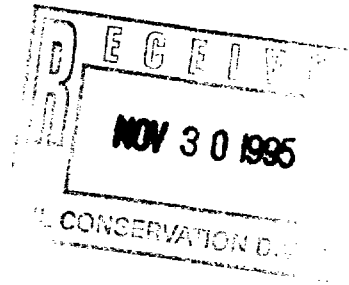


P E D

Case 11439 MS

Oil Corporation

November 28, 1995



Mr. Michael E. Stogner  
Chief Hearing Officer  
Oil Conservation Division  
P. O. Box 6429  
Santa Fe, NM 87505-6249

RE: Administrative Application to Recomplete  
Mescalero Federal No. 1  
API No. 30-005-21052

Dear Mr. Stogner:

This letter is in response to your letter of November 22, a copy of which is attached. I believe that many issues were resolved in a telephone conversation with my Chief Engineer, John Strojek, November 27.

Foy and Middlebrook no longer own the Mescalero Federal No. 1. Ownership has changed hands several times, but it is now vested in P E D Oil Corporation who purchased it from Samedan. Ownership is uniform across Section 11. Foy and Middlebrook never converted the Mescalero Federal to a salt water disposal well, so it is still a plugged and abandoned dry hole.

All offsetting parties were notified of our intent. The only offset owner was the BLM and a copy of that letter along with proof of delivery is attached.

Lastly, you requested geological interpretation of our unorthodox bottom hole location. I have attached a geological summary along with a seismic map showing the intended location.

Very truly yours,

Michael L. Guss  
Vice President

MLG/lfb

Enclosure



P E D

Oil Corporation

November 6, 1995

Bureau of Land Management  
1717 West Second Street  
Roswell, New Mexico 88201-2019

RE: Directional drilling  
PED Oil Corporation  
Mescalero Federal No. 1  
1980'/NL, 1980'/WL  
Section 11, T-12-S, R-30-E  
Chaves County, NM

Gentlemen:

Enclosed please find a copy of an application to the New Mexico Conservation Director requesting permission to directionally re-drill the lower portion of subject wellbore to penetrate the Devonian formation up structure, from the existing wellbore.

As offset owner of minerals to the proposed well deviation, if you do not object to this directional proposal please execute your approval or disapproval & return one copy of this letter to:

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

Attention: Mr. William J. LeMay Director

Approval: \_\_\_\_\_

Disapprove: \_\_\_\_\_


By: \_\_\_\_\_

By: \_\_\_\_\_

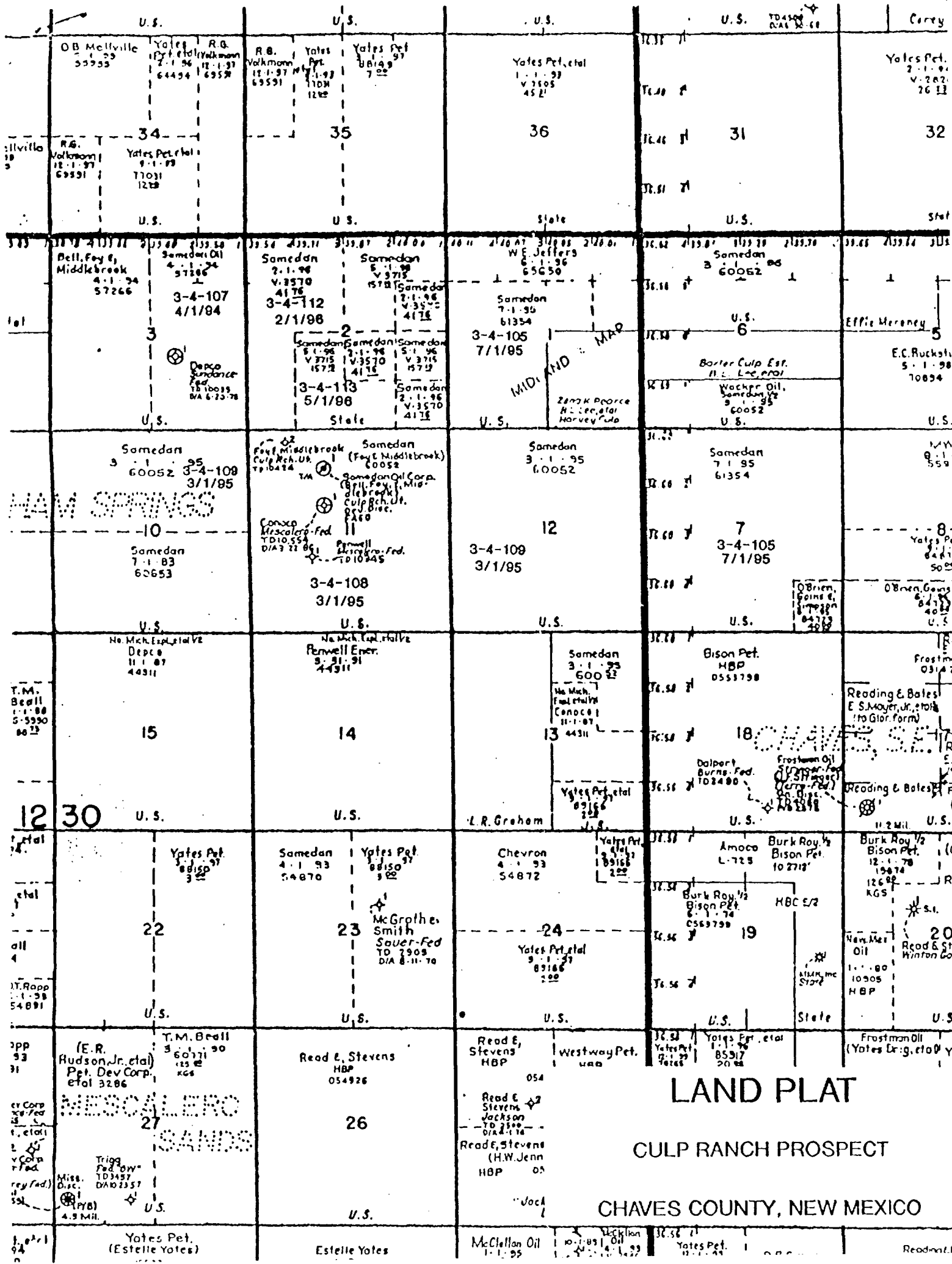
Date: \_\_\_\_\_

Date: \_\_\_\_\_

Very Truly Yours,

  
Michael L. Guss  
Vice President





PS Form 3811, Dec. 1980

**SENDER:** Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one):  
☒ Show to whom and date delivered ..... \$1.00  
☐ Show to whom, date, and address of delivery .. \$  
☐ **RESTRICTED DELIVERY**  
 (The restricted delivery fee is charged in addition to the return receipt fee.)

**TOTAL \$1.00**

3. ARTICLE ADDRESSED TO:  
 Bureau of Land Management  
 1717 West Second Street  
 Roswell, NM 88201-2019

4. TYPE OF SERVICE:  
☐ REGISTERED ☐ INSURED  
☒ CERTIFIED ☐ COD  
☐ EXPRESS MAIL

ARTICLE NUMBER  
 P265 190 533

(Always obtain signature of addressee or agent)

I have received the article described above.  
 SIGNATURE ☐ Addressee ☐ Authorized agent  
*Catalina Flores*

5. DATE OF DELIVERY  
 11/9/95

POSTMARK

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE:

7a. EMPLOYEE'S INITIALS

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

PS Form 3800, Nov. 1980

**RECEIPT FOR CERTIFIED MAIL**  
 NO INSURANCE COVERAGE PROVIDED—  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

SENT TO *W 1717 W. Second*  
 STREET AND NO. *1717*  
 CITY, STATE AND ZIP CODE *Roswell NM 88201-2019*

POSTAGE  
 \$00.1

CERTIFIED FEE  
 \$00.1

SPECIAL DELIVERY  
 POSTAGE REQUIRED LIVERY

ORIGINAL SERVICES  
 RETURN RECEIPT SERVICE  
 REGISTERED MAIL  
 INSURED MAIL  
 EXPRESS MAIL

CONSULT POSTMASTER FOR FEES

TOTAL POSTAGE AND FEES  
 POSTMARK OR DATE

P 265 190 533

P E D

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Oil Corporation

GEOLOGICAL SUMMARY  
GRAHAM SPRINGS DEVONIAN PROSPECT  
PED MESCALERO FEDERAL  
NO.1--CULP RANCH  
CHAVES COUNTY, NEW MEXICO

P. O. Drawer 3547  
Midland, Tx. 79702



Off: 915-684-5741  
Fax: 915-684-5742

# P E D

## Oil Corporation

GEOLOGICAL SUMMARY  
GRAHAM SPRINGS DEVONIAN PROSPECT  
PED MESCALERO FEDERAL NO. 1--CULP RANCH  
CHAVES COUNTY, NEW MEXICO

The Graham Springs Devonian Prospect in T-12-S, R-30-E is approximately 35 miles southeast of the City of Roswell and is located on the Northwest Shelf of the Central Basin Platform of southeastern New Mexico. This prospect consists of all of Section 11, T-12-S, R-30-E (640 acres) and Lots 1, 2, 3 and 4 of Section 2, T-12-S, R-30-E (639.16 acres). Area of mutual interest of this prospect consists of Sections 1, 2, 3, 10, 11, 12, 13 14 and 15.

Primary objective of the prospect is fractured Devonian dolomite at an approximate depth of 10,250 feet. Interpretation of 2-D and 3-D seismic combined with good subsurface control indicates the prospect is an elongated, north-south, faulted, anticlinal structure. Results of previous drilling demonstrates the reservoir to be a tan-white dolomite with extensive vertical fracturing with a strong bottom water drive. Regional strike is primarily N/NW to S/SE with dip to the southeast into the Tatum Basin at approximately 200 feet per mile at Devonian depth.

In January 1986, Conoco drilled the Mescalero Federal #1 to a total depth of 10,554 feet in SE/NW of Section 11. This well, the first to be drilled into the prospect, penetrated the top of the Devonian at an elevation of -6,238 feet. Two drill stem tests were run in the Devonian, with the second being jetted dry with nitrogen 3-1/2 hours into a third flow period. The well was then allowed to produce for another hour. A Flow rate of 1,300 barrels of fluid a day, consisting of 250 barrels of oil and 1,050 barrels of water was calculated by Lynes, Inc. Due to the expense of water disposal, the well was plugged and abandoned.

In September of 1987, Bell, Foy and Middlebrook drilled the Culp Ranch Unit #1 discovery well as a direct north offset to Conoco. The well topped the Devonian at an elevation of -6,222 feet, 16 feet high to the Conoco Mescalero Federal #1 and was completed open hole from an interval of -6,222 to -6,256. Bell, et al, potentialled the well flowing 426 B.O.P.D. with no water.



In the first three months of production, the Culp Ranch Unit #1 produced 11,000 barrels of oil. Water encroachment began after 13,000 barrels of production and continued to increase until the well was shut-in in March of 1989, with a cumulative production of 23,196 barrels of oil and 40,478 barrels of water.

In June 1988, Bell, et al, drilled the Culp Ranch Unit #2 in the NW/NW of Section 11 and encountered the Devonian 113 feet low and wet to the #1 at an elevation of -6,335 feet subsea. An Atoka sand was being evaluated through casing when they experienced mechanical problems, which ultimately ended up losing the well bore.

In October 1989, a third well, the Mescalero Federal #11-1 was drilled by Penwell Energy (some principals were formerly Bell, Foy and Middlebrook) in NE/SW of Section 11 as a south offset to Conoco. This well penetrated the Devonian at an elevation of -6,232 feet, six feet low to the Conoco well. Three drill stem tests were run in the Devonian; the first recovered mud, the second recovered oil cut mud with no formation water and the third recovered oil and water five feet structurally below the open hole completion of the Culp Ranch Unit #1. Severe hole problems negated open hole logs and the well was plugged and abandoned.

Through a seismic option agreement between Samedan and Penwell Energy in June of 1990, Samedan shot a 3-D seismic survey and earned the right to purchase outright the Culp Ranch Prospect.

In October 1990 after purchasing the property from Penwell Energy, Samedan unsuccessfully attempted a recompletion of the Culp Ranch Unit #1. A pumping unit was installed and the well put back on production averaging 30-33 B.O.P.D. with 200-250 B.W.P.D., pumping one out of every four to five days. The well was temporarily shut-in in April 1991 after producing an additional 2,769 barrels of oil and 10,839 barrels of water.

In August 1991, the Culp Ranch Unit #1 was selected to be re-entered and deepened to evaluate a seismic amplitude anomaly which was identified in the 3-D seismic survey.

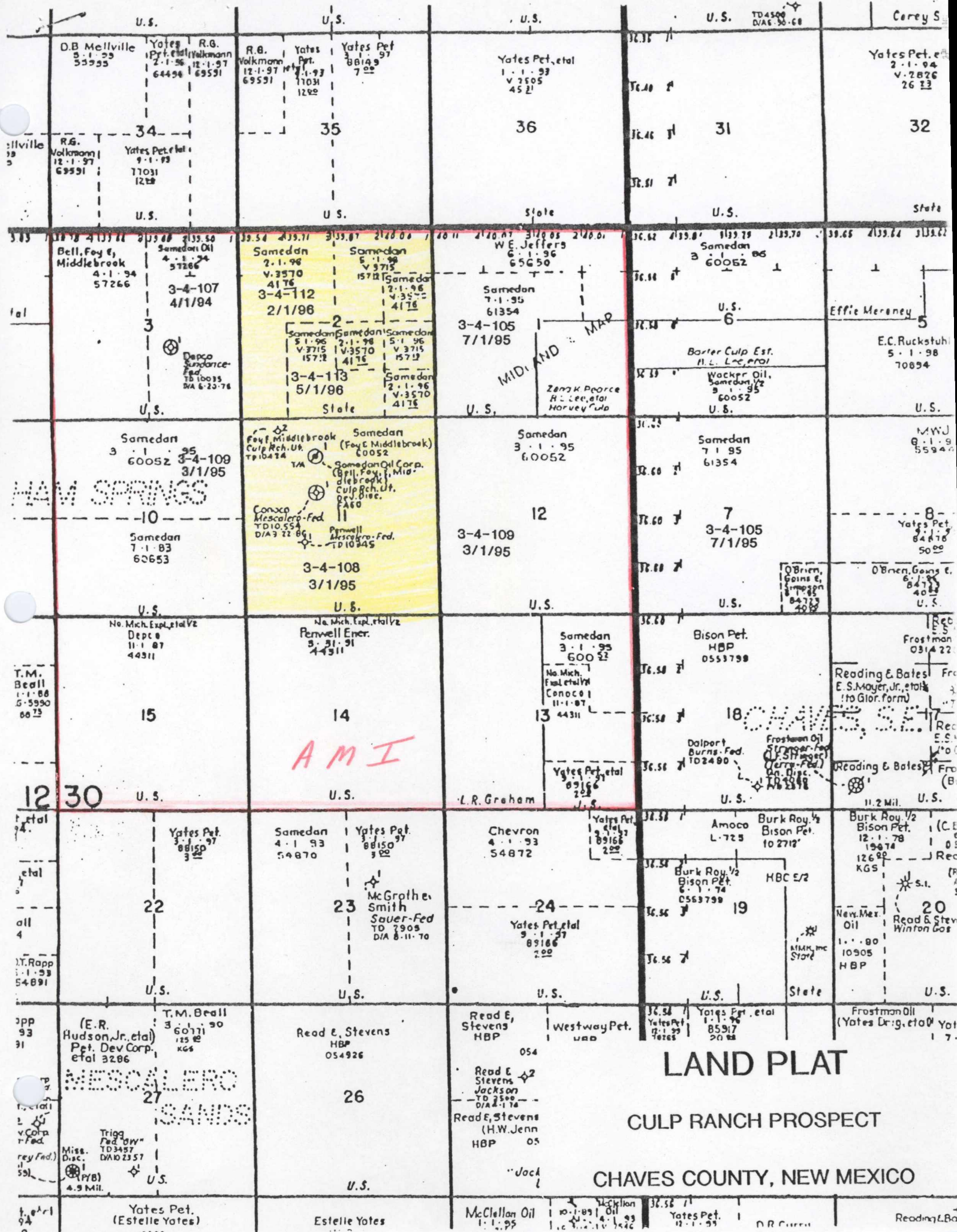
The well was deepened 640 feet from the original total depth of 10,280 feet to a final depth of 10,920. Two zones of porosity were encountered and proven to be water bearing by drill stem test evaluation. This well bore is now temporarily abandoned after a failure in attempting to plug back to the productive Devonian interval.

In July 1994 the Culp Ranch No. 3 was drilled by Samedan to a total depth of 10,300 feet. This well is located 660 feet north of the Culp Ranch No. 1. The Culp Ranch No. 3 Devonian was 152 feet low and wet to the Culp Ranch No. 1.

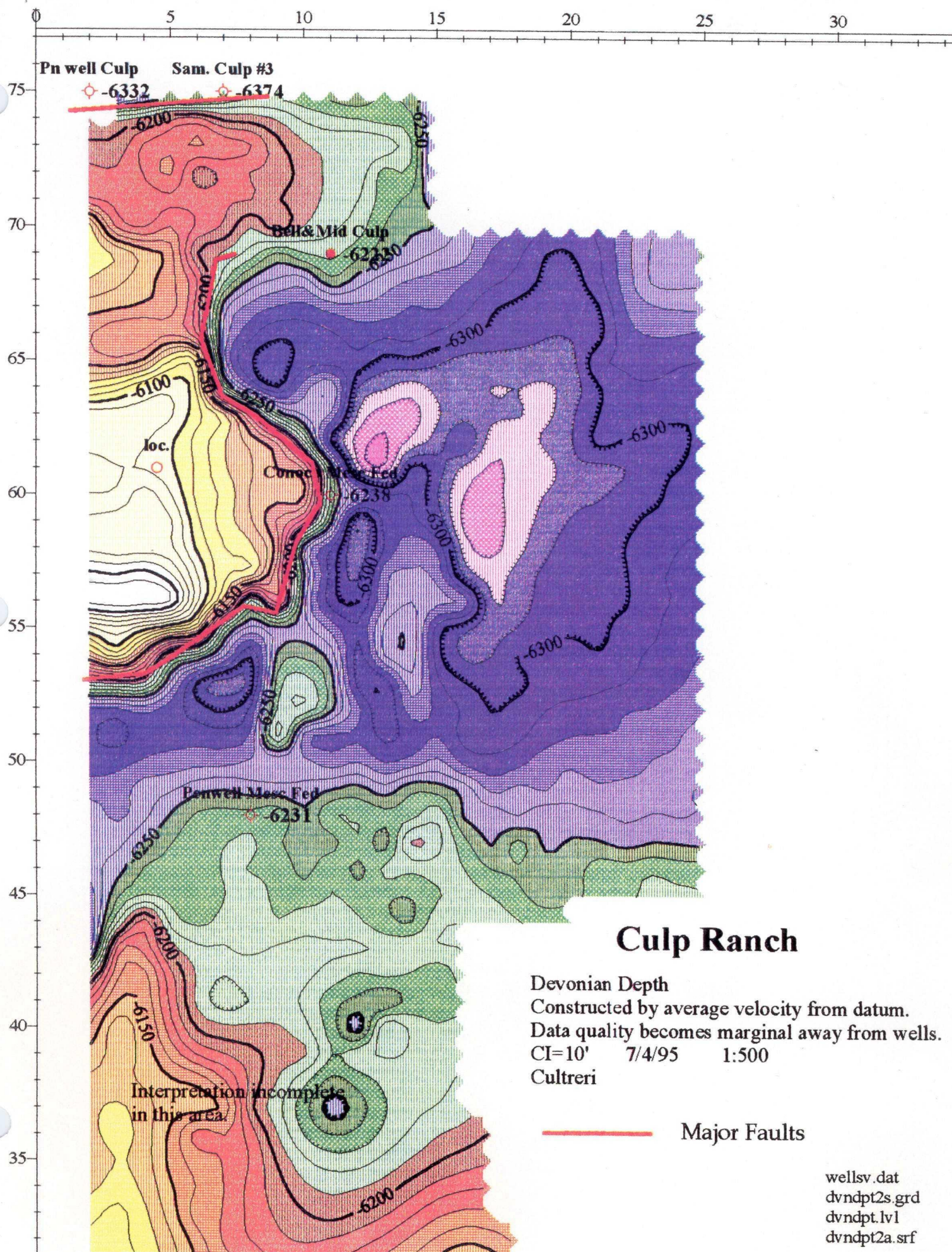
Jasha Cultreri, Geophysicist, 3-D specialty was employed to review 3-D and 2-D seismic available on Section 11, T-12-S, R-30-E. Upon re-evaluation of seismic, the recommendation is made to re-enter the Conoco Mescalero Federal #1 and directionally drill to the west 860 feet from the existing bore-hole. Three of the previously discussed wells, the Conoco Mescalero #1, Bell, et al, Culp Ranch Unit #1 and Penwell Energy 11-#1, are interpreted to be situated on the east flank of the anticlinal structure. By directionally drilling 860 feet to the west, a 90 to 110 feet structural advantage at the Devonian level is anticipated.

In conclusion, the Conoco Mescalero #1 and the Bell, Foy and Middlebrook Culp Ranch #1 confirm the presence of reservoir, closure and trapped hydrocarbons in the Devonian Formation. Maximum oil column may be as great as 80 feet, with a minimum column of 35 feet. Expected reserves on a per well basis could range from 300,000 to 750,000 barrels of oil based by comparison with Devonian fields in the area, such as North King Camp and Mescalero.











Arbitrary Line B S. to N.

21 Aug 1995, 8:12

South

North

Line  
Trace

6

8

13

5

7

13

38

48

57

61

68

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Perwell Mesc Fed

Conoco Mesc Fed

Bell & Mid Culp

0.9

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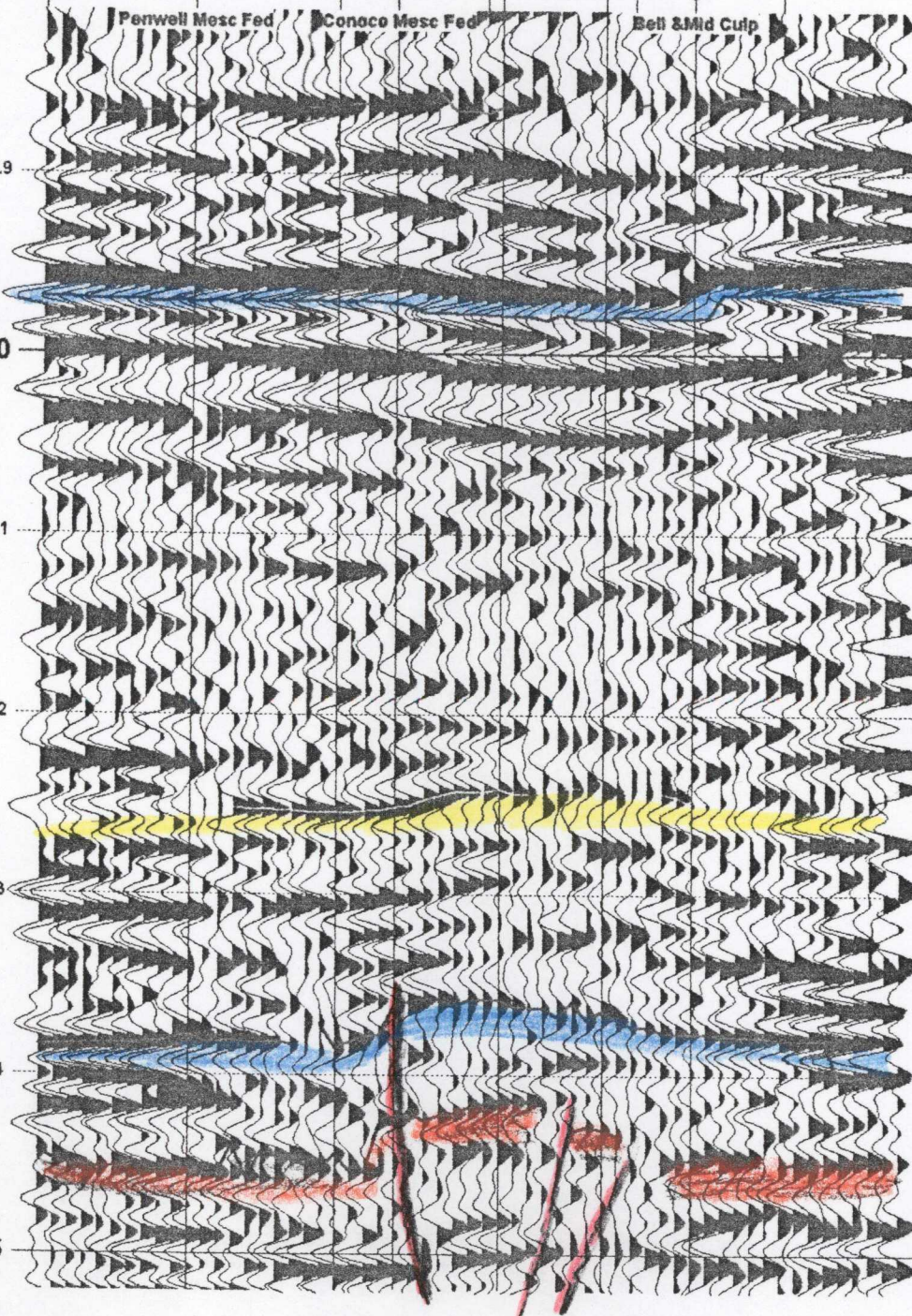
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Abn

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Crossline 60.0  
21 Aug 1995, 8:14

