#### April 18, 2002

#### OIL AND GAS DOCKET NO. 08-0230612

# THE APPLICATION OF RUWCO OIL AND GAS CORPORATION FOR INCREASED GAS/OIL RATIO AUTHORITY FOR ITS CASTENO LEASE WELL NO. 1, COMIDA DELUXE (WOLFCAMP) FIELD, PECOS COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

#### **Procedural history**

Dick Schmidt

Application received: February 5, 2002 Hearing held: April 17, 2002

### Appearances

Representing

Ruwco Oil & Gas

### **EXAMINER'S REPORT AND RECOMMENDATION**

## STATEMENT OF THE CASE

Ruwco is seeking increased gas/oil ratio authority for its Casteno Lease Well No. 1 to allow this well to produce up to 1100 MCF per day. The applicant is also asking to have this well's overproduction canceled.

### **DISCUSSION OF THE EVIDENCE**

The Comida Deluxe (Wolfcamp) Field was discovered in February of 2001 and has two wells, both operated by Ruwco. There are a number of small Wolfcamp reefs in Pecos County with localized porosity. These fields have small oil rims with large gas caps, and produce by solution gas drive though there is also some water influx.

The Casteno Well No. 1 was perforated between 6422 and 6448 feet, and its initial potential was measured at194 BOPD and 190 MCF/D, with no water, on February 15, 2001. The well has produced between 100 and 200 BOPD, with a gas/oil ratio between 4500 and 6000 cubic feet per barrel. Water production began in December of 2001 and has increased rapidly. The Casteno No. 1 now produces about 100 barrels of water per day and the reservoir may be nearing depletion.

The field is under a discovery allowable that lets wells produce up to 200 BOPD and 4000 MCF/D. Assuming a gas/oil ratio of 5000 cubic feet per barrel, the oil rate would be penalized to 80 barrels per day to keep the subject well within its gas allowable. The Casteno No. 1 has now accumulated about 201 MMCF of overproduction.

The well was tested between March 1 and March 31, 2002. Water production during the test was erratic, preventing the well from stabilizing quickly on each new choke size. The results of the test are listed below:

Choke size	Oil rate	Water rate	GOR	FTP, psi
18	175	59	4615	1046
16	123	72	5934	976
14	110	87	4179	886
12	116	100	4543	1000

In general, the fluctuations in the gas/oil ratio did not show a consistent tendency to increase or decrease as the producing rate increased. However, the water cut increased significantly when the producing rate was reduced. The test indicates that producing the well at higher rates will not cause waste and may prevent it. The applicant requested the Casteno No. 1 be allowed to produce up to 1100 MCF/D, the highest producing rate during the test.

There is only one other well completed in this reservoir and it is on the same Casteno lease. The potential of Well No. 2 is only 18 BOPD. No correlative rights will be damaged if the overproduction of Well No. 1 is canceled.

# FINDINGS OF FACT

- 1. Notice of this hearing was given to all operators in the Comida Deluxe (Wolfcamp) Field on March 6, 2002.
- 2. The subject well, the Casteno No. 1, was completed in December of 2001, and perforated between 6420 and 6448 feet.
- 3. The well's initial potential was 194 BOPD, and it has been producing 100 to 200 BO at a gas/oil ratio between 4500 and 6000 cubic feet per barrel.
- 4. Water production began in December, 2001, at 10 BOPD and has already increased to 100 barrels per day.
- 5. The discovery allowable for wells at this depth is 200 BOPD with 400 MCF of gas per day, though the subject well would be penalized to 80 BOPD due to its high gas/oil ratio.
- 6. Test results on the Casteno No. 1 show that the well has a lower water cut when produced at higher rates, and the higher rates do not cause an increase in the gas/oil ratio.
  - a. On an 18/64th inch choke the gas/oil ratio was 4615 cubic feet per barrel, and on a 14/64th inch choke the gas/oil ratio was 4543 cubic feet per barrel.
  - b. As the choke size was decreased the daily water rate increased from 59 barrels to 100 barrels, while the daily oil rate decreased from 175 to 116 barrels.
- 7. The only two wells in this reservoir are on the same lease, and requiring the Casteno Well No. 1 to make up its overproduction of 201 MMCF of gas is not necessary to protect correlative

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rights.

# **CONCLUSIONS OF LAW**

- 1. Proper notice was given as required by statute.
- 2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
- 3. The requested increase in gas allowable for the Casteno Lease Well No. 1 will prevent waste and protect correlative rights.

## **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions, the examiner recommends that the Ruwco Oil and Gas Casteno Lease Well No. 1, in the Comida Deluxe (Wolfcamp) Field, be allowed to produce up to 1100 MCF of gas per day. All overproduction for this well should be canceled.

Respectfully submitted,

Margaret Allen Technical Hearings Examiner

Date of Commission Action: May 21, 2002