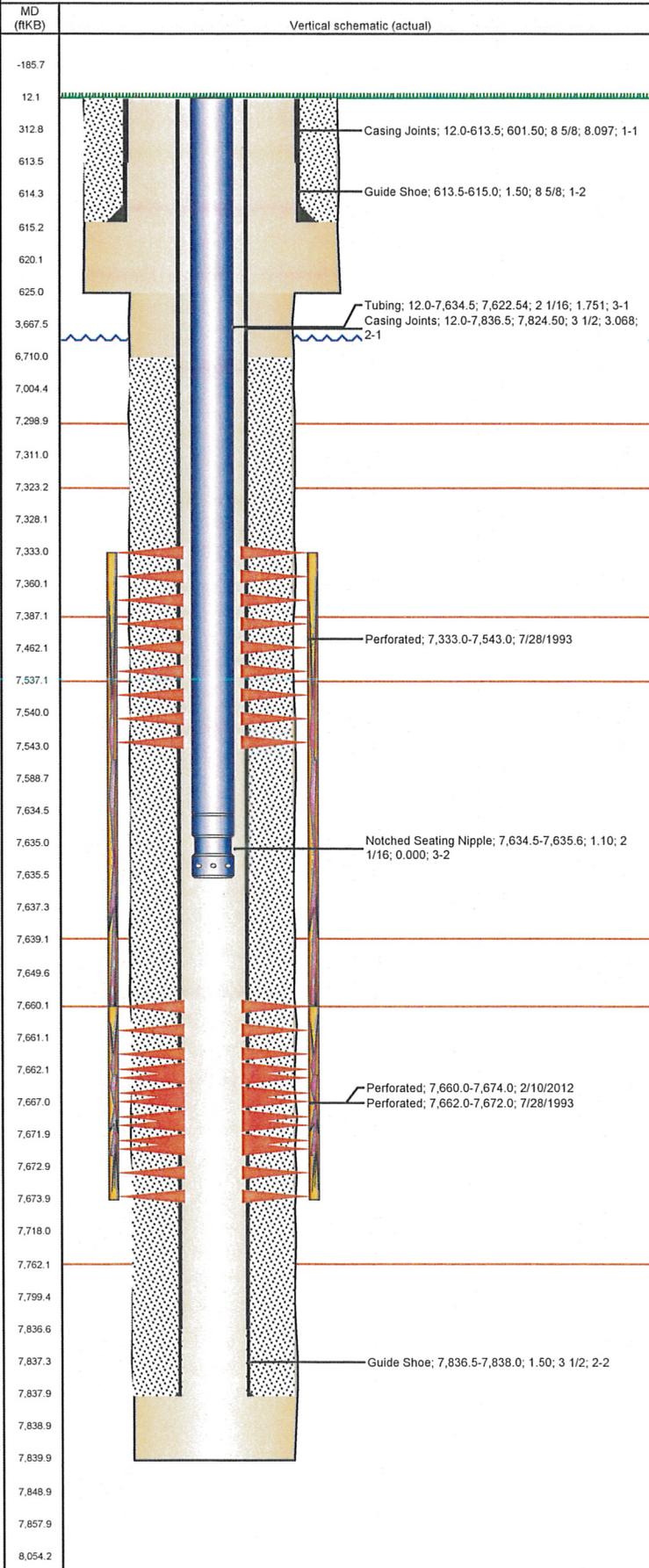


Well Name: CULVER MC16-05

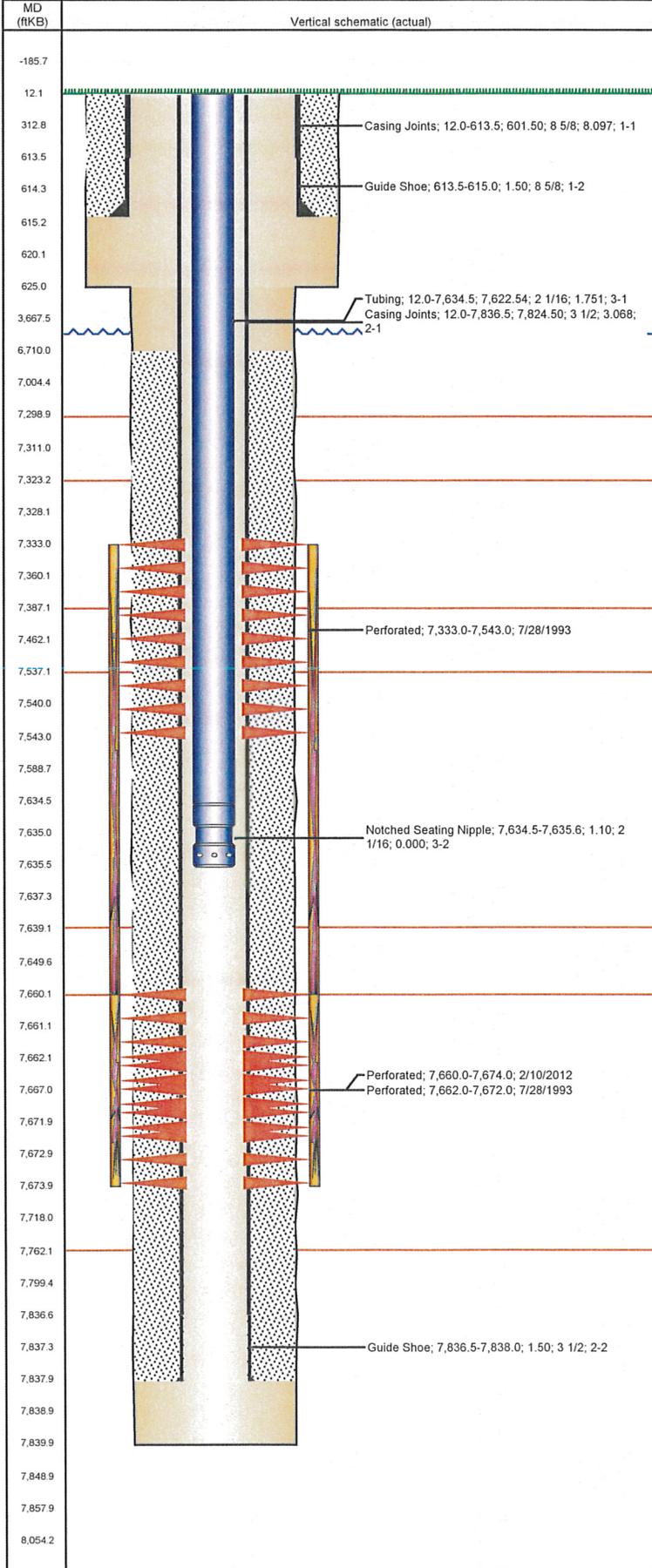
VERTICAL - ORIGINAL HOLE, 8/7/2012 2:15:51 PM



Well Header			
API	Business Unit	District	Well Config
05-013-06335	WATTENBERG	15	VERTICAL
Original KB Elevation (ft)	KB - GL / MSL (ftKB)	Spud Date	P & A Date
5,061.00	12.00	7/7/1993	
Comment			
Directions To Well			
HWY 52 & HWY 287 SOUTH 1 MILE TO LOOK OUT RD. WEST 1.5 95TH AVE SOUTH 1.5 MILE. EAST THROUGH GREEN ON BLACK WOODEN FENCE 1/10. N.E. 200' S.E 2/10 AROUND LAKE NORTH 300' N/W 1/10 INTO .			
Current PBTD (ftKB)			
ORIGINAL HOLE - 7,858.0			
Surface Location (Congressional)			
Quarter 1	Quarter 2	Quarter 3	Quarter 4
		SW	NW
Section	Township	Twship N...	Range
16	1	N	69
Rng E/W Dir	W		
Bottom Hole Location			
North-South Distance (ft)	From N or S Line	East-West Distance (ft)	From E or W Line
Plug Back Total Depths			
Date	Depth (ftKB)	Method	Com
7/27/1993	7,810.0	CASED HOLE LOG	DEPTH LOGGER ON CBL
2/10/2012	7,858.1	TBG TAG	C/O W/255JTS 4' IN B/S
Wellbore Sections			
Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
SURFACE	12 1/4	12.0	625.0
PRODUCTION	7 7/8	625.0	7,840.0
Zone Statuses			
Zone Name	Status Date	Status	Job
CODELL	8/9/1993	PR	DRILLING/COMPLETION - ORIGINAL, 7/7/1993 00:00
CODELL	5/7/2012	PR	RE-FRAC, 2/8/2012 06:00
NIOBRARA	8/9/1993	PR	DRILLING/COMPLETION - ORIGINAL, 7/7/1993 00:00
Casing Strings			
Csg Des	Run Date	OD (in)	Wt/Len (lb/ft)
Surface	7/8/1993	8 5/8	24.00 ?
Production	7/17/1993	3 1/2	7.70 ?
Grade	Top (ftKB)	Set Depth (ftKB)	
	12.0	615.0	
	12.0	7,838.0	
Cement			
Des	Top (ftKB)	Btm (ftKB)	
SURFACE CASING CEMENT	12.0	615.0	
PRODUCTION CASING CEMENT	6,710.0	7,838.0	
Tubing Components			
Item Des	OD (in)	Wt (lb/ft)	Grade
Tubing	2 1/16	3.25	J-55
Notched Seating Nipple	2 1/16	0.00	x
Jts	Len (ft)		
235	7,622.54		
1	1.10		
Perforation Data			
Zone	Bnch/St g	Entered Shot Total	Top (ftKB)
NIOBRARA, ORIGINAL HOLE		7	7,333.0
CODELL, ORIGINAL HOLE		56	7,660.0
CODELL, ORIGINAL HOLE		6	7,662.0
Btm (ftKB)	Date		
7,543.0	7/28/1993		
7,674.0	2/10/2012		
7,672.0	7/28/1993		
Stimulations & Treatments			
Bnch/Stg	Date	Zone	Primary Job Type
	7/29/1993	NIOBRARA-CODELL, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Comment			
LIMITED ENTRY			
Total Add Amount	Total Clean Volume...	Vol Slurry Tot (gal)	Vol Gas Tot (MCF)
Proppant 300000 lb		101724.00	
Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)
5,200.0	6,010.0	31.50	36.50

Well Name: CULVER MC16-05

VERTICAL - ORIGINAL HOLE, 8/7/2012 2:15:51 PM



Stimulations & Treatments

Bnch/Stg	Date	Zone	Primary Job Type
	3/12/2012	CODELL, ORIGINAL HOLE	RE-FRAC

Comment
 (CODELL)-PRE JOB, BREAK 4445 @ 4.8, ISIP 2847, 5 MIN 2358, PERFS OPEN 17.9, PERF. FRIC 551, NWB FRIC 225, POST JOB ISIP 3113, 5 MIN 2939, MAX PRESS 7097, MAX RATE 14.4, AVG VISC 23.3, PH 10.24, AVG TEMP 72.44

24 BARRELS TO LOAD BACKSIDE
 20.7 BARRELS TO LOAD FRAC STRING

2 IN VALVE ON BRAIDEN HEAD WAS LEAKING WOULDNT SHUT OR OPEN. SHUT ALL FRAC TRUCKS DOWN ON LOCATION AND BLEED DOWN WELL THREW NEEDLE VALVE. PRESSURE WOULD NOT REGISTER ON 3000 PSI GAUGE. CHANGED OUT VALVE WITH ONE ON LOCATION.

FAN 50 DID NOT PASS IN THE LAB. CALLED JASON AND HE HAD BAKER LAB RUN ANOTHER FAN 50 RUN. DOWN FOR 3 HOURS. SECOND FAN 50 RUN PASSED AND RESUMED JOB.

POP OFF VALVE FAILED ON LOCATION, JAMES CALLED OFFICE AND OK D HIM TO TAKE IT OFF AND PUT A CAP ON IT WE RESET THE PUMP KICK OUTS FOR 7400 PSI, AND CONTINUED JOB. MAX PSI 9000 PSI.

IN THE START OF 1LB SAND CASING PRESSURE CAME AT US FROM 150 PSI AND CONTINUED TO RISE. I WAITED UNTIL 460 PSI. STARTED TO PUMP ON BACKSIDE AND TOOK IT TO 1000 PSI. LEVELED OUT UNTIL THE START OF 2 LB AND STARTED TO RISE. I CALLED BRIAN AND HE HAD ME START PUMPING ON IT AND TRY TO KEEP IT UNDER 3500 PSI. PRESSURE LEVELED OUT AT 2560 PSI. COMPLETED JOB ACCORDING TO DESIGN.

Total Add Amount	Total Clean Volume...	Vol Slurry Tot (gal)	Vol Gas Tot (MCF)
Proppant Ottawa 240537.598 lb	125706.00	136546.20	

Avg Treat Pressure (psi)	Max Treat Pressure (psi)	Avg Treat Rate (bbl/min)	Max Treat Rate (bbl/min)
5,578.0	7,097.0	14.00	14.40

Other In Hole

Run Date	Des	OD (in)	Top (ftKB)	Btm (ftKB)

Logs

Date	Type	Top (ftKB)	Btm (ftKB)
7/18/1993	COMPENSATED DENSITY	3,960.0	7,797.0
7/18/1993	INDUCTION	570.0	7,826.0
7/27/1993	CBL/CCL/GR	6,600.0	7,810.0