



Wilson Creek Unit #12
Rio Blanco Colorado
Current Well Schematic as of 10/28/20

RB 10' from derrick slab to RB, 17' to bottom of cellar
RB Elev 7833'
GR Elev 7822'

API: 05-103-05864
Legals: Sec 34 - TWN 3N - Range 94W
Field: Wilson Creek Unit
Spud 12/15/1942

Casing
10-3/4", 40.5#, H-40, 8rd, csg 0' to 438'
Cemented w/ 175 sx to surface

13-3/4" hole

Damaged csg @ 3215'-3233'
Squeezed w/ 100 sx
TOC at 3051'

Csg leak @ 4782'-4813'

LAST WORKOVER TUBING DETAILS

Tubing - Production set at 6,136.5ftOTH on 10/12/2018 14:00						
Tubing Description		Run Date	String Length (ft)	Set Depth (MD) (ftO...)		
Tubing - Production		10/12/2018	6,125.53	6,136.5		
Item Des	Jts	OD (in)	WT (lb/ft)	Grade	Len (ft)	Btm (ftOTH)
Tubing Hanger	1	7 1/16	0.00	N/A	0.80	11.8
Re-Run Tubing Pup Joint	1	2 7/8	6.50	J-55	6.05	17.8
Re-Run 2 7/8" J-55Tubing	195	2 7/8	6.50	J-55	6,072.30	6,090.2
Pump Seating Nipple	1	2 7/8	0.00	N/A	1.10	6,091.3
Re-Run Tubing Pup Joint	1	2 7/8	6.50	J-55	4.08	6,095.3
ESP - P-37 Pump with intake	1	5.38	0.00	N/A	14.40	6,109.7
ESP - Seal	1	5.13	0.00	N/A	6.30	6,116.0
ESP - Motor	1	5.62	0.00	N/A	19.70	6,135.7
Centralizer	1	6 1/8	0.00	N/A	0.80	6,136.5

Tagged @ 6543' on 10/11/18

9" hole
TD = 6,600' KB
PBTD @ 6,555'

Morrison Perfs
6234'-6254'
6295'-6336'
6356'-6364'
6370'-6440'

Sundance Perfs
6527'-6535'

Casing
7", 22#, 23#, & 24#, J-55, & H-40, 8rd csg, set @ 6,590' KB
Cemented w/ 200 sx

Perforation History

Status	Morrison Perforations	Holes
Squeezed	6292'-6304', 6304'-6340', 6362'-6368', 6382'-6408', & 6412'-6428'	342 holes
Squeezed	Radial Frac Notch @ 6385'	1 notch
Open	Radial Frac Notches @ 6238', 6250', 6385', & 6415'	4 notches
Open	6295'-6336', 6356'-6364', 6405'-6410', & 6430'-6440'	1 jspf
Open	6234'-6254', 6370'-6405', & 6410'-6430'	2 jspf
Producing	<u>Sundance Perforations</u> 6527'-6535'	16 holes

Prepared By: Rose Mizell
Date: 10/28/2020



**Wilson Creek Unit #12
Rio Blanco Colorado
Current Well History as of 10/28/20**

<u>Date</u>	<u>Event</u>
3/17/1974-3/29/1974	Pull & replace rods & pump. While replacing left fish in hole. Ran impression block. Recovered fish.
3/30/1974 - 7/31/1974	Tagged fill @ 6449'. Cleaned out to 6471'. Perforated 6234'-6254', 6370'-6405', & 6410'-6430' w/ 2 spf. Acidized 6320'-6336', 6356'-6364', & 6370'-6440' w/ 100,000 gal 15% HCl Acidize 6234'-6254' w/ 8 bbl of 15% HCl. Dropped pkr, bp & 15' tbq. Milled and pushed fish to 3730'. Damaged csg from 3233'-3215'. Pumped 2 sx 10/20 sand on top of fish. Spotted 100 sx cmt. Tagged cmt @ 3051'. Drilled out to 3250'. Tested csg to 500 psi. Milled and pushed fish to 6515'. Left fish in hole (cottom rubbers, centralizer springs, & nut form Baker Model C retrievable bridge plug.
10/7/1976-10/22/1976	Tagged fill @6459'. Set 7" CIBP @ 6458'. Set pkr @ 6165' & tested annulus to 500 psi. Held ok. Pumped 135,000# 10/20 sand in 25,000 gal oil and gelled water. Cleaned out fill to 6450'. PBSD @ 6458'
12/22/1983	Replace pump & acidize w/ 1000 gal 15% HCL.
3/2/1988 - 3/7/1988	Run bit & scraper to 6415'. Clean out to 6460'. Perf 6292'-6335' w/ 2 jspf (88 holes), & 6234'-6256' w/ 2 jspf (46 holes) Tag @ 6448' Acidize
5/16/1996 - 5/22/1996	Ran 7" csg scraper & bit. Tagged fill @ 6420'. Ran notched collar & bailer. Bailed to PBSD @ 6458'. Ran pkr to 6155' & pressure tested csg to 200 psi. Acidized w/ 1200 gal 15% HCL
4/18/1997-5/6/1997	Recomplete well to the Sundance Formation & commingle with Morrison Tagged fill @ 6416'. Drill & bail CIBP @ 6450' to 6555'. Tag @ 6543'. Perforate Sundance @ 6527'-6535' w/ 2 spf. PBSD @ 6555'
9/28/2006	ESP cable repair.
7/15/2010	Pump replacment. Replace K-34 ES with P-37 ESP.
10/22/2011	Pump replacment. Replace P-37 ESP w/ new P37 ESP.
7/9/2015 - 7/11/15	Pump replacment. Replaced P37 ESP w/ new P37 ESP.
10/10/2018-10/15/2018	Pulled tubing and P37 ESP. Rand 1.75" blind box & tagged @ 6543'. Ran new P37 ESP.



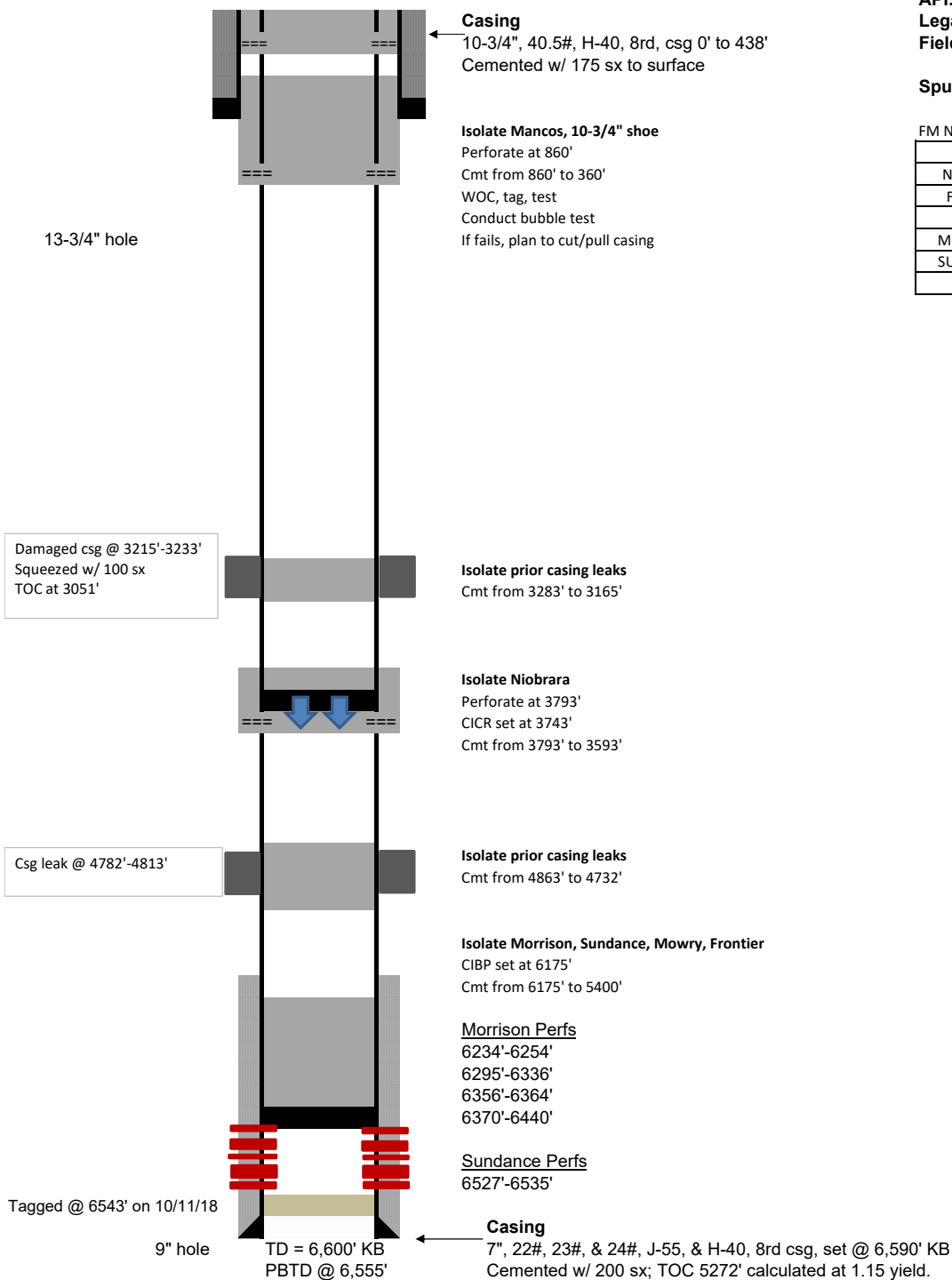
Wilson Creek Unit #12 Rio Blanco Colorado Proposed Abandonment Schematic

RB 10' from derrick slab to RB, 17' to bottom of cellar
RB Elev 7833'
GR Elev 7822'

API: 05-103-05864
Legals: Sec 34 - TWN 3N - Range 94W
Field: Wilson Creek Unit

Spud 12/15/1942

FM NAME	MD VALUE
MANCOS	860
NIOBRARA	3793
FRONTIER	5513
MOWRY	5800
MORRISON	6002
SUNDANCE	6527
TD	6600



Prepared By: H. Thibodeaux
Date: 2/9/2022

Critical Well Notes

- Artificial lift method - ESP
 - Contact Baker Centralift to spool ESP cable while TOH with tubing/ESP
- Cement retainer to be used to isolate Niobrara
- Class III BOP stack will be required - annular needed to seal against ESP/CAP STRING
- Past workovers show several spots with damaged casing and squeezed leaks, but bits drifted for 7" casing have reached top perms in recent workovers.
- *Required 10% excess cement for every 1000' depth (included in proposed calculations)*
- *Rule 434.a.(5) Plug and Abandon - The Operator will not cap or seal the well until 5 days after placing the last plug to allow monitoring for successful plugging and will cap or seal the Well within 90 days after placing last plug.*

Offline Activity

- Set slickline plug in tubing and pressure test same to 1000 psi to confirm integrity.

Procedure - Rig Only

- 1 MIRU pulling service rig
- 2 Check pressure on all casing and tubing strings. Verify no pressure and observe well for 15 minutes to verify no flow. Kill well with available kill fluids, brine if necessary.
 - 1 Trickle kill fluid down production casing as needed to keep well dead
- 3 Set slickline plug in tubing and pressure test same to 1000 psi to confirm integrity [if not done previously]
 - 1 If this step is not feasible, plan to hydrotest tubing while POOH or TIH.
- 4 N/U stump-tested BOPE.
 - 1 Install BPV in tubing hanger. N/D production tree.
 - 2 Install 5k Class III BOP and pressure test 250 psi low and 1000 psi, MASP, or max anticipated pressure (whichever is larger) high for 5 min each.
 - 3 Annular will be required in order to shut in and seal around pipe, ESP cable
- 5 POOH with tubing, spooling ESP cable and cap string [if present]
 - 1 Ensure ESP cable spoolers are spotted, sheaves are inspected within the last year and hung with secondary retention.
 - 2 Refer to the provided guidelines for pulling ESP equipment. Request document from engineer.
- 6 Set CIBP per approved permit depth
 - 1 MIRU wireline unit. Conduct GR/Junk basket run to planned CIBP set depth. POOH w/ same.
 - 2 M/U CIBP, RIH and set per approved permit. POOH with wireline.
- 7 Conduct pressure test of casing, CIBP to 500 psi for 15 minutes. Document results in WellView.
 - 1 Discuss picking up squeeze packer if casing failed previous pressure test
- 8 Bubble test all annuli for 30 minutes each and document results in WellView under daily pressures
- 9 TIH with tubing string (and squeeze packer if necessary) to tag CIBP
- 10 Proceed to pump cement per the approved permit, refer to table below cement plug depths and calculations
 - 1 TOC in production annulus is calculated at +/- 5275' using Class G cement
 - 2 Niobrara to be isolated with cement retainer set +/- 50' above perforations
 - 3 If bubble test in prod csg annulus fails after isolating the Mancos, plan to cut & pull production casing above tag depth. Perforate first and pump 2 x annulus volume to clean wellbore. Plan will need to be confirmed with BLM, COGCC regulatory agencies prior to execution.
 - 4 If cut & pulled, set 10-3/4" CIBP, pressure test and tag. Conduct bubble test. If passing, pump cement to surface. If fails, spot 100' cement, WOC, tag.
- 11 Discuss with engineer any changes to proposed plan forward during execution

Plug					
Summary Table	Base	Top	Volume	Perf & Squeeze	Notes
1	6175	5400	241	NO	
2	4863	4732	39	NO	Spot across prior squeeze
3	3793	3593	95	YES	Cast iron cement retainer
4	3283	3165	31	NO	Spot across prior squeeze
5	860	360	188	YES	WOC, tag, test; bubble test.
6	200	0	70	YES	Perf & circ to surface all strings
Total Sacks	664				
Total Perf & Squeeze		3			
Total Spot		3			