



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

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

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

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

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

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

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

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

Total 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**

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



1167072

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

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

**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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

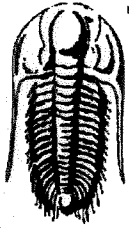
Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

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
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <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> _____	PRODUCTION INTERVAL: _____ _____
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**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51157

**DST#: 1**

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.04 @ 20:24:00

### GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:36:45

Time Test Ended: 03:53:45

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: **3832.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Reference Elevations: 2541.00 ft (KB)

Total Depth: 3880.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6719**

**Inside**

Press@RunDepth: 236.59 psig @ 3833.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.04 End Date: 2013.04.05

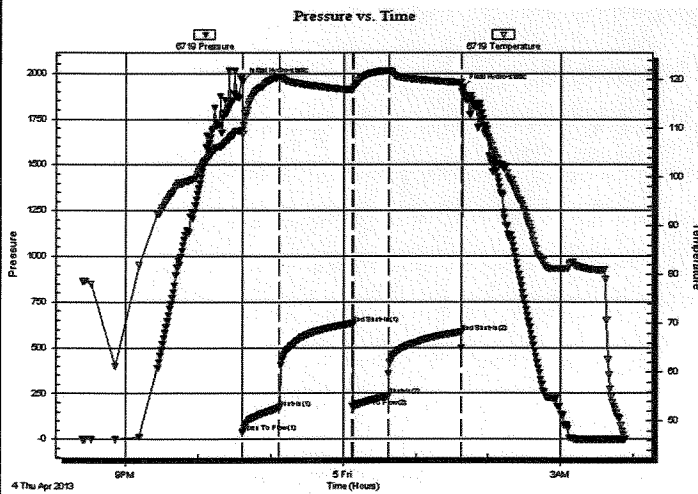
Last Calib.: 2013.04.05

Start Time: 20:24:05 End Time: 03:53:44

Time On Btm: 2013.04.04 @ 22:36:30

Time Off Btm: 2013.04.05 @ 01:38:00

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") in 10 min.  
60 - IS: Bled off, Surface blow back for a few min., then dead  
30 - FF: Blow built to BOB in 21 min.  
60 - FS: Bled off, No blow back



### PRESSURE SUMMARY

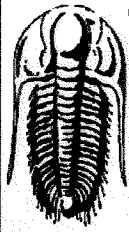
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1956.51	109.60	Initial Hydro-static
1	37.66	108.91	Open To Flow (1)
31	171.23	120.55	Shut-In(1)
91	631.87	117.89	End Shut-In(1)
91	176.84	118.05	Open To Flow (2)
121	236.59	121.80	Shut-In(2)
181	584.38	119.40	End Shut-In(2)
182	1922.71	117.54	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
186.00	MCW w/trace oil 92%w, 8%m	0.91
252.00	MCW w/trace oil 80%w, 20%m	3.53
15.00	MCW w/oil spots 63%w, 32%m, 4%g, 1%o	0.21
15.00	Oil 92%o, 4%g, 4%m	0.21
0.00	GIP = 30'	0.00

### Gas Rates

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



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# DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51158

DST#: 2

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.05 @ 13:30:00

## GENERAL INFORMATION:

Formation: **LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:46:15

Time Test Ended: 20:59:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **3881.00 ft (KB) To 3900.00 ft (KB) (TVD)**

Reference Elevations: 2541.00 ft (KB)

Total Depth: 3900.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6719**

Inside

Press@RunDepth: 222.11 psig @ 3882.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.05

End Date:

2013.04.05

Last Calib.: 2013.04.05

Start Time: 13:30:05

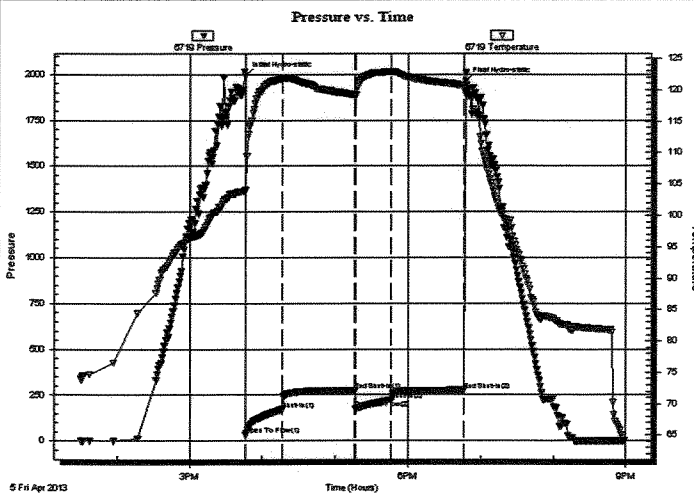
End Time:

20:58:59

Time On Btm: 2013.04.05 @ 15:46:00

Time Off Btm: 2013.04.05 @ 18:47:30

TEST COMMENT: 30 - IF: Blow built to BOB in 10 1/2 min.  
60 - IS: Bled off, No blow back  
30 - FF: Blow built to BOB in 30 min.  
60 - FS: Bled off, No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1994.76	104.12	Initial Hydro-static
1	31.57	104.02	Open To Flow (1)
31	171.21	121.79	Shut-In(1)
90	275.50	119.05	End Shut-In(1)
91	174.61	119.13	Open To Flow (2)
120	222.11	122.90	Shut-In(2)
180	275.87	120.69	End Shut-In(2)
182	1962.78	119.26	Final Hydro-static

## Recovery

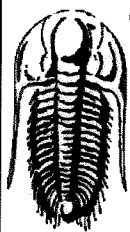
Length (ft)	Description	Volume (bbl)
186.00	MCW 90%w, 10%m	0.91
189.00	SMCW 94%w, 6%m	2.65
65.00	MCW 69%w, 31%m	0.91
0.00	Show of Oil in tool	0.00

\* Recovery from multiple tests

## Gas Rates

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





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TESTING, INC.**

## DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51160

DST#: 4

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.07 @ 04:17:00

### GENERAL INFORMATION:

Formation: **LKC "D - F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:09:15

Time Test Ended: 12:11:15

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **3913.00 ft (KB) To 3953.00 ft (KB) (TVD)**

Total Depth: 3953.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2541.00 ft (KB)

2536.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6719**

**Inside**

Press@RunDepth: 141.91 psig @ 3914.00 ft (KB)

Start Date: 2013.04.07

End Date:

2013.04.07

Capacity: 8000.00 psig

Last Calib.: 2013.04.07

Start Time: 04:17:05

End Time:

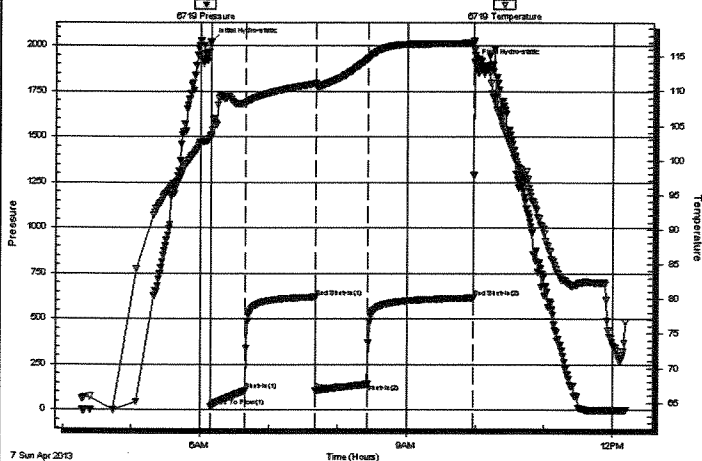
12:11:14

Time On Btm: 2013.04.07 @ 06:09:00

Time Off Btm: 2013.04.07 @ 09:58:45

TEST COMMENT: 30 - IF: Blow built to 7 1/2"  
60 - IS: Bled off, No blow back  
45 - FF: Blow built to 8"  
90 - FS: Bled off, No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2019.05	103.62	Initial Hydro-static
1	19.66	103.34	Open To Flow (1)
31	105.43	108.27	Shut-In(1)
92	619.37	111.07	End Shut-In(1)
92	107.33	110.75	Open To Flow (2)
137	141.91	114.58	Shut-In(2)
229	614.83	116.91	End Shut-In(2)
230	1905.06	115.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	MCW 84%w, 16%m	0.91
94.00	MW w /trace oil in top 51%w, 49%m	1.32

Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51162

DST#: 6

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.08 @ 11:51:00

### GENERAL INFORMATION:

Formation: **LKC "H - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:43:15

Time Test Ended: 19:24:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3968.00 ft (KB) To 4053.00 ft (KB) (TVD)

Reference Elevations: 2541.00 ft (KB)

Total Depth: 4053.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6719**

Inside

Press@RunDepth: 39.11 psig @ 3969.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.08 End Date: 2013.04.08

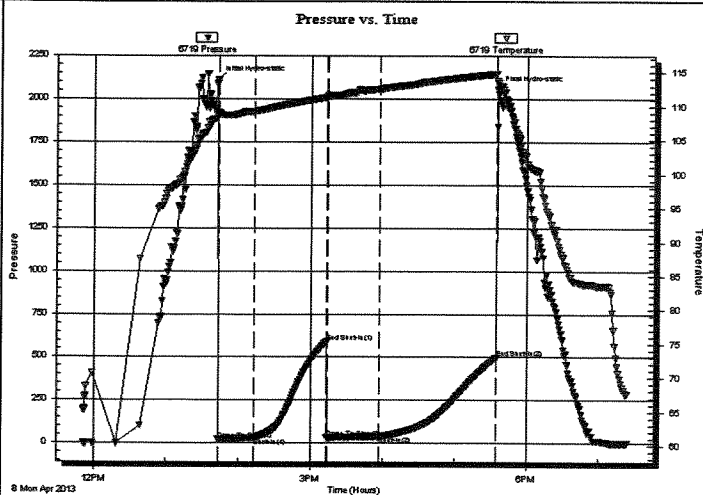
Last Calib.: 2013.04.08

Start Time: 11:51:05 End Time: 19:23:59

Time On Btm: 2013.04.08 @ 13:43:00

Time Off Btm: 2013.04.08 @ 17:35:30

**TEST COMMENT:** 30 - IF: Weak blow , built to 1 1/2"  
60 - IS: Bled off, No blow back  
45 - FF: Weak blow , built to 1/4" then slowly died back, dead at 35 min.  
90 - FSI: No blow back



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2109.49	109.04	Initial Hydro-static
1	21.86	108.85	Open To Flow (1)
31	30.48	109.24	Shut-In(1)
91	589.04	111.32	End Shut-In(1)
91	31.04	111.41	Open To Flow (2)
134	39.11	112.52	Shut-In(2)
231	497.02	114.78	End Shut-In(2)
233	2055.59	113.52	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w /Oil spots 98% <sub>m</sub> , 2% <sub>o</sub>	0.10

\* Recovery from multiple tests

### Gas Rates

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





# ALLIED OIL & GAS SERVICES, LLC 060234

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
*Dakley, ks*

DATE <i>4-10-13</i>	SEC. <i>31</i>	TWP. <i>9</i>	RANGE <i>24</i>	CALLED OUT	ON LOCATION <i>9:30 pm</i>	JOB START <i>10:00 am</i>	JOB FINISH <i>2:00 am</i>
LEASE <i>Dreiling</i>	WELL # <i>1-31</i>	LOCATION <i>St Peter, 3rd SE, W.S.</i>			COUNTY <i>Cavanah</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one)				<i>write</i>			

CONTRACTOR *Merfau S.*  
 TYPE OF JOB *P/A*  
 HOLE SIZE *2 7/8* T.D. *4360'*  
 CASING SIZE DEPTH  
 TUBING SIZE DEPTH  
 DRILL PIPE *4 1/2* DEPTH *2220'*  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG.  
 PERFS.  
 DISPLACEMENT *28.01 bbl*  
 EQUIPMENT

PUMP TRUCK CEMENTER *Lakane Edwards*  
 # *423/281* HELPER *Paul Beaver*  
 BULK TRUCK  
 # *387* DRIVER *Darrin Hoek*  
 BULK TRUCK  
 # DRIVER

REMARKS:  
*Mix 25sk 2220'*  
*Mix 100sk 1059'*  
*Mix 40sk 263'*  
*Mix 10sk w/plug 40'*  
*plug M.H. 15sk*  
*plug R.H. - 30sk*

CHARGE TO: *Great Plains Energy*  
 STREET  
 CITY STATE ZIP

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 *Rodney Farr*  
 SIGNATURE *Rodney Farr*

OWNER *Same*  
 CEMENT AMOUNT ORDERED *220sk 60/40 40/20 1/4 # 810-3-02*  
 COMMON *132sk @ 17.90 2362.90*  
 POZMIX *88sk @ 9.55 822.80*  
 GEL *8sk @ 23.40 182.20*  
 CHLORIDE @  
 ASC @  
*Flowsep 55# @ 2.97 163.35*  
 @  
 @  
 @  
 @  
 @  
 @  
 HANDLING *236.28 573 @ 2.48 585.97*  
 MILEAGE *9.87 mi X 60 X 2.60 1539.72*  
 TOTAL *5661.84*

SERVICE  
 DEPTH OF JOB *2220'*  
 PUMP TRUCK CHARGE *2483.59*  
 EXTRA FOOTAGE @  
 MILEAGE *M.H. 60 @ 2.70 462.00*  
 MANIFOLD @  
*M.H. 60 @ 4.40 264.00*  
 @  
 TOTAL *3207.59*

PLUG & FLOAT EQUIPMENT  
*Wacker plug @ 107.64*  
 @  
 @  
 @  
 @  
 TOTAL *107.64*

SALES TAX (If Any)  
 TOTAL CHARGES *8,979.07*  
 DISCOUNT *2,334.55* IF PAID IN 30 DAYS  
*6,644.51 Net.*

# KCC Pat Bedore 4-1-13

Operator Great Plains Energy Well Name & No. Oreling 1-31 API # 15-065-23908 Well Code # \_\_\_\_\_  
 Location 2310 FNL 1650 FEL 31-224 County Graham State KS  
 Rig No. 8 Contractor \_\_\_\_\_ Tool Pusher Bob - Red  
 No. Drill Collars \_\_\_\_\_ Size \_\_\_\_\_ No. Joints Flex Wt. \_\_\_\_\_ Size \_\_\_\_\_ Total Wt. (Both) \_\_\_\_\_  
 Make Pump K-380 Liner & Stroke 6x14 Spud 8<sup>15</sup> AM 4-1-13  
 Approx. TD 4150 Elevation 2536 GL. 2541 K.B. Hole Complete \_\_\_\_\_  
 Move Mileage 3 Mile Trucking Co. MDC Move Cost 819.5

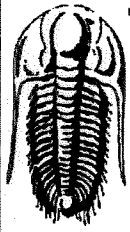
Date	3-30-13	4-1-13	4-2-13	4-3-13	4-4-13	4-5-13	4-6-13
Days	MIRT	Ø	Ø	Ø	Ø	Ø	Ø
Depth	MDC	Spud	1230	2920	3250	3880	3914
Ft. Cut			1230	1690	830	130	34
D.T.		Thrs	Ø	Ø	Ø	Ø	Ø
D.T.	3-31-13						
C.T.	OFF	AM.					
Bit Wt.	Spud		10-15	30	35	35	35
RPM	4-1-13		90	85	80	80	80
Pressure			600	750	750	750	750
SPM			60	60	60	60	60
Mud Cost					7024	7376	7376
Mud Wt.			8 1/2	9	9 1/2	9	9 1/2
Viscosity			29	29	48	54	62
Water Loss					6 1/2	7 1/2	7 1/2
Clorides					1100	3000	3000
L.C.M.					2 1/2 - 11	2 1/2 - 10 1/2	2 1/2 - 10
Dev. Sur.			1-216				
ACC Bit Hours			10	32	53	57 1/4	59
Formation			S&sh	sh&lm	sh&lm	sh&lm	sh&lm
Weather			Cloudy	Cloudy	Clear	PC	Clear

NO.	SIZE	TYPE	OUT	FT.	HRS.	CUM. HRS.	BIT COND.			SERIAL #	TOPS
							T	B	G		
1	12 1/4 Sm	FDS	216	216	2 1/2				PC 1072		
1	2 3/8 Htca	G20 New							5222963	Anby 2192-2226 +329 +315	

DEPTH	SIZE	SACKS	CEMENT MATERIAL	PLUG DOWN	DRILLED OUT	REMARKS
216	8 5/8	175	Comm 3 1/2 CE	12 15 PM 4-1-13	8 15 PM 4-1-13	Circ 5802 Allred

NO.	INTERVAL	OPEN	SHUT	OPEN	SHUT	REC	HH	IFP	ISIP	FFP	FSI
To: A	1	3832-3880	30	60	30	60	30'6" IP 15'0" I 4.53' MCW				
B	2	3881-3900	30	60	30	60	440 MCW				
C	3	3901-3914									

Surface Casing Furnished By: G.P. 23<sup>m.w</sup> Henty Dan's Drzr N-S Line, Pump, Gas  
 Accidents & Remarks: 5 Jts 209.80 wts Morgan Mud John Bisdal  
1000 Fra. #891 1542 160<sup>th</sup> Ave  
Displace 2976 Marland MS 67650  
513-40-6922  
2000 MDC Pay R. bill  
N-S Line



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51157

DST#: 1

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.04 @ 20:24:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:36:45

Time Test Ended: 03:53:45

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: **3832.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Reference Elevations: 2541.00 ft (KB)

Total Depth: 3880.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

2536.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6719**

Inside

Press@RunDepth: 236.59 psig @ 3833.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.04 End Date: 2013.04.05

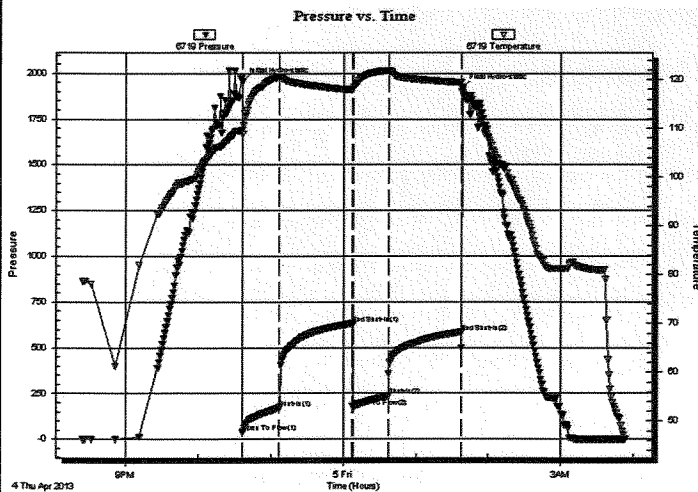
Last Calib.: 2013.04.05

Start Time: 20:24:05 End Time: 03:53:44

Time On Btm: 2013.04.04 @ 22:36:30

Time Off Btm: 2013.04.05 @ 01:38:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 10 min.  
60 - IS: Bled off, Surface blow back for a few min., then dead  
30 - FF: Blow built to BOB in 21 min.  
60 - FS: Bled off, No blow back



## PRESSURE SUMMARY

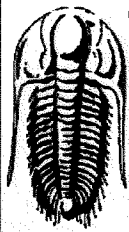
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1956.51	109.60	Initial Hydro-static
1	37.66	108.91	Open To Flow (1)
31	171.23	120.55	Shut-In(1)
91	631.87	117.89	End Shut-In(1)
91	176.84	118.05	Open To Flow (2)
121	236.59	121.80	Shut-In(2)
181	584.38	119.40	End Shut-In(2)
182	1922.71	117.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
186.00	MCW w/trace oil 92%w, 8%m	0.91
252.00	MCW w/trace oil 80%w, 20%m	3.53
15.00	MCW w/oil spots 63%w, 32%m, 4%g, 1%o	0.21
15.00	Oil 92%o, 4%g, 4%m	0.21
0.00	GIP = 30'	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51158

DST#: 2

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.05 @ 13:30:00

## GENERAL INFORMATION:

Formation: **LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:46:15

Time Test Ended: 20:59:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **3881.00 ft (KB) To 3900.00 ft (KB) (TVD)**

Reference Elevations: 2541.00 ft (KB)

Total Depth: 3900.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6719**

Inside

Press@RunDepth: 222.11 psig @ 3882.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.05

End Date:

2013.04.05

Last Calib.: 2013.04.05

Start Time: 13:30:05

End Time:

20:58:59

Time On Btm: 2013.04.05 @ 15:46:00

Time Off Btm: 2013.04.05 @ 18:47:30

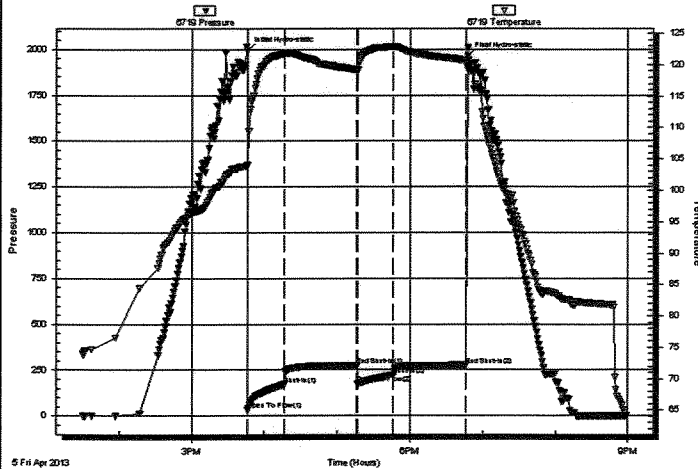
TEST COMMENT: 30 - IF: Blow built to BOB in 10 1/2 min.

60 - IS: Bled off, No blow back

30 - FF: Blow built to BOB in 30 min.

60 - FS: Bled off, No blow back

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1994.76	104.12	Initial Hydro-static
1	31.57	104.02	Open To Flow (1)
31	171.21	121.79	Shut-In(1)
90	275.50	119.05	End Shut-In(1)
91	174.61	119.13	Open To Flow (2)
120	222.11	122.90	Shut-In(2)
180	275.87	120.69	End Shut-In(2)
182	1962.78	119.26	Final Hydro-static

## Recovery

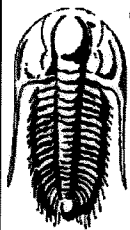
Length (ft)	Description	Volume (bbl)
186.00	MCW 90%w, 10%m	0.91
189.00	SMCW 94%w, 6%m	2.65
65.00	MCW 69%w, 31%m	0.91
0.00	Show of Oil in tool	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51160

DST#: 4

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.07 @ 04:17:00

### GENERAL INFORMATION:

Formation: **LKC "D - F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:09:15

Time Test Ended: 12:11:15

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **3913.00 ft (KB) To 3953.00 ft (KB) (TVD)**

Total Depth: 3953.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2541.00 ft (KB)

2536.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6719**

**Inside**

Press@RunDepth: 141.91 psig @ 3914.00 ft (KB)

Start Date: 2013.04.07

End Date: 2013.04.07

Start Time: 04:17:05

End Time: 12:11:14

Capacity: 8000.00 psig

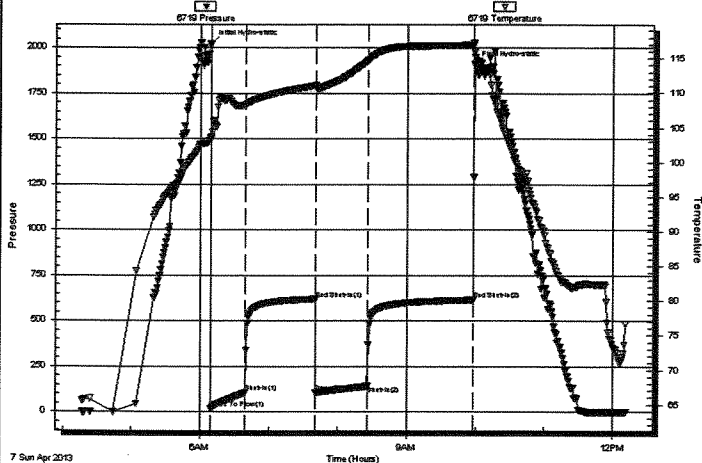
Last Calib.: 2013.04.07

Time On Btm: 2013.04.07 @ 06:09:00

Time Off Btm: 2013.04.07 @ 09:58:45

TEST COMMENT: 30 - IF: Blow built to 7 1/2"  
60 - IS: Bled off, No blow back  
45 - FF: Blow built to 8"  
90 - FS: Bled off, No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2019.05	103.62	Initial Hydro-static
1	19.66	103.34	Open To Flow (1)
31	105.43	108.27	Shut-In(1)
92	619.37	111.07	End Shut-In(1)
92	107.33	110.75	Open To Flow (2)
137	141.91	114.58	Shut-In(2)
229	614.83	116.91	End Shut-In(2)
230	1905.06	115.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	MCW 84%w, 16%m	0.91
94.00	MW w /trace oil in top 51%w, 49%m	1.32

Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Great Plains Energy Inc.

31-9s-24w Graham, KS

6121 S 58th St. STE B  
Lincoln, NE 68516

**Dreiling #1-31**

Job Ticket: 51162

DST#: 6

ATTN: Larry Nicholson/ Dan

Test Start: 2013.04.08 @ 11:51:00

## GENERAL INFORMATION:

Formation: **LKC "H - J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:43:15

Time Test Ended: 19:24:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: 3968.00 ft (KB) To 4053.00 ft (KB) (TVD)

Reference Elevations: 2541.00 ft (KB)

Total Depth: 4053.00 ft (KB) (TVD)

2536.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6719**

Inside

Press@RunDepth: 39.11 psig @ 3969.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.08 End Date: 2013.04.08

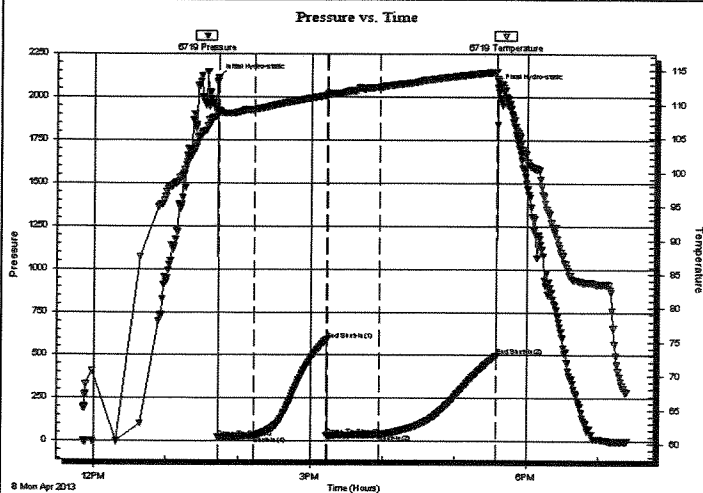
Last Calib.: 2013.04.08

Start Time: 11:51:05 End Time: 19:23:59

Time On Btm: 2013.04.08 @ 13:43:00

Time Off Btm: 2013.04.08 @ 17:35:30

**TEST COMMENT:** 30 - IF: Weak blow, built to 1 1/2"  
60 - IS: Bled off, No blow back  
45 - FF: Weak blow, built to 1/4" then slowly died back, dead at 35 min.  
90 - FSI: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2109.49	109.04	Initial Hydro-static
1	21.86	108.85	Open To Flow (1)
31	30.48	109.24	Shut-In(1)
91	589.04	111.32	End Shut-In(1)
91	31.04	111.41	Open To Flow (2)
134	39.11	112.52	Shut-In(2)
231	497.02	114.78	End Shut-In(2)
233	2055.59	113.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w /Oil spots 98% <sub>m</sub> , 2% <sub>o</sub>	0.10

\* Recovery from multiple tests

## Gas Rates

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



# ALLIED OIL & GAS SERVICES, LLC 060234

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Dakley, ks

DATE <u>4-10-13</u>	SEC. <u>31</u>	TWP. <u>9</u>	RANGE <u>24</u>	CALLED OUT	ON LOCATION <u>9:30 pm</u>	JOB START <u>100 am</u>	JOB FINISH <u>2:00 am</u>
LEASE <u>Dreiling</u>	WELL # <u>1-31</u>	LOCATION <u>St Peter, 3rd SE, W.S.</u>			COUNTY <u>Cavanah</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)				<u>write</u>			

CONTRACTOR Merrifield  
 TYPE OF JOB P/A  
 HOLE SIZE 2 7/8 T.D. 4360'  
 CASING SIZE DEPTH  
 TUBING SIZE DEPTH  
 DRILL PIPE 4 1/2 DEPTH 2220'  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG.  
 PERFS.  
 DISPLACEMENT 28.01 bbl  
 EQUIPMENT

PUMP TRUCK CEMENTER Lakane Edwards  
 # 423/281 HELPER Paul Beaver  
 BULK TRUCK  
 # 387 DRIVER Darrin Hoek  
 BULK TRUCK  
 # DRIVER

REMARKS:  
Mix 25sk 2220'  
Mix 100sk 1059'  
Mix 40sk 263'  
Mix 10sk w/plug 40'  
plug M.H. 15sk  
plug R.H. - 30sk

CHARGE TO: Great Plains Energy  
 STREET  
 CITY STATE ZIP

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 Rodney Farr  
 SIGNATURE Rodney Farr

OWNER Same  
 CEMENT AMOUNT ORDERED 220sk 60/40 40/20 1/4 # 810-3-02  
 COMMON 132sk @ 17.90 2362.90  
 POZMIX 88sk @ 9.55 822.80  
 GEL 8sk @ 23.40 182.20  
 CHLORIDE @  
 ASC @  
Flowsep 55# @ 2.97 163.35  
 @  
 @  
 @  
 @  
 @  
 @  
 HANDLING 236.28 573 @ 2.48 585.97  
 MILEAGE 9.87 mi X 60 X 2.60 1539.72  
 TOTAL 5661.84

SERVICE  
 DEPTH OF JOB 2220'  
 PUMP TRUCK CHARGE 2483.59  
 EXTRA FOOTAGE @  
 MILEAGE M.H. 60 @ 2.70 462.00  
 MANIFOLD @  
M.H. 60 @ 4.40 264.00  
 @  
 TOTAL 3207.59

PLUG & FLOAT EQUIPMENT  
Wacker plug @ 107.64  
 @  
 @  
 @  
 @  
 TOTAL 107.64

SALES TAX (If Any)  
 TOTAL CHARGES 8,979.07  
 DISCOUNT 2,334.55 IF PAID IN 30 DAYS  
6,644.51 Net.

# KCC Pat Bedore 4-1-13

Operator Great Plains Energy Well Name & No. Oreling 1-31 API # 15-065-23908 Well Code # \_\_\_\_\_  
 Location 2310 FNL 1650 FEL 31-224 County Graham State KS  
 Rig No. 8 Contractor \_\_\_\_\_ Tool Pusher Bob - Red  
 No. Drill Collars \_\_\_\_\_ Size \_\_\_\_\_ No. Joints Flex Wt. \_\_\_\_\_ Size \_\_\_\_\_ Total Wt. (Both) \_\_\_\_\_  
 Make Pump K-380 Liner & Stroke 6x14 Spud 8<sup>15</sup> AM 4-1-13  
 Approx. TD 4150 Elevation 2536 G.L. 2541 K.B. Hole Complete \_\_\_\_\_  
 Move Mileage 3 Mile Trucking Co. MDC Move Cost 819.5

Date	3-30-13	4-1-13	4-2-13	4-3-13	4-4-13	4-5-13	4-6-13
Days	MIRT	Ø	Ø	Ø	Ø	Ø	Ø
Depth	MDC	Spud	1230	2920	3250	3880	3914
Ft. Cut			1230	1690	830	130	34
D.T.		Thrs	8woc		3/4 Diploc		3/4 Diploc
D.T.	3-31-13						7u.60
C.T.	OFF	AM.				18	18 1/2
Bit Wt.	Spud		10-15	30	35	35	35
RPM	4-1-13		90	85	80	80	80
Pressure			600	750	750	750	750
SPM			60	60	60	60	60
Mud Cost					7024	7376	7376
Mud Wt.			8 1/2	9	9 1/2	9	9 1/2
Viscosity			29	29	48	54	62
Water Loss					6 1/2	7 1/2	7 1/2
Clorides					1100	3000	3000
L.C.M.					2#-11	2#-10 1/2	2#-10
Dev. Sur.			1-216			3-3880	
ACC Bit Hours			10	32	53	57 1/4	59
Formation			Sat sh	sh+lm	sh+lm	sh+lm	sh+lm
Weather			Cloudy	Cloudy	Clear	PC	Clear

NO.	SIZE	TYPE	OUT	FT.	HRS.	CUM. HRS.	BIT COND.			SERIAL #	TOPS
							T	B	G		
1	12 1/4 Sm	FDS	216	216	2 1/2				PC 1072		
1	2 3/8 Htca	G20 New							5222963	Anhy 2192-2226 +329 +315	

DEPTH	SIZE	SACKS	CEMENT MATERIAL	PLUG DOWN	DRILLED OUT	REMARKS
216	8 5/8	175	Comm 3 1/2 CE	12 15 PM 4-1-13	8 15 PM 4-1-13	Circ 5882 Allred

NO.	INTERVAL	OPEN	SHUT	OPEN	SHUT	REC	HH	IFP	ISIP	FFP	FSI
To: A	1	3832-3880	30	60	30	60	30'6" IP 15'0" I 4.53' MCW				
B	2	3881-3900	30	60	30	60	440 MCW				
C	3	3901-3914									

Surface Casing Furnished By: G.P. 23<sup>m.w</sup> Henty Dan's Driller W-S Line, Pump, Gas  
 Accidents & Remarks: 5 Jts 209.80 wts Morgan Mud John Bisdal  
1000 Fra. #891 1542 160<sup>th</sup> Ave  
Displace 2976 Marland MS 67650  
513-40-6922  
2000 MDC Pay R. bill  
W-S Line