

## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

8100 E 22nd St N # 700 Wichita KS  
67278+3188

ATTN: Mike Engelbrecht

**Potosi-Simon#1**

**13-27-24w Ford**

Start Date: 2012.07.08 @ 14:25:00

End Date: 2012.07.08 @ 00:00:00

Job Ticket #: 17358                      DST #: 1

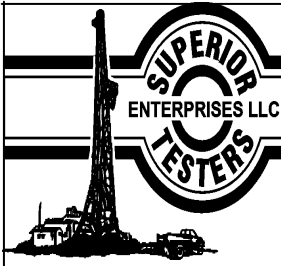
Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2012.07.08 @ 07:55:15

Ritchie Exploration Inc  
13-27-24w Ford  
Potosi-Simon#1  
DST # 1  
Pawnee  
2012.07.08







# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17358

**DST#: 1**

ATTN: Mike Engelbrecht

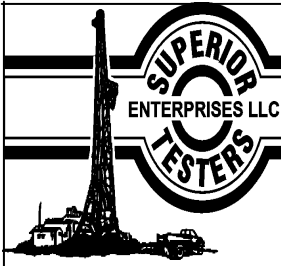
Test Start: 2012.07.08 @ 14:25:00

## Tool Information

Drill Pipe:	Length:	0.00 ft	Diameter:	3.80 inches	Volume:	0.00 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:	0.00 lb
					<u>Total Volume:</u>	<u>0.00 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:		-4757.00 ft					String Weight: Initial	0.00 lb
Depth to Top Packer:		4785.00 ft					Final	0.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		25.00 ft						
Tool Length:		53.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments: Hit bridge 3400 deep pulled tool

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	4762.00	
Hydraulic Tool	5.00			4767.00	
Jars	6.00			4773.00	
Safety Joint	2.00			4775.00	
Packer	5.00			4780.00	28.00 Bottom Of Top Packer
Packer	5.00			4785.00	
Anchor	20.00			4805.00	
Recorder	1.00	6731	Inside	4806.00	
Recorder	1.00	8159	Outside	4807.00	
Bullnose	3.00			4810.00	25.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>53.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17358

**DST#: 1**

ATTN: Mike Engelbrecht

Test Start: 2012.07.08 @ 14:25:00

### 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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 5600.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	Hit bridge 3400 deep pulled tool	0.000

Total Length: ft Total Volume: bbl

Num Fluid Samples: 0

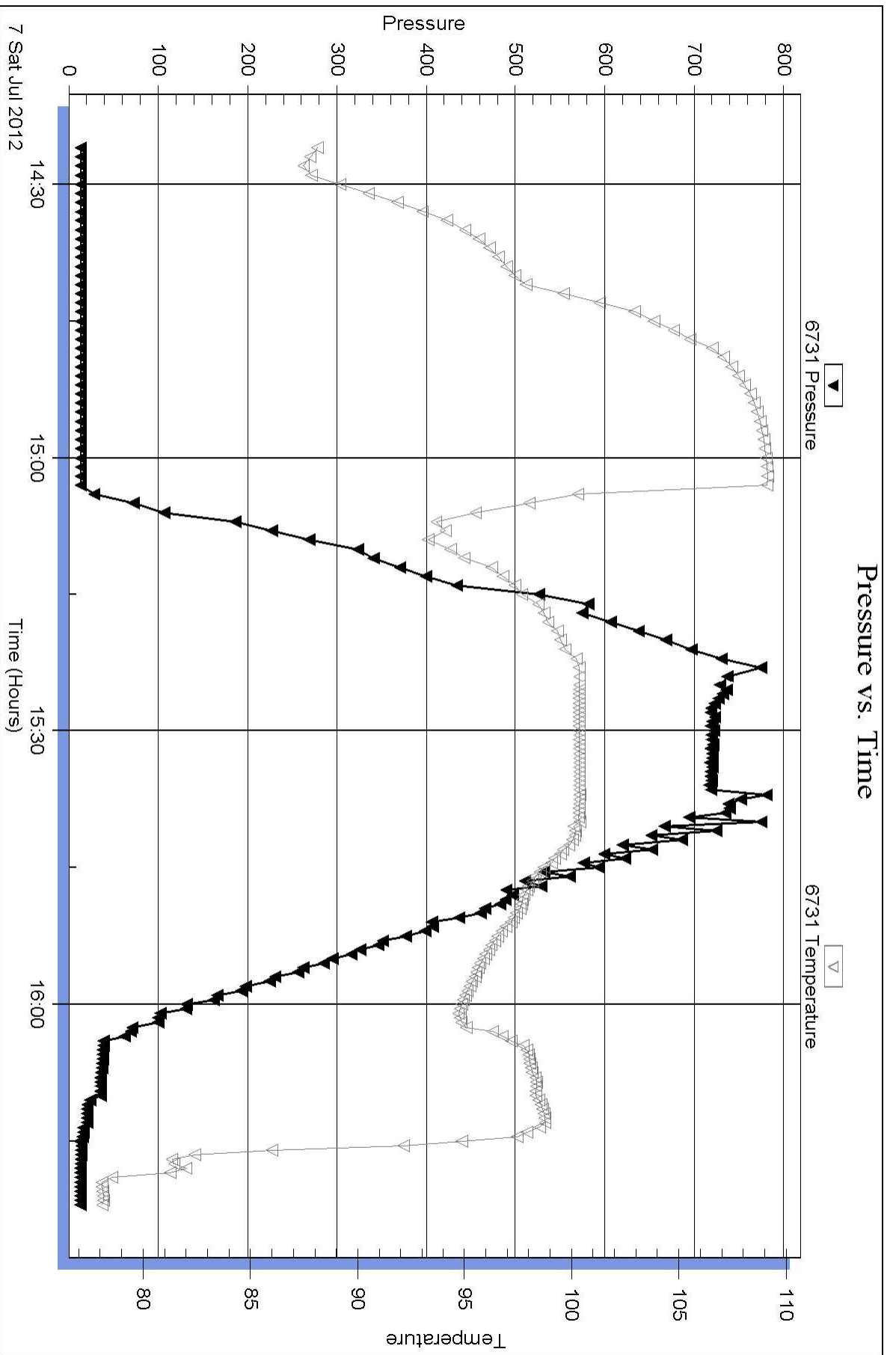
Num Gas Bombs: 0

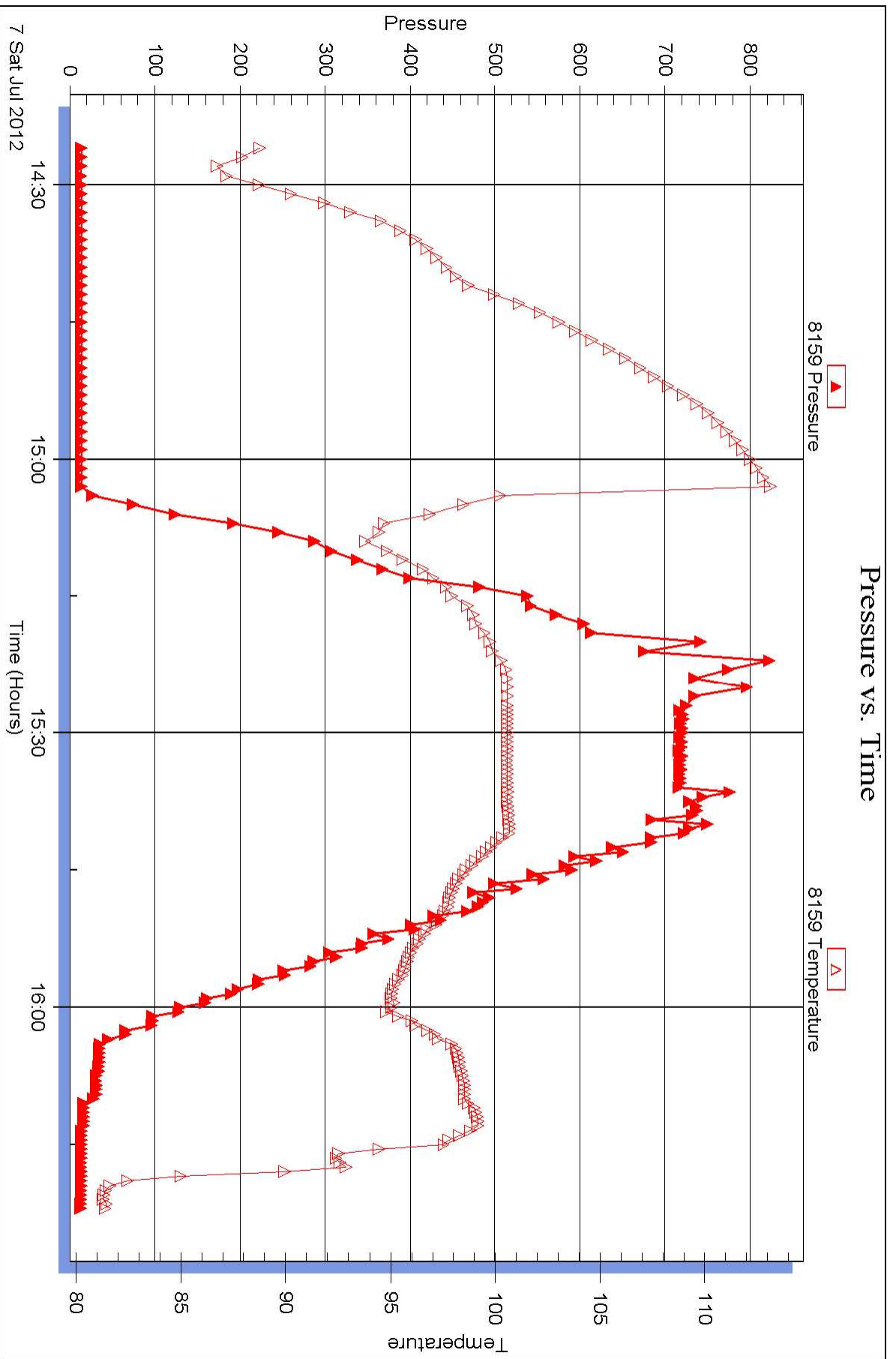
Serial #:

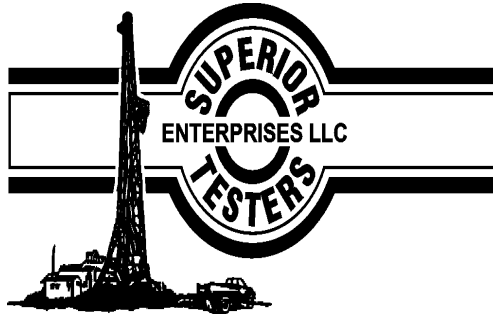
Laboratory Name:

Laboratory Location:

Recovery Comments: Hit bridge 3400 deep pulled tool







## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

8100 E 22nd St N # 700 Wichita KS  
67278+3188

ATTN: Mike Engelbrecht

**Potosi-Simon#1**

**13-27-24w Ford**

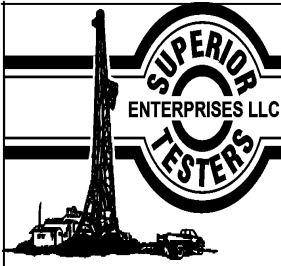
Start Date: 2012.07.07 @ 23:15:00

End Date: 2012.07.08 @ 07:16:00

Job Ticket #: 17359                      DST #: 2

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

Printed: 2012.07.08 @ 07:46:22



# DRILL STEM TEST REPORT

Ritchie Exploration Inc

13-27-24w Ford

8100 E 22nd St N # 700 Wichita KS 67278+3188

Potosi-Simon#1

ATTN: Mike Engelbrecht

Job Ticket: 17359

DST#: 2

Test Start: 2012.07.07 @ 23:15:00

## GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:32:30

Time Test Ended: 07:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-GB-

Interval: **4785.00 ft (KB) To 4810.00 ft (KB) (TVD)**

Reference Elevations: 2466.00 ft (KB)

Total Depth: 4810.00 ft (KB) (TVD)

2454.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

## Serial #: 6731

Press @ RunDepth: 172.43 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.07.07

End Date: 2012.07.08

Last Calib.: 2012.07.08

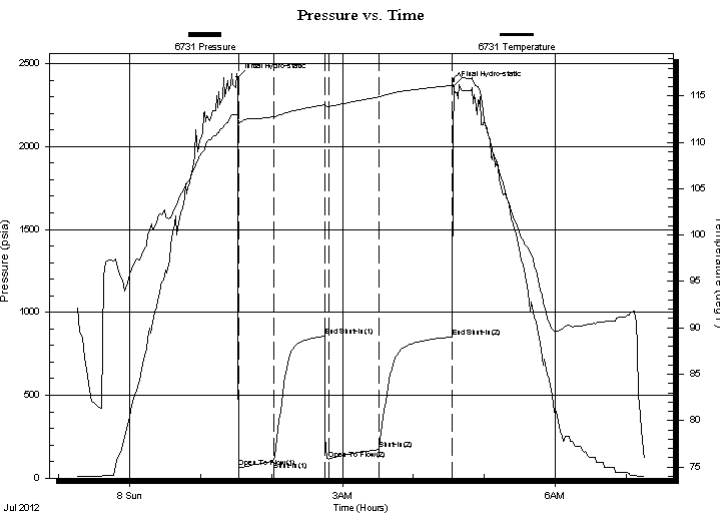
Start Time: 23:15:00

End Time: 07:16:00

Time On Btm: 2012.07.08 @ 01:31:00

Time Off Btm: 2012.07.08 @ 04:34:00

**TEST COMMENT:** 1st Opening 30 Minutes-Strong blow built bottom of bucket in 2 minutes  
 1st Shut-in 45 Minutes-6 inch blow back  
 2nd Opening 45 Minutes-Strong blow built bottom of bucket in 1 minute gas to surface 5 minutes see gas report  
 2nd Shut-in 60 Minutes-Yes



## PRESSURE SUMMARY

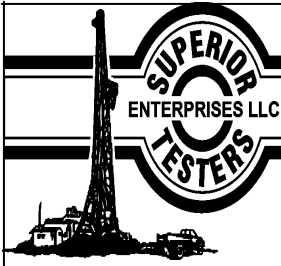
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2418.55	113.00	Initial Hydro-static
2	68.26	112.03	Open To Flow (1)
31	101.44	112.77	Shut-In(1)
74	856.69	114.06	End Shut-In(1)
78	116.32	113.89	Open To Flow (2)
120	172.43	114.90	Shut-In(2)
182	851.91	116.16	End Shut-In(2)
183	2365.88	116.59	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
200.00	Clean gas oil 80%oil 20%gas	2.81
126.00	Gas mud oil 15%mud 60%gas 25 %oil	1.77
63.00	Oil & gas cut w ater mud	0.88
0.00	30%mud 20%w ater 20%oil 30%gas	0.00
0.00	Chlorides 50,000	0.00
0.00	Resistivity .2 @ 60 degrees	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	8.00	2.99
Last Gas Rate	0.13	14.00	5.24
Max. Gas Rate	0.13	14.00	5.24



# DRILL STEM TEST REPORT

Ritchie Exploration Inc

13-27-24w Ford

8100 E 22nd St N # 700 Wichita KS 67278+3188

Potosi-Simon#1

ATTN: Mike Engelbrecht

Job Ticket: 17359

DST#: 2

Test Start: 2012.07.07 @ 23:15:00

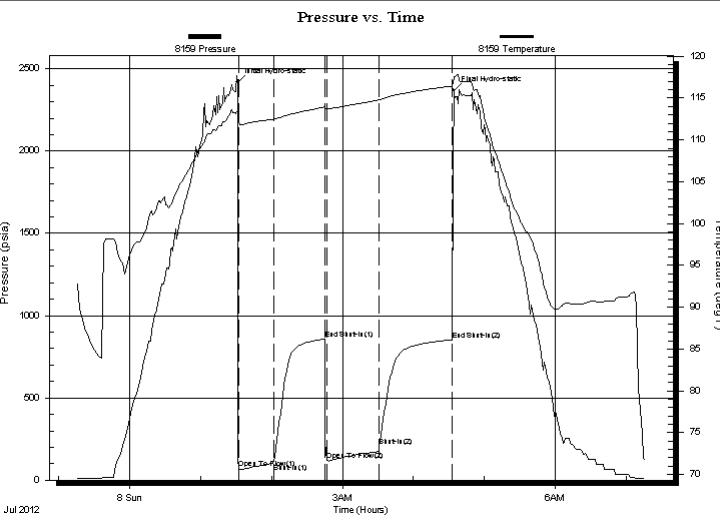
## GENERAL INFORMATION:

Formation: **Pawnee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:32:30  
 Time Test Ended: 07:16:00  
 Interval: **4785.00 ft (KB) To 4810.00 ft (KB) (TVD)**  
 Total Depth: 4810.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3320-GB-  
 Reference Elevations: 2466.00 ft (KB)  
 2454.00 ft (CF)  
 KB to GR/CF: 12.00 ft

## Serial #: 8159

Press @ Run Depth: 852.80 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.07.07 End Date: 2012.07.08 Last Calib.: 2012.07.08  
 Start Time: 23:15:00 End Time: 07:15:30 Time On Btm: 2012.07.08 @ 01:31:00  
 Time Off Btm: 2012.07.08 @ 04:34:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 2 minutes  
 1st Shut-in 45 Minutes-6 inch blow back  
 2nd Opening 45 Minutes-Strong blow built bottom of bucket in 1 minute gas to surface 5 minutes see gas report  
 2nd Shut-in 60 Minutes-Yes



## PRESSURE SUMMARY

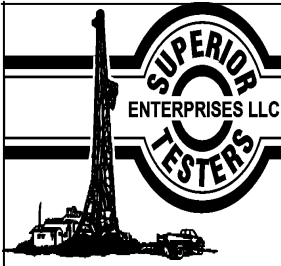
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2418.60	113.31	Initial Hydro-static
2	69.04	112.17	Open To Flow (1)
31	102.67	112.45	Shut-In(1)
74	857.62	113.94	End Shut-In(1)
76	119.62	113.71	Open To Flow (2)
120	204.51	114.80	Shut-In(2)
182	852.80	116.43	End Shut-In(2)
183	2368.28	117.21	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
200.00	Clean gas oil 80%oil 20%gas	2.81
126.00	Gas mud oil 15%mud 60%gas 25 %oil	1.77
63.00	Oil & gas cut w ater mud	0.88
0.00	30%mud 20%w ater 20%oil 30%gas	0.00
0.00	Chlorides 50,000	0.00
0.00	Resistivity .2 @ 60 degrees	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	8.00	2.99
Last Gas Rate	0.13	14.00	5.24
Max. Gas Rate	0.13	14.00	5.24



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17359

**DST#: 2**

ATTN: Mike Engelbrecht

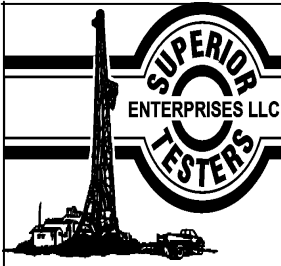
Test Start: 2012.07.07 @ 23:15:00

## Tool Information

Drill Pipe:	Length: 4781.00 ft	Diameter: 3.80 inches	Volume: 67.06 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:	70000.00 lb
			<u>Total Volume: 67.06 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4785.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	53.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: Gas to surface 5 minutes into 2nd open see gas report

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	4762.00	
Hydraulic Tool	5.00			4767.00	
Jars	6.00			4773.00	
Safety Joint	2.00			4775.00	
Packer	5.00			4780.00	28.00 Bottom Of Top Packer
Packer	5.00			4785.00	
Anchor	20.00			4805.00	
Recorder	1.00	6731	Inside	4806.00	
Recorder	1.00	8159	Outside	4807.00	
Bullnose	3.00			4810.00	25.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>53.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Ritchie Exploration Inc

13-27-24w Ford

8100 E 22nd St N # 700 Wichita KS 67278+3188

Potosi-Simon#1

Job Ticket: 17359

DST#: 2

ATTN: Mike Engelbrecht

Test Start: 2012.07.07 @ 23:15:00

### 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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 5600.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	Clean gas oil 80%oil 20%gas	2.805
126.00	Gas mud oil 15%mud 60%gas 25 %oil	1.767
63.00	Oil & gas cut w ater mud	0.884
0.00	30%mud 20%w ater 20%oil 30%gas	0.000
0.00	Chlorides 50,000	0.000
0.00	Resistivity .2 @ 60 degrees	0.000

Total Length: 389.00 ft Total Volume: 5.456 bbl

Num Fluid Samples: 0

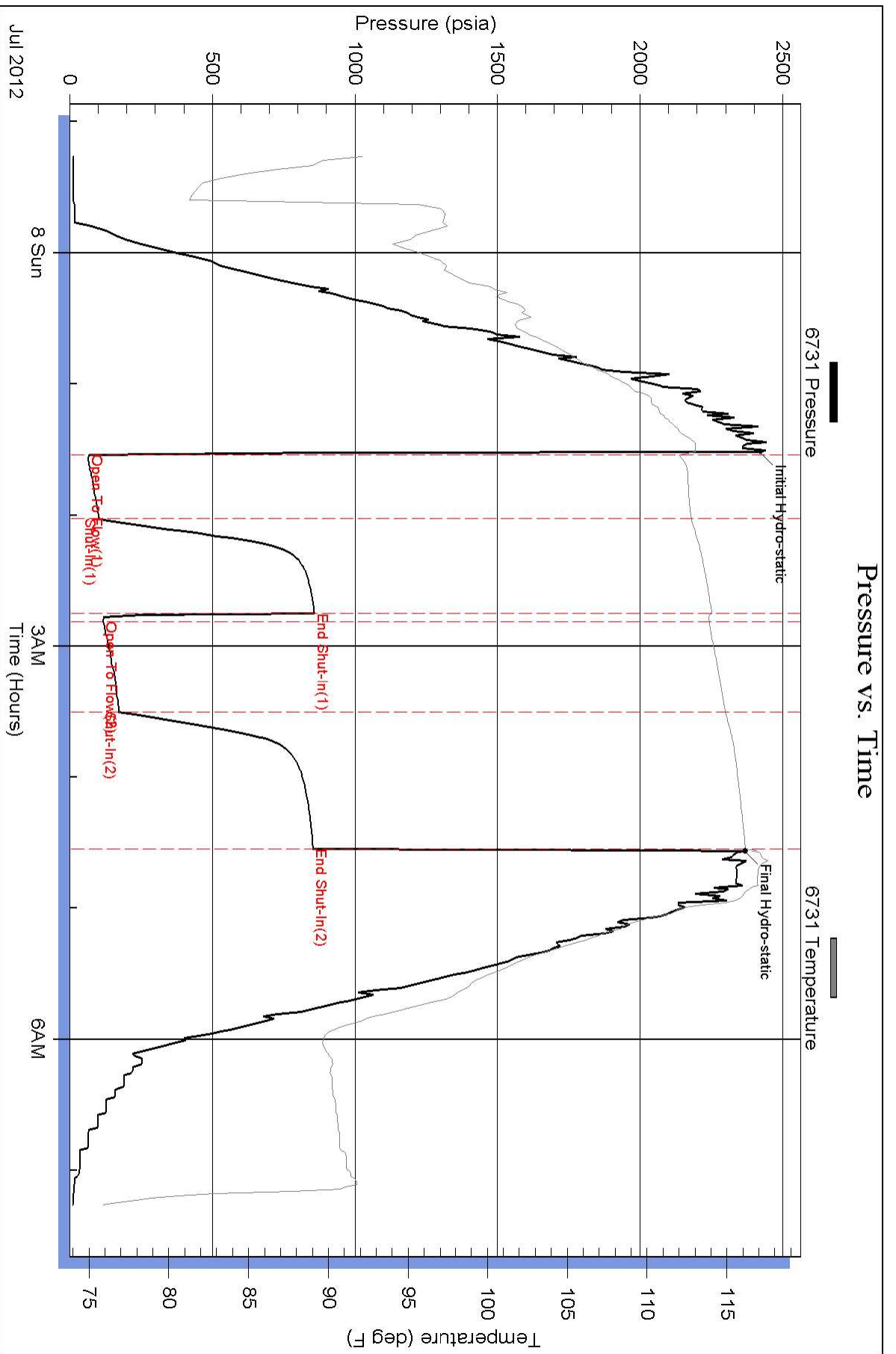
Num Gas Bombs: 0

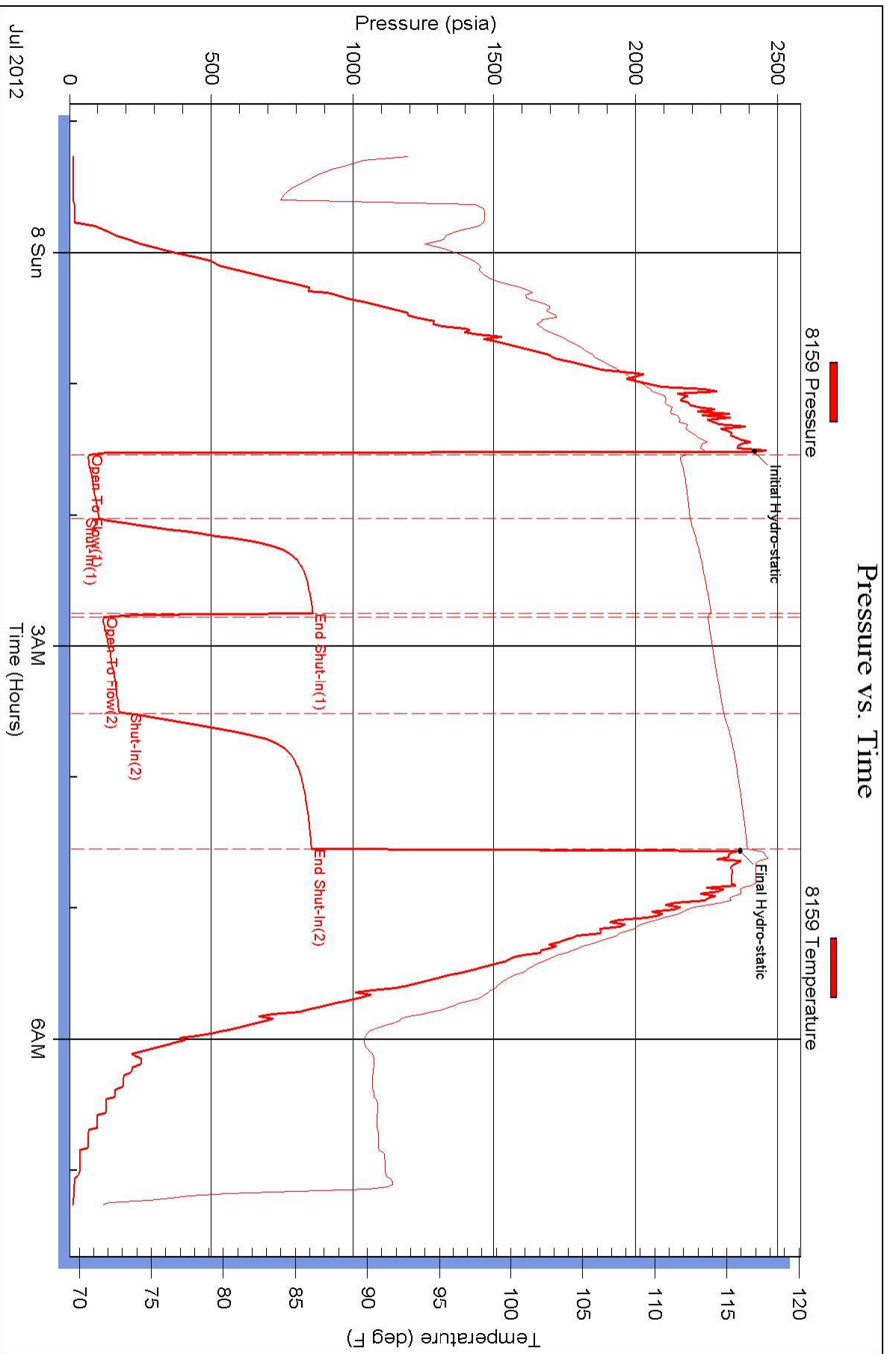
Serial #:

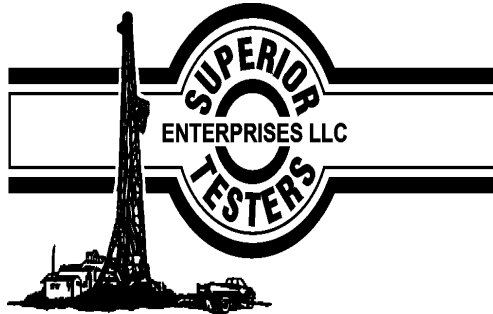
Laboratory Name:

Laboratory Location:

Recovery Comments: Chlorides 50,000 , Resistivity .2 @ 60 degrees







## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

8100 E 22nd St N # 700 Wichita KS  
67278+3188

ATTN: Mike Engelbrecht

**Potosi-Simon#1**

**13-27-24w Ford**

Start Date: 2012.07.09 @ 00:23:35

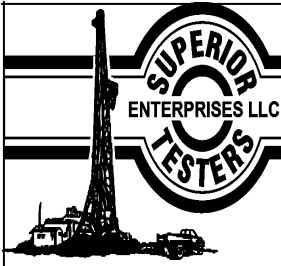
End Date: 2012.07.09 @ 09:11:05

Job Ticket #: 17360                      DST #: 3

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

Printed: 2012.07.09 @ 09:34:03

Ritchie Exploration Inc  
13-27-24w Ford  
Potosi-Simon#1  
DST # 3  
Cherokee & Huck  
2012.07.09



# DRILL STEM TEST REPORT

Ritchie Exploration Inc

13-27-24w Ford

8100 E 22nd St N # 700 Wichita KS 67278+3188

Potosi-Simon#1

ATTN: Mike Engelbrecht

Job Ticket: 17360

DST#: 3

Test Start: 2012.07.09 @ 00:23:35

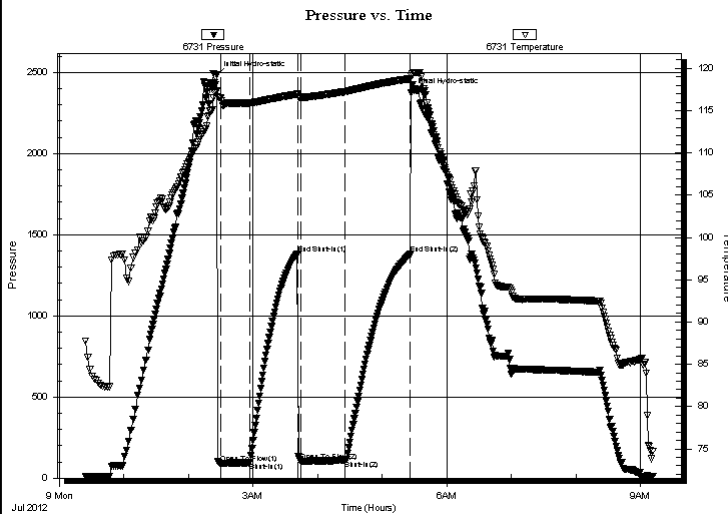
## GENERAL INFORMATION:

Formation: **Cherokee & Huck**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:29:35  
 Time Test Ended: 09:11:05  
 Interval: **4837.00 ft (KB) To 4950.00 ft (KB) (TVD)**  
 Total Depth: 4950.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3320-Great Bend  
 Reference Elevations: 2466.00 ft (KB)  
 2454.00 ft (CF)  
 KB to GR/CF: 12.00 ft

## Serial #: 6731

Press @ RunDepth: 110.53 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.07.09 End Date: 2012.07.09 Last Calib.: 2012.07.09  
 Start Time: 00:23:35 End Time: 09:11:05 Time On Btm: 2012.07.09 @ 02:26:05  
 Time Off Btm: 2012.07.09 @ 05:27:05

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 2 minutes  
 1st Shut-in 45 Minutes-No blow back  
 2nd Opening 45 Minutes-Strong blow built bottom of bucket in 1 minute gas to surface 3 minutes see gas report  
 2nd Shut-in 60 Minutes-Very weak blow



## PRESSURE SUMMARY

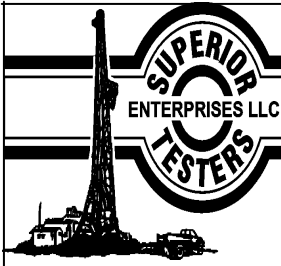
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2482.34	117.31	Initial Hydro-static
4	89.32	116.52	Open To Flow (1)
31	95.84	115.90	Shut-In(1)
75	1382.48	116.94	End Shut-In(1)
79	102.51	116.54	Open To Flow (2)
120	110.53	117.24	Shut-In(2)
180	1378.87	118.77	End Shut-In(2)
181	2377.28	119.12	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	oil gas cut mud 3%oil 5% Gas 92 %mud	1.26
0.00	4723 gas in pipe	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.25	5.00	7.93
Last Gas Rate	0.25	8.20	13.01
Max. Gas Rate	0.25	8.20	13.01



# DRILL STEM TEST REPORT

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

ATTN: Mike Engelbrecht

Job Ticket: 17360

**DST#: 3**

Test Start: 2012.07.09 @ 00:23:35

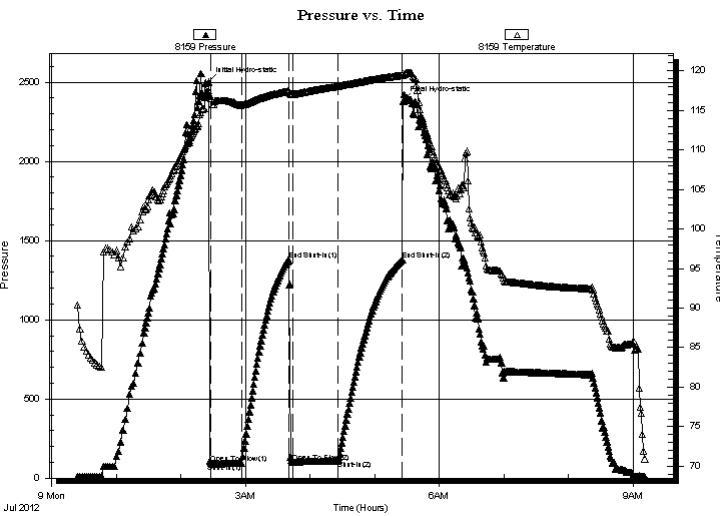
## GENERAL INFORMATION:

Formation: **Cherokee & Huck**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:29:35  
 Time Test Ended: 09:11:05  
 Interval: **4837.00 ft (KB) To 4950.00 ft (KB) (TVD)**  
 Total Depth: 4950.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3320-Great Bend  
 Reference Elevations: 2466.00 ft (KB)  
 2454.00 ft (CF)  
 KB to GR/CF: 12.00 ft

## Serial #: 8159

Press @ RunDepth: 1378.39 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.07.09 End Date: 2012.07.09 Last Calib.: 2012.07.09  
 Start Time: 00:23:00 End Time: 09:11:00 Time On Btm: 2012.07.09 @ 02:25:30  
 Time Off Btm: 2012.07.09 @ 05:26:30

**TEST COMMENT:** 1st Opening 30 Minutes-Strong blow built bottom of bucket in 2 minutes  
 1st Shut-in 45 Minutes-No blow back  
 2nd Opening 45 Minutes-Strong blow built bottom of bucket in 1 minute gas to surface 3 minutes see gas report  
 2nd Shut-in 60 Minutes-Very weak blow



## PRESSURE SUMMARY

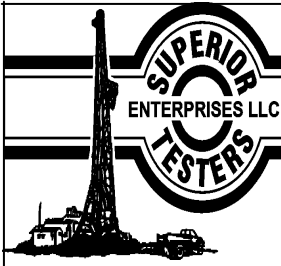
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2501.68	117.47	Initial Hydro-static
2	94.51	116.55	Open To Flow (1)
31	94.75	115.71	Shut-In(1)
75	1378.93	117.45	End Shut-In(1)
79	101.52	117.06	Open To Flow (2)
121	110.88	118.07	Shut-In(2)
180	1378.39	119.44	End Shut-In(2)
181	2381.36	119.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	oil gas cut mud 3%oil 5% Gas 92 %mud	1.26
0.00	4723 gas in pipe	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.25	5.00	7.93
Last Gas Rate	0.25	8.20	13.01
Max. Gas Rate	0.25	8.20	13.01



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17360

**DST#: 3**

ATTN: Mike Engelbrecht

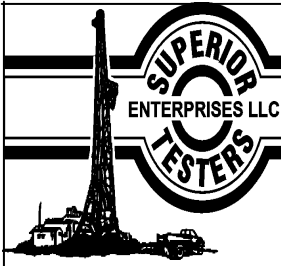
Test Start: 2012.07.09 @ 00:23:35

## Tool Information

Drill Pipe:	Length: 4813.00 ft	Diameter: 3.80 inches	Volume: 67.51 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: 80000.00 lb
			<u>Total Volume: 67.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4837.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	113.00 ft			
Tool Length:	141.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Gas to surface 3 minutes into the 2nd opening see gas report

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	4814.00	
Hydraulic Tool	5.00			4819.00	
Jars	6.00			4825.00	
Safety Joint	2.00			4827.00	
Packer	5.00			4832.00	28.00 Bottom Of Top Packer
Packer	5.00			4837.00	
Anchor	0.00			4837.00	
Change Over Sub	0.75			4837.75	
Drill Pipe	63.50		Outside	4901.25	
Change Over Sub	0.75		Outside	4902.00	
Anchor	43.00			4945.00	
Recorder	1.00		Inside	4946.00	
Recorder	1.00		Outside	4947.00	
Bullnose	3.00			4950.00	113.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>141.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17360

**DST#: 3**

ATTN: Mike Engelbrecht

Test Start: 2012.07.09 @ 00:23:35

### Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 48.00 sec/qt  
 Water Loss: 9.60 in<sup>3</sup>  
 Resistivity: ohm.m  
 Salinity: 6100.00 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
90.00	oil gas cut mud 3%oil 5% Gas 92 %mud	1.262
0.00	4723 gas in pipe	0.000

Total Length: 90.00 ft      Total Volume: 1.262 bbl

Num Fluid Samples: 0

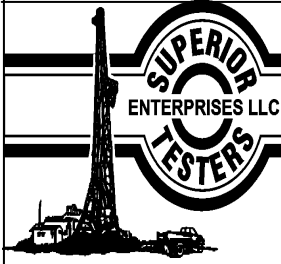
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gas to surface 3 minutes into the 2nd opening see gas report



# DRILL STEM TEST REPORT

**GAS RATES**

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17360

**DST#: 3**

ATTN: Mike Engelbrecht

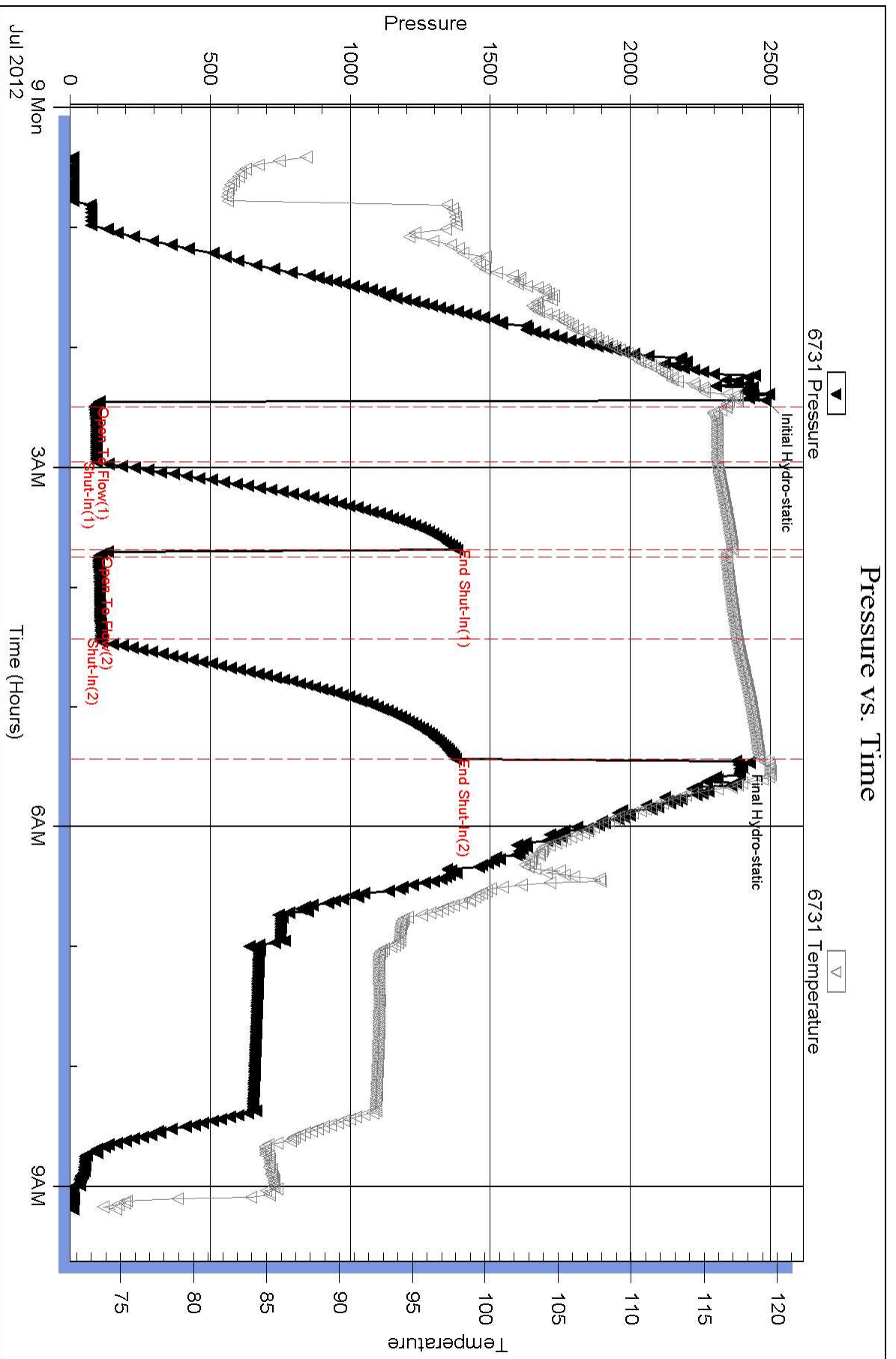
Test Start: 2012.07.09 @ 00:23:35

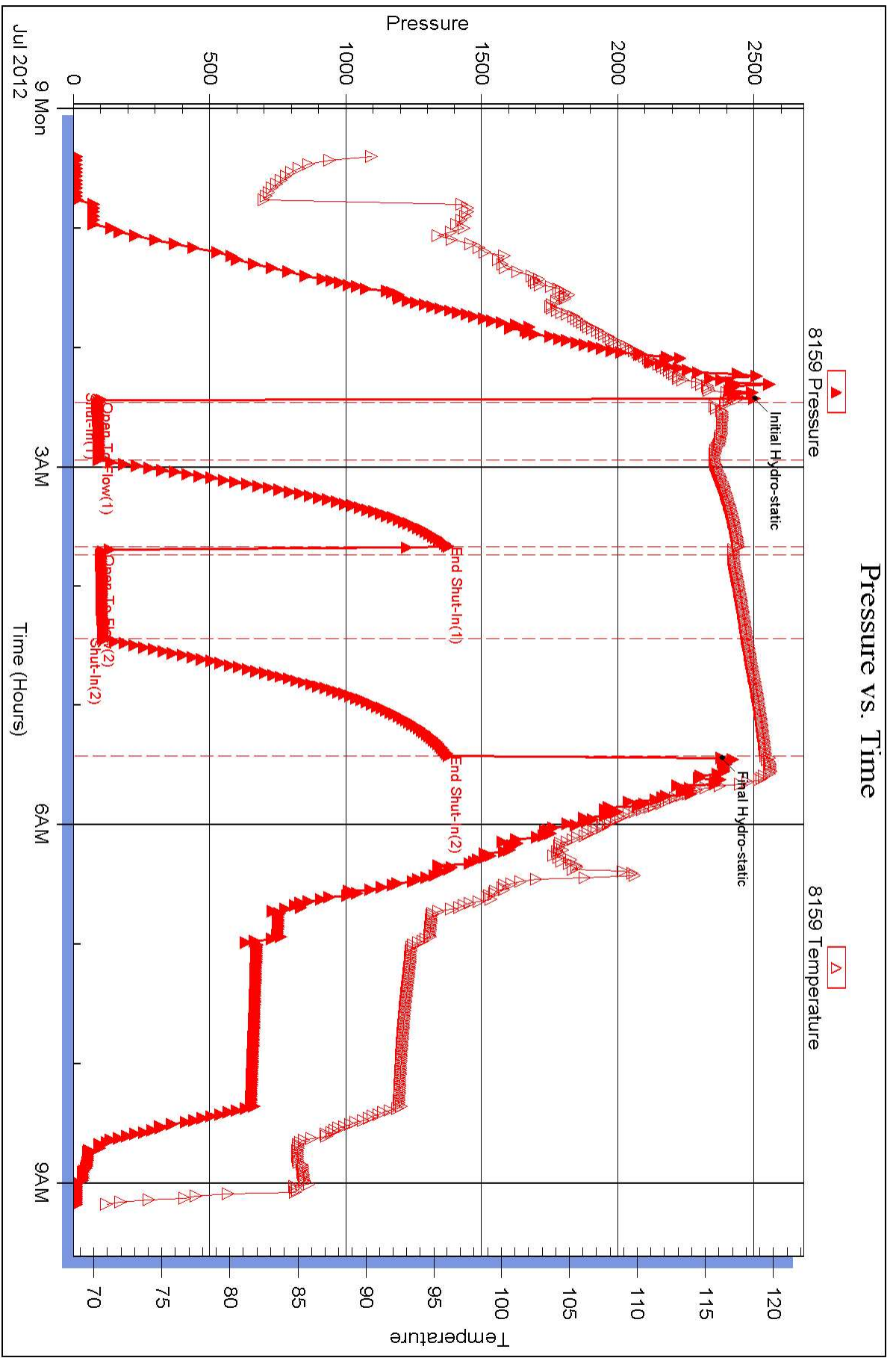
## Gas Rates Information

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	10	0.25	5.00	7.93
2	20	0.25	6.00	9.52
2	30	0.25	8.20	13.01
2	40	0.25	8.20	13.01







## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

8100 E 22nd St N # 700 Wichita KS  
67278+3188

ATTN: Mike Engelbrecht

**Potosi-Simon#1**

**13-27-24w Ford**

Start Date: 2012.07.10 @ 21:37:43

End Date: 2012.07.11 @ 04:51:43

Job Ticket #: 17361                      DST #: 4

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

Printed: 2012.07.10 @ 05:18:03

Ritchie Exploration Inc

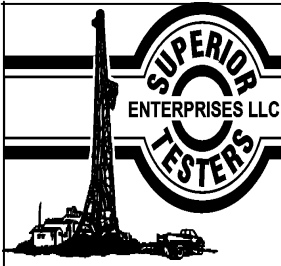
13-27-24w Ford

Potosi-Simon#1

DST # 4

Morrow - Mississippi

2012.07.10



# DRILL STEM TEST REPORT

Ritchie Exploration Inc

13-27-24w Ford

8100 E 22nd St N # 700 Wichita KS 67278+3188

Potosi-Simon#1

ATTN: Mike Engelbrecht

Job Ticket: 17361

DST#: 4

Test Start: 2012.07.10 @ 21:37:43

## GENERAL INFORMATION:

Formation: **Morrow - Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:48:13

Time Test Ended: 04:51:43

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-great Bend-

Interval: **4940.00 ft (KB) To 5035.00 ft (KB) (TVD)**

Reference Elevations: 2466.00 ft (KB)

Total Depth: 5035.00 ft (KB) (TVD)

2454.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

## Serial #: 6731

Press @ RunDepth: 86.07 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.07.10

End Date: 2012.07.11

Last Calib.: 2012.07.10

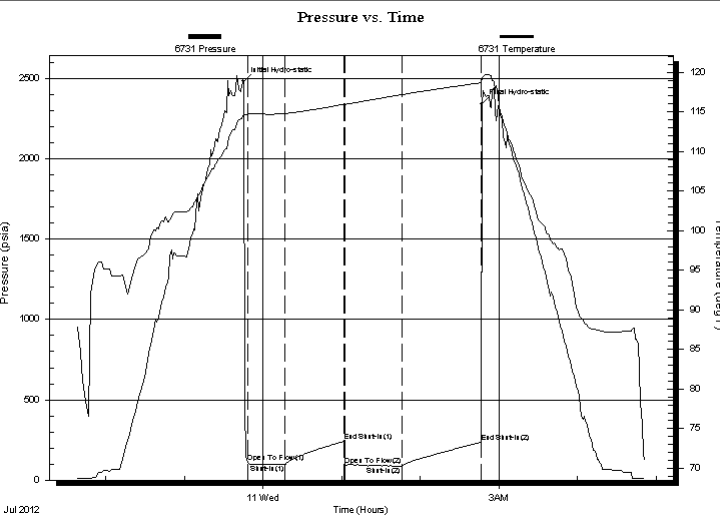
Start Time: 21:37:43

End Time: 04:51:43

Time On Btm: 2012.07.10 @ 23:45:13

Time Off Btm: 2012.07.11 @ 02:47:13

**TEST COMMENT:** 1ST Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute gas to surface 10 minutes see gas report  
 1st Shut-in 45 Minutes-Yes  
 2nd Opening-45 Minutes--Strong blow built bottom of bucket in 1 minute  
 2nd Shut-in 60 Minutes-yes



## PRESSURE SUMMARY

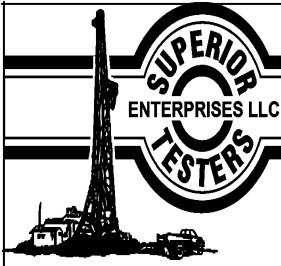
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2482.15	114.68	Initial Hydro-static
3	112.14	114.69	Open To Flow (1)
32	97.07	114.78	Shut-In(1)
77	240.11	115.95	End Shut-In(1)
78	90.10	115.94	Open To Flow (2)
121	86.07	117.15	Shut-In(2)
181	236.24	118.66	End Shut-In(2)
182	2343.35	119.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	mud	0.84

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.25	4.00	6.35
Last Gas Rate	0.25	6.00	9.52
Max. Gas Rate	0.25	6.00	9.52



# DRILL STEM TEST REPORT

Ritchie Exploration Inc

13-27-24w Ford

8100 E 22nd St N # 700 Wichita KS 67278+3188

Potosi-Simon#1

ATTN: Mike Engelbrecht

Job Ticket: 17361

DST#: 4

Test Start: 2012.07.10 @ 21:37:43

## GENERAL INFORMATION:

Formation: **Morrow - Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:48:13

Time Test Ended: 04:51:43

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-great Bend-

Interval: **4940.00 ft (KB) To 5035.00 ft (KB) (TVD)**

Reference Elevations: 2466.00 ft (KB)

Total Depth: 5035.00 ft (KB) (TVD)

2454.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

## Serial #: 8159

Press @ RunDepth: 237.70 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.07.10

End Date:

2012.07.11

Last Calib.:

2012.07.10

Start Time: 21:37:33

End Time:

04:51:33

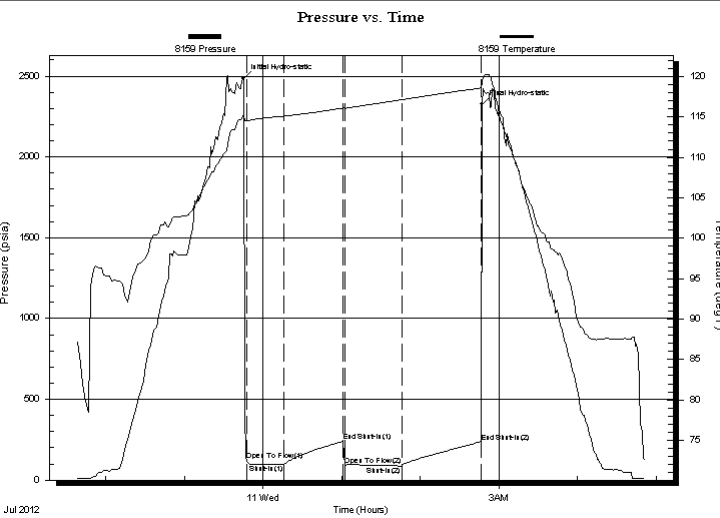
Time On Btm:

2012.07.10 @ 23:45:03

Time Off Btm:

2012.07.11 @ 02:47:03

TEST COMMENT: 1ST Opening 30 Minutes-Strong blow built bottom of bucket in 1 minute gas to surface 10 minutes see gas report  
 1st Shut-in 45 Minutes-Yes  
 2nd Opening-45 Minutes--Strong blow built bottom of bucket in 1 minute  
 2nd Shut-in 60 Minutes-yes



## PRESSURE SUMMARY

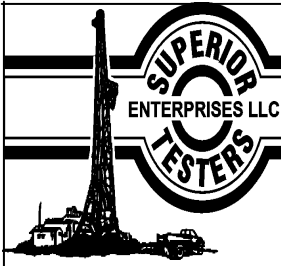
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2485.07	115.22	Initial Hydro-static
3	120.58	114.49	Open To Flow (1)
31	97.46	115.11	Shut-In(1)
76	239.50	116.09	End Shut-In(1)
78	91.30	116.08	Open To Flow (2)
121	87.76	117.13	Shut-In(2)
181	237.70	118.58	End Shut-In(2)
182	2325.93	119.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	mud	0.84

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.25	4.00	6.35
Last Gas Rate	0.25	6.00	9.52
Max. Gas Rate	0.25	6.00	9.52



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17361

**DST#: 4**

ATTN: Mike Engelbrecht

Test Start: 2012.07.10 @ 21:37:43

## Tool Information

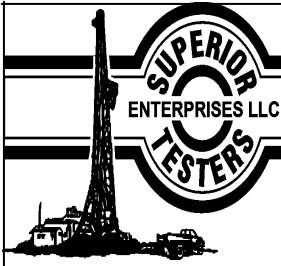
Drill Pipe:	Length: 4932.00 ft	Diameter: 3.80 inches	Volume: 69.18 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 69.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4940.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	95.00 ft			
Tool Length:	123.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Ruined bottom packer

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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SHut-InTool	5.00		Inside	4917.00	
Hydraulic Tool	5.00			4922.00	
Jars	6.00			4928.00	
Safety Joint	2.00			4930.00	
Packer	5.00			4935.00	28.00 Bottom Of Top Packer
Packer	5.00			4940.00	
Anchor	0.00			4940.00	
Change Over Sub	0.75			4940.75	
Drill Pipe	63.50		Outside	5004.25	
Change Over Sub	0.75		Outside	5005.00	
Anchor	25.00			5030.00	
Recorder	1.00		Inside	5031.00	
Recorder	1.00		Outside	5032.00	
Bullnose	3.00			5035.00	95.00 Bottom Packers & Anchor

**Total Tool Length: 123.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17361

**DST#: 4**

ATTN: Mike Engelbrecht

Test Start: 2012.07.10 @ 21:37:43

### Mud and Cushion Information

Mud Type: Invert

Mud Weight: 9.00 lb/gal

Viscosity: 45.00 sec/qt

Water Loss: 10.80 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 5000.00 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
60.00	mud	0.842

Total Length: 60.00 ft      Total Volume: 0.842 bbl

Num Fluid Samples: 0

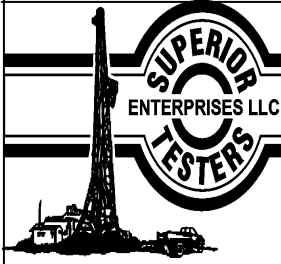
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Ruined bottom packer



# DRILL STEM TEST REPORT

**GAS RATES**

Ritchie Exploration Inc

**13-27-24w Ford**

8100 E 22nd St N # 700 Wichita KS 67278+3188

**Potosi-Simon#1**

Job Ticket: 17361

**DST#: 4**

ATTN: Mike Engelbrecht

Test Start: 2012.07.10 @ 21:37:43

## 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	0.25	4.00	6.35
1	10	0.25	4.00	6.35
1	20	0.25	5.00	7.93
1	30	0.25	5.50	8.72
2	10	0.25	4.50	7.14
2	20	0.25	5.00	7.93
2	30	0.25	6.00	9.52

