United States Department of the Interior

BUREAU OF LAND MANAGEMENT
MONTROSE DISTRICT OFFICE
2465 SOUTH TOWNSEND
MONTROSE, COLORADO 81401

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

Notice to Lessees and Operators of
Onshore Oil and Gas Leases within
the Ignacio-Blanco Field
Southern Colorado
NTL-MDO-91-1

This notice is issued pursuant to the authority delegated to the Authorized Officer under 43 CFR 3161.2 and 43 CFR 3164.2. This notice implements oil and gas operating regulations under 43 CFR 3160 and the terms and conditions of the Federal and Indian Oil and Gas leases. In accordance with the regulatory guidelines referenced above, lessees and operators shall conduct operations in a manner which protects the health and safety of life, natural resources and the environment. Operations shall also be conducted in a manner which results in maximum economic recovery of the oil and gas resources with a minimum amount of waste.

I. Background

Recently, several domestic water wells within the Ignacio-Blanco Field have been tested positive for methane contamination. The source and degree of contamination is not absolutely known. Public concern over this phenomena has prompted Federal, State, local governments, and industry groups to address this problem. During this review, the San Juan Resource Area required site specific bradenhead testing on all wells directly offsetting active coal bed methane development. This type of selective testing has proven to be beneficial in assessing wellbore mechanical integrity.

II. Requirement

In order to assess the mechanical integrity of all wells in the Ignacio-Blanco Field and to maintain consistency between agencies, bradenhead testing will be required annually for all wells located on Federal and Indian mineral estates within the Ignacio-Blanco field. All initial tests must be performed and results submitted to the San Juan Resource Area Office by January 1, 1992, then annually thereafter. In addition, wellbore diagrams for each well must be submitted with the bradenhead test. This testing requirement is prescribed in order to detect the existence of wellbore mechanical failure and/or conditions which could lead to impacts to groundwater and possible loss of the hydrocarbon resource. Further mechanical integrity testing or remedial operations may be necessary should information obtained by the bradenhead test warrant further action.

III. Definitions

As used in this notice, terms are defined as follows:

A. "Authorized Officer"(AO)- shall mean the San Juan Resource Area Manager

B. "Bradenhead Testing"- A test which identifies pressure in the annular space of a wellbore. The test shall be conducted using the Attachment 1 form and in the following manner unless otherwise approved by the AO:

1) Provide a listing to the AO of all wells scheduled for bradenhead testing. At least 10 working days advanced notice is required before commencing testing operations. Bradenhead valves must be piped to surface prior to conducting the tests and all valves must be maintained in a workmanlike manner for all future testing operations.

2) Using a deadweight tester or calibrated test gauge, measure pressure in the annular space(s) of the wellbore including the tubing string.

3) If pressure is evident in the wellbore annular space(s), provide gas analysis for each side having pressure in excess of 25 psig., along with the most recent gas analysis from the producing Formation(s). Should liquid flow from the annular space(s) be evident, provide an analysis of the liquid along with the test report.

4) Separately open each annular space (except for the tubing/casing annular space) to the atmosphere beginning with the bradenhead and measure the blowdown time; note the pressure changes in the adjacent annular space(s), if any, and record these pressures at 5 minute intervals up to 30 minutes using attachment 1.

5) Characterize the fluid flow from the bradenhead (i.e. is the flow steady, surging, or does it blow down to nothing). Shut-in the annular space(s) for future bradenhead testing. Submit three copies of the bradenhead test, gas and liquid analysis as necessary, and wellbore diagrams within 30 days of completion of testing operations.

C. "Mechanical Integrity Testing"- any test which measures mechanical integrity by inducing positive pressure and measuring pressure leak-off; or any other method of testing acceptable to the AO.

D. "Wellbore Diagram"- A diagram which provides a specific well's casing and cementing program including casing weights and grades, casing setting depths, cement volumes including type and additives, hole sizes, top(s) of cement, and formation tops. Diagrams must indicate whether the top(s) of cement were determined by calculation, temperature survey, cement bond log or other method. Also, the well's name, location, and lease number must be provided. See Attachment 2 for example diagram.

IV. Remedial Action Requirements

Should the results of these tests indicate abnormal pressure changes between wellbore annular spaces indicative of casing leaks, remedial action (e.g. squeeze cementing) or additional mechanical integrity testing will be required. These actions can only be performed after prior approval from the AO.

23 July 91
Date

Ken Herman ACTING
Montrose District Manager

Attachments

BRADENHEAD TEST REPORT

Date of Test: _____ Operator: _____

Lease No.: _____ Well No. & Name: _____

Location: Q/Q: _____ Sec. _____ Twp. _____ Rge. _____

INITIAL PRESSURES (in psi)

Well Status (Circle One): Shut-in Flowing

No. of Casing Strings (Circle One): Two Three

Tubing: _____ Casing: _____ Intermediate: _____ Bradenhead: _____

TIME:	PRESSURES: INTERMEDIATE	CASING
5 Min.		
10 Min.		
15 Min.		
20 Min.		
25 Min.		
30 Min.		

	BRADENHEAD FLOWED		INTERMEDIATE FLOWED:	
	Yes	No	Yes	No
Steady Flow				
Surges				
Down to Nothing				
Nothing				
Gas				
Gas & Water				
Water				

If Bradenhead flowed water, check description below:

Clear _____

Fresh _____

Salty _____

Sulfur _____

Black _____

Remarks: _____

TEST WAS PERFORMED BY (Printed Name and Title):

_____

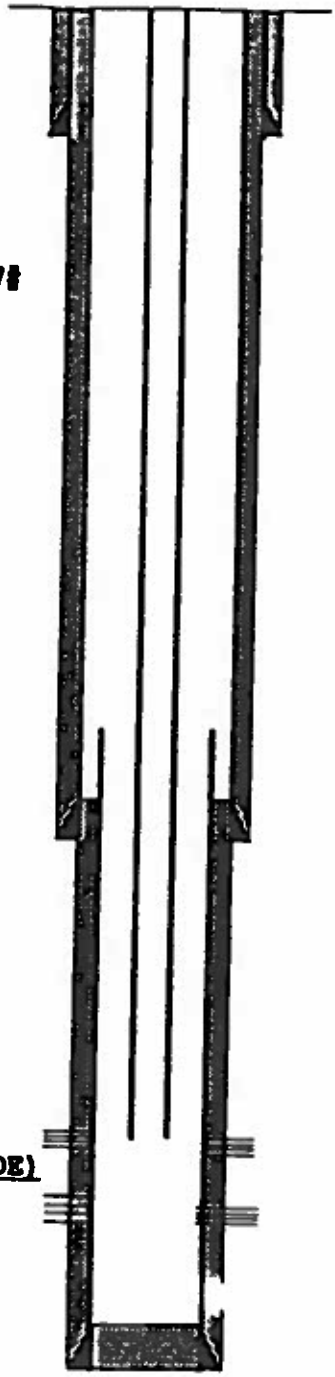
I HEREBY CERTIFY THE FOREGOING IS TRUE AND CORRECT:

SIGNATURE: _____ DATE: _____ PHONE NO. _____

TITLE: _____

SAMPLE WELLBORE SKETCH

NOTE: If bond log or temperature survey are not available to verify cement top, and cement was not circulated to surface, include cement type, additives, yield, and volumetrics used in calculating cement top.



9-5/8",36#,J-55 csg set @252' in 13-3/4" hole and cmtd to surface w/250 sx cmt. (CIRC)

5564' of 2-3/8',4.7# J-55 8rd EUE tbg.

GEOLOGIC MARKERS

OJO ALAMO @ 2627'
KIRTLAND 3152'
FRUITLAND @ 3469'
PICTURED CLIFF @ 3950'
LEWIS SHALE @ 4120'
CLIFF HOUSE @ 5610'
MENEFEE @ 6064'
POINT LOOKOUT @ 6339'
UPPER MANCOS @ 6667'

7",23#, N-80 csg set @ 4266' in 8-3/4" hole cmtd to surface w/950 sx cmt. (CIRC)

4-1/2",10.5#,K-55 LT&C lnr w/213' overlap into 7"csg liner from 6765' to 4043' cmtd to 4270 w/240 sx cmt. (CBL)

PERFORATION (MESAVERDE)
6664'-6163'
6045'-5618'

PBD 6717'
TD 6765'

Attachment #2

BRADENHEAD TEST PROCEDURE:

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PAT: THIS IS ENCLOSURE SENT PETRO-ENGLO.