



DRILL STEM TEST REPORT

Prepared For: **Valhalla Exploration L.L.C**
133 N Glendale Wichita KS 67206

ATTN: Derek Patterson

Ringwald #1-33

33-18s-10w Rice

Start Date: 2012.02.06 @ 19:30:00

End Date: 2012.02.07 @ 01:32:00

Job Ticket #: 18739 DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2012.02.07 @ 02:03:48

Valhalla Exploration L.L.C

33-18s-10w Rice

Ringwald #1-33

DST # 2

Topeka (Plattsmouth)

2012.02.06



DRILL STEM TEST REPORT

Valhalla Exploration L.L.C
 133 N Glendale Wichita KS 67206
 ATTN: Derek Patterson

33-18s-10w Rice
Ringwald #1-33
 Job Ticket: 18739 **DST#: 2**
 Test Start: 2012.02.06 @ 19:30:00

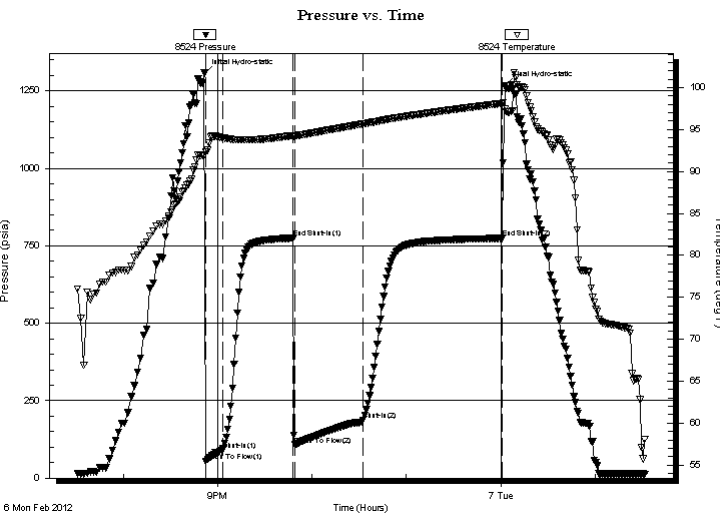
GENERAL INFORMATION:

Formation: **Topeka (Plattsmouth)**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:52:30
 Time Test Ended: 01:32:00
 Interval: **2665.00 ft (KB) To 2690.00 ft (KB) (TVD)**
 Total Depth: 2690.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 3320-GB-70
 Reference Elevations: 1743.00 ft (KB)
 1735.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8524

Press @ RunDepth: 186.06 psia @ ft (KB) Capacity: 5000.00 psia
 Start Date: 2012.02.06 End Date: 2012.02.07 Last Calib.: 2012.02.07
 Start Time: 19:30:00 End Time: 01:32:00 Time On Btm: 2012.02.06 @ 20:51:30
 Time Off Btm: 2012.02.07 @ 00:02:30

TEST COMMENT: 1st Opening 10 Minutes-Fair blow built 9 inches into bucket w water in 10 minutes
 1st Shut-in 45 Minutes-Very weak surface
 2nd Opening 45 Minutes-Weak building blow built bottom of bucket in 23 minutes
 2nd Shut-in 90 Minutes-1/4inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1307.42	91.94	Initial Hydro-static
1	54.36	92.30	Open To Flow (1)
12	89.19	94.03	Shut-In(1)
57	775.28	94.29	End Shut-In(1)
58	107.63	94.28	Open To Flow (2)
101	186.06	95.67	Shut-In(2)
190	774.13	98.11	End Shut-In(2)
191	1268.01	97.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Gassey Oil cut Mud	0.30
0.00	10% Gas 30% Oil 60% Mud	0.00
60.00	Gassey Oil cut Muddy Water	0.30
0.00	10% Gas 20% Oil 30% Mud 40% Water	0.00
180.00	Water 5 %Mud 95%Water	0.89
0.00	120 Feet Gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Valhalla Exploration L.L.C
 133 N Glendale Wichita KS 67206
 ATTN: Derek Patterson

33-18s-10w Rice
Ringwald #1-33
 Job Ticket: 18739 **DST#: 2**
 Test Start: 2012.02.06 @ 19:30:00

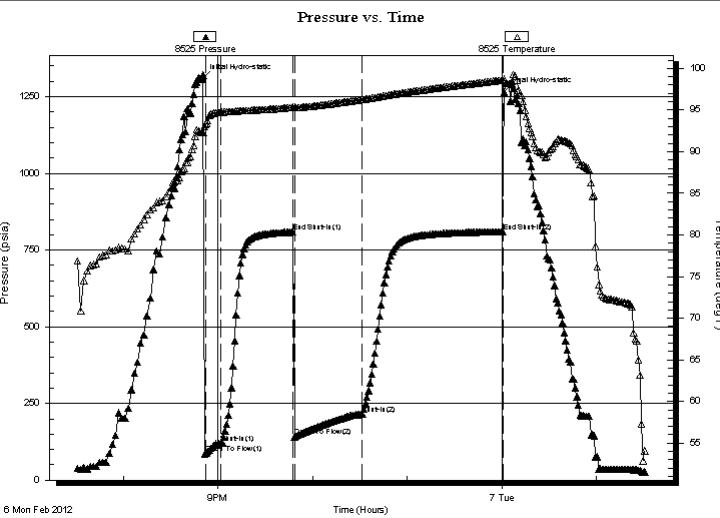
GENERAL INFORMATION:

Formation: **Topeka (Plattsmouth)**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:52:30
 Time Test Ended: 01:32:00
 Interval: **2665.00 ft (KB) To 2690.00 ft (KB) (TVD)**
 Total Depth: 2690.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 3320-GB-70
 Reference Elevations: 1743.00 ft (KB)
 1735.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8525

Press @ RunDepth: 809.96 psia @ ft (KB) Capacity: 5000.00 psia
 Start Date: 2012.02.06 End Date: 2012.02.07 Last Calib.: 2012.02.07
 Start Time: 19:30:00 End Time: 01:31:00 Time On Btm: 2012.02.06 @ 20:50:00
 Time Off Btm: 2012.02.07 @ 00:01:30

TEST COMMENT: 1st Opening 10 Minutes-Fair blow built 9 inches into bucket w water in 10 minutes
 1st Shut-in 45 Minutes-Very weak surface
 2nd Opening 45 Minutes-Weak building blow built bottom of bucket in 23 minutes
 2nd Shut-in 90 Minutes-1/4inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1309.64	92.25	Initial Hydro-static
2	86.65	93.29	Open To Flow (1)
12	121.40	94.75	Shut-In(1)
58	808.87	95.33	End Shut-In(1)
59	141.71	95.26	Open To Flow (2)
102	215.56	96.26	Shut-In(2)
191	809.96	98.60	End Shut-In(2)
192	1265.45	98.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Gassey Oil cut Mud	0.30
0.00	10% Gas 30% Oil 60% Mud	0.00
60.00	Gassey Oil cut Muddy Water	0.30
0.00	10% Gas 20% Oil 30% Mud 40% Water	0.00
180.00	Water 5 %Mud 95%Water	0.89
0.00	120 Feet Gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Valhalla Exploration L.L.C
 133 N Glendale Wichita KS 67206
 A T T N : Derek Patterson

33-18s-10w Rice
Ringwald #1-33
 Job Ticket: 18739 **DST#: 2**
 Test Start: 2012.02.06 @ 19:30:00

Tool Information

Drill Pipe:	Length: 2365.00 ft	Diameter: 3.80 inches	Volume: 33.17 bbl	Tool Weight: 1000.00 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: 300.00 ft	Diameter: 2.25 inches	Volume: 1.48 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 34.65 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	2665.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	2642.00	
Hydraulic Tool	5.00			2647.00	
Jars	6.00			2653.00	
Safety Joint	2.00			2655.00	
Packer	5.00			2660.00	28.00 Bottom Of Top Packer
Packer	5.00			2665.00	
Anchor	20.00			2685.00	
Recorder	1.00	8524	Inside	2686.00	
Recorder	1.00	8525	Outside	2687.00	
Bullnose	3.00			2690.00	25.00 Bottom Packers & Anchor
Total Tool Length:	53.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Valhalla Exploration L.L.C
 133 N Glendale Wichita KS 67206
 ATTN: Derek Patterson

33-18s-10w Rice
Ringwald #1-33
 Job Ticket: 18739 **DST#: 2**
 Test Start: 2012.02.06 @ 19:30:00

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: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 5800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Gassey Oil cut Mud	0.295
0.00	10% Gas 30% Oil 60% Mud	0.000
60.00	Gassey Oil cut Muddy Water	0.295
0.00	10% Gas 20% Oil 30% Mud 40% Water	0.000
180.00	Water 5 %Mud 95%Water	0.885
0.00	120 Feet Gas in pipe	0.000
0.00	Chlorides 50,000 Resisivity .25 @56 deg	0.000

Total Length: 300.00 ft Total Volume: 1.475 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

