

State of Colorado  
Energy & Carbon Management Commission

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Document Number:  
403980062

BRADENHEAD TEST REPORT

Step 1. Before opening any valves, record all tubing and casing pressures as found.  
Step 2. Collect liquid and gas samples as required; consult Bradenhead Testing and Reporting Instructions and Guidance for field specific Orders at <http://ecmc/reg.html#/opguidance>  
Step 3. Conduct Bradenhead test.  
Step 4. Submit Form 17 within 10 days of test. Attach a wellbore diagram if not previously submitted or if wellbore configuration has changed since last wellbore diagram was submitted.  
Step 5. Submit sample analytical results via Form 43.

1. ECMC Operator Number: 100322 3. BLM Lease No: \_\_\_\_\_  
2. Name of Operator: NOBLE ENERGY INC  
4. API Number; 05-123-34185-00 5. Multiple completion? ☐ Yes ☐ No  
6. Well Name: McKay Federal Number: AB02-15  
7. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE,2,7N,64W,6  
8. County WELD 9. Field Name: TOM CAT  
10. Minerals: ☐ Fee ☐ State ☐ Federal ☐ Indian

11. Date of Test: 10/30/2024

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: 0<br>Fm: _____ | Tubing: _____<br>Fm: _____ | Prod Csg 55<br>Fm: _____ | Intermediate<br>Csg: _____ | Surf. Csg<br>332 |
|-------------------------------|------------------------|----------------------------|--------------------------|----------------------------|------------------|
|-------------------------------|------------------------|----------------------------|--------------------------|----------------------------|------------------|

BRADENHEAD TEST

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.  
Describe character of flow in "Bradenhead Flow" column: O = No Flow; C = Continuous; D = Down to 0; S = Surge; W = Whisper  
Describe fluid type in "Bradenhead Fluid" column: H = Water H<sub>2</sub>O; M = Mud; G = Gas; V = Vapor; L = Liquid Hydrocarbon; H & M = Water & Mud; H & G = Water & Gas; H & V = Water & Vapor; M & G = Mud & Gas; M & V = Mud & Vapor; G & V = Gas & Vapor; H & L = Water & Liquid Hydrocarbon; M & L = Mud & Liquid Hydrocarbon; G & L = Gas & Liquid Hydrocarbon; V & L = Vapor & Liquid Hydrocarbon; N = None

|                                                                                                                                             |                                                                      |            |             |               |                     |                  |                   |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------|-------------|---------------|---------------------|------------------|-------------------|
| Buried valve? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                                                           | Elapsed Time (Min:Sec)                                               | Fm: Tubing | Fm: Tubing: | Prod Csg PSIG | Intermedia Csg PSIG | Bradenhead Flow: | Bradenhead Fluid: |
| Confirmed open? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                         | 00:00                                                                | 0          |             | 55            |                     | CONTINUOUS       | WATER AND GAS     |
| BRADENHEAD SAMPLE TAKEN?                                                                                                                    | 05:00                                                                | 0          |             | 55            |                     | CONTINUOUS       | WATER AND GAS     |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Gas <input checked="" type="checkbox"/> Liquid | 10:00                                                                | 0          |             | 55            |                     | CONTINUOUS       | WATER AND GAS     |
| Character of Bradenhead fluid:                                                                                                              | 15:00                                                                | 0          |             | 55            |                     | CONTINUOUS       | WATER AND GAS     |
| <input type="checkbox"/> Clear <input type="checkbox"/> Fresh                                                                               | 20:00                                                                | 0          |             | 55            |                     | CONTINUOUS       | WATER AND GAS     |
| <input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black                                               | 25:00                                                                | 0          |             | 55            |                     | CONTINUOUS       | WATER AND GAS     |
| Other:(describe)                                                                                                                            | 30:00                                                                | 0          |             | 55            |                     | CONTINUOUS       | WATER AND GAS     |
| water sample taken                                                                                                                          | REQUIRED - Instantaneous Bradenhead Pressure at End of Test: 15 PSIG |            |             |               |                     |                  |                   |

## INTERMEDIATE CASING TEST

With gauges monitoring production, intermediate casing and tubing pressures, open the intermediate casing valve. Record pressures at five minute intervals.

Describe character of flow in "Intermediate Flow" column: O = No Flow; C = Continuous; D = Down to 0; S = Surge; W = Whisper

Describe fluid type in "Intermediate Fluid" column: H = Water H<sub>2</sub>O; M = Mud; G = Gas; V = Vapor; L = Liquid Hydrocarbon; H & M = Water & Mud; H & G = Water & Gas; H & V = Water & Vapor; M & G = Mud & Gas; M & V = Mud & Vapor; G & V = Gas & Vapor; H & L = Water & Liquid Hydrocarbon; M & L = Mud & Liquid Hydrocarbon; G & L = Gas & Liquid Hydrocarbon; V & L = Vapor & Liquid Hydrocarbon; N = None.

|                                                                                                                                                                                                                                 |                                                                                  |            |             |               |                       |                    |                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------|-------------|---------------|-----------------------|--------------------|---------------------|
| Buried valve? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                          | Elapsed Time (Min:Sec)                                                           | Fm: Tubing | Fm: Tubing: | Prod Csg PSIG | Intermediate Csg PSIG | Intermediate Flow: | Intermediate Fluid: |
| Confirmed open? <input type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                        | 00:00                                                                            |            |             |               |                       |                    |                     |
| INTERMEDIATE SAMPLE TAKEN?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid                                                                             | 05:00                                                                            |            |             |               |                       |                    |                     |
|                                                                                                                                                                                                                                 | 10:00                                                                            |            |             |               |                       |                    |                     |
|                                                                                                                                                                                                                                 | 15:00                                                                            |            |             |               |                       |                    |                     |
| Character of Intermediate fluid:<br><input type="checkbox"/> Clear <input type="checkbox"/> Fresh<br><input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black<br>Other:(describe)<br>_____ | 20:00                                                                            |            |             |               |                       |                    |                     |
|                                                                                                                                                                                                                                 | 25:00                                                                            |            |             |               |                       |                    |                     |
|                                                                                                                                                                                                                                 | 30:00                                                                            |            |             |               |                       |                    |                     |
|                                                                                                                                                                                                                                 | REQUIRED - Instantaneous Intermediate Casing Pressure at End of Test: _____ PSIG |            |             |               |                       |                    |                     |

Comments: Pressure through out test, fluid constant also. water sample taken, engineer request

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

Test Performed By: todd stuart Title: \_\_\_\_\_ Phone: ( ) \_\_\_\_\_

Signed: evan varnas Title: regulatory analyst Date: 11/2/2024

Witnessed By: \_\_\_\_\_ Title: \_\_\_\_\_ Agency: \_\_\_\_\_