

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

2003 FEB 28 PM 12:29

070 Farmington, NM

5. Lease Serial No.  
NMNM-6682

6. If Indian, Allottee or Tribe Name  
N/A

7. If Unit or CA/Agreement, Name and/or No.  
N/A

8. Well Name and No.

FEDERAL B #20

9. API Well No.  
30-043-20919

10. Field and Pool, or Exploratory Area  
Lybrook Gallup

11. County, Parish, State

Sandoval County, NM

**SUBMIT IN TRIPLICATE**

1. TYPE OF WELL

OIL GAS  
☒ WELL ☐ WELL ☐ OTHER

2. NAME OF OPERATOR

QUESTAR EXPLORATION AND PRODUCTION COMPANY

3. ADDRESS AND TELEPHONE NO.

1331 SEVENTEENTH STREET, SUITE 800, DENVER, CO 80202 303-672-6900

4. LOCATION OF WELL (FOOTAGE, SEC., T., R., M., OR SURVEY DESCRIPTION)

2035' FNL, 950' FEL; SW SE NE, Sec. 21, T23N, R7W

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

TYPE OF SUBMISSION

☒ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, A Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Plug and abandon subject well as per attached procedure. Estimated date to P&A is June, 2003.



14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Gary L. Ohlman

Title

Sr. Petroleum Engineer

Signature

*Gary Ohlman*

Date

February 26, 2003

(This space for Federal or State office use)

Approved by

Original Signed: Stephen Mason

Title

Date

3/27/03

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCB

## PLUG & ABANDONMENT PROCEDURE

### Federal B No. 20

Lybrook Gallup

2035' FNL and 950' FEL, Section 21, T23N-R7W

Sandoval County, New Mexico

Note: All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures.

1. Install and test location rig anchors. Prepare blow pit. Comply with all NMOC, BLM and Questar safety regulations. MI and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line. Blow down well, kill with water as necessary.
2. ND wellhead and NU BOP, test. TOH and tally 2 3/8" tubing and visually inspect.
3. **Plug #1 (Gallup perforations (5654' – 5870') and top, 5486')**: TIH with tubing and 4 1/2" CIBP. Set CIBP at +/- 5600'. Load casing with water. Pressure test casing to 500#. If casing does not test, spot or tag subsequent plug as appropriate. Spot cement plug inside the casing above the CIBP with enough cement to bring the top of the Gallup plug to 5436'. TOH with tubing.
4. **Plug #2 (Mesaverde top, 3767')**: Perforate 3 squeeze holes at 3817'. TIH w/ 2 3/8" workstring to +/- 3717'. Establish rate into squeeze holes and place the Mesaverde plug from 3717' – 3817' inside and outside the 4 1/2" casing.
5. **Plug #3 (Pictured Cliffs and Fruitland tops, 2270' - 2015')**: Perforate 3 squeeze holes at 2320'. TIH w/ 2 3/8" workstring to +/- 1965'. Establish rate into squeeze holes and place the Pictured Cliffs/Fruitland plug from 2320' – 1965' inside and outside the 4 1/2" casing.
6. **Plug #4 (Kirtland and Ojo Alamo tops, 1790' – 1739')**: Perforate 3 squeeze holes at 1740'. TIH w/ 2 3/8" workstring to +/- 1640'. Establish rate into squeeze holes. Establish rate into squeeze holes and place the Kirtland/Ojo Alamo plug from 1740' – 1640' inside and outside the 4 1/2" casing.
7. **Plug #5 (Nacimiento top, surface; 8 5/8" casing shoe at 373')**: Perforate 3 squeeze holes at 423'. Establish circulation out bradenhead valve. Mix and pump cement down the 4 1/2" casing from 423' to surface. Circulate good cement out bradenhead valve. Shut-in well and WOC.
8. ND BOP and cut off wellhead below surface casing. Install P&A marker to comply with regulations. RDMOSU, cut off anchors and restore location.

**Federal B 20**

Sec. 21-T23N-R7W

Sandoval County, New Mexico

BHL: 2035' FNL, 950' FEL

Drilled by BCO Inc.

Drill date: 2/15/94

Schematic - not drawn to scale

GL = 7445

KB = 7457

TVD = 5975

**SURFACE CASING:**

Casing Size	Weight (lb/ft)	Depth Set (MD)	Cementing Record (sacks)
8 5/8 "	24	373	275

**Cement Job**

8 - 5/8 " surface casing 373' to surface. 275 sacks Class B, 2% CaCl<sub>2</sub>, 1/4 lb flocele per sack mixed at 15.6 lbs with a yeild of 1.18 or 183 cubic feet. Cement circulated to surface

**PRODUCTION CASING:**

Casing Size	Weight (lb/ft)	Depth Set (MD)	Plug Back TD (MD)	Cementing Record (sacks)
4 1/2"	11.6	5972	5914	1150

**Cement Job**

Td to surface. Lead cement 1000 sacks 65/35 standard poz with 12% Bentonite, 6.25 pps Gilsonite, 1/4 pps Flocele and 0.6% Halad. Mixed at 11.3 ppg with a yield of 2.64 cfps. Tailed with 150 sacks Class "G" mixed with 8 pps salt, 1/2 pps Flocele 6.25 pps Gilsonite, 2% CaCl<sub>2</sub> Mixed at 15.2 ppg with a yield of 1.38 cfps.

**TUBING:**

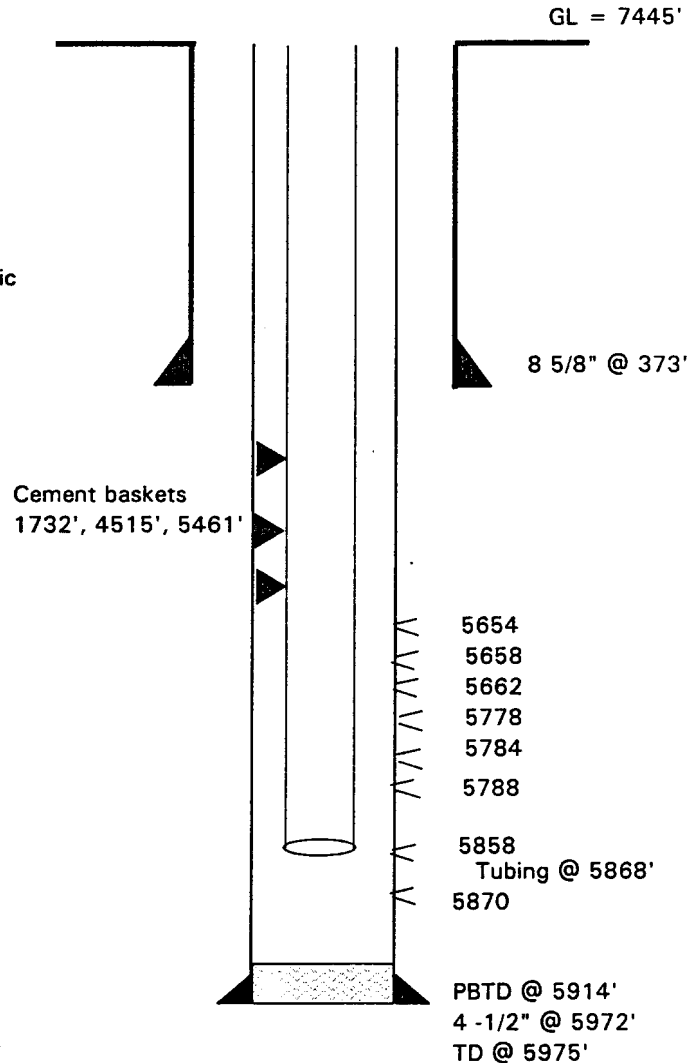
Tubing Size	Weight (lb/ft)	Depth Set (MD)
2 3/8"	4.7	5868

**PERFORATION RECORD**

Depth (MD)	Size (inches)	Number (SPF)
5654	0.39	1
5658	0.39	1
5662	0.39	1
5778	0.39	1
5784	0.39	1
5788	0.39	1
5858	0.39	1
5870	0.39	1

**COMMENTS**

August 94, completed restoration and reseedng of location  
Acid/Swab jobs done September 98, January 99, July 99

**ACID/FRACTURE JOB**

Sand Water foam fracked (70% quality foam) 5654-5870 with 190,000 gals foam, 362,600 lbs 16/30 Brady sand, and 3.4MMscf N<sub>2</sub>.