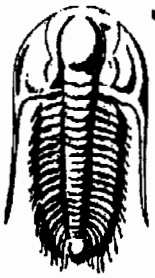
15-053-21121

7-16s-7w

Township is
16s, not 15
as printed



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Operating,co.**

552 west Hyw.4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

7-16S-7W

Koralek#1-7

Start Date: 2003.11.08 @ 04:34:28

End Date: 2003.11.08 @ 11:43:28

Job Ticket #: 17931 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

DRILL STEM TEST REPORT

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17931 **DST#: 1**

Test Start: 2003.11.08 @ 04:34:28

GENERAL INFORMATION:

Formation: **Towanda**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:00:43
Time Test Ended: 11:43:28

Test Type: Conventional Bottom Hole
Tester: Darren L.Amerine
Unit No: 19

Interval: 1079.00 ft (KB) To 1100.00 ft (KB) (TVD)
Total Depth: 1100.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

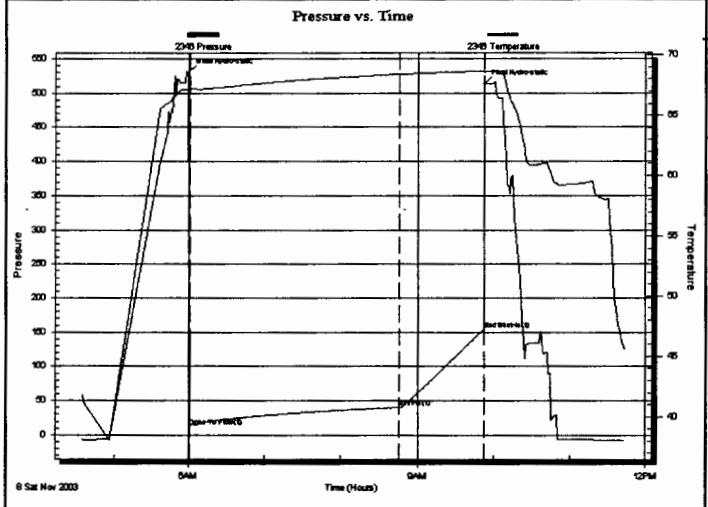
Reference Elevations: 1538.00 ft (KB)
1533.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 2346 **Inside**

Press@RunDepth: 40.15 psig @ 1081.00 ft (KB)
Start Date: 2003.11.08 End Date: 2003.11.08
Start Time: 04:34:30 End Time: 11:43:28

Capacity: 7000.00 psig
Last Calib.: 2003.11.08
Time On Btm: 2003.11.08 @ 05:59:28
Time Off Btm: 2003.11.08 @ 09:52:43

TEST COMMENT: IF:Fair blow built to 6"in diesel bucket slowly died off to weak surface blow.
ISI:Bled down for 2 mins.no blopw back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	530.14	67.15	Initial Hydro-static
2	11.92	67.26	Open To Flow (1)
166	40.15	68.41	Shut-In(1)
233	154.53	68.68	End Shut-In(1)
234	513.36	68.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	120'of gip	0.00
122.00	SGCWM 2%gas 28%water 70%mud	0.60

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating,co.

552 west Hyw.4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17931 **DST#: 1**

Test Start: 2003.11.08 @ 04:34:28

Tool Information

Drill Pipe:	Length:	874.22 ft	Diameter:	3.80 inches	Volume:	12.26 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	211.78 ft	Diameter:	2.25 inches	Volume:	1.04 bbl	
					Total Volume:	13.30 bbl	

Drill Pipe Above KB:	31.00 ft
Depth to Top Packer:	1079.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	21.00 ft
Tool Length:	45.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2100.00 lb
Weight set on Packer:	20000.00 lb
Weight to Pull Loose:	lb
Tool Chased	0.00 ft
String Weight: Initial	30000.00 lb
Final	30000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			1056.00		
Shut In Tool	5.00			1061.00		
Sampler	3.00			1064.00		
Hydraulic tool	5.00			1069.00		
Packer	5.00			1074.00	24.00	Bottom Of Top Packer
Packer	5.00			1079.00		
Stubb	2.00			1081.00		
Recorder	0.00	2346	Inside	1081.00		
Anchor	16.00			1097.00		
Recorder	0.00	10991	Outside	1097.00		
Bullnose	3.00			1100.00	21.00	Bottom Packers & Anchor
Total Tool Length:	**45.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17931 **DST#: 1**

Test Start: 2003.11.08 @ 04:34:28

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:	85000 ppm
Viscosity:	39.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	0.32 inches				

Recovery Information

Recovery Table

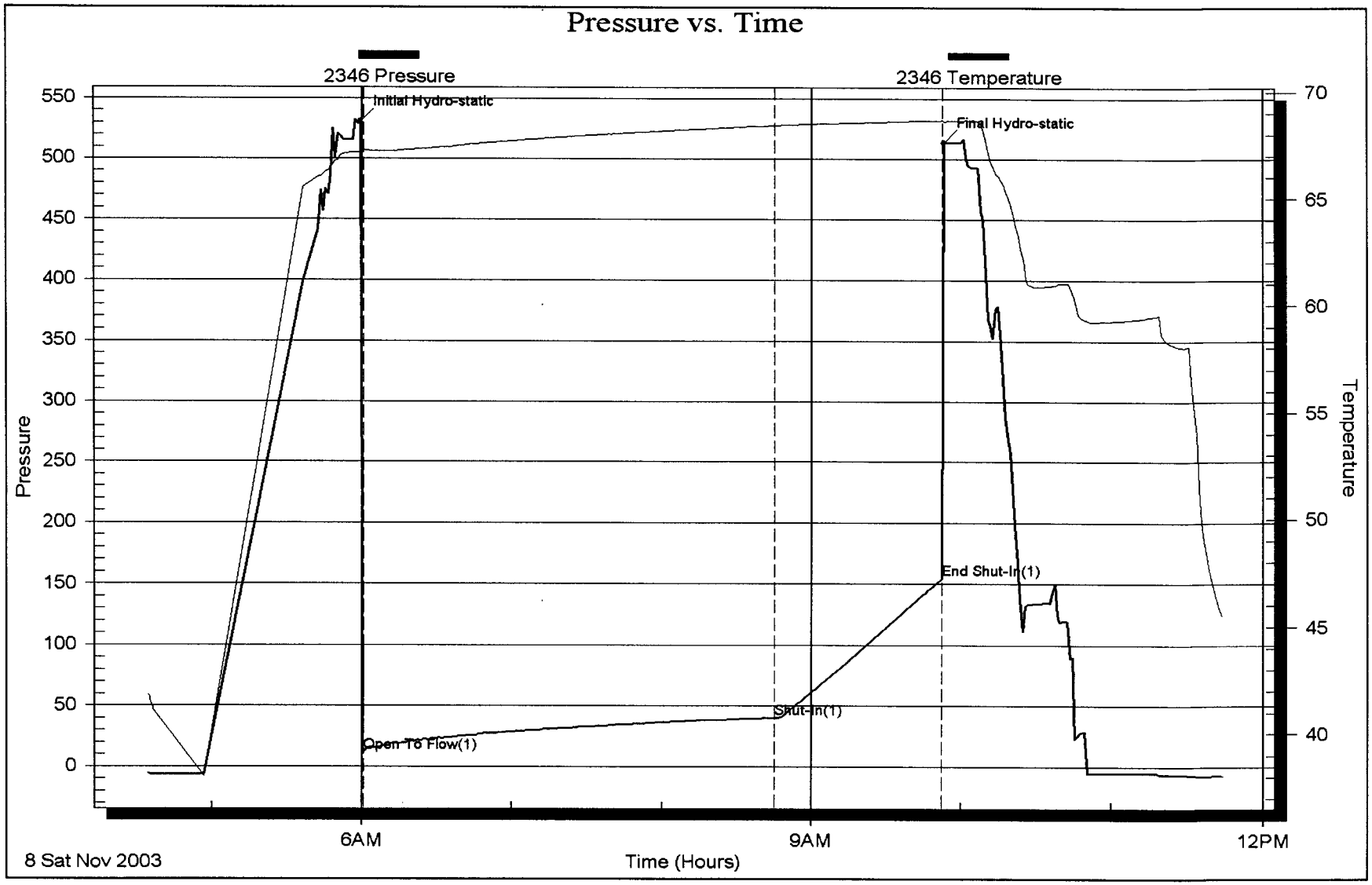
Length ft	Description	Volume bbl
0.00	120'of gip	0.000
122.00	SGCWM 2%gas 28%water 70%mud	0.600

Total Length: 122.00 ft Total Volume: 0.600 bbl

Num Fluid Samples: 1 Num Gas Bombs: 0 Serial #:

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments: Sampler recovery 350 PSI trace of gis 1200ML.mud 2560ML.water. 4000ML>total.


Pressure vs. Time
2346 Pressure
2346 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Shut-In(1)
Open To Flow(1)
Pressure
Temperature
Time (Hours)
6AM
9AM
12PM
8 Sat Nov 2003
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350
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250
200
150
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70
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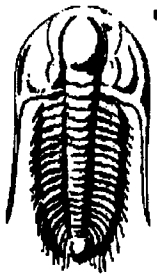


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Operating,co.**

552 west Hyw.4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

7-15S-7W

Koralek#1-7

Start Date: 2003.11.09 @ 07:14:46

End Date: 2003.11.09 @ 15:33:16

Job Ticket #: 17932 DST #: 2

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17932 **DST#: 2**

Test Start: 2003.11.09 @ 07:14:46

GENERAL INFORMATION:

Formation: **Grand Haven**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:49:01
Time Test Ended: 15:33:16

Test Type: Conventional Bottom Hole
Tester: Darren L.Amerine
Unit No: 19

Interval: 1753.00 ft (KB) To 1778.00 ft (KB) (TVD)
Total Depth: 1778.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

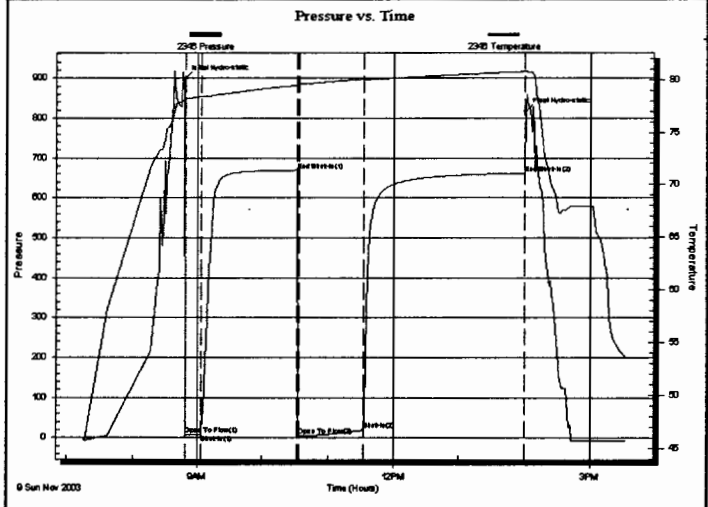
Reference Elevations: 1538.00 ft (KB)
1533.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 2346 **Inside**

Press@RunDepth: 19.63 psig @ 1755.00 ft (KB)
Start Date: 2003.11.09 End Date: 2003.11.09
Start Time: 07:14:48 End Time: 15:33:16

Capacity: 7000.00 psig
Last Calib.: 2003.11.09
Time On Btm: 2003.11.09 @ 08:47:46
Time Off Btm: 2003.11.09 @ 14:01:01

TEST COMMENT: IF:Fair blow built to b.o.b in 11 mins.
ISI:Bled down for 10 mins.no blow back.
FF:Strong blow b.o.b in 10 sec.GTS in 15 mins.Gauge gas.
FSI:Bled down for 10 mins.very slight surface blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	899.52	78.13	Initial Hydro-static
2	7.97	78.28	Open To Flow (1)
16	8.59	78.40	Shut-In(1)
105	669.25	79.45	End Shut-In(1)
106	5.87	79.59	Open To Flow (2)
165	19.63	80.04	Shut-In(2)
313	661.85	80.76	End Shut-In(2)
314	816.75	80.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1740 Gas in pipe	0.00
2.00	SGCM 4%gas 96%mud	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	1.25	24.83
Last Gas Rate	0.25	13.00	43.47
Max. Gas Rate	0.25	13.00	43.47

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17932 **DST#: 2**

Test Start: 2003.11.09 @ 07:14:46

Tool Information

Drill Pipe:	Length:	1530.22 ft	Diameter:	3.80 inches	Volume:	21.46 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:	211.78 ft	Diameter:	2.25 inches	Volume:	1.04 bbl	Weight to Pull Loose:	42000.00 lb
					Total Volume:	22.50 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		13.00 ft					String Weight: Initial	36000.00 lb
Depth to Top Packer:		1753.00 ft					Final	36000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		25.00 ft						
Tool Length:		49.00 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			1730.00		
Shut In Tool	5.00			1735.00		
Sampler	3.00			1738.00		
Hydraulic tool	5.00			1743.00		
Packer	5.00			1748.00	24.00	Bottom Of Top Packer
Packer	5.00			1753.00		
Stubb	2.00			1755.00		
Recorder	0.00	2346	Inside	1755.00		
Anchor	20.00			1775.00		
Recorder	0.00	10991	Outside	1775.00		
Bullnose	3.00			1778.00	25.00	Bottom Packers & Anchor
Total Tool Length:	**49.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17932 **DST#: 2**

Test Start: 2003.11.09 @ 07:14:46

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:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.96 in³	Gas Cushion Type:			
Resistivity:	1.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4500.00 ppm				
Filter Cake:	0.32 inches				

Recovery Information

Recovery Table

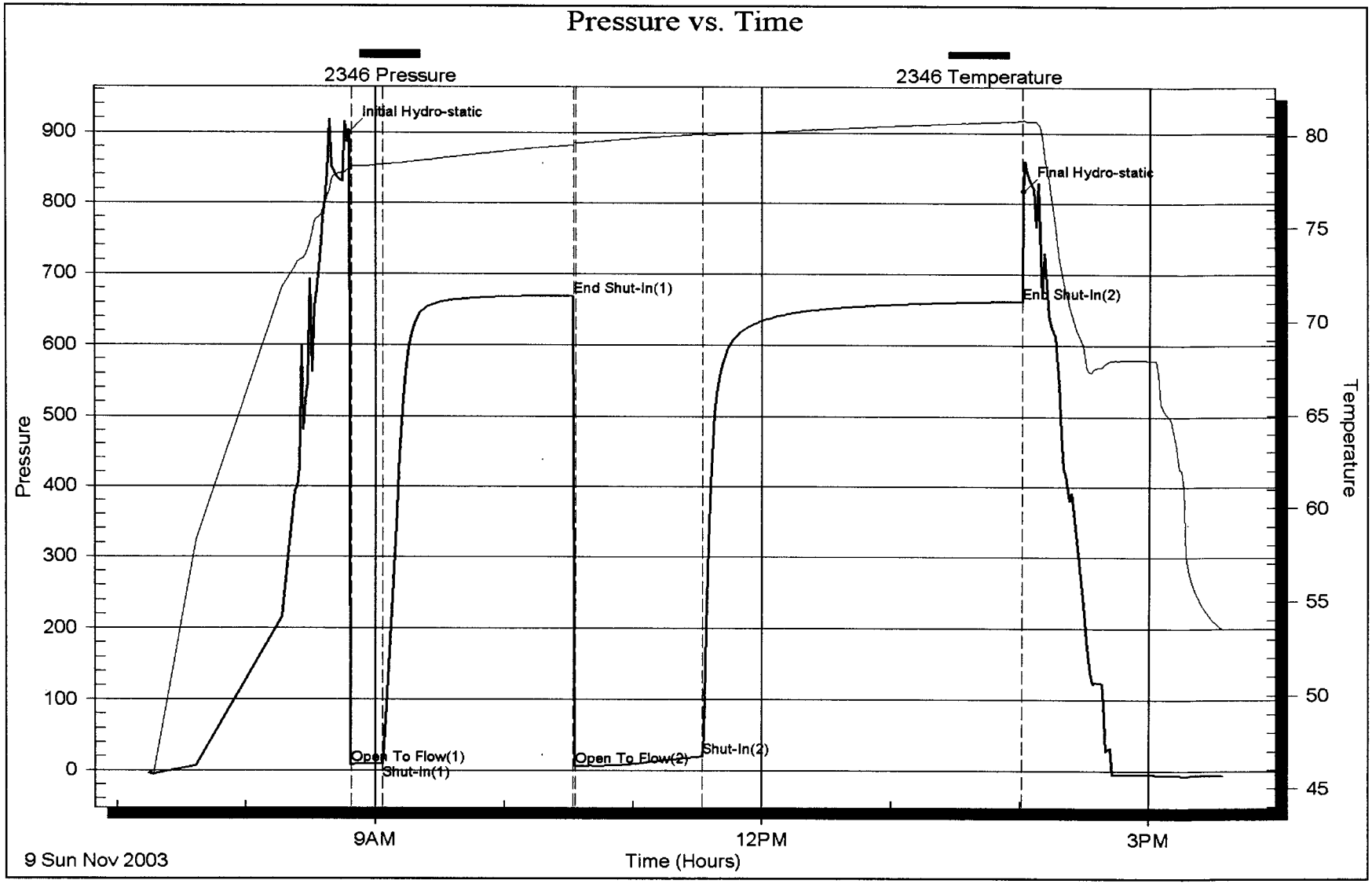
Length ft	Description	Volume bbl
0.00	1740 Gas in pipe	0.000
2.00	SGCM 4%gas 96%mud	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Sampler recovery 800PSI 2.5cf of gas.


Pressure vs. Time
2346 Pressure
2346 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
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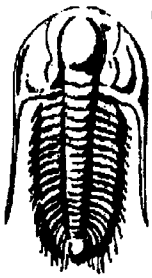


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Operating,co.**

552 west Hyw.4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

7-15S-7W

Koralek#1-7

Start Date: 2003.11.10 @ 04:36:07
End Date: 2003.11.10 @ 10:57:07
Job Ticket #: 17933 DST #: 3

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

DRILL STEM TEST REPORT

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17933 **DST#: 3**

Test Start: 2003.11.10 @ 04:36:07

GENERAL INFORMATION:

Formation: **Cedar Vale**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:19:07
Time Test Ended: 10:57:07

Test Type: Conventional Bottom Hole
Tester: Darren L.Amerine
Unit No: 19

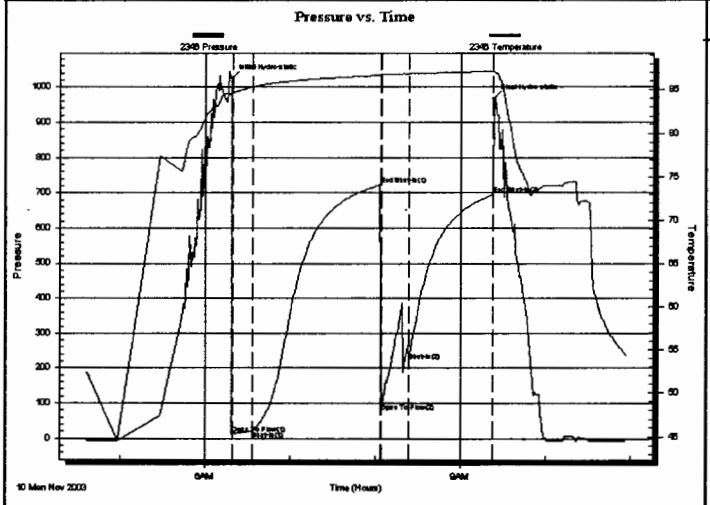
Interval: 1978.00 ft (KB) To 2042.00 ft (KB) (TVD)
Total Depth: 2042.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1538.00 ft (KB)
1533.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 2346 **Inside**
Press@RunDepth: 221.12 psig @ 1984.00 ft (KB)
Start Date: 2003.11.10 End Date: 2003.11.10
Start Time: 04:36:09 End Time: 10:57:07

Capacity: 7000.00 psig
Last Calib.: 2003.11.10
Time On Btm: 2003.11.10 @ 06:18:22
Time Off Btm: 2003.11.10 @ 09:23:22

TEST COMMENT: IF:Weak blow built to 4"in H2O bucket.
ISI:Bled down for 2 mins,no blow back.
FF:Very weak blow died in 30 sec.
FSI:No blopw back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1026.38	84.54	Initial Hydro-static
1	12.40	84.71	Open To Flow (1)
15	20.63	85.36	Shut-In(1)
105	722.42	86.70	End Shut-In(1)
106	76.76	86.81	Open To Flow (2)
125	221.12	86.88	Shut-In(2)
185	693.98	87.16	End Shut-In(2)
185	967.44	87.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	SGCM 4%gas 96%mud	0.12

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17933 **DST#: 3**

Test Start: 2003.11.10 @ 04:36:07

Tool Information

Drill Pipe:	Length:	1709.22 ft	Diameter:	3.80 inches	Volume:	23.98 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:	247.78 ft	Diameter:	2.25 inches	Volume:	1.22 bbl	Weight to Pull Loose:		lb
					Total Volume:	25.20 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		3.00 ft					String Weight:	Initial	36000.00 lb
Depth to Top Packer:		1978.00 ft						Final	36000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		64.00 ft							
Tool Length:		88.00 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			1955.00		
Shut In Tool	5.00			1960.00		
Sampler	3.00			1963.00		
Hydraulic tool	5.00			1968.00		
Packer	5.00			1973.00	24.00	Bottom Of Top Packer
Packer	5.00			1978.00		
Stubb	2.00			1980.00		
Anchor	4.00			1984.00		
Recorder	0.00	2346	Inside	1984.00		
Anchor	24.00			2008.00		
Blank Spacing	31.00			2039.00		
Recorder	0.00	10991	Outside	2039.00		
Bullnose	3.00			2042.00	64.00	Bottom Packers & Anchor
Total Tool Length:	**88.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17933 **DST#: 3**

Test Start: 2003.11.10 @ 04:36:07

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:	46.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.90 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4500.00 ppm				
Filter Cake:	0.32 inches				

Recovery Information

Recovery Table

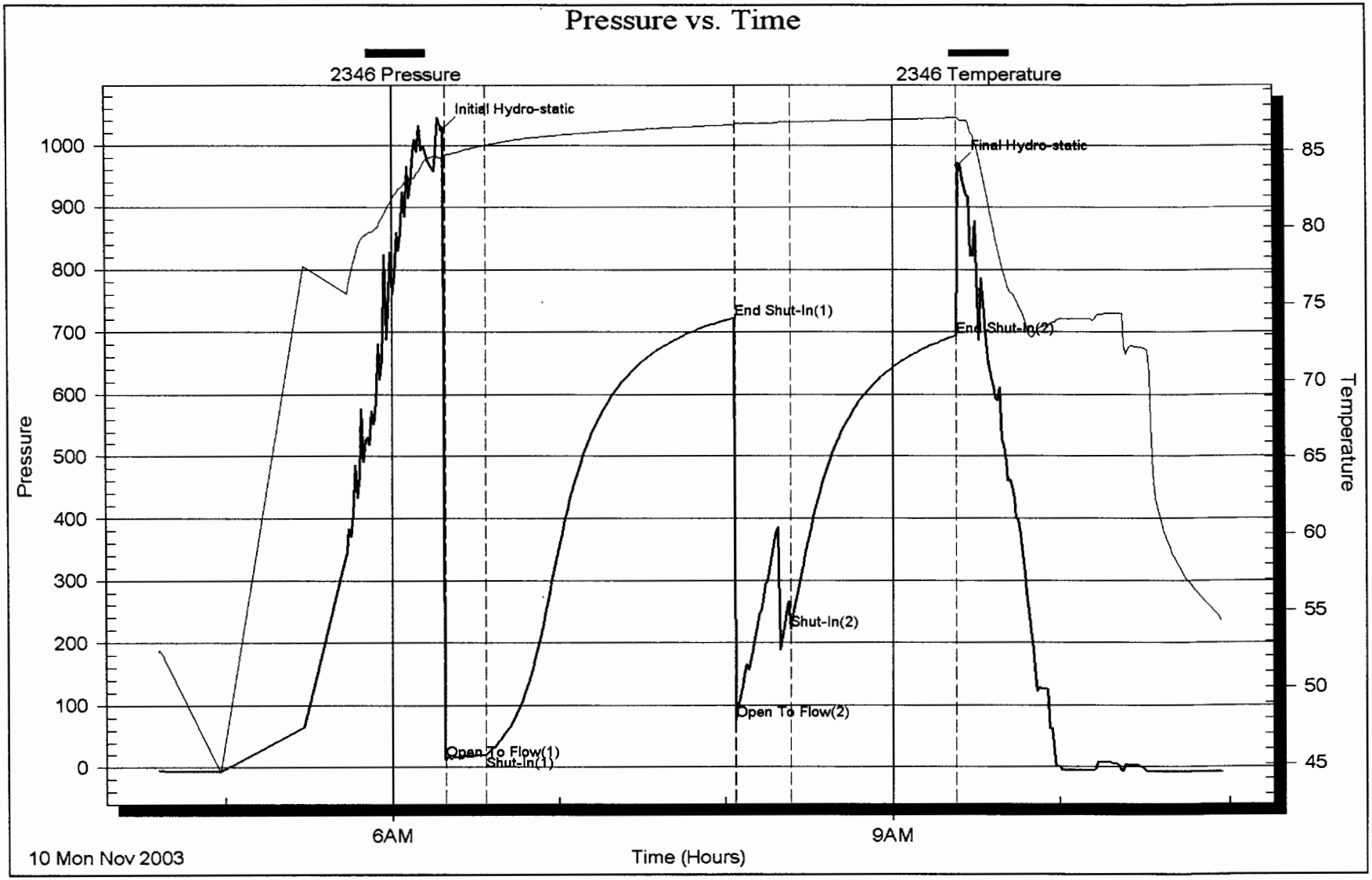
Length ft	Description	Volume bbl
25.00	SGCM 4%gas 96%mud	0.123

Total Length: 25.00 ft Total Volume: 0.123 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Sampler recovery 4000 ML.mud trace of gas 250PSI.


Pressure vs. Time
2346 Pressure
2346 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Open To Flow(2)
Open To Flow(1)
Shut-In(1)
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Temperature
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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Operating,co.**

552 west Hyw.4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

7-15S-7W

Koralek#1-7

Start Date: 2003.11.10 @ 17:43:00
End Date: 2003.11.11 @ 02:39:00
Job Ticket #: 17934 DST #: 4

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

DRILL STEM TEST REPORT

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17934 **DST#: 4**

Test Start: 2003.11.10 @ 17:43:00

GENERAL INFORMATION:

Formation: **Sevare y**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:06:45
Time Test Ended: 02:39:00

Test Type: Conventional Bottom Hole
Tester: Darren L.Amerine
Unit No: 19

Interval: 2110.00 ft (KB) To 2144.00 ft (KB) (TVD)
Total Depth: 2144.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

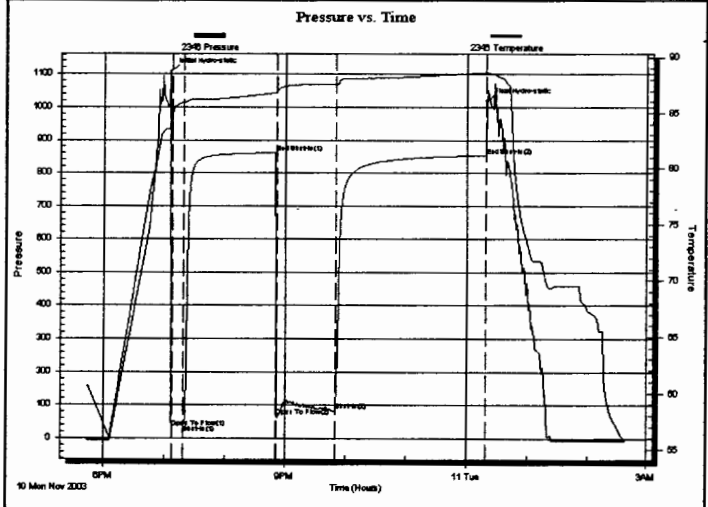
Reference Elevations: 1538.00 ft (KB)
1533.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 2346 **Inside**

Press@RunDepth: 84.11 psig @ 2112.00 ft (KB)
Start Date: 2003.11.10 End Date: 2003.11.11
Start Time: 17:43:02 End Time: 02:39:00

Capacity: 7000.00 psig
Last Calib.: 2003.11.11
Time On Btm: 2003.11.10 @ 19:05:45
Time Off Btm: 2003.11.11 @ 00:19:30

TEST COMMENT: IF:Strong blow b.o.b in 30 sec.
ISI:Bled down for 5 mins.no blow.
FF:Strong blow b.o.b in 10 sec.GTS gauge gas.
FSI:Bled down for 5 mins.no blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1107.25	83.81	Initial Hydro-static
1	30.16	84.58	Open To Flow (1)
13	39.33	85.92	Shut-In(1)
105	860.71	86.81	End Shut-In(1)
106	64.87	86.92	Open To Flow (2)
164	84.11	87.59	Shut-In(2)
313	853.37	88.64	End Shut-In(2)
314	1017.42	88.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1955'of gip	0.00
155.00	SGCM 4%gas 96%mud	0.76

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	4.50	69.23
Last Gas Rate	0.38	4.75	70.15
Max. Gas Rate	0.38	4.75	70.15

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating,co.

552 west Hyw .4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17934 **DST#: 4**

Test Start: 2003.11.10 @ 17:43:00

Tool Information

Drill Pipe:	Length:	1924.14 ft	Diameter:	3.80 inches	Volume:	26.99 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	185.86 ft	Diameter:	2.25 inches	Volume:	0.91 bbl	
					Total Volume:	27.90 bbl	

Drill Pipe Above KB:	24.00 ft
Depth to Top Packer:	2110.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	34.00 ft
Tool Length:	58.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2100.00 lb
Weight set on Packer:	20000.00 lb
Weight to Pull Loose:	40000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	36000.00 lb
Final	36000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			2087.00		
Shut In Tool	5.00			2092.00		
Sampler	3.00			2095.00		
Hydraulic tool	5.00			2100.00		
Packer	5.00			2105.00	24.00	Bottom Of Top Packer
Packer	5.00			2110.00		
Stubb	2.00			2112.00		
Recorder	0.00	2346	Inside	2112.00		
Anchor	29.00			2141.00		
Recorder	0.00	10991	Outside	2141.00		
Bullnose	3.00			2144.00	34.00	Bottom Packers & Anchor
Total Tool Length:	**58.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating,co.

552 west Hyw.4
Olmitz,Ks.67584-8581

ATTN: Tom Larson

Koralek#1-7

7-15S-7W

Job Ticket: 17934 **DST#: 4**

Test Start: 2003.11.10 @ 17:43:00

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:	44.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	0.90 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7000.00 ppm				
Filter Cake:	0.32 inches				

Recovery Information

Recovery Table

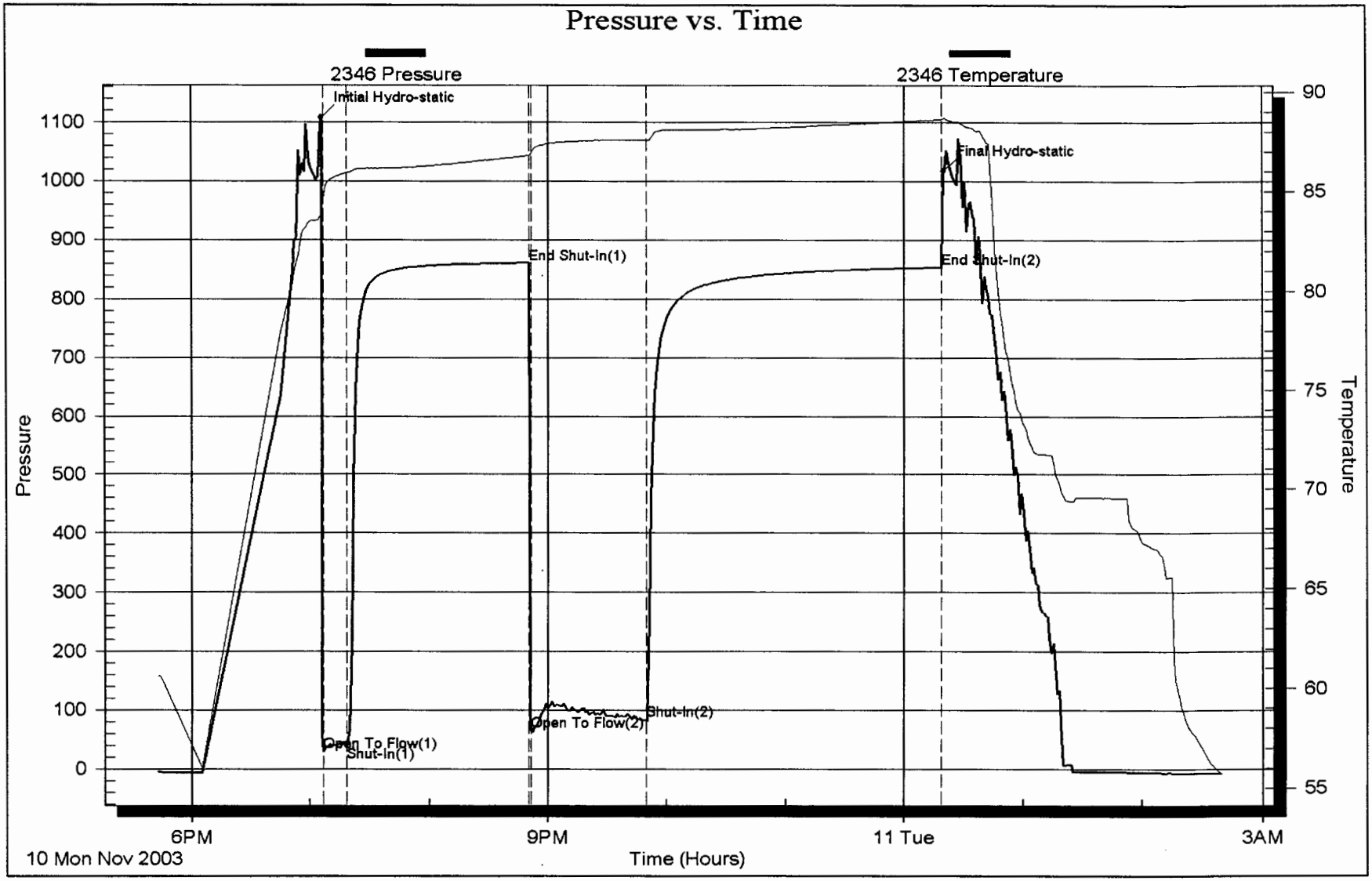
Length ft	Description	Volume bbl
0.00	1955'of gip	0.000
155.00	SGCM 4%gas 96%mud	0.762

Total Length: 155.00 ft Total Volume: 0.762 bbl

Num Fluid Samples: 1 Num Gas Bombs: 0 Serial #:

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments: Sampler recovery 850 PSI.3.5 CF.of gas.


Pressure vs. Time
2346 Pressure
2346 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1100
1000
900
800
700
600
500
400
300
200
100
0
90
85
80
75
70
65
60
55
6PM
9PM
11 Tue
3AM
10 Mon Nov 2003
Time (Hours)

INV

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 17931

05/03

Test Ticket

Well Name & No. Koralek #1-7 Test No. #1 Date 11-8-03

Company Larson Operating Co. Zone Tested Towanda

Address 552 West Hyw. 4 Olmitz, Ks. 67564-8561 Elevation 1538 KB 1533 GL

Co. Rep / Geo. Tom Larson Cont. Vonfeldt #1 Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 7 Twp. 15-S Rge. 7W Co. Ellsworth, Co. State KS

No. of Copies 5 Disbtribution Sheet (Y, N) — Turnkey (Y, N) _____ Evaluation (Y, N) —

Interval Tested 1079 - 1100'

Anchor Length 21'

Top Packer Depth 1074'

Bottom Packer Depth 1079'

Total Depth 1100'

Mud Wt. 8.8 LCM 0 Vis. 39 WL N/A

Initial Str Wt./Lbs. 30,000 Unseated Str Wt/Lbs. 30,000

Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 35,000

Tool Weight 2100

Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓

Wt. Pipe Run N/A Drill Collar Run 211.78

Drill Pipe Size 4½ XH Ft. Run 874.22

Blow Description IF: Fair blow built to 6" in diesel bucket died off to weak surface blow.
ISI: Bled down for 2 mins. No blow back
FF:
FSI:

Recovery - Total Feet 122' GIP 120' Ft. in DC 122' Ft. in DP N/A

Rec. 122'	Feet of SGCWM	%gas	%oil	28 %water	70 %mud	2
Rec. 120'	Feet of GIP	%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 69° °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

RW 0.1 @ 68° °F Chlorides 85,000 ppm Recovery _____ Chlorides 4,500 ppm System

	AK-1	Alpine					
(A) Initital Hydrostatic Mud		529 PSI	Recorder No.	2346	Test ✓	700
(B) First Initial Flow Pressure		12 PSI	(depth)	1081'	Elec. Rec. ✓	150
(C) First Final Flow Pressure		40 PSI	Recorder No.	10991	Jars	
(D) Initial Shut-In Pressure		155 PSI	(depth)	1097'	Safety Jt.	
(E) Second Initial Flow Pressure		PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure		PSI	(depth)		Sampler ✓	200
(G) Final Shut-In Pressure		PSI	**Initial Opening**	165	Straddle	
(Q) Final Hydrostatic Mud		514 PSI	Initial Shut-In	60	Ext. Packer	
			Final Flow		Shale Packer	
			Final Shut-In		Mileage 105	105
			T-On Location	0330	Sub Total:	1155
			T-Started	0734	Std. By	
			T-Open	0605	Other	
			T-Pulled	0950	Total:	
			T-Out	1143		

Approved By Thomas A Fertal

Our Representative Darren Summers

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. # 17931 Date 11-8-03

Company Name Larson Operating, Co.

Lease Koralek #1-7 Test No. #1

County Ellsworth, Co. Ks Sec. 7 Twp. 15S Rng. 7W

SAMPLER RECOVERY

Gas 240 ML Trace ML

Oil ML

Mud 1200 ML

Water 2560 ML

Other ML

Pressure 350 PSI PSI

Total 4000 ML

PIT MUD ANALYSIS

Chlorides N/A ppm.

Resistivity — ohms @ — F

Viscosity 39

Mud Weight 8.8

Filtrate N/A

Other

SAMPLER ANALYSIS

Resistivity .08 ohms @ 75° F

Chlorides 94,000 ppm.

Gravity corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity ohms @ F

Chlorides ppm.

MIDDLE

Resistivity ohms @ F

Chlorides ppm.

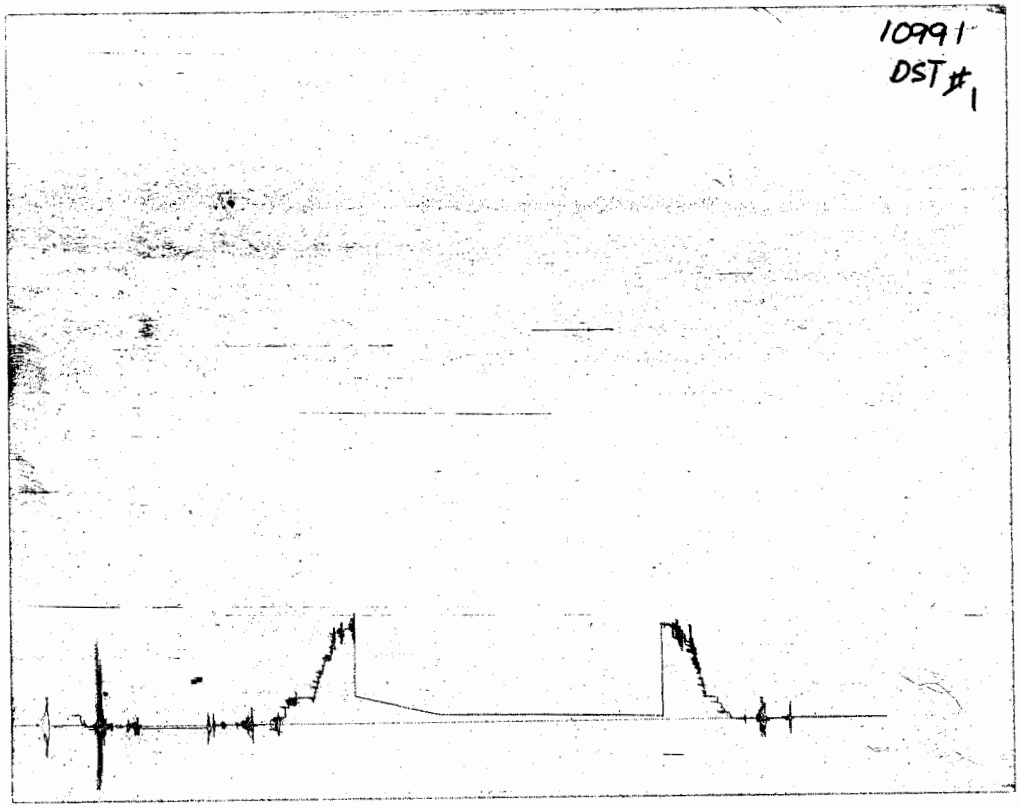
BOTTOM

Resistivity @ 0.1 ohms @ 68° F

Chlorides 85,000 ppm.

CHART PAGE

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



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

№ 17932

05/03

Test Ticket

Well Name & No. Koralek #1-10 Test No. #2 Date 11-9-03

Company Larson Operating, Co. Zone Tested Grand Haven

Address 552 W Hyw. 4 Olmitz, Ks. 67564-8581 Elevation 1538 KB 1533 GL

Co. Rep / Geo. Tom Larson Cont. Vonfeldt #1 Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 7 Twp. 15S Rge. 7W Co. Ellsworth State Ks

No. of Copies 5 Disbtribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 1753'-1778' Initial Str Wt./Lbs. 36,000 Unseated Str Wt/Lbs. 36,000

Anchor Length 25' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 42,000

Top Packer Depth 1748' Tool Weight 2100

Bottom Packer Depth 1753' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓

Total Depth 1778' Wt. Pipe Run 10.7A Drill Collar Run 211.78

Mud Wt. 9.0 LCM - 0 - Vis. 45 WL 8.0 Drill Pipe Size 4 1/2 XH Ft. Run 1530.22

Blow Description IF: Fair blow built to 6.0 in 11 mins.
ISI: Bled down for 10 mins
FF: Strong blow b.o.b in 10 sec. GTS in 15 mins. Gauge Gas.
FSI: Bled down for 10 mins. Very slight surface blowback

Recovery - Total Feet 2' GIP _____ Ft. in DC _____ Ft. in DP _____

Rec.	2'	Feet of	SOCM	4 %gas	%oil	%water	96 %mud
Rec.	1740'	Feet of	GIP	%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 81 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 4,500 ppm System

	AK-1	Alpine					
(A)Initital Hydrostatic Mud		915 PSI	Recorder No.	2346	Test	✓	700
(B) First Initial Flow Pressure		8 PSI	(depth)	1755'	Elec. Rec.	✓	150
(C) First Final Flow Pressure		9 PSI	Recorder No.	10991	Jars		
(D) Initial Shut-In Pressure		669 PSI	(depth)	1775'	Safety Jt.		
(E) Second Initial Flow Pressure		6 PSI	Recorder No.		Circ Sub		
(F) Second Final Flow Pressure		20 PSI	(depth)		Sampler	✓	200
(G) Final Shut-In Pressure		662 PSI	**Initial Opening**	15	Straddle		
(Q) Final Hydrostatic Mud		871 PSI	Initial Shut-In	90	Ext. Packer		
			Final Flow	60	Shale Packer		
			Final Shut-In	150	Mileage 34		34
			T-On Location	0700	Sub Total:		1084
			T-Started	0714	Std. By 1/2		15
			T-Open	0853	Other		
			T-Pulled	1408	Total:		1099
			T-Out	1533			

Approved By Thomas L. Fontaine

Our Representative Darrin Summers

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. # 17932 Date 11-9-03

Company Name Larson Operating, Co.

Lease Koratek # 1-7 Test No. # 2

County Ellsworth Co, KS Sec. 7 Twp. 15 S Rng. 7 W

SAMPLER RECOVERY

Gas 400 2.5 CF ML

Oil ML

Mud ML

Water ML

Other ML

Pressure 800 PSI

Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 4,500 ppm.

Resistivity 1 ohms @ 70° F

Viscosity 45

Mud Weight 9.0

Filtrate 8.0

Other N/A

SAMPLER ANALYSIS

Resistivity ohms @ F

Chlorides ppm.

Gravity corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity ohms @ F

Chlorides ppm.

MIDDLE

Resistivity ohms @ F

Chlorides ppm.

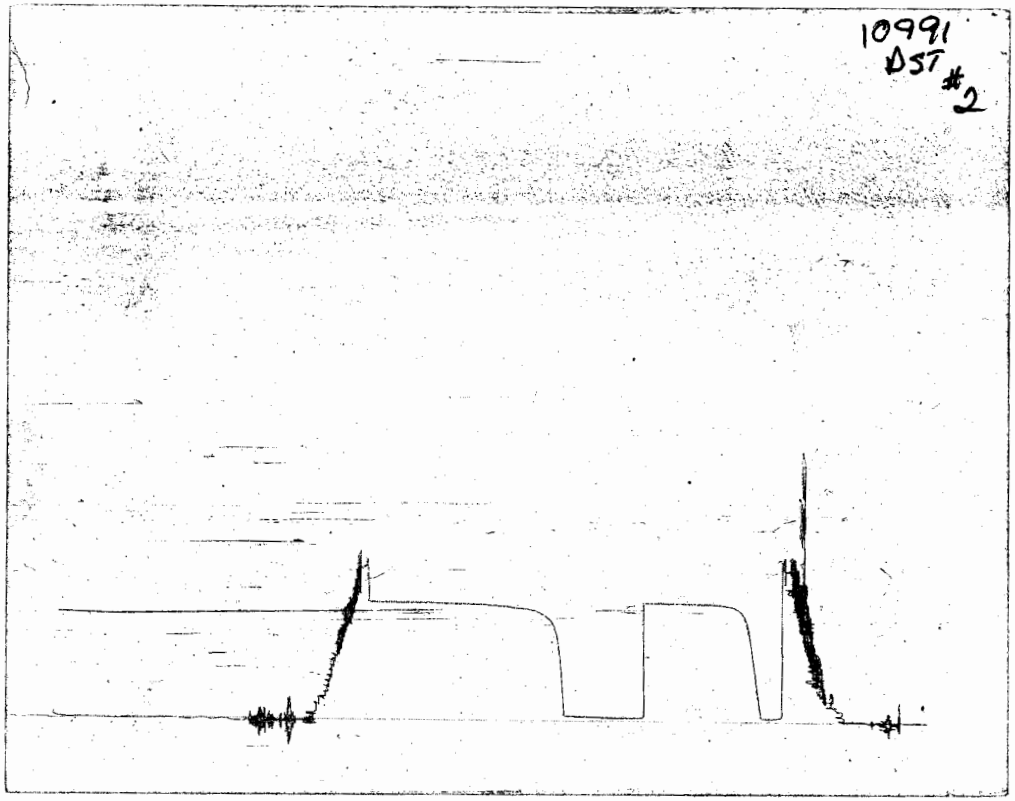
BOTTOM

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

05/03

№ 17933

Test Ticket

Well Name & No. Koralek #1-7 Test No. #3 Date 11-10-03

Company Larson Operating, Co. Zone Tested Cedar Vale

Address 522 W. Hyw. 4 Olmitz, KS. 67564-8561 Elevation 1538 KB 1533 GL

Co. Rep / Geo. Tom Larson Cont. Vonfeldt #1 Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 7 Twp. 15S Rge. 7W Co. Ellsworth, Co. State KS

No. of Copies 5 Disbtribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 1978 - 2042' Initial Str Wt./Lbs. 36,000 Unseated Str Wt/Lbs. 36,000

Anchor Length 64' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. _____

Top Packer Depth 1973' Tool Weight 2100

Bottom Packer Depth 1978' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓

Total Depth 2042' Wt. Pipe Run N/A Drill Collar Run 247.78

Mud Wt. 9.1 LCM 0 Vis. 46 WL 8.0 Drill Pipe Size 4½XH Ft. Run 1740.22

Blow Description IF: Weak blow built to 4" in 42 Bucket
ISI: Bled down for 2 min. No blow back.
FF: Very weak blow died in 30 sec.
FSI: No blow back

Recovery - Total Feet 25' GIP Trace Ft. in DC 25' Ft. in DP N/A

Rec. 25'	Feet of SGCM	4 %gas	%oil	%water	96 %mud	
Rec. Trace	Feet of OIP	%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 87 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 4,500 ppm System

	AK-1 Alpine				
(A) Initital Hydrostatic Mud	1026 PSI	Recorder No.	2346	Test ✓	700
(B) First Initial Flow Pressure	12 PSI	(depth)	1984'	Elec. Rec. ✓	150
(C) First Final Flow Pressure	21 PSI	Recorder No.	10991	Jars	
(D) Initial Shut-In Pressure	722 PSI	(depth)	2039'	Safety Jt.	
(E) Second Initial Flow Pressure	77 PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure	221 PSI	(depth)		Sampler ✓	200
(G) Final Shut-In Pressure	694 PSI	**Initial Opening**	15	Straddle	
(Q) Final Hydrostatic Mud	961 PSI	Initial Shut-In	90	Ext. Packer	
		Final Flow	20	Shale Packer	
		Final Shut-In	60	Mileage 34	34
		T-On Location	0420	Sub Total:	1084
		T-Started	0436	Std. By	
		T-Open	0623	Other	
		T-Pulled	0928	Total:	
		T-Out	1057		

Approved By _____

Our Representative Darren Schmeltzer

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. #17933 Date 11-10-03

Company Name Larson Operating, Co.

Lease Koralek #1-7 Test No. #3 (Cedar Vale)

County Ellsworth Co, Ks. Sec. 7 Twp. 15S Rng. 7W

SAMPLER RECOVERY

Gas Trace ML

Oil ML

Mud 4000 ML

Water ML

Other ML

Pressure 500 PSI

Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 4,500 ppm.

Resistivity 0.9 ohms @ 90 F

Viscosity 46

Mud Weight 9.1

Filtrate 8.0

Other N/A

SAMPLER ANALYSIS

Resistivity ohms @ F

Chlorides ppm.

Gravity corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity ohms @ F

Chlorides ppm.

MIDDLE

Resistivity ohms @ F

Chlorides ppm.

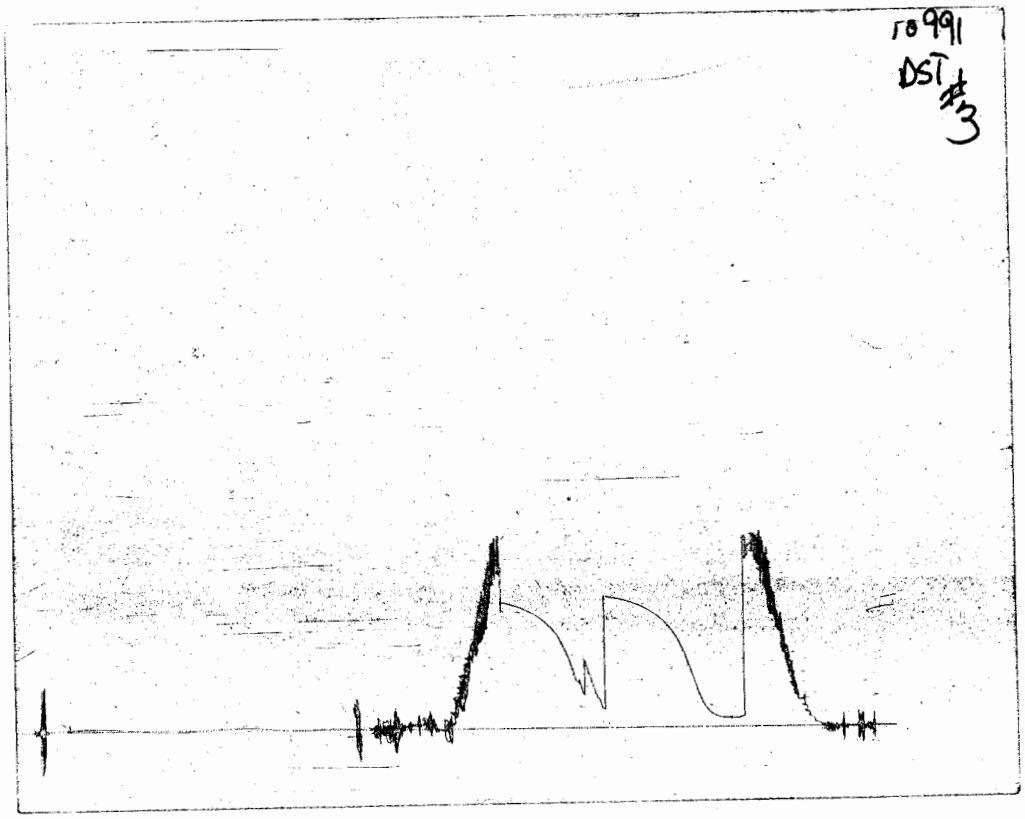
BOTTOM

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

05/03

№ 17934

Test Ticket

Well Name & No. Koralek #1-7 Test No. #4 Date 11-10-03

Company Larson Operating, Co. Zone Tested Stalnaker

Address 522 W. Hwy 4 Olmitz, KS. 67564-8561 Elevation 1538 KB 1533 GL

Co. Rep / Geo. Tom Larson Cont. Est. Ft. of Pay Por. %

Location: Sec. 7 Twp. 15S Rge. 7W Co. Ellsworth, Co. State KS

No. of Copies 5 Disbtribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 2110' - 2144' Initial Str Wt./Lbs 36,000 Unseated Str Wt/Lbs. 36,000

Anchor Length 34' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 40,000

Top Packer Depth 2105' Tool Weight 2100

Bottom Packer Depth 2110' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓

Total Depth 2144' Wt. Pipe Run N/A Drill Collar Run 185.86

Mud Wt. 9.3 LCM 0 Vis. 44 WL 8.8 Drill Pipe Size 4½ XH Ft. Run 1924.14

Blow Description IF: Strong blow b.o.b in 30 sec.
ISI: Bled down for 5 mins.
FF: Strong blow b.o.b in 10 sec. 675 Gauged Gas.
FSI: Bled down for 5 mins. No blow back.

Recovery - Total Feet 155' GIP 1955' Ft. in DC Ft. in DP

Rec. 155'	Feet of SOCM	4 %gas	%oil	%water	96 %mud
Rec. 1955'	Feet of GIP	%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 89 °F Gravity °API D @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 7000 ppm System

	AK-1	Alpine					
(A) Initial Hydrostatic Mud		1101	PSI	Recorder No.	2346	Test ✓	700
(B) First Initial Flow Pressure		30	PSI	(depth)		Elec. Rec. ✓	150
(C) First Final Flow Pressure		39	PSI	Recorder No.	10991	Jars	
(D) Initial Shut-In Pressure		861	PSI	(depth)		Safety Jt.	
(E) Second Initial Flow Pressure		65	PSI	Recorder No.		Circ Sub	
(F) Second Final Flow Pressure		84	PSI	(depth)		Sampler ✓	200
(G) Final Shut-In Pressure		953	PSI	**Initial Opening**	15	Straddle	
(Q) Final Hydrostatic Mud		1069	PSI	Initial Shut-In	90	Ext. Packer	
				Final Flow	60	Shale Packer	
				Final Shut-In	150	Mileage 34	34
				T-On Location	1715	Sub Total:	1084.00
				T-Started	1743	Std. By 1¼	37.50
				T-Open	1910	Other	
				T-Pulled	0025	Total:	$1121.50
				T-Out	0239		

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 Thomas H Fertal

Our Representative Darren Schmeidler

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 17934 Date 11-10-03

Company Name Larson Operating, Co.

Lease Korelek #1-7 Test No. #4

County _____ Sec. _____ Twp. _____ Rng. _____

SAMPLER RECOVERY

Gas 4000 3.5 ML

Oil _____ ML

Mud _____ ML

Water _____ ML

Other _____ ML

Pressure 850 PSI PSI

Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 7000 ppm.

Resistivity 0.9 ohms @ 65° F

Viscosity 44

Mud Weight 9.3

Filtrate 8.8

Other _____

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity 0.9 ohms @ 65° F

Chlorides 7,000 ppm.

MIDDLE

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

BOTTOM

Resistivity 0.9 ohms @ 65° F

Chlorides 7,000 ppm.

CHART PAGE

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