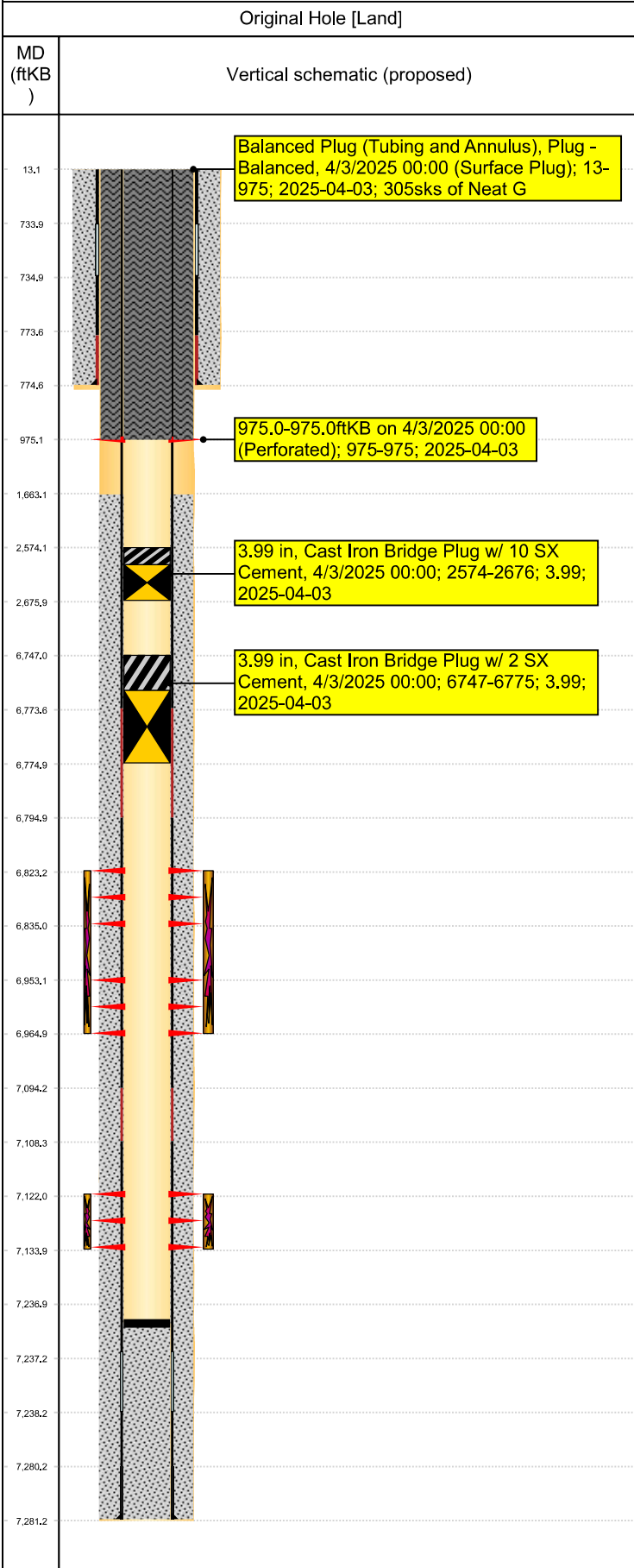




# Proposed PA WBD - Vertical

Well Name: RICHTER USX AB27-03

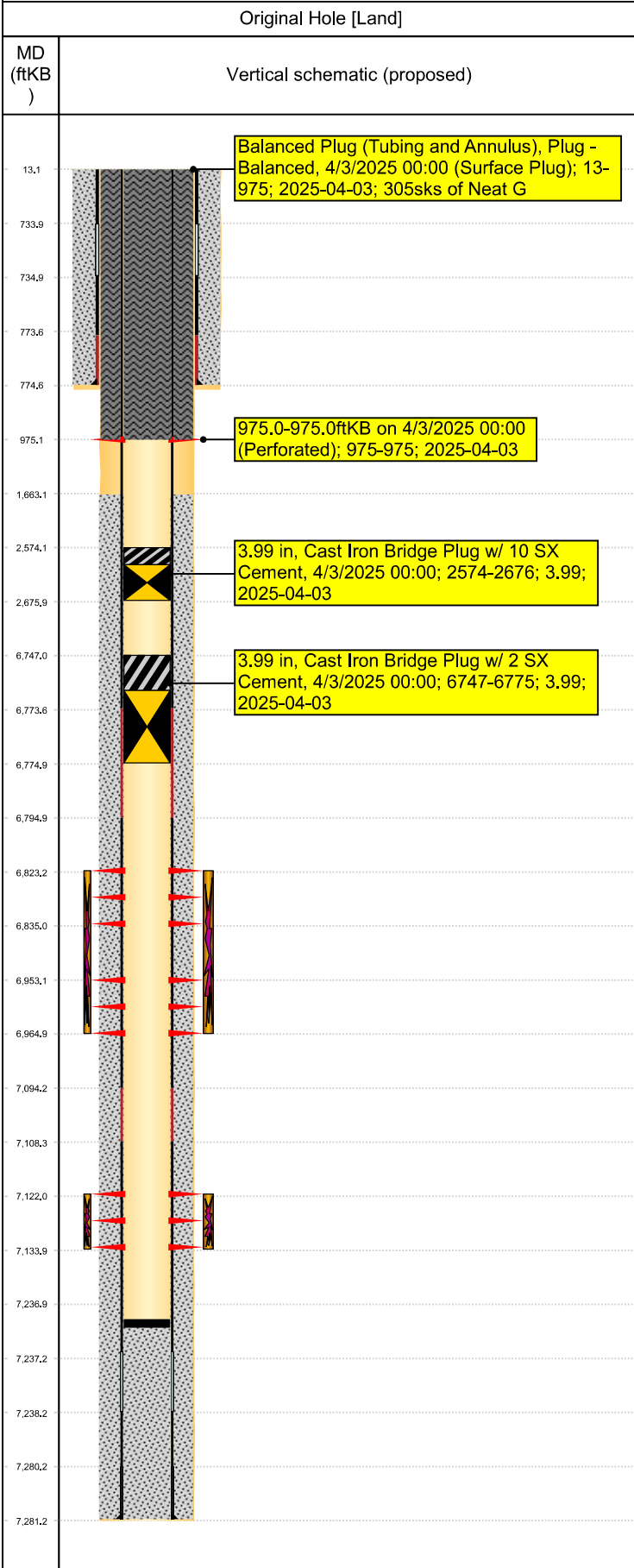


Well Header								
Surface UWI	Business Unit	Gov Auth Dist	Prod Tree Loc					
0512332659	Rockies		Land					
Orig. KB to Gnd (ft)	Original Spud Date	Abandon Date	Well Sub-Status	High...				
13.00	3/8/2011		PR	N				
Comment								
<b>Geologic Horizons</b>								
Formation Name				Final Top MD (ftKB)				
FOXHILLS-BASE PROD				608.0				
Formation Name				Final Top MD (ftKB)				
UPPER PIERRE AQUIFER-TOP PROD				748.9				
Formation Name				Final Top MD (ftKB)				
UPPER PIERRE AQUIFER-BASE PROD				1,764.0				
Formation Name				Final Top MD (ftKB)				
A SAND-TOP PROD				2,693.5				
Formation Name				Final Top MD (ftKB)				
A SAND-BASE PROD				3,187.4				
Formation Name				Final Top MD (ftKB)				
PARKMAN				3,749.2				
Formation Name				Final Top MD (ftKB)				
PARKMAN-TOP PROD				3,786.7				
Formation Name				Final Top MD (ftKB)				
PARKMAN-BASE PROD				4,232.4				
Formation Name				Final Top MD (ftKB)				
SUSSEX-TOP PROD				4,353.7				
Formation Name				Final Top MD (ftKB)				
SUSSEX-BASE PROD				4,732.6				
Formation Name				Final Top MD (ftKB)				
SHANNON-TOP PROD				5,170.6				
Formation Name				Final Top MD (ftKB)				
SHANNON-BASE PROD				5,258.3				
Formation Name				Final Top MD (ftKB)				
INTRA SHARON SPGS MK				6,793.3				
Formation Name				Final Top MD (ftKB)				
NIO A CHALK				6,822.0				
Formation Name				Final Top MD (ftKB)				
NIOBRARA-TOP PROD				6,829.0				
Formation Name				Final Top MD (ftKB)				
NIO A MARL				6,840.3				
Formation Name				Final Top MD (ftKB)				
NIO B CHALK				6,933.4				
Formation Name				Final Top MD (ftKB)				
NIO B MARL				6,967.4				
Formation Name				Final Top MD (ftKB)				
NIO C CHALK				7,005.1				
Formation Name				Final Top MD (ftKB)				
NIO C MARL				7,049.2				
Formation Name				Final Top MD (ftKB)				
NIO D CHALK				7,075.2				
Formation Name				Final Top MD (ftKB)				
NIO FT HAYS				7,096.3				
Formation Name				Final Top MD (ftKB)				
CODELL				7,120.0				
Formation Name				Final Top MD (ftKB)				
CARLILE				7,134.6				
Formation Name				Final Top MD (ftKB)				
GREENHORN				7,165.0				
<b>Surface Location (Congressional)</b>								
Qtr 3	Qtr 4	Section	Twonshp	Twonsh...	Range	Rng E/...	Latitude (°)	Longitude (°)
NE	NW	27	7	N	64	W	40.54965933	-104.537973779
<b>Wellbore Sections</b>								
Section Des	Hole Size (in)	Top Depth (ftKB)	Btm Depth (ftKB)					
SURFACE	12 1/4	13.0	790.0					
PRODUCTION	7 7/8	790.0	7,291.0					
<b>Casing Strings</b>								
Csg Des	Run Date	OD (in)	Wt/Len (lb/ft)	Grade	Top Depth (MD) (ftKB)	Set Depth (MD) (ftKB)		
Surface	3/9/2011	8 5/8	24.00	J-55	13	774.7		
Production Casing	3/11/2011	4 1/2	11.60	M-80	13	7281.2		
<b>Cement</b>								
Des	Start Date	Top (ftKB)	Btm (ftKB)					
SURFACE CASING CEMENT	3/9/2011	13.0	774.7					
PRODUCTION CASING CEMENT	3/12/2011	1,663.0	7,281.2					



# Proposed PA WBD - Vertical

Well Name: RICHTER USX AB27-03



Stim/Frac Summary		Min Top Depth (ftKB)	Max Btm Depth (ftKB)		
		6,823.0	7,134.0		
Perforations					
Linked Zone	Date	Top Depth (ftKB)	Bottom Depth (ftKB)		
Linked Zone NIOBRARA, Original Hole	4/3/2025 00:00	975.0	975.0		
Linked Zone NIOBRARA, Original Hole	4/7/2011 09:55	6,823.0	6,835.0		
Linked Zone NIOBRARA, Original Hole	4/7/2011 09:53	6,953.0	6,965.0		
Linked Zone CODELL, Original Hole	3/24/2011 11:00	7,122.0	7,134.0		
Other In Hole					
Run Date	Des	Make	OD (in)	Top (ftKB)	Btm (ftKB)
Logs					
Date	Type	Depth Top (MD) (ftKB)	Btm (ftKB)		
3/11/2011	Caliper/Comp. Density/Neutron/GR/SP/ML	2,950	7,268.0		
3/11/2011	DIL/GR/SP/Caliper	774	7,288.0		
3/22/2011	CBL/CCL/GR	1,663	7,197.0		
Wellbore Plug Back Total Depths					
Date	Type	Com	PBTD (ftKB)		
3/22/2011	CEMENT PLUG	DEPTH LOGGER/CBL	7,198		
4/13/2011	PLUG REMNANTS	C/O WITH CONE BIT.	7,237		