

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

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

ADMINISTRATIVE ORDER
NFL 110

INFILL DRILLING FINDINGS AND WELL-SPACING WAIVER
MADE PURSUANT TO SECTION 271.305(b) OF THE
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION
ORDER NO. R-6013

Bradley H. Keyes and Margaret N.

I.

Keyes, Trustees

Operator Keyes, Trustees Well Name and No. Ransom Well No. 1-M

Location: Unit 0 Sec. 13 Twp. 29 North Rng. 11 West Cty. San Juan

II.

THE DIVISION FINDS:

(1) That Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waiver of existing well-spacing requirements.

(2) That by Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

(3) That the well for which a finding is sought is to be completed in the Aztec Fruitland Pool, and the standard spacing unit in said pool is 160 acres.

(4) That a 160-acre proration unit comprising the SE/4 of Sec. 13, Twp. 29N, Rng. 11W, is currently dedicated to the applicant's Ransom Well No. 1 located in Unit I of said section.

(5) That this proration unit is (X) standard () nonstandard; if nonstandard, said unit was previously approved by Order No. N/A.

(6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.

(7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 50,000 MCF of gas from the proration unit which would not otherwise be recovered.

(8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

(9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well spacing requirements for the pool.

IT IS THEREFORE ORDERED:

(1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.

(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this 15th day of January, 19 86.


DIVISION DIRECTOR

EXAMINER

Received 11/25/85
Release immediately

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

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

ADMINISTRATIVE ORDER
NFL 110

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MADE PURSUANT TO SECTION 271.305(b) OF THE
FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,
NATURAL GAS POLICY ACT OF 1978 AND OIL CONSERVATION DIVISION
ORDER NO. R-6013

I.

Operator Bradley H. Keys and Margaret M. Keys, Trustees Well Name and No. Ransom Well No. 1-M
Location: Unit 0 Sec. 13 Twp. 29 North Rng. 11 West Cty. San Juan

II.

THE DIVISION FINDS:

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(3) That the well for which a finding is sought is to be completed in the Aztec Fruitland Pool, and the standard spacing unit in said pool is 160 acres.

(4) That a 160-acre proration unit comprising the SE 1/4 of Sec. 13, Twp. 29N, Rng. 11W, is currently dedicated to the applicant's Ransom Well No. 1 located in Unit I of said section.

(5) That this proration unit is () standard () nonstandard; if nonstandard, said unit was previously approved by Order No. NA.

(6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.

(7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 50,000 MCF of gas from the proration unit which would not otherwise be recovered.

(8) That all the requirements of Order No. R-6013 have been complied with, and that the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.

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(2) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this _____ day of _____, 19_____.

DIVISION DIRECTOR _____ EXAMINER ✓

Note: See Downhole

RECEIVED
DEC 04 1985

Ed Hartman
P. O. BOX 36990
ALBUQUERQUE, NEW MEXICO 87176

OIL CONSERVATION DIVISION
SANTOFE: (505) 884-4863
(505) 884-0814

REALTOR
CERTIFIED PUBLIC ACCOUNTANT
MANANA GAS, INC.
PRESIDENT

November 25, 1985

Elliott A. Riggs
P.O. Box 711
Farmington, New Mexico 87401

CERTIFIED MAIL

Re: Application for Approval for In-Fill Well
Ransom #1-M
O-13-29N-11W

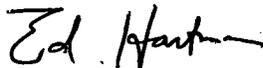
Dear Gentlemen and Lady:

Enclosed is application for approval of the Ransom #1-M, in-fill insofar as it pertains to the Fruitland formation only. This has been completed as a commingled Farmington-Fruitland gas well. There is no other Farmington well in this quarter section so no in-fill approval is needed for that formation.

Please execute one copy of the waiver below and forward it to the New Mexico Oil Conservation Division if you have no objection to this application.

Your assistance in this matter is very much appreciated.

Yours very truly,



Ed Hartman
Agent for the B.H. and M.N. Keyes Trust

Cys to: Horace F. McKay, Jr., Petroleum Corporation of Texas, Elliott A. Riggs, Getty Oil Company and Helen Lorraine Harvey

EMH/nh

Oil Conservation Division
P.O. Box 2088
Santa Fe, N.M. 87501

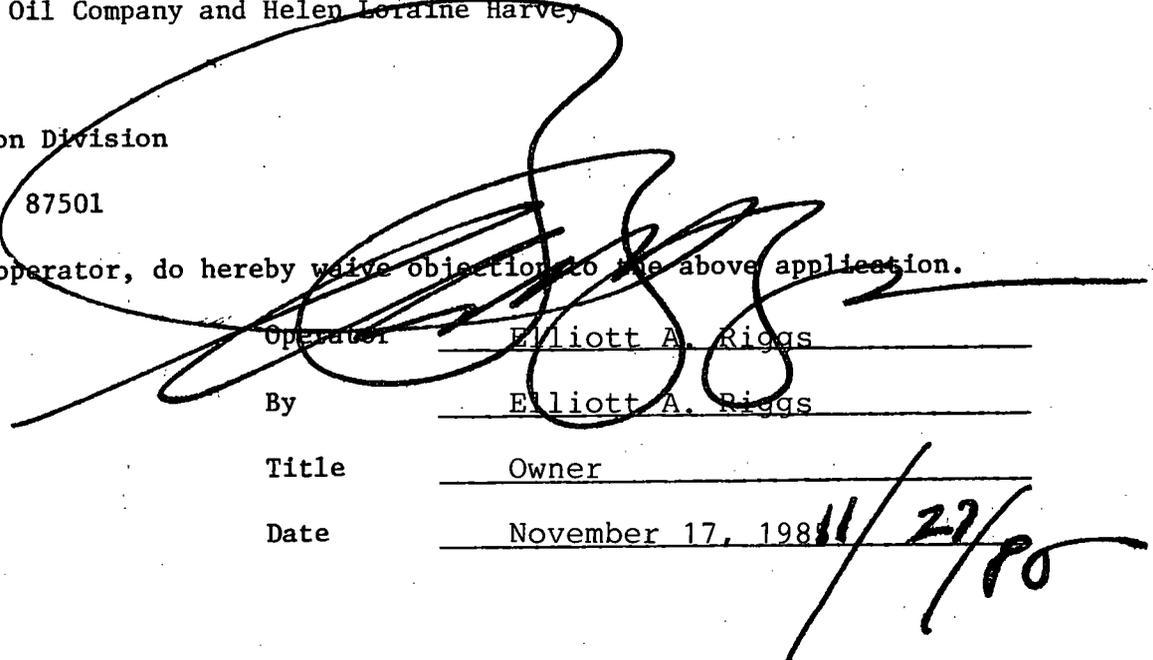
We, as offset operator, do hereby waive objection to the above application.

Operator Elliott A. Riggs

By Elliott A. Riggs

Title Owner

Date November 17, 1985



Ed Hartman

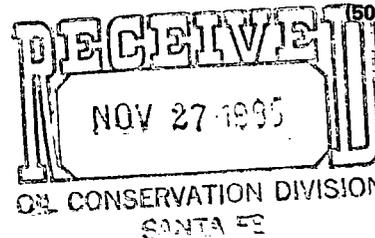
P. O. BOX 36990

ALBUQUERQUE, NEW MEXICO 87176

TELE: (505) 884-4863

REALTOR
CERTIFIED PUBLIC ACCOUNTANT
MANANA GAS, INC.
PRESIDENT

November 25, 1985



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

Attn: Mr. Michael E. Stogner:

Re: Application for Approval of In-Fill Well
Ransom # 1-M (Fruitland Formation only)
0-13-29N-11W

Gentlemen:

This is to confirm our conversation of today.

We estimate that the additional gas to be recovered from the Fruitland formation in the new in-fill Ransom # 1-M gas well is 50,000 MCF.

We are mailing copies of the in-fill well application to all offset operators today. They are being sent out by certified mail.

Your assistance in this matter is very much appreciated.

Very truly yours

Ed Hartman

Ed Hartman, Agent for
B.H. and M.N. Keyes Trust

EMH/nh

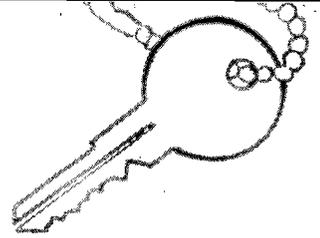
CC; Bradley Keyes

The Keyes

BRADLEY and MARGARET

AZTEC, NEW MEXICO 87410

Taxation should never be used either to reward or punish.



November 22, 1985

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

*Rec. by OCP
11/25/85*

Re: Application for Approval of an In-Fill well
Ransom #1-M
0-13-29N-11W
San Juan County, New Mexico

Gentlemen:

With regard to your request for additional information on our previous application for a Section 103 well head price on our Ransom #1-M, dated September 30, 1985, the following additional information is herein submitted.

As requested, enclosed is our application for your approval of our in-fill well called the Ransom #1-M, which has been completed in the Fruitland and Farmington formations. The original well which is being operated in the SE $\frac{1}{4}$ of Section 13-29N-11W is our Ransom #1 and is producing from the Fruitland and Pictured Cliffs formations.

This application is being made for your approval of the in-fill well as it pertains to the Fruitland formation only.

Your favorable consideration to our request would be very much appreciated.

Very truly yours,

Bradley H. Keyes Jr

Bradley H. Keyes, Trustee
B.H. and M.N. Keyes Trust

Encls.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION

TONY ANAYA
 GOVERNOR

POST OFFICE BOX 2088
 STATE LAND OFFICE BUILDING
 SANTA FE, NEW MEXICO 87501
 (505) 627-5800

BRADLEY H. KEYES & MARGARET KEYES
 Trustees
 103 North Main St.
 Aztec, New Mexico 87410

RE: Well head price ceiling
 determination, NGPA of
 1978

Gentlemen:

The New Mexico Oil Conservation Division has received your application for a wellhead price ceiling category determination under the sections(s) of the Natural Gas Policy Act of 1978 indicated below if your application is incomplete, forms are attached hereto, indicating the documents and further information which must be filed before your application can be considered. If your application is complete, it will be acted upon administratively unless written objection is received within 15 days of its filing.

WELL NAME AND LOCATION 13-29N-11W Ransom #1-M-0 (Aztec Fruitland)
 SECTION(S) APPLIED FOR 103
 DATE APPLICATION RECEIVED October 3, 1985

APPLICATION INCOMPLETE *I have split this application into two separate applications, one for the Aztec Fruitland formation and one for the Bloomfield Farmington formation; the Bloomfield Farmington portion has been approved; however, the Aztec Fruitland production appears to be from an existing formation unit dedicated to your Well No. 1 in Unit 1; therefore, please file for an* Sincerely,
Orill Well Finding pursuant to R-6013-d, attached. *Michael S. Lopez*

DATE: November 4, 1985

NOTE:

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY INFORMATION.

SPECIAL RULES AND REGULATIONS
NATURAL GAS POLICY ACT INFILL FINDINGS
ADMINISTRATIVE PROCEDURE
(Amended February 8, 1980)

A. DEFINITIONS

RULE 1. For purposes of this administrative procedure only, the following definitions are adopted:

- a. Infill well: An additional well which has been drilled for production on an established proration unit.

B. APPLICABILITY

RULE 2. These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978. (These special rules and regulations do not apply to infill wells drilled in the Blanco Mesaverde or Basin-Dakota Pools. Infill wells in these two pools are covered by Rule 15 B of the "Special Rules for Applications for Wellhead Price Ceiling Category Determinations" promulgated by Division Order No. R-5878 as amended by Order No. R-5878-A.)

C. JUSTIFICATION FOR FINDINGS

RULE 3. The Division Director or a Division Examiner may find that an infill well is necessary:

- a. upon a showing by the operator that an additional well is needed to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and
- b. upon receipt of waivers from all offset operators, or if no offset operator has entered an objection to the infill finding within 20 days after receipt of the application by the Director.

RULE 4. The Director may set any application for hearing at his discretion or at the request of an applicant.

Exhibit A
Order R-6013-A

D. FILING REQUIREMENTS

RULE 5. Each applicant shall submit a copy of the approved Form C-101 for the infill well and Form C-102 showing the proration unit dedicated.

RULE 6. Applicant shall give the name of the pool in which the infill well has been drilled and the standard spacing unit size therefor.

RULE 7. If applicable, the applicant shall give the number of the Division order approving the non-standard proration unit dedicated to the well.

RULE 8. The applicant shall submit a description of all wells drilled on the proration unit (including the completed infill well) which are or have been completed in the same pool or reservoir as the proposed infill well showing:

- a. least name and well location;
- b. spud date;
- c. completion date;
- d. a description of any mechanical problems experienced along with a summary of remedial action(s) taken and the results obtained;
- e. the current rate of production/ and
- f. date of plug and abandonment, if any;
- g. a clear and concise statement indicating why the existing well(s) on the proration cannot effectively and efficiently drain the portion of the reservoir covered by the proration unit.

RULE 9. The applicant shall submit geological and engineering information sufficient to support a finding as to the necessity for an infill well including:

- a. formation structure map
- b. the volume of increased ultimate recovery expected to be obtained and a narrative describing how the increase was determined
- c. any other supporting data which the applicant deems to be relevant which may include:
 - (1) porosity and permeability factors
 - (2) production/pressure decline curves
 - (3) effects of secondary recovery or pressure maintenance operations.

RULE 10. Applications for infill findings shall be filed in duplicate with the Santa Fe office of the Division.

RULE 11. All operators of proration or spacing units offsetting the unit for which an infill finding is sought shall be notified of the application by certified or registered mail, and the application shall state that such notification has been given.

101-FILE
12V

Ransom # 1-M (Fruitland Formation)

Detailed Information Supporting Application For In-Fill Well

The following information is submitted in support of our application for the approval of our Ransom # 1-M (Fruitland) gas well:

Rule 5: Forms C-101 and C-102 are attached.

Rule 6: The well is located in the Aztec Fruitland pool which has a standard 160 acre spacing.

Rule 7: Not applicable

Rule 8: The original Ransom # 1 was completed and is producing from the Fruitland and from the Pictured Cliffs formations.

a. It is called the Ransom # 1 and is located 1850 feet from the South line and 790 feet from the East line of Section 13-29N-11W.

b. It was spudded on December 15, 1954.

c. It was completed on January 2, 1955.

d. It has been commingled and production is reported as 1/4th from the Fruitland formation and 3/4ths from the Pictured Cliffs formation.

e. This well has produced from the Fruitland formation as follows: (MCF)

	<u>Total</u>	<u>Per Day</u>
Year 1984	754	2
Cumulative to 12/31/84	86,019	8
10 months ended 10/31/85	733	2

f. This well is still producing.

g. This well was completed by shooting it with 245 quarts of nitroglycerin. The new well has been fraced and should drain the areas which the old well treatment did not reach.

Rule 9: The new well was drilled to the Pictured Cliffs formation and was perforated and treated in the Pictured Cliffs and Fruitland formations. It would not produce due to excessive amount of formation water. It was plugged back to the Fruitland formation and additional perforations were made in the Farmington sand. It is ready to produce with a down-hole comingling of the two formations. It was tested on 9/20/85 with a 288 Mcf/d AOF. A detailed data sheet is attached.

Rule 11: Offset operators are being notified of this application.

COPIES RECEIVED		
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TAXES		
FEES		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease
STATE FEE

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"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		8. Farm or Lease Name Ransom
2. Name of Operator Manana Gas, Inc.		9. Well No. 1M
3. Address of Operator Box 145, Farmington, NM 87401 (505) 325-3066		10. Field and Pool or Wildcat Aztec Pictured Cliffs
4. Location of Well UNIT LETTER O LOCATED 1240 FEET FROM THE South LINE AND 2435 FEET FROM THE East LINE OF SEC. 13 TWP. 29N RGE. 11W NMPM		12. County San Juan
19. Proposed Depth 2000'		19A. Formation Pictured Cliffs Rotary
20. Rotary or C.T. Rotary	21. Elevations (Show whether DE, RT, etc.) 2435	21A. Kind & Status Plug. Bond Blanket
21B. Drilling Contractor Lee Wilson		22. Approx. Date Work will start November 7, 19

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
7	5 1/2	15.5	100	100	Surface
4 3/4	2 7/8	6.5	1970	200	Surface

This well will be logged and if productive, new casing will be run, cemented and perforated. The formation will be fracture treated.

Bag type, 3000 psi BOP equipment will be used after the surface casing is set and until the well is completed.

The gas is dedicated.

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 AK Kendrick Title Vice President Date 11/3/50

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

All measurements must be from the outer boundaries of the well.

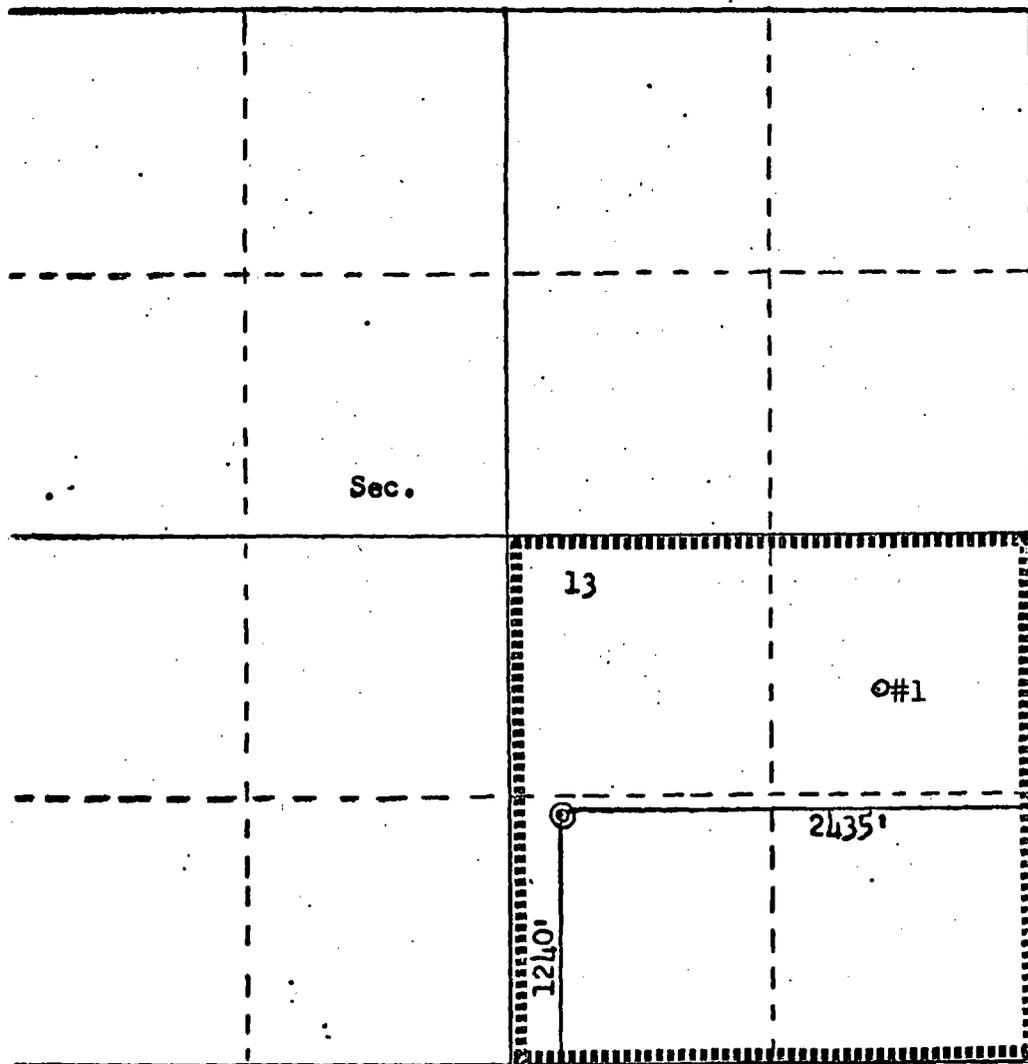
Operator MANANA GAS, INCORPORATED		Lease RANSOM			Well No. 1M
Unit Letter	Section 13	Township 29N	Range 11W	County San Juan	
Well Footage Location of Wells					
240	feet from the	South	line and	2435	feet from the
Ground Level Elev: 581	Producing Formation Fruitland		Pool Aztec	Dedicated Acreage 160 / 160 Acres	
	Pictured Cliffs		Aztec		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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.

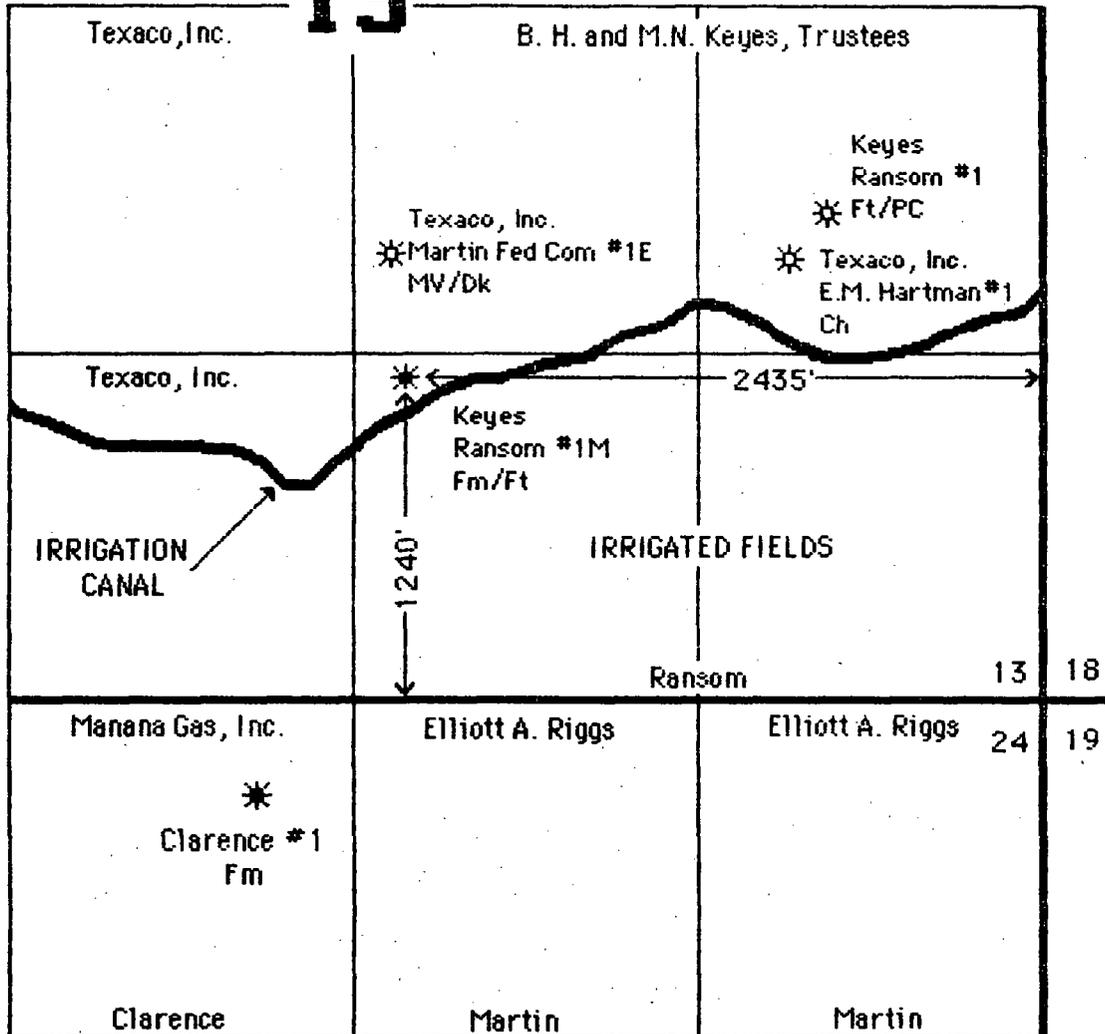


Scale: 1"=1000'

CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	<i>Mike Kendrick</i>
Position	Vice President
Company	Manana Gas, Inc.
Date	10/22/80
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.	
Date Surveyed	October 15, 1980
Registered Professional Engineer and Land Surveyor	<i>Frederick B. Kerr Jr.</i>
Certificate No.	KERR, JR. 3950

**OWNERSHIP & TOPOGRAPHIC PLAT
SURROUNDING SW/4SE/4 13-T29N-R11W**

13



LEGEND:

- Fm = Farmington Completion
- Ft = Fruitland Completion
- PC = Pictured Cliffs Completion
- Ch = Chacra Completion
- MV = Mesaverde Completion
- Dk = Dakota Completion

DATA SHEET

Operator: Bradley H. and Margaret N. Keyes, Trustees
Well: Ransom #1M
Location: 1240' FSL 2435' FEL 13-T29N-R11W
Pools: (Shallow) Bloomfield Farmington Oil Pool
(Deep) Aztec Fruitland Gas Pool
County: San Juan

Perfs: Farmington 896 to 906 (20 holes) & 1128 to 1141 (26 holes)
Fruitland 1615 to 1627 (24 holes)
TOTAL 70 holes

Tops: Kirtland 508'
Fruitland 1510'
Pictured Cliffs 1890'

I.P. Test Date = 9/20/85
SICP = 368 psig /8 days
SITP = 368 psig /8 days
Choke = 0.75"
Q = 263 Mcfpd
AOF = 288 Mcfpd

50 MCF reserves
recovered

Proposed production split:

Farmington: $46 \div 70 = .6571$ use 65%
Fruitland: $24 \div 70 = .3429$ use 35%

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
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FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease
State Fee

5. State Oil & Gas Lease No.

TYPE OF WELL
OIL WELL GAS WELL DRY OTHER _____

7. Unit Agreement Name

TYPE OF COMPLETION
NEW WELL WORK OVER DEEPEN PLUG BACK DIFF. RESVR. OTHER _____

8. Farm or Lease Name
Ransom

Name of Operator
Bradley H. Keyes and Margaret N. Keyes, Trustees

9. Well No.
1-M

Address of Operator
103 North Main Street, Aztec, New Mexico 87410

10. Field and Pool, or Wildcat

Location of Well

T. LETTER **0** LOCATED **1240** FEET FROM THE **South** LINE AND **2435** FEET FROM



East LINE OF SEC. **13** TWP. **29N** RGE. **11W** NMPM

12. County
San Juan

Date Spudded **12/3/80** 15. Date T.D. Reached **12/8/80** 17. Date Compl. (Ready to Prod.) **9/11/85** 18. Elevations (DF, RKB, RT, CR, etc.) **5581 GL** 19. Elev. Casinghead

Total Depth **1940'** 21. Plug Back T.D. **1670'** 22. If Multiple Compl., How Many _____ 23. Intervals Drilled By: Rotary Tools **0-1940'** Cable Tools **none**

Producing Interval(s), of this completion - Top, Bottom, Name
Fruitland - 1615-1627 Farmington - 1128-1141 and 896-906

25. Was Directional Survey Made

Type Electric and Other Logs Run
Induction-Electric and Density Neutron

27. Was Well Cored
No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7.625		122	8.75	65 sax	
2.875	6.5	1937	4.75	250 sax	

LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

TUBING RECORD

SIZE	DEPTH SET	PACKER SET
1.25	1615	none

Perforation Record (Interval, size and number)
1615-27 1128-41 896-906
All 2 shots per foot

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
1615-1627	Sand-Foam fractured with 22,000# 10-20 Sand and 245 bbls. foam on 6/14/83. No treatment on upper zone

PRODUCTION

First Production **Not Connected** Production Method (Flowing, gas lift, pumping - Size and type pump) _____ Well Status (Prod. or Shut-in) _____

Date of Test **9/20/85** Hours Tested **3** Choke Size **0.75** Prod'n. For Test Period _____ Oil - Bbl. _____ Gas - MCF _____ Water - Bbl. _____ Gas - Oil Ratio _____

Well Tubing Press. **10** Casing Pressure **109** Calculated 24-Hour Rate _____ Oil - Bbl. _____ Gas - MCF **288 AOF** Water - Bbl. _____ Oil Gravity - API (Corr.) _____

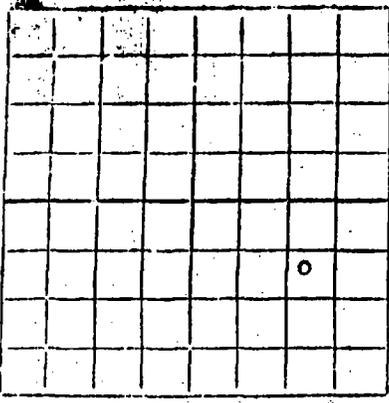
Disposition of Gas (Sold, used for fuel, vented, etc.) _____ Test Witnessed By **T. Evans**

List of Attachments _____

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.
(NEW IN-FILL WELL)

SIGNED Bradley H. Keyes TITLE Trustee DATE 9/23/85

RANSOM #1 M
(NEW IN-FILL WELL)
9/23/85



NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPPLICATE. If State Land submit 6 Copies

AREA 640 ACRES
LOCATE WELL CORRECTLY

Marshall Drilling Company

(Company or Operator)

Ran. on

(Lease)

Well No. 1, in NE 1/4 of SE 1/4, of Sec. 13, T. 29, R. 11, NMPM.

Aztec

Pool,

San Juan

County.

Well 1350 feet from South line and 790 feet from East line

of Section 13. If State Land the Oil and Gas Lease No. is

Drilling Commenced 12/15, 1954. Drilling was Completed 1/2, 1955.

Name of Drilling Contractor Marshall Drilling Company

Address Marlington, New Mexico

Elevation above sea level at Top of Tubing Head 5530. The information given is to be kept confidential until 19

OIL SANDS OR ZONES

No. 1, from 1390 ft. to 1942 No. 4, from

No. 2, from to No. 5, from

No. 3, from to No. 6, from

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.



The Keyes

BRADLEY and MARGARET

AZTEC, NEW MEXICO 87410

Taxation should never be used either to reward or punish.

November 22, 1985

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

Re: Application for Approval of an In-Fill well
Ransom #1-M
O-13-29N-11W
San Juan County, New Mexico

Gentlemen:

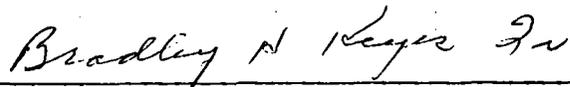
With regard to your request for additional information on our previous application for a Section 103 well head price on our Ransom #1-M, dated September 30, 1985, the following additional information is herein submitted.

As requested, enclosed is our application for your approval of our in-fill well called the Ransom #1-M, which has been completed in the Fruitland and Farmington formations. The original well which is being operated in the SE $\frac{1}{4}$ of Section 13-29N-11W is our Ransom #1 and is producing from the Fruitland and Pictured Cliffs formations.

This application is being made for your approval of the in-fill well as it pertains to the Fruitland formation only.

Your favorable consideration to our request would be very much appreciated.

Very truly yours,



Bradley H. Keyes, Trustee
B.H. and M.N. Keyes Trust

Encls.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
 OIL CONSERVATION DIVISION

TONEY ANAYA
 GOVERNOR

POST OFFICE BOX 2088
 STATE LAND OFFICE BUILDING
 SANTA FE, NEW MEXICO 87501
 (505) 827-5800

BRADLEY H. KEYES & MARGARET KEYES
 Trustees
 103 North Main St.
 Aztec, New Mexico 87410

RE: Well head price ceiling
 determination, NGPA of
 1978

Gentlemen:

The New Mexico Oil Conservation Division has received your application for a wellhead price ceiling category determination under the sections(s) of the Natural Gas Policy Act of 1978 indicated below if your application is incomplete, forms are attached hereto, indicating the documents and further information which must be filed before your application can be considered. If your application is complete, it will be acted upon administratively unless written objection is received within 15 days of its filing.

WELL NAME AND LOCATION 13-29N-11W Ransom #1-M-0 (Aztec Fruitland)
 SECTION(S) APPLIED FOR 103
 DATE APPLICATION RECEIVED October 3, 1985

APPLICATION INCOMPLETE *I have split this application into two separate applications, one for the Aztec Fruitland formation and one for the Bloomfield Farmington formation, the Bloomfield Farmington portion has been approved; however, the Aztec Fruitland production appears to be from an existing production unit dedicated to your Well No. 1 in Unit I; therefore, please file for an* Sincerely, *Michael S. Hoopes*
Oil Well Finding pursuant to R-6013-A, attached.

DATE: November 4, 1985

NOTE:

THIS FORM LETTER MUST ACCOMPANY TWO COPIES OF THE SUPPLEMENTARY INFORMATION.

NATURAL GAS POLICY ACT INFILL FINDINGS
ADMINISTRATIVE PROCEDURE
(Amended February 8, 1980)

A. DEFINITIONS

RULE 1. For purposes of this administrative procedure only, the following definitions are adopted:

- a. Infill well: An additional well which has been drilled for production on an established proration unit.

B. APPLICABILITY

RULE 2. These special rules and regulations shall apply to effective and efficient drainage findings for completed infill wells pursuant to Section 271.305 of the final Rules and Regulations of the Federal Energy Regulatory Commission relating to Section 103 of the Natural Gas Policy Act of 1978. (These special rules and regulations do not apply to infill wells drilled in the Blanco Mesaverde or Basin-Dakota Pools. Infill wells in these two pools are covered by Rule 15 B of the "Special Rules for Applications for Wellhead Price Ceiling Category Determinations" promulgated by Division Order No. R-5878 as amended by Order No. R-5878-A.)

C. JUSTIFICATION FOR FINDINGS

RULE 3. The Division Director or a Division Examiner may find that an infill well is necessary:

- a. upon a showing by the operator that an additional well is needed to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and
- b. upon receipt of waivers from all offset operators, or if no offset operator has entered an objection to the infill finding within 20 days after receipt of the application by the Director.
- RULE 4. The Director may set any application for hearing at his discretion or at the request of an applicant.

Exhibit A
Order R-6013-A

D. FILING REQUIREMENTS

RULE 5. Each applicant shall submit a copy of the approved Form C-101 for the infill well and Form C-102 showing the proration unit dedicated.

RULE 6. Applicant shall give the name of the pool in which the infill well has been drilled and the standard spacing unit size therefor.

RULE 7. If applicable, the applicant shall give the number of the Division order approving the non-standard proration unit dedicated to the well.

RULE 8. The applicant shall submit a description of all wells drilled on the proration unit (including the completed infill well) which are or have been completed in the same pool or reservoir as the proposed infill well showing:

- a. lease name and well location;
- b. spud date;
- c. completion date;
- d. a description of any mechanical problems experienced along with a summary of remedial action(s) taken and the results obtained;
- e. the current rate of production; and
- f. date of plug and abandonment, if any;

g. a clear and concise statement indicating why the existing well(s) on the proration cannot effectively and efficiently drain the portion of the reservoir covered by the proration unit.

RULE 9. The applicant shall submit geological and engineering information sufficient to support a finding as to the necessity for an infill well including:

- a. formation structure map
- b. the volume of increased ultimate recovery expected to be obtained and a narrative describing how the increase was determined
- c. any other supporting data which the applicant deems to be relevant which may include:

- (1) porosity and permeability factors
- (2) production/pressure decline curves
- (3) effects of secondary recovery or pressure maintenance operations

RULE 10. Applications for infill findings shall be filed in duplicate with the Santa Fe office of the Division.

RULE 11. All operators of proration or spacing units offsetting the unit for which an infill finding is sought shall be notified of the application by certified or registered mail, and the application shall state that such notification has been given.

Ransom # 1-M (Fruitland Formation)

Detailed Information Supporting Application For In-Fill Well

The following information is submitted in support of our application for the approval of our Ransom # 1-M (Fruitland) gas well:

Rule 5: Forms C-101 and C-102 are attached.

Rule 6: The well is located in the Aztec Fruitland pool which has a standard 160 acre spacing.

Rule 7: Not applicable

Rule 8: The original Ransom # 1 was completed and is producing from the Fruitland and from the Pictured Cliffs formations.

- a. It is called the Ransom # 1 and is located 1850 feet from the South line and 790 feet from the East line of Section 13-29N-11W.
- b. It was spudded on December 15, 1954.
- c. It was completed on January 2, 1955.
- d. It has been commingled and production is reported as 1/4th from the Fruitland formation and 3/4ths from the Pictured Cliffs formation.
- e. This well has produced from the Fruitland formation as follows: (MCF)

	<u>Total</u>	<u>Per Day</u>
Year 1984	754	2
Cumulative to 12/31/84	86,019	8
10 months ended 10/31/85	733	2

- f. This well is still producing.
- g. This well was completed by shooting it with 245 quarts of nitroglycerin. The new well has been fraced and should drain the areas which the old well treatment did not reach.

Rule 9: The new well was drilled to the Pictured Cliffs formation and was perforated and treated in the Pictured Cliffs and Fruitland formations. It would not produce due to excessive amount of formation water. It was plugged back to the Fruitland formation and additional perforations were made in the Farmington sand. It is ready to produce with a down-hole comingling of the two formations. It was tested on 9/20/85 with a 288 Mcf/d AOF. A detailed data sheet is attached.

Rule 11: Offset operators are being notified of this application.

COPIES RECEIVED	
DISTRIBUTION	
DATE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease
STATE FEE

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work b. Type of Well DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		7. Unit Agreement Name
2. Name of Operator Manana Gas, Inc.		8. Farm or Lease Name Ransom
3. Address of Operator Box 145, Farmington, NM 87401 (505) 325-3066		9. Well No. 1M
4. Location of Well UNIT LETTER <u>O</u> LOCATED <u>1240</u> FEET FROM THE <u>South</u> LINE AND <u>2435</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>13</u> TWP. <u>29N</u> RGE. <u>11W</u> NMPM		10. Field and Pool or Wellhead Aztec Pictured Cliffs and Pictured Cliffs
		12. County San Juan
		19. Proposed Depth 2000'
		19A. Formation Pictured Cliffs Rotary
		20. Rotary or C.T. Rotary
21. Elevations (Show whether DF, RT, etc.) 2435	21A. Kind & Status Plug. Bond Blanket	21B. Drilling Contractor Lee Wilson
		22. Approx. Date Work will start November 7, 19

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
7	5 1/2	15.5	100	100	Surface
4 3/4	2 7/8	6.5	1970	200	Surface

This well will be logged and if productive, new casing will be run, cemented and perforated. The formation will be fracture treated.

Bag type, 3000 psi BOP equipment will be used after the surface casing is set and until the well is completed.

The gas is dedicated.

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 AR Kendrick Title Vice President Date 11/3/80

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

All measurements must be from the outer boundaries of the well.

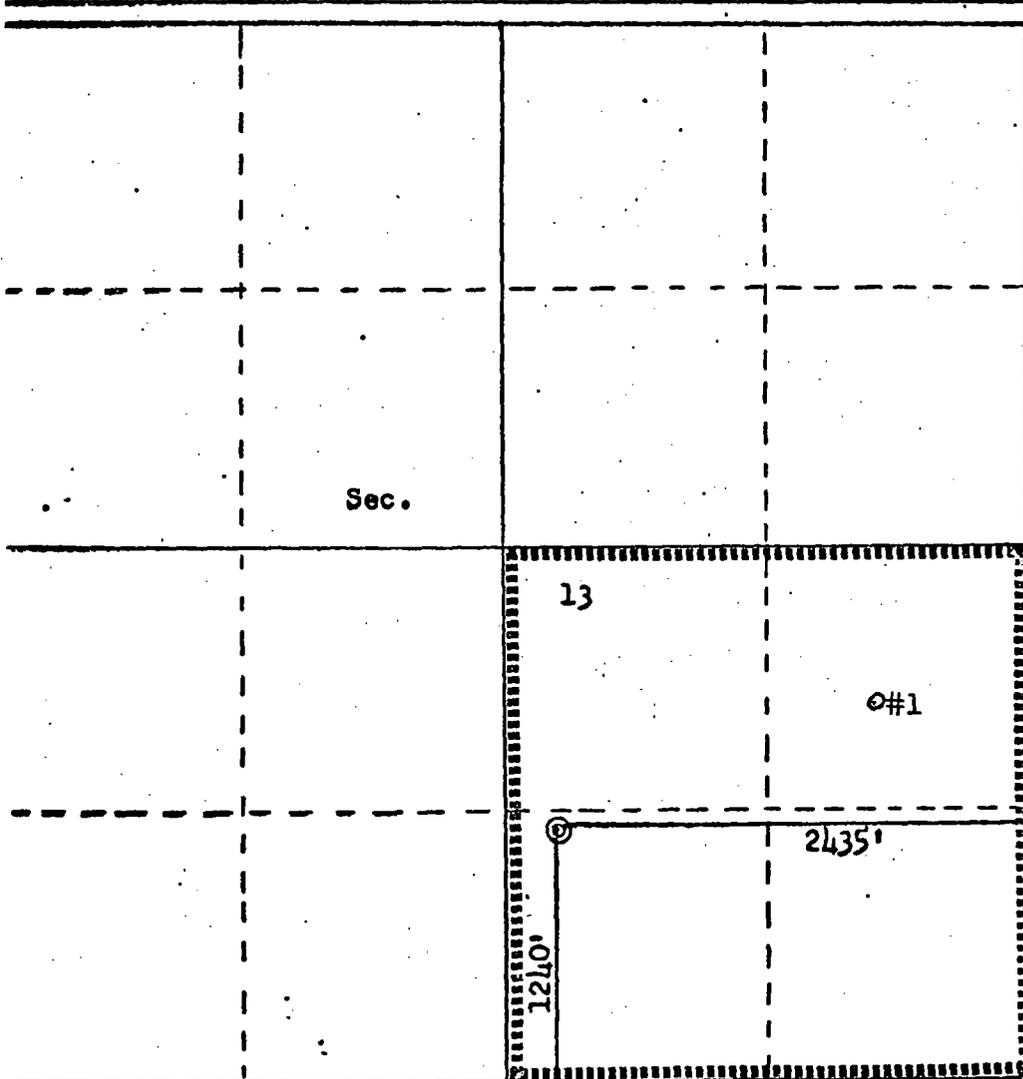
Operator MANANA GAS, INCORPORATED			Lease RANSOM		Well No. 1M
Unit Letter	Section 13	Township 29N	Range 11W	County San Juan	
Well Footage Location of Wells					
240 feet from the South line and		2435 feet from the East line			
Ground Level Elev: 581	Producing Formation Fruitland	Pool Aztec	Dedicated Acreage 160 / 160		Acres
Pictured Cliffs		Aztec			

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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.



Scale: 1"=1000'

CERTIFICATION

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

Name
Allen Kendrick

Position
Vice President

Company
Manana Gas, Inc.

Date
10/22/80

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.

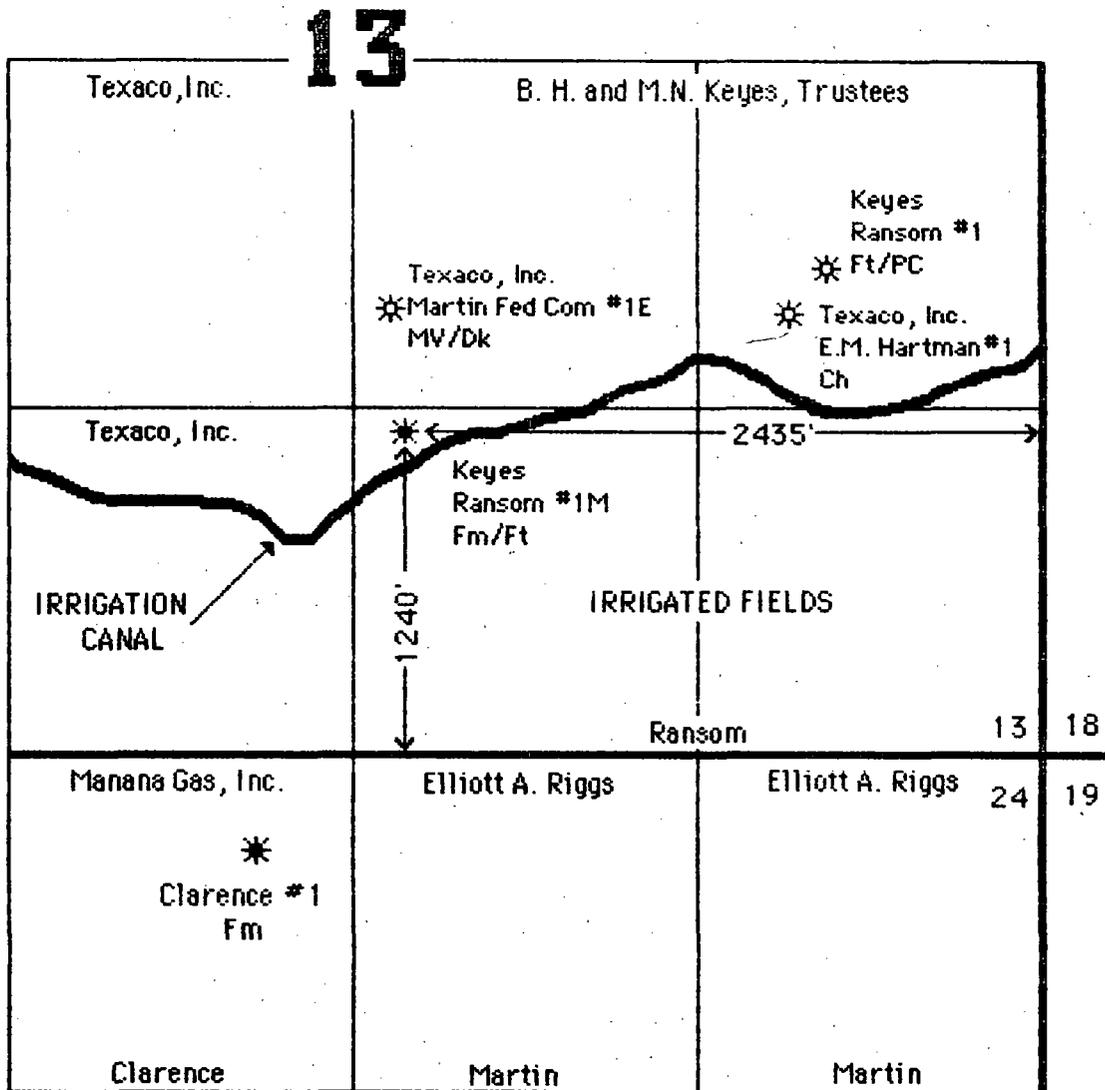
Date Surveyed
October 15, 1980

Registered Professional Engineer and Land Surveyor
Fred B. Kerr Jr.

Certification No. **FERR, JR. 3950**

OWNERSHIP & TOPOGRAPHIC PLAT

SURROUNDING SW/4SE/4 13-T29N-R11W



LEGEND:

- Fm = Farmington Completion
- Ft = Fruitland Completion
- PC = Pictured Cliffs Completion
- Ch = Chacra Completion
- MV = Mesaverde Completion
- Dk = Dakota Completion

DATA SHEET

Operator: Bradley H. and Margaret N. Keyes, Trustees
Well: Ransom #1M
Location: 1240' FSL 2435' FEL 13-T29N-R11W
Pools: (Shallow) Bloomfield Farmington Oil Pool
(Deep) Aztec Fruitland Gas Pool
County: San Juan

Perfs: Farmington 896 to 906 (20 holes) & 1128 to 1141 (26 holes)
Fruitland 1615 to 1627 (24 holes)
TOTAL 70 holes

Tops: Kirtland 508'
Fruitland 1510'
Pictured Cliffs 1890'

I.P. Test Date = 9/20/85
SICP = 368 psig /8 days
SITP = 368 psig /8 days
Choke = 0.75"
Q = 263 Mcfpd
ADF = 288 Mcfpd

Proposed production split:

Farmington: $46 \div 70 = .6571$ use 65%
Fruitland: $24 \div 70 = .3429$ use 35%

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

NO. OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
OPERATOR	

5a. Indicate Type of Lease
State Fee

5. State Oil & Gas Lease No.

TYPE OF WELL
OIL WELL GAS WELL DRY OTHER _____

7. Unit Agreement Name

TYPE OF COMPLETION
NEW WELL WORK OVER REOPEN PLUG BACK DIFF. RESVR. OTHER _____

8. Farm or Lease Name

Ransom

Name of Operator
Bradley H. Keyes and Margaret N. Keyes, Trustees

9. Well No.
1-M

Address of Operator
103 North Main Street, Aztec, New Mexico 87410

10. Field and Pool, or Wildcat

Location of Well
T. LETTER 0 LOCATED 1240 FEET FROM THE South LINE AND 2435 FEET FROM

12. County

East LINE OF SEC. 13 TWP. 29N RGE. 11W NMPM

San Juan

Date Spudded 12/3/80 16. Date T.D. Reached 12/8/80 17. Date Compl. (Ready to Prod.) 9/11/85 18. Elevations (DF, RKB, RT, CR, etc.) 5581 GL 19. Elev. Casinghead

Total Depth 1940' 21. Plug Back T.D. 1670' 22. If Multiple Compl., How Many _____ 23. Intervals Drilled By Rotary Tools 0-1940' Cable Tools none

Producing Interval(s), of this completion - Top, Bottom, Name
Fruitland - 1615-1627 Farmington - 1128-1141 and 896-906

25. Was Directional Survey Made

Type Electric and Other Logs Run
Induction-Electric and Density Neutron

27. Was Well Cared
No

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7.625		122	8.75	65 sax	
2.875	6.5	1937	4.75	250 sax	

LINER RECORD

30.

TUBING RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					1.25	1615	none

Perforation Record (Interval, size and number)
1615-27 1128-41 896-906
All 2 shots per foot

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
1615-1627	Sand-Foam fractured with 22,000# 10-20 Sand and 245 bbls. foam on 6/14/83
	No treatment on upper zone

PRODUCTION

First Production Not Connected Production Method (Flowing, gas lift, pumping - Size and type pump) _____ Well Status (Prod. or Shut-in)

of Test 9/20/85 Hours Tested 3 Choke Size 0.75 Prod'n. For Test Period _____ Oil - Bbl. _____ Gas - MCF _____ Water - Bbl. _____ Gas - Oil Ratio _____

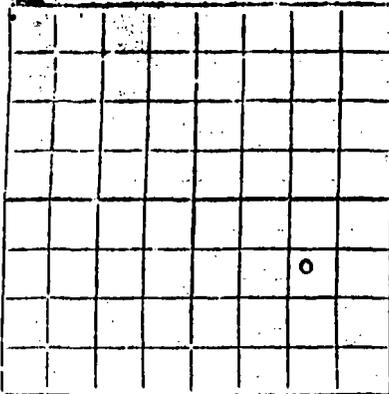
w Tubing Press. 10 Casing Pressure 109 Calculated 24-Hour Rate _____ Oil - Bbl. _____ Gas - MCF 288 AOF Water - Bbl. _____ Oil Gravity - API (Corr.) _____

Disposition of Gas (Sold, used for fuel, vented, etc.) _____ Test Witnessed By T. Evans

List of Attachments _____ **RANSOM #1-M**

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief. **NEW INFILL WELL**

SIGNED Bradley H. Keyes TITLE Trustee DATE 9/23/85



NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

WELL RECORD

Mail to District Office, Oil Conservation Commission, to which Form C-101 was sent not later than twenty days after completion of well. Follow instructions in Rules and Regulations of the Commission. Submit in QUINTUPLICATE. If State Land submit 6 Copies

AREA 640 ACRES
LOCATE WELL CORRECTLY

Marshall Drilling Company
(Company or Operator)

Blank

(Lease)

Well No. 1, in NE 1/4 of SE 1/4 of Sec. 13, T. 29, R. 11, NMPM.

Aztec

Pool,

San Juan

County.

Well 1350 feet from South line and 790 feet from East line

of Section 13. If State Land the Oil and Gas Lease No. is

Drilling Commenced 12/15, 1954. Drilling was Completed 1/2, 1955.

Name of Drilling Contractor Marshall Drilling Company

Address Farmington, New Mexico

Elevation above sea level at Top of Tubing Head 530. The information given is to be kept confidential until 19

OIL SANDS OR ZONES

- No. 1, from 1390 ft. to 1942
- No. 2, from to
- No. 3, from to
- No. 4, from
- No. 5, from
- No. 6, from

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

- No. 1, from to feet.
- No. 2, from to feet.
- No. 3, from to feet.



TEXACO

Date _____

To _____

From _____

- | | | |
|---|---|---|
| <input type="checkbox"/> Please | <input type="checkbox"/> Prepare reply for my signature | <input type="checkbox"/> As requested |
| <input type="checkbox"/> Attend to | <input type="checkbox"/> Send me information required to answer | <input type="checkbox"/> For your comments and suggestions |
| <input type="checkbox"/> Note and return | <input type="checkbox"/> For your information | <input type="checkbox"/> Does attached meet with your approval? |
| <input type="checkbox"/> Note and forward to files | <input type="checkbox"/> As per conversation | <input type="checkbox"/> For signature |
| <input type="checkbox"/> See (phone) me re attached | <input type="checkbox"/> Telephone message | |

Mail to

~~Ed Hartman~~~~P.O. Box 2088~~~~Albuquerque NM 87126~~

N.M. Oil Conservation Div.

P.O. Box 2088

Santa Fe NM 87501

NFL-110

Ed Hartman
P. O. BOX 36990
ALBUQUERQUE, NEW MEXICO 87176

RECEIVED
DEC 26 1985
OIL CONSERVATION DIVISION
SANTA FE
TELE: (505) 884-4863
(505) 884-0814

REALTOR
CERTIFIED PUBLIC ACCOUNTANT
MANANA GAS, INC.
PRESIDENT

November 25, 1985

Getty Oil Company
P.O. Box 3360
Casper, Wyoming 82602

CERTIFIED MAIL

Re: Application for Approval for In-Fill Well
Ransom #1-M
O-13-29N-11W

Dear Gentlemen and Lady:

Enclosed is application for approval of the Ransom #1-M, in-fill insofar as it pertains to the Fruitland formation only. This has been completed as a commingled Farmington-Fruitland gas well. There is no other Farmington well in this quarter section so no in-fill approval is needed for that formation.

Please execute one copy of the waiver below and forward it to the New Mexico Oil Conservation Division if you have no objection to this application.

Your assistance in this matter is very much appreciated.

Yours very truly,

Ed Hartman

Ed Hartman
Agent for the B.H. and M.N. Keyes Trust

Cys to: Horace F. McKay, Jr., Petroleum Corporation of Texas, Elliott A. Riggs,
Getty Oil Company and Helen Loraine Harvey

EMH/nh

Oil Conservation Division
P.O. Box 2088
Santa Fe, N.M. 87501

We, as offset operator, do hereby waive objection to the above application.

Operator

Texaco Producing Inc

By

D.A. Schille

Title

Manager - Oper.

Date

12-16-85