

CASE 6931: H. L. HARVEY FOR DOWNHOLE  
COMMINGLING, SAN JUAN COUNTY, NEW  
MEXICO

CASE NO.

6931

APPLICATION,  
TRANSCRIPTS,  
SMALL EXHIBITS,  
ETC.



BRUCE KING  
GOVERNOR  
LARRY KEHOE  
SECRETARY

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-2434

July 23, 1980

Mr. William F. Carr  
Campbell and Black  
Attorneys at Law  
Post Office Box 2208  
Santa Fe, New Mexico

Re: CASE NO. 6931  
ORDER NO. R-6394

Applicant:

H. L. Harvey

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 x  
Artesia OCD x  
Aztec OCD x

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. 6931  
Order No. R-6394

APPLICATION OF H. L. HARVEY  
FOR DOWNHOLE COMMINGLING,  
SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 25, 1980,  
at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 22nd day of July, 1980, the Division  
Director, having considered the testimony, the record, and the  
recommendations of the Examiner, and being fully advised in the  
premises,

FINDS:

- (1) That due public notice having been given as required  
by law, the Division has jurisdiction of this cause and the  
subject matter thereof.
- (2) That the applicant, H. L. Harvey, is the owner and  
operator of the Jones Well No. 3, located in Unit B of Section  
13, Township 29 North, Range 11 West, NMPM, San Juan County, New  
Mexico.
- (3) That the applicant seeks authority to commingle Aztec-  
Fruitland and Bloomfield-Farmington production within the well-  
bore of the above-described well.
- (4) That from the Aztec-Fruitland zone, the subject well  
is capable of low rates of production only.
- (5) That from the Bloomfield-Farmington zone, the subject  
well is capable of low marginal production only.
- (6) That the proposed commingling may result in the recovery  
of additional hydrocarbons from each of the subject pools, thereby  
preventing waste, and will not violate correlative rights.



-2-

Case No. 6931  
Order No. R-6394

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 5 percent of the commingled production should be allocated to the Aztec-Fruitland zone, and 95 percent of the commingled production to the Bloomfield-Farmington zone.

IT IS THEREFORE ORDERED:

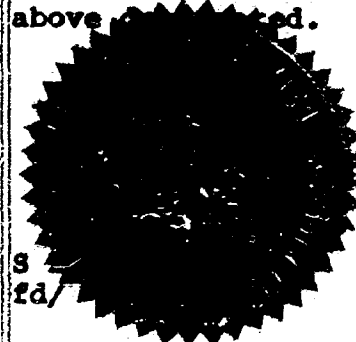
(1) That the applicant, H. L. Harvey, is hereby authorized to commingle Aztec-Fruitland and Bloomfield-Farmington production within the wellbore of the Jones Well No. 3, located in Unit B of Section 13, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.

(2) That 5 percent of the commingled production shall be allocated to the Aztec-Fruitland zone and 95 percent of the commingled production shall be allocated to the Bloomfield-Farmington zone.

(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) 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 the day and year hereinabove stated.



STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

*Joe D. Ramey*  
JOE D. RAMEY  
Director

S  
fd/

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

EXAMINER HEARING

IN THE MATTER OF:

Application of H. L. Harvey for ) CASE  
downhole commingling, San Juan County, ) 6931  
New Mexico. )

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

For the Applicant:

William F. Carr, Esq.  
CAMPBELL & BLACK P. A.  
Jefferson Place  
Santa Fe, New Mexico 87501

SALLY W. BOYD, C.S.R.

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## I N D E X

## JOHN CHARLES ALEXANDER

Direct Examination by Mr. Carr	3
Cross Examination by Mr. Stamets	10

## E X H I B I T S

Applicant Exhibit One, Plat	5
Applicant Exhibit Two, C-102	5
Applicant Exhibit Three, Log	5
Applicant Exhibit Four, Summary	6
Applicant Exhibit Five, Document	6
Applicant Exhibit Six, Wellbore Sketch	7
Applicant Exhibit Seven, Correspondence	9

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1 MR. STAMETS: Call next Case 6931.

2 MR. PADILLA: Application of H. L. Harvey  
3 for downhole commingling, San Juan County, New Mexico.

4 MR. CARR: May it please the Examiner,  
5 I am William F. Carr, Campbell and Black, P. A., appearing  
6 on behalf of the applicant. I have one witness who needs to  
7 be sworn.

8 MR. STAMETS: Any other appearances in  
9 this case?

10  
11 (Witness sworn.)

12  
13 JOHN CHARLES ALEXANDER

14 being called as a witness and having been duly sworn upon his  
15 oath, testified as follows, to-wit:

16  
17 DIRECT EXAMINATION

18 BY MR. CARR:

19 Q Will you please state your full name and  
20 place of residence?

21 A My name is John Charles Alexander. I  
22 reside at 3114 Crescent Street, Farmington, New Mexico.

23 Q Mr. Alexander, by whom are you employed  
24 and in what capacity?

25 A I'm self-employed as a consultant.

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1 Q Have you been employed in this case by  
2 H. L. Harvey?

3 A Yes, I have.

4 Q Have you previously testified before this  
5 Commission and had your credentials accepted and made a matter  
6 of record?

7 A No, I have not.

8 Q Will you briefly summarize for the Examiner  
9 your educational background and work experience?

10 A Surely. I hold a Bachelor of Science  
11 degree in petroleum engineering from the University of Texas,  
12 1968; was employed by Amoco Production for three years as  
13 production engineer, working in west Texas; was then employed  
14 by Halliburton Services as a district engineer, working both  
15 in west Texas and in northwest New Mexico.

16 Since 1976 I've been employed as a con-  
17 sultant, working in San Juan Basin, New Mexico.

18 Q Are you familiar with the application  
19 in this case?

20 A I am.

21 Q Are you familiar with the subject well  
22 and subject area?

23 A I am.

24 MR. CARR: Are the witness' qualifications  
25 acceptable?

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MR. STAMETS: They are.

Q Mr. Alexander, will you briefly state what H. L. Harvey seeks with this application?

A Surely, Mr. Harvey seeks the downhole commingling of the Farmington and Fruitland Sands within the same wellbore.

Q Have you prepared certain exhibits for introduction in this case?

A Yes, I have.

Q Will you refer to what has been marked for identification as Harvey Exhibit Number One and explain to the Examiner what it is and what it shows?

A I surely will. This is a plat showing the subject well, Jones No. 3, indicated by the large black arrow, and all offsetting production and the ownership thereof.

Q Are any other wells in the immediate vicinity downhole commingled?

A Not to my knowledge.

Q Will you now refer to Exhibit Number Two and identify this for Mr. Stamets?

A Exhibit Number Two is State Form C-102, a well plat, showing the legal location of the Jones No. 3.

Q Will you now identify for the Examiner what's been marked Harvey Exhibit Number Three?

1 A Harvey Exhibit Number Three is the electric  
2 log showing the perforations, both the Fruitland and Farmington  
3 Sands.

4 Q Mr. Alexander, I now hand you what has  
5 been marked Harvey Exhibit Number Four and ask that you review  
6 the data contained thereon for Mr. Stamets.

7 A This is a summary of the Farmington forma-  
8 tion perforation, stimulation, well test. It shows the per-  
9 forated interval to be 1078 to 1085 foot. These are RKB  
10 measurements, showing the perforations at 2 jet shots per  
11 foot. Also summarized is the stimulation. It shows acidizing  
12 with 250 gallons followed by a frac treatment of 17,000 gal-  
13 lons of 70 quality foam, carrying 14,000 pounds of 10-20  
14 sand.

15 The well test, which has an accompanying  
16 C-122, absolute open flow test, shows the approximate production  
17 or calculated production of 1273 MCFD with the shut-in pres-  
18 sure of 427 psi. This shut-in pressure was the 7-day buildup  
19 period required on the standard AOF form for northwest New  
20 Mexico.

21 Q Mr. Alexander, I'll hand you now what has  
22 been marked Applicant's Exhibit Number Five and ask that you  
23 review this with Mr. Stamets.

24 A This is the information concerning the  
25 Fruitland Sand formation, or the lower formation in this well,

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1 showing the perforated interval to be 1818 to 1823. There  
2 again, these are rotary Kelly bushing measurements. Two jet  
3 shots per foot; stimulation consisting of 500 gallons of 15  
4 percent hydrochloric acid; then fracturing with 15,000 gal-  
5 lons of 70 quality foam and 13,000 pounds of 10-20 sand.

6 It also shows a well test underneath  
7 this. This is not a standard AOF test because of the extremely  
8 low rate involved. The 7-day shut-in pressure was 540 psi,  
9 and it shows a flow period of three hours. The flow rate  
10 calculation there is a very simple calculation, just to show  
11 an approximate rate of 43 MCFD.

12 Q Is the ownership common in both the zones  
13 that are going to be downhole commingled?

14 A It is.

15 Q Mr. Alexander, will you now refer to Ex-  
16 hibit Number Six and review the information contained thereon?

17 A Exhibit Number Six is a wellbore sketch  
18 of the Jones Well No. 3. It shows 4-1/2 inch casing; also  
19 shows the 1-inch 10-round tubing set at 1136 foot. The two  
20 perforate intervals, the upper interval being the Farmington  
21 Sand, perforated from 1078 to 1085. Also indicated there is  
22 the same pressure information I gave to you previously.

23 A bridge plug, separating the two zones,  
24 set at 1700 foot and then the Fruitland Sand perforations  
25 from 1818 to 1823, along with the same 7-day pressure shut-in



1 information.

2 Q Mr. Alexander, in your opinion, would it  
3 be possible to dually complete this well?

4 A Not economically.

5 Q And your objective in proposing the down-  
6 hole commingling is to lift the marginal proven production,  
7 is that correct?

8 A That's correct, to allow the Fruitland to  
9 be produced.

10 Q Are both zones in this well capable of  
11 flowing or do they require some sort of artificial lift?

12 A Both are capable of flowing.

13 Q What pressure differential do you expect  
14 to be experienced across the perforations in each of these  
15 zones?

16 A I expect a pressure differential of 113  
17 psi.

18 Q Do you anticipate that this pressure dif-  
19 ferential would result in gas migration between the zones?

20 A I do not.

21 Q Have you calculated an average rate of  
22 production from each of the zones?

23 A Yes, I have. On the two previous sub-  
24 mitted pieces of evidence, indicating that the lower, or  
25 Fruitland formation, capable of producing approximately 40 MCFD,

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1 and the upper Farmington Sand capable of producing approxi-  
2 mately 1200 MCFD.

3 Q Are you prepared to make a recommendation  
4 to the Examiner as to the allocation of production between  
5 each of these zones?

6 A Yes, I am. I would recommend that the  
7 Farmington Sand, or the upper zone, be allocated 95 percent;  
8 the lower Fruitland Sand to be allocated 5 percent.

9 Q Are either of the zones producing any  
10 liquids?

11 A No, sir, they're not.

12 Q Have you given notice of this application  
13 to the offsetting operators?

14 A I have.

15 Q And are copies of these letters and the  
16 waivers what has been marked as Applicant's Exhibit Number  
17 Seven?

18 A They are.

19 Q Mr. Alexander, in your opinion, will  
20 granting this application result in the recovery of hydro-  
21 carbons that otherwise would not be recovered?

22 A Yes, sir, I do.

23 Q In your opinion, will granting this ap-  
24 plication be in the interest of conservation, the prevention  
25 of waste, and the protection of correlative rights?

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A. Yes, sir.

MR. CARR: At this time, Mr. Examiner, we would offer Harvey Exhibits One through Seven.

MR. STAMETS: These exhibits will be admitted.

MR. CARR: And I have nothing further on direct.

CROSS EXAMINATION

BY MR. STAMETS:

Q Mr. Alexander, where will the tubing be set in this well?

A. In this well if it's commingled?

Q Right, if what you've asked for is approved?

A. We'll set at approximately 1820 foot, or near the middle set of perforations of the Fruitland.

Q Do any of the other Farmington or Fruitland wells in the area produce any liquids?

A. Not that I'm aware of.

MR. STAMETS: Any other questions of the witness? He may be excused.

Anything further in this case?

MR. CARR: Nothing further.

MR. STAMETS: The case will be taken under advisement.

C E R T I F I C A T E

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 CSR.

SALLY W. BOYD, C.S.R.  
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I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6931, heard by me on 6-25-1980.  
Richard R. [Signature], Examiner  
Oil Conservation Division

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

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6 hole commingling is to lift the marginal proven production,  
7 is that correct?

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9 be produced.

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11 flowing or do they require some sort of artificial lift?

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14 to be experienced across the perforations in each of these  
15 zones?

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17 psi.

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19 ferential would result in gas migration between the zones?

20 A I do not.

21 Q Have you calculated an average rate of  
22 production from each of the zones?

23 A Yes, I have. On the two previous sub-  
24 mitted pieces of evidence, indicating that the lower, or  
25 Fruitland formation, capable of producing approximately 40 MCFD,

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1 and the upper Farmington Sand capable of producing approxi-  
2 mately 1200 MCFD.

3 Q Are you prepared to make a recommendation  
4 to the Examiner as to the allocation of production between  
5 each of these zones?

6 A Yes, I am. I would recommend that the  
7 Farmington Sand, or the upper zone, be allocated 95 percent;  
8 the lower Fruitland Sand to be allocated 5 percent.

9 Q Are either of the zones producing any  
10 liquids?

11 A No, sir, they're not.

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13 to the offsetting operators?

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15 Q And are copies of these letters and the  
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20 granting this application result in the recovery of hydro-  
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24 plication be in the interest of conservation, the prevention  
25 of waste, and the protection of correlative rights?

SALLY W. BOYD, C.S.R.

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

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

1 A. Yes, sir.

2 MR. CARR: At this time, Mr. Examiner, we

3 would offer Harvey Exhibits One through Seven.

4 MR. STAMETS: These exhibits will be ad-

5 mitted.

6 MR. CARR: And I have nothing further on

7 direct.

8

9 CROSS EXAMINATION

10 BY MR. STAMETS:

11 Q Mr. Alexander, where will the tubing be

12 set in this well?

13 A In this well if it's commingled?

14 Q Right, if what you've asked for is approved?

15 A We'll set at approximately 1820 foot, or

16 near the middle set of perforations of the Fruitland.

17 Q Do any of the other Farmington or Fruit-

18 land wells in the area produce any liquids?

19 A Not that I'm aware of.

20 MR. STAMETS: Any other questions of the

21 witness? He may be excused.

22 Anything further in this case?

23 MR. CARR: Nothing further.

24 MR. STAMETS: The case will be taken under

25 advisement.

C E R T I F I C A T E

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 CSR.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. \_\_\_\_\_ heard by me on \_\_\_\_\_ 19\_\_\_\_.

\_\_\_\_\_, Examiner  
Oil Conservation Division

SALLY W. BOYD, C.S.R.

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

11W 10W

42 381 50 SHEETS 3 SQUARE  
42 381 100 SHEETS 3 SQUARE

29N

ILL HARVEY  
JONES NO. 3

OFFSET WELLS

11

FOGELSON II #2  
BETA

12

GARRETT Fed. Corp.  
GETTY  
GARRETT Com.  
Pet. Corp. Tex.  
GARRETT B.  
GETTY

7

Hubbell #1 EPNG  
Hubbell #4 EPNG  
Hubbell #1 Beta Dev.

HARE GAS Com. #1 E  
AMOLD

14

HARE GAS Com. #1  
AMOLD

GARRETT Fed. Corp.  
GETTY

13

WARD A #1  
GETTY  
Gale #1  
ROY COOK

JONES #3  
B. M. HOWELL  
GETTY

MARTIN Fed.  
Com. #1  
GETTY

RANSOM #1  
B. M. HOWELL  
EMMARE (MAY) #1  
GETTY

Handley #2 Pet. Corp. Tex.

W. M. Handley #1  
GETTY  
Handley A #1 GETTY  
Handley #2 J. Pet. Corp. Tex.

18

Handley #1 TENNECO

Handley B #1 McKay

CLARENCE #1 MANANA

HARE GAS Com. #1  
AMOLD  
HARE GAS Com. #1  
AMOLD  
HARE #1 EPNG  
HARE #5 KENDON  
HARE #1 KENDON  
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HARE #99 KENDON  
HARE #100 KENDON

23

MAR LANE A #1 COM  
MAR LANE Com. #1 GETTY

24

MARTIN  
EPNG

DAVE #1 Bearden #1A McKay  
TENNECO

Bearden #1 McKay

SCALE: 2000



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

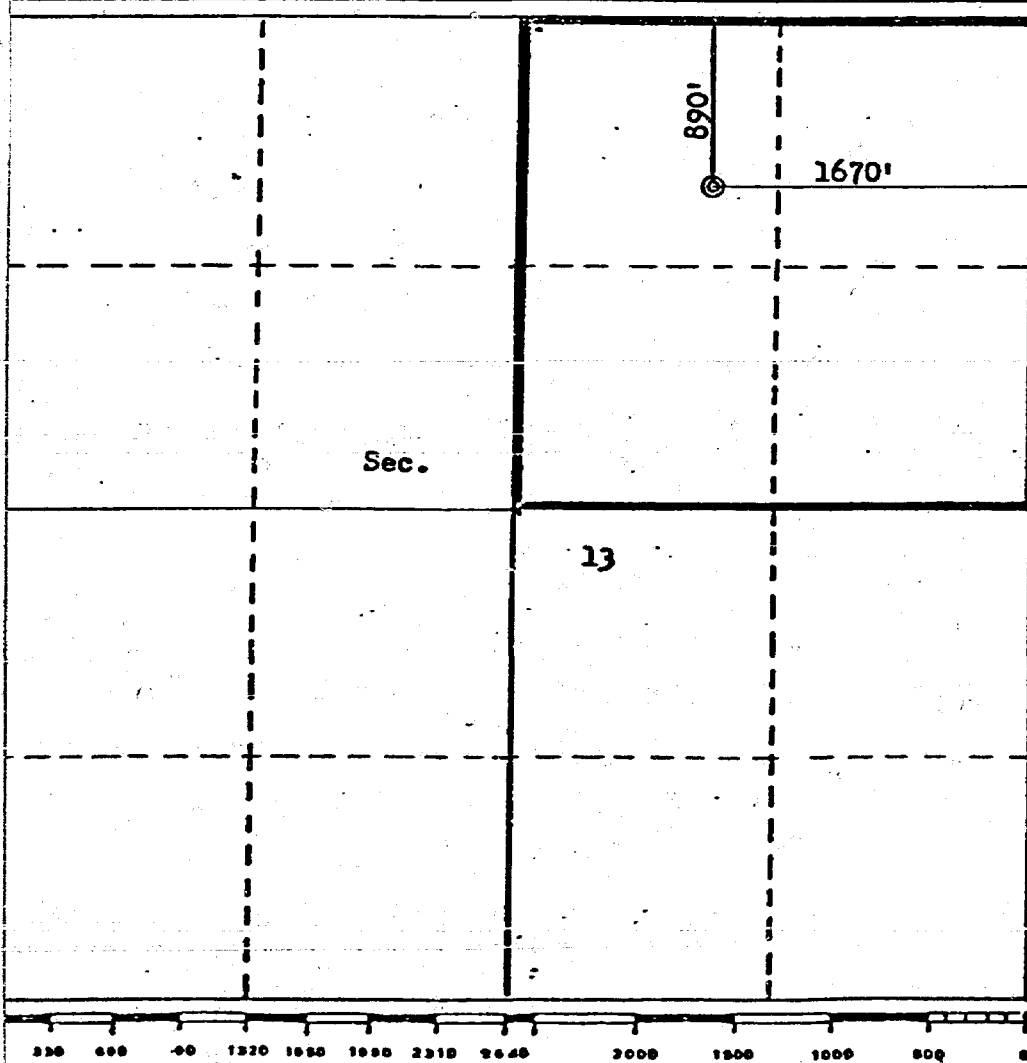
Operator <b>H. L. HARVEY</b>			Lease <b>JONES</b>		Well No. <b>3</b>
Init Letter <b>B</b>	Section <b>13</b>	Township <b>29N</b>	Range <b>11W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>890</b> feet from the <b>North</b> line and <b>1670</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5728</b>	Producing Formation <b>FRUITLAND</b>		Pool <b>AZTEC FRUITLAND</b>		Dedicated Acreage: <b>160</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.



CERTIFICATION

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

*John Alexander*  
Name

JOHN ALEXANDER

Position  
AGENT

Company  
H. L. HARVEY

Date  
September 13, 1979

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  
September 13, 1979  
Rec'd by [Signature]  
Fred [Signature]  
39508. KERR, JR.

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

H. L. HARVEY

JONES No. 3

890' /N & 1670' /E

13-T29N-R11W

San Juan Co., N. M.

## FARMINGTON FORMATION

Perforated interval: 1078' to 1085'

2 J.S.P.F.

Stimulation: Acidized with 250 gal. 15% HCl  
Fracture with 17000 gal 70 Quality  
Foam carrying 14000 lb. 10-20 sand

Well Test: 1273 MCFD per attached C-122.  
Seven day shut-in pressure for  
tubing and casing was 427 psi.

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

HARVEY EXHIBIT NO. 4

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 03/16/80	
Company H. L. HARVEY		Connection NONE	
Pool BLOOMFIELD FARMINGTON		Formation FARMINGTON SAND	
Completion Date 03/09/80		Total Depth 1950	Plug Back TD 1890
Elevation 5728		Farm or Lease Name JONES	
Csg. Size 4 1/2	Wt. 10 1/2	d 4.025	Set At 1950
Perforations: From 1078 To 1085		Well No. 3	
Tbg. Size 1"	Wt. 1.8#	d 1.049	Set At 1136
Perforations: From To		Unit Sec. Twp. Rge. B 13 29N 11W	
Type Well - Single - Windhead - G.C. or G.O. Multiple SINGLE		Packer Set At N/A	
Producing Thru TUBING		Reservoir Temp. °F 100 @ 1950	Mean Annual Temp. °F 12.0
Baro. Press. - P <sub>g</sub> 12.0		State NEW MEXICO	
L	H	G <sub>g</sub>	% CO <sub>2</sub>
			% N <sub>2</sub>
			% H <sub>2</sub> S
Prover		Meter Run	
Taps			
FLOW DATA			
NO.	Prover Line Size	X	Orifice Size
1	6" X 2"		3/4
2			
3			
4			
5			
PRESS. p.s.i.g.			
1			38
2			
3			
4			
5			
DIFF. h <sub>w</sub>			
1			
2			
3			
4			
5			
TEMP. °F			
1			
2			
3			
4			
5			
TUBING DATA			
PRESS. p.s.i.g.		TEMP. °F	
1		38	
2			
3			
4			
5			
CASING DATA			
PRESS. p.s.i.g.		TEMP. °F	
1		302	
2			
3			
4			
5			
Duration of Flow 3 hrs.			
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>
1	11		50
2			
3			
4			
5			
Flow Temp. Factor F <sub>L</sub>			
1			1.030
2			
3			
4			
5			
Gravity Factor F <sub>g</sub>			
1			1.24
2			
3			
4			
5			
Super Compress. Factor F <sub>pv</sub>			
1			1.006
2			
3			
4			
5			
Rate of Flow O. Mcd			
1			706.7
2			
3			
4			
5			
NO.	R <sub>1</sub>	Temp. °R	T <sub>g</sub>
1	.0746	490	1.30
2			
3			
4			
5			
Gas Liquid Hydrocarbon Ratio _____ Mcl/bbl.			
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.			
Specific Gravity Separator Gas _____			
Specific Gravity Flowing Fluid _____			
Critical Pressure _____ P.S.I.A.			
Critical Temperature _____ R			
P <sub>c</sub> 427 P <sub>c</sub> <sup>2</sup> 182,329			
NO.	P <sub>1</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>
1		302	91204
2			
3			
4			
5			
(1) $\frac{P_c^2}{P_w^2 - P_c^2} = 2.000$			
(2) $\left[ \frac{P_c^2}{P_w^2 - P_c^2} \right]^n = 1.80$			
AOF = 0 $\left[ \frac{P_c^2}{P_w^2 - P_c^2} \right]^n = 1273$			
Absolute Open Flow _____ Mcd @ 15.025			
Angle of Slope @ _____			
Slope, n .85			
Remarks:			
Approved By Division			
Conducted By:			
Calculated By:			
Checked By:			

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

H. L. HARVEY  
JONES NO. 3

890'N & 1670'E  
13-T29N-R11W  
San Juan Co., N. M.

## FRUITLAND FORMATION

Perforated interval: 1818'-1823',  
2 J.S.P.F.

Stimulation: Acidized with 500 gal 15% HCl.  
Fractured with 15,000 gal 70  
Quality Foam with 13,000 lb.  
10-20 sand.

### Well Test:

Seven day shut-in, 540 psi  
(tubing & casing), flowed for  
3 hrs. against a 3/4" choke.  
Flow rate was below critical rate  
to calculate rate using standard  
AOF form. Flowing tubing pressure  
was 3 psi, casing pressure was 20  
psi.

$$\begin{aligned}\text{Flow Rate} &= \frac{\text{coeff.} \times \text{press.}}{18^*} \\ &= \frac{260.99 \times 3}{18} \\ &= 43 \text{ MCFD}\end{aligned}$$

\* based on 0.60 Sp.GR, 80°F. Gage pressure in  
place of absolute pressure was used in this  
calculation because of the very low pressure.

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

~~HARVEY~~ EXHIBIT NO. 5

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

HELEN L. HARVEY  
JONES NO. 3

4 1/2" CSG

5" 10 RD. EUE

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

~~WELLY~~ EXHIBIT NO. 6

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

FARMINGTON SAND PERFS.

1078' - 1085'

7 DAY SE PRESSURE 427 PSI (3-16-80)

TUBING  
@ 1136'

BRIDGE PLUG @ 1700'

FRUITLAND SAND PERFS.

1818' - 1823'

7 DAY PRESSURE 540 PSI (12-10-79)

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 -- 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Kendall & Assoc.  
719 W. Apache  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

HARVEY EXHIBIT NO. 7

CASE NO. 6931

Submitted by ALEXANDER

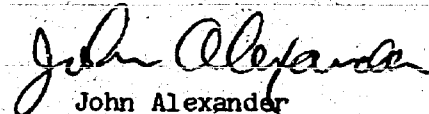
Hearing Date 6-25-80

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

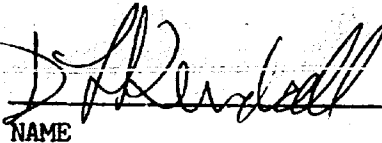
Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

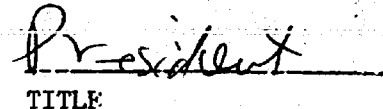
Sincerely,



John Alexander  
Agent for H. L. Harvey

Kendall & Assoc. does not object to the subject application.

  
NAME

  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

Petroleum Corporation of Texas  
Box 911  
Breckenridge, Texas 76024

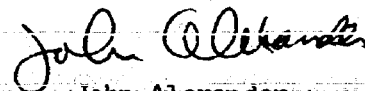
Re: Comingle application, H.L. Harvey  
Jones No.3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H.L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,



John Alexander  
Agent for H.L. Harvey

Petroleum Corporation of Texas does not object to the  
subject application.

PETROLEUM CORPORATION OF TEXAS

By:   
NAME F. F. Dueser

Senior Vice President  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190    --    505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

Beta Development Co.  
234 Petroleum Plaza  
Farmington, NM 87401

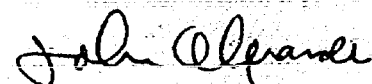
Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H.L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

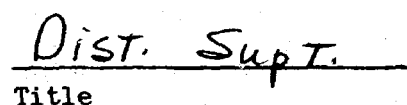


John Alexander  
Agent for H.L. Harvey

Beta Development Co. does not object to the subject  
application.



Name



Title

JA:cp



# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190    --    505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Horace McKay  
Box 14738  
Albuquerque, NM 87111

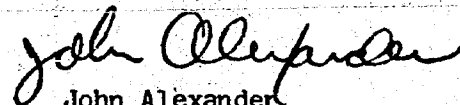
Re: Comingle application, H. L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

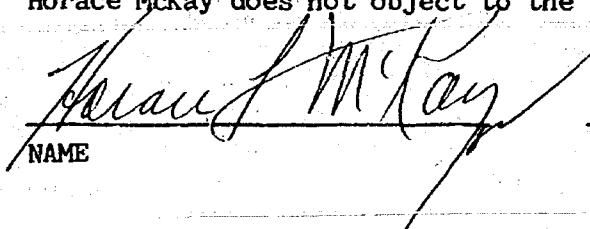
H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

  
John Alexander  
Agent for H. L. Harvey

Horace McKay does not object to the subject application.

  
NAME

Operator  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

B. H. Keys  
103 N. Main  
Aztec, NM 87410

Re: Comingle application, H. L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H. L. Harvey

B. H. Keys does not object to the subject application.

*Bradley H. Keys*  
NAME

*Agent*  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Elliot Riggs  
Box 711  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H. L. Harvey

Elliot Riggs does not object to the subject application.

NAME

TITLE

JA:cp

*4/24/80*

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Manana Gas, Inc.  
Box 145  
Farmington, NM 87401

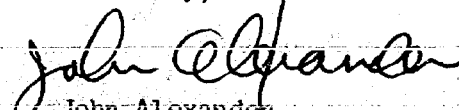
Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

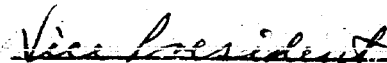
Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

  
John Alexander  
Agent for H. L. Harvey

Manana Gas, Inc. does not object to the subject application.

  
NAME

  
TITLE

JA:cp

RECEIVED APR 24 1980



**Amoco Production Company**

Denver Region  
Security Life Building  
Denver, Colorado 80202  
Producing Department  
303-820-4040

M. S. Kraemer  
Regional Production  
Manager

May 8, 1980

Three E Company, Inc.  
P. O. Box 190  
Farmington, NM 87401

File: HAS-99-986.511

Gentlemen:

Downhole Commingling of Fruitland and  
Farmington Sands in H. L. Harvey No. 3 Jones,  
890' FNL and 1,670' FEL of Section 13-T29N-R11W  
San Juan County, New Mexico

Pursuant to your April 18, 1980, letter requesting Amoco's waiver of objection to the captioned proposal, this is to advise that Amoco has no leasehold interest in lands offsetting the well in which you propose to downhole commingle fluid produced from two producing formations.

Very truly yours,

*MS Kraemer* G

RBG/mlm

AYH650

11W 10W

42 381 30 SHEETS 1 SQUARE  
42 381 100 SHEETS 1 SQUARE  
42 381 200 SHEETS 1 SQUARE  
42 381 300 SHEETS 1 SQUARE  
42 381 400 SHEETS 1 SQUARE  
42 381 500 SHEETS 1 SQUARE  
42 381 600 SHEETS 1 SQUARE  
42 381 700 SHEETS 1 SQUARE  
42 381 800 SHEETS 1 SQUARE  
42 381 900 SHEETS 1 SQUARE  
42 381 1000 SHEETS 1 SQUARE

29N

ILL. L. HARVEY  
JONES NO. 3

OFFSET WELLS

11

Fogelson II #2  
BETA

12

Garrett Fedcon #1  
Getty  
Garrett (com)  
Pet. Corp. Tex.  
Garrett B #1  
Getty

7

Hubbell #1 EANG  
Hubbell #4 EANG  
Hubbell #1 Beta Dev.

Hare Gas Com #1 E  
Amolo

Garrett D #1  
Getty

JONES #3  
B. M. Houck #1  
Getty

Hanley #2 Pet. Corp. Tex.

14

Hare Gas Com #1  
Amolo

Garrett Fedcon #2  
Getty

13

Martin Fed  
Com #1  
Getty

W. M. Hanley #1  
Getty  
Hanley #1 Getty  
Hanley #2 J. Pet. Corp. Tex.

18

WARD A #1

Getty

Gale #1  
Roy Cook

Ransom #1  
B. M. Houck #1  
E. M. Harlow #1  
Getty

Hanley #1 Tenneco

Hanley #1 McKay

Staten #1 Franona

Hare Gas Com #1  
Amolo  
Hare Gas Com #1  
Amolo  
Hare #1 EANG  
Hare #5 Kenon  
Hare #1 Kenon  
Hare #1 Seiter  
Hare #1 Kenon

23

MAG GALE A #1 Getty  
MAG GALE Com #1 Getty  
Kenon  
24

Martin #1  
Riggs

Payne #1 Bearden #1 A McKay  
Tenneco

Bearden #1  
McKay

SCALE: 2000

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

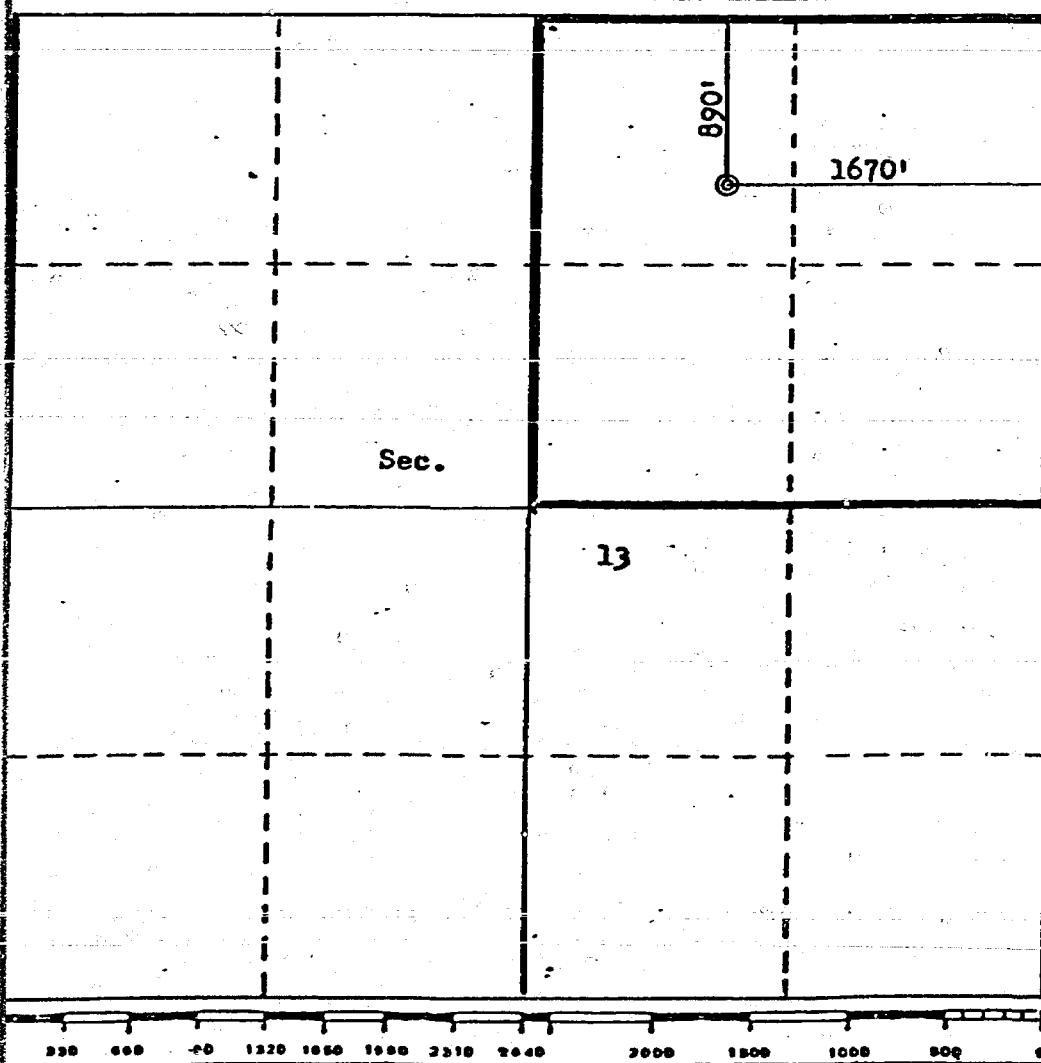
Operator <b>H. L. HARVEY</b>			Lease <b>JONES</b>		Well No. <b>3</b>
Unit Letter <b>B</b>	Section <b>13</b>	Township <b>29N</b>	Range <b>11W</b>	County <b>San Juan</b>	
Actual Footage Location of Well: <b>890</b> feet from the <b>North</b> line and <b>1670</b> feet from the <b>East</b> line					
Ground Level Elev. <b>5128</b>	Producing Formation <b>FRUITLAND</b>		Pool <b>AZTEC FRUITLAND</b>		Dedicated Acreage: <b>160</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.



CERTIFICATION

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

*John Alexander*  
Name

JOHN ALEXANDER

Position

AGENT

Company

H. L. HARVEY

Date

September 13, 1979

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

September 13, 1979

Received by \_\_\_\_\_

\_\_\_\_\_

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# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190      —      505/327-4020

FARMINGTON, NEW MEXICO 87401

H. L. HARVEY

JONES No. 3

890'N & 1670'E

13-T29N-R11W

San Juan Co., N. M.

## FARMINGTON FORMATION

Perforated interval: 1078' to 1085'

2 J.S.P.F.

Stimulation: Acidized with 250 gal. 15% HCl  
Fracture with 17000 gal 70 Quality  
Foam carrying 14000 lb. 10-20 sand

Well Test: 1273 MCFD per attached C-122.  
Seven day shut-in pressure for  
tubing and casing was 427 psi.

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

HARVEY EXHIBIT NO. 4

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80



## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test		<input checked="" type="checkbox"/> Initial		<input type="checkbox"/> Annual		<input type="checkbox"/> Special		Test Date		03/16/80	
Company				Connection							
H. L. HARVEY				NONE							
Pool				Formation				Unit			
BLOOMFIELD FARMINGTON				FARMINGTON SAND							
Completion Date		Total Depth		Plug Back TD		Elevation		Farm or Lease Name			
03/09/80		1950		1890		5728		JONES			
Coq. Size	Wt.	d	Set At	Perforations		To		Well No.			
4 1/2	10 1/2	4.025	1950	From 1078		1085		3			
Tbg. Size	Wt.	d	Set At	Perforations		To		Unit Sec. Twp. Rge.			
1"	1.8#	1.049	1136	From				B 13 29N 11W			
Type Well - Single - Drillinghead - G.C. or G.O. Multiple						Packer Set At		County			
SINGLE						N/A		SAN JUAN			
Producing Thru		Reservoir Temp. °F		Mean Annual Temp. °F		Baro. Press. - P <sub>a</sub>		State			
TUBING		100 @ 1950				12.0		NEW MEXICO			
L	H	Gg	% CO <sub>2</sub>	% N <sub>2</sub>	% H <sub>2</sub> S	Prover		Meter Run		Taps	
FLOW DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
1	6" X 2"	3/4		38			427		427		3 hrs.
2											
3											
4											
5											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor F <sub>pv</sub>	Rate of Flow O. Mcd				
1	11		50	1.030	1.24	1.006	706.7				
2											
3											
4											
5											
NO.	P <sub>1</sub>	Temp. °R	T <sub>1</sub>	Z	Gas Liquid Hydrocarbon Ratio _____ Mcl/bbl.						
1	.0746	490	1.30	.989	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2					Specific Gravity Separator Gas _____ X X X X X X X X						
3					Specific Gravity Flowing Fluid _____ X X X X X						
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.						
5					Critical Temperature _____ R _____ R						
$P_c = 427$ $P_c^2 = 182,329$											
NO.	P <sub>1</sub> <sup>2</sup>	P <sub>w</sub> <sup>2</sup>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.000$ (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.80$						
1		302	91204	91125	AOF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1273$						
2											
3											
4											
5											
Absolute Open Flow _____ Mcd @ 15.025						Angle of Slope @ _____			Slope, n .85		
Remarks:											
Approved By Division _____ Conducted By: _____ Calculated By: _____ Checked By: _____											

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P.O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

H. L. HARVEY  
JONES NO. 3

890'N & 1670'E  
13-T29N-R11W  
San Juan Co., N. M.

## FRUITLAND FORMATION

Perforated interval: 1818'-1823',  
2 J.S.P.F.

Stimulation: Acidized with 500 gal 15% HCl.  
Fractured with 15,000 gal 70  
Quality Foam with 13,000 lb.  
10-20 sand.

### Well Test:

Seven day shut-in, 540 psi  
(tubing & casing), flowed for  
3 hrs. against a 3/4" choke.  
Flow rate was below critical rate  
to calculate rate using standard  
AOF form. Flowing tubing pressure  
was 3 psi, casing pressure was 20  
psi.

Flow Rate =  $\frac{\text{coeff.} \times \text{press.}}{18^*}$

=  $\frac{260.99 \times 3}{18}$

= 43 MCFD

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

HARVEY EXHIBIT NO. 5

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

\* based on 0.60 Sp.GR, 80°F. Gage pressure in  
place of absolute pressure was used in this  
calculation because of the very low pressure.

HELEN L. HARVEY  
JONES NO. 3

42,381 50 SHEETS 5 SQUARE  
42,382 100 SHEETS 5 SQUARE  
42,383 200 SHEETS 5 SQUARE  
NATIONAL

4 1/2" CSG  
1" 10RD. EUE

BEFORE EXAMINER STAMETS OIL CONSERVATION DIVISION <u>HARVEY</u> EXHIBIT NO. <u>6</u> CASE NO. <u>6931</u> Submitted by <u>ALEXANDER</u> Hearing Date <u>6-25-80</u>
--

TUBING  
@ 1136'

PARMINGTON SAND PERFS.  
1078' - 1085'  
7 DAY SE PRESSURE 427 PSI (3-16-80)

BRIDGE Plug @ 1700'

FRUITLAND SAND PERFS.  
1818' - 1823'  
7 DAY PRESSURE 540 PSI (12-10-79)

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Kendall & Assoc.  
719 W. Apache  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

~~HARVEY~~ EXHIBIT NO. 7

CASE NO. 6931

Submitted by ALEXANDER


Hearing Date 6-25-80

Dear Sirs:

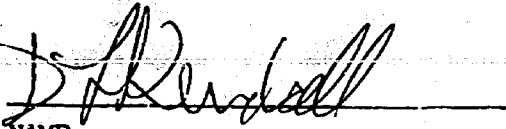
H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

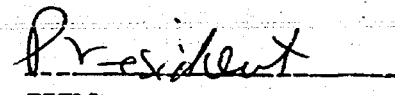
Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

  
John Alexander  
Agent for H. L. Harvey

Kendall & Assoc. does not object to the subject application.

  
NAME

  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P.O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

Petroleum Corporation of Texas  
Box 911  
Breckenridge, Texas 76024

Re: Comingle application, H.L. Harvey  
Jones No.3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H.L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H.L. Harvey

Petroleum Corporation of Texas does not object to the  
subject application.

PETROLEUM CORPORATION OF TEXAS

*F. F. Dueser*

NAME F. F. Dueser

Senior Vice President

TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

Beta Development Co.  
234 Petroleum Plaza  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H.L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

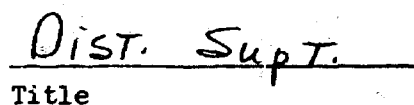
Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,



John Alexander  
Agent for H.L. Harvey

Beta Development Co. does not object to the subject  
application.

  
Name  
Title

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P.O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Horace McKay  
Box 14738  
Albuquerque, NM 87111

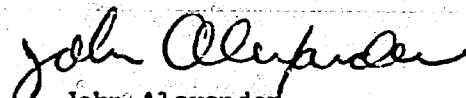
Re: Comingle application, H. L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

  
John Alexander  
Agent for H. L. Harvey

Horace McKay does not object to the subject application.

  
NAME

Operator  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

B. H. Keys  
103 N. Main  
Aztec, NM 87410

Re: Comingle application, H. L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to comingle the Fruitland and Farmington Sand in the subject well.

Please signify your approval of this operation by signing the enclosed copy of this letter. An addressed envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H. L. Harvey

B. H. Keys does not object to the subject application.

*B. H. Keys*  
NAME

*Agent*  
TITLE

JA:cp



# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Elliot Riggs  
Box 711  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H. L. Harvey

Elliot Riggs does not object to the subject application.

NAME

TITLE

JA:cp

4/24/80

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Manana Gas, Inc.  
Box 145  
Farmington, NM 87401


Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

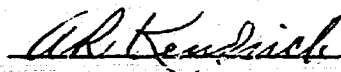
H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

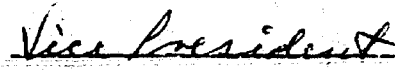
Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

  
John Alexander  
Agent for H. L. Harvey

Manana Gas, Inc. does not object to the subject application.

  
NAME

  
TITLE

JA:cp

RECEIVED APR 24 1980



M. S. Kraemer  
Regional Production  
Manager

**Amoco Production Company**

Denver Region  
Security Life Building  
Denver, Colorado 80202  
Producing Department  
303-820-4040

May 3, 1980

Three E Company, Inc.  
P. O. Box 190  
Farmington, NM 87401

File: HAS-99-986.511

Gentlemen:

Downhole Commingling of Fruitland and  
Farmington Sands in H. L. Harvey No. 3 Jones,  
890' FNL and 1,670' FEL of Section 13-T29N-R11W  
San Juan County, New Mexico

Pursuant to your April 18, 1980, letter requesting Amoco's  
waiver of objection to the captioned proposal, this is to  
advise that Amoco has no leasehold interest in lands offset-  
ting the well in which you propose to downhole commingle  
fluid produced from two producing formations.

Very truly yours,

*MS Kraemer* G

RBG/mlm

AYH650



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

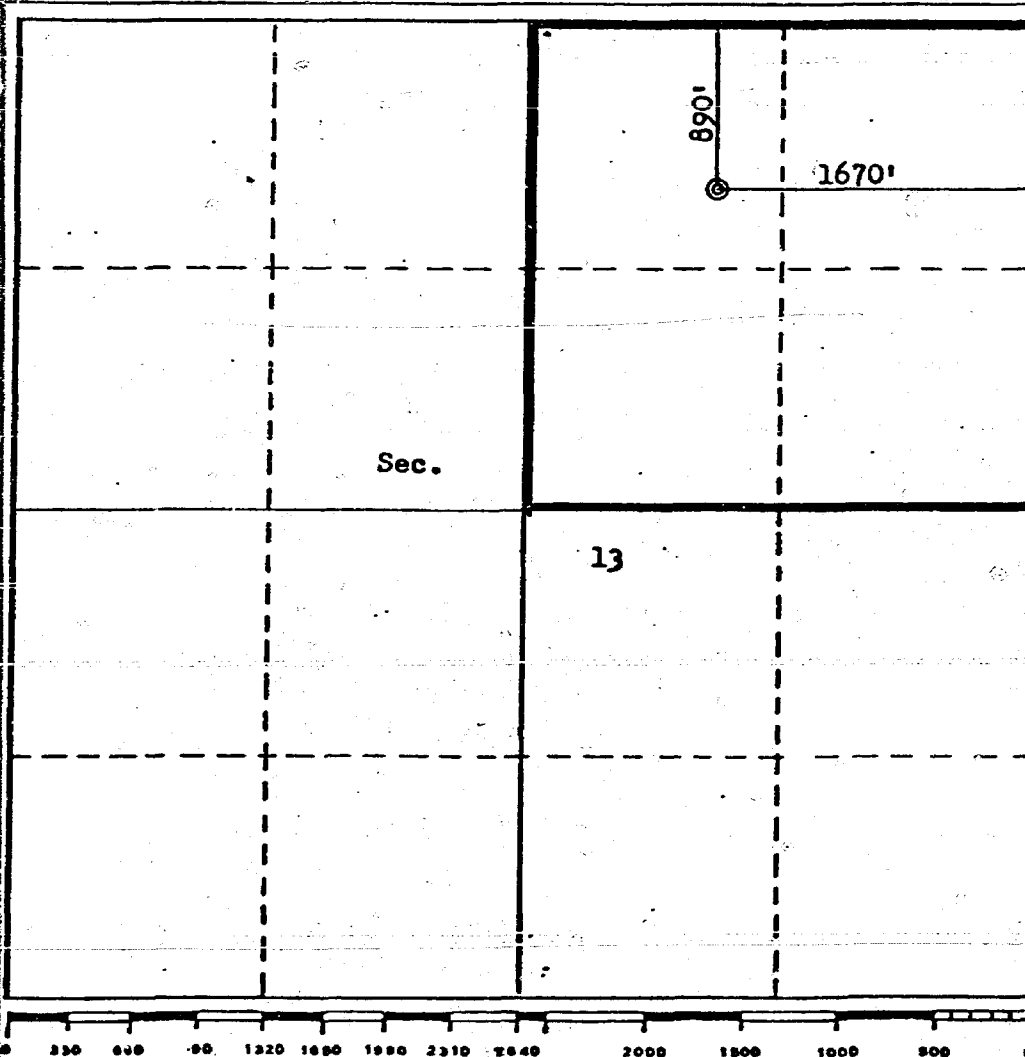
Operator H. L. HARVEY			Lease JONES		Well No. 3
Unit Letter B	Section 13	Township 29N	Range 11W	County San Juan	
Actual Footage Location of Well: 890 feet from the North line and 1670 feet from the East line					
Ground Level Elev. 5728	Producing Formation FRUITLAND		Pool AZTEC FRUITLAND		Dedicated Acreage: 160 Acres

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.



## CERTIFICATION

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

John Alexander  
Name

JOHN ALEXANDER

Position

AGENT

Company

H. L. HARVEY

Date

September 13, 1979

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

September 13, 1979

Required by Public Law 96-373, as amended

and 42 USC 4321-4332

Fred P. Kerr, Jr.

Certification Number

3956 B. KERR, JR.

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190    --    505/327-4020

FARMINGTON, NEW MEXICO 87401

H. L. HARVEY  
JONES No. 3

890'N & 1670'E  
13-T29N-R11W  
San Juan Co., N. M.

## FARMINGTON FORMATION

Perforated interval: 1078' to 1085'

2 J.S.P.F.

Stimulation:    Acidized with 250 gal. 15% HCl  
                  Fracture with 17000 gal 70 Quality  
                  Foam carrying 14000 lb. 10-20 sand

Well Test:        1273 MCFD per attached C-122.  
                  Seven day shut-in pressure for  
                  tubing and casing was 427 psi.

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

HARVEY EXHIBIT NO. 4

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

## MULTIPOINT AND ONE POINT BACK-PRESSURE TEST FOR GAS WELL

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 03/16/80									
Company H. L. HARVEY		Connection NONE									
Pool BLOOMFIELD FARMINGTON		Formation FARMINGTON SAND									
Completion Date 03/09/80		Total Depth 1950									
Plug Back TD 1890		Elevation 5728									
Form or Lease Name JONES		Well No. 3									
Csg. Size 4 1/2		Well 10 1/2									
Set At 4.025		Set At 1950									
Perforations From 1078 To 1085		Perforations From To									
Tub. Size 1"		Well 1.8#									
Set At 1.049		Set At 1136									
Type Well - Single - Brodenhead - G.G. or C.O. Multiple SINGLE		Packer Set At N/A									
Producing Thru TUBING		Reservoir Temp. °F 100 @ 1950									
Mean Annual Temp. °F 12.0		Baro. Press. - P <sub>g</sub> 12.0									
L		H									
G <sub>g</sub>		% CO <sub>2</sub>									
% N <sub>2</sub>		% H <sub>2</sub> S									
Prover		Meter Run									
Taps		County SAN JUAN									
State NEW MEXICO		Unit B									
Sec. 13		Twp. 29N									
Rye. 11W											
FLOW DATA											
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Dill. h <sub>w</sub>	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
1.	6" X 2"		3/4	38			427		427		3 hrs.
2.							38		302	30	
3.											
4.											
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P <sub>m</sub>	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Super Compress. Factor, F <sub>pv</sub>	Rate of Flow Q, Mcfd				
1.	11		50	1.030	1.24	1.006	706.7				
2.											
3.											
4.											
5.											
NO.	P <sub>1</sub>	Temp. °R	T	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1.	.0746	490	1.30	.989	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2.					Specific Gravity Separator Gas _____ XXXXXXXXXX						
3.					Specific Gravity Flowing Fluid _____ XXXXXX						
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.						
5.					Critical Temperature _____ R _____ R						
P <sub>c</sub>	427	P <sub>c</sub> <sup>2</sup>	182,329								
NO.	P <sub>1</sub> <sup>2</sup>	P <sub>w</sub>	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup>	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.000$						
1.		302	91204	91125	(2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.80$						
2.											
3.											
4.											
5.											
Absolute Open Flow _____ Mcfd @ 15.025					Angle of Slope @ _____		Slope, n .85				
Remarks _____											
Approved By Division _____											
Conducted By:		Calculated By:		Checked By:							

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

H. L. HARVEY  
JONES NO. 3

890'N & 1670'E  
13-T29N-R11W  
San Juan Co., N. M.

## FRUITLAND FORMATION

Perforated interval: 1818'-1823',  
2 J.S.P.F.

Stimulation: Acidized with 500 gal 15% HCl.  
Fractured with 15,000 gal 70  
Quality Foam with 13,000 lb.  
10-20 sand.

### Well Test:

Seven day shut-in, 540 psi  
(tubing & casing), flowed for  
3 hrs. against a 3/4" choke.  
Flow rate was below critical rate  
to calculate rate using standard  
AOF form. Flowing tubing pressure  
was 3 psi, casing pressure was 20  
psi.

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

~~HARVEY~~ EXHIBIT NO. 5

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

Flow Rate =  $\frac{\text{coeff.} \times \text{press.}}{18^*}$

=  $\frac{260.99 \times 3}{18}$

= 43 MCFD

\* based on 0.60 Sp.GR, 80°F. Gage pressure in  
place of absolute pressure was used in this  
calculation because of the very low pressure.



HELEN L. HARVEY  
JONES #3

4 1/2" CSG

5" 10 RD EUE

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

HARVEY EXHIBIT NO. 6

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

TUBING  
@ 1136'

FARMINGTON SAND PERFS.

1078' - 1085'

7 DAY SE PRESSURE 427 PSI (3-16-80)

Bridge Aug @ 1700'

FRUITLAND SAND PERFS

1818' - 1823'

7 DAY SE PRESSURE 540 PSI (12-10-79)

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Kendall & Assoc.  
719 W. Apache  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

HARVEY EXHIBIT NO. 7

CASE NO. 6931

Submitted by ALEXANDER

Hearing Date 6-25-80

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*  
John Alexander  
Agent for H. L. Harvey

Kendall & Assoc. does not object to the subject application.

*D. Kendall*  
NAME

*President*  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P.O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

Petroleum Corporation of Texas  
Box 911  
Breckenridge, Texas 76024

Re: Comingle application, H.L. Harvey  
Jones No.3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H.L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H.L. Harvey

Petroleum Corporation of Texas does not object to the  
subject application.

PETROLEUM CORPORATION OF TEXAS

By: *F. F. Dueser*  
NAME F. F. Dueser

Senior Vice President  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

Beta Development Co.  
234 Petroleum Plaza  
Farmington, NM 87401

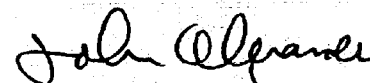
Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H.L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

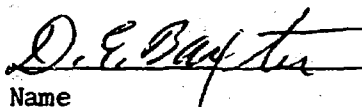
Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

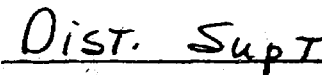


John Alexander  
Agent for H.L. Harvey

Beta Development Co. does not object to the subject  
application.



Name



Title

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P.O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Horace McKay  
Box 14738  
Albuquerque, NM 87111

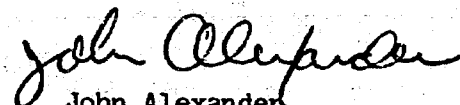
Re: Comingle application, H. L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

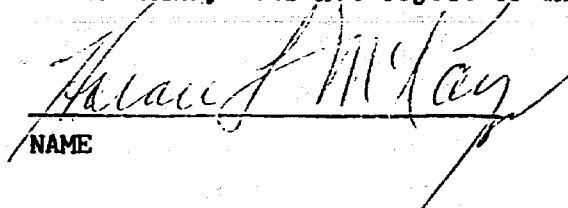
H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

  
John Alexander  
Agent for H. L. Harvey

Horace McKay does not object to the subject application.



NAME

Operator

TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P.O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 18, 1980

B. H. Keys  
103 N. Main  
Aztec, NM 87410

Re: Comingle application, H. L. Harvey  
Jones No. 3, 890'/N & 1670'/E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H. L. Harvey

B. H. Keys does not object to the subject application.

B. H. Keys  
NAME

Agent  
TITLE

JA:cp

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P.O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Elliot Riggs  
Box 711  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*

John Alexander  
Agent for H. L. Harvey

Elliot Riggs does not object to the subject application.

NAME

TITLE

JA:cp

4/24/80

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

April 22, 1980

Manana Gas, Inc.  
Box 145  
Farmington, NM 87401

Re: Comingle application, H.L. Harvey  
Jones No. 3, 890'N & 1670'E  
Sec. 13-T29N-R11W  
San Juan County, NM

Dear Sirs:

H. L. Harvey has made application to the state to  
comingle the Fruitland and Farmington Sand in the subject  
well.

Please signify your approval of this operation by  
signing the enclosed copy of this letter. An addressed  
envelope is enclosed for your convenience.

Sincerely,

*John Alexander*  
John Alexander  
Agent for H. L. Harvey

Manana Gas, Inc. does not object to the subject application.

*Al Kendrick*  
NAME

*Vice President*  
TITLE

JA:cp

RECEIVED APR 24 1980





**Amoco Production Company**

Denver Region  
Security Life Building  
Denver, Colorado 80202  
Producing Department  
303-820-4040

M. S. Kraemer  
Regional Production  
Manager

May 8, 1980

Three E Company, Inc.  
P. O. Box 190  
Farmington, NM 87401

File: HAS-99-986.511

Gentlemen:

Downhole Commingling of Fruitland and  
Farmington Sands in H. L. Harvey No. 3 Jones,  
890' FNL and 1,670' FEL of Section 13-T29N-R11W  
San Juan County, New Mexico

Pursuant to your April 18, 1980, letter requesting Amoco's waiver of objection to the captioned proposal, this is to advise that Amoco has no leasehold interest in lands offsetting the well in which you propose to downhole commingle fluid produced from two producing formations.

Very truly yours,

*MS Kraemer*

RBG/mlm

AYH650

Dockets Nos. 20-80 and 21-80 are tentatively set for July 9 and 23, 1980. Applications for hearing must be filed at least 22 days in advance of hearing date.

**DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 25, 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 6891: (Readvertised)**

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Midwest Refining Company, United States Fidelity & Guaranty Company, and all other interested parties to appear and show cause why the State Well No. 1 located in Unit A of Section 16, Township 33 South, Range 14 West, Hidalgo County, should not be plugged and abandoned in accordance with a Division-approved plugging program.

**CASE 6929:** Application of Consolidated Oil & Gas, Inc. for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Blanco Mesaverde and Basin-Dakota production in the wellbore of its NCRA Well No. 1-E located in Unit G of Section 22, Township 26 North, Range 7 West, by using the Dakota gas for gas lift of Mesaverde liquids after metering on the surface.

**CASE 6930:** Application of Amoco Production Company for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Empire South Deep Unit Well No. 21 to be drilled 660 feet from the North and East lines of Section 36, Township 17 South, Range 28 East, the E/2 of said Section 36 to be dedicated to the well.

**CASE 6931:** Application of H. L. Harvey for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Aztec-Fruitland and Bloomfield-Farmington production in the wellbore of his Jones Well No. 3 located in Unit B of Section 13, Township 29 North, Range 11 West.

**CASE 6917: (Continued from June 4, 1980, Examiner Hearing)**

Application of Yates Petroleum Corporation for an NCPA determination, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a new onshore reservoir determination for its Goat Roper "LP" Com. Well No. 1 located in Unit P of Section 30, Township 17 South, Range 26 East.

**CASE 6932:** Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State "JM" Well No. 2, a Morrow test to be drilled 660 feet from the South and East lines of Section 25, Township 18 South, Range 24 East, the S/2 of said Section 25 to be dedicated to the well.

**CASE 6933:** 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 Morrow formation underlying two 320-acre proration units, being the N/2 and the S/2 of Section 2, Township 19 South, Range 25 East, each 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, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

**CASE 6934:** Application of Coronado Exploration Corporation for three compulsory poolings, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying three 40-acre proration units, being the NW/4 SE/4 of Section 6, the NE/4 SE/4 of Section 28, and the SW/4 NW/4 of Section 33, all in Township 11 South, Range 28 East, each 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, designation of applicant as operator of the wells, and a charge for risk involved in drilling said wells.

**CASE 6901: (Continued from May 21, 1980, Examiner Hearing)**

Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp thru Mississippian formations underlying the E/2 of Section 19, Township 14 South, Range 36 East, 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.

CAMPBELL AND BLACK, P.A.

LAWYERS

JACK M. CAMPBELL  
BRUCE D. BLACK  
MICHAEL B. CAMPBELL  
WILLIAM F. CARR

POST OFFICE BOX 2208

JEFFERSON PLACE

SANTA FE, NEW MEXICO 87501

TELEPHONE (505) 968-4421



Mr. Joe D. Ramey  
Director  
Oil Conservation Division  
New Mexico Department of  
Energy & Minerals  
Post Office Box 2088  
Santa Fe, New Mexico 87501

*Case 6931*

Re: Application of H. L. Harvey for Downhole  
Commingling, San Juan County, New Mexico

Dear Mr. Ramey:

Enclosed herewith in triplicate is the application of H. L. Harvey in the above-referenced matter.

Applicant requests that this case be included on the docket for the examiner hearing scheduled to be held on June 25, 1980.

Very truly yours,

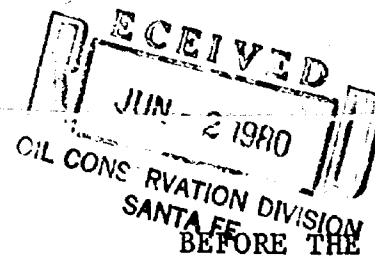
A handwritten signature in cursive script, appearing to read "William F. Carr".

William F. Carr

WFC:lr

Enclosures

cc: Mrs. Helen Harvey



OIL CONSERVATION DIVISION  
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF  
H. L. HARVEY FOR DOWNHOLE COMMINGLING,  
SAN JUAN COUNTY, NEW MEXICO.

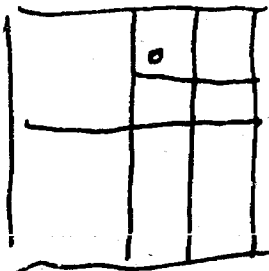
Case 6431

APPLICATION

Comes now, H. L. HARVEY, by its undersigned attorneys,  
and hereby makes application to the Oil Conservation Division for  
downhole commingling and in support thereof, respectfully states:

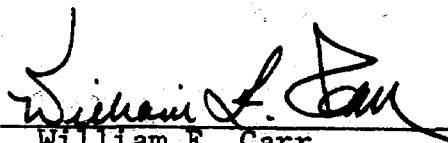
1. Applicant is the operator of the H. L. Harvey Jones  
No. 3 Well located 890 feet from the North and 1670 feet  
from the east line of Section 13, Township 29 North,  
Range 11 West, N.M.P.M., San Juan County, New Mexico.
2. Applicant proposes to commingle in the well bore of  
said well production from the Fruitland formation, Aztec  
Fruitland Pool and the Farmington formation, Bloomfield  
Farmington Pool.
3. Approval of this application will result in the  
production of hydrocarbons that would not otherwise be  
produced, will prevent waste and will not cause damage to  
either the Fruitland or Farmington formations.
4. Approval of this application will not impair the  
correlative rights of any offset operators.

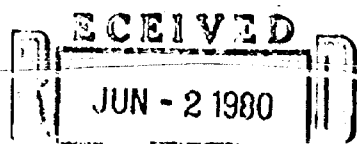
WHEREFORE, H. L. HARVEY requests that this application be  
set for hearing before a duly appointed examiner of the Oil  
Conservation Division on June 25, 1980, that notice be given as



required by law and the rules of the Division and that the Division enter its order granting the applicant permission to downhole commingle production from the Fruitland and Farmington sand in the well bore of its Jones No. 3 well.

Respectfully submitted,  
CAMPBELL AND BLACK, P.A.

By   
William F. Carr  
Post Office Box 2208  
Santa Fe, New Mexico 87501  
Attorneys for Applicant



OIL CONSERVATION DIVISION  
SANTA FE

BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF  
H. L. HARVEY FOR DOWNHOLE COMMINGLING,  
SAN JUAN COUNTY, NEW MEXICO.

Case 6931

APPLICATION

Comes now, H. L. HARVEY, by its undersigned attorneys,  
and hereby makes application to the Oil Conservation Division for  
downhole commingling and in support thereof, respectfully states:

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No. 3 Well located 890 feet from the North and 1670 feet  
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WHEREFORE, H. L. HARVEY requests that this application be  
set for hearing before a duly appointed examiner of the Oil  
Conservation Division on June 25, 1980, that notice be given as

required by law and the rules of the Division and that the Division enter its order granting the applicant permission to downhole commingle production from the Fruitland and Farmington sand in the well bore of its Jones No. 3 well.

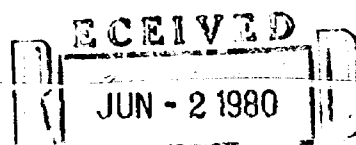
Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By



William F. Carr  
Post Office Box 2208  
Santa Fe, New Mexico 87501  
Attorneys for Applicant



OIL CONSERVATION DIVISION  
SANTA FE BEFORE THE

OIL CONSERVATION DIVISION

NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN THE MATTER OF THE APPLICATION OF  
H. L. HARVEY FOR DOWNHOLE COMMINGLING,  
SAN JUAN COUNTY, NEW MEXICO.

Case 6931

APPLICATION

Comes now, H. L. HARVEY, by its undersigned attorneys,  
and hereby makes application to the Oil Conservation Division for  
downhole commingling and in support thereof, respectfully states:

1. Applicant is the operator of the H. L. Harvey Jones  
No. 3 Well located 890 feet from the North and 1670 feet  
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2. Applicant proposes to commingle in the well bore of  
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3. Approval of this application will result in the  
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WHEREFORE, H. L. HARVEY requests that this application be  
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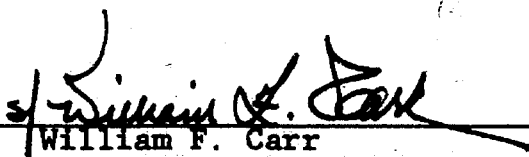


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Respectfully submitted,

CAMPBELL AND BLACK, P.A.

By

  
William F. Carr  
Post Office Box 2208  
Santa Fe, New Mexico 87501  
Attorneys for Applicant


dr/

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. 6931

Order No. R-6394

 APPLICATION OF H. L. HARVEY

FOR DOWNHOLE COMMINGLING, SAN JUAN

COUNTY, NEW MEXICO: 

  
ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 25,  
19 80, at Santa Fe, New Mexico, before Examiner Richard L.  
Stamets.

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

FINDS:

(1) That due public notice having been given as required  
by law, the Division has jurisdiction of this cause and the  
subject matter thereof.

(2) That the applicant, H. L. Harvey, is  
the owner and operator of the Jones Well No. 3,  
located in Unit B of Section 13, Township 29 North,  
Range 11 West, NMPM, San Juan County, New Mexico.

(3) That the applicant seeks authority to commingle  
Aztec-Fruitland and Bloomfield-Farmington production  
within the wellbore of the above-described well.

(4) That from the Aztec-Fruitland zone, the subject well is capable of low <sup>NPIS 9/</sup> ~~marginal~~ production only.

(5) That from the Bloomfield-Farmington zone, the subject well is capable of low marginal production only.

(6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.

(7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the subject well, 5 percent of the commingled                      production should be allocated to the Aztec-Fruitland zone, and 95 percent of the commingled                      production to the Bloomfield-Farmington zone.

(ALTERNATE)

(9) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should consult with the supervisor of the Aztec district office of the Division and determine an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, H. L. Harvey, is hereby authorized to commingle Aztec-Fruitland and Bloomfield-Farmington production within the wellbore of the Jones Well No. 3, located in Unit B of Section 13, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico.

(2) That the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine an allocation formula for the allocation of production to each zone in each of the subject wells.

(ALTERNATE)

(2) That 5 percent of the commingled production shall be allocated to the Aztec-Fruitland zone and 95 percent of the commingled production shall be allocated to the Bloomfield-Farmington zone.

(3) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.

(4) 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 the day and year hereinabove designated.