

FORM  
17  
Rev  
11/20

State of Colorado

Energy & Carbon Management Commission



Document Number:

403590506

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

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://cogcc/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. OGCC Operator Number: 81490 3. BLM Lease No: \_\_\_\_\_  
 2. Name of Operator: ST CROIX OPERATING INC  
 4. API Number; 05-121-10618-00 5. Multiple completion?  Yes  No  
 6. Well Name: VOLBERDING FARMS Number: 7-1  
 7. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSW,7,2S,51W,6  
 8. County WASHINGTON 9. Field Name: HAMMER HEAD  
 10. Minerals:  Fee  State  Federal  Indian

11. Date of Test: 11/16/2023

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>25</u> Fm: <u>JSND</u>	Tubing: _____ Fm: _____	Prod Csg <u>20</u> Fm: <u>JSND</u>	Intermediate Csg: _____	Surf. Csg <u>0</u>
-------------------------------	--------------------------------------	----------------------------	---------------------------------------	----------------------------	-----------------------

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 H2O; 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

Elapsed Time (Min:Sec)	Fm: Tubing	Fm: Tubing:	Prod Csg PSIG	Intermedia Csg PSIG	Bradenhead Flow:	Bradenhead Fluid:
00:00	<u>25</u>		<u>20</u>		<u>O</u>	<u>N</u>
05:00	<u>25</u>		<u>20</u>		<u>O</u>	<u>N</u>
10:00	<u>25</u>		<u>20</u>		<u>O</u>	<u>N</u>
15:00	<u>25</u>		<u>20</u>		<u>O</u>	<u>N</u>
20:00	<u>25</u>		<u>20</u>		<u>O</u>	<u>N</u>
25:00	<u>25</u>		<u>20</u>		<u>O</u>	<u>N</u>
30:00	<u>25</u>		<u>20</u>		<u>O</u>	<u>N</u>
REQUIRED - Instantaneous Bradenhead Pressure at End of Test: <u>0</u> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Gas <input type="checkbox"/> Liquid	05:00						
	10:00						
	15:00						
	20:00						
Character of Intermediate fluid: <input type="checkbox"/> Clear <input type="checkbox"/> Fresh <input type="checkbox"/> Sulfur <input type="checkbox"/> Salty <input type="checkbox"/> Black Other:(describe) _____ _____	25:00						
	30:00						
	REQUIRED - Instantaneous Intermediate Casing Pressure at End of Test: _____ PSIG						

Comments:

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

Test Performed By: Tim Crumley Title: Pumper Phone: ( ) 970 768 5659  
 Signed: Ryan Dornbos Title: Petroleum Engineer Date: 11/16/2023  
 Witnessed By: \_\_\_\_\_ Title: \_\_\_\_\_ Agency: \_\_\_\_\_