

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dreiling Oil Inc.

P.O. Drawer 550
Hays, Ks. 67601

ATTN: Terry W. Flesker

Polifka # 7

7-13s-17w

Job Ticket: 16826

DST#: 1

Test Start: 2003.01.14 @ 09:30:53

GENERAL INFORMATION:

Formation: **L.Kc.-D-E-F&G**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 11:24:23

Time Test Ended: 16:07:23

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **18**

Interval: **3414.00 ft (KB) To 3490.00 ft (KB) (TVD)**

Total Depth: **3490.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2098.00 ft (KB)**

2090.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 3017

Inside

Press@RunDepth: **51.11 psig @ 3417.01 ft (KB)**

Start Date: **2003.01.14**

End Date: **2003.01.14**

Start Time: **09:30:55**

End Time: **16:07:23**

Capacity: **7000.00 psig**

Last Calib.: **2003.01.14**

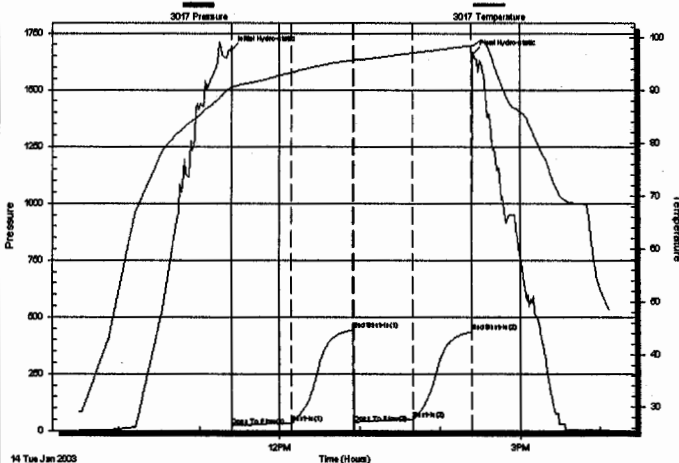
Time On Btm: **2003.01.14 @ 11:23:53**

Time Off Btm: **2003.01.14 @ 14:25:23**

TEST COMMENT: **IF-Good to Strong B.O.B. 29 min.**
FF-Strong B.O.B. 12 min.

ISI-Weak blow back.
FSI-Good blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1674.94	90.51	Initial Hydro-static
1	19.49	90.27	Open To Flow (1)
45	34.81	93.38	Shut-In(1)
91	442.06	95.77	End Shut-In(1)
92	34.11	95.80	Open To Flow (2)
136	51.11	97.13	Shut-In(2)
180	433.47	98.50	End Shut-In(2)
182	1661.14	98.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	gassy M-C-O 10%gas--40%mud--50%oil	1.12
350.00	gas in pipe	4.91

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Drilling Oil Inc.

Polifka # 7

P.O. Drawer 550

Hays, Ks. 67601

7-13s-17w

Job Ticket: 16826

DST#: 1

ATTN: Terry W. Plesker

Test Start: 2003.01.14 @ 09:30:53

Tool Information

Drill Pipe:	Length:	3417.00 ft	Diameter:	3.80 inches	Volume:	47.93 bbl	Tool Weight:	3400.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:	50000.00 lb
					<u>Total Volume:</u>	<u>47.93 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:		23.00 ft					String Weight: Initial	45000.00 lb
Depth to Top Packer:		3414.00 ft					Final	45000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		76.02 ft						
Tool Length:		96.02 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3395.00	
S.I. Tool	5.00			3400.00	
HMV	5.00			3405.00	
Packer	4.00			3409.00	20.00 Bottom Of Top Packer
Packer	5.00			3414.00	
Stubb	1.00			3415.00	
Perforations	1.00			3416.00	
C.O. Sub	1.00			3417.00	
Recorder	0.01	3017	Inside	3417.01	
Blank Spacing	62.00			3479.01	
C.O. Sub	1.00			3480.01	
Perforations	7.00			3487.01	
Recorder	0.01	13308	Outside	3487.02	
Bullnose	3.00			3490.02	76.02 Bottom Packers & Anchor

Total Tool Length: 96.02



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DRILL STEM TEST REPORT

FLUID SUMMARY

Dreilling Oil Inc.

Pollfka # 7

P.O. Drawer 550
Hays, Ks. 67601

7-13s-17w

Job Ticket: 16826

DST#: 1

ATTN: Terry W. Piesker

Test Start: 2003.01.14 @ 09:30:53

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: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	gassy M-C-O 10%gas--40%mud--50%oil	1.122
350.00	gas in pipe	4.910

Total Length: 430.00 ft

Total Volume: 6.032 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

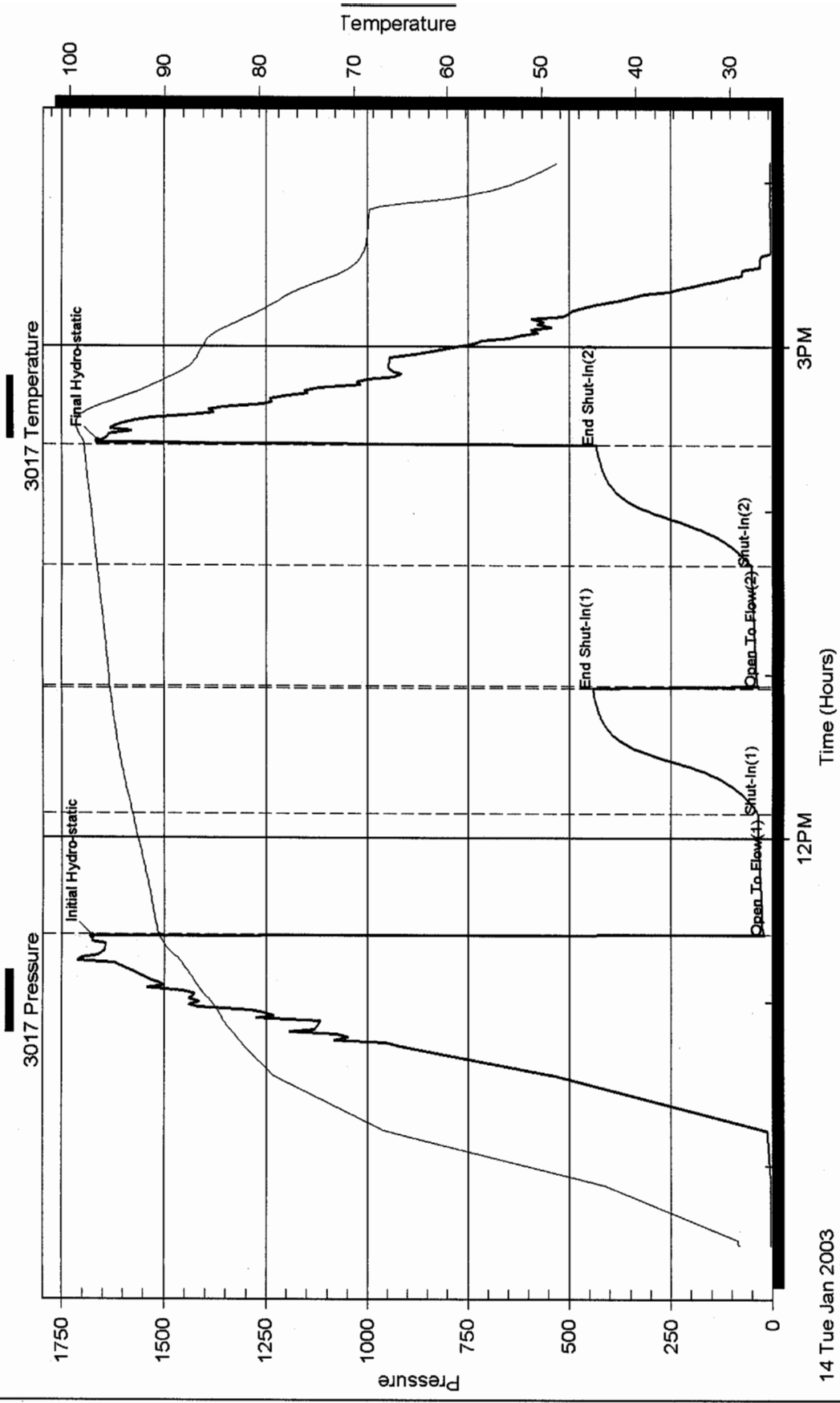
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
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DRILL STEM TEST REPORT

Drilling Oil Inc.

P.O. Drawer 550
Hays, Ks. 67601

ATTN: Terry W. Flesker

Polifka # 7

7-13s-17w

Job Ticket: 16827

DST#: 2

Test Start: 2003.01.15 @ 03:05:48

GENERAL INFORMATION:

Formation: **L.Kc.**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 04:48:18

Time Test Ended: 09:00:48

Test Type: **Conventional Bottom Hole**

Tester: **John Schmidt**

Unit No: **18**

Interval: **3517.00 ft (KB) To 3610.00 ft (KB) (TVD)**

Total Depth: **3610.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2098.00 ft (KB)**

2090.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 3017

Inside

Press@RunDepth: **30.82 psig @ 3520.01 ft (KB)**

Start Date: **2003.01.15**

End Date:

2003.01.15

Start Time: **03:05:50**

End Time:

09:00:48

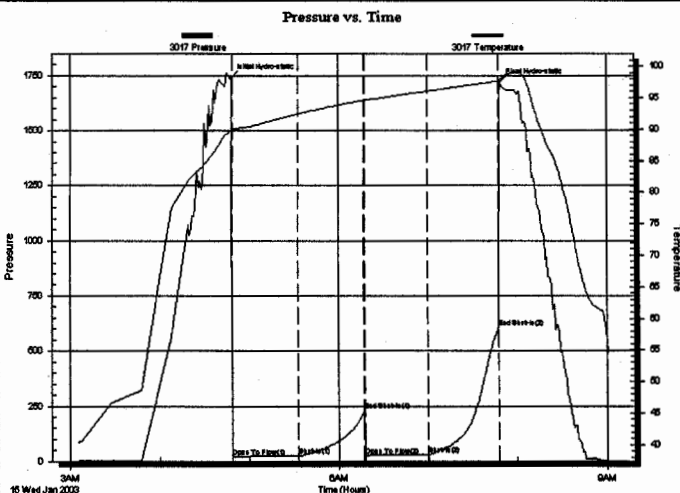
Capacity: **7000.00 psig**

Last Calib.: **2003.01.15**

Time On Btm: **2003.01.15 @ 04:47:48**

Time Off Btm: **2003.01.15 @ 07:48:18**

TEST COMMENT: IF-Weak built to 3"
FF-Good built 8" in
ISI-Very weak blow back.
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1738.82	89.78	Initial Hydro-static
1	19.91	89.90	Open To Flow (1)
46	25.69	92.43	Shut-In(1)
90	232.14	94.61	End Shut-In(1)
90	23.19	94.63	Open To Flow (2)
132	30.82	96.09	Shut-In(2)
180	606.28	97.64	End Shut-In(2)
181	1717.23	97.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	O-C-M 40%oil-60%mud	0.49

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Drilling Oil Inc.

Polifka # 7

P.O. Drawer 550

7-13s-17w

Hays, Ks. 67601

Job Ticket: 16827

DST#: 2

ATTN: Terry W. Flesker

Test Start: 2003.01.15 @ 03:05:48

Tool Information

Drill Pipe:	Length: 3507.00 ft	Diameter: 3.80 inches	Volume: 49.19 bbl	Tool Weight:	3600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	49.19 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	3517.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	93.02 ft				
Tool Length:	113.02 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3498.00	
S.I. Tool	5.00			3503.00	
HMV	5.00			3508.00	
Packer	4.00			3512.00	20.00 Bottom Of Top Packer
Packer	5.00			3517.00	
Stubb	1.00			3518.00	
Perforations	1.00			3519.00	
C.O. Sub	1.00			3520.00	
Recorder	0.01	3017	Inside	3520.01	
Blank Spacing	62.00			3582.01	
C.O. Sub	1.00			3583.01	
Perforations	24.00			3607.01	
Recorder	0.01	13308	Outside	3607.02	
Bullnose	3.00			3610.02	93.02 Bottom Packers & Anchor

Total Tool Length: 113.02



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Polifka # 7

P.O. Drawer 550
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7--13s--17w

Job Ticket: 16827

DST#: 2

ATTN: Terry W. Flesker

Test Start: 2003.01.15 @ 03:05:48

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: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	O-C-M 40%oil--60%mud	0.491

Total Length: 35.00 ft

Total Volume: 0.491 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

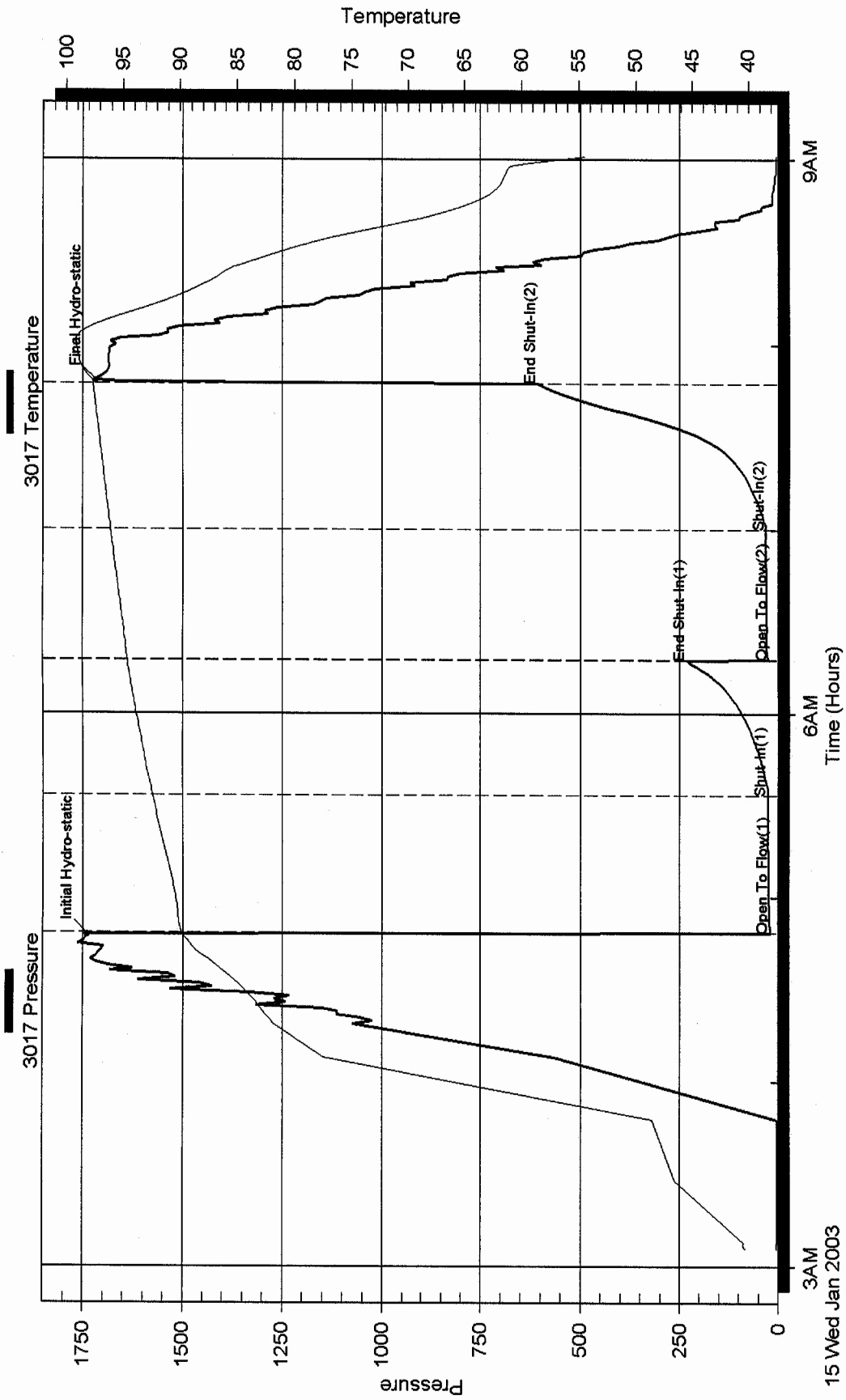
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





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Dreiling Oil Inc.

Polifka # 7

P.O. Drawer 550
Hays, Ks. 67601

7-13s-17w

Job Ticket: 16828

DST#: 3

ATTN: Terry W. Flesker

Test Start: 2003.01.15 @ 15:24:40

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:14:10

Time Test Ended: 22:39:40

Test Type: Conventional Bottom Hole

Tester: John Schmidt

Unit No: 18

Interval: **3595.00 ft (KB) To 3627.00 ft (KB) (TVD)**

Reference Elevations: 2098.00 ft (KB)

Total Depth: 3627.00 ft (KB) (TVD)

2090.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 3017

Inside

Press@RunDepth: 202.98 psig @ 3600.01 ft (KB)

Capacity: 7000.00 psig

Start Date: 2003.01.15

End Date: 2003.01.15

Last Calib.: 2003.01.15

Start Time: 15:24:42

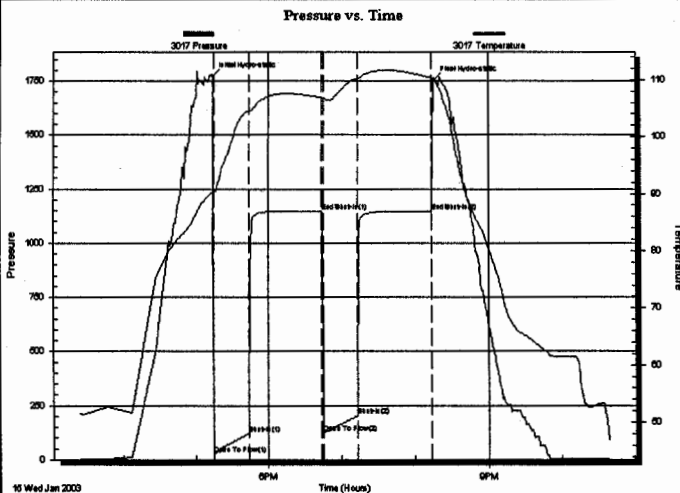
End Time: 22:39:40

Time On Btm: 2003.01.15 @ 17:13:40

Time Off Btm: 2003.01.15 @ 20:16:10

TEST COMMENT: IF-Strong B.O.B. 10 min
FF-Strong B.O.B. 8 min

ISI-Good blow back 1" in
FSI-Good blow back 1" in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1773.55	90.13	Initial Hydro-static
1	26.58	90.21	Open To Flow (1)
30	121.24	104.54	Shut-In(1)
90	1147.86	106.86	End Shut-In(1)
92	124.03	106.81	Open To Flow (2)
119	202.98	110.23	Shut-In(2)
180	1147.51	110.35	End Shut-In(2)
183	1753.96	109.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
464.00	G-C-free oil-10%gas--90%oil	6.51
210.00	gas in pipe	2.95

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TOOL DIAGRAM

Drilling Oil Inc.

Polifka # 7

P.O. Drawer 550
Hays, Ks. 67601

7-13s-17w

Job Ticket: 16828

DST#: 3

ATTN: Terry W. Flesker

Test Start: 2003.01.15 @ 15:24:40

Tool Information

Drill Pipe:	Length:	3600.00 ft	Diameter:	3.80 inches	Volume:	50.50 bbl
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl
				Total Volume:	50.50 bbl	
Drill Pipe Above KB:	25.00 ft					
Depth to Top Packer:	3595.00 ft					
Depth to Bottom Packer:	ft					
Interval between Packers:	32.02 ft					
Tool Length:	52.02 ft					
Number of Packers:	2	Diameter:	6.75 inches			

Tool Weight:	3000.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	55000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	46000.00 lb
Final	48000.00 lb

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			3576.00	
S.I. Tool	5.00			3581.00	
HMV	5.00			3586.00	
Packer	4.00			3590.00	20.00 Bottom Of Top Packer
Packer	5.00			3595.00	
Stubb	1.00			3596.00	
Perforations	4.00			3600.00	
Recorder	0.01	3017	Inside	3600.01	
Perforations	24.00			3624.01	
Recorder	0.01	13308	Outside	3624.02	
Bullnose	3.00			3627.02	32.02 Bottom Packers & Anchor

Total Tool Length: 52.02



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Polifka # 7

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7-13s-17w

Job Ticket: 16828

DST#: 3

ATTN: Terry W. Flesker

Test Start: 2003.01.15 @ 15:24:40

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
464.00	G-C-free oil-10%gas--90%oil	6.509
210.00	gas in pipe	2.946

Total Length: 674.00 ft

Total Volume: 9.455 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

