



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

OIL AND GAS DOCKET NO. 8A-0277944

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THE APPLICATION OF GEORGE R. BROWN PARTNERSHIP, L.P. TO AMEND  
FIELD RULES IN THE BUENOS FIELD, GARZA COUNTY, TEXAS

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**HEARD BY:** Brian K. Fancher, P.G. - Technical Examiner  
Marshall F. Enquist - Legal Examiner

**HEARING DATE:** October 11, 2012

**APPEARANCES:**

**APPLICANT:**

**REPRESENTING:**

Brian Sullivan  
John J. Miller  
Greg S. LeGrande

George R. Brown Partnership, L.P.

### EXAMINERS' REPORT AND RECOMMENDATION STATEMENT OF THE CASE

Field rules for the Buenos Field were adopted on a temporary basis in Oil & Gas Docket No. 8A-82,908, effective September 10, 1984, as amended. The current rules in effect for the subject field are summarized as follows:

1. 330'- 500' well spacing;
2. 20-acre units, 10-acre tolerance, and 10-acre optional units;
3. Allocation based on 100% acreage.

George R. Brown Partnership, L.P. ("GRB") requests that Field Rules for the Buenos Field be amended. GRB requests the following Field Rules:

1. Designation of the field as the correlative interval from 3,428 feet to 3,635 feet, as shown on the log for The George R. Brown Partnership, L.P.'s, Basinger Long Unit, Well No. 11B(API No. 42-169-33984), located in Garza County, Texas;
2. 330'-0' well spacing, with special provisions for horizontal well spacing based on "take points", no perforation zones "NPZs", a 50 foot "box" rule, and an "off-lease" penetration point for horizontal drainhole wells;

3. Density remains unchanged. Form P-15s filed with no plat requirements;
4. No change.

The application is unopposed and the examiners recommend that Field Rules for the Buenos Field be amended, as proposed by George R. Brown Partnership, L.P.

### **DISCUSSION OF THE EVIDENCE**

The Buenos Field was discovered in October 1949 at an average depth of 3,400 feet. The field is classified as an oil field and operates under special field rules. The September 2012 oil proration schedule indicates there are multiple operators in the subject field, with GRB as the largest operator. There are thirty-seven wells on schedule with thirty-five wells actively producing oil. Cumulative production from the field through July 2012 is 2.5 million barrels of oil (“MMBO”) and 390.1 million cubic feet of natural gas (“MMCFG”).

The Buenos Field is located approximately 30 miles southeast of Lubbock, Texas and 10 miles northwest of Post Texas. The subject field contains the San Andres formation, which is comprised of cyclic deposits of dolomite, anhydrite, sandstone, siltstone, and halite. GRB testified its core properties in the subject field include the Basinger-Long Unit, as well as contiguous acreage in all surrounding directions. GRB testified wells completed in the subject field it operates are adjacent to the Caprock Escarpment, which provides for a rugose topography. GRB testified this type of geomorphic feature may require wells to be drilled horizontally due to its uneven and course surface features.

GRB is proposing to drill horizontal infill wells and requests Field Rules to promote the efficient and effective development of the remaining hydrocarbons. GRB requests 330' lease line spacing and no minimum between well spacing limitation with special provisions for "take points", a 50 foot “box” rule, no perforation zones “NPZs” and “off-lease” penetration point for horizontal drainhole wells.

There is currently no defined correlative interval for the field. GRB requests that the subject field be defined as the correlative interval from 3,428 feet to 3,635 feet, as shown on the log for The George R. Brown Partnership, L.P.’s, Basinger Long Unit, Well No. 11B(API No. 42-169-33984), located in Garza County, Texas. The correlative interval includes a portion of the lower San Andres formation. The San Andres is stratigraphically overlain by the Grayburg formation and underlain by the Glorieta formation. GRB testified the average porosity and permeability in its proposed correlative interval is fifteen percent and four millidarcies, respectively.

GRB submitted a production plot on logarithmic scale, with daily production as the x-axis and time from December 1997 through June 2012 as the y-axis, for its Basinger-Long Unit. From December 1997 through approximately May 2006, oil and casing-head gas production remained fairly constant at 80 BO per day and 20 MCF per day, respectively. Thereafter, GRB drilled multiple

horizontal wells in the subject field consequently increasing the overall daily production at maximum daily rates of over 300 BO per day and 200 MCF per day. GRB testified it attributes the increased production largely to horizontal infill wells.

GRB requests that a field rule be adopted which includes language providing for dual lease line spacing for horizontal drainhole wells. GRB's proposed rule specifies that for purposes of lease line spacing, the nearest "take point" in a horizontal well be used. This take-point could be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well. GRB requests that first and last take points be no closer than 330' from the nearest lease line. GRB testified that its proposed well spacing will allow operators in the field to extend the lateral portion of horizontal wellbores six hundred seventy feet in the subject field, while avoiding the necessity for obtaining between well Rule 37 exceptions from vertical wells in the field.

GRB proposes a tolerance "box rule" for horizontal drainhole wells that would allow drainholes to deviate fifty feet from either side of their permitted track without the necessity of obtaining a Statewide Rule 37 exception. As drilled wells for which all points are located within the "box" would be considered in compliance with their drilling permits.

In some cases, it is beneficial to penetrate the reservoir off lease, while still having "take points" no closer to lease lines than allowed under the field rules. GRB requests that Field Rules for the subject field provide for an "off-lease" penetration point. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In the subject field, a well generally requires approximately 500 feet of horizontal displacement to make the 90 degree turn from vertical to horizontal. If the penetration point is required to be on the lease, then the first point of production would be about 500 feet from the lease line. The proposed rule will allow approximately 670 feet of additional producing drainhole, resulting in the recovery of additional oil and gas reserves. The Commission has adopted similar rules allowing offsite penetration points in other fields, after the operator has given notice to the mineral owners of the off-lease tract on which the penetration point is to be located and received no protest. For purposes of the assignment of additional acreage pursuant to Statewide Rule 86, it is proposed that the distance between the first and last take-point in a horizontal drainhole well be used.

GRB testified that the incorporation of its proposed rules would result in the efficient and effective development of additional un-drained reserves from the subject field. GRB testified that per one foot lateral length, 22 thousand barrels of oil per well ("MBO") of incremental reserves would be produced under its proposed rules. That is, with off-lease penetration points and no minimum between well spacing for wells in the subject field, an additional 22 MBO of previously unrecovered reserves will be produced for each additional infill horizontal well.

Based on the evidence it submitted to support its application, GRB testified it believes that the field rules it requests will not cause waste and thereby promote conservation of hydrocarbons in the subject field.

**FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
2. The Buenos Field was discovered in October 1949 at an average depth of 3,400 feet.
3. The Buenos Field is classified as an oil field and operates under special field rules, per Oil and Gas Docket No. 8A-82,908, as amended.
4. George R. Brown Partnership, L.P. ("GRB") requests to further amend field rules for the Buenos Field.
5. GRB seeks Field Rules that provide for a designated correlative field interval, 330' well spacing from any lease, property, or subdivision line and no minimum between well spacing. Special provisions for horizontal well spacing based on "take points", a 50 foot "box" rule, non perforated zones ("NPZs"), and an "off-lease" penetration point for horizontal drainhole wells.
6. The Buenos Field should be defined as the correlative interval from 3,428 feet to 3,635 feet, as shown on the log for The George R. Brown Partnership, L.P.'s, Basinger Long Unit, Well No. 11B(API No. 42-169-33984), located in Garza County, Texas. This correlative interval includes a portion of the San Andres formation.
7. The Buenos Field is actively being developed with horizontal drainhole wells.
8. A take-point in a horizontal well in this field may be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
9. The proposed 50 foot "box" rule is necessary to allow operators reasonable minor deviations from the wellbore track that has been permitted.
10. Allowing an "off-lease" penetration point will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners of "off-lease" surface locations.
11. A 330' leaseline spacing for the first and last take points will result in an additional recovery of reserves.

**CONCLUSIONS OF LAW**

1. Proper notice of this hearing was issued.
2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
3. Amending Field Rules for the Buenos Field is necessary to prevent waste, protect correlative rights, and promote development of the field.

**EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission amend Field Rules for the Buenos Field, as requested by George R. Brown Partnership, L.P.

Respectfully submitted,



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Technical Examiner



Marshall F. Enquist  
Legal Examiner