EXAMINER’S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Range Production Company (“Range”) requests approval of an increased net gas oil ratio authority with a casinghead gas limit of 1,650 MCFGPD for its Powell “11F” Lease, Well No. 1, in the Cobra (Wolfcamp) Field. At the hearing, Range withdrew its request for an MER allowable, as the well could no longer produce above the field top allowable. Range also requests that all overproduction for the lease be canceled.

The application is unprotested and the examiner recommends approval of the requested increased net gas oil ratio authority and cancellation of the lease overproduction.

DISCUSSION OF EVIDENCE

The Powell “11F” Lease, Well No. 1, was completed in the Cobra (Wolfcamp) Field in May 2002 with perforations between 7,846 feet and 7,852 feet. On initial test, the well flowed on a 24/64” choke at a rate of 498 BOPD and 278 MCFGPD. The top allowable in the field is 353 BOPD with an allowable gas oil ratio of 2,000 cubic feet per barrel. There are 42 wells carried on the oil proration schedule.
The Cobra (Wolfcamp) Field has a depletion drive as the primary drive mechanism. In October 2003, the Powell “11F” Lease, Well No. 1, bottomhole pressure declined below the bubble point and the gas oil ratio began to increase. In May 2009, Range tested the well to determine its rate sensitivity. The average test results are summarized as follows:

<table>
<thead>
<tr>
<th>CHOKESIZE</th>
<th>OIL RATE</th>
<th>GAS RATE</th>
<th>GAS-OIL RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>16/64&quot;</td>
<td>111 BOPD</td>
<td>419 MCFGPD</td>
<td>3,770 cuft/bbl</td>
</tr>
<tr>
<td>24/64&quot;</td>
<td>112 BOPD</td>
<td>844 MCFGPD</td>
<td>7,584 cuft/bbl</td>
</tr>
<tr>
<td>36/64&quot;</td>
<td>167 BOPD</td>
<td>1,766 MCFGPD</td>
<td>10,619 cuft/bbl</td>
</tr>
<tr>
<td>64/64&quot;</td>
<td>228 BOPD</td>
<td>2,259 MCFGPD</td>
<td>9,982 cuft/bbl</td>
</tr>
</tbody>
</table>

During the testing through a 64/64" choke, the well produced 228 BOPD with a gas-oil ratio of 9,982 cubic feet per barrel. The testing indicates that the well could be rate sensitive. However, Range believes that the well is seeing interference from an offset well, the DYAD Petroleum Company - Calverley Lease, Well No. 1. This well is only 687 feet from the Powell “F” Lease, Well No. 1. Range submitted a cross section and combined production data from both wells. The cross section showed that both wells were producing from the same zone and the combined production data showed a gas oil ratio that was fairly constant ranging only from 7,485 cubic feet per barrel to 7,955 cubic feet per barrel.

As a result of the testing, Range requests an increased net gas oil ratio authority with a casinghead gas limit of 1,650 MCFGPD. Through May 2009, the Powell “11F” Lease was overproduced by 4,802 BO and 40,824 MCFG. Range also requests that all of the overage be canceled.

**FINDINGS OF FACT**

1. Notice of this hearing was given to all parties entitled to notice at least ten days prior to the date of hearing.

2. The Powell “11F” Lease, Well No. 1, was completed in the Cobra (Wolfcamp) Field in May 2002 with perforations between 7,846 feet and 7,852 feet.

3. The top allowable in the field is 353 BOPD with an allowable gas oil ratio of 2,000 cubic feet per barrel. There are 42 wells carried on the oil proration schedule.

4. The Cobra (Wolfcamp) Field has a depletion drive as the primary drive mechanism.

5. In October 2003, the Powell “11F” Lease, Well No. 1, bottomhole pressure declined below the bubble point and the gas oil ratio began to increase.
6. In May 2009, Range tested the well to determine its rate sensitivity. The well is not rate sensitive.
   a. During the testing through a 64/64” choke, the well produced 228 BOPD with a gas-oil ratio of 9,982 cubic feet per barrel.
   b. The testing indicates that the well could be rate sensitive. However, Range believes that the well is seeing interference from an offset well, the DYAD Petroleum Company - Calverley Lease, Well No. 1. This well is only 687 feet from the Powell “F” Lease, Well No. 1.
   c. Range submitted a cross section and combined production data from both wells. The cross section showed that both wells were producing from the same zone.
   d. The combined production data showed a gas oil ratio that was fairly constant ranging only from 7,485 cubic feet per barrel to 7,955 cubic feet per barrel.

7. Through May 2009, the Powell “11F” Lease was overproduced by 4,802 BO and 40,824 MCFG.

**CONCLUSIONS OF LAW**

1. Notice of this hearing was given as specified in the provisions of all regulatory codes.

2. All things have occurred or been accomplished to give the Commission jurisdiction in this matter.

3. Approval of an increased net gas oil ratio authority with a casinghead gas limit of 1,650 MCFGPD and cancellation of the over production for the Powell “11F” Lease, Well No. 1, in the Cobra (Wolfcamp) Field will prevent waste and will not harm correlative rights.

**RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends approval of the increased net gas oil ratio authority and cancellation of the lease over production, as requested by Range Production Company.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner