gas Will Burn).

Pressures:
IH = 1686#;
FH = 1671#;
IF = 66-64#;
FF = 69-75#;
ISIP = 947#;
FSIP = 945#;
Temp. = 104 degrees F..

@ 3548' Re- Adjust Tooke Daq Sample Flow From DST # 1 (0-1500 Gas Units On (Main Flow= .5 on Sample Flow=1.0 on Dilution Flow) Back to Normal (0-500 Units=1.5 Sample Flow=0.0).

~DST # 2~
Interval: 3540'- 3560"
Times: 5"-90"-18"-15"
Blow: IF V. Weak
Surface = 1/4" Inc./
Died/4.5"; FF= No
Blow-Flushed Tool @ 10"
(Had Good Surge) & No Blow.
Recovery: 0' Drilling Mud (Fluid At Top Of Tool).

Pressures:
IH = 1685#;
FH = 1678#;
IF = 34-35#;
FF = 54-36#;
ISIP = 54#;
FSIP = 38#;
Temp. = 101 degrees F..

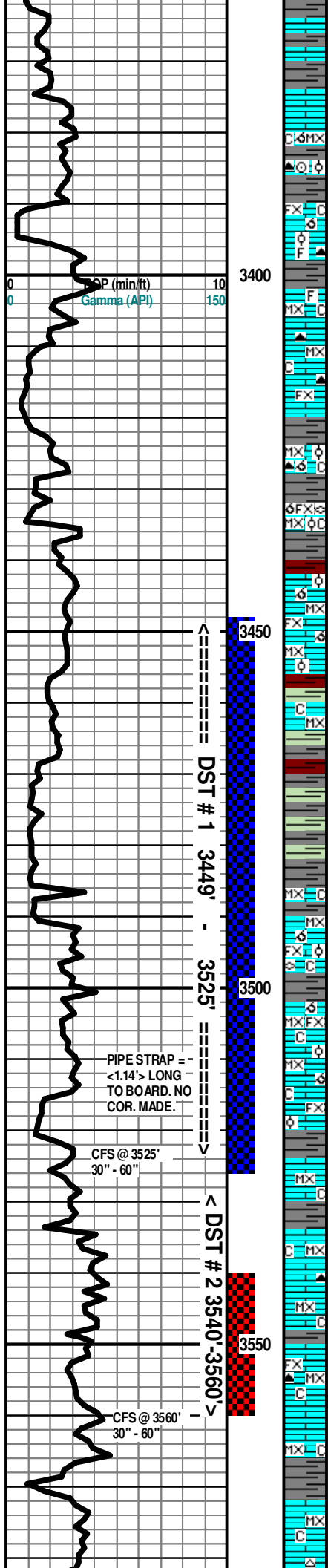
GAS BKGD = 48 UNITS.

GAS KICK = 175 UNITS.

GAS KICK = 235 UNITS.

GAS KICK = 222 UNITS.

Mudco Ck @ 3560'
@ 12:20 PM
10/13/15
Vis = 68;
WT = 8.7#;
PV = 18;
YP = 20;



DP (min/ft) 10
Gamma (API) 150

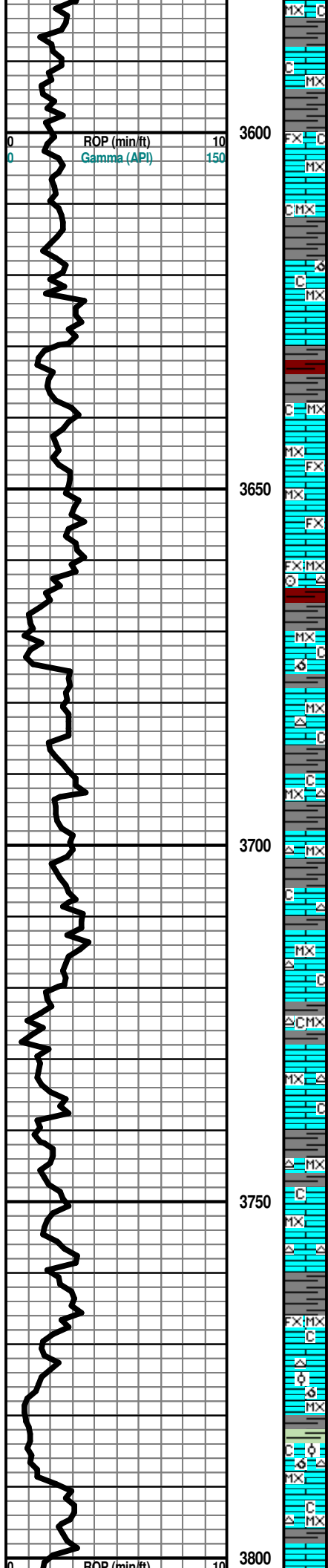
DST # 1 3449' - 3525'

DST # 2 3540'-3560'

PIPE STRAP = <1.14'> LONG TO BOARD. NO COR. MADE.

CFS @ 3525' 30" - 60"

CFS @ 3560' 30" - 60"



Ls Crm-Tan MicroxIn Dns Micrite Cht Crm-Tan Op Shp Vit Chalk (Abd) Sh
 Grn-Gry Soft No Flor No Odor No Stn NS

Ls Crm-Tan MicroxIn Dns Micrite Chalk (V Abd) Sh Char-Grn-Gry Soft No
 Flor No Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Chalk (V Abd)
 Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Grad Poor
 OOM Ø (Tr/Poor Leaching) Chalk (Abd) Sh Char-Grn-Gry Soft No Flor No
 Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Chalk (Abd)
 Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

Sh Char-Grn-Gry-Maroon Soft Ls Wht-Crm-Tan MicroxIn Dns Micrite Grad
 FxIn Poor lxIn Ø Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Wht-Crm-Tan-Gry MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Chalk
 (Abd) Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Fos (Crin)
 Chalk Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

Sh Char-Grn-Gry-Maroon Soft Ls Wht-Crm-Tan MicroxIn Dns Micrite Grad
 FxIn Poor lxIn Ø Cht Wht-Gry Translu-Op Shp Vit (w/Fos Inclus) Fos (Crin)
 Sh Char-Grn-Gry Soft No Flor No Odor No Stn NS

BERN 3672' (- 867)

Ls Crm-Gry MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Grad Poor OOM Ø
 (Tr/V Poor Leaching) Chalk (Abd) Sh Char-Grn-Gry Soft No Flor No Odor
 No Stn NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Wht Op Shp Vit Chalk Sh
 Gry-Char Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Wht Op Shp Vit Chalk Sh
 Gry-Char Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Wht Op Shp Vit Chalk Sh
 Gry-Char Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Chalk Sh
 Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Cht Tan Op Shp Vit Chalk Sh
 Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Cht Tan Op Shp Vit Chalk Sh
 Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Cht Tan Op Shp Vit Chalk Sh
 Char-Grn-Gry Soft No Flor No Odor No Stn NS

Ls Wht-Crm-Tan MicroxIn Dns Micrite Cht Tan Op Shp Vit Chalk Sh
 Char-Grn-Gry Soft No Flor No Odor No Stn NS

Sh Char-Grn-Gry Ls Wht-Crm-Tan MicroxIn Dns Micrite Cht Tan Op Shp
 Vit Chalk No Flor No Odor No Stn NS

TOPEKA 3767' (- 962)

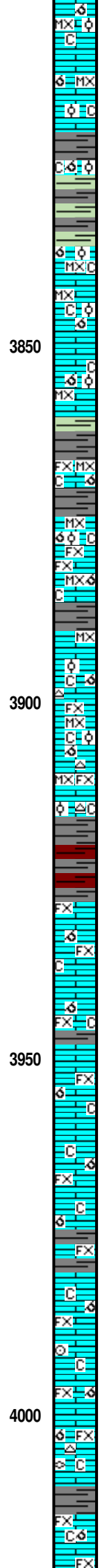
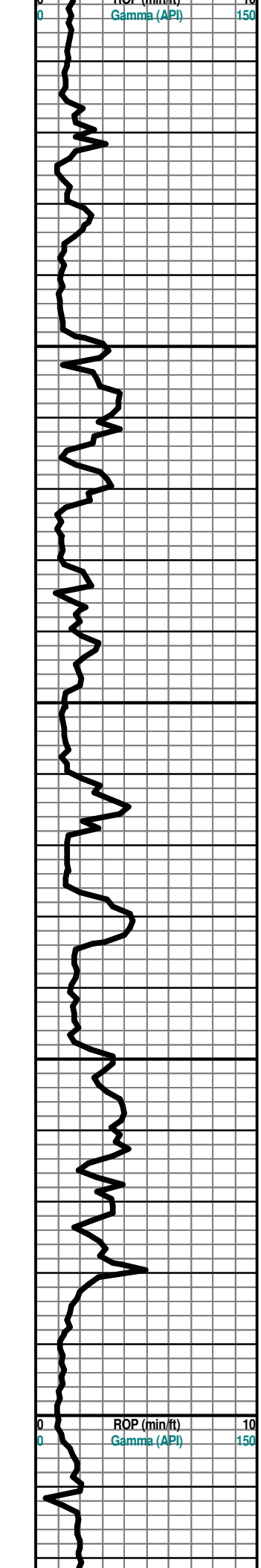
Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Grad Poor
 OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Vit Chalk Sh Gry-Grn Fissil
 Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Grad Poor
 OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Chalk Vit Sh Gry-Grn Fissil
 Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Chalk Cht Wht Op Shp Vit Sh Gry-Grn
 Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor lxIn Ø Grad Poor

WL = 10.0;
 Cake = 1;
 Chl = 4,200;
 Cal = 60;
 Sol = 2.7%
 LCM = 2#;
 DMC = \$477.19;
 CMC = \$17,757.34



Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Chalk Cht Wht Op Shp Vit Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Chalk Cht Wht Op Shp Vit Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Sh Gry-Grn Fissil Soft Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Chalk Cht Wht Op Shp Vit No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Vit Chalk Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Vit Chalk Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Vit Chalk Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Vit Chalk Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Vit Chalk Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Sh Gry-Grn Fissil Soft Ls Wht-Crm MicroxIn Dns Micrite Grad FxIn Poor IxIn Ø Grad Poor OOL/OOM Ø Poor Dissolu Cht Wht Op Shp Vit Chalk No Odor No Flor No Stn NS

LeCOMPTON 3916' (- 1111)

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Ø (w/Poor-Fair Dis Poor Develop) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Ø (w/Poor-Fair Dis Poor Develop) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Ø (w/Poor-Fair Dis Poor Develop) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

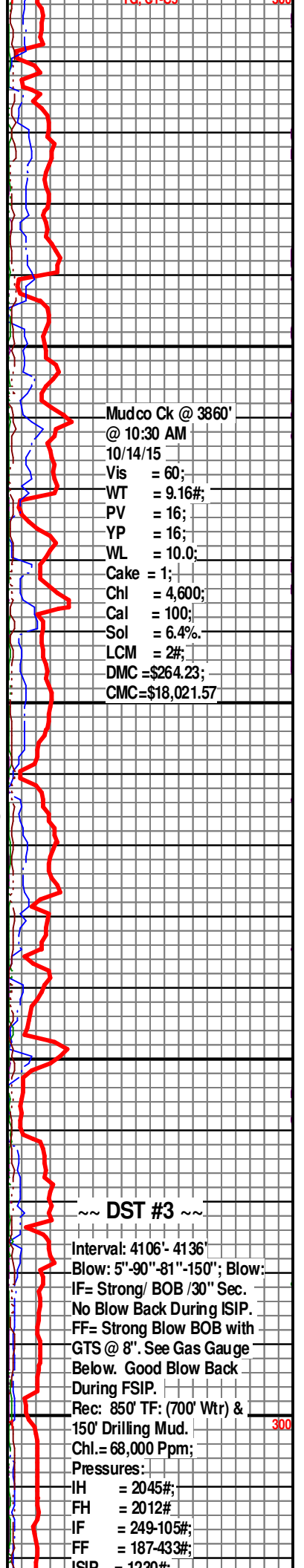
Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Ø (w/Poor-Fair Dis Poor Develop) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Ø (w/Poor-Fair Dis Poor Develop) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Poor OOM Ø (w/Poor Disolu & Poor Develop) Fos (Crin) Chalk Sh Red-Char-Aqua Fissil No Flor No Odor NS

Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Poor OOM Ø (w/Poor Dis & Poor Develop) Cht Tan Op Shp Vit Fos (Fuss) Chalk Sh Red-Grn-Char Fissil No Flor No Odor NS

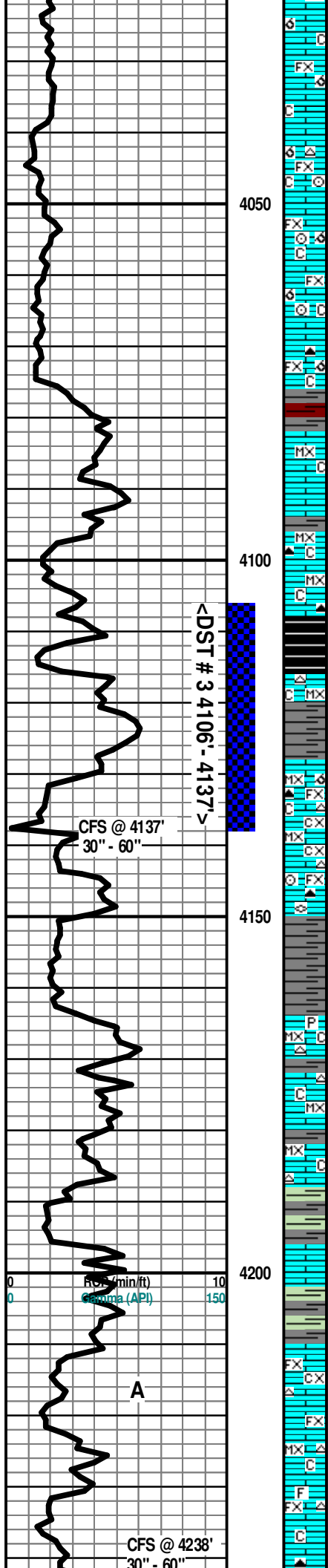
Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Poor-Fair OOM Ø (w/Poor Dissolu & Poor Develop) Cht Crm Op Shp Vit Chalk Sh Red-Gry-Char Fissil No Flor No Odor NS



Mudco Ck @ 3860'
 @ 10:30 AM
 10/14/15
 Vis = 60;
 WT = 9.16#;
 PV = 16;
 YP = 16;
 WL = 10.0;
 Cake = 1;
 Chl = 4,600;
 Cal = 100;
 Sol = 6.4%.
 LCM = 2#;
 DMC=\$264.23;
 CMC=\$18,021.57

~ ~ DST #3 ~ ~

Interval: 4106' - 4136'
 Blow: 5"-90"-81"-150"; Blow:
 IF= Strong/ BOB /30" Sec.
 No Blow Back During ISIP.
 FF= Strong Blow BOB with
 GTS @ 8". See Gas Gauge
 Below. Good Blow Back
 During FSIP.
 Rec: 850' TF: (700' Wtr) &
 150' Drilling Mud. 300
 Chl.= 68,000 Ppm;
 Pressures:
 IH = 2045#;
 FH = 2012#
 IF = 249-105#;
 FF = 187-433#;
 ISIP = 1220#;



Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Ø
(w/Poor-Fair Dissolu & Poor Develop) Chalk Sh Red-Grn-Char Fissil No Flor No Odor NS

Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Ø
(w/Poor-Fair Dissolu & Poor Develop) Chalk Sh Red-Grn-Char Fissil No Flor No Odor NS

Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Fair OOM Ø (w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Red-Grn- Char Fissil No Flor No Odor NS

Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Fair OOM Ø (w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Red-Grn- Char Fissil No Flor No Odor NS

Ls Crm-Tan FxIn Fair-Med IxIn Gran Por Grad Fair OOM Ø (w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Red-Grn- Char Fissil No Flor No Odor NS

Sh Char-Gry Fissil (Abd) Ls Crm-Tan FxIn Fair IxIn Gran Grad Fair OOM Ø (w/Poor-Fair Dissolu & Poor Develop) Cht Drk Gry Op Shp Vit Chalk Fissil No Flor No Odor NS

Ls Crm-Tan MicroIn Dns Micrite Chalk Sh Red-Grn-Char Fissil No Flor No Odor NS

Ls Crm-Tan MicroIn Dns Micrite Cht Blk Op Shp Vit Chalk Sh Red-Grn-Char Fissil No Flor No Odor NS

Ls Crm-Tan MicroIn Dns Micrite Cht Blk Op Shp Vit Chalk Sh Red-Grn-Char Fissil Scat No Flor No Odor NS

HEEBNER 4108' (- 1303)

Sh Bk Carb Fissil (w/SSG) Ls AA Cht Drk Blk Op Shp Vit Fos (Crin) Chalk No Odor No Stn No Flor NS

30" CFS @ 4137' Ls Crm-Gry MicroIn Dns Micrite Cht Wht Translu-Op Shp Vit Chalk (V Abd-Gummy) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

TORONTO 4128' (-1323')

60" CFS @ 4137' Ls Wht-Crm MicroIn Dns Micrite Grad FxIn Fair-Med IxIn & OOM Ø (Tr/Small Vug Leaching in Dry Spls) (V Soft) Cht Wht-Drk Char Translu-Op Shp Vit Chalky Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Stn Fair (Lt Grn Flor Flor (>30% (+/-) in Tray) ? SSG

Ls Wht-Crm MicroIn AA Grad FxIn Med IxIn (? Sucrosic) Ø (Soft) Cht Wht-Drk Char Op Shp Vit Fos (Crin, Fuss) Chalk Sh Char-Gry-Lt Aqua Soft-Fissil No Odor No Stn Fair No Flor NS

DOUGLAS 4150' (- 13)

Sh Char-Gry-Lt Aqua Soft-Fissil Ls Wht-Crm-Tan-Gry MicroIn AA Grad FxIn Med IxIn Ø AA Cht Wht-Blk Op Shp Vit Pyr Mass Fos (Brach) Chalk No Odor No Stn Fair No Flor NS

Sh Char-Grn/Gry-Lt Aqua Soft (Gummy)-Fissil Ls Wht-Crm-Tan- Gry MicroIn AA Cht Wht Op Shp Vit Pyr Mass Fos (Crin) Chalk No Odor No Stn Fair No Flor NS

Ls Crm-Tan MicroIn Dns Micrite Cht Wht Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry MicroIn Dns Micrite Cht Wht-Tan Op Shp Vit Chalk Sh Char-Gry-Maroon Soft-Fissil No Odor No Stn No Flor NS

Sh Char-Gry Soft Fissil Ls Crm-Tan-Gry MicroIn Dns Micrite AA No Odor No Stn No Flor NS

IATAN 4196' (- 1391)

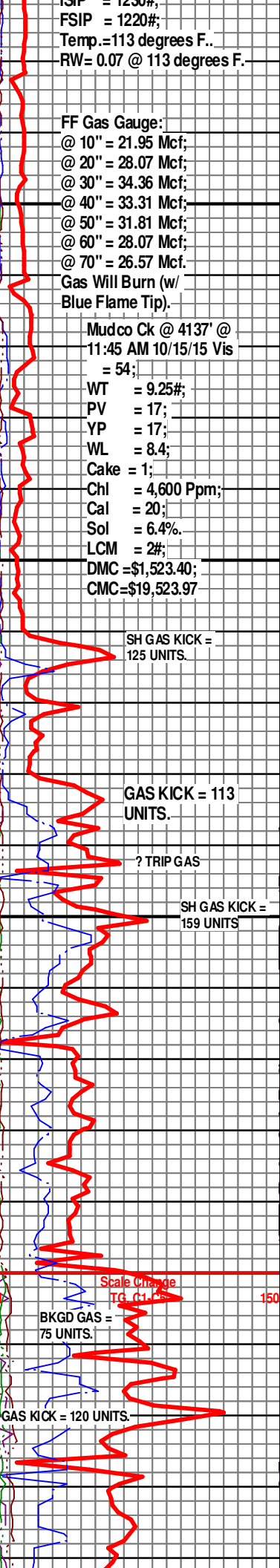
Sh Char-Gry Soft-Fissil Ls Crm-Gry MicroIn Dns Micrite Cht Drk Gry Op Shp Vit No Odor No Stn No Flor NS

LANSING 4210' (- 1405)

Ls Crm FxIn Poor-Fair IxIn Ø (w/Small Vug Leaching & Fos (Brach, Spicule) Inlus) (w/SSG (Under Heat in Wtr) Grad Poor OOL Ø (w/Small Ooids in pl) Poor Leaching Cht Wht-Tan Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Stn Fair Flor (> 20% in Tray-Lt Grn) ? Faint Odor SSG

30" CFS @ 4138' Ls Crm-Tan-Gry MicroIn Dns Micrite Grad FxIn Poor IxIn Ø Cht Wht-Tan-Gry Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Stn Fair ? Min Flor (> 15% in Tray-Lt Grn) ? Sli/No Odor NS

60" CFS @ 4138' Ls Crm FxIn Fair IxIn Ø (w/Small Vug & Fos Leaching) Fair IxIn Leaching (w/SSG When Broken Under Heat in Wtr) V Soft Cht Wht-Tan Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Stn Fair Flor (> 20% in Tray-Lt Grn) ? Sli/Faint Odor SSG



FF Gas Gauge:
 @ 10" = 21.95 Mcf;
 @ 20" = 28.07 Mcf;
 @ 30" = 34.36 Mcf;
 @ 40" = 33.31 Mcf;
 @ 50" = 31.81 Mcf;
 @ 60" = 28.07 Mcf;
 @ 70" = 26.57 Mcf.
 Gas Will Burn (w/ Blue Flame Tip).

Mudco Ck @ 4137' @ 11:45 AM 10/15/15 Vis = 54;
 WT = 9.25#;
 PV = 17;
 YP = 17;
 WL = 8.4;
 Cake = 1;
 Chl = 4,600 Ppm;
 Cal = 20;
 Sol = 6.4%.
 LCM = 2#;
 DMC = \$1,523.40;
 CMC = \$19,523.97

SH GAS KICK = 125 UNITS.

GAS KICK = 113 UNITS.

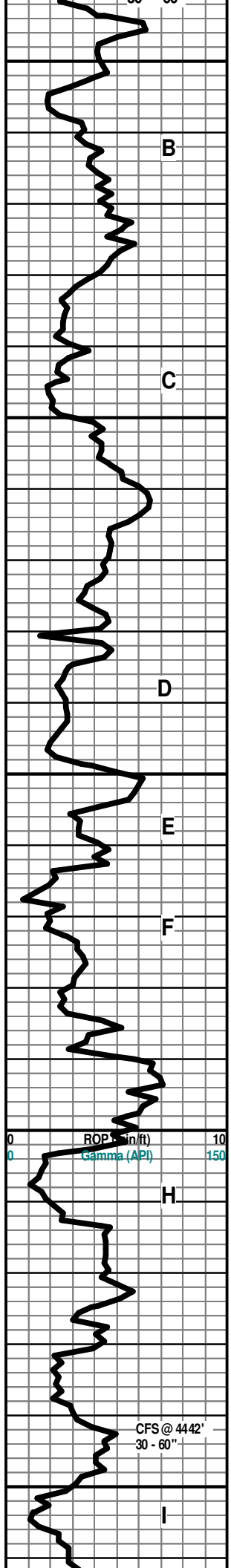
? TRIP GAS

SH GAS KICK = 159 UNITS

Scale Change 100 to 150

BKGD GAS = 75 UNITS.

GAS KICK = 120 UNITS.



4250

B

Ls Tan-Gry MicroIn Dns Micrtie Cht Drk Brn (w/Fos Incls) Op Shp Vit Chalk Sh Char-Gry-Lt Aqua Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Gry MicroIn Dns Micrtie Cht Gry Op Shp Vit Chalk Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm MicroIn Dns Micrtie Cht Wht Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan MicroIn Dns Micrtie (w/ Secondary Calc Overgroth Incls) Cht Wht Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Chalk (V ABD) Ls Crm-Tan MicroIn Dns Micrtie Cht Wht-Gry (w/Fos Incls) Op Shp Vit Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

C

Ls Crm-Tan MicroIn Dns Micrtie Cht Wht-Lt Brn-Drk Gry-Blk Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

4300

Ls Crm-Gry MicroIn Dns Micrtie Cht Wht-Drk Gry-Blk Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm MicroIn Dns Micrtie (w/Pyr Incls) Cht Drk Gry-Blk Op Shp Vit Chalk Sh Char-Gry-Blk Carb (Tr) Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm MicroIn Dns Micrtie Grad Poor OOM Ø (w/Fos (Crin) Incls) Poor Leaching Poor Develop Cht Wht Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Fxln Fair lxn Ø Cht Drk Gry-Blk (w/Fos (Fuss, Spicule) Op Shp Vit Chalk (Abd) Sh Char-Gry-Soft-Fissil No Odor No Stn No Flor NS

D

Ls Wht-Crm Fxln Fair lxn Ø Cht Drk Gry-Blk (w/Fos (Fuss, Spicule) Op Shp Vit Chalk (Abd) Sh Char-Gry-Soft-Fissil No Odor No Stn No Flor NS

4350

Ls Wht-Crm MicroIn Dns Micrtie Grad Crm-Brn Fxln Med-Good OOM Ø Med-Good Vug Leaching Med-Good Develop Cht Lt Tan Op Shp Vit Chalk (Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm MicroIn Dns Micrtie Grad Crm-Brn Fxln Med-Good OOM Ø Med-Good Vug Leaching Med-Good Develop Cht Wht-Gry Op Shp Vit Chalk (Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

E

Ls Wht-Crm Mostly MicroIn Dns Micrtie Grad Crm-Brn Fxln Med-Good OOM Ø Med-Good Vug Leaching Med-Good Develop Dec Cht Wht-Gry-Drk Brn Translu-Op Shp Vit Chalk (Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Mostly MicroIn Dns Micrtie Grad Crm-Brn Fxln Med-Good OOM Ø Med-Good Vug Leaching Med-Good Develop Dec Cht Wht-Gry-Drk Brn Translu-Op Shp Vit Chalk (Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

F

Ls Crm-Brn MicroIn Dns Micrtie Cht Wht-Gry-Drk Brn Translu-Op Shp Vit Chalk (Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

4400

Ls Wht-Crm Fxln Good OOM Ø (w/Small-Med Ooids in pl) Med- Good Vug Leaching Med-Good Dissolu & Develop (w/Good Odor & SSG (On Frac) Cht Wht-Op Shp Vit Chalk (V Abd) Sh Char-Gry-Blk Carb Soft-Fissil No Flor No Stn SSG

Ls Wht-Crm Fxln Good OOM Ø (w/Small-Med Ooids in pl) Med- Good Vug Leaching Med-Good Dissolu & Develop (w/Good Odor & ? SSG Cht Wht-Drk Gry Op Shp Vit Chalk (V Abd) Sh AA No Flor No Stn ? NS

30" CFS @ 4442' Ls Wht-Crm Fxln Good OOM Ø (w/Med-Lg Ooids in pl) Med-Vug Leaching (Some Ooid w/No Leaching) Med Dissolu & Develop (w/Fair-Good Odor) Cht Wht-Drk Gry Op Shp Vit Chalk (V Abd) Sh AA No Flor No Stn ? NS

60" CFS @ 4442' Ls Wht-Crm Mostly MicroIn Dns Micrtie Grad Crm-Brn Fxln Med-Good OOM Ø Med-Good Vug Leaching Med-Good Develop Dec Cht Wht-Gry-Drk Brn Translu-Op Shp Vit Chalk (V Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

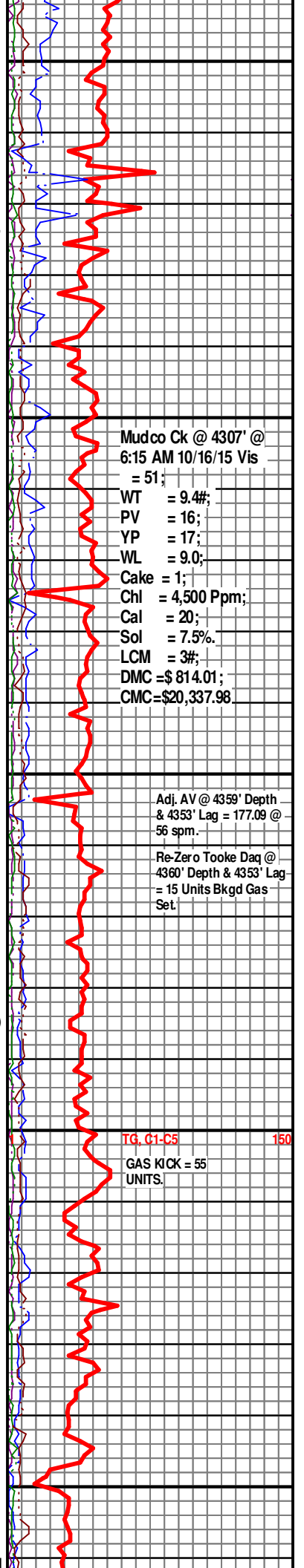
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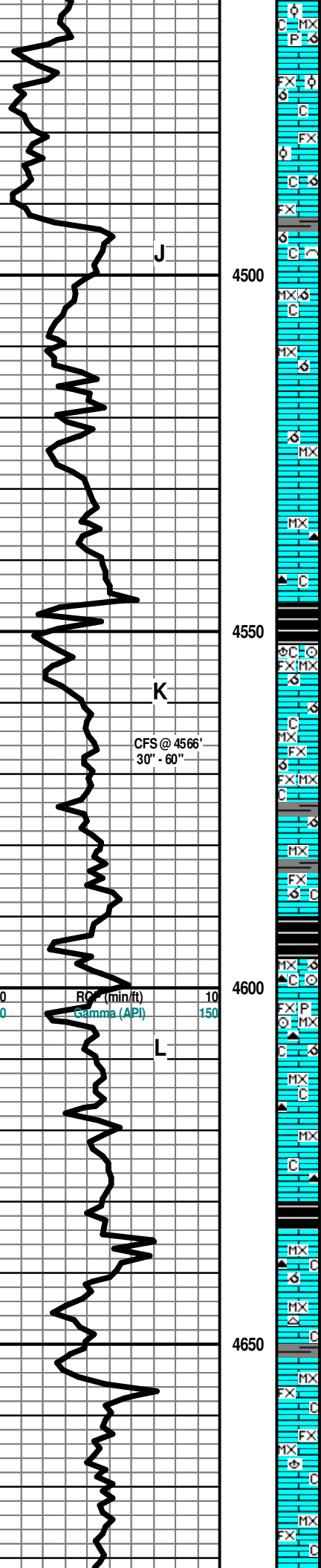
Ls Crm-Tan Mostly MicroIn Dns Micrtie (w/Pyr Incls) Barren Chalk Sh Char-Gry Soft-Fissil ? Faint Odor No Stn No Flor NS

4450

Ls Wht-Crm MicroIn Dns Micrtie AA Grad Crm-Brn Fxln Med-Good OOM Ø Med-Good Vug Leaching Med-Good Develop Cht Wht-Gry-Drk Gry Translu-Op Shp Vit Fos (Crin) Chalk Sh Char-Gry-Blk Carb (Tr Only) Fissil ? Faint Odor No Stn No Flor NS

Ls Crm-Tan-Lt Brn MicroIn Dns Micrtie AA Grad Crm-Brn Fxln Med-Good





Ls Crm-Tan Lx Grd MicroIn Dns Micrite Grad Cht Drk Gry Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

OOM Ø (w/Small-Med Ooids in pl) Med Vug Leaching (Some Non Leached Ooids in pl) Med Develop Pyr Mass Chalk Sh Char-Gry Soft-Fissil ? Faint Odor No Stn No Flor NS

Ls Crm -Tan FxIn Med-Good OOM Ø (w/Small-Med Ooids in pl) Med-Good Vug Leaching Med-Good Develop Chalk (V Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm -Tan FxIn Med-Good OOM Ø (w/Small-Med Ooids in pl) Med-Good Vug Leaching Med-Good Develop Chalk (V Abd) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan Brn FxIn Med-Good OOM Ø Med-Good Vug Leaching Med-Good Develop Grad MicroIn Dns Micrite Fos (Brach) Chalk Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Tan MicroIn Dns Micritic Grad FxIn Med-Good OOM Ø AA (? Sluff) Chalk Sh Char-Gry Soft-Fissil ? Faint Odor No Stn No Flor NS

Ls Crm-Tan MicroIn Dns Micritic Grad FxIn Med-Good OOM Ø AA (? Sluff) Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan MicroIn Dns Micritic Grad FxIn Med-Good OOM Ø AA (? Sluff) Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan MicroIn Dns Micritic Cht Drk Gry Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

STARK SHALE 4547' (- 1702)

Sh Blk Carb Fissil Ls Crm-Tan MicroIn Dns Micrite Grad FxIn Fair-Med OOM Ø Cht Drk Gry Fos Crin Chalk ? Faint Odor No Flor No Stn NS

KANSAS CITY "SWOPE" (K) 4552' (- 1707)

30" CFS @ 4566' Ls Crm-Tan MicroIn Dns Micrite (w/Pyr Inclus) Grad FxIn Fair-Med OOM Ø (w/Tr Fair Vug Leaching & Fair Develop) Cht Gry Fos (Brach, Crin) Chalky Sh Blk Carb Fissil No Odor No Flor No Stn NS

60" CFS @ 4566' Ls Crm-Tan MicroIn Dns Micrite (w/Pyr Inclus) FxIn Fair-Med OOM Ø (Tr Only) Cht Gry Chalky Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan-Gry MicroIn Dns Micritic Grad FxIn Poor OOM Ø (w/Poor Leaching & Develop) Cht Gry Op Shp Vit Chalk (Abd) Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan MicroIn Dns Micritic (w/Pyr Inclus) Grad FxIn Poor OOM Ø (w/Poor Leaching & Develop (Tr Only)) Cht Wht Translu-Op Shp Vit Chalk No Sh Present in Spl No Odor No Stn No Flor NS

HUSHPUCKNEY SHALE 4590' (- 1785)

KANSAS CITY "HERTHA" (L) 4596' (- 1791)

Sh Blk Carb Fissil Ls Crm-Tan MicroIn Dns Micrite Grad FxIn Fair OOM Ø Cht Drk Gry Fos Crin Chalk No Odor No Flor No Stn NS

Ls Crm-Tan MicroIn Dns Micrite (w/Pyr Inclus) Grad FxIn Med -Good OOM Ø (w/Tr Good Vug Leaching & Good Develop) Cht Gry Op Shp Vit Fos (Crin) Chalky Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry MicroIn Dns Micrite Cht Gry Op Shp Vit Chalky Sh Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry MicroIn Dns Micrite Cht Drk Gry (Banded Wht & V Abd) Op Shp Vit Chalky Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

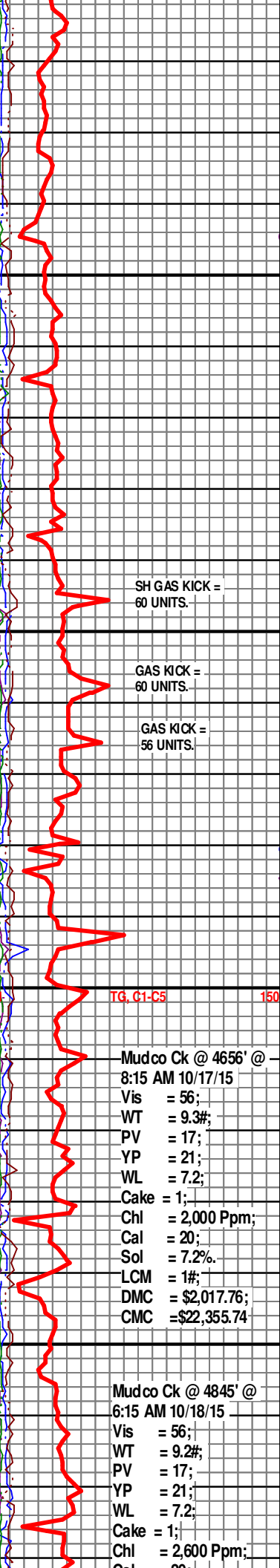
Ls Wht-Crm-Gry MicroIn Dns Micrite Cht Drk Gry (Banded Wht & V Abd) Op Shp Vit Chalky Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

Ls Wht-Crm (Crm-Tan Banded) Mostly MicroIn Dns Micrite (w/Pyr Inclus) Grad FxIn Poor-Fair OOM Ø (w/Tr Poor Vug Leaching & Poor Develop) Cht Wht-Tan-Gry Op Shp Vit (w/Fos Inclus) Chalky Sh Blk Carb-Char Fissil No Odor No Flor No Stn NS

Sh Char-Gry Soft-Fissil Ls Crm-Gry MicroIn Dns Micrite Grad FxIn Gry Poor IxIn Ø Chalk No Odor No Stn No Flor NS

Ls Crm-Gry MicroIn Dns Micrite Grad FxIn Gry Poor IxIn Ø Fos (Brach) Sh Char-Gry Soft-Fissil Chalk No Odor No Stn No Flor NS

Ls Crm-Gry MicroIn Dns Micrite Grad FxIn Gry Poor IxIn Ø Chalk Sh Blk Carb- Char-Gry Soft-Fissil No Odor No Stn No Flor NS



SH GAS KICK = 60 UNITS.

GAS KICK = 60 UNITS.

GAS KICK = 56 UNITS.

TG, C1-C5 150

Mudco Ck @ 4656' @ 8:15 AM 10/17/15

Vis = 56;

WT = 9.3#;

PV = 17;

YP = 21;

WL = 7.2;

Cake = 1;

Chl = 2,000 Ppm;

Cal = 20;

Sol = 7.2%.

LCM = 1#;

DMC = \$2,017.76;

CMC = \$22,355.74

Mudco Ck @ 4845' @ 6:15 AM 10/18/15

Vis = 56;

WT = 9.2#;

PV = 17;

YP = 21;

WL = 7.2;

Cake = 1;

Chl = 2,600 Ppm;

Cal = 20;

Sol = 7.2%.

LCM = 1#;

DMC = \$2,017.76;

CMC = \$22,355.74

BASE KANSAS CITY 4684' (- 1879)

Sh Blk Carb- Char-Gry Soft-Fissil Ls Crm-Gry Microxln Dns Micrite Grad Fxln Gry Poor Ixln
Ø Chalk No Odor No Stn No Flor NS

Ls Crm-Gry Microxln Dns Micrite Sh Blk Carb- Char-Gry Chalk Soft-Fissil
No Odor No Stn No Flor NS

MARMATON 4700' (- 1895)

Ls Crm Microxln Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Fos (Crin)
Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm Microxln Dns Micrite Grad Fxln Poor Ixln Ø Cht Wht-Gry
Translu-Op Shp Vit Fos (Crin) Chalk Sh Blk-Carb-Char-Gry Soft- Fissil No
Odor No Stn No Flor NS

Ls Crm Microxln Dns Micrite Grad Fxln Poor Ixln Ø Cht Wht-Gry Translu-
Op Shp Vit Fos (Crin) Chalk Sh Blk-Carb-Char-Gry Soft- Fissil No Odor No
Stn No Flor NS

Ls Crm Microxln Dns Micrite (w/Pyr Includ) Cht Drk-Gry (? Blk) Op Shp Vit
Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm Microxln Dns Micrite (w/Pyr Includ) Cht Drk-Gry (? Blk) Op Shp Vit
Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Microxln Dns Micrite Grad Fxln Poor Ixln Ø Cht Wht-Gry
Translu-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor
NS

Ls Crm-Tan-Gry Microxln Dns Micrite Cht Wht-Gry Op Shp Vit Chalk Sh
Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry Microxln Dns Micrite Cht Wht-Gry Op Shp Vit Chalk Sh
Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm Microxln Dns Micrite Grad Fxln Poor Ixln Ø (Few Pelets) Cht
Wht-Gry Translu- Op Shp Vit Chalk Sh Blk-Carb-Char-Gry Soft- Fissil No
Odor No Stn No Flor NS

PAWNEE 4787' (- 1982)

30" CFS @ 4802' Ls Crm Microxln Dns Micrite Grad Fxln Poor OOM Ø (w/Small OOids in pl)
Poor Leaching & Poor Develop Cht Wht-Gry Op Shp Vit Fos (Brach) Chalk Sh
Blk-Carb-Char-Gry Soft- Fissil Faint Odor No Stn Sli Flor (Lt Grn) ? SSG

60" CFS @ 4802' Ls Crm Mostly Microxln Dns Micrite Grad Fxln Poor OOM Ø AA Chalk Sh
Blk-Carb-Char-Gry Soft- Fissil ? Faint Odor No Stn No Flor (Lt Grn) ? NS

30" CFS @ 4828' Ls Crm-Tan Microxln Dns Micrite Grad Fxln Poor OOM Ø (w/Small
Non-Leached Ooids in pl & Tr Sli Yug Leaching in Few Spl) Poor Develop Cht Wht (w/OOid
Includ)-Gry Op Shp Vit Chalk (Abd) Sh Blk-Carb (Abd w/SG)-Gry-Maroon Soft-Fissil ? Faint
Odor No Stn Sli ? Flor SG in Blk Sh NS

LABETTE SHALE 4816' (- 2011)

FORT SCOTT 4819' (- 2014)

60" CFS @ 4828' Ls Crm-Tan Microxln Dns Micrite Grad Fxln Poor Ixln Ppt Ø (w/Fos Includ)
Cht Wht-Drk Gry-(Blk) Op Shp Vit Pyr Mass Chalk Sh Blk-Carb (Tr Only w/SG) Fissil ? Faint
Odor No Stn ? Sli (Lt Grn Dull) Flor SG in Blk Sh

CHEROKEE SHALE 4835' (- 2830)

30" CFS @ 4845' Ls Wht-Crm-Tan Microxln Dns Micrite Grad Fxln Poor Ixln Ppt Ø Grad Poor
OOM Ø (w/Poor-Fair Yug Leaching) Cht-Tan-Wht-Drk Gry (w/Fos (V Abd Crin, Fuss Includ)
Translu-Op Shp Vit Fos (Columnar Coral V Abd) Chalk Sh Blk-Carb (w/SG) Soft-Fissil No
Odor No Stn Sli (Lt Grn Dull) ? Min Flor SG in Blk Sh

60" CFS @ 4845' Ls Wht Fxln Poor-Fair Sucrosic Ppt Ixln Ø (w/SSG Under Heat in Wtr) Ls
AA Cht AA Fos Abd AA Sli Flor (Lt Grn) No Stn No Odor SSG

Ls Gry-Crm Microxln Dns Micrite Chalk Sh Char-Gry-Blk Carb AA
Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Gry (w/Pyr Includ) Microxln Dns Micrite Cht Wht-Drk Gry
(w/Fos (Fuss) Includ Fos (Brach) Chalk Sh Char-Gry-Blk Carb AA
Soft-Fissil No Odor No Stn No Flor NS

SECOND CHEROKEE SHALE 4871' (- 2066)

Sh Blk Carb- Gry Soft-Fissil Ls Gry-Crm Microxln Dns Micrite Cht Gry Op
Shp Vit No Odor No Stn No Flor NS

Ls Crm Microxln Dns Micrite Cht Gry Op Shp Vit Sh Blk Carb- Gry
Soft-Fissil Fos (Brach, Columnar Coral) No Odor No Stn No Flor NS

Ls Wht-Crm Microxln Dns Micrite Cht Drk Gry Op Shp Vit Chalk Sh Blk
Carb- Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Microxln Dns Micrite Cht Drk Gry Op Shp Vit Chalk Sh Blk

Cal = 20;
Sol = 6.4%;
LCM = 2#;
DMC = \$1,509.10;
CMC = \$23,864.84

~ ~ DST # 4 ~ ~
Interval: 4815'- 4845'
Times: 5'-60"-20"-20"
Blow: IF V. Weak
Surface = 1/4" Died/3";
FF= No Blow-Flushed
Tool @ 10" (Twice
w/Good Surge) & No
Blow.
Recovery: 5' Drilling
Mud.
Note: FF & FSIP Are
INVALID (At End Of ISIP
The DST Tool Was
Over-Rotated Causing
The Tool To Go Into
FSIP
Mode). Therefore, FF &
FSIP Pressures Are
Invalid.
Pressures:
IH = 2402#;
FH = 2266#;
IF = 44-45#;
FF = 67-? #;
ISIP = 1442#;
FSIP = ? #;
Temp. = 114 degrees F..

SH GAS KICK =
57 UNITS.

GAS KICK = 60
UNITS.

TG, C1-C5 150

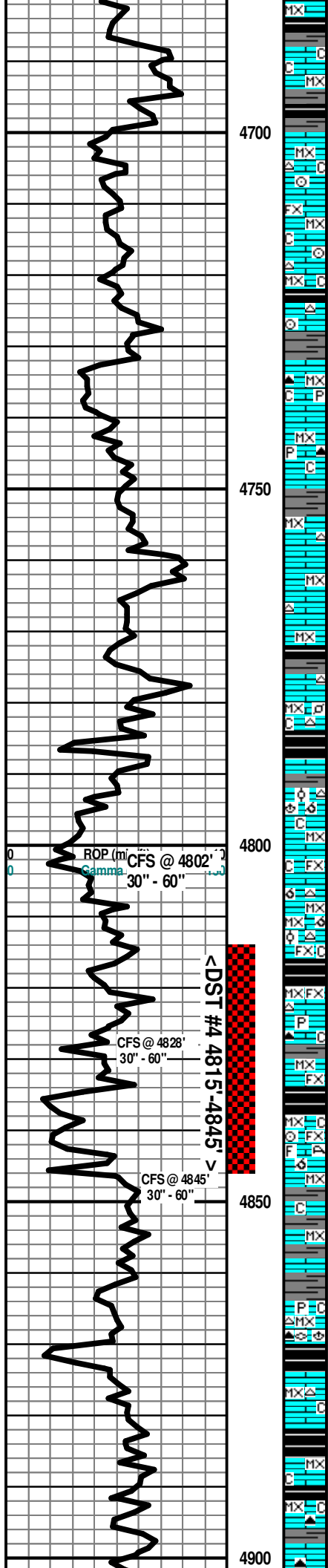
SH GAS KICK
=74 UNITS.

GAS KICK = 94
UNITS.

SH GAS KICK =
90 UNITS.

SH GAS KICK =
71 UNITS.

RE-ZERO TOOKE DAQ
@ 4890' dDEPTH & 4885'
LAG DEPTH. BKGD
GAS SET @ 15 UNITS.



<DST #4 4815'-4845'>

Carb- Gry Soft-Fissil No Odor No Stn No Flor NS

ATOKA 4910' (- 2105)

Sh Blk Carb- Gry Soft-Fissil Ls Wht-Crm MicroxIn Dns Micrite Cht Drk Gry Op Shp Vit Chalk No Odor No Stn No Flor NS

Ls Wht-Crm MicroxIn Dns Micrite Cht Drk Gry Op Shp Vit Chalk Sh Blk Carb- Gry Soft-Fissil No Odor No Stn No Flor NS

Sh Char-Gry Soft-Fissil Ls Wht-Crm MicroxIn Dns Micrite Cht Wht-Drk Gry (w/Fos (Spicule w/Pyr) Includ) Op Shp Vit Chalk No Odor No Stn No Flor NS

Ls Wht-Crm MicroxIn Dns Micrite Cht Tan-Gry Op Shp Vit Sh Char-Gry Soft-Fissil Fos (Brach, Columnar Coral) No Odor No Stn No Flor NS

4950

Ls Wht-Crm MicroxIn Dns Micrite Cht Wht-Amber-Tan-Gry Op Shp Vit Sh Blk Carb-Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm MicroxIn Dns Micrite Cht Tan-Gry-Drk-Gry/Blk Op Shp Vit Sh Char-Gry Soft-Fissil Fos (Fussl) No Odor No Stn No Flor NS

Ls Wht-Crm MicroxIn Dns Micrite Cht Wht-Amber-Tan-Gry Op Shp Vit Sh Char-Gry-Blk Carb Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Tan-Gry Op Shp Vit Fos (Columnar Coral) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Tan-Amber-Drk Gry Op Shp Vit Fos (Crin) Sh Char-Gry-Blk Carb Soft-Fissil No Odor No Stn No Flor NS

5000

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Tan-Amber Op Shp Vit Fos (Brach) Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Tan-Amber Op Shp Vit Fos (Brach) Sh Char-Gry-Blk Carb Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Dns Micrite Cht Tan-Amber Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

MORROW SHALE 5029' (- 2224)

Sh Char-Gry-Drab Grn-Blk Carb Soft-Fissil Ls Crm-Tan-Brn MicroxIn Dns Micrite Grad Tan FxIn Poor OOM Ø (w/OOL in pl) Poor Dissolu Poor Develop (Tr Only) Cht Tan Op Shp Vit Chalk No Odor No Stn No Flor NS

5050

30" CFS Qtz Ss Wht-Grn/Lt Aqia VFGrn Well-Sort Well-Rd/Sub-Rd Good IGran Ø Friable Lt CaCO3 Cmt Matrix Barren Ls Crm - Brn MicroxIn Dns Micrite (w/Fos (Crin) Includ) Chalk Sh Char-Grn/Gry-Lt Aqua No Odor No Stn No Flor NS

60" & 75" CFS Qtz Ss Wht-Grn/Lt Aqia VFGrn Well-Sort Well-Rd/Sub-Rd Good IGran Ø Friable Lt CaCO3 Cmt Matrix Barren Ls Crm-Brn MicroxIn Dns Micrite (w/Fos (Crin) Includ) Chalk Sh Lt Aqua-Char-Grn/Gry No Odor No Stn No Flor NS

CFS @ 5057'
30" 60: 75"

Sh Varicolored Maroon-Drab Grn-Char-Olive-Blk Carb Soft-Fissil (Wash Red) Qtz Ss Wht AA Ls AA No Odor No Stn No Flor NS

Sh Varicolored Maroon-Drab Grn-Char-Olive-Blk Carb Soft-Fissil (Wash Red) Qtz Ss Wht AA Ls AA Cht Drk Gry/Blk Op Shp Vit No Odor No Stn No Flor NS

Sh Varicolored Maroon-Drab Grn-Char-Olive-Blk Carb Soft-Fissil (Wash Red) Qtz Ss Wht AA Ls AA Cht-Red-Drk Gry/Blk Op Shp No Odor No Stn No Flor NS

MISSISSIPPIAN "STE. GEN" 5082' (- 2277)

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGrn Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Chalky Cht Wht-Tan-Red-Org Op Shp Vit Sh Maroon-Char-Gry- Drab Grn AA Soft-Fissil No Odor No Stn No Flor NS

5100

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGrn Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Chalky Cht Crm-Tan-Drk Gry/Blk Op Shp Vit Sh Maroon-Char-Gry- Drab Grn AA Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGrn Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Chalky Cht Tan-Drk Gry/Blk Translu-Op Shp Vit Sh Maroon-Char-Gry- Drab Grn AA Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGrn Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Chalky Cht Tan-Pink Op Shp Vit Sh Maroon-Char-Gry- Drab Grn AA Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGrn Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Chalky Cht Tan-Pink Op Shp Vit Sh Maroon-Char-Gry- Drab Grn AA Soft-Fissil No Odor No Stn No Flor NS

Mudco Ck @ 4985' @

6:30 AM 10/19/15

Vis = 55;

WT = 9.3#;

PV = 16;

YP = 20;

WL = 7.2;

Cake = 1;

Chl = 3,500 Ppm;

Cal = 40;

Sol = 6.4%.

LCM = 2#;

DMC = \$129.28;

CMC = \$23,994.12

TG, C1-C5 150

SH GAS KICK = 63 UNITS.

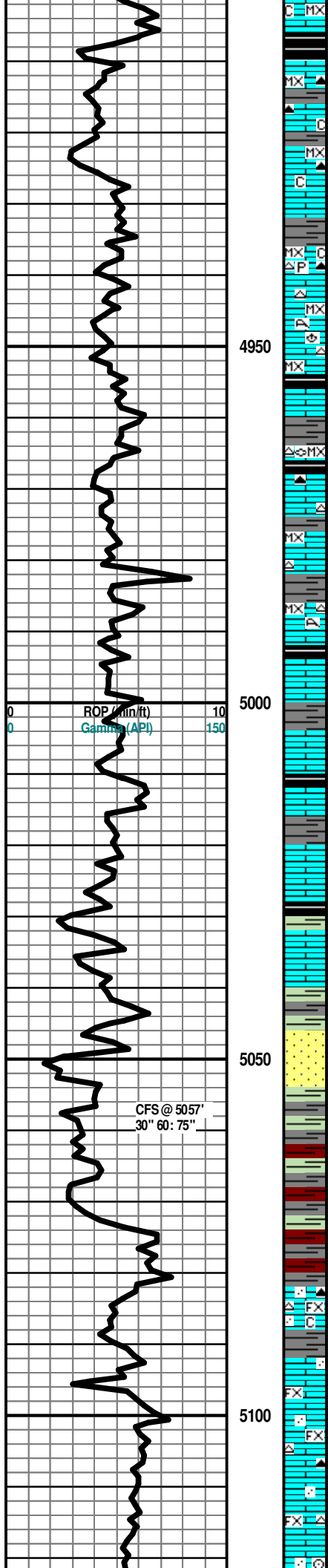
Mudco Ck @ 5251' @

11:10 AM 10/20/15

Vis = 59;

WT = 9.2#;

PV = 18;



Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGm Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Grad FxIn (w/Tr Poor lXIn Ø (w/Small Ooids in pl) No/Poor Leaching Chaky Cht Wht-Tan-Gry-Peach (w/Ooids in pl & /Lt Red-Clear Banding) Translu-Op Shp Vit Fos (Crim, Fuss) Pyr Mass Sh Maroon-Char-Gry- Drab Grn AA Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGm Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Grad FxIn (w/Tr Poor lXIn Ø (w/Small Ooids in pl) No/Poor Leaching Chaky Cht Wht-Tan-Gry-Peach (w/Ooids in pl & /Lt Red-Clear Banding) Translu-Op Shp Vit Fos (Crim, Fuss) Pyr Mass Sh Maroon-Char-Gry- Drab Grn AA Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGm Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) Barren Ls Crm MicroxIn Dns Micrite Grad FxIn (w/Tr Poor lXIn Ø (w/Small Ooids in pl) No/Poor Leaching Chaky Cht Wht-Gry Op Shp Vit Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGm Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) AA Grad FxIn Poor lXIn OOL Ø (w/Small-Med Ooids in pl) No/Poor Leaching Chaky Cht Wht-Clear-Red-Org Banded Translu-Op Shp Vit Sh AA No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor "Sandy Ls" (w/Small Qtz Ss Includ VFGm Ang-Sub Ang Includ fL=125-177 Microns= 3.0-2.25 Ø) AA Grad FxIn Poor lXIn OOL Ø (w/Small-Med Ooids in pl) No/Poor Leaching Chaky Cht Wht-Clear-Red-Org Banded Translu-Op Shp Vit Fos (Crim) Pyr Mass Sh AA No Odor No Stn No Flor NS

MISS. ST. LOUIS 5160' (- 2355)

Ls Wht-Gry MicroxIn Dns Poor lXIn Ø Grad FxIn Poor-Fair OOL Ø (w/Small-Med Ooids in pl) Poor InterOOL Ø Poor/No Leaching Poor Develop Friable Barren Chalky Cht Wht-Clear-Red/Org Banded Translu-Op Shp Vit Fos (Crim) Pyr Mass Sh AA No Odor No Stn No Flor NS

30" CFS @ 5196' Ls Wht-Gry MicroxIn Dns Poor lXIn Ø Grad FxIn Poor-Fair OOL Ø (w/Small-Med Ooids in pl) Poor InterOOL Ø Poor/No Leaching Poor Develop Friable Barren Chalky Cht Wht- Clear-Red/Org Banded Translu-Op Shp Vit Fos (Crim) Pyr Mass Sh AA No Odor No Stn No Flor NS

60" & 90" CFS @ 5196' Ls AA Cht AA Sh AA No Odor No Stn No Flor NS
 Ls Wht-Gry MicroxIn Dns Poor lXIn Ø Grad FxIn Poor-Fair OOL Ø (w/Small-Med Ooids in pl) Poor InterOOL Ø Poor/No Leaching Poor Develop Friable Barren Chalky (Abd & Inc) Cht Wht- Clear- Red/Org Banded Translu-Op Shp Vit Fos (Crim) Pyr Mass Sh AA No Odor No Stn No Flor NS

Ls Wht-Gry MicroxIn Dns Poor lXIn Ø Grad FxIn Poor-Fair OOL Ø (w/Small-Med Ooids in pl) Poor InterOOL Ø Poor/No Leaching Poor Develop Friable Barren Chalky (Abd & Inc) Cht Wht- Clear- Red/Org Banded Translu-Op Shp Vit Fos (Crim) Sh AA No Odor No Stn No Flor NS

Ls Wht-Gry MicroxIn Dns Poor lXIn Ø Grad FxIn Poor-Fair OOL Ø (w/Small-Med Ooids in pl) Poor InterOOL Ø Poor/No Leaching Poor Develop Friable Barren Chalky Cht Clear- Red/Org Banded Translu-Op Shp Vit Fos (Fuss) Pyr Mass Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

30" CFS @ 5251' Ls Wht-Gry MicroxIn Dns Poor lXIn Ø Grad FxIn Poor-Fair OOL Ø (w/Small-Med Ooids in pl) Poor InterOOL Ø Poor/No Leaching Poor Develop Friable Barren Chalky Cht Clear-Gry-Drk Gry (Blk)-Red/Org/Peach Banded Translu-Op Shp Vit Fos (Bry, Fuss) Pyr Mass Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

60" CFS @ 5251' Ls Wht-Gry MicroxIn Dns Poor lXIn Ø Grad FxIn Poor-Fair OOL Ø (w/Small-Med Ooids in pl) Poor InterOOL Ø Poor/No Leaching Poor Develop Friable Barren Chalky Cht Wht-Clear-Gry-Drk Gry (Blk)-Org/Peach Banded Translu-Op Shp Vit Fos (Fuss) Pyr Mass Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm FxIn Poor-Fair lXIn Sucrosic Ppt Ø (w/Chlorite? Glacu Includ) Barren Grad MicroxIn Dans Micrite Cht Wht-Clear/Red.Org-Peach-Gry Translu-Op Shp Vit Chalky Sh AA No Odor No Stn No Flor NS

Ls Crm-Gry FxIn Poor-Fair lXIn Sucrosic Ppt Ø (w/Chlorite? Glacu Includ) Barren Grad MicroxIn Dans Micrite Cht Wht-Clear/Red.Org-Peach-Gry Translu-Op Shp Vit Chalky Sh AA No Odor No Stn No Flor NS

Ls Gry-Crm FxIn Poor-Fair lXIn Sucrosic Ppt Ø (w/Chlorite? Glacu Includ) Barren Grad MicroxIn Dans Micrite Cht Wht-Clear/Red.Org-Peach-Smoky Gry Translu-Op Shp Vit Chalky Sh AA No Odor No Stn No Flor NS

Ls Crm FxIn Poor lXIn Sucrosic Ppt Ø Grad Poor-Fair OOL Ø (w/Small-Med (Mostly Med) Ooids in pl) Poor-Fair Ooid Leaching (w/SSG "Under Heat in Wtr & Upon Break w/Sli "Dead" Drk Brn "Salt & Pepper" Stn < 5% in Tray) Gas Does Not Flor Cht Wht-Clear Trip-Smoky Gry Op Shp Vit Chalky No Odor No Flor SSG & Show "Dead" Oil

30" CFS @ 5295' Ls Crm-Gry FxIn Poor lXIn Sucrosic Ppt Ø Grad Tr Poor-Fair OOL Ø (w/Small-Med (Mostly Med) Ooids in pl) Poor-Fair Ooid Leaching Drk Brn Stn (Tr Only 3 Pcs) AA Cht Wht-Clear-Red AA Fos (Columnar Coral) Sh Char-Gry-Aqua Fissil No Odor No Flor NS

60" & 90" CFS @ 5295' Ls Crm-Tan-Gry MicroxIn Dns Micrite Grad FxIn lXIn Sucrosic Ppt Ø Grad Tr Poor OOL Ø AA Poor Ooid Leaching Cht Wht (w/Pyr Includ)-Smoky Gry Op AA Chalk Sh Char-Drab Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Tan MicroxIn Dns Micrite Grad Crm-Lt Brn FxIn Poor-Fair Sucrosic lXIn Ppt Ø Barren Cht Wht-Clear-Amber-Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Aqua-Lt Grn Fissil No Odor No Stn No Flor NS

Ls Crm-Tan MicroxIn Dns Micrite Grad Crm-Lt Brn FxIn Poor-Fair Sucrosic lXIn Ppt Ø Barren Cht Wht-Clear-Amber-Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Aqua-Lt Grn Fissil No Odor No Stn No Flor NS

Ls Crm-Tan MicroxIn Dns Micrite Grad Crm-Lt Brn FxIn Poor-Fair Sucrosic lXIn Ppt Ø Barren Cht Wht-Clear-Amber-Gry Translu-Op Shp Vit Fos (Bry) Chalky Sh Blk Carb-Aqua-Lt Grn Fissil No Odor No Stn No Flor NS

Ls Crm-Tan MicroxIn Dns Micrite Grad Crm-Lt Brn FxIn Poor-Fair Sucrosic lXIn Ppt Ø (w/3 Pcs w/Lt Brn Scat Stn NSG/NSO) Cht Wht-Clear-Amber-Gry Translu-Op Shp Vit Fos (Bry)

YP = 19;
 WL = 8.4;
 Cake = 1;
 Chl = 2,400 Ppm;
 Cal = 20;
 Sol = 6.4%
 LCM = 2#;
 DMC = \$ 1,181.33;
 CMC = \$25,175.45

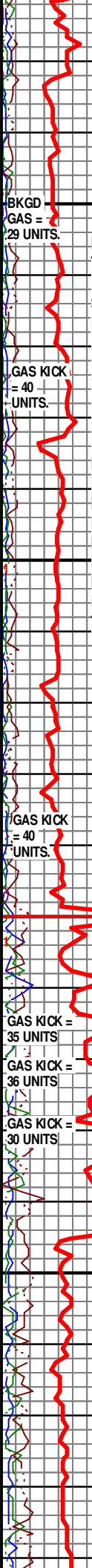
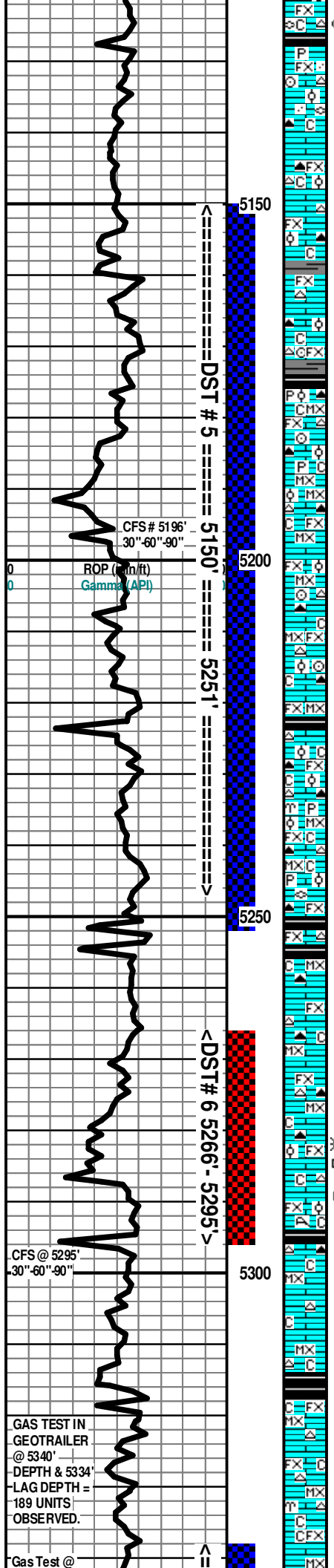
~ ~ ~ DST # 6 ~ ~ ~
 Interval: 5150' - 5251'.
 Times: 5'-60"-20"-20"
 Blow: IF V. Weak
 Surface Blow/4.5' & Died; ISIP= No Blow
 Back. FF= No
 Blow-Flushed Tool @ 10" (w/Good Surge) & No Blow. FSIP= No Blow
 Back.
 Recovery: 15' Drilling Mud.
 Pressures:
 IH = 2679#;
 FH = 2662#;
 IF = 43-44#;
 FF = 46-49#;
 ISIP = 1570#;
 FSIP = 1352#;
 Temp. = 120 degrees F..

Mudco Ck @ 5295' @
 8:55 AM 10/21/15
 Vis = 59;
 WT = 9.2#;
 PV = 18;
 YP = 19;
 WL = 8.4;
 Cake = 1;
 Chl = 1,200 Ppm;
 Cal = 20;
 Sol = 6.4%
 LCM = 4#;
 DMC = \$ 322.78;
 CMC = \$25,498.23.

Mudco Ck @ 5378' @
 9:45 AM 10/22/15
 GAS KICK = 35 UNITS
 Vis = 51;
 WT = 9.05#;
 PV = 15;
 YP = 16;
 WL = 8.8;
 Cake = 1;
 GAS KICK = 36 UNITS
 Chl = 1,900 Ppm;
 Cal = 20;
 Sol = 4.9%
 LCM = 3#;
 DMC = \$ 145.97;
 CMC = \$25,644.20.

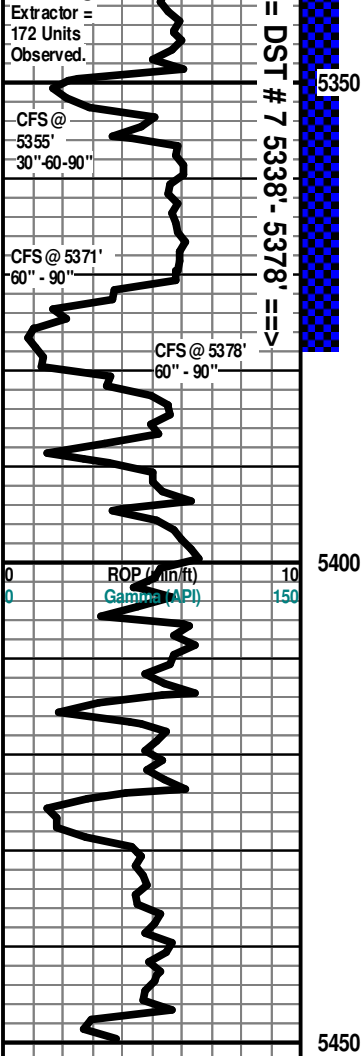
~ ~ ~ DST # 7 ~ ~ ~
 Interval: 5338' - 5278'.
 Times: 7'-90"-39"-20"
 Blow: IF V. Weak Surface Blow; ISIP= No Blow
 Back. FF= No
 Blow-Flushed Tool @ 10" (w/Good Surge) & No Blow. FSIP= No Blow
 Back.
 Recovery: 15' Drilling Mud.
 Pressures:

IH = 2701#;
 FH = 2632#;
 IF = 52-53#;
 FF = 56-60#;



GAS TEST IN GEOTRAILER @ 5340' DEPTH & 5334' LAG DEPTH = 189 UNITS OBSERVED.

Gas Test @



Chalky Sh Aqua-Lt Grn Fissil No Odor No Stn No Flor NS

MISSISSIPPIAN "SALEM" 5349' (- 2544)

30" CFS @ 5355' Ls AA Grad Dolo Wht-Crm Microxln (w/Pyr Inklus) Dns Micrite Fair-Med ? Min Flor (Lt Grn) Cht Wht-Clear-Lt-Smoky Gry Clear-Op Shp Calcite (Clear) Chalky Sh Blk Carb-Gry Soft-Fissil No Odor No Stn NSO & ? SG

60" & 90" CFS @ 5355' Ls/Dolo Wht-Crm Microxln (w/Pyr Inklus) Dns Micrite Grad Fair OOL Ø (w Small-Med Ooids in pl) Tr/Poor Leaching Poor Devekop Chalky Fair ? Min Flor (Lt Grn) Cht Wht-Clear-Lt-Smoky Gry Clear-Op Shp Sh Gry Soft-Fissil No Odor No Stn NSO & ? SG

60" & 90" CFS @ 5371' Ls/Dolo Wht-Crm AA Chalky Fair ? Min Flor (Lt Grn) Cht AA Sh AA No Odor No Stn NSO & / SG

60" & 90" CFS @ 5378' Ls/Dolo Wht-Crm Microxln Dns Micrite Grad Poor-Fair lxn Sucrosic Ø Grad Poor-Fair OOL Ø (w Small-Med Ooids in pl) Tr/Poor Leaching Poor Devekop (? 3 Pcs w/Sil ? "Dead" Brn Stn) Chalky ? Min Flor (Lt Grn) Cht Wht-Peach Translu-Op Shp Fos (Brach) Sh Grn/Gry Fissil No Odor No Stn NSO & ? SG

Dolo/Ls Crm-Tan Microxln Dns Micrite Cht Wh Translu-Op Shp Vit Sh Gry-Aqua Soft-Fissil No Odor No Stn No Flor NS

Dolo/Ls Crm-Tan Microxln Dns Micrite Cht Wh Translu-Op Shp Vit Fos (Crin) Sh Maroon-Aqua-Gry-Olive Soft-Fissil No Odor No Stn No Flor NS

Sh Maroon-Aqua-Gry-Char-Blk Carb Soft-Fissil Dolo/Ls Crm-Tan Microxln Dns Micrite Cht Wh Translu-Op Shp Vit No Odor No Stn No Flor NS

Dolo/Ls Crm-Tan Microxln Dns Micrite Cht Wh Translu-Op Shp Vit Sh Gry-Aqua Soft-Fissil No Odor No Stn No Flor NS

Dolo/Ls Crm-Tan Microxln Dns Micrite Cht Wh-Clear Translu-Op Vit Chalky Sh Gry-Aqua Soft-Fissil No Odor No Stn No Flor NS

Sh Maroon-Aqua-Gry-Char-Blk Carb-Purple Soft-Fissil Dolo/Ls Wht-Crm-Tan-Lt Brn Microxln Dns Micrite (w/Pyr Inklus) Grad Fxln Poor-Fair Sucrosic Ø Cht Wh Translu-Op Shp Vit Chalky No Odor No Stn No Flor NS

Sh Maroon-Aqua-Gry-Char-Blk Carb-Purple Soft-Fissil Dolo/Ls Wht-Crm-Tan-Lt Brn Microxln Dns Micrite (w/Pyr Inklus) Grad Fxln Poor-Fair Sucrosic Ø Cht Wh Translu-Op Shp Vit Chalky No Odor No Stn No Flor NS

Electric Logs Run: By Pioneer Logging: Dual Induction; Compensated Density-Neutron, Sonic & Microresistivity.

Geologist left Location @ : P.M. on 10/23/2015

ISIP = 1671#;
FSIP = 1176#;
Temp. = 123 degrees F...

GAS KICK = 32 UNITS.

GAS KICK = 39 UNITS

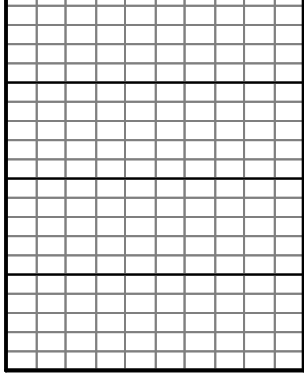
GAS KICK = 44 UNITS

GAS KICK = 32 UNITS

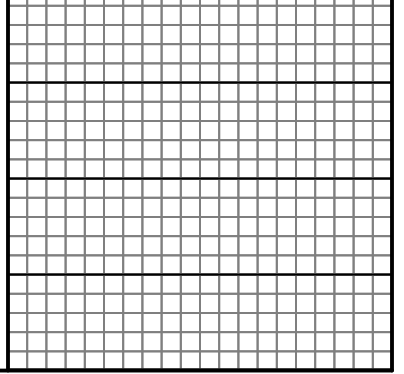
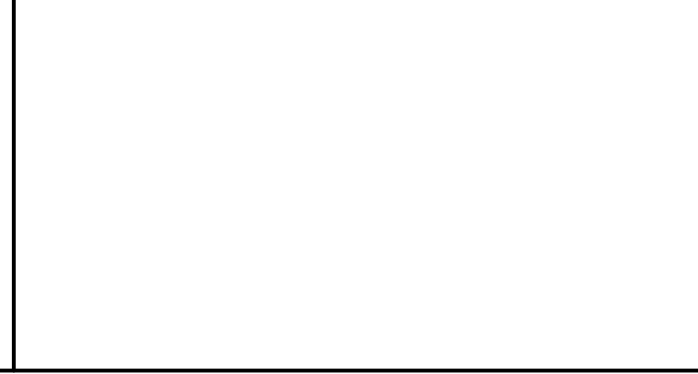
TG, C1-C5

75

5350
5400
5450
5500
5550



5600



Field Ticket Number: Lib1510232200 Field Ticket Date: Friday, October 23, 2015

Bill To:
FALCON EXPLORATION
0
0

Job Name: 03 Plug
Well Location: Gray, Ks
Well Name: Chester Rexford
Well Number: 1-35
Well Type: New Well
Rig Number: STERLING # #5
Shipping Point: Liberal, KS
Sales Office: Mid Con

PERSONEL		EQUIPMENT	
Oscar Sigala		774-550	
Jose Calderno		705-842	
Lenny Baeza			

SERVICES - SERVICES - SERVICES							
Description	QTY	UCM	Ugr. Amt	Gross Amt	Unit Net	Discount	Net Amount
PUMP, TUBING/SQZ CEMENT 1001-2000 FT	1.00	min. 4 hr	2,249.84	2249.84	1,057.42	53.0%	1,057.42
PHDL	170.00	per cu. Ft.	2.48	421.60	1.17	53.0%	198.15
DRYG	358.00	ton-mile	2.75	984.50	1.29	53.0%	462.72
MILV	50.00	per mile	4.40	220.00	2.07	53.0%	103.40
MIHV	50.00	per mile	7.70	385.00	3.62	53.0%	180.95

FLOAT EQUIPMENT -- FLOAT EQUIPMENT -- FLOAT EQUIPMENT

MATERIALS - MATERIALS - MATERIALS							
CB-APA-40604	160.00	sack	18.92	3,027.20	8.89	53.0%	1,422.78

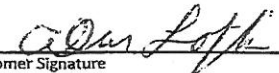
ADDITIONAL ITEMS - ADDITIONAL ITEMS - ADDITIONAL ITEMS

Additional hours, in excess of set hours	1.00	per hour	440.00	440.00	206.80	53.0%	206.80
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	Gross	Discount	Final
Services Total	4,260.94	2,258.30	2,002.64
Equipment Total	0.00	0.00	0.00
Materials Total	3,027.20	1,604.42	1,422.78
Additional Items	440.00	233.20	206.80
Final Total	7,728.14	4,095.91	3,632.23

Allied Rep _____
Customer Agent: _____

This output does NOT include taxes. Applicable sales tax will be billed on the final invoice.
Customer hereby acknowledges receipt of the materials and services described above and on the attached documents.
I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the following page.

X 
Customer Signature

Field Ticket Total (USD): **\$3,632.23**

GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "ALLIED" shall mean Allied Oil & Gas Services, LLC, and "CUSTOMER" shall refer to the party identified by that term on the front of this contract. As applicable, "JOB" relates to the services described on the front side of this contract, "MERCHANDISE" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

-TERMS: Unless satisfactory credit has been established, CUSTOMER must tender full cash payment to ALLIED before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, CUSTOMER agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing, in no event shall this Contract provide for interest exceeding the maximum rate of interest that CUSTOMER may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate. Any amounts previously paid as excess interest shall be deducted from the amounts owing from the CUSTOMER or at the option of ALLIED, refunded directly to CUSTOMER. For purposes of this paragraph, ALLIED and CUSTOMER agree that Kansas law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

-ATTORNEY FEES: In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the terms of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and for attorney's fees.

-PRICES AND TAXES: All merchandise listed in ALLIED'S current price schedule are F.O.B. ALLIED'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by ALLIED shall be added to the quoted prices charged to CUSTOMER.



Cement Report

Customer Falcon Exploration		Lease No.		Date 10-9-15	
Lease Rexford		Well # 1-35		Service Receipt 1717 06587 A	
Casing 8 5/8" 24#	Depth 1833.79ft.	County Gray		State Ks.	
Job Type 42 Surface	Formation	Legal Description 35 27 30			
Pipe Data		Perforating Data		Cement Data	
Casing size 8 5/8" 24#	Tubing Size	Shots/Ft		Lead 'A-Con' Blend	
Depth 1833.79ft.	Depth	From	To	400sk	
Volume 114.3 bbl	Volume	From	To	2.95^{ft}/sk 18.10^{gal}/sk	
Max Press 2360 psi	Max Press	From	To	Tail in Premium Plus	
Well Connection P.C.	Annulus Vol.	From	To	150sk Cement	
Plug Depth 1791.56ft.	Packer Depth	From	To	1.34^{ft}/sk 6.33^{gal}/sk	
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
18:30					On Location
18:45					Safety Meeting w/ BE5 employees
19:00					Rig Up
19:45					Wait on rig + run float equipment
22:40					Rig Circulate
23:05					Pressure Test + 3000
23:10					Pump Stop Loss
23:15	180		210.1 bbl slurry	4.5	Pump Lead
0:05	200		35.7 bbl slurry	3.5	Pump Tail
0:35					Shutdown / Drop Plug / Wash Pump
	80		10	5.0	Displace
	80		20	5.0	
	150		30	5.1	
	210		40	5.0	
	250		50	4.9	
	280		60	4.8	
	300		70	4.7	
	400		80	4.7	
	450		90	4.6	
	480		100	4.6	Stage in + slow rate
	500		110	2.0	
1:10	1000		114.3	0	Wait 5 min. plugs landed
1:15					Release Back Float Hold Job Complete
Service Units	78938	38117/19919	14355/19578	19827/19808	
Driver Names	Daniel	Mario	Jose	Santiago	

Leon
Customer Representative

Tyce Davis
Station Manager

Daniel Beard
Cementer