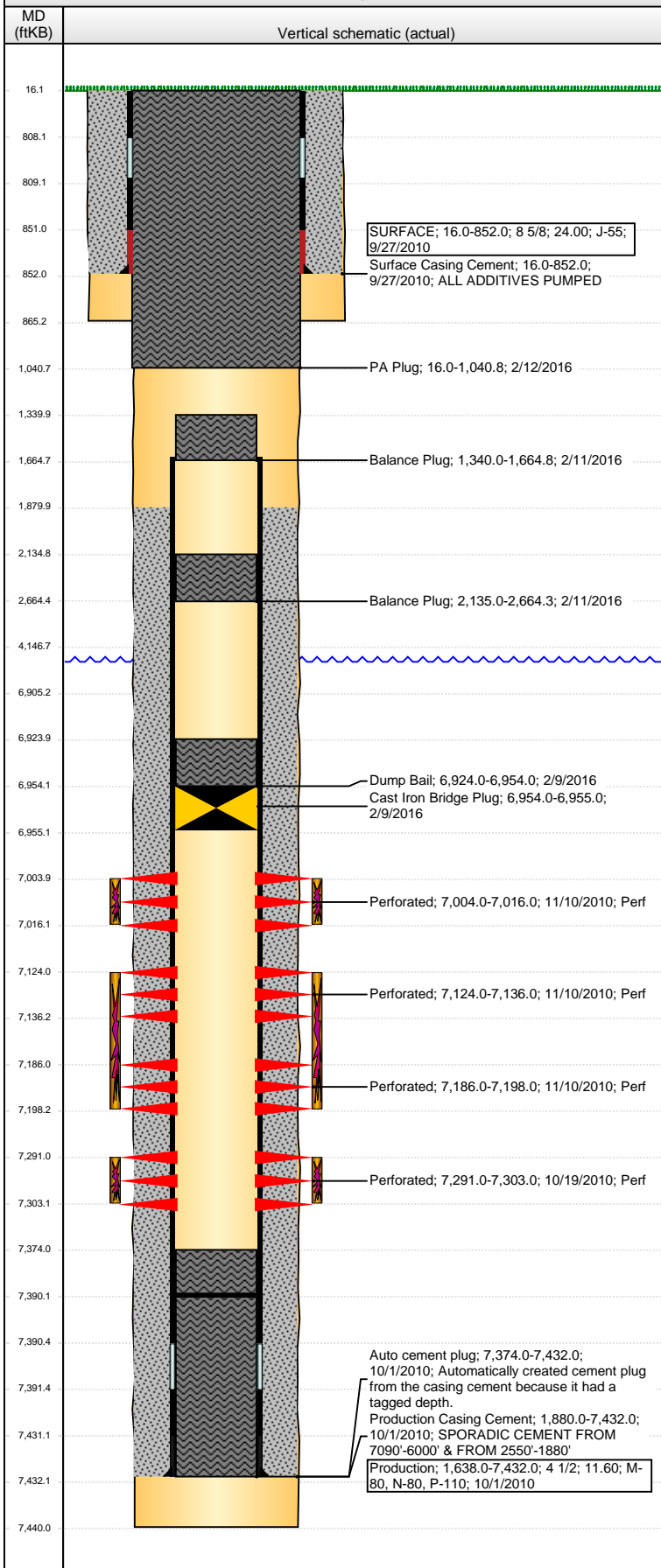


**Well Name:** ANTHOLZ PC AB06-16

VERTICAL - ORIGINAL HOLE, 2/26/2016 7:56:55 AM



## Well Header

API	Business Unit	District	Well Config
05-123-32110	DJ BASIN	15	VERTICAL
Original KB Elevation (ft)	KB - GL / MSL (ftKB)	Spud Date	P & A Date
5,008.00	16.00	9/26/2010	2/9/2016

## Comment

## Directions To Well

HWY 14 & CR 51, NORTH .4, WEST INTO

## Congressional Location

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp N...	Range	Rng E/W Dir
		SE	SE	6	7	N	64	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
10/1/2010	7,390.0	CASING TALLY	FLOAT COLLAR
10/6/2010	7,374.0	CASED HOLE LOG	DEPTH LOGGER
12/13/2010	7,390.0	TAG	DRILL OUT KILL PLUG, 2 CFTP AND CLEAN DO...

## Wellbore Sections

Section Des	Size (in)	Act Top, MD (ftKB)	Act Btm, MD (ftKB)
SURFACE	12 1/4	16.0	865.0
PRODUCTION	7 7/8	865.0	7,440.0

## Zone Statuses

Zone Name	Status Date	Status	Fluid Type	Job	Prod Method
CODELL	12/17/2010	PR	Water	DRILLING/CO...	Flowing
CODELL	1/4/2011	PR		ABANDON WE...	
CODELL	2/9/2016	P&A		DRILLING/CO...	
NIOBRARA	12/17/2010	PR	Water	DRILLING/CO...	Flowing
NIOBRARA	1/4/2011	PR		ABANDON WE...	
NIOBRARA	2/9/2016	P&A		ABANDON WE...	

## Casing Strings

### SURFACE, 852.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top, MD (ft...)	MD (ftKB)
SURFACE	9/27/2010	8 5/8	24.00	J-55	16.0	852.0

### Production, 7,432.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top, MD (ft...)	MD (ftKB)
Production	10/1/2010	4 1/2	11.60	M-80	16.0	7,432.0

## Cement

Description	Top Depth (ftKB)	Bottom Depth (ftKB)
Surface Casing Cement	16.0	852.0
Production Casing Cement	1,880.0	7,432.0
Dump Bail	6,924.0	6,954.0
Balance Plug	2,135.0	2,664.3
Balance Plug	1,340.0	1,664.8
PA Plug	16.0	1,040.8

## Tubing Strings

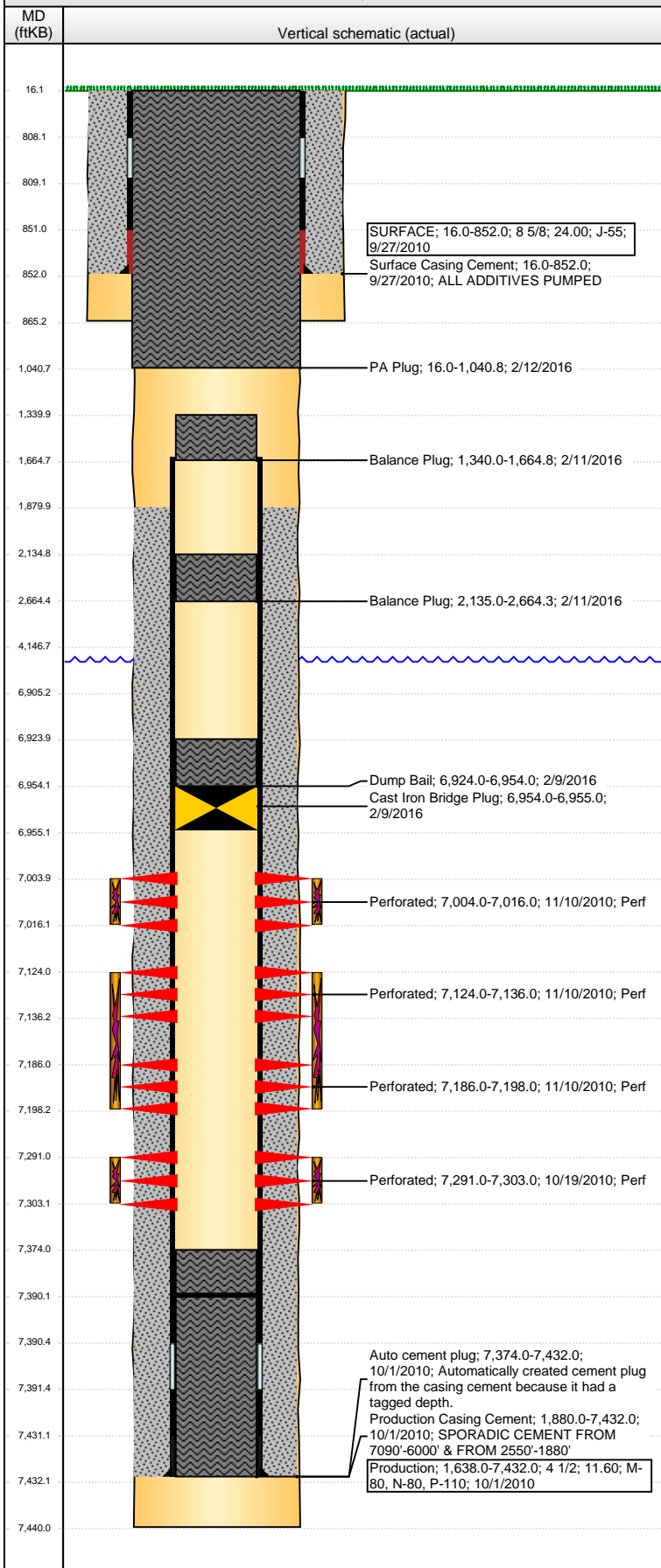
Tubing Description	Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing - Production	12/14/2010	2 3/8	1.995	4.70	J-55	6,824.48	6,839.0

## Perforation Data

Zone	Bnch/St g	Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, ORIGINAL HOLE	A	24	7,004.00	7,016.00	11/10/2010
NIOBRARA, ORIGINAL HOLE	B	24	7,124.00	7,136.00	11/10/2010
NIOBRARA, ORIGINAL HOLE	C	24	7,186.00	7,198.00	11/10/2010
CODELL, ORIGINAL HOLE	01	48	7,291.00	7,303.00	10/19/2010

**Well Name: ANTHOLZ PC AB06-16**

VERTICAL - ORIGINAL HOLE, 2/26/2016 7:56:57 AM



## Stimulations & Treatments

Date	Zone	Primary Job Type
11/10/2010	CODELL, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	
Comment (CODELL) CHLORIDES WERE VERY HIGH RANGING FROM 1250-2850 ON TANKS 13-19. CALLED OFFICE AND DECIDED TO PUMP THE CODELL WITH THE GOOD TANKS AND USE THE HIGH CHLORIDE TANKS WITH THE FRESH WATER TANKS ON THE NIOBRARA STAGES. ISIP=2973, 5 MIN=2456 PUMPED CODELL AT 22 BPM. HAD ELECTRONIC ISSUE WITH FRAC PUMP DURING 4LB STG. OPERATIONALLY JOB WENT WELL WITH NO ISSUES TO REPORT. AVG VISC=28.8, PH=10.18, TEMP=69.2, PRESS=3431, RATE=22.8.		
Date	Zone	Primary Job Type
11/10/2010	NIOBRARA, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	
Comment (NIOBRARA B&C) HAD ISSUES WITH PRESSURE KICK-OUTS ON FRAC PUMPS DURING SLICKWATER PAD. OPERATIONALLY JOB WENT WELL WITH NO ISSUES TO REPORT. AVG VISC=22.4, PH=10.15, TEMP=67.3, PRESS=4404, RATE=52.9.		
Date	Zone	Primary Job Type
11/10/2010	NIOBRARA, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	
Comment (NIOBRARA A) HAD FRAC PUMP COME OFF-LINE AT START OF 1LB. OPERATIONALLY JOB WENT WELL WITH NO ISSUES TO REPORT. AVD VISC=23.3, PH=10.1, TEMP=65.6, PRESS=4502, RATE=49.1.		

## Other In Hole

Run Date	Des	OD (in)	Top (ftKB)	Btm (ftKB)
2/9/2016	Cast Iron Bridge Plug	3.99	6,954.0	6,955.0

## Logs

Date	Type	Top, MD (ftKB)	Btm, MD (ftKB)
9/14/2010	SPECTRAL DENSITY/Pe/DSN NEUTRON/SP/ARRAY COMPENSATED TRUE RESISTIVITY	853.0	7,436.0
9/14/2010	SPECTRAL GAMMA RAY	6,825.0	7,402.0
9/14/2010	CBL/CCL/GR	1,527.0	7,373.0