

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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JUL 30 2010

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator **Enervest Operating LLC**

3a. Address
1001 Fannin Street, Suite 300, Houston, TX 77002

3b. Phone No. (include area code)
713-495-6537

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

At Surface: 660' FSL, 1980' FWL - Unit Letter N, Section 7, T-23-S, R-32-E

5. Lease Serial No.
NM-86151

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
BLUE QUAIL FEDERAL #3 ✓

9. API Well No.
30-025-39818 ✓

10. Field and Pool, or Exploratory Area
SAND DUNES, BONE SPRINGS

11. County or Parish, State
LEA COUNTY, NEW MEXICO ✓

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

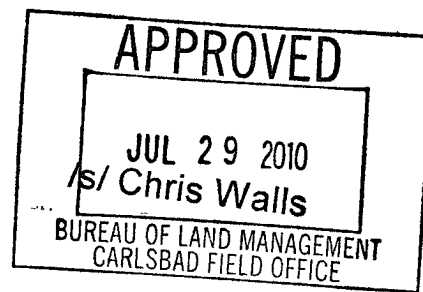
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input 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.)

Change to casing string (New revised casing diagram attached)

Change to cementing program (New revised cementing program attached)

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**



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

Gary E. Miller

Title Agent

Signature

Date

7-23-10

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

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.

PETROLEUM ENGINEER

Title

Date

AUG 03 2010

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 to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

7m

BLUE QUAIL FEDERAL #3				ENERVEST OPERATING					
WELL				DATE			7/12/2010		
TYPE	VERTICAL	RIG	TBD	ELEVATION			3,548' GL		
FIELD	SAND DUNES	COUNTY	LEA	CEMENT			BJ SERVICES		
GAS/OIL	OIL	MUD	BAROID	SBHT					
LOCATION 660' FSL & 1980' FWL OF SEC. 7, T23S, R32E									
COMMENTS: OBJECTIVE FORMATIONS: BONE SPRING SAND, AVALON SAND									
NOTE									
MUD- LOGGER	SURVEYS	WOB/GPM BIT	FORMATION TOPS HOLE SIZES	VERTICAL DEPTH	MUD WEIGHT	OPEN HOLE LOGS	CEMENT	WELLHEAD	REMARKS
300'/600'/TD 10/50/900				17-1/2"	8.4-8.9	GR/N (C.H.)	Cement to surface (100% Excess) Lead: 540 Sks Class C, 2% CaCl2, LCM, 4% Gel (1.75 yield, 13.5ppg) Tail: 200 Sks Class C, 2% CaCl2 (1.34 yield, 14.8ppg)		
Insert				13-3/8" 48# H-40 STC Casing			850		
Every 1000' 10/25/700				12-1/4"	10 ppg Brine	GR/N (C.H.)	Cement to surface (50% Open Hole Excess) Lead: 940 Sks 50/50 POZ.C, 5% NaCl, LCM, 10% Gel, 0.1% Sodium Metasilicate (2.45 Yield, 11.8ppg) Tail: 370 Sks 50/50 POZ.C, 5% NaCl, LCM, 2% Gel (1.3 Yield, 14.2ppg)		
or less PDC							4,000	TOC (5-1/2" String)	
Motor				Base of Salt	4,400				
8-5/8" 32# J-55 STC Casing				4,600					
Every 1000' 10/25/500				Cherry Canyon	5,511	8.9-9.3 Cut Brine			
or less PDC (FX65R)									
Motor									
6,000'				7-7/8"	0	DV Tool @ 6,000'	Bring cement into intermediate casing @ 4000' Use 15% Excess Over OH Caliper Volume Stage 1 (Estimated Volume): Lead: 440 Sks 15/61/11 POZ.Premium Plus C: CSE-2, 3% NaCl, 0.1% Sodium Metasilicate (1.61 Yield, 13.2ppg)		
H2S Equip. Operational									
				Brushy Canyon	8,235				
				Bone Spring	8,522				Dual Induction, Spectra GR, Litho Density Neutron
				Avalon Sand	8,624				
5-1/2" 17# N-80 LTC Casing				8,800					
					OFFICE				HOME
AFE #	TBD	REGULATORY							
EV #	TBD	SAFETY, HEALTH & ENVIRONMENTAL							
API #	TBD	GEOLOGIST							

ENERVEST OPERATING, LLC
BLUE QUAIL FEDERAL #3
660' FSL & 1980' FWL SEC 7, T23S, R32E
LEA COUNTY, NM

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1. The estimated tops of geologic markers are as follows:

Base of Salt	4400'	Cherry Canyon	5511'	Avalon Sand	8624'
Lamar Lime	4572'	Brushy Canyon	8235'	TD	8800'
Ramsey Sand	4608'	Bone Spring	8522'		

2. The estimated depths at which anticipated water, oil or gas bearing formations are expected to be encountered:

Water: 150 – 250'

Oil or Gas: 5600 – 8700'

3. **PRESSURE CONTROL EQUIPMENT:** BOPE will be installed on the 13 3/8" casing and rated for at least 3M. BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

- 3A. **AUXILIARY EQUIPMENT:** Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and drill collars will be available on the rig floor in the open position at all times for use when the Kelly is not in use.

4. **PROPOSED CASING AND CEMENTING PROGRAM:**

A. Casing Program: (All New)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt/ft</u>	<u>Grade</u>	<u>Thread</u>	<u>Interval</u>	<u>Length</u>	<u>Safety Factors</u>
17 1/2"	13 3/8"	48#	H-40	STC	0 – 850'	850'	1.86 (c) 3.26 (b) 7.89 (t)
12 1/4"	8 5/8"	32#	J-55	LTC	0 – 4600'	4600'	1.32 (c) 1.41 (b) 2.73 (t)
7 7/8"	5 1/2"	17#	J-55	LTC	0 – 8800'	8800'	1.48 (c) 1.55 (b) 2.33 (t)

B. Cementing Program:

Surface Casing: 540 sks Class "C" + 4% Gel + 2% CaCl₂ (wt. 13.5 ppg, Yield 1.75 cu ft/sk) & 200 sks Class "C" + 2% CaCl₂ (wt. 14.8 ppg, Yield 1.34 cu ft/sk) Circulate to surface.

Intermediate Casing: 930 sks of 50/50 Poz "C" + 10% Gel + 5% Salt (wt. 11.8 ppg, Yield 2.45 cu ft/sk) & 370 sks 50/50 Poz "C" + 2% Gel + 5% Salt (wt. 14.2 ppg, Yield 1.3 cu ft/sk) Circulate to surface.

Production Casing: 1st stage: 440 sks (15:61:11) Poz: Premium "C": CSE-2 + 3% Salt (wt. 13.2 ppg, Yield 1.61 cu ft/sk) DV Tool set at approx. 6000'. 2nd stage: 100 sks 50/50 Poz "C" + 10% Gel (wt. 11.8 ppg, Yield 2.45 cu ft/sk) & 235 sks 50/50 Poz "C" + 2% Gel (wt. 14.2 ppg, Yield 1.26 cu ft/sk) Tie back to Intermediate Casing (500'). Volumes to be adjusted to caliper volume + 15%

5. **MUD PROGRAM AND AUXILIARY EQUIPMENT:**

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-850	FW Gel	8.4 – 8.9	32-36	N/C
850-4600	Brine	10.0	28	N/C
4600-TD	Cut Brine	8.9 – 9.3	28	<15.0

Sufficient mud material to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

6. **EVALUATION PROGRAM:**

Samples: Every 10' from intermediate casing to TD
Logging: G/R/N from surface to TD; Dual Induction Spectra G/R, Litho Density from 4500' to TD
Coring: None anticipated
DST's: None anticipated

7. **ABNORMAL CONDITIONS AND ANTICIPATED BHP:**

From 0 – 850': Anticipated Max. BHP: 250 psi
From 850 – 4600': Anticipated Max. BHP: 750 psi
From 4600 – 8800' (TD): Anticipated Max. BHP: 2620 psi

Anticipated Potential Hazards: None

Abnormal Pressures Anticipated: None

Lost circulation Zones Anticipated: per COA – Glorieta, Delaware, Bone Spring

H₂S Zones Anticipated: Per COA – Bone Spring – Hydrogen Sulfide Drilling Plan to be activated 500' prior to drilling the Bone Spring formation.

Maximum Bottom Hole Temperature: 160° F

8. **ANTICIPATED STARTING DATE:**

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 16 days to drill the well with completion taking another 10 days. This well lies in the CRMA prairie chicken area as defined by the 1966 NM GAP analysis study; NM State University. ENERVEST OPERATING, LLC REQUESTS AN EXEMPTION FROM THE MARCH 15 – JUNE 15 PRAIRIE CHICKEN STIPS FOR THE DRILLING, COMPLETION & WORKOVER PHASES OF THIS WELL. Enervest contends that there are no prairie chickens in this area, as supported by the attached field survey prepared by _____.

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**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	EnerVest Operating LLC
LEASE NO.:	NMNM86151
WELL NAME & NO.:	Blue Quail Federal #3
SURFACE HOLE FOOTAGE:	660' FSL & 1980' FWL
LOCATION:	Section 07, T. 23 S., R 32 E., NMPM
COUNTY:	Lea County, New Mexico

A. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible lost circulation in the Glorieta, Delaware and Bone Spring Groups/Formations.

Possible water flows in the Salado, Castile, Blinbry, Delaware and Bone Spring Groups/Formations.

1. The 13-3/8 inch surface casing shall be set at approximately **850** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **The Rustler may be slightly deeper than 850, ensure casing is set 25 feet into the Rustler Anhydrite.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
- 3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
 - b. Second stage above DV tool, cement shall:
 - ☒ Cement should tie-back at least **500** feet into previous casing string. Operator shall provide method of verification. **Will require additional cement as the excess calculates to negative 49%.**
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

CRW 072910