

October 23, 2007

**OIL AND GAS DOCKET NO. 08-0253252**

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**APPLICATION OF OK ARENA OPERATING COMPANY TO AMEND THE FIELD RULES FOR THE FUHRMAN-MASCHO FIELD, ANDREWS, ECTOR AND MIDLAND COUNTIES, TEXAS**

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**HEARD BY:** Andres J. Trevino, P.E.

**DATE OF HEARING:** October 4, 2007

**APPEARANCES:**

Dale E. Miller  
Tom Wahl

**REPRESENTING:**

OK Arena Operating Company

**EXAMINER'S REPORT AND RECOMMENDATION**  
**STATEMENT OF THE CASE**

This is the unopposed application of OK Arena Operating Company to amend the field rules as adopted in Order No. 8-7637, effective September 25, 1944, as amended, for the Fuhrman-Mascho Field that currently provide for the following:

1. Minimum well spacing of 330'/660' (lease line/between well);
2. 40 acre proration units with 10 acre tolerance and a maximum diagonal of 2,087' and optional 20 acre density and a maximum diagonal of 1500'; and
3. An allocation formula based on 100% acreage.

OK Arena Operating Company proposes the following:

1. Designation interval: Grayburg Reservoir interval from 3,990 feet to 4,302 feet and the San Andres Reservoir interval from 4,302 feet to 5,456 feet as shown on the Laterlog of the Magnolia Petroleum Company's Leta Jones Lease, Well No. 3, Andrews County, Texas:
2. Minimum well spacing of 330'/0' (lease line/between well);

3. No change in density, delete requirement to file oil proration plats; and
4. An allocation formula based on 100% per well.

No other changes are proposed. The examiner recommends approval of the application.

### **DISCUSSION OF THE EVIDENCE**

The Fuhrman-Mascho Field was discovered in 1930 at a depth of 4,700' subsurface depth. The field is governed by special field rules as adopted by Order No. 8-7637, effective September 25, 1944, as amended. This is a very large multi-operator multi-well field ( $\pm 950$ ). The field is mature with many of the wells operating at their economic limit of 3 BOPD. There are numerous unitizations and on-going waterfloods. The field has produced over 126 MMBO in 77 years.

OK Arena operates approximately 134 leases totaling over 17,000 acres. OK Arena acquired the leases beginning in 2005 and commenced a redevelopment of the leases soon after. OK Arena will recover additional reserves by infill drilling to hit untapped reserves and reperforate and fracture stimulate existing wells. The untapped reserves exist in small, thin zones that were originally overlooked and/or ignored. OK Arena is perforating the entire interval and fracture stimulating the wells afterwards. The thin zones are small in areal extent and therefore the same zone does not exist from well to well.

OK Arena is asking for 0' between well spacing to allow flexibility to place new wells at optimum locations around existing wells without the need for Rule 37 exceptions. OK Arena currently is drilling two wells a week and is planning to drill three wells a week next year. The new wells will be produced until primary production is produced then will be converted to injection wells for a future waterflood and CO2 project. Estimated recoveries for new wells range from 80,000 BO to 100,000 BO per well. The calculated drainage area for new and existing wells range from .2 acres to 69 acres per well.

OK Arena is requesting an allocation formula of 100% per well with a top allowable of 93 BOPD MER per well and retain GOR limit of 3,500 Cf/bbl. Typical new wells have high initial potentials that decline hyperbolically for six months then decline exponentially after that. Some new wells have initial potentials as high as 240 BOPD and then produce 50 BOPD within six months and decline exponentially. Because the new wells produce from numerous, thin, sands of limited size, the "new" reserves being produced are isolated to that wellbore and should not affect nearby wells. The 100% per well allocation is needed for the efficient and effective depletion of the reservoir. OK Arena also requests that no oil plats be filed as acreage is not part of the allocation formula and that over production be cancelled.

**FINDINGS OF FACT**

1. Notice of this hearing was sent to all operators in the subject field at least ten (10) days prior to the subject hearing.
2. There was no protest at the call of the hearing.
3. The Fuhrman-Mascho Field was discovered in 1930 at a depth of 4,700' subsurface depth.
  - a. The field is governed by special field rules as adopted by Order No. 8-7637, effective September 25, 1944, as amended which provides for minimum well spacing of 330'/660' (lease line/between well); 40 acre proration units with 20 acre tolerance and a maximum diagonal of 2,087' and optional 10 acre density and a maximum diagonal of 1500'; and an allocation formula based on 100% acreage.
  - b. This is a very large multi-operator multi-well field ( $\pm$  950).
4. The Fuhrman-Mascho Field should be designated as: Grayburg Reservoir interval from 3,990 feet to 4,302 feet and the San Andres Reservoir interval from 4,302 feet to 5,456 feet as shown on the Laterolog of the Magnolia Petroleum Company's Leta Jones Lease, Well No. 3.
5. The 0' between well spacing rule is needed for the efficient and effective depletion of the reservoir.
  - a. The 0' between well spacing will allow flexible placement of wells to produce the thin discontinuous sand lenses.
  - b. The 0' between well spacing will allow placing the wells around the numerous existing wells for optimum location of future injection wells without the need for Rule 37 exceptions.
6. The field is substantially depleted.
  - a. The field has been producing for over 77 years.
  - b. The majority of existing wells produce near their economic limit of 3 BOPD.
7. OK Arena is completing and/or recompleting wells to produce from multiple thin sands at the same time, which will initially produce at rates above current allowable then generally stabilize below the 93 BOPD allowable.

**CONCLUSIONS OF LAW**

1. Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Consideration for field rules, a determination of their effectiveness and appropriate actions are a matter within the Commission jurisdiction.
4. Adoption of the proposed amended field rule will prevent waste, foster conservation and protect correlative rights.
5. Cancellation of overproduction in the field will not harm correlative rights.

**EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed amended field rules for the Fuhrman-Mascho Field and cancel overproduction.

Respectfully submitted,

Andres J. Trevino, P.E.  
Technical Examiner  
Office of General Counsel