



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1186273  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

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
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

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

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1186273

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Great Plains Energy, Inc.
Well Name	Luckert 1-15
Doc ID	1186273

Tops

Name	Top	Datum
Anhydrite	2997	+384
Base Anhydrite	3032	+349
Topeka	4046	-665
Heebner	4183	-802
Lansing	4216	-835
BKC	4482	-1101
Marmoton	4515	-1134
Cherokee	4687	-1306
Mississippian	4853	-1472



71730

# INVOICE

PO Box 93999  
outhlake, TX 76092

Invoice Number: 137022  
Invoice Date: Jun 24, 2013  
Page: 1

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

<b>Bill To:</b>
Great Plains Energy, Inc. 6121 S. 58 St. Suite B Lincoln, NE 68516



Customer ID	Field Ticket #	Payment Terms	
GrPIEn	60752	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Jun 24, 2013	7/24/13

Quantity	Item	Description	Unit Price	Amount
300.00	MAT	<u>Luckert #1-15</u> Class A Common <i>Cement Surface</i>	17.90	5,370.00
11.00	MAT	Chloride	64.00	704.00
315.00	SER	Cubic Feet	2.48	781.20
696.95	SER	Ton Mileage	2.60	1,812.09
1.00	SER	Surface	1,512.25	1,512.25
48.00	SER	Pump Truck Mileage	7.70	369.60
1.00	SER	Manifold Head Rental	275.00	275.00
48.00	SER	Light Vehicle Mileage	4.40	211.20
1.00	CEMENTER	Andrew Forslund		
1.00	EQUIP OPER	D J Gray		
1.00	OPER ASSIST	Kevin Ryan		

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

\$ 2,869.18

ONLY IF PAID ON OR BEFORE

Jul 19, 2013

Subtotal	11,035.34
Sales Tax	443.40
Total Invoice Amount	11,478.74
Payment/Credit Applied	
<b>TOTAL</b>	<b>11,478.74</b>

8609.56



71730

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 137186

Invoice Date: Jul 3, 2013

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

Page: 1

JUL 16 RECD

<b>Bill To:</b>
Great Plains Energy, Inc. 6121 S. 58 St. Suite B Lincoln, NE 68516

Now Includes:



Customer ID	Field Ticket #	Payment Terms	
GrPIEn	60340	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Oakley	Jul 3, 2013	8/2/13

Quantity	Item	Description	Unit Price	Amount
		Luckert #1-15 <i>Plugging Count</i>		
132.00	MAT	Class A Common	17.90	2,362.80
88.00	MAT	Pozmix	9.35	822.80
8.00	MAT	Gel	23.40	187.20
55.00	MAT	Flo Seal	2.97	163.35
236.28	SER	Cubic Feet	2.48	585.97
493.50	SER	Ton Mileage	2.60	1,283.10
1.00	SER	Plug to Abandon	2,600.47	2,600.47
50.00	SER	Pump Truck Mileage	7.70	385.00
50.00	SER	Light Vehicle Mileage	4.40	220.00
1.00	EQP	8.5/8 Wooden Plug	107.64	107.64
1.00	CEMENTER	LaRene Wentz		
1.00	EQUIP OPER	Paul Beaver		
1.00	OPER ASSIST	Kevin Ryan		

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

\$ 2,266.76

ONLY IF PAID ON OR BEFORE

Jul 28, 2013

Subtotal	8,718.33
Sales Tax	623.36
Total Invoice Amount	9,341.69
Payment/Credit Applied	
<b>TOTAL</b>	<b>9,341.69</b>

7074.93



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53170

**DST#: 1**

ATTN: Clayton Erickson

Test Start: 2013.06.29 @ 03:41:03

## GENERAL INFORMATION:

Formation: **LKC A-C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:39:48

Time Test Ended: 11:25:18

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

**Interval: 4228.00 ft (KB) To 4277.00 ft (KB) (TVD)**

Reference Elevations: 3380.00 ft (KB)

Total Depth: 4277.00 ft (KB) (TVD)

3370.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8373**

**Inside**

Press @ Run Depth: 563.72 psig @ 4229.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.29

End Date:

2013.06.29

Last Calib.:

2013.06.29

Start Time: 03:41:08

End Time:

11:25:17

Time On Btm:

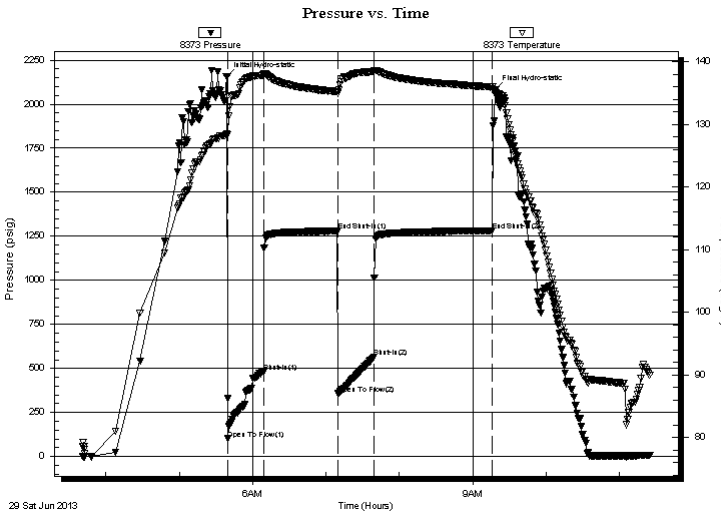
2013.06.29 @ 05:39:03

Time Off Btm:

2013.06.29 @ 09:18:33

**TEST COMMENT:** IF: BOB in 5 min.  
IS: No return.  
FF: BOB in 7 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2158.51	128.53	Initial Hydro-static
1	100.64	128.41	Open To Flow (1)
30	481.05	137.86	Shut-In(1)
91	1280.32	135.23	End Shut-In(1)
91	355.77	134.99	Open To Flow (2)
121	563.72	138.39	Shut-In(2)
217	1281.66	135.94	End Shut-In(2)
220	2084.62	134.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
558.00	mcw 90%w 10%m	5.92
310.00	mcw 70%w 30%m	4.53
310.00	mcw 60%w 40%m	4.53

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53170

**DST#: 1**

ATTN: Clayton Erickson

Test Start: 2013.06.29 @ 03:41:03

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

6500 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
558.00	mcw 90%w 10%m	5.918
310.00	mcw 70%w 30%m	4.534
310.00	mcw 60%w 40%m	4.534

Total Length: 1178.00 ft      Total Volume: 14.986 bbl

Num Fluid Samples: 0

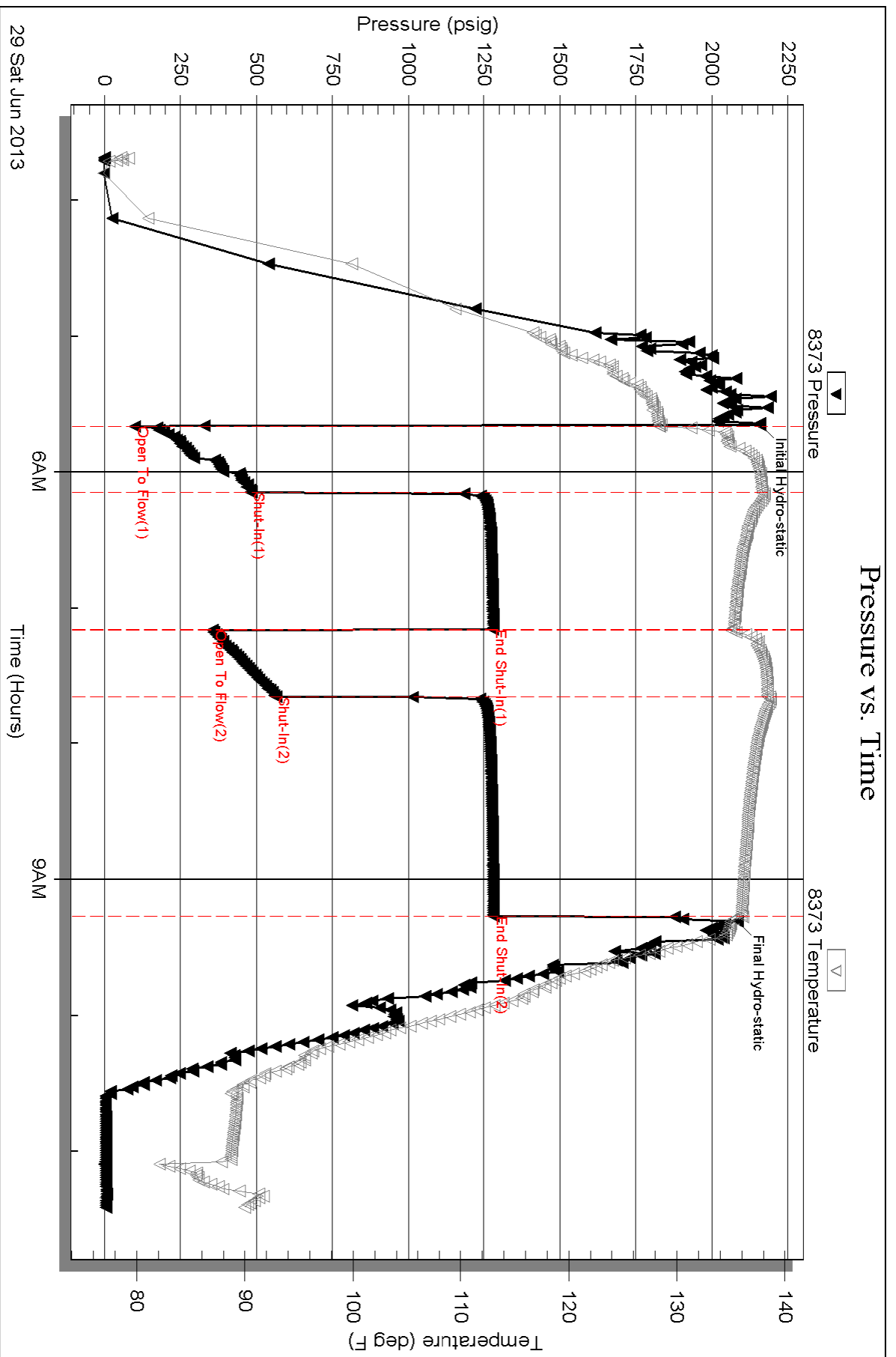
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .07@96=6500







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53171

**DST#: 2**

ATTN: Clayton Erickson

Test Start: 2013.06.29 @ 20:02:54

## GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:47:09

Time Test Ended: 02:36:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

**Interval: 4298.00 ft (KB) To 4325.00 ft (KB) (TVD)**

Reference Elevations: 3380.00 ft (KB)

Total Depth: 4325.00 ft (KB) (TVD)

3370.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8373**

**Inside**

Press @ Run Depth: 43.73 psig @ 4299.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.29

End Date:

2013.06.30

Last Calib.:

2013.06.30

Start Time: 20:02:59

End Time:

02:36:38

Time On Btm:

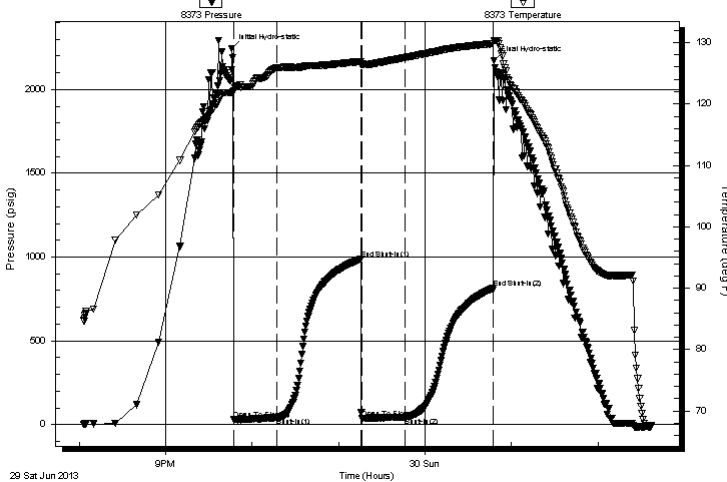
2013.06.29 @ 21:45:54

Time Off Btm:

2013.06.30 @ 00:47:54

**TEST COMMENT:** IF: Surface blow built to 1.  
IS: No return.  
FF: Surface blow built to 1/2.  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2244.29	121.91	Initial Hydro-static
2	32.26	122.08	Open To Flow (1)
32	41.71	125.91	Shut-In(1)
90	988.94	126.92	End Shut-In(1)
91	37.43	126.46	Open To Flow (2)
120	43.73	127.53	Shut-In(2)
181	813.44	129.82	End Shut-In(2)
182	2172.26	130.35	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	mco 90%o 10%m	0.30

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53171

**DST#: 2**

ATTN: Clayton Erickson

Test Start: 2013.06.29 @ 20:02:54

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	mco 90%o 10%m	0.295

Total Length: 60.00 ft      Total Volume: 0.295 bbl

Num Fluid Samples: 0

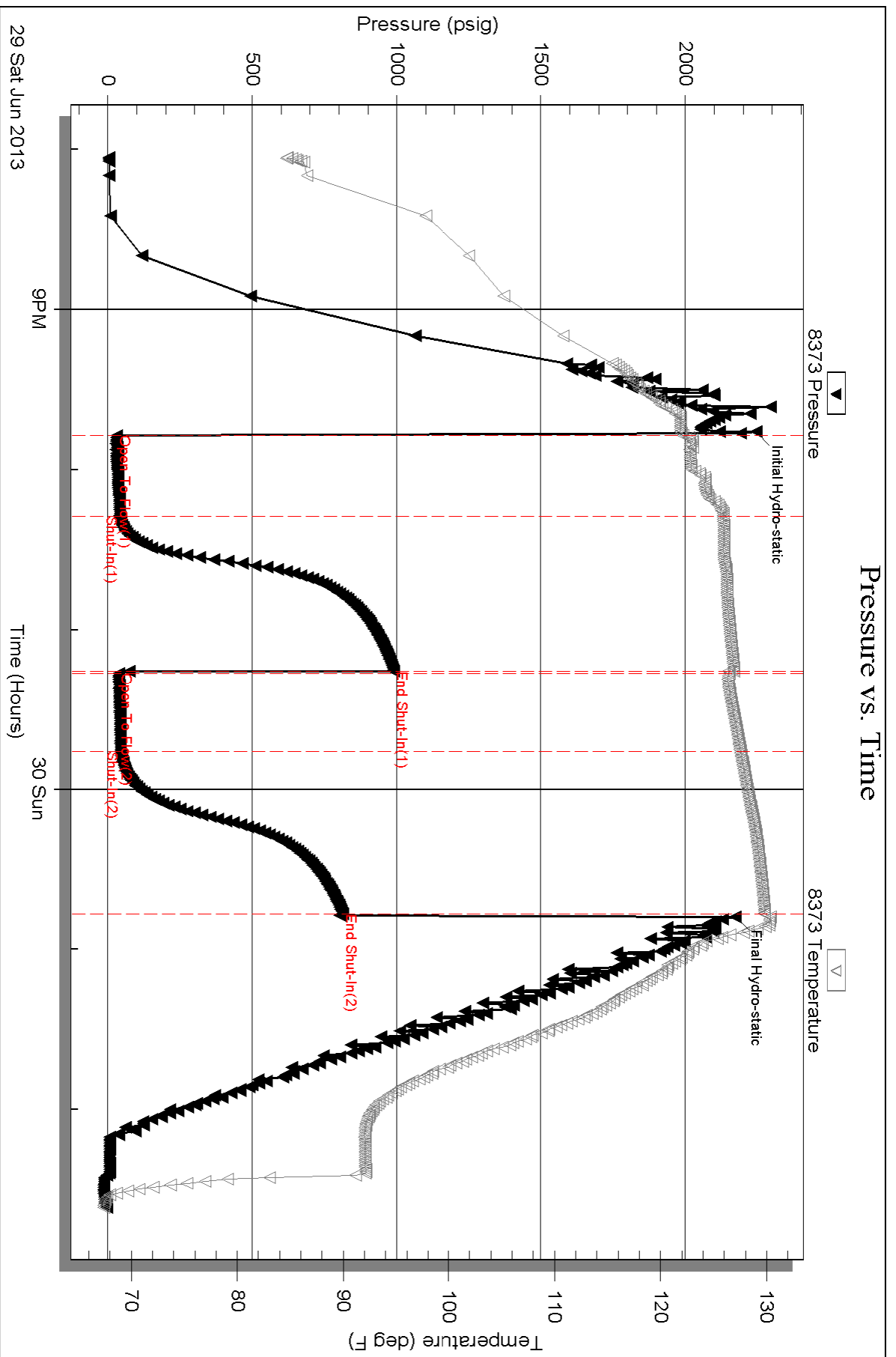
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53172

**DST#: 3**

ATTN: Clayton Erickson

Test Start: 2013.06.30 @ 13:32:17

## GENERAL INFORMATION:

Formation: **LKC H-I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:32:47

Time Test Ended: 20:11:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

**Interval: 4342.00 ft (KB) To 4403.00 ft (KB) (TVD)**

Reference Elevations: 3380.00 ft (KB)

Total Depth: 4403.00 ft (KB) (TVD)

3370.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8373**

**Inside**

Press @ Run Depth: 290.32 psig @ 4343.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.06.30

End Date:

2013.06.30

Last Calib.:

2013.06.30

Start Time: 13:32:22

End Time:

20:11:01

Time On Btm:

2013.06.30 @ 15:31:17

Time Off Btm:

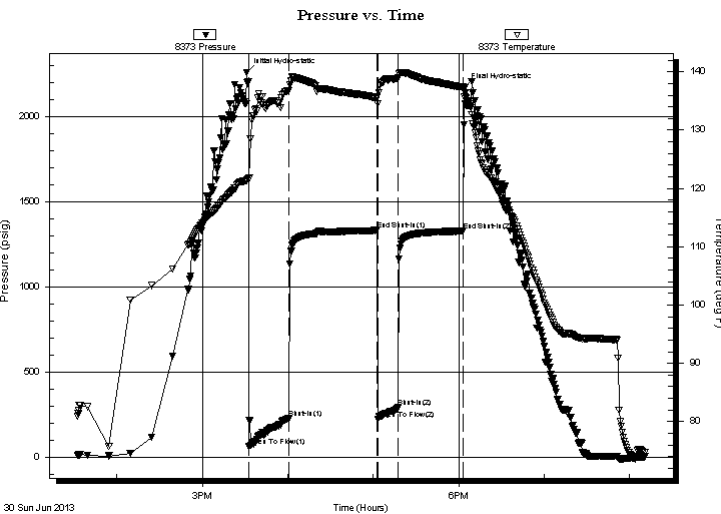
2013.06.30 @ 18:04:02

TEST COMMENT: IF: BOB in 7 min.

IS: No return.

FF: BOB in 11 min.

FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2262.24	121.38	Initial Hydro-static
2	62.35	121.73	Open To Flow (1)
30	229.54	136.71	Shut-In(1)
92	1335.56	135.65	End Shut-In(1)
92	221.20	134.56	Open To Flow (2)
106	290.32	138.91	Shut-In(2)
152	1331.03	137.41	End Shut-In(2)
153	2171.06	135.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
310.00	mcw 85%w 15%m	2.29
279.00	mcw 70%w 30%m	4.08

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53172

**DST#: 3**

ATTN: Clayton Erickson

Test Start: 2013.06.30 @ 13:32:17

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
310.00	mcw 85%w 15%m	2.291
279.00	mcw 70%w 30%m	4.080

Total Length: 589.00 ft

Total Volume: 6.371 bbl

Num Fluid Samples: 0

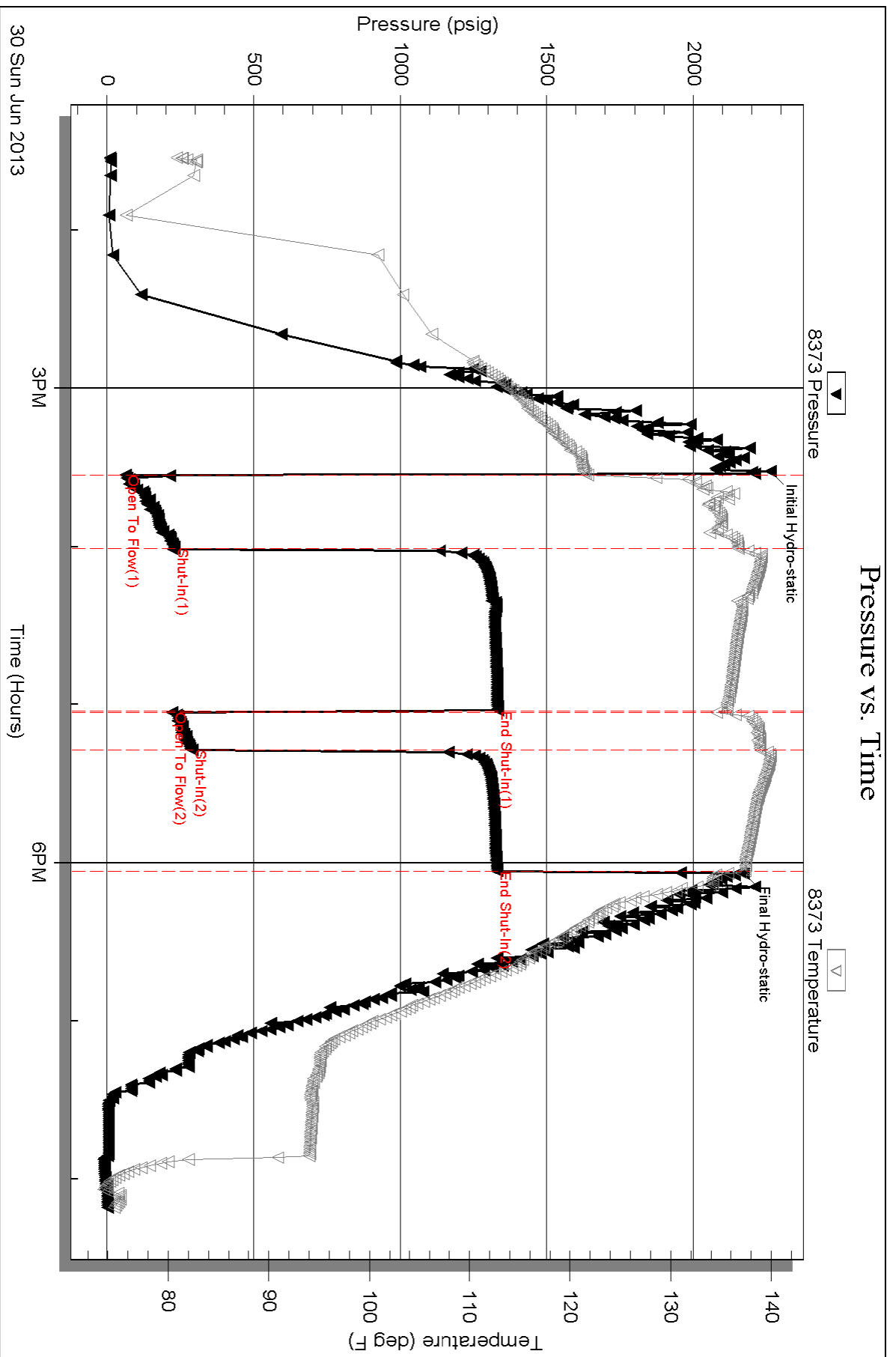
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .18@85=32000





**TRILOBITE  
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# DRILL STEM TEST REPORT

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53173

**DST#: 4**

ATTN: Mike Madcharo

Test Start: 2013.07.01 @ 19:53:26

## GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:22:11

Time Test Ended: 02:28:26

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

**Interval: 4580.00 ft (KB) To 4656.00 ft (KB) (TVD)**

Reference Elevations: 3380.00 ft (KB)

Total Depth: 4656.00 ft (KB) (TVD)

3370.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8373**

**Inside**

Press @ Run Depth: 60.36 psig @ 4581.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.01

End Date:

2013.07.02

Last Calib.:

2013.07.02

Start Time: 19:53:31

End Time:

02:28:25

Time On Btm:

2013.07.01 @ 21:20:56

Time Off Btm:

2013.07.02 @ 00:22:56

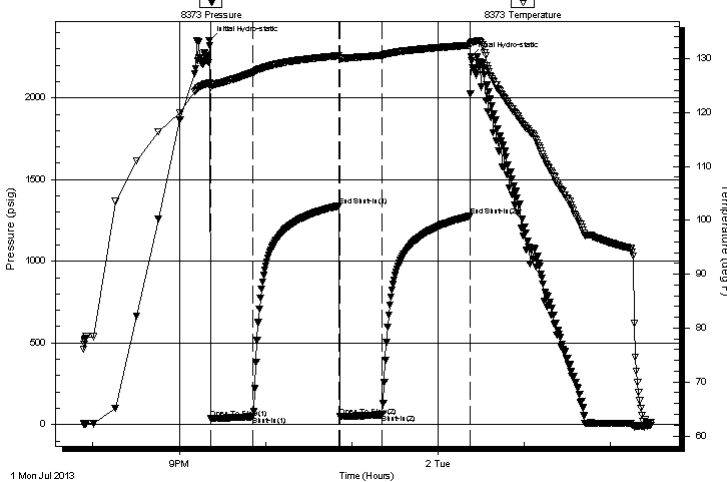
TEST COMMENT: IF: Surface blow died in 11 min.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2351.80	125.56	Initial Hydro-static
2	36.87	125.10	Open To Flow (1)
31	49.20	127.41	Shut-In(1)
91	1340.21	130.54	End Shut-In(1)
91	50.86	130.10	Open To Flow (2)
120	60.36	130.61	Shut-In(2)
182	1277.16	132.47	End Shut-In(2)
182	2254.73	132.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	mud 100% <sub>m</sub>	0.30

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Great Plains Energy

**15-16s-36w Thomas, Ks**

6121 S 58th st ste B  
Lincoln, Ne 68516

**Luckert 1-15**

Job Ticket: 53173

**DST#: 4**

ATTN: Mike Madcharo

Test Start: 2013.07.01 @ 19:53:26

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	mud 100%m	0.295

Total Length: 60.00 ft      Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8373

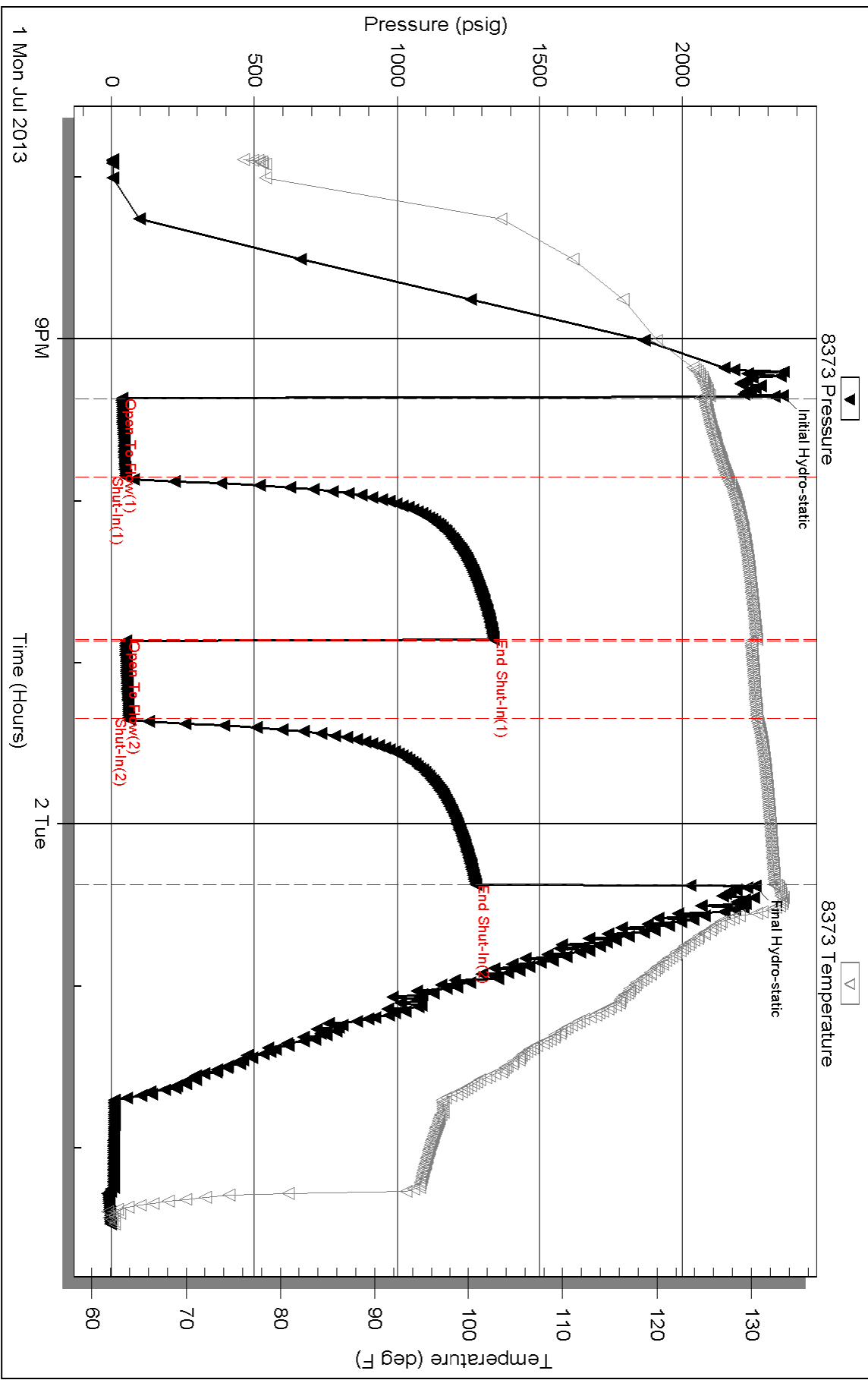
Inside

Great Plains Energy

Luckert 1-15

DST Test Number: 4

# Pressure vs. Time



Triobite Testing, Inc

Ref. No: 53173

Printed: 2013.07.02 @ 04:50:45

ERICKSON WELL SITE LOG



Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Luckett #1-15  
Location: SW NE SW Sec 15 T6S R36W  
License Number: 624/2013  
Spud Date: 6/24/2013  
Surface Coordinates: 1650' F8L & 1650' F4L  
Region: Thomas County, KS  
Drilling Completed: 7/3/2013

Bottom Hole Coordinates:  
Ground Elevation (RT): 3370  
Logged Interval (RT): 3750  
Formation:  
Type of Drilling Fluid: Chemical Mud

To: TD  
K.B. Elevation (RT): 3380  
Total Depth (RT): 4870

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Great Plains Energy, Inc.  
Address: 6121 South 58th Street, Ste. B  
Lincoln, NE 68516

GEOLOGIST

Name: Clayton Erickson  
Company: Erickson Well Site Geology  
Address: 402 Palmer Street  
P.O. Box 294  
Loomis, NE 68958

DGTs

DST #1 4228-4277: 30-60-30-90; Hydro: 2158-2084 IFF: 100-481 ISP: 1280 FFP: 355-563 FSP: 1281; Rec: 310' 60%w 48%w 310' 70%w 30%w 558' 90%w 19%w; BHT: 136; RW: .678 BF Chl: 6500ppm; F: BOB 5min ISL; dead FF: BOB 7min FSL; dead

DST #2 4298-4325: 30-60-30-90; Hydro: 2244-2172 IFF: 32-61 ISP: 988 FFP: 37-43 FSP: 813; Rec: 60' 60%w 10%w; BHT: 129; F: 1" ISL; dead FF: 1/2" FSL; dead

DST #3 4342-4483: 30-60-15-45; Hydro: 2282-2171 IFF: 62-229 ISP: 1335 FFP: 221-298 FSP: 1331; Rec: 279' 30%w 30%w 310' 85%w 15%w; BHT: 137; RW: .188 BF Chl: 32000ppm; F: BOB 7min ISL; dead FF: BOB 11min FSL; dead

DST #4 4588-4656: 30-60-30-90; Hydro: 2352-2255 IFF: 37-49 ISP: 1348 FFP: 51-69 FSP: 1277; Rec: 60' mud; BHT: 133; F: surface dead in 11min ISL; dead FF: dead FSL; dead

DST #5 4725-4750: 30-60-30-90; Hydro: 2519-2275 IFF: 45-172 ISP: 1951 FFP: 173-238 FSP: 1055; Rec: 164' 30%w 70%w 186' 70%w 30%w 248' 90%w 19%w; BHT: 144; RW: .138 BF Chl: 5000ppm; F: BOB 23min ISL; dead FF: BOB 27min FSL; dead

COMMENTS

None

FORMATION TOPS

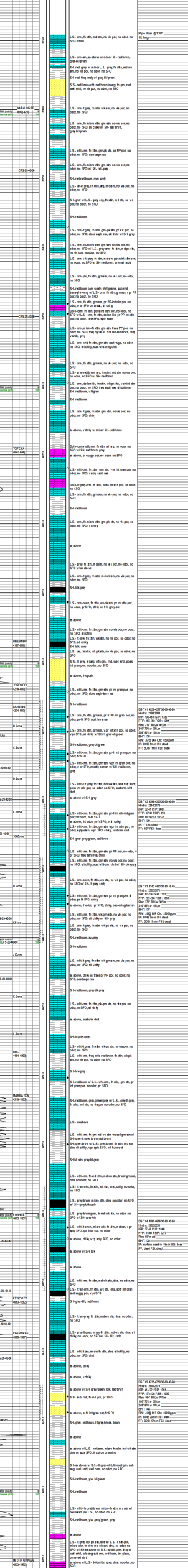
Formation	Log Tops	Sample tops
Anhydrite	2907(+384)	3012(+369)
Base Anhy	3032(+349)	3043(+338)
Wabaussee	3801(-429)	3800(-419)
Topeka	4046(-665)	4047(-666)
Heebner	4183(-802)	4187(-806)
LKC	4216(-835)	4218(-837)
BKC	4482(-1101)	4484(-1103)
Marmaton	4515(-1134)	4516(-1135)
Pownee	4602(-1221)	4602(-1221)
Fort Scott	4603(-1222)	4603(-1222)
Cherokee	4687(-1306)	4688(-1307)
Muskogean		4852(-1472)
TD	4869(-1488)	4870(-1489)

ROCK TYPES

Anhy	Cyst	Gyp	Mist	Shly
Bert	Carb. shale	Igne	Salt	Silst
Brec	Arkose	Limest	Shale	Ss
Chl	Dol	Meta	Shoof	Tll

OTHER SYMBOLS

Oil Show	Spotted	Dead	Interval
Even	Ques		Dat



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FSL: dead

DST #4 4588-4656: 30-60-30-90; Hydro: 2352-2255 IFP: 37-49 ISP: 1348 FFP: 51-69 FSP: 1277; Rec: 60' mud;  
BHT: 133; F: surface dead in 11min ISL: dead FF: dead FSL: dead

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30%w 70%w 186' 70%w 30%w 248' 90%w 19%w; BHT: 144; RW: .138 BF Cht: 5000ppm; F: BOB 23min ISL:  
dead FF: BOB 27min FSL: dead

COMMENTS

FORMATION TOPS

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