



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: 69175 3. BLM Lease No: _____
 2. Name of Operator: PDC ENERGY INC
 4. API Number; 05-123-42661-00 5. Multiple completion? ☐ Yes ☐ No
 6. Well Name: Brown Number: 23P-201
 7. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSE,23,5N,65W,6
 8. County WELD 9. Field Name: WATTENBERG
 10. Minerals: ☐ Fee ☐ State ☐ Federal ☐ Indian

11. Date of Test: 06/16/2017
 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: <u>1215</u> Fm: _____	Tubing: _____ Fm: _____	Prod Csg <u>1790</u> Fm: _____	Intermediate Csg: _____	Surf. Csg <u>130</u>
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BRADENHEAD TEST

Buried valve? ☐ Yes ☒ No
 Confirmed 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

Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:
00:00	<input type="checkbox"/> 1215	<input type="checkbox"/>	<input type="checkbox"/> 1790		C
05:00	<input type="checkbox"/> 1215	<input type="checkbox"/>	<input type="checkbox"/> 1790		D
10:00	<input type="checkbox"/> 1215	<input type="checkbox"/>	<input type="checkbox"/> 1790		O
15:00	<input type="checkbox"/> 1215	<input type="checkbox"/>	<input type="checkbox"/> 1790		O
20:00	<input type="checkbox"/> 1215	<input type="checkbox"/>	<input type="checkbox"/> 1790		O
25:00	<input type="checkbox"/> 1215	<input type="checkbox"/>	<input type="checkbox"/> 1790		O
30:00	<input type="checkbox"/> 1215	<input type="checkbox"/>	<input type="checkbox"/> 1790		O

BRADENHEAD SAMPLE TAKEN?
☒ Yes ☐ No ☒ Gas ☐ Liquid
 Character of Bradenhead fluid: ☐ Clear ☐ Fresh
☐ Sulfur ☐ Salty ☐ Black
 Other:(describe) _____
 Sample cylinder number: _____

Instantaneous Bradenhead PSIG at end of test: > 0

INTERMEDIATE CASING TEST

Buried valve? ☐ Yes ☐ No
 Confirmed 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

Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

INTERMEDIATE SAMPLE TAKEN?
☐ Yes ☐ No ☐ Gas ☐ Liquid
 Character of Intermediate fluid: ☐ Clear ☐ Fresh
☐ Sulfur ☐ Salty ☐ Black
 Other:(describe) _____
 Sample cylinder number: _____

Instantaneous Intermediate Casing PSIG at end of test: > _____

Comments:

Post Production Tests. Initial pressure at start of test was 130 PSI, pressure decreased throughout test. Bradenhead gas as well as production gas sample was collected and will be submitted pending sample analysis. Well is currently on 7 day blow down and set up for automation to monitor any pressur build up. all results will be reported via sundry.

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

Test Performed By: Justin Heikes Title: NWT Lead Pumper Phone: (970) 5069272

Signed: Jenifer Hakkarinen Title: Reg TEch Date: 6/29/2017

Witnessed By: _____ Title: _____ Agency: _____