

Well Name: BAUER 01-34

API 05-123-12450	Original KB Elevation (ft) 4,711	Ground Elevation (ft) 4,700	Total Depth (ftKB) 7,349.0	Current PBTD (mKB) ORIGINAL HOLE - 7,309.0
Section 34	Township 6	Range 66	County/Parish WELD	State/Province COLORADO

Casing Strings

Csg Des	MD (ftKB)	Run Date	Prop Run?	Cut/Pull Date	Proposed Cut/Pull?	Depth Cut/Pull (ftKB)	OD (in)	ID (in)	Grade	Len (ft)
Surface Casing	403.0	5/24/1985	No		No		9 5/8	8.92		392.00
Production	7,349.0	5/29/1985	No	6/19/2017	Yes	800.0	4 1/2	4.00	J-55	7,338.00

Tubing Strings

Des	Set Depth (ftKB)	Run Date	Prop Run?	String Location	Pull Date	Prop Pull?	Cut/Pull Date	Proposed Cut/Pull?	Depth Cut/Pull (ftKB)
Tubing	7,180.0	1/8/2005	No	Tubing set at 7,180.0ftKB on 1/8/2005 00:00	6/19/2017	Yes		No	

Perforations

Zone	Type	Date	Prop?	Top (ftKB)	Btm (ftKB)
CODELL, ORIGINAL HOLE	Perforated	6/19/2017	Yes	2,500.00	2,500.00
NIOBRARA, ORIGINAL HOLE	Perforated	6/30/1986	No	6,871.00	6,891.00
NIOBRARA, ORIGINAL HOLE	Perforated	6/30/1986	No	6,999.00	7,015.00
CODELL, ORIGINAL HOLE	Perforated	12/27/2004	No	7,189.00	7,205.00
CODELL, ORIGINAL HOLE	Perforated	6/14/1985	No	7,190.00	7,200.00

Other In Hole

Des	Run Date	Prop Run?	Prop Pull?	Top (ftKB)	Btm (ftKB)
Cement Retainer	6/19/2017	Yes	No	2,395.0	2,400.0
Cast Iron Bridge Plug	6/19/2017	Yes	No	6,816.0	6,821.0

Cement Stages

Des	Type	Prop?	End Date	Top (ftKB)	Btm (ftKB)
SURFACE CASING CEMENT	Casing	No	5/24/1985	11.0	403.0
PRODUCTION CASING CEMENT	Casing	No	5/29/1985	5,560.0	7,349.0
Dump Bail	Plug	Yes		6,790.0	6,816.0
Balance Plug	Plug	Yes		2,400.0	2,500.0
Cement Squeeze	Casing	Yes		2,000.0	2,500.0
Cement Plug	Plug - Balanced	Yes		2,266.0	2,395.0
Cement Plug	Plug	Yes		800.0	850.0
Balance Plug	Plug - Balanced	Yes		11.0	800.0

P&A PROCESS

Type Abandon	Sub Type WBI Non-Op	Start Date 6/19/2017	Engineer John Hatch
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PROCESS STEPS

Type	Comment																																								
1)	MIRU workover rig, pump, and tank.																																								
2)	Blow down well and roll hole with fresh water, if possible.																																								
3)	ND WH, NU BOP.																																								
4)	POOH and stand back tbq.																																								
5)	RU WL and RIH w/ CIBP and set @ 6821'																																								
6)	Dump bail 2 sx of Class G Neat cement on top of CIBP. TOC @ 6790'																																								
7)	Load hole with fluid and pressure test CIBP to 1000 psi with rig pumps. Hold for 15 minutes. Test will be considered successful if lose less than 100 psi. If test is unsuccessful, contact engineer.																																								
8)	RIH w/ perforating gun and shoot 4-6 spf @ 2500'																																								
9)	RIH w/ CICR on workstring and set @ 2400' (100' above perforations).																																								
10)	Load annulus between production casing and workstring. Test to 500 psi for 15 minutes. Test is considered successful if lose less than 50 psi. If pressure test fails, contact engineer.																																								
11)	Establish injection rate.																																								
12)	Pump 10 bbls Mud Flush (or similar spacer) followed by 210 sx of cement.																																								
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Length (ft)</th> <th>OD (in)</th> <th>ID (in)</th> <th>ft^3/ft</th> <th>Volume (ft^3)</th> <th>Yield (ft^3/sk)</th> <th>Cement (sk)</th> <th>Nearest 5sk</th> </tr> </thead> <tbody> <tr> <td>500</td> <td>10.000</td> <td>4.500</td> <td>0.435</td> <td>217</td> <td>1.150</td> <td>189</td> <td>190</td> </tr> <tr> <td>100</td> <td>4.000</td> <td>0.000</td> <td>0.087</td> <td>9</td> <td>1.150</td> <td>8</td> <td>10</td> </tr> <tr> <td>129</td> <td>--</td> <td>4.000</td> <td>0.087</td> <td>11</td> <td>1.150</td> <td>10</td> <td>10</td> </tr> <tr> <td colspan="7" style="text-align: right;">TOTAL: 210</td> <td></td> </tr> </tbody> </table> <p>Calculations assume 10" open hole and last 2 bbls cmt left on top of CICR.</p>	Length (ft)	OD (in)	ID (in)	ft^3/ft	Volume (ft^3)	Yield (ft^3/sk)	Cement (sk)	Nearest 5sk	500	10.000	4.500	0.435	217	1.150	189	190	100	4.000	0.000	0.087	9	1.150	8	10	129	--	4.000	0.087	11	1.150	10	10	TOTAL: 210							
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13)	Displace cement with 7 bbls fresh water (2 bbls short of workstring volume).																																								
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14)	Unsting from CICR.																																								
15)	Place remaining 2 bbls of cement on top of CICR. Allow to fall on CICR as pulling out. TOC: 2266'																																								
16)	POOH w/ workstring.																																								

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PROCESS STEPS								
Type	Comment							
17)	RIH w/ WL and cut production casing at 800'.							
18)	Circulate a MINIMUM of 2 bottoms up volumes (97 bbls) or until well is free of oil, gas, or any large cuttings.							
	Length (ft)	OD (in)	ID (in)	BBL/ft	Disp (BBL)	2x Disp (BBL)		
	403	8.097	4.500	0.0440	18	35		
	397	10.000	4.500	0.0775	31	62		
	TOTAL: 97							
19)	Perform flow check for 5 minutes to ensure well is static and record current fluid weight in WellView.							
20)	Unland production casing.							
21)	POOH and LD production casing filling pipe every 6 joints.							
22)	RIH w/ workstring to 850' (50ft inside top of casing cut).							
23)	Establish circulation.							
24)	Pump 10 bbls Mud Flush (or similar spacer) followed by 325 sx of cement 15.8 G Neat as a balanced plug. TOC @ Surface.							
	Length (ft)	OD (in)	ID (in)	ft^3/ft	Volume (ft^3)	Yield (ft^3/sk)	Cement (sk)	Nearest 5sk
	403	8.097	0.000	0.358	144	1.150	125	130
	397	10.000	0.000	0.545	217	1.150	188	190
	50	4.000	0.000	0.087	4	1.150	4	5
	TOTAL: 325							
25)	POOH workstring. Top off cement as needed. Cement needs to be ~10' from surface.							
26)	ND BOP.							
27)	RDMO.							