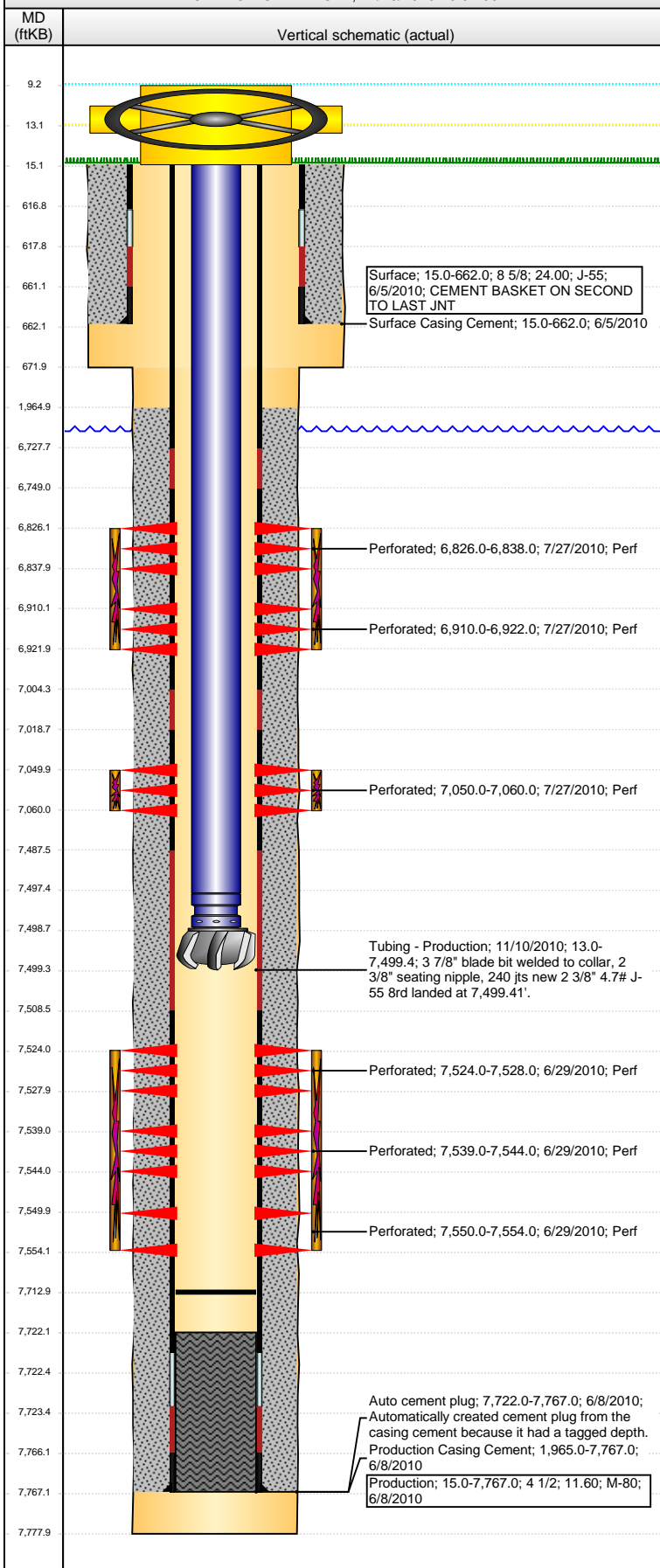


Well Name: NOPENS D19-31

VERTICAL - ORIGINAL HOLE, 12/10/2015 10:04:39 AM



Well Header

API	Business Unit	District	Well Config
05-123-30615	DJ BASIN	15	VERTICAL
Original KB Elevation (ft)	KB - GL / MSL (ftKB)	Spud Date	P & A Date
4,819.00	15.00	6/4/2010	

Comment
318A.e. LOCATION - TD is 50' DEEPER THAN PERMITTED DEPTH. OK PER REGULATORY DEPT.

Directions To Well

WCR 49 AND 30, GO .75 MILES NORTH, THEN WEST-SOUTHWEST FOR 200' INTO LOCATION

Congressional Location

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Section	Township	Twnshp N...	Range	Rng E/W Dir
		SE	NE	24	3	N	65	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
6/8/2010	7,722.0	CASING TALLY	FLOAT COLLAR
6/16/2010	7,697.0	CASED HOLE LOG	DEPTH-LOGGER/CBL
11/10/2010	7,713.0	tbg tally	C/O WITH NITROGEN 189' OF RATHOLE

Wellbore Sections

Section Des	Size (in)	Act Top, MD (ftKB)	Act Btm, MD (ftKB)
SURFACE	12 1/4	15.0	672.0
PRODUCTION	7 7/8	672.0	7,778.0

Zone Statuses

Zone Name	Status Date	Status	Fluid Type	Job	Prod Method
NIOBRARA	8/5/2010	PR		DRILLING/CO...	
CODELL	8/5/2010	PR		DRILLING/CO...	
J SAND	8/5/2010	PR		DRILLING/CO...	

Casing Strings

Surface, 662.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top, MD (ft...)	MD (ftKB)
Surface	6/5/2010	8 5/8	24.00	J-55	15.0	662.0

Production, 7,767.0ftKB

Casing Description	Run Date	OD (in)	Wt/Len (l...)	Grade	Top, MD (ft...)	MD (ftKB)
Production	6/8/2010	4 1/2	11.60	M-80	15.0	7,767.0

Cement

Description	Top Depth (ftKB)	Bottom Depth (ftKB)
Surface Casing Cement	15.0	662.0

Description	Top Depth (ftKB)	Bottom Depth (ftKB)
Production Casing Cement	1,965.0	7,767.0

Tubing Strings

Tubing Description	Run Date	String...	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Set De...
Tubing - Production	11/10/2010	2 3/8	1.995	4.70	J-55	7,486.41	7,495.8

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	240	7,484.46	7,497.5	
Seating Nipple	2 3/8	4.70	J-55	1	1.20	7,498.7	7,495.1
Blade Bit welded to collar	3 7/8			1	0.75	7,499.4	7,495.8

Perforation Data

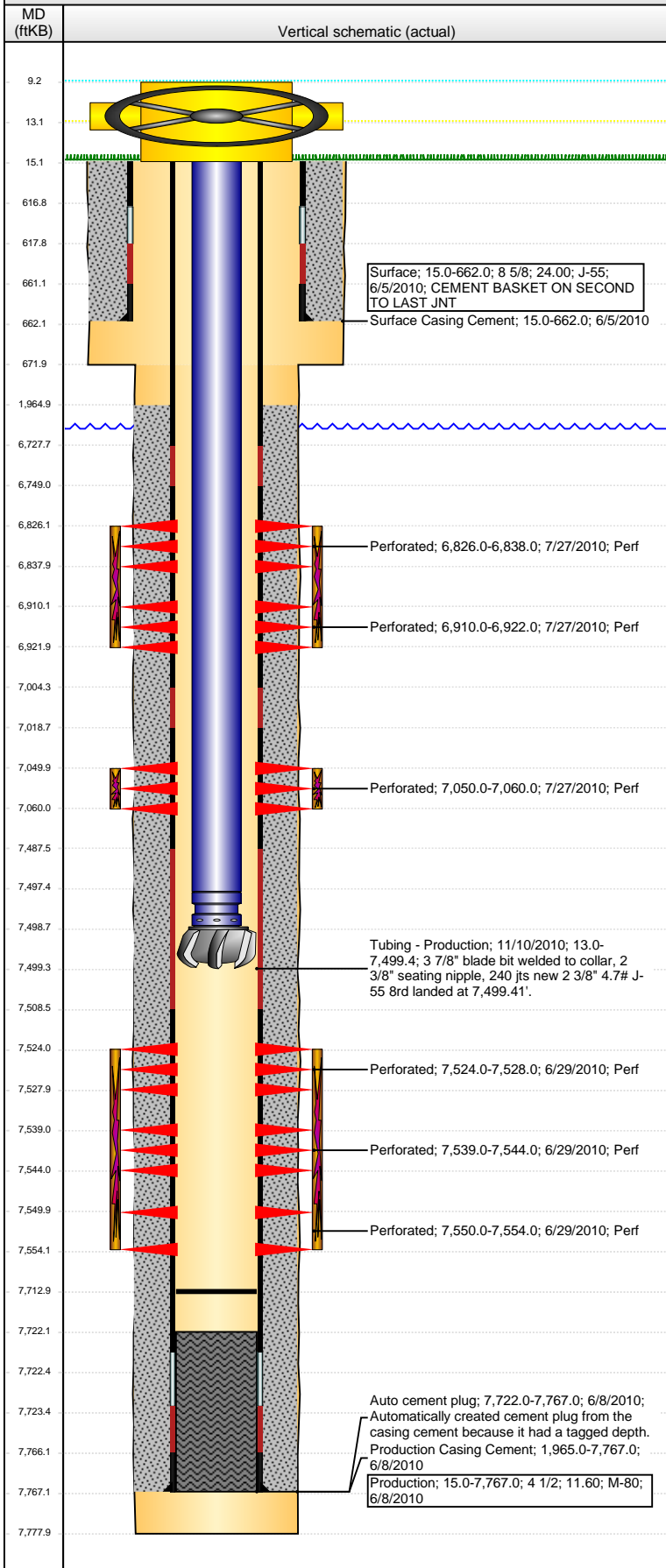
Zone	Bnch/St g	Entered Shot Total	Top (ftKB)	Btm (ftKB)	Date
NIOBRARA, ORIGINAL HOLE	B	24	6,826.00	6,838.00	7/27/2010
NIOBRARA, ORIGINAL HOLE	C	24	6,910.00	6,922.00	7/27/2010
CODELL, ORIGINAL HOLE		40	7,050.00	7,060.00	7/27/2010
J SAND, ORIGINAL HOLE	01	16	7,524.00	7,528.00	6/29/2010
J SAND, ORIGINAL HOLE	02	20	7,539.00	7,544.00	6/29/2010
J SAND, ORIGINAL HOLE	03	16	7,550.00	7,554.00	6/29/2010

Auto cement plug; 7,722.0-7,767.0; 6/8/2010;
Automatically created cement plug from the casing cement because it had a tagged depth.
Production Casing Cement; 1,965.0-7,767.0; 6/8/2010
Production; 15.0-7,767.0; 4 1/2; 11.60; M-80; 6/8/2010

Well Name: NOPENS D19-31

VERTICAL - ORIGINAL HOLE, 12/10/2015 10:04:42 AM

Stimulations & Treatments



Date	Zone	Primary Job Type
7/27/2010	J SAND, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL

Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	

Comment
(J-SAND): REVERSE STEP RATE RESULTS: PO 21, NWB 778 PSI, WB 585 PSI, PPF 248 PSI FOR A TOTAL OF 1611 PSI OF FRICTION. PRE JOB ISDP 1645 PSI, BLED DOWN TO 0 PSI IN 3 MINS. RAISED RATE TO 38 BPM AND VISC TO 22 CPS. HAD SOME ISSUES WHEN WE WENT TO THE BLENDER TUB BYPASS. TREATMENT WENT WELL THOUGH. AVG VISC 23.5 CPS, AVG TEMP 69.4F, AVG PH 10.21, AVG PRESS 2982 PSI, AVG RATE 38.1 BPM. POST JOB 5 MIN OF 2450 PSI.

Date	Zone	Primary Job Type
7/27/2010	CODELL, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL

Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	

Comment
(CODELL): REVERSE STEP RATE RESULTS: PO 15, NWB 406 PSI, WB 236 PSI, PPF 160 PSI FOR A TOTAL OF 802 PSI OF FRICTION. TREATMENT WENT WELL. AVG VISC 27.9 CPS, AVG TEMP 72.9F, AVG PH 10.22, AVG PRESS 3891 PSI, AVG RATE 18.1 BPM. POST JOB 5 MIN OF 3480 PSI.

Date	Zone	Primary Job Type
7/27/2010	NIOBRARA, ORIGINAL HOLE	DRILLING/COMPLETION - ORIGINAL

Technical Result	Tech Result Details	Tech Result Note
Success	According to Plan	

Comment
(NIOBRARA): INCREASED FR-66 LOADING FROM 1 GPT TO 1.5 GPT PRESSURE WAS CLIMBING DURING THE SLICKWATER PAD STAGE. TREATMENT WENT WELL, NO ISSUES TO REPORT. AVG VISC 24.9 CPS, AVG TEMP 73F, AVG PH 10.2, AVG PRESS 4523 PSI, AVG RATE 51.3 BPM. POST JOB 5 MIN OF 3207 PSI.

Other In Hole

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

Logs

Date	Type	Top, MD (ftKB)	Btm, MD (ftKB)
6/8/2010	SPECTRAL DENSITY/Pe/DSN NEUTRON/SP/ARRAY COMPENSATED TRUE RESISTIVITY/6 ARM CALIPER	661.0	7,738.0
6/8/2010	SPECTRAL GAMMA RAY	6,050.0	7,738.0
6/16/2010	CB/CCL/GR	1,480.0	7,696.0
10/1/2014	GYRO	10.0	7,400.0