EXHIBIT #5: RESERVOIR PRESSURE DATA AND ANALYTICAL RESULTS:

The Bonneville Fuels Corporation has requested two significant actions in the South Humble City Field Area by the New Mexico Oil Conservation Division:

1. Contracting the existing South Humble City Strawn Fm. Pool to
   the S. 1/2 of Section 12, the N. 1/2 of Section 13,
   the E. 1/2 of S.W. 1/4 of Section 13, and
   the N.E. 1/4 of Section 14,
   all in T.17S., R.37E., Lea County, New Mexico.
2. Creating a new pool, the Proposed Southwest Humble City Upper Strawn Fm. Pool, consisting of the N.W. 1/4 of Section 14,
   the S. 1/2 of Section 14, and
   the W. 1/2 of the S.W. 1/4 of Section 13,
   all in T.17S., R.37E., Lea County, New Mexico.

Three previous exhibits have presented the interpretation of Geological and Geophysical Data in support of these requested actions. These three exhibits are:

1. Exhibit #2: Porosity-Thickness Map.
2. Exhibit #3: NW-SE Cross-Section.
3. Exhibit #4: N-S Cross-Section.

These 3 exhibits indicate that the proposed Southwest Humble City Upper Strawn Fm. Pool is a single, continuous & contiguous algal mound development which should logically be segregated from the algal mounds which develop to its east and northeast in the South Humble City Pool.

A series of 7-Day Pressure Build-Up Tests were undertaken in March of 1996 to determine if the pressure data were consistent with this interpretation. A semi-log analysis (Build-Up Pressure vs. [{Production Time plus Shut-In Time} divided by Shut-In Time]) was applied to this Build-Up Data in order to project a P* (reservoir pressure). A Datum of -7,750' Sub-Sea Depth was chosen for all tests. The following wells were tested in the South Humble City Strawn Fm. Pool, with the following results:

1. Lea Farms #2: 1800' FNL & 500' FEL, Section 14:
   Shut-In Period: 3/4/96 - 3/11/96: P*= 391 PSIA.

2. Norris #2: 800' FSL & 2550' FWL, Section 13:
   Shut-In Period: 3/4/96 - 3/11/96: P*= 192 PSIA.

From 3/18/96 through 3/25/96 all production was halted in the portion of the Proposed Southwest Humble City Upper Strawn Fm. Pool operated by the Bonneville Fuels Corporation and the following wells were shut-in, with the following results:

1. Norris #4: 710' FSL & 330' FWL, Section 13:
   Shut-In Period: 3/18/96 - 3/25/96: P*= 1,160 PSIA.
   Maximum Build-Up Pressure = 1,094 PSIA.

2. Lottie York #3: 2030' FSL & 2300' FWL, Section 14:
   Shut-In Period: 3/18/96 - 3/25/96: P*= 1,240 PSIA.
   Maximum Build-Up Pressure = 1,188 PSIA.

3. Lottie York #1: 990'FSL & 660'FEL, Section 14: No Build-Up Run.
   Shut-In Period: 3/18/96 - 3/25/96:
   Shot Fluid Level on 3/25/96:
   Calculated Maximum Pressure = 1,178 PSIA
   Surface Pressure stabilized for 2 days.

4. Lottie York #2: 1650'FSL & 1650'FEL, Section 14: No Build-Up Run.
   Shut-In Period: 3/18/96 - 3/25/96:
   Shot Fluid Level on 3/25/96:
   Calculated Maximum Pressure = 1,027 PSIA.
   Surface Pressure not stable, still building at 30 PSIG/Day.

NOTE: The P* (Pseudo-Ultimate reservoir pressure) generated in these analyses are probably somewhat higher than the real average reservoir pressures but do provide an excellent bench-mark for comparing these reservoir pressures. Only the Norris #4 with an 82 hour production history was shut-in long enough to develop a late-time accurate estimate of the ultimate reservoir pressure in the Proposed Southwest Humble City Pool. The Lottie York #2 is the lowest permeability well developed in the reservoir and, therefore, had the lowest pressure.

EXHIBIT #5: ENGINEERING CONCLUSIONS:

1. The most significant engineering conclusion in evaluating the previously submitted data is that the Proposed Southwest Humble City Upper Strawn Fm. Pool is a hydraulically distinct reservoir with an average reservoir pressure of approximately 1,160 PSIG to 1250 PSIG on 3/18/96.

2. The 4 wells in this pool are well connected hydraulically. The maximum Build-Up Pressure at the Lottie York #3 well is within 100 PSI (10%) of the maximum Build-Up Pressure at the Norris #4 well - even though these wells are at opposite ends of the reservoir.

3. The 2 wells evaluated outside the pool are in structurally distinct reservoirs in the South Humble City Strawn Fm. Pool. The Norris #2 reservoir pod has a P* pressure of approx. 185 PSIG, and the Lea Farms #2 reservoir pod has a P* pressure of approx. 385 PSIG.

4. The closer proximity of the Norris #2 well to the proposed Southwest Humble City Upper Strawn Fm. pool, along with the low pressure of the Norris #2 reservoir pod, supports the assumption that these reservoirs (South Humble City vs. Southwest Humble City) are hydraulically distinct.

The test data were obtained using standard field practices. The analysis was straight-forward and involved my best estimates (based on field study and professional experience of necessary calculation data not measured in the field) and standard analysis techniques as detailed in "ADVANCES IN WELL TEST ANALYSIS" by Robert C. Earlougher, Jr. (Copyright 1977: ISBN 0-89520-204-2). The conclusions drawn were based on my best interpretation of the well test data.

A copy of each individual well test analysis is available to the N.M.O.C.D. and, if desired by the Examiner or the N.M.O.C.D., will be presented to the Examiner and entered into the record and made a part of the testimony - if that is so desired.

ALL OF THE AFORESAID EXHIBIT #5 IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND IS PRESENTED UNDER MY SEAL.

R. A. Schwering 4/30/96

Robert A. Schwering, P.E.
Operations Manager: New Mexico
Bonneville Fuels Corporation

Colorado P.E. No. 28108
Petroleum Engineer

BEFORE THE
OIL CONSERVATION DIVISION
Santa Fe, New Mexico

Case No. 11493 Exhibit No. 5

Submitted by: Bonneville Fuels Corporation

Hearing Date: May 2, 1996