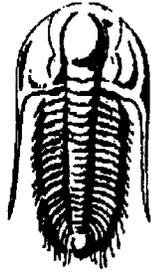


15-135-24215

5-18s-24w



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Company**

200 E. First St. Ste #307  
Wichita, KS 67202

ATTN: Wes Hansen

**5-18S-24W Ness KS**

**Schuckman #1-5**

Start Date: 2003.03.15 @ 11:14:24

End Date: 2003.03.15 @ 18:00:09

Job Ticket #: 16192                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Grand Mesa Operating Company

Schuckman #1-5

5-18S-24W Ness KS

DST # 1

Cherokee

2003.03.15



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Grand Mesa Operating Company  
200 E. First St. Ste #307  
Wichita, KS 67202  
ATTN: Wes Hansen

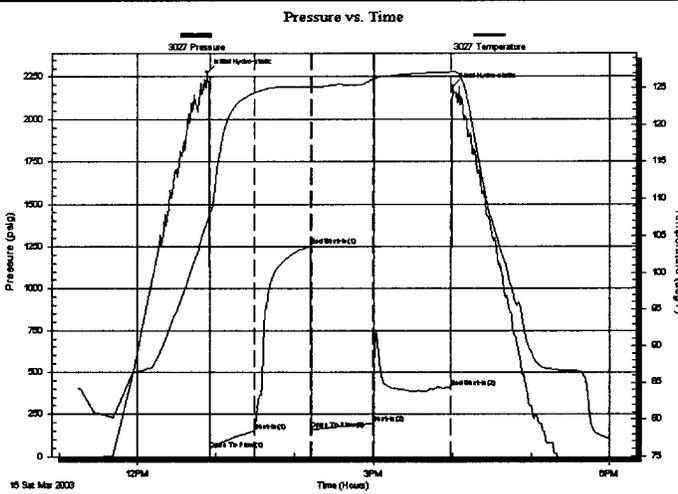
**Schuckman #1-5**  
**5-18S-24W Ness KS**  
Job Ticket: 16192      **DST#: 1**  
Test Start: 2003.03.15 @ 11:14:24

## GENERAL INFORMATION:

Formation: **Cherokee**  
Deviated: **No** Whipstock:                      ft (KB)  
Time Tool Opened: 12:55:54  
Time Test Ended: 18:00:09  
Interval: **4392.00 ft (KB) To 4458.00 ft (KB) (TVD)**  
Total Depth: **4562.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: Fair  
Test Type: Conventional Bottom Hole  
Tester: Rod Steinbrink  
Unit No: 22  
Reference Elevations: 2351.00 ft (KB)  
2346.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 3027      Inside**  
Press@RunDepth: 196.19 psig @ 4393.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2003.03.15      End Date: 2003.03.15      Last Calib.: 1899.12.30  
Start Time: 11:14:29      End Time: 18:00:08      Time On Btm: 2003.03.15 @ 12:53:39  
Time Off Btm: 2003.03.15 @ 15:59:54

TEST COMMENT: IF; Weak blow built to 4"  
FF; Weak blow built to 1"



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2276.32	106.76	Initial Hydro-static
3	46.96	107.91	Open To Flow (1)
37	154.01	124.34	Shut-In(1)
79	1253.20	125.20	End Shut-In(1)
80	160.02	125.24	Open To Flow (2)
126	196.19	126.15	Shut-In(2)
185	410.06	127.16	End Shut-In(2)
187	2192.98	127.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
420.00	MW 70%w tr 30% mud	3.63

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Grand Mesa Operating Company

**Schuckman #1-5**

200 E. First St. Ste #307  
Wichita, KS 67202

**5-18S-24W Ness KS**

Job Ticket: 16192

**DST#: 1**

ATTN: Wes Hansen

Test Start: 2003.03.15 @ 11:14:24

### Tool Information

Drill Pipe:	Length: 4134.00 ft	Diameter: 3.80 inches	Volume: 57.99 bbl	Tool Weight: 2500.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4392.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	171.00 ft			
Tool Length:	198.00 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			4370.00	
Hydraulic tool	5.00			4375.00	
Jars	5.00			4380.00	
Safety Joint	2.00			4382.00	
Packer	5.00			4387.00	27.00 Bottom Of Top Packer
Packer	5.00			4392.00	
Stubb	1.00			4393.00	
Recorder	0.00	3027	Inside	4393.00	
Perforations	2.00			4395.00	
Change Over Sub	1.00			4396.00	
Anchor	31.00			4427.00	
Change Over Sub	1.00			4428.00	
Recorder	0.00	13371	Outside	4428.00	
Perforations	25.00			4453.00	
Blank Off Sub	1.00			4454.00	171.00 Tool Interval
Packer	5.00			4459.00	
Stubb	1.00			4460.00	
Perforations	3.00			4463.00	
Change Over Sub	1.00			4464.00	
Anchor	93.00			4557.00	
Change Over Sub	1.00			4558.00	
Recorder	0.00	13309	Below	4558.00	
Bullnose	5.00			4563.00	1000197.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>198.00</b>				



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Grand Mesa Operating Company

**Schuckman #1-5**

200 E. First St. Ste #307  
Wichita, KS 67202

**5-18S-24W Ness KS**

Job Ticket: 16192

**DST#: 1**

ATTN: Wes Hansen

Test Start: 2003.03.15 @ 11:14:24

### 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:

28000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
420.00	MW 70%w tr 30%mud	3.632

Total Length: 420.00 ft

Total Volume: 3.632 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .32 @ 55 deg = 28,000 Chlorides

Serial #: 3027

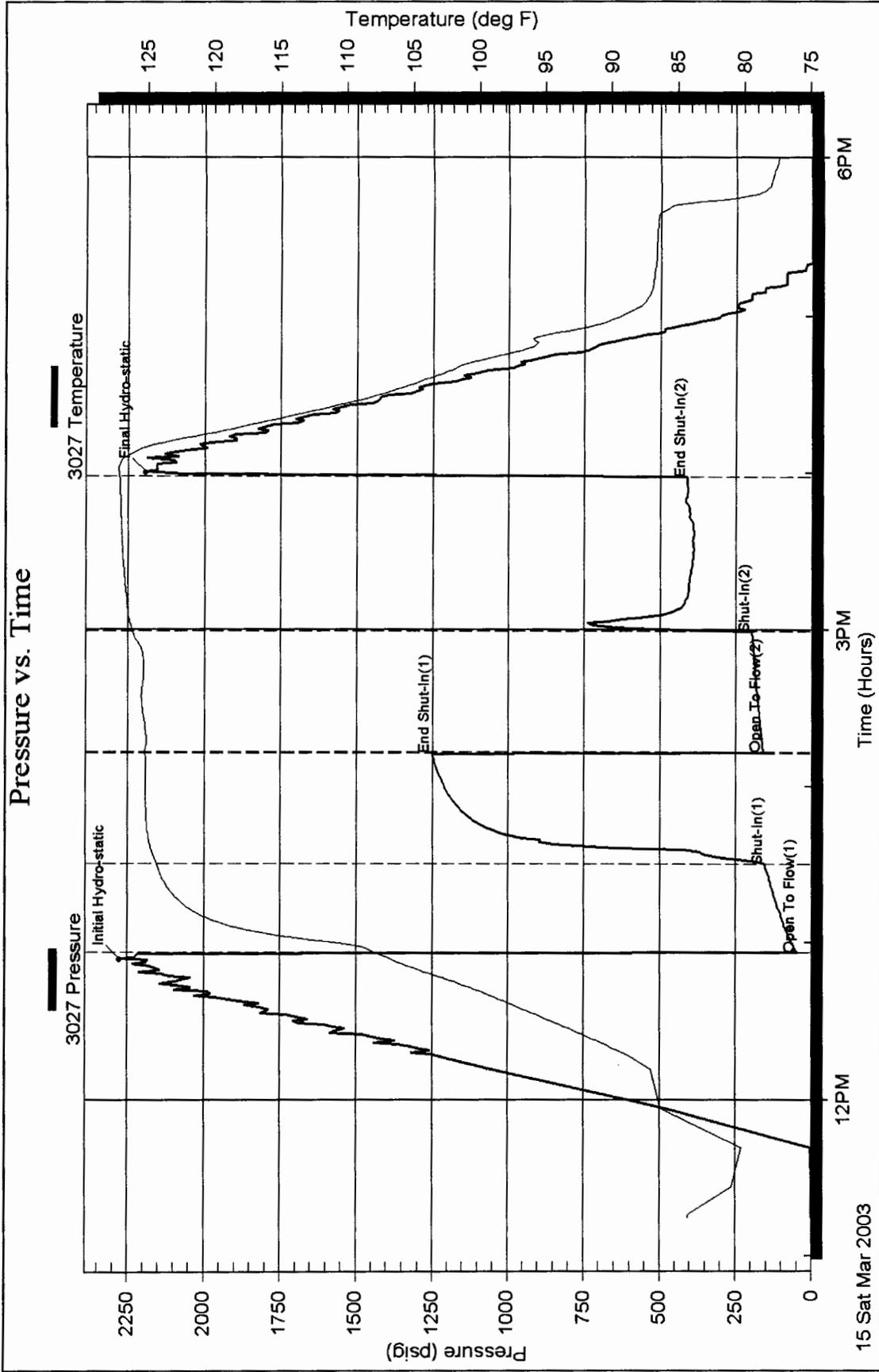
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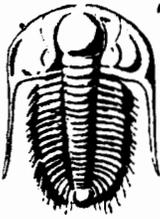
Grand Mesa Operating Company

5-18S-24W Ness KS

DST Test Number: 1

### Pressure vs. Time





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

*JNW # 5454*

*# 1656.00*

No 16192

## Test Ticket

Well Name & No. Schuckman # 1.5 Test No. 1 Date 3-15-03  
 Company Grand Mesa Operating Company Zone Tested Cherokee  
 Address 200 E. First St. Ste #307 Wichita, KS. 67202 Elevation 2351 KB 2346 GL  
 Co. Rep / Geo. Wes Hansen Cont. Mallard #2 Est. Ft. of Pay      Por.      %  
 Location: Sec. 5 Twp. 18<sup>S</sup> Rge. 24<sup>W</sup> Co. Ness State KS.  
 No. of Copies      Distribution Sheet (Y, N)      Turnkey (Y, N)      Evaluation (Y, N)     

Interval Tested 4392 - 4458 Initial Str Wt./Lbs. 70,000 Unseated Str Wt./Lbs. 70,000  
 Anchor Length 66' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 75,000  
 Top Packer Depth 4387 - 4392 Tool Weight 2,500  
 Bottom Packer Depth 4458 Hole Size — 7 7/8" Rubber Size — 6 3/4"  
 Total Depth (LTD) 4562 Wt. Pipe Run      Drill Collar Run 248'  
 Mud Wt. 9.3 LCM      Vis. 51 WL 10.4 Drill Pipe Size 4 1/2" XH Ft. Run 4134'  
 Blow Description IF: Weak blow built to 4"

FF: Weak blow built to 1"

Recovery — Total Feet 420' GIP      Ft. in DC 248' Ft. in DP 172'  
 Rec.      Feet Of      %gas      %oil      %water      %mud       
 Rec.      Feet Of      %gas      %oil      %water      %mud       
 Rec. 420' Feet Of MW %gas      %oil 70 %water 30 %mud       
 Rec.      Feet Of      %gas      %oil      %water      %mud       
 Rec.      Feet Of      %gas      %oil      %water      %mud       
 BHT 127° °F Gravity      °API D@      °F Corrected Gravity      °API       
 RW .32 @ 55° °F Chlorides 28,000 ppm Recovery Chlorides 1,500 ppm System

	AK-1	Alpine	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>2276</u> PSI	<u>3027</u>	<u>1045</u>
(B) First Initial Flow Pressure		<u>46</u> PSI	(depth) <u>4393</u>	T-Started <u>1114</u>
(C) First Final Flow Pressure		<u>154</u> PSI	Recorder No. <u>13309</u>	T-Open <u>1255</u>
(D) Initial Shut-In Pressure		<u>1253</u> PSI	(depth) <u>4428</u>	T-Pulled <u>1558</u>
(E) Second Initial Flow Pressure		<u>160</u> PSI	Recorder No. <u>13371</u>	T-Out <u>1800</u>
(F) Second Final Flow Pressure		<u>196</u> PSI	(depth) <u>4557</u>	T-Off Location <u>1900</u>
(G) Final Shut-in Pressure		<u>410</u> PSI	Initial Opening <u>30</u>	Test <u>806</u>
(Q) Final Hydrostatic Mud		<u>2192</u> PSI	Initial Shut-in <u>45</u>	Jars <u>X</u> <u>200</u>

Final Flow 45 Safety Joint X 50  
 Final Shut-in 60 Straddle X 250  
 Circ. Sub X N/C

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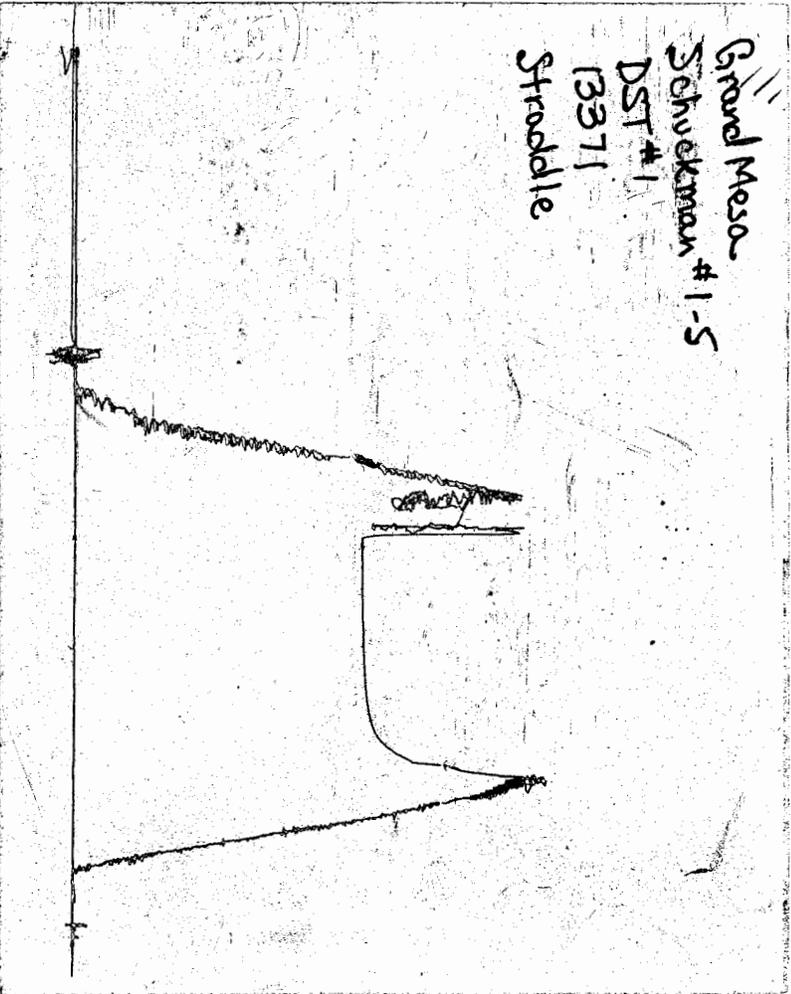
Approved By Wesley D. Hansen

Our Representative Rod Steinbrink

Sampler       
 Extra Packer X 150  
 Elec. Rec. X 150  
 Mileage 1 way 56 56  
 Other      1656.00  
 TOTAL PRICE \$

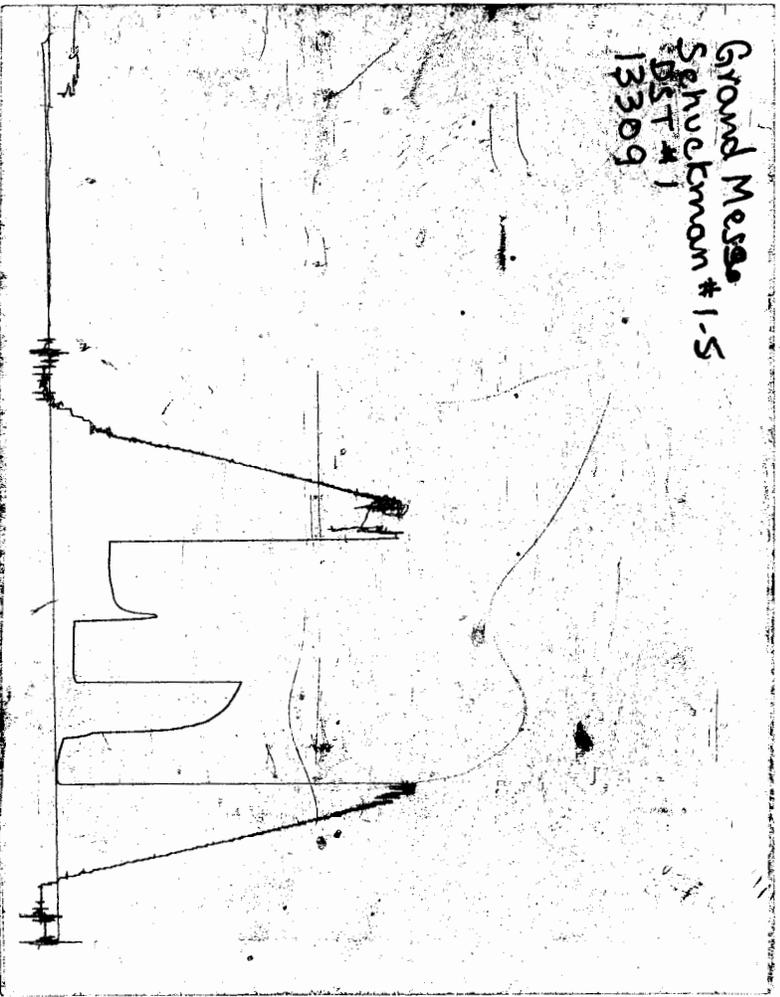
This is a photocopy of the actual AK-1 recorder chart

### CHART PAGE



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



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