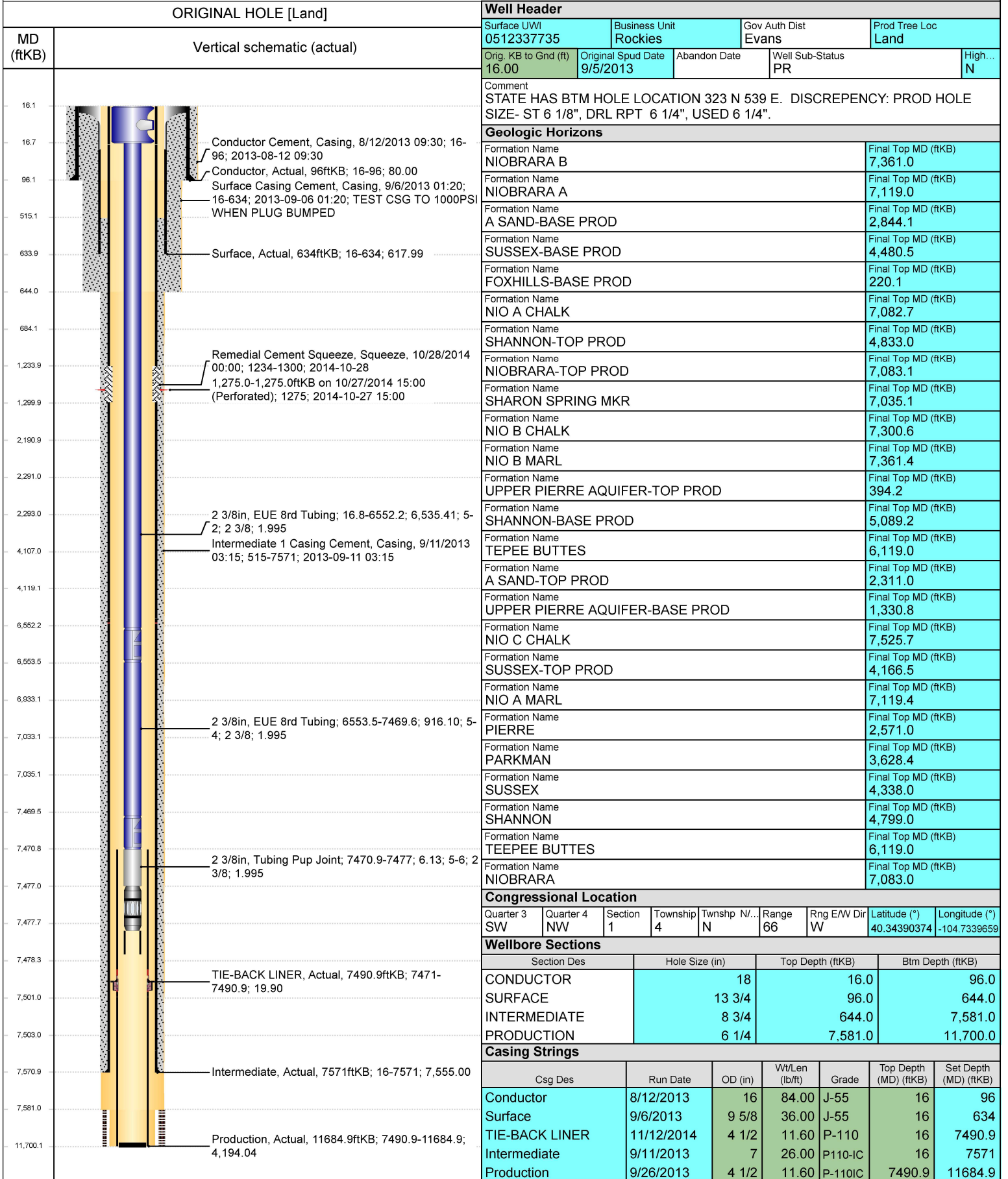




# PA Wellbore For State - Horizontal, Vertical Section

Well Name: LOEFFLER K 01-69-1HN



Well Header				
Surface UWI	Business Unit	Gov Auth Dist	Prod Tree Loc	
0512337735	Rockies	Evans	Land	
Orig_KB to Gnd (ft)	Original Spud Date	Abandon Date	Well Sub-Status	High...
16.00	9/5/2013		PR	N

Comment  
STATE HAS BTM HOLE LOCATION 323 N 539 E. DISCREPANCY: PROD HOLE SIZE- ST 6 1/8", DRL RPT 6 1/4", USED 6 1/4".

Geologic Horizons	
Formation Name	Final Top MD (ftKB)
NIOBRARA B	7,361.0
Formation Name	Final Top MD (ftKB)
NIOBRARA A	7,119.0
Formation Name	Final Top MD (ftKB)
A SAND-BASE PROD	2,844.1
Formation Name	Final Top MD (ftKB)
SUSSEX-BASE PROD	4,480.5
Formation Name	Final Top MD (ftKB)
FOXHILLS-BASE PROD	220.1
Formation Name	Final Top MD (ftKB)
NIO A CHALK	7,082.7
Formation Name	Final Top MD (ftKB)
SHANNON-TOP PROD	4,833.0
Formation Name	Final Top MD (ftKB)
NIOBRARA-TOP PROD	7,083.1
Formation Name	Final Top MD (ftKB)
SHARON SPRING MKR	7,035.1
Formation Name	Final Top MD (ftKB)
NIO B CHALK	7,300.6
Formation Name	Final Top MD (ftKB)
NIO B MARL	7,361.4
Formation Name	Final Top MD (ftKB)
UPPER PIERRE AQUIFER-TOP PROD	394.2
Formation Name	Final Top MD (ftKB)
SHANNON-BASE PROD	5,089.2
Formation Name	Final Top MD (ftKB)
TEPEE BUTTES	6,119.0
Formation Name	Final Top MD (ftKB)
A SAND-TOP PROD	2,311.0
Formation Name	Final Top MD (ftKB)
UPPER PIERRE AQUIFER-BASE PROD	1,330.8
Formation Name	Final Top MD (ftKB)
NIO C CHALK	7,525.7
Formation Name	Final Top MD (ftKB)
SUSSEX-TOP PROD	4,166.5
Formation Name	Final Top MD (ftKB)
NIO A MARL	7,119.4
Formation Name	Final Top MD (ftKB)
PIERRE	2,571.0
Formation Name	Final Top MD (ftKB)
PARKMAN	3,628.4
Formation Name	Final Top MD (ftKB)
SUSSEX	4,338.0
Formation Name	Final Top MD (ftKB)
SHANNON	4,799.0
Formation Name	Final Top MD (ftKB)
TEEPEE BUTTES	6,119.0
Formation Name	Final Top MD (ftKB)
NIOBRARA	7,083.0

Congressional Location									
Quarter 3	Quarter 4	Section	Township	Twnshp N/...	Range	Rng E/W Dir	Latitude (°)	Longitude (°)	
SW	NW	1	4	N	66	W	40.34390374	-104.7339659	

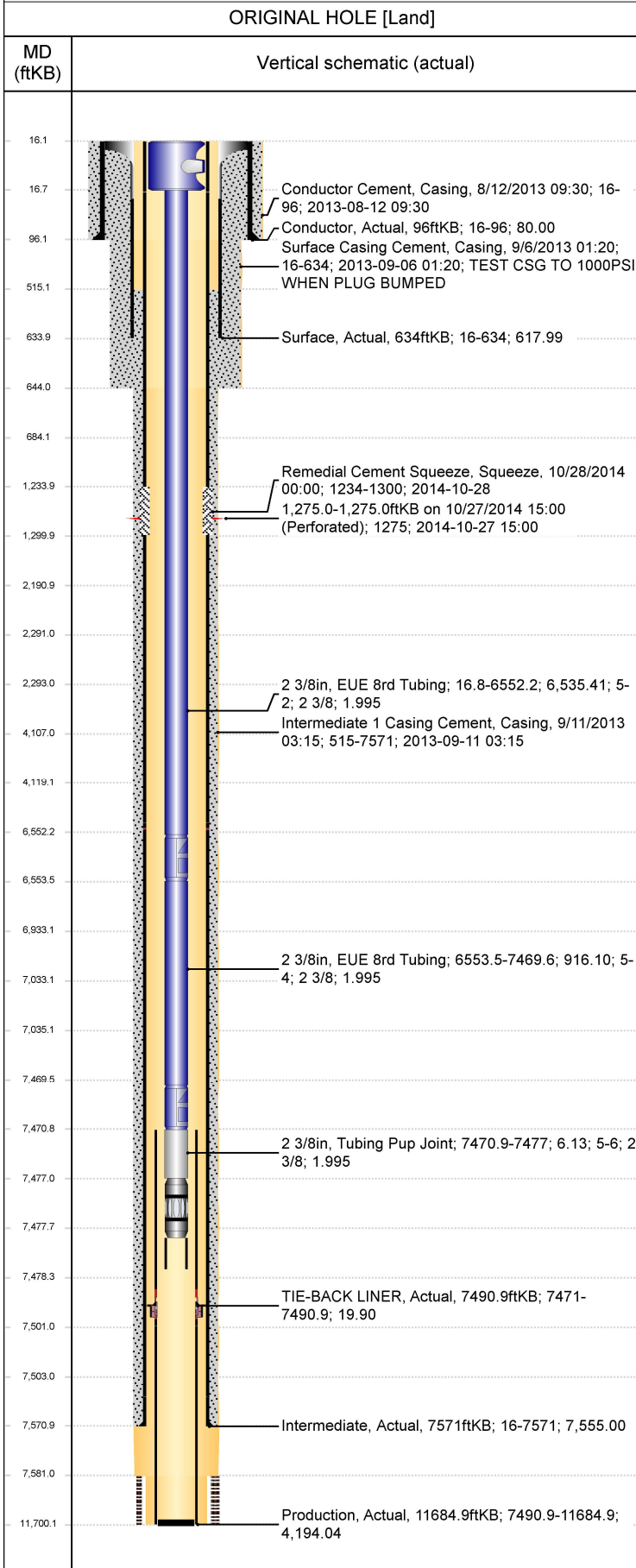
Wellbore Sections			
Section Des	Hole Size (in)	Top Depth (ftKB)	Btm Depth (ftKB)
CONDUCTOR	18	16.0	96.0
SURFACE	13 3/4	96.0	644.0
INTERMEDIATE	8 3/4	644.0	7,581.0
PRODUCTION	6 1/4	7,581.0	11,700.0

Casing Strings						
Csg Des	Run Date	OD (in)	Wt/Len (lb/ft)	Grade	Top Depth (MD) (ftKB)	Set Depth (MD) (ftKB)
Conductor	8/12/2013	16	84.00	J-55	16	96
Surface	9/6/2013	9 5/8	36.00	J-55	16	634
TIE-BACK LINER	11/12/2014	4 1/2	11.60	P-110	16	7490.9
Intermediate	9/11/2013	7	26.00	P110-IC	16	7571
Production	9/26/2013	4 1/2	11.60	P-110IC	7490.9	11684.9



# PA Wellbore For State - Horizontal, Vertical Section

Well Name: LOEFFLER K 01-69-1HN



Cement		Des	Start Date	Top (ftKB)	Btm (ftKB)
Conductor Cement			8/12/2013	16.0	96.0
Surface Casing Cement			9/6/2013	16.0	634.0
Intermediate 1 Casing Cement			9/11/2013	515.0	7,571.0
Remedial Cement Squeeze			10/28/2014	1,234.0	1,300.0
Stim/Frac Summary					
Min Top Depth (ftKB)			Max Btm Depth (ftKB)		
7,782.0			11,571.0		
Perforations					
Linked Zone		Date	Top Depth (ftKB)	Bottom Depth (ftKB)	
		10/27/2014 15:00	1,275.0	1,275.0	
Other In Hole					
Run Date	Des	Make	OD (in)	Top (ftKB)	Btm (ftKB)
Logs					
Date	Type	Depth Top (MD) (ftKB)	Btm (ftKB)		
9/10/2013	MWD GAMMA - TVD	600	7,581.0		
9/23/2013	MUD LOG - VERT	700	6,416.0		
9/23/2013	MUD LOG - HZ	6,400	11,700.0		
9/23/2013	MWD GAMMA - MD	590	11,700.0		
11/26/2013	CBL/CCL/GR	24	7,381.0		
12/7/2013	CBL/CCL/GR	200	7,490.0		
10/27/2014	GAMMA RAY	24	7,380.0		
10/30/2014	CBL/CCL/GR	24	1,500.0		
Wellbore Plug Back Total Depths					
Date	Type	Com	PBTD (ftKB)		
9/26/2013	FLOAT COLLAR	FLOAT COLLAR	11,683		
12/21/2013	SLEEVE REMNANTS	DRILL SLEEVES AND CHASE DOWN	11,600		