

CASE 6842: ARCO OIL AND GAS COMPANY FOR,
UNORTHODOX GAS WELL LOCATION, SIMULTA-
NEOUS DEDICATION, AND APPROVAL OF INFILL
DRILLING. LEA COUNTY. NEW MEXICO

DISMISS

CASE NO.

6842

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.



BRUCE KING
GOVERNOR
LARRY KENOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

April 17, 1980

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
15051 627-2434

Ms. Carolyn Dawson
ARCO Oil and Gas Company
Post Office Box 1610
Midland, Texas 79702

Re: CASE NO. 6842
ORDER NO. R-6308

Applicant:

ARCO Oil and Gas Company

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Division order recently entered in the subject case.

Yours very truly,

JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD ☒
Artesia OCD ☒
Aztec OCD ☐

Other _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6842
Order No. R-6308

APPLICATION OF ARCO OIL AND GAS
COMPANY FOR AN UNORTHODOX GAS WELL
LOCATION, SIMULTANEOUS DEDICATION,
AND APPROVAL OF INFILL DRILLING,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 26, 1980,
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 15th day of April, 1980, the Division
Director, having considered the record and the recommendations
of the Examiner, and being fully advised in the premises,

FINDS:

That the applicant's request for dismissal should be
granted.

IT IS THEREFORE ORDERED:

That Case No. 6842 is hereby dismissed.

DONE at Santa Fe, New Mexico, on the day and year herein
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

Page 1

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
26 March 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of ARCO Oil and Gas Com-
pany for an unorthodox gas well loca-
tion, simultaneous dedication, and
approval of infill drilling, Lea
County, New Mexico.

CASE
6842

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

SALLY W. BOYD, C.S.R.
Rt. 1 Box 190-B
Santa Fe, New Mexico 87501
Phone (505) 425-4669

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MR. STAMETS: We'll call next Case Number
6842.

MR. PADILLA: Application of ARCO Oil and
Gas Company for an unorthodox gas well location, simultaneous
dedication, and approval of infill drilling, Lea County, New
Mexico.

MR. STAMETS: Applicant in this case has
requested that it be dismissed and it shall be.

(Hearing concluded.)

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 435-7409

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, C.S.R. DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6873 heard by me on 3-26-80.

Richard L. Ham Examiner
Oil Conservation Division

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 435-7409

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
26 March 1980

EXAMINER HEARING

IN THE MATTER OF:

Application of ARCO Oil and Gas Com-
pany for an unorthodox gas well loca-
tion, simultaneous dedication, and
approval of infill drilling, Lea
County, New Mexico.

CASE
6842

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel to the Division
State Land Office Bldg.
Santa Fe, New Mexico 87501

SALLY W. BOYD, C.S.R.

Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

MR. STAMETS: We'll call next Case Number

6842.

MR. PADILLA: Application of ARCO Oil and Gas Company for an unorthodox gas well location, simultaneous dedication, and approval of infill drilling, Lea County, New Mexico.

MR. STAMETS: Applicant in this case has requested that it be dismissed and it shall be.

(Hearing concluded.)

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

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REPORTER'S CERTIFICATE

I, SALLY W. BOYD, C.S.R. DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

SALLY W. BOYD, C.S.R.
Rt. 1 Box 193-B
Santa Fe, New Mexico 87501
Phone (505) 455-7409

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case _____ heard by me on _____

_____, Examiner
Oil Conservation Division

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ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



Case 6842

RECEIVED
MAR 17 1980
OIL CONSERVATION DIVISION
SANTA FE

March 13, 1980

Oil Conservation Division of
The New Mexico Dept. of Energy & Minerals
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: W. C. Roach No. 6
Non-Standard Location, Simultaneous
Dedication and Infill Finding
Eumont Yates Seven Rivers Queen Gas Pool
660' FNL & 1980' FWL
Section 21, T20S, R37E
Lea County, New Mexico

BZL

Gentlemen:

ARCO Oil and Gas Company would like to cancel the hearing before an examiner on March 26, 1980. The hearing was concerned with our application dated February 19, 1980, for an unorthodox location, simultaneous dedication, and infill findings for the W. C. Roach Well No. 6 in Section 6, T20S, R37E.

Yours Very Truly,

Ronald B. Marquez
Engineer

RBM:ad

Docket No. 8-80

Dockets Nos. 9-80 and 10-80 are tentatively set for April 9 and 23, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 26, 1980

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM,
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- CASE 6838: Application of Amax Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-111-A to extend the boundaries of the Potash-Oil Area by the inclusion of certain lands in Sections 11, 12, and 13, Township 19 South, Range 30 East, and Sections 7 and 18, Township 19 South, Range 31 East.
- CASE 6839: Application of Kimbell Oil Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Otero-Chacra and South Blanco-Pictured Cliffs production in the wellbore of its Salazar Well No. 4-26 to be located in Unit D of Section 26, Township 25 North, Range 6 West.
- CASE 6840: Application of Union Texas Petroleum for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Fruitland and Pictured Cliffs production in the wellbore of its Johnston Federal Well No. 11Y located in Unit N of Section 7, Township 31 North, Range 9 West.
- CASE 6841: Application of CIC Exploration, Inc. for two non-standard gas proration units, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of two non-standard gas proration units in Township 16 South, Range 28 East, the first being 219.6 acres comprising Lots 1 thru 8 of Section 1 and the second being 219.92 acres comprising Lots 1 thru 8 of Section 2, for the Wolfcamp, Pennsylvanian, and Mississippian formations, each unit to be dedicated to a well to be drilled at a standard location thereon.
- CASE 6842: Application of ARCO Oil and Gas Company for an unorthodox gas well location, simultaneous dedication, and approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its W. C. Roach Well No. 6, 660 feet from the North line and 1980 feet from the West line of Section 21, Township 20 South, Range 37 East, Eumont Gas Pool, to be simultaneously dedicated with its W. C. Roach Well No. 1 in Unit D to the W/2 of said Section 21. Also sought are findings that the proposed well is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing unit well.
- CASE 6843: Application of Yates Petroleum Corporation for two compulsory poolings, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Yeso formation underlying two 40-acre proration units, the first being the SE/4 SE/4 and the second being the SW/4 SE/4 of Section 6, Township 19 South, Range 25 East, Penasco Draw Field, each unit to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the wells and a charge for risk involved in drilling said wells.
- CASE 6844: Application of Arrowhead Oil Corporation for two exceptions to Order No. R-111-A and an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing-cementing rules of Order No. R-111-A to complete its Creek Federal Well No. 3 at an unorthodox location 250 feet from the North line and 2350 feet from the East line and its Creek Federal Well No. 4 to be drilled in Unit G, both in Section 23, Township 18 South, Range 30 East, by setting surface casing at a depth of approximately 600 feet and production casing at total depth. The production casing would have cement circulated back to the potash zone in the salt section.
- CASE 6845: Application of Marathon Oil Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled 800 feet from the North line and 200 feet from the East line of Section 30, Township 21 South, Range 23 East, Indian Basin-Upper Pennsylvanian Gas Pool, all of Section 30 or that portion thereof which may be reasonably presumed productive of gas from said pool to be dedicated to the well.

CASE 6846: Application of Doyle Hartman for two compulsory poolings, two non-standard gas proration units, and two unorthodox well locations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Eumont Gas Pool underlying two 80-acre non-standard gas proration units, the first being the S/2 NE/4 of Section 13, Township 21 South, Range 36 East, to be dedicated to a well to be drilled at an unorthodox location 1650 feet from the North line and 2310 feet from the East line of said Section 13, and the second being the N/2 NE/4 of said Section 13 to be dedicated to a well to be drilled at an unorthodox location 1330 feet from the North line and 2310 feet from the East line of said Section 13. Also to be considered will be the cost of drilling and completing said wells and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the wells and a charge for risk involved in drilling said wells.

CASE 6834: (Continued and Readvertised)

Application of Conoco Inc. for a dual completion and unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its SEMU Burger Well No. 107 at an unorthodox location 2615 feet from the South and East lines of Section 19, Township 20 South, Range 38 East, to produce oil from the Blinebry Oil and Gas and Drinkard Pools.

CASE 6837: (Continued from March 12, 1980, Examiner Hearing)

Application of Curtis Little for compulsory pooling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the W/2 of Section 7, Township 25 North, Range 3 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6847: Application of Tenneco Oil Company for dual completions and downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete, in such a manner as to produce gas from the Dakota formation and commingled Chacra and Mesaverde production through parallel strings of tubing, ten proposed wells to be located as follows: in Township 29 North, Range 10 West: Unit C, Section 19; Unit N, Section 19; Unit A, Section 30; and Unit D, Section 30; in Township 29 North, Range 11 West: Unit G, Section 24; Unit O, Section 24; Unit A, Section 25; Unit D, Section 25; Unit M, Section 25; and Unit P, Section 25.

CASE 6818: (Continued from March 12, 1980, Examiner Hearing)

Application of Tenneco Oil Company for an NGPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its State HL 11 Well No. 1 located in Unit N of Section 11, Township 19 South, Range 29 East.

CASE 6849: (This is the same matter as was previously designated Case No. 6813.)

Application of Petroleum Development Corporation to amend Order No. R-6196, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks to amend Order No. R-6196 which authorized re-entry of a well at an unorthodox location in the Lusk-Morrow Gas Pool to be dedicated to the N/2 of Section 13, Township 19 South, Range 31 East. Applicant now seeks approval for a new revised location 750 feet from the North line and 650 feet from the West line of said Section 13.

CASE 6848: Application of Petroleum Development Corporation for pool contraction and creation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the contraction of the Querecho Plains-Bone Spring Pool to comprise the Upper Bone Spring formation only, from 8390 feet to 8680 feet on the log of its McKay West Federal Well No. 1 located in Unit F of Section 34, Township 18 South, Range 32 East, and the creation of the Querecho Plains-Lower Bone Spring Pool to comprise said formation from 8680 feet to the base of the Bone Spring underlying the NW/4 of said Section 34.

CASE 6826: (Continued from March 12, 1980, Examiner Hearing)

Application of Tahoe Oil and Cattle Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Penrose Skelly Pool underlying the SE/4 SE/4 of Section 25, Township 21 South, Range 36 East, to be dedicated to its Bromlee Well No. 1 located thereon. Also to be considered will be the cost of recompleting said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in recompleting said well.

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

February 27, 1980

Case 6842

Carolyn Dawson
ARCO Oil and Gas Company
Post Office Box 1610
Midland, Texas 79702

Dear Ms. Dawson:

Your application dated February 19, 1980, for an unorthodox location, simultaneous dedication, and infill findings for the W. C. Roach Well No. 1 in Section 21, Township 20 South, Range 37 East, cannot be approved administratively.

This application will be set for hearing before an examiner on March 26, 1980. A copy of the docket will be sent to you as soon as it is printed.

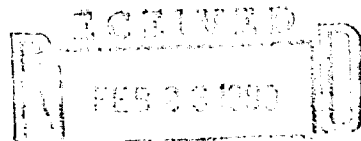
If this date is not satisfactory, please let me know.

Yours very truly,

Florene Davidson
Administrative Secretary

COPY

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



February 19, 1980

OIL CONSERVATION DIVISION
SANTA FE

Oil Conservation Division of
The New Mexico Department of Energy & Minerals
P. O. Box 2088
Santa Fe, New Mexico 87501

Case 6842

Re: W. C. Roach No. 6
Non-Standard Location, Simultaneous Dedication
& Infill Finding
Eumont Yates Seven Rivers Queen Gas Pool
660' FNL & 1980' FWL
Section 21, T20S, R37E
Lea County, New Mexico

Gentlemen:

ARCO Oil & Gas Company, a division of the Atlantic Richfield Company, respectfully requests administrative approval of a non-standard location and simultaneous dedication of the subject well with the W. C. Roach No. 1, which is currently producing as a marginal gas well from the subject field. This letter also requests that the Division issue certification that there is a need for a second well on the previously approved 320 acre non-standard proration unit. The non-standard proration unit comprises the W/2 of Section 21, T20S, T37E. This certification is necessary to meet the requirements of the NGPA of 1978 and we request the certification be handled administratively under Division Order No. R-6013. The volume of increased ultimate recovery from the drilling of the subject well is estimated to be 11.71 BCF. The reserve calculations and supporting data are attached.

In accordance to special rules and regulations set forth under Order No. R-6013, the following data is submitted with the request for an infill finding:

1. Copies of Forms C-101 and C-102 are attached.
2. A completion attempt will be made in the Eumont Gas Pool which has a standard proration unit size of 640 acres.

3. The W. C. Roach No. 1 is currently producing as a marginal well on a 320 acre non-standard proration unit. The proration unit was established under Division Order R-612.
4. The W. C. Roach No. 6 has not been spudded.
5. The W. C. Roach No. 1 is the only other well on the subject proration unit that has been drilled and completed in the Eumont gas pool. This well is located 330' FNL & 330' FWL in Section 21, T20S, R37E, Lea County, New Mexico. The No. 1 well was spudded April 2, 1936 and completed May 25, 1936 as an oil well in the Grayburg zone. In November 1954 a hole in the casing was discovered at 1350'. The well was successfully squeezed and then dually completed for Queen gas production on November 12, 1954. In February 1978 the wellbore was entered and a hole in the tubing was discovered and repaired. The Eumont perforations were acidized and the well was put on production. The leak in the tubing allowed the annulus to load up with fluid. This resulted in apparent formation damage, since production remains low. Average production for the well for September 1979 was 64 MCFD.
6. A structure map on the top of the lower Queen formation is attached. The proposed location is shown in red.
7. The volume of increased ultimate recovery is anticipated to be 11.71 BCF. The reserve calculations and supporting data are attached.
8. A list of all offset operators is attached. These operators have been sent a copy of this application by certified mail.
9. Attached is a summary of the last 12 months production for the W. C. Roach No. 1 and the allowable for a normal 320 acre spacing unit.

The New Mexico Dept. of Energy & Minerals
Page 3
February 19, 1980

At no time during the past year has the No. 1 made the allowable. With the additional well-bore, the Roach lease should return to full allowable and will help prevent waste and eliminate unnecessary drainage.

Approval of a non-standard location is necessary to allow the W. C. Roach No. 6 to benefit from the structure and net pay in the area. The proposed location was chosen on the basis of the structure map and net pay map, both of which are included.

Atlantic Richfield Company believes approval of these requests will be in the interest of conservation, protection of correlative rights, and allow for more complete recovery of Eumont gas reserves from the subject acreage.

Respectfully,

Carolyn Dawson

Carolyn Dawson

Attachments

CD:mo

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|------------------------|--|
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| LAND OFFICE | |
| OPERATOR | |

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-4-65

| | | |
|------------------------------|--------------------------------|---|
| 5A. Indicate Type of Lease | STATE <input type="checkbox"/> | FEE <input checked="" type="checkbox"/> |
| 5. State Oil & Gas Lease No. | | |

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

| | | | | |
|--|--|---|---|--|
| 1a. Type of Work | DRILL <input checked="" type="checkbox"/> | DEEPEN <input type="checkbox"/> | PLUG BACK <input type="checkbox"/> | 7. Unit Agreement Name |
| b. Type of Well | OIL WELL <input type="checkbox"/> | CAS WELL <input checked="" type="checkbox"/> | OTHER <input type="checkbox"/> | 8. Farm or Lease Name |
| | | SINGLE ZONE <input checked="" type="checkbox"/> | MULTIPLE ZONE <input type="checkbox"/> | W. C. Roach |
| 2. Name of Operator | ARCO Oil and Gas Company Division of Atlantic Richfield Company | | | 9. Well No. |
| 3. Address of Operator | Box 1710, Hobbs, New Mexico 88240 | | | 6 |
| 4. Location of Well | UNIT LETTER C LOCATED 660 FEET FROM THE North LINE AND 1980 FEET FROM THE West LINE OF SEC. 21 TWP. 20S RGE. 37E NMPM | | | 10. Field and Pool, or Wildcat Eumont Yates 7R Queen Gas |
| | | | | 12. County Lea |
| | | | | 19. Proposed Depth 3595' |
| | | | | 19A. Permittion Yates 7R Qn Gas |
| | | | | 20. Rotary or C.T. Rotary |
| 21. Elevations (Show whether DI, RT, etc.) 3509.7' GR | 21A. Kind & Status Plug. Bond GCA #8 | 21B. Drilling Contractor Not selected | 22. Approx. Date Work will start 2/15/80 | |

PROPOSED CASING AND CEMENT PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | SACKS OF CEMENT | EST. TOP |
|--------------|----------------|-----------------|---------------|-----------------|--------------|
| 11" | 8-5/8" OD | 24# K-55 | 1200' | 525 | Circ to surf |
| 7-7/8" | 4 1/2" OD | 9.5# K-55 | 3595' | 875 | Circ to surf |

Propose to drill a development well and test the producing capabilities of the Eumont Queen Gas zone. This location will be subject to NMOCDC approval of a non-standard location, simultaneous dedication of acreage with existing W. C. Roach No. 1 and infill finding (Section 103).

Blowout Preventer Program attached.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed [Signature] Title Dist. Dirg. Supt. Date 2/11/80

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
11-11-69 1-4-85

All distances must be from the outer boundaries of the Section.

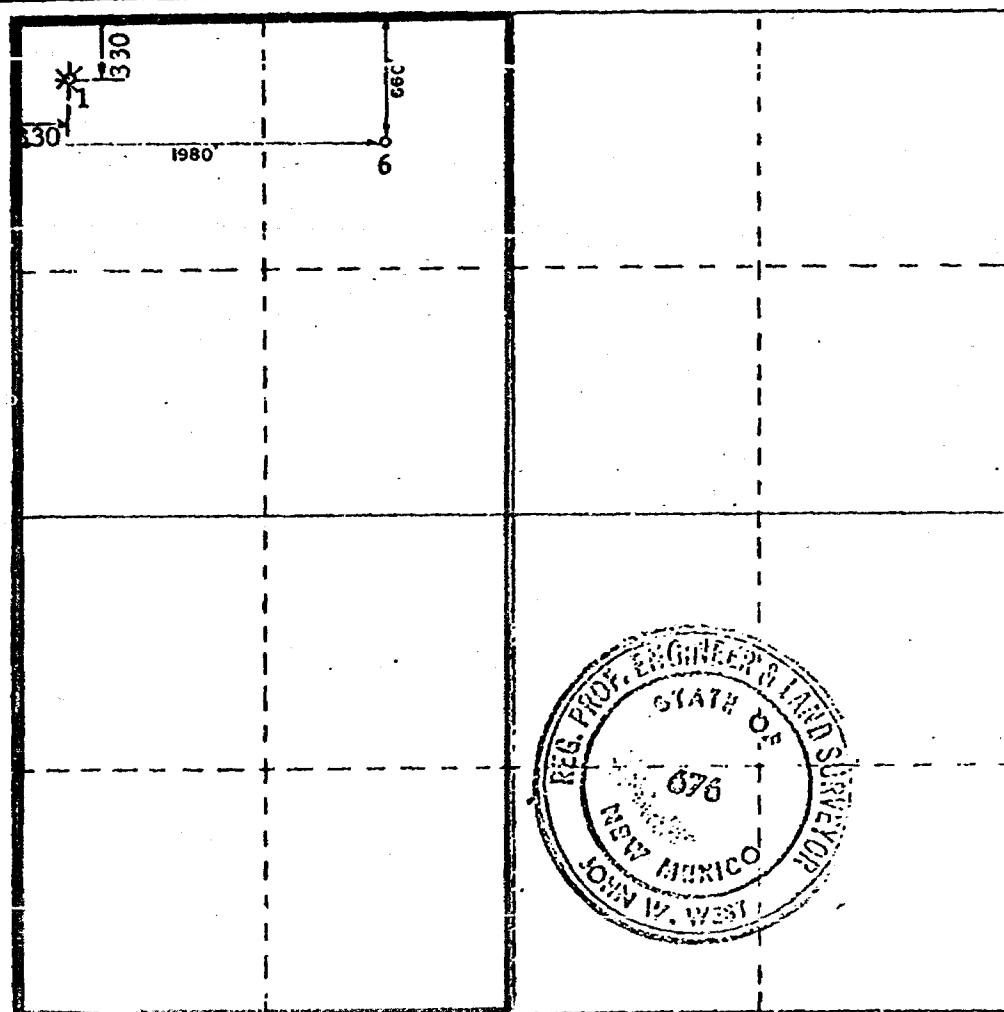
| | | | | |
|--|---|------------------------------|---------------------|---------------|
| Operator Division of Atlantic Richfield Co. ARCO Oil & Gas Co. | | Loco- William C. Rouch | | Well No. 6 |
| Unit Letter C | Section 21 | Township 20 South | Range 37 East | Lea |
| Actual Footage Location of Well: | | | | |
| 660 feet from the North line and | | 1980 feet from the West line | | |
| Ground Level Elev. 3509.7 | Producing Formation Yates 7R Queen Gas | Pool Eumont Gas | Well Spacing 320 | |

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list the owners and tract descriptions which have actually been consolidated (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information furnished herein is true and complete to the best of my knowledge and belief.

[Signature]

Dist Drlg Supt.
ARCO Oil and Gas Company
Division of Atlantic Richfield Company

Date
2/11/80

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

2-5-1980

Registered Professional Engineer
and State Surveyor

[Signature]

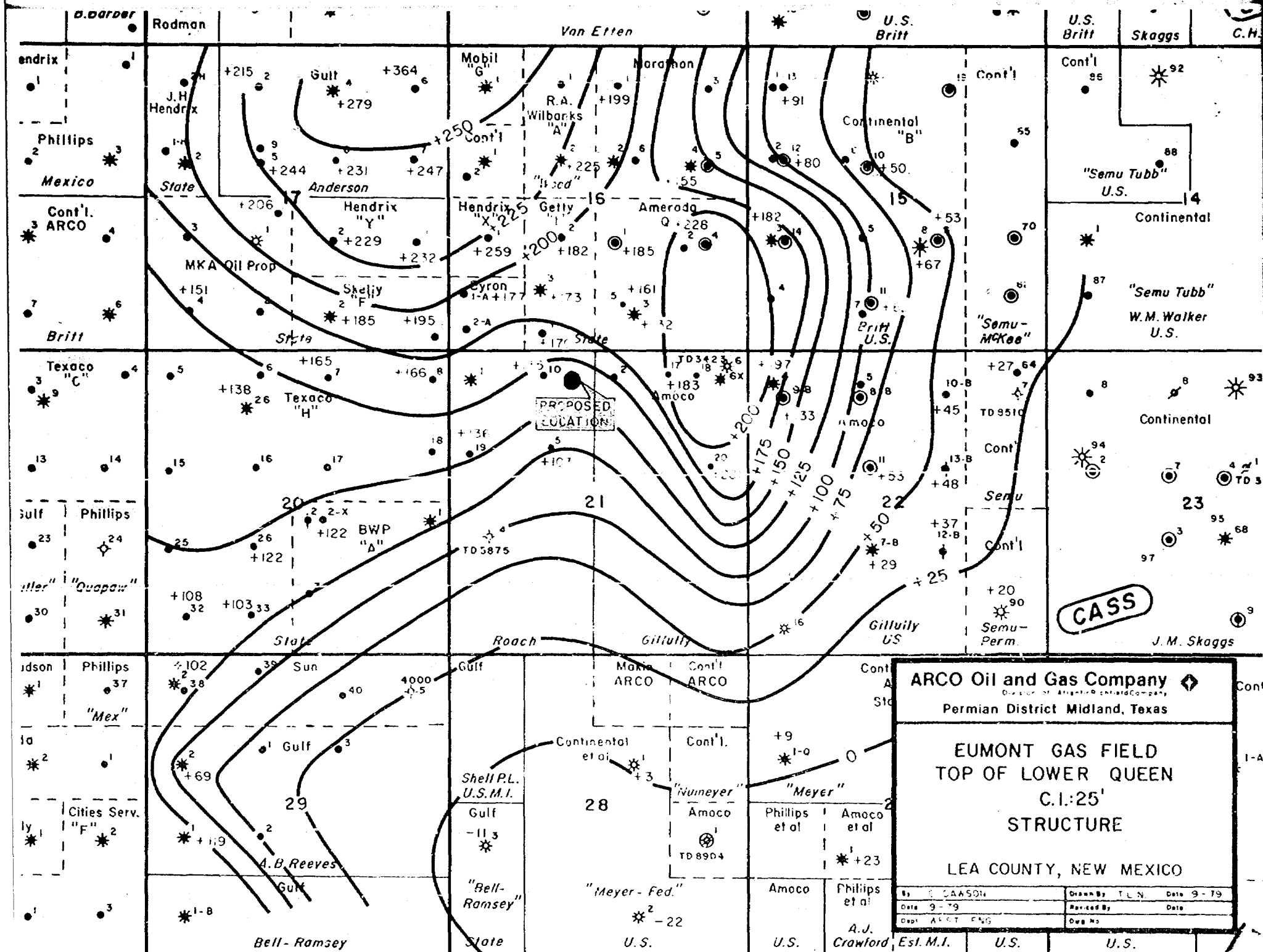
Certified by JOHN W. WEST 676
PATRICK A. ROMERO 6858
Donald J. Edison 7236

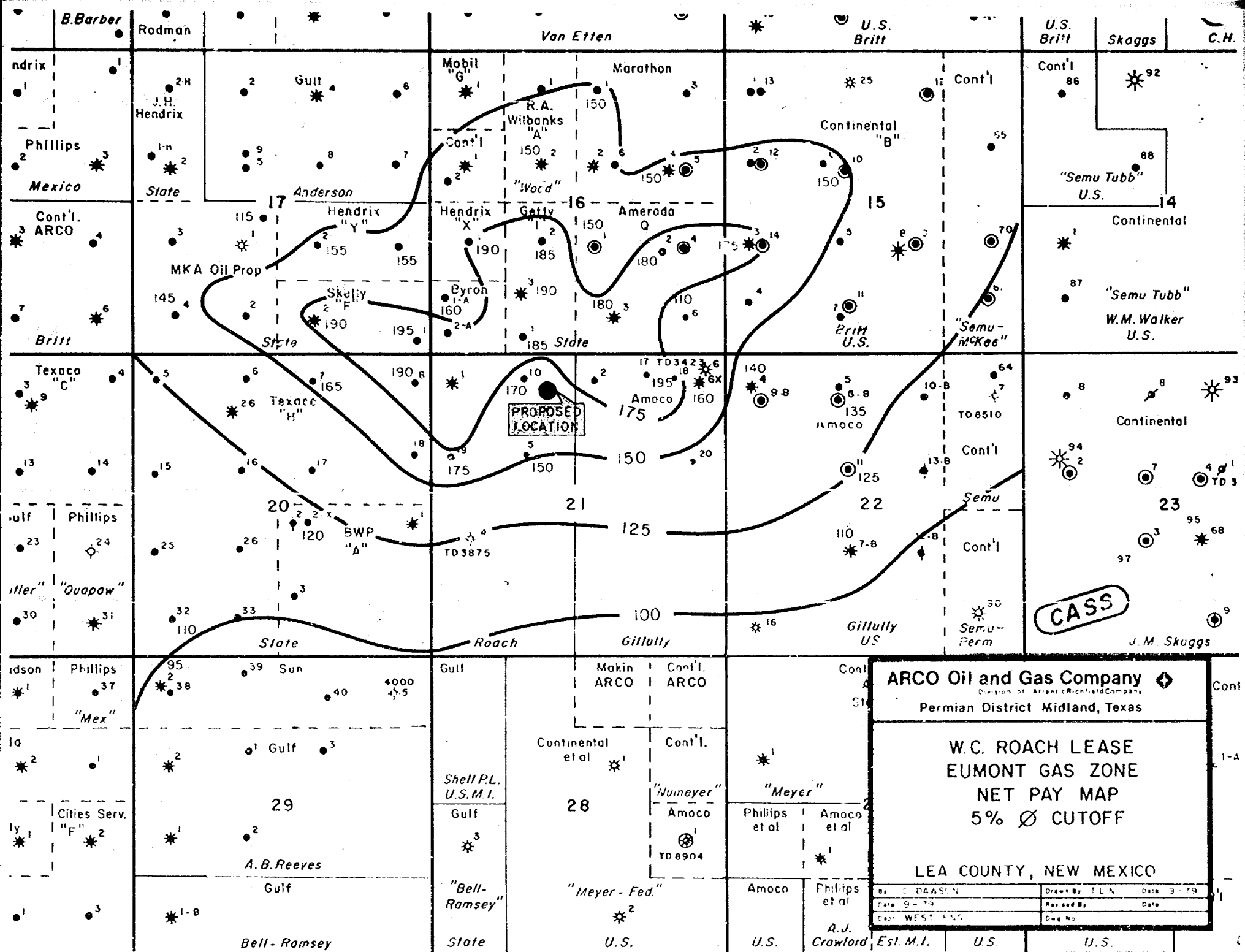
EUMONT GAS POOL
W. C. Roach No. 1
Production vs. Allowable

| | MONTHLY GAS PRODUCTION W. C. Roach No. 1 | | |
|-------------|---|-----------|---------------|
| | <u>MCF</u> | <u>AF</u> | <u>STATUS</u> |
| Oct., 1979 | 1999 | 2.0 | M |
| Sept., 1979 | 1919 | 2.0 | M |
| Aug., 1979 | 2212 | 2.0 | M |
| July., 1979 | 2103 | 2.0 | m |
| June, 1979 | 1944 | 2.0 | M |
| May, 1979 | 1772 | 2.0 | M |
| April, 1979 | 1805 | 2.0 | M |
| March, 1979 | 2002 | 2.0 | M |
| Feb., 1979 | 1915 | 2.0 | M |
| Jan., 1979 | 1867 | 2.0 | M |
| Dec., 1978 | 1842 | 2.0 | M |
| Nov., 1978 | 1806 | 2.0 | M |

Eumont Gas Non-
Marginal Allowable,
320 acres - MCF

57284
54887
54535
54535
50942
54156
57975
62534
56482
66532
66456
62318





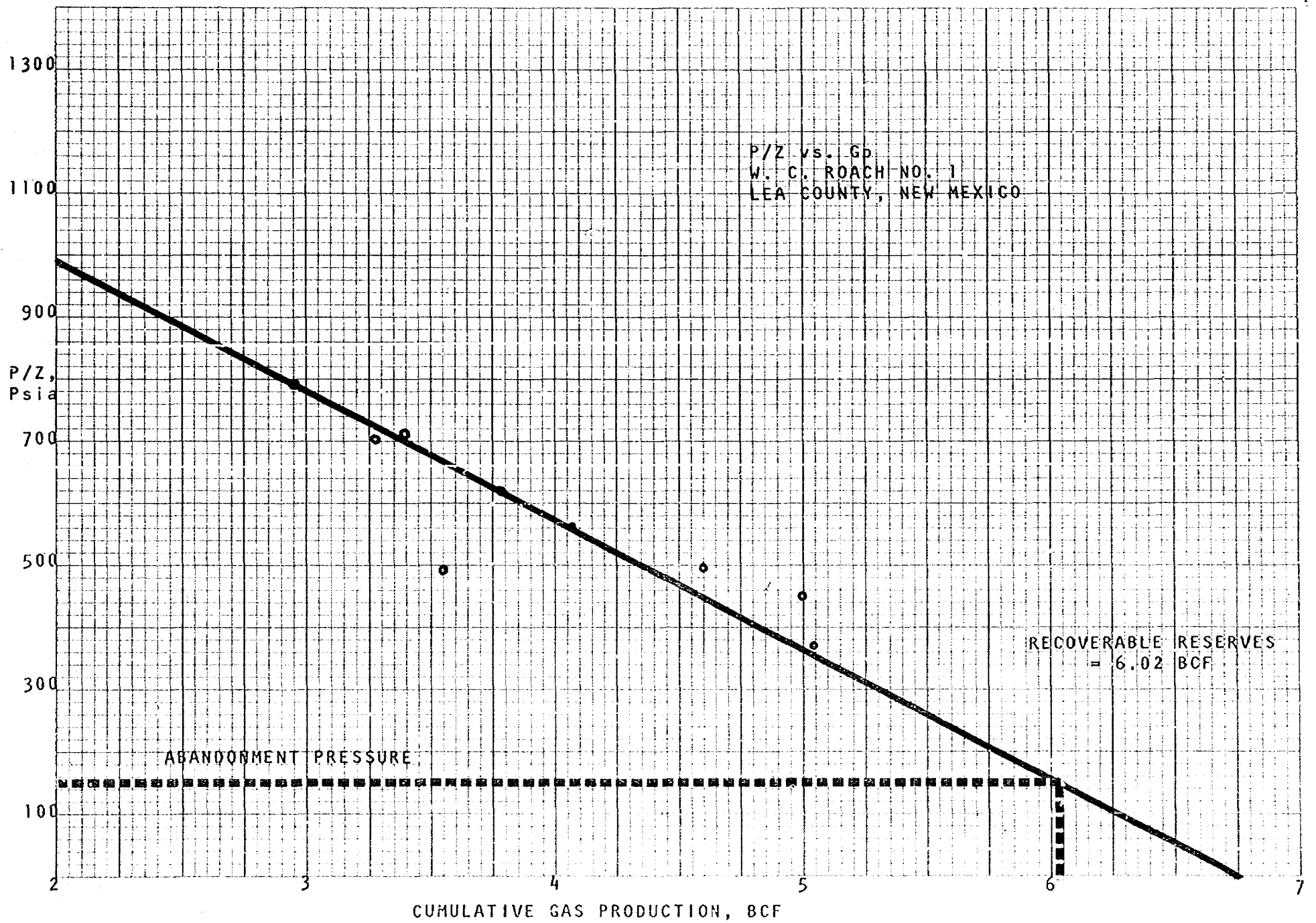
W. C. ROACH LEASE
EUMONT GAS ZONE
CALCULATION OF AVERAGE NET
PAY

| <u>Isopach</u> | <u>Planimeter Area</u> | <u>Area, Acres</u> |
|----------------|------------------------|--------------------|
| 75 - 100 | .008 | 30 |
| 100 - 125 | .028 | 104 |
| 125 - 150 | .017 | 63 |
| 150 - 175 | .020 | 74 |
| 175 - 200 | <u>.013</u> | <u>48</u> |
| | .086 | 320 |

320 acres = .086

| | <u>V, acre-ft</u> |
|-------------|-------------------|
| 87.5 (30) | 2625 |
| 112.5 (104) | 11700 |
| 137.5 (63) | 8663 |
| 162.5 (75) | 12186 |
| 187.5 (48) | <u>9000</u> |
| | 44174 |

$\frac{44174 \text{ ac-ft}}{320 \text{ ac}} = 138 \text{ ft}$



RESERVE CALCULATIONS
W. C. ROACH NO. 1
320 Acre Proration Unit
(Eumont Gas)
W/2 Section 21-T20S-R37E
Lea County, NM

1. Calculation of Gas in Place by Volumetric Method

$$G = 43560 \times V_b \times \phi \times (1-S_w) \times B_{gi}$$

Where:

$$V_b = \text{Acre} \times \text{Avg. Net Pay, Ft} *$$

$$= 320 \times 138'$$

$$= 44174 \text{ ac-ft}$$

$$\phi = 11.5\% \text{ (Average from available logs)}$$

$$S_w = 27.1\% **$$

$$B_{gi} = 35.35 \frac{P}{ZT} ** \frac{\text{SCF}}{\text{Cu.Ft.}}$$

$$= \frac{(35.35)(1450)}{(.773)(554)}$$

$$= 119.69 \frac{\text{SCF}}{\text{CU.FT.}}$$

Therefore,

$$G = (43560)(44174)(.115)(1-.271)(119.69)$$

$$= 19.31 \text{ BCF}$$

* See attached isopach map and calculation

** Published in Oil & Gas Fields of Southeast New Mexico, 1956,
by Roswell Geological Society

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Reserve Calculations

W. C. Roach No. 1

320 Acre Proration Unit

W/2 Section 21-T20S-R37E

Lea County, New Mexico

II. Calculation of Recoverable Gas on 320 acres

Assume Abandonment $P/Z = 150$ psia

$$G = 43560 \times V_b \times \phi \times (1 - S_w) \times (B_{gi} - B_{ga})$$

Where:

$$B_{ga} = \frac{(35.35)(150)}{(.980)(554)}$$

$$= 9.77 \frac{\text{SCF}}{\text{Cu.Ft.}}$$

Therefore,

$$G = (43560)(44174)(.115)(1 - .271)(119.69 - 9.77) \\ = 17.73 \text{ BCF}$$

III. Calculation of Unrecoverable Reserves - 320 Acre Proration Unit

Unrecoverable Reserves = Recoverable Reserves to P/Z of 150 psia

- Economic Recovery from W. C. Roach No. 1 *

$$= 17.73 \text{ BCF} - 6.02 \text{ BCF}$$

$$= 11.71 \text{ BCF}$$

* See attached P/Z graph and supporting data.

PRODUCTION HISTORY*
W. C. ROACH No.1
Sec. 21-T20S-R37E
Lea County, N.M.

| <u>DATE</u> | <u>BHP/Z</u> | <u>Cumulative Gas Production, MMCF</u> |
|-------------|--------------|--|
| 7-16-70 | 792 | 2947.4 |
| 7-12-71 | 706 | 3272.3 |
| 6-16-72 | 713 | 3395.2 |
| 10-15-72 | 491 | 3533.5 |
| 3-29-73 | 621 | 3783.8 |
| 3-1-74 | 564 | 4068.6 |
| 4-24-75 | 491 | 4592.6 |
| 5-17-76 | 451 | 4991.5 |
| 2-4-77 | 367 | 5031.9 |

* Published in Natural Gas Well Production Histories,
Gas Graph Report, by Dwight's, Dallas, Tx.

W. C. ROACH LEASE
EUMONT GAS ZONE
SUMMARY OF WELLS
USED IN
ISOPACH MAP

| <u>WELL & LEASE</u> | <u>LOCATION</u> | <u>OPERATOR</u> | <u>DATE COMPLETED</u> | <u>LOGS</u> | <u>NET PAY, FT</u> |
|-------------------------|------------------------------------|-----------------|-----------------------|--|------------------------|
| Britt B-15#3 | 1980 FSL, 330 FWL 15-T20S-R37E | Conoco | 12-13-38 | Lane Wells GR-NL 11-30-49 2300-3845' | 175 |
| Britt B #10 | 1980 FNL, 1980 FWL 15-T20S-R37E | Conoco | 6-11-64 | Frontier GR-NL 3-17-60 Surf-6947' | 150 |
| State I #1 | 330 FSL, 1650 FWL 16-T20S-R37E | Getty | 10-21-36 | Western GR-NL 7-3-53 Surf-3835 | 185 |
| State I #2 | 1980 FSL, 1980 FWL 16-T20S-R37E | Getty | 3-20-37 | Welex GR-NL 3-22-58 50-3811' | 185 |
| State I #3 | 990 FSL, 1650 FWL 16-T20S-R37E | Getty | 1-11-56 | McCullough GR-NL 12-30-55 Surf-3542' | 190 |
| State Q #1 | 1980 FSL, 2310 FEL 16-T20S-R37E | Amerada | 6-13-37 | Schlumberger GR-NL 5-31-59 Surf-6939' | 150 |
| State Q #2 | 1980 FSL, 990 FEL 16-T20S-R37E | Amerada | 10-6-55 | Lane Wells GR-NL 7-10-61 Surf-3834' | 180 |
| State Q #3 | 1980 FEL, 660 FSL 16-T20S-R37E | Amerada | 8-22-51 | Lane Wells GR-NL 7-1-51 Surf-3875' | 180 |
| State Q #6 | 660 FSL, 660 FEL 16-T20S-R37E | Amerada | 10-13-75 | Schlumberger CNL-FDC 9-24-75 Surf-5255' | 110 |
| State X #1 | 1980 FSL, 660 FWL 16-T20S-R37E | Amerada | 5-6-37 | Welex GR-NL 1-6-61 Surf-3834' | 190 |

Summary of Wells used in Isopach Map

| WELL & LEASE | LOCATION | OPERATOR | DATE COMPLETED | LOGS | NET PAY, FT |
|--------------------------|------------------------------------|-------------------------|----------------|--|-------------|
| State GA #1 | 330 FWL, 990 FSL 16-T20S-R37E | W.K.Byrom | 7-10-59 | Schlumberger GR-NL 7-1-59 2180-3850' | 160 |
| Hansen State #1 | 660 FNL, 2310 FEL 16-T20S-R37E | Marathon | 5-14-37 | Welex GR-NL 10-8-54 50-3834' | 150 |
| Hansen State #4 | 1980 FNL, 990 FEL 16-T20S-R37E | Continental | 2-18-38 | Western GR-NL 6-11-54 50-3845' | 150 |
| Wood A State #2 | 1980 FNL, 1650 FWL 16-T20S-R37E | Wilbanks & Rasmussen | 3-22-37 | Schlumberger GR-NL 4-4-57 2360-3802' | 150 |
| State F #1 | 330 FSL, 330 FEL 17-T20S-R37E | Skelly | 8-20-36 | Lane Wells GR-NL 11-19-55 Surf-3767' | 195 |
| State F #2 | 1980 FEL, 660 FSL 17-T20S-R37E | Skelly | 3-20-37 | Lane Wells GR-NL 6-7-56 Surf-3861' | 190 |
| State Y #1 | 1980 FSL, 660 FEL 17-T20S-R37E | Amerada | 5-15-37 | Schlumberger GR-NL 7-27-62 100-3794' | 155 |
| State Y #2 | 1980 FSL, 1980 FEL 17-T20S-R37E | Amerada | 5-28-37 | Lane Wells GR-NL 11-15-55 Surf-3808' | 155 |
| New Mexico State F #1 | 1980 FSL, 1980 FWL 17-T20S-R37E | MKA Oil Properties | 2-26-37 | Perf.Guns Atlas Corp GR-NL 6-15-52 Surf.3845 | 115 |
| New Mexico State F #4 | 660 FSL, 660 FWL 17-T20S-R37E | MKA Oil Properties | 5-10-37 | Lane Wells GR-NL 8-3-54 Surf.3855' | 145 |
| Eunice Monument #7 | 660 FNL, 1980 FEL 20-T20S-R37E | Texaco | 3-6-37 | Lane Wells Gr-NL 10-31-50 Surf.3840' | 165 |

Summary of Wells used in Isopach Map

| <u>WELL & LEASE</u> | <u>LOCATION</u> | <u>OPERATOR</u> | <u>DATE COMPLETED</u> | <u>LOGS</u> | <u>NET PAY, FT</u> |
|--------------------------|------------------------------------|-----------------|-----------------------|---|--------------------|
| Eunice Monument Unit #8 | 330 FNL, 330 FEL 20-T20S-R37E | Texaco | 10-29-36 | Lane Wells GR-NL 10-31-50 Surf-3840' | 190 |
| Eunice Monument Unit #32 | 660 FSL, 660 FWL 20-T20S-R37E | Texaco | 8-14-37 | Welex GR-NL 4-12-61 Surf-3848' | 110 |
| State A 20 #2-X | 2100 FEL, 2310 FSL 20-T20S-R37E | B.W.P. INC. | 11-28-58 | Welex GR-NL 7-10-58 2500-3817' | 120 |
| Eunice Monument Unit #10 | 330 FNL, 1650 FWL 21-T20S-R37E | Texaco | 12-12-36 | McCullough GR-NL 6-21-54 Surf-3833' | 170 |
| Eunice Monument Unit #19 | 1650 FNL, 330 FWL 21-T20S-R37E | Texaco | 9-27-54 | McCullough GR-NL 9-12-54 Surf-3854' | 175 |
| W.C. Roach #5 | 1650 FNL, 330 FWL 21-T20S-R37E | ARCO | 5-21-73 | Schlumberger NPL 5-12-73 Surf-3801' | 150 |
| Gilluly B#6X | 330 FNL, 660 FEL 21-T20S-R37E | Pan American | 2-12-40 | Schlumberger GR-NL 3-30-54 Surf-3835' | 160 |
| Gilluly B#17 | 660 FNL, 1650 FEL 21-T20S-R37E | Amoco | 5-16-78 | Schlumberger CNL-FDC 3-26-78 1250-6701 | 195 |
| Gilluly B#4 | 330 FNL, 330 FWL 22-T20S-R37E | Pan American | 6-1-39 | Lane Wells GR-NL 3-5-54 Surf-3834' | 140 |
| Gilluly B#7 | 1980 FSL, 1980 FWL 22-T20S-R37E | Pan American | 3-29-56 | Welex GR-NL 1-1-56 3310-3519 | 110 |

Page 4

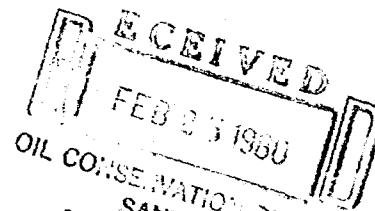
Summary of Wells used in Isopach Map

| <u>WELL & LEASE</u> | <u>LOCATION</u> | <u>OPERATOR</u> | <u>DATE COMPLETED</u> | <u>LOGS</u> | <u>NET PAY, FT</u> |
|-------------------------|------------------------------------|-------------------|-----------------------|---|--------------------|
| Gilluly B #8 | 660 FNL, 1980 FEL 22-T20S-R37E | Pan Ameri- can | 10-4-52 | Pan. Geo. Atlas Corp GR-NL LL 9-11-62 Surf-6603 | 135 |
| Gilluly B #11 | 1980 FNL, 1980 FWL 22-T20S-R37E | Pan Ameri- can | 4-24-64 | Pan Geo. Atlas Corp GR-AL 11-18-63 200-6818' | 125 |

ARCO Oil and Gas Company
Permian District
Post Office Box 1610
Midland, Texas 79702
Telephone 915 684 0100



February 22, 1980



Oil Conservation Division of
The New Mexico Department of Energy & Minerals
P. O. Box 2088
Santa Fe, New Mexico 87501

Case 6842

Re: Our letter dtd, 2/13/80 referencing:
W. C. Roach No. 6

Gentlemen:

Enclosed please find the list of Offset Operators
omitted from our letter dated above.

Respectfully,

Carolyn L. Dawson

Carolyn Dawson

Attachment

CD:mo

LIST OF OFFSET OPERATORS

Amerada Hess Corporation
1209 S. Main
Lovington, New Mexico 88260

Amoco Production Company
P. O. Box 68
Hobbs, New Mexico 88240

B.W.P. Incorporated
1012 Alpine
Midland, Texas 79701

W. K. Byrom, Oil Operator
P. O. Box 147
Hobbs, New Mexico 88240

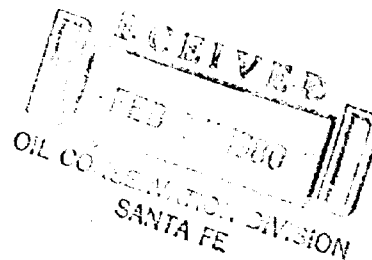
Conoco, Inc.
P. O. Box 460
Hobbs, New Mexico 88240

Getty Oil Company
P. O. Box 1231
Midland, Texas 79702

Gulf Oil Company
P. O. Box 1150
Midland, Texas 79702

Sun Production Company
P. O. Box 1861
Midland, Texas 79702

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79701



DRAFT

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

dr/

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6842

Order No. R- 6308

APPLICATION OF ARCO OIL AND GAS
COMPANY FOR AN UNORTHODOX GAS WELL
LOCATION, SIMULTANEOUS DEDICATION,
AND APPROVAL OF INFILL DRILLING,
LEA COUNTY, NEW MEXICO.

JLR

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 26,
19 80, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this _____ day of _____, 19 80, the Division
Director, having considered the record and the recommendations of
the Examiner, and being fully advised in the premises,

FINDS:

That the applicant's request for dismissal should be granted.

IT IS THEREFORE ORDERED:

That Case No. 6842 is hereby dismissed.

DONE at Santa Fe, New Mexico, on the day and year hereinabove
designated.

SP
Bill

Don