



DRILL STEM TEST REPORT

Prepared For: **BIRD DOG OIL LLC**

1801 BROADWAY SUITE 450
DENVER , COLORADO 80202

ATTN: .KEITH REAVIS

SW-BOOR 1-29

29-16-10

Start Date: 2017.03.26 @ 15:00:00

End Date: 2017.03.26 @ 20:57:00

Job Ticket #: 01162 DST #: 2

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

Printed: 2017.03.26 @ 21:14:25



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BIRD DOG OIL LLC

29-16-10

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DST#: 2

ATTN: KEITH REAVIS

Test Start: 2017.03.26 @ 15:00:00

GENERAL INFORMATION:

Formation: **ARBUCKLE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:31:00

Time Test Ended: 20:57:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1

Interval: **3280.00 ft (KB) To 3315.00 ft (KB) (TVD)**

Reference Elevations: 1847.00 ft (KB)

Total Depth: 3315.00 ft (KB) (TVD)

1838.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: **91716** Outside

Press@RunDepth: 241.68 psia @ 3310.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.03.26

End Date: 2017.03.26

Last Calib.: 2017.03.26

Start Time: 15:00:00

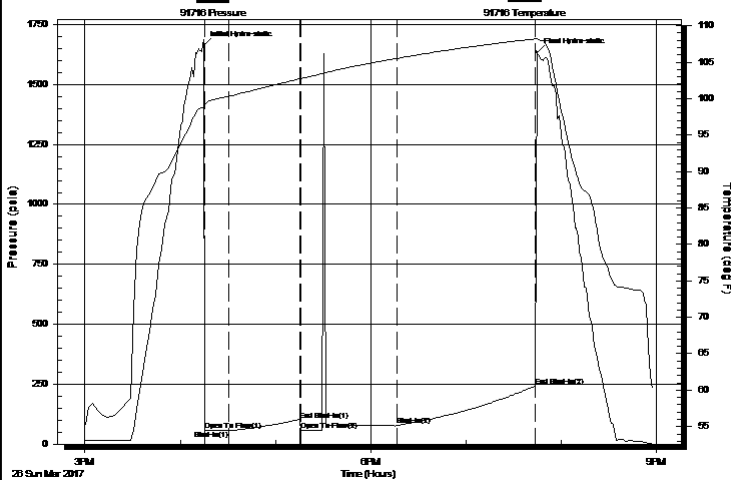
End Time: 20:57:29

Time On Btm: 2017.03.26 @ 16:15:00

Time Off Btm: 2017.03.26 @ 19:44:30

TEST COMMENT: 1ST OPENING 15 MINUTES WEAK BLOW FOR 13 MINUTES AND DIED
1ST SHUT-IN 45 MINUTES NO BLOW BACK
2ND OPENING 60 MINUTES NO BLOW FLUSHED TOOL BLOW BUILT TO 6 INCHES AND DIED
2ND SHUT-IN 90 MINUTES NO BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1661.62	98.84	Initial Hydro-static
1	58.90	99.14	Open To Flow (1)
16	57.46	100.31	Shut-In(1)
61	100.58	102.73	End Shut-In(1)
61	58.72	102.76	Open To Flow (2)
122	77.02	105.53	Shut-In(2)
209	241.68	108.21	End Shut-In(2)
210	1633.70	108.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	drilling mud	0.70

Gas Rates

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



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Total Depth: 3315.00 ft (KB) (TVD)

1838.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 9139

Inside

Press@RunDepth: 242.54 psia @ 3310.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2017.03.26

End Date:

2017.03.26

Last Calib.:

2017.03.26

Start Time: 15:00:00

End Time:

20:57:30

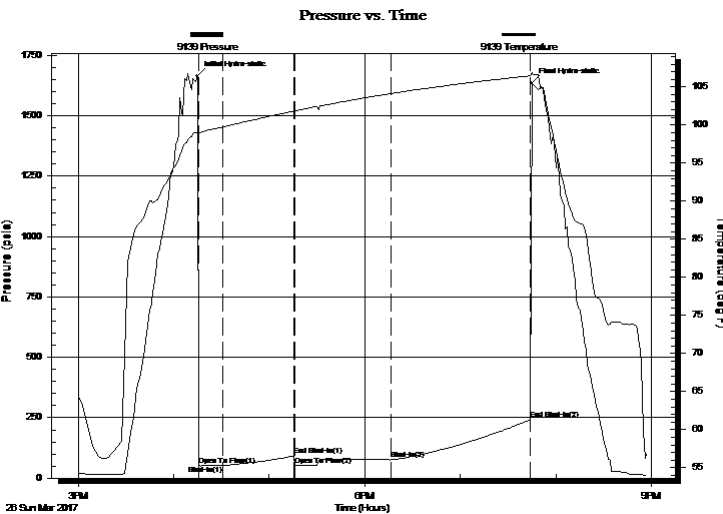
Time On Btm:

2017.03.26 @ 16:15:00

Time Off Btm:

2017.03.26 @ 19:45:00

TEST COMMENT: 1ST OPENING 15 MINUTES WEAK BLOW FOR 13 MINUTES AND DIED
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 2ND SHUT-IN 90 MINUTES NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1664.44	98.97	Initial Hydro-static
1	52.54	98.61	Open To Flow (1)
16	52.29	99.75	Shut-In(1)
61	93.35	101.83	End Shut-In(1)
61	51.54	101.84	Open To Flow (2)
122	76.14	104.13	Shut-In(2)
209	242.54	106.46	End Shut-In(2)
210	1635.15	106.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	drilling mud	0.70

Gas Rates

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



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TOOL DIAGRAM

BIRD DOG OIL LLC

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SW-BOOR 1-29

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DST#: 2

ATTN: KEITH REAVIS

Test Start: 2017.03.26 @ 15:00:00

Tool Information

Drill Pipe:	Length: 3272.00 ft	Diameter: 3.80 inches	Volume: 45.90 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: 48000.00 lb
			<u>Total Volume: 45.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3280.00 ft			Final 32000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	64.00 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			3256.00	
Hydraulic tool	5.00			3261.00	
Jars	7.00			3268.00	
Safety Joint	2.00		Fluid	3270.00	
Top Packer	5.00			3275.00	
Packer	5.00			3280.00	29.00 Bottom Of Top Packer
Anchor	30.00			3310.00	
Recorder	0.00	9139	Inside	3310.00	
Recorder	0.00	91716	Outside	3310.00	
Bullnose	5.00			3315.00	35.00 Anchor Tool
Total Tool Length:	64.00				



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FLUID SUMMARY

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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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 83.96 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 8400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	drilling mud	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

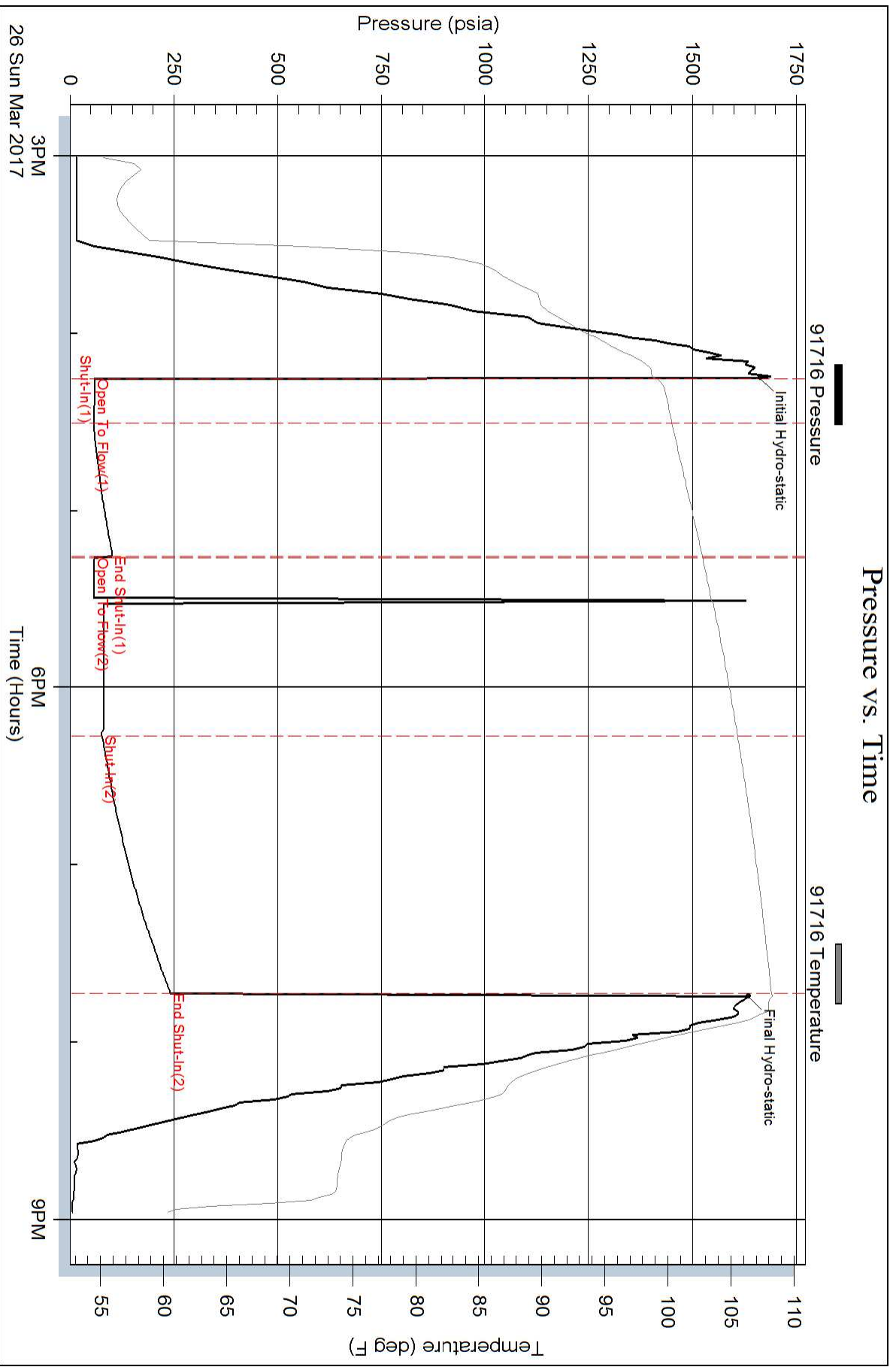
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

