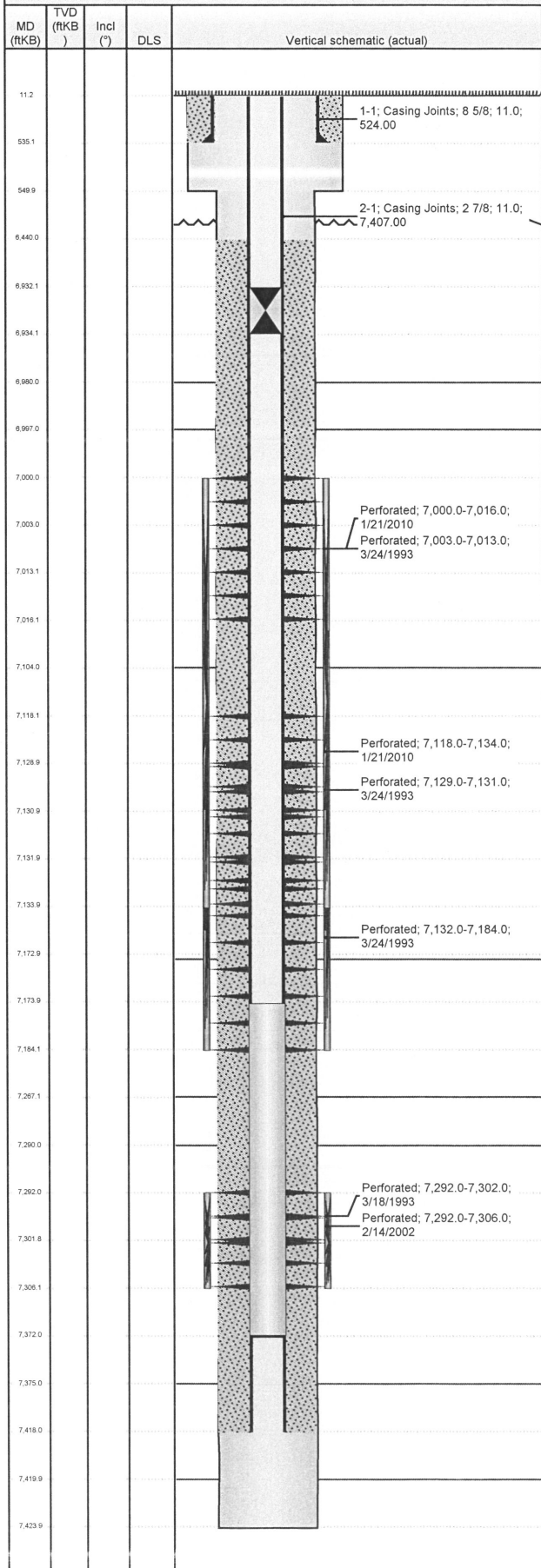


Well Name: LORENZ FARMS 22-04B

DEVIATED - ORIGINAL HOLE, 11/19/2012 4:27:11 PM					Well Header				
MD (ftKB)	TVD (ftKB)	Incl (°)	DLS	Vertical schematic (actual)	Logs	API	Business Unit	District	Well Config
						05-123-16860	WATTENBERG	15	DEVIATED
						Original KB Elevation (ft)	KB - GL / MSL (ftKB)	Spud Date	P & A Date
						4,636.00	11.00	3/6/1993	
Comment									
DIRECTIONAL WELLBORE; TIGHT SPOT 5410'									
Directions To Well									
HWY 34 & WCR 45: SOUTH 2/10, WEST 5/10, SOUTH INTO									
Congressional Location									
Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp N...	Range	Rng E/W Dir	
		NE	NW	22	5	N	65	W	
Bottom Hole Location									
North-South Distance (ft)			From N or S Line		East-West Distance (ft)		From E or W Line		
536.0			FNL		780.0		FWL		
Plug Back Total Depths									
Date		Depth (ftKB)		Method		Com			
3/13/1993		7,372.0							
Wellbore Sections									
Section Des			Size (in)		Act Top (ftKB)		Act Btm (ftKB)		
SURFACE			12 1/4		11.0		550.0		
PRODUCTION			7 7/8		550.0		7,424.0		
Zone Statuses									
Zone Name		Status Date		Status		Job			
CODELL		4/21/1993		PR		DRILLING/COMPLETION - ORIGINAL, 3/6/1993 00:00			
CODELL		2/20/2002		PR		RE-FRAC, 2/7/2002 00:00			
CODELL		4/30/2007		PR		TRI-FRAC, 2/27/2007 00:00			
NIOBRARA		4/21/1993		PR		DRILLING/COMPLETION - ORIGINAL, 3/6/1993 00:00			
Casing Strings									
Surface Casing, 535.0ftKB									
Casing Description			Run Date		OD (in)		Wt/Len (l...		Grade
Surface Casing			3/7/1993		8 5/8		24.00		J-55
									Top (ftKB)
									Set Depth...
									535.0
Production, 7,418.0ftKB									
Casing Description			Run Date		OD (in)		Wt/Len (l...		Grade
Production			3/13/1993		2 7/8		6.50		WC-50
									Top (ftKB)
									Set Depth...
									7,418.0
Cement									
Description					Top Depth (ftKB)		Bottom Depth (ftKB)		
SURFACE CASING CEMENT					11.0		535.0		
Description					Top Depth (ftKB)		Bottom Depth (ftKB)		
PRODUCTION CASING CEMENT					6,440.0		7,418.0		
Tubing Components									
Item Des		OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)	
Perforation Data									
Zone		Bnch/St g	Entered Shot Total	Top (ftKB)		Btm (ftKB)		Date	
NIOBRARA, ORIGINAL HOLE		A	64	7,000.00		7,016.00		1/21/2010	
NIOBRARA, ORIGINAL HOLE		A	8	7,003.00		7,013.00		3/24/1993	
NIOBRARA, ORIGINAL HOLE		B	64	7,118.00		7,134.00		1/21/2010	
NIOBRARA, ORIGINAL HOLE		B	12	7,129.00		7,131.00		3/24/1993	
NIOBRARA, ORIGINAL HOLE		C	4	7,132.00		7,184.00		3/24/1993	
CODELL, ORIGINAL HOLE			56	7,292.00		7,306.00		2/14/2002	
CODELL, ORIGINAL HOLE			20	7,292.00		7,302.00		3/18/1993	
Stimulations & Treatments									
Date		Zone		Primary Job Type					
3/20/1993		CODELL, ORIGINAL HOLE		DRILLING/COMPLETION - ORIGINAL					
Technical Result			Tech Result Details				Tech Result Note		
Comment									
Date		Zone		Primary Job Type					
3/27/1993		NIOBRARA, ORIGINAL HOLE		DRILLING/COMPLETION - ORIGINAL					
Technical Result			Tech Result Details				Tech Result Note		
Comment									

Well Name: LORENZ FARMS 22-04B

DEVIATED - ORIGINAL HOLE, 11/19/2012 4:27:12 PM



## Stimulations & Treatments

Date	Zone	Primary Job Type
2/19/2002	CODELL, ORIGINAL HOLE	RE-FRAC
Technical Result	Tech Result Details	Tech Result Note
Comment		
Date	Zone	Primary Job Type
3/14/2006	CODELL, ORIGINAL HOLE	TRI-FRAC
Technical Result	Tech Result Details	Tech Result Note
Comment		
Date	Zone	Primary Job Type
2/5/2010	NIOBRARA, ORIGINAL HOLE	RE-FRAC
Technical Result	Tech Result Details	Tech Result Note
Failure	Mechanical	COMMUNICATION WITH SURFACE CASING
Comment		
REFRAC OF THE NIOBRARA A & B BENCHES. INIT SURFCSG = 2#. WHILE WAITING FOR 5-MIN ISIP, SURFCSG BEGAN TO PRESSURE UP SO TREATMENT WAS PAUSED. SURFCSG WAS BLED OFF TO FLOWBACK TANK (PRODUCING FLUID). SURFCSG PRESSURED BACK UP BUT PEAKED AT 88# AND BEGAN DECREASING SO TREATMENT WAS RESUMED. AS SOON AS TREATMENT RATE WAS REACHED SURFCSG SPIKED UP AGAIN, SO TREATMENT WAS ABORTED 90 BBLS INTO JOB. RDMO BJ SERVICES.		

## Other In Hole

Run Date	Des	OD (in)	Top (ftKB)	Btm (ftKB)
1/20/2010	Sand plug	3	7,174.0	7,372.0
2/9/2010	Bridge Plug - Temporary	2 1/2	6,932.0	6,934.0

## Logs

Date	Type	Top (ftKB)	Btm (ftKB)
3/13/1993	COMPENSATED DENSITY	4,000.0	7,422.0
3/13/1993	DUAL INDUCTION	535.0	7,424.0
3/18/1993		6,300.0	7,360.0
3/14/2012	GYRO	11.0	6,900.0