Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No. 1004-0137
Expires: March 31, 2003

	Expires: March 31, 20)
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SUNDRY NOTICES AND REPORTS ON WELLIS 1 2 Do not use this form for proposals to drift or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. SUBMIT IN TRIPLICATE- Other instructions of reverse side. 1. Type of Well	
Northeast Blanco Unit 8. Well Name and No. NEBU 66F 9. API Well No. 2 Charles PPO Box 6459, Farmington, NM 87419 10. Field and Pool, or Exploratory Basin Dakota 11. County or Parish, State San Juan, NM 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION 13. Describe Proposed or Completed Operation (clearly state all pertinent death, including estimated starting date of any proposed work and approximate of 1fthe proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent transface that 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 only after all requirements, including reclamation, have been completed, and the determined that the site is ready for final inspection.) The following is the new cementing design for the intermediate and production strings: Intermediate String: Cement will be circulated to surface. Leaf: 500 sx Of 50/50/Std/ Poz, Y4-1.45, Water Gal/Sk 6.8, Mixed @ 13ppg Foamed W/N2 Down To 9.0# Additives 2% Gel, 0.2 0.1% Diaged LMI. Tali: 75 sx 50/50 Poz with 94#/sx Standard Cement, 0.3% Halad-344, 25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuff/sx; Vagal/sx * Minor variations possible due to existing conditions Production String: TOC designed to circulate 1000° into intermediate string, cement will the into the intermediate casing as a minit Volumes may vary with actual well characteristics. Lead: 250 sx 50/50 Poz with 25% Standard Cement, 50% San Juan Poz, 3% Bentonite, 1.40% Halad-9, 1.0% CFR-3, 10% HR/S, Gilsonite, 0.25 #/sx Flocele. Mixed at 13 ppg, 1.47 ft 3/sx fe ppg, 2.18 ft 3/sx. Tali: 450 sx 50/50 Poz with 50% Standard Cement, 50% San Juan Poz, 3% Bentonite, 1.40% Halad-9, 1.0% CFR-3, 10% HR/S, Gilsonite, 0.25 #/sx Flocele. Density: 13.0 lb/gal;	ie
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Name (Printed/Typed)	amed to 9
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Melisa Zimmerman Title Senior Operations Technician	
Signature 115.30 Date 3-7-05	~ = 1 = 13°
HIS SPACE FOR FEDERAL OR STATE OFFICE USE	المستويال الم
Approved Date 3/14/c	2
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.	
itle 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 to any department or agent	

NEBU 66F Unit F 31-31N-7W San Juan Co., NM

DRILLING PLAN

1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS & ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:

Formation	TVD (ft)	TMD (ft)	Hydrocarbon/Water Bearing Zones
San Jose	Surface	Surface	
Ojo Alamo	2269	2316	Aquifer
Kirtland	2362	2412	
Fruitland	2844	2908	Gas
Pictured Cliffs	3349	3424	Gas
Lewis	3435	3510	Gas
Intermediate TD	3535	3610	
Mesaverde	4104	4179	Gas
Chacra \ Otera	4484	4559	
Cliff House	5276	5351	Gas
Menefee	5335	5410	Gas
Point Lookout	5601	5676	Gas
Mancos	6025	6100	Gas
Gallup	6975	7050	Gas
Greenhorn	7667	7742	
Graneros	7854	7800	Gas
Dakota	7698	7929	Gas
Paguate	7863	7938	
Cubero	7896	7971	
Oak Canyon	7942	8017	
Encinal Canyon	7959	8034	
Lower Encinal Canyon	8003	8078	

Burro Canyon	8036	8111	
Morrison	8066	8066	
TD	8066	8066	

^{*}All shows of fresh water and minerals will be adequately protected and reported.

2. Pressure Control Equipment:

All well control equipment shall be in accordance with Onshore Order #2 for 2M systems.

The minimum specifications for pressure control equipment that will be provided are included on the attached schematic diagram, which shows the size, and pressure ratings.

• 2000# BOP With Pipe Rams and 2000# BOP With Blind Rams

Auxiliary equipment to be used:

• Upper kelly cock with handle available.

The manifold includes appropriate valves and adjustable chokes. The kill line will have one check valve. Ram type preventers will be pressure tested to full working pressure (utilizing a test plug) or 70% of the internal yield pressure (without a test plug) at:

- Initial installation
- Whenever any seal subject to test pressure is broken
- Following related repairs
- At 30 day intervals

Pipe and blind rams shall be activated each trip.

A BOPE pit level drill will be conducted weekly for each drilling crew. All tests and drills will be recorded in the drilling log.

The accumulator will have sufficient capacity to close all rams and retain 200 psi above precharge pressure without the use of closing unit pumps.

Master controls will be at the accumulator. Anticipated bottom hole pressure is 3400 psi.

3. Casing & Cementing Program:

A. The proposed casing program will be as follows:

TVD	TMD	Hole Size	Size	Grade	Weight	Thread	Condition
0-285	0-285	12- 1/4"	9-5/8"	H-40	32#	STC	New
0-3535	0-3610	8-3/4"	7"	K-55	23#	LTC	New
0- TD	0- TD	6-1/4"	4-1/2"	J-55	11.6#	LTC	New

The 9-5/8" surface pipe will be tested to 750 psi. All casing strings below the surface shoe shall be pressure tested to 0.22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% minimum internal yield.

<u>Surface</u>: The bottom three joints of the surface casing will have a minimum of one centralizer per joint and one centralizer every joint thereafter (Total 5 centralizers estimated)

<u>Intermediate</u>: The bottom three joints of the 7" casing will have a minimum of one centralizer per joint and one centralizer every fifth joint thereafter to above Ojo Alamo with turbolizers below and throughout the Ojo Alamo. (Total 12 centralizers, 3 turbolizers estimated).

<u>Production</u>: The bottom three joints will have a minimum of one centralizer per joint and one centralizer every fifth joint to 3500' (estimated 25 centralizers used). Centralizers will be open bow spring or basket bow spring type.

B. The proposed cementing program will be as follows:

Surface String:

Cement will be circulated to surface.

Lead: 200 sks Class "B" with 100% Standard Cement, 2.00% CaCl2, .25 #/sk Flocele. Density. 15.6 lb/gal; Yield: 1.18 cuft/sk; Water: 5.24 gal/sk

* Minor variations possible due to existing conditions

Intermediate String:

Cement will be circulated to surface.

Lead: 500 sx 50/50 Poz, Yd-1.45, Water Gal/sx 6.8, Mixed @ 13ppg Foamed W/ N2 Down To 9.0# Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.

Tail: 75 sx 50/50 Poz, Yd-1.45, Water Gal/Sk 6.8, Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.

* Minor variations possible due to existing conditions

If hole conditions dictate, an alternate, cement design will be used:

Lead: 575 sx 50/50 Poz with 50% Class B Cement, 50% San Juan Poz, .4% Halad-344, .1% CFR-3, 3% Bentonite, 5#/sx Gilsonite, .25#/sx Flocele. Density: 13.0 lb/gal; Yield: 1.46 cuft/sx; Water: 6.42 gal/sx

Tail: 75 sx 50/50 Poz with 94#/sx Standard Cement, 0.3% Halad-344, .25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sx; Water: 5.23 gal/sx

* Minor variations possible due to existing conditions

Production String:

TOC designed to circulate 1000' into intermediate string, cement will tie into the intermediate casing as a minimum. Volumes may vary with actual well characteristics.

Lead: 250 sx 50/50 Poz with 2% Gel, 0.2% Halad, 0.1% CFR-3, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Mixed at 13 ppg, 1.47 ft 3/sx foamed to 9 ppg, 2.18 ft 3/sx.

Tail: 450 sx 50/50 Poz with 50% Standard Cement, 50% San Juan Poz, 3% Bentonite, 1.40% Halad-9, .10% CFR-3, .10% HR-5, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Density: 13.0 lb/gal; Yield:

1.47 cuft/sx; Water: 6.35 gal/sx *

Actual volumes will be calculated and adjusted with caliper log prior to cementing.

4. DRILLING FLUIDS PROGRAM:

TVD Interval	TMD Interval	Туре	Weight (ppg)	Viscosity	рН	Water Loss	Remarks
0-285'	0-285'	Spud- foam	8.4-9.0	29-70	8.0	NC	FW gel, LSND or stiff foam
285'-3535'	285'-3610'	Air				NC	
3535' - TD	3610' - TD	Air/N2 or Mud	8.5-9.0*	30-50	8.0-10.0	8-810cc @ TD	Low solids- non-dispersed. * min Wt. to control formation pressure

NC = no control

Sufficient quantities of mud material will be maintained on site or be readily accessible for the purpose of assuring well control. SPR will be recorded on daily drilling report after mudding up. Visual mud monitoring will be conducted during operations.

5. EVALUATION PROGRAM:

Logs:

Density

Neutron Induction

In the event open hole logs are not run in the well, a cased hole evaluation log will Be run.

Survey:

Deviation surveys will be taken every 500' from 0-TD or first succeeding bit change. The hole will be air drilled from intermediate casing point to TD. The equipment used in this type of operation will not allow for single shot surveys without considerable operational delays. A survey will be taken at TD. Similar wells in this area have not shown significant deviation in this section of the hole.

Cores:

None anticipated.

DST's:

None anticipated.

^{*} Minor variations possible due to existing conditions

6. ABNORMAL CONDITIONS:

The Fruitland Coal will be encountered in the 8-3/4" hole. Estimated formation pressure is 300 psi. No other abnormal pressures and/or temperatures are expected. No hydrogen sulfide should be present.

7. OTHER INFORMATION:

The anticipated starting date and duration of the operation will be as follows:

Starting Date:

Upon Approval

Duration:

20 days

If the well is completed as a dry hole or as a producer, Well Completion or Recompletion Report and Log (Form 3160-4) will be submitted within 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3160. Copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, daily drilling reports, daily completion reports, and all other surveys or data obtained and compiled during the drilling, completion, and/or workover operations, will be submitted directly to the Authorized Officer or filed with Form 3160-4.