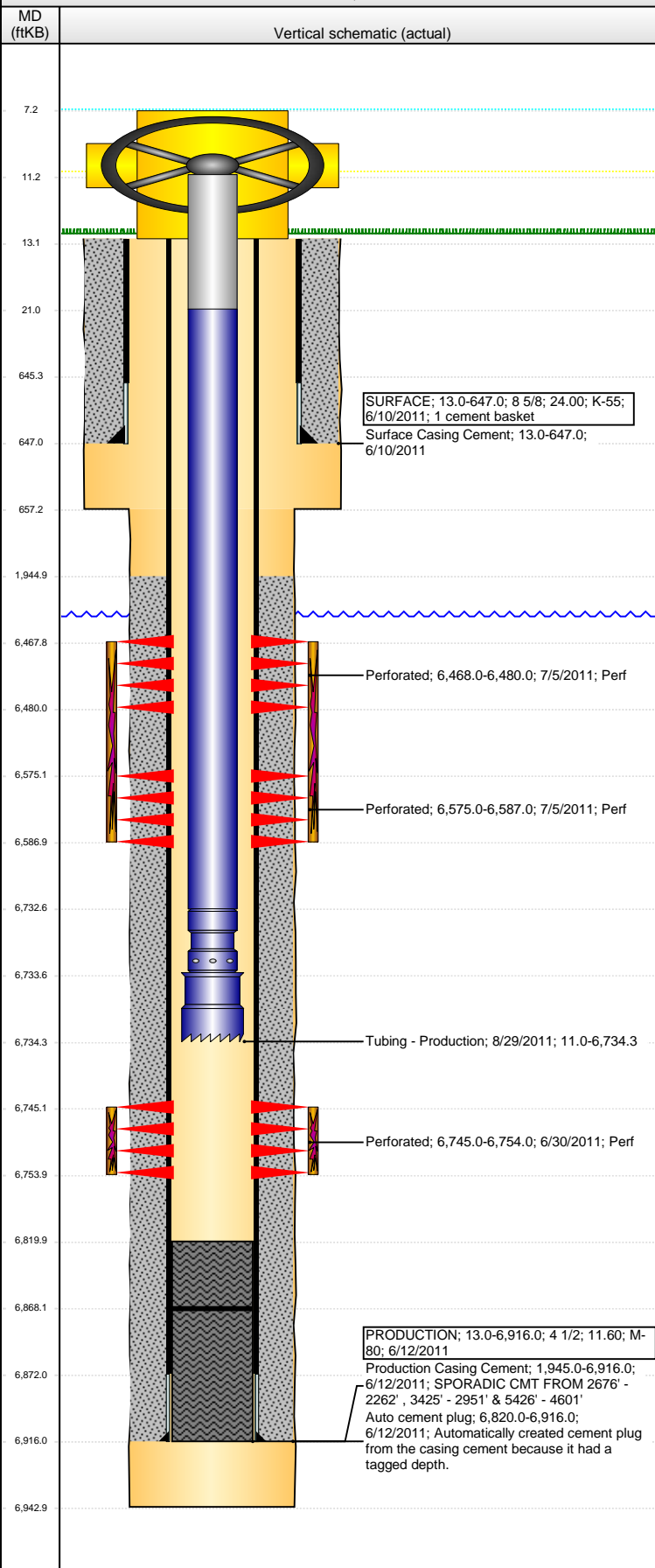


**Well Name: WELLS RANCH PC AA22-04**

VERTICAL - ORIGINAL HOLE, 10/23/2013 1:36:12 PM



## Well Header

API 05-123-31894	Business Unit WATTENBERG	District 15	Well Config VERTICAL
Original KB Elevation (ft) 4,723.00	KB - GL / MSL (ftKB) 13.00	Spud Date 6/9/2011	P & A Date
Comment			

## Directions To Well

WCR 67 & 68, EAST 2/10THS, SOUTH 0.25, THEN NORTHWEST INTO LOCATION

## Congressional Location

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp N...	Range	Rng E/W Dir
		NW	NW	22	6	N	63	W

## Bottom Hole Location

North-South Distance (ft)	From N or S Line	East-West Distance (ft)	From E or W Line
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## Plug Back Total Depths

Date	Depth (ftKB)	Method	Com
6/12/2011	6,871.0	CASING TALLY	FLOAT COLLAR
6/28/2011	6,820.0	CASED HOLE LOG	DEPTH LOGGER ON CBL
8/29/2011	6,868.0	TUBING TALLY	DRILL CFTP W/ CUTRITE BIT AND N2, PUMP OFF...

## Wellbore Sections

Section Des	Size (in)	Act Top (ftKB)	Act Btm (ftKB)
SURFACE	12 1/4	13.0	657.0
PRODUCTION	7 7/8	657.0	6,943.0

## Zone Statuses

Zone Name	Status Date	Status	Job
NIOBRARA	7/8/2011	PR	DRILLING/COMPLETION - ORIGINAL, 7/8/2011 06:00
CODELL	7/8/2011	PR	DRILLING/COMPLETION - ORIGINAL, 7/8/2011 06:00

## Casing Strings

### SURFACE, 647.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top (ftKB)	MD (ftKB)
SURFACE	6/10/2011	8 5/8	24.00	K-55	13.0	647.0

### PRODUCTION, 6,916.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top (ftKB)	MD (ftKB)
PRODUCTION	6/12/2011	4 1/2	11.60	M-80	13.0	6,916.0

## Cement

Description	Top Depth (ftKB)	Bottom Depth (ftKB)
Surface Casing Cement	13.0	647.0
Description	Top Depth (ftKB)	Bottom Depth (ftKB)
Production Casing Cement	1,945.0	6,916.0

## Tubing Components

Item Des	OD (in)	Wt (lb/ft)	Grade	Jts	Len (ft)	Btm (ftKB)	Btm (TVD) (ftKB)
Tubing Pup Joint	2 3/8	4.70	J-55	1	10.00	21.0	
EUE 8rd Tubing	2 3/8	4.70	J-55	217	6,711.46	6,732.5	
Pump Seating	2 3/8		J-55	1	1.10	6,733.6	6,732.8
Nipple							
Pump Off Bit Sub	3 1/16		j-55	1	0.79	6,734.4	6,733.6

## Perforation Data

Zone	Bnch/St g	Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, ORIGINAL HOLE	A	24	6,468.00	6,480.00	7/5/2011
NIOBRARA, ORIGINAL HOLE	B	24	6,575.00	6,587.00	7/5/2011
CODELL, ORIGINAL HOLE		36	6,745.00	6,754.00	6/30/2011

## Stimulations & Treatments

Date	Zone	Primary Job Type
7/5/2011	CODELL, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL
Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	

## Comment

(CODELL ND) ISIP 3096, 5 MIN 2536. REVERSE STEP RESULTS: NWB 356, PERF 159, WB 297, PERF OPEN 19, TOTAL 808. INCREASE RATE TO 22 BPM DUE TO LEAK OFF. JOB WENT WELL WITH NO ISSUES TO REPORT. AVERAGES: VISC 27.7, TEMP 77.3, PH 10.02, NOLTE +0.03. POST ISIP 3182, 5 MIN 3027.

**Well Name: WELLS RANCH PC AA22-04**

VERTICAL - ORIGINAL HOLE, 10/23/2013 1:36:14 PM

## Stimulations & Treatments

Date 7/5/2011	Zone NIOBRARA, ORIGINAL HOLE	Primary Job Type DRILLING/COMPLETION - ORIGINAL
Technical Result Success	Tech Result Details According to Plan	Tech Result Note
Comment (NIOBRARA A&B ND) ISIP 3090. JOB WENT WELL WITH NO ISSUES TO REPORT. AVERAGES: VISC 23.0, TEMP 80.5, PH 10.06, NOLTE +0.07. POST ISIP 3307, 5 MIN 3180.		

## Other In Hole

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

## Logs

Date	Type	Top (ftKB)	Btm (ftKB)
6/12/2011	SPECTRAL DENSITY/Pe/DSN NEUTRON/SP/ARRAY COMPENSATED TRUE RESISTIVITY	3,448.0	6,939.0
6/12/2011	SPECTRAL GAMMA RAY	6,248.0	6,849.0
6/28/2011	CBL/CCL/GR	1,720.0	6,820.0

