



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: 10531 3. BLM Lease No: _____

2. Name of Operator: VANGUARD OPERATING LLC

4. API Number; 05-045-09221-00 5. Multiple completion? ☒ Yes ☐ No

6. Well Name: GIBSON GULCH Number: 8-30B

7. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENE,30,6S,91W,6

8. County GARFIELD 9. Field Name: MAMM CREEK

10. Minerals: ☒ Fee ☐ State ☐ Federal ☐ Indian

11. Date of Test: 05/13/2017

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: _____ Fm: _____	Tubing: <u>112</u> Fm: <u>WMFK</u>	Prod Csg <u>118</u> Fm: <u>WMFK</u>	Intermediate Csg: _____	Surf. Csg <u>159</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"/>	WMFK 112	<input type="checkbox"/> 118		G
05:00	<input type="checkbox"/>	WMFK 114	<input type="checkbox"/> 119		O
10:00	<input type="checkbox"/>	WMFK 116	<input type="checkbox"/> 120		O
15:00	<input type="checkbox"/>	WMFK 116	<input type="checkbox"/> 120		O
20:00	<input type="checkbox"/>	WMFK 117	<input type="checkbox"/> 121		O
25:00	<input type="checkbox"/>	WMFK 117	<input type="checkbox"/> 122		O
30:00	<input type="checkbox"/>	WMFK 118	<input type="checkbox"/> 122		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:

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

Test Performed By: Dustin Miller Title: Production Foreman Phone: (970) 230-1154

Signed: Scott Ghan Title: Senior EHS Specialist Date: 5/15/2017

Witnessed By: _____ Title: _____ Agency: _____