



PETROLEUM PRESSURE SURVEYS

Petroleum Pressure Surveys
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Well Test/BHP Report

COMPANY: Black Raven Energy
WELL: Skold Farms #946-11-23
LOCATION: Sedgwick County, Colorado
DATE: June 10-12, 2014

Company: Black Raven Energy

State: Colorado

Well: Skold Farms #946-11-23

County: Sedgwick

Test Description: Gas well evaluation tests with BHP gauges, fluid & gas samples

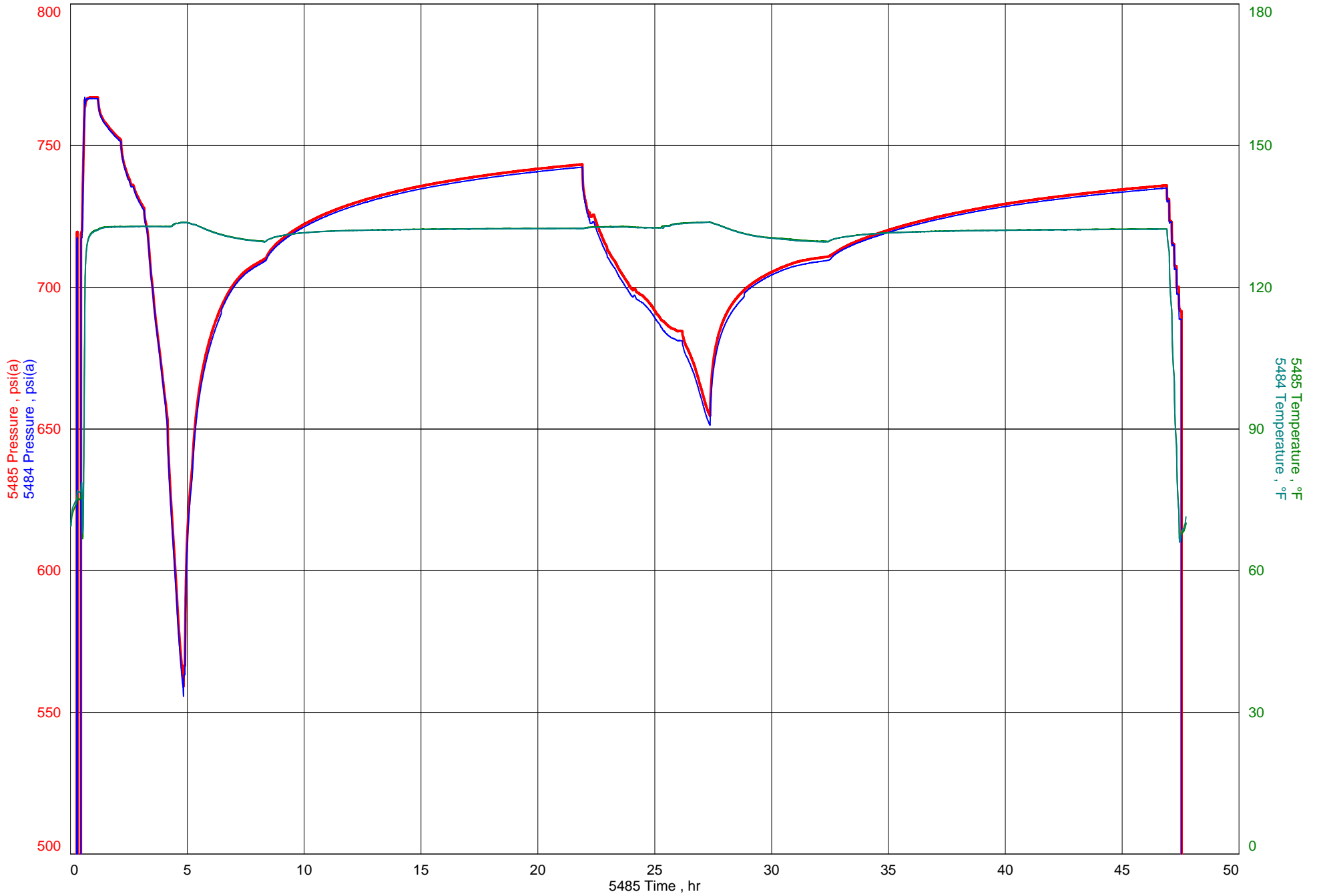
Instrument Type: 10K Silicon Crystal Electronic Pressure/Temperature Probes

Procedure Chronology

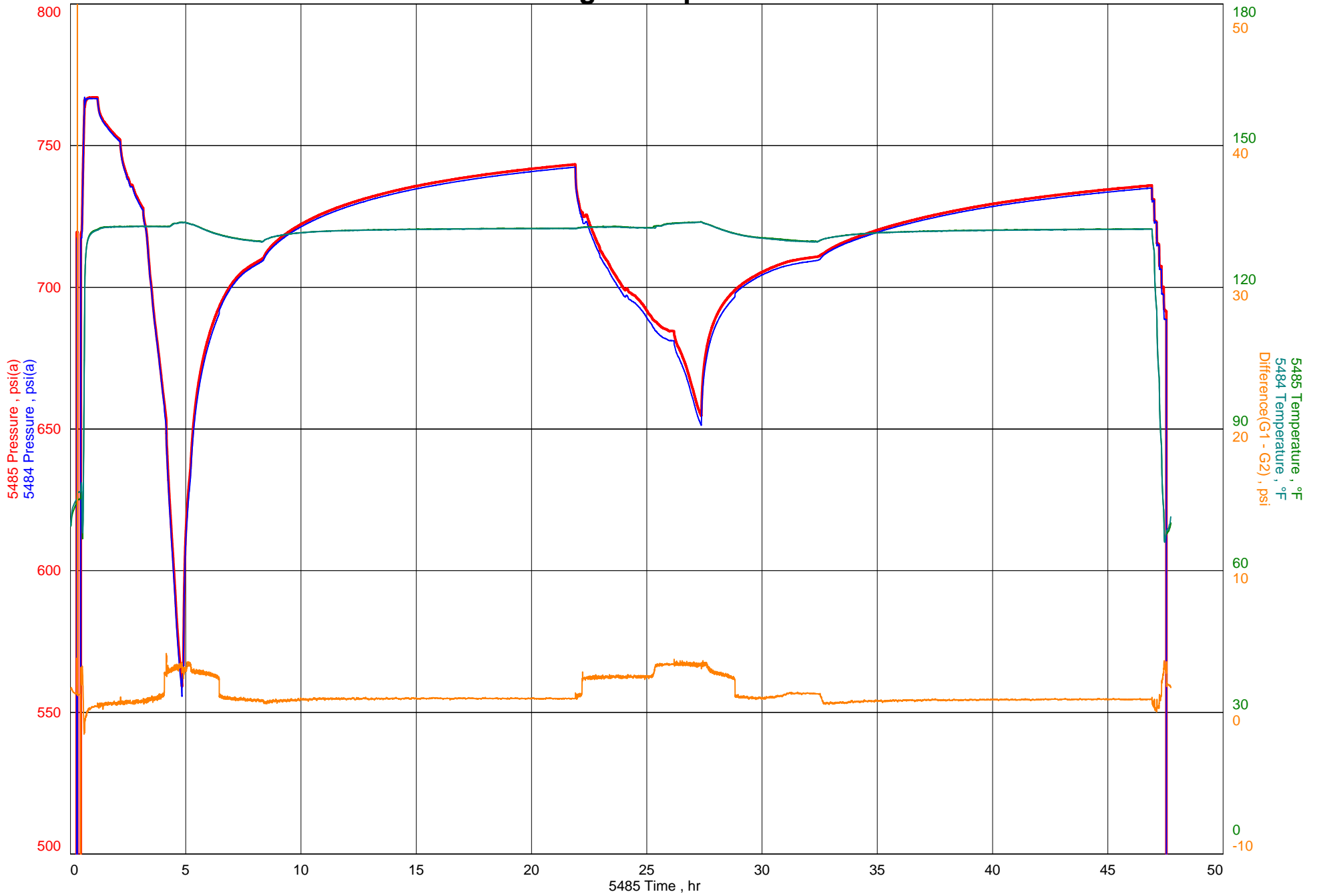
Gauges Energized	10:06 06-10-2014
Gauges in Lubricator	10:33 06-10-2014
Gauges on Bottom @ 2830' KB	10:45 06-10-2014
Begin 4-Point Test Flow	11:15 06-10-2014
Well Shut In (PBU 1)	15:18 06-10-2014
Begin Single-Point Test Flow	08:00 06-11-2014
Well Shut In (PBU 2)	13:27 06-11-2014
Gauges off Bottom	09:00 06-12-2014
Gauges in Lubricator	09:33 06-12-2014

Pressure/Temperature Information

Static Reservoir Pressure (June 10, 2014)	767.02 psia
Final Buildup Pressure (PBU 1)	743.39 psia
Final Buildup Pressure (PBU 2)	735.97 psia
Static Reservoir Temperature	133.86 deg F



Gauge Comparison



POOH Shut-in Gradient

Black Raven Energy

Skold Farms #946-11-23

Gauge Serial Number	5485	Gauge Type	Silicon Crystal
Gauge Manufacturer	CalScan	Maximum Recorder Range	10000.00 psi
Run Depth (Log KB)	2820.00 ft	Date of Last Calibration	2014/04/02
Gauge Start Date	2014/06/10 10:07:00	Gauge Stop Date	2014/06/12 09:50:00
Date Gauge On Bottom	2014/06/10 10:45:00	Date Gauge Off Bottom	2014/06/12 09:00:00

Test Data

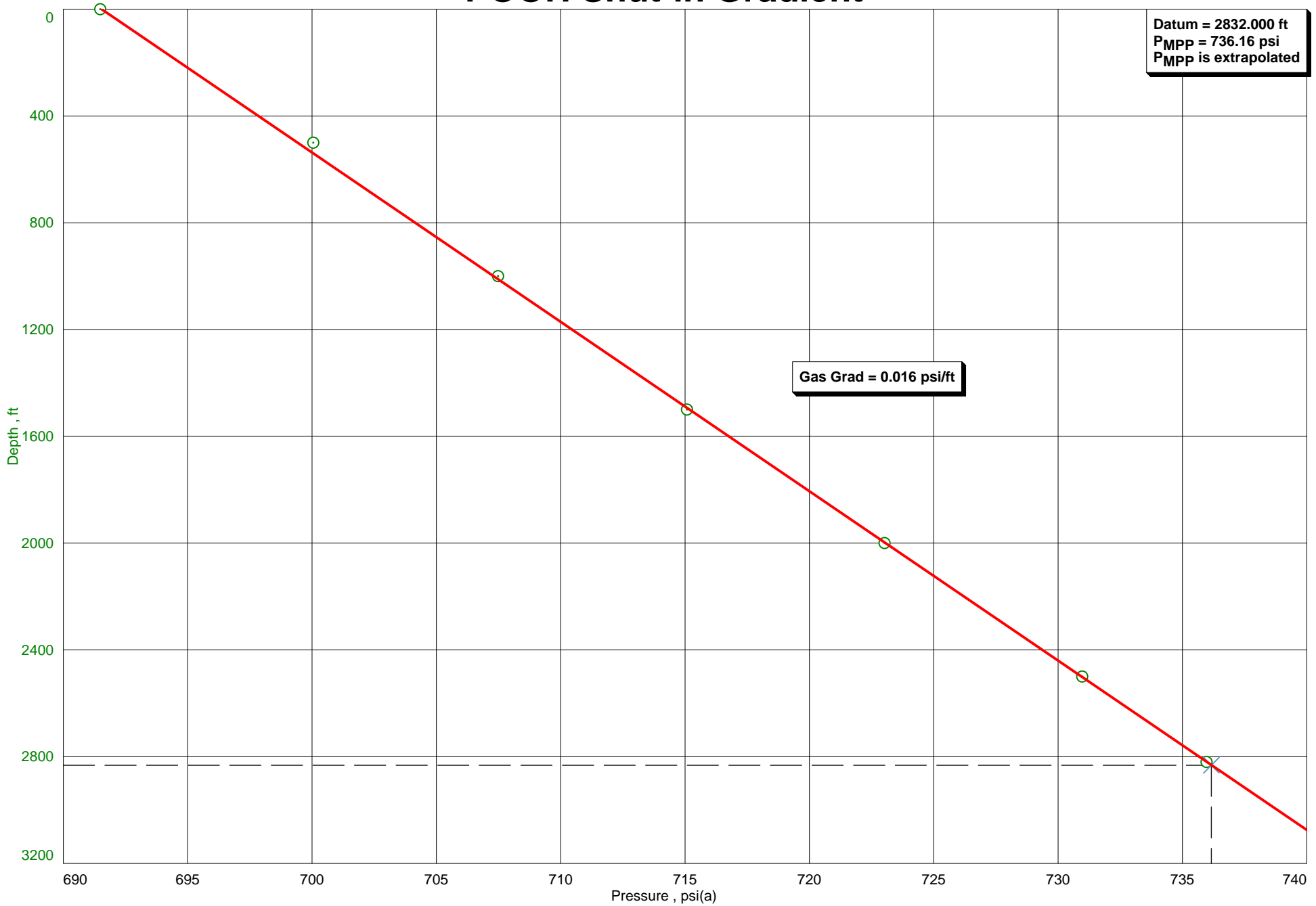
Top(TVD KB)	2820.000 ft	Bottom(TVD KB)	2844.000 ft
Pool Datum Depth (SS)	ft	Well Datum Depth	2832.000 ft
Tubing Pressure: Initial	psi(a)	Tubing Pressure: Final	psi(a)
Casing Pressure: Initial	719.00 psi(a)	Casing Pressure: Final	691.50 psi(a)
Start Test Date	2014/06/10	Date Well Shut-In	

Depth ft	Time hh:mm:ss	Duration min	Pressure psi(a)	Gradient psi/ft	Temp. °F	Gradient °F/ft
2820.00	09:00:10		735.97		132.37	
2500.00	09:06:10	6.00	730.97	0.016	127.80	0.014
2000.00	09:12:40	6.50	723.02	0.016	115.52	0.025
1500.00	09:19:00	6.33	715.08	0.016	101.35	0.028
1000.00	09:25:00	6.00	707.48	0.015	87.06	0.029
500.00	09:31:00	6.00	700.05	0.015	72.87	0.028
0.00	09:38:10	7.17	691.48	0.017	68.33	0.009

Results

Gas	0.016 psi/ft	Well Datum Depth	2832.00 ft	736.16 psi(a)
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POOH Shut-in Gradient



Constant Time Multipoint Test

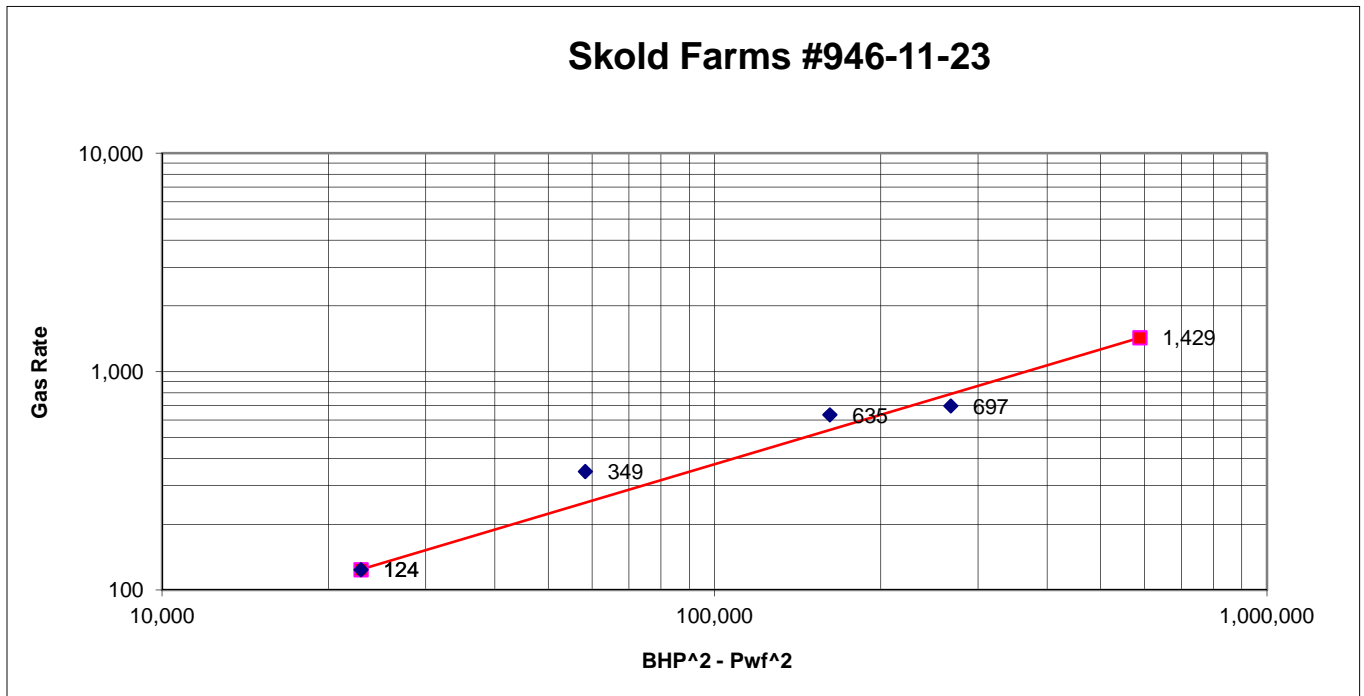


Petroleum Pressure Surveys
Sterling, CO

Black Raven Energy

Well Name	Skold Farms #946-11-23		
Field Name	Wildcat	15-Jun-14	
Gas Gravity	0.600	% N2	0.00 %
Cond. (yes=1)	0	% CO2	0.00 %
Depth of Zone	2,832 Feet	% H2S	0.00 %
Tubing ID	4 inch	TEMP-res	132.3 F
Reservoir Pres	767 Psia	TEMP-surf	60 F
AOF	1,429 Mcfd	Pc	672.50
N slope	0.705	Tc	358.50

Pwf measured Psia	FTP Psia	Rate Mcf/d	Pwf	Z	BHP/Z
752	704	124	752	1.0019	703
728	681	349	728	0.9261	786
653	611	635	653	0.9330	700
566	392	697	566	0.9413	602



Stabilized One-Point Back Pressure Test



Black Raven Energy

*** No fluid in wellbore

Well Name	Skold Farms #946-11-23		
Field Name	Wildcat	% N2	0.00 %
Gas Gravity	0.600	% CO2	0.00 %
Cond. (yes=1)	0	% H2S	0.00 %
Depth of Zone	2832 Foot	TEMP-res	132.3 F
Tubing ID	4 inch	TEMP-surf	60 F
Pwf Measured	684.87 Psia		
Flowing Tubing Pres (FTP)	626.5 Psia		
Flowing rate	362 Mcfd	Pwf	685 Psia
Bottom Hole Pres (BHP)	767.03 Psia	BHP	767 Psia
Shut-in Tubing Pres (SITP)	719 Psia		
N slope	0.705		

AOF **1,115 Mcfd**

