

Arch Petroleum Inc  
Resler B # 1  
(proposed Jalmat Completion)

May 25, 2004

Arch Petroleum Inc. proposes to complete the Resler B #1 in the Jalmat(Tansill-Yates-Seven Rivers) Field. The proposed perforation interval is from 2513'-3004' as indicated on Cross section B-B'. This perforation interval is within the vertical boundaries of the Jalmat Pool. The Resler B #1 was drilled to a total depth of 3100'. The well has production casing set and is waiting for approval to complete. The proposed completion is located 1980' FEL and 1980' FSL, section 20, T23S R37E, Lea, New Mexico. This location is 660' from offset lease lines. The proposed dedicated proration unit is 160 acres consisting of the SE/4 of section 20.

**Geologic setting**

The Resler B Lease lies in the eastern portion of the Jalmat Field. The environment of deposition is inner shelf grading to back reef as exhibited by the alternating beds of dolomite and anhydrite. The Yates and Seven Rivers formations lose porosity on the cross section from west to east. The stratigraphic field is trapped by the facies change to evaporates along the updip eastern edge of the field. Dolomite pay in the Resler lease ranges from 6 to 12 percent porosity. Most Jalmat pay is more sand rich and has much higher porosity from 12 to 20 percent. To the west the dominant lithology changes to alternating beds of sand and dolomite with minor amounts of anhydrite indicating a shelf to outer shelf environment of deposition.

Please find enclosed the following displays:

Yates structure map  
Well crosssection B-B'  
Well crosssection C-C'

OIL CONSERVATION DIVISION

CASE NUMBER

EXHIBIT NUMBER 5



Glenn Curry  
Senior Geologist