



KANSAS CORPORATION COMMISSION 1075463  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33629  
Name: Great Plains Energy, Inc.  
Address 1: 6121 S 58th ST, STE B  
Address 2: \_\_\_\_\_  
City: LINCOLN State: NE Zip: 68516 + \_\_\_\_\_  
Contact Person: Dan Blankenau  
Phone: ( 402 ) 443-6125  
CONTRACTOR: License # 30606  
Name: Murfin Drilling Co., Inc.  
Wellsite Geologist: Richard Bell  
Purchaser: MV Purchasing

Designate Type of Completion:

New Well     Re-Entry     Workover

Oil     WSW     SWD     SIOW  
 Gas     D&A     ENHR     SIGW  
 OG     GSW     Temp. Abd.  
 CM (Coal Bed Methane)  
 Cathodic     Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD  
 Conv. to GSW

Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_

09/02/2011	09/09/2011	10/13/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-039-21141-00-00

Spot Description: \_\_\_\_\_  
SW\_NE\_NW\_NW Sec. 16 Twp. 1 S. R. 27  East  West  
400 Feet from  North /  South Line of Section  
890 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW

County: Decatur  
Lease Name: Hanchera Well #: 1-16  
Field Name: Unnamed  
Producing Formation: Lansing-Kansas City  
Elevation: Ground: 2576 Kelly Bushing: 2581  
Total Depth: 3634 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 260 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 1979 Feet  
If Alternate II completion, cement circulated from: 3634  
feet depth to: 2760 w/ 180 sx cmt.

**Drilling Fluid Management Plan**  
(Data must be collected from the Reserve Pit)

Chloride content: 1200 ppm Fluid volume: 800 bbls  
Dewatering method used: Evaporated  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Deanna Garrick Date: 03/01/2012



1075463

Operator Name: Great Plains Energy, Inc. Lease Name: Hanchera Well #: 1-16  
 Sec. 16 Twp. 1 S. R. 27  East  West County: Decatur

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional Sheets)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Anhydrite	1973	+608
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Base	1999	+582
Electric Log Submitted Electronically (If no, Submit Copy)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Topeka	3063	-482
List All E. Logs Run:		Heebner	3227	-646
Dual Compensated Porosity Dual Induction Micro		Lansing	3269	-688
		BKC	3480	-899
		Granite	3616	-1035

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.75	23	260	Common	185	3%cc, 2% gel
Production	8.8750	4.5	14	3640	Common	180	10% nacl, 2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ Plug Off Zone	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	3353-3357	250 gal 15% MCA, 750 gal NE gelled	
4	3386-3389	250 gal 15% MCA, 750 gal NE gelled	
4	3270-3276	250 gal 15% MCA, 750 gal NE gelled	

TUBING RECORD:	Size: <u>2 3/8</u>	Set At: <u>3600</u>	Packer At: <u>N/A</u>	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>11/15/2011</u>	Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls. <u>10</u>	Gas Mcf	Water Bbls. <u>25</u>	Gas-Oil Ratio Gravty

DISPOSITION OF GAS: <input checked="" type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, Submit ACO-18.)	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled (Submit ACO-5) <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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71730

# ALLIED

OIL & GAS SERVICES, LLC

24 S. Lincoln Street  
P.O. Box 31  
Russell, KS 67665-2906

Voice: (817) 546-7282  
Fax: (817) 246-3361

SEP

## INVOICE

Invoice Number: 128534  
Invoice Date: Sep 2, 2011  
Page: 1

**Bill To:**

Great Plains Energy, Inc.  
P.O. Box 292  
429 N. Linden  
Wahoo, NE 68066

Customer ID	Well Name# or Customer P.O.	Payment Terms	
GrPIEn	Hanchera #1-16	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Sep 2, 2011	10/2/11

Quantity	Item	Description	Unit Price	Amount
185.00	MAT	Class A Common <u>Cement surface Csg.</u>	16.25	3,006.25
4.00	MAT	Gel	21.25	85.00
7.00	MAT	Chloride	58.20	407.40
196.00	SER	Handling	2.25	441.00
80.00	SER	Mileage	21.56	1,724.80
1.00	SER	Surface	1,125.00	1,125.00
160.00	SER	Heavy Vehicle Mileage	7.00	1,120.00
1.00	SER	Manifold Head Rental	200.00	200.00
160.00	SER	Light Vehicle Mileage	4.00	640.00
1.00	EQP	8 5/8 Plug	92.00	92.00
1.00	CEMENTER	Alan Ryan		
1.00	OPER ASSIST	Earl Rebarchek		
1.00	OPER ASSIST	Chris Helpingstine		

BC

RN

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 1,768.45

ONLY IF PAID ON OR BEFORE  
Sep 27, 2011

Subtotal	8,841.45
Sales Tax	262.12
Total Invoice Amount	9,103.57
Payment/Credit Applied	
<b>TOTAL</b>	<b>9,103.57</b>

AB

# ALLIED CEMENTING CO., LLC. 043492

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

SERVICE POINT:

Dakley

DATE <u>9-9-11</u>	SEC. <u>16</u>	TWP. <u>15</u>	RANGE <u>22W</u>	CALLED OUT	ON LOCATION	JOB START <u>11:00am</u>	JOB FINISH <u>11:30am</u>
<u>Hancheta</u>	WELL # <u>1-16</u>	LOCATION <u>Oberlin 8 E 10 N</u>	COUNTY <u>Decatur</u>		STATE <u>KS</u>		
OLD OR <u>NEW</u> (Circle one)		<u>1/4 E Sinto</u>					

CONTRACTOR <u>murf'n 3</u>	OWNER <u>same</u>
TYPE OF JOB <u>Production</u>	
HOLE SIZE <u>7 7/8</u>	T.D.
CASING SIZE <u>4 1/2</u>	DEPTH <u>3632.11</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL <u>Port collar</u>	DEPTH <u>1929.96</u>
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT <u>38.86</u>
CEMENT LEFT IN CSG. <u>3 8.26</u>	
PERFS.	
DISPLACEMENT <u>52.21</u>	

CEMENT	AMOUNT ORDERED <u>180 sks com</u>
	<u>1080 salt 20 gal</u>
	<u>500 gal WFR-2</u>
	<u>1 gal cla-pro</u>
COMMON <u>180 sks</u>	@ <u>16.25</u> <u>2925.00</u>
POZMIX	@
GEL <u>3 sks</u>	@ <u>9.25</u> <u>27.75</u>
CHLORIDE	@
ASC	@
	@
	@
<u>salt 18 sks</u>	@ <u>23.25</u> <u>418.50</u>
	@
	@
<u>cla-pro 1 gal</u>	@ <u>31.25</u>
	@
<u>500 gal WFR-2</u>	@ <u>1.27</u> <u>635.00</u>
HANDLING <u>201 sks</u>	@ <u>2.25</u> <u>452.25</u>
MILEAGE <u>11.25 mile</u>	@ <u>1768.80</u>

PUMP TRUCK	CEMENTER <u>Andrew</u>
<del># 281</del>	HELPER <u>Jerry</u>
BULK TRUCK	
# <u>404</u>	DRIVER <u>Larene</u>
BULK TRUCK	
#	DRIVER

REMARKS:

Run 500 gal WFR-2 1000 L  
gal water Plug Rat hole  
mouse mix cement down  
4 1/2 casing wash pump and  
line clean start displacement  
550# lift land plug 1300'  
float held.

Thank you

TOTAL

SERVICE

DEPTH OF JOB <u>3632.11</u>	
PUMP TRUCK CHARGE	<u>2225.00</u>
EXTRA FOOTAGE	@
MILEAGE <u>80 miles x 2</u>	@ <u>2.00</u> <u>1120.00</u>
MANIFOLD <u>bead</u>	@ <u>200.00</u>
<u>Light vehicle</u>	@ <u>400</u> <u>640.00</u>

TOTAL 4185.00

CHARGE TO: Great plains

STREET \_\_\_\_\_

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

PLUG & FLOAT EQUIPMENT

<u>1/2</u>	
<u>1 1/4 float shoe</u>	@ <u>322.00</u>
<u>1 catch down plug Assy</u>	@ <u>233.00</u>
<u>2 baskets</u>	@ <u>270.00</u> <u>540.00</u>
<u>10 centralizer</u>	@ <u>48.00</u> <u>480.00</u>
<u>40 Reciprocating screw</u>	@ <u>74.00</u> <u>8960.00</u>
<u>1 port collar</u>	@ <u>245.00</u>
TOTAL	<u>7025.00</u>

To Allied Cementing Co., L.L.C.  
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.

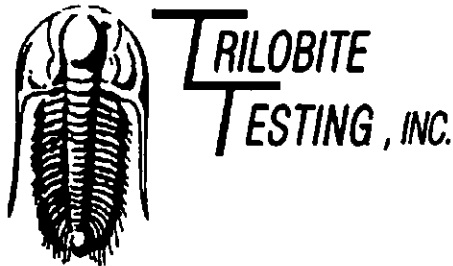
SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES \_\_\_\_\_

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

PRINTED NAME Preston L. Deiling

SIGNATURE [Signature]



## DRILL STEM TEST REPORT

Prepared For: **Great Plains Energy, Inc.**

6121 S. 58th St. STE- B  
Wahoo, NE 68516

ATTN: Rich Bell

**16-1s-27w Decatur,KS**

**Hanchera #1-16**

Start Date: 2011.09.06 @ 11:09:00

End Date: 2011.09.06 @ 17:27:45

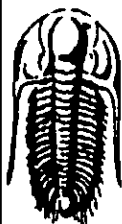
Job Ticket #: 43770                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

# ORIGINAL

Printed: 2011.09.15 @ 10:27:50

Great Plains Energy, Inc.    Hanchera #1-16    16-1s-27w Decatur,KS    DST # 1    LKC "A"    2011.09.06



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Great Plains Energy, Inc.

Hanchera #1-16

6121 S. 58th St. STE- B  
Wahoo, NE 68516

16-1s-27w Decatur, KS

Job Ticket: 43770

DST#: 1

ATTN: Rich Bell

Test Start: 2011.09.06 @ 11:09:00

### GENERAL INFORMATION:

Formation: LKC "A"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:56:15

Time Test Ended: 17:27:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

Interval: 3226.00 ft (KB) To 3277.00 ft (KB) (TVD)

Reference Elevations: 2581.00 ft (KB)

Total Depth: 3277.00 ft (KB) (TVD)

2576.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6799

Inside

Press@RunDepth: 39.28 psig @ 3227.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.09.06

End Date:

2011.09.06

Last Calib.: 2011.09.06

Start Time: 11:09:05

End Time:

17:27:44

Time On Btm: 2011.09.06 @ 12:56:00

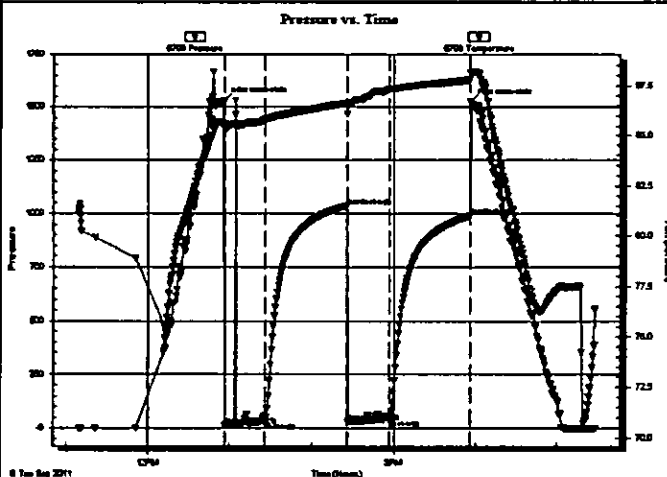
Time Off Btm: 2011.09.06 @ 15:56:15

TEST COMMENT: F- No Blow . Flushed tool at 9 min. Weak surface blow did not build or die.

IS- No Return

FF- No Blow

FS- No Return



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1533.27	85.60	Initial Hydro-static
1	15.39	85.32	Open To Flow (1)
31	28.62	85.82	Shut-In(1)
90	1035.88	86.64	End Shut-In(1)
91	30.44	86.08	Open To Flow (2)
121	39.28	87.33	Shut-In(2)
180	989.53	87.80	End Shut-In(2)
181	1525.34	88.14	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100M	0.07

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Great Plains Energy, Inc.

**Hanchera #1-16**

6121 S. 58th St. STE- B  
Wahoo, NE 68516

**16-1s-27w Decatur,KS**

Job Ticket: 43770

DST#: 1

ATTN: Rich Bell

Test Start: 2011.09.06 @ 11:09:00

### Tool Information

Drill Pipe:	Length: 2710.00 ft	Diameter: 3.80 inches	Volume: 38.01 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 517.00 ft	Diameter: 2.25 inches	Volume: 2.54 bbl	Weight to Pull Loose: 67000.00 lb
			<b>Total Volume: 40.55 bbl</b>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3226.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	80.00 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			3198.00	
Shut In Tool	5.00			3203.00	
Hydraulic tool	5.00			3208.00	
Jars	5.00			3213.00	
Safety Joint	3.00			3216.00	
Packer	5.00			3221.00	29.00 Bottom Of Top Packer
Packer	5.00			3226.00	
Stubb	1.00			3227.00	
Recorder	0.00	8648	Inside	3227.00	
Recorder	0.00	6799	Inside	3227.00	
Perforations	12.00			3239.00	
Change Over Sub	1.00			3240.00	
Drill Pipe	31.00			3271.00	
Change Over Sub	1.00			3272.00	
Bullnose	5.00			3277.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 80.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Great Plains Energy, Inc.  
6121 S. 58th St. STE- B  
Wahoo, NE 68516  
ATTN: Rich Bell

Hanchera #1-16  
16-1s-27w Decatur,KS  
Job Ticket: 43770      DST#: 1  
Test Start: 2011.09.06 @ 11:09:00

**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: 63.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.37 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: 2.00 inches			

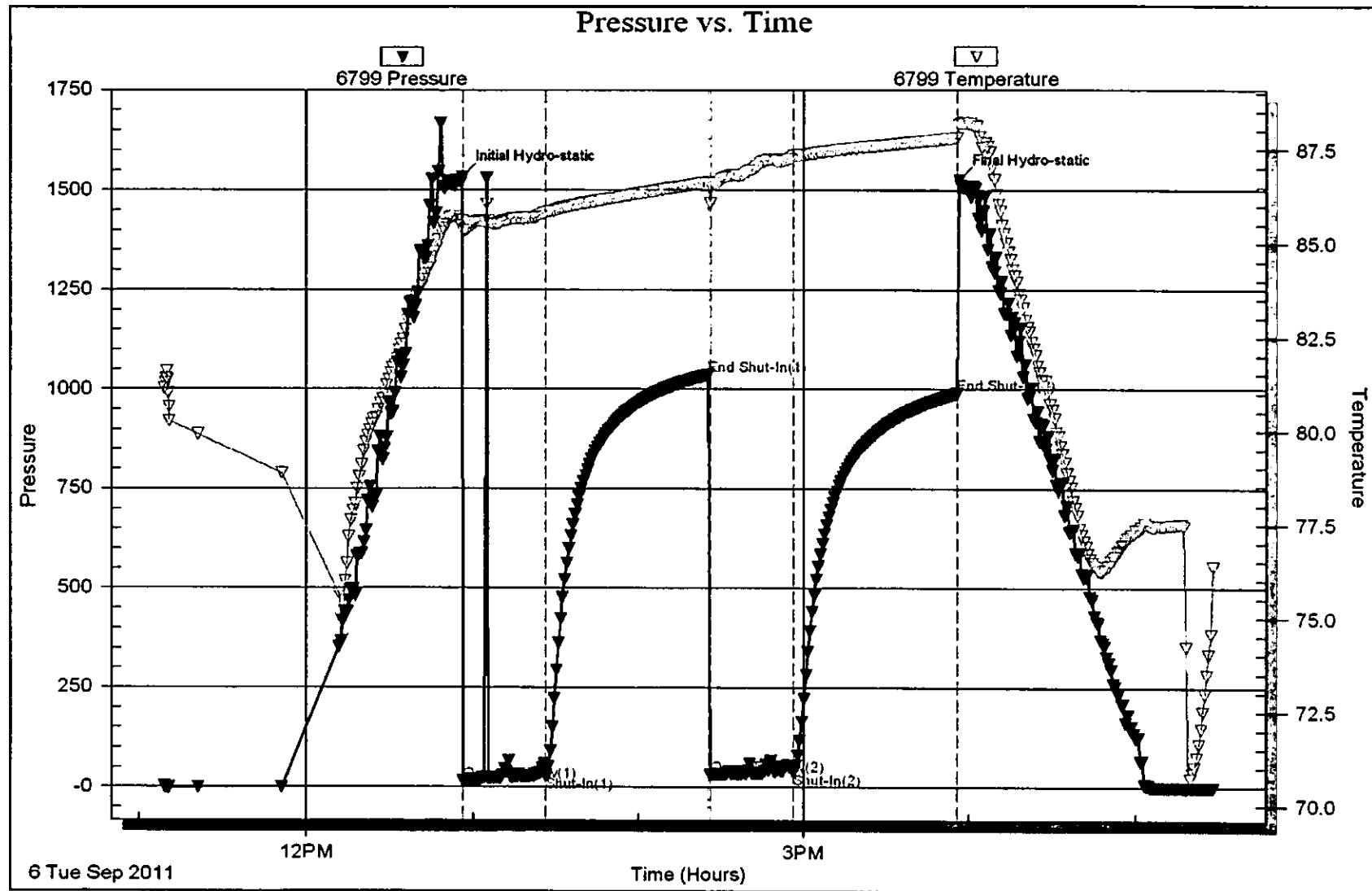
**Recovery Information**

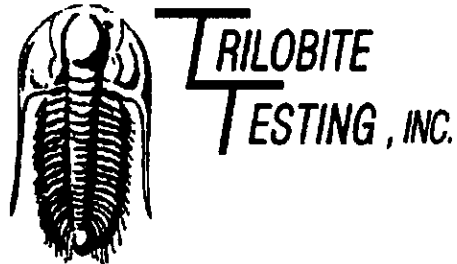
Recovery Table

Length ft	Description	Volume bbl
15.00	Mud 100M	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Great Plains Energy, Inc.**

6121 S. 58th St. STE- B  
Wahoo, NE 68516

ATTN: Rich Bell

**16-1s-27w Decatur,KS**

**Hanchera #1-16**

Start Date: 2011.09.07 @ 00:49:00

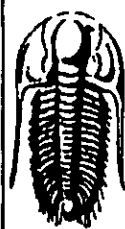
End Date: 2011.09.07 @ 08:31:30

Job Ticket #: 43771                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.09.15 @ 10:29:04

Great Plains Energy, Inc.      Hanchera #1-16      16-1s-27w Decatur,KS      DST # 2      LKC "C-D"      2011.09.07



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Great Plains Energy, Inc.

6121 S. 58th St. STE- B  
Wahoo, NE 68516

ATTN: Rich Bell

**Hanchera #1-16**

**16-1s-27w Decatur,KS**

Job Ticket: 43771

DST#: 2

Test Start: 2011.09.07 @ 00:49:00

### GENERAL INFORMATION:

Formation: LKC "C-D"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:25:45

Time Test Ended: 08:31:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

Interval: 3276.00 ft (KB) To 3318.00 ft (KB) (TVD)

Total Depth: 3318.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2581.00 ft (KB)

2576.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6799

Inside

Press@RunDepth: 46.84 psig @ 3277.00 ft (KB)

Start Date: 2011.09.07

End Date:

2011.09.07

Capacity: 8000.00 psig

Last Calib.: 2011.09.07

Start Time: 00:49:05

End Time:

08:31:29

Time On Btm: 2011.09.07 @ 02:25:00

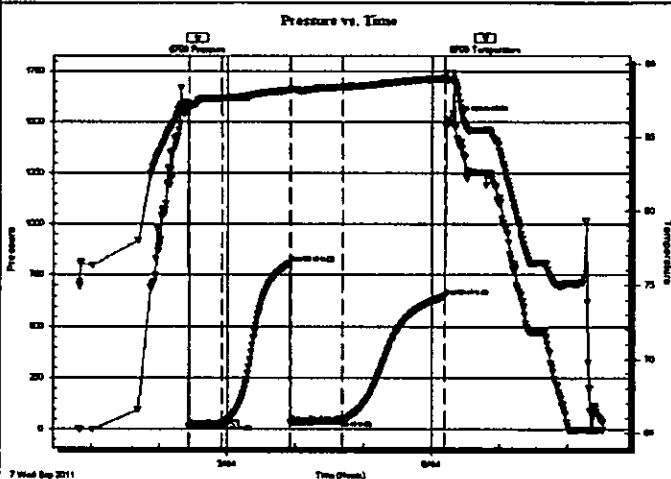
Time Off Btm: 2011.09.07 @ 06:13:15

TEST COMMENT: IF- Surface blow built to 2 3/4"

IS- No Return

FF- Surface blow built to 3"

FS- No Return



### PRESSURE SUMMARY

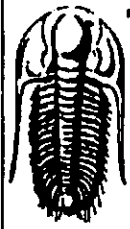
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1558.72	87.33	Initial Hydro-static
1	16.95	87.08	Open To Flow (1)
30	31.06	87.68	Shut-In(1)
90	807.04	88.21	End Shut-In(1)
91	33.18	88.31	Open To Flow (2)
137	46.84	88.44	Shut-In(2)
227	650.11	89.04	End Shut-In(2)
229	1516.19	88.98	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
70.00	OCM 400 60M	0.34

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Great Plains Energy, Inc.

Hanchera #1-16

6121 S. 58th St. STE- B  
Wahoo, NE 68516

16-1s-27w Decatur,KS

Job Ticket: 43771

DST#: 2

ATTN: Rich Bell

Test Start: 2011.09.07 @ 00:49:00

### Tool Information

Drill Pipe:	Length: 2740.00 ft	Diameter: 3.80 inches	Volume: 38.43 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 517.00 ft	Diameter: 2.25 inches	Volume: 2.54 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 40.97 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3276.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	71.00 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			3248.00	
Shut in Tool	5.00			3253.00	
Hydraulic tool	5.00			3258.00	
Jars	5.00			3263.00	
Safety Joint	3.00			3266.00	
Packer	5.00			3271.00	29.00 Bottom Of Top Packer
Packer	5.00			3276.00	
Stubb	1.00			3277.00	
Recorder	0.00	8648	inside	3277.00	
Recorder	0.00	6799	inside	3277.00	
Perforations	5.00			3282.00	
Change Over Sub	1.00			3283.00	
Drill Pipe	31.00			3314.00	
Change Over Sub	1.00			3315.00	
Bullnose	3.00			3318.00	42.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>71.00</b>				



**TRILOBITE  
TESTING, INC**

### DRILL STEM TEST REPORT

**FLUID SUMMARY**

Great Plains Energy, Inc.

**Hanchera #1-16**

6121 S. 58th St. STE- B  
Wahoo, NE 68516

**16-1s-27w Decatur, KS**

Job Ticket: 43771

**DST#: 2**

ATTN: Rich Bell

Test Start: 2011.09.07 @ 00:49:00

#### 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: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

#### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	OCM 40o 60M	0.344

Total Length: 70.00 ft      Total Volume: 0.344 bbl

Num Fluid Samples: 0

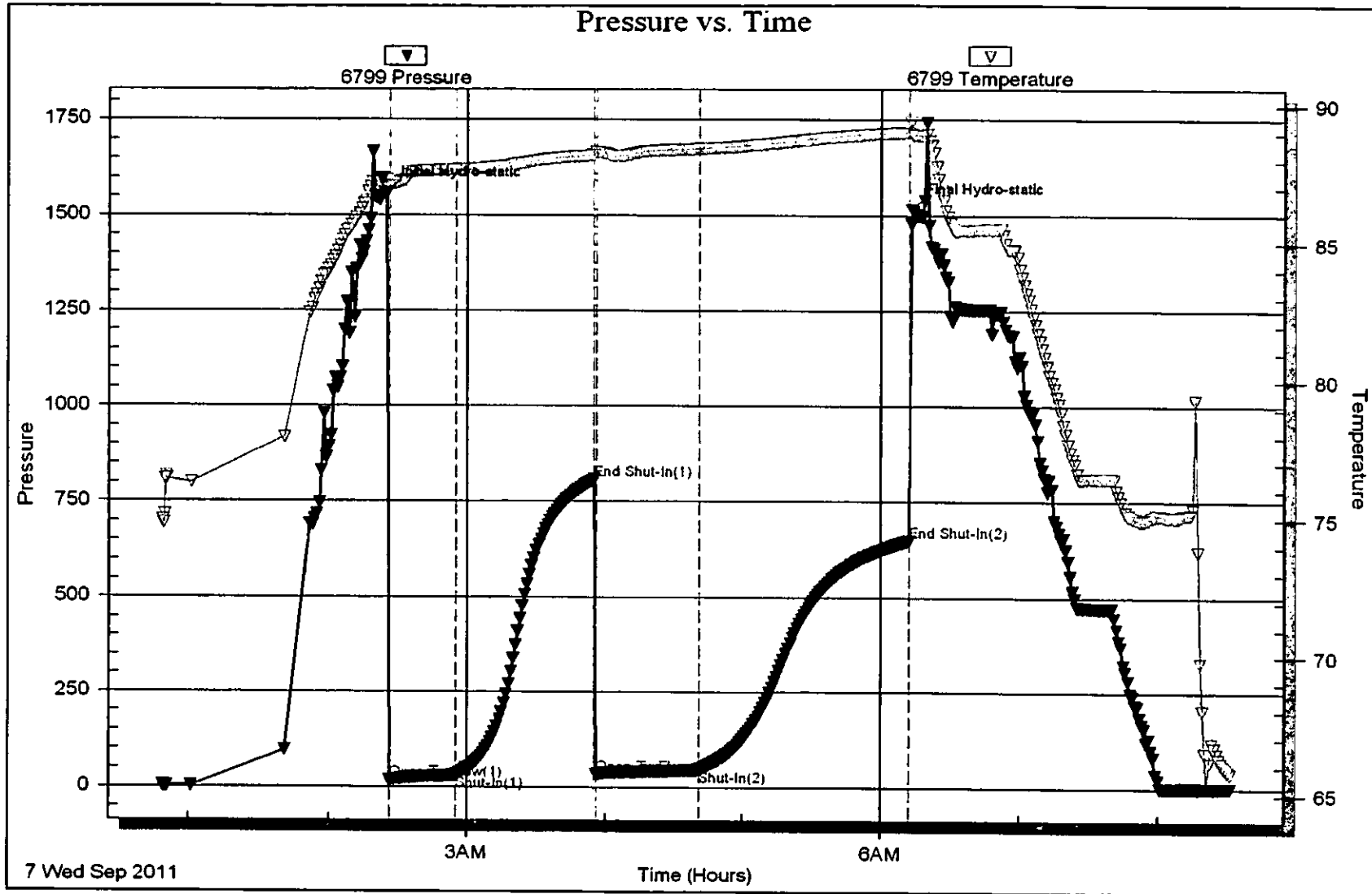
Num Gas Bombs: 0

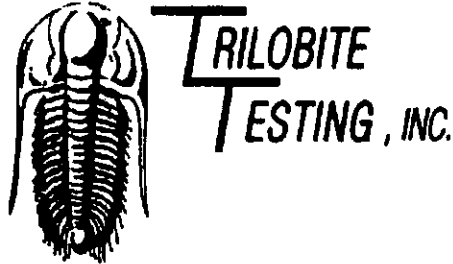
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Show of free oil in tool





## DRILL STEM TEST REPORT

Prepared For: **Great Plains Energy, Inc.**

6121 S. 58th St. STE- B  
Wahoo, NE 68516

ATTN: Rich Bell

**16-1s-27w Decatur,KS**

**Hanchera #1-16**

Start Date: 2011.09.07 @ 15:40:00

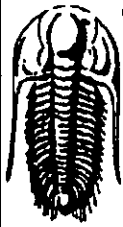
End Date: 2011.09.07 @ 22:46:45

Job Ticket #: 43772                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.09.15 @ 10:29:26

Great Plains Energy, Inc.    Hanchera #1-16    16-1s-27w Decatur,KS    DST # 3    LKC "F,G,H"    2011.09.07



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Great Plains Energy, Inc.  
6121 S. 58th St. STE- B  
Wahoo, NE 68516  
ATTN: Rich Bell

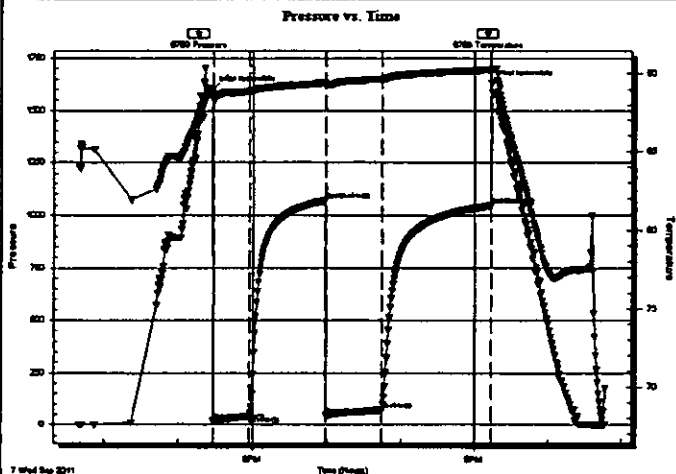
**Hanchera #1-16**  
**16-1s-27w Decatur,KS**  
Job Ticket: 43772      DST#: 3  
Test Start: 2011.09.07 @ 15:40:00

### GENERAL INFORMATION:

Formation: **LKC "F,G,H"**  
 Deviated: **No Whipstock**      ft (KB)  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Time Tool Opened: **17:28:00**  
 Tester: **Kevin Mack**  
 Time Test Ended: **22:46:45**  
 Unit No: **43**  
 Interval: **3318.00 ft (KB) To 3393.00 ft (KB) (TVD)**  
 Reference Elevations: **2581.00 ft (KB)**  
 Total Depth: **3393.00 ft (KB) (TVD)**  
**2576.00 ft (CF)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Good**  
 KB to GR/CF: **5.00 ft**

Serial #: **6799**      Inside  
 Press@RunDepth: **71.32 psig @ 3319.00 ft (KB)**      Capacity: **8000.00 psig**  
 Start Date: **2011.09.07**      End Date: **2011.09.07**      Last Calib.: **2011.09.07**  
 Start Time: **15:40:05**      End Time: **22:46:44**      Time On Btm: **2011.09.07 @ 17:27:30**  
 Time Off Btm: **2011.09.07 @ 21:13:45**

**TEST COMMENT:** IF- 1/4" Blow built to 2 1/2"  
 IS- No Return  
 FF- Weak Surface blow started at 5 min. Built to 3/4" then died back to 1/8"  
 FS- No Return



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1602.00	88.72	Initial Hydro-static
1	18.64	88.37	Open To Flow (1)
30	42.67	88.86	Shut-In(1)
92	1069.87	89.39	End Shut-In(1)
92	45.83	89.27	Open To Flow (2)
137	71.32	89.62	Shut-In(2)
226	1046.82	90.22	End Shut-In(2)
227	1628.63	90.34	Final Hydro-static

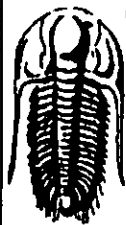
### Recovery

Length (ft)	Description	Volume (bbl)
120.00	OSM 100M (oil spots)	0.59

### Gas Rates

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Great Plains Energy, Inc.

Hanchera #1-16

6121 S. 58th St. STE- B  
Wahoo, NE 68516

16-1s-27w Decatur, KS

Job Ticket: 43772

DST#: 3

ATTN: Rich Bell

Test Start: 2011.09.07 @ 15:40:00

### Tool Information

Drill Pipe:	Length: 2804.00 ft	Diameter: 3.80 inches	Volume: 39.33 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 517.00 ft	Diameter: 2.25 inches	Volume: 2.54 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 41.87 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3318.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	104.00 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			3290.00	
Shut In Tool	5.00			3295.00	
Hydraulic tool	5.00			3300.00	
Jars	5.00			3305.00	
Safety Joint	3.00			3308.00	
Packer	5.00			3313.00	29.00 Bottom Of Top Packer
Packer	5.00			3318.00	
Stubb	1.00			3319.00	
Recorder	0.00	8648	Inside	3319.00	
Recorder	0.00	6799	Inside	3319.00	
Perforations	5.00			3324.00	
Change Over Sub	1.00			3325.00	
Drill Pipe	62.00			3387.00	
Change Over Sub	1.00			3388.00	
Bullnose	5.00			3393.00	75.00 Bottom Packers & Anchor

**Total Tool Length: 104.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Great Plains Energy, Inc.

Hanchera #1-16

6121 S. 58th St. STE- B  
Wahoo, NE 68516

16-1s-27w Decatur,KS

Job Ticket: 43772      DST#: 3

ATTN: Rich Bell

Test Start: 2011.09.07 @ 15:40:00

### 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: 60.00 sec/qt

Cushion Volume: bbl

Water Loss: 5.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	OSM 100M (oil spots)	0.590

Total Length: 120.00 ft      Total Volume: 0.590 bbl

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

Laboratory Name:      Laboratory Location:

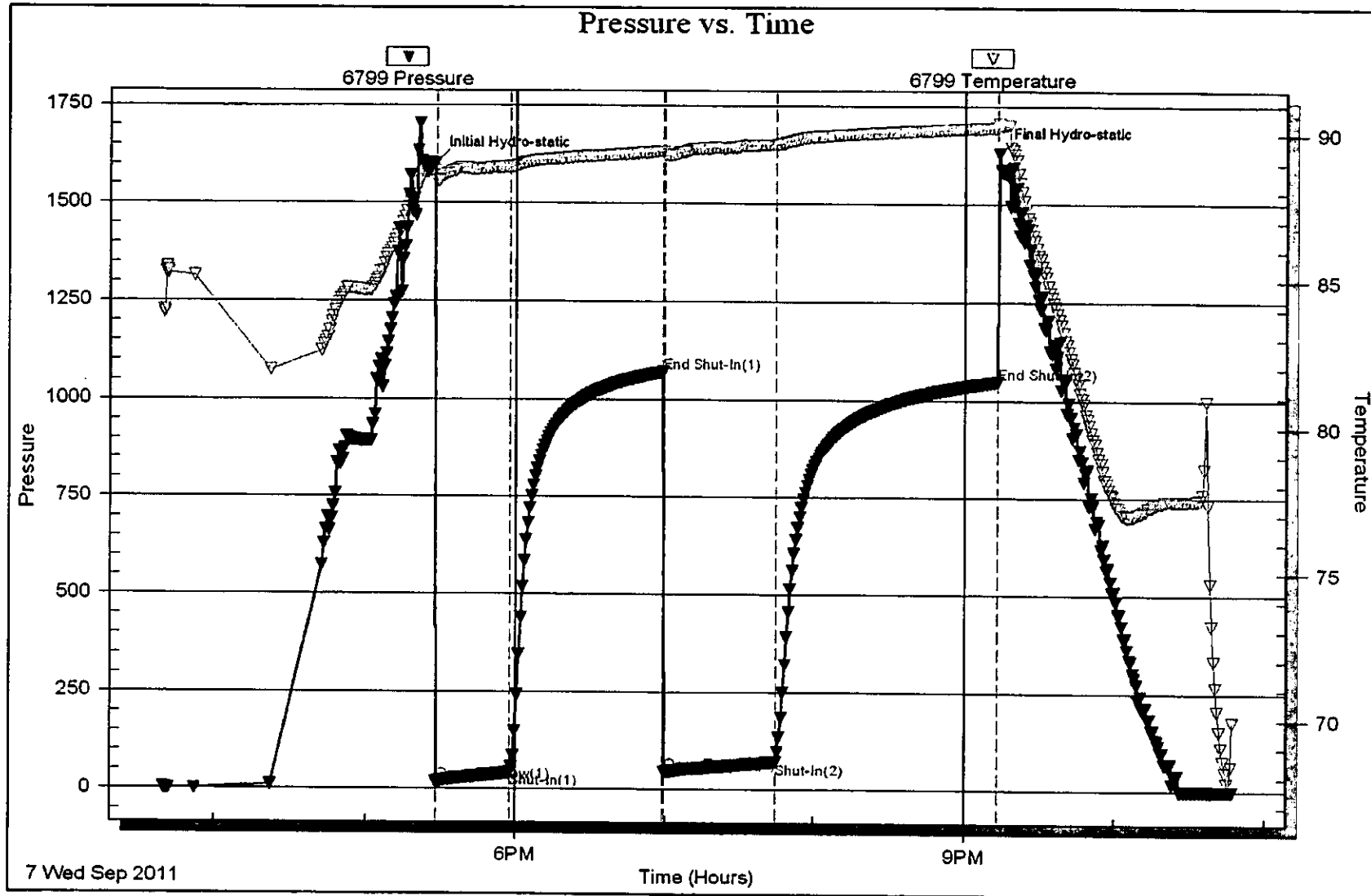
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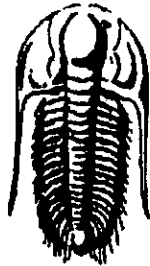
Serial #: 6799

Inside Great Plains Energy, Inc.

16-1s-27w Decatur,KS

DST Test Number: 3





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Great Plains Energy, Inc.**

6121 S. 58th St. STE- B  
Wahoo, NE 68516

ATTN: Rich Bell

**16-1s-27w Decatur,KS**

**Hanchera #1-16**

Start Date: 2011.09.08 @ 08:00:00

End Date: 2011.09.08 @ 14:51:15

Job Ticket #: 43773                      DST #: 4

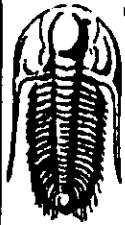
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2011.09.15 @ 10:29:44

Great Plains Energy, Inc.    Hanchera #1-16    16-1s-27w Decatur,KS    DST # 4    LKC "J,K,L"    2011.09.08



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Great Plains Energy, Inc.

Hanchera #1-16

6121 S. 58th St. STE- B  
Wahoo, NE 68516

16-1s-27w Decatur, KS

Job Ticket: 43773

DST#: 4

ATTN: Rich Bell

Test Start: 2011.09.08 @ 08:00:00

### GENERAL INFORMATION:

Formation: LKC "J,K,L"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:48:30

Time Test Ended: 14:51:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 43

Interval: 3395.00 ft (KB) To 3484.00 ft (KB) (TVD)

Reference Elevations: 2581.00 ft (KB)

Total Depth: 3484.00 ft (KB) (TVD)

2576.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6799

Inside

Press@RunDepth: 22.43 psig @ 3396.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.09.08

End Date:

2011.09.08

Last Calib.:

2011.09.08

Start Time: 08:00:05

End Time:

14:51:14

Time On Btm:

2011.09.08 @ 09:48:15

Time Off Btm:

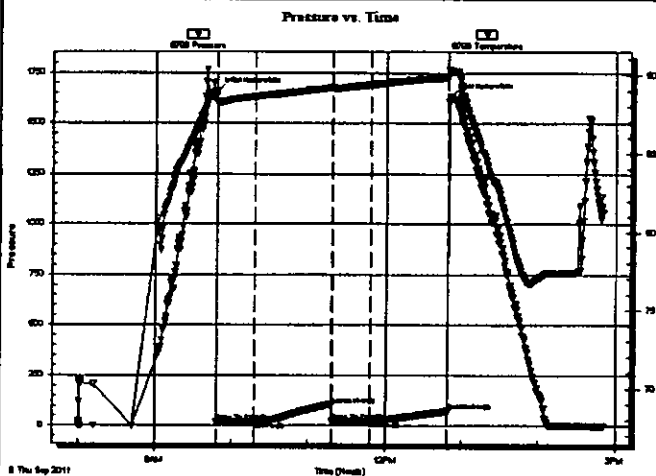
2011.09.08 @ 12:50:30

TEST COMMENT: F- 1/8" Blow built to 1/2". Blow began to die at 25 min.

IS- No Return

FF- No Blow

FS- No Return



### PRESSURE SUMMARY

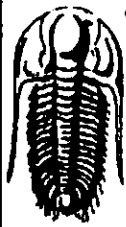
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1662.29	88.68	Initial Hydro-static
1	18.59	88.21	Open To Flow (1)
30	20.90	88.62	Shut-In(1)
90	104.05	89.20	End Shut-In(1)
91	21.92	89.18	Open To Flow (2)
120	22.43	89.41	Shut-In(2)
181	72.43	89.90	End Shut-In(2)
183	1633.78	90.25	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100M	0.02

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Great Plains Energy, Inc.

Hanchera #1-16

6121 S. 58th St. STE- B  
Wahoo, NE 68516

16-1s-27w Decatur, KS

Job Ticket: 43773

DST#: 4

ATTN: Rich Bell

Test Start: 2011.09.08 @ 08:00:00

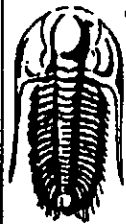
### Tool Information

Drill Pipe:	Length: 2864.00 ft	Diameter: 3.80 inches	Volume: 40.17 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 517.00 ft	Diameter: 2.25 inches	Volume: 2.54 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 42.71 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3395.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	89.00 ft			
Tool Length:	118.00 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			3367.00	
Shut In Tool	5.00			3372.00	
Hydraulic tool	5.00			3377.00	
Jars	5.00			3382.00	
Safety Joint	3.00			3385.00	
Packer	5.00			3390.00	29.00 Bottom Of Top Packer
Packer	5.00			3395.00	
Stubb	1.00			3396.00	
Recorder	0.00	8648	inside	3396.00	
Recorder	0.00	6799	inside	3396.00	
Perforations	19.00			3415.00	
Change Over Sub	1.00			3416.00	
Drill Pipe	62.00			3478.00	
Change Over Sub	1.00			3479.00	
Bullnose	5.00			3484.00	89.00 Bottom Packers & Anchor

**Total Tool Length: 118.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Great Plains Energy, Inc.

**Hanchera #1-16**

6121 S. 58th St. STE- B  
Wahoo, NE 68516

**16-1s-27w Decatur,KS**

Job Ticket: 43773

DST#: 4

ATTN: Rich Bell

Test Start: 2011.09.08 @ 08:00:00

### 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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100M	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:

Serial #: 6799

Inside Great Plains Energy, Inc.

16-1s-27w Decatur, KS

DST Test Number: 4

