

FORM
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6/99State of Colorado
Oil and Gas Conservation Commission

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Document Number:

400080411

BRADENHEAD TEST REPORT

Step 1. Record all tubing and casing pressures as found. Step 2. Sample now. If intermediate or surface casing pressure > 25 psi. In sensitive areas, 1 psi.
 Step 3. Conduct Bradenhead test. Step 4. Conduct intermediate casing test. Step 5. Send report to BLM within 3 days and to OGCC within 10 days. Include wellbore diagram if not previously submitted or if wellbore configuration has changed since prior program. Attach gas and liquid analyses if sampled.

1. OGCC Operator Number: 100322 3. BLM Lease No: _____
 2. Name of Operator: NOBLE ENERGY INC
 4. API Number: 05-123-15816-00 5. Multiple completion? ☐ Yes ☐ No
 6. Well Name: SPIKE ST GWS Number: C 24-16
 7. Location (QtrQtr, Sec, Twp, Rng, Meridian): SESE,24,4N,64W,6
 8. County WELD 9. Field Name: WATTENBERG
 10. Minerals: ☐ Fee ☐ State ☐ Federal ☐ Indian

11. Date of Test: 02/23/2010

12. Well Status: ☐ Flowing
☐ Shut In ☐ Gas Lift
☐ Pumping ☐ Injection
☐ Clock/Intermitter
☒ Plunger Lift

13. Number of Casing Strings:
☒ Two ☐ Three ☐ Liner?

14. EXISTING PRESSURES

Record all pressures as found	Tubing: 150 Fm: _____	Tubing: _____ Fm: _____	Prod Csg 195 Fm: _____	Intermediate Csg: _____	Surf. Csg 0
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BRADENHEAD TEST

Buried valve? ☐ Yes ☒ NoConfirmed open? ☒ Yes ☐ No

With gauges monitoring production, intermediate casing and tubing pressures, open surface casing (bradenhead) valve (if no intermediate casing, monitor only the production casing and tubing pressures.)
 Record pressures at five minute intervals Define characteristics of flow in "Bradenhead Flow" column using letter designations below:
 O = No Flow; C = Continuous; D = Down to 0; V = Vapor
 H = Water H₂O; M = Mud; W = Whisper; S = Surge; G = Gas

BRADENHEAD SAMPLE TAKEN?

☐ Yes ☒ No ☐ Gas ☐ LiquidCharacter of Bradenhead fluid: ☐ Clear ☐ Fresh☐ Sulfur ☐ Salty ☐ Black

Other:(describe)

Sample cylinder number: _____

Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:
00:00	150		195		D

Instantaneous Bradenhead PSIG at end of test: > 0

INTERMEDIATE CASING TEST

Buried valve? ☐ Yes ☐ NoConfirmed open? ☐ Yes ☐ No

With gauges monitoring production, intermediate casing and tubing pressures, open the intermediate casing valve. Record pressures at five minute intervals Characterize flow in "Intermediate Flow" column using letter designations below:
 O = No Flow; C = Continuous; D = Down to 0; V = Vapor
 H = Water H₂O; M = Mud; W = Whisper; S = Surge; G = Gas

INTERMEDIATE SAMPLE TAKEN?

☐ Yes ☐ No ☐ Gas ☐ LiquidCharacter of Intermediate fluid: ☐ Clear ☐ Fresh☐ Sulfur ☐ Salty ☐ Black

Other:(describe)

Sample cylinder number: _____

Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:

Instantaneous Intermediate Casing PSIG at end of test: >

Comments:

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Test Performed By: Gary Brousseau Title: lead pumper Phone: (970) 785-5000

Signed: Gary Brousseau Title: lead pumper Date: 7/28/2010

Witnessed By: _____ Title: _____ Agency: _____