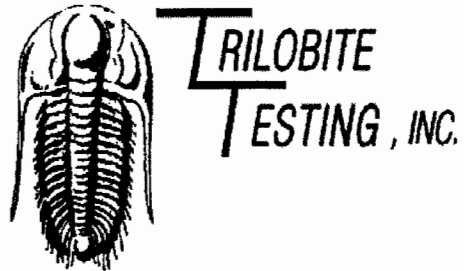


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KANSAS CORPORATION COMMISSION

JUL 07 2005

CONSERVATION DIVISION
WICHITA, KS



DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper.Co.LLC**

125 N. Market Ste. 1000
Wichita Ks. 67202

ATTN: Mikeal Maune

15-28s-20w Kiowa

Clayton #1

Start Date: 2003.12.21 @ 03:56:39

End Date: 2003.12.21 @ 13:31:54

Job Ticket #: 17969 . DST #: 1

15097215320000

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Woolsey Oper.Co.LLC

Clayton #1

15-28s-20w Kiowa

DST # 1

Miss.

2003.12.21



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Oper.Co.LLC

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Mikeal Maune

Clayton #1

15-28s-20w Kiowa

Job Ticket: 17969

DST#: 1

Test Start: 2003.12.21 @ 03:56:39

GENERAL INFORMATION:

Formation: **Miss.**

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

Time Tool Opened: 06:32:09

Time Test Ended: 13:31:54

Test Type: **Conventional Bottom Hole**

Tester: **Gary Pevoteaux**

Unit No: **23**

Interval: 4886.00 ft (KB) To 4935.00 ft (KB) (TVD)

Reference Elevations: **2324.00 ft (KB)**

Total Depth: **4935.00 ft (KB) (TVD)**

2313.00 ft (CF)

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

KB to GR/CF: **11.00 ft**

Serial #: 6770 **Inside**

Press@RunDepth: **106.34 psig @ 4887.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2003.12.21**

End Date: **2003.12.21**

Last Calib.: **2003.12.21**

Start Time: **03:56:44**

End Time: **13:31:54**

Time On Btm: **2003.12.21 @ 06:29:09**

Time Off Btm: **2003.12.21 @ 11:07:39**

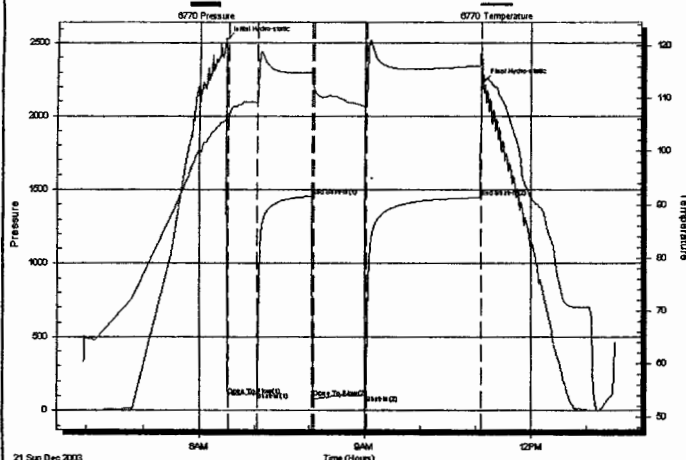
TEST COMMENT: IF:Strong blow . GTS in 4 mins.(see gas volume report)

IS:Weak blow . 1 - 2".

FF:Strong blow . (see gas volume report)

FS:Weak blow . 2 - 3".

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2521.19	106.04	Initial Hydro-static
3	101.22	106.34	Open To Flow (1)
34	123.84	109.07	Shut-In (1)
94	1455.03	114.94	End Shut-In (1)
96	84.17	112.05	Open To Flow (2)
153	106.34	108.21	Shut-In (2)
277	1447.16	116.35	End Shut-In (2)
279	2233.70	114.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
122.00	Heavy mud	1.71

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	17.00	211.82
Last Gas Rate	0.50	23.00	252.29
Max. Gas Rate	0.50	26.00	272.53



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper.Co.LLC

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Mikeal Maune

Clayton #1

15-28s-20w Kiowa

Job Ticket: 17969

DST#: 1

Test Start: 2003.12.21 @ 03:56:39

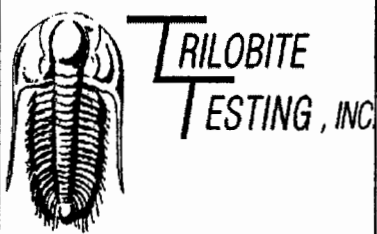
Tool Information

Drill Pipe:	Length: 4867.00 ft	Diameter: 3.80 inches	Volume: 68.27 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: 84000.00 lb
			Total Volume: 68.27 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4886.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	76.00 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			4860.00	
Shut In Tool	5.00			4865.00	
Hydraulic tool	5.00			4870.00	
Jars	5.00			4875.00	
Safety Joint	2.00			4877.00	
Packer	4.00			4881.00	27.00 Bottom Of Top Packer
Packer	5.00			4886.00	
Stubb	1.00			4887.00	
Recorder	0.00	6770	Inside	4887.00	
Perforations	5.00			4892.00	
Change Over Sub	1.00			4893.00	
Blank Spacing	32.00			4925.00	
Change Over Sub	1.00			4926.00	
Perforations	4.00			4930.00	
Recorder	0.00	13222	Outside	4930.00	
Bullnose	5.00			4935.00	49.00 Bottom Packers & Anchor
Total Tool Length:	76.00				

77902

	DRILL STEM TEST REPORT		FLUID SUMMARY
	Woolsey Oper.Co.LLC		Clayton #1
	125 N.Market Ste.1000 Wichita Ks.67202		15-28s-20w Kiowa
	ATTN: Mikeal Maune		Job Ticket: 17969 DST#: 1 Test Start: 2003.12.21 @ 03:56:39

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:	8000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
122.00	Heavy mud	1.711

Total Length: 122.00 ft	Total Volume: 1.711 bbl	
Num Fluid Samples: 0	Num Gas Bombs: 1	Serial #: gp-1
Laboratory Name: Caraw ay	Laboratory Location: Liberal, KS	
Recovery Comments:		



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Woolsey Oper.Co.LLC

Clayton #1

125 N.Market Ste.1000
Wichita Ks.67202

15-28s-20w Kiowa

Job Ticket: 17969

DST#: 1

ATTN: Mikeal Maune

Test Start: 2003.12.21 @ 03:56:39

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 (m³/d)
1	10	0.50	17.00	211.82
1	20	0.50	20.00	232.05
1	30	0.50	21.00	238.80
2	10	0.50	26.00	272.53
2	20	0.50	26.00	272.53
2	30	0.50	25.00	265.78
2	40	0.50	24.00	259.04
2	50	0.50	24.00	259.04
2	60	0.50	23.00	252.29

Serial #: 6770

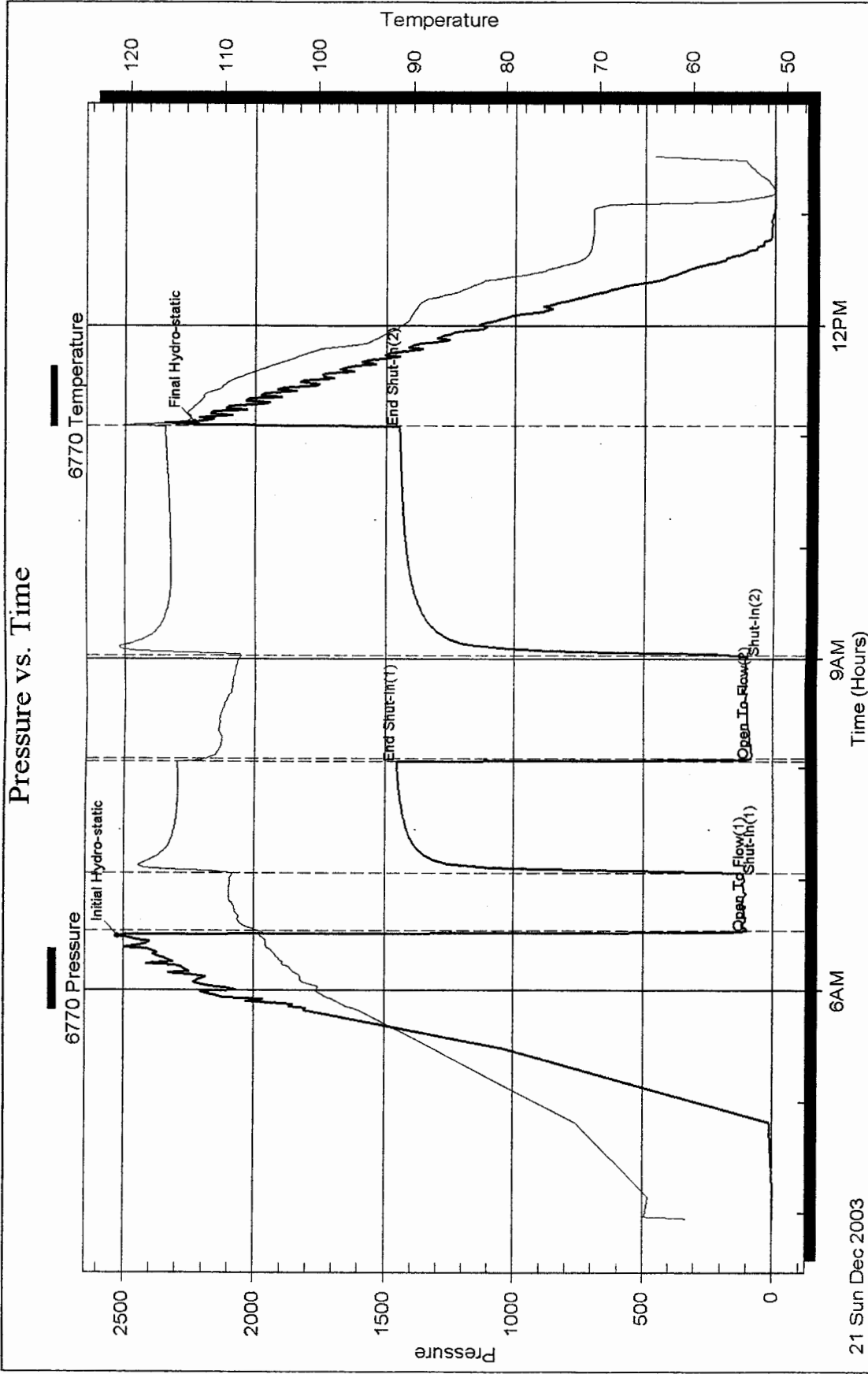
Inside

Woolsey Oper.Co.LLC

15-28s-20w Klow a

DST Test Number: 1

Pressure vs. Time



77902



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Woolsey Oper.Co.LLC**

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Mikeal Maune

15-28s-20w Kiowa

Clayton #1

Start Date: 2003.12.21 @ 22:05:22

End Date: 2003.12.22 @ 06:52:22

Job Ticket #: 17970 DST #: 2

15097 215320000

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Oper.Co.LLC

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Mikeal Maune

Clayton #1

15-28s-20w Kiowa

Job Ticket: 17970

DST#: 2

Test Start: 2003.12.21 @ 22:05:22

GENERAL INFORMATION:

Formation: **Miss.**

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

Time Tool Opened: 00:20:52

Time Test Ended: 06:52:22

Test Type: Conventional Bottom Hole

Tester: Gary Pevoteaux

Unit No: 23

Interval: **4936.00 ft (KB) To 4945.00 ft (KB) (TVD)**

Total Depth: **4945.00 ft (KB) (TVD)**

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

Reference Elevations: **2324.00 ft (KB)**

2313.00 ft (CF)

KB to GR/CF: **11.00 ft**

Serial #: **6770**

Inside

Press@RunDepth: **36.44 psig @ 4937.00 ft (KB)**

Start Date: **2003.12.21**

End Date:

2003.12.22

Capacity: **7000.00 psig**

Last Calib.: **2003.12.22**

Start Time: **22:05:27**

End Time:

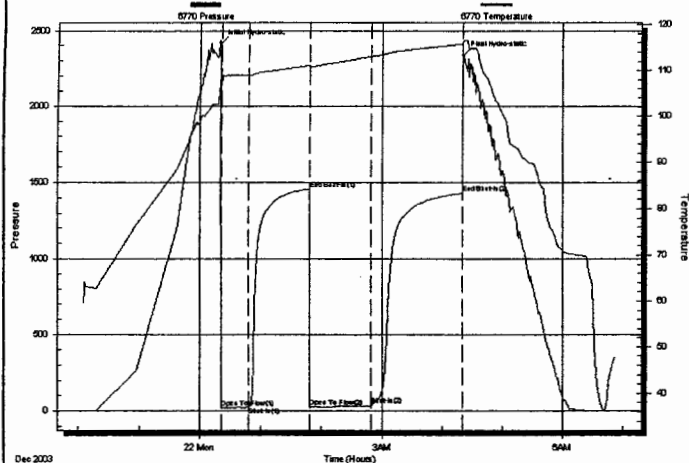
06:52:22

Time On Btm: **2003.12.22 @ 00:19:52**

Time Off Btm: **2003.12.22 @ 04:21:07**

TEST COMMENT: IF:Weak blow . 1/2 - 1".
IS:No blow .
FF:Weak blow . 1/4 - 1/2".
FSI:No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2417.43	106.58	Initial Hydro-static
1	18.77	106.70	Open To Flow (1)
29	23.64	109.00	Shut-In(1)
89	1457.81	111.12	End Shut-In(1)
89	25.66	110.57	Open To Flow (2)
149	36.44	113.02	Shut-In(2)
240	1429.11	115.72	End Shut-In(2)
242	2337.84	116.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	WM 36%w 64%w Rw .19 ohms @ 44 de0.63	

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Oper.Co.LLC

125 N.Market Ste.1000
Wichita Ks.67202

ATTN: Mikeal Maune

Clayton #1

15-28s-20w Kiowa

Job Ticket: 17970

DST#: 2

Test Start: 2003.12.21 @ 22:05:22

Tool Information

Drill Pipe:	Length: 4930.00 ft	Diameter: 3.80 inches	Volume: 69.15 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:	88000.00 lb
			<u>Total Volume: 69.15 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	76000.00 lb
Depth to Top Packer:	4936.00 ft			Final	76000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	9.00 ft				
Tool Length:	36.00 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			4910.00	
Shut In Tool	5.00			4915.00	
Hydraulic tool	5.00			4920.00	
Jars	5.00			4925.00	
Safety Joint	2.00			4927.00	
Packer	4.00			4931.00	27.00 Bottom Of Top Packer
Packer	5.00			4936.00	
Stubb	1.00			4937.00	
Recorder	0.00	6770	Inside	4937.00	
Perforations	3.00			4940.00	
Recorder	0.00	13222	Outside	4940.00	
Bullnose	5.00			4945.00	9.00 Bottom Packers & Anchor

Total Tool Length: 36.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Oper.Co.LLC

Clayton #1

125 N.Market Ste.1000
Wichita Ks.67202

15-28s-20w Kiowa

Job Ticket: 17970

DST#: 2

ATTN: Mikeal Maune

Test Start: 2003.12.21 @ 22:05:22

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:

64000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.39 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	WM 36%w 64%m Rw .19 ohms @ 44 deg.	0.631

Total Length: 45.00 ft

Total Volume: 0.631 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6770

Inside

Woolsey Oper.Co.LLC

15-28s-20w Kiowa

DST Test Number: 2

Pressure vs. Time

