

DRILL STEM TEST REPORT

Prepared For: **Bruce Oil Company LLC**

1704 Limestone Rd
McPherson Ks 67460

ATTN: Lonny Bruce

18-7s-20w Rooks

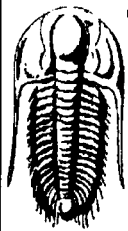
Ida Mae #1

Start Date: 2005.03.16 @ 13:34:25

End Date: 2005.03.16 @ 21:07:24

Job Ticket #: 21684 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bruce Oil Company LLC

Ida Mae #1

1704 Limestone Rd
McPherson Ks 67460

18-7s-20w Rooks

Job Ticket: 21684

DST#: 1

ATTN: Lonny Bruce

Test Start: 2005.03.16 @ 13:34:25

GENERAL INFORMATION:

Formation: **LKC C-G**

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

Time Tool Opened: 15:07:24

Time Test Ended: 21:07:24

Test Type: **Conventional Bottom Hole**

Tester: **Ray Schwager**

Unit No: **28**

Interval: **3347.00 ft (KB) To 3430.00 ft (KB) (TVD)**

Reference Elevations: **2125.00 ft (KB)**

Total Depth: **3430.00 ft (KB) (TVD)**

2120.00 ft (CF)

Hole Diameter: **7.85 inches** Hole Condition: **Fair**

KB to GR/CF: 5.00 ft

Serial #: 6668

Inside

Press@RunDepth: **398.67 psig @ 3349.01 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2005.03.16**

End Date: **2005.03.16**

Last Calib.: **2005.03.16**

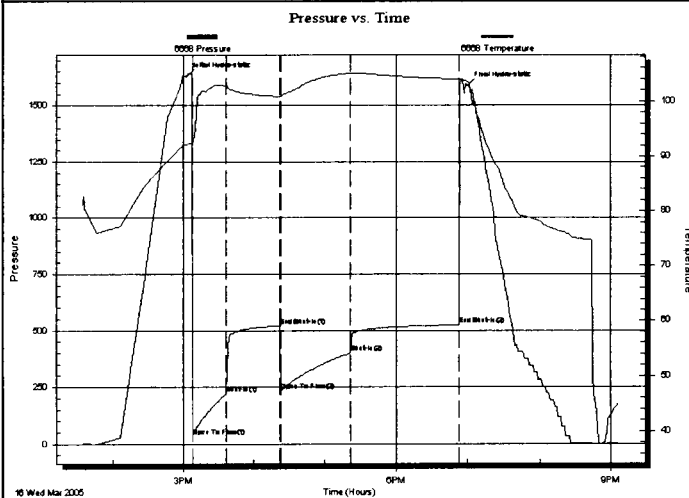
Start Time: **13:34:25**

End Time: **21:07:24**

Time On Btm: **2005.03.16 @ 15:02:54**

Time Off Btm: **2005.03.16 @ 18:59:24**

TEST COMMENT: FFP-w k to strg in 3 min
FFP-w k to strg in 7 min
Times 30-45-60-90
ISIP-w k bl bk, FSIP-w k bl bk



PRESSURE SUMMARY

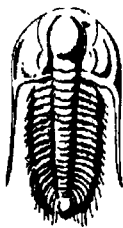
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1627.93	92.16	Initial Hydro-static
5	34.87	92.12	Open To Flow (1)
34	222.00	102.71	Shut-In(1)
80	519.53	100.77	End Shut-In(1)
80	232.77	100.79	Open To Flow (2)
139	398.67	105.00	Shut-In(2)
230	523.53	103.95	End Shut-In(2)
237	1587.94	103.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	CO	0.07
90.00	W&MCO 5%G 40%O 25%W 30%M	1.26
248.00	M&OCW 25%O 10%M 65%W	3.48
124.00	OCMW 10%O 20%M 70%W	1.74
434.00	Water RW .11@70F	6.09

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bruce Oil Company LLC

Ida Mae #1

1704 Limestone Rd
McPherson Ks 67460

18-7s-20w Rooks

Job Ticket: 21684

DST#: 1

ATTN: Lonny Bruce

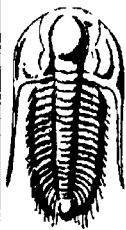
Test Start: 2005.03.16 @ 13:34:25

Tool Information

Drill Pipe:	Length: 3347.00 ft	Diameter: 3.80 inches	Volume: 46.95 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 46.95 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3347.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.02 ft			
Tool Length:	104.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3327.00	
Shut In Tool	5.00			3332.00	
Hydraulic tool	5.00			3337.00	
Packer	5.00			3342.00	21.00 Bottom Of Top Packer
Packer	5.00			3347.00	
Stubb	1.00			3348.00	
Perforations	1.00			3349.00	
Recorder	0.01	6668	Inside	3349.01	
Blank Spacing	64.00			3413.01	
Recorder	0.01	13534	Outside	3413.02	
Perforations	14.00			3427.02	
Bullnose	3.00			3430.02	83.02 Bottom Packers & Anchor

Total Tool Length: 104.02



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18-7s-20w Rooks

Job Ticket: 21684

DST#: 1

ATTN: Lonny Bruce

Test Start: 2005.03.16 @ 13:34:25

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: 73000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.75 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	CO	0.070
90.00	W&MGO 5%G 40%O 25%W 30%M	1.262
248.00	M&OCW 25%O 10%M 65%W	3.479
124.00	OCMW 10%O 20%M 70%W	1.739
434.00	Water RW .11@70F	6.088

Total Length: 901.00 ft

Total Volume: 12.638 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

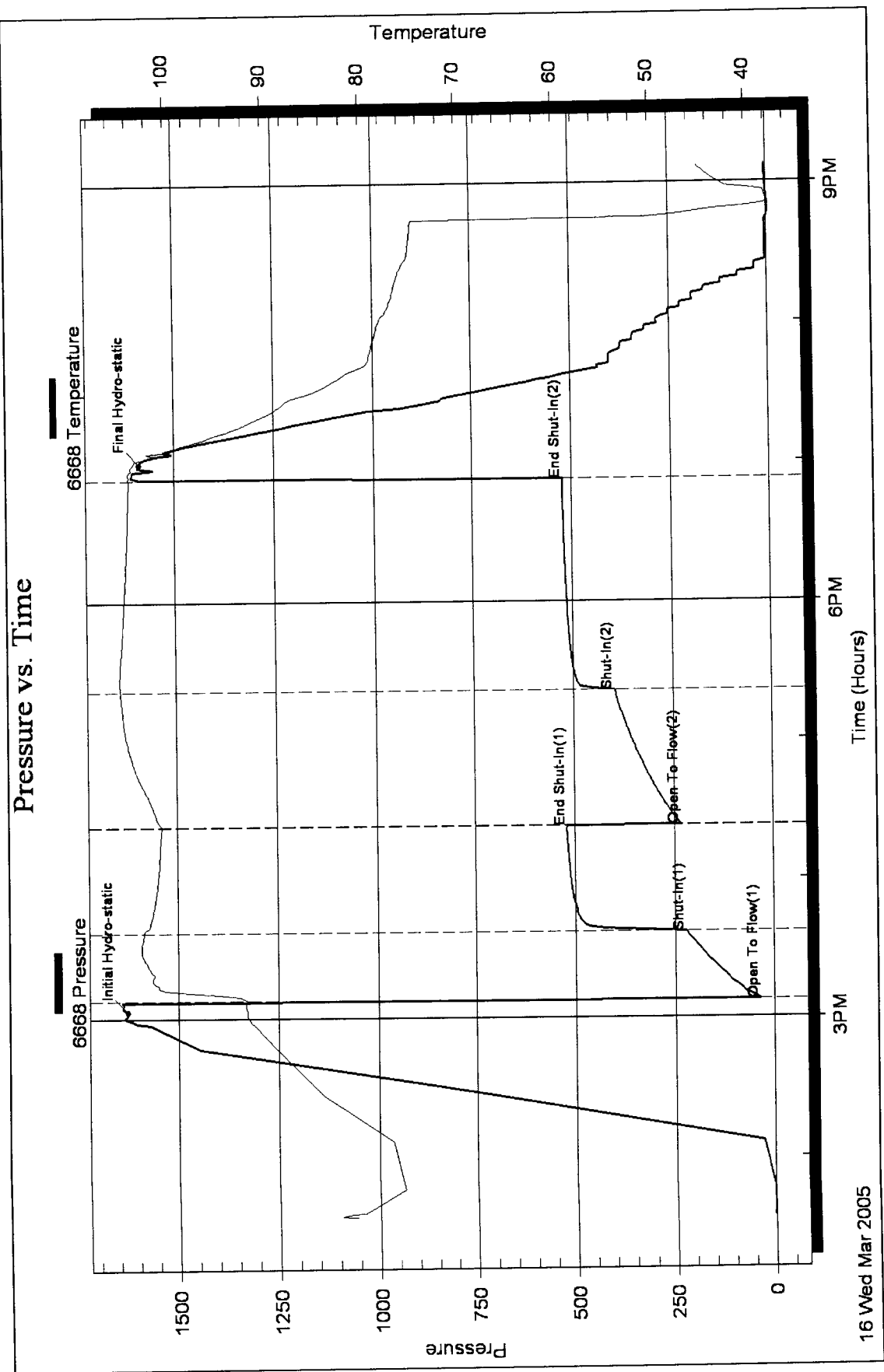
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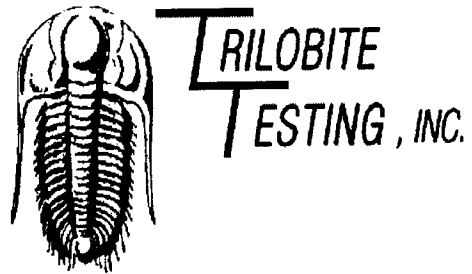
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Bruce Oil Company LLC**

1704 Limestone Rd
McPherson Ks 67460

ATTN: Lonny Bruce

18-7s-20w Rooks

Ida Mae #1

Start Date: 2005.03.17 @ 12:58:31

End Date: 2005.03.17 @ 17:39:30

Job Ticket #: 21685 DST #: 2

Trilobite Testing, Inc
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DRILL STEM TEST REPORT

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1704 Limestone Rd
McPherson Ks 67460

ATTN: Lonny Bruce

Ida Mae #1

18-7s-20w Rooks

Job Ticket: 21685

DST#: 2

Test Start: 2005.03.17 @ 12:58:31

GENERAL INFORMATION:

Formation: **Arbuckle**

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

Time Tool Opened: 14:14:30

Time Test Ended: 17:39:30

Test Type: **Conventional Bottom Hole**

Tester: **Ray Schwager**

Unit No: **28**

Interval: **3565.00 ft (KB) To 3591.00 ft (KB) (TVD)**

Total Depth: **3591.00 ft (KB) (TVD)**

Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **2125.00 ft (KB)**

2120.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6668

Inside

Press@RunDepth: **19.00 psig @ 3569.01 ft (KB)**

Start Date: **2005.03.17**

End Date:

2005.03.17

Start Time: **12:58:31**

End Time:

17:39:30

Capacity: **7000.00 psig**

Last Calib.: **2005.03.17**

Time On Btm: **2005.03.17 @ 14:13:30**

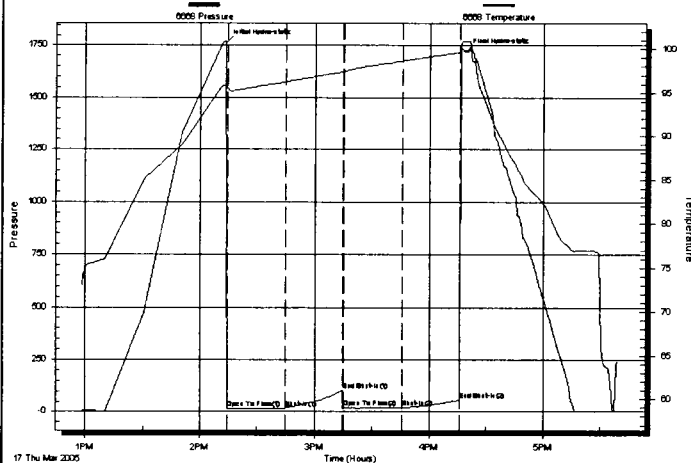
Time Off Btm: **2005.03.17 @ 16:19:00**

TEST COMMENT: **FFP-w k surface bl thru-out**

FFP-w k surface bl

Times 30-30-30-30

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1763.31	95.80	Initial Hydro-static
1	14.49	95.51	Open To Flow (1)
31	17.71	96.24	Shut-In(1)
61	104.90	97.41	End Shut-In(1)
62	18.30	97.43	Open To Flow (2)
92	19.00	98.65	Shut-In(2)
123	56.64	99.64	End Shut-In(2)
126	1722.21	100.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Clean Oil	0.03
5.00	HOCM 25% oil 75% mud	0.07

Gas Rates

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

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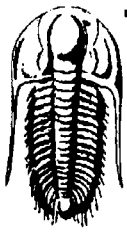
Tool Information

Drill Pipe:	Length: 3564.00 ft	Diameter: 3.80 inches	Volume: 49.99 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
		Total Volume: 49.99 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3565.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.02 ft			
Tool Length:	47.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3545.00	
Shut In Tool	5.00			3550.00	
Hydraulic tool	5.00			3555.00	
Packer	5.00			3560.00	21.00 Bottom Of Top Packer
Packer	5.00			3565.00	
Stubb	1.00			3566.00	
Perforations	3.00			3569.00	
Recorder	0.01	6668	Inside	3569.01	
Perforations	19.00			3588.01	
Recorder	0.01	13534	Outside	3588.02	
Bullnose	3.00			3591.02	26.02 Bottom Packers & Anchor

Total Tool Length: 47.02



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DST#: 2

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Test Start: 2005.03.17 @ 12:58:31

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: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.73 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Clean Oil	0.028
5.00	HOCM 25%oil 75%mud	0.070

Total Length: 7.00 ft

Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

