## State of West Virginia Department of Environmental Protection Office of Oil and Gas

DATE: 1/13/2012 API #: 4700103240

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## Well Operator's Report of Well Work

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Farm name:	BIG	ELOW LODGE	_Operator Well	No.:	18.		
LOCATION	I: Elevation:	1517'	_Quadrangle:		NESTORVILL	E	
	District:	COVE	County		BARBOUR		
	Latitude:	COVE  300 Feet South of	f 30 Deg	15 Mir	. 0 Sec.		
	Lanuae:	9,280 Feet West of	79 Deg.	$\frac{13}{52}$ Min	1. 30 Sec.		
			Dcg.		000.		
Company:	Texas Keystone,	Inc.	Casing &	Used in	Left in well	Cement fi	ill up
Address:	560 Epsilon Driv	/e	Tubing	drilling		Cu. Ft.	_
	Pittsburgh, PA 1						
Agent:	Jon Farmer		13 3/8"	42	42	Sanded	In
	Bryan Harris						
Date Permi	t Issued:	05/24/10	9 5/8"	462	462	200	
Date Well	Work Commence	ed: 11/03/11					
Date Well	Work Completed	l: 11/10/11	7"	1694	1694	230	
Verbal Plu	gging:						
Date Permi	ssion granted or	1:	4 1/2"	0	5454	205	
		Rig					
Total Verti	cal Depth (ft.):	5568	1 1/2"	0	5303	0	
	ured Depth(ft.):						
Fresh Wate	er Depth (ft.):	100, 340					
Salt Water	Depth (ft.):	575, 610					
	g mined in the a						
Coal Depth	s (ft.):	95					
Void(s) enc	ountered (N/Y)	Depth(s): N					
OPEN FLO	Producing forma		mations please in	Pay zone Dep	oth (ft)	5319 - 532	
		flow: G/S TSTM			Initial open flow		Bbl/d
	Final open flow				Final open flow	: <u> </u>	Bbl/d
		w between initial and final	tests: N/A	_Hours			
	Static rock Press	ure: 1000		_psig(surface p	pressure) after		Hours
	Second Producir	ng formation: 3RD ELK		Pay zone Dep	th (ft)	4966 - 500	1
	Gas: Initial open			MCF/D Oil:	Initial open flow	v: <u>0</u>	Bbl/d
	Final open flow	Co-mingled		MCF/D Oil:	Final open flow	: 0	Bbl/d
		w between initial and final	tests:	Hours		•	
	Static rock Press	ure: <u>Co-mingled</u>		_psig(surface p	oressure) after		Hours
document a	and all the attacl	w that I have personally ex nments and that, based on elieve that the information i	my inquiry of	those individu			

Signature

Were core samples taken?	Yes No _X_	Were cuttings caught during drilling? Yes No _X
Were N Electrical,	N Mechanical,	Y or Geophysical logs recorded on this well?

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL

Perforated Intervals, Fracturing, or Stimulating:

Perfed 5th Elk 5319' - 5328' (24 shots). BD 3787 #. 150 sks 40/70 & 100 sks 20/40. 508 bbl. Gel Frac.

Perfed 3rd Elk 4966' - 5001' (30 shots). BD 2600 #. 200 sks 40/70 & 113 sks 20/40. 811 bbl. Gel Frac.

Perfed Benson 4073' - 4079' (18 shots). BD 3125 #. 100 sks 40/70 & 82 sks 20/40. 464 bbl. Gel Frac.

Perfed Balltown C 3187' - 3193' (18 shots). BD 3633 #. 100 sks 40/70 & 110 sks 20/40. 462 bbl. Gel Frac.

Perfed Balltown B 3034' - 3046' (24 shots). BD 3569 #. 250 sks 40/70 & 117 sks 20/40. 642 bbl. Gel Frac.

Perfed Balltown A 2987' - 2993' (18 shots). BD 3818 #. 150 sks 40/70 & 116 sks 20/40. 502 bbl. Gel Frac.

Formations Encountered:	Top Depth	Bottom Depth	Notes:
		•	
FILL	0	16	
SAND	16	32	:
SANDY SHALE	32	54	
SAND	54	95	: 
COAL	95	100	1/2" FW @ 100'
SANDY SHALE	100	142	DAMP @ 130'
SAND	142	200	l .
SANDY SHALE	200	240	
RED ROCK	240	265	
SANDY SHALE	265	350	1/4" FW @ 340'
SAND	350	442	
SANDY SHALE	442	540	
SAND	540	650	DAMP SW @ 575', 1/4" SW @ 610'
RED ROCK	650	770	
SAND	770	860	No.
RED ROCK	860	925	The state of the s
SANDY SHALE	925	1000	
SAND	1000	1210	
LITTLE LIME	1210	1228	
PENCIL CAVE SHALE	1228	1257	i.
BIG LIME	1257	1504	
WEIR SANDSTONE	1504	1546	1
SHALE	1546	1645	
BEREA SANDSTONE	1645	1665	
UPPER GANTZ SANDSTONE	1665	1680	
GANTZ SANDSTONE	1680	1703	
LOWER GANTZ SANDSTONE	1703	1751	1
SANDY SHALE	1751	2358	
BAYARD SANDSTONE	2358	2400	:
SPEECHLEY A SANDSTONE	2400	2450	!
SANDY SHALE	2450	2506	
SPEECHLEY B SANDSTONE	2506	2954	
BALLTOWN A SANDSTONE	2954	3033	
BALLTOWN B SANDSTONE	3033	3150	
BALLTOWN C SANDSTONE	3150	3203	
SANDY SHALE	3203	4070	
BENSON SILTSTONE	4070	4080	
SANDY SHALE	4080	4264	I construction of the second o
ALEXANDER	4264	4300	
SHALE	4300	4473	
1ST ELK SILTSTONE	4473	4595	•
SANDY SHALE	4595	4721	
2ND ELK SILTSTONE	4721	4751	<u>}</u>
SANDY SHALE	4751	4959	
3RD ELK SILTSTONE	4959	5023	i
SANDY SHALE	5023	5291	
5TH ELK SILTSTONE	5291	5340	7770
SHALE	5340	5568	TD

Third Producing formation	n: BENSON	Pay zone Depth (ft) 4073 - 4079
Gas: Initial open flow:		MCF/D Oil: Initial open flow: 0 Bbl/d
Final open flow		MCF/D Oil: Final open flow: 0 Bbl/d
Time of open flow between		Hours
	Co-mingled	psig(surface pressure) after Hours
Fourth Producing formation	on: BALLTOWN C	Pay zone Depth (ft) 3187 - 3193
Gas: Initial open flow:		MCF/D Oil: Initial open flow:0 Bbl/d
Final open flow		MCF/D Oil: Final open flow: 0 Bbl/d
Time of open flow betwee		Hours
Static rock Pressure:		psig(surface pressure) after Hours
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Fifth Producing formation		Pay zone Depth (ft) 3034 - 3046
Gas: Initial open flow:		MCF/D Oil: Initial open flow:0 Bbl/d
Final open flow	Co-mingled	MCF/D Oil: Final open flow: 0 Bbl/d
Time of open flow betwee	n initial and final tests:	_ Hours
Static rock Pressure:	Co-mingled	psig(surface pressure) after Hours
Sixth Producing formation	: BALLTOWN A	Pay zone Depth (ft) 2987 - 2993
Gas: Initial open flow:	Co-mingled	MCF/D Oil: Initial open flow:0 Bbl/d
Final open flow	Co-mingled	MCF/D Oil: Final open flow: 0 Bbl/d
Time of open flow betwee		Hours
Static rock Pressure:		psig(surface pressure) after Hours

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