

OIL AND GAS DOCKET NO. 7C-0224679

**THE APPLICATION OF EOG RESOURCES, INC. FOR MER AUTHORITY FOR THE
AMACKER-TIPPETT, SW (WOLFCAMP) FIELD, UPTON COUNTY, TEXAS**

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Applications received: April 19, 2000

Hearings held: June 2, and July 26, 2000

Appearances

	Representing
Philip Whitworth	EOG Resources
Richard Johnston	
Michael McElroy	Ocean Resources

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

EOG Resources first requested MER determinations for its Amacker "88" Lease Well Nos. 1 and 2 in the Amacker-Tippett, SW (Wolfcamp) Field. The maximum requested daily production was to be 1500 barrels of oil per well. EOG later decided that several other wells in the Amacker-Tippett, SW (Wolfcamp) Field are also candidates for MER determinations, and requested the hearing be expanded to include all wells in this field. Notice of this amended application was issued to all operators in the field on July 6, 2000, and no protest was received. A representative of Ocean Energy Resources, Inc. appeared at the hearing in support of the requested field-wide MER of 1100 BOPD per well. EOG is also requesting that any overproduction be canceled for all the wells in the field.

DISCUSSION OF THE EVIDENCE

The Amacker-Tippett, SW (Wolfcamp) Field was discovered in 1977, and has thirty-nine prorated wells, operated by 10 different operators. Some of the wells are older and now have potentials below 50 BOPD, but several new wells have been drilled based on 3d seismic. This seismic has been very successful at finding small, isolated structural highs capable of high producing rates. Current field rules provide for 160 acre proration units with 80-acre optional units and the maximum allowable is 435 barrels of oil per day.

The Wolfcamp formation produces from carbonates deposited in debris flows that are discontinuous in the field area. In some places, there is an anomalously thick section (up to 450 feet) with extensive vertical fractures. Wells drilled into these thick sections identified on seismic maps sometimes encounter previously undrained reservoir while others find partially depleted reservoir. Both types of well can have excellent producing rates. Generally, the Wolfcamp is perforated near its base, and gravity drainage through the vertical fractures contributes significantly to ultimate recovery. The remaining reservoir energy is supplied by solution gas which forms a cap at the top of the thicker debris piles.

Three wells in the Amacker-Tippett, SW (Wolfcamp) Field have already received MER determinations. EOG's Half "57" No. 1 was granted authority to produce up to 2000 BOPD, on June 2, 2000, and EOG's Amacker "85N" Well No. 1 and "86SE" Well No. 1 were granted MER authorization to produce 1250 BOPD each on June 22, 2000. EOG has tested three additional wells and believes the evidence shows that enough of the wells in the field can be produced at higher rates without causing waste to adopt an MER on a field wide basis.

The Amacker "88" Lease Well No. 2 was completed in March of 2000, with an initial potential of 456 barrels of oil per day with 384 MCF per day and no water. When this well was produced at an average rate of 430 BOPD, near the current allowable, the corresponding gas/oil ratio was 922 cubic feet per barrel. Increasing the oil rate to an average of 726 BOPD resulted in a gas/oil ratio of 798, and increasing it further to 1187 BOPD resulted in only a slight increase in GOR to 872 cubic feet per barrel.

The Cowden 26 Lease Well No. 1 was test and it also showed little rate sensitivity. At an average daily rate of 467 BO, the gas/oil ratio was 859 cubic feet per barrel. When the oil rate was increased to 824 BOPD, the gas/oil ratio decreased to 756, and when the oil rate was increased to 1000 BOPD, the gas/oil ratio rose slightly to 832 cubic feet per barrel.

EOG also tested its Mann "19" Lease Well No. 1, which was just completed July 8, 2000. The well's initial potential is reported as 456 BOPD, with 144 MCF/D and no water. When stabilized at a rate of 452 BOPD, the average gas/oil ratio was 806 cubic feet per barrel. When the average oil rate was increased to 776 barrels per day, the gas/oil ratio remained essentially unchanged at 824 cubic feet per barrel.

As of May 1, 2000, five wells operated by EOG and two operated by Ocean Energy, Inc., had overproduction. Additional overproduction occurred during the testing to support this application. The evidence indicates that no waste occurred because of overproduction and it is unnecessary for these wells to be shut-in to make up the overproduction.

FINDINGS OF FACT

1. Notice of the hearing to consider an MER for the Amacker-Tippett, SW (Wolfcamp) Field was given to all operators on July 6, 2000.

2. The field was discovered in 1977, and has thirty-nine producing wells, several of them newly drilled by the applicant.
3. The current daily field allowable is 435 barrels of oil, though several of the new wells are capable of producing at higher oil rates without increasing the gas/oil ratio.
4. Three wells in the field already have MER allowables, two for 1250 barrels of oil per day and one for 2000 barrels.
5. Producing rate tests from the Amacker "88" Lease Well No. 2, completed in June of 2000, show that increasing this well's production to 1100 barrels per day will not cause waste.
 - a. When this the well was produced at an average rate of 430 BOPD, near the current allowable, the gas/oil ratio was 922 cubic feet per barrel.
 - b. When the well averaged 1187 BOPD, the gas/oil ratio was 872 cubic feet per barrel.
6. Producing rate tests from the Cowden 26 Lease Well No. 1, completed in March of 2000, show that increasing this well's production to 1100 barrels per day will not cause waste.
 - a. When this the well was produced at a rate of 467 BOPD, near the current allowable, the gas/oil ratio was 859 cubic feet per barrel.
 - b. When the well averaged 1000 BOPD, the gas/oil ratio was 832 cubic feet per barrel.
7. Producing rates from the Mann "19" Lease Well No. 1, completed June 8, 2000, indicate that increasing this well's production to 1100 barrels per day will not cause waste.
 - a. When this the well was produced at a rate of 452 BOPD, the gas/oil ratio was 806 cubic feet per barrel.
 - b. When the well's average producing rate increased to 776 BOPD, the gas/oil ratio was 824 cubic feet per barrel.
8. This application is supported by Ocean Energy Resources, Inc., who also has high-capacity wells recently completed in the Amacker-Tippett, SW (Wolfcamp) Field.
9. Several new wells operated by EOG Resources and by Ocean Energy Resources have accumulated overproduction.
10. Almost all of the overproduction of these wells occurred recently, either shortly after completion or during the time the wells were being tested to determine their maximum efficient production rates.
11. Requiring these wells to be shut-in or produce at a reduced rate will not prevent waste nor

protect correlative 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. Granting an MER of 1100 barrels of oil per day for each well, as requested, will not cause waste, will protect correlative rights within the field and will promote conservation by encouraging the drilling of new wells.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that each well in the Amacker-Tippett, SW (Wolfcamp) Field be allowed to produce up to 1100 barrels of oil per day. All overproduction in this field should also be canceled.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: August 8, 2000

Exhibits

1. Proration schedule
2. PFD and Order granting MER for Halff No. 1
3. Type Log
4. Map
5. PFD and Order granting MER for two more wells
6. Test rate results on Mann 19 #1
7. Test rate results on Cowden 26 #1
8. Test rate results on Amacker 88 #2
9. Overproduction