



## DRILL STEM TEST REPORT

Prepared For: **IA Operating Inc**

9915 W 21st ST STE B  
Wichita KS, 67205

ATTN: Jeff Lawler

### **Thompson Unit # 1-19**

### **19-11s-15w Russell KS**

Start Date: 2014.05.31 @ 22:08:00

End Date: 2014.06.01 @ 06:09:45

Job Ticket #: 54049                      DST #: 1

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

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**TRILOBITE  
TESTING, INC**

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9915 W 21st ST STE B  
Wichita KS, 67205  
ATTN: Jeff Lawler

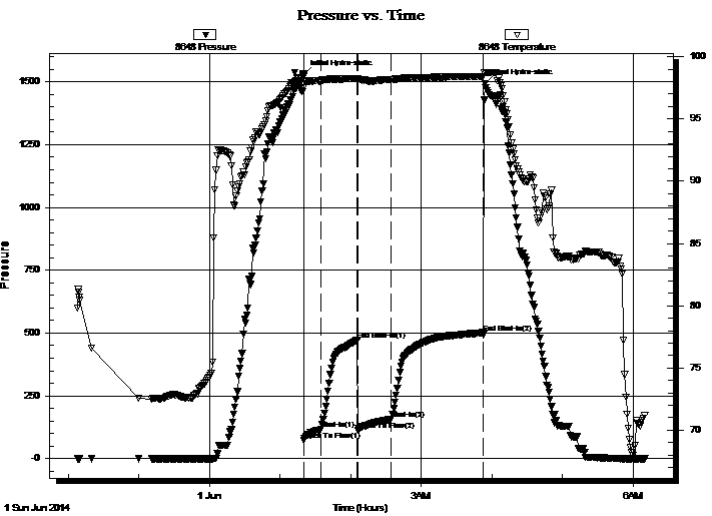
**19-11s-15w Russell KS**  
**Thompson Unit # 1-19**  
Job Ticket: 54049 **DST#: 1**  
Test Start: 2014.05.31 @ 22:08:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC "D"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 01:20:15  
Time Test Ended: 06:09:45  
Interval: **2982.00 ft (KB) To 3100.00 ft (KB) (TVD)**  
Total Depth: 3100.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 1792.00 ft (KB)  
1784.00 ft (CF)  
KB to GR/CF: 8.00 ft  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Cody Bloedorn  
Unit No: 73

**Serial #: 8648 Inside**  
Press@RunDepth: 156.33 psig @ 3083.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.05.31 End Date: 2014.06.01 Last Calib.: 2014.06.01  
Start Time: 22:08:05 End Time: 06:09:44 Time On Btm: 2014.06.01 @ 01:20:00  
Time Off Btm: 2014.06.01 @ 03:54:00

**TEST COMMENT:** 15 - IF- B.O.B. in 8 minutes  
30 - IS- No return  
30 - FF- B.O.B. in 1 1/2 minutes  
60 - FS- 1 1/4" return @ 15 Minutes, died back to surface blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1527.97	98.43	Initial Hydro-static
1	72.99	97.52	Open To Flow (1)
15	117.96	98.10	Shut-In(1)
46	471.11	98.24	End Shut-In(1)
47	113.90	98.18	Open To Flow (2)
75	156.33	98.17	Shut-In(2)
153	501.75	98.43	End Shut-In(2)
154	1493.16	98.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
186.00	GOCM, 20%O, 20%M, 60%G	2.34
45.00	Mud - show of oil, 100%M	0.63
0.00	496' of G.I.P.	0.00

## Gas Rates

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



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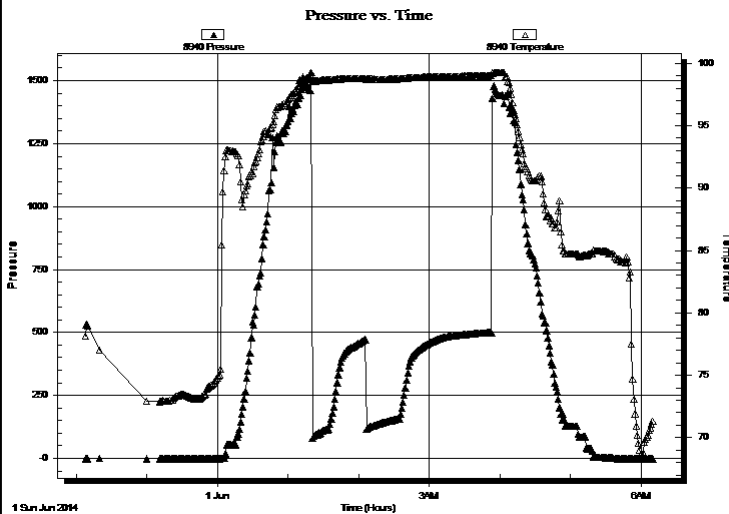
**19-11s-15w Russell KS**  
**Thompson Unit # 1-19**  
Job Ticket: 54049 **DST#: 1**  
Test Start: 2014.05.31 @ 22:08:00

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Deviated: No Whipstock: ft (KB)  
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Time Test Ended: 06:09:45  
Interval: **2982.00 ft (KB) To 3100.00 ft (KB) (TVD)**  
Total Depth: 3100.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 1792.00 ft (KB)  
1784.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8940 Outside**  
Press@RunDepth: psig @ 3083.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.05.31 End Date: 2014.06.01 Last Calib.: 2014.06.01  
Start Time: 22:08:05 End Time: 06:09:44 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 15 - IF- B.O.B. in 8 minutes  
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## PRESSURE SUMMARY

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## Gas Rates

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**TOOL DIAGRAM**

IA Operating Inc  
9915 W 21st ST STE B  
Wichita KS, 67205  
ATTN: Jeff Lawler

**19-11s-15w Russell KS**  
**Thompson Unit # 1-19**  
Job Ticket: 54049 **DST#: 1**  
Test Start: 2014.05.31 @ 22:08:00

## Tool Information

Drill Pipe:	Length: 2944.00 ft	Diameter: 3.80 inches	Volume: 41.30 bbl	Tool Weight: 2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 41.45 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	2982.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	118.00 ft			
Tool Length:	139.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2962.00	
Shut In Tool	5.00			2967.00	
Hydraulic tool	5.00			2972.00	
Packer	5.00			2977.00	21.00 Bottom Of Top Packer
Packer	5.00			2982.00	
Stubb	1.00			2983.00	
Perforations	5.00			2988.00	
Change Over Sub	1.00			2989.00	
Drill Pipe	93.00			3082.00	
Change Over Sub	1.00			3083.00	
Recorder	0.00	8648	Inside	3083.00	
Recorder	0.00	8940	Outside	3083.00	
Perforations	14.00			3097.00	
Bullnose	3.00			3100.00	118.00 Bottom Packers & Anchor

**Total Tool Length: 139.00**



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## FLUID SUMMARY

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### 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: 9.57 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	GOCM, 20%O, 20%M, 60%G	2.336
45.00	Mud - show of oil, 100%M	0.631
0.00	496' of G.I.P.	0.000

Total Length: 231.00 ft      Total Volume: 2.967 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

