

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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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	F. G. Holl Company L.L.C.
Well Name	ILS LAND "B" 1-7
Doc ID	1425417

All Electric Logs Run

DCNL/DCDL
DIL
BHCS
Fracfinder

Form	ACO1 - Well Completion
Operator	F. G. Holl Company L.L.C.
Well Name	ILS LAND "B" 1-7
Doc ID	1425417

Tops

Name	Top	Datum
Herrington	1719	+149
Winfield	1769	+99
Towanda	1840	+28
Ft Riley	1872	-4
Florence	1928	-60
B/Florence	1980	-112
Kinney LS	1991	-123
Wrefold	2020	-152
Council Grove	2037	-169
Crouse	2077	-209
Neva	2219	-351
Red Eagle	2285	-417
Onaga Shale	2424	-556
Wabaunsee	2447	-579
Root Shale	2566	-698
Stotler	2581	-713
Willard Shale	2607	-739
Tarkio	2638	-770
Howard	2712	-844
Severy Shale	2746	-878
Topeka	2776	-908
Queen Hill Shale	2948	-1080
King Hill Shale	3018	-1150
Heebner	3109	-1241

Form	ACO1 - Well Completion
Operator	F. G. Holl Company L.L.C.
Well Name	ILS LAND "B" 1-7
Doc ID	1425417

Tops

Name	Top	Datum
Toronto	3123	-1255
Douglas Shale	3140	-1272
Brown Lime	3206	-1338
Lansing	3215	-1347
Drum	3334	-1466
BKC	3430	-1562
Arbuckle	3485	-1617
RTD	3700	-1832
LTD	3700	-1832



DRILL STEM TEST REPORT

Prepared For: **F G Holl Comnpany LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.24 @ 15:55:00

End Date:

Job Ticket #: 01013

DST #: 1

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

Printed: 2018.09.24 @ 21:17:37



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01013

DST#: 1

Test Start: 2018.09.24 @ 15:55:00

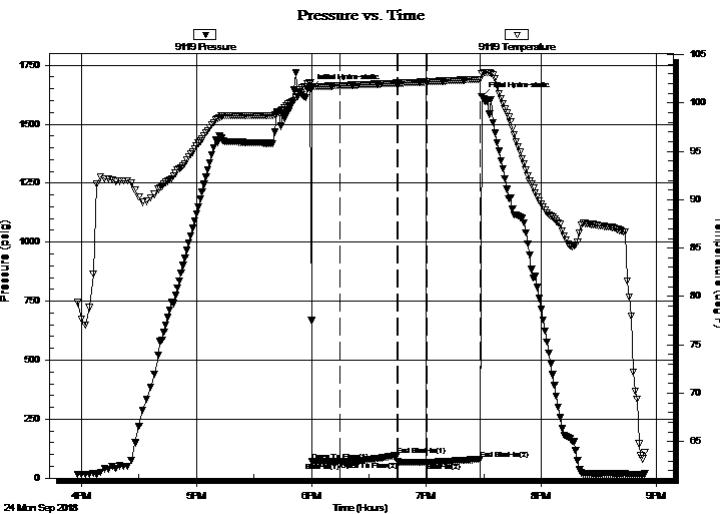
GENERAL INFORMATION:

Formation: **Kansas City "A-D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:00:00
 Time Test Ended:
Interval: 3208.00 ft (KB) To 3276.00 ft (KB) (TVD)
 Total Depth: 3276.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gen Budig
 Unit No: 1
 Reference Elevations: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9119

Press@RunDepth: 80.74 psig @ ft (KB) Capacity: psig
 Start Date: 2018.09.24 End Date: 2018.09.24 Last Calib.: 1899.12.30
 Start Time: 15:55:00 End Time: 20:54:00 Time On Btm: 2018.09.24 @ 17:59:30
 Time Off Btm: 2018.09.24 @ 19:29:00

TEST COMMENT: 1st Opening 15 Minutes weak blow for 9 minutes and died
 1st Shut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1650.94	102.14	Initial Hydro-static
1	71.87	101.72	Open To Flow (1)
16	69.21	101.78	Shut-In(1)
45	96.31	102.04	End Shut-In(1)
46	70.34	102.04	Open To Flow (2)
61	67.79	102.18	Shut-In(2)
89	80.74	102.45	End Shut-In(2)
90	1617.17	103.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drilling Mud	0.14

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01013

DST#: 1

Test Start: 2018.09.24 @ 15:55:00

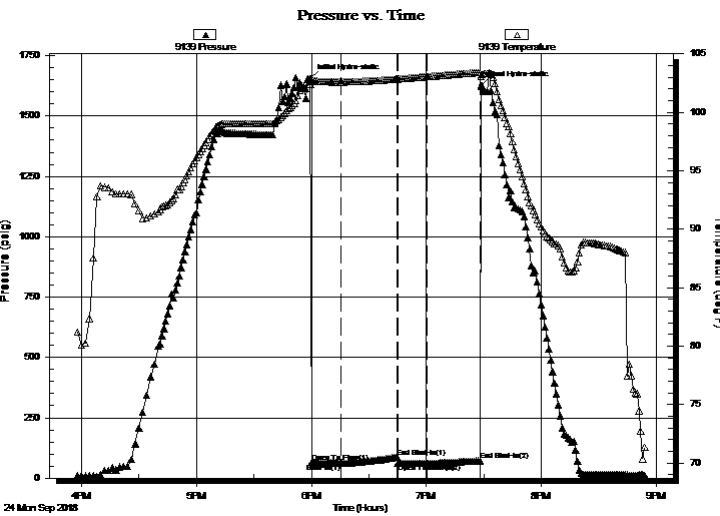
GENERAL INFORMATION:

Formation: **Kansas City "A-D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:00:00
 Time Test Ended:
 Interval: **3208.00 ft (KB) To 3276.00 ft (KB) (TVD)**
 Total Depth: 3276.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gen Budig
 Unit No: 1
 Reference Elevations: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9139

Press@RunDepth: 72.17 psig @ ft (KB) Capacity: psig
 Start Date: 2018.09.24 End Date: 2018.09.24 Last Calib.: 1899.12.30
 Start Time: 15:55:00 End Time: 20:54:00 Time On Btm: 2018.09.24 @ 17:59:30
 Time Off Btm: 2018.09.24 @ 19:28:30

TEST COMMENT: 1st Opening 15 Minutes weak blow for 9 minutes and died
 1st Shut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1653.92	102.42	Initial Hydro-static
1	64.82	102.75	Open To Flow (1)
16	63.04	102.61	Shut-In(1)
45	88.12	102.85	End Shut-In(1)
46	62.60	102.86	Open To Flow (2)
61	62.08	103.06	Shut-In(2)
89	72.17	103.42	End Shut-In(2)
89	1627.31	103.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drilling Mud	0.14

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01013

DST#: 1

ATTN: renee Husted

Test Start: 2018.09.24 @ 15:55:00

Tool Information

Drill Pipe:	Length: 3204.00 ft	Diameter: 3.80 inches	Volume: 44.94 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 44.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3208.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.79 ft			
Tool Length:	92.79 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3183.00	
Hydraulic tool	5.00			3188.00	
Jars	5.00			3193.00	
Safety Joint	5.00			3198.00	
Packer	5.00			3203.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3208.00	
Anchor	5.00			3213.00	
Change Over Sub	0.75			3213.75	
Drill Pipe	31.29			3245.04	
Change Over Sub	0.75		Inside	3245.79	
Anchor	25.00			3270.79	
Recorder	0.00	9119	Inside	3270.79	
Recorder	0.00	9139	Outside	3270.79	
Bullnose	0.00			3270.79	62.79 Bottom Packers & Anchor

Total Tool Length: 92.79



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01013

DST#: 1

ATTN: renee Husted

Test Start: 2018.09.24 @ 15:55:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 10.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 8.80 in³
Resistivity: ohm.m
Salinity: 8000.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

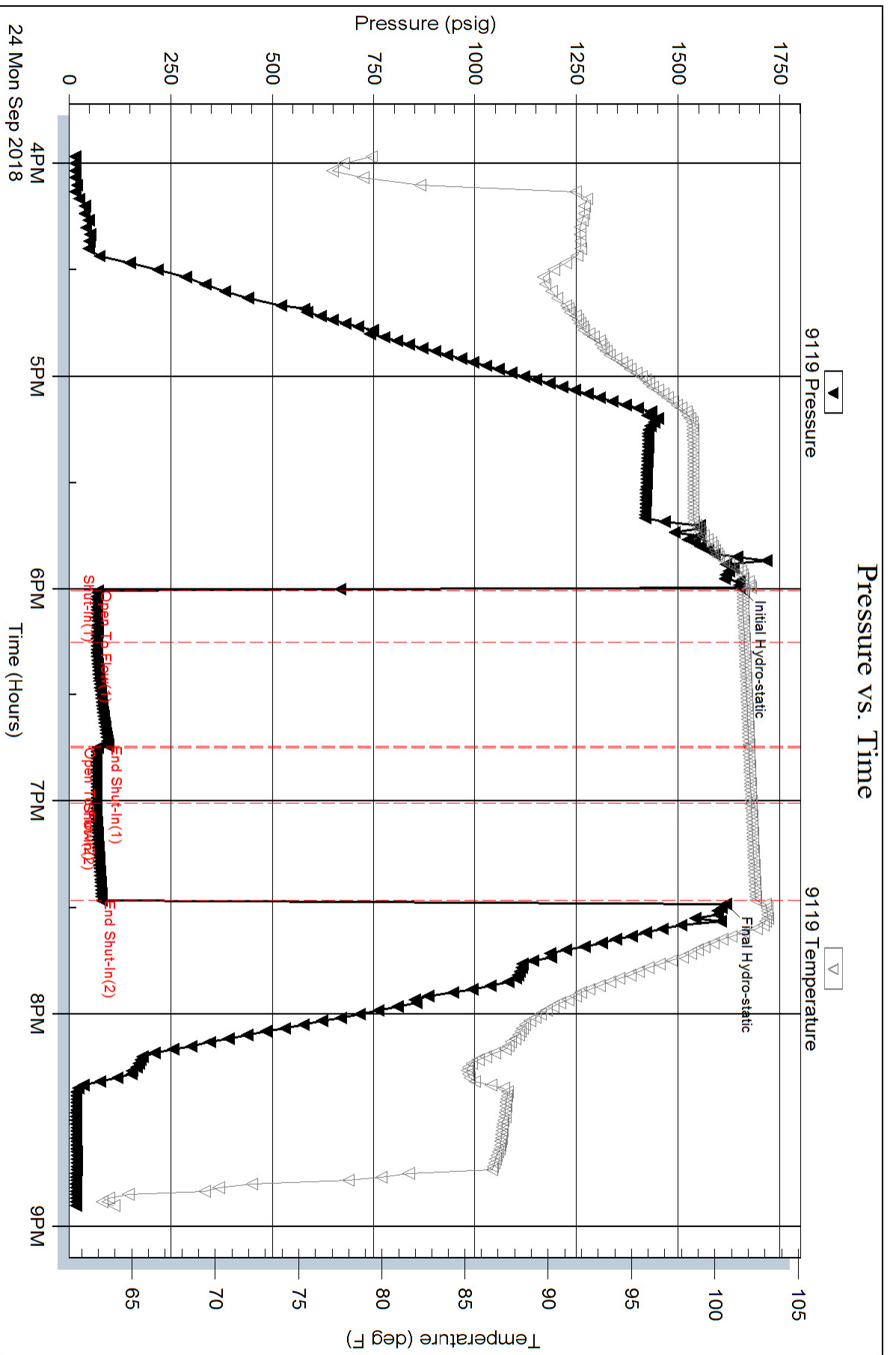
Length ft	Description	Volume bbl
10.00	Drilling Mud	0.140

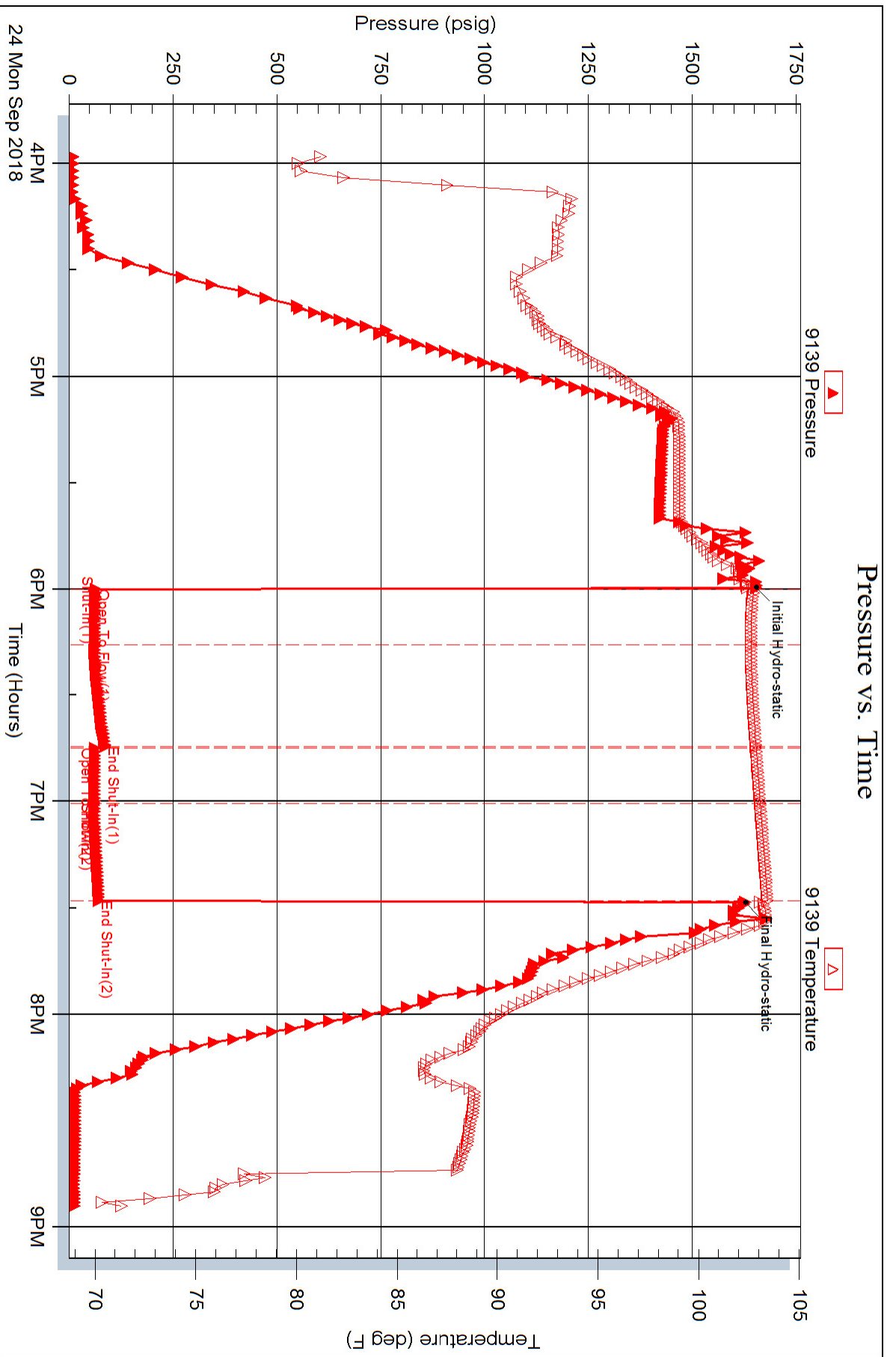
Total Length: 10.00 ft Total Volume: 0.140 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.25 @ 04:42:00

End Date: 2018.09.25 @ 00:00:00

Job Ticket #: 01014 DST #: 2

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

Printed: 2018.09.25 @ 08:56:29



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01014

DST#: 2

Test Start: 2018.09.25 @ 04:42:00

GENERAL INFORMATION:

Formation: **Kansas City "E&F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3276.00 ft (KB) To 3298.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3298.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139

Press@RunDepth: 34.07 psig @ ft (KB)

Capacity: psig

Start Date: 2018.09.25

End Date:

2018.09.25

Last Calib.:

1899.12.30

Start Time: 04:45:00

End Time:

08:36:30

Time On Btm:

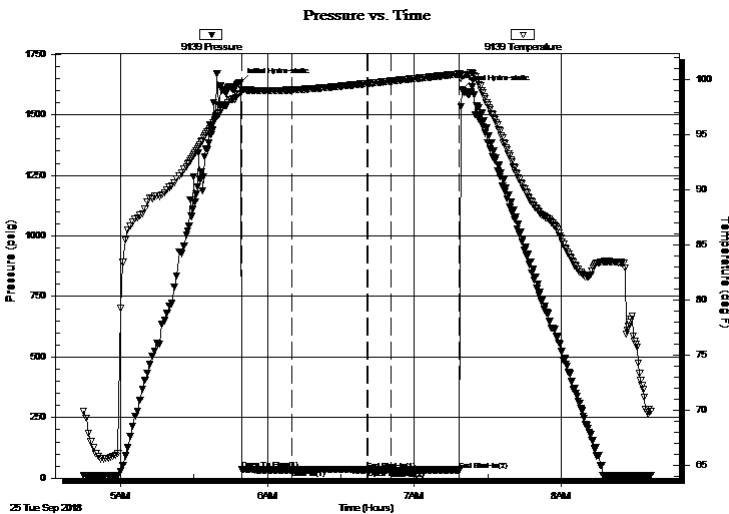
2018.09.25 @ 05:49:00

Time Off Btm:

2018.09.25 @ 07:19:30

TEST COMMENT: 1st Opening 15 minutes very weak blow for 7 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1634.02	98.70	Initial Hydro-static
1	35.68	99.09	Open To Flow (1)
21	34.54	99.03	Shut-In(1)
52	34.44	99.61	End Shut-In(1)
52	34.43	99.63	Open To Flow (2)
62	33.47	99.84	Shut-In(2)
90	34.07	100.49	End Shut-In(2)
91	1602.77	100.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Drilling Mud	0.03

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01014

DST#: 2

Test Start: 2018.09.25 @ 04:42:00

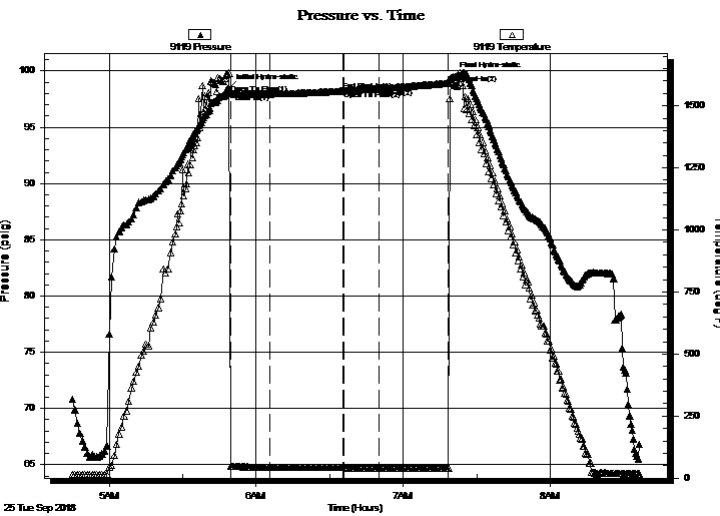
GENERAL INFORMATION:

Formation: **Kansas City "E&F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:00:00
 Time Test Ended: 00:00:00
 Interval: **3276.00 ft (KB) To 3298.00 ft (KB) (TVD)**
 Total Depth: 3298.00 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: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9119

Press@RunDepth: 98.91 psig @ ft (KB) Capacity: psig
 Start Date: 2018.09.25 End Date: 2018.09.25 Last Calib.: 1899.12.30
 Start Time: 04:45:00 End Time: 08:36:30 Time On Btm: 2018.09.25 @ 05:49:00
 Time Off Btm: 2018.09.25 @ 07:20:30

TEST COMMENT: 1st Opening 15 minutes very weak blow for 7 minutes and died
 1st Shut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	98.47	1631.78	Initial Hydro-static
1	98.03	49.91	Open To Flow (1)
17	97.96	42.63	Shut-In(1)
47	98.23	42.43	End Shut-In(1)
47	98.24	42.47	Open To Flow (2)
61	98.44	41.07	Shut-In(2)
90	98.91	41.53	End Shut-In(2)
92	99.47	1589.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Drilling Mud	0.03

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01014

DST#: 2

Test Start: 2018.09.25 @ 04:42:00

Tool Information

Drill Pipe:	Length: 3265.00 ft	Diameter: 3.80 inches	Volume: 45.80 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 45.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3276.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	52.00 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			3251.00	
Hydraulic tool	5.00			3256.00	
Jars	5.00			3261.00	
Safety Joint	5.00			3266.00	
Packer	5.00			3271.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3276.00	
Anchor	17.00			3293.00	
Recorder	0.00	9119	Inside	3293.00	
Recorder	0.00	9139	Outside	3293.00	
Bullnose	5.00			3298.00	22.00 Bottom Packers & Anchor
Total Tool Length:	52.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01014

DST#: 2

ATTN: renee Husted

Test Start: 2018.09.25 @ 04:42:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 10.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 8.79 in³
Resistivity: ohm.m
Salinity: 8000.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Drilling Mud	0.028

Total Length: 2.00 ft Total Volume: 0.028 bbl

Num Fluid Samples: 0

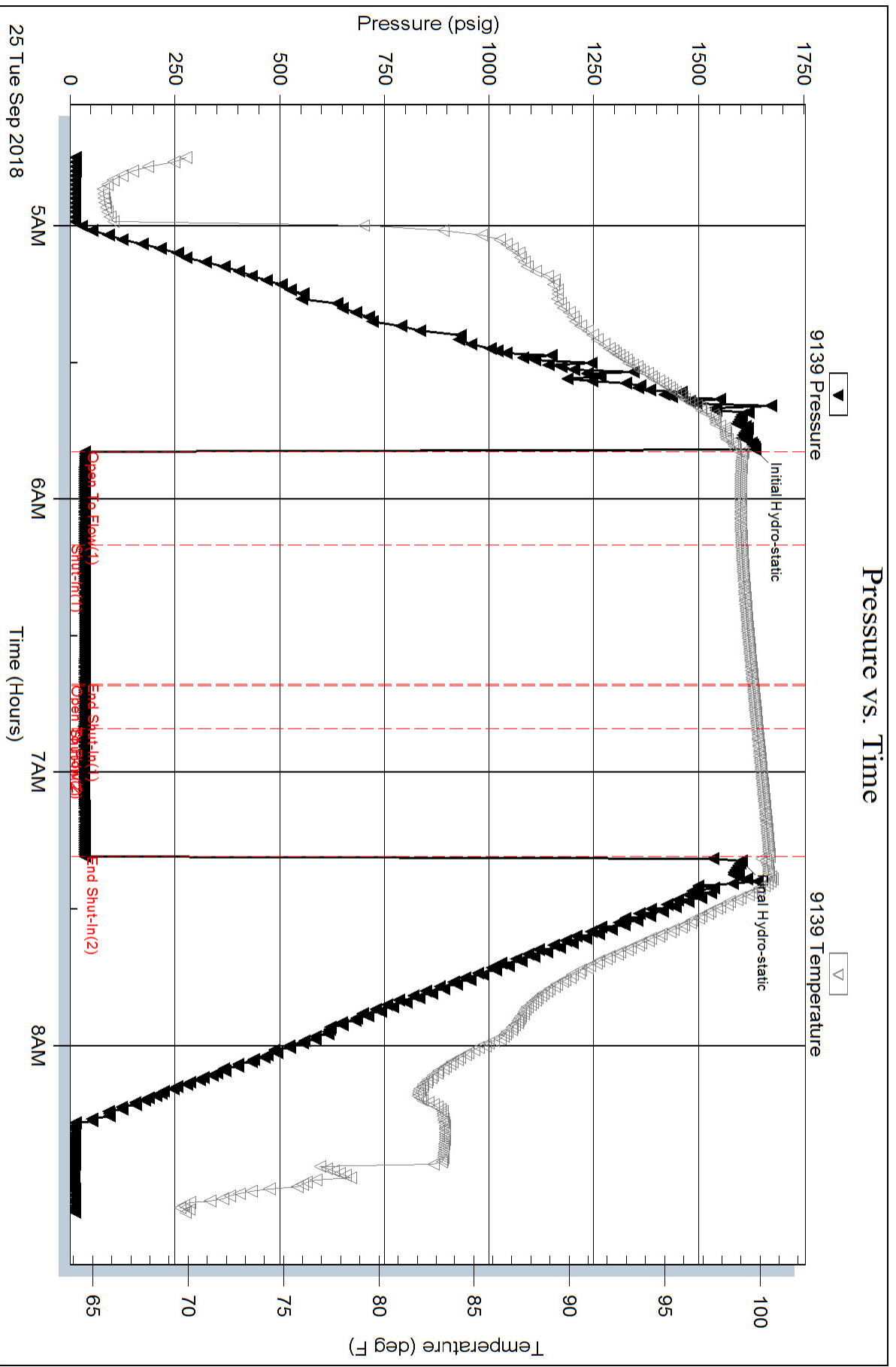
Num Gas Bombs: 0

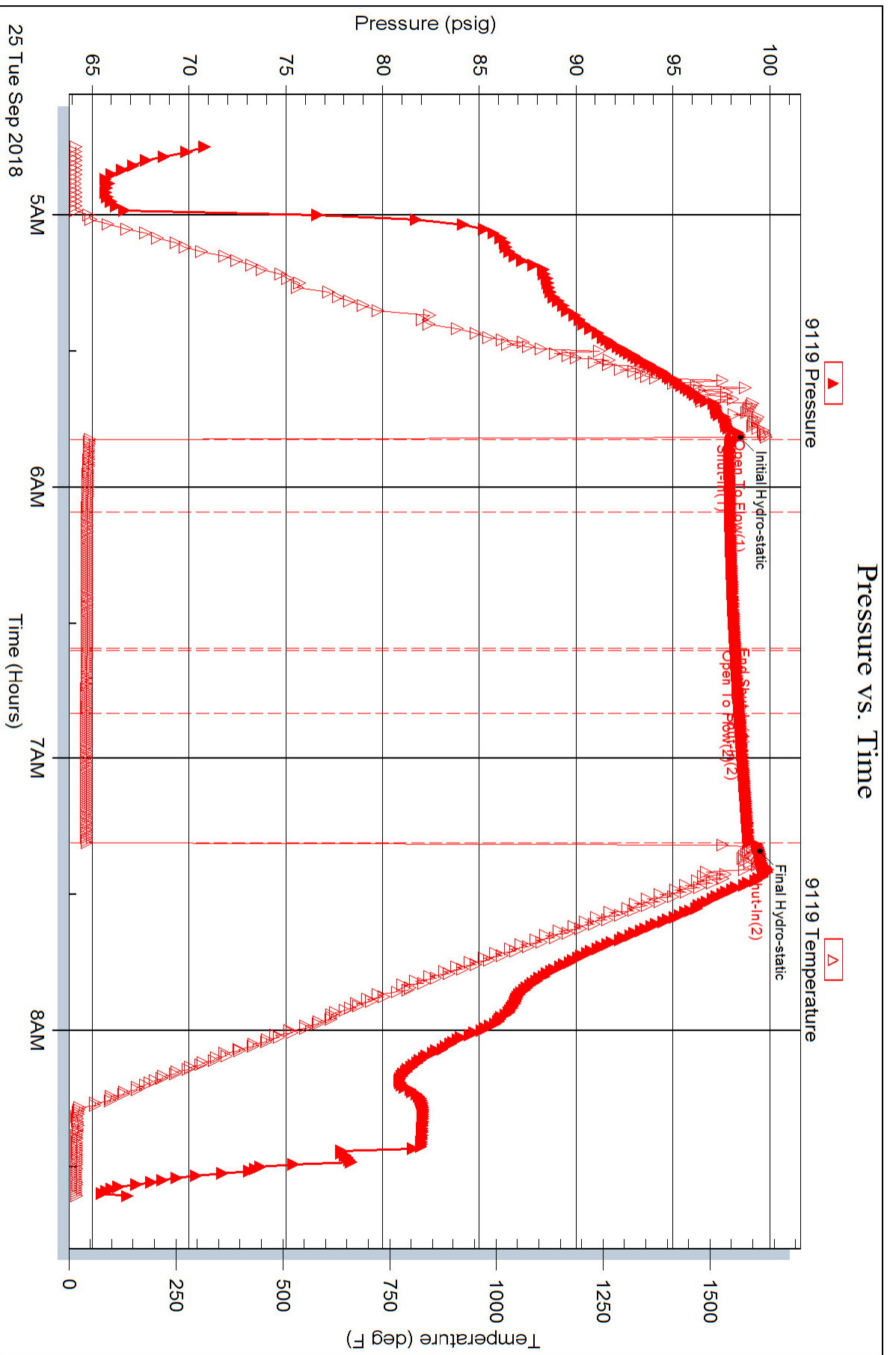
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.26 @ 11:46:00

End Date: 2018.09.26 @ 00:00:00

Job Ticket #: 01016 DST #: 4

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

Printed: 2018.09.26 @ 21:14:27

F G Holl Company LLC
7-17s-13w
I L S Land "B" #1-7
DST # 4
Kansas City "J & K"
2018.09.26



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01016

DST#: 4

Test Start: 2018.09.26 @ 11:46:00

GENERAL INFORMATION:

Formation: **Kansas City "J & K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:16:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3385.00 ft (KB) To 3420.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3420.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139

Press@RunDepth: 651.39 psig @ ft (KB)

Capacity: psig

Start Date: 2018.09.26

End Date: 2018.09.26

Last Calib.: 1899.12.30

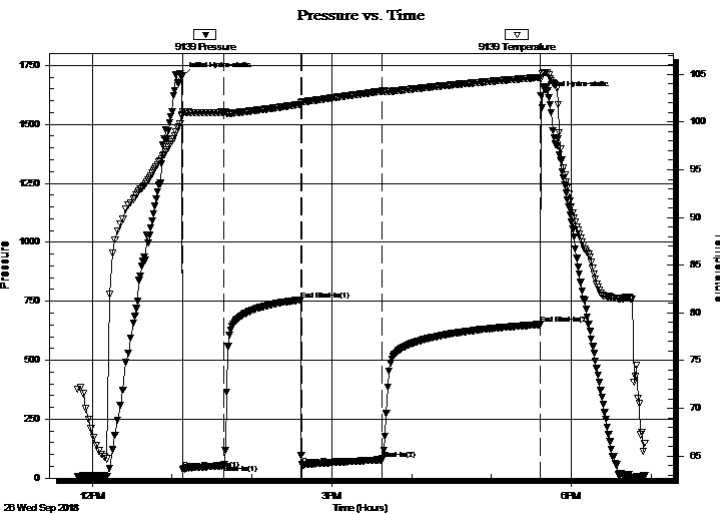
Start Time: 11:46:00

End Time: 18:55:29

Time On Btm: 2018.09.26 @ 13:07:30

Time Off Btm: 2018.09.26 @ 17:37:00

TEST COMMENT: 1st Opening 30 Minutes w weak building blow built to 3 inches
1st Shut-In 60 Minutes
2nd Opening 60 Minutes w weak blow built to 4 1/2 inches
2nd Shut-In 120 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1704.63	100.73	Initial Hydro-static
1	37.53	101.11	Open To Flow (1)
32	57.31	101.04	Shut-In(1)
89	755.91	101.86	End Shut-In(1)
90	55.91	102.14	Open To Flow (2)
150	78.23	103.22	Shut-In(2)
269	651.39	104.68	End Shut-In(2)
270	1622.52	104.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Water Chlorides 26000	1.26

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01016

DST#: 4

Test Start: 2018.09.26 @ 11:46:00

GENERAL INFORMATION:

Formation: **Kansas City "J & K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:16:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3385.00 ft (KB) To 3420.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3420.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9119

Press@RunDepth: 660.20 psig @ ft (KB)

Capacity: psig

Start Date: 2018.09.26 End Date: 2018.09.26

Last Calib.: 1899.12.30

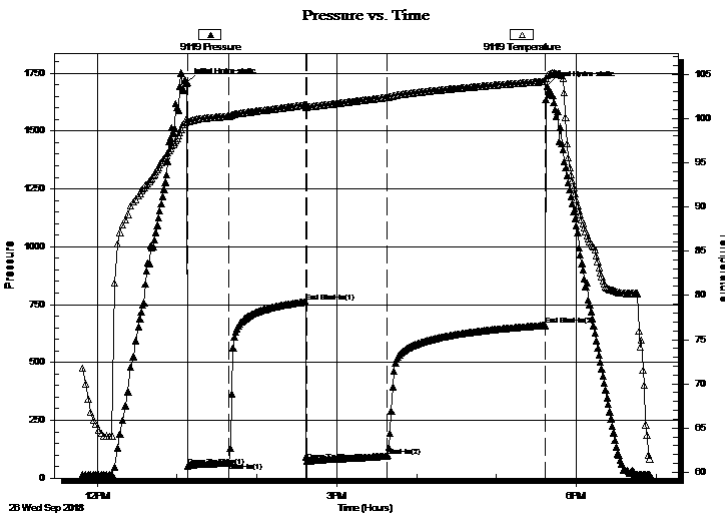
Start Time: 11:46:00 End Time: 18:55:29

Time On Btm: 2018.09.26 @ 13:07:30

Time Off Btm: 2018.09.26 @ 17:38:00

TEST COMMENT: 1st Opening 30 Minutes w weak building blow built to 3 inches
1st Shut-In 60 Minutes
2nd Opening 60 Minutes w weak blow built to 4 1/2 inches
2nd Shut-In 120 Minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1708.40	100.00	Initial Hydro-static
1	53.42	99.61	Open To Flow (1)
32	68.95	100.25	Shut-In(1)
89	761.92	101.51	End Shut-In(1)
90	74.93	101.35	Open To Flow (2)
150	94.94	102.36	Shut-In(2)
269	660.20	104.18	End Shut-In(2)
271	1694.66	104.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Water Chlorides 26000	1.26

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01016

DST#: 4

Test Start: 2018.09.26 @ 11:46:00

Tool Information

Drill Pipe:	Length: 3361.00 ft	Diameter: 3.80 inches	Volume: 47.15 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 47.15 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3385.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	65.00 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			3360.00	
Hydraulic tool	5.00			3365.00	
Jars	5.00			3370.00	
Safety Joint	5.00			3375.00	
Packer	5.00			3380.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3385.00	
Anchor	30.00			3415.00	
Recorder	0.00	9119	Inside	3415.00	
Recorder	0.00	9139	Outside	3415.00	
Bullnose	5.00			3420.00	35.00 Bottom Packers & Anchor
Total Tool Length:	65.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01016

DST#: 4

ATTN: renee Husted

Test Start: 2018.09.26 @ 11:46:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Water Chlorides 26000	1.262

Total Length: 90.00 ft Total Volume: 1.262 bbl

Num Fluid Samples: 0

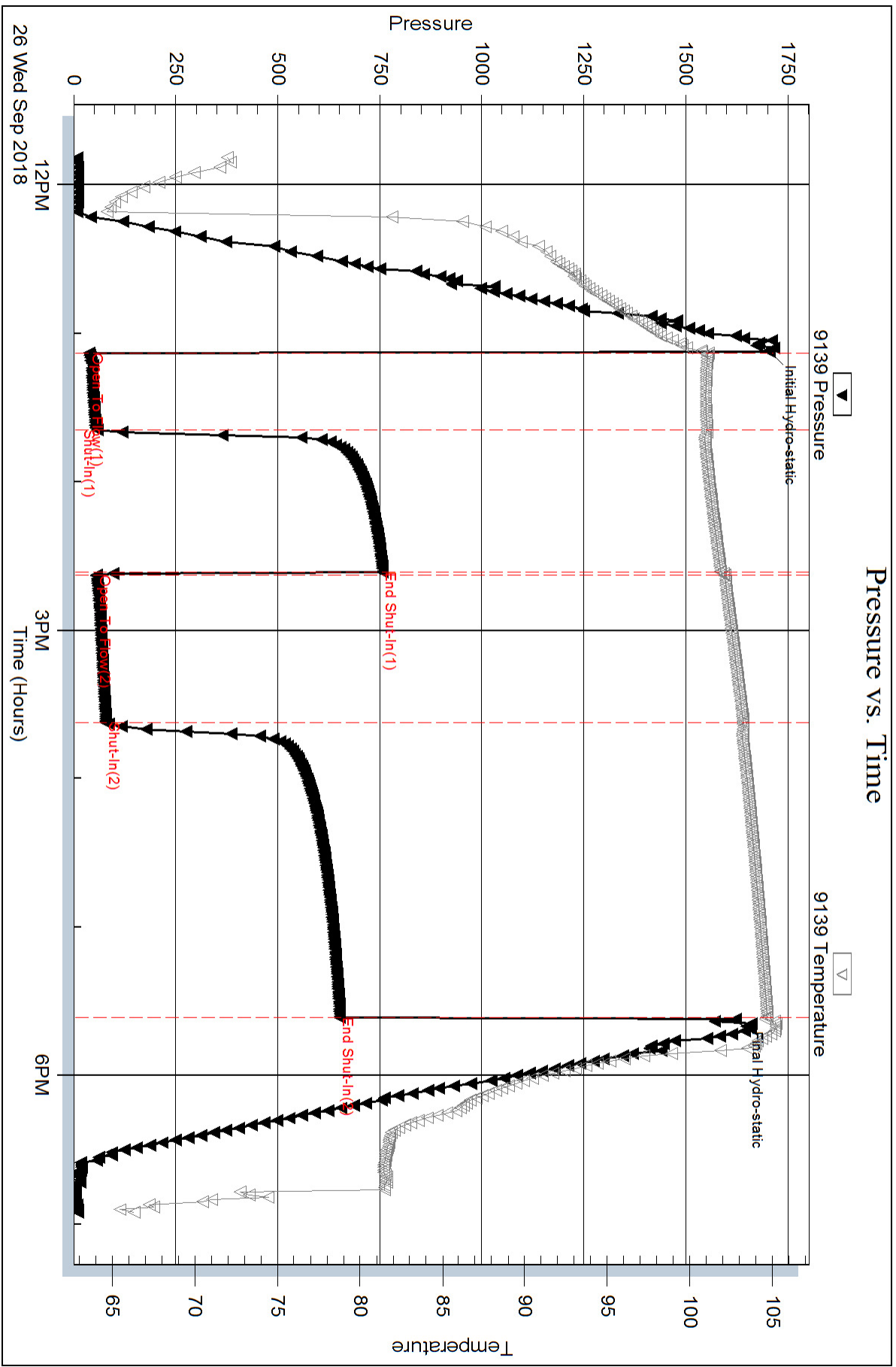
Num Gas Bombs: 0

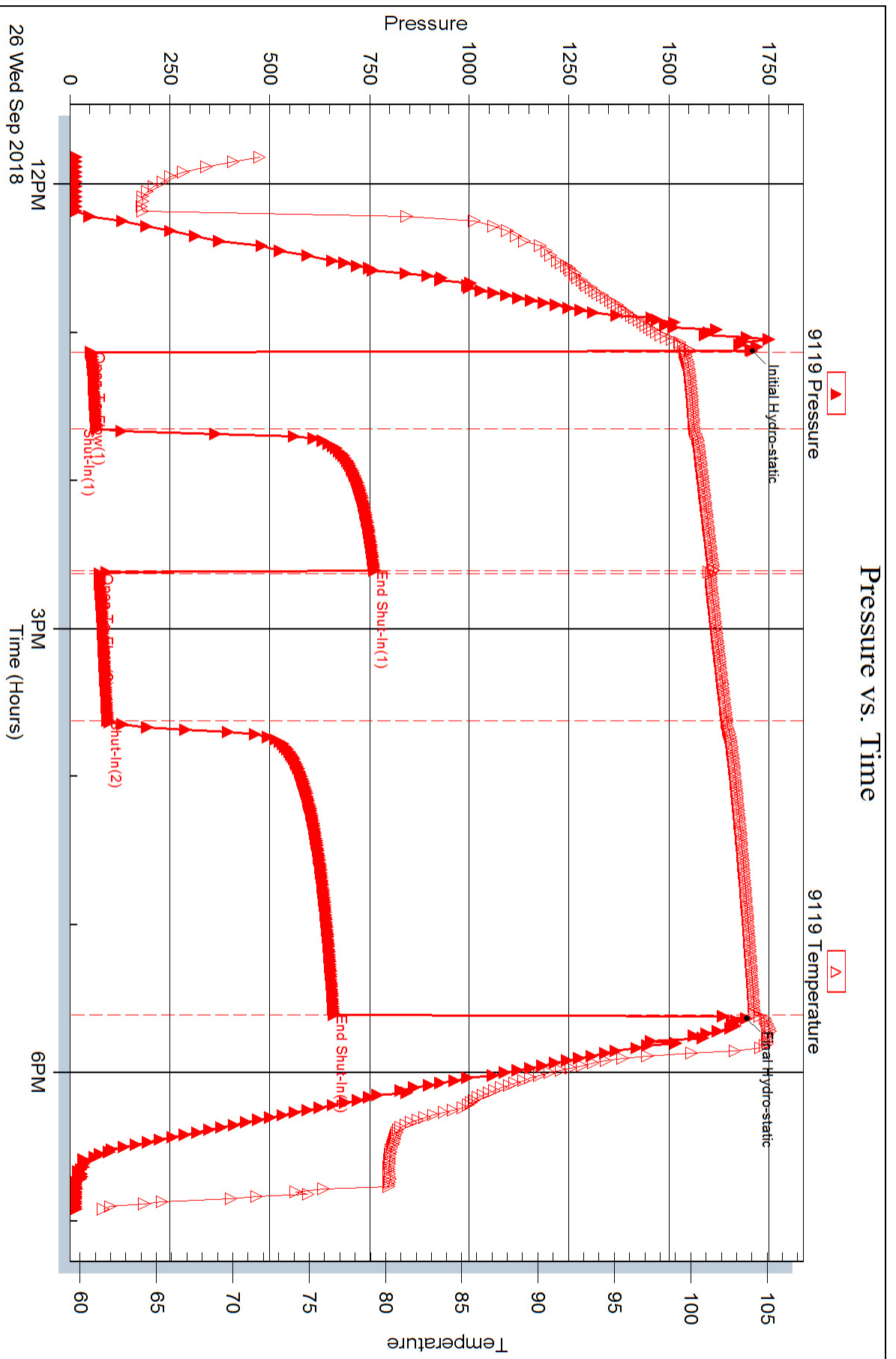
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.26 @ 18:30:00

End Date: 2018.09.26 @ 23:20:00

Job Ticket #: 01017 DST #: 5

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

Printed: 2018.09.26 @ 23:42:30



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01017

DST#: 5

Test Start: 2018.09.26 @ 18:30:00

GENERAL INFORMATION:

Formation: **Kansas City "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:18:00

Time Test Ended: 23:20:00

Test Type: Conventional Straddle (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3350.00 ft (KB) To 3385.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3420.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9119 Inside

Press@RunDepth: 61.58 psig @ 3384.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.26 End Date: 2018.09.26

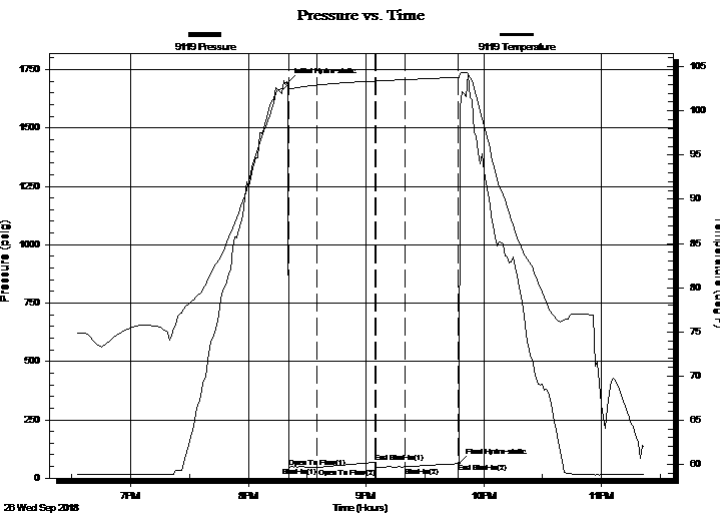
Last Calib.: 2018.09.26

Start Time: 18:30:00 End Time: 23:22:00

Time On Btm: 2018.09.26 @ 20:20:00

Time Off Btm: 2018.09.26 @ 21:47:30

TEST COMMENT: 1st Opening 15 Minutes weak blow for 6 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1693.07	102.89	Initial Hydro-static
1	47.63	102.49	Open To Flow (1)
15	45.23	102.92	Shut-In(1)
45	67.13	103.38	End Shut-In(1)
45	43.84	103.39	Open To Flow (2)
60	48.46	103.55	Shut-In(2)
87	61.58	103.80	End Shut-In(2)
88	61.67	103.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	drilling mud	0.14

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01017

DST#: 5

ATTN: renee Husted

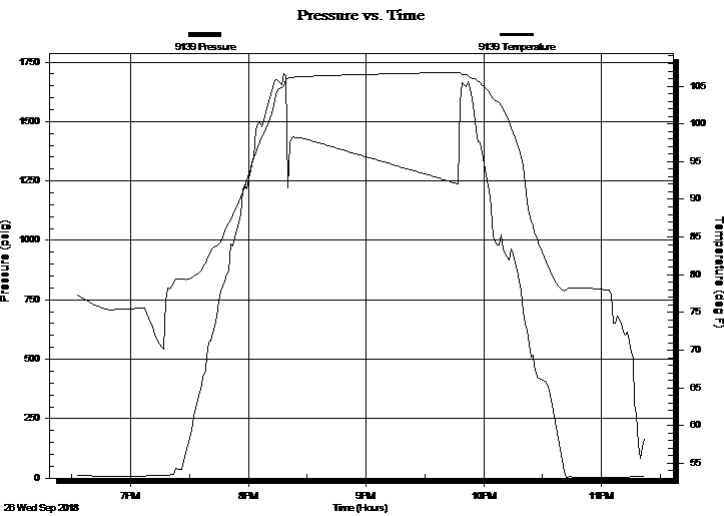
Test Start: 2018.09.26 @ 18:30:00

GENERAL INFORMATION:

Formation: **Kansas City "I-J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:18:00
 Time Test Ended: 23:20:00
 Interval: **3350.00 ft (KB) To 3385.00 ft (KB) (TVD)**
 Total Depth: 3420.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Initial)
 Tester: Gene Budig
 Unit No: 1
 Reference Elevations: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9139 Outside
 Press@RunDepth: psig @ 3420.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2018.09.26 End Date: 2018.09.26 Last Calib.: 2018.09.26
 Start Time: 18:30:03 End Time: 23:22:03 Time On Btm:
 Time Off Btm:

TEST COMMENT: 1st Opening 15 Minutes weak blow for 6 minutes and died
 1st Shut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	drilling mud	0.14

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01017

DST#: 5

Test Start: 2018.09.26 @ 18:30:00

GENERAL INFORMATION:

Formation: **Kansas City "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:18:00

Time Test Ended: 23:20:00

Test Type: Conventional Straddle (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3350.00 ft (KB) To 3385.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3420.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 91716 Outside

Press@RunDepth: 83.42 psig @ 3384.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.26 End Date: 2018.09.26

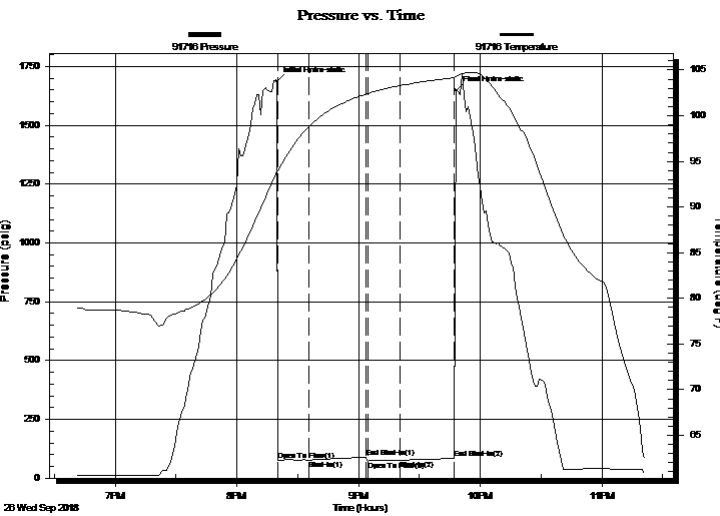
Last Calib.: 2018.09.26

Start Time: 18:30:00 End Time: 23:21:29

Time On Btm: 2018.09.26 @ 20:19:30

Time Off Btm: 2018.09.26 @ 21:48:00

TEST COMMENT: 1st Opening 15 Minutes weak blow for 6 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1687.34	93.82	Initial Hydro-static
1	74.50	94.01	Open To Flow (1)
16	76.91	98.80	Shut-In(1)
44	89.36	102.34	End Shut-In(1)
45	73.00	102.43	Open To Flow (2)
61	76.50	103.30	Shut-In(2)
88	83.42	104.17	End Shut-In(2)
89	1647.90	104.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	drilling mud	0.14

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01017

DST#: 5

ATTN: renee Husted

Test Start: 2018.09.26 @ 18:30:00

Tool Information

Drill Pipe:	Length: 3331.00 ft	Diameter: 3.80 inches	Volume: 46.73 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	72000.00 lb
			<u>Total Volume: 46.73 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3350.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	3385.00 ft				
Interval between Packers:	35.00 ft				
Tool Length:	105.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3325.00	
Hydraulic tool	5.00			3330.00	
Jars	5.00			3335.00	
Safety Joint	5.00			3340.00	
Top Packer	5.00			3345.00	
Packer	5.00		Fluid	3350.00	30.00 Bottom Of Top Packer
Anchor	34.00			3384.00	
Recorder	0.00	9119	Inside	3384.00	
Recorder	0.00	91716	Outside	3384.00	
Blank Off Sub	1.00			3385.00	35.00 Tool Interval
Packer	5.00			3390.00	
Anchor	30.00			3420.00	
Recorder	0.00	9139	Outside	3420.00	
Bullnose	5.00			3425.00	40.00 Bottom Packers & Anchor

Total Tool Length: 105.00



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01017

DST#: 5

ATTN: renee Husted

Test Start: 2018.09.26 @ 18:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 50.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 4800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	drilling mud	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

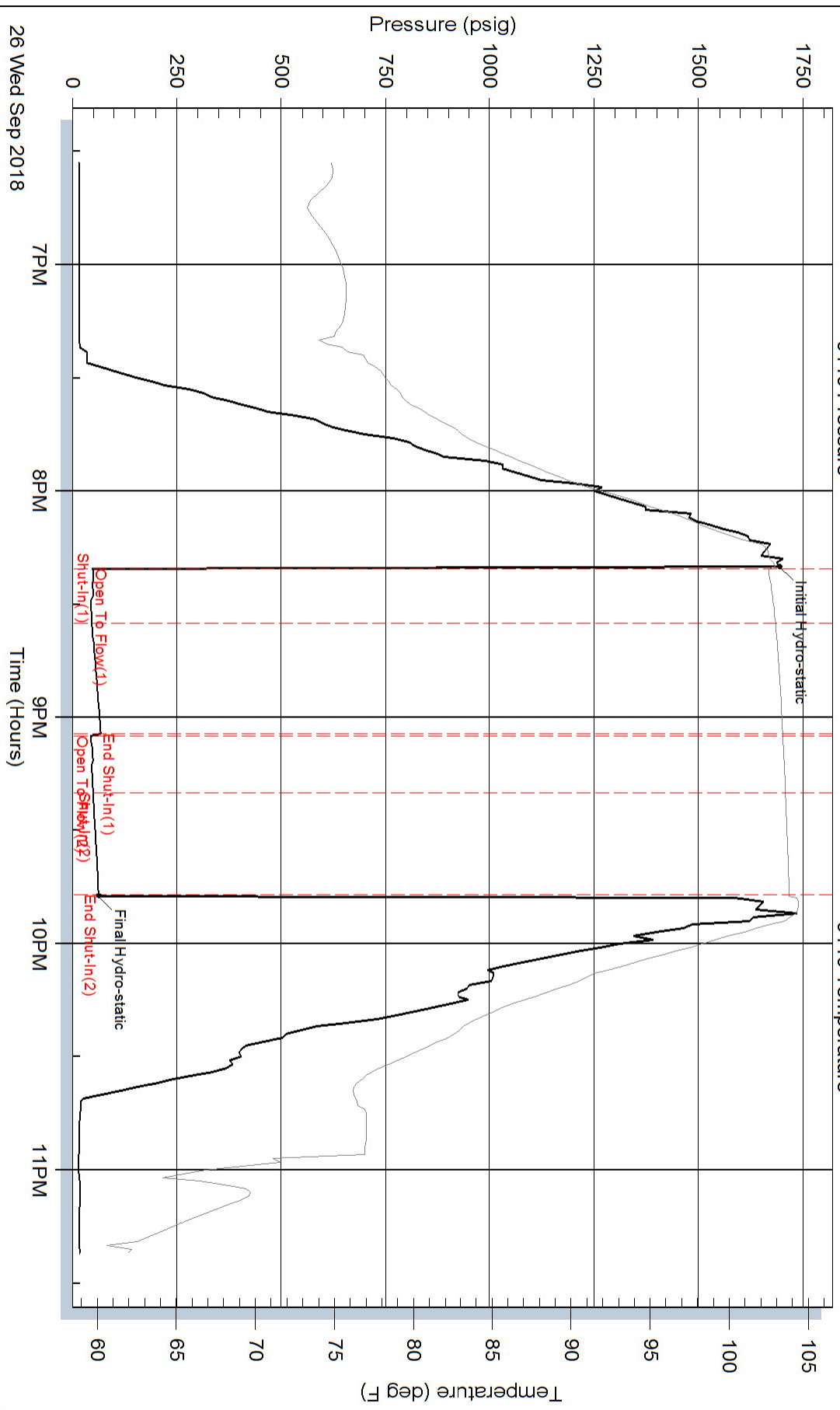
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

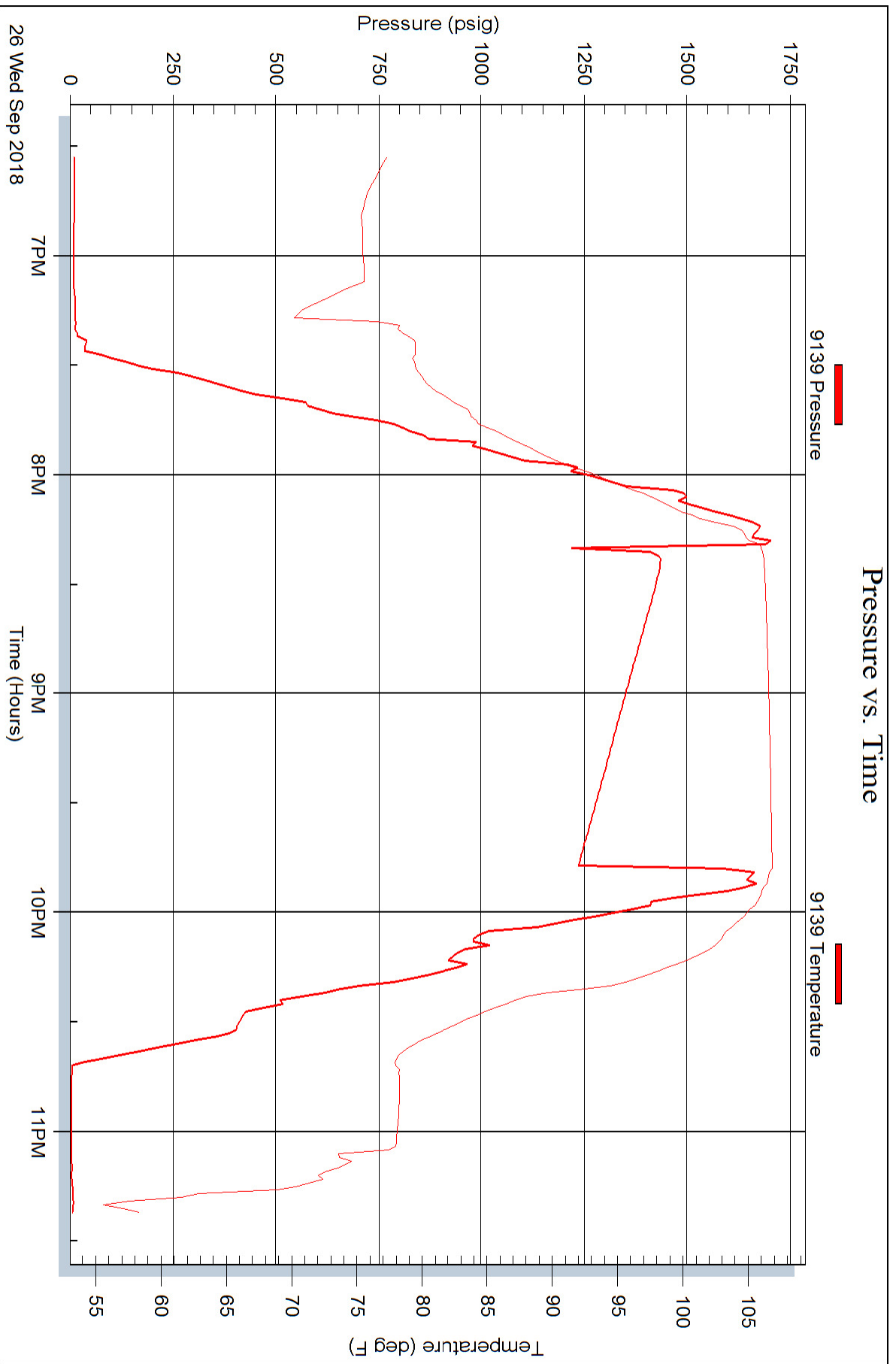


Serial #: 9139

Outside F G Holl Company LLC

IL S Land "B" #1-7

DST Test Number: 5

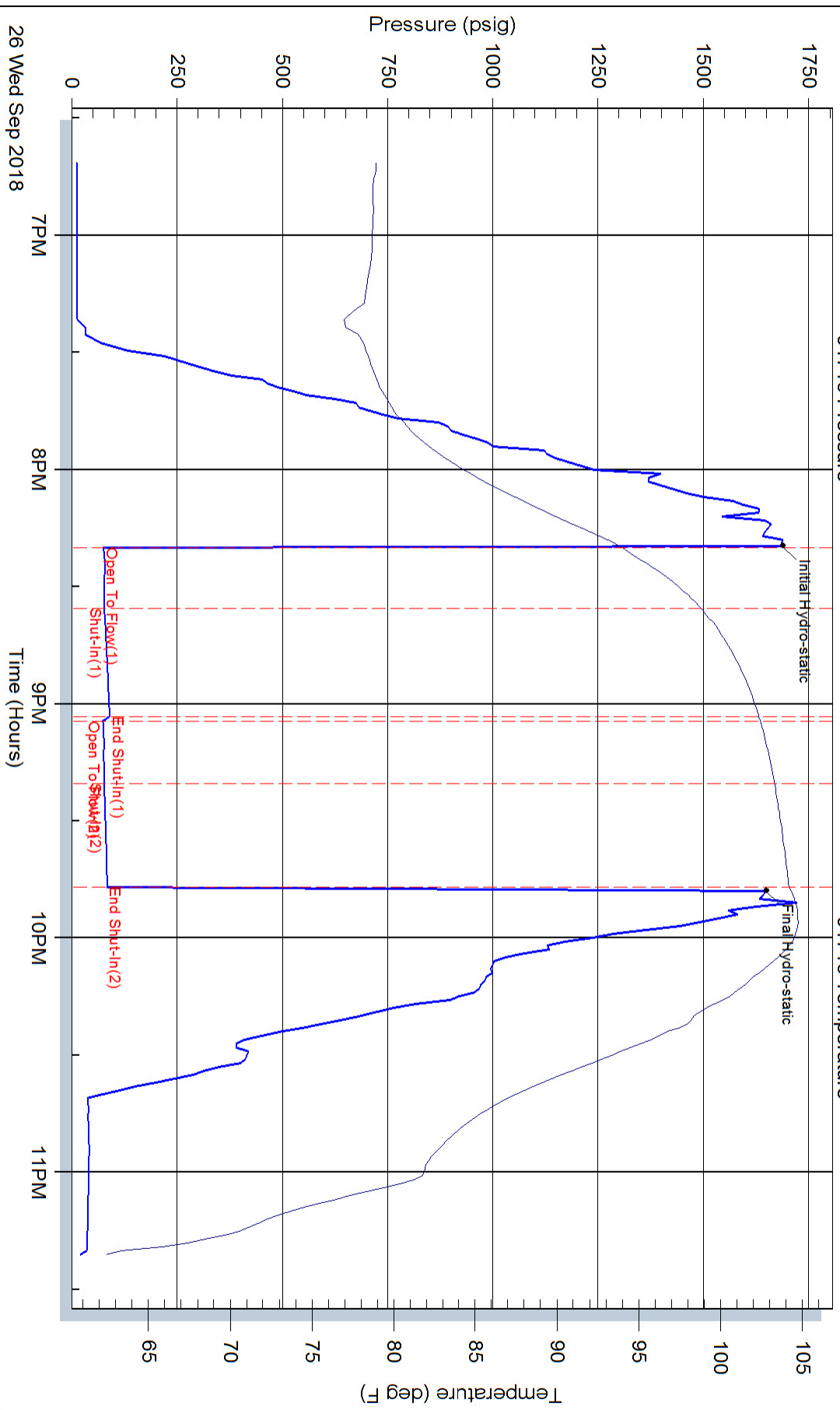


Eagle Testers

Ref. No: 01017

Printed: 2018.09.26 @ 23:42:32

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.27 @ 06:59:00

End Date: 2018.09.27 @ 10:11:00

Job Ticket #: 01018 DST #: 6

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

Printed: 2018.09.27 @ 10:26:17



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01018

DST#: 6

Test Start: 2018.09.27 @ 06:59:00

GENERAL INFORMATION:

Formation: **Kansas City "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:30:00

Time Test Ended: 10:11:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3420.00 ft (KB) To 3434.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3434.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139 Outside

Press@RunDepth: 73.11 psig @ 3429.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.27 End Date: 2018.09.27

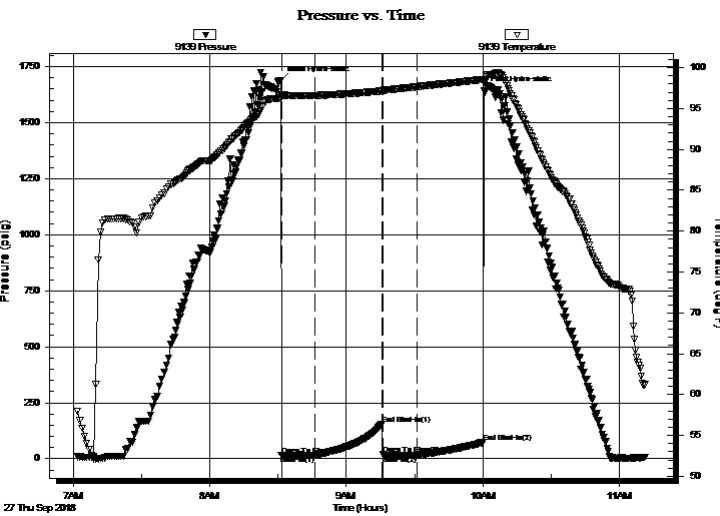
Last Calib.: 2018.09.27

Start Time: 06:59:00 End Time: 11:10:59

Time On Btm: 2018.09.27 @ 08:31:00

Time Off Btm: 2018.09.27 @ 10:00:30

TEST COMMENT: 1st Opening 15 Minutes w eak blow for 6 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1688.24	96.29	Initial Hydro-static
1	16.26	96.70	Open To Flow (1)
15	16.45	96.60	Shut-In(1)
45	155.32	97.14	End Shut-In(1)
45	21.25	97.21	Open To Flow (2)
60	17.18	97.67	Shut-In(2)
90	73.11	98.55	End Shut-In(2)
90	1643.77	98.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Oil cut mud 10% Oil 90 % Mud	0.14
0.00	very good show of clean oil betw een the	0.00
0.00	tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01018

DST#: 6

Test Start: 2018.09.27 @ 06:59:00

GENERAL INFORMATION:

Formation: **Kansas City "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:30:00

Time Test Ended: 10:11:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3420.00 ft (KB) To 3434.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3434.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9119 Inside

Press@RunDepth: 90.98 psig @ 3429.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.27 End Date: 2018.09.27

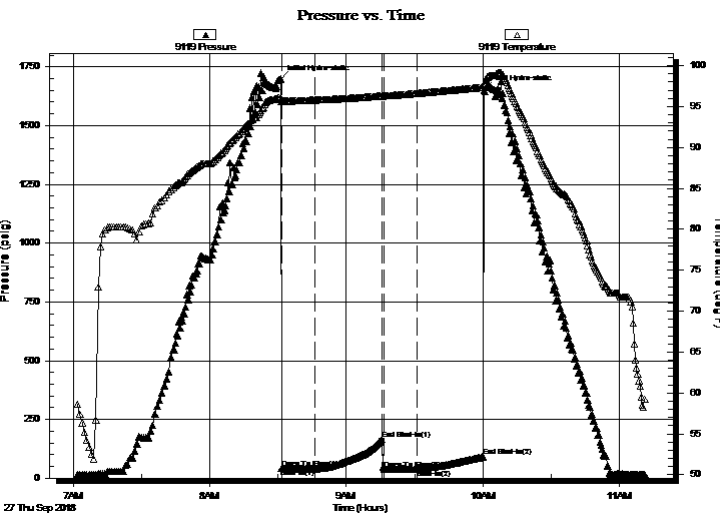
Last Calib.: 2018.09.27

Start Time: 06:59:00 End Time: 11:10:59

Time On Btm: 2018.09.27 @ 08:31:00

Time Off Btm: 2018.09.27 @ 10:00:30

TEST COMMENT: 1st Opening 15 Minutes w eak blow for 6 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.15	96.09	Initial Hydro-static
1	43.02	95.67	Open To Flow (1)
15	39.99	95.79	Shut-In(1)
45	165.57	96.30	End Shut-In(1)
46	37.95	96.29	Open To Flow (2)
60	39.20	96.60	Shut-In(2)
90	90.98	97.36	End Shut-In(2)
90	1651.41	97.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Oil cut mud 10% Oil 90 % Mud	0.14
0.00	very good show of clean oil betw een the	0.00
0.00	tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01018

DST#: 6

ATTN: renee Husted

Test Start: 2018.09.27 @ 06:59:00

Tool Information

Drill Pipe:	Length: 3420.00 ft	Diameter: 3.80 inches	Volume: 47.97 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	64000.00 lb
			<u>Total Volume: 47.97 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3420.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	44.00 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			3395.00	
Hydraulic tool	5.00			3400.00	
Jars	5.00			3405.00	
Safety Joint	5.00			3410.00	
Packer	5.00			3415.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3420.00	
Anchor	9.00			3429.00	
Recorder	0.00	9119	Inside	3429.00	
Recorder	0.00	9139	Outside	3429.00	
Bullnose	5.00			3434.00	14.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01018

DST#: 6

ATTN: renee Husted

Test Start: 2018.09.27 @ 06:59:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 63.00 sec/qt
Water Loss: 8.00 in³
Resistivity: ohm.m
Salinity: 4500.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Oil cut mud 10% Oil 90 % Mud	0.140
0.00	very good show of clean oil between the	0.000
0.00	tools	0.000

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

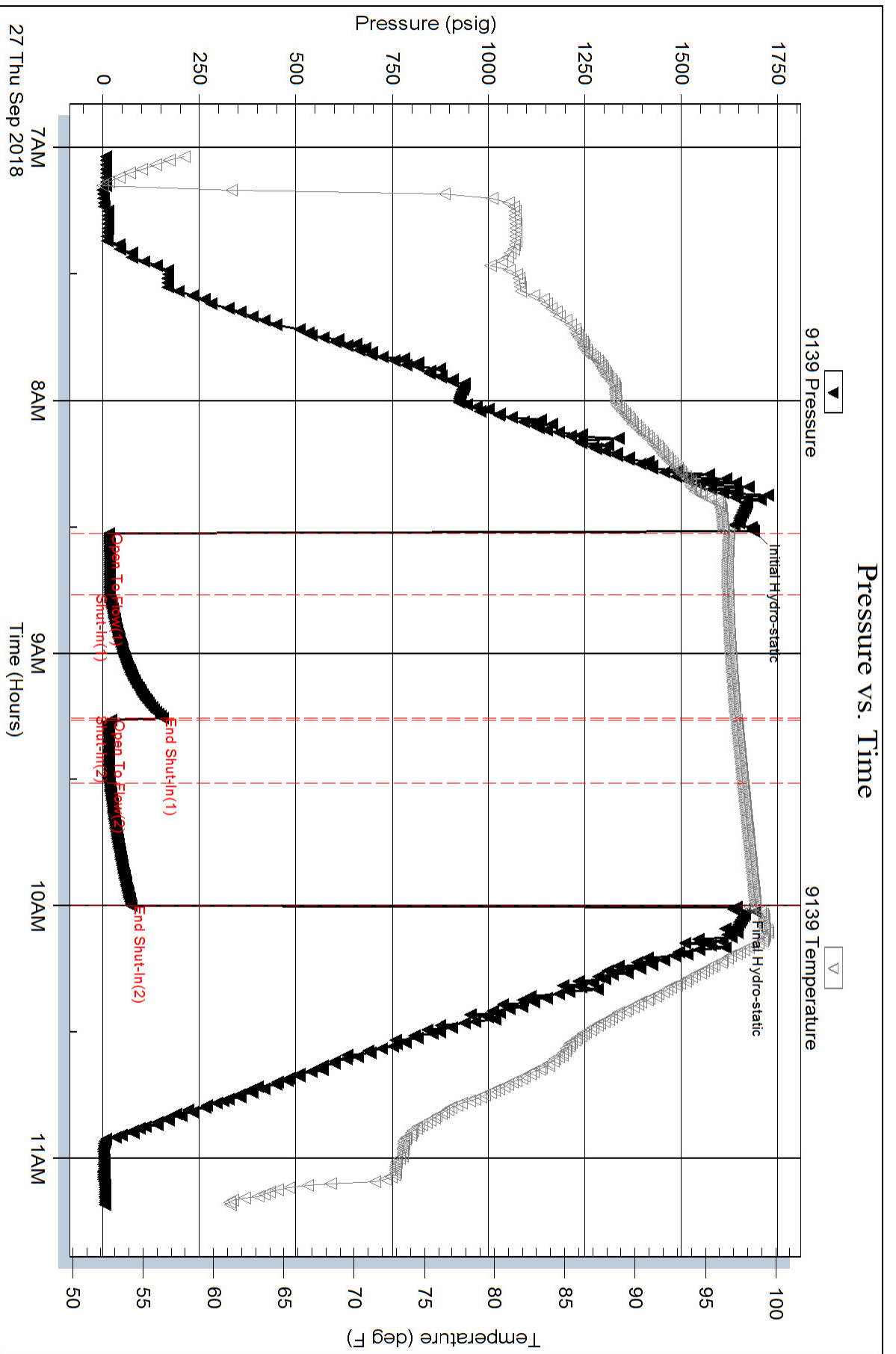
Num Gas Bombs: 0

Serial #:

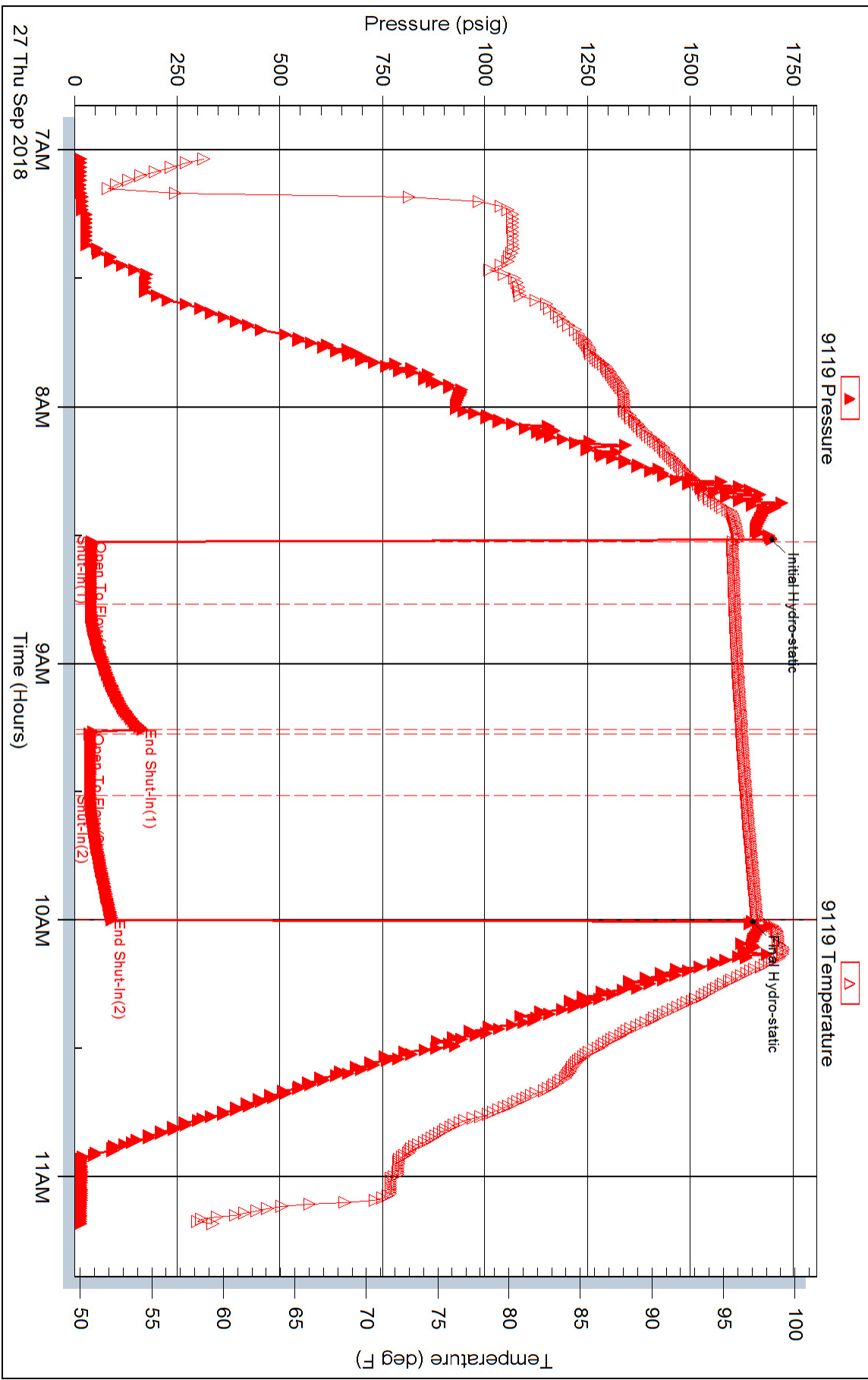
Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.28 @ 02:57:00

End Date: 2018.09.28 @ 07:25:00

Job Ticket #: 01019 DST #: 7

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

Printed: 2018.09.28 @ 07:42:15

F G Holl Company LLC
7-17s-13w
I L S Land "B" #1-7
DST # 7
Arbuckle
2018.09.28



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01019

DST#: 7

Test Start: 2018.09.28 @ 02:57:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:14:00

Time Test Ended: 07:25:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3425.00 ft (KB) To 3495.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3495.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **9119** Outside

Press@RunDepth: 109.05 psig @ 3489.61 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.28 End Date: 2018.09.28

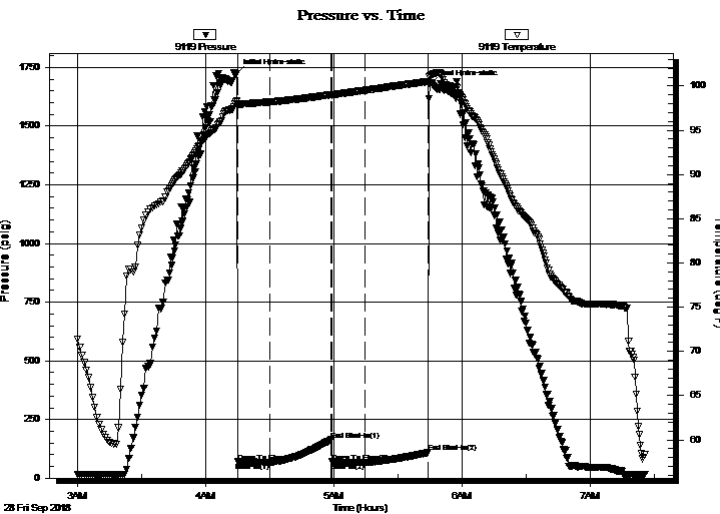
Last Calib.: 2018.09.28

Start Time: 02:57:00 End Time: 07:25:30

Time On Btm: 2018.09.28 @ 04:14:30

Time Off Btm: 2018.09.28 @ 05:45:00

TEST COMMENT: 1st Opening 15 Minutes weak blow for 11 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1722.51	98.29	Initial Hydro-static
1	69.22	97.90	Open To Flow (1)
16	68.07	98.19	Shut-In(1)
44	163.64	99.01	End Shut-In(1)
45	69.09	98.98	Open To Flow (2)
60	67.72	99.51	Shut-In(2)
90	109.05	100.50	End Shut-In(2)
91	1677.49	101.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drilling mud	0.14
0.00	show of oil betw een the tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01019

DST#: 7

Test Start: 2018.09.28 @ 02:57:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:14:00

Time Test Ended: 07:25:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3425.00 ft (KB) To 3495.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3495.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9139 Inside

Press@RunDepth: 94.73 psig @ 3489.61 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.28 End Date: 2018.09.28

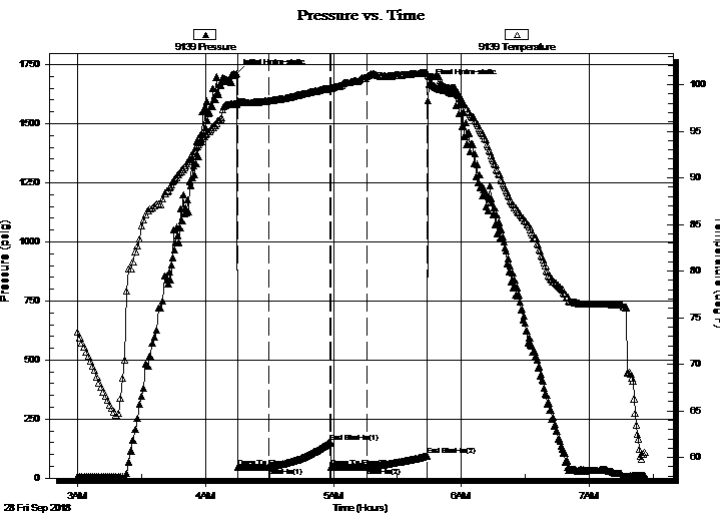
Last Calib.: 2018.09.28

Start Time: 02:57:00 End Time: 07:26:00

Time On Btm: 2018.09.28 @ 04:14:30

Time Off Btm: 2018.09.28 @ 05:45:00

TEST COMMENT: 1st Opening 15 Minutes weak blow for 11 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1711.41	97.90	Initial Hydro-static
1	45.43	98.27	Open To Flow (1)
15	46.91	98.26	Shut-In(1)
44	152.15	99.56	End Shut-In(1)
45	47.38	99.64	Open To Flow (2)
61	47.73	100.84	Shut-In(2)
90	94.73	101.31	End Shut-In(2)
91	1668.16	100.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drilling mud	0.14
0.00	show of oil betw een the tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01019

DST#:7

ATTN: renee Husted

Test Start: 2018.09.28 @ 02:57:00

Tool Information

Drill Pipe:	Length: 3422.00 ft	Diameter: 3.80 inches	Volume: 48.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 48.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3425.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.61 ft			
Tool Length:	99.61 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3400.00	
Hydraulic tool	5.00			3405.00	
Jars	5.00			3410.00	
Safety Joint	5.00			3415.00	
Packer	5.00			3420.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3425.00	
Anchor	5.00			3430.00	
Change Over Sub	0.75			3430.75	
Drill Pipe	31.11			3461.86	
Change Over Sub	0.75		Inside	3462.61	
Anchor	27.00			3489.61	
Recorder	0.00	9139	Inside	3489.61	
Recorder	0.00	9119	Outside	3489.61	
Bullnose	5.00			3494.61	69.61 Bottom Packers & Anchor

Total Tool Length: 99.61



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01019

DST#: 7

ATTN: renee Husted

Test Start: 2018.09.28 @ 02:57:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 8.80 in³
Resistivity: ohm.m
Salinity: 4800.00 ppm
Filter Cake: 0.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Drilling mud	0.140
0.00	show of oil between the tools	0.000

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

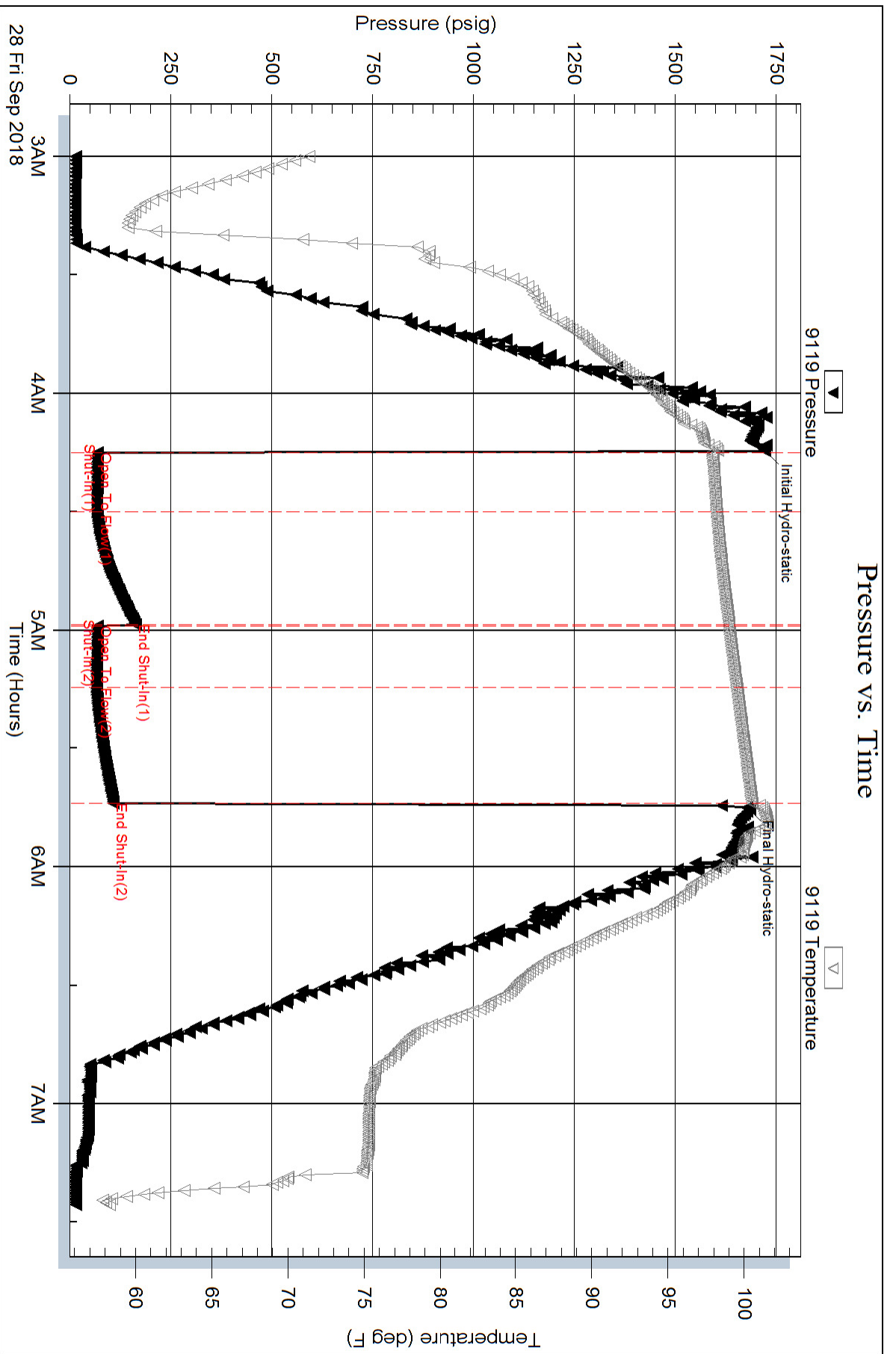
Num Gas Bombs: 0

Serial #:

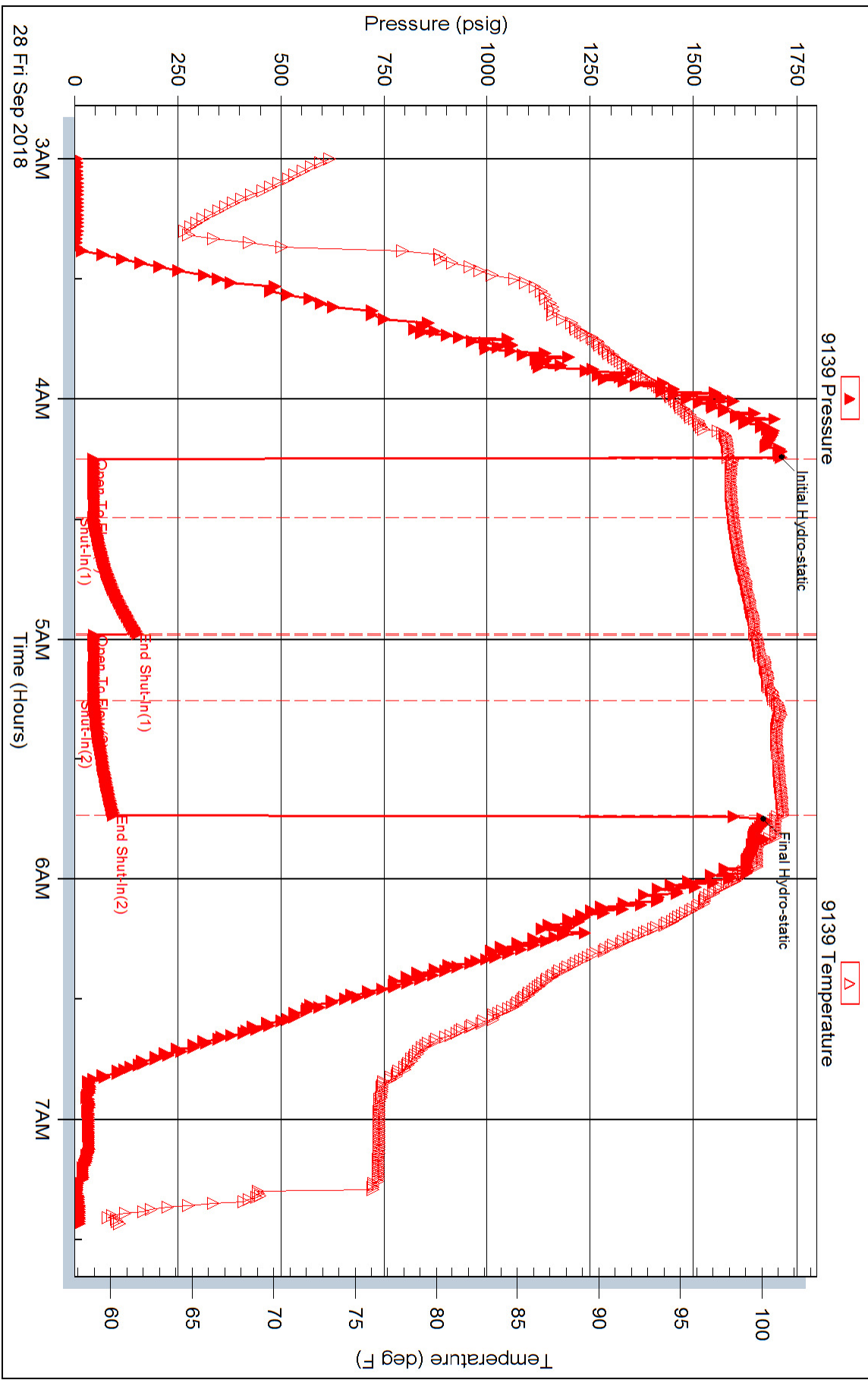
Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.28 @ 14:00:00

End Date: 2018.09.28 @ 18:04:00

Job Ticket #: 01020 DST #: 8

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

Printed: 2018.09.28 @ 18:20:13



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01020

DST#: 8

Test Start: 2018.09.28 @ 14:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:18:00
 Time Test Ended: 18:04:00
 Interval: **3493.00 ft (KB) To 3500.00 ft (KB) (TVD)**
 Total Depth: 3500.00 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: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

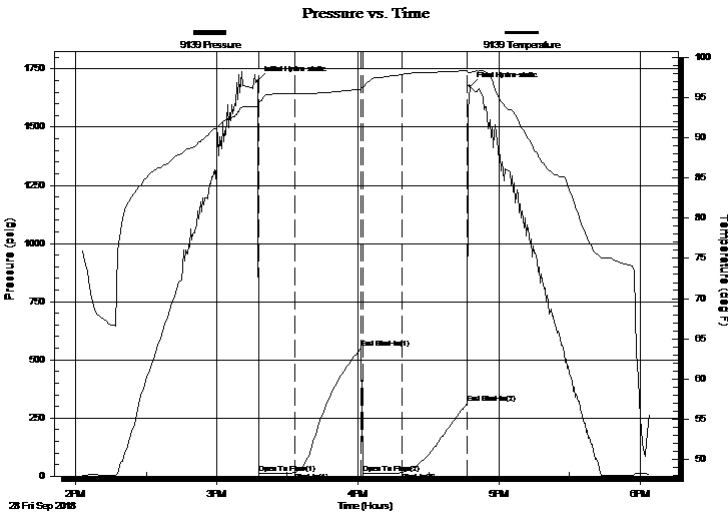
Serial #: 9139

Inside

Press@RunDepth: 312.30 psig @ 3495.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2018.09.28 End Date: 2018.09.28 Last Calib.: 2018.09.28
 Start Time: 14:00:00 End Time: 18:04:00 Time On Btm: 2018.09.28 @ 15:17:30
 Time Off Btm: 2018.09.28 @ 16:47:30

TEST COMMENT: 1st Opening 15 Minutes weak blow for 6 minutes and died
 1st Shgut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1699.24	93.90	Initial Hydro-static
1	11.44	94.43	Open To Flow (1)
16	16.31	95.50	Shut-In(1)
44	550.23	96.10	End Shut-In(1)
45	13.60	96.31	Open To Flow (2)
61	16.27	97.92	Shut-In(2)
89	312.30	98.40	End Shut-In(2)
90	1674.87	98.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	very slightly oil ciut mud w ith a	0.03
0.00	fair show betw een the tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01020

DST#: 8

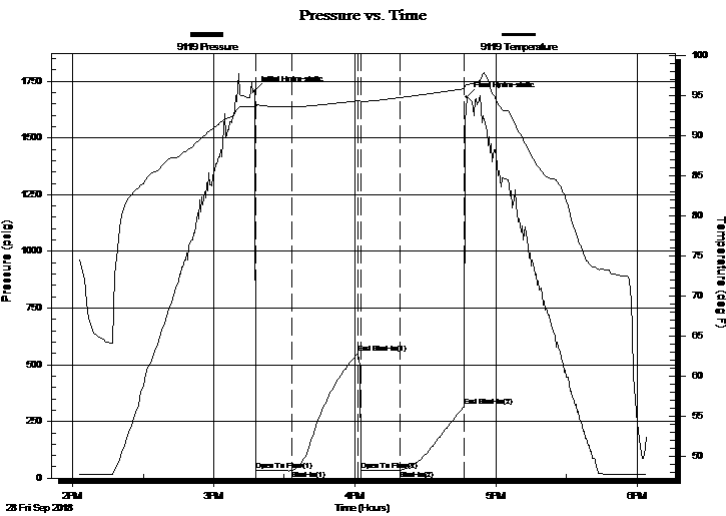
Test Start: 2018.09.28 @ 14:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:18:00
 Time Test Ended: 18:04:00
 Interval: **3493.00 ft (KB) To 3500.00 ft (KB) (TVD)**
 Total Depth: 3500.00 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: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 9119 Outside
 Press@RunDepth: 317.16 psig @ 3495.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2018.09.28 End Date: 2018.09.28 Last Calib.: 2018.09.28
 Start Time: 14:00:00 End Time: 18:04:00 Time On Btm: 2018.09.28 @ 15:17:30
 Time Off Btm: 2018.09.28 @ 16:47:30

TEST COMMENT: 1st Opening 15 Minutes weak blow for 6 minutes and died
 1st Shgut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1707.74	93.72	Initial Hydro-static
1	34.87	93.54	Open To Flow (1)
16	33.75	93.65	Shut-In(1)
44	553.26	94.42	End Shut-In(1)
45	36.31	94.31	Open To Flow (2)
62	34.93	94.79	Shut-In(2)
89	317.16	95.92	End Shut-In(2)
90	1680.86	96.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	very slightly oil ciut mud w ith a	0.03
0.00	fair show betw een the tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01020

DST#: 8

Test Start: 2018.09.28 @ 14:00:00

Tool Information

Drill Pipe:	Length: 3479.00 ft	Diameter: 3.80 inches	Volume: 48.80 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 48.80 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	3493.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	7.00 ft				
Tool Length:	37.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3468.00	
Hydraulic tool	5.00			3473.00	
Jars	5.00			3478.00	
Safety Joint	5.00			3483.00	
Packer	5.00			3488.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3493.00	
Anchor	2.00			3495.00	
Recorder	0.00	9139	Inside	3495.00	
Recorder	0.00	9119	Outside	3495.00	
Bullnose	5.00			3500.00	7.00 Bottom Packers & Anchor
Total Tool Length:	37.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01020

DST#: 8

ATTN: renee Husted

Test Start: 2018.09.28 @ 14:00:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 8.00 in³
Resistivity: ohm.m
Salinity: 3700.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	very slightly oil ciut mud w ith a	0.028
0.00	fair show betw een the tools	0.000

Total Length: 2.00 ft Total Volume: 0.028 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

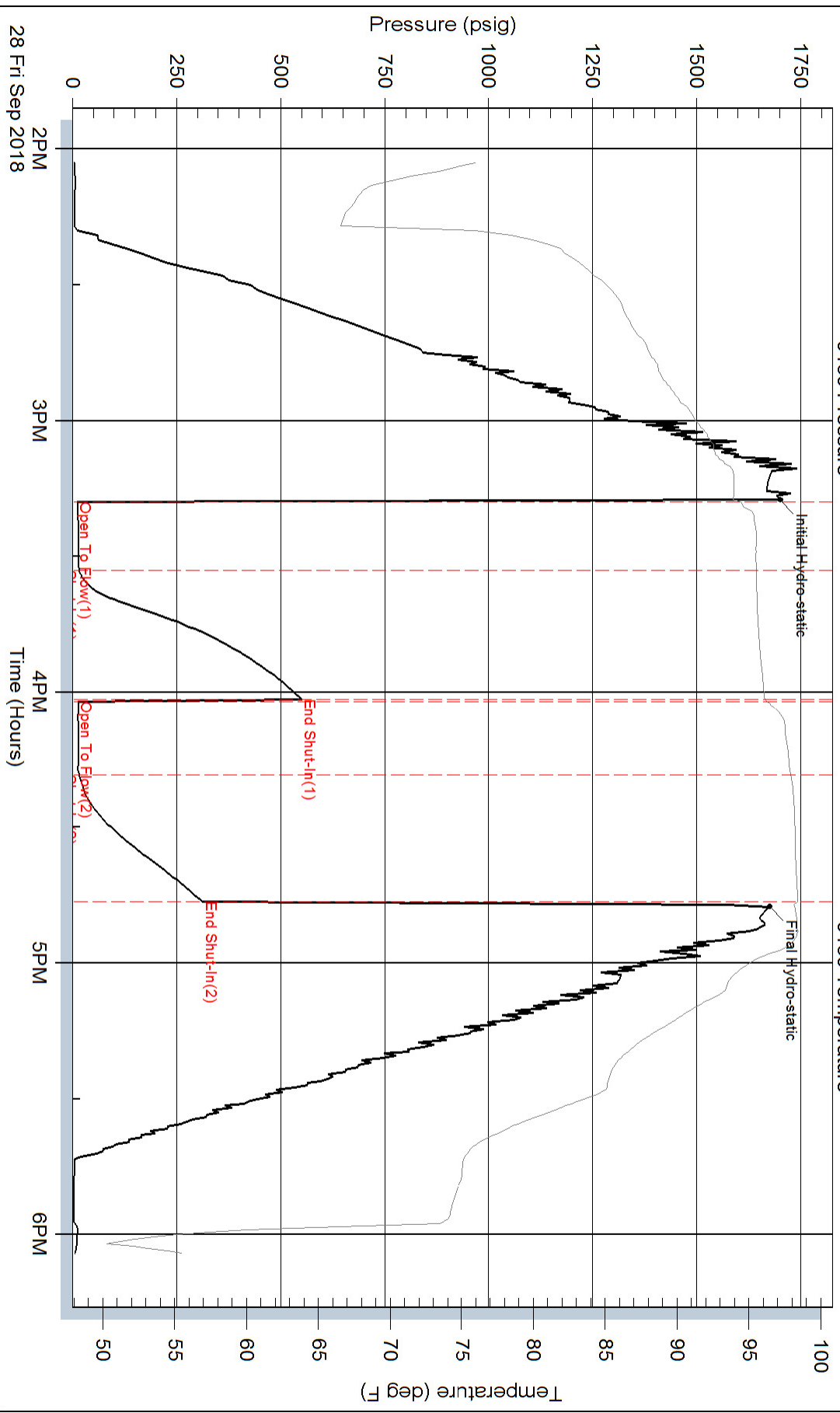
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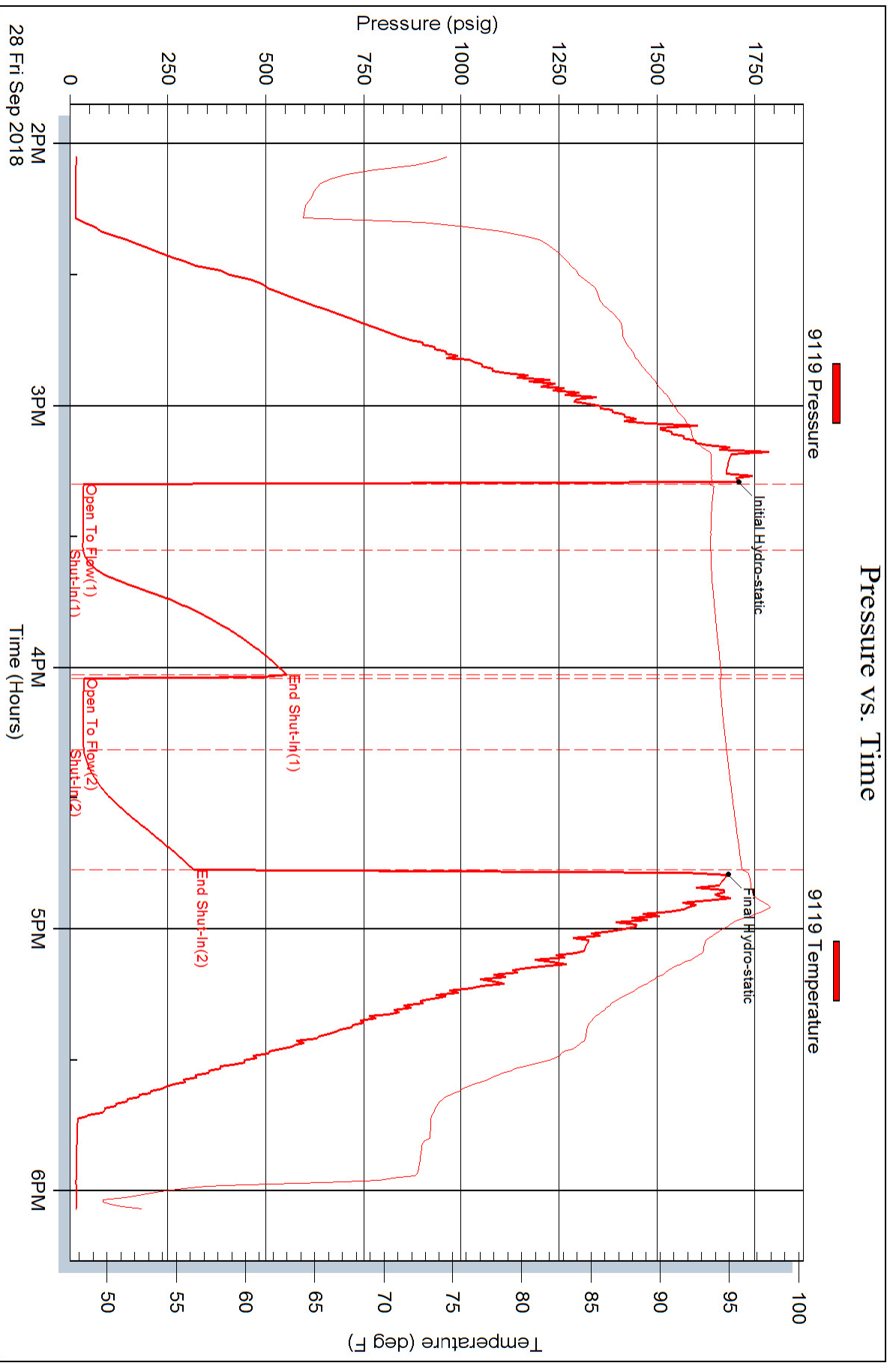
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.29 @ 12:09:00

End Date: 2018.09.29 @ 04:22:00

Job Ticket #: 01021 DST #: 9

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

Printed: 2018.09.29 @ 04:47:59

F G Holl Company LLC
7-17s-13w
I L S Land "B" #1-7
DST # 9
Arbuckle
2018.09.29



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01021

DST#: 9

Test Start: 2018.09.29 @ 12:09:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:30:00
 Time Test Ended: 04:22:00
 Interval: **3494.00 ft (KB) To 3505.00 ft (KB) (TVD)**
 Total Depth: 3505.00 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: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

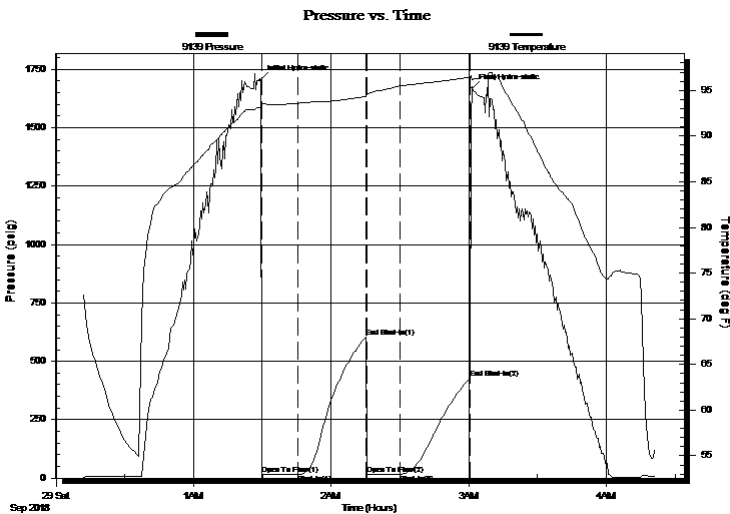
Serial #: 9139

Inside

Press@RunDepth: 429.50 psig @ 3500.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2018.09.29 End Date: 2018.09.29 Last Calib.: 2018.09.29
 Start Time: 00:09:00 End Time: 04:21:29 Time On Btm: 2018.09.29 @ 01:28:59
 Time Off Btm: 2018.09.29 @ 03:01:30

TEST COMMENT: 1st Opening 15 Minutes weak blow for 4 minutes and died
 1st Shut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1706.04	93.14	Initial Hydro-static
1	15.10	93.56	Open To Flow (1)
17	16.13	93.59	Shut-In(1)
47	604.25	94.33	End Shut-In(1)
47	15.98	94.60	Open To Flow (2)
62	15.42	95.52	Shut-In(2)
92	429.50	96.46	End Shut-In(2)
93	1667.97	96.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	drilling mud w with a show of oil	0.04
0.00	fair show of oil between the tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Hustead

Job Ticket: 01021

DST#: 9

Test Start: 2018.09.29 @ 12:09:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:30:00

Time Test Ended: 04:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3494.00 ft (KB) To 3505.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3505.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **9119** Outside

Press@RunDepth: 439.87 psig @ 3500.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.29 End Date: 2018.09.29

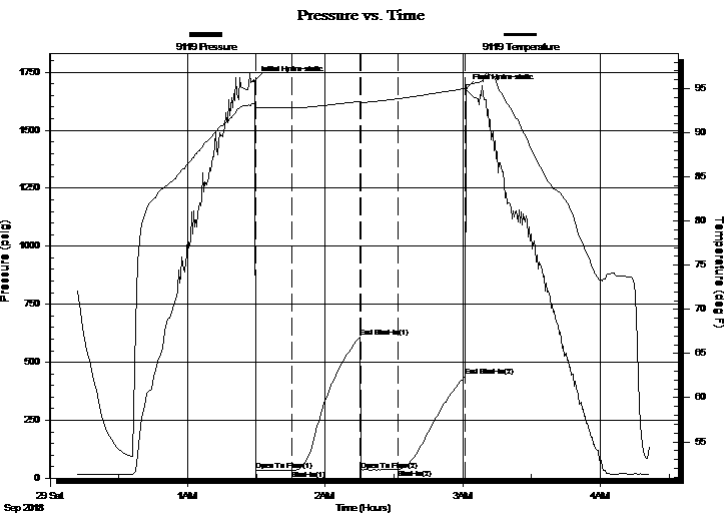
Last Calib.: 2018.09.29

Start Time: 00:09:00 End Time: 04:21:29

Time On Btm: 2018.09.29 @ 01:29:00

Time Off Btm: 2018.09.29 @ 03:01:30

TEST COMMENT: 1st Opening 15 Minutes weak blow for 4 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1714.25	93.33	Initial Hydro-static
1	34.37	92.92	Open To Flow (1)
17	35.52	92.83	Shut-In(1)
46	607.95	93.56	End Shut-In(1)
47	35.48	93.24	Open To Flow (2)
63	36.89	93.85	Shut-In(2)
93	439.87	95.02	End Shut-In(2)
93	1679.71	95.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	drilling mud w with a show of oil	0.04
0.00	fair show of oil between the tools	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01021

DST#: 9

ATTN: renee Husted

Test Start: 2018.09.29 @ 12:09:00

Tool Information

Drill Pipe:	Length: 3484.00 ft	Diameter: 3.80 inches	Volume: 48.87 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 48.87 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	3494.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	11.00 ft				
Tool Length:	36.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3474.00		
Hydraulic tool	5.00			3479.00		
Jars	5.00			3484.00		
Safety Joint	5.00			3489.00		
Packer	5.00		Fluid	3494.00	25.00	Bottom Of Top Packer
Anchor	6.00			3500.00		
Recorder	0.00	9139	Inside	3500.00		
Recorder	0.00	9119	Outside	3500.00		
Bullnose	5.00			3505.00	11.00	Anchor Tool
Total Tool Length:	36.00					



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01021

DST#: 9

ATTN: renee Husted

Test Start: 2018.09.29 @ 12:09:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 8.00 in³
Resistivity: ohm.m
Salinity: 3700.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	drilling mud with a show of oil	0.042
0.00	fair show of oil between the tools	0.000

Total Length: 3.00 ft Total Volume: 0.042 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

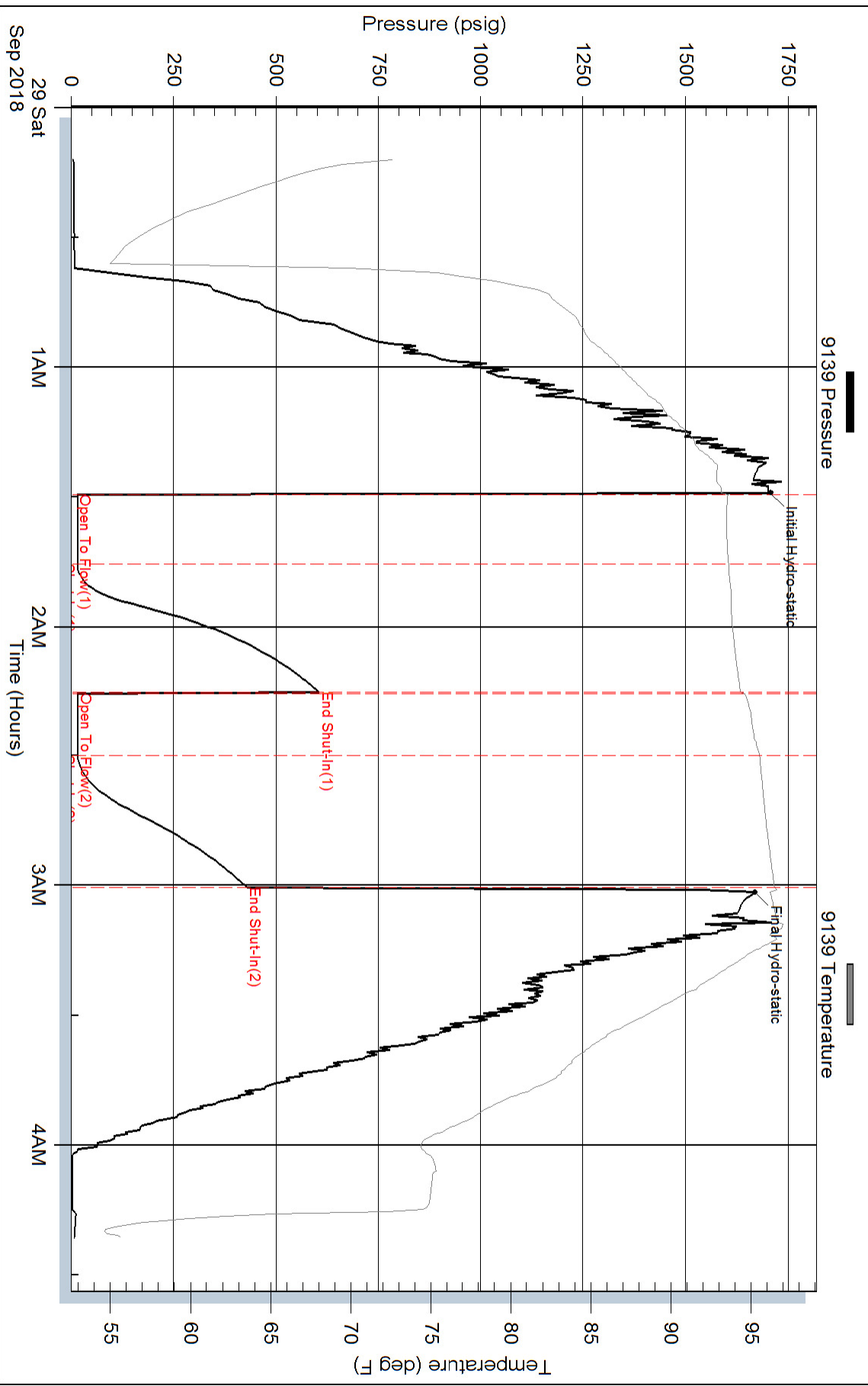
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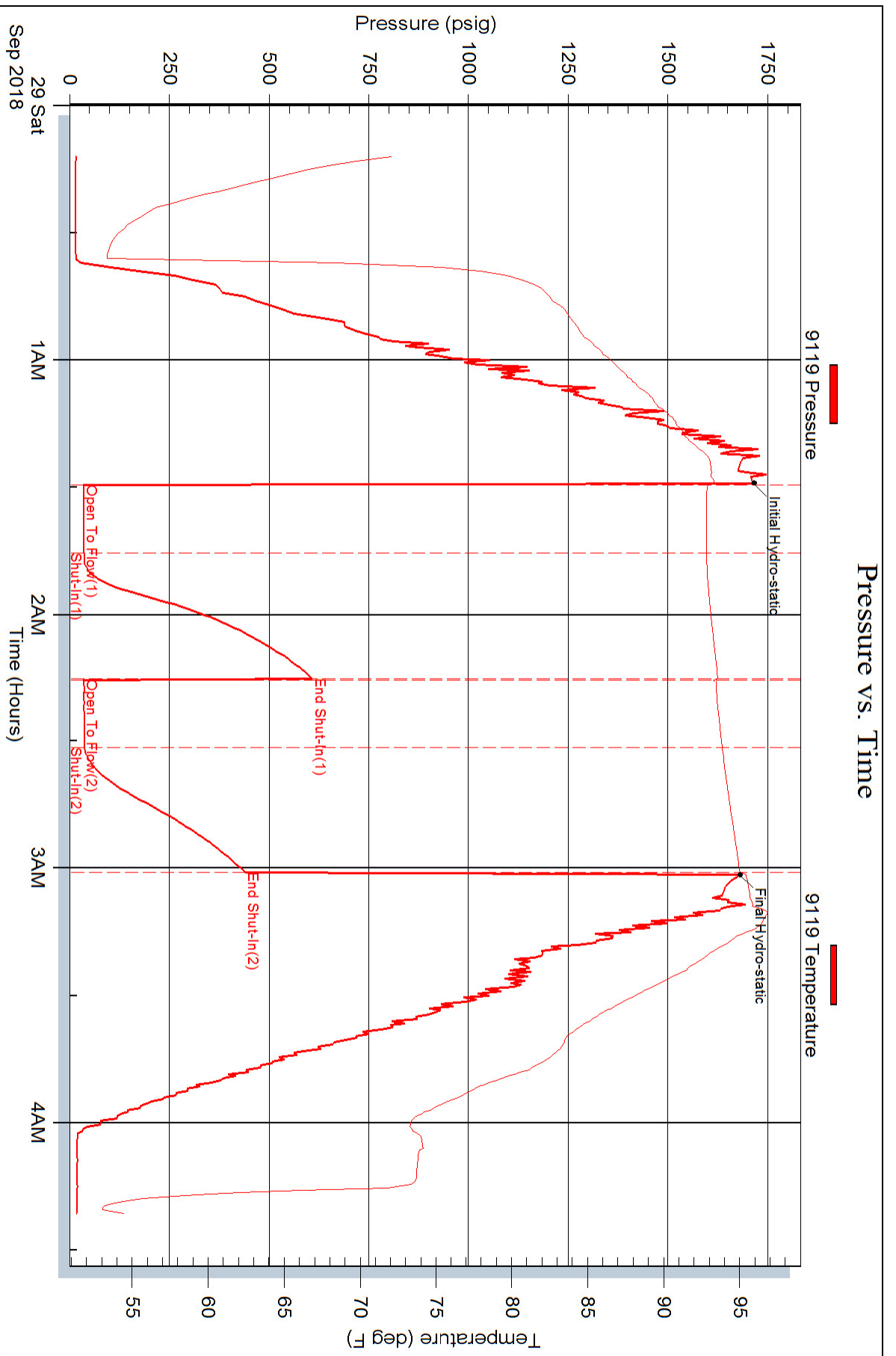
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **F G Holl Company LLC**

9431 East Central Suite 100
Wichita, Kansas 67206-2563

ATTN: renee Husted

I L S Land "B" #1-7

7-17s-13w

Start Date: 2018.09.29 @ 11:05:00

End Date: 2018.09.29 @ 15:02:00

Job Ticket #: 01022 DST #: 10

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

Printed: 2018.09.29 @ 15:19:34



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01022

DST#: 10

Test Start: 2018.09.29 @ 11:05:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:20:00
 Time Test Ended: 15:02:00
 Interval: **3504.00 ft (KB) To 3515.00 ft (KB) (TVD)**
 Total Depth: 3515.00 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: 1868.00 ft (KB)
 1860.00 ft (CF)
 KB to GR/CF: 8.00 ft

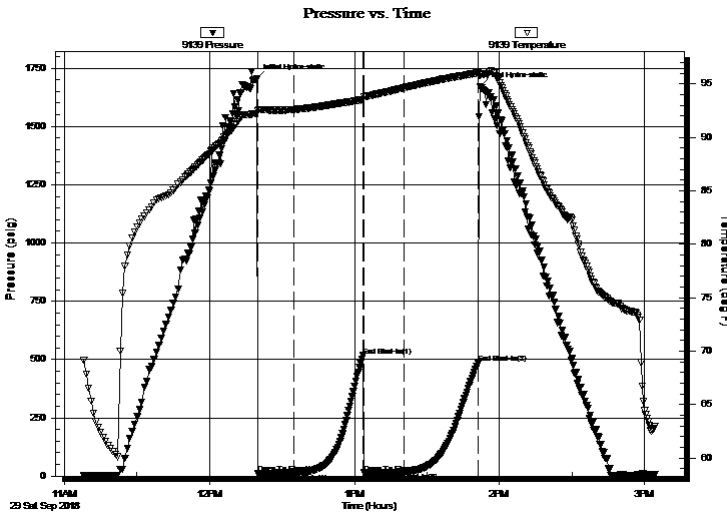
Serial #: 9139

Inside

Press@RunDepth: 482.87 psig @ 3510.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2018.09.29 End Date: 2018.09.29 Last Calib.: 1899.12.30
 Start Time: 11:05:02 End Time: 15:04:32 Time On Btm: 2018.09.29 @ 12:19:32
 Time Off Btm: 2018.09.29 @ 13:52:02

TEST COMMENT: 1st Opening 15 Minutes weak blow for 4 minutes and died
 1st Shut-In 30 Minutes
 2nd Opening 15 Minutes no blow
 2nd Shut-In 30 Minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1703.43	92.19	Initial Hydro-static
1	10.35	92.45	Open To Flow (1)
16	13.67	92.60	Shut-In(1)
44	516.72	93.51	End Shut-In(1)
45	14.21	93.77	Open To Flow (2)
61	14.65	94.63	Shut-In(2)
92	482.87	96.02	End Shut-In(2)
93	1669.31	95.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	DRILLING MUD NO SHOWS OF OIL	0.01

Gas Rates

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



DRILL STEM TEST REPORT

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01022

DST#: 10

Test Start: 2018.09.29 @ 11:05:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:20:00

Time Test Ended: 15:02:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3504.00 ft (KB) To 3515.00 ft (KB) (TVD)**

Reference Elevations: 1868.00 ft (KB)

Total Depth: 3515.00 ft (KB) (TVD)

1860.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **9119** Outside

Press@RunDepth: 488.70 psig @ 3510.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2018.09.29 End Date: 2018.09.29

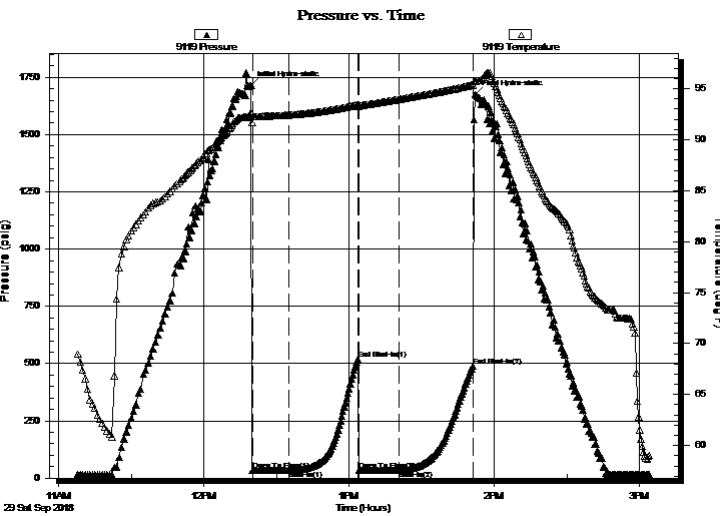
Last Calib.: 2018.09.29

Start Time: 11:05:00 End Time: 15:03:59

Time On Btm: 2018.09.29 @ 12:19:30

Time Off Btm: 2018.09.29 @ 13:52:00

TEST COMMENT: 1st Opening 15 Minutes weak blow for 4 minutes and died
1st Shut-In 30 Minutes
2nd Opening 15 Minutes no blow
2nd Shut-In 30 Minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1713.86	92.60	Initial Hydro-static
1	35.29	91.65	Open To Flow (1)
16	34.56	92.42	Shut-In(1)
44	520.67	93.44	End Shut-In(1)
45	35.02	93.30	Open To Flow (2)
61	34.38	93.96	Shut-In(2)
92	488.70	95.37	End Shut-In(2)
93	1675.34	95.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	DRILLING MUD NO SHOWS OF OIL	0.01

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

ATTN: renee Husted

Job Ticket: 01022

DST#: 10

Test Start: 2018.09.29 @ 11:05:00

Tool Information

Drill Pipe:	Length: 3483.00 ft	Diameter: 3.80 inches	Volume: 48.86 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 48.86 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	3504.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	11.00 ft				
Tool Length:	36.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3484.00		
Hydraulic tool	5.00			3489.00		
Jars	5.00			3494.00		
Safety Joint	5.00			3499.00		
Packer	5.00		Fluid	3504.00	25.00	Bottom Of Top Packer
Anchor	6.00			3510.00		
Recorder	0.00	9139	Inside	3510.00		
Recorder	0.00	9119	Outside	3510.00		
Bullnose	5.00			3515.00	11.00	Anchor Tool
Total Tool Length:	36.00					



DRILL STEM TEST REPORT

FLUID SUMMARY

F G Holl Company LLC

7-17s-13w

9431 East Central Suite 100
Wichita, Kansas 67206-2563

I L S Land "B" #1-7

Job Ticket: 01022

DST#: 10

ATTN: renee Husted

Test Start: 2018.09.29 @ 11:05:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 59.00 sec/qt
Water Loss: 8.79 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	DRILLING MUD NO SHOWS OF OIL	0.014

Total Length: 1.00 ft Total Volume: 0.014 bbl

Num Fluid Samples: 0

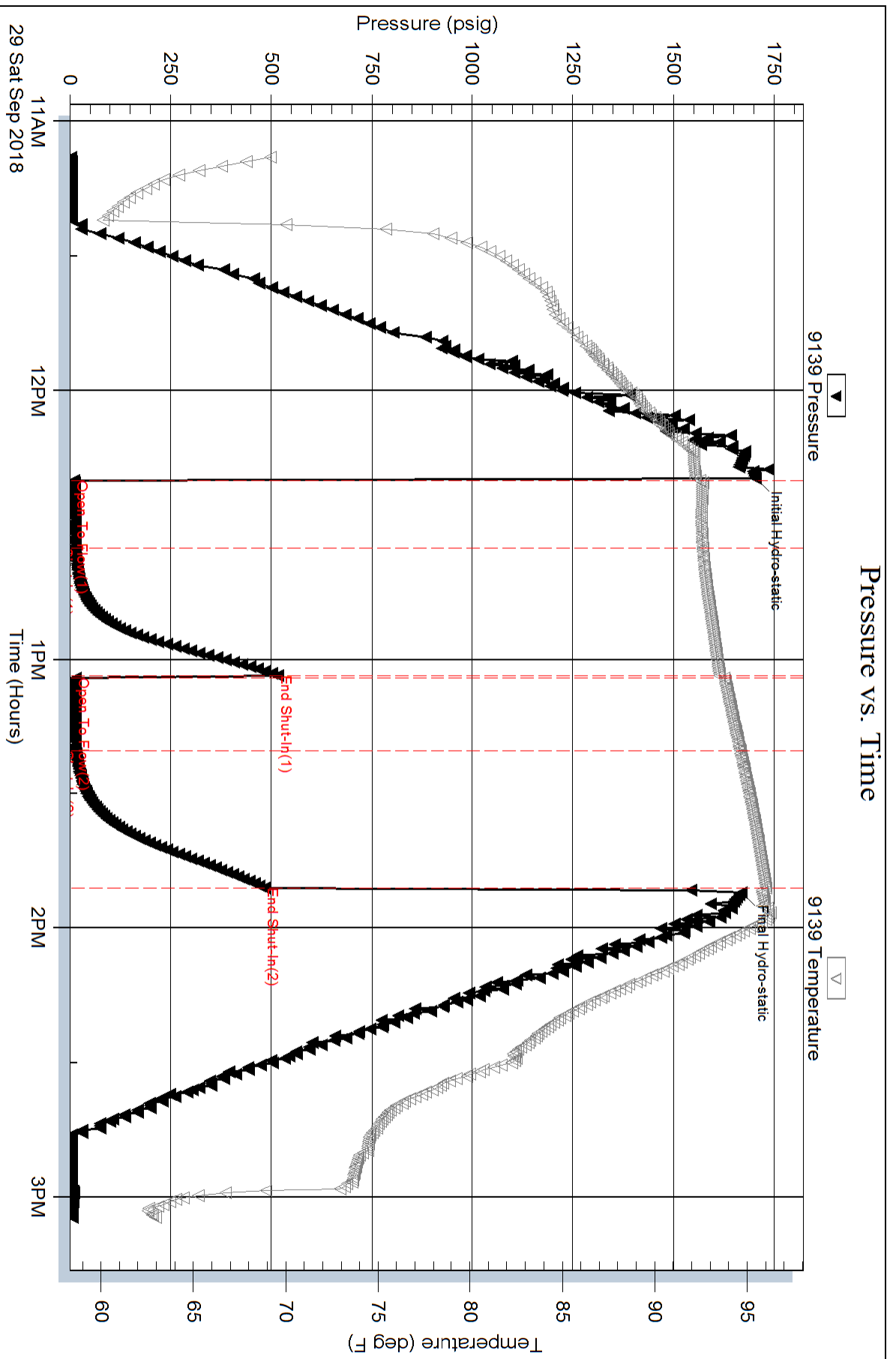
Num Gas Bombs: 0

Serial #:

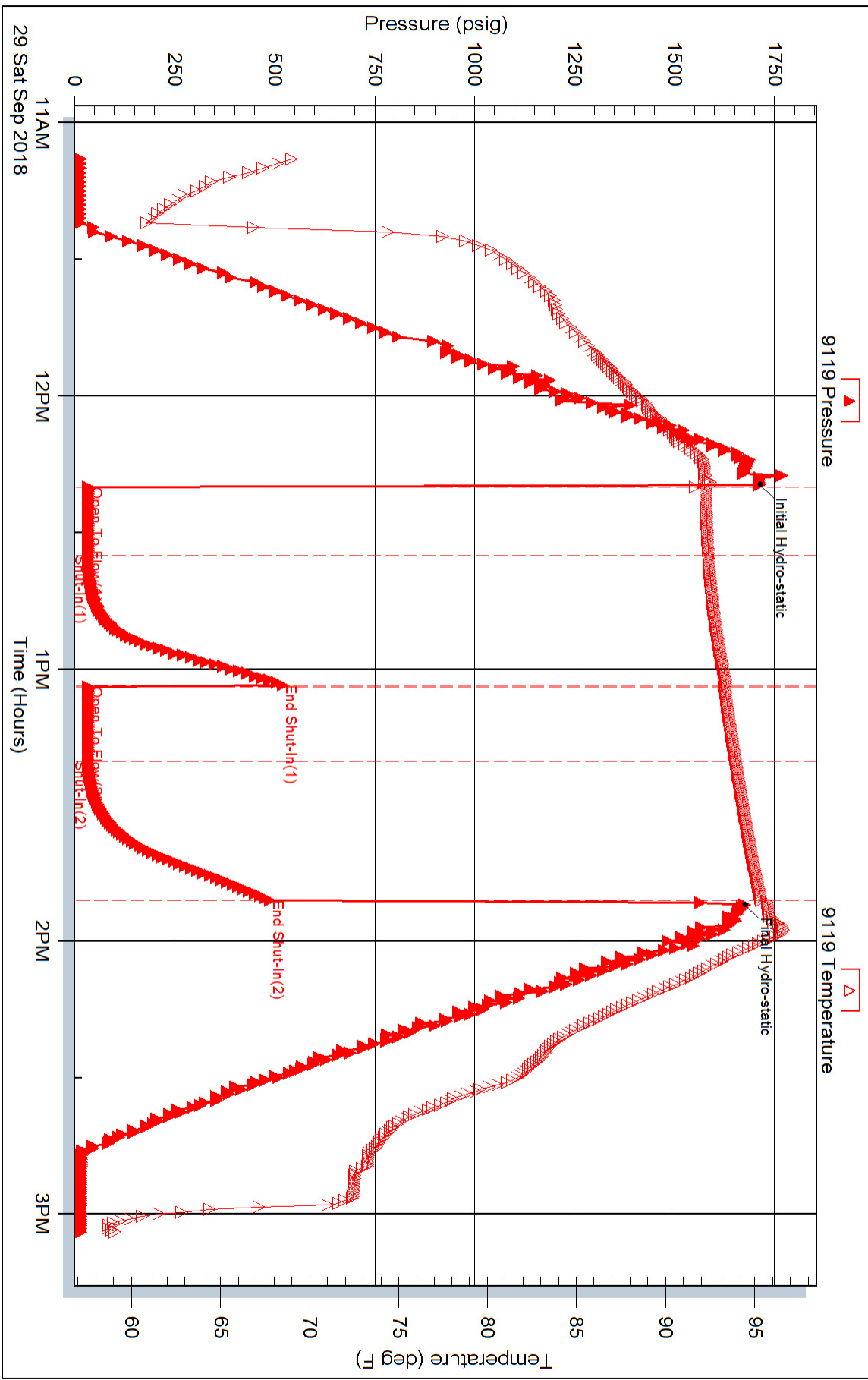
Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time





PAGE 1 of 1	CUST NO 1001376	YARD # 1718	INVOICE DATE 09/30/2018
INVOICE NUMBER 92815215			

Pratt (620) 672-1201
 B F.G. HOLL COMPANY LLC
 I PO Box: 308
 L ELLINWOOD
 L KS US 67526
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME ILS Land B 1-17
 O LOCATION
 B COUNTY Barton
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T JOB CONTACT
 E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41136367	20920		Net - 30 days	10/30/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 09/30/2018 to 09/30/2018</i>				
0041136367				
171817070A Cement-New Well Casing/Pi 09/30/2018 Cement PTA				
60/40 POZ	220.00	EA	7.20	1,584.00 T
Cement Gel	380.00	LB	0.15	57.00 T
Celloflake	55.00	LB	2.22	122.10 T
Wooden Cement Plug, 8 5/8"	1.00	EA	96.00	96.00
"Unit Mileage Chg (PU, cars one way)"	65.00	MI	2.70	175.50
Heavy Equipment Mileage	130.00	MI	4.50	585.00
618---Propp & Bulk Del.Chgs per ton mil	1.00	EA	926.25	926.25
Blending & Mixing Service Charge	220.00	SK	0.84	184.80
Depth Charge; 3001-4000'	1.00	EA	1,296.00	1,296.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	105.00	105.00

RECEIVED
 OCT 10 2018
 BY: ROB LONG

PAID
 OCT 24 2018
 BY: 179199

406 1030

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	5,131.65
BASIC ENERGY SERVICES,LP	BASIC ENERGY SERVICES,LP	TAX	132.23
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	5,263.88
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		

TTMH 40



BASIC
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET
1718 17070 A

7-195-134

DATE _____ TICKET NO. _____

DATE OF JOB: 9/30/2011		DISTRICT: P...		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:					
CUSTOMER: FC Mill		LEASE: ILS Line B		WELL NO. 11					
ADDRESS:		COUNTY: Barton		STATE: KS					
CITY:		STATE:		SERVICE CREW: D... F... Jose P.					
AUTHORIZED BY:		JOB TYPE: 242/PTA							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM/PM	TIME
20920	3 1/2						9/30	AM	8:30
19860	1						9/30	AM	9:00
							9/30	AM	12:30
							9/30	AM	4:00
							9/30	AM	4:30
									55

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: [Signature]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP103	10/10 Pce	SK	220		2,640 00
CC700	Cement Gal	Lb	380		95 00
CC102	Cellophane	Lb	55		203 50
CF153	WOODEN CEMENT PLUG 8 5/8	ES	1		160 00
EP00	unit milasse chesse P-chas	m	65		292 50
FI01	Heavy Equipment milasse	m	130		975 00
FI13	Propressor 4in Bulk Delivery chesse milasse	unit	619		1,543 75
CF304	Vegetin chesse 3,000 - 4,000	4th	1		2,160 00
CF240	Blending & mix as 3000 chesse	SK	220		308 00
5003	Service Supervise. Piss & Air onle	FS	1		175 00

SUB TOTAL 8,552 75

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
DISCOUNT TOTAL DCS		3,151 60

SERVICE REPRESENTATIVE: [Signature] THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: [Signature]

FIELD SERVICE ORDER NO. _____ (WELL OWNER OPERATOR CONTRACTOR OR AGENT)

BASIC

energy services, L.P.

TREATMENT REPORT

Customer **FG Holl** Lease No. _____ Date **9/30/2018**
 Lease **ILS Leno B** Well # **1-17**
 Field Order # **17070** Station **Producers** Casing _____ Depth _____ County **Barton** State **KS**
 Type Job **242/PTA** Formation _____ Legal Description **7-19S-13W**

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
DP 4 1/2				Pre Pad		Max		5 Min.
Depth 3460	Depth	From	To	Pad		Min		10 Min.
Volume	Volume	From	To	Frac		Avg		15 Min.
Max Press	Max Press	From	To	Flush mud, water		HHP Used		Annulus Pressure
Well Connection	Annulus Vol.	From	To			Gas Volume		Total Load
Plug Depth	Packer Depth	From	To					

Customer Representative **Tim** Station Manager **Justin Westeimer** Treater **Darin Franklin**

Service Units	92911	84980	20920	19889	19860				
Driver Names	Darin	Ed	Ed	Jose	Jose				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
9:00am					ON location / Super matrix 220SK 60MO 902 49.60, 1/4#CF 13.78 pps, 1.43vc:ld, 6.92 water
					3460' - 50 SK
12:30pm	200		8	5	Pump 8 water
	200		13	5	mix 50 SK
	200		3	5	Displace 3 bbls water
	200		45	5	45 bbls mud
					910' - 50 SK
	200		18	5	Pump 18 bbls water
	200		13	5	mix 50 SK
	200		6	5	Displace 6 bbls water
					325' - 55 SK
	100		3	5	Pump 3 bbls water
	100		14	5	mix 55 SK
	100		1	5	Displace 1 bbl water
					40' - 10 SK
	50		2 1/2	3	mix 10 SK
	50		7	3	PH - 30 SK
	50		5	3	MH - 15 SK

4:00pm Job complete / Darin drove

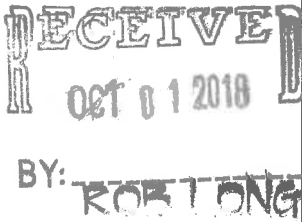
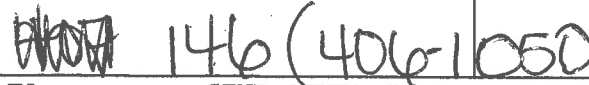


PAGE 1 of 1	CUST NO 1001376	YARD # 1718	INVOICE DATE 09/24/2018
INVOICE NUMBER 92809269			

Pratt (620) 672-1201
 B F.G. HOLL COMPANY LLC
 I PO Box: 308
 L ELLINWOOD
 L KS US 67526
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME ILS Land "B" #1-17
 O LOCATION
 B COUNTY Barton
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T JOB CONTACT
 E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41134612	20920-0		Net - 30 days	10/24/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 09/20/2018 to 09/20/2018</i>				
0041134612				
171817147A Cement-New Well Casing/Pi 09/20/2018 Cement Surface				
				
A-Con' Blend	175.00	EA	10.80	1,890.00 T
Premium/Common	175.00	EA	9.60	1,680.00 T
Celloflake	88.00	EA	2.22	195.36 T
Calcium Chloride	825.00	EA	0.63	519.75 T
"Top Rubber Cmt Plug, 8 5/8""	1.00	EA	135.00	135.00
"Centralizer, 8 5/8"" (Blue)"	3.00	EA	87.00	261.00
"Baffle Plate Alum., 8 5/8"" (Blue)"	1.00	EA	102.00	102.00
Sugar	100.00	EA	3.00	300.00 T
"Unit Mileage Chg (PU, cars one way)"	65.00	MI	2.70	175.50
Heavy Equipment Mileage	130.00	MI	4.50	585.00
Proppant & Bulk Del.	1,072.50	EA	1.50	1,608.75
Depth Charge; 501'-1000'	1.00	EA	720.00	720.00
Blending & Mixing Service Charge	350.00	BAG	0.84	294.00
Plug Container Util. Chg.	1.00	EA	150.00	150.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	105.00	105.00
			238179	
				

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	8,721.36
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	343.88
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	9,065.24
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		

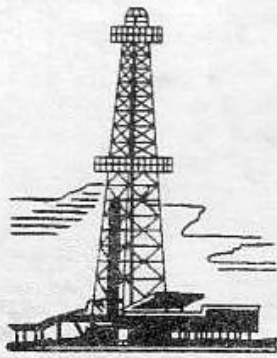
Customer	FG-Holl	Lease No.		Date	September 20, 2018		
Lease	ZLS Land "B"	Well #	1-17				
Field Order #	17147	Station	Pratt Kansas	Casing	8.625	Depth	857
Type Job	8.625 surface casing 7-42			Formation		Legal Description	7A5-13W
				County	Barton	State	KS

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME			
Casing Size	8.625	Tubing Size		Shots/Ft		Acid	RATE	PRESS	ISIP
Depth	859	Depth		From	To	Pre Pad	Max		5 Min.
Volume	54.6	Volume		From	To	Pad	Min		10 Min.
Max Press	500 ps	Max Press		From	To	Frac	Avg		15 Min.
Well Connection	6 1/2	Annulus Vol.		From	To		HHP Used		Annulus Pressure
Plug Depth		Packer Depth		From	To	Flush	Gas Volume		Total Load

Customer Representative	Rob Long	Station Manager	Justin Westerman	Treater	Fernis Gardner
-------------------------	----------	-----------------	------------------	---------	----------------

Service Units	74566	61110	20920	19960	73706
Driver Names	Fernis	EDDY	KIDDY	TYLES	TYLES

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
0800					Arrive on location / Safety meeting
0815					Rig up equipment
0900					Install Basic dehydrizers 3 units 1, 10, 19
1023	75		10	4	Pump H2O Ahead
1025	75			4	Start lead cement Acum @ 12 ppb
1035	75		38.4	4	875# Acum away @ 12 ppb
1045	75		77	4.3	175# Acum away @ 12 ppb start tail blend
1052	100		14.7	4.5	875# common away @ 15 bppb
1057			37.4		175# common away @ 15 bppb S/O DP
1059	75			3	Start H2O displacement
1109	150		26	4	Cement to surface @ 24 hrs into displacement
1113	200		40	2.5	Slow to land plug
1117	600		52	2.5	Land plug @ calculated displacement
1119	600				Shut in cement head
1130					Rig down
1200					Leave location
					24 Bbls cement to Pit / Last 100 psi = 220
					HOL - 471.82' TOT - 385.18'
					HOL - 385.18' TOT - Surface
					Total Hor - 860'
					Thank you!! Fernis Gardner



WELLSITE GEOLOGIST'S REPORT

J. R. Hustead
Consulting Geologist



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

Well Name: ILS Land B No. 1-7
Well Id:
Location: Sec 7-T19S-13W
License Number: 15-009-26,230-0000
Spud Date: Sept 19 2018
Surface Coordinates: 130' N. of C S/2 S/2 SE
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1860' K.B. Elevation (ft): 1868'
Logged Interval (ft): 1650' To: 3700' Total Depth (ft): 3700'
Formation: Kansas City, Arbuckle
Type of Drilling Fluid: Starch, Chemical Premix (Displaced)

Region: Barton
Drilling Completed: Sept 30 2018

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

OPERATOR:

Company: F.G. HOLL COMPANY LLC
Address: 9431 E. CENTRAL STE 100
WICHITA, KANSAS 67206-2563

DRILLING CONTRACTOR:

Duke Drilling Company, Rig #8
DOUBLE DERRICK ; DRILL PIPE 4.5 X HX(16.6 #); COLLARS 6.25X 2.25 X 471'; BIT #1; 12.25 JZ 1023017 ;
JETS 18-18-18
BIT #2 7 7/8 HA23-X 10807111 ; JETS 15-15-15
REFERENCE DATUM 8 FT ABOVE GROUND LEVEL; TOOLPUSHER; TIM ARNELL

SURFACE CASING:

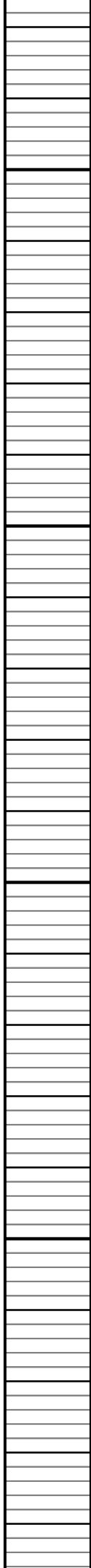
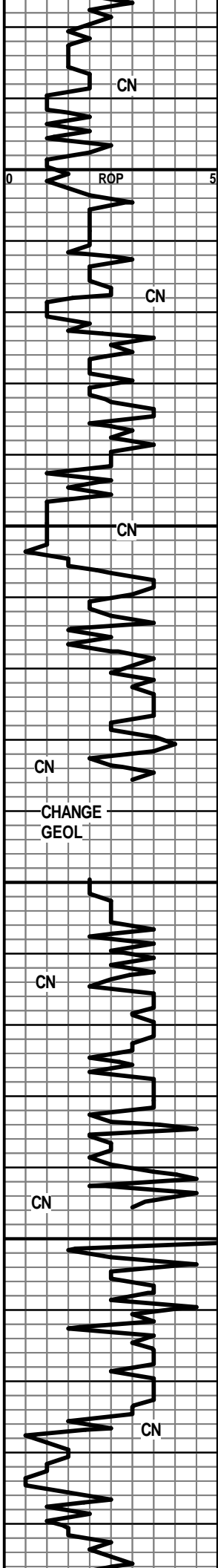
-SURFACE CASING 8 5/8 IN WT 23 LB SET AT 855 FT WITH 350 SAXS OF CEMENT

CIRCULATION SYSTEM:

IDECO 550 DUPLEX 6.0 X 15 stroke, 60 SPM, 850 PSI; STEELE PITS; MUD-CO/SERVICE MUD INC. RICK HUGHES 620-791-7623

GAS DETECTION SYSTEM:

MBC WELL LOGGING AND LEASING
ANALOG HOTWIRE



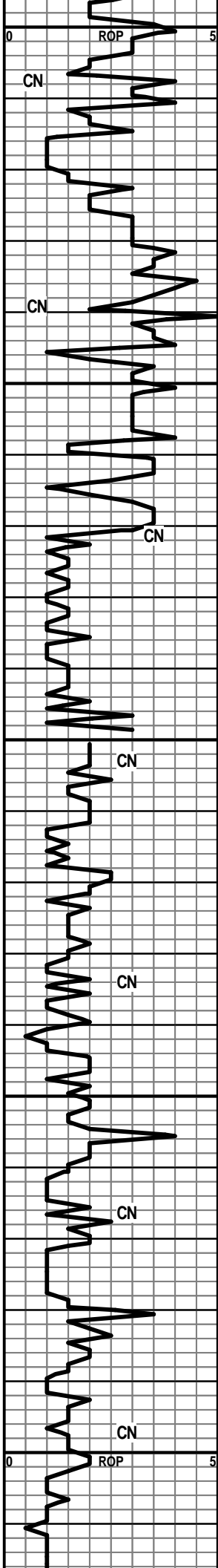
2000

2050

2100

2150

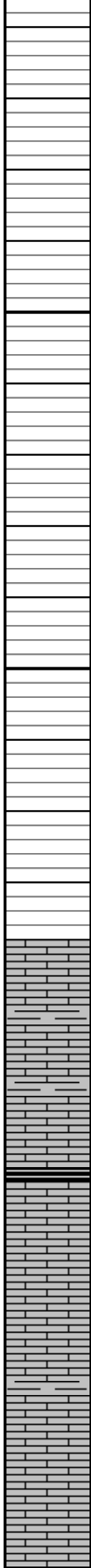
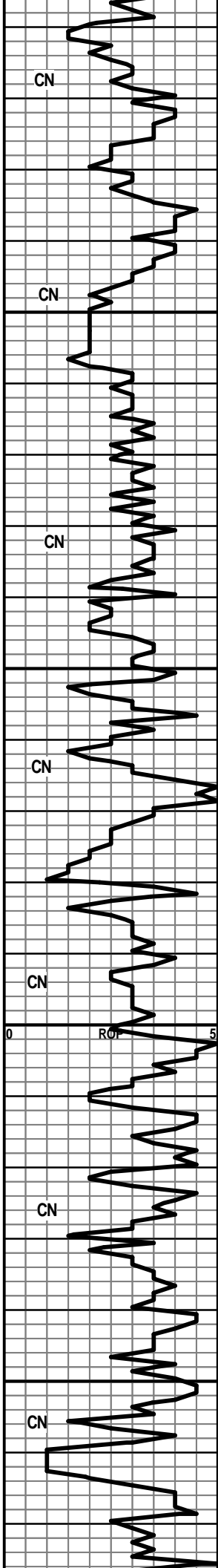
MUD DATA @ 2003'
WT. 8.8
VIS 55
FIL 10.2



2200
2250
2300
2350
2400

MUD DATA @ 2208'
WT. 8.7
VIS 48
FIL 14.2

MUD DATA @ 2290'
WT. 8.6
VIS 54
FIL 8.0



2900

2950

3000

3050

LS-TN/GRY-F-XLN-V-OOL-FOSS-HD-DNS

LS-BRN/GRY-F-GRN-FOSS-TR LT BRN STN-NO VIS
FLOR-NO VIS CUT

LS-TN-F-XLN-V-OOL-BRIT TO HD-DNS

LS-OFF-WHT-F-XLN-PYR IMBD-HD-DNS

SH-BLK-CARB

LS-TN-F-XLN-FOSS-HD-DNS W/ CHRT-GRY-OPQ-FRSH

LS-TN-F-XLN-HD-DNS W/ CHRT IN TRAY

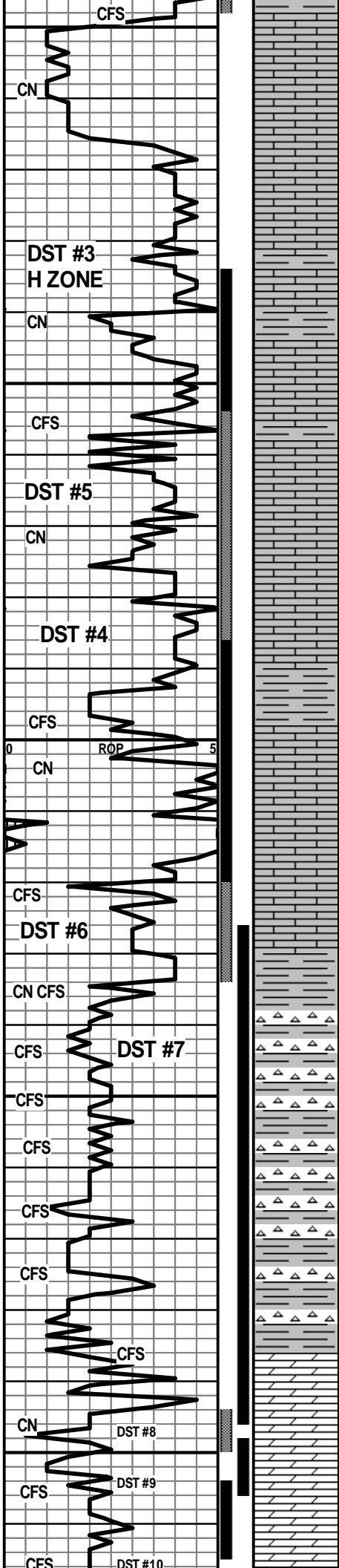
LS-TN-F-XLN-CHLKY-FOSS-BRIT-DNS

LS-TN-F-XLN-OOL-FR TO GD OOL-MOLDIC POR-NO VIS
FLOR-NO SHOW

LS-TN/GRY-F-XLN-FOSS-SM BLK OOL-TR DK BRN
STN-NO VIS FLOR-NO SHOW

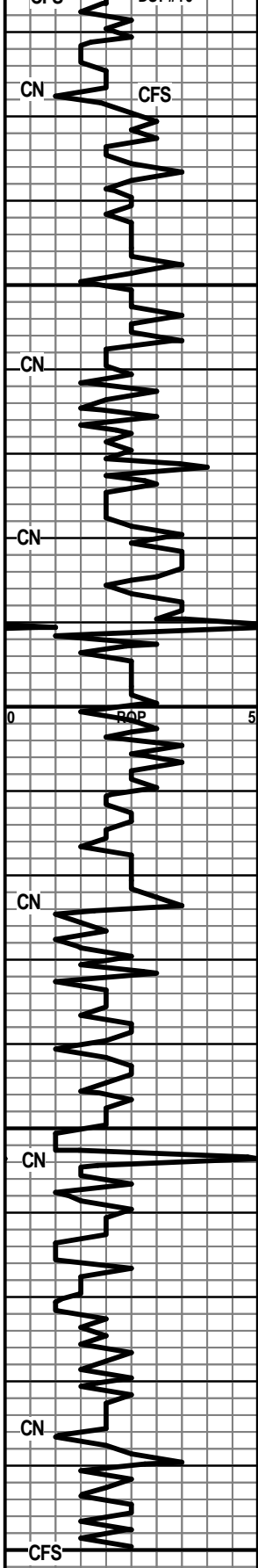
HW 30 UNIT GAS INCRS

NO GAS INCRS.



3300 LS-TN-F-XLN-OOL-GD-OOL-MOLDIC POR-BARREN
 LS TN-F-XLN-BRIT-TR OOL-MOLDIC POR-NO VIS SHOW
 LS-DK GRY-F-XLN-HD-DNS
 LS-TN/GRY-FOSS-HD-DNS
 3350 LS-BRN-F-XLN-OOL-TR FOSS-PR TO FR INTER-PRT POR-LT BRN STN-YEL/GLD FLOR-GD STRM CUT-FNT ODOR-SSFO
 LS-OFF WHT-F-XLN-OOL-HD-DNS W/ TR LT BRN STN-YEL FLOR-FLSH CUT -NO ODOR
 LS-OFF WHT-F-XLN-OOL-HD-DNS
 LS-OFF WHT-F-XLN-OOL-HD-DNS-TR LT BRN STN W/ INTER-PRT POR
 LS-OFF WHT-F-XLN-OOL-HD-DNS W/ TR SM PYR XLS
 3400 LS-OFF WHT-F-XLN-SLI SUCRO-BRIT-OOL-FOSS-FR TO GD INTER-PRT/SM VUG POR-LT BRN STN -DULL WHT FLOR-GD STRM CUT-FNT ODOR
 LS-OFF WHT-F-XLN-TR FOSS-HD-DNS
 LS-OFF WHT-M-GRAN-SUCRO-SM FOSS FRAGS-FR TO GD INTER-PRT/GRAN POR-LT BRN STN-DULL WHT FLOR-GD STRM CUT-GD ODOR
 BASE OF THE B/KC 3430' (-1562')
 3450 CHRT-VARIG-W/ SH RED/GRN/GRY
 SH-GRY-V-BLKY-WAXEY
 ARBUCKLE 3486' (-1618')
 DOLO-F-XLN-SUCRO-HD-DNS-LT BRN STN-DULL WHT FLOR-FLSH CUT-STRNG ODOR-SSFO
 DOLO-F-XLN-SUCRO-BRIT TO HD-FR INTER-XLN POR-LT BRN STN -NO VIS FLOR-FNT FLSH CUT-STRNG ODOR-SSFO
 3500 DOLO-OFF WHT-M-GRN-GD INTER-GRN/SM OOL-MOLDIC POR-LT BRN STN W/ DK BLK STN-DULL WHT FLOR-FR FLSH CUT-STRNG ODOR-FREE OIL -25% CHLK IN TRAY
 DOLO-OFF WHT-F-M-GRN-PR TO FR INTER-GRN POR-LTBRN AND DK BLK STN-DULL FLOR-WK FLSH CUT-SSFO

DST #2
 3276-3298
 IBLW-V-WK BLW 7MIN
 FBLW-NO BLW
 REC 5 FT DRILLING
 MUD
 15/30/15/30
 SIP-34-34
 IFP-36-34
 FFP-35-33
 HP-1634-1603
 20 UNIT GAS INCRS
 GAS DETECTOR OFF
 CHART AFTER DST
 DST #3
 3335-3354
 IBLW-WK BLW 7 MIN
 FBLW-NO BLW
 REC- 10 FT HEAVY OIL
 CUT MUD 25%OIL75%
 MUD
 1 FT CLEAN OIL
 15/30/15/30
 SIP-125.7-116.3
 IFP-47-42
 FFP-41-41
 HP-1664-1619
 DST #4
 3385'-3420'
 IBLW-WK BLDING BLW
 BLT 3 IN
 FBLW-WK BLDING BLW
 4 1/2 IN
 REC-90' WATER
 -CLORIDES 26,000
 30/60/60/120
 SIP-762-660.2 MUD DATA @3420'
 IFP-53.4-69 WT. 9.35
 FFP-75-95 VIS 50
 HP-1708-1695 FIL 8.8
 DST #5
 3350'-3385'
 IBLW-WK BLW FOR 6
 MIN
 FBLW-NO BLW
 REC-10 FT DRILLING
 MUD
 15/30/15/30
 SIP-89-83
 IFP-74-77
 FFP-73-76
 HP-1687-1648
 IFP-
 DST #6
 3420'-3434'
 IBLW-WK BLW FOR 6
 MIN
 FBLW-NO BLW
 REC-10 FT OIL CUT
 MUD 10% OIL AND 90%
 MUD
 15/30/15/30
 SIP-165-90
 IFP-43-40
 FFP-38-39
 HP-1698-1651
 DST #7



TD=
3700

LTD=
3699'

3550
3600
3650
3700

DOLO-CRM-M-XLN-BRIT-GD INTER-GRN POR-NO VIS SHOW

DOLO-TN-F-M-XLN-HD-DNS -NO VIS SHOW

DOLO A.A.

DOLO-TN-F-XLN-HD-DNS W/ CHRT-TRANS OOL-FRSH

DOLO W/ CHRT

DOLO-F-XLN-TR SND-HD-DNS-NO VIS SHOW

DOLO A.A. W/ CHRT

DOLO-CRM-M-XLN-BRIT-OOL-FR OOL-MOLDIC POR-NO VIS SHOW

DOLO-TN-F-XLN-HD-DNS W/ CHRT-TRANS-OOL-FRSH

DOLO A.A.

DOLO-TN-F-XLN-HD-DNS

DOLO-OFF WHT-LG-XLN-BRIT-FR INTER-GRN POR-NO VIS SHOW

DOLO-OFF WHT-F-M-XLN-SNDY-HD-DNS

DOLO-CRM-F-GRN-BRIT TO HD-TR SND-TR OOL-MOLDIC POR-NO VIS SHOW

DOLO-OFF WHT-M-XLN/GRN-GLAU-NO VIS SHOW

DOLO-LG-XLN-FR INTER-GRN POR-SNDY-N/S

DOLO A.A.

NO SAMPLES

3425'-3495'
IBLW-WK BLW FOR 11
MIN AND DIED
FBLW-NO BLW
REC-10 FT DRILLING
MUD W/ SHOW OF OIL
BETWEEN THE TOOLS
15/30/15/30
SIP-164-109
IFP-69-68
FFP-69-67
HP-1722-1677

DST #8
3493'-3500'
IBLW-WK BLW FOR 6
MIN AND DIED
FBLW-NO BLW
REC-2 FT SLI OIL CUT
MUD W/ OIL SHOW
BETWEEN TOOLS
SIP-553-317
IFP-35-34
FFP-36-35
HP-1708-1681

DST #9
3494'-3505'
IBLW-WK BLW FOR 4
MIN AND DIED
FBLW-NO BLW
REC-3 FT DRILLING
MUD W/ SHOW OF OIL
BETWEEN TOOLS
15/30/15/30
SIP-607-439.5
IFP-34-35
FFP-35-37
HP-1714-1680

DST #10
3504'-3515'
IBLW-WK BLW 4 MIN
AND DIED
FBLW-NO BLW
REC-1FT DRILLING MUD
15/30/15/30
SIP-521-489
IFP-35-36
FFP-35-34
HP-1714-1675

		50		
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