

**THE APPLICATION OF ANADARKO E&P COMPANY LP FOR A NEW FIELD DESIGNATION FOR THE MAGNOLIA SPRINGS (AUSTIN CHALK) FIELD AND TO ADOPT TEMPORARY FIELD RULES FOR THE MAGNOLIA SPRINGS (AUSTIN CHALK) FIELD, JASPER COUNTY, TEXAS**

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**Heard By:** Richard D. Atkins, P.E. - Technical Examiner

**Date of Hearing:** June 6, 2008

**Appearances:**

Ana Maria Marsland-Griffith  
David Christian

**Representing:**

Anadarko E&P Company LP

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

Anadarko E&P Company LP requested at the hearing that a new field designation called the Pegasus (Austin Chalk) Field be approved for its Black Stone Isaacs A-316 Lease Well No. 1. However, it was decided by commission staff that the Pegasus name was unavailable, so Anadarko selected Magnolia Springs (Austin Chalk) Field which was the Second choice listed on the New Field Designation Form P-7.

Anadarko requests that the following temporary field rules be adopted for the new field:

1. The correlative interval from 13,685 feet to 14,108 feet measured depth as shown on the log of the Anadarko E&P Company LP, Black Stone Isaacs A-316 Lease Well No. 1 (API No. 42-241-30728), Jasper County, Texas, be designated as the Magnolia Springs (Austin Chalk) Field.
2. 467'-1,200' well spacing for vertical wells; horizontal rules which provide for 100 feet from lease line for penetration point and terminus and 1,200'-1,200' well spacing;
3. 320 acre density, with special provisions for assignment of additional acreage to horizontal wells;
4. An allocation formula based on 95 percent deliverability and 5 percent per well.

Anadarko further requests that the following wells in the Brookeland (Austin Chalk, 8800) Field be transferred into the Magnolia Springs (Austin Chalk) Field:

<u>LEASE NAME</u>	<u>WELL NO.</u>	<u>API NUMBER</u>	<u>LEASE ID NO.</u>
Black Stone Isaacs A-316	1	42-241-30728	230246
Gobert A-11 Unit	1	42-241-30733	230268
Black Stone Minerals A-34 Unit 3	1	42-241-30740	Pending
BP America A-995 Unit	1	42-241-30741	233959
BP America A-187 Unit	1	42-241-30751	234793
BP Black Stone A-520 Unit	1	42-241-30753	Pending

Anadarko further requests that any over-production in the Magnolia Springs (Austin Chalk) Field be canceled.

This application was unopposed and the examiner recommends approval of the new field designation and temporary field rules, with the exception of the allocation formula. The examiner recommends that allocation be based on 100 percent acreage. Anadarko did not consider this to be an adverse recommendation.

### **DISCUSSION OF THE EVIDENCE**

The proposed Magnolia Springs (Austin Chalk) Field was discovered by completion of the Anadarko E&P Company LP, Black Stone Isaacs A-316 Lease Well No. 1 through perforations from 13,688 feet to 19,348 feet measured depth on January 25, 2007. The well potentialized for 20,020 MCFGPD, 185 BCPD and 2,802 BWPD. The gas gravity is 0.67, the condensate gravity is 54.4 degree API and the gas oil ratio is 108,099 cubic feet per barrel. The bottomhole pressure is 12,287 psia and the bottomhole temperature is 299 degree F.

Anadarko requests that the correlative interval from 13,685 feet to 14,108 feet measured depth as shown on the log of the Anadarko E&P Company LP, Black Stone Isaacs A-316 Lease Well No. 1 (API No. 42-241-30728), Jasper County, Texas, be designated as the Magnolia Springs (Austin Chalk) Field.

A new field designation is appropriate as there are no active or inactive wells in the Austin Chalk formation within 2.5 miles of the discovery well. Since the discovery, Anadarko has drilled and completed five additional producing wells. All of the wells are currently carried on the proration schedule of the Brookeland (Austin Chalk, 8800) Field, which is located seven miles to the west. In addition, there are two plugged dry holes and one Anadarko operated salt water disposal well located within the 2.5 mile radius. The six producing wells have produced 7.2 BCFG and 69.1 MBC through March 2008.

Anadarko presented log, production and gas analysis data that differentiates the proposed Magnolia Springs (Austin Chalk) Field from the Brookeland (Austin Chalk, 8800) Field. The Austin Chalk formation in the Magnolia Springs area is approximately 450 feet thick and 400 feet down dip, which indicates that the field is contained within a separate down dip fault block. In addition, the condensate yield is only 10 BBLS/MMCFG for Magnolia Springs, whereas the condensate yield for Brookeland is between 77 and 122 BBLS/MMCFG.

The average gas analysis for the Magnolia Springs (Austin Chalk) Field showed a gas gravity of 0.68, a Methane content of 85.0 percent, an Ethane content of 5.99 percent and a BTU of 1,057. However, the average gas analysis for the Brookeland (Austin Chalk, 8800) Field showed a gas gravity of 0.75, a Methane content of 79.0 percent, an Ethane content of 8.80 percent and a BTU of 1,167.

Anadarko is proposing to develop the Magnolia Springs (Austin Chalk) Field by drilling horizontal wells that contain an updip and downdip lateral. The wells would have a total lateral length of 9,600 feet and a maximum unit size of 2,240 acres. The proposed 467'-1,200' well spacing for vertical wells, horizontal rules which provide for 100 feet from lease line for penetration point and terminus and 1,200'-1,200' well spacing, 320 acre density with special provisions for assignment of additional acreage to horizontal wells are appropriate for this field.

In addition, the proposed rules are similar to the existing horizontal rules for the two closest Austin Chalk fields, the Brookeland (Austin Chalk, 8800) and the Double A Wells, North (Austin Chalk). The Brookeland (Austin Chalk, 8800) Field has 467'/900' well spacing and 160 acre density. The Double A Wells, North (Austin Chalk) Field has 467'/1,200' well spacing and 320 acre density. Both fields have horizontal rules which provide for 100 feet from lease line for penetration point and terminus, special provisions for assignment of additional acreage to horizontal wells and allocation based on 100 percent acreage.

In order to prevent confusion as to whether as-drilled horizontal drainholes which have significant drift over short distances are in compliance with field rules, Anadarko is requesting that the following language be adopted for the field as part of Rule 2:

*A properly permitted horizontal drainhole will be considered to be in compliance with the spacing rules set forth herein if the as-drilled location falls within a rectangle established as follows:*

- a) *Two sides of the rectangle are parallel to the permitted drainhole and 120 feet on either side of the drainhole;*
- b) *The other two sides of the rectangle are perpendicular to the sides*

*described in (a) above, with one of those sides passing through the permitted terminus and the other passing through the permitted penetration point.*

*Any point of a horizontal drainhole outside of the described rectangle must conform to the permitted distance to the nearest property line, lease line or subdivision line measured perpendicular from the wellbore.*

*Provided further that, if the final survey point of the directional survey submitted to the Commission is within the range of 150 degrees to 210 degrees (for a south lateral) or within the range of 330 degrees to 30 degrees (for a north lateral), then the lateral of the as-drilled horizontal drainhole shall be considered to have been drilled perpendicular to the north or south property line, lease line or subdivision line, as the case may be.*

Anadarko requests that their six producing wells listed above in the Brookeland (Austin Chalk, 8800) Field be transferred into the Magnolia Springs (Austin Chalk) Field and any over-production in the Magnolia Springs (Austin Chalk) Field be canceled.

A two-factor allocation formula is not required for this new field, but Anadarko had requested that allocation be based on 95 percent deliverability and 5 percent per well. Anadarko was not adverse to allocation based on 100 percent acreage.

### **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 proposed Magnolia Springs (Austin Chalk) Field was discovered by completion of the Anadarko E&P Company LP, Black Stone Isaacs A-316 Lease Well No. 1 through perforations from 13,688 feet to 19,348 feet measured depth on January 25, 2007.
  - a. A new field designation is appropriate as there are no active or inactive wells in the Austin Chalk formation within 2.5 miles of the discovery well.
  - b. Since the discovery, Anadarko has drilled and completed five additional producing wells which are currently carried on the proration schedule of the Brookeland (Austin Chalk, 8800) Field located seven miles to the west.

- c. There are two plugged dry holes and one Anadarko operated salt water disposal well located within the 2.5 mile radius.
4. Anadarko requested that the correlative interval from 13,685 feet to 14,108 feet measured depth as shown on the log of the Anadarko E&P Company LP, Black Stone Isaacs A-316 Lease Well No. 1 (API No. 42-241-30728), Jasper County, Texas, be designated as the Magnolia Springs (Austin Chalk) Field.
5. The Austin Chalk formation in the Magnolia Springs area is approximately 450 feet thick and 400 feet down dip, which indicates that the field is contained within a separate down dip fault block.
6. The condensate yield is only 10 BBLs/MMCFG for Magnolia Springs, whereas the condensate yield for Brookeland is between 77 and 122 BBLs/MMCFG.
7. The average gas analysis for Magnolia Springs (Austin Chalk) showed a gas gravity of 0.68, a Methane content of 85.0 percent, an Ethane content of 5.99 percent and a BTU of 1,057.
8. The average gas analysis for the Brookeland (Austin Chalk, 8800) Field showed a gas gravity of 0.75, a Methane content of 79.0 percent, an Ethane content of 8.80 percent and a BTU of 1,167.
9. Anadarko is proposing to develop the Magnolia Springs (Austin Chalk) Field by drilling horizontal wells that contain an updip and downdip lateral. The wells would have a total lateral length of 9,600 feet and a maximum unit size of 2,240 acres.
10. The proposed 467'-1,200' well spacing for vertical wells, horizontal rules which provide for 100 feet from lease line for penetration point and terminus and 1,200'-1,200' well spacing and 320 acre density with special provisions for assignment of additional acreage to horizontal wells are appropriate for this field.
11. The proposed rules are similar to the existing horizontal rules for the two closest Austin Chalk fields, the Brookeland (Austin Chalk, 8800) and the Double A Wells, North (Austin Chalk).
12. Based on log, production and gas analysis data it is appropriate to transfer Anadarko's wells from the Brookeland (Austin Chalk, 8800) Field into the proposed Magnolia Springs (Austin Chalk) Field.

13. Allocation based on 100 percent acreage is a reasonable formula which will protect correlative rights.

**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 a new field designation, temporary field rules and appropriate actions is a matter within the Commission jurisdiction.
4. Approval of the proposed new field designation and adoption of temporary field rules will prevent waste, foster conservation and protect correlative rights.
5. Cancellation of overproduction for the Magnolia Springs (Austin Chalk) Field will not harm correlative rights or cause waste.

**EXAMINER'S RECOMMENDATION**

Based on the above findings of facts and conclusions of law, the examiner recommends approval of the proposed new field designation and temporary field rules for the Magnolia Springs (Austin Chalk) Field, subject to Commission review in eighteen (18) months. It is also recommended that the Anadarko wells listed above in the Brookeland (Austin Chalk, 8800) Field be transferred into the Magnolia Springs (Austin Chalk) Field and any over-production in the Magnolia Springs (Austin Chalk) Field be canceled.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Examiner