EARLE M. CRAIG, JR. CORPORATION
1400 TWO FIRST CITY CENTER
MIDLAND, TEXAS
915 682-8244

MAILING ADDRESS:
P. O. BOX 1351
MIDLAND, TEXAS 79702-1351

14 March, 1984

State of New Mexico
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Attention Richard L. Stamets

Case 8590

Approval of Unorthodox
Well Location
Eddy County, New Mexico
EMCjr Corp - #1 Spitfire

Gentlemen:

Earle M. Craig, Jr. Corporation ("Craig") proposes to drill a 13,000' Wolfcamp test at a location 1,970' FNL and 670' FEL of Section 19, T-26-S, R-31-E, NMPM, Eddy County, New Mexico, which requires approval by the Commission under Rule 104F. We hereby request a hearing before the Oil Conservation Commission on the 10 April 1985 agenda, to obtain an order approving the proposed location.

The proposed 320-acre proration unit consists of N/2 of said section, to provide for optimum development of prospective acreage. Operators of proration or spacing units offsetting the proposed proration unit, as shown on the attached plat, have been notified by certified mail.

Three geologic maps, wireline log, cross-section, and a discussion of geologic conditions necessitating the proposed location are enclosed. We are obtaining waivers of objection from the offset operators. When we have received all waivers, we respectfully will request our application be granted approval administratively pursuant to Rule 104F (II) and (III) of Oil Conservation Division Rules and regulations. Subsequently, we then would request our cause to be dismissed from the 10 April 1985 agenda.

As the proposed leasehold situation requires our well be commenced in April, 1985, your prompt consideration is appreciated.

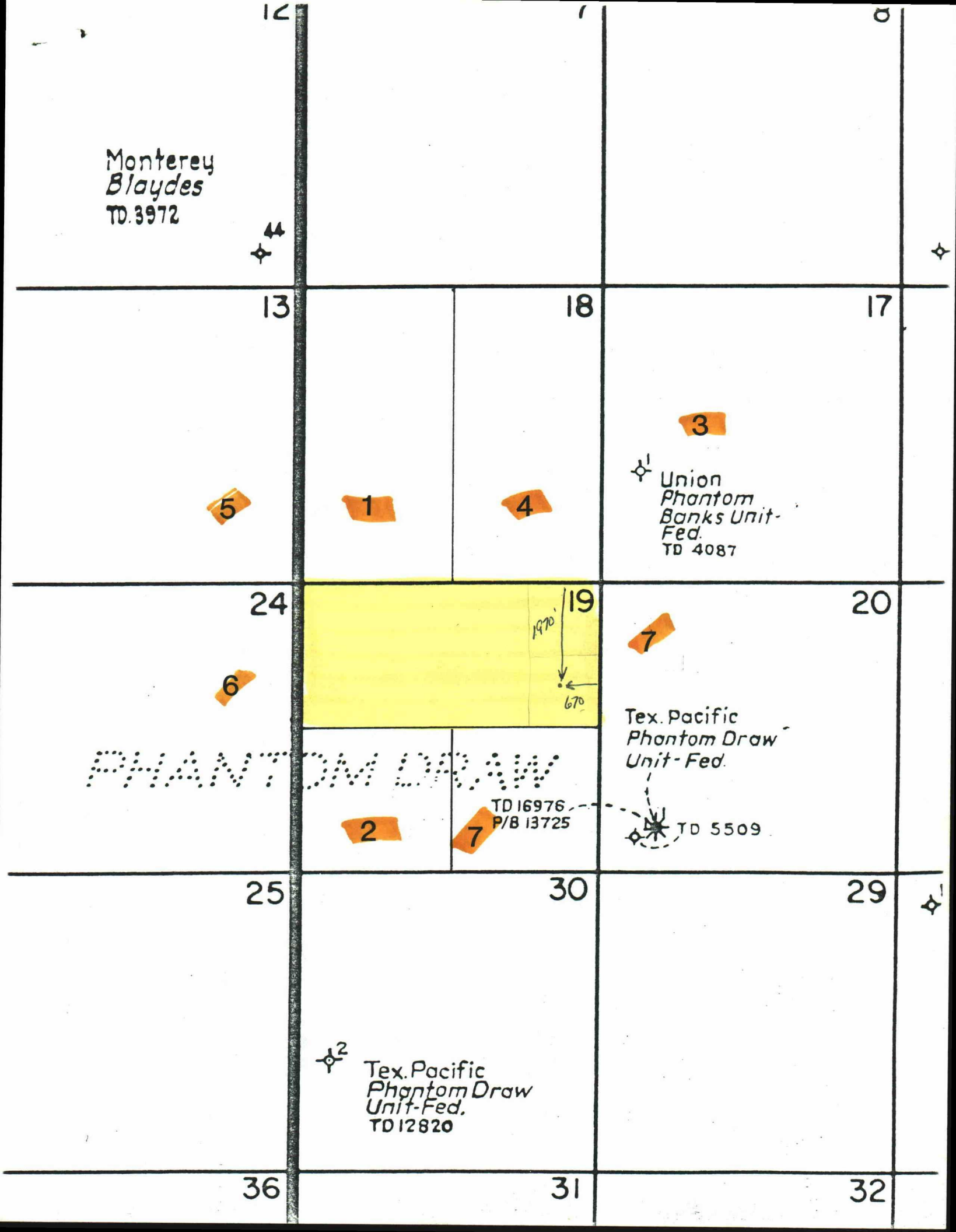
Very truly yours,

Steven R. Foy
Landman

SRF/mg

OFFSET OPERATORS

Tracts 1, 2 and 3	Sohio Petroleum Company Two Lincoln Centre 5420 LBJ Freeway, Suite 1000 Lock Box 03 Dallas, Texas 75240
Tract 4	(Above Stratigraphic Equivalent of 12,950' in Texas Pacific #1, Phantom Draw Unit)- Sun Exploration and Production Company 24 Smith Road Sun Tower, Suite 600 Midland, Texas 79705 (Below Stratigraph Equivalent of 12,950' in Texas Pacific #1, Phantom Draw Unit)- Union Oil Company of California Box 3100 Midland, Texas 79701
Tract 5	Sun Exploration and Production Company 24 Smith Road Sun Tower, Suite 600 Midland, Texas 79705
Tract 6	Amoco Production Company P. O. Box 3092 Houston, Texas 77001 Attention Dan McQue
Tract 7	(Above Stratigraphic Equivalent of 12,950' in Texas Pacific #1, Phantom Draw Unit)- Earle M. Craig, Jr. Corporation P. O. Box 1351 Midland, Texas 79702 (Below Stratigraphic Equivalent of 12,950' in Texas Pacific #1, Phantom Draw Unit)- Union Oil Company of California Box 3100 Midland, Texas 79701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Monterey
Blaydes
TD 3972
44
13
18
17
3
Union
Phantom
Banks Unit-
Fed.
TD 4087
5
1
4
24
19
20
1970'
7
670'
6
Tex. Pacific
Phantom Draw
Unit-Fed.
PHANTOM DRAW
TD 16976
P/B 13725
TD 5509
2
7
25
30
29
2
Tex. Pacific
Phantom Draw
Unit-Fed.
TD 12820
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31
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WAYNE R. GIBSON
MANAGER, GEOLOGY AND GEOPHYSICS

MAILING ADDRESS:
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MIDLAND, TEXAS 79702-1351

11 March 1985

Geologic Report
Earle M. Craig, Jr. Corporation ("Craig")
Spitfire "19" No. 1
1970' FNL & 670' FEL
Section 19,
T-26-S; R-31-E
Eddy County, New Mexico

The captioned non-standard well location is proposed for geologic reasons. This report and three illustrations are submitted herewith to demonstrate the geologic reasons for the subject unorthodox location. These illustrations include a NE-SW stratigraphic cross-section, a net porosity isolith (parameters of 80% clean carbonate plus porosity of 6% or greater), and a structure map (Exhibits A, B, and C, respectively).

Field Extension

The drilling of the Spitfire "19" No. 1 to a depth of approximately 13,000' in the Wolfcamp formation at the subject location is proposed to extend the Phantom Draw Wolfcamp gas field. The Spitfire "19" No. 1 will be a northwest step-out to the Earle M. Craig, Jr. Corporation (Texas Pacific) Phantom Draw Unit No. 1, the sole producer in the Phantom Draw Wolfcamp field. This well is located in Section 20, T-26-S, R-31-E and is currently producing gas at an average daily rate of approximately 300 MCFGPD from carbonate reservoirs at a depth from 12,450' to 12,728'. The Phantom Draw Unit #1 has produced a total of 2.31 billion cubic feet of gas and 15,082 barrels of condensate since its completion in 1976.

The Damsite Wolfcamp field was discovered by the Texaco #1 Damsite Unit well in 1975. This and the juxtaposed Red Bluff Wolfcamp field produce from reservoirs within the same stratigraphic interval, the "B" zone, as demonstrated by the cross-section, Exhibit A. The Damsite well is located in Section 9, Block 56, Township 1, T&P Survey, Loving County, Texas approximately four miles southwest of Phantom Draw field. This well led to the discovery of the Red Bluff Wolfcamp gas field. From 1980 to present, nine Wolfcamp detrital wells have been drilled and completed in the Red Bluff Wolfcamp field immediately west and north of the Damsite field. These wells define a narrow (less than one mile wide) band of economically attractive gas wells, flanked by marginally

economic producers. The Red Bluff field, since 1980, has produced approximately 10 billion cubic feet of gas and 167,701 barrels of condensate from carbonate reservoirs at a depth of approximately 11,900 feet.

Primary Objective

The main pay in the Phantom Draw Unit No. 1 is the Wolfcamp detrital carbonate zone "B", as illustrated on the cross-section, Exhibit A. This "B" zone is the primary objective in the proposed Spitfire "19" No. 1. Where productive, it is a clean (relatively clay free), porous and permeable carbonate reservoir which produces both gas and condensate. The hydrocarbons are stratigraphically trapped along a narrow fairway of permeable Wolfcamp carbonates, demonstrated on Exhibit B, the net porosity isolith. The fairway width is interpreted based on the analogous Damsite-Red Bluff field area.

Structural closures are not necessary for good gas and condensate production. The Wolfcamp structure in the Phantom Draw Unit area is illustrated on Exhibit C.

Production Quality

Based on an empirical minimum of 16 feet of clean, porous reservoir for economic production, Craig will require the captioned non-standard drillsite location. The Craig Spitfire "19" No. 1 at the proposed location is expected to have 20 feet of clean carbonate reservoir with 6% porosity or greater. Wells drilled which did not encounter enough net carbonate pay produced very little gas and were, therefore, uneconomic. Mapping the number of feet of net porosity (Exhibit B) indicates that at least 16 feet of clean carbonate with at least 6% porosity are needed for economic production. This 16 foot limit is partly based on the Texas Pacific Phantom Draw No. 2 which was completed in 1979 in Section 30, T-26-S, R-31-E. The Phantom Draw No. 2 had 14 feet of clean, porous reservoir but was not economical. It produced a total of .017 billion cubic feet of gas. It produced at rates of approximately 540 MCFGPD immediately prior to being plugged back to the Bone Springs, but the reservoir appeared to lack the permeability to sustain economically attractive gas flow rates.

Summary

The subject proposed unorthodox drillsite location will minimize the dry hole and economic risks which would be great at a standard drillsite location. The Wolfcamp detrital carbonate has become an important and economical gas and condensate reservoir in the Damsite and Red Bluff

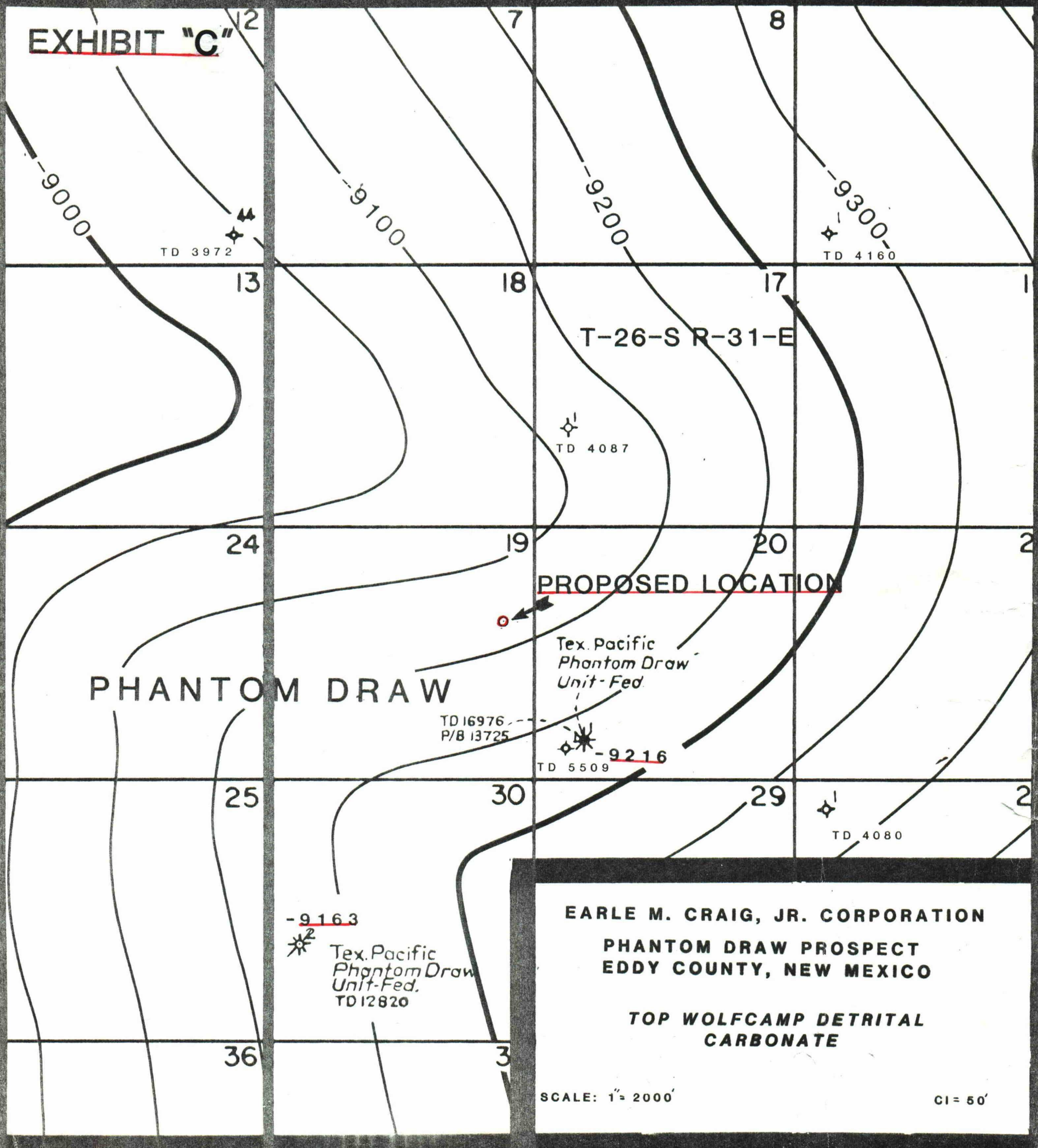
fields of Texas. The success of the subject proposed well will lead to a similar field in New Mexico.

Wayne R. Gibson, Manager
Geology and Geophysics
AAPG Certified Petroleum Geologist #2222

Bob L. Shackelford
Geologist

WRG/BLS:ri

EXHIBIT "C"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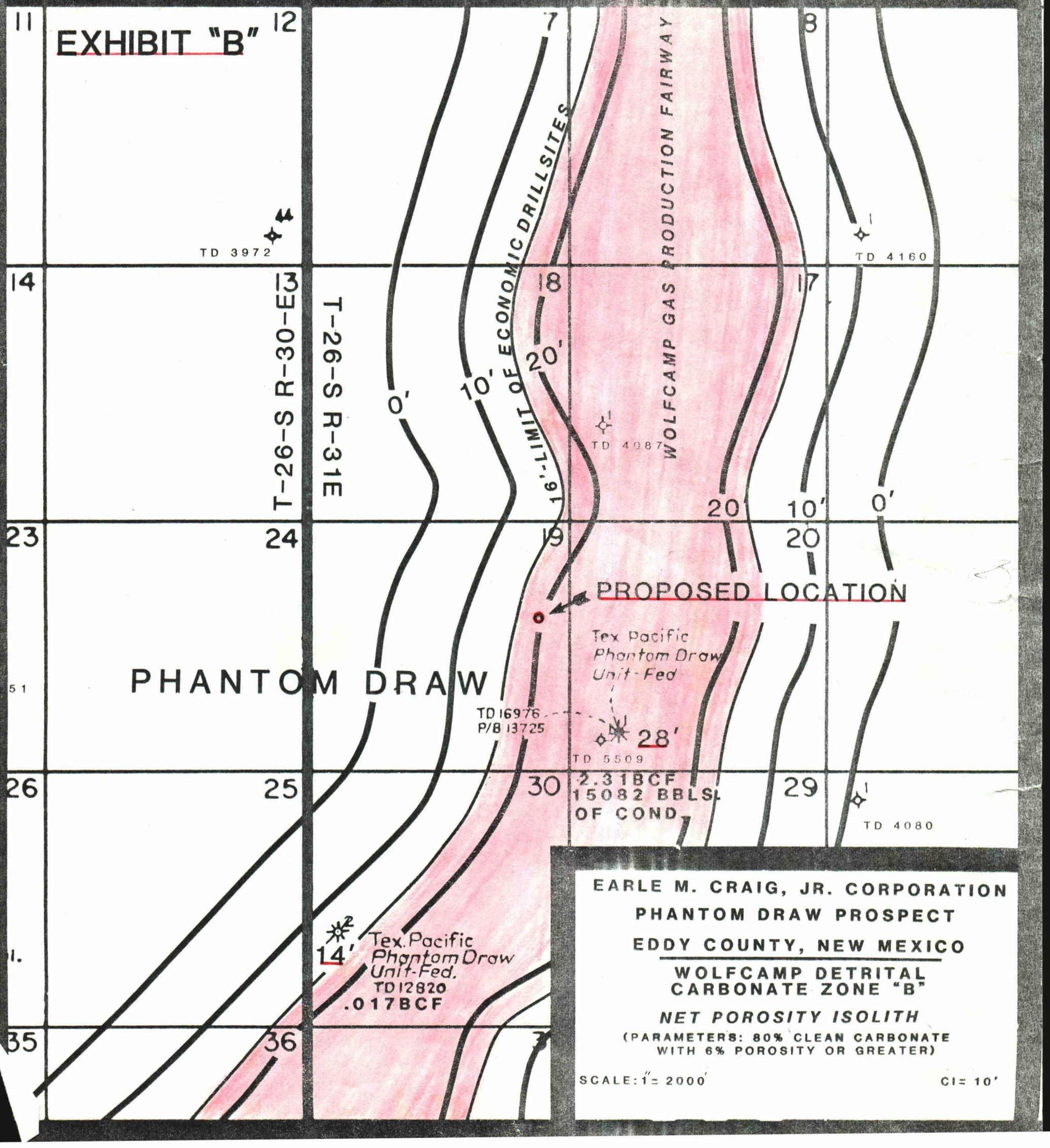
3
-9000
-9100
-9200
-9300
TD 3972
TD 4160
T-26-S R-31-E
TD 4087
PROPOSED LOCATION
Tex. Pacific
Phantom Draw
Unit-Fed
PHANTOM DRAW
TD 16976
P/B 13725
-9216
TD 5509
TD 4080
-9163
Tex. Pacific
Phantom Draw
Unit-Fed.
TD 12820
EARLE M. CRAIG, JR. CORPORATION
PHANTOM DRAW PROSPECT
EDDY COUNTY, NEW MEXICO
TOP WOLFCAMP DETRITAL
CARBONATE
SCALE: 1" = 2000'
CI = 50'

EXHIBIT "B"



EARLE M. CRAIG, JR. CORPORATION

PHANTOM DRAW PROSPECT

EDDY COUNTY, NEW MEXICO

WOLFCAMP DETRITAL
CARBONATE ZONE "B"

NET POROSITY ISOLITH

(PARAMETERS: 80% CLEAN CARBONATE
WITH 6% POROSITY OR GREATER)

SCALE: 1"= 2000'

CI= 10'