



Amoco Production Company

Post Office Box 68
Hobbs, New Mexico 88240

L. R. Smith
District Manager

April 24, 1986

File: SGH-673-WF

Re: Hardship Gas Well Classification
Brantley Gas Com No. 1
Section 22, T-23-S, R-28-E
Eddy County, New Mexico

Case 8921

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Attention: R. L. Stamets, Director

As operator of the Brantley Gas Com No. 1, Amoco Production Company is submitting the attached Application for Classification as Hardship Gas Well. Included with the application are the following: Report of Fracture Stimulation Performed in February, 1986, Ownership Plat for Teledyne Area, Wellbore Sketch, Cumulative Production Graph, an Industry Production Data Chart, Well Location and Acreage Dedication Plat, and Statement of Certification that all data submitted is true and correct to the best of my knowledge.

If you have any questions, please contact K. H. Dawson at 393-1781, Extension 306.

J. R. Smith

BAO/tjt
APRD05-BBB

Attachments

April 24, 1986
File: SGH-673-WF
Page 2

cc: El Paso Natural Gas Company
P. O. Box 1492
El Paso, TX 79978
Attention: Ray McClure

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Drawer DD
Artesia, NM 88210

Application Form Only
All Offset Operators
(See attached addressee list)

LIST OF OFFSET OPERATORS
BRANTLEY GAS COM WELL NO. 1 - APPLICATION FOR
CLASSIFICATION AS HARDSHIP GAS WELL

BELCO PETROLEUM CORPORATION
411 PETROLEUM BUILDING
204 W. TEXAS STREET
MIDLAND, TX 79701

MILTON WESSELS
BOX 90717
HOUSTON, TX 77090

MADDOX ENERGY CORPORATION
717 NORTH HARWOOD
SUITE 3030, LB14
DALLAS, TX 75207

READING & BATES PETROLEUM COMPANY
810 N. DIXIE
ODESSA, TX 79761

R. F. FORT, ET AL
P. O. BOX 2044
MIDLAND, TX 79702

J. H. ISBELL
105 GIHLS TOWER WEST
MIDLAND, TX 79701

P 119 335 927

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, Feb. 1982
* U.S.G.P.O. 1984-446-014

Sent to	<i>Belco Petroleum Corp.</i>	
Street and No.	<i>471 Petroleum Bldg.</i>	
P.O., State and ZIP Code	<i>204 W. Federal Street Midland, TX 79701</i>	
Postage	\$	<i>.22</i>
Certified Fee		<i>.75</i>
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees	\$	<i>.97</i>
Postmark or Date		

P 119 335 926

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
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(See Reverse)

PS Form 3800, Feb. 1982
* U.S.G.P.O. 1984-446-014

Sent to	<i>Milton Messels</i>	
Street and No.	<i>Box 90717</i>	
P.O., State and ZIP Code	<i>Houston, TX 77090</i>	
Postage	\$	<i>.22</i>
Certified Fee		<i>.75</i>
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees	\$	<i>.97</i>
Postmark or Date		

P 119 335 922

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, Feb. 1982
* U.S.G.P.O. 1984-446-014

Sent to	<i>J. H. Schell</i>	
Street and No.	<i>705 Gible Lower Rd.</i>	
P.O., State and ZIP Code	<i>Midland, TX 79706</i>	
Postage	\$	<i>.22</i>
Certified Fee		<i>.75</i>
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees	\$	<i>.97</i>
Postmark or Date		

P 119 335 923

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, Feb. 1982
* U.S.G.P.O. 1984-446-014

Sent to	<i>Reading & Bates Petroleum Company</i>	
Street and No.	<i>810 N. Dixie</i>	
P.O., State and ZIP Code	<i>Odessa, TX 79761</i>	
Postage	\$	<i>.22</i>
Certified Fee		<i>.75</i>
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees	\$	<i>.95</i>
Postmark or Date		

P 119 335 924

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, Feb. 1982
* U.S.G.P.O. 1984-446-014

Sent to	<i>R. F. Fort et al</i>	
Street and No.	<i>P.O. Box 2044</i>	
P.O., State and ZIP Code	<i>Midland, TX 79702</i>	
Postage	\$	<i>.22</i>
Certified Fee		<i>.75</i>
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees	\$	<i>.95</i>
Postmark or Date		

P 119 335 925

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

PS Form 3800, Feb. 1982
* U.S.G.P.O. 1984-446-014

Sent to	<i>Maddox Energy Corp.</i>	
Street and No.	<i>717 North Harwood</i>	
P.O., State and ZIP Code	<i>Suite 3030, CB14 Dallas, TX 75207</i>	
Postage	\$	<i>.22</i>
Certified Fee		<i>.75</i>
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to whom and Date Delivered		
Return receipt showing to whom, Date, and Address of Delivery		
TOTAL Postage and Fees	\$	<i>.97</i>
Postmark or Date		

Case 8921

APPLICATION FOR CLASSIFICATION AS HARDSHIP GAS WELL

Operator AMOCO PRODUCTION COMPANY Contact Party KENT H. DAWSON
Address P. O. BOX 68 HOBBS, NEW MEXICO 88240 Phone No. (505) 393-1781
Lease Brantley Gas Com Well No. 1 UT J Sec. 22 TWP 23-S RGE 28-E
Pool Name North Loving Morrow Gas Minimum Rate Requested 85 MCFD
Transporter Name El Paso Natural Gas Company Purchaser (if different) _____

Are you seeking emergency "hardship" classification for this well? 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).
- 5) 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.

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.

BRANTLEY GAS COM NO. 1

The Brantley Gas Com No. 1 is a candidate for a "hardship" gas well classification due to the potential loss of reserves. The following is our reasoning for applying for a "hardship" status for this well.

The Brantley Gas Com No. 1 was fracture stimulated on 2-24-86. A total of 1342 bbls. of fracture fluids were injected into the formation. A swab unit was moved in on 2-24-86 to recover load water and kick the well off. The well was swabbed for twelve days with 356 BLW being recovered before the well began flowing. (Attached is a day-by-day account of the work done on the well after fracturing.) The well was flow tested for three days beginning on 3-16-86. The average recovery for these three days was 22 BLW x 85 MCFD. The well was shut-in by El Paso due to market conditions on 3-19-86 and had a shut-in tubing pressure of 2050 psi. The well was shut-in for sixteen days with a final TPC of 700 psi. During shut-in, the TPC dropped 1350 psi due to fluid build-up in the wellbore, for an average reduction in pressure of 84 psi per day. The well was returned to sales 4-4-86 and died after flowing one hour. A swab unit was moved in to kick the well off again. The well was swabbed two days prior to flowing. The Brantley is currently flowing 3 BCPD x 11 BLWPD x 68 MCFD with a TPF of 500 psi on a 32/64" choke. It is evident that damage occurred while shutting the well in. The rate prior was 85 MCFD and after it is 68 MCFD.

Continued shutting-in will increase operating expenses for this well due to swabbing expense required to kick the well off. This will result in

abandoning the well at an earlier date, resulting in loss of reserves. Also, we feel that repeated shutting-in will cause a continued decrease in the flow rate, which will result in a loss of reserves.

Reserves for the well are estimated to be 1.3 BCF by P/Z calculations. The well is currently being produced at the minimum sustainable rate.

KHD/sh
EDRLG2-C

BRANTLEY GAS COM NO. 1

Reserves estimated @ 1.3 BCF assuming P/Z abandonment pressure is 1000 psi.

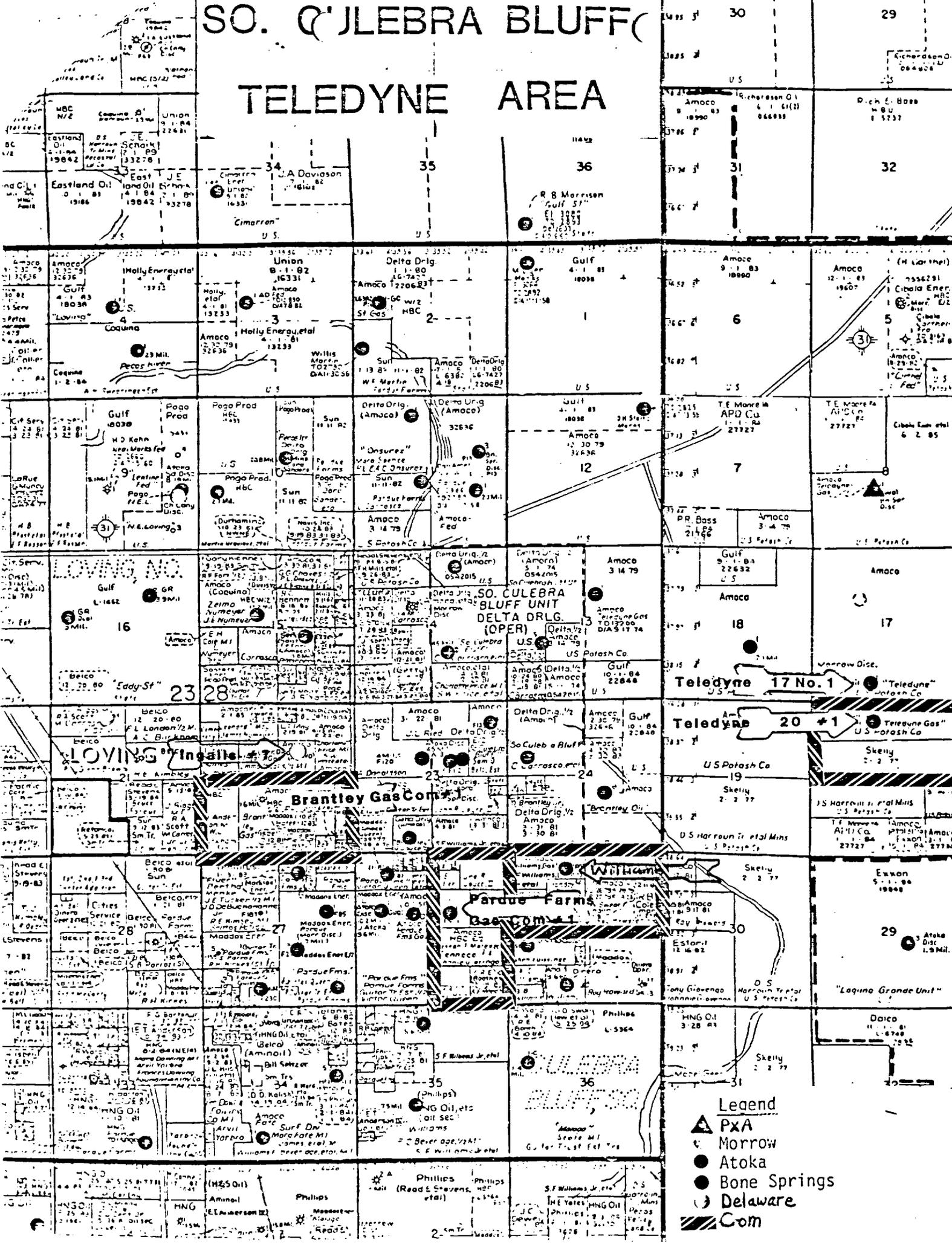
Fracture stimulate

2-24-86	MOSU	
2-24-86	MI Swab Unit	
2-25-86	SI 14 hr. TPC 50 psi; swab	63 BLW x Trace Gas
2-26-86	SI 14 hr. TPC 150 psi; swab	68 BLW x Trace Gas
2-27-86	SI 14 hr. TPC 200 psi; swab	40 BLW x Trace Gas
2-28-86	SI 14 hr. TPC 225 psi; swab	40 BLW x Good Show of Gas
3-01-86	SI 14 hr. TPC 225 psi; swab	40 BLW x Blow on Tbg.
3-03-86	SI 37 hr. TPC 1400 psi; swab	26 BLW x 2 B0 x Blow on Tbg.
3-04-86	SI 14 hr. TPC 1060 psi; swab	23 BLW x 3 B0 x Blow on Tbg.
3-05-86	SI 14 hr. TPC 1200 psi; swab	20 BLW x 2 B0 x Blow on Tbg.
3-06-86	SI 14 hr. TPC 1350 psi; swab	18 BLW x 2 B0 x Light SG
3-09-86	40 hr. SITP 2050 psi	64 hr. SITP 2125 psi
3-10-86	SI 85 hr. TPC 2100 psi; swab CPC 1000 psi	18 BLW x 2 B0 x Show of Gas
3-11-86	SI 14 hr. TPC 1750 psi; swab	12 BLW x 2 B0
3-12-86	SI 14 hr. TPC 1500 psi; swab CPC 250	6 BLW x 2 B0 x Strong Show of Gas
	MO Swab Unit 3/12/86	
3-16-86	48 hr. TPC 2050 psi	Flw avg 75 MCFD
3-17-86	Flw 0 BC x 22 BLW x 85 MCFD	TPF 470 psi
3-18-86	Flw 0 BC x 23 BLW x 85 MCFD	TPF 450 psi
3-19-86	Well SI 3-18-86 by El Paso	<u>TPC 2050 psi</u>
4-03-86	<u>TPC 700 psi</u> Open well	
4-04-86	Flw 1 hr x died x no fl rec x well dead	
4-05-86	TPC 275 psi RU swab unit 4-4-86 Rec 40 BLW x 2 BC	SION

4-06-86 SITP 1800 psi; swab Rec 3 BLW
4-07-86 Swab x Kick well off Flw 0 BC x 17 BLW x 177 MCFD
TPF 680 psi on 5/64" choke. MOSU 4-7-86
4-08-86 Flow 0 BF x 66 MCF TPF 800 on 10/64"
4-09-86 Flw 3 BC x 27 BLW x 68 MCF TPF 520 psi on 32/64"
4-10-86 Flw 3 BC x 11 BLW x 68 MCF TPF 500 psi

SO. CULEBRA BLUFF

TELEDYNE AREA



Legend

- ▲ PxA
- Morrow
- Atoka
- Bone Springs
- Delaware
- ▨ Com



Amoco Production Company

ENGINEERING CHART

SHEET NO. _____ OF _____

FILE _____

APPN _____

SUBJECT BRANTLEY GAS COM. # 1

DATE 10-31-80

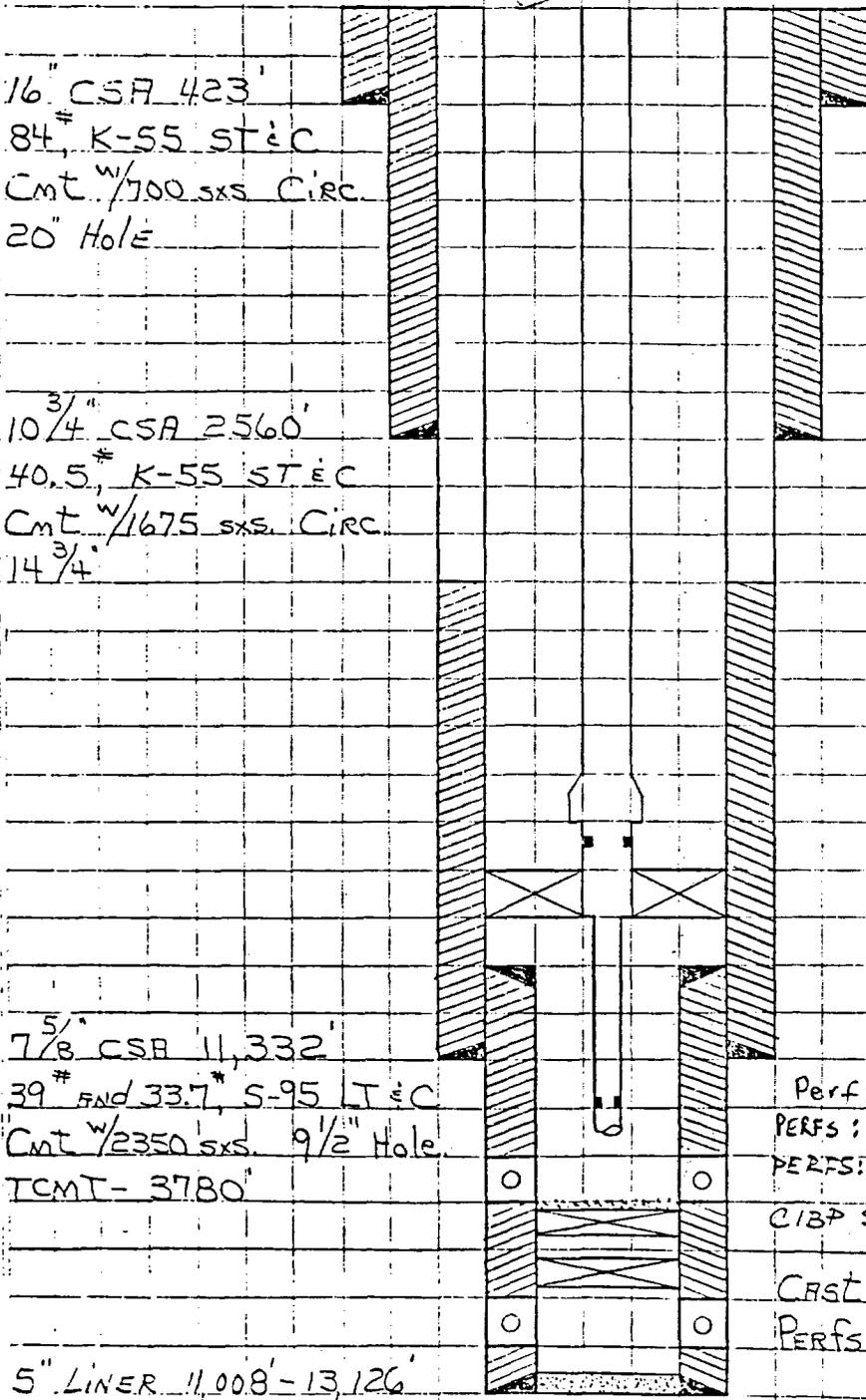
TELEDYNE AREA - NORTH LOVING MORROW

BY D.W. (CID)

1880 F5L & 2080 FWL, SEC. 22 T. 23S, R28E
Eddy County, NEW MEXICO

ELEV: 3032 R.D.B.
3012 G.L.

Completed: 1-18-79



16" CSA 423'
84" K-55 ST&C
Cmt w/700 sxs Circ.
20" Hole

10 3/4" CSA 2560'
40.5" K-55 ST&C
Cmt w/1675 sxs Circ.
14 3/4"

TCMT - 3780'

2 3/8" Tubing landed in Guiberson
UNI VI packer at 10891' with
Type "L" ON-OFF Tool at 10884'
and 1.875" "F" Nipple at 10885'
2 3/8" Tubing landed at 11,897'
with 1.81" "F" Nipple at

7 7/8" CSA 11,332'
39" F&N 33.7" S-95 T&C
Cmt w/2350 sxs 9 1/2" Hole
TCMT - 3780'

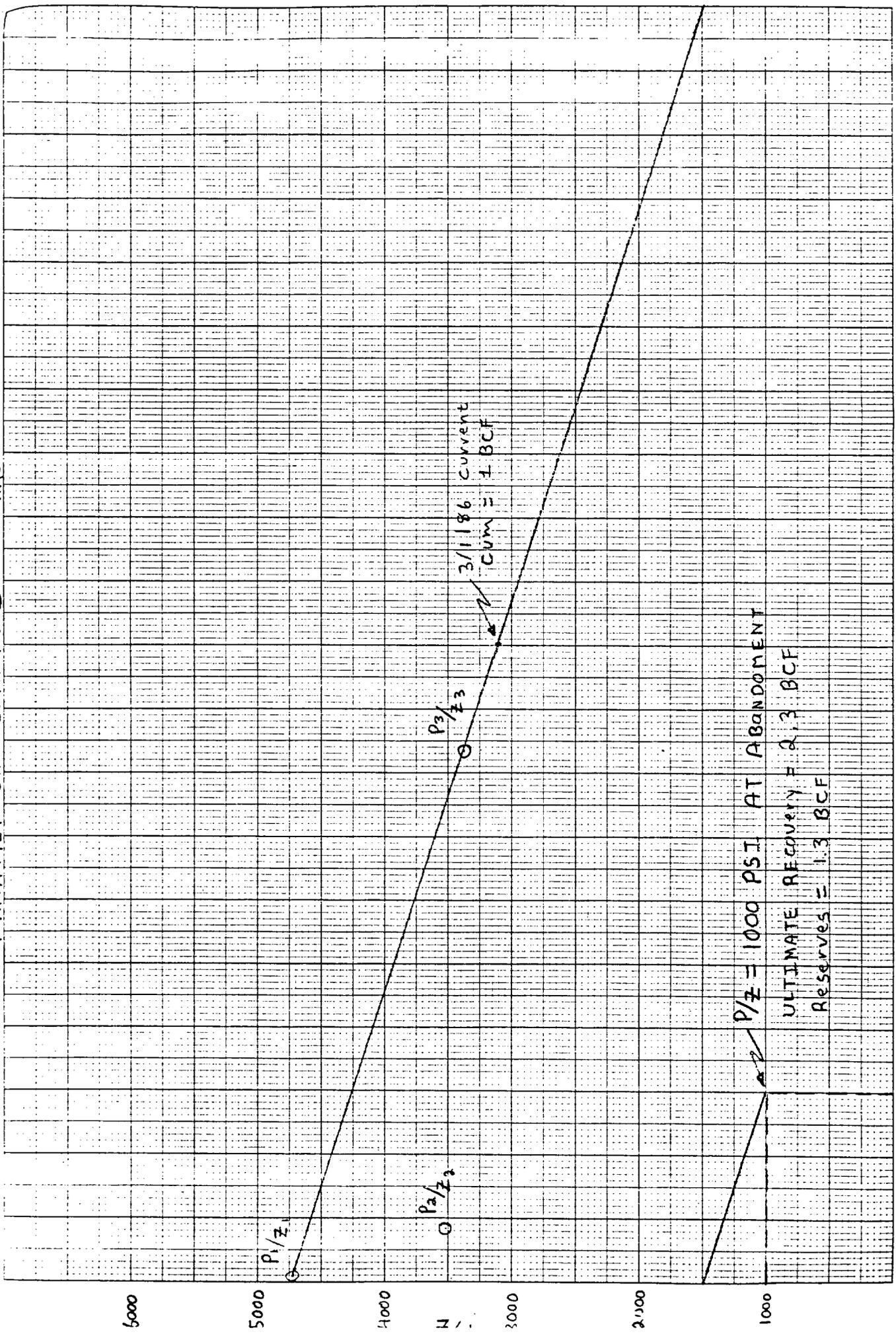
Perf: 12,278' - 12,292'
PERFS: 11,982'-95' x 12,018'-028' x 12,298'-313' w/4 JSF
PERFS: 12,264-72, 12,408-18, 12,424-30' w/4 JSF
CIBP SA 12700' CAPPED w/35' CMT

CAST IRON BRIDGE Plug at 12800'
PERFS: 12830'-12836' w/4 JSF

5" LINER 11,008'-13,126'
17.93" N-80 6 1/2" Hole
Cmt w/350 sxs Circ.
TD - 13,129'
PBD - 12,665'

BRANTLEY GAS Com. NO. 1 - MORROW

KHD 4/15/86



0.5 1.0 1.5 2.0

CUMULATIVE

INDUSTRY PRODUCTION DATA RATE-TIME PLOTS

API NO: 300152245100 GENID 4WG-03331

GAS

WELL: BRANTLEY GAS COM 000001 LOCATION: 22K023S028E

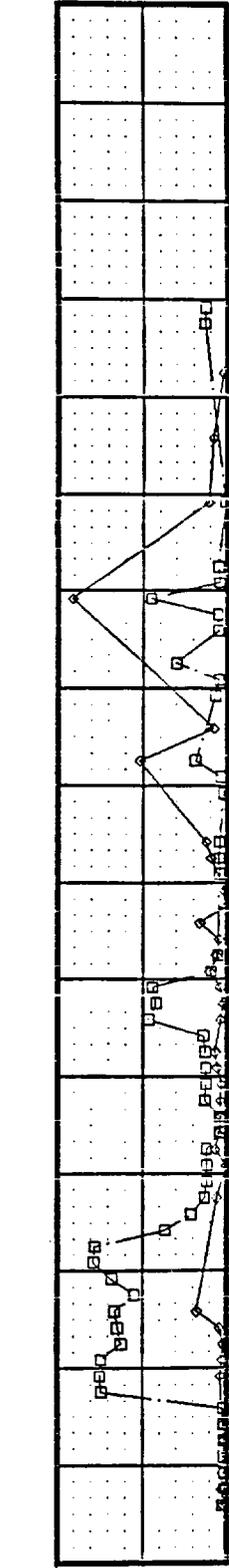
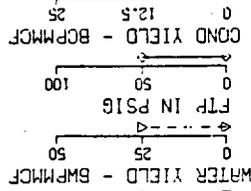
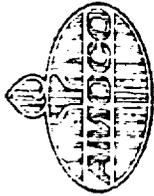
FIELD: LOVING MORROW NORTH (GAS) PM 008045923RESERVOIR: PM

OPERATOR: AMOCO PRODUCTION CO 019922 COMP DATE:

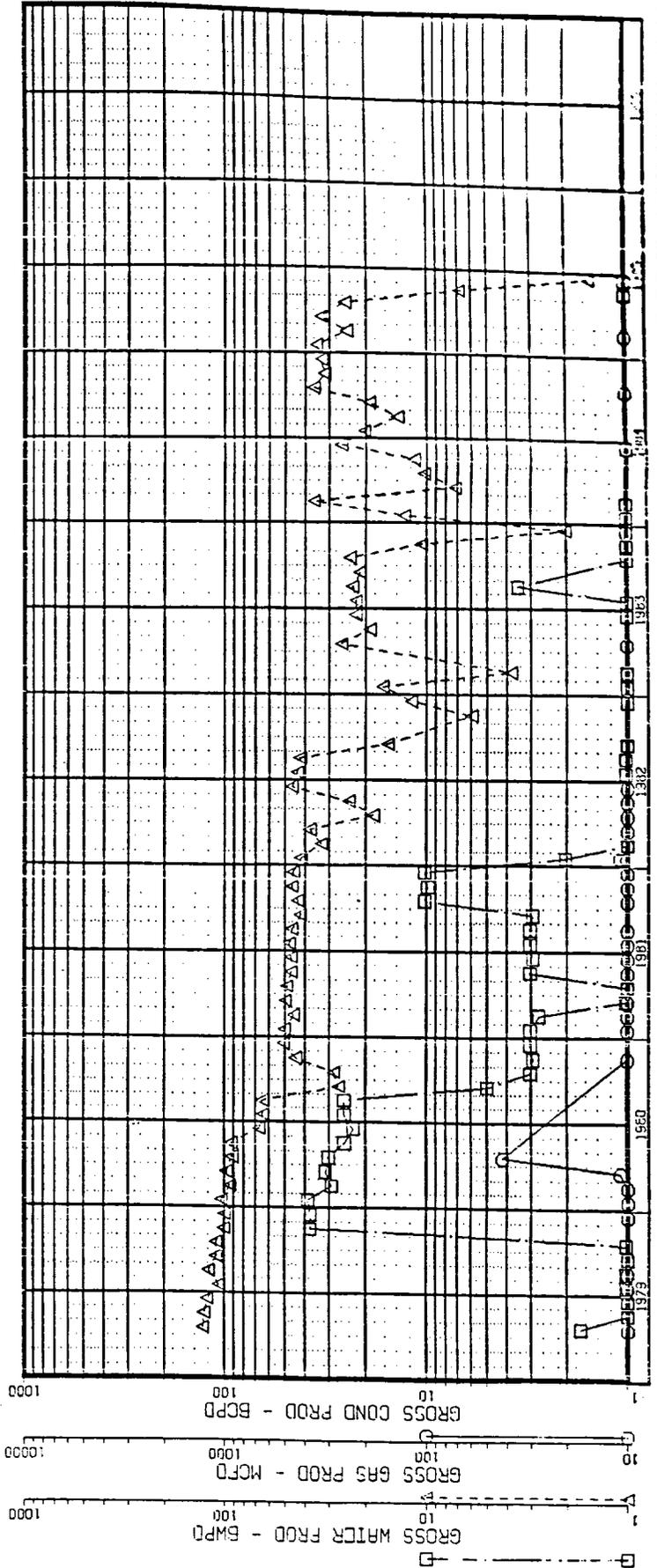
STATE: NM 30 COUNTY: EDDY 015 TOT. GAS CUM: 1,007,978

FIRST PROD 79 04 LAST PROD 85 06 TOT. OIL CUM: 756

REQUESTOR: HUTCHESO-HOB-02 LOCATION: HOBBS PERFS:



16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0



NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

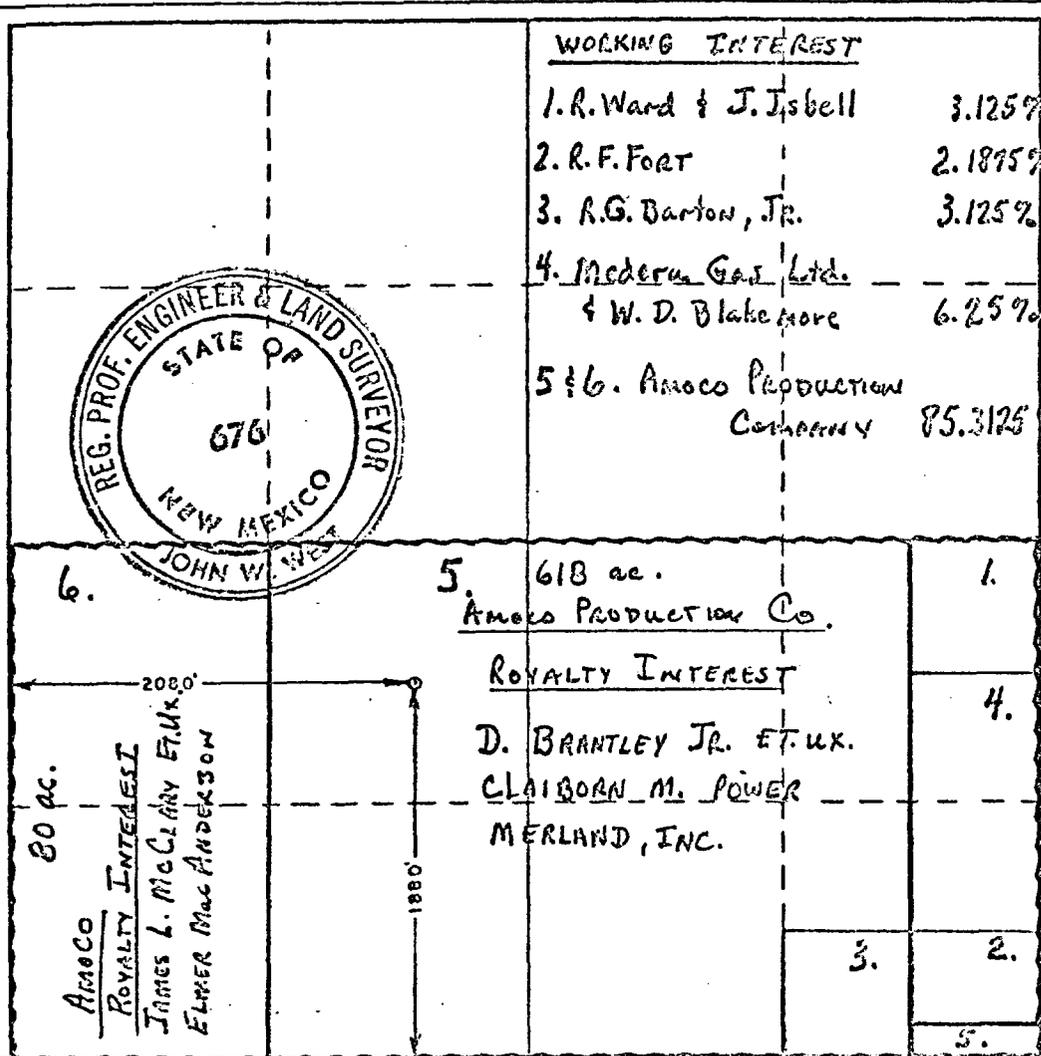
Operator Amoco Production Co.			Lease Brantley Gas Com.			Well No. 1		
Unit Letter K	Section 22	Township 23 South	Range 28 East	County Eddy				
Actual Footage Location of Well: 1880 feet from the South line and 2080 feet from the West line								
Ground Level Elev. 3012.3	Producing Formation MORROW		Pool UNDESIGNATED MORROW			Dedicated Acreage: 320 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 COMMUNITIZATION

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 contained herein is true and complete to the best of my knowledge and belief.	
Name	<u>Ray W. Cox</u>
Position	<u>Administrative Supervisor</u>
Company	<u>AMOCO PRODUCTION COMPANY</u>
Date	<u>9-5-78</u>
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.	
Date Surveyed	<u>August 3, 1978</u>
Registered Professional Engineer and/or Land Surveyor	
<u>John W. West</u>	
Certificate No.	<u>John W. West 676</u>
	<u>Ronald J. Eldron 3239</u>



ATTACHMENT TO
APPLICATION FOR CLASSIFICATION AS HARDSHIP GAS WELL

LEASE AND WELL NUMBER Brantley Gas Com Well No. 1

LOCATION 1880' FSL x 2080' FWL, Unit J, Section 22, T-23-S, R-28-E, Eddy County

I hereby certify that I, or persons under my direct supervision, have prepared the data submitted with the enclosed Application for Classification as Hardship Gas Well for the Brantley Gas Com No. 1, and that I am familiar with the conditions which currently exist; that the statements made in this application are true and correct to the best of my knowledge; that one copy of the application has been submitted to the New Mexico Oil Conservation Division District Office at Artesia, New Mexico; and, further that El Paso Natural Gas Company as the transporter/purchaser, and all offset operators have been furnished copies of the Application form.

4-25-86
(Date)

J.R. Amitt
SIGNATURE AND TITLE

DISTRICT MANAGER
AMOCO PRODUCTION COMPANY
P. O. BOX 68
HOBBS, NM 88240