

15-145-21651

1-21s-16w

APP# 15.145.21651.00.00

Reif Oil and Gas Company

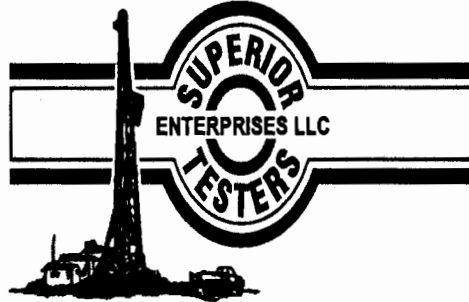
Carr #1

1/21S/16W Pawnee

DST # 1

Arbuckle

2011.09.18



### DRILL STEM TEST REPORT

Prepared For: **Reif Oil and Gas Company**

P.O.Box 298 Hoisinton  
Kansas,67544

ATTN: Jim Musgrove

**1/21S/16W Pawnee**

**Carr #1**

Start Date: 2011.09.18 @ 09:27:00

End Date: 2011.09.18 @ 15:51:00

Job Ticket #: 18754                      DST #: 1

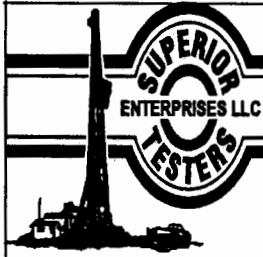
RECEIVED

DEC 20 2011

KCC WICHITA

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

Printed: 2011.09.21 @ 08:15:33



# DRILL STEM TEST REPORT

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas, 67544

1/21S/16W Pawnee

Job Ticket: 18754

DST#: 1

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 09:27:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:55:30

Time Test Ended: 15:51:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Great Bend/47

Interval: **3751.00 ft (KB) To 3761.00 ft (KB) (TVD)**

Reference Elevations: 1996.00 ft (KB)

Total Depth: 3761.00 ft (KB) (TVD)

1984.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: **6666**

Outside

Press@RunDepth: 736.81 psia @ 3758.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.09.18

End Date:

2011.09.18

Last Calib.:

2011.09.18

Start Time: 09:28:00

End Time:

15:51:00

Time On Btm:

2011.09.18 @ 11:53:00

Time Off Btm:

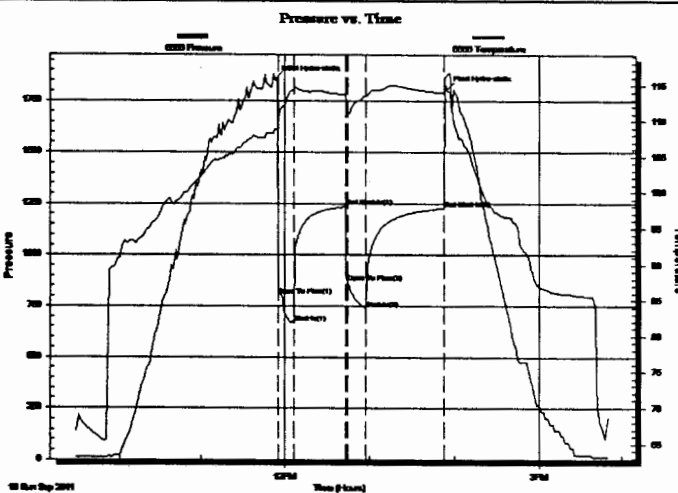
2011.09.18 @ 13:54:30

TEST COMMENT: 1ST Opning 12 Minutes bottom of bucket instantly/gas to surface in 1 minute

1ST Shut-In 30 Minutes yes blow back

2ND Opning 20 Minutes bottom of bucket instantly/caught gas sample/check gas gauge chart

2ND Shut-In 45 Minutes yes blow back



## PRESSURE SUMMARY

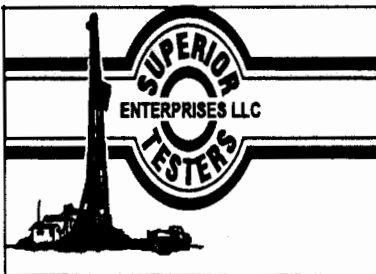
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1856.96	108.76	Initial Hydro-static
3	802.05	110.29	Open To Flow (1)
14	664.98	114.31	Shut-In(1)
50	1234.18	113.66	End Shut-In(1)
52	867.59	111.13	Open To Flow (2)
65	736.81	113.53	Shut-In(2)
120	1225.68	113.96	End Shut-In(2)
122	1808.49	116.39	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
252.00	Gassy Oil	3.53
0.00	25% Gas 75% Oil	0.00
126.00	Lightly Oil cut Muddy Water	1.77
0.00	10% Oil 15% Mud 75% Water	0.00
0.00	Gravity of Oil corrected w as 41	0.00
0.00	Chlorides were 31,000	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	104.00	2989.88
Last Gas Rate	1.00	110.00	3162.37
Max. Gas Rate	1.00	110.00	3162.37



# DRILL STEM TEST REPORT

Reif Oil and Gas Company

**Carr #1**

P.O.Box 298 Hoisinton  
Kansas, 67544

**1/218/16W Pawnee**

Job Ticket: 18754

DST#: 1

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 09:27:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: **No Whipstock:** ft (KB)

Time Tool Opened: 11:55:30

Time Test Ended: 15:51:00

Test Type: **Conventional Bottom Hole (Initial)**

Tester: **Dylan E Ellis**

Unit No: **3345/Great Bend/47**

Interval: **3751.00 ft (KB) To 3761.00 ft (KB) (TVD)**

Reference Elevations: **1996.00 ft (KB)**

Total Depth: **3761.00 ft (KB) (TVD)**

**1984.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

KB to GR/CF: **12.00 ft**

**Serial #: 6731**

**Inside**

Press@RunDepth: **1225.59 psia @ 3757.00 ft (KB)**

Capacity: **5000.00 psia**

Start Date: **2011.09.18**

End Date: **2011.09.18**

Last Calib.: **2011.09.18**

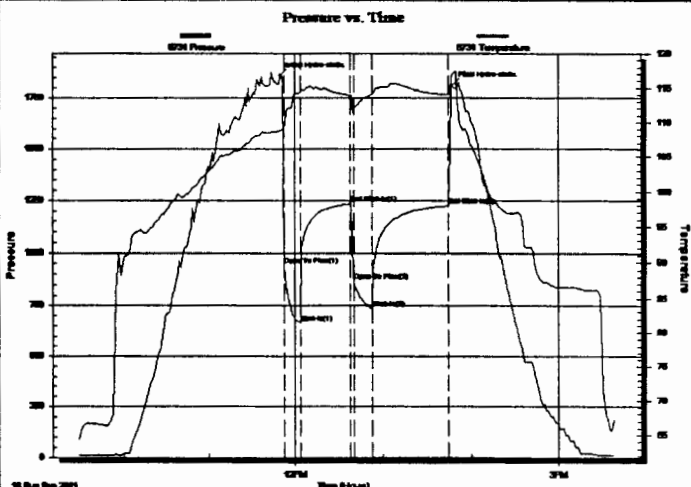
Start Time: **09:28:00**

End Time: **15:38:30**

Time On Btm: **2011.09.18 @ 11:49:30**

Time Off Btm: **2011.09.18 @ 13:47:00**

**TEST COMMENT:** 1ST Opning 12 Minutes bottom of bucket instantly/gas to surface in 1 minute  
 1ST Shut-in 30 Minutes yes blow back  
 2ND Opning 20 Minutes bottom of bucket instantly/caught gas sample/check gas gauge chart  
 2ND Shut-in 45 Minutes yes blow back



## PRESSURE SUMMARY

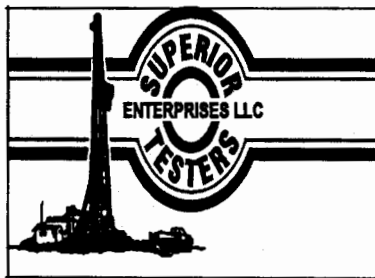
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1860.09	108.72	Initial Hydro-static
3	944.31	108.92	Open To Flow (1)
14	665.87	114.39	Shut-In(1)
49	1233.89	113.94	End Shut-In(1)
51	867.25	111.77	Open To Flow (2)
63	737.18	114.08	Shut-In(2)
115	1225.59	114.04	End Shut-In(2)
118	1809.66	116.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
252.00	Gassy Oil	3.53
0.00	25% Gas 75% Oil	0.00
126.00	Lightly Oil cut Muddy Water	1.77
0.00	10% Oil 15% Mud 75% Water	0.00
0.00	Gravity of Oil corrected was 41	0.00
0.00	Chlorides were 31,000	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	1.00	104.00	2989.88
Last Gas Rate	1.00	110.00	3162.37
Max. Gas Rate	1.00	110.00	3162.37



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas, 67544

1/21S/16W Pawnee

Job Ticket: 18754

DST#: 1

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 09:27:00

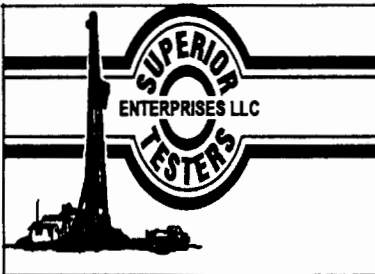
## Tool Information

Drill Pipe:	Length: 3758.00 ft	Diameter: 3.80 inches	Volume: 52.71 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 25000.00 lb
			<u>Total Volume: 52.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3751.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	31.00 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			3731.00	
Shut-In Tool	5.00			3736.00	
Hydroic Tool	5.00			3741.00	
Packer	5.00			3746.00	21.00 Bottom Of Top Packer
Packer	5.00			3751.00	
Perforations	5.00			3756.00	
Recorder	1.00	6731	Inside	3757.00	
Recorder	1.00	6666	Outside	3758.00	
Bullnose	3.00			3761.00	10.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>31.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Reif Oil and Gas Company

**Carr #1**

P.O.Box 298 Hoinston  
Kansas, 67544

**1/21S/16W Pawnee**

Job Ticket: 18754

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 09:27:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 49.00 sec/qt  
Water Loss: 9.19 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5400.00 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
252.00	Gassy Oil	3.535
0.00	25% Gas 75% Oil	0.000
126.00	Lightly Oil cut Muddy Water	1.767
0.00	10% Oil 15% Mud 75% Water	0.000
0.00	Gravity of Oil corrected was 41	0.000
0.00	Chlorides were 31,000	0.000
0.00	Resistivity was .15 @ 79 degrees	0.000

Total Length: 378.00 ft      Total Volume: 5.302 bbl

Num Fluid Samples: 0

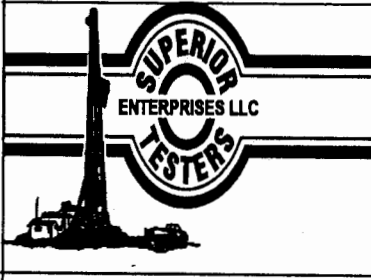
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



# DRILL STEM TEST REPORT

**GAS RATES**

Reif Oil and Gas Company

**Carr #1**

P.O.Box 298 Hoisinton  
Kansas, 67544

**1/21S/16W Pawnee**

Job Ticket: 18754

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 09:27:00

## Gas Rates Information

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

Gas Rates Table

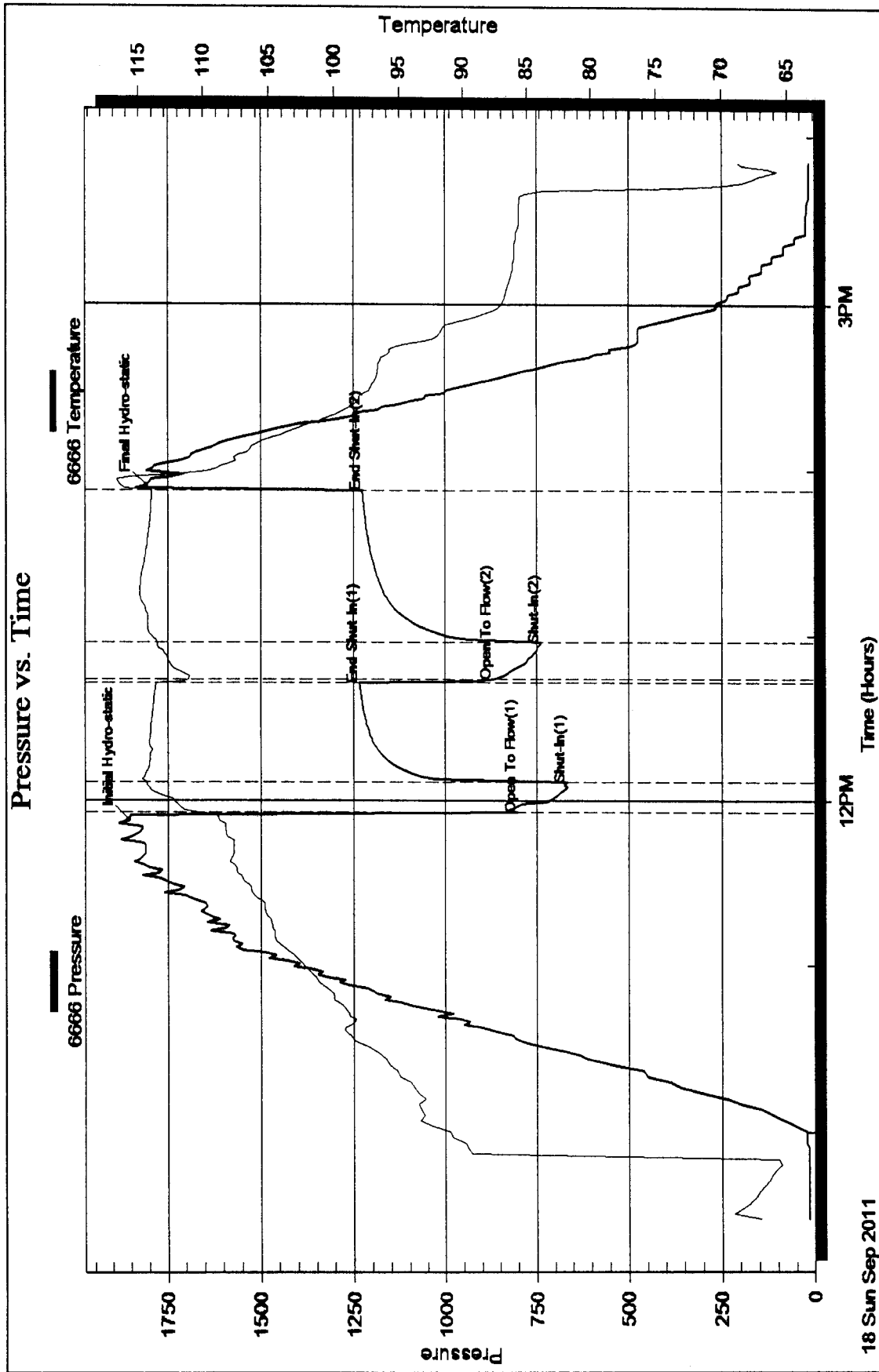
Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
1	5	1.00	104.00	2989.88
2	10	1.00	104.00	2989.88
3	15	1.00	106.00	3047.37
4	20	1.00	110.00	3162.37

Serial #: 6666

Outside Reif Oil and Gas Company

1/21S/16W Raw nee

DST Test Number: 1



Printed: 2011.09.21 @ 08:15:34

Ref. No: 18754

Superior Testers Enterprises LLC

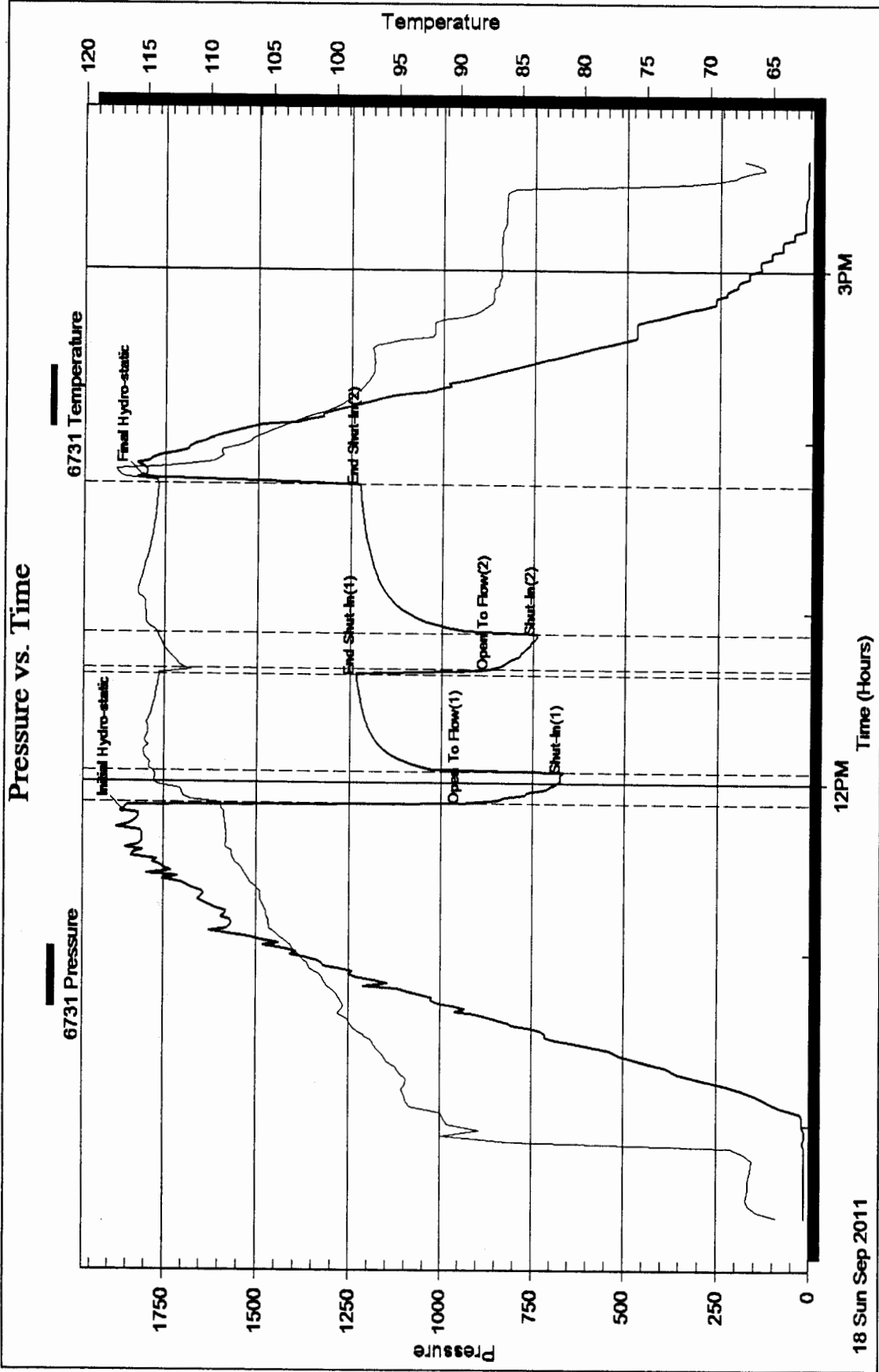
Serial #: 6731

Inside

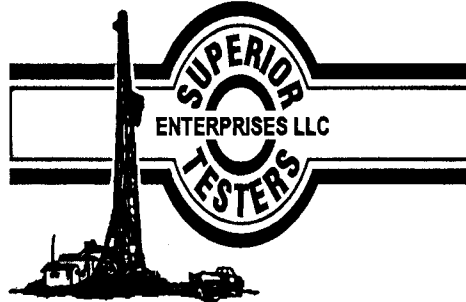
Reif Oil and Gas Company

1/21S/16W Pawnee

DST Test Number: 1



18 Sun Sep 2011



## DRILL STEM TEST REPORT

Prepared For: **Reif Oil and Gas Company**

P.O.Box 298 Hoisinton  
Kansas,67544

ATTN: Jim Musgrove

**1/21S/16W Pawnee**

**Carr #1**

Start Date: 2011.09.18 @ 11:27:00

End Date: 2011.09.19 @ 19:35:30

Job Ticket #: 18676                      DST #: 2

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

Printed: 2011.09.21 @ 08:15:45

Reif Oil and Gas Company      Carr #1      1/21S/16W Pawnee      DST # 2      Arbuckle      2011.09.18



# DRILL STEM TEST REPORT

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas, 67544

1/21S/16W Pawnee

Job Ticket: 18676

DST#: 2

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 11:27:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:36:30

Time Test Ended: 19:35:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Great Bend/47

Interval: **3763.00 ft (KB) To 3777.00 ft (KB) (TVD)**

Reference Elevations: 1996.00 ft (KB)

Total Depth: 3777.00 ft (KB) (TVD)

1984.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 6666

Outside

Press@RunDepth: 1063.38 psia @ 3774.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.09.18

End Date:

2011.09.18

Last Calib.:

2011.09.19

Start Time:

11:28:00

End Time:

19:35:30

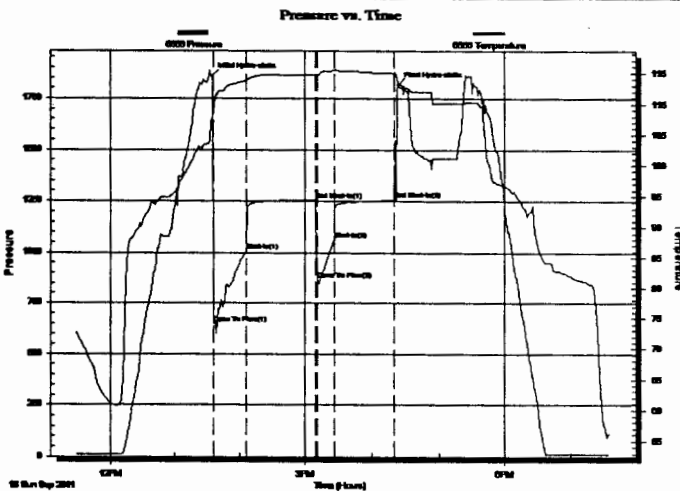
Time On Btm:

2011.09.18 @ 13:34:30

Time Off Btm:

2011.09.18 @ 16:23:30

TEST COMMENT: 1ST Opening 30 Minutes very strong blow/blow blew to bottom of bucket in 10 seconds/gas to surface 1 minute  
1ST Shut-In 60 Minutes yes blow back  
2ND Opening 20 Minutes very strong blow/blow blew bottom of bucket in 10 seconds/oil to surface in 17 minutes  
2ND Shut-In 45 Minutes yes blow back



## PRESSURE SUMMARY

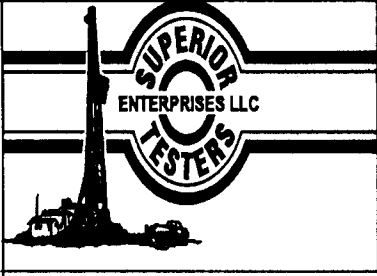
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1854.75	107.62	Initial Hydro-static
2	649.54	108.94	Open To Flow (1)
32	1005.62	113.70	Shut-In(1)
95	1256.34	114.68	End Shut-In(1)
97	869.88	114.56	Open To Flow (2)
112	1063.38	115.35	Shut-In(2)
166	1257.69	114.97	End Shut-In(2)
169	1812.86	113.39	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3758.00	Gassy Oil as it flowed on us	52.71
0.00	20% Gas 80% Oil	0.00
0.00	Gravity of Oil corrected was ( 40 )	0.00
0.00	Chlorides were 31,000	0.00
0.00	Resistivity was .20 @ 83 degrees	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.75	3.20	49.98
Last Gas Rate	0.75	3.30	51.55



# DRILL STEM TEST REPORT

Reif Oil and Gas Company  
 P.O.Box 298 Hoisinton  
 Kansas, 67544  
 ATTN: Jim Musgrove

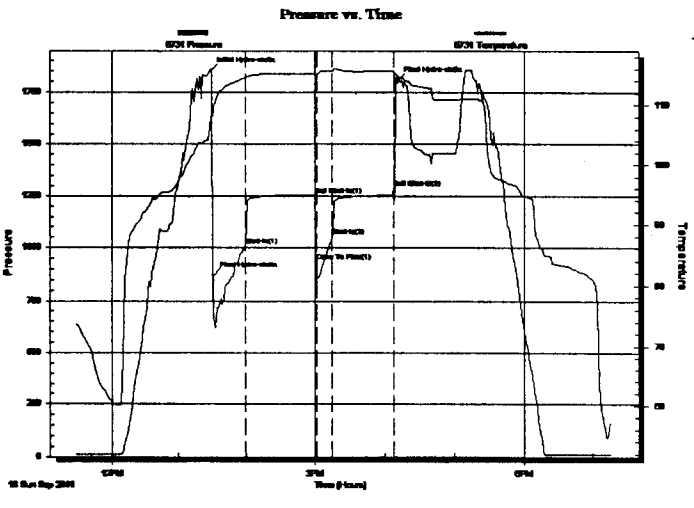
**Carr #1**  
**1/21S/16W Pawnee**  
 Job Ticket: 18676      **DST#: 2**  
 Test Start: 2011.09.18 @ 11:27:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: **No Whipstock**      ft (KB)  
 Time Tool Opened: 13:36:30  
 Time Test Ended: 19:35:30  
 Interval: **3763.00 ft (KB) To 3777.00 ft (KB) (TVD)**  
 Total Depth: **3777.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Dylan E Ellis**  
 Unit No: **3345/Great Bend/47**  
 Reference Elevations: **1996.00 ft (KB)**  
**1984.00 ft (CF)**  
**KB to GR/CF: 12.00 ft**

**Serial #: 6731**      **Inside**  
 Press@RunDepth: **1289.72 psia @ 3773.00 ft (KB)**      Capacity: **5000.00 psia**  
 Start Date: **2011.09.18**      End Date: **2011.09.18**      Last Calib.: **2011.09.19**  
 Start Time: **11:28:00**      End Time: **19:16:30**      Time On Btm: **2011.09.18 @ 13:29:00**  
 Time Off Btm: **2011.09.18 @ 13:31:00**

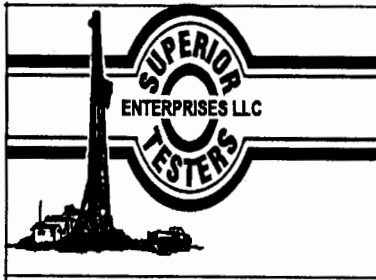
**TEST COMMENT:** 1ST Opening 30 Minutes very strong blow/blow blew to bottom of bucket in 10 seconds/gas to surface 1 minute  
 1ST Shut-in 60 Minutes yes blow back  
 2ND Opening 20 Minutes very strong blow/blow blew bottom of bucket in 10 seconds/oil to surface in 17 minutes  
 2ND Shut-in 45 Minutes yes blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1851.88	108.16	Initial Hydro-static
2	869.70	109.08	Final Hydro-static
31	1008.72	114.52	Shut-In(1)
91	1255.80	115.19	End Shut-In(1)
92	938.10	115.01	Open To Flow (1)
106	1055.21	115.59	Shut-In(2)
159	1289.72	115.58	End Shut-In(2)
162	1804.03	114.75	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
3758.00	Gassy Oil as it flowed on us	52.71
0.00	20% Gas 80% Oil	0.00
0.00	Gravity of Oil corrected w as ( 40 )	0.00
0.00	Chlorides were 31,000	0.00
0.00	Resistivity was .20 @ 83 degrees	0.00

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.75	3.20	49.98
Last Gas Rate	0.75	3.30	51.55



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas, 67544

1/21S/16W Pawnee

Job Ticket: 18676

DST#: 2

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 11:27:00

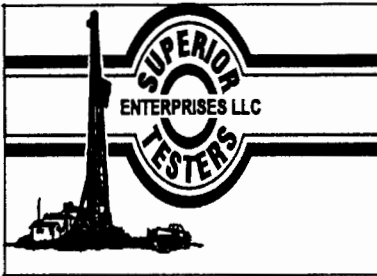
## Tool Information

Drill Pipe:	Length: 3758.00 ft	Diameter: 3.80 inches	Volume: 52.71 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			Total Volume: 52.71 bbl	Tool Chased 15.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3763.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	35.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Dropped the bar on it 1 stand out.

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3743.00	
Shut-In Tool	5.00			3748.00	
Hydroic Tool	5.00			3753.00	
Packer	5.00			3758.00	21.00 Bottom Of Top Packer
Packer	5.00			3763.00	
Perforations	9.00			3772.00	
Recorder	1.00	6731	Inside	3773.00	
Recorder	1.00	6666	Outside	3774.00	
Bullnose	3.00			3777.00	14.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>35.00</b>				



# DRILL STEM TEST REPORT

**GAS RATES**

Reif Oil and Gas Company

**Carr #1**

P.O.Box 298 Hoisinton  
Kansas, 67544

**1/21S/16W Pawnee**

Job Ticket: 18676

**DST#: 2**

ATTN: Jim Musgrove

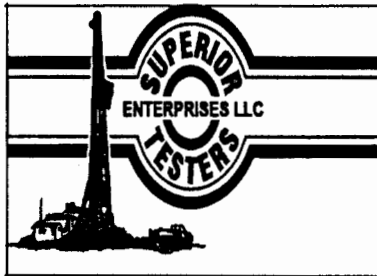
Test Start: 2011.09.18 @ 11:27:00

## 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)
1	10	0.75	3.20	49.98
1	20	0.75	3.30	51.55



# DRILL STEM TEST REPORT

FLUID SUMMARY

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas, 67544

1/21S/16W Pawnee

Job Ticket: 18676

DST#: 2

ATTN: Jim Musgrove

Test Start: 2011.09.18 @ 11:27:00

## 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: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 5500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3758.00	Gassy Oil as it flow ed on us	52.715
0.00	20% Gas 80% Oil	0.000
0.00	Gravity of Oil corrected w as ( 40 )	0.000
0.00	Chlorides w ere 31,000	0.000
0.00	Resistivity w as .20 @ 83 degrees	0.000

Total Length: 3758.00 ft      Total Volume: 52.715 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6666

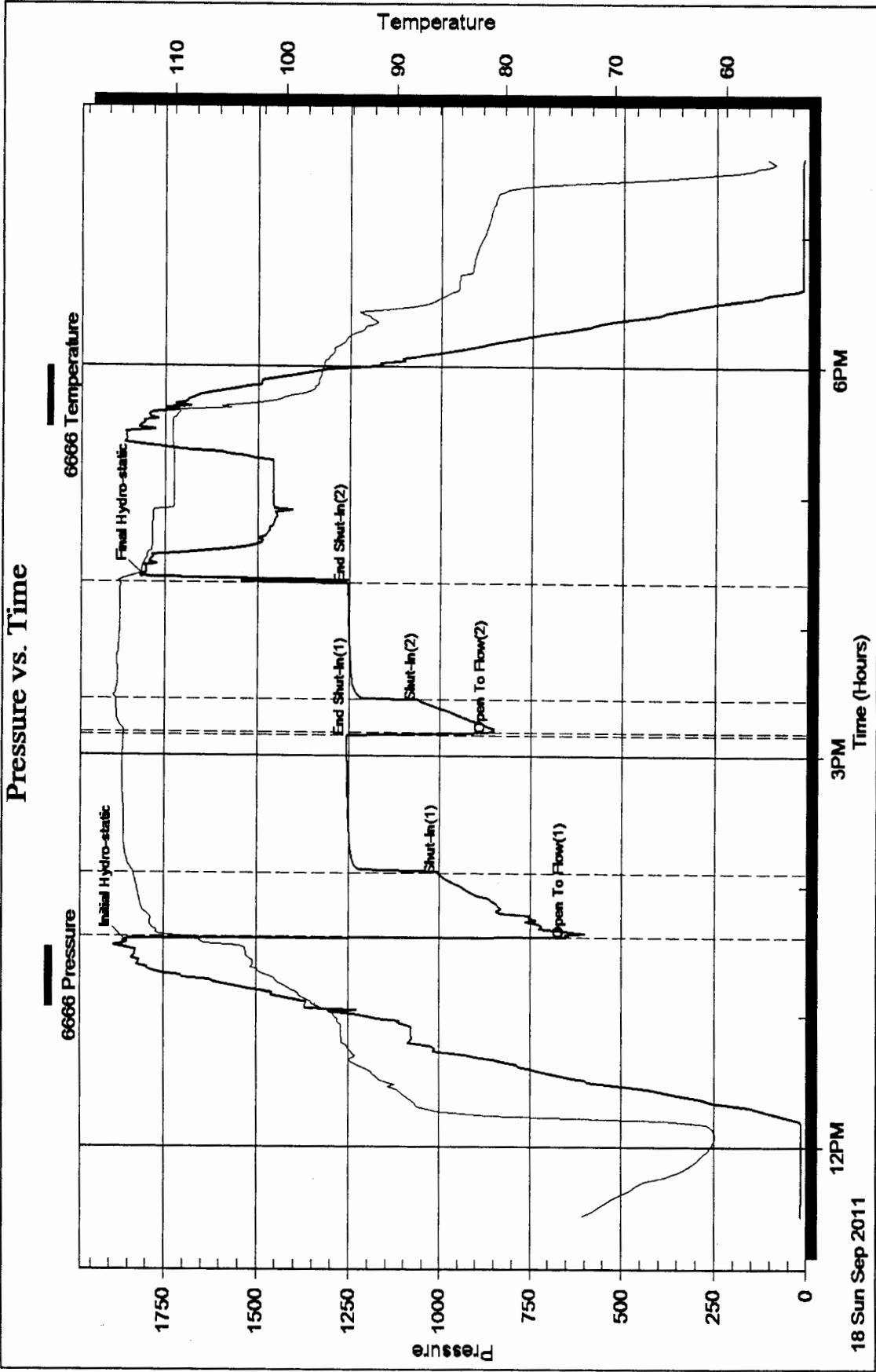
Outside

Reif Oil and Gas Company

1/2" S/16W Pawnee

DST Test Number: 2

### Pressure vs. Time



Serial #: 6731

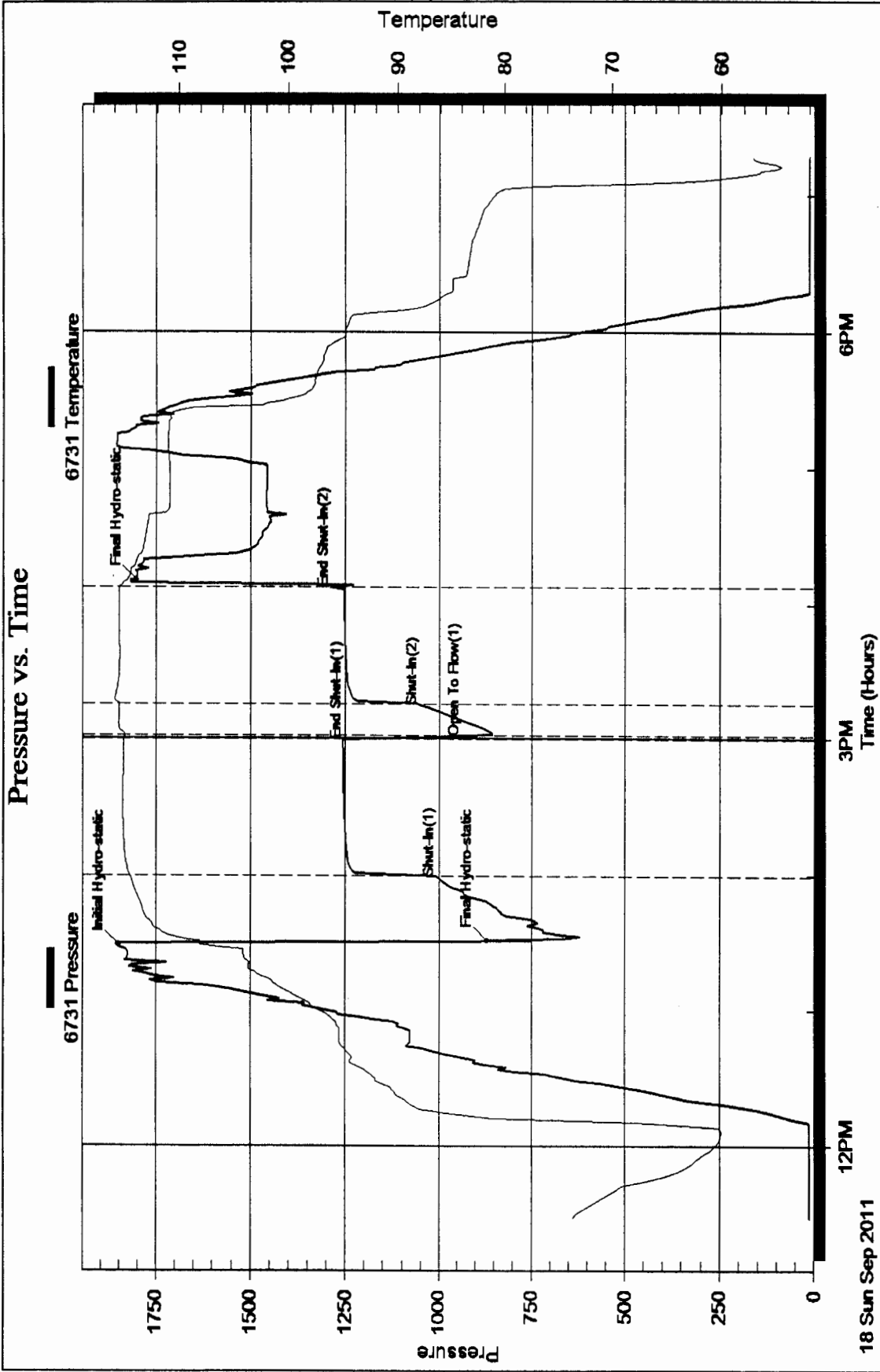
Inside

Reif Oil and Gas Company

1/2" IS/16W Paw nee

DST Test Number: 2

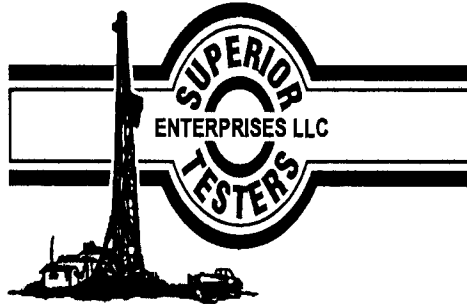
### Pressure vs. Time



Printed: 2011.09.21 @ 08:15:46

Ref. No: 18676

Superior Testers Enterprises LLC



## DRILL STEM TEST REPORT

Prepared For: **Reif Oil and Gas Company**

P.O.Box 298 Hoisinton  
Kansas, 67544

ATTN: Jim Musgrove

**1/21S/16W Pawnee**

**Carr #1**

Start Date: 2011.09.19 @ 04:09:00

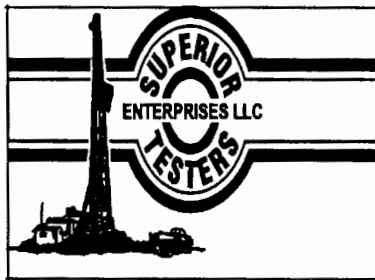
End Date: 2011.09.19 @ 12:52:30

Job Ticket #: 18677                      DST #: 3

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

Printed: 2011.09.21 @ 08:16:03

Reif Oil and Gas Company      Carr #1      1/21S/16W Pawnee      DST # 3      Arbuckle      2011.09.19



# DRILL STEM TEST REPORT

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas, 67544

1/21S/16W Pawnee

Job Ticket: 18677

DST#: 3

ATTN: Jim Musgrove

Test Start: 2011.09.19 @ 04:09:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:47:00

Time Test Ended: 12:52:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345/Great Bend/47

Interval: **3779.00 ft (KB) To 3795.00 ft (KB) (TVD)**

Reference Elevations: 1996.00 ft (KB)

Total Depth: 3795.00 ft (KB) (TVD)

1984.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: **6666**

Outside

Press@RunDepth: 1261.48 psia @ 3792.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.09.19

End Date:

2011.09.19

Last Calib.:

2011.09.19

Start Time: 04:10:00

End Time:

12:52:30

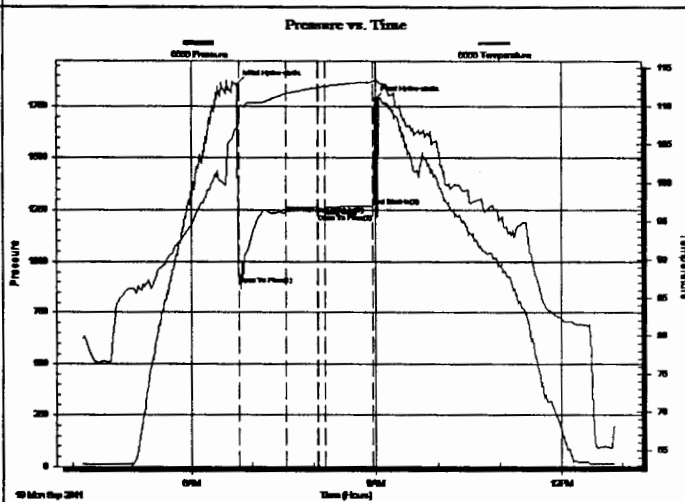
Time On Btm:

2011.09.19 @ 06:44:30

Time Off Btm:

2011.09.19 @ 08:58:30

TEST COMMENT: 1ST Opening 45 Minutes strong blow / blow blew to bottom of bucket in 10 seconds/gas to surface in 14 mins.  
1ST Shut-In 30 Minutes yes blow back  
2ND Opening 5 Minutes strong blow / blow blew bottom of bucket instantly  
2ND Shut-In 45 Minutes yes blow back



## PRESSURE SUMMARY

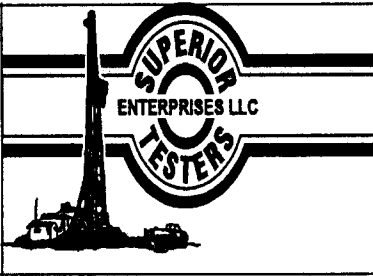
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1858.42	107.19	Initial Hydro-static
3	888.64	109.76	Open To Flow (1)
49	1233.53	111.73	Shut-In(1)
79	1266.61	112.49	End Shut-In(1)
80	1233.40	112.48	Open To Flow (2)
86	1261.48	112.67	Shut-In(2)
133	1267.08	113.24	End Shut-In(2)
134	1785.31	113.42	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1500.00	Clean Gassy Oil	21.04
0.00	Gas 30% Oil 70%	0.00
2100.00	Salt Water 100%	29.46
0.00	Chlorides were 37,000.0	0.00
0.00	Gravity of Oil corrected was ( 38 )	0.00
0.00	Resistivity was .18 @ 87 degrees	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Reif Oil and Gas Company  
 P.O.Box 298 Hoisinton  
 Kansas, 67544  
 ATTN: Jim Musgrove

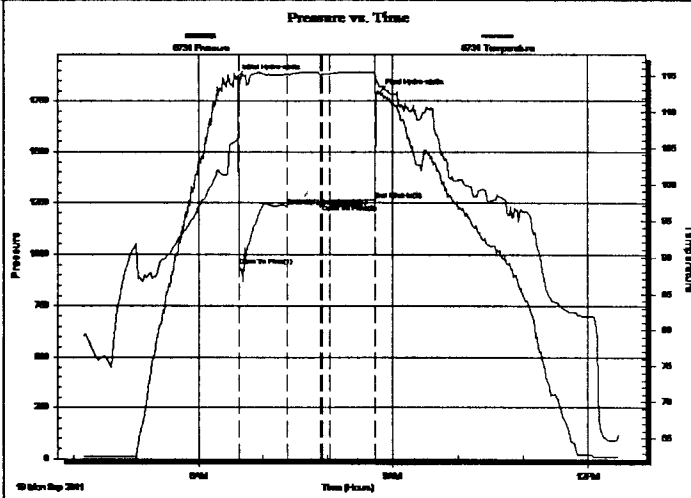
**Carr #1**  
**1/21S/16W Pawnee**  
 Job Ticket: 18677 **DST#: 3**  
 Test Start: 2011.09.19 @ 04:09:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: **No Whipstock:** ft (KB)  
 Time Tool Opened: 06:47:00  
 Time Test Ended: 12:52:30  
 Interval: **3779.00 ft (KB) To 3795.00 ft (KB) (TVD)**  
 Total Depth: **3795.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Dylan E Ellis**  
 Unit No: **3345/Great Bend/47**  
 Reference Elevations: **1996.00 ft (KB)**  
**1984.00 ft (CF)**  
 KB to GR/CF: **12.00 ft**

**Serial #: 6731** **Inside**  
 Press@RunDepth: **1266.39 psia @ 3791.00 ft (KB)** Capacity: **5000.00 psia**  
 Start Date: **2011.09.19** End Date: **2011.09.19** Last Calib.: **2011.09.19**  
 Start Time: **04:10:00** End Time: **12:30:00** Time On Btm: **2011.09.19 @ 06:35:30**  
 Time Off Btm: **2011.09.19 @ 08:47:30**

**TEST COMMENT:** 1ST Opening 45 Minutes strong blow / blow blew to bottom of bucket in 10 seconds/gas to surface in 14 mins.  
 1ST Shut-In 30 Minutes yes blow back  
 2ND Opening 5 Minutes strong blow / blow blew bottom of bucket instantly  
 2ND Shut-In 45 Minutes yes blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1862.58	106.09	Initial Hydro-static
3	942.41	113.59	Open To Flow (1)
48	1232.58	115.22	Shut-In(1)
79	1234.17	115.17	End Shut-In(1)
80	1242.85	115.21	Open To Flow (2)
87	1264.83	115.30	Shut-In(2)
129	1266.39	115.53	End Shut-In(2)
132	1789.47	113.72	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1500.00	Clean Gassy Oil	21.04
0.00	Gas 30% Oil 70%	0.00
2100.00	Salt Water 100%	29.46
0.00	Chlorides were 37,000.0	0.00
0.00	Gravity of Oil corrected was ( 38 )	0.00
0.00	Resistivity was .18 @ 87 degrees	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas, 67544

1/21S/16W Pawnee

Job Ticket: 18677

DST#: 3

ATTN: Jim Musgrove

Test Start: 2011.09.19 @ 04:09:00

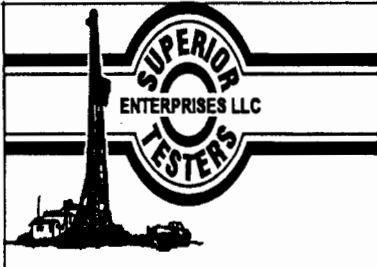
## Tool Information

Drill Pipe:	Length: 3787.00 ft	Diameter: 3.80 inches	Volume: 53.12 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 53.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3779.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	37.00 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			3759.00	
Shut-In Tool	5.00			3764.00	
Hydroic Tool	5.00			3769.00	
Packer	5.00			3774.00	21.00 Bottom Of Top Packer
Packer	5.00			3779.00	
Perforations	11.00			3790.00	
Recorder	1.00	6731	Inside	3791.00	
Recorder	1.00	6666	Outside	3792.00	
Bullnose	3.00			3795.00	16.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>37.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

Reif Oil and Gas Company

Carr #1

P.O.Box 298 Hoisinton  
Kansas,67544

1/21S/16W Pawnee

Job Ticket: 18677

DST#: 3

ATTN: Jim Musgrove

Test Start: 2011.09.19 @ 04:09:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 58.00 sec/qt  
Water Loss: 10.79 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 8200.00 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
1500.00	Clean Gassy Oil	21.041
0.00	Gas 30% Oil 70%	0.000
2100.00	Salt Water 100%	29.457
0.00	Chlorides were 37,000.0	0.000
0.00	Gravity of Oil corrected was ( 38 )	0.000
0.00	Resistivity was .18 @ 87 degrees	0.000

Total Length: 3600.00 ft      Total Volume: 50.498 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

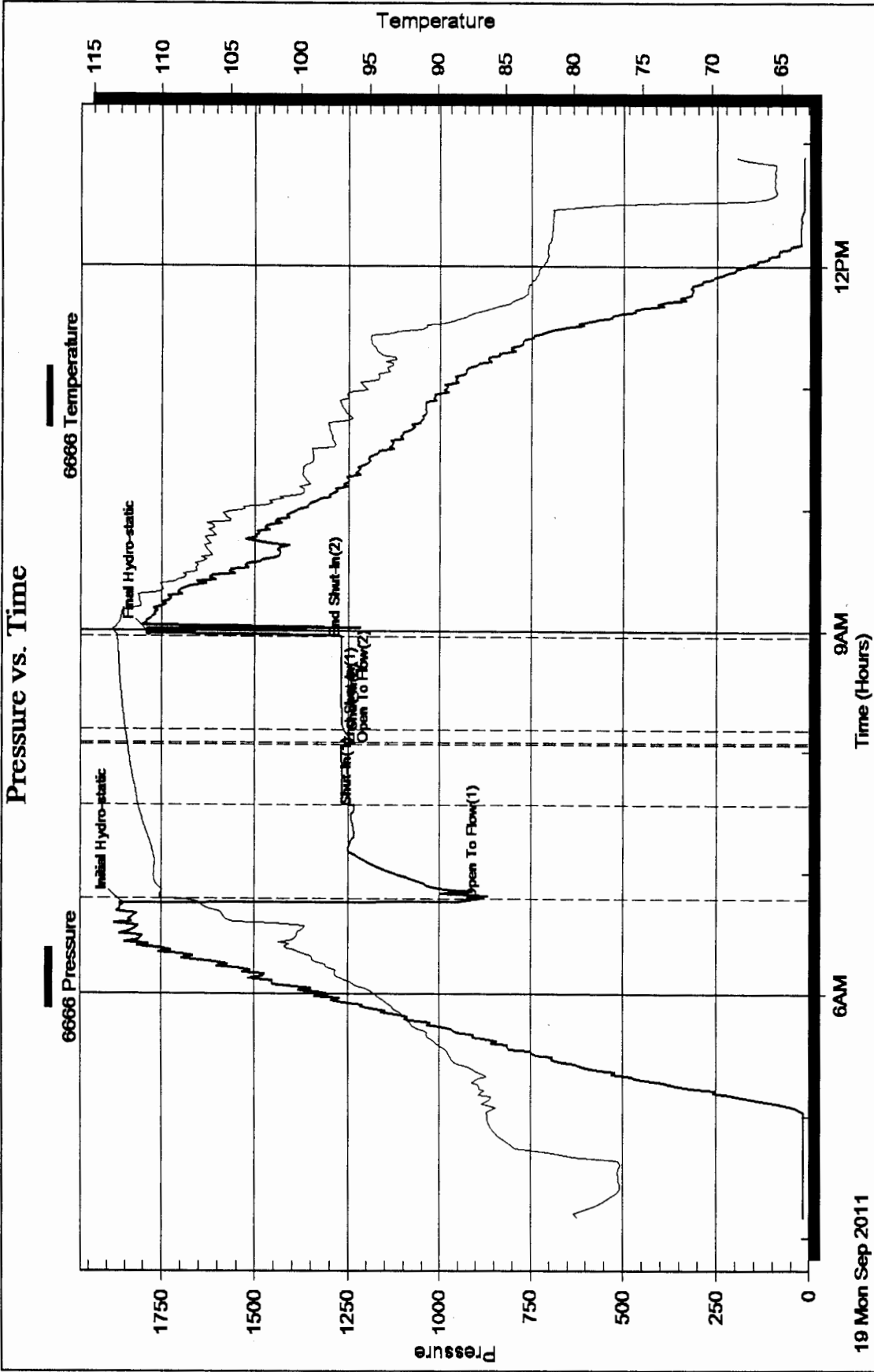
Recovery Comments:

Serial #: 6666

Outside Reif Oil and Gas Company

1/2" S/16W Pawnee

DST Test Number: 3



Printed: 2011.09.21 @ 08:16:04

Ref. No: 18677

Superior Testers Enterprises LLC

### Pressure vs. Time

