



DRILL STEM TEST REPORT

Prepared For: **SAMUEL GARY JR & ASSOCIATES INC**

SAMUEL GARY JR & ASSOCIATES INC
1515 WYNKOOP ST SUITE 700
DENVER CO 80202

ATTN: CLAYTON CAMOZZI

3-17S-16W RUSH

YARMER ET AL 1-3

Start Date: 2010.08.01 @ 20:56:00

End Date: 2010.08.02 @ 04:20:30

Job Ticket #: 16338 DST #: 1

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

Printed: 2010.08.04 @ 08:11:15

SAMUEL GARY JR & ASSOCIATES INC
YARMER ET AL 1-3
3-17S-16W RUSH
DST # 1
LANSING C-D
2010.08.01



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YARMER ET AL 1-3

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3-17S-16W RUSH

Job Ticket: 16338

DST#: 1

Test Start: 2010.08.01 @ 20:56:00

GENERAL INFORMATION:

Formation: **LANSING C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:32:30

Time Test Ended: 04:20:30

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-GB-56

Interval: 3275.00 ft (KB) To 3324.00 ft (KB) (TVD)

Reference Elevations: 1984.00 ft (KB)

Total Depth: 3324.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 6.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8405 Inside

Press @ RunDepth: 91.08 psia @ 3320.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.08.01

End Date:

2010.08.02

Last Calib.:

2010.08.02

Start Time: 20:58:00

End Time:

04:20:30

Time On Btm:

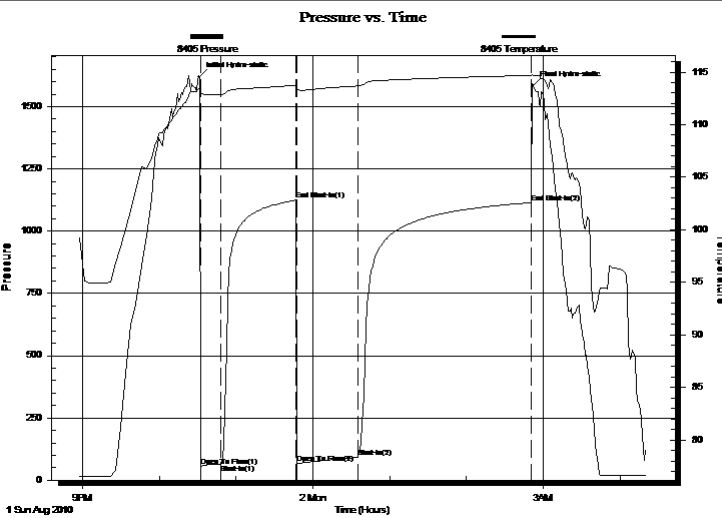
2010.08.01 @ 22:31:30

Time Off Btm:

2010.08.02 @ 02:52:00

TEST COMMENT: 15/INITIAL OPEN:WEAK BLOW BUILT 3 INCHES INTO WATER IN 15 MINUTES
 60/INITIAL SHUT IN:NO BLOW BACK
 45/FINAL OPEN:WEAK BLOW BUILT 7 INCHES INTO WATER IN 45 MINUTES
 135/FINAL SHUT IN:NO BLOW BACK

PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1619.07	113.47	Initial Hydro-static
1	56.38	112.98	Open To Flow (1)
17	63.42	112.85	Shut-In(1)
75	1123.72	113.74	End Shut-In(1)
76	68.77	113.34	Open To Flow (2)
124	91.08	113.68	Shut-In(2)
259	1114.26	114.69	End Shut-In(2)
261	1586.16	114.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	SLIGHTLY OIL CUT MUDDY WATER	0.35
	5%OIL 30%MUD 65%WATER	0.00
60.00	Very slightly oil cut muddy w ater	0.84
	1%OIL 40%MUD 59%WATER	0.00
	CHLORIDES 41,000	0.00
	Resistivity .11 @ 71 Degrees	0.00

Gas Rates

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



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TOOL DIAGRAM

SAMUEL GARY JR & ASSOCIATES INC

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Job Ticket: 16338

DST#: 1

Test Start: 2010.08.01 @ 20:56:00

Tool Information

Drill Pipe:	Length: 3252.00 ft	Diameter: 3.80 inches	Volume: 45.62 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 59000.00 lb
			<u>Total Volume: 45.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 54.00 lb
Depth to Top Packer:	3275.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	78.00 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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Change Over Sub	1.00			3247.00	
Shut-In Tool	5.00			3252.00	
Hydraulic Tool	5.00			3257.00	
Jars	6.00			3263.00	
Safety Joint	2.00			3265.00	
Packer	5.00			3270.00	29.00 Bottom Of Top Packer
Packer	5.00			3275.00	
Change Over Sub	0.75			3275.75	
Drill Pipe	31.50			3307.25	
Change Over Sub	0.75			3308.00	
Perforations	11.00			3319.00	
Recorder	1.00	8405	Inside	3320.00	
Recorder	1.00	8524	Outside	3321.00	
Bullnose	3.00			3324.00	49.00 Bottom Packers & Anchor

Total Tool Length: 78.00



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FLUID SUMMARY

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DST#: 1

Test Start: 2010.08.01 @ 20:56:00

Mud and Cushion Information

Mud Type: Gel Chem
 Mud Weight: 9.00 lb/gal
 Viscosity: 54.00 sec/qt
 Water Loss: 8.76 in³
 Resistivity: 0.11 ohm.m
 Salinity: 3900.00 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: 41000 ppm

Recovery Information

Recovery Table

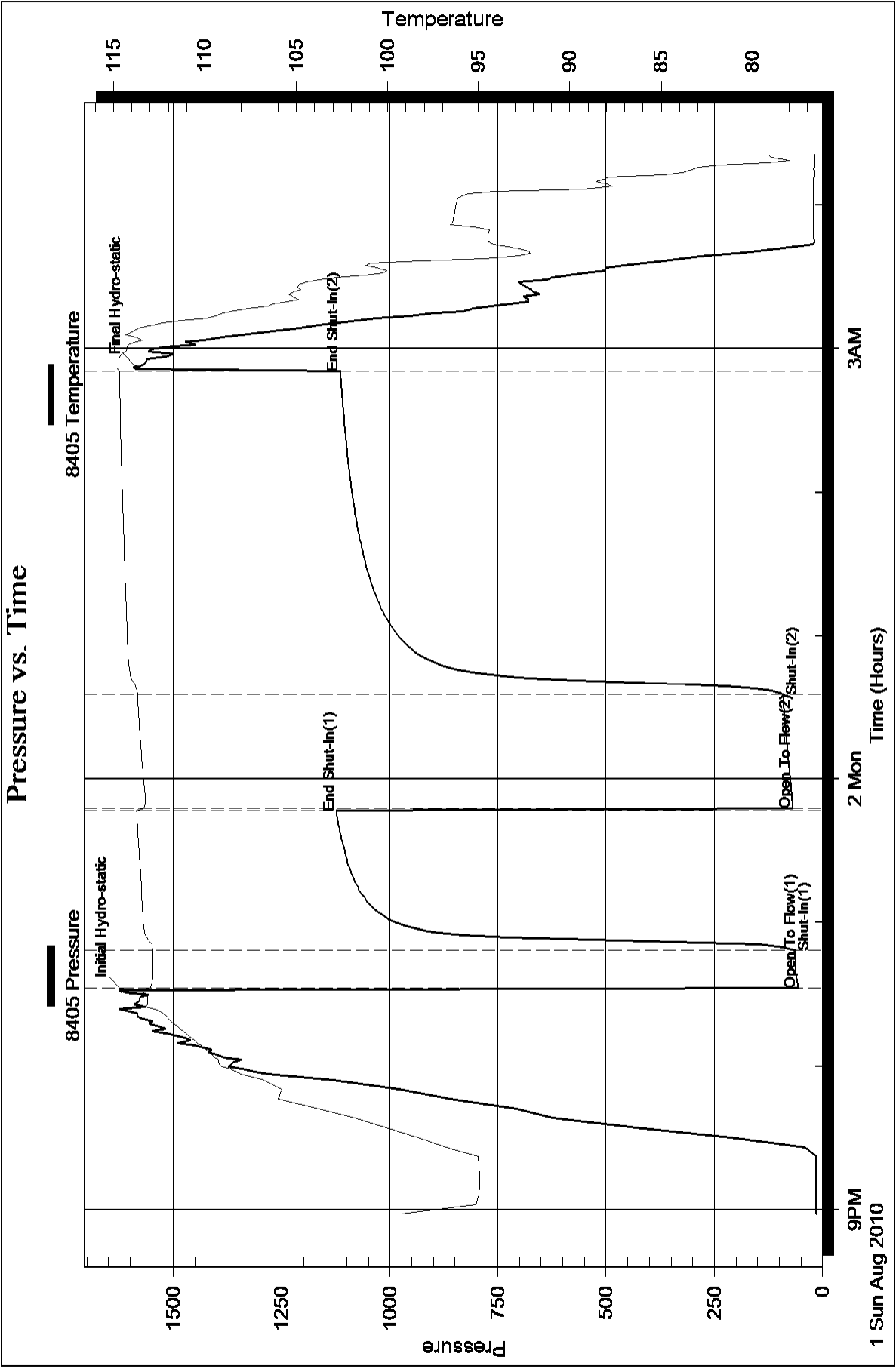
Length ft	Description	Volume bbl
25.00	SLIGHTLY OIL CUT MUDDY WATER	0.351
	5%OIL 30%MUD 65%WATER	0.000
60.00	Very slightly oil cut muddy water	0.842
	1%OIL 40%MUD 59%WATER	0.000
	CHLORIDES 41,000	0.000
	Resistivity .11 @ 71 Degrees	0.000

Total Length: 85.00 ft Total Volume: 1.193 bbl

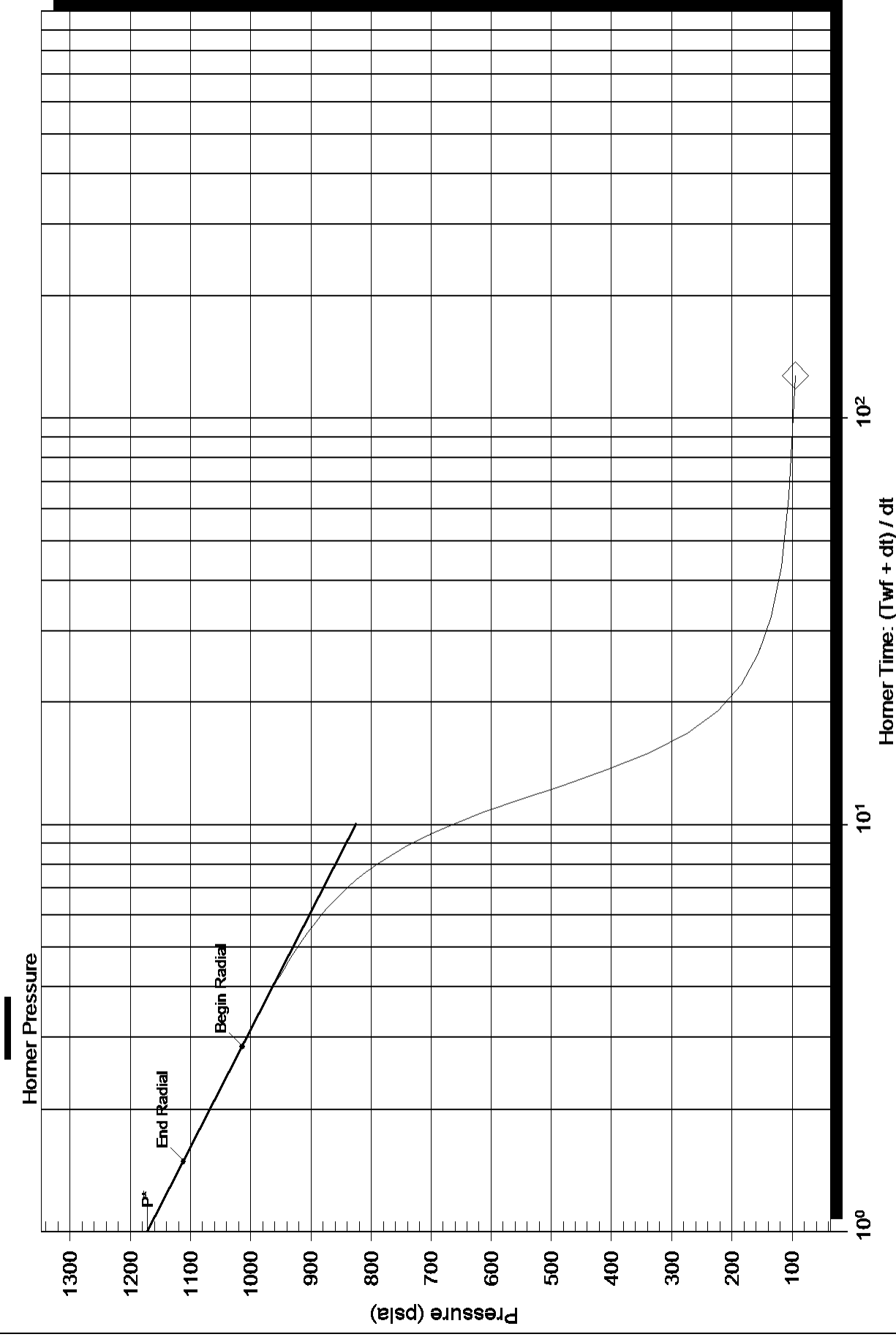
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Chlorides 41,000 Resistivity .11 @ 71 Degrees



Horner Plot



Log-Log and Pseudo-Derivative

