Memo

From
FRANK T. CHAVEZ
District Supervisor

To Dick FTC

I recommend denial or docketing for hearing.

(1) Well was SI for 6 times O.P. from Sept. – Jan. and is still O.P. in March

(2) No water has ever been reported on C-115's!

(3) No data showing loss of reserve after S.I.

(4) Minimum flow rate will O.P. well in a few months

(5) Small tubing has not been run

Oil Conservation Aztec, New Mexico

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87501

Adopted 3-2-84
Side 1

Case 8577

APPLICATION FOR CLASSIFICATION AS HARDSHIP GAS WELL

Operator Northwest Pipeline Corporation Contact Party Mark McCallister

Address P.O. Box 90 - Farmington, NM 87499 Phone No. 505/327-5351

Lease San Juan 29-5 Unit Well No. 91 UT B Sec. 35 TWP 29N RGE 5W

Pool Name Basin Dakota Minimum Rate Requested 395

Transporter Name El Paso Natural Gas Purchaser (if different) _____

Are you seeking emergency "hardship" classification for this well? X yes _____ no

Applicant must provide the following information to support his contention that the subject well qualifies as a hardship gas well.

1) Provide a statement of the problem that leads the applicant to believe that "underground waste" will occur if the subject well is shut-in or is curtailed below its ability to produce. (The definition of underground waste is shown on the reverse side of this form)

2) Document that you as applicant have done all you reasonably and economically can do to eliminate or prevent the problem(s) leading to this application.

   a) Well history. Explain fully all attempts made to rectify the problem. If no attempts have been made, explain reasons for failure to do so.

   b) Mechanical condition of the well(provide wellbore sketch). Explain fully mechanical attempts to rectify the problem, including but not limited to:

      i) the use of "smallbore" tubing; ii) other de-watering devices, such as plunger lift, rod pumping units, etc.

3) Present historical data which demonstrates conditions that can lead to waste. Such data should include:

   a) Permanent loss of productivity after shut-in periods (i.e., formation damage).

   b) Frequency of swabbing required after the well is shut-in or curtailed.

   c) Length of time swabbing is required to return well to production after being shut-in.

   d) Actual cost figures showing inability to continue operations without special relief

4) If failure to obtain a hardship gas well classification would result in premature abandonment, calculate the quantity of gas reserves which would be lost

5) Show the minimum sustainable producing rate of the subject well. This rate can be determined by:

   a) Minimum flow or "log off" test; and/or

   b) Documentation of well production history (producing rates and pressures, as well as gas/water ratio, both before and after shut-in periods due to the well dying, and other appropriate production data).

6) Attach a plat and/or map showing the proration unit dedicated to the well and the ownership of all offsetting acreage.

7) Submit any other appropriate data which will support the need for a hardship classification.

8) If the well is in a prorated pool, please show its current under- or over-produced status.

9) Attach a signed statement certifying that all information submitted with this application is true and correct to the best of your knowledge; that one copy of the application has been submitted to the appropriate Division district office (give the name) and that notice of the application has been given to the transporter/purchaser and all offset operators.

RECEIVED
MAR 12 1985
OIL CON. DIV.
DIST. 3

GENERAL INFORMATION APPLICABLE TO HARDSHIP GAS WELL CLASSIFICATION

1) Definition of Underground Waste.

> "Underground Waste as those words are generally understood in the oil and gas business, and in any event to embrace the inefficient, excessive, or improper use or dissipation of the reservoir energy, including gas energy and water drive, of any pool, and the locating, spacing, drilling, equipping, operating, or producing, of any well or wells in a manner to reduce or tend to reduce the total quantity of crude petroleum oil or natural gas ultimately recovered from any pool, and the use of inefficient underground storage of natural gas."

2) The only acceptable basis for obtaining a "hardship" classification is prevention of waste with the burden of proof solely on the applicant. The applicant must not only prove waste will occur without the "hardship" classification, but also that he has acted in a responsible and prudent manner to minimize or eliminate the problem prior to requesting this special consideration. If the subject well is classified as a "hardship" well, it will be permitted to produce at a specified minimum sustainable rate without being subject to shut-in by the purchaser due to low demand. The Division can rescind approval at any time without notice and require the operator to show cause why the classification should not be permanently rescinded if abuse of this special classification becomes apparent.

3) The minimum rate will be the minimum sustainable rate at which the well will flow. If data from historical production is insufficient to support this rate (in the opinion of the Director), or if an offset operator or purchaser objects to the requested rate, a minimum flow ("log off") test may be required. The operator may, if he desires, conduct the minimum flow test, and submit this information with his application.

4) If a minimum flow test is to be run, either at the operator's option or at the request of the Division, the offset operators, any protesting party, the purchaser and OCD will be notified of the date of the test and given the opportunity to witness, if they so desire.

5) Any interested party may review the data submitted at either the Santa Fe office or the appropriate OCD District Office.

6) The Director can approve uncontested applications administratively if, in his opinion, sufficient justification is furnished. Notice shall be given of intent to approve by attaching such notice to the regular examiner's hearing docket. Within 20 days following the date of such hearing, the affected parties will be permitted to file an objection. If no objection has been filed, the application may be approved.

7) Should a protest be filed in writing, the applicant will be permitted to either withdraw the application, or request it to be set for hearing.

8) An emergency approval, on a temporary basis for a period not to exceed 90 days, may be granted by the District Supervisor, pending filing of formal application and final action of the OCD Director. This temporary approval may be granted only if the District Supervisor is convinced waste will occur without immediate relief. If granted, the District Supervisor will notify the purchaser.

9) After a well receives a "hardship" classification, it will be retained for a period of one year unless rescinded sooner by the Division. The applicant will be required to certify annually that conditions have not changed substantially in order to continue to retain this classification.

10) Nothing here withstanding, the Division may, on its own motion, require any and all operators to show cause why approval(s) should not be rescinded if abuse is suspected or market conditions substantially change in the State of New Mexico.

11) A well classified as a "hardship well" will continue to accumulate over and under production (prorated pools). Should allowables exceed the hardship allowable assigned, the well will be permitted to produce at the higher rate, if capable of doing so, and would be treated as any other non-hardship well. Any cumulative overproduction accrued either before or after being classified "hardship" must, however, be balanced before the well can be allowed to produce at the higher rate.

NORTHWEST PIPELINE CORPORATION
PRODUCTION & DRILLING
P.O. BOX 90
FARMINGTON NEW MEXICO 87499

Case 8577

March 5, 1985

Mr. Frank Chavez
New Mexico Oil Conservation Div.
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: San Juan 29-5 Unit #91

Dear Frank:

The San Juan 29-5 Unit #91 Dakota was completed on August 24, 1978. Currently this well is shut in for over production and logged off.

An initial liquid production test run in November of 1980 indicated this well makes 19 BWPD. A stopcock was installed to maintain bottom hole pressure, gas volume at the wellbore and decrease the water production. The stopcock was set for 2 hours off and 10 hours on when the well was shut in.

Based on offset Dakota wells, the #91 will take 2 days to swab and return to production. The offset Dakota wells were returned to production after swabbing at less than 40% of the rate the wells were producing when they logged. This indicates the relative permeability to gas is decreasing in the offset wells, indicating underground waste.

As the #91 declines in production, the frequency of swabbing will increase. If the well logs off or is shut in once very three months, the well will be prematurely abandoned when it is capable of producing 16 MCFD. This is 19.4 MMCF in lost recoverable reserves and $65,670 in gross revenue lost.

As in the offset Dakota wells, small bore tubing will be run if the well is given a hardship classification. The small bore tubing will decrease the volume of gas required to lift fluid from the wellbore but will not keep the well from logging off when shut in. This well will log off within 10 days after being shut in.

The attached production curve indicates an abnormally high rate of decline (greater than 20% per year). This is an indication of increasing gas/water ratio (12789 ft^3 bbl) and a decrease in gas permeability.

maintain a producing rate of 475 MCFD without the use of a stopcock. The wells production history indicates a stopcock time setting of 2 hours off and 10 hours on will maintain enough gas volume to lift fluid from the wellbore. Based on a producing rate of 475 MCFD, this well will require an average minimum flow rate of 395 MCFD to lift fluid from the wellbore.

Sincerely,

M.A. McCallister
Production & Drilling
Engineer

MAM lsm

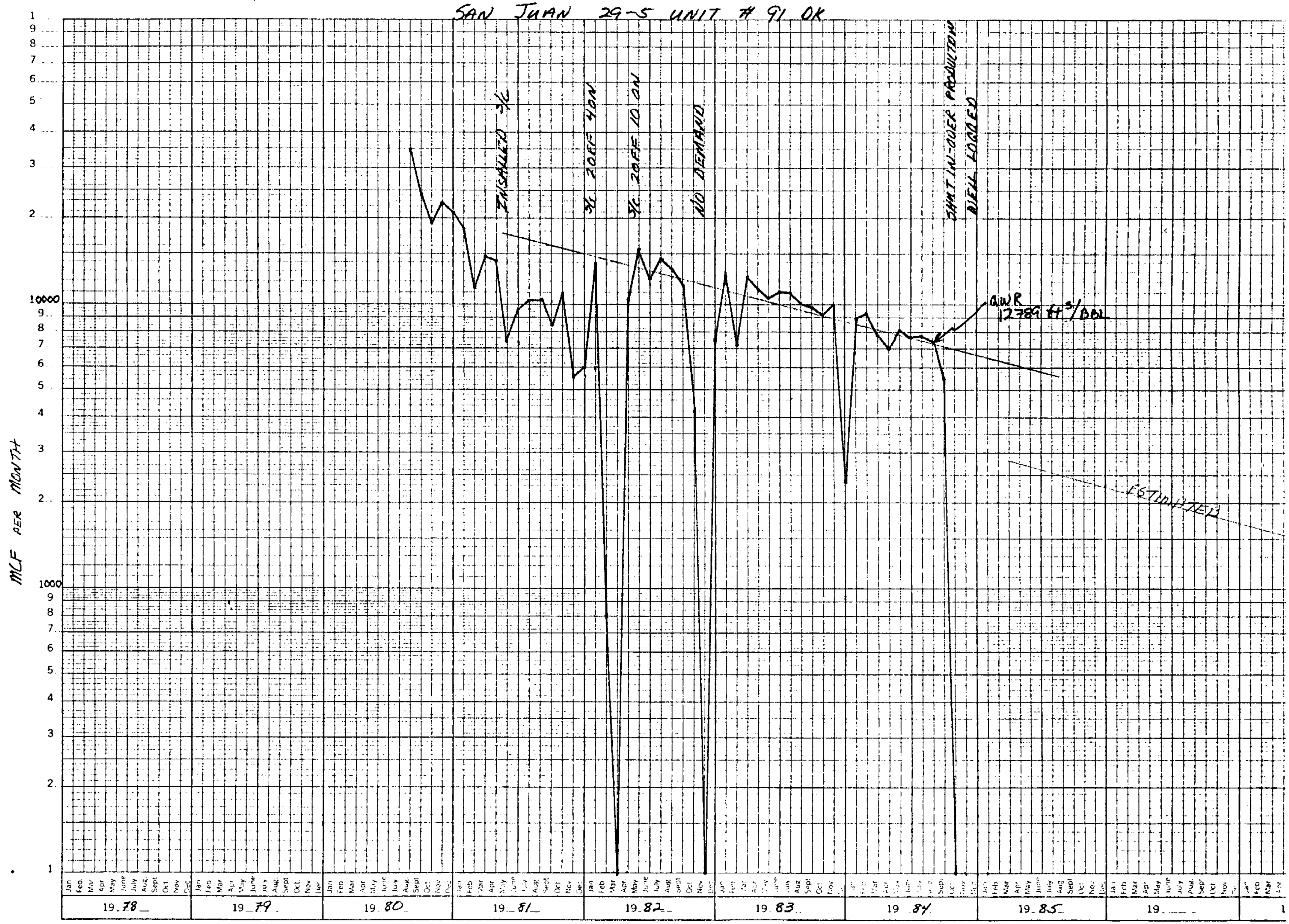
PRODUCTION HISTORY

SAN JUAN 29-5 UNIT #91

The San Juan 29-5 Unit #91 Dakota was first delivered on July 29, 1980. In December, the water production was measured at 19 BWPD during an I.L.P.T.. On May 1, 1981, a stopcock was installed and set for 6 hours off and 2 hours on. In an attempt to slow the water production, the gas production was curtailed to 25%. The stopcock time was changed to 2 hours off and 4 hours on in December of 1981. The well made an average of 330 MCFD for the next 4 months with little change in the water rate. In April of 1981, the stopcock time was changed to 2 hours off and 10 hours on in an attempt to dry up the formation. The well produced steady until December of 1984 when it was shut in for over production. At this time the well is logged and will have to be swabbed.

MAM lsm
3-5-85

SAN JUAN 29-5 UNIT # 91 OK



K+E 10 YEARS BY MONTHS x 3 LOG CYCLES KEUFFEL & ESSER CO. MADE IN U.S.A.

47 6740

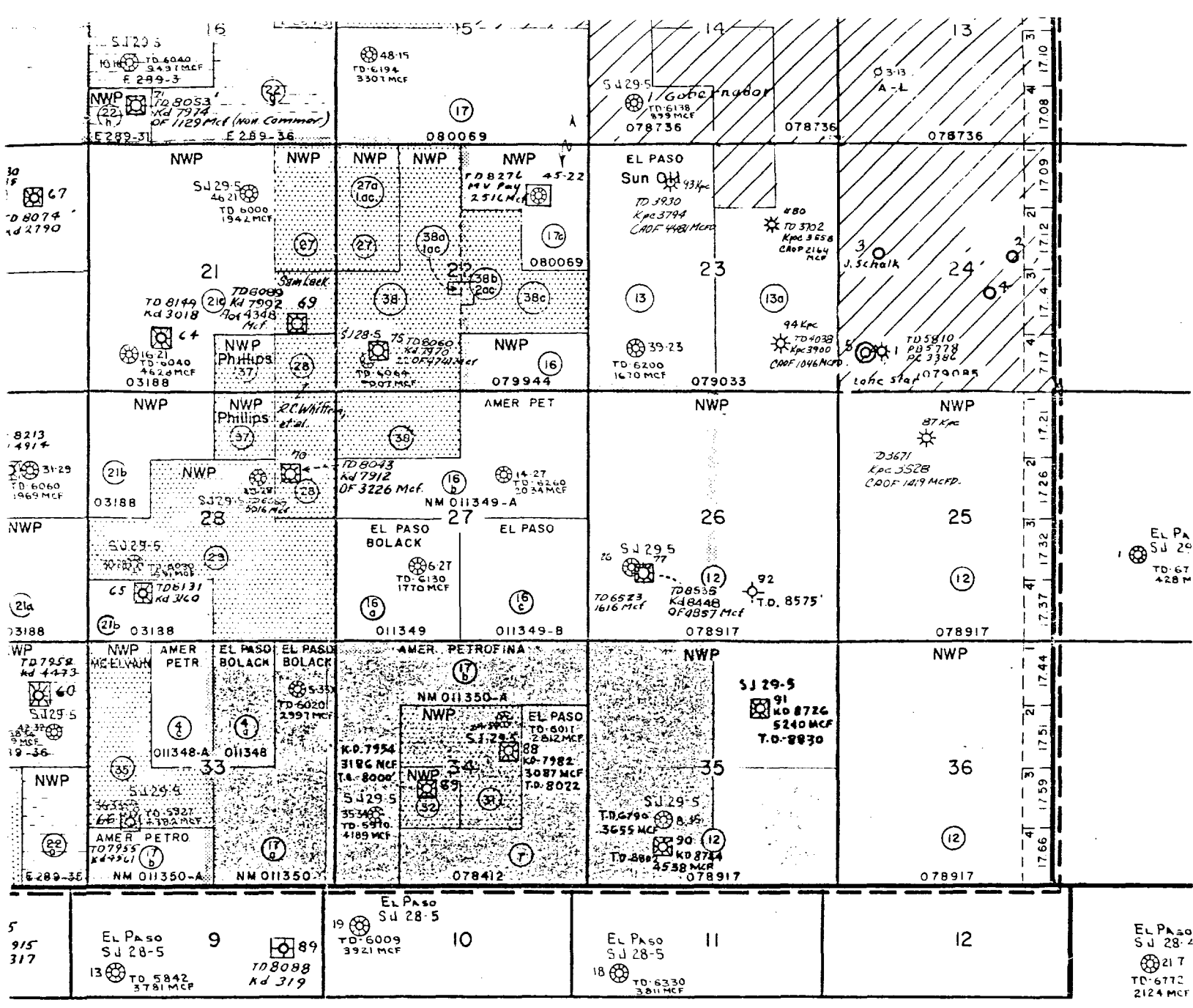


EXHIBIT "A"

SAN JUAN 29-5 UNIT

RIO ARRIBA COUNTY NEW MEXICO

APPROVED 21 NOVEMBER 1952

UNIT AGREEMENT NUMBER: 14-08-001-437

FIRST SALE OF UNITIZED SUBSTANCE 10-27-54

SCALE 1" = 3000

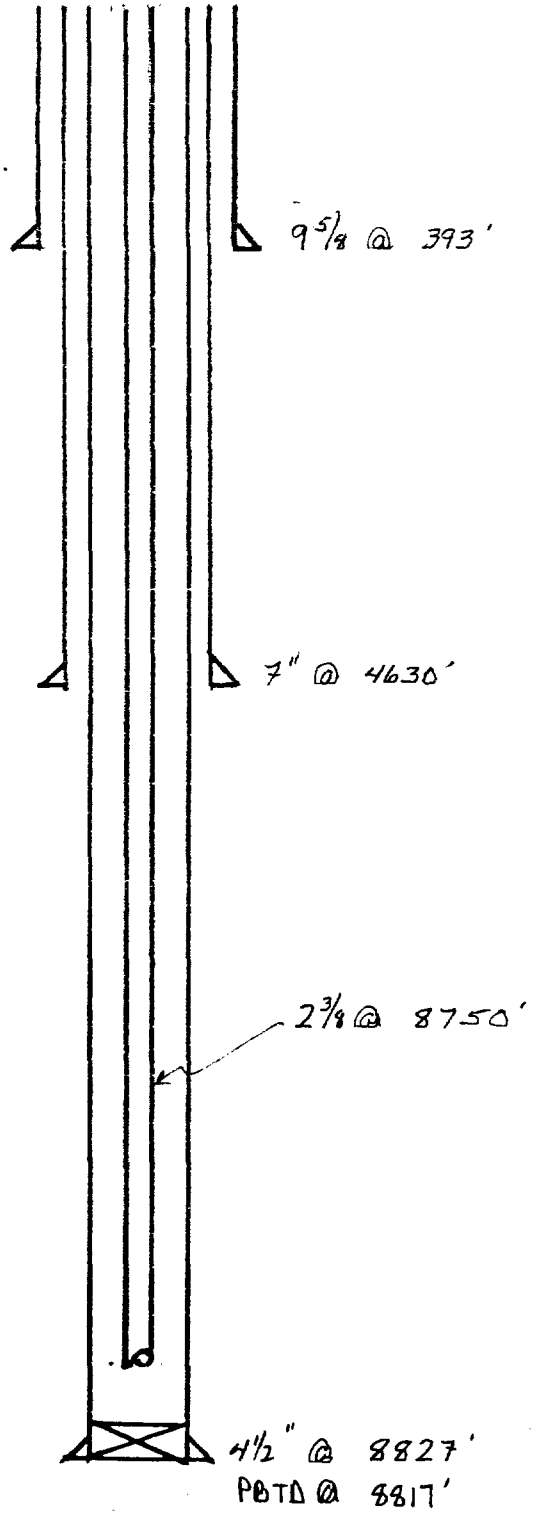
AUTOMATIC ELIMINATION 10-27-54

DAKOTA PARTICIPATING

12th Expansion 8-1-78

13th Expansion 9-1-78

SAN JUAN 29-5 UNIT #91



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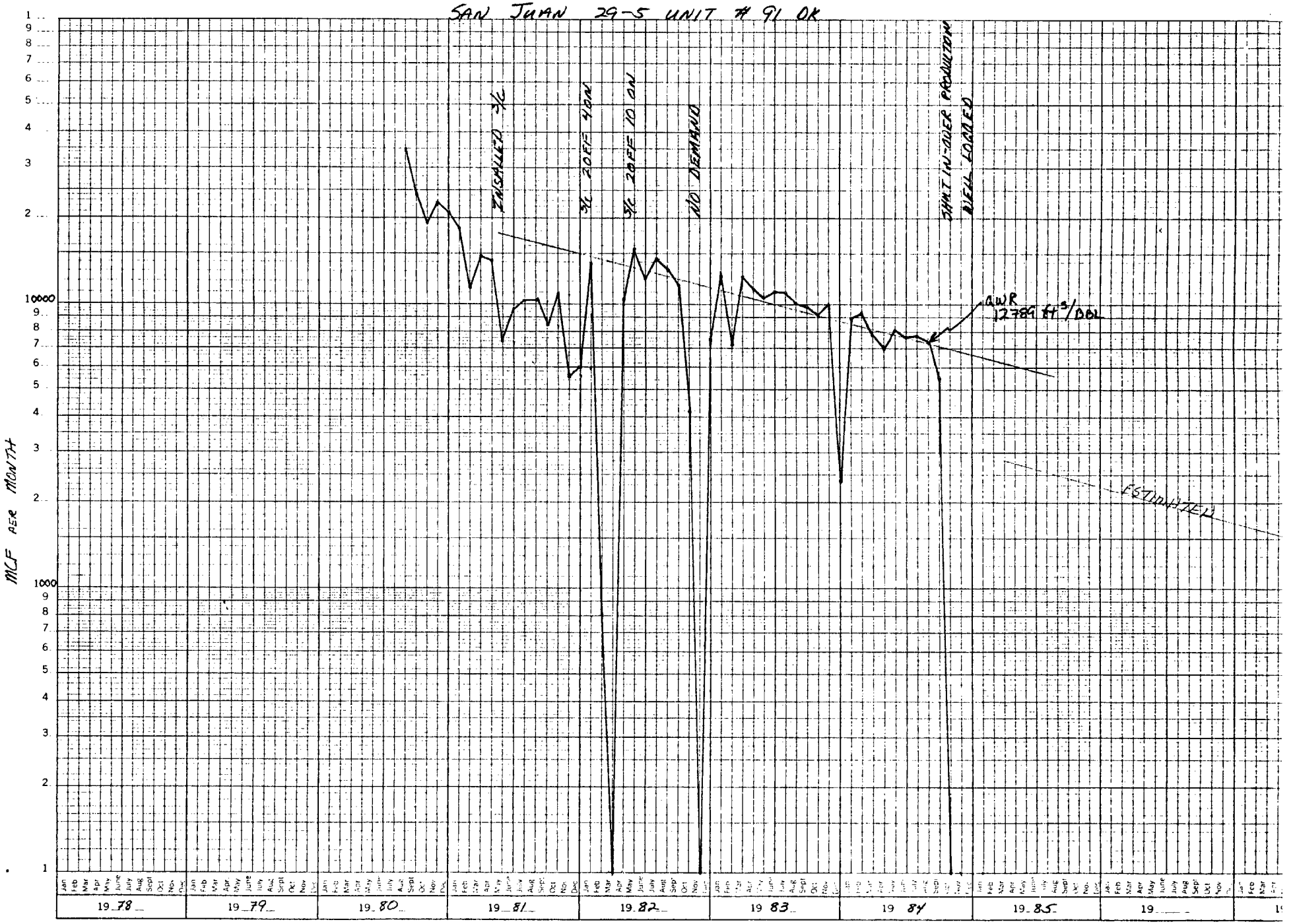

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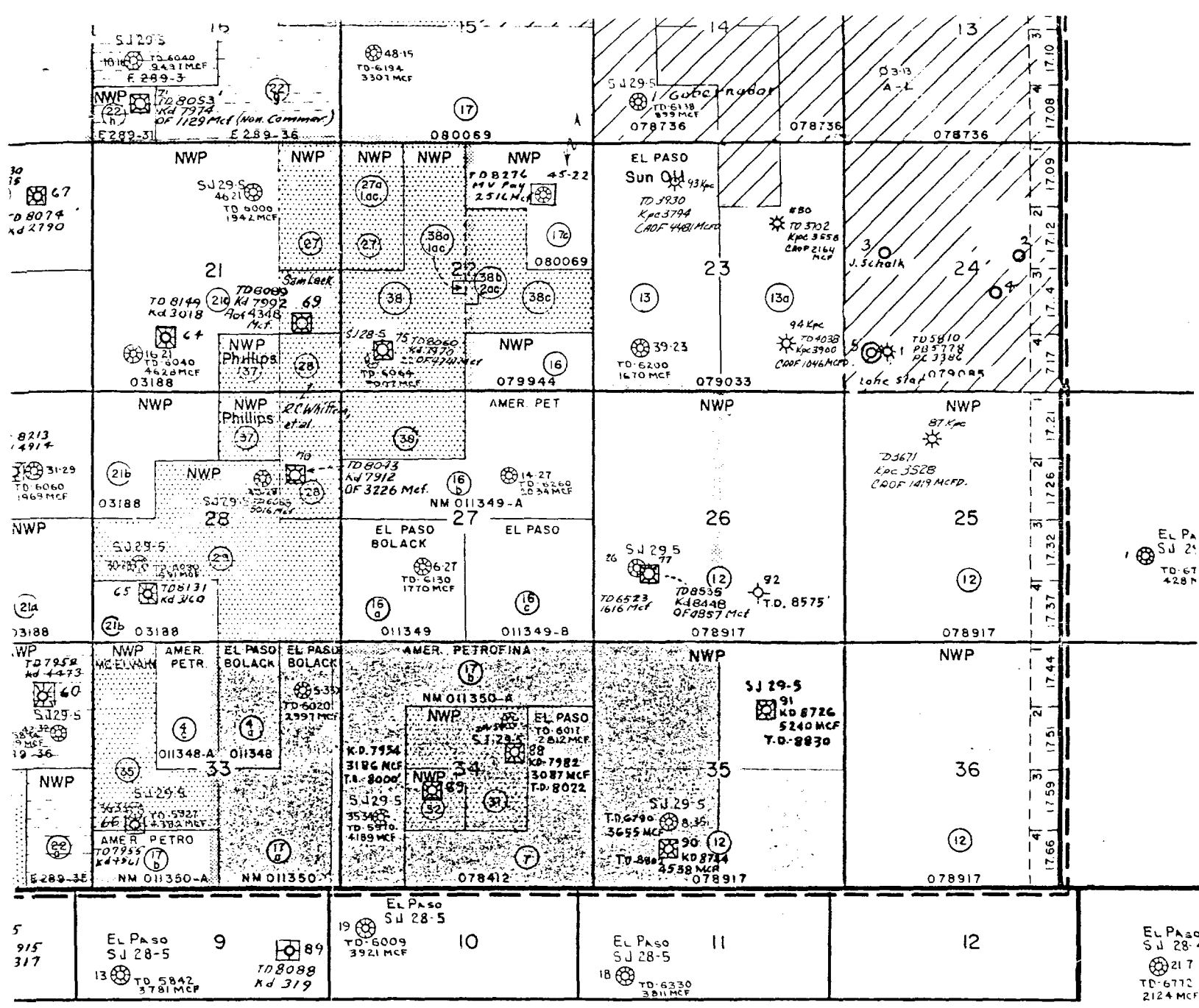

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