



DRILL STEM TEST REPORT

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

200 E. First St Ste 307
Wichita KS 67202

ATTN: Was Hansen

18/28/40

Circle Eight #1-18

Start Date: 2006.03.02 @ 17:00:35

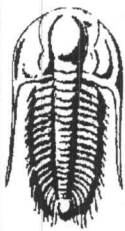
End Date: 2006.03.03 @ 01:31:50

Job Ticket #: 22928 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 Operating Co.

Circle Eight #1-18

200 E. First St Ste 307
Wichita KS 67202

18/28/40

Job Ticket: 22928

DST#: 1

ATTN: Was Hansen

Test Start: 2006.03.02 @ 17:00:35

GENERAL INFORMATION:

Formation: **Morrow**

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

Time Tool Opened: 20:25:35

Time Test Ended: 01:31:50

Test Type: **Conventional Bottom Hole**

Tester: **Harley Davidson**

Unit No: **33**

Interval: **5006.00 ft (KB) To 5076.00 ft (KB) (TVD)**

Total Depth: **5076.00 ft (KB) (TVD)**

Hole Diameter: **7.78 inches** Hole Condition: **Fair**

Reference Elevations: **3330.00 ft (KB)**

3318.00 ft (CF)

KB to GR/CF: **12.00 ft**

Serial #: 6751

Inside

Press@RunDepth: **35.11 psig @ 5042.00 ft (KB)**

Start Date: **2006.03.02**

End Date:

2006.03.03

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Start Time: **17:00:36**

End Time:

01:31:50

Time On Btm: **2006.03.02 @ 20:24:50**

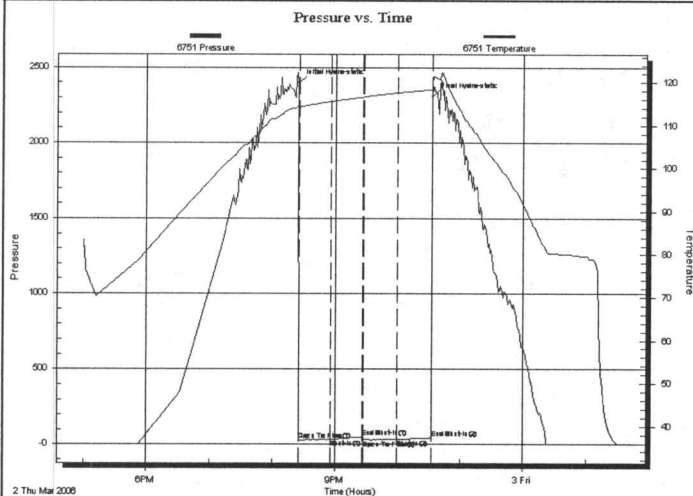
Time Off Btm: **2006.03.02 @ 22:33:50**

TEST COMMENT: IF- Weak blow , built to 1/2" into bucket.

IS- No blow back.

FF- No blow .

FS- No blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2396.59	114.69	Initial Hydro-static
1	25.51	114.22	Open To Flow (1)
31	33.62	115.57	Shut-In(1)
63	49.35	116.58	End Shut-In(1)
63	30.14	116.59	Open To Flow (2)
95	35.11	117.57	Shut-In(2)
129	43.93	118.37	End Shut-In(2)
129	2307.69	119.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100% mud.	0.15

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

Circle Eight #1-18

200 E. First St Ste 307
Wichita KS 67202

18/28/40

Job Ticket: 22928

DST#: 1

ATTN: Was Hansen

Test Start: 2006.03.02 @ 17:00:35

Tool Information

Drill Pipe:	Length: 4681.00 ft	Diameter: 3.80 inches	Volume: 65.66 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: 25000.00 lb
Drill Collar:	Length: 311.00 ft	Diameter: 2.25 inches	Volume: 1.53 bbl	Weight to Pull Loose: 95000.00 lb
		Total Volume:	67.19 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 92000.00 lb
Depth to Top Packer:	5006.00 ft			Final 92000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	97.00 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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Change Over Sub	1.00			4980.00	
Shut In Tool	5.00			4985.00	
Hydraulic tool	5.00			4990.00	
Jars	5.00			4995.00	
Safety Joint	2.00			4997.00	
Packer	5.00			5002.00	27.00 Bottom Of Top Packer
Packer	4.00			5006.00	
Stubb	1.00			5007.00	
Perforations	1.00			5008.00	
Change Over Sub	1.00			5009.00	
Drill Pipe	32.00			5041.00	
Change Over Sub	1.00			5042.00	
Recorder	0.00	6751	Inside	5042.00	
Perforations	30.00			5072.00	
Recorder	0.00	6724	Outside	5072.00	
Bullnose	4.00			5076.00	70.00 Bottom Packers & Anchor
Total Tool Length:	97.00				



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FLUID SUMMARY

Grand Mesa Operating Co.

Circle Eight #1-18

200 E. First St Ste 307
Wichita KS 67202

18/28/40

Job Ticket: 22928

DST#: 1

ATTN: Was Hansen

Test Start: 2006.03.02 @ 17:00:35

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: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	100% mud.	0.148

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

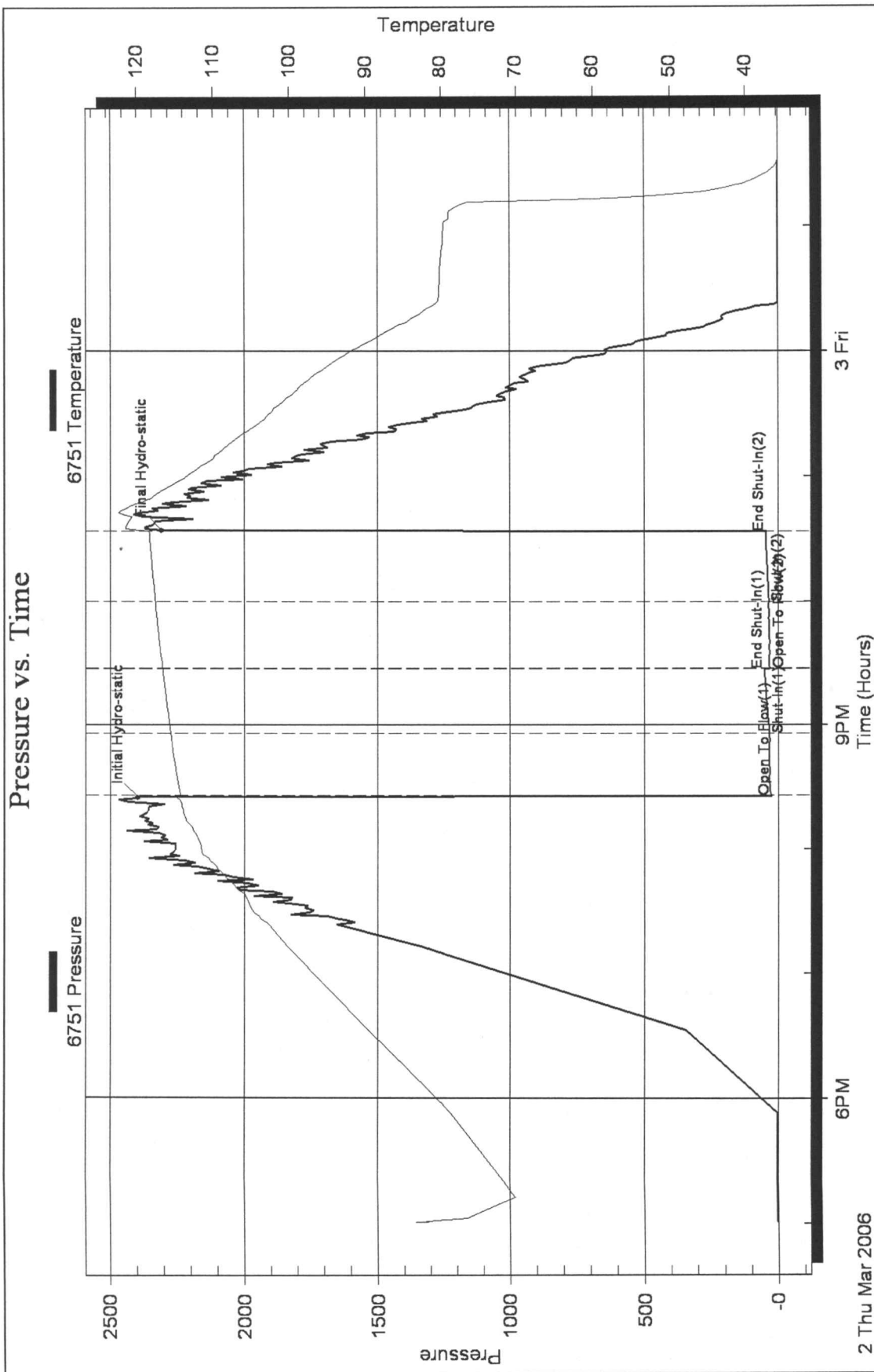
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

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

200 E. First St Ste 307
Wichita KS 67202

ATTN: Was Hansen

18/28/40

Circle Eight #1-18

Start Date: 2006.03.04 @ 14:01:09

End Date: 2006.03.05 @ 02:54:09

Job Ticket #: 22929 DST #: 2

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 Operating Co.

Circle Eight #1-18

200 E. First St Ste 307
Wichita KS 67202

18/28/40

Job Ticket: 22929

DST#: 2

ATTN: Was Hansen

Test Start: 2006.03.04 @ 14:01:09

GENERAL INFORMATION:

Formation: **Keyes**

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

Time Tool Opened: 17:01:54

Time Test Ended: 02:54:09

Test Type: **Conventional Bottom Hole**

Tester: **Harley Davidson**

Unit No: **33**

Interval: **5320.00 ft (KB) To 5400.00 ft (KB) (TVD)**

Reference Elevations: **3330.00 ft (KB)**

Total Depth: **5400.00 ft (KB) (TVD)**

3318.00 ft (CF)

Hole Diameter: **7.78 inches** Hole Condition: **Fair**

KB to GR/CF: 12.00 ft

Serial #: 6751 Below (Straddle)

Press@RunDepth: **369.98 psig @ 5390.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2006.03.04**

End Date: **2006.03.05**

Last Calib.: **1899.12.30**

Start Time: **14:01:10**

End Time: **02:54:09**

Time On Btm: **2006.03.04 @ 17:01:24**

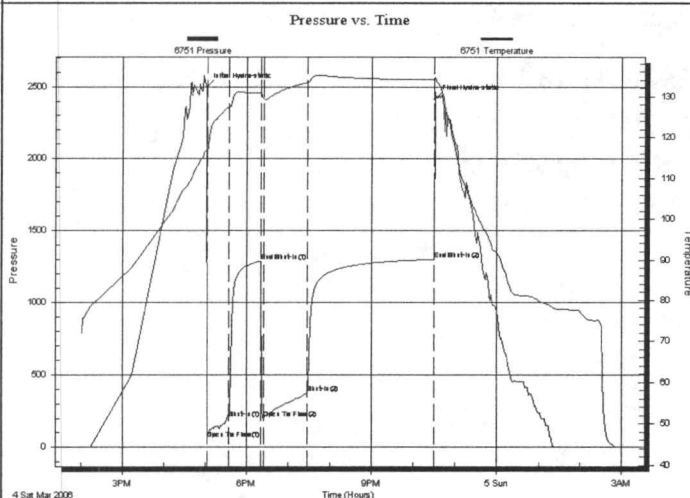
Time Off Btm: **2006.03.04 @ 22:30:09**

TEST COMMENT: IF- Good blow , BOB 4 1/2min. No GTS.

ISI- Built to 2 1/2 " in bucket.

FF- Strong blow , BOB, ASAO, GTS 5 min. TSTM

FSI- Built to 2 1/2 " in bucket.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2498.58	116.86	Initial Hydro-static
1	55.33	116.34	Open To Flow (1)
32	199.09	127.52	Shut-In(1)
79	1288.92	130.78	End Shut-In(1)
83	194.21	129.45	Open To Flow (2)
145	369.98	133.41	Shut-In(2)
328	1302.01	134.28	End Shut-In(2)
329	2414.24	134.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1070.00	30% gas, 70% oil.	12.18
620.00	10% gas, 30% mud, 60% oil.	8.70

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

Circle Eight #1-18

200 E. First St Ste 307
Wichita KS 67202

18/28/40

Job Ticket: 22929

DST#: 2

ATTN: Was Hansen

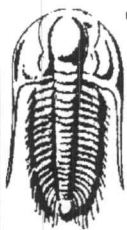
Test Start: 2006.03.04 @ 14:01:09

Tool Information

Drill Pipe:	Length: 4995.00 ft	Diameter: 3.80 inches	Volume: 70.07 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: 25000.00 lb
Drill Collar:	Length: 311.00 ft	Diameter: 2.25 inches	Volume: 1.53 bbl	Weight to Pull Loose: 105000.0 lb
		Total Volume:	71.60 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 95000.00 lb
Depth to Top Packer:	5320.00 ft			Final 100000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	107.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5294.00	
Shut In Tool	5.00			5299.00	
Hydraulic tool	5.00			5304.00	
Jars	5.00			5309.00	
Safety Joint	2.00			5311.00	
Packer	5.00			5316.00	27.00 Bottom Of Top Packer
Packer	4.00			5320.00	
Stubb	1.00			5321.00	
Perforations	5.00			5326.00	
Change Over Sub	1.00			5327.00	
Drill Pipe	62.00			5389.00	
Change Over Sub	1.00			5390.00	
Recorder	0.00	6751	Below	5390.00	
Perforations	6.00			5396.00	
Recorder	0.00	6724	Outside	5396.00	
Bullnose	4.00			5400.00	80.00 Bottom Packers & Anchor
Total Tool Length:	107.00				



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Circle Eight #1-18

200 E. First St Ste 307
Wichita KS 67202

18/28/40

Job Ticket: 22929

DST#: 2

ATTN: Was Hansen

Test Start: 2006.03.04 @ 14:01:09

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 7.19 in³

Resistivity: ohm.m

Salinity: 400.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1070.00	30% gas, 70% oil.	12.176
620.00	10% gas, 30% mud, 60% oil.	8.697

Total Length: 1690.00 ft

Total Volume: 20.873 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

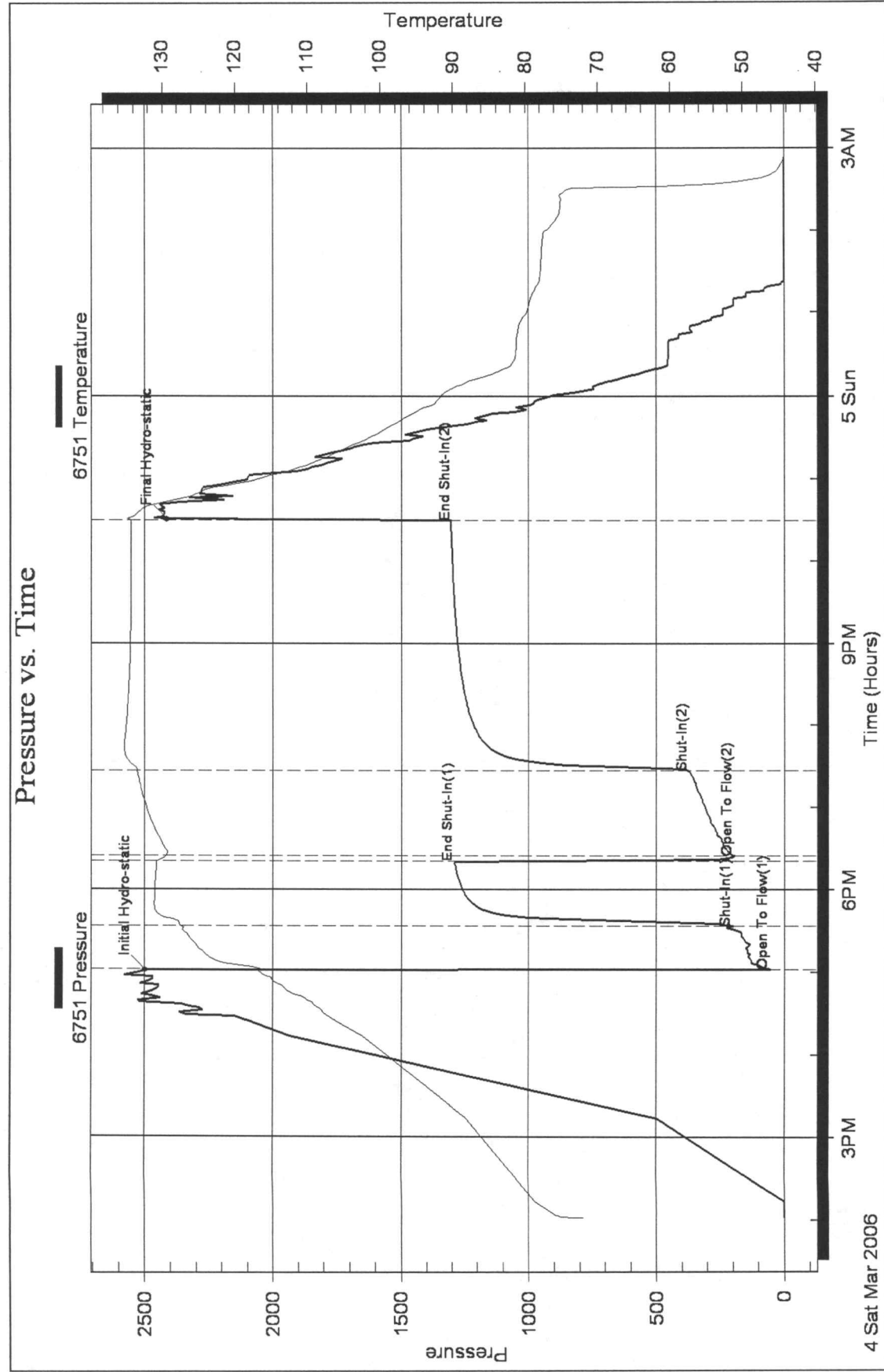
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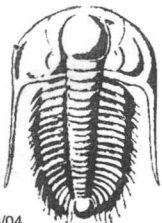
Serial #: 6751

Below (Stratified) Mesa Operating Co.

18/28/40

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

8497
No 22928

Test Ticket

Well Name & No. Circle Eight #1-18 Test No. 1 Date 3/2/06
 Company Grand Mast Operating Company Zone Tested Morrow
 Address 200 E First St. Sub 307 Wichita KS 67202 Elevation 3330 KB 3318 GL
 Co. Rep / Geo. Wes Hansen Cont. Slr #2 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 18 Twp. 28s Rge. 40w Co. Stanton State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 5006-5076 Initial Str Wt./Lbs. 92K Unseated Str Wt./Lbs. 92K
 Anchor Length 70 Wt. Set Lbs. 25K Wt. Pulled Loose/Lbs. 95K
 Top Packer Depth 5001 Tool Weight 2000
 Bottom Packer Depth 5006 Hole Size 7 7/8" Rubber Size 6 3/4"
 Total Depth 5076 Wt. Pipe Run 0 Drill Collar Run 311
 Mud Wt. 9.2 LCM 3 Vis. 50 WL 7.2 Drill Pipe Size 4.5 in Ft. Run 4681
 Blow Description IF - weak surface blow - 1/2" into pocket.
ISI - No blow back
EF - No blow
FSI - No blow back

Recovery - Total Feet 30 GIP _____ Ft. in DC _____ Ft. in DP _____
 Rec. 30 Feet of M %gas _____ %oil _____ %water 100 %mud _____
 Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
 Rec. 118 Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT _____ °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 300 ppm System

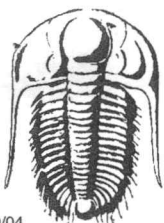
	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	2402	PSI	6571	-1200° 10h
(B) First Initial Flow Pressure	26	PSI	(depth) 3009	Jars -250°
(C) First Final Flow Pressure	34	PSI	Recorder No. 11018	Safety Jt. -75°
(D) Initial Shut-In Pressure	49	PSI	(depth) 5076	Circ Sub
(E) Second Initial Flow Pressure	30	PSI	Recorder No.	Sampler
(F) Second Final Flow Pressure	35	PSI	(depth)	Straddle
(G) Final Shut-In Pressure	44	PSI	Initial Opening 30	Ext. Packer
(Q) Final Hydrostatic Mud	2368	PSI	Initial Shut-In 30	Shale Packer
			Final Flow 30	Ruined Packer
			Final Shut-In 30	Mileage 100° 100°
			T-On Location 330 pm	Sub Total: 1625
			T-Started 500 pm	Std. By
			T-Open 845 pm	Other Acc: 150°
			T-Pulled 1100 pm	Total: 1775°
			T-Out 130 Am	

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____

Our Representative

Handwritten signature



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 22929

Test Ticket

Well Name & No. Circle Eight #1-18 Test No. 2 Date 3/14/06
 Company Grand Mesa Operating Company Zone Tested Keyes
 Address 200 E First St Sub 307 Wichita KS 67202 Elevation 3330 KB 3318 GL
 Co. Rep / Geo. Wes Hanson Cont. Stk #2 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 18 Twp. 28 Rge. 40 Co. Stanton State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 5320 - 5400 Initial Str Wt./Lbs. 95K Unseated Str Wt./Lbs. 100K
 Anchor Length 80 Wt. Set Lbs. 25 Wt. Pulled Loose/Lbs. 105K
 Top Packer Depth 5315 Tool Weight 2000
 Bottom Packer Depth 5320 Hole Size 7 7/8" Rubber Size 6 3/4"
 Total Depth 5400 Wt. Pipe Run 0 Drill Collar Run 311
 Mud Wt. 9.1 LCM 15 Vis. 51 WL 7.2 Drill Pipe Size 4.5 Ft. Run 4995
 Blow Description IF - Good blow BOB, 4 1/2 m.h., "NO GTS"
IST - blow back, built to 2 1/2" in bucket
FF - strong blow, BOB, ASAO GTS 5 m.h., T.W.T.M.
FST - built to 2 1/2" in bucket

Recovery - Total Feet 1690 GIP _____ Ft. in DC _____ Ft. in DP _____
 Rec. 1070 Feet of 6CO 30 %gas 70 %oil 0 %water 0 %mud
 Rec. 620 Feet of 6MCO 10 %gas 60 %oil %water 30 %mud
 Rec. _____ Feet of _____ %gas %oil %water %mud
 Rec. _____ Feet of _____ %gas %oil %water %mud
 Rec. _____ Feet of _____ %gas %oil %water %mud
 BHT 134 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 460 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2535</u> PSI		<u>6571</u>	<u>1200</u> ° 10h
(B) First Initial Flow Pressure	<u>55</u> PSI		<u>5328</u>	Jars <u>250</u> °
(C) First Final Flow Pressure	<u>199</u> PSI		<u>11018</u>	Safety Jt. <u>75</u> °
(D) Initial Shut-In Pressure	<u>1289</u> PSI		<u>5400</u>	Circ Sub _____
(E) Second Initial Flow Pressure	<u>194</u> PSI			Sampler _____
(F) Second Final Flow Pressure	<u>370</u> PSI			Straddle _____
(G) Final Shut-In Pressure	<u>1302</u> PSI	Initial Opening	<u>30</u>	Ext. Packer _____
(Q) Final Hydrostatic Mud	<u>2427</u> PSI	Initial Shut-In	<u>60</u>	Shale Packer _____
		Final Flow	<u>60</u>	Ruined Packer _____
		Final Shut-In	<u>180</u>	Mileage <u>100</u> °
		T-On Location	<u>200 PM</u>	Sub Total: <u>1625</u>
		T-Started	<u>315 PM</u>	Std. By <u>35</u> <u>175</u> °
		T-Open	<u>645 PM</u>	Other <u>ACC: 150</u> °
		T-Pulled	<u>1200 AM</u>	Total: <u>1950</u> °
		T-Out	<u>430 AM</u>	

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Approved By Wesley Hanson
 Our Representative Barry Smith

CHART PAGE

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

