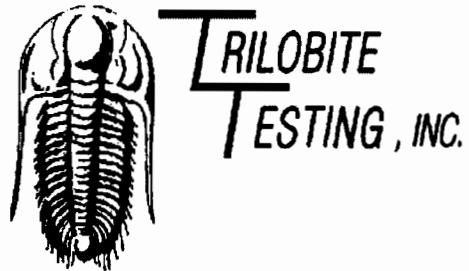


15-155-21485

10-23s-10w



DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Oper. Co.**

200 E. First. St.
Suite 307
Wichita, KS 67202

ATTN: Tim Pierce

10-23s-10w

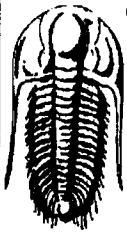
Miller #1-10

Start Date: 2005.03.09 @ 04:55:56

End Date: 2005.03.09 @ 14:29:41

Job Ticket #: 21871 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

Grand Mesa Oper. Co.

200 E. First. St.
Suite 307
Wichita, KS 67202
ATTN: Tim Pierce

Miller #1-10

10-23s-10w

Job Ticket: 21871

DST#: 1

Test Start: 2005.03.09 @ 04:55:56

GENERAL INFORMATION:

Formation: **Viola**

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

Time Tool Opened: 07:45:26

Time Test Ended: 14:29:41

Test Type: **Conventional Bottom Hole**

Tester: **Davy Cline**

Unit No: **24**

Interval: **3560.00 ft (KB) To 3615.00 ft (KB) (TVD)**

Reference Elevations: **1769.00 ft (KB)**

Total Depth: **3615.00 ft (KB) (TVD)**

1765.00 ft (CF)

Hole Diameter: **7.88 inches** Hole Condition: **Floor**

KB to GR/CF: 4.00 ft

Serial #: 6753

Inside

Press@RunDepth: **395.46 psig @ 3567.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2005.03.09**

End Date: **2005.03.09**

Last Calib.: **2005.03.09**

Start Time: **04:55:57**

End Time: **14:29:41**

Time On Btm: **2005.03.09 @ 07:44:41**

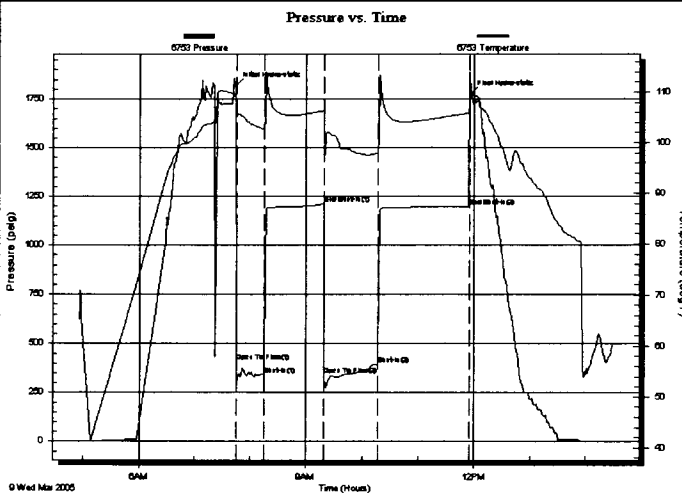
Time Off Btm: **2005.03.09 @ 11:55:56**

TEST COMMENT: F: Strong blow . BON 10 sec. GTS 2min 30 sec. See Gas rates.

IS: Bled off for 30 min. No blow .

FF: Strong blow . BOB Immediately. See gas rates.

FS: Bled off for 30 min. Weak surface blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1817.17	109.09	Initial Hydro-static
1	409.51	106.10	Open To Flow (1)
31	339.67	102.51	Shut-In(1)
94	1209.48	106.36	End Shut-In(1)
94	341.53	101.99	Open To Flow (2)
152	395.46	97.98	Shut-In(2)
250	1196.53	105.89	End Shut-In(2)
252	1773.12	109.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GCM 5%g 95%w	0.41
62.00	G& VSOCM 40%g 25%o 15%w 20%m	0.64
247.00	G& OCM 60%g 30%o 4%w 6%m	2.53
181.00	G& HOCM 30%g 35%o 20%w 15%m	1.86
5.00	Water 100%w	0.05

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	54.00	461.41
Last Gas Rate	0.75	40.00	849.72
Max. Gas Rate	0.50	54.00	461.41



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Oper. Co.

Miller #1-10

200 E. First. St.
Suite 307
Wichita, KS 67202
ATTN: Tim Pierce

10-23s-10w

Job Ticket: 21871

DST#: 1

Test Start: 2005.03.09 @ 04:55:56

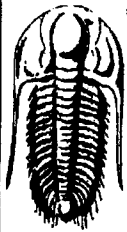
Tool Information

Drill Pipe:	Length: 3562.00 ft	Diameter: 3.25 inches	Volume: 36.55 bbl	Tool Weight: 2100.00 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: 74000.00 lb
			<u>Total Volume: 36.55 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3560.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	76.00 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			3540.00	
Shut In Tool	5.00			3545.00	
Hydraulic tool	5.00			3550.00	
Packer	5.00			3555.00	21.00 Bottom Of Top Packer
Packer	5.00			3560.00	
Stubb	1.00			3561.00	
Perforations	5.00			3566.00	
Change Over Sub	1.00			3567.00	
Recorder	0.00	6753	Inside	3567.00	
Blank Spacing	30.00			3597.00	
Change Over Sub	1.00			3598.00	
Perforations	14.00			3612.00	
Recorder	0.00	13400	Outside	3612.00	
Bullnose	3.00			3615.00	55.00 Bottom Packers & Anchor

Total Tool Length: 76.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Oper. Co.

Miller #1-10

200 E. First. St.
Suite 307
Wichita, KS 67202
ATTN: Tim Pierce

10-23s-10w

Job Ticket: 21871

DST#: 1

Test Start: 2005.03.09 @ 04:55:56

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbf

Water Loss: 11.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
40.00	GCM 5%g 95%m	0.410
62.00	G& VSOCM 40%g 25%o 15%w 20%m	0.636
247.00	G& OCM 60%g 30%o 4%w 6%m	2.534
181.00	G& HOCM 30%g 35%o 20%w 15%m	1.857
5.00	Water 100%w	0.051

Total Length: 535.00 ft

Total Volume: 5.488 bbf

Num Fluid Samples: 1

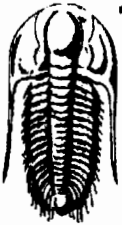
Num Gas Bombs: 1

Serial #: DC

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Grand Mesa Oper. Co.

Miller #1-10

200 E. First St.
Suite 307
Wichita, KS 67202
ATTN: Tim Pierce

10-23s-10w

Job Ticket: 21871

DST#: 1

Test Start: 2005.03.09 @ 04:55:56

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
1	5	0.50	54.00	461.41
1	10	0.75	47.00	959.06
1	15	0.75	50.00	1005.92
1	20	0.75	50.00	1005.92
1	25	0.75	50.00	1005.92
1	30	0.75	50.00	1005.92
2	10	0.75	38.00	818.48
2	20	0.75	39.00	834.10
2	30	0.75	38.00	818.48
2	40	0.75	38.00	818.48
2	50	0.75	34.00	756.00
2	60	0.75	40.00	849.72

Serial #: 6753

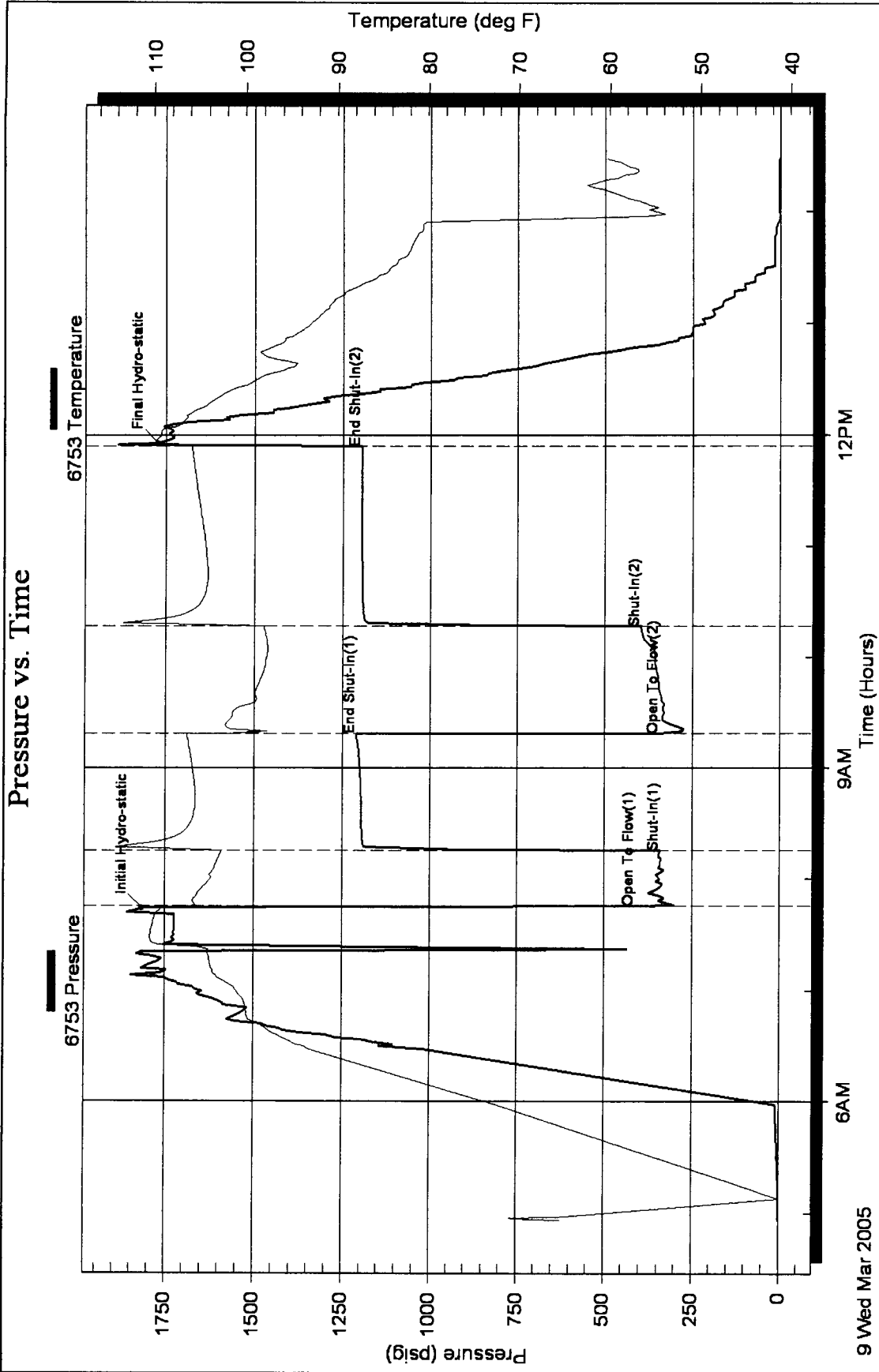
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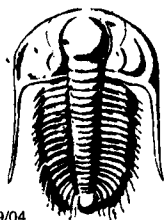
Grand Mesa Oper. Co.

10-23s-10w

DST Test Number: 1

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

7272

No 21871

Test Ticket

Well Name & No. Miller # 1-10 Test No. 1 Date 3-9-05
 Company Grand Mesa Oper. Co. Zone Tested Viola
 Address 200 E. First St. Suite 307 Wichita, KS 67202 Elevation KB 1765 GL
 Co. Rep / Geo. Tim Pierce Cont. Pickrell Drly #10 Est. Ft. of Pay — Por. — %
 Location: Sec. 10 Twp. 23s Rge. 10w Co. Reno State KS
 No. of Copies 5 Distribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 3560 - 3615 Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 42000
 Anchor Length 55' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 74,000
 Top Packer Depth 3555 Tool Weight 2,100
 Bottom Packer Depth 3560 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth 3615 Wt. Pipe Run — Drill Collar Run —
 Mud Wt. — LCM — Vis. — WL — Drill Pipe Size 4 1/2" XH Ft. Run —

Blow Description IF: Strong blow. BOB 10sec. GTS 2 1/2 min. See Gas Rates
ISI: Bled off for 30 min. No blow.
FF: Strong blow. BOB Immediately. See Gas Rates (Morning Tower slow & Daylights was starstranded)
FSI: Bled off for 30 min. Weak surface blow.

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>535</u>	<u>Yes</u>	<u>Ø</u>	<u>535</u>
Rec. <u>40</u>	Feet of <u>GCM</u>	<u>5</u> %gas	<u>95</u> %mud
Rec. <u>62</u>	Feet of <u>EVSO CM</u>	<u>40</u> %gas <u>25</u> %oil	<u>15</u> %water <u>20</u> %mud
Rec. <u>247</u>	Feet of <u>EOCM</u>	<u>80</u> %gas <u>30</u> %oil	<u>4</u> %water <u>6</u> %mud
Rec. <u>181</u>	Feet of <u>G² HOCM</u>	<u>30</u> %gas <u>35</u> %oil	<u>20</u> %water <u>15</u> %mud
Rec. <u>5</u>	Feet of <u>Water</u>	%gas	<u>100</u> %water %mud

BHT 106 °F Gravity — °API D @ — °F Corrected Gravity — °API
 RW No V @ — °F Chlorides — ppm Recovery — Chlorides — ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>1817</u>	PSI	<u>6753</u>	<u>✓ 900</u>
(B) First Initial Flow Pressure	<u>410</u>	PSI	<u>3567</u>	Jars <u>—</u>
(C) First Final Flow Pressure	<u>340</u>	PSI	<u>13400</u>	Safety Jt. <u>—</u>
(D) Initial Shut-In Pressure	<u>1209</u>	PSI	<u>3612</u>	Circ Sub <u>✓ NC</u>
(E) Second Initial Flow Pressure	<u>342</u>	PSI		Sampler <u>—</u>
(F) Second Final Flow Pressure	<u>395</u>	PSI		Straddle <u>—</u>
(G) Final Shut-In Pressure	<u>1197</u>	PSI	<u>Initial Opening</u>	Ext. Packer <u>—</u>
(Q) Final Hydrostatic Mud	<u>1773</u>	PSI	<u>Initial Shut-In</u>	Shale Packer <u>—</u>
			<u>Final Flow</u>	Ruined Packer <u>1</u>
			<u>Final Shut-In</u>	Mileage <u>✓ 96 total</u>
			<u>T-On Location</u>	Sub Total: <u>996</u>
			<u>T-Started</u>	Std. By <u>3 1/2 hrs 105</u>
			<u>T-Open</u>	Other <u>—</u>
			<u>T-Pulled</u>	Total: <u>1101</u>
			<u>T-Out</u>	

Approved By _____

Our Representative Danny [Signature]

11 30

CHART PAGE
This is a photocopy of the actual AK-1 recorder chart.

