



DRILL STEM TEST REPORT

Prepared For: **Valhalla Exploration LLC**

8100 East 22ND Street North
Building 1800-2
Wichita, Kansas 67208+4022

ATTN: Derek Patterson

KK #1-27

27/18S/10W/Rice

Start Date: 2014.05.10 @ 07:43:00

End Date: 2014.05.10 @ 10:53:00

Job Ticket #: 18258 DST #: 1

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

Printed: 2014.05.10 @ 11:01:12



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27/18S/10W/Rice
KK #1-27
 Job Ticket: 18258 **DST#: 1**
 Test Start: 2014.05.10 @ 07:43:00

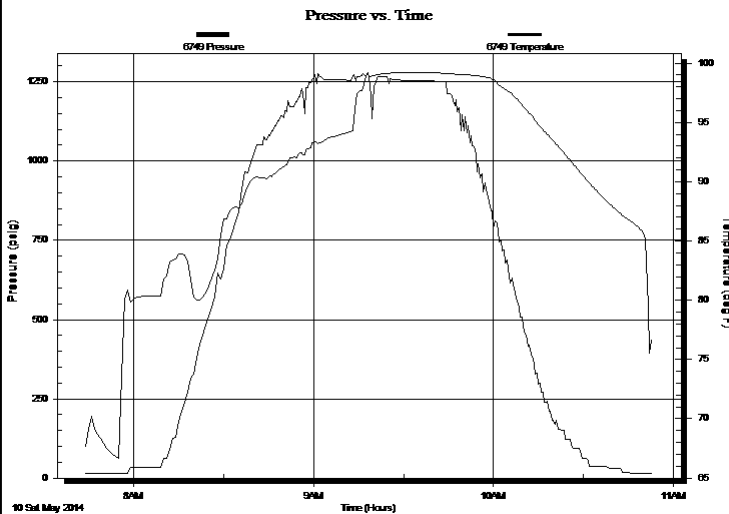
GENERAL INFORMATION:

Formation: **Platts mouth**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 10:53:00
 Interval: **2654.00 ft (KB) To 2684.00 ft (KB) (TVD)**
 Total Depth: 2684.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition:
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 3325 Great Bend/50
 Reference Elevations: 1755.00 ft (KB)
 1746.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6749

Press@RunDepth: psig @ ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.05.10 End Date: 2014.05.10 Last Calib.: 2014.05.10
 Start Time: 07:43:00 End Time: 10:53:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: Hit bridge 12 stands from bottom but w went through, Tagged bottom 15 foot high, w as able to slide 3 foot down still 12 foot high, pull test to condition hole



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
279.00	Mud 100%	3.91

Gas Rates

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



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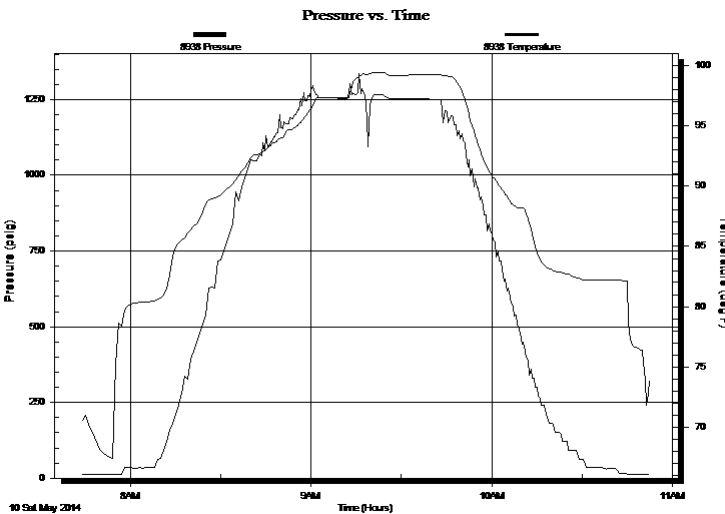
GENERAL INFORMATION:

Formation: Platts mouth			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened:		Tester: Ken Swinney	
Time Test Ended: 10:53:00		Unit No: 3325 Great Bend/50	
Interval: 2654.00 ft (KB) To 2684.00 ft (KB) (TVD)		Reference Elevations: 1755.00 ft (KB)	
Total Depth: 2684.00 ft (KB) (TVD)		1746.00 ft (CF)	
Hole Diameter: 7.80 inches	Hole Condition:	KB to GR/CF: 9.00 ft	

Serial #: 8938

Press@RunDepth:	psig @	ft (KB)	Capacity:	5000.00 psig
Start Date:	2014.05.10	End Date:	2014.05.10	Last Calib.: 2014.05.10
Start Time:	07:43:00	End Time:	10:52:30	Time On Btm:
				Time Off Btm:

TEST COMMENT: Hit bridge 12 stands from bottom but w went through, Tagged bottom 15 foot high, w as able to slide 3 foot down still 12 foot high, pull test to condition hole



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
279.00	Mud 100%	3.91

Gas Rates

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



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TOOL DIAGRAM

Valhalla Exploration LLC

27/18S/10W/Rice

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KK #1-27

Job Ticket: 18258

DST#: 1

Test Start: 2014.05.10 @ 07:43:00

Tool Information

Drill Pipe:	Length: 2657.00 ft	Diameter: 3.80 inches	Volume: 37.27 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 36000.00 lb
			Total Volume: 37.27 bbl	Tool Chased 3.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	2654.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			2632.00	
Hydraulic tool	5.00			2637.00	
Jars	5.00			2642.00	
Safety Joint	2.00			2644.00	
Top Packer	5.00			2649.00	
Packer	5.00			2654.00	27.00 Bottom Of Top Packer
Anchor	25.00			2679.00	
Recorder	1.00	6749	Inside	2680.00	
Recorder	1.00	8938	Outside	2681.00	
Bullnose	3.00			2684.00	30.00 Anchor Tool
Total Tool Length:	57.00				



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FLUID SUMMARY

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Job Ticket: 18258

DST#: 1

Test Start: 2014.05.10 @ 07:43:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 46.00 sec/qt
Water Loss: 9.20 in³
Resistivity: ohm.m
Salinity: 5700.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
279.00	Mud 100%	3.914

Total Length: 279.00 ft Total Volume: 3.914 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

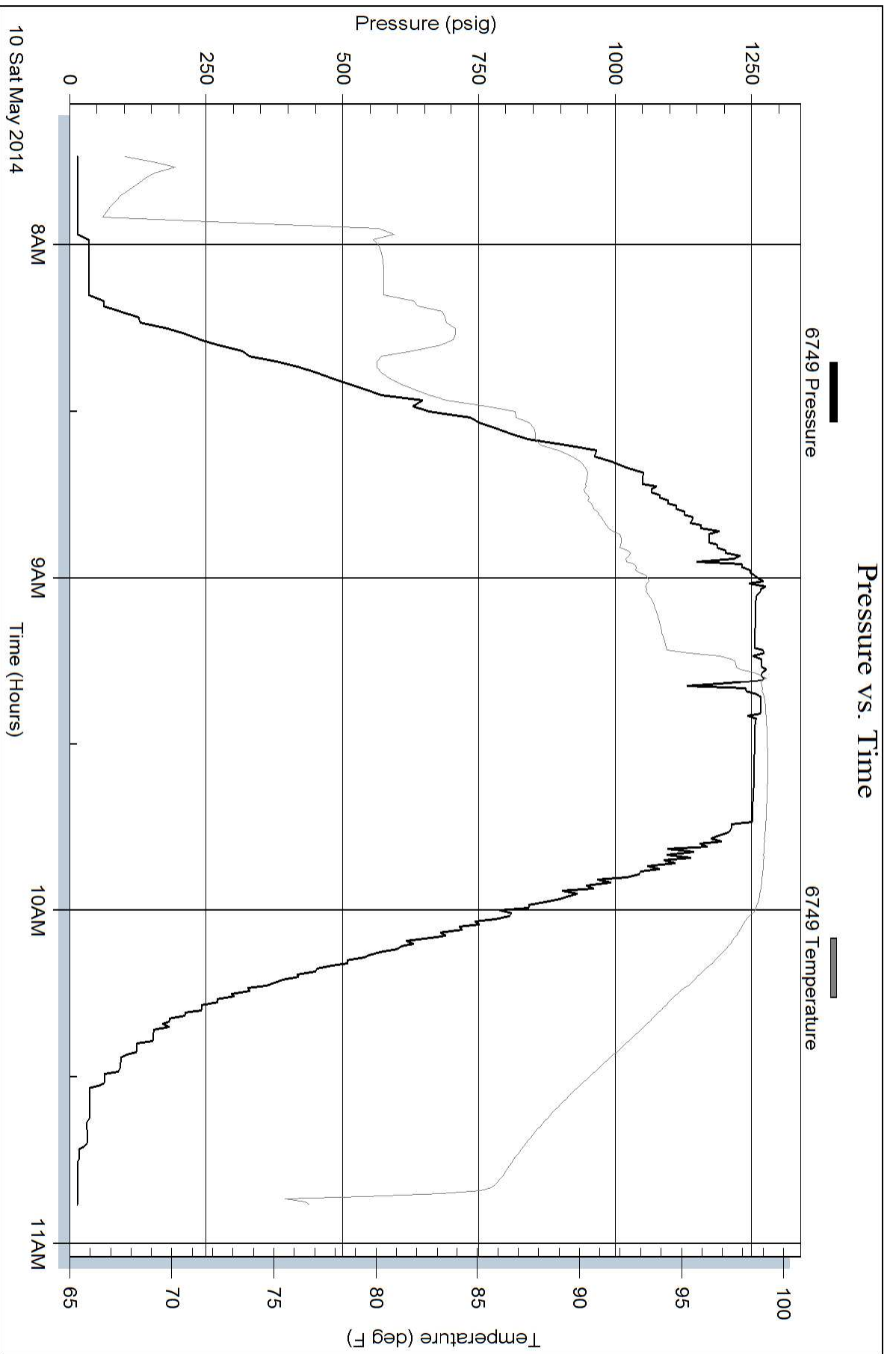
Recovery Comments:

Serial #: 6749

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DST Test Number: 1



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