

OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET NO. 03-0274246

THE APPLICATION OF NAVIDAD RESOURCES, LLC TO AMEND THE FIELD RULES
FOR THE FORT TRINIDAD, EAST (BUDA) FIELD, HOUSTON AND MADISON
COUNTIES, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Michael Crnich - Legal Examiner

DATE OF HEARING: February 22, 2012

APPEARANCES:

REPRESENTING:

APPLICANT:

Doug Dashiell
Greg Cloud
Mark Tarver
Harold E. McGowen, III
Robert Hyde

Navidad Resources, LLC

OBSERVER:

George C. Neale
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Burk Royalty Co., Ltd.

EXAMINERS, REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field Rules for the Fort Trinidad, East (Buda) Field were adopted in Final Order No. 3-56,036, effective February 14, 1966, as amended. The current Field Rules are summarized as follows:

1. Designated correlative interval from 9,198 feet to 9,445 feet, as shown on the log of the J.R. McDermott - J.M. Christian Lease, Well No. 1;
2. 467'-933' well spacing;

3. 160 acre oil units;
4. Allocation based on 100% acres;
5. Annual BHP surveys;
6. Additional acreage allocation formula for horizontal drainhole wells.

Navidad Resources, LLC (“Navidad”) requests that the Field Rules be amended to provide for 640 acre oil units and optional 80 acre density with a special provision for an additional acreage allocation formula for horizontal drainhole wells. At the hearing, Navidad noted that the Ft. Trinidad, SW. (Buda) Field had not been consolidated into the Fort Trinidad, East (Buda) Field, as per Final Order No. 03-0243277, effective September 7, 2005. The examiners agreed to contact the proration staff to insure that the Ft. Trinidad, SW. (Buda) Field was consolidated into the Fort Trinidad, East (Buda) Field, as per the Final Order.

The examiners also noted that the correlative interval well listed in Field Rule No. 1 of the Final Order did not contain a complete description or the correct API number. Based on the evidence presented at the hearing, the examiners proposed that Field Rule Nos. 5 and 6 be rescinded, a new correlative interval well with the correct information be submitted and the additional acreage allocation formula for horizontal drainhole wells be capped at 1,280 acres. Navidad did not consider these recommendations to be adverse.

The application was unopposed and the examiners recommend that the Field Rules be amended for the Fort Trinidad, East (Buda) Field, as proposed by Navidad and the examiners.

DISCUSSION OF EVIDENCE

The Fort Trinidad, East (Buda) Field was discovered in April 1965 at an average depth of 9,300 feet. There are currently two producing oil wells, eleven shut-in wells and eight operators carried on the proration schedule. The field operates under Field Rules that provide for 467'-933' well spacing, 160 acre density and allocation based on 100% acres. Cumulative production from the field through January 2012 is 4.5 MMBO and 2.4 BCFG.

To better define the correlative interval, Navidad proposes that the field be defined as the correlative interval from 9,130 feet to 9,377 feet as shown on the log of the Texas Oil & Gas Corp. - Jones “FF” Lease, Well No. 1 (API No. 42-313-30307), H. Walker Survey, A-34, Madison County, Texas. This interval includes the entire Buda formation and the upper portion of the Georgetown formation, which are located stratigraphically between the Woodbine/Dexter and Kiamichi formations.

The Buda formation in the Fort Trinidad, East (Buda) Field is a unique low permeability, low porosity and highly fractured continuous oil reservoir. Geologic processes created a network of complex, randomly distributed fractures throughout the field. The random distribution of fractures creates a great deal of unpredictability and variability in well performance. Likewise, modern “unconventional play” stimulation technology has dramatically increased drainage areas and recoverable reserves per well.

Navidad is planning on drilling infill wells and requests 640 acre oil units and optional 80 acre density with a special provision for an additional acreage allocation formula for horizontal drainhole wells. Navidad proposed an updated version of the existing horizontal rule allocation formula, but agreed to cap the acreage assignment to 1,280 acres. Navidad proposed the following formula to determine the proper assignment of acreage:

$$A = (L \times 0.1723) + 640 \text{ acres}$$

Where: A = calculated area assignable, if available, to a horizontal drainhole for proration purposes rounded upward to the next whole number evenly divisible by 40 acres and capped at 1,280 acres

L = the horizontal drainhole distance measured in feet between the penetration point and the terminus

Navidad submitted a tabulation of drainage area calculations for fourteen vertical wells in the field. The drainage areas range from 49 acres up to a maximum of 1,485 acres. The average drainage area was calculated to be approximately 436 acres. In addition, 640 acre units are supported by data showing interference and pressure communication between wells over distances up to 3,600 feet. Optional 80 acre density will prevent the stranding of reserves due to the wide variability and uncertainty regarding the intensity of fracturing in certain areas.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Fort Trinidad, East (Buda) Field was discovered in April 1965 at an average depth of 9,300 feet.
 - a. There are currently two producing oil wells, eleven shut-in wells and eight operators carried on the proration schedule.
 - b. The field operates under Field Rules that provide for 467'-933' well spacing, 160 acre density and allocation based on 100% acres.

3. The Fort Trinidad, East (Buda) Field should be defined as the correlative interval from 9,130 feet to 9,377 feet as shown on the log of the Texas Oil & Gas Corp. - Jones "FF" Lease, Well No. 1 (API No. 42-313-30307). This interval includes the entire Buda formation and the upper portion of the Georgetown formation, which are located stratigraphically between the Woodbine/Dexter and Kiamichi formations.
4. The requested 640 acre oil units and optional 80 acre density with a special provision for an additional acreage allocation formula for horizontal drainhole wells is appropriate for the field.
 - a. The Buda formation in the Fort Trinidad, East (Buda) Field is a unique low permeability, low porosity and highly fractured continuous oil reservoir.
 - b. The random distribution of fractures creates a great deal of unpredictability and variability in well performance.
 - c. Modern "unconventional play" stimulation technology has dramatically increased drainage areas and recoverable reserves per well.
 - d. The drainage areas range from 49 acres up to a maximum of 1,485 acres. The average drainage area was calculated to be approximately 436 acres.
 - e. The requested 640 acre units are supported by data showing interference and pressure communication between wells over distances up to 3,600 feet.
 - f. Optional 80 acre density will prevent the stranding of reserves due to the wide variability and uncertainty regarding the intensity of fracturing in certain areas.

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 the Field Rules for the Fort Trinidad, East (Buda) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission amend the Field Rules for the Fort Trinidad, East (Buda) Field, as proposed by Navidad Resources, LLC and the examiners.

Respectfully submitted,

Michael Crnich
Legal Examiner

Richard D. Atkins, P.E.
Technical Examiner