



DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating**

1700 North Waterfront Parkway Building 600
Wichita Kansas 67206

ATTN: Steve Carl

9/14S/31W Gove Co.

Hund # 2-9

Start Date: 2011.05.11 @ 04:10:00

End Date: 2011.05.11 @ 12:53:00

Job Ticket #: 16532 DST #: 4

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

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Hund # 2-9

1700 North Waterfront Parkway Building 600
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Job Ticket: 16532

DST#: 4

ATTN: Steve Carl

Test Start: 2011.05.11 @ 04:10:00

GENERAL INFORMATION:

Formation: **Johnson Zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:23:30

Time Test Ended: 12:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Scott City/94

Interval: 4544.00 ft (KB) To 4592.00 ft (KB) (TVD)

Reference Elevations: 2936.00 ft (KB)

Total Depth: 4592.00 ft (KB) (TVD)

2931.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8400 Outside

Press @ Run Depth: 191.86 psia @ 4588.73 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.05.11

End Date: 2011.05.11

Last Calib.: 2011.05.11

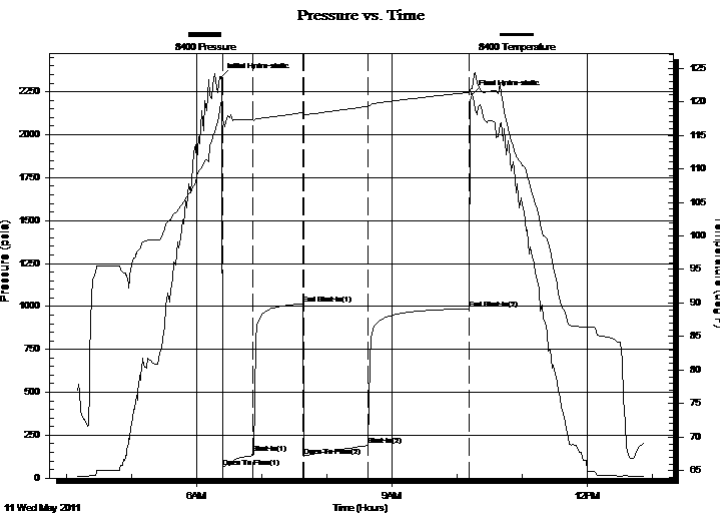
Start Time: 04:10:10

End Time: 12:52:59

Time On Btm: 2011.05.11 @ 06:22:00

Time Off Btm: 2011.05.11 @ 10:13:30

TEST COMMENT: 1ST Opening 30 Minutes Fair blow built to 7 inches into the water
1ST Shut-In 45 Minutes no blow back
2ND Opening 60 Minutes Fair blow built to the bottom of a 5 gallon bucket in 56 minutes
2ND Shut-In 90 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2332.09	119.90	Initial Hydro-static
2	60.91	117.81	Open To Flow (1)
29	143.08	117.36	Shut-In(1)
76	1015.03	118.39	End Shut-In(1)
77	130.15	118.14	Open To Flow (2)
136	191.86	119.30	Shut-In(2)
229	987.63	121.39	End Shut-In(2)
232	2234.54	121.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Clean Oil // Oil 100%	0.01
126.00	Oil cut Watery Mud	0.71
0.00	10% Oil 20% Water 70% Mud	0.00
63.00	Oil Spotted Mud/100% Mud	0.88
63.00	Mud cut Water with skim of Oil on top	0.88
0.00	20% Mud 80% Water	0.00

Gas Rates

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



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GENERAL INFORMATION:

Formation: **Johnson Zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:23:30

Time Test Ended: 12:53:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Scott City/94

Interval: 4544.00 ft (KB) To 4592.00 ft (KB) (TVD)

Reference Elevations: 2936.00 ft (KB)

Total Depth: 4592.00 ft (KB) (TVD)

2931.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8405

Inside

Press @ Run Depth: 987.12 psia @ 4587.73 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.05.11

End Date:

2011.05.11

Last Calib.:

2011.05.11

Start Time: 04:10:01

End Time:

12:53:00

Time On Btm:

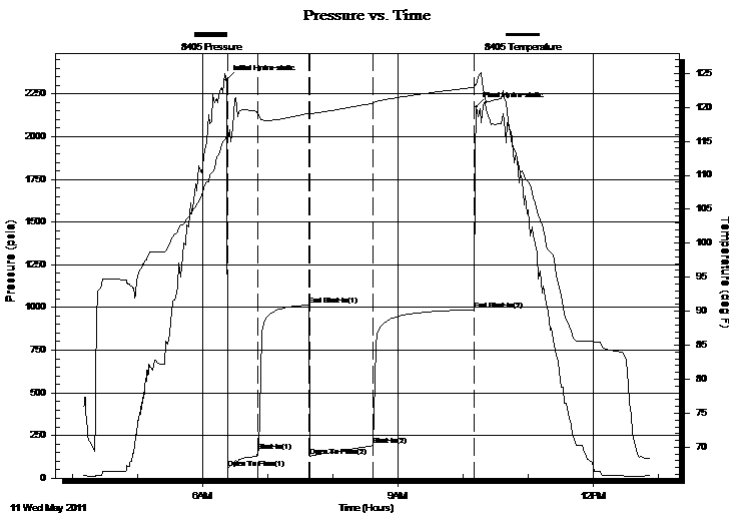
2011.05.11 @ 06:21:30

Time Off Btm:

2011.05.11 @ 10:12:00

TEST COMMENT: 1ST Opening 30 Minutes Fair blow built to 7 inches into the water
1ST Shut-In 45 Minutes no blow back
2ND Opening 60 Minutes Fair blow built to the bottom of a 5 gallon bucket in 56 minutes
2ND Shut-In 90 Minutes no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2334.61	115.72	Initial Hydro-static
2	58.73	115.29	Open To Flow (1)
30	156.82	119.12	Shut-In(1)
76	1014.39	119.11	End Shut-In(1)
78	130.48	119.07	Open To Flow (2)
136	190.55	120.59	Shut-In(2)
229	987.12	122.93	End Shut-In(2)
231	2174.12	123.27	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
3.00	Clean Oil // Oil 100%	0.01
126.00	Oil cut Watery Mud	0.71
0.00	10% Oil 20% Water 70% Mud	0.00
63.00	Oil Spotted Mud/100% Mud	0.88
63.00	Mud cut Water with skim of Oil on top	0.88
0.00	20% Mud 80% Water	0.00

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



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TOOL DIAGRAM

Grand Mesa Operating

Hund # 2-9

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DST#: 4

ATTN: Steve Carl

Test Start: 2011.05.11 @ 04:10:00

Tool Information

Drill Pipe:	Length: 4412.00 ft	Diameter: 3.80 inches	Volume: 61.89 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: 119.12 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 46000.00 lb
			Total Volume: 62.48 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.12 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4544.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.73 ft			
Tool Length:	75.73 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			4521.00	
Hydraulic Tool	5.00			4526.00	
Jars	6.00			4532.00	
Safety Joint	2.00			4534.00	
Packer	5.00			4539.00	28.00 Bottom Of Top Packer
Packer	5.00			4544.00	
Perforations	5.00			4549.00	
Change Over Sub	0.75			4549.75	
Drill Pipe	31.23			4580.98	
Change Over Sub	0.75			4581.73	
Perforations	5.00			4586.73	
Recorder	1.00	8405	Inside	4587.73	
Recorder	1.00	8400	Outside	4588.73	
Bull Plug	3.00			4591.73	47.73 Bottom Packers & Anchor

Total Tool Length: 75.73



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FLUID SUMMARY

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Test Start: 2011.05.11 @ 04:10:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 9.59 in³
Resistivity: ohm.m
Salinity: 4400.00 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
3.00	Clean Oil // Oil 100%	0.015
126.00	Oil cut Watery Mud	0.710
0.00	10% Oil 20% Water 70% Mud	0.000
63.00	Oil Spotted Mud/100% Mud	0.884
63.00	Mud cut Water with skim of Oil on top	0.884
0.00	20% Mud 80% Water	0.000
63.00	Oil spotted Mud/100% Mud	0.884
0.00	Chlorides were 62,000	0.000
0.00	Resistivity was .22@ 52 degrees	0.000

Total Length: 318.00 ft Total Volume: 3.377 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

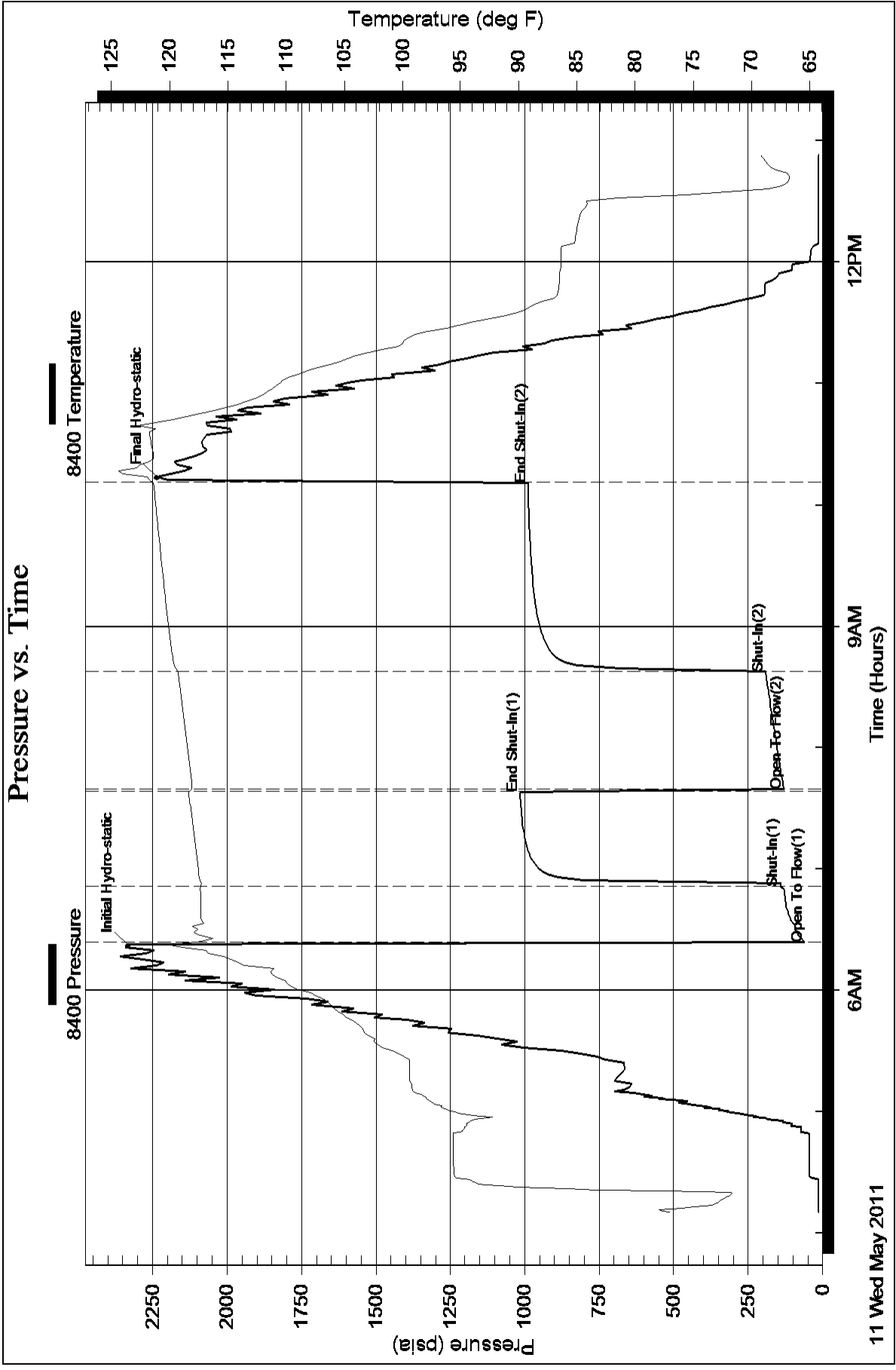
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

