



DRILL STEM TEST REPORT

Prepared For: **WOOLSEY OPERATING COMPANY L.L.C**

125 N MARKET STE 1000 WICHITA KS
67202+1729

ATTN: CURTIS COVEY

27-34-10W BARBER

GATES #1

Start Date: 2010.10.06 @ 02:35:00

End Date: 2010.10.06 @ 15:15:00

Job Ticket #: 16065 DST #: 1

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

Printed: 2010.10.06 @ 15:35:31



DRILL STEM TEST REPORT

TOOL DIAGRAM

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16065

DST#: 1

ATTN: CURTIS COVEY

Test Start: 2010.10.06 @ 02:35:00

Tool Information

Drill Pipe:	Length: 4356.00 ft	Diameter: 3.80 inches	Volume: 61.10 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 61.99 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4550.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	137.00 ft			
Tool Length:	166.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4522.00	
Shut-In Tool	5.00			4527.00	
Hydraulic Tool	5.00			4532.00	
Jars	6.00			4538.00	
Safety Joint	2.00			4540.00	
Packer	5.00			4545.00	29.00 Bottom Of Top Packer
Packer	5.00			4550.00	
Change Over Sub	0.75			4550.75	
Drill Pipe	90.50			4641.25	
Change Over Sub	0.75			4642.00	
Perforations	40.00			4682.00	
Recorder	1.00	8405	Inside	4683.00	
Recorder	1.00	8419	Outside	4684.00	
Bullnose	3.00			4687.00	137.00 Bottom Packers & Anchor

Total Tool Length: 166.00



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FLUID SUMMARY

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16065

DST#: 1

ATTN: CURTIS COVEY

Test Start: 2010.10.06 @ 02:35:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 9.00 in³
Resistivity: ohm.m
Salinity: 3500.00 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
60.00	WATERY MUD 30%WATER 70%MUD	0.295
60.00	MUD 100%	0.295
0.00	CHLORIDES 25,000	0.000
0.00	RESISTIVITY .15 @ 72 DEGREES	0.000

Total Length: 120.00 ft Total Volume: 0.590 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: CHLORIDES 25,000



DRILL STEM TEST REPORT

GAS RATES

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16065

DST#: 1

ATTN: CURTIS COVEY

Test Start: 2010.10.06 @ 02:35:00

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
2	20	0.13	4.50	1.68
2	30	0.13	5.00	1.87
2	40	0.13	6.00	2.25
2	50	0.13	7.00	2.62



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125 N MARKET STE 1000 WICHITA KS
67202+1729

ATTN: CURTIS COVEY

27-34-10W BARBER

GATES #1

Start Date: 2010.10.07 @ 04:38:00

End Date: 2010.10.07 @ 14:32:00

Job Ticket #: 16066 DST #: 2

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

Printed: 2010.10.07 @ 15:04:56



DRILL STEM TEST REPORT

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16066

DST#: 2

ATTN: CURTIS COVEY

Test Start: 2010.10.07 @ 04:38:00

GENERAL INFORMATION:

Formation: **MISSISSIPPI**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:27:00

Time Test Ended: 14:32:00

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-PRATT-112

Interval: 4688.00 ft (KB) To 4703.00 ft (KB) (TVD)

Reference Elevations: 1333.00 ft (KB)

Total Depth: 4703.00 ft (KB) (TVD)

1324.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8419

Inside

Press@RunDepth: 91.57 psia @ 4699.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.10.07

End Date: 2010.10.07

Last Calib.: 2010.10.07

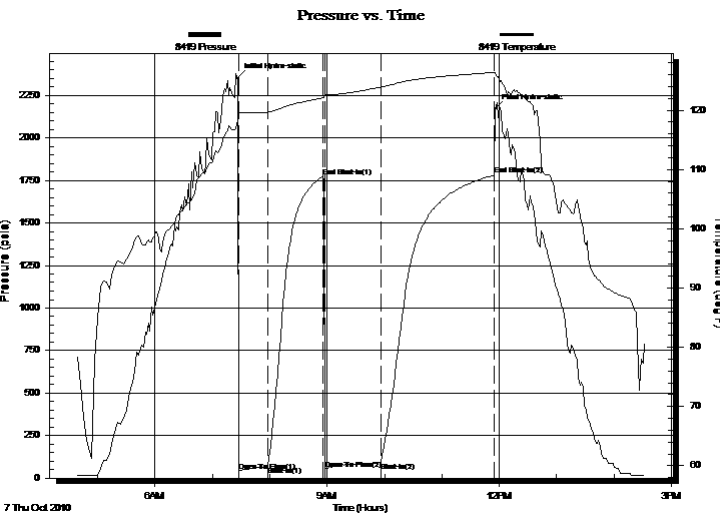
Start Time: 04:38:00

End Time: 14:32:00

Time On Btm: 2010.10.07 @ 07:26:00

Time Off Btm: 2010.10.07 @ 11:56:00

TEST COMMENT: 30/INITIAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 9 MINUTES
60/INITIAL SHUT IN:VERY WEAK SURFACE BLOW
60/FINAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 1 MINUTE
120/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2352.40	118.49	Initial Hydro-static
1	41.99	119.21	Open To Flow (1)
32	68.83	119.66	Shut-In(1)
90	1773.14	122.08	End Shut-In(1)
92	50.08	122.53	Open To Flow (2)
150	91.57	123.89	Shut-In(2)
269	1781.32	126.40	End Shut-In(2)
270	2170.45	126.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	SLIGHTLY GASSEY OIL CUT WATERY	10.39
0.00	10%GAS 10%WATER 30%MUD 50%OIL	0.00
120.00	OIL CUT MUDDY WATER	0.77
0.00	10%MUD 20%WATER 70%OIL	0.00
0.00	3640 GAS IN PIPE	0.00
0.00	CHLORIDES 25,000	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16066

DST#: 2

ATTN: CURTIS COVEY

Test Start: 2010.10.07 @ 04:38:00

Tool Information

Drill Pipe:	Length: 4483.00 ft	Diameter: 3.80 inches	Volume: 62.88 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 63.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4688.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4660.00	
Shut-In Tool	5.00			4665.00	
Hydraulic Tool	5.00			4670.00	
Jars	6.00			4676.00	
Safety Joint	2.00			4678.00	
Packer	5.00			4683.00	29.00 Bottom Of Top Packer
Packer	5.00			4688.00	
Perforations	10.00			4698.00	
Recorder	1.00	8419	Inside	4699.00	
Recorder	1.00	4005	Outside	4700.00	
Bullnose	3.00			4703.00	15.00 Bottom Packers & Anchor

Total Tool Length: 44.00



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FLUID SUMMARY

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16066

DST#: 2

ATTN: CURTIS COVEY

Test Start: 2010.10.07 @ 04:38:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 65.00 sec/qt
Water Loss: 9.00 in³
Resistivity: ohm.m
Salinity: 3500.00 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
80.00	SLIGHTLEY GASSEY OIL CUT WATERY MUD	0.393
0.00	10%GAS 10%WATER 30%MUD 50%OIL	0.000
120.00	OIL CUT MUDDY WATER	0.772
0.00	10%MUD 20%WATER 70%OIL	0.000
0.00	3640 GAS IN PIPE	0.000
0.00	CHLORIDES 25,000	0.000
0.00	RESISTIVITY .15 @72 DEGREES	0.000

Total Length: 200.00 ft Total Volume: 1.165 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

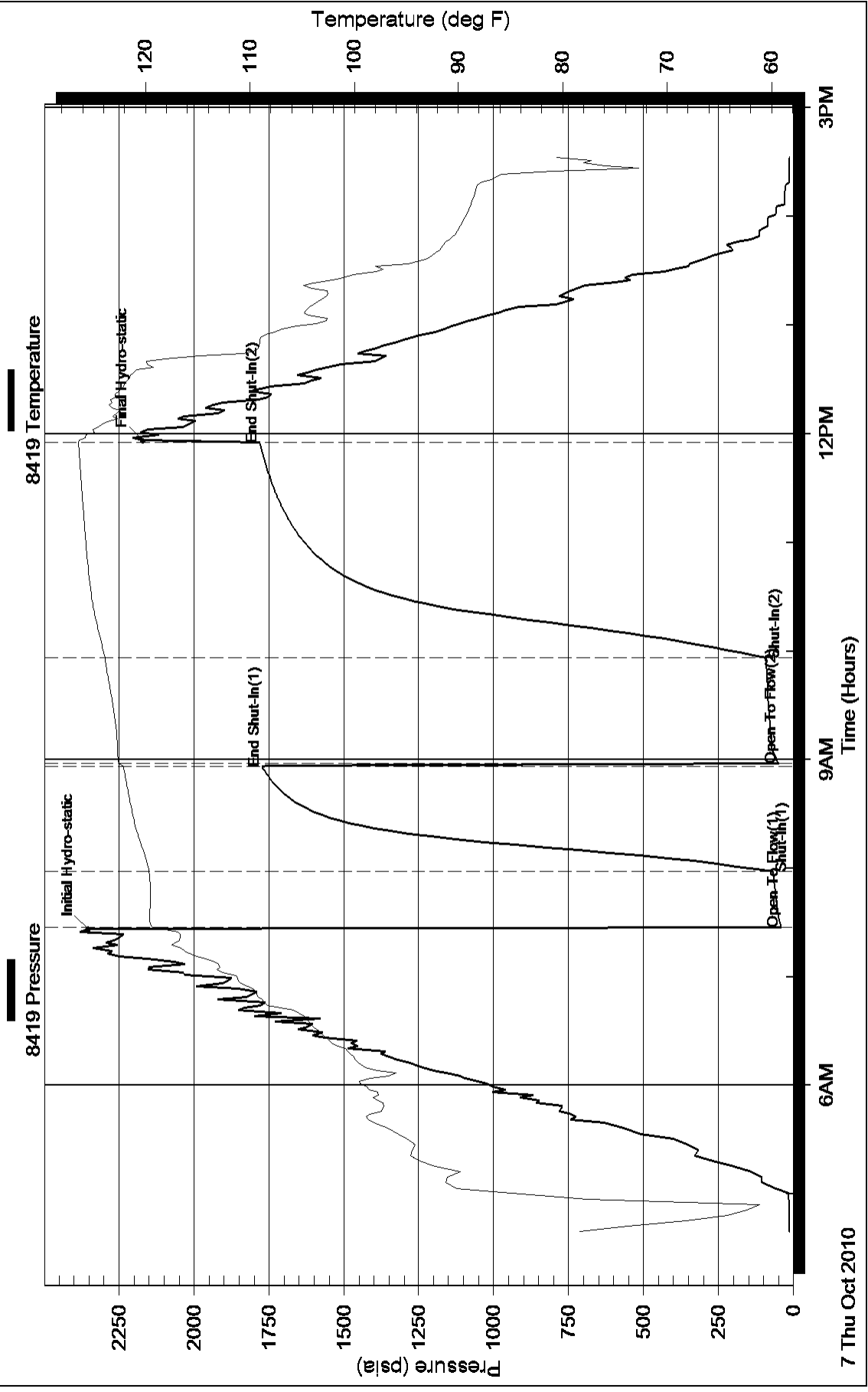
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





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125 N MARKET STE 1000 WICHITA KS
67202+1729

ATTN: CURTIS COVEY

27-34-10W BARBER

GATES #1

Start Date: 2010.10.08 @ 03:08:00

End Date: 2010.10.08 @ 14:04:00

Job Ticket #: 16067 DST #: 3

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

Printed: 2010.10.11 @ 14:11:56



DRILL STEM TEST REPORT

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16067

DST#: 3

ATTN: CURTIS COVEY

Test Start: 2010.10.08 @ 03:08:00

GENERAL INFORMATION:

Formation: **MISSISSIPPI**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:16:30

Time Test Ended: 14:04:00

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-112-PRATT

Interval: 4704.00 ft (KB) To 4723.00 ft (KB) (TVD)

Reference Elevations: 1333.00 ft (KB)

Total Depth: 3723.00 ft (KB) (TVD)

1324.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8419

Inside

Press@RunDepth: 123.97 psia @ 4719.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.10.08

End Date: 2010.10.08

Last Calib.: 2010.10.11

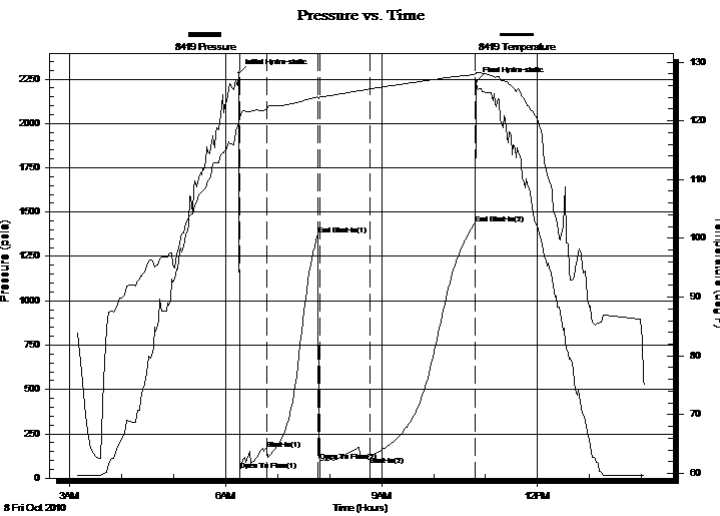
Start Time: 03:08:00

End Time: 14:04:00

Time On Btm: 2010.10.08 @ 06:15:30

Time Off Btm: 2010.10.08 @ 10:49:00

TEST COMMENT: 30/INITIAL OPEN:VERY WEAK SURFACE BLOW BUILT 1/2 INCH INTO WATER
60/INITIAL SHUT IN:NO BLOW BACK
60/FINAL OPEN:VERY WEAK SURFACE BLOW BUILT 3 1/2 INCHES INTO WATER
120/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2283.19	119.71	Initial Hydro-static
1	46.63	120.46	Open To Flow (1)
32	162.56	121.88	Shut-In(1)
91	1371.30	124.07	End Shut-In(1)
93	95.68	124.04	Open To Flow (2)
151	123.97	125.41	Shut-In(2)
272	1435.10	127.85	End Shut-In(2)
274	2234.24	128.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	SLIGHTLEY OIL CUT MUDDY WATER	0.59
0.00	5%OIL 30%MUD 65%WATER	0.00
60.00	SLIGHTLEY OIL CUT WATERY MUD	0.30
0.00	5%OIL 1%WATER 80%MUD	0.00
0.00	CHLORIDES 45,000 RESISTIVITY .1 @72	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

WOOLSEY OPERATING COMPANY L.L.C

GATES #1

125 N MARKET STE 1000 WICHITA KS
67202+1729

27-34-10W BARBER

Job Ticket: 16067

DST#: 3

ATTN: CURTIS COVEY

Test Start: 2010.10.08 @ 03:08:00

Tool Information

Drill Pipe:	Length: 4508.00 ft	Diameter: 3.80 inches	Volume: 63.24 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 64.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4704.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.88 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4676.00	
Shut-In Tool	5.00			4681.00	
Hydraulic Tool	5.00			4686.00	
Jars	6.00			4692.00	
Safety Joint	2.00			4694.00	
Packer	5.00			4699.00	29.00 Bottom Of Top Packer
Packer	5.00			4704.00	
Perforations	14.00			4718.00	
Recorder	1.00	8419	Inside	4719.00	
Recorder	1.00	4005	Outside	4720.00	
Bullnose	3.00			4723.00	19.00 Bottom Packers & Anchor

Total Tool Length: 48.00



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FLUID SUMMARY

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125 N MARKET STE 1000 WICHITA KS
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27-34-10W BARBER

Job Ticket: 16067

DST#: 3

ATTN: CURTIS COVEY

Test Start: 2010.10.08 @ 03:08:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 12.80 in³

Resistivity: ohm.m

Salinity: 14000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	SLIGHTLEY OIL CUT MUDDY WATER	0.590
0.00	5%OIL 30%MUD 65%WATER	0.000
60.00	SLIGHTLEY OIL CUT WATERY MUD	0.295
0.00	5%OIL 1%WATER 80%MUD	0.000
0.00	CHLORIDES 45,000 RESISTIVITY .1 @72	0.000

Total Length: 180.00 ft

Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

