

BEFORE EXAMINER STOGNER  
 Oil Conservation Division  
 Bahlburg  
 Exhibit No. 1  
 Case No. 9706

**BAHLBURG EXPLORATION**  
 14875 Landmark Boulevard, Suite 216, Dallas, Texas 75240 • 214/991-9541

**KING FIELD**  
 Lea County, New Mexico

**APPLICATION FOR LOCATION EXCEPTION**  
 Proposed Location

900 ft. FSL, 50 ft. FWL Section 25, T-13S, R-37E

Scale: 1" = 1,000'

BEFORE EXAMINER STOGNER

Oil Conservation Division

Bahlburg Exhibit No. 2

Case No. 9706

GEOLOGIC SYNOPSIS

Application for Approval  
of  
Unorthodox Well Location  
Lea County, New Mexico

by

Bahlburg Exploration

## PROPOSAL TO DRILL AN UNORTHODOX WELL LOCATION

in

**KING FIELD  
Lea County, New Mexico**

### G E O L O G I C   S Y N O P S I S

#### Introduction

The King Field Development Project is located approximately seventeen miles northeast of Lovington, New Mexico (see Index Map.) The Project is predicated on the northward extension and further development of the Devonian producing horizon of King Field.

King Field was discovered in 1951. Since that time the field has produced a total of 6,600,00 BO from various zones including the Devonian, Pennsylvanian and Wolfcamp. Over 90.0% of the total production in King Field has been from the deeper Devonian interval.

Bahlburg Exploration has performed an extensive geologic and seismic evaluation of the King Field area. This evaluation has resulted in the identification of unexploited producing potential and the subsequent acquisition of 240 net acres farm-in leasehold.

#### GEOLOGY/GEOPHYSICS

##### DEVONIAN PAY ZONE

The Devonian produces in King Field as the result of entrapment within a complexly faulted structural closure (see Devonian structure map). The feature is comprised of numerous individual fault blocks and is dominated by a central horst block system that extends nearly one (1) mile north of current production. Early test and completion data indicates an original oil/water contact within the Devonian at a similar structural level in all fault blocks. The field has produced over 6,050,000 BO from a total of 13 Devonian completions resulting in an average recovery/well of 465,000 BO. As expected, the structurally highest fault block has been the most prolific producer averaging over 1,000,000 BO/well.

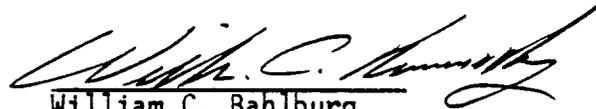
The Devonian horst block feature is well delineated in the prospect area by two (2) E-W seismic lines and a N-2 proprietary seismic line positioned along the axis of the horst trend. The horst block is approximately 800 ft. to 1,500 ft. wide and lies directly beneath the common boundary of Sections 25 and 26, T-13-S, R-37-E. The position of all critical faults has been accurately determined from seismic data and well control. In order to drill a test well into the potentially productive upthrown Devonian reservoir, it

will be necessary to position the surface location of any well as close as possible to the western boundary of Section 25. If allowed, we propose to drill approximately 50 Ft. from the western boundary of Section 25. The offset operator in Section 26, BTA Oil Producers, has given Bahlburg Exploration written approval to encroach on their lease boundary with such a location (see Farmout Agreement). In addition, the mineral ownership on either side of the section boundary is identical.

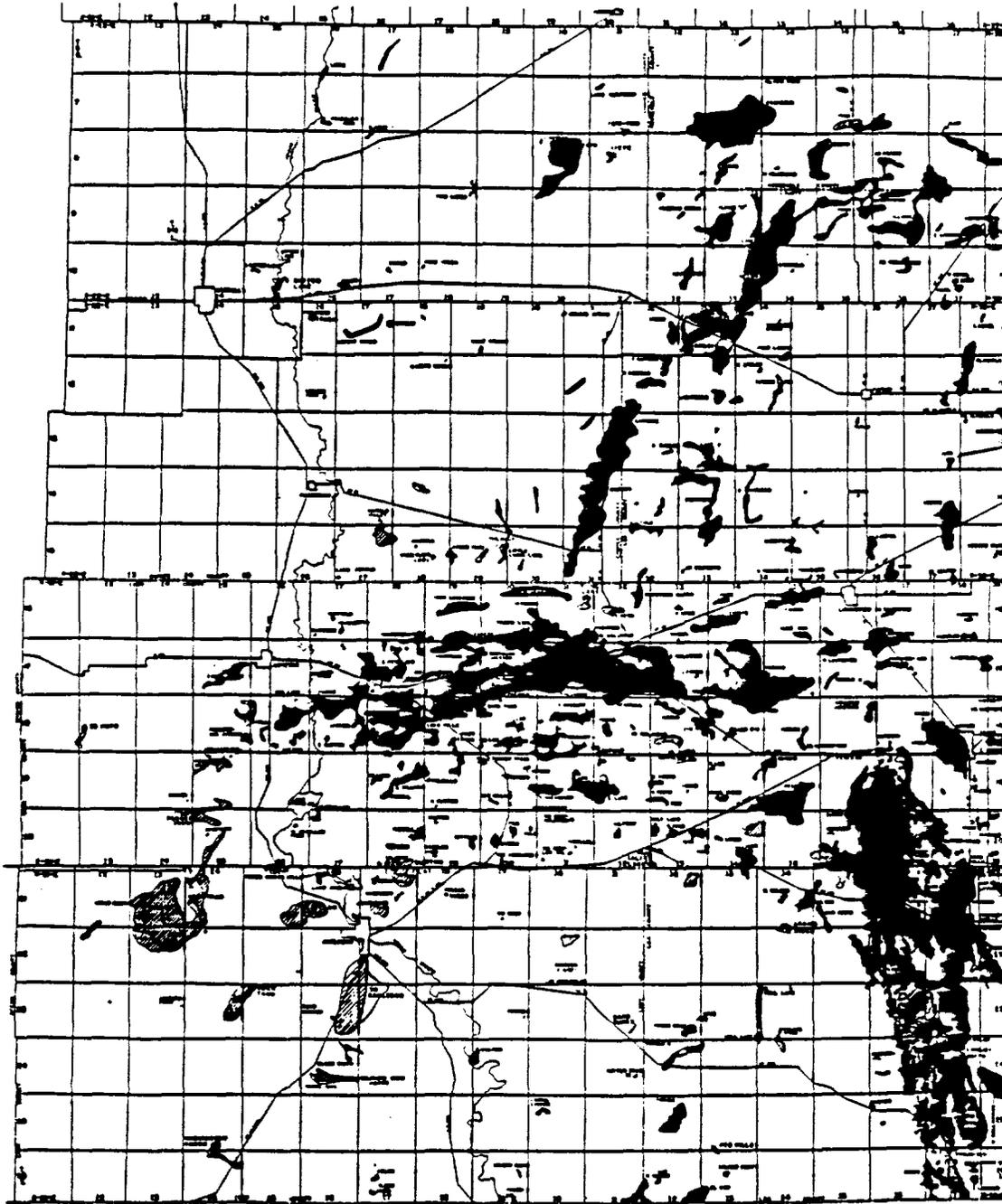
In summary, we feel the proposed drilling project would be too risky at any location other than that proposed. In our opinion, a "statewide rules" location 330 Ft. from the western boundary of Section 25 would be in a downthrown position at the Devonian level and would result in a dry hole.

Respectfully submitted,

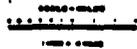
BAHLBURG EXPLORATION

  
William C. Bahlburg  
Geologist-Geophysicist

WCB/md



King Field



DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY  
CORRELATION OF THE  
OIL AND GAS FIELDS IN SOUTHEAST NEW MEXICO  
MADE BY  
AND  
AND

# KING FIELD DEVELOPMENT PROJECT LEA COUNTY, NEW MEXICO

## INDEX MAP