

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill, deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT-" for such proposals.

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: September 30, 1990

5. Lease Designation & Serial #:

SF-078615A

6. If Indian, Allottee/Tribe Name

7. If Unit or CA, Agmt. Design.:

Northeast Blanco Unit

8. Well Name and No.:

N.E.B.U.# 441R

9. API Well No.:

30-045-27817

10. Field & Pool/Expltry Area:

Basin Fruitland Coal

11. County or Parish, State:

San Juan, New Mexico

SUBMIT IN TRIPLICATE

1. Type of Well: oil well _____ gas well ☒ other _____

2. Name of Operator: Blackwood & Nichols Co., A Limited Partnership

3. Address of Operator: P.O. Box 1237, Durango, CO 81302-1237

4. Location of Well: (Footage, Sec., T., R., M., or Survey Description)

1360' FNL - 1670' FEL, Section 24, T30N, R8W

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other: COMPLETION
	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

See Addendum for a full description of the open hole "stress relieve" type coal completion.

RECEIVED
JAN 8 1991
OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct.

Signed: R.W. Williams ROY W. WILLIAMS Title: ADMINISTRATIVE MANAGER Date: 12/17/90

(This space for Federal or State office use)

ACCEPTED FOR RECORD

Approved By _____ Title _____ Date JAN 14 1991
Conditions of approval, if any:

FARMINGTON RESOURCE AREA

Completion Report

Northeast Blanco Unit No. 441R - Basin Fruitland Coal

LOCATION: 1360' FNL, 1670' FEL
Section 24, T30N, R8W
San Juan County, New Mexico

11-03-90 Move in Big "A" Rig No. 25.

11-04-90 Putting drill collars and drill pipe on racks to strap.

Rig up. Put drill collars and drill pipe on racks to strap.

11-05-90 7" casing at 2979'.

Drilling Fruitland formation at 3015' with 8,000# WOB, 80 RPM, and 6 BPM water.

Strap drill collars and drill pipe. Repair power swivel panel.

Pressure test blind rams and 7" casing. Fix leaks, retest to 2200 psi for 20 minutes - held OK.

Pick up new Smith Tool Co. 6-1/4" FDTL bit, SN# KP8878 (jets: 20 3-20), float sub, one 4-3/4" drill collar, N nipple (2.75" ID), ten 4-3/4" drill collars, 1 jt 3-1/2" drill pipe, F nipple (2.25" ID), and safety sub. OAL of BHA = 370.25'. TIH with 83 jts drill pipe. Tag cement at 2927'. Circulate casing for 20 minutes. Pressure test #1 and #3 pipe rams, casing valves, HCR and manual blooie lines valves, and choke manifold lines and valves to 2000 psi for 10 minutes - held OK.

Drill cement, float at 2933', and shoe jt to bottom of 7" casing at 2979'.

Drill Fruitland formation from 2979-3015'.

11-06-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 4 BPM water.

Drill Fruitland coal 3015-3257' with 6 BPM water, 8,000# WOB, and 80 RPM. Have 8-10' flare from one blooie line.

(Cont'd)

11-06-90 Circulate and work pipe at TD with 6 BPM water, reducing pump 1/2 BPM every 2 hours.

Coal Intervals:	2980-2981'	1'
	3024-3025'	1'
	3028-3030'	2'
	3039-3040'	1'
	3054-3055'	1'
	3058-3059'	1'
	3084-3085'	1'
	3086-3089'	3'
	3101-3104'	3'
	3105-3111'	6'
	3112-3113'	1'
	3115-3116'	1'
	3117-3121'	4'
	3135-3136'	1'
	3138-3139'	1'
	3140-3142'	2'
	3200-3201'	1'
	3203-3208'	5'
	3216-3218'	2'
	3221-3223'	2'
	3224-3225'	1'
	3229-3231'	2'
	3234-3241'	7'
	3254-3255'	1'
	Total	51'

Top Main P.C.	-	3255'
Total Depth	-	3257'

11-07-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 1 MM air and 1 BPM water. Returns light 1/8" and less coal (98%) in clear water.

Circulate and work pipe at TD with 4 BPM decreasing to 1 BPM water. Returns light 1/8" and less coal (98%) in clear water.

Circulate and work pipe at TD with 1 MM air and 4 BPM decreasing to 1 BPM water. Returns light 1/8" with small amount of powder coal in clear water.

Have 8' flare from 1 blooie line.

11-08-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 1 MM air and 1 BPM water. Returns light 1/8" coal (97%) in clear water.

Circulate and work pipe at TD with 1 MM air and 1 BPM water. Returns light 1/8" and less coal (97%) in clear water.

Circulate and work pipe at TD with 1 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (97%) in clear water.

11-09-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly.

Circulate and work pipe at TD with 1 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (95%) in clear water.

Run pitot test and shut in tests. Pitot: 1/4, 1/2, 3/4, and 1 hr - 1/2 oz., 112 MCFD (dry). Shut in: 1/4 hr - 85 psi, 1/2 hr - 170; 3/4 hr - 240; 1 hr - 340 psi.

Pressure well to 1000 psi with air and surge well. TIH, had no fill.

Circulate and work pipe at TD with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/4" coal (95%).

11-10-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 2 MM air and 1 BPM water.

Circulating and working pipe at TD with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (95%) in clear water.

Pull into 7", pressure up to 1000 psi. Surge well, blow well around with air. Repeat 1000 psi surge. TIH. Had 6' fill. Moderate coal in returns.

Circulating and working pipe at TD with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (95%) in clear water

11-11-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 2 MM air and 1 Bpm water. Returns light 1/8" coal (97%) in clear water.

Circulating and working pipe at TD with 2 MM air and 1 Bpm water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (95%) in clear water.

Lay down 8 jts. Pressure up well bore to 1200 psi. Surge well, repeat 5 more times. Blow well around after surge. Returns light to moderate 1/4" coal (90%) shale and siltstone in clear water.

TIH, wash 35' to bottom.

Circulating and working pipe at TD with 2 MM air and 1 BPM water with 10 Bbl sweeps hourly. Returns moderate to light 1/4" coal (90%) shale and siltstone in clear water.

Shut well in. Pressure up to 1200 psi, surge well.

Circulating and working pipe at TD with 2 MM air with 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (95%) shale and siltstone in clear water.

11-12-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and blowing well with 2 MM air and 1 BPM water and 10 Bbl water sweeps hourly. Returns light 1/8" coal (98%), shale, and siltstone in clear water. Moderate coal on sweeps in black water.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (98%), shale and siltstone in clear water.

TOOH with 8 jts. 3-1/2" drill pipe. Pressure up on well with air and water to 1500 psi and surge well. Repeat 8 times. Blowing and circulating 1 BPM after each surge.

TIH with 3-1/2" drill pipe. Tag fill at 3,187. Had 70' of fill. Circulate and blow well while washing to TD. Returns moderate 1/8" coal (98%), shale and siltstone.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns moderate to light 1/8" coal (98%), shale and siltstone. Moderate coal on sweeps in black to clear water.

(Cont'd)

11-12-90 Pressure up and surge well, 1500 psi. 10 Bbl water sweeps returns heavy coal.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns heavy to moderate 1/8" coal (98%), shale and siltstone in black water.

11-13-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and blowing well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (97%), shale and siltstone in clear water.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (97%), shale and siltstone in clear water.

POOH with 8 jts 3-1/2" drill pipe; bit at 2970'. Put 4 MM air on hole. Stabilize @ 1 BPM water. Monitor stand pipe pressure and flow. BJ Services on location rigging up NEBU #441. Pressure test lines to 4500 psi and pressure test wellhead to 3500 psi. Start pumping at 8:22 a.m.

<u>Time</u>	<u>psi</u>	<u>Total</u> <u>Fluid</u>	<u>Bbls/</u> <u>Stage</u>	<u>BPM</u>
9:00	1287	100	100	4
9:23	1514	147	47	7.1
9:30	1828	240	93	10.1
9:38	2113	357	117	15
9:46	2231	533	176	19.7
9:55	2050	625	92	23
9:59	2300	795	170	30
10:04	2359	895	100	35
10:08	2545	2196	1301	40
10:40	1592	2196		

Average pressure - 2300 psi, maximum pressure 2545 psi.
Average rate - 40 BPM, maximum rate - 40 BPM.

ISIP = 1592 psi. Shut in: 5 min. - 1484; 10 min. - 1405;
15 min. - 1356 psi.

Conclusion: both wells are TD'd in Fruitland coal approximately 150' apart. Monitoring #441R while BJ Services pumping different rates down #441. No evidence of communication between the two wells.

(Cont'd)

11-13-90 TIH with 8 jts drill pipe, 10' fill. Wash to TD with air and water.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns moderate to light 1/8" coal (97%), shale and siltstone in clear water.

Pull into 7" casing and pressure up with air and water to 1500 psi. Surge well. Did this three times. While surging well monitor tubing and casing pressures on #441; no change in pressures. Went back in hole, 25' fill.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (97%), shale and siltstone in clear water.

Have 3' flare. Well making approximately 200 BPD water.

11-14-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and blowing well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns moderate to heavy on sweeps, 1/4" and less coal (97%), shale and siltstone in gray water. Have 12-15' flare.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns light 1/8" coal (97%), shale and siltstone in clear water; moderate 1/4" coal on sweeps.

Water black with heavy coal fines from 7:30 a.m. until noon.

Shut in and pressure up to 1500 psi. Check tubing and casing pressures on #441 - no change. Surge well. Blow well around. Returns heavy 1/4" coal (98%), shale and siltstone in black water.

Circulate and blow well with 2 MM air and 1 BPM water with 10 Bbl water sweeps hourly. Returns moderate on sweeps, 1/8" coal (97%), shale and siltstone in clear water.

11-15-90 7" casing at 2979'; open hole 2979-3257'.

Pressuring up well with air.

Circulate and blow well with 2 MM air and 1 BPM with 15 to 20 Bbl water sweeps hourly. Returns on sweeps heavy 1/2" and less coal (95%) in black water; between sweeps, moderate 1/8" and less coal (98%) in clear water.

Lay down 8 jts drill pipe to surge well.

11-16-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 2 MM air and 1 BPM water, alternating 15 and 20 Bbl water sweeps hourly.

Surge well with 1200 psi air three times. TIH, had 4' fill. Circulate with 2 MM air and 1 BPM water, wash to bottom.

Lay down 8 jts drill pipe, run pitot test #2: 1/4 and 1 hr - 2 oz., 217 MCFD (dry). Surge well with 1200 psi air three times. TIH, had 13' fill.

Circulate and work pipe at TD with 2 MM air and 1 BPM water, alternating 15 and 20 Bbl water sweeps. Returns on sweeps heavy 1/2" and less coal; between sweeps moderate 1/8" coal (95%) in black to gray water.

11-17-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe at TD with 2 MM air and 1 BPM water, alternating 15 and 20 Bbl water sweeps hourly.

Circulate and work pipe at TD with 2 MM air and 1 BPM water, alternating 15 and 20 Bbl water sweeps hourly. Pull 8 jts for pitot test #3: 1/4 hr - 5 oz., 354 MCFD; 1/2 hr - 4-1/2 oz., 331; 3/4 and 1 hr - 4 oz., 309 MCFD (all gauges dry).

Surge well with 1200 psi air three times. TIH, had 15' fill.

Circulate to TD and work pipe with 2 MM air and 1 BPM water, alternating 15 and 20 Bbl water sweeps hourly. Returns on sweeps heavy; otherwise moderate 1/8" and less coal (95%) in gray water.

(Cont'd)

11-17-90 Lay down 8 jts drill pipe, surge well with 1200 psi air three times. TIH, circulate through bridges at 3115' and 3149', had 15' fill at TD.

Circulate and work pipe at TD with 2 MM air and 1 BPM water with 15 to 20 Bbl water sweeps hourly. Stuck pipe, well unloaded 1/2" and less coal in black water.

Estimated water production - 400-600 BPD.

11-18-90 7" casing at 2979'; open hole 2979-3257'.

Pressuring up wellbore to 1200 psi, Surge well twice, well unloaded heavy 1/2" coal and dust in black water.

Circulating and working pipe at TD with 2 MM air and 1 BPM water. Lay down 8 jts drill pipe, run pitot test #4: 1/4 hr - 12 oz., 539 MCFD; 1/2 and 3/4 hr - 11-1/2 oz., 520; 1 hr - 12 oz., 539 MCFD (all gauges heavy mist).

TIH, had 10' fill. Circulate to bottom, work pipe at TD with 2 MM air and 1 BPM water alternating 15 and 20 Bbl water sweeps each hour. Lay down 8 jts drill pipe, surge well with 1200 psi twice: on second surge hole bridged off in 7". Work pipe free. TIH, had 15' fill.

Circulate and work pipe at TD with 2 MM air and 1 BPM water alternating 15 and 20 Bbl water sweeps hourly. Hole sticky, returns on sweeps heavy to moderate 1/8" to coal fines in black to gray water.

Lay down 8 jts drill pipe, run pitot test #5: 1/4, 1/2, 3/4, and 1 hr - 12 oz., 539 MCFD (all gauges light mist).

Surge well wit 1200 psi.

11-19-90 7" casing at 2979'; open hole 2979-3257'.

Circulating and working pipe with 2 MM air and 1 BPM water with 20 Bbl water sweeps hourly. Returns light 1/8" coal (97%) in gray water.

Circulate and work pipe at TD with 2 MM air and 1 BPM water with 20 Bbl water sweeps hourly. Returns moderate to light 1/8" coal (97%) in gray water; moderate coal in black water on sweeps.

Lay down 8 jts drill pipe, pressure well to 1500 psi with air and water. Surge well, repeat three more times. TIH, had 15' fill. Returns heavy 1-1/2" and less coal (99%) in black water.

(Cont'd)

11-19-90 Circulate and work pipe at TD with 4 MM air and 1 BPM water with 20 Bbl water sweeps hourly. Returns heavy to moderate 1/2" and less coal (98%) in black water; heavy coal on sweeps.

Circulate and work pipe at TD with 3 MM air and 1 BPM water with 20 Bbl water sweeps hourly. Returns moderate 1/4" and smaller coal (98%) in gray water; moderate coal on sweeps.

Water rate - 619 BPD.

11-20-90 7" casing at 2979'; open hole 2979-3257'.

Pressuring up on back side to blow well around.

Circulate and work pipe at TD with 2 MM air and 1 BPM water with 20 Bbl water sweeps hourly. Returns light 1/8" coal (97%) in gray water with moderate coal in sweeps.

POOH with 8 jts for pitot test #6: 1/4 hr - 6 oz., 372 MCFD; 1/2 hr - 8 oz., 434; 3/4 hr - 12 oz., 539; 1 hr - 14 oz., 582 MCFD.

Run shut in test: 1/4 hr - 240 psi; 1/2 hr - 300; 3/4 hr - 400; 1 hr - 450 psi.

Water rate 597 BPD.

Pressure up well with air and water to 1500 psi, surge well, repeat three more times.

TIH, found 15' fill.

Circulate and work pipe at TD with 3 MM air and 1 BPM water with 20 Bbl water sweeps hourly. Returns heavy to moderate 1/4" and less coal (97%) in black to gray water with moderate coal on sweeps.

Hang off swivel, lay down drill pipe and drill collars. Change pipe rams, pick up expendable check, 1 jt 2-3/8" tubing, F nipple (1.875" ID), and 95 jts 2-3/8" tubing.

Run 96 jts (2970.16') 2-3/8" 4.7# J-55 EUE 8rd USS FBNAU tubing, set at 2984.16', F nipple at 2952.26'.

11-21-90 7" casing at 2979'; open hole 2979-3257'.

Rig released.

Blow well around with air. Heavy mist. Shut air off at 8:00 a.m. Well flowing, final gauge 21 oz., 700 MCFD. 600 BPD water. Shut well in.

Release rig and rig down.