



DRILL STEM TEST REPORT

Prepared For: **Valhalla Exploration L.L.C.**

133 North Glendale
Wichita, Kansas 67208

ATTN: Adam Kennedy

Morgenstern #1-2

2-17s-13w Barton

Start Date: 2011.12.06 @ 07:00:00

End Date: 2011.12.06 @ 00:00:00

Job Ticket #: 17663 DST #: 1

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

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Job Ticket: 17663

DST#: 1

ATTN: Adam Kennedy

Test Start: 2011.12.06 @ 07:00:00

GENERAL INFORMATION:

Formation: **Kansas City "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-44

Interval: 3072.00 ft (KB) To 3103.00 ft (KB) (TVD)

Reference Elevations: 1867.00 ft (KB)

Total Depth: 3103.00 ft (KB) (TVD)

1859.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press @ Run Depth: 799.46 psia @ ft (KB)

Capacity: psia

Start Date: 2011.12.07

End Date: 2011.12.07

Last Calib.: 1899.12.30

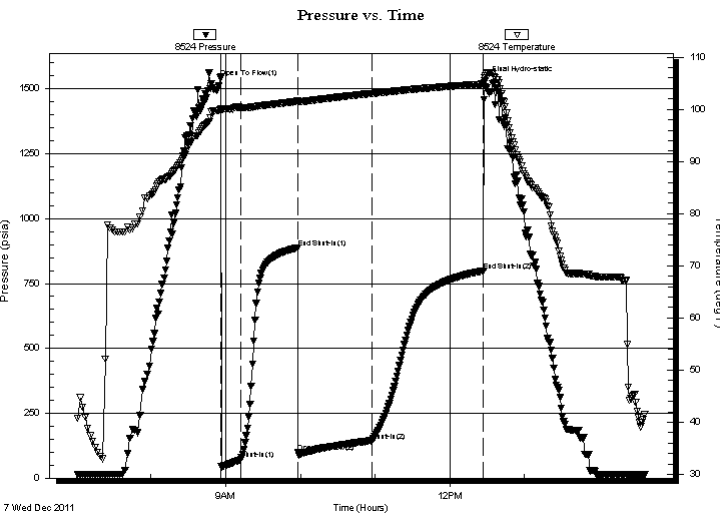
Start Time: 07:00:00

End Time: 14:37:00

Time On Btm:

Time Off Btm: 2011.12.07 @ 12:28:00

TEST COMMENT: 1st Opening 19 Minutes Weak blow for 3 minutes and died to weak intermittent than built to the bottom of a 5 gallon bucket in 12 minutes
1st Shut-In 45 Minutes-No blow back
2nd Opening 60 Minutes-Fair blow built to the bottom of a 5 gallon bucket in 6 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1545.44	100.08	Open To Flow (1)
16	71.65	100.37	Shut-In(1)
62	887.95	101.53	End Shut-In(1)
62	98.53	101.40	Open To Flow (2)
122	143.48	103.03	Shut-In(2)
211	799.46	104.84	End Shut-In(2)
212	1530.52	106.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	200 feet of Gas in the pipe	0.00
40.00	Clean gassy oil 35%Gas 65%Oil	0.20
90.00	mud cut gassy oil	0.44
0.00	35%Gas 45%Oil 20%Mud	0.00
60.00	Muddy Gassy Oil	0.30
0.00	30%Gas 30%Oil 40% Mud	0.00

Gas Rates

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



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DST#: 1

ATTN: Adam Kennedy

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GENERAL INFORMATION:

Formation: **Kansas City "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-44

Interval: 3072.00 ft (KB) To 3103.00 ft (KB) (TVD)

Reference Elevations: 1867.00 ft (KB)

Total Depth: 3103.00 ft (KB) (TVD)

1859.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8419

Press @ Run Depth: 802.63 psia @ ft (KB)

Capacity: psia

Start Date: 2011.12.07

End Date: 2011.12.07

Last Calib.: 1899.12.30

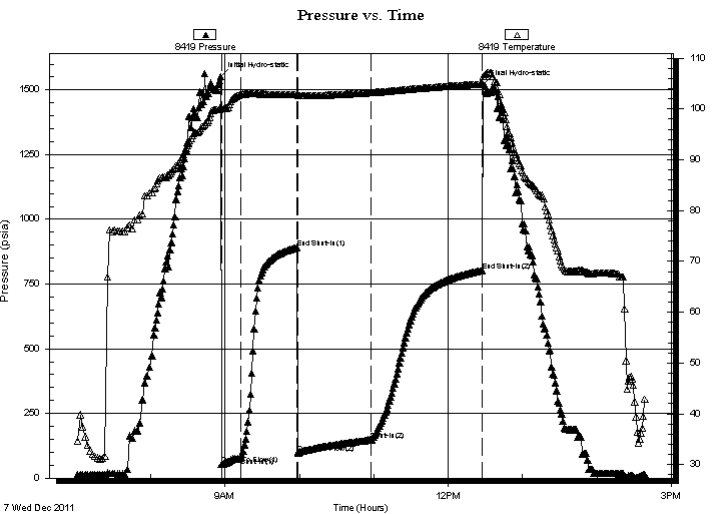
Start Time: 07:00:00

End Time: 14:38:30

Time On Btm: 2011.12.07 @ 08:56:30

Time Off Btm: 2011.12.07 @ 12:28:30

TEST COMMENT: 1st Opening 19 Minutes Weak blow for 3 minutes and died to weak intermittent than built to the bottom of a 5 gallon bucket in 12 minutes
 1st Shut-In 45 Minutes-No blow back
 2nd Opening 60 Minutes-Fair blow built to the bottom of a 5 gallon bucket in 6 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1551.94	100.42	Initial Hydro-static
1	54.75	100.15	Open To Flow (1)
16	80.42	102.84	Shut-In(1)
62	890.97	102.78	End Shut-In(1)
63	97.76	102.63	Open To Flow (2)
122	148.10	103.23	Shut-In(2)
211	802.63	104.92	End Shut-In(2)
212	1520.99	106.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	200 feet of Gas in the pipe	0.00
40.00	Clean gassy oil 35%Gas 65%Oil	0.20
90.00	mud cut gassy oil	0.44
0.00	35%Gas 45%Oil 20%Mud	0.00
60.00	Muddy Gassy Oil	0.30
0.00	30%Gas 30%Oil 40% Mud	0.00

Gas Rates

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



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TOOL DIAGRAM

Valhalla Exploration L.L.C.

2-17s-13w Barton

133 North Glendale
Wichita, Kansas 67208

Morgenstern #1-2

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DST#: 1

ATTN: Adam Kennedy

Test Start: 2011.12.06 @ 07:00:00

Tool Information

Drill Pipe:	Length: 2759.00 ft	Diameter: 3.80 inches	Volume: 38.70 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 310.00 ft	Diameter: 2.25 inches	Volume: 1.52 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 40.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3072.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	59.00 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	3049.00	
Hydraulic Tool	5.00			3054.00	
Jars	6.00			3060.00	
Safety Joint	2.00			3062.00	
Packer	5.00			3067.00	28.00 Bottom Of Top Packer
Packer	5.00			3072.00	
Anchor	26.00			3098.00	
Recorder	1.00	8419	Inside	3099.00	
Recorder	1.00	8524	Outside	3100.00	
Bullnose	3.00			3103.00	31.00 Bottom Packers & Anchor
Total Tool Length:	59.00				



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 51.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 4700.00 ppm
Filter Cake: 1.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	200 feet of Gas in the pipe	0.000
40.00	Clean gassy oil 35%Gaas 65%Oil	0.197
90.00	mud cut gassy oil	0.443
0.00	35%Gas 45%Oil 20%Mud	0.000
60.00	Muddy Gassy Oil	0.295
0.00	30%Gas 30%Oil 40% Mud	0.000
60.00	Muddy Gassy Oil	0.295
0.00	30%Gas 35%Oil 35%Mud	0.000

Total Length: 250.00 ft Total Volume: 1.230 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

