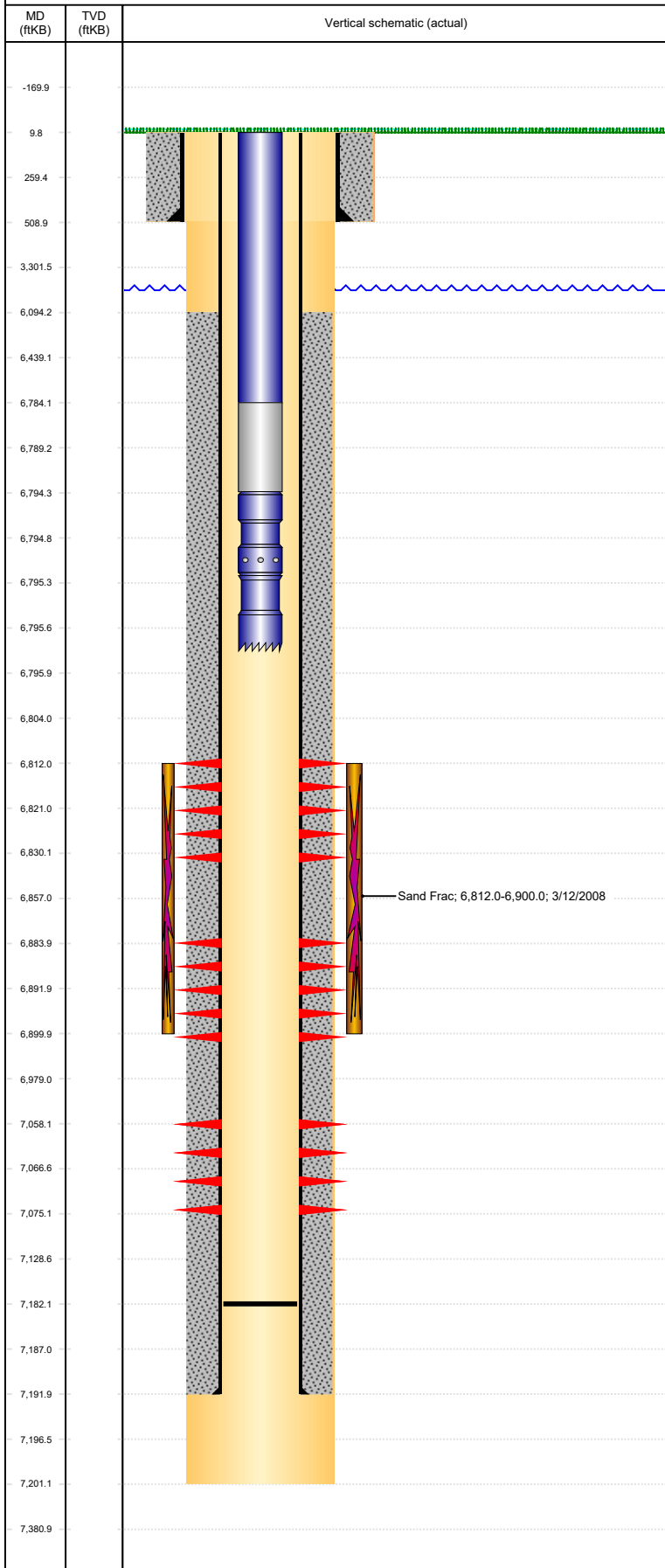


Well Name: FRED ARENS 05 (AKA 13-5)

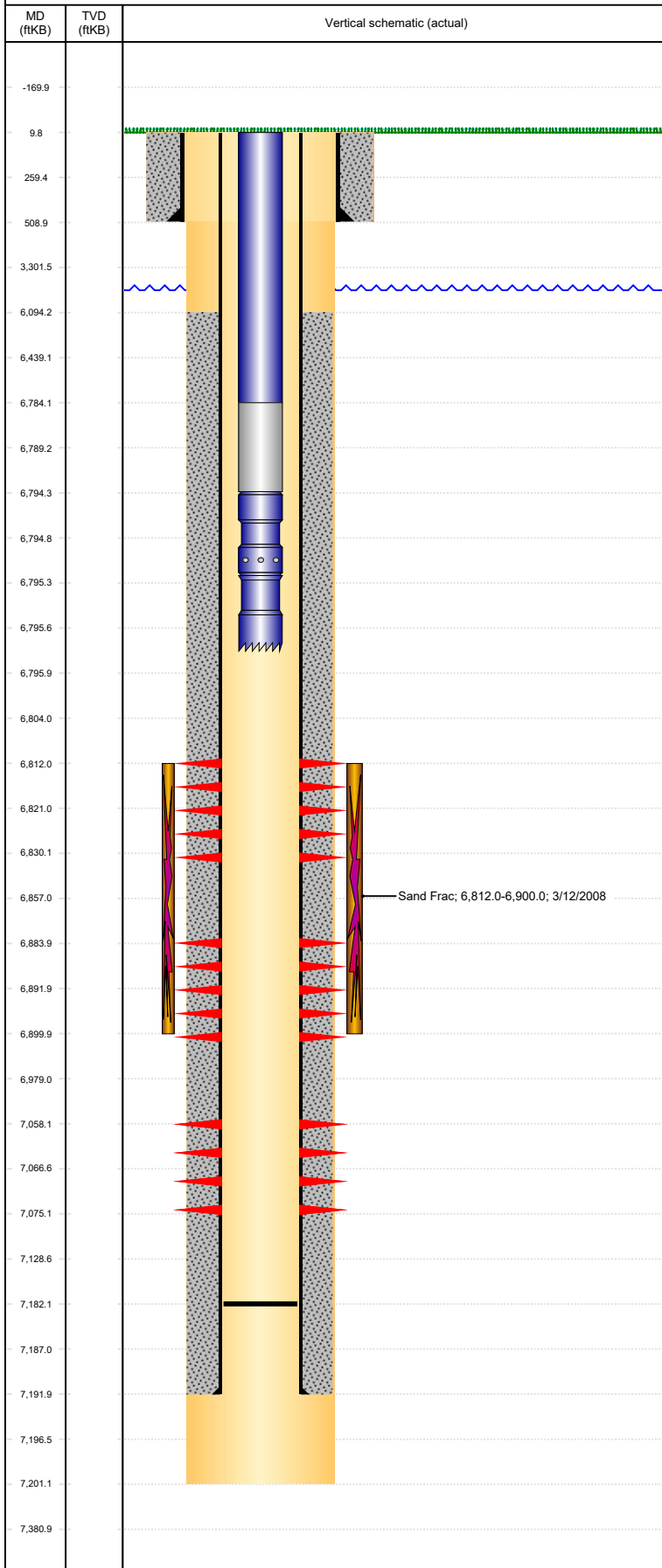
VERTICAL, ORIGINAL HOLE, 12/10/2021 8:57:08 AM



Well Header								
API 05-123-12732		Business Unit DJ BASIN		District 15		Well Config VERTICAL		
Original KB Elevation (ft) 4,770		KB - GL / MSL (ftKB) 10.00		Spud Date 10/26/1985		P & A Date		
Comment TIGHT SPOT IN CSG @ 6,940.0; COMMUNICATED W/#4 3/19/01								
Directions To Well RD 46 & 47, E 1/2, SE INTO.								
Congressional Location								
Quarter 3 NW	Quarter 4 NE	Section 13	Township 4	Twnshp N/S Dir N	Range 65	Range E/W Dir W		
Bottom Hole Legal Location								
Bottom Hole Legal Location								
Plug Back Total Depths								
Date	Depth (ftKB)	Method			Com			
10/31/1985	7,182.0				TIGHT SPOT IN CSG @ 6,940.0			
4/15/2008	7,182.0							
Wellbore Sections								
Section Des		Size (in)		Act Top, MD (ftKB)		Act Btm, MD (ftKB)		
SURFACE		12 1/4		10		509		
PRODUCTION		7 7/8		509		7,201		
Zone Statuses								
Zone Name	Status Date	Status	Fluid Type	Job	Prod Method			
CODELL	12/4/1985	PR	Water	DRILLING/CO...	Flowing			
CODELL	3/23/2001	PR		RE-FRAC, 3/9/...				
CODELL	4/12/2005	PR		TRI-FRAC, 3/1...				
CODELL	2/29/2008	SI		RECOMPLETI...				
CODELL	4/17/2008	PR		RECOMPLETI...				
CODELL	3/26/2010	PR				Flowing		
CODELL	5/9/2017	SI						
NIOBRARA	3/14/2008	PR		Gas	RECOMPLETI...			
NIOBRARA	4/17/2008	PR		Gas	RECOMPLETI...			
NIOBRARA	3/26/2010	PR		Water				
Casing Strings								
Surface Casing, 509.0ftKB								
Casing Description		Run Date	OD (in)	Wt/Len (l...	Grade	Top, MD (ft...	MD (ftKB)	
Surface Casing		10/26/1985	8 5/8	24.00		10.0	509.0	
Production, 7,192.0ftKB								
Casing Description		Run Date	OD (in)	Wt/Len (l...	Grade	Top, MD (ft...	MD (ftKB)	
Production		10/31/1985	4 1/2	10.50		10.0	7,192.0	
Cement								
Description					Top Depth (ftKB)		Bottom Depth (ftKB)	
Surface Casing Cement					10.0		509.0	
Description					Top Depth (ftKB)		Bottom Depth (ftKB)	
Production Casing Cement					6,094.0		7,192.0	
Tubing Strings								
Tubing Description		Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing		4/7/2005	2 3/8		4.70	J55	7,026.00	
Tubing Components								
Item Des		OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing		2 3/8	4.70	J55	214	7,026.00	7,036.0	
Tubing Description		Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing - Frac string		3/3/2008	2 7/8	2.44	6.50	N-80	6,724.42	
Tubing Components								
Item Des		OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing		2 7/8	6.50	N-80	205	6,412.94	6,422.9	
Tubing		2 3/8	4.70	N-80	10	304.48	6,727.4	
Packer		4				7.00	6,734.4	
Tubing Description		Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing - Frac string		3/6/2008	2 7/8	2.44	6.50	N-80	6,692.96	
Tubing Components								
Item Des		OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing		2 7/8	6.50	N-80	204	6,381.24	6,391.0	

Well Name: FRED ARENS 05 (AKA 13-5)

VERTICAL, ORIGINAL HOLE, 12/10/2021 8:57:08 AM



Tubing Components							
Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing	2 3/8	4.70	N-80	10	305.00	6,696.0	
Packer	4				6.72	6,702.7	
Tubing Components							
Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing	2 3/8	4.70	J-55	218	6,774.18	6,784.2	
Tubing Pup Joint	2 3/8			1	10.00	6,794.2	
Seal Nipple	2 3/8			1	1.00	6,795.2	
Notched collar	2 3/8			1	0.60	6,795.8	

Tubing Components							
Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing	2 3/8	4.70	J-55	218	6,774.18	6,784.2	
Tubing Pup Joint	2 3/8			1	10.00	6,794.2	
Seal Nipple	2 3/8			1	1.00	6,795.2	
Notched collar	2 3/8			1	0.60	6,795.8	

Other In Hole							
Run Date	Des	Make	OD (in)	Top (ftKB)	Btm (ftKB)	Pr op R un	

Logs			
Date	Type	Top, MD (ftKB)	Btm, MD (ftKB)
10/31/1985	Compensated Density	2,700.0	7,198.0
10/31/1985	Induction	509.0	7,198.0
11/4/1985	CBL/GR	5,984.0	7,132.0

Perforation Data					
Linked Zone	Bnch/St g	Sum of Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, ORIGINAL HOLE	A	72	6,812.00	6,830.00	3/3/2008
NIOBRARA, ORIGINAL HOLE	B	64	6,884.00	6,900.00	3/3/2008
CODELL, ORIGINAL HOLE		65	7,058.00	7,075.00	3/12/2001
CODELL, ORIGINAL HOLE		18	7,058.00	7,075.00	11/7/1985
Total		219			

Stimulation Intervals			
Interval...	Start Date	Primary Job Type	Zone
1	11/11/1985	DRILLING/COMPLETION - ORIGINAL	CODELL, ORIGINAL HOLE
Technical Result		Tech Result Details	Tech Result Note

Comment STARTED SCREENING OUT, WENT TO FLUSH EARLY			
Interval...	Start Date	Primary Job Type	Zone
1	3/16/2001	RE-FRAC	CODELL, ORIGINAL HOLE
Technical Result		Tech Result Details	Tech Result Note

Comment SCREENED OUT @ 4PPG STAGE			
Interval...	Start Date	Primary Job Type	Zone
1	3/30/2005	TRI-FRAC	CODELL, ORIGINAL HOLE
Technical Result		Tech Result Details	Tech Result Note

Comment Failure			
Interval...	Start Date	Primary Job Type	Zone
1	3/12/2008	RECOMPLETION	NIOBRARA, ORIGINAL HOLE
Technical Result		Tech Result Details	Tech Result Note

Comment Success			
Comment FRAC THE NIOBRARA W/ TUBING/COMPRESSION PACKER AND A RIG ON LOCATION - NO PROBLEMS TO REPORT			