



DRILL STEM TEST REPORT

Prepared For: **Cimarex Energy Co**

15 W 5th Ste 1000
Tulsa OK 74103

ATTN: Tim Lauer

17-31-34

Burgess "D"#1

Start Date: 2004.05.17 @ 02:00:19

End Date: 2004.05.17 @ 10:24:19

Job Ticket #: 18303 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

Cimarex Energy Co

15 W 5th Ste 1000
Tulsa OK 74103

ATTN: Tim Lauer

Burgess "D" #1

17-31-34

Job Ticket: 18303

DST #: 1

Test Start: 2004.05.17 @ 02:00:19

GENERAL INFORMATION:

Formation: **Upper Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:59:49

Time Test Ended: 10:24:19

Test Type: Conventional Bottom Hole

Tester: Blake Wallace

Unit No: 30

Interval: **5232.00 ft (KB) To 5262.00 ft (KB) (TVD)**

Total Depth: 5262.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Good

Reference Elevations: 2804.00 ft (KB)

2792.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6667

Inside

Press@RunDepth: 42.13 psig @ 5234.00 ft (KB)

Start Date: 2004.05.17

End Date:

2004.05.17

Start Time: 02:00:20

End Time:

10:24:19

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2004.05.17 @ 04:58:19

Time Off Btm: 2004.05.17 @ 07:30:49

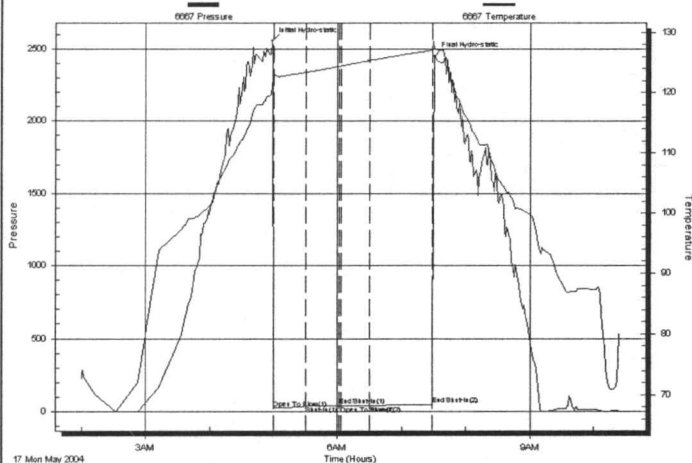
TEST COMMENT: IF-weak surface blow died after 25 min

ISI-no blow back

FF-no blow

FSI-no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2552.82	121.03	Initial Hydro-static
2	22.04	122.49	Open To Flow (1)
32	37.53	123.41	Shut-In(1)
64	42.13	124.43	End Shut-In(1)
65	40.56	124.46	Open To Flow (2)
92	42.13	125.37	Shut-In(2)
151	45.53	127.08	End Shut-In(2)
153	2449.06	127.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100 % Mud w/trace oil	0.05

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cimarex Energy Co

Burgess "D"#1

15 W 5th Ste 1000
Tulsa OK 74103

17-31-34

Job Ticket: 18303

DST#: 1

ATTN: Tim Lauer

Test Start: 2004.05.17 @ 02:00:19

Tool Information

Drill Pipe:	Length: 4628.00 ft	Diameter: 3.80 inches	Volume: 64.92 bbl	Tool Weight: 1800.00 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: 596.00 ft	Diameter: 2.25 inches	Volume: 2.93 bbl	Weight to Pull Loose: 95000.00 lb
			Total Volume: 67.85 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 91000.00 lb
Depth to Top Packer:	5232.00 ft			Final 91000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			5207.00	
Sampler	3.00			5210.00	
Hydraulic tool	5.00			5215.00	
Jars	5.00			5220.00	
Safety Joint	3.00			5223.00	
Packer	5.00			5228.00	30.00 Bottom Of Top Packer
Packer	4.00			5232.00	
Stubb	1.00			5233.00	
Perforations	1.00			5234.00	
Recorder	0.00	6667	Inside	5234.00	
Perforations	25.00			5259.00	
Recorder	0.00	11019		5259.00	
Bullnose	3.00			5262.00	30.00 Bottom Packers & Anchor

Total Tool Length: 60.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Cimarex Energy Co

Burgess "D" #1

15 W 5th Ste 1000
Tulsa OK 74103

17-31-34

Job Ticket: 18303

DST#: 1

ATTN: Tim Lauer

Test Start: 2004.05.17 @ 02:00:19

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: 47.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	100 % Mud w /trace oil	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4000 ML mud @ 35 PSI

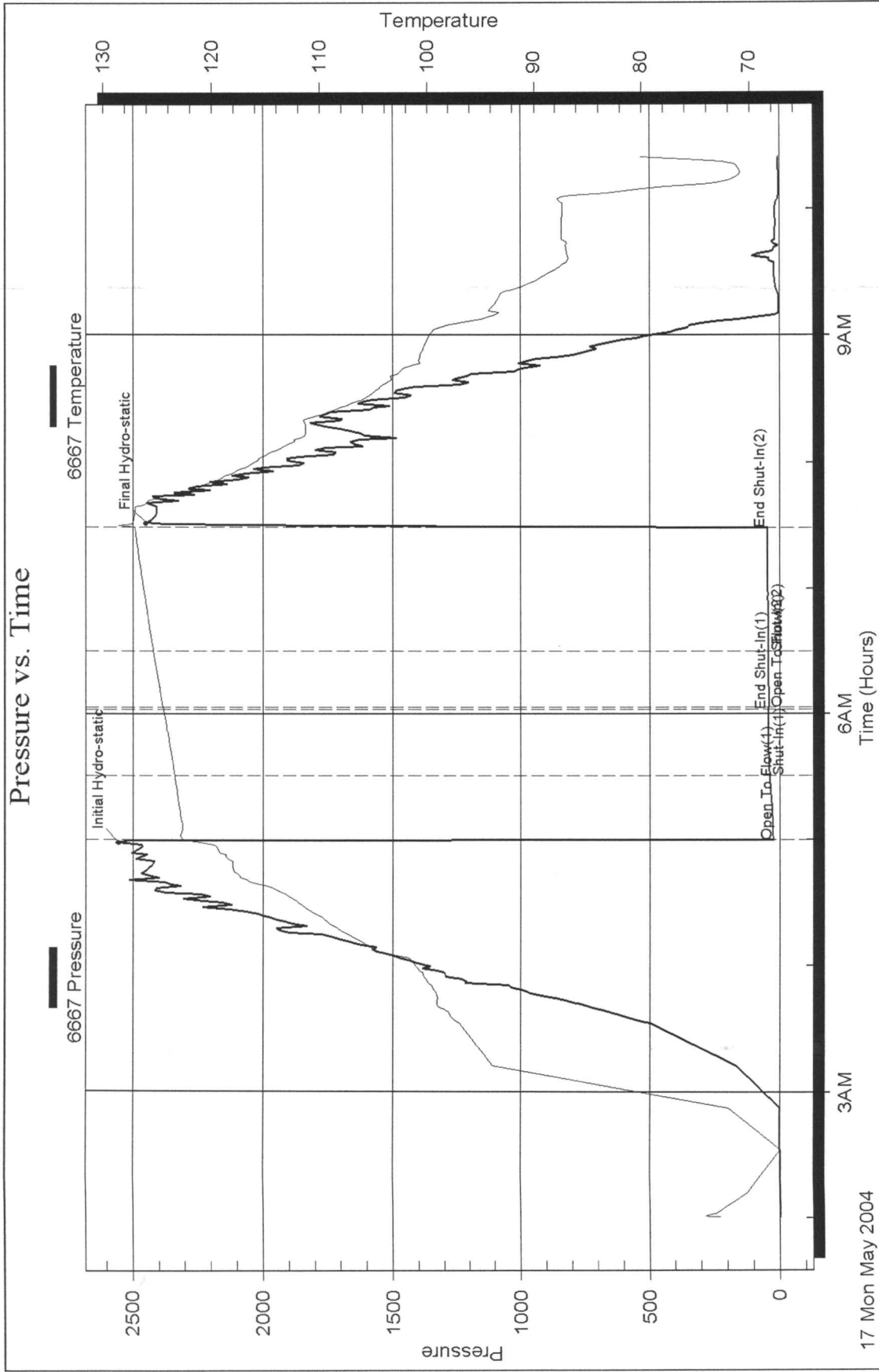
Serial #: 6667

Inside

Cimarex Energy Co

17-31-34

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Cimarex Energy Co**

15 W 5th Ste 1000
Tulsa OK 74103

ATTN: Tim Lauer

17-31-34

Burgess "D"#1

Start Date: 2004.05.18 @ 02:45:48

End Date: 2004.05.18 @ 12:33:48

Job Ticket #: 18304 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

Cimarex Energy Co

15 W 5th Ste 1000
Tulsa OK 74103

ATTN: Tim Lauer

Burgess "D" #1

17-31-34

Job Ticket: 18304

DST#: 2

Test Start: 2004.05.18 @ 02:45:48

GENERAL INFORMATION:

Formation: **Lwr Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:30:18

Time Test Ended: 12:33:48

Test Type: Conventional Bottom Hole

Tester: Blake Wallace

Unit No: 30

Interval: **5380.00 ft (KB) To 5423.00 ft (KB) (TVD)**

Total Depth: 5423.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Good

Reference Elevations: 2804.00 ft (KB)

2792.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6667

Inside

Press@RunDepth: 49.53 psig @ 5383.00 ft (KB)

Start Date: 2004.05.18

End Date:

2004.05.18

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 02:45:49

End Time:

12:33:48

Time On Btm: 2004.05.18 @ 05:21:48

Time Off Btm: 2004.05.18 @ 09:18:48

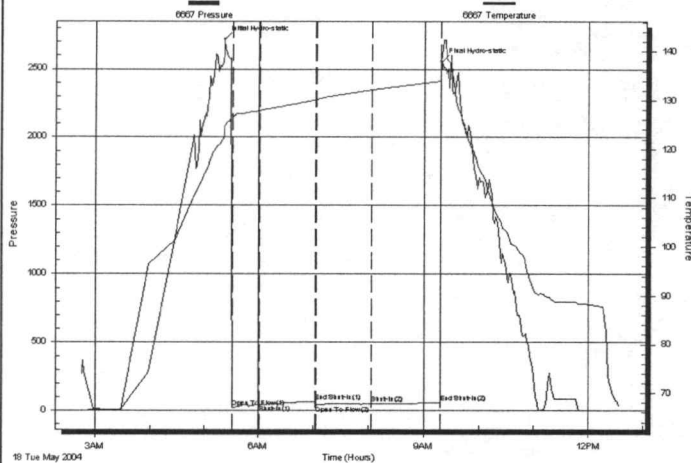
TEST COMMENT: IF-weak blow built to 1/2 inch

IS-no blow back

FF-no blow

FSI-no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2715.99	124.41	Initial Hydro-static
9	26.23	127.15	Open To Flow (1)
39	44.20	127.84	Shut-In (1)
100	67.97	130.02	End Shut-In (1)
101	36.03	130.14	Open To Flow (2)
162	49.53	132.13	Shut-In (2)
236	58.07	133.92	End Shut-In (2)
237	2556.37	139.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	100% Mud	0.10

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cimarex Energy Co

Burgess "D" #1

15 W 5th Ste 1000
Tulsa OK 74103

17-31-34

Job Ticket: 18304

DST#: 2

ATTN: Tim Lauer

Test Start: 2004.05.18 @ 02:45:48

Tool Information

Drill Pipe:	Length: 4777.00 ft	Diameter: 3.80 inches	Volume: 67.01 bbl	Tool Weight: 1800.00 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: 596.00 ft	Diameter: 2.25 inches	Volume: 2.93 bbl	Weight to Pull Loose: 98000.00 lb
		Total Volume:	69.94 bbl	Tool Chased: 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 91000.00 lb
Depth to Top Packer:	5380.00 ft			Final 91000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 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
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			5352.00	
Bullnose	3.00			5355.00	
Sampler	3.00			5358.00	
Hydraulic tool	5.00			5363.00	
Jars	5.00			5368.00	
Safety Joint	3.00			5371.00	
Packer	5.00			5376.00	33.00 Bottom Of Top Packer
Packer	4.00			5380.00	
Stubb	1.00			5381.00	
Perforations	2.00			5383.00	
Recorder	0.00	6667	Inside	5383.00	
Perforations	37.00			5420.00	
Recorder	0.00	11019	Outside	5420.00	
Bullnose	3.00			5423.00	43.00 Bottom Packers & Anchor

Total Tool Length: 76.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Cimarex Energy Co

Burgess "D" #1

15 W 5th Ste 1000
Tulsa OK 74103

17-31-34

Job Ticket: 18304

DST#: 2

ATTN: Tim Lauer

Test Start: 2004.05.18 @ 02:45:48

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: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	100% Mud	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4000 ML mud @ 50 PSI

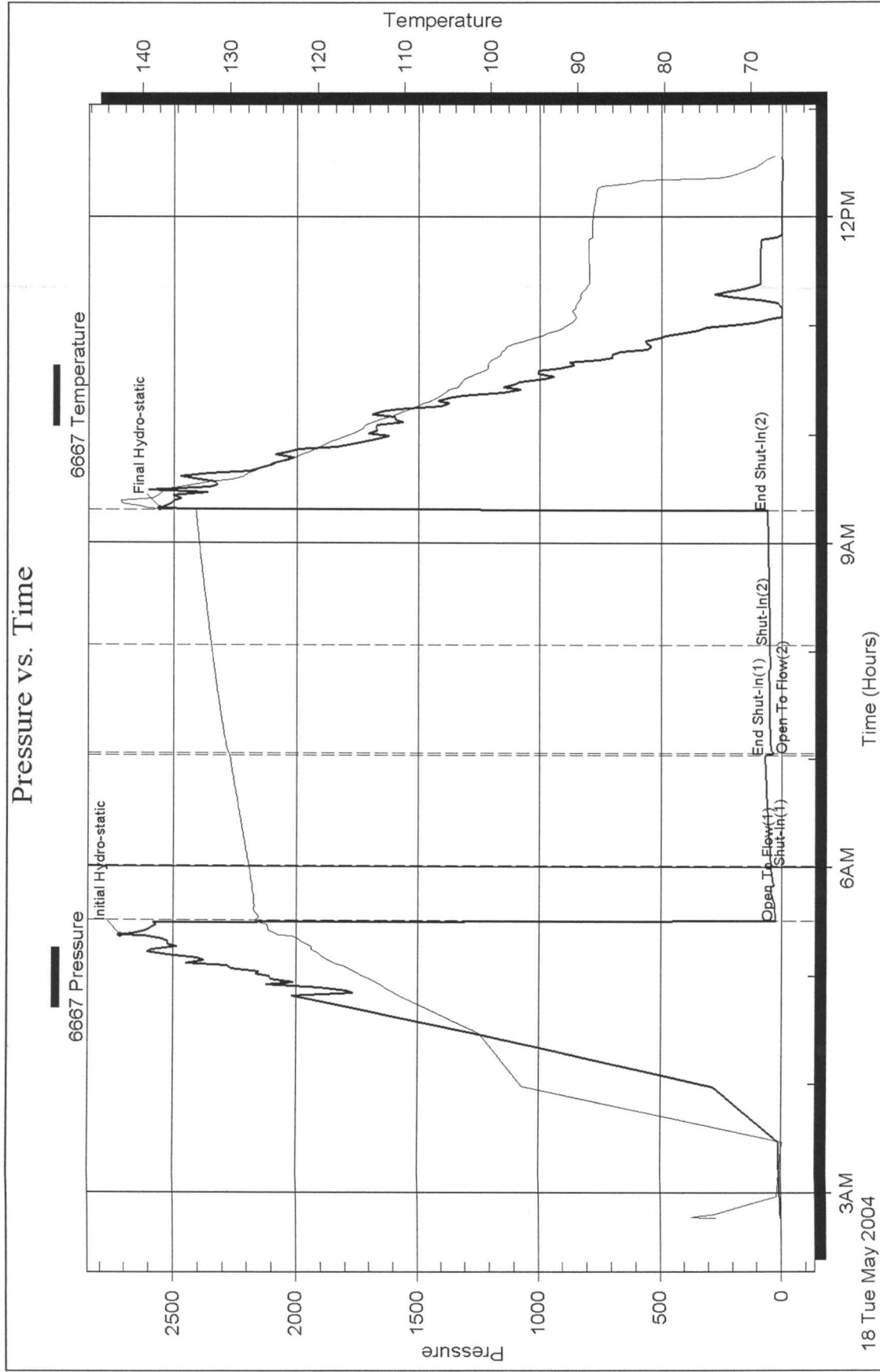
Serial #: 6667

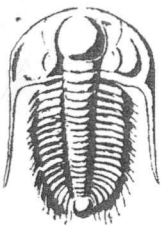
Inside

Cimarex Energy Co

17-31-34

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

N^o 18303

05/03

Test Ticket

Well Name & No. Burgess "D" #1 Test No. 1 Date 5-17-04
 Company Cimarex Energy Co. Zone Tested Upper Morrow
 Address 15th 5th St E 1000 Tulsa OK 74103 Elevation 2804' KB 2792 GL
 Co. Rep / Geo. Tim Lauer Cont. Cheyenne Rig #1 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 17 Twp. 31 Rge. 34 Co. Seward State KS
 No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 5232'-5262' Initial Str Wt./Lbs. 91000 Unseated Str Wt./Lbs. 91000
 Anchor Length 30' Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 95000
 Top Packer Depth 5227' Tool Weight 1800
 Bottom Packer Depth 5232' Hole Size 7 7/8" Rubber Size 6 3/4"
 Total Depth 5262' Wt. Pipe Run N/A Drill Collar Run 596'
 Mud Wt. 9.1 LCM 5 Vis. 47 WL 10.0 Drill Pipe Size 4.5XH Ft. Run 4628'
 Blow Description IT-Weak surface blow died after 25 min

ISI- No blow back
IT No blow
ISI- No blow back

Recovery - Total Feet 10' GIP _____ Ft. in DC _____ Ft. in DP _____
 Rec. 10' Feet of Oil spotted mud %gas spotted %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. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT 127 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 12000 ppm System

(A) Initial Hydrostatic Mud	AK-1	Alpine	2552 PSI	Recorder No.	66667	Test	✓ Conversion	900
(B) First Initial Flow Pressure			28 PSI	(depth)	5234'	Elec. Rec.	✓	150
(C) First Final Flow Pressure			37 PSI	Recorder No.	11019	Jars	✓	200
(D) Initial Shut-In Pressure			42 PSI	(depth)	5259'	Safety Jt.	✓	50
(E) Second Initial Flow Pressure			40 PSI	Recorder No.		Circ Sub		
(F) Second Final Flow Pressure			42 PSI	(depth)		Sampler	✓	200
(G) Final Shut-In Pressure			45 PSI	Initial Opening	30	Straddle		
(Q) Final Hydrostatic Mud			2449 PSI	Initial Shut-In	30	Ext. Packer		
				Final Flow	30	Shale Packer	✓	300
				Final Shut-In	60	Mileage	\$30.00	51
				T-On Location	0100	Sub Total:	\$1830.00	1851
				T-Started	0200	Std. By		
				T-Open	0500	Other		
				T-Pulled	0730	Total:	\$1830.00	
				T-Out	1030			

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 [Signature]
 Our Representative [Signature]



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 18303 Date 5-17-04
Company Name CIMAREX Energy Co.
Lease BURGESS "D" #1 Test No. DST #1
County SEWARD Sec. 17 Twp. 31 Rng. 34

SAMPLER RECOVERY

Gas _____ ML Chlorides 1200 ppm.
Oil _____ ML Resistivity _____ ohms @ _____ F
Mud 4/100 ML Viscosity 47
Water _____ ML Mud Weight 9.1
Other _____ ML Filtrate 10.0
Pressure 35 PSI ML Other 5" LCM
Total _____ ML

PIT MUD ANALYSIS

SAMPLER ANALYSIS

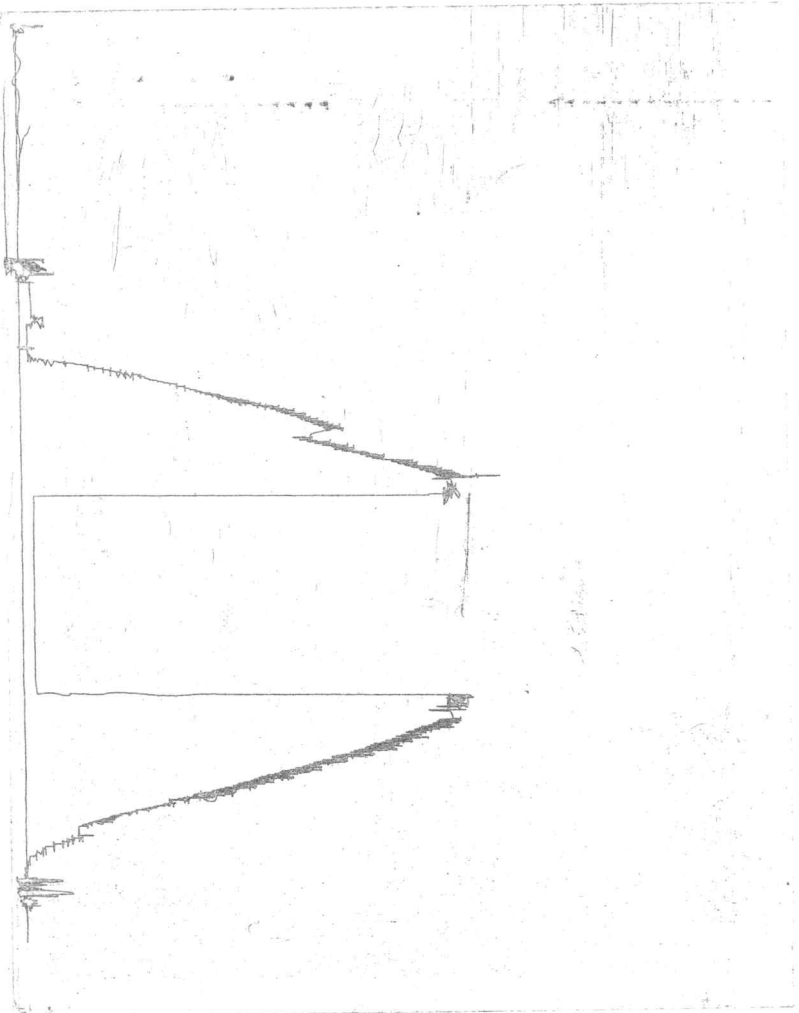
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
Gravity _____ corrected @60F

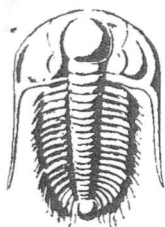
PIPE RECOVERY

TOP
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
MIDDLE
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
BOTTOM
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

CHART PAGE

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





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18304

05/03

Test Ticket

Well Name & No. <u>BURGESS "D" #1</u>	Test No. <u>2</u>	Date <u>5-18-04</u>
Company <u>CIMAREX ENERGY CO.</u>	Zone Tested <u>LWR Morrow</u>	
Address <u>15 W 5th STE 1000 TULSA OK 74103</u>	Elevation <u>2804'</u> KB <u>2792'</u>	GL
Co. Rep / Geo. <u>TIM LAUER</u>	Cont. <u>Cheyenne Rig#1</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>17</u> Twp. <u>31</u> Rge. <u>34</u> Co. <u>SEWARD</u> State <u>KS</u>		
No. of Copies _____	Disbtribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested <u>5380' - 5423'</u>	Initial Str Wt./Lbs. <u>91000</u>	Unseated Str Wt./Lbs. <u>91000</u>
Anchor Length <u>43'</u>	Wt. Set Lbs. <u>20000</u>	Wt. Pulled Loose/Lbs. <u>98000</u>
Top Packer Depth <u>5375'</u>	Tool Weight <u>1800</u>	
Bottom Packer Depth <u>5380'</u>	Hole Size <u>7 7/8"</u> ✓	Rubber Size <u>6 3/4"</u> ✓
Total Depth <u>5423'</u>	Wt. Pipe Run <u>N/A</u>	Drill Collar Run <u>596'</u>
Mud Wt. <u>9.0</u> LCM <u>5</u> Vis. <u>50</u> WL <u>8.4</u>	Drill Pipe Size <u>4.5XH</u>	Ft. Run <u>4777'</u>

Blow Description IF-WEAK blow built to 1/2 inch

ISI- No blow back

77- No blow

FSI- No blow back

Recovery - Total Feet <u>20'</u>	GIP _____	Ft. in DC _____	Ft. in DP _____
Rec. <u>20'</u>	Feet of <u>Mud</u>	%gas _____	%oil _____ %water <u>100</u> %mud
Rec. _____	Feet of _____	%gas _____	%oil _____ %water _____ %mud
Rec. _____	Feet of _____	%gas _____	%oil _____ %water _____ %mud
Rec. _____	Feet of _____	%gas _____	%oil _____ %water _____ %mud
Rec. _____	Feet of _____	%gas _____	%oil _____ %water _____ %mud
BHT <u>133</u>	°F Gravity _____	°API D @ _____	°F Corrected Gravity _____ °API
RW _____ @ _____ °F	Chlorides _____ ppm	Recovery _____	Chlorides <u>2100</u> ppm System

(A) Initial Hydrostatic Mud	<u>2715</u> PSI	Recorder No. <u>66667</u>	Test <u>✓ Conventional</u> <u>900</u>
(B) First Initial Flow Pressure	<u>26</u> PSI	(depth) <u>5383'</u>	Elec. Rec. <u>✓</u> <u>150</u>
(C) First Final Flow Pressure	<u>44</u> PSI	Recorder No. <u>11019'</u>	Jars <u>✓</u> <u>900</u>
(D) Initial Shut-In Pressure	<u>67</u> PSI	(depth) <u>5420'</u>	Safety Jt. <u>✓</u> <u>50</u>
(E) Second Initial Flow Pressure	<u>36</u> PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure	<u>49</u> PSI	(depth) _____	Sampler <u>✓</u> <u>200</u>
(G) Final Shut-In Pressure	<u>58</u> PSI	Initial Opening <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>2556</u> PSI	Initial Shut-In <u>60</u>	Ext. Packer _____
		Final Flow <u>60</u>	Shale Packer <u>✓</u> <u>2</u> <u>300</u>
		Final Shut-In <u>6075</u>	Mileage <u>\$30.00</u> <u>51</u>
		T-On Location <u>0115</u>	Sub Total: <u>\$1830.00</u> <u>1851</u>
		T-Started <u>0845</u>	Std. By <u>3 1/4 hrs</u> <u>97.50</u>
		T-Open <u>0530</u>	Other _____
		T-Pulled <u>0905</u>	Total: <u>\$1948.50</u>
		T-Out <u>1230</u>	

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 [Signature]
Our Representative Brian Walbo



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 18304 Date 5-18-04
Company Name Cimarex Energy Co.
Lease Burgess "D" #1 Test No. DS1#2
County Seward Sec. 17 Twp. 31 Rng. 34

SAMPLER RECOVERY

Gas _____ ML Chlorides 2100 ppm.
Oil _____ ML Resistivity _____ ohms @ _____ F
Mud 4000 ML Viscosity 50
Water _____ ML Mud Weight 9.0
Other _____ ML Filtrate 8.4
Pressure 50 PSI ML Other 5# 1cm
Total _____ ML

PIT MUD ANALYSIS

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
Gravity _____ corrected @60F

PIPE RECOVERY

TOP

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

MIDDLE

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

BOTTOM

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

CHART PAGE

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

