



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Great Plains Energy, Inc  
6121 58th Street Suite B  
Lincoln, NE 68516  
ATTN: Mike Madchan

**15-7s-18w Rooks,KS**  
**Sander #1-15**  
Job Ticket: 50426      **DST#: 1**  
Test Start: 2013.06.04 @ 10:25:51

### GENERAL INFORMATION:

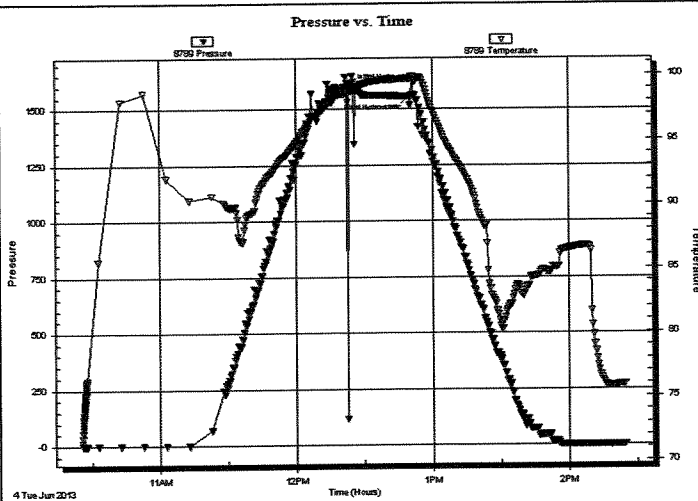
Formation: H-I-J-K-L  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened:  
Time Test Ended: 14:24:51  
Interval: 3240.00 ft (KB) To 3343.00 ft (KB) (TVD)  
Total Depth: 3343.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Good  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Jason McLemore  
Unit No: 54  
Reference Elevations: 1904.00 ft (KB)  
1896.00 ft (CF)  
KB to GR/CF: 8.00 ft

### Serial #: 8789

Inside

Press@RunDepth:      psig @ 3337.00 ft (KB)  
Capacity: 8000.00 psig  
Start Date: 2013.06.04      End Date: 2013.06.04  
Last Calib.: 2013.06.04  
Start Time: 10:25:53      End Time: 14:24:51  
Time On Btm: 2013.06.04 @ 12:24:21  
Time Off Btm: 2013.06.04 @ 12:49:51

TEST COMMENT: IFP-Packer Failure, Pull Tool



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1595.20	98.74	Initial Hydro-static
26	1556.97	99.67	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
150.00	Drilling Mud	1.01

### Gas Rates

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



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## DRILL STEM TEST REPORT

Great Plains Energy, Inc

15-7s-18w Rooks,KS

6121 58th Street Suite B  
Lincoln, NE 68516

Sander #1-15

Job Ticket: 50427

DST#: 2

ATTN: Mike Madchan

Test Start: 2013.06.04 @ 14:32:23

### GENERAL INFORMATION:

Formation: I-J-K-L

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:58:23

Time Test Ended: 20:35:23

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 3258.00 ft (KB) To 3343.00 ft (KB) (TVD)

Total Depth: 3343.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1904.00 ft (KB)

1896.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8789

Inside

Press@RunDepth: 26.16 psig @ 3325.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.04

End Date:

2013.06.04

Last Calib.: 2013.06.04

Start Time: 14:32:25

End Time:

20:35:23

Time On Btm: 2013.06.04 @ 15:57:38

Time Off Btm: 2013.06.04 @ 19:02:38

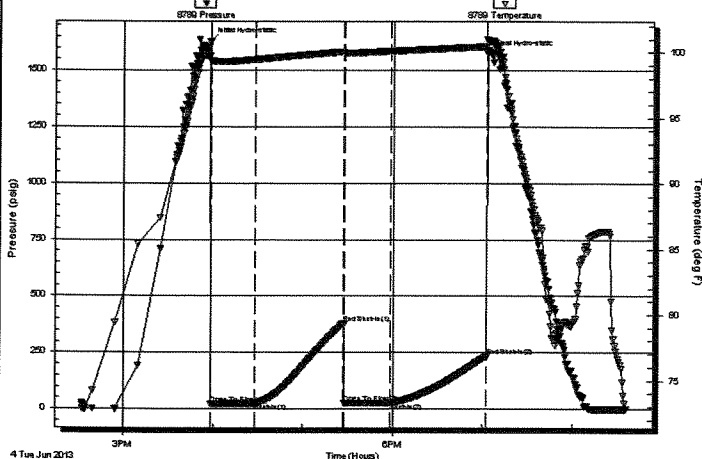
TEST COMMENT: IFP-Weak Surface Blow, Dead in 15 Min.

ISI-Dead

FFP-Dead

FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.58	99.74	Initial Hydro-static
1	20.34	99.28	Open To Flow (1)
30	23.90	99.45	Shut-In(1)
90	380.10	100.04	End Shut-In(1)
90	24.76	99.86	Open To Flow (2)
121	26.16	100.09	Shut-In(2)
185	234.79	100.44	End Shut-In(2)
185	1573.69	100.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drilling Mud W/Oil Specks	0.02

\* Recovery from multiple tests

Gas Rates

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

# ALLIED OIL & GAS SERVICES, LLC 056614

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Russell, Ks

DATE <u>6.6.13</u>	SEC <u>15</u>	TWP <u>7</u>	RANGE <u>18</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
EASE <u>Sander</u>	WELL # <u>1-15</u>	LOCATION <u>Stockton, Ks</u>			COUNTY <u>Rooks</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)		<u>3w to herd 3/4 n e. Info</u>					

CONTRACTOR <u>UW #12</u>	OWNER
TYPE OF JOB <u>PTA</u>	CEMENT
HOLE SIZE <u>7 7/8</u>	AMOUNT ORDERED <u>255sk 60/40</u>
CASING SIZE	<u>41. gel 1/2 # Flo-Seal</u>
TUBING SIZE	COMMON <u>153sk @ 17.9 \$ 2738.70</u>
DRILL PIPE <u>4 1/2</u>	POZMIX <u>102sk @ 9.35 \$ 953.90</u>
TOOL	GEL <u>8.6sk @ 23.4 \$ 201.24</u>
PRES. MAX	CHLORIDE @
MEAS. LINE	ASC @
CEMENT LEFT IN CSG.	<u>Flo-Seal @ 50 @ 2.97 \$ 148.50</u>
PERFS.	@
DISPLACEMENT <u>See 'Remarks'</u>	@
EQUIPMENT	@
PUMP TRUCK CEMENTER <u>Tony P.</u>	@
# <u>409</u> HELPER <u>Nathan D</u>	@
BULK TRUCK	@
# <u>481</u> DRIVER <u>Danny S.</u>	@
BULK TRUCK	@
#	@
	HANDLING <u>272.67 # @ 2.48 \$ 676.74</u>
	MILEAGE <u>479 64 1/2 @ 2.60 \$ 1247.06</u>
	TOTAL <u>\$ 5965.42</u>

**REMARKS:**

1- 50sk @ 3450' - 8.21 <sup>hbl</sup> slurry  
Dis - 4.9 <sup>hbl</sup> mud/min.  
2- 25sk @ 1350' - 4.10 <sup>hbl</sup> slurry  
Dis - 17.55 <sup>hbl</sup> #20  
3- 100sk @ 770' - 16.42 <sup>hbl</sup> slurry  
Dis - 4.38 <sup>hbl</sup> #20  
4- 40sk @ 270' - 6.57 <sup>hbl</sup> slurry  
Dis - 1.21 <sup>hbl</sup> #20  
5- 10sk @ 40' - 1.64 <sup>hbl</sup> slurry = Fill to Surf. Fld  
1x 8 5/8 wooden plug - RAT = 30sk.  
 CHARGE TO: Great Plains Energy.

**SERVICE**

DEPTH OF JOB	<u>3450'</u>
PUMP TRUCK CHARGE	<u>\$ 2,158.75</u>
EXTRA FOOTAGE	@
MILEAGE Heavy <u>42m</u>	@ <u>7.70 \$ 323.40</u>
MANIFOLD Light <u>42m</u>	@ <u>4.40 \$ 184.80</u>
	@
	@
TOTAL	<u>\$ 2666.95</u>

STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

<u>1x 8 5/8 wooden Plug</u>	@	<u>\$ 107.64</u>
	@	
	@	
	@	
	@	
TOTAL		<u>\$ 107.64</u>

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Colin Stannard

SIGNATURE [Signature]

SALES TAX (if Any) \_\_\_\_\_  
 TOTAL CHARGES 8740.01  
 DISCOUNT - 2185.00 IF PAID IN 30 DAYS  
Net 6555.01 before tax

# ALLIED OIL & GAS SERVICES, LLC

056614

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
*Russell Ks*

DATE	SEC.	TWP.	RANGE	LOCATED	COUNTY	STATE
<i>6/13</i>	<i>15</i>	<i>7</i>	<i>99</i>	<i>SE.1/4 Sec. 16 T. 15 N. R. 99 W.</i>	<i>Russell</i>	<i>Ks</i>

LEASE *Santer* WELL # *1-15* LOCATION *SE.1/4 Sec. 16 T. 15 N. R. 99 W.* COUNTY *Russell* STATE *Ks*

OLD OR NEW (Circle one)  OLD  NEW

CONTRACTOR \_\_\_\_\_ OWNER \_\_\_\_\_  
 TYPE OF JOB *PTA*  
 HOLE SIZE *7 1/2* T.D. *2475*  
 CASING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE *4 1/2* DEPTH \_\_\_\_\_  
 TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
 PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_  
 CEMENT LEFT IN CSG. \_\_\_\_\_  
 PERFS. \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_ EQUIPMENT \_\_\_\_\_

PUMP TRUCK CEMENTER *Doug*  
 # *1* HELPER *Alvin*  
 BULK TRUCK DRIVER *Doug*  
 BULK TRUCK DRIVER \_\_\_\_\_

REMARKS:

CHARGE TO: \_\_\_\_\_  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cement and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME \_\_\_\_\_  
SIGNATURE \_\_\_\_\_

CEMENT AMOUNT ORDERED *5550 075*

COMMON @ *11* *2 1/2*  
 POZMIX @ *58* *6 5/8*  
 GEL @ *51* *10 3/4*  
 CHLORIDE @ \_\_\_\_\_  
 ASC @ *21* *6 1/8*

HANDLING @ \_\_\_\_\_  
 MILEAGE @ \_\_\_\_\_  
 TOTAL \_\_\_\_\_

DEPTH OF JOB \_\_\_\_\_  
 PUMP TRUCK CHARGE \_\_\_\_\_  
 EXTRA FOOTAGE @ \_\_\_\_\_  
 MILEAGE @ \_\_\_\_\_  
 MANIFOLD @ \_\_\_\_\_  
 TOTAL \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 TOTAL \_\_\_\_\_

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES *451.57*  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS