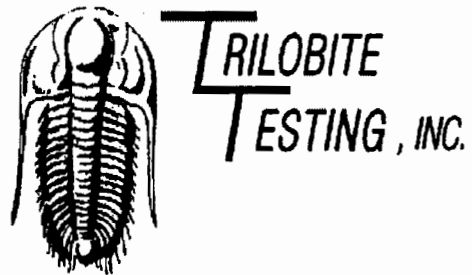


15-159-22429

36-19-9w

Reed (19-9) 1-36



DRILL STEM TEST REPORT

Prepared For: **Lotus Operations Co.LLc**

100 S. Main Ste.420
Wichita KS.67202

ATTN: Chris Peters

Sec-36 Twp-19 Rge-9

Reed 19-9

Start Date: 2004.09.09 @ 21:29:11

End Date: 2004.09.10 @ 03:47:56

Job Ticket #: 18338

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

Lotus Operations Co.LLC

100 S. Main Ste.420
Wichita KS.67202

ATTN: Chris Peters

Reed 19-9

Sec-36 Twp-19 Rge-9

Job Ticket: 18338

DST#: 1

Test Start: 2004.09.09 @ 21:29:11

GENERAL INFORMATION:

Formation: **Herington Krider**

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

Time Tool Opened: 22:54:41

Time Test Ended: 03:47:56

Test Type: **Conventional Bottom Hole**

Tester: **Steve Clark**

Unit No: **19**

Interval: **1179.00 ft (KB) To 1291.00 ft (KB) (TVD)**

Total Depth: **1291.00 ft (KB) (TVD)**

Hole Diameter: **7.83 inches** Hole Condition: **Fair**

Reference Elevations: **1710.00 ft (KB)**

1704.00 ft (CF)

KB to GR/CF: **6.00 ft**

Serial #: **6667**

Inside

Press@RunDepth: **37.87 psig @ 1180.00 ft (KB)**

Start Date: **2004.09.09**

End Date:

2004.09.10

Start Time: **21:29:21**

End Time:

03:47:56

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Time On Btm: **2004.09.09 @ 22:52:26**

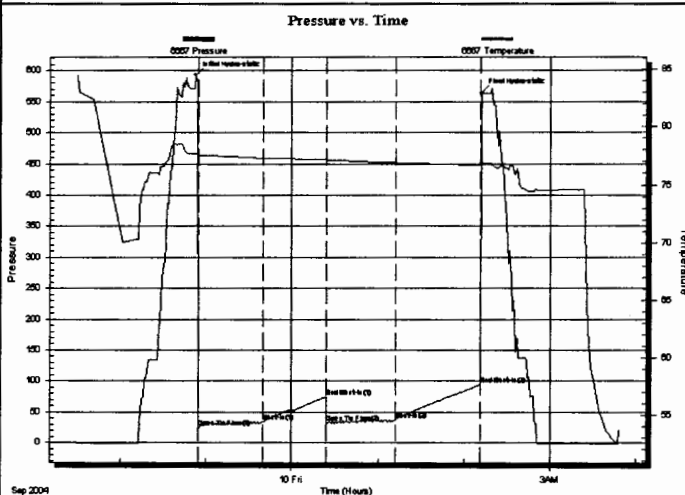
Time Off Btm: **2004.09.10 @ 02:11:56**

TEST COMMENT: **IF-1 1 1/2 blw. in 7 min.**

ISI-No blw.

FF- 1in. blw in 1 min.

FSI-No blw.



PRESSURE SUMMARY

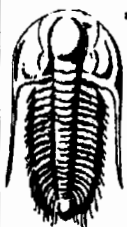
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	593.15	77.69	Initial Hydro-static
3	25.58	77.57	Open To Flow (1)
48	33.75	77.30	Shut-In(1)
92	74.39	77.17	End Shut-In(1)
92	32.78	77.14	Open To Flow (2)
140	37.87	76.92	Shut-In(2)
200	94.51	76.70	End Shut-In(2)
200	564.61	76.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud	0.05

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operations Co.LLC

100 S. Main Ste.420
Wichita KS.67202

ATTN: Chris Peters

Reed 19-9

Sec-36 Twp-19 Rge-9

Job Ticket: 18338

DST#: 1

Test Start: 2004.09.09 @ 21:29:11

Tool Information

Drill Pipe:	Length: 1151.00 ft	Diameter: 3.80 inches	Volume: 16.15 bbl	Tool Weight:	30000.00 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: 277.00 ft	Diameter: 2.25 inches	Volume: 1.36 bbl	Weight to Pull Loose:	31000.00 lb
			Total Volume: 17.51 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	277.00 ft			String Weight: Initial	30000.00 lb
Depth to Top Packer:	1179.00 ft			Final	30000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	112.00 ft				
Tool Length:	140.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					
10' mud					

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

Shut In Tool	5.00			1156.00	
Hydraulic tool	5.00			1161.00	
Jars	5.00			1166.00	
Safety Joint	3.00			1169.00	
Packer	5.00			1174.00	28.00 Bottom Of Top Packer
Packer	5.00			1179.00	
Change Over Sub	1.00			1180.00	
Recorder	0.00	6667	Inside	1180.00	
Drill Pipe	92.00			1272.00	
Perforations	15.00			1287.00	
Change Over Sub	1.00			1288.00	
Recorder	0.00			1288.00	
Bullnose	3.00			1291.00	112.00 Bottom Packers & Anchor

Total Tool Length: 140.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operations Co.LLc

Reed 19-9

100 S. Main Ste.420
Wichita KS.67202

Sec-36 Twp-19 Rge-9

Job Ticket: 18338

DST#: 1

ATTN: Chris Peters

Test Start: 2004.09.09 @ 21:29:11

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: 32.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud	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:

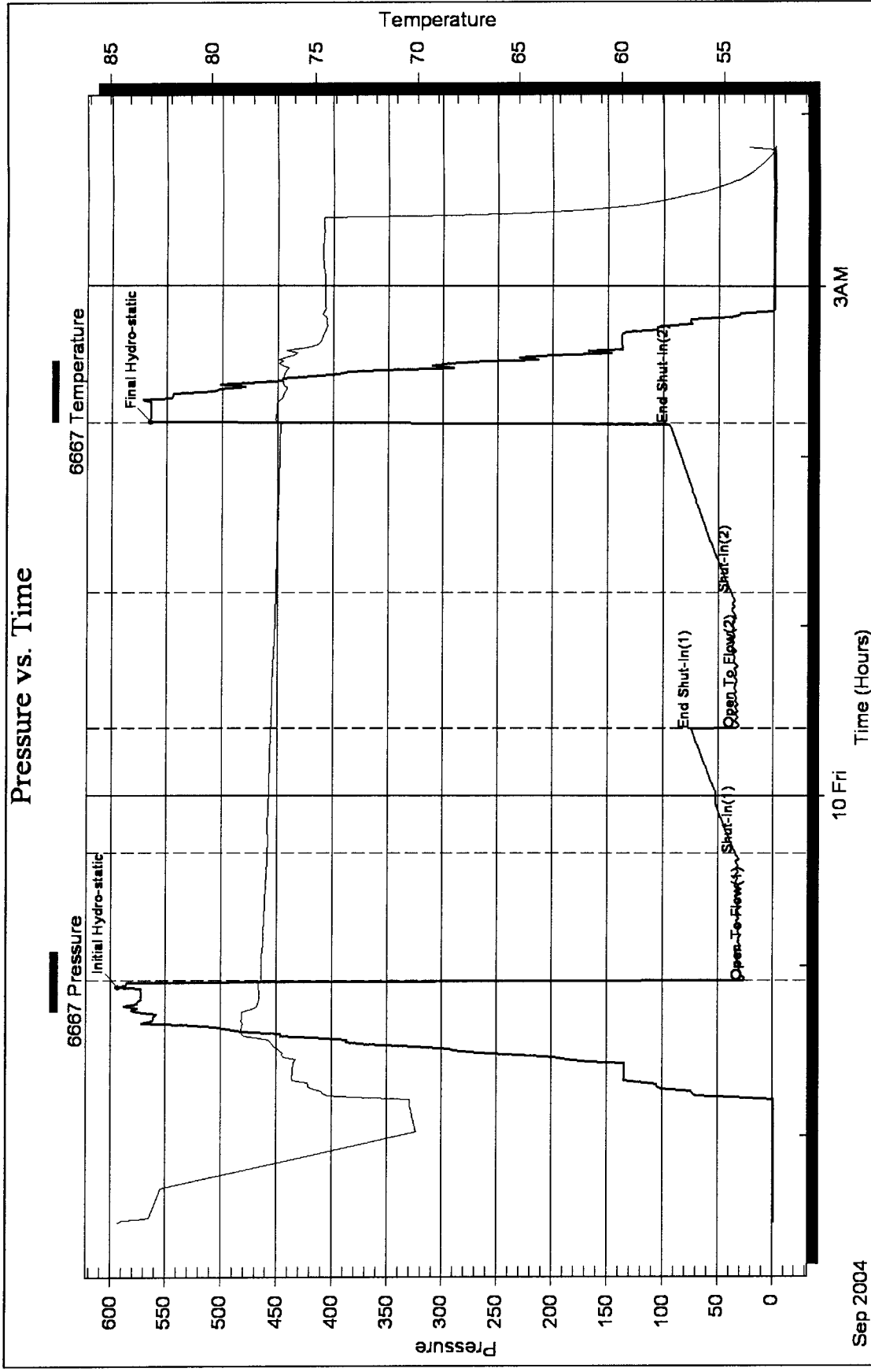
Serial #: 6667

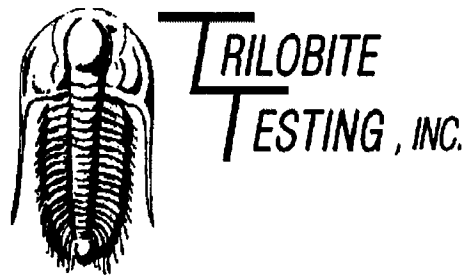
Inside

Lotus Operations Co. LLC

Sec-36 Tw p-19 Rge-9

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Lotus Operations Co.LLc**

100 S. Main Ste.420
Wichita KS.67202

ATTN: Chris Peters

Sec-36 Twp-19 Rge-9

Reed 19-9

Start Date: 2004.09.11 @ 03:32:25

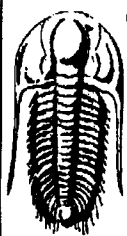
End Date: 2004.09.11 @ 08:45:15

Job Ticket #: 18339 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

Lotus Operations Co.LLc

100 S. Main Ste.420
Wichita KS.67202

ATTN: Chris Peters

Reed 19-9

Sec-36 Twp-19 Rge-9

Job Ticket: 18339

DST#: 2

Test Start: 2004.09.11 @ 03:32:25

GENERAL INFORMATION:

Formation: **Indian Hole**

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

Time Tool Opened: 05:27:45

Time Test Ended: 08:45:15

Test Type: **Conventional Bottom Hole**

Tester: **Steve Clark**

Unit No: **19**

Interval: **1925.00 ft (KB) To 2000.00 ft (KB) (TVD)**

Total Depth: **2000.00 ft (KB) (TVD)**

Hole Diameter: **7.83 inches** Hole Condition: **Fair**

Reference Elevations: **1710.00 ft (KB)**

1704.00 ft (CF)

KB to GR/CF: **6.00 ft**

Serial #: 6667

Inside

Press@RunDepth: **50.77 psig @ 1936.00 ft (KB)**

Start Date: **2004.09.11**

End Date:

2004.09.11

Start Time: **03:32:25**

End Time:

10:40:15

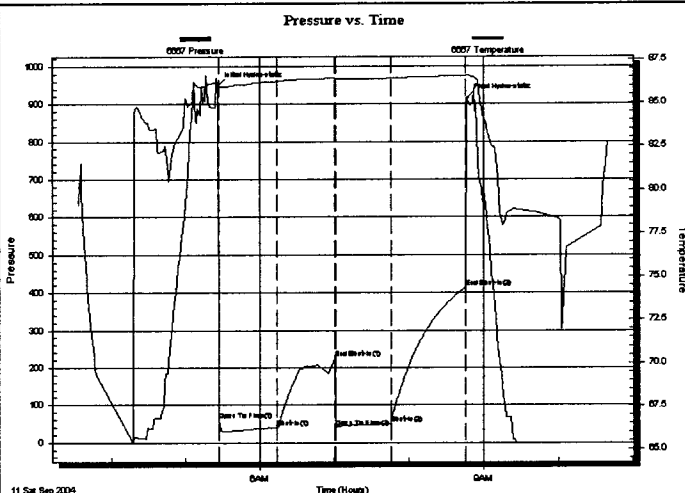
Capacity: **7000.00 psig**

Last Calib.: **2004.09.11**

Time On Btm: **2004.09.11 @ 05:27:00**

Time Off Btm: **2004.09.11 @ 08:47:00**

TEST COMMENT: **F-Strong blw .2min.**
IS-Died after bleed off
FF-Strg.blw 1min.
FSI-Died after bleed off



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	949.23	86.13	Initial Hydro-static
1	59.39	85.88	Open To Flow (1)
47	39.02	86.26	Shut-In(1)
94	226.43	86.43	End Shut-In(1)
95	39.11	86.38	Open To Flow (2)
138	50.77	86.42	Shut-In(2)
199	412.82	86.54	End Shut-In(2)
200	915.94	86.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	mud	0.30

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operations Co.LLC

Reed 19-9

100 S. Main Ste.420
Wichita KS.67202

Sec-36 Twp-19 Rge-9

Job Ticket: 18339

DST#: 2

ATTN: Chris Peters

Test Start: 2004.09.11 @ 03:32:25

Tool Information

Drill Pipe:	Length: 1780.00 ft	Diameter: 3.80 inches	Volume: 24.97 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: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 31000.00 lb
		Total Volume:	25.55 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	1925.00 ft			Final 30000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	110.00 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			1895.00	
Sampler	5.00			1900.00	
Hydraulic tool	5.00			1905.00	
Jars	5.00			1910.00	
Safety Joint	5.00			1915.00	
Packer	5.00			1920.00	35.00 Bottom Of Top Packer
Packer	5.00			1925.00	
Perforations	10.00			1935.00	
Change Over Sub	1.00			1936.00	
Recorder	0.00	6667	Inside	1936.00	
Drill Pipe	61.00			1997.00	
Change Over Sub	1.00			1998.00	
Recorder	0.00			1998.00	
Bullnose	2.00			2000.00	75.00 Bottom Packers & Anchor

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operations Co.LLc

Reed 19-9

100 S. Main Ste.420
Wichita KS.67202

Sec-36 Twp-19 Rge-9

Job Ticket: 18339

DST#: 2

ATTN: Chris Peters

Test Start: 2004.09.11 @ 03:32:25

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: 32.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.33 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	mud	0.305

Total Length: 62.00 ft

Total Volume: 0.305 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

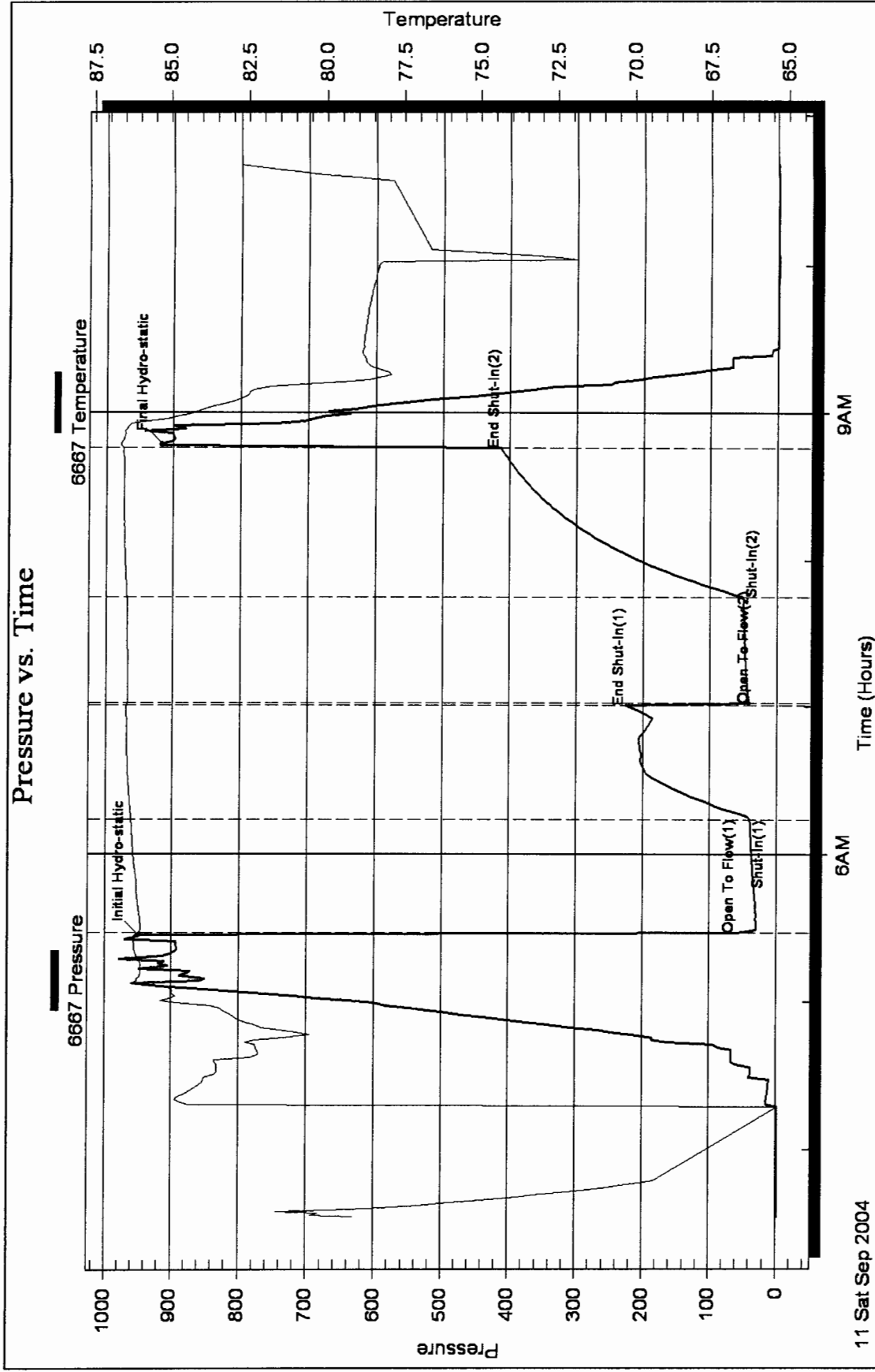
Serial #: 6667

Inside

Lotus Operations Co. LLC

Sec-36 Tw p-19 Rge-9

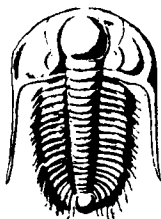
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 18339

Printed: 2004.09.17 @ 11:10:22 Page 5



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18338

05/03

Test Ticket

Well Name & No. Reed 19-9 Test No. #1 Date 9-10-04
 Company Lotus Operations Co. LLC Zone Tested Herrington Kinder
 Address 100 S. Main, Ste. 420 Wichita KS 67202 Elevation 1710 KB 15851204
 Co. Rep / Geo. Chris Peters Cont. Petromark Drilling #1 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 36 Twp. 19 Rge. 9 Co. Alce State KS
 No. of Copies reg Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 1179 - 1291 Initial Str Wt./Lbs. 30000 Unseated Str Wt./Lbs. _____
 Anchor Length 112 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. _____
 Top Packer Depth 1174 Tool Weight 2500 _____
 Bottom Packer Depth 1179 Hole Size 7 7/8" Rubber Size 6 3/4"
 Total Depth 1291 Wt. Pipe Run _____ Drill Collar Run 277
 Mud Wt. _____ LCM _____ Vis. _____ WL _____ Drill Pipe Size 4 1/2 XH Ft. Run 1151

Blow Description IF - 1/2" blow in 1 min to 1 1/2" 7 min.

ISI - no blow

FE - 1" blow 1 min

FST - no blow.

Recovery - Total Feet 10 GIP _____ Ft. in DC 10 Ft. in DP _____
 Rec. 10 Feet of Mud %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. _____ Feet of _____ %gas _____ %oil _____ %water _____ %mud _____
 BHT _____ °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 400 ppm System

(A) Initial Hydrostatic Mud	AK-1 <u>593</u>	Alpine	PSI	Recorder No. <u>6667</u>	Test # <u>1</u>	<u>900</u>
(B) First Initial Flow Pressure	<u>26</u>		PSI	(depth) <u>1175</u>	Elec. Rec. _____	
(C) First Final Flow Pressure	<u>34</u>		PSI	Recorder No. <u>11019</u>	Jars _____	<u>200</u>
(D) Initial Shut-In Pressure	<u>72</u>		PSI	(depth) <u>1288 1283</u>	Safety Jt. _____	<u>50</u>
(E) Second Initial Flow Pressure	<u>38</u>		PSI	Recorder No. _____	Circ Sub _____	
(F) Second Final Flow Pressure	<u>38</u>		PSI	(depth) _____	Sampler _____	
(G) Final Shut-In Pressure	<u>92</u>		PSI	Initial Opening <u>45</u>	Straddle _____	
(Q) Final Hydrostatic Mud	<u>565</u>		PSI	Initial Shut-In <u>45</u>	Ext. Packer _____	

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 Chris Peters

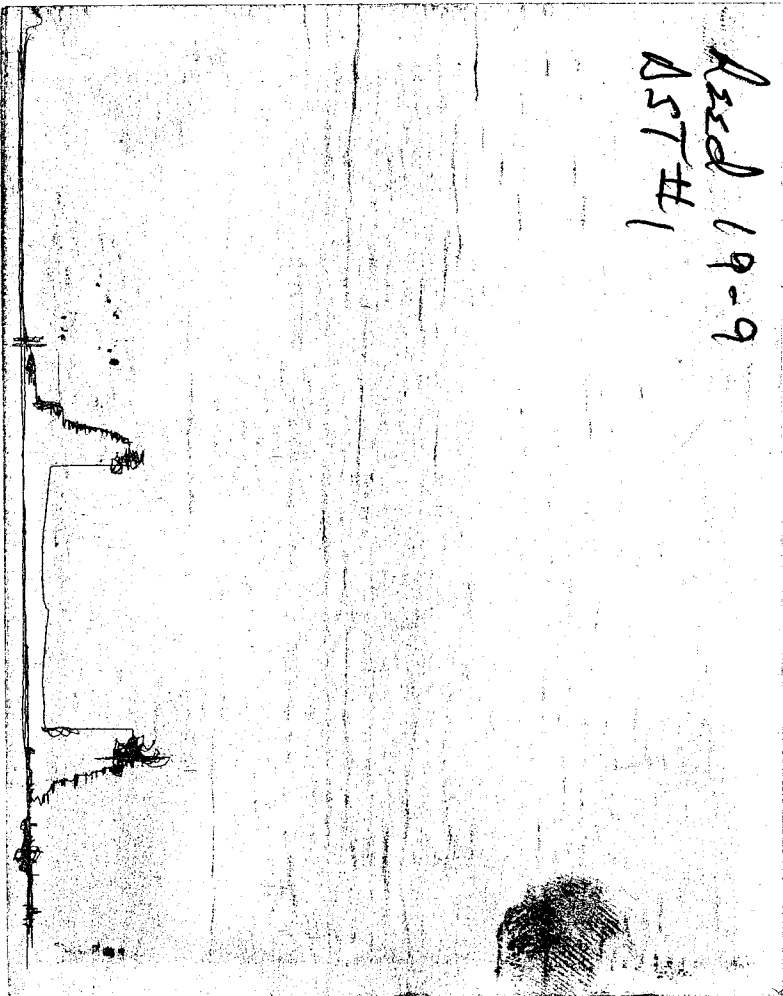
Our Representative Steve J. Clark Thank You!

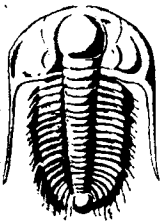
Final Flow 45 Shale Packer _____
 Final Shut-In 60 Mileage 140
 T-On Location 21:30 Sub Total: 1419
 T-Started 22:10 Std. By _____
 T-Open 22:55 Other _____
 T-Pulled 2110 Total: _____
 T-Out 3:10

CHART PAGE

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

Read 19-9
AST #1





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 18339

05/03

Test Ticket

Well Name & No. <u>Reed 19-9</u>	Test No. <u>#2</u>	Date <u>9-11-09</u>
Company <u>Lotus Operations Co, LLC</u>	Zone Tested	
Address <u>PO S. Main, Ste. 420 Wichita, KS 67202</u>	Elevation <u>1710</u>	KB <u>1204</u> GL
Co. Rep / Geo <u>Chris Peters</u>	Cont. <u>Petrohawk #1</u>	Est. Ft. of Pay Por. %
Location: Sec. <u>36</u> Twp. <u>19</u> Rge. <u>9</u>	Co. <u>Rice</u>	State <u>KS</u>
No. of Copies <u>129</u>	Disbtribution Sheet (Y, N) <u>—</u>	Turnkey (Y, N) <u>—</u> Evaluation (Y, N) <u>—</u>

Interval Tested <u>1925 - 2000</u>	Initial Str Wt./Lbs. <u>30000</u>	Unseated Str Wt./Lbs.
Anchor Length <u>75'</u>	Wt. Set Lbs. <u>25,000</u>	Wt. Pulled Loose/Lbs.
Top Packer Depth <u>1920</u>	Tool Weight <u>2,500</u>	
Bottom Packer Depth <u>1925</u>	Hole Size <u>7 7/8"</u>	Rubber Size <u>6 3/4"</u>
Total Depth <u>2000</u>	Wt. Pipe Run	Drill Collar Run <u>118</u>
Mud Wt. <u>LCM</u> Vis. <u>WL</u>	Drill Pipe Size <u>4 1/2 XH</u>	Ft. Run <u>1810</u>

Blow Description IF - Strong blow 2 min
IST - After bleed off, died
FF - Strong blow in 1 min.
FST - After bleed off, died

Recovery - Total Feet <u>62</u>	GIP <u>—</u>	Ft. in DC <u>—</u>	Ft. in DP <u>—</u>
Rec. <u>62</u> Feet of <u>Mud</u>	%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
Rec. Feet of	%gas	%oil	%water %mud
BHT °F Gravity	°API D @	°F Corrected Gravity	°API
RW @ °F	Chlorides ppm Recovery	Chlorides ppm System	

(A) Initial Hydrostatic Mud <u>949</u> AK-1	PSI	Recorder No. <u>6667</u>	Test <u>#2</u> <u>700</u>
(B) First Initial Flow Pressure <u>59</u>	PSI	(depth) <u>1936</u>	Elec. Rec. <u>—</u>
(C) First Final Flow Pressure <u>39</u>	PSI	Recorder No. <u>11019</u>	Jars <u>—</u> <u>200</u>
(D) Initial Shut-In Pressure <u>207</u>	PSI	(depth) <u>1997</u>	Safety Jt. <u>—</u> <u>50</u>
(E) Second Initial Flow Pressure <u>39</u>	PSI	Recorder No.	Circ Sub <u>—</u>
(F) Second Final Flow Pressure <u>54</u>	PSI	(depth)	Sampler <u>—</u> <u>200</u>
(G) Final Shut-In Pressure <u>405</u>	PSI	Initial Opening <u>45</u>	Straddle
(Q) Final Hydrostatic Mud <u>915</u>	PSI	Initial Shut-In <u>45</u>	Ext. Packer
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.		Final Flow <u>60 45</u>	Shale Packer <u>—</u> <u>150</u>
		Final Shut-In <u>90 60</u>	Mileage <u>70</u> <u>119</u>
		T-On Location <u>3:00</u>	Sub Total: <u>1619</u>
		T-Started <u>3:40</u>	Std. By <u>—</u>
		T-Open <u>5:30</u>	Other <u>—</u>
		T-Pulled <u>8:45</u>	Total: <u>—</u>
		T-Out	

Approved By

Our Representative

CHART PAGE

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

