

## DRILL STEM TEST REPORT

Prepared For: **Lario Oil & Gas Co..**

301 South Market  
Wichita ,Ks 67202

ATTN: Brad Rine

**19-18s-30w**

**Unruh #1-19**

Start Date: 2004.04.08 @ 19:55:06

End Date: 2004.04.09 @ 02:38:06

Job Ticket #: 19529                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Lario Oil & Gas Co..

Unruh #1-19

19-18s-30w

DST # 1

L K C

2004.04.08



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19529

**DST#: 1**

ATTN: Brad Rine

Test Start: 2004.04.08 @ 19:55:06

### GENERAL INFORMATION:

Formation: **L K C**

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

Time Tool Opened: 21:28:51

Time Test Ended: 02:38:06

Test Type: **Conventional Bottom Hole**

Tester: **Leroy Black**

Unit No: **15**

Interval: **4185.00 ft (KB) To 4198.00 ft (KB) (TVD)**

Reference Elevations: **2909.00 ft (KB)**

Total Depth: **4198.00 ft (KB) (TVD)**

**2904.00 ft (CF)**

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

KB to GR/CF: **5.00 ft**

**Serial #: 6752** **Inside**

Press@RunDepth: **456.67 psig @ 4185.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2004.04.08**

End Date:

**2004.04.09**

Last Calib.: **1899.12.30**

Start Time: **19:55:08**

End Time:

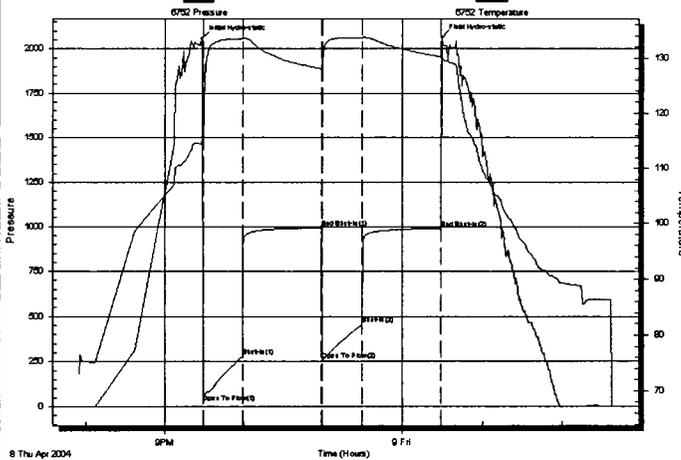
**02:38:06**

Time On Btm: **2004.04.08 @ 21:27:51**

Time Off Btm: **2004.04.09 @ 00:29:51**

**TEST COMMENT:** IF: Good blow bottom bucket 7mins.  
IS: Bled off 2min weak surface blow died in 15mins.  
FF: Good blow bottom bucket 8mins.  
FS: Bled off 3mins no return.

Pressure vs. Time



### PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2055.65	114.87	Initial Hydro-static
1	23.47	113.99	Open To Flow (1)
32	279.29	133.48	Shut-in(1)
92	991.77	128.04	End Shut-in(1)
92	259.37	129.36	Open To Flow (2)
123	456.67	133.55	Shut-in(2)
181	987.49	130.21	End Shut-in(2)
182	2062.90	130.24	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
504.00	Oily 2% Mud 5% Water 93%	7.07
310.00	Water 56% Mud 44%	4.35
124.00	Water 98% Mud 2%	1.74

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19529

**DST#: 1**

ATTN: Brad Rine

Test Start: 2004.04.08 @ 19:55:06

### Tool Information

Drill Pipe:	Length: 4186.00 ft	Diameter: 3.80 inches	Volume: 58.72 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 58.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4185.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4158.00	
Shut In Tool	5.00			4163.00	
Hydraulic tool	5.00			4168.00	
Jars	5.00			4173.00	
Safety Joint	3.00			4176.00	
Packer	4.00			4180.00	28.00 Bottom Of Top Packer
Packer	5.00		Fluid	4185.00	
Recorder	0.00	6752	Inside	4185.00	
Recorder	0.00	13849	Outside	4185.00	
Perforations	10.00			4195.00	
Bullnose	3.00			4198.00	13.00 Bottom Packers & Anchor

**Total Tool Length: 41.00**



**TRILOBITE  
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## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19529

**DST#: 1**

ATTN: Brad Rine

Test Start: 2004.04.08 @ 19:55:06

### 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:	55000 ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.92 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
504.00	Oily 2% Mud 5% Water 93%	7.070
310.00	Water 56% Mud 44%	4.348
124.00	Water 98% Mud 2%	1.739

Total Length: 938.00 ft      Total Volume: 13.157 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

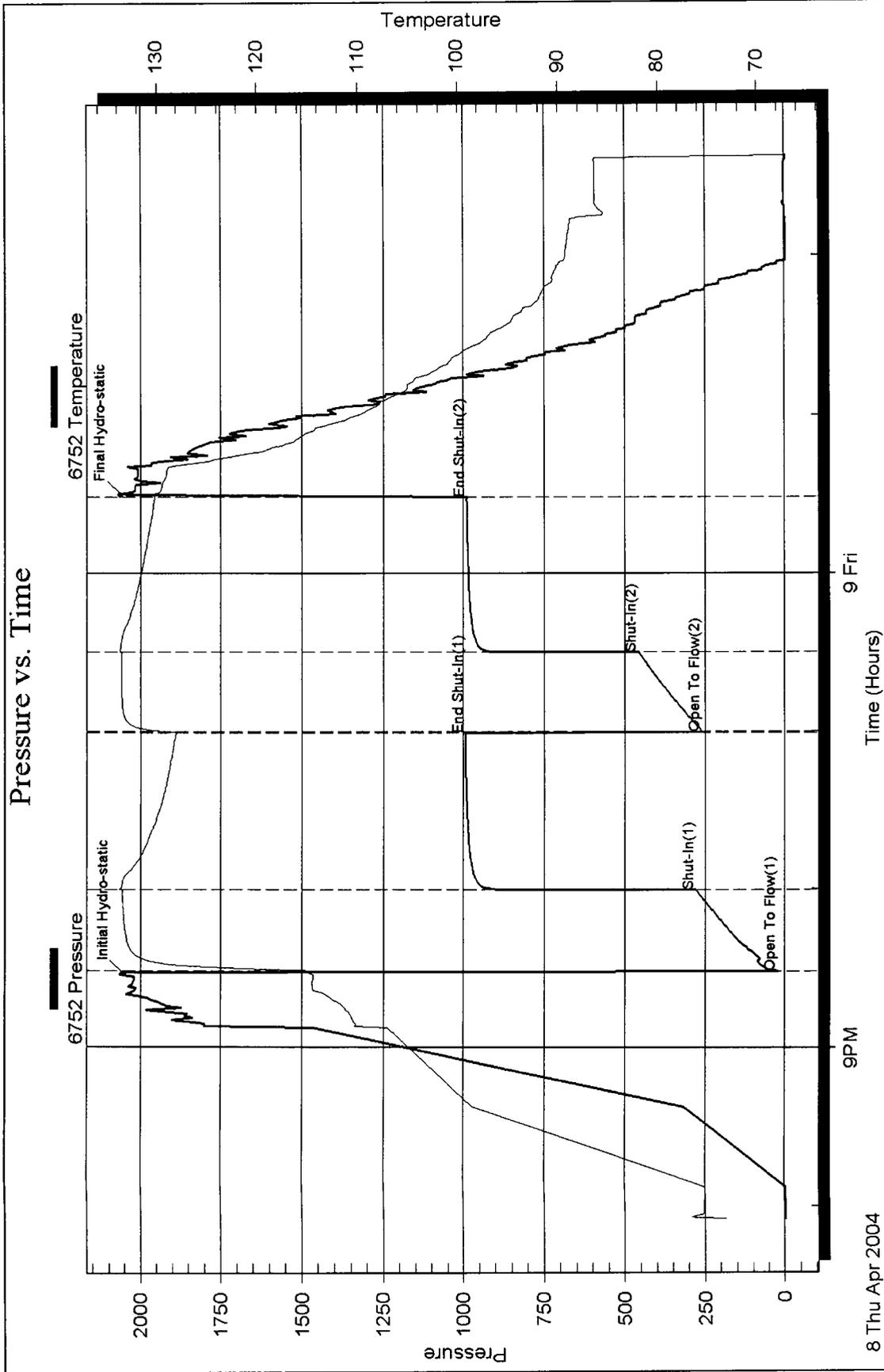
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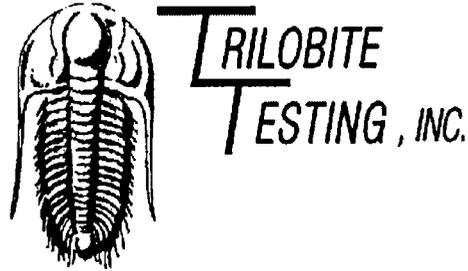
Laboratory Name:

Laboratory Location:

Recovery Comments: RW .185 @ 53.5 deg

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Lario Oil & Gas Co..**

301 South Market  
Wichita ,Ks 67202

ATTN: Brad Rine

**19-18s-30w**

**Unruh #1-19**

Start Date: 2004.04.09 @ 18:30:25

End Date: 2004.04.10 @ 01:42:40

Job Ticket #: 19530                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Lario Oil & Gas Co..

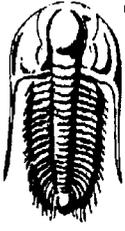
Unruh #1-19

19-18s-30w

DST # 2

L K C M

2004.04.09



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co..  
301 South Market  
Wichita, Ks 67202  
ATTN: Brad Rine

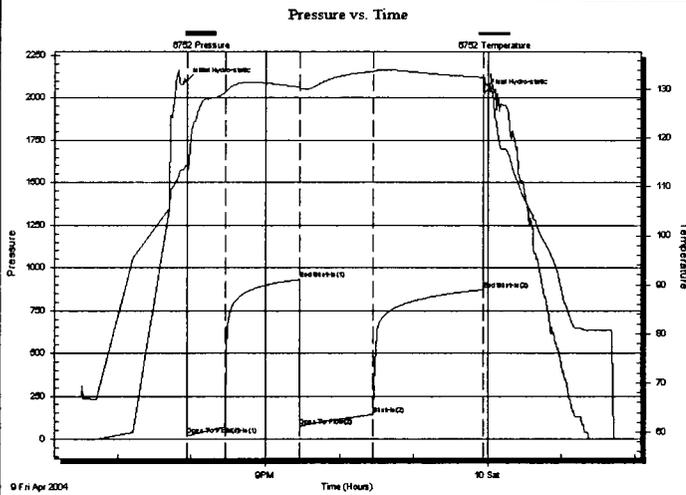
**Unruh #1-19**  
**19-18s-30w**  
Job Ticket: 19530      **DST#: 2**  
Test Start: 2004.04.09 @ 18:30:25

## GENERAL INFORMATION:

Formation: **L K C M**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 19:56:55  
Time Test Ended: 01:42:40  
Interval: **4301.00 ft (KB) To 4325.00 ft (KB) (TVD)**  
Total Depth: 4325.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole  
Tester: Leroy Black  
Unit No: 15  
Reference Elevations: 2909.00 ft (KB)  
2904.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 6752**      **Inside**  
Press@RunDepth: 142.09 psig @ 4301.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2004.04.09      End Date: 2004.04.10      Last Calib.: 1899.12.30  
Start Time: 18:30:27      End Time: 01:42:40      Time On Btm: 2004.04.09 @ 19:55:40  
Time Off Btm: 2004.04.09 @ 23:57:10

**TEST COMMENT:** IF: .25inch blow at open built to bottom bucket 25min fair blow.  
IS: Bled off 3min no return.  
FF: Fair blow bottom bucket 45min.  
FS: Bled off 3min no return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2097.07	114.40	Initial Hydro-static
2	22.09	113.55	Open To Flow (1)
32	71.79	129.31	Shut-in(1)
92	931.56	130.44	End Shut-in(1)
92	74.18	130.11	Open To Flow (2)
152	142.09	133.61	Shut-in(2)
241	872.58	132.43	End Shut-in(2)
242	2031.69	132.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
84.00	Gas in pipe	1.18
15.00	Clean Oil	0.21
308.00	30% Mud 70% Water	4.32

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19530

**DST#: 2**

ATTN: Brad Rine

Test Start: 2004.04.09 @ 18:30:25

### Tool Information

Drill Pipe:	Length: 4281.00 ft	Diameter: 3.80 inches	Volume: 60.05 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4301.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	52.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4274.00	
Shut In Tool	5.00			4279.00	
Hydraulic tool	5.00			4284.00	
Jars	5.00			4289.00	
Safety Joint	3.00			4292.00	
Packer	4.00			4296.00	28.00 Bottom Of Top Packer
Packer	5.00		Fluid	4301.00	
Recorder	0.00	6752	Inside	4301.00	
Recorder	0.00	13849	Outside	4301.00	
Perforations	20.00			4321.00	
Bullnose	4.00			4325.00	24.00 Bottom Packers & Anchor

**Total Tool Length: 52.00**



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**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19530

**DST#: 2**

ATTN: Brad Rine

Test Start: 2004.04.09 @ 18:30:25

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

56000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
84.00	Gas in pipe	1.178
15.00	Clean Oil	0.210
308.00	30% Mud 70% Water	4.320

Total Length: 407.00 ft      Total Volume: 5.708 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .223 @ 43.5 deg

Gravity 35.8 @ 46 deg

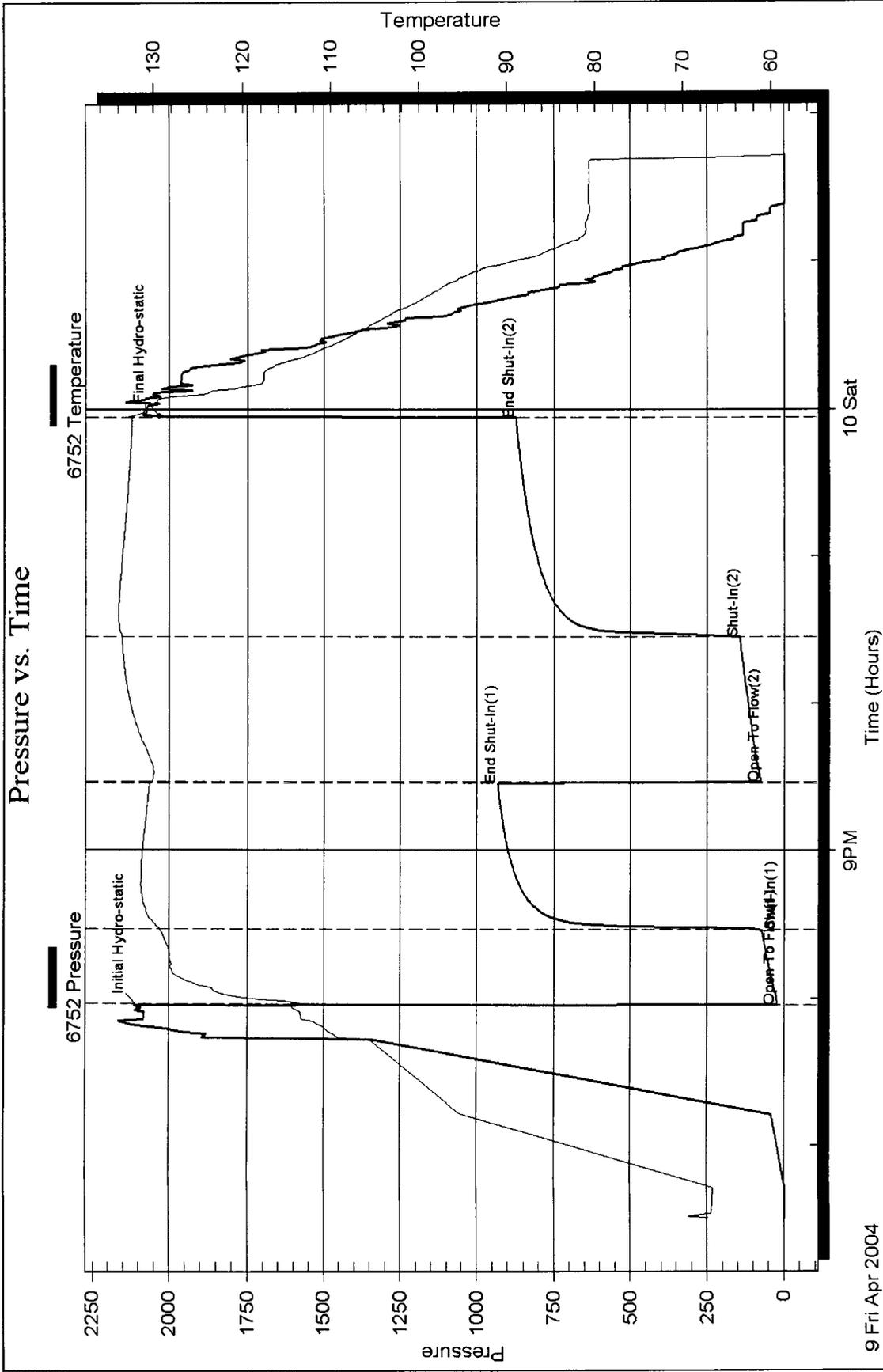
Serial #: 6752

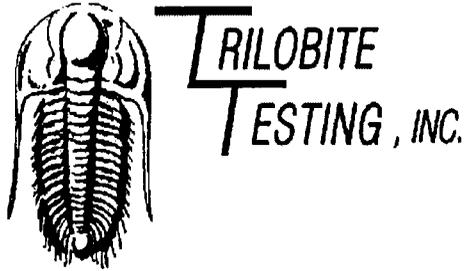
Inside

Lario Oil & Gas Co.

19-18s-30w

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Lario Oil & Gas Co..**

301 South Market  
Wichita ,Ks 67202

ATTN: Brad Rine

**19-18s-30w**

**Unruh #1-19**

Start Date: 2004.04.10 @ 11:30:08

End Date: 2004.04.10 @ 17:43:53

Job Ticket #: 19531                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Lario Oil & Gas Co..

Unruh #1-19

19-18s-30w

DST # 3

Marmaton

2004.04.10



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita, Ks 67202

**19-18s-30w**

Job Ticket: 19531

**DST#: 3**

ATTN: Brad Rine

Test Start: 2004.04.10 @ 11:30:08

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:02:53

Time Test Ended: 17:43:53

Test Type: Conventional Bottom Hole

Tester: Leroy Black

Unit No: 15

Interval: **4339.00 ft (KB) To 4380.00 ft (KB) (TVD)**

Total Depth: 4380.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2909.00 ft (KB)

2904.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6752**

**Inside**

Press@RunDepth: 21.31 psig @ 4339.00 ft (KB)

Start Date: 2004.04.10

End Date:

2004.04.10

Start Time: 11:30:10

End Time:

17:43:53

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2004.04.10 @ 13:01:53

Time Off Btm: 2004.04.10 @ 16:03:23

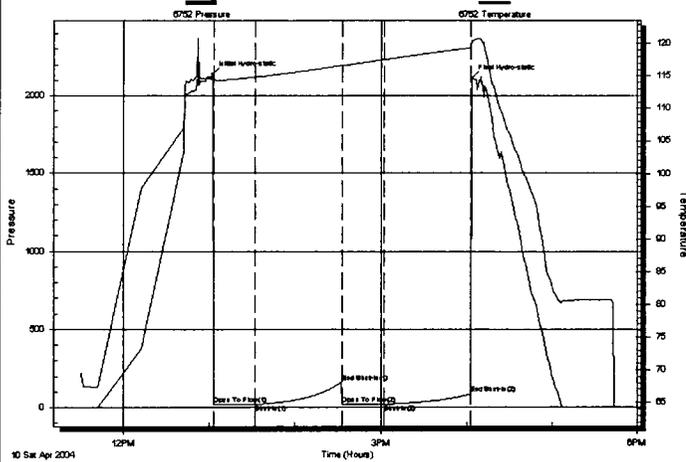
**TEST COMMENT:** IF: Weak inter. surface blow died in 18mins.

IS: Bled off 2mins no return.

FF: Weak blow died in 1 min.

FS: Bled off 2 mins no return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2139.43	115.00	Initial Hydro-static
1	20.25	114.46	Open To Flow (1)
31	20.88	114.82	Shut-in(1)
91	163.69	116.65	End Shut-in(1)
92	20.77	116.62	Open To Flow (2)
121	21.31	117.53	Shut-in(2)
181	84.05	119.36	End Shut-in(2)
182	2114.71	120.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.14

Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19531

**DST#: 3**

ATTN: Brad Rine

Test Start: 2004.04.10 @ 11:30:08

### Tool Information

Drill Pipe:	Length: 4343.00 ft	Diameter: 3.80 inches	Volume: 60.92 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 60.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4339.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	69.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4312.00	
Shut In Tool	5.00			4317.00	
Hydraulic tool	5.00			4322.00	
Jars	5.00			4327.00	
Safety Joint	3.00			4330.00	
Packer	4.00			4334.00	28.00 Bottom Of Top Packer
Packer	5.00		Fluid	4339.00	
Recorder	0.00	6752	Inside	4339.00	
Perforations	37.00			4376.00	
Recorder	0.00	13849	Inside	4376.00	
Bullnose	4.00			4380.00	41.00 Bottom Packers & Anchor

**Total Tool Length: 69.00**



**TRILOBITE  
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## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita, Ks 67202

**19-18s-30w**

Job Ticket: 19531

**DST#: 3**

ATTN: Brad Rine

Test Start: 2004.04.10 @ 11:30:08

### 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: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud	0.140

Total Length: 10.00 ft      Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6752

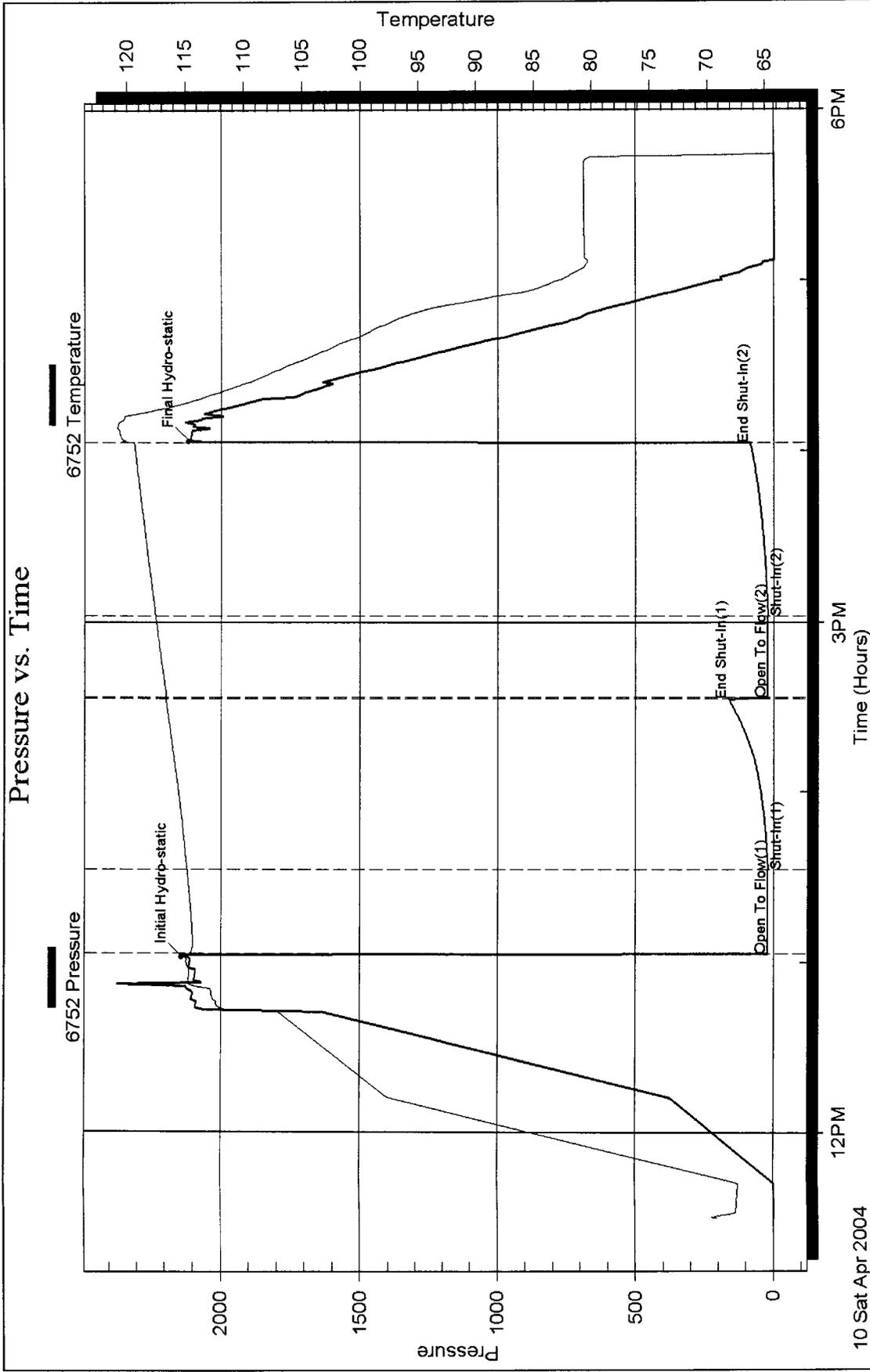
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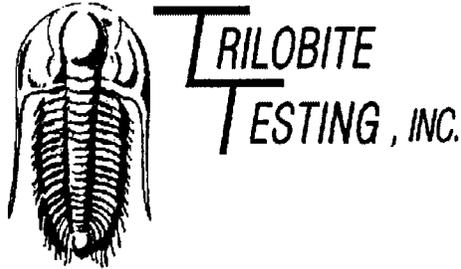
Lario Oil & Gas Co.

19-18s-30w

DST Test Number: 3

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Lario Oil & Gas Co..**

301 South Market  
Wichita ,Ks 67202

ATTN: Brad Rine

**19-18s-30w**

**Unruh #1-19**

Start Date: 2004.04.11 @ 11:08:42

End Date: 2004.04.11 @ 18:50:12

Job Ticket #: 19532                      DST #: 4

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
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## DRILL STEM TEST REPORT

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19532

**DST#: 4**

ATTN: Brad Rine

Test Start: 2004.04.11 @ 11:08:42

### GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:36:57

Time Test Ended: 18:50:12

Test Type: Conventional Bottom Hole

Tester: Leroy Black

Unit No: 15

Interval: **4506.00 ft (KB) To 4552.00 ft (KB) (TVD)**

Reference Elevations: 2909.00 ft (KB)

Total Depth: 4552.00 ft (KB) (TVD)

2904.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6752** Inside

Press@RunDepth: 26.99 psig @ 4506.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2004.04.11

End Date:

2004.04.11

Last Calib.: 1899.12.30

Start Time: 11:08:44

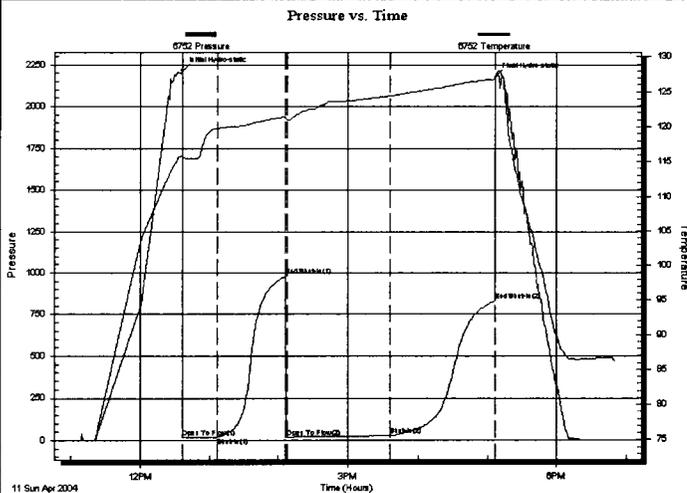
End Time:

18:50:12

Time On Btm: 2004.04.11 @ 12:36:12

Time Off Btm: 2004.04.11 @ 17:07:12

**TEST COMMENT:** IF:Weak blow built to 2 inches in 26 mins.  
IS:Bled off 2 mins no return.  
FF:Weak blow built to 7.5 inches in 89 mins.  
FS:Bled off 2 mins no return. 148 FT GIP



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.94	115.96	Initial Hydro-static
1	15.25	115.48	Open To Flow (1)
31	18.28	119.75	Shut-In(1)
90	980.50	121.40	End Shut-In(1)
92	19.03	120.98	Open To Flow (2)
180	26.99	124.39	Shut-In(2)
271	831.55	126.83	End Shut-In(2)
271	2177.92	127.23	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
36.00	Oil cut mud	0.50

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita, Ks 67202

**19-18s-30w**

Job Ticket: 19532

**DST#: 4**

ATTN: Brad Rine

Test Start: 2004.04.11 @ 11:08:42

### Tool Information

Drill Pipe:	Length: 4499.00 ft	Diameter: 3.80 inches	Volume: 63.11 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 63.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4506.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	74.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			4479.00	
Shut In Tool	5.00			4484.00	
Hydraulic tool	5.00			4489.00	
Jars	5.00			4494.00	
Safety Joint	3.00			4497.00	
Packer	5.00		Fluid	4502.00	28.00 Bottom Of Top Packer
Packer	4.00			4506.00	
Recorder	0.00	6752	Inside	4506.00	
Change Over Sub	1.00			4507.00	
Blank Spacing	31.00			4538.00	
Change Over Sub	1.00			4539.00	
Perforations	9.00			4548.00	
Recorder	0.00	13849	Outside	4548.00	
Bullnose	4.00			4552.00	46.00 Bottom Packers & Anchor

**Total Tool Length: 74.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Lario Oil & Gas Co..

**Unruh #1-19**

301 South Market  
Wichita ,Ks 67202

**19-18s-30w**

Job Ticket: 19532

**DST#: 4**

ATTN: Brad Rine

Test Start: 2004.04.11 @ 11:08:42

**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: 8.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

**Recovery Table**

Length ft	Description	Volume bbl
36.00	Oil cut mud	0.505

Total Length: 36.00 ft

Total Volume: 0.505 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6752

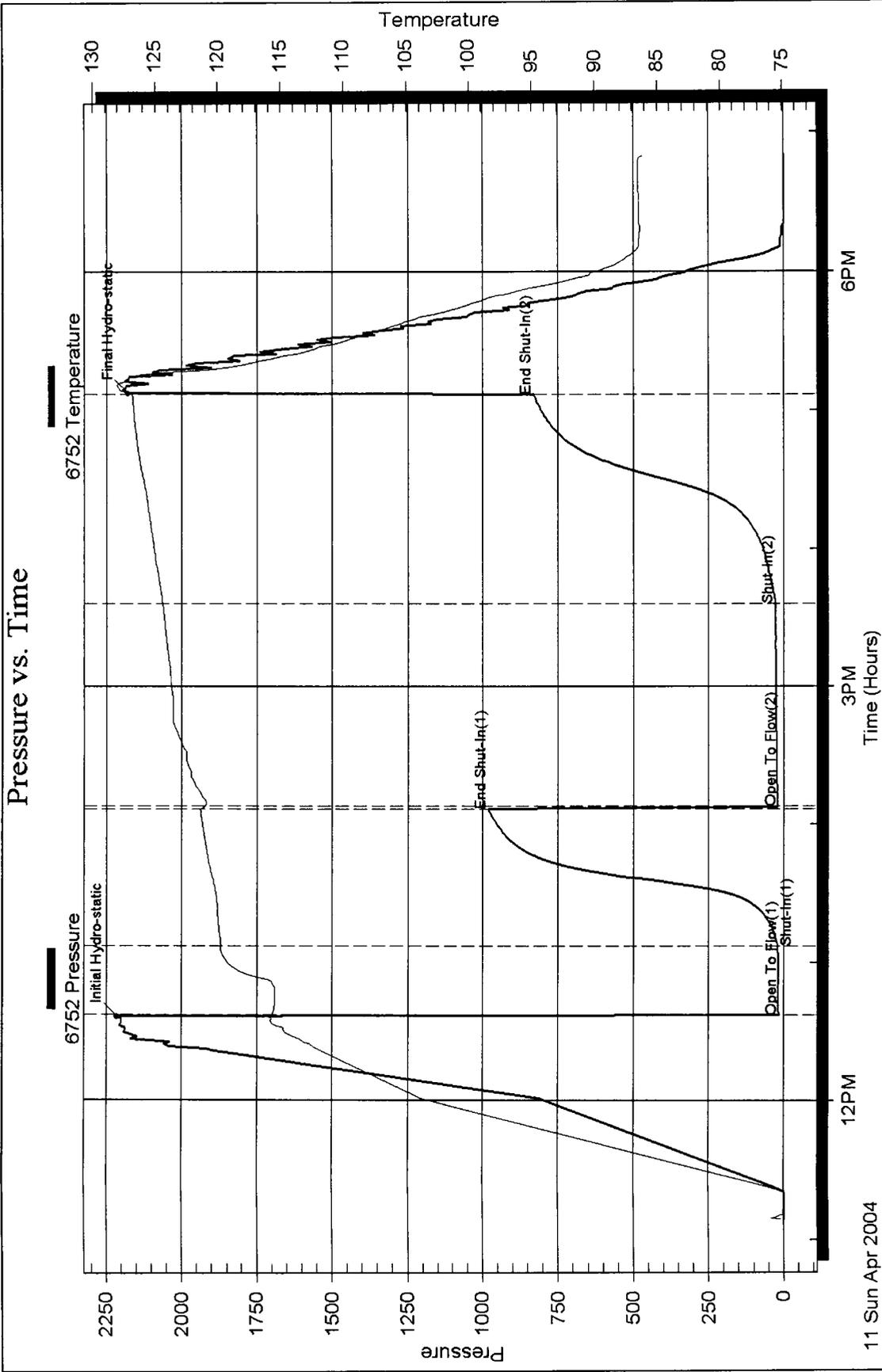
Inside

Lario Oil & Gas Co.

19-18s-30w

DST Test Number: 4

### Pressure vs. Time



11 Sun Apr 2004

12PM

3PM

6PM

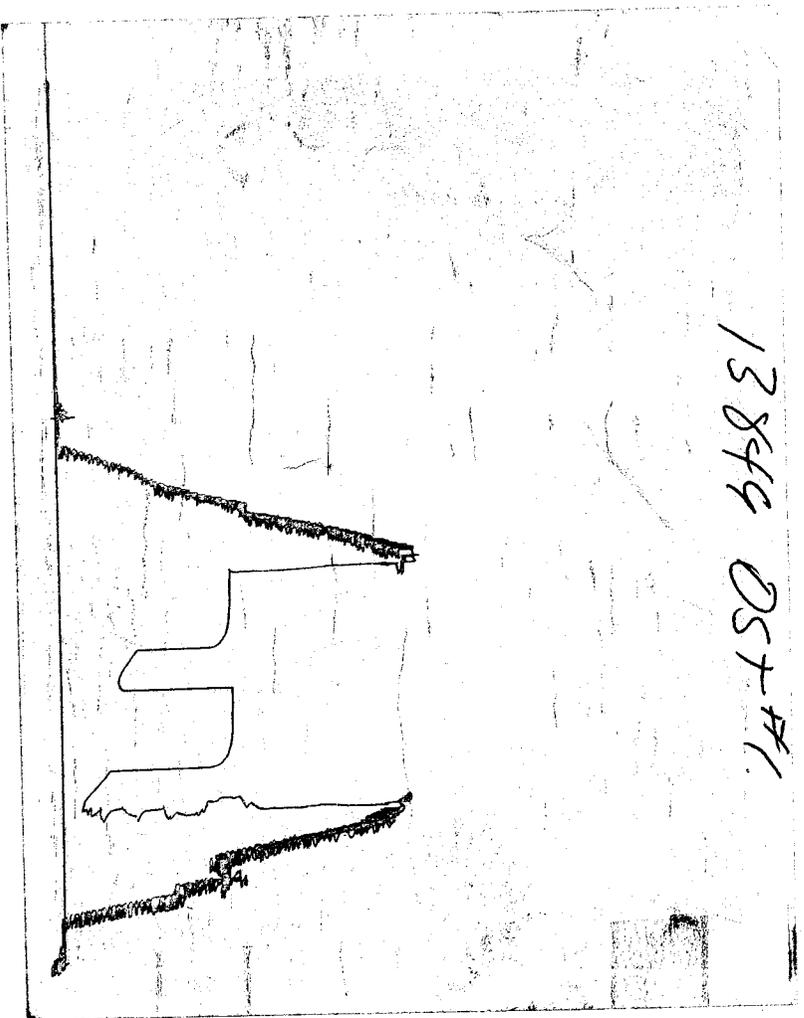
Time (Hours)

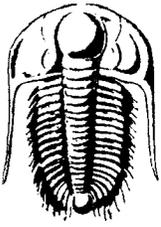


**CHART PAGE**

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

13844 OST #1





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 19530

05/03

## Test Ticket

Well Name & No. Unrun #19 Test No. 2 Date 4-9-04  
 Company Lario Oil & Gas Co. Zone Tested LHC-M  
 Address 301 South Market Wichita KS 67202 Elevation 2409 KB 2404 GL  
 Co. Rep / Geo. Brad Rine Cont. LO #1 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 19 Twp. 18 S Rge. 30 W Co. Lane State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 4301-4325 Initial Str Wt./Lbs. 50,000 Unseated Str Wt./Lbs. 53,000  
 Anchor Length 24 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 70,000  
 Top Packer Depth 4296 Tool Weight 2500  
 Bottom Packer Depth 4301 Hole Size 7 7/8" X Rubber Size 6 3/4" X  
 Total Depth 4325 Wt. Pipe Run 0 Drill Collar Run 0  
 Mud Wt. 9.3 LCM 1" Vis. 46 WL 7.2 Drill Pipe Size 4 1/2 X H Ft. Run 4281

Blow Description IF: 1/4 inch Blow at Open Built to Bottom Bucket in 25 mins Fair Blow  
FS: Bled off 3 mins No Return  
FF: Fair Blow Bottom of Bucket in 45 mins  
FS: Bled off 3 mins No Return

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>407</u>			<u>407</u>
Rec. <u>84</u>	Feet of <u>Gas in pipe</u>	<u>100</u> %gas	%oil %water %mud
Rec. <u>15</u>	Feet of <u>Clean oil</u>	%gas	%oil %water %mud
Rec. <u>308</u>	Feet of <u>Muddy water</u>	%gas	%oil %water %mud
Rec. _____	Feet of _____	%gas	%oil <u>70</u> %water <u>30</u> %mud
Rec. _____	Feet of _____	%gas	%oil %water %mud
BHT <u>132</u>	°F Gravity <u>35.8</u>	°API D @ <u>46</u>	°F Corrected Gravity <u>37</u> °API
RW <u>.223</u>	@ <u>43.5</u> °F	Chlorides <u>56,000</u> ppm	Recovery _____ Chlorides <u>2400</u> ppm System

AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2097</u> PSI	<u>6752</u>	_____
(B) First Initial Flow Pressure	<u>22</u> PSI	(depth)	Elec. Rec. <u>X</u>
(C) First Final Flow Pressure	<u>71</u> PSI	Recorder No. <u>13849</u>	Jars <u>X</u>
(D) Initial Shut-In Pressure	<u>931</u> PSI	(depth) <u>4297</u>	Safety Jt. <u>X</u>
(E) Second Initial Flow Pressure	<u>74</u> PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure	<u>142</u> PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>872</u> PSI	<b>Initial Opening</b> <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>2031</u> PSI	Initial Shut-In <u>60</u>	Ext. Packer _____
		Final Flow <u>60</u>	Shale Packer _____
		Final Shut-In <u>90</u>	Mileage <u>15</u>
		<b>T-On Location</b> <u>17:30</u>	Sub Total: <u>1225.50</u>
		T-Started <u>18:30</u>	Std. By _____
		T-Open <u>19:56</u>	Other _____
		T-Pulled <u>23:56</u>	Total: _____
		T-Out <u>1:42</u>	

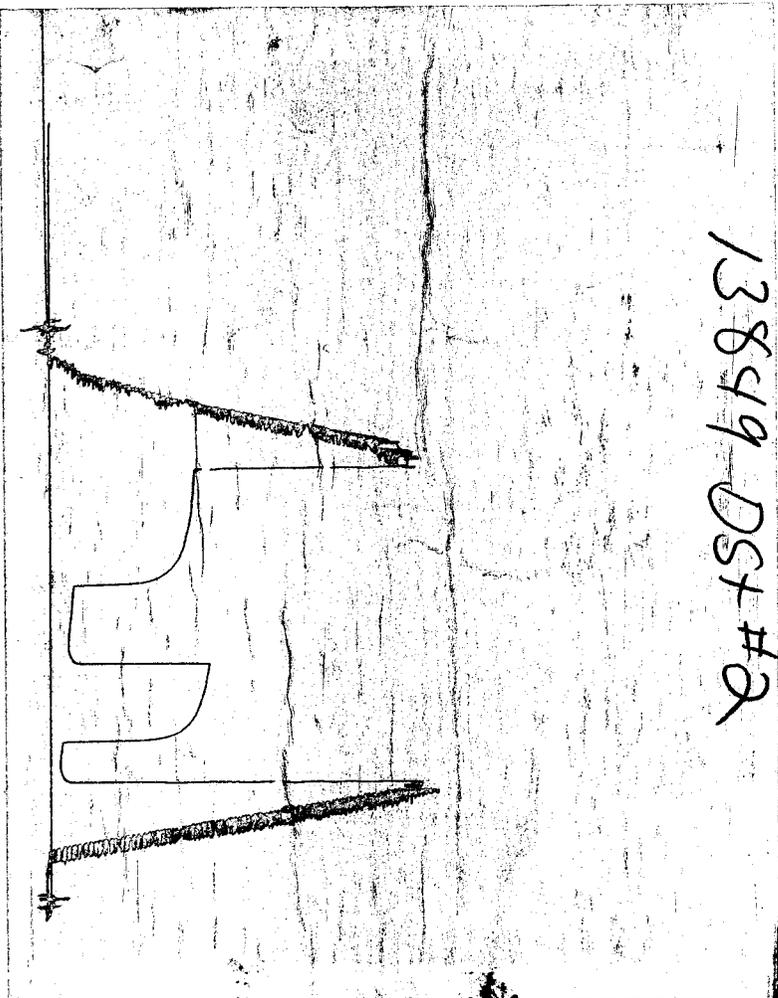
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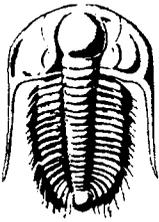
Approved By Brad Rine  
 Our Representative Leroy Black

**CHART PAGE**

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

13849 DST #2





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No. 19531

05/03

## Test Ticket

Well Name & No. Unruh #1-19 Test No. 3 Date 4-10-04  
 Company Lario Oil & Gas Co. Zone Tested Marmaton  
 Address 301 South Market Wichita KS 67202 Elevation 2409 KB 2404 GL  
 Co. Rep / Geo. Brad Rine Cont. \_\_\_\_\_ Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 19 Twp. 18 s Rge. 30 w Co. Lane State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 4339-4380 Initial Str Wt./Lbs. 50,000 Unseated Str Wt./Lbs. 51,000  
 Anchor Length 41 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 54,000  
 Top Packer Depth 4334 Tool Weight 3000  
 Bottom Packer Depth 4339 Hole Size 7 7/8" X Rubber Size 6 3/4" X  
 Total Depth 4380 Wt. Pipe Run 0 Drill Collar Run 0  
 Mud Wt. 9.3 LCM 1# Vis. 49 WL 8.0 Drill Pipe Size 4 1/2 x 4 Ft. Run 4343

Blow Description IF: Weak Inter. Surface Blow Died in 18 min.  
IS: Bled off 2 mins No Return.  
FF: Weak Blow Died in 1 min.  
ES: Bled off 2 mins No Return.

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>10</u>			<u>10</u>
Rec. <u>10</u>	Feet of <u>Mud</u>	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil
Rec. _____	Feet of _____	%gas	%oil

BHT 119 °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery \_\_\_\_\_ Chlorides 3,000 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2139</u>	PSI	<u>6752</u>	_____
(B) First Initial Flow Pressure	<u>20</u>	PSI	(depth)	Elec. Rec. <u>X</u>
(C) First Final Flow Pressure	<u>20</u>	PSI	Recorder No. <u>13849</u>	Jars <u>X</u>
(D) Initial Shut-In Pressure	<u>163</u>	PSI	(depth) <u>4376</u>	Safety Jt. <u>4</u>
(E) Second Initial Flow Pressure	<u>20</u>	PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure	<u>21</u>	PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>84</u>	PSI	Initial Opening <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>2114</u>	PSI	Initial Shut-In <u>60</u>	Ext. Packer _____
			Final Flow <u>30</u>	Shale Packer _____
			Final Shut-In <u>60</u>	Mileage <u>15</u>

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Approved By Brad Rine  
 Our Representative Lenny Black

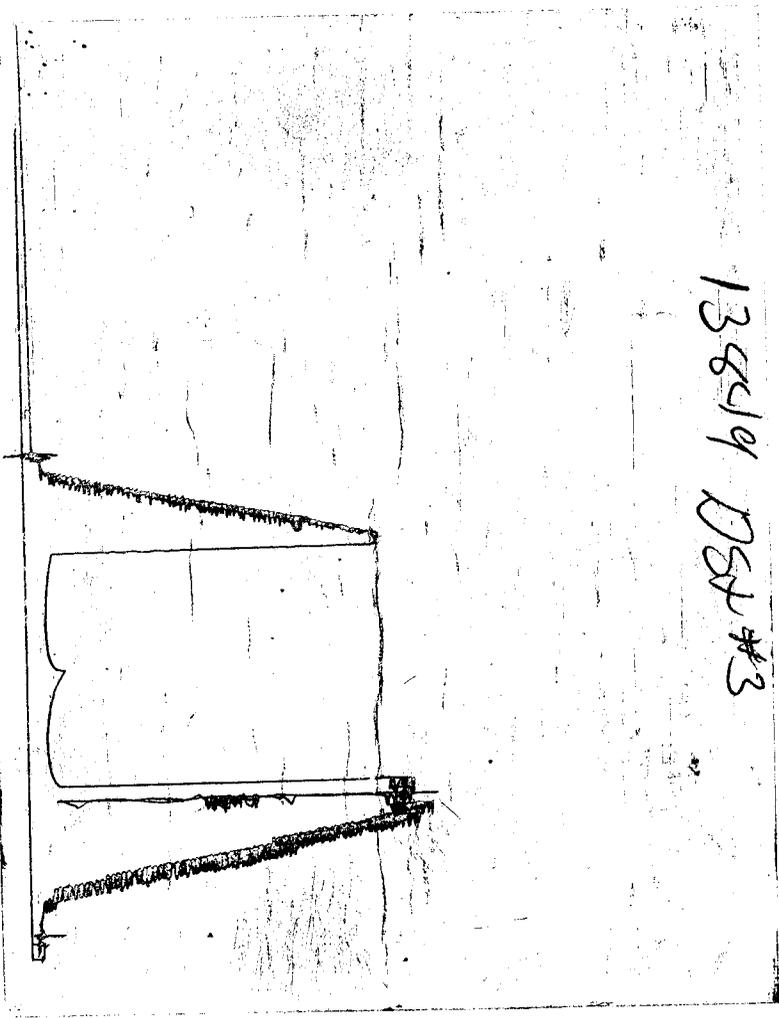
T-On Location	T-Started	T-Open	T-Pulled	T-Out
<u>10:45</u>	<u>11:30</u>	<u>13:02</u>	<u>16:02</u>	<u>17:43</u>

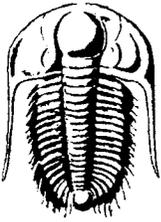
Sub Total: 1225.50  
 Std. By \_\_\_\_\_  
 Other \_\_\_\_\_  
 Total: \_\_\_\_\_

**CHART PAGE**

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13849 DSA #3





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No. 19532

05/03

## Test Ticket

Well Name & No. Unruh #1-19 Test No. 4 Date 4-11-04  
 Company Lario Oil & Gas Co. Zone Tested Cherokee  
 Address 301 South Market Wichita, MS 67202 Elevation 2909 KB 2904 GL  
 Co. Rep / Geo. Brad Rine Cont. L.D. #1 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 19 Twp. 18s Rge. 30w Co. Lane State MS  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 4506-4552 Initial Str Wt./Lbs. 52,000 Unseated Str Wt./Lbs. 54,000  
 Anchor Length 46 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 82,000  
 Top Packer Depth 4501 Tool Weight 2500  
 Bottom Packer Depth 4506 Hole Size 7 7/8" X Rubber Size 6 3/4" X  
 Total Depth 4552 Wt. Pipe Run 0 Drill Collar Run 0  
 Mud Wt. 9.3 LCM 1" Vis. 47 WL 8.8 Drill Pipe Size 4 1/2 X 11 Ft. Run 4499

Blow Description FF: Weak Blow Built to 2 inches in 26 mins.  
IS: Bled off 2 mins NO Return  
FF: Weak Blow Built to 7 1/2 inches in 99 mins  
FS: Bled off 2 mins NO Return

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>36</u>	<u>146</u>		<u>36</u>
Rec. <u>36</u>	Feet of <u>Oil cut mud (went grinding out)</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 126 °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery \_\_\_\_\_ Chlorides 2500 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2213</u>	PSI	<u>6752</u>	_____
(B) First Initial Flow Pressure	<u>15</u>	PSI	(depth)	Elec. Rec. <u>X</u>
(C) First Final Flow Pressure	<u>18</u>	PSI	Recorder No. <u>13844</u>	Jars <u>X</u>
(D) Initial Shut-In Pressure	<u>980</u>	PSI	(depth) <u>404548</u>	Safety Jt. <u>X</u>
(E) Second Initial Flow Pressure	<u>19</u>	PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure	<u>26</u>	PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure	<u>831</u>	PSI	Initial Opening <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>2177</u>	PSI	Initial Shut-In <u>60</u>	Ext. Packer _____
			Final Flow <u>90</u>	Shale Packer _____
			Final Shut-In <u>90</u>	Mileage <u>15</u>
			T-On Location <u>10:30</u>	Sub Total: <u>1225.50</u>
			T-Started <u>11:08</u>	Std. By _____
			T-Open <u>12:36</u>	Other _____
			T-Pulled <u>17:06</u>	Total: _____
			T-Out <u>14:50</u>	

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Approved By Brad Rine  
 Our Representative Leroy Black

**CHART PAGE**

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