

15-081-21887

1-30s-3lw



## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N#700  
WICHITA KS 67278

ATTN: TERRY

**1-30S-31W-HASKELL**

**JACOBS-WOOD**

Start Date: 2010.01.31 @ 11:00:00

End Date: 2010.01.31 @ 22:09:23

Job Ticket #: 15886                      DST #: 1

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

Printed: 2010.02.05 @ 13:38:01

RITCHIE EXPLORATION INC  
JACOBS-WOOD  
1-30S-31W-HASKELL  
DST # 1  
ATOKA-NARROW-CHESTER  
2010.01.31



# DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15886

DST#: 1

ATTN: TERRY

Test Start: 2010.01.31 @ 11:00:00

## GENERAL INFORMATION:

Formation: **ATOKA-MARROW-CHESTER**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:13:23

Time Test Ended: 22:09:23

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 291M GREAT BEND

Interval: 5160.00 ft (KB) To 5262.00 ft (KB) (TVD)

Reference Elevations: 2839.00 ft (KB)

Total Depth: 5262.00 ft (KB) (TVD)

2829.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8400

Inside

Press@RunDepth: 333.14 psia @ 5257.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.01.31

End Date:

2010.01.31

Last Calib.: 2010.01.31

Start Time: 11:01:00

End Time:

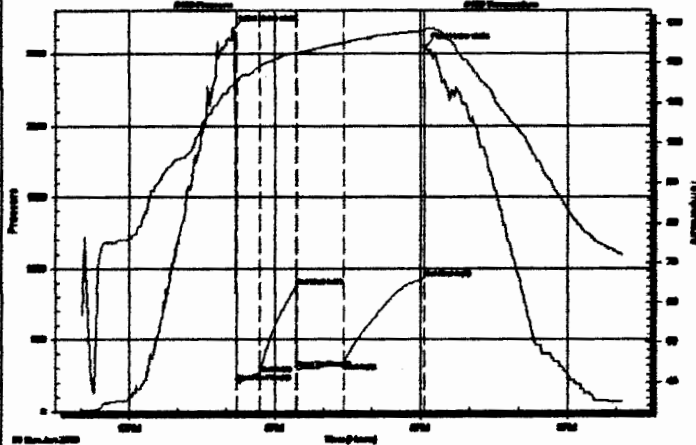
22:09:23

Time On Btm: 2010.01.31 @ 14:08:53

Time Off Btm: 2010.01.31 @ 18:05:23

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 1 MIN  
45-INITIAL SHUT IN GAS TO SURFACE IN 5 MINS  
60-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 1 MINS  
90-FINAL SHUT IN GOOD BLOW BACK

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2676.49	114.46	Initial Hydro-static
5	203.01	115.31	Open To Flow (1)
33	266.33	119.17	Shut-in(1)
78	882.16	122.67	End Shut-in(1)
79	298.97	122.52	Open To Flow (2)
136	333.14	125.10	Shut-in(2)
235	930.89	127.96	End Shut-in(2)
237	2548.42	128.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MUD WITH A SLIGHT SHOW OIL 95% M 5%	0.59
60.00	GASSY OIL CUT MUD 10% G 30% O 60% M 0.30	
300.00	GASSY OIL 30% G 70% O	3.22
4600.00	GAS IN PIPE	67.27

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	36.00	13.47
Last Gas Rate	0.13	17.00	6.36
Max. Gas Rate	0.13	36.00	13.47



# DRILL STEM TEST REPORT

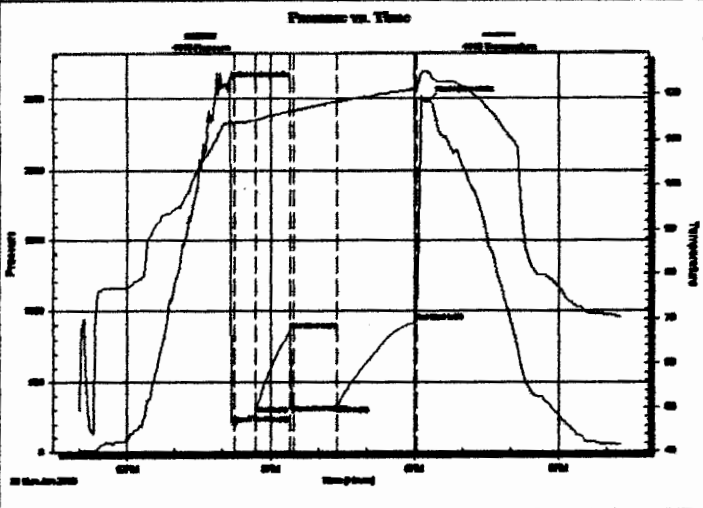
<b>RITCHE EXPLORATION INC</b>  8100 E 22ND ST N#700 WICHITA KS 67278  ATTN: TERRY	<b>JACOBS-WOOD</b>  <b>1-30S-31W-HASKELL</b> Job Ticket: 15886      DST#: 1 Test Start: 2010.01.31 @ 11:00:00
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**GENERAL INFORMATION:**

Formation: <b>ATOKA-MARROW-CHESTER</b> Deviated: No Whipstock:      ft (KB) Time Tool Opened: 14:13:23 Time Test Ended: 22:09:23  Interval: <b>5160.00 ft (KB) To 5262.00 ft (KB) (TVD)</b> Total Depth: <b>5262.00 ft (KB) (TVD)</b> Hole Diameter: <b>7.88 inches</b> Hole Condition: Fair	Test Type: <b>Conventional Bottom Hole (Initial)</b> Tester: <b>DAVID NICHOLS</b> Unit No: <b>3345 291M GREAT BEND</b>  Reference Elevations: <b>2839.00 ft (KB)</b> <b>2829.00 ft (CF)</b> KB to GR/CF: <b>10.00 ft</b>
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<b>Serial #: 4143</b> <b>Outside</b> Press@RunDepth: <b>927.60 psia @ 5257.00 ft (KB)</b> Start Date: <b>2010.01.31</b> End Date: <b>2010.01.31</b> Start Time: <b>11:00:01</b> End Time: <b>22:18:10</b>	Capacity: <b>5000.00 psia</b> Last Calib.: <b>2010.01.31</b> Time On Btm: <b>2010.01.31 @ 14:03:10</b> Time Off Btm: <b>2010.01.31 @ 18:18:10</b>
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**TEST COMMENT:** 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 1 MIN  
 45-INITIAL SHUT IN GAS TO SURFACE IN 5 MINS  
 60-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 1 MINS  
 90-FINAL SHUT IN GOOD BLOW BACK



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2595.60	113.78	Initial Hydro-static
12	202.00	113.72	Open To Flow (1)
38	271.32	114.48	Shut-In(1)
82	872.44	116.38	End Shut-In(1)
86	281.08	116.47	Open To Flow (2)
140	328.61	118.33	Shut-In(2)
241	927.60	121.22	End Shut-In(2)
255	2485.03	124.96	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
120.00	MUD WITH A SLIGHT SHOW OIL 95% MUD	0.59
60.00	GASSY OIL CUT MUD 10% G 30% O 60% M	0.30
300.00	GASSY OIL 30% G 70% O	3.22
4600.00	GAS IN PIPE	67.27

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	36.00	13.47
Last Gas Rate	0.13	17.00	6.38
Max. Gas Rate	0.13	36.00	13.47



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15886

DST#: 1

ATTN: TERRY

Test Start: 2010.01.31 @ 11:00:00

## Tool Information

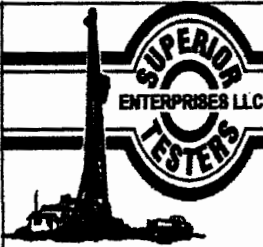
Drill Pipe:	Length: 4834.00 ft	Diameter: 3.88 inches	Volume: 70.69 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 300.00 ft	Diameter: 2.25 inches	Volume: 1.48 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 72.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	5160.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	102.00 ft			
Tool Length:	131.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5132.00	
Shut-in Tool	5.00			5137.00	
Hydrolic Tool	5.00			5142.00	
Jars	6.00			5148.00	
Safety Joint	2.00			5150.00	
Packer	5.00			5155.00	29.00 Bottom Of Top Packer
Packer	5.00			5160.00	
Change Over Sub	0.75			5160.75	
Drill Pipe	62.50			5223.25	
Change Over Sub	0.75			5224.00	
Perforations	33.00			5257.00	
Recorder	0.00	8400	Inside	5257.00	
Recorder	0.00	4143	Outside	5257.00	
Bullnose	5.00			5262.00	102.00 Bottom Packers & Anchor

**Total Tool Length: 131.00**



# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15886

DST#: 1

ATTN: TERRY

Test Start: 2010.01.31 @ 11:00:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 45.00 sec/qt

Water Loss: 6.79 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 2400.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MUD WITH A SLIGHT SHOW OIL 95%M 5%O	0.590
60.00	GASSY OIL CUT MUD 10%G 30%O 60%M	0.295
300.00	GASSY OIL 30%G 70%O	3.222
4600.00	GAS IN PIPE	67.271

Total Length: 5080.00 ft

Total Volume: 71.378 bbl

Num Fluid Samples: 2

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

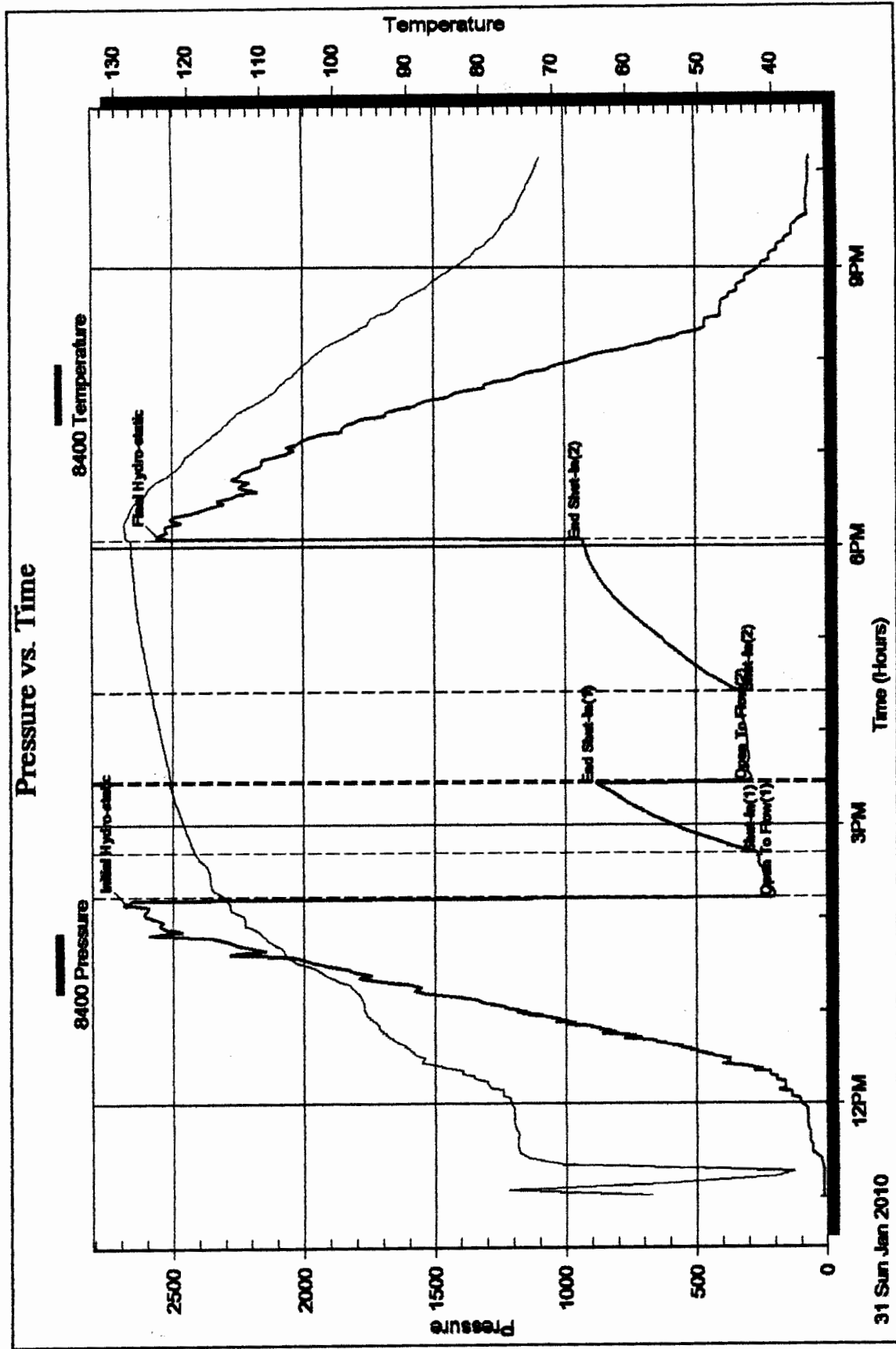
Serial #: 8400

Inside

RITCHE EXPLORATION INC

1-30S-31W-HASKELL

DST Test Number: 1



31 Sun Jan 2010

Superior Testers Enterprises LLC

Ref. No: 15886

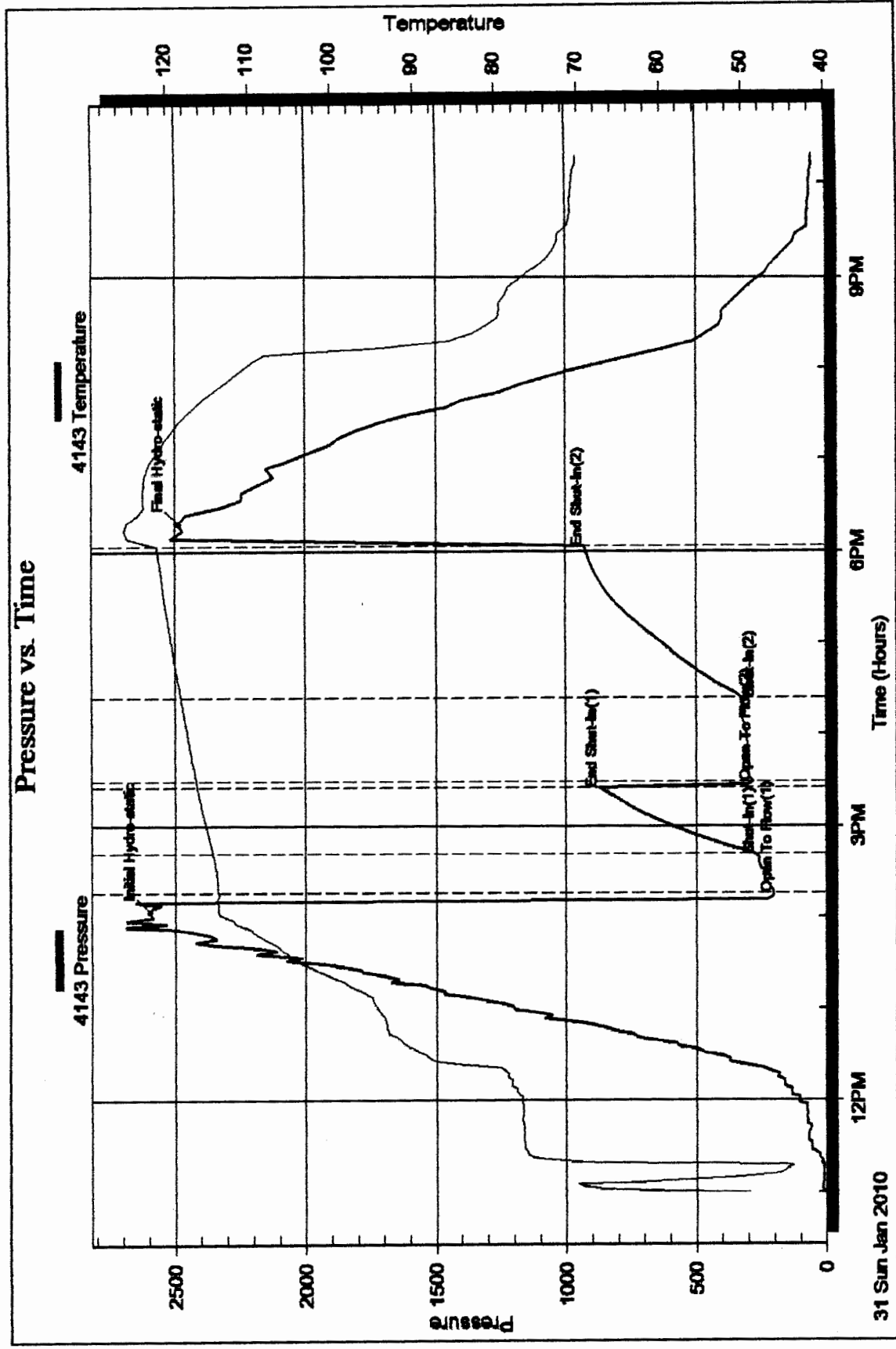
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Serial #: 4143

Outside RITCHE EXPLORATION INC

1-30S-31W-HASKELL

DST Test Number: 1



31 Sun Jan 2010



## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N#700  
WICHITA KS 67278

ATTN: TERRY

**1-30S-31W-HASKELL**

**JACOBS-WOOD**

Start Date: 2010.02.01 @ 11:00:00

End Date: 2010.02.01 @ 20:29:00

Job Ticket #: 15887                      DST #: 2

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

Printed: 2010.02.05 @ 13:33:17

RITCHIE EXPLORATION INC

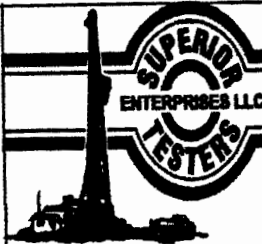
JACOBS-WOOD

1-30S-31W-HASKELL

DST # 2

CHESTER

2010.02.01



# DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15887 DST#: 2

ATTN: TERRY

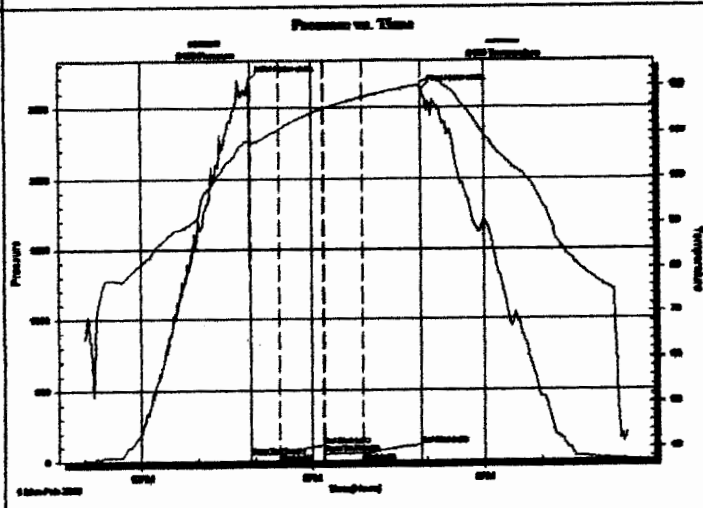
Test Start: 2010.02.01 @ 11:00:00

## GENERAL INFORMATION:

Formation: **CHESTER**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:55:30  
 Time Test Ended: 20:29:00  
 Interval: 5283.00 ft (KB) To 5282.00 ft (KB) (TVD)  
 Total Depth: 5282.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: DAVID NICHOLS  
 Unit No: 3345 292 M GB  
 Reference Elevations: 2839.00 ft (KB)  
 2829.00 ft (CF)  
 KB to GRFCF: 10.00 ft

Serial #: 8400 Inside  
 Press@RunDepth: 52.45 psia @ 5277.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.02.01 End Date: 2010.02.01 Last Calib.: 2010.02.01  
 Start Time: 11:01:00 End Time: 20:29:00 Time On Btm: 2010.02.01 @ 13:54:30  
 Time Off Btm: 2010.02.01 @ 16:55:00

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BUILT TO 3 INCHES INTO WATER  
 45-INITIAL SHUT IN NO BLOW BACK  
 45-FINAL OPENING WEAK BLOW BUILT TO 4 INCHES INTO WATER  
 60-FINAL SHUT IN NO BLOW BACK



## PRESSURE SUMMARY

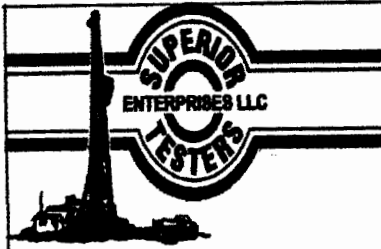
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2692.34	108.26	Initial Hydro-static
1	41.85	107.48	Open To Flow (1)
31	49.50	110.82	Shut-in(1)
78	111.64	115.30	End Shut-in(1)
78	50.46	115.30	Open To Flow (2)
119	52.45	117.78	Shut-in(2)
180	113.51	120.39	End Shut-in(2)
181	2624.48	121.09	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)

## Gas Rates

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



# DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15887 DST#: 2

ATTN: TERRY

Test Start: 2010.02.01 @ 11:00:00

## GENERAL INFORMATION:

Formation: CHESTER

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:55:30

Time Test Ended: 20:29:00

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 292 M GB

Interval: 5263.00 ft (KB) To 5282.00 ft (KB) (TVD)

Total Depth: 5282.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2839.00 ft (KB)

2829.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 4143

Outside

Press@RunDepth: 111.80 psia @ 5277.00 ft (KB)

Start Date: 2010.02.01

End Date:

2010.02.01

Capacity: 5000.00 psia

Last Calib.: 2010.02.01

Start Time: 11:00:01

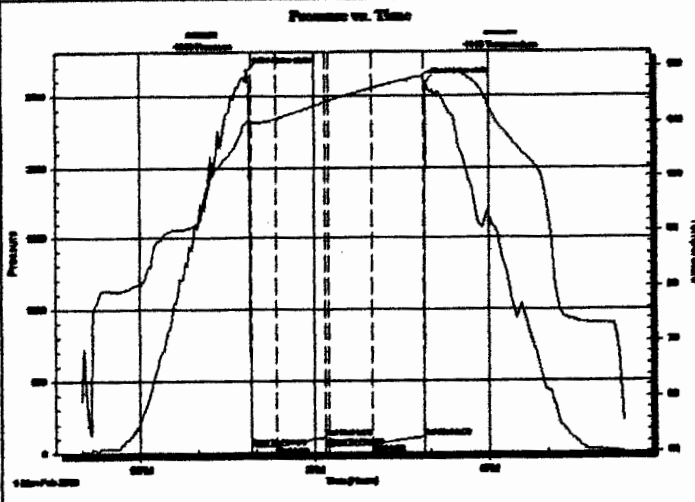
End Time:

20:18:10

Time On Btm: 2010.02.01 @ 13:51:10

Time Off Btm: 2010.02.01 @ 16:55:10

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BUILT TO 3 INCHES INTO WATER  
45-INITIAL SHUT IN NO BLOW BACK  
45-FINAL OPENING WEAK BLOW BUILT TO 4 INCHES INTO WATER  
60-FINAL SHUT IN NO BLOW BACK



## PRESSURE SUMMARY

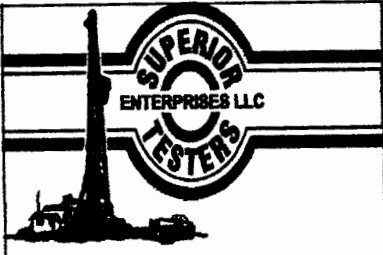
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2675.72	110.12	Initial Hydro-static
4	42.77	110.18	Open To Flow (1)
30	46.49	110.58	Shut-in(1)
80	110.33	113.49	End Shut-in(1)
84	46.54	113.71	Open To Flow (2)
128	55.80	115.98	Shut-in(2)
182	111.80	118.21	End Shut-in(2)
184	2593.01	118.59	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)

## Gas Rates

Choke (Inches)	Pressure (psia)	Gas Rate (Mcfd)



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15887

DST#: 2

ATTN: TERRY

Test Start: 2010.02.01 @ 11:00:00

## Tool Information

Drill Pipe:	Length: 4937.00 ft	Diameter: 3.88 inches	Volume: 72.20 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: 300.00 ft	Diameter: 2.25 inches	Volume: 1.48 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 73.68 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	5263.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	19.00 ft				
Tool Length:	48.00 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			5235.00	
Shut-In Tool	5.00			5240.00	
Hydroic Tool	5.00			5245.00	
Jars	6.00			5251.00	
Safety Joint	2.00			5253.00	
Packer	5.00			5258.00	29.00 Bottom Of Top Packer
Packer	5.00			5263.00	
Perforations	14.00			5277.00	
Recorder	0.00	8400	Inside	5277.00	
Recorder	0.00	4143	Outside	5277.00	
Bullnose	5.00			5282.00	19.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

JACOBS WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15887

DST#: 2

ATTN: TERRY

Test Start: 2010.02.01 @ 11:00:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 48.00 sec/qt  
Water Loss: 7.59 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 2000.00 ppm  
Filter Cake: 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

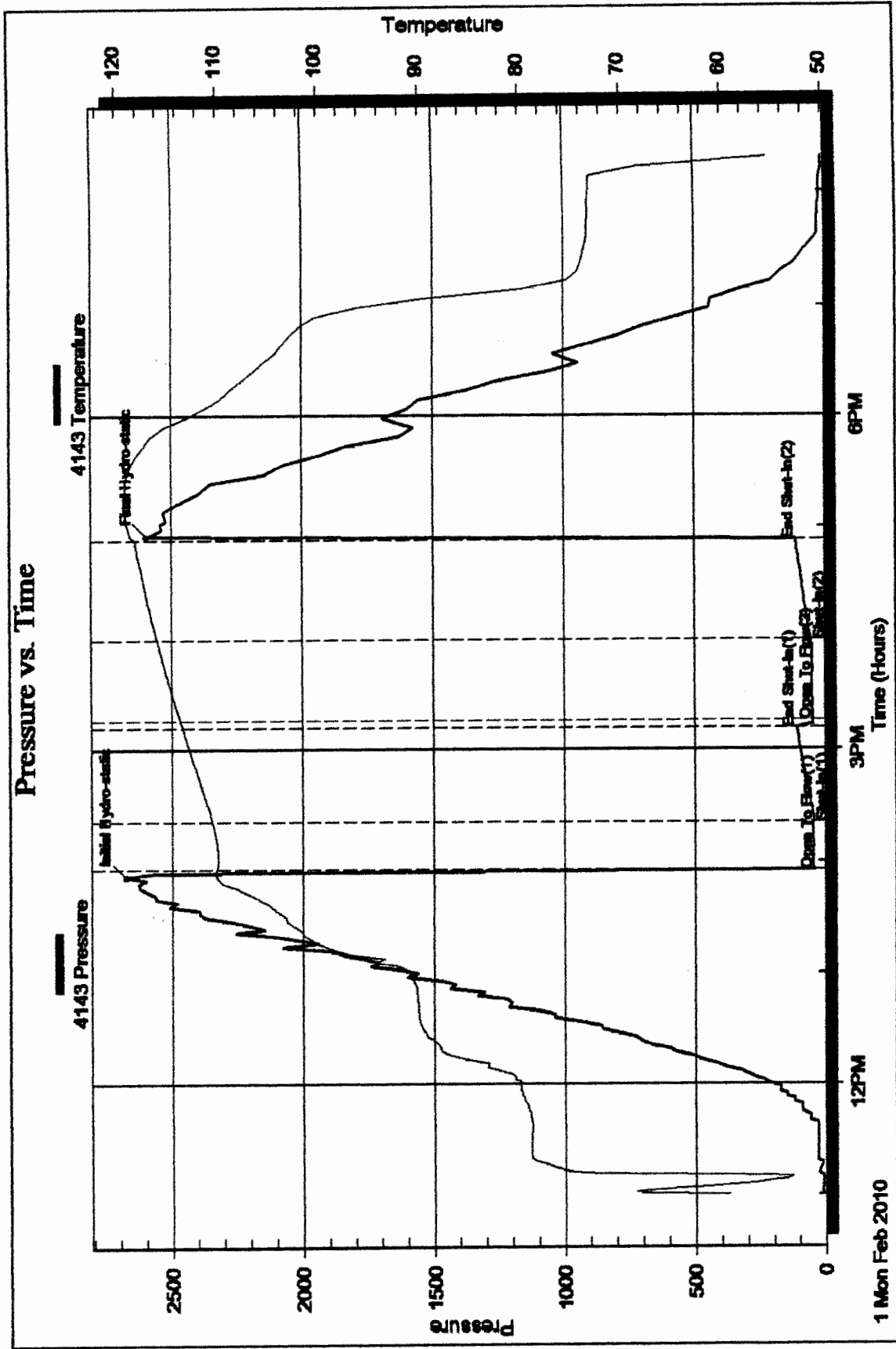
Total Length: ft      Total Volume: bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

Serial #: 4143

Outside RITCHE EXPLORATION INC

1-30S-31W-HASKELL

DST Test Number: 2



1 Mon Feb 2010



## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N#700  
WICHITA KS 67278

ATTN: TERRY

**1-30S-31W-HASKELL**

**JACOBS-WOOD**

Start Date: 2010.02.03 @ 23:00:00

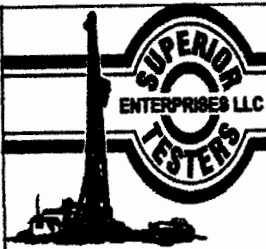
End Date: 2010.02.04 @ 07:43:30

Job Ticket #: 15888                      DST #: 3

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

Printed: 2010.02.05 @ 13:33:04

RITCHIE EXPLORATION INC  
JACOBS-WOOD  
1-30S-31W-HASKELL  
DST # 3  
MISSISSIPPIAN  
2010.02.03



# DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15888

DST#: 3

ATTN: TERRY

Test Start: 2010.02.03 @ 23:00:00

## GENERAL INFORMATION:

Formation: MISSISSIPPIAN

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:41:00

Time Test Ended: 07:43:30

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 292 M GB

Interval: 5375.00 ft (KB) To 5455.00 ft (KB) (TVD)

Total Depth: 5455.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2839.00 ft (KB)

2829.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8400

Inside

Press@RunDepth: 80.61 psia @ 5450.00 ft (KB)

Start Date: 2010.02.03

End Date:

2010.02.04

Start Time: 23:01:00

End Time:

07:43:30

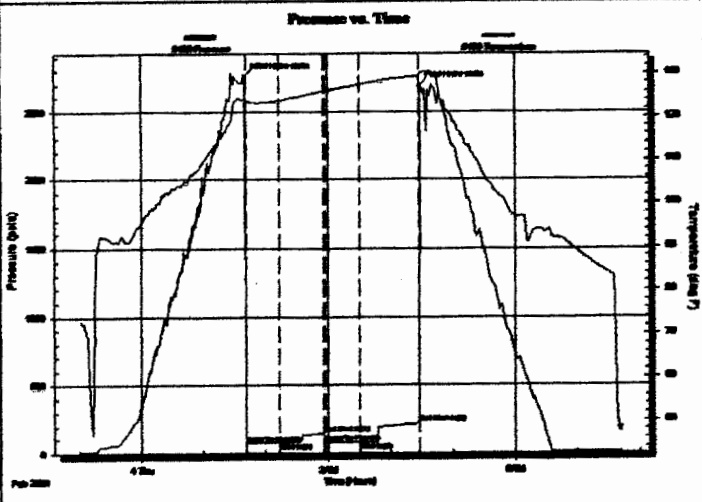
Capacity: 5000.00 psia

Last Calib.: 2010.02.03

Time On Btm: 2010.02.04 @ 01:40:00

Time Off Btm: 2010.02.04 @ 04:28:30

TEST COMMENT: 30-INITIAL OPENING VERY WEAK BLOW BUILT TO 1/2 INCH INTO WATER THEN DIED AFTER 25 MINS  
45-INITIAL SHUT IN NO BLOW  
30-FINAL OPENING NO BLOW  
60-FINAL SHUT IN NO BLOW



## PRESSURE SUMMARY

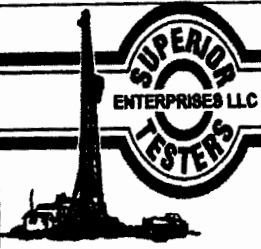
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2762.23	123.93	Initial Hydro-static
1	73.86	123.15	Open To Flow (1)
34	80.64	123.73	Shut-in(1)
76	151.53	125.94	End Shut-in(1)
78	80.01	125.98	Open To Flow (2)
111	80.61	127.44	Shut-in(2)
168	224.99	129.43	End Shut-in(2)
169	2690.68	129.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	MUD 100%	0.02

## Gas Rates

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



# DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15888 DST#: 3

ATTN: TERRY

Test Start: 2010.02.03 @ 23:00:00

## GENERAL INFORMATION:

Formation: **MISSISSIPPIAN**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:41:00  
 Time Test Ended: 07:43:30

Test Type: Conventional Bottom Hole (Initial)  
 Tester: DAVID NICHOLS  
 Unit No: 3345 292 M GB

Interval: **5375.00 ft (KB) To 5455.00 ft (KB) (TVD)**  
 Total Depth: 5455.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 2839.00 ft (KB)  
 2829.00 ft (CF)  
 KB to GRVCF: 10.00 ft

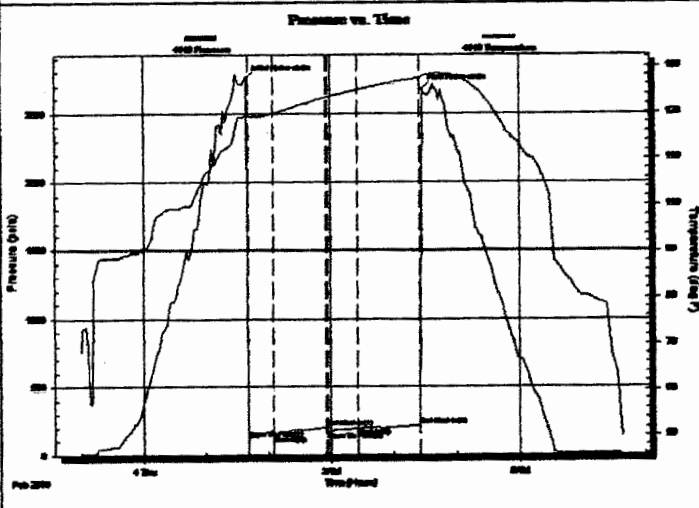
## Serial #: 4143

Outside

Press@RunDepth: 223.19 psia @ 5450.00 ft (KB)  
 Start Date: 2010.02.03 End Date: 2010.02.04  
 Start Time: 23:00:01 End Time: 07:38:10

Capacity: 5000.00 psia  
 Last Calib.: 2010.02.03  
 Time On Btrn: 2010.02.04 @ 01:39:10  
 Time Off Btrn: 2010.02.04 @ 04:27:10

TEST COMMENT: 30-INITIAL OPENING VERY WEAK BLOW BUILT TO 1/2 INCH INTO WATER THEN DIED AFTER 25 MINS  
 45-INITIAL SHUT IN NO BLOW  
 30-FINAL OPENING NO BLOW  
 60-FINAL SHUT IN NO BLOW



## PRESSURE SUMMARY

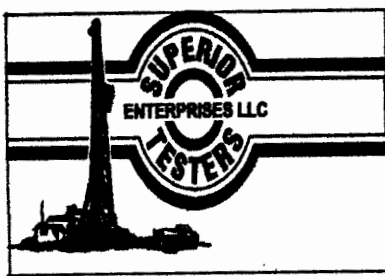
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2756.00	119.37	Initial Hydro-static
2	122.74	119.18	Open To Flow (1)
26	144.43	119.75	Shut-in(1)
76	207.53	123.22	End Shut-in(1)
78	169.51	123.34	Open To Flow (2)
106	198.62	124.90	Shut-in(2)
166	223.19	127.36	End Shut-in(2)
168	2674.02	127.59	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	MUD 100%	0.02

## Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mc/K)



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-308-31W-HASKELL

Job Ticket: 15888 DST#: 3

ATTN: TERRY

Test Start: 2010.02.03 @ 23:00:00

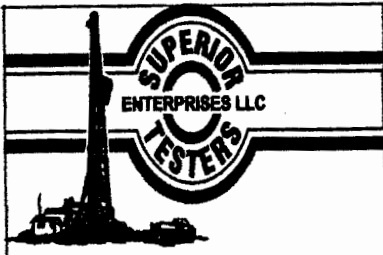
## Tool Information

Drill Pipe:	Length: 5055.00 ft	Diameter: 3.80 inches	Volume: 70.91 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: 300.00 ft	Diameter: 2.25 inches	Volume: 1.48 bbl	Weight to Full Loose: 130000.0 lb
			<b>Total Volume: 72.39 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 79000.00 lb
Depth to Top Packer:	5375.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: RUINED ONE PACKER

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5353.00	
Shut-In Tool	5.00			5358.00	
Hydrolic Tool	5.00			5363.00	
Safety Joint	2.00			5365.00	
Packer	5.00			5370.00	23.00 Bottom Of Top Packer
Packer	5.00			5375.00	
Change Over Sub	0.75			5375.75	
Drill Pipe	62.50			5438.25	
Change Over Sub	0.75			5439.00	
Perforations	11.00			5450.00	
Recorder	0.00	8400	Inside	5450.00	
Recorder	0.00	4143	Outside	5450.00	
Bullnose	5.00			5455.00	80.00 Bottom Packers & Anchor

**Total Tool Length: 103.00**



# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

JACOBS-WOOD

8100 E 22ND ST N#700  
WICHITA KS 67278

1-30S-31W-HASKELL

Job Ticket: 15888

DST#: 3

ATTN: TERRY

Test Start: 2010.02.03 @ 23:00:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3900.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	MUD 100%	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

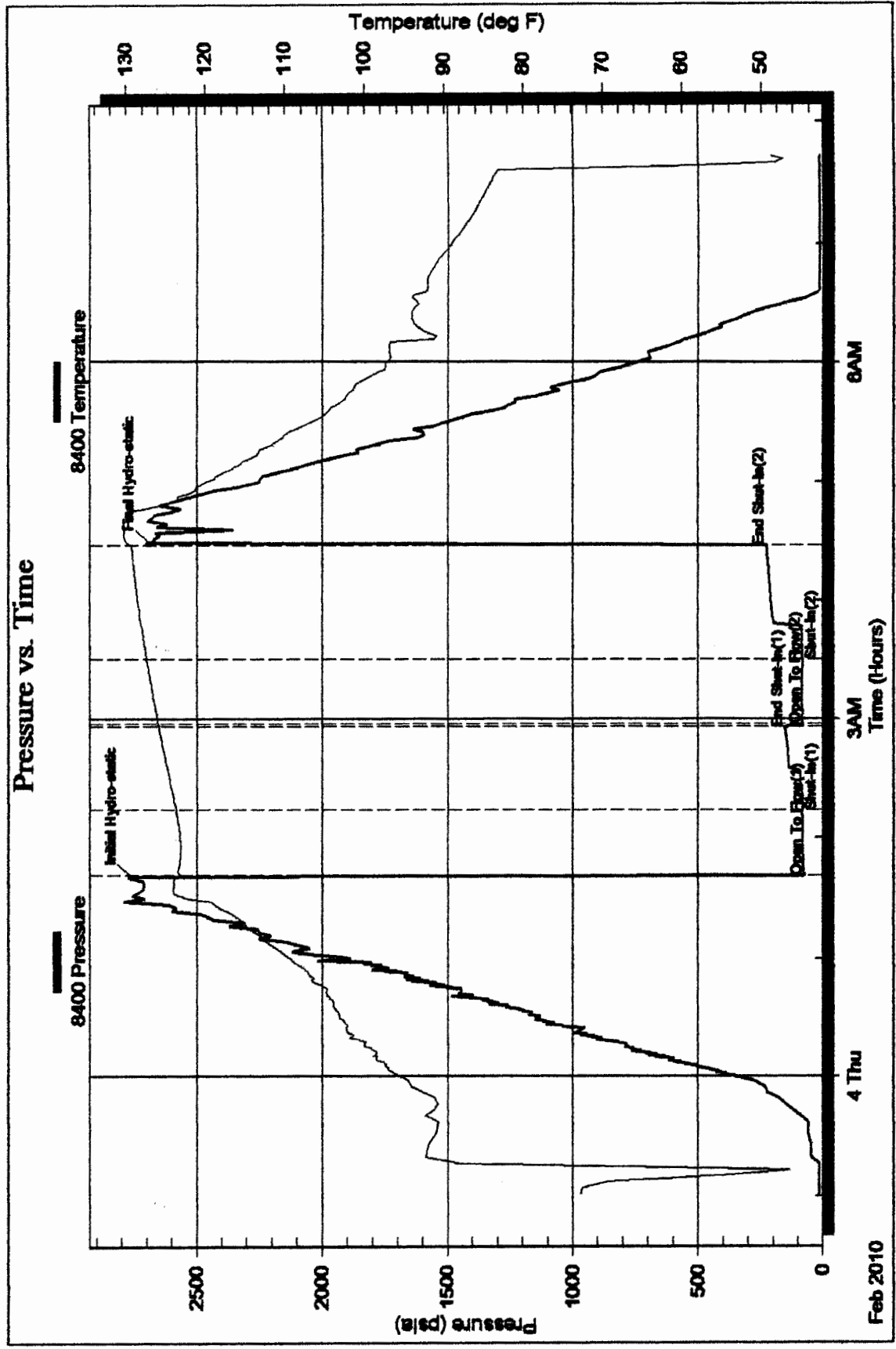
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Inside

RITCHE EXPLORATION INC

1-30S-31W-HASKELL

DST Test Number: 3



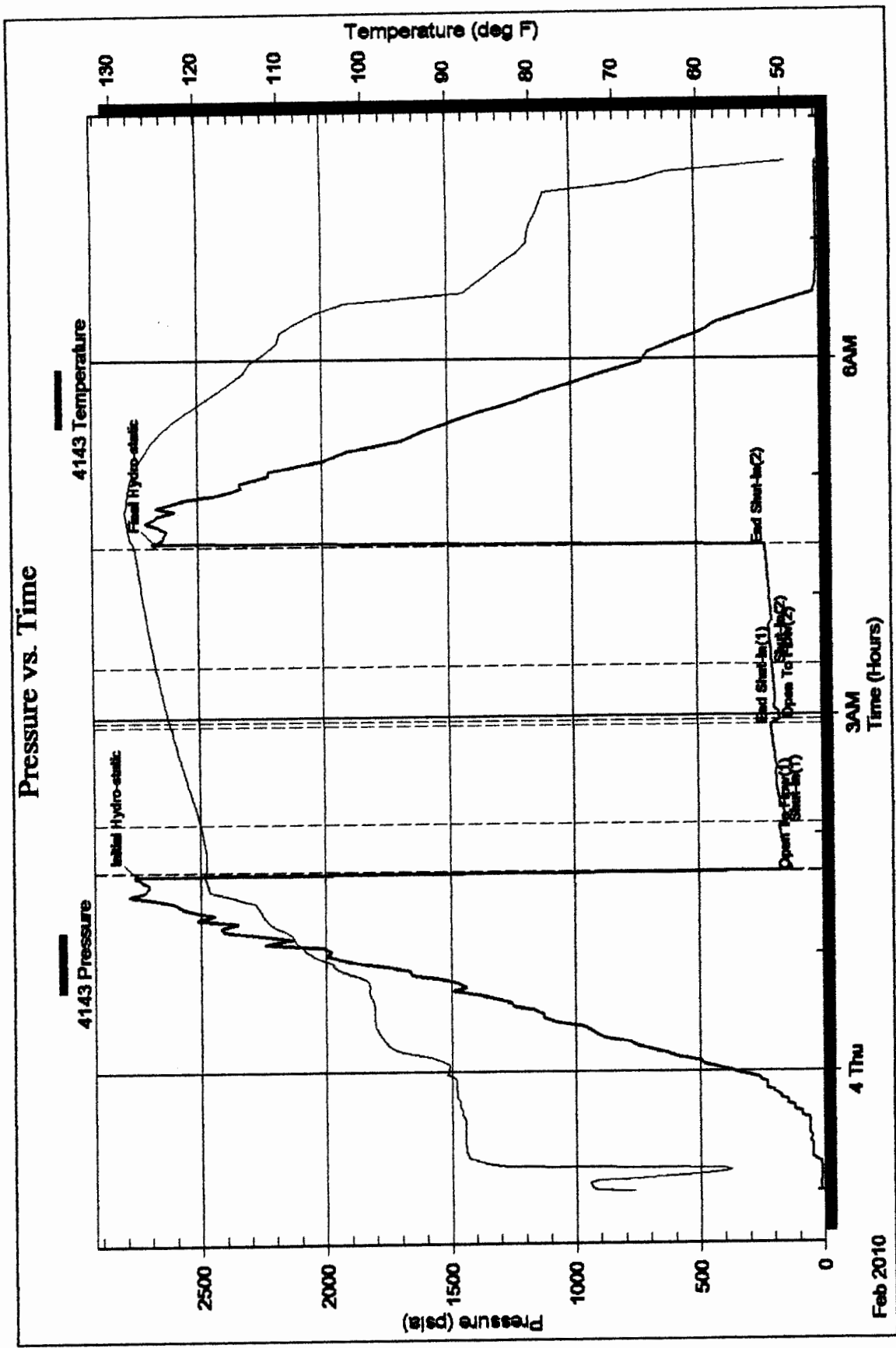
Serial #: 4143

Outside RITCHEXPLORATION INC

1-30S-31W-HASKELL

DST Test Number: 3

### Pressure vs. Time



Printed: 2010.02.05 @ 13:33:06

Ref. No: 15888

Superior Testers Enterprises LLC