

FORM
17
Rev
6/99



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|--------------------------------------|----|----|----|
| DE | ET | OE | ES |
| Document Number: <u>400478259</u> | | | |

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: 47120 3. BLM Lease No: _____
 2. Name of Operator: KERR-MCGEE OIL & GAS ONSHORE LP
 4. API Number; 05-123-29152-00 5. Multiple completion? Yes No
 6. Well Name: LUDWIG Number: 13-1HZ
 7. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSW,1,3N,66W,6
 8. County WELD 9. Field Name: WATTENBERG
 10. Minerals: Fee State Federal Indian

11. Date of Test: 08/08/2013
 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>596</u> Fm: _____ | Tubing: _____ Fm: _____ | Prod Csg <u>604</u> Fm: _____ | Intermediate Csg: _____ | Surf. Csg <u>9</u> |
|-------------------------------|---------------------------------|----------------------------|----------------------------------|----------------------------|-----------------------|

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
 BRADENHEAD SAMPLE TAKEN?
 Yes No Gas Liquid
 Character of Bradenhead fluid: Clear Fresh
 Sulphur 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 | <input type="checkbox"/> 596 | <input type="checkbox"/> | <input type="checkbox"/> 604 | | G |
| 05:00 | <input type="checkbox"/> 598 | <input type="checkbox"/> | <input type="checkbox"/> 608 | | D |
| 10:00 | <input type="checkbox"/> 601 | <input type="checkbox"/> | <input type="checkbox"/> 610 | | D |
| 15:00 | <input type="checkbox"/> 602 | <input type="checkbox"/> | <input type="checkbox"/> 611 | | D |
| 20:00 | <input type="checkbox"/> 603 | <input type="checkbox"/> | <input type="checkbox"/> 612 | | D |
| 25:00 | <input type="checkbox"/> 603 | <input type="checkbox"/> | <input type="checkbox"/> 612 | | D |
| 30:00 | <input type="checkbox"/> 573 | <input type="checkbox"/> | <input type="checkbox"/> 577 | | D |

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

| 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"/> | | |

Instantaneous Intermediate Casing PSIG at end of test: >

Comments:

SURFACE CASING PRODUCED NO FLUID DURING TEST, WELL WAS FLOWING.

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

Test Performed By: TYLER PETERSEN Title: NON EMPLOYEE JOB Phone: (719) 491-3390

Signed: JOLEEN KRAMER Title: ENGINEERING
SPECIALIST Date: 9/9/2013

Witnessed By: _____ Title: _____ Agency: _____