

a CASE 6074: AMERADA HESS CORPORATION
FOR DOWNHOLE COMMINGLING, RIO ARriba
COUNTY, NEW MEXICO

Case Number

6074

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 26, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerada Hess)	CASE
Corporation for downhole)	6074
commingling, Rio Arriba County,)	
New Mexico.)	

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil	Lynn Teschendorf, Esq.
Conservation Commission:	Legal Counsel for the Commission
	State Land Office Building
	Santa Fe, New Mexico

For the Applicant:	W. Thomas Kellahin
	Kellahin & Fox
	500 Don Gaspar
	Santa Fe, New Mexico

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General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
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I N D E X

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MR. GRANT MILLER

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EXHIBITS

Applicant's Exhibit No. 1, Map 11

Applicant's Exhibit No. 2, Map 11

Applicant's Exhibit No. 3, Form 11

Applicant's Exhibit No. 4, Document 11

Applicant's Exhibit No. 5, Document 11

Applicant's Exhibit No. 6, Schematic 11

Applicant's Exhibit No. 7, Document 11

Applicant's Exhibit No. 8, Schematic 11

Applicant's Exhibit No. 9, Document 11

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MR. NUTTER: Call Case No. 6074.

MS. TESCHENDORF: Case 6074, Application of Amerada Hess Corporation for downhole commingling, Rio Arriba County, New Mexico.

MR. KELLAHIN: Tom Kellahin, of Kellahin and Fox appearing on behalf of the applicant, and I have one witness.

(Witness sworn.)

GRANT MILLER

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you please state your name, by whom you're employed, and in what capacity?

A Grant Miller, Amerada Hess Corporation, Seminole, Texas, Petroleum Engineer.

Q Mr. Miller, have you previously testified before the Commission, and had your qualifications as a petroleum engineer accepted and made a matter of record?

A Yes, I have.

Q Have you made a study of, and are you familiar with the facts surrounding this particular application?

A Yes, sir.

MR. KELLAHIN: Mr. Examiner, please, are the witness' qualifications acceptable?

1 MR. NUTTER: Yes, they are.

2 Q (By Mr. Kellahin) Mr. Miller, would you refer to
3 Amerada Hess Exhibit No. 1, identify it, and tell me what
4 you're seeking to accomplish?

5 A Exhibit 1 is a map showing one of the two wells
6 which we'd like to commingle gas within the wellbore. Its
7 our Jicarilla Apache "A" No. 8, located in Section 26 of
8 25 North, 5 West, Rio Arriba County.

9 Q How is that well currently complete?

10 A It's currently a Pictured Cliffs-Chacra, dual
11 completion, but just with the Pictured Cliffs producing.
12 The Chacra zone is closed in.

13 Q All right. Please refer to Exhibit No. 2 and
14 identify it.

15 A Okay. Exhibit No. 2 is a map showing the second
16 well which we'd like to downhole commingle, in the same
17 zone, Pictured Cliffs and Chacra. This is in Section 22 of
18 25 North, 5 West, our Jicarilla Apache "F" No. 12. Now
19 this well, the Chacra zone is producing at this time, and
20 Pictured Cliffs is closed in.

21 Q This is currently completed as a dual Pictured
22 Cliffs and Chacra, with the Chacra producing and the Pictured
23 Cliffs shut in?

24 A That's correct.

25 Q All right. Let's go to Exhibit No. 3.

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1 A Exhibit No. 3 is a Form C-116, for the whole
2 Pictured Cliffs zone for the two wells in question. The
3 "A"-8 is shown to be currently producing 291 McF per day,
4 and the "F"-12 shows the CV, which was the choke volume
5 initial potential of 750 McF per day.

6 Q Let's look at the Pictured Cliffs test on the
7 Jicarilla Apache "A". Your test indicates that that zone
8 makes 3 barrels of water?

9 A Yes, uh-huh.

10 Q And that the gas zone tests out at 291 McF?

11 A That's correct.

12 Q Would you please refer to Exhibit No. 4 and
13 identify it?

14 A Exhibit No. 4 is a C-116 for the Otero-Chacra
15 zones, the same two wells. Here the "A"-8 is shown first,
16 with the initial potential of 1,092 McF per day, back in
17 January of '77, and it has been closed in since that time.

18 The Jicarilla Apache "F" No. 12, from the Chacra
19 zone, currently produces 227 McF per day, and no water --
20 oh, one barrel of water; excuse me.

21 Q All right. On your Exhibit 4, the Chacra test
22 for the Jicarilla Apache "A" indicates a dashed line where
23 you have water production in the test. I assume that is a
24 zero figure?

25 A Yes, it's zero figure.

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1 Q And that would also be true of oil produced?
2 There is no oil produced out of this zone?

3 A No oil, no.

4 Q Back in the center of the form it indicates a
5 TVG pressure test, and for the Apache "A" Well in the
6 Chacra you have a test of 562 psi?

7 A Yes.

8 Q I assume that's a surface pressure?

9 A That's correct, both -- surface pressure.

10 Q What is the spacing in the Chacra and the Pictured
11 Cliffs for both these wells?

12 A These are both 160-acre spacing.

13 Q Is either the Pictured Cliffs or the Chacra pools
14 prorated gas pools?

15 A Yes, the Pictured Cliffs, South Blanco-Pictured
16 Cliffs pool is prorated gas. Otero-Chacra is not.

17 Q All right. In your opinion, Mr. Miller, will the
18 production of three barrels of water out of the Pictured
19 Cliffs zone and the Apache "A" cause any potential damage to
20 the Chacra production if these two zones are commingled?

21 A No, I feel that they will not.

22 Q What is the pressure differential -- let's look
23 at Exhibit No. 5. That shows that. Let's look at Exhibit
24 No. 5. Would you identify that, please?

25 A Exhibit 5 is the bottom-hole pressure, or the

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1 bottom-hole pressure test, results of the test conducted, of
 2 this month, for the two wells in question, both zones in each
 3 well. The Chacra zone, they actually ran the gauge in the
 4 hole, as indicated with the asterisks. The Pictured Cliffs
 5 we could not, because these were behind a packer. They were
 6 the shallow zone of the dual.

7 Q That's a calculated bottom-hole pressure?

8 A That's calculated from fluid levels, plus surface
 9 pressures, shot fluid levels and add --. You can see our
 10 Jicarilla Apache "A"-8 is, the Pictured Cliffs is 700 pounds,
 11 bottom-hole pressure at 3001 feet, compared with the Chacra
 12 of 624, at 3875 feet. The "F"-12 is 404 pounds at 3,050 feet
 13 and the Chacra zone is 437 pounds at 3900 feet.

14 Q In your opinion, Mr. Miller, is the pressure
 15 differential between the Pictured Cliffs and the Chacra zones
 16 in the Apache "A" No. 8 Well low enough that there'll be no
 17 migration of gas between the two zones?

18 A Yes.

19 Q One zone will not feed from the other?

20 A That's correct.

21 Q Does that opinion hold true for the Apache "F" No

22 12?

23 A Yes, it does.

24 Q Pressure differential in that well is low enough
 25 that they will not be feeding between the zones?

1 A. That's correct.

2 Q. Is the ownership the same for both wells with
3 regard to both formations?

4 A. Yes, it is.

5 Q. In your opinion, Mr. Miller, do you have a
6 recommendation to the Examiner as to how you will allocate
7 production in the No. "A"-8 Well, as to Pictured Cliffs and
8 Chacra production?

9 A. Yes, we'd like to allocate "A" No. 8 fifty percent
10 for the Pictured Cliffs, and 50 percent to the Chacra.

11 Q. Upon what do you base that recommendation?

12 A. That's based on current production rate of the
13 surrounding wells, in addition to the cumulative production
14 for these same surrounding wells, in both the Pictured Cliffs
15 and the Chacra zones.

16 Q. Do you have a recommendation with regards to the
17 Jicarilla Apache "F"-12 Well?

18 A. Yes. The Jicarilla Apache "F"-12 Well, we'd
19 recommend 40 percent Pictured Cliffs, and 60 percent Chacra,
20 and by the same reason for, based on current production and
21 cumulative gas production for surrounding wells, in both zones.

22 Q. Is the gas from the Pictured Cliffs formation and
23 the Chacra formation compatible?

24 A. Yes.

25 Q. Have they been commingled in other wells in other

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1 areas?

2 A. Yes.

3 Q. Please refer to what we've marked as Exhibit No.
4 6, and identify it.

5 A. Okay. Exhibit 6 is a schematic of the wellbore
6 in Jicarilla Apache "A" No. 8, showing the casing, which is
7 4-1/2 inch, TD of 4,020. It shows the Pictured Cliffs
8 perforations between 3001 to 3054, overall, and the Chacra
9 perfs between 3875 and 3990. And the proposed tubing string
10 of inch and a half, with no packer. Currently, of course,
11 there's a packer in the hole.

12 Q. Okay. Let's look at this Apache "A" No. 8
13 schematic. What's the total depth on that well?

14 A. TD is 4,020 feet.

15 Q. And where is the bottom of the circulated cement?

16 A. Four inches, four and a half inch casing. Cement
17 was circulated to the surface. The bottom of the drillout
18 depth is 4001 feet now.

19 Q. Okay, fine. Would you refer to Exhibit No. 7
20 and identify it?

21 A. Exhibit 7 is a production decline curve for the
22 Jicarilla Apache "A" No. 8, the Pictured Cliffs zone. And
23 as you see, it started producing March of '77, and it's
24 currently down to about 9 million per month.

25 Q. In your opinion, Mr. Miller, is the Pictured Cliffs

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1 zone for the Apache "A" No. 8 Well economically marginal?

2 A. Yes.

3 Q. Now, you've indicated previously that the Chacra
 4 zone in this well is shut in.

5 A. That's correct.

6 Q. Now, in your opinion will the production from that
 7 zone also be economically marginal?

8 A. Yes. We feel like in a short time it will be
 9 marginal.

10 Q. A short time, you mean how long?

11 A. Two to three months, or so.

12 Q. All right. Please refer to Exhibit No. 8, and
 13 identify it.

14 A. Exhibit 8 is a schematic of the wellbore of our
 15 Jicarilla Apache "F" No. 12. This again has four and a half
 16 inch casing. TD of the well is 4,070, with drill-out depth
 17 of 3985. Also shown are the Pictured Cliff perforations
 18 from 3,050 to 3,074, and the Chacra perforations 3916 to
 19 3939. And also, we propose a one and a half-inch tubing
 20 strength.

21 Q. Refer to Exhibit No. 9 and identify that.

22 A. Exhibit 9 is the production curve for the Otero-
 23 Chacra gas from our Jicarilla Apache "F" No. 12. As you see,
 24 started off in April or May of '77, and it's currently down
 25 about 7 million per day -- per month, excuse me.

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1 Q Your opinion is, the Chacra production from the
 2 "F" No. 12 Well economically marginal at this time?

3 A Yes.

4 Q And what about the Pictured Cliffs zone?

5 A We feel that it will be also, and it will probably
 6 fall in line with the "A"-8 Pictured Cliff production.

7 Q Were Exhibits 1 through 9 prepared by you or
 8 under your direction and supervision?

9 A Yes, they were.

10 Q In your opinion, Mr. Miller, will approval of the
 11 application be in the best interests of conservation, the
 12 prevention of waste, and the protection of correlative rights?

13 A Yes, sir.

14 MR. KELLAHIN: That concludes my examination, and
 15 We move for the introduction of Exhibits 1 through 9.

16 MR. NUTTER: Amerada Hess Exhibits 1 through 9
 17 will be admitted in evidence.

18
 19 CROSS EXAMINATION

20 BY MR. NUTTER:

21 Q Mr. Miller, what is the status, at the present
 22 time, of Well No. 3?

23 A "A" No. 8 is currently producing from the Pictured
 24 Cliffs, and closed in in the Chacra zone.

25 Q Now, has the Chacra been perforated?

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1 A Yes, sir, perforated.

2 Q How is it blanked off, then?

3 A It has a tubing plug, and it's produced out of the
4 casing now.

5 Q As to the Pictured Cliffs, comes off the casing?

6 A That's correct.

7 Q And the tubing is there, but it's simply shut in?

8 A That's right.

9 Q Okay. Now, the No. 12, what's the current status
10 of that one?

11 A "F"-12, the Chacra is productive, currently, out
12 the tubing. The Pictured Cliffs has been perforated, but
13 closed in as the casing --

14 Q Is there a packer in there?

15 A Yes, sir; packer in both wells.

16 Q What's the location of the packer in each one?

17 A In the "A"-8, the top of the packer is at 3196.
18 And of course the bottom of the Pictured cliffs is -- bottom
19 perf is 3054.

20 A Right.

21 Q Okay. And the "F"-12, the top of the packer is
22 at 3272, which is below the Pictured Cliffs.

23 Q Now, when you rework these wells to commingle this
24 production, would you go in there and pull that packer out,
25

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1 pull the tubing and pull the packer?

2 A. Yes. Eventually. We'd probably just, until they
 3 need to be pulled, we would go ahead and probably just unseat
 4 the packer.

5 Q. I see.

6 A. For the present time.

7 Q. Then allow the commingling?

8 A. Yes.

9 Q. Okay. Mr. Miller, could you furnish the Commission
 10 with a tabulation of the production of the offsetting wells,
 11 the current production and accumulated production, so that
 12 we can substantiate the 50-50 and the 40-60 split on
 13 production for those two zones?

14 A. Yes, I can.

15 Q. Okay, please do.

16 MR. NUTTER: Are there further questions of Mr.
 17 Miller?

18 MR. KELLAHIN: No, sir.

19 MR. NUTTER: You may be excused. Do you have
 20 anything further? Does anyone have anything they wish to
 21 offer in Case No. 6074? We'll take the case under advisement.

22

23

24

25

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceeding, to the best of my knowledge, skill,
and ability.

Sally Walton Boyd
Sally Walton Boyd, CSR

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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. 6074
heard by me on 10/26, 1977
[Signature], Examiner
New Mexico Oil Conservation Commission

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 6074
Order No. R-5578

APPLICATION OF AMERADA HESS
CORPORATION FOR DOWNHOLE
COMMINGLING, RIO ARriba
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 26, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 15th day of November, 1977, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Amerada Hess Corporation, is the owner and operator of the Jicarilla Apache "A" Well No. 8 located in Unit N of Section 26 and the Jicarilla Apache "F" Well No. 12 located in Unit B of Section 22, both in Township 25 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle South Blanco-Pictured Cliffs and Otero-Chacra production within the wellbore of the above-described wells.

(4) That from the South Blanco-Pictured Cliffs zone, each of the subject wells is capable of low levels of production only.

(5) That from the Otero-Chacra zone, each of the subject wells is capable of low levels of 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 in each of the aforesaid wells are such that

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Case No. 6074
Order No. R-5578

underground waste would not be caused by the proposed commingling provided that the wells are not shut-in for an extended period.

(8) That to afford the Commission 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 Commission any time either of the subject wells is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the aforesaid Well No. 8, 50 percent of the commingled production should be allocated to the South Blanco-Pictured Cliffs zone, and 50 percent of the commingled production to the Otero-Chacra zone, and in the aforesaid Well No. 12, 40 percent of the production should be allocated to the Pictured Cliffs zone and 60 percent to the Chacra zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Hess Corporation, is hereby authorized to commingle South Blanco-Pictured Cliffs and Otero-Chacra production within the wellbores of its Jicarilla Apache "A" Well No. 8 located in Unit N of Section 26 and its Jicarilla Apache "F" Well No. 12 located in Unit B of Section 22, both in Township 25 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(2) That 50 percent of the commingled production shall be allocated to the South Blanco-Pictured Cliffs zone and 50 percent of the commingled production shall be allocated to the Otero-Chacra zone in Well No. 8 and 40 percent of the production shall be allocated to the Pictured Cliffs zone and 60 percent to the Chacra zone in Well No. 12.

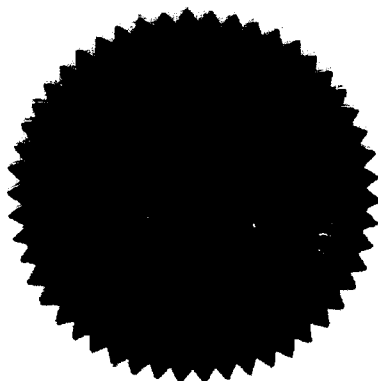
(3) That the operator of the subject well shall immediately notify the Commission's Aztec district office any time either of the aforesaid wells has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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Case No. 6074
Order No. R-5578

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



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Phil R. Lucero
PHIL R. LUCERO, Chairman

Emery C. Arnold
EMERY C. ARNOLD, Member

Joe D. Ramey
JOE D. RAMEY, Member & Secretary

S E A L

jr/

Dockets Nos. 36-77 and 37-77 are tentatively set for hearing on November 16 and 30, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 26, 1977

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

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

CASE 6052: (Continued from October 12, 1977 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Western Energy Corporation and all other interested parties to appear and show cause why the Ute Well No. 2 located in Unit O of Section 23, Township 31 North, Range 16 West, San Juan County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 6047: (Continued from October 12, 1977 Examiner Hearing)

Application of Continental Oil Company for capacity allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a capacity allowable for its Pearl "B" Wells Nos. 5 and 6, located in Units M and O, respectively, of Section 25, Township 17 South, Range 32 East, and its Pearl "B" Well No. 7 located in Unit M of Section 30, Township 17 South, Range 33 East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.

CASE 6071: Application of Dewey Sparger for an oil treating plant permit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the construction and operation of an oil treating plant permit for the purpose of treating oil at a site in the NW/4 SW/4 of Section 5, Township 18 South, Range 39 East, Lea County, New Mexico.

CASE 6072: Application of Harvey E. Yates Company for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Canyon production for its Travis Deep Unit Well No. 2, located in Unit G of Section 13, Township 18 South, Range 28 East, Eddy County, New Mexico, and the promulgation of special rules therefor, including a provision for 80-acre spacing.

CASE 6073: Application of Cities Service Company for two unorthodox gas well locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox locations of its Government AD Well No. 2 located 2310 feet from the North line and 660 feet from the West line, and its Government AE Well No. 1 located 2310 feet from the South line and 1980 feet from the East line, both in Section 27, Township 21 South, Range 27 East, Burton Flat Field, Eddy County, New Mexico, the N/2 and S/2 of said Section 27 to be dedicated, respectively, to said wells.

CASE 6074: Application of Amerada Hess Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Pictured Cliffs and Otero-Chacra production in the wellbores of its Jicarilla Apache "A" Well No. 8 located in Unit N of Section 26 and its Jicarilla Apache "F" Well No. 12 located in Unit B of Section 22, both in Township 25 North, Range 5 West, Rio Arriba County, New Mexico.

CASE 6075: Application of Amoco Production Company for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its South Mattix Unit Well No. 30 located 330 feet from the South and East lines of Section 15, Township 24 South, Range 37 East, Fowler-Upper Yeso Pool, Lea County, New Mexico.

CASE 6076: Application of E. L. Latham, Jr., Roy G. Barton, Jr., and R. L. Foree for a gas well curtailment and gas pool prorationing, Chaves County, New Mexico. Applicants, in the above-styled cause, seek an order temporarily shutting in, or limiting production from the La Rue and Muncy Nola Well No. 1, located in Unit O of Section 8, Township 14 South, Range 28 East, Sams Ranch Grayburg Gas Pool, Chaves County, New Mexico. Applicants further request that the Commission institute gas prorationing in said pool retroactively to date of first production and direct the gas purchaser(s) in said pool to take ratably from all wells in said pool.

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator Amerada Hess Corporation		Pool Blanco (Pictured Cliff) So.				County Rio Arriba										
Address P. O. Drawer 840, Seminole, Texas 79360						TYPE OF TEST - (X) <input checked="" type="checkbox"/>		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>				
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TDB. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU.FT/BBL
		U	S	T	R							WATER BBLs.	GRAV. OIL	OIL BBLs.	GAS M.C.F.	
Jicarilla Apache "A"	8	N	26	25N	5W	10/19-20/77	F	2"	158	138	24	3	--	0	291	
Jicarilla Apache "F"	12	B	22	25N	5W	10/19-20/77	S				24	0		0	0	
Initial Potential Test 4/7/77						F		CV=750	MCF/D							

BEING
CF
Amerada 3
CASE NO. 6074

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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



(Signature)

Mgr. Admin. Services

(Title)

October 24, 1977

(Date)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator Amerada Hess Corporation		Pool Otero Chacra				County Rio Arriba										
Address P. O. Drawer 840 Seminole, Texas 79360						TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input type="checkbox"/>		Special <input checked="" type="checkbox"/>				
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU. FT./BBL
		U	S	T	R							WATER BBL.	GRAV. OIL	OIL BBL.	GAS M.C.F.	
Jicarilla Apache "A"	8	N	26	25N	5W	10/19-20/77	S		562		24	--	--	--	--	Closed in
	Initial	Potential				12/31/76	F			CV=1092	MCF/D					
Jicarilla Apache "F"	12	B	22	25N	5W	10/19-20/77	F	2"	123		24	1	--	0	227	--

BEFORE EXAMINATION
OIL CONSERVATION COMMISSION
Amerada
CASE NO. **6174**

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

M. D. Blach
(Signature)

Mgr. Admin. Services
(Title)

October 24, 1977
(Date)

AMERADA HESS CORPORATION
 BOTTOM HOLE PRESSURE DATA
 OTERO FIELD
 RIO ARriba COUNTY, NEW MEXICO
 October, 1977

	<u>Pictured Cliffs BHP</u>	<u>Chacra BHP</u>
J. Apache A #8	700 psi @ 3001'	624 psi @ 3875' *
J. Apache F #12	404 psi @ 3050'	437 psi @ 3900' *

* Measured with BHP gauge

A-8 50 percent PC
 " " Chacra
 F-12 40 percent PC
 60' .. Chacra

Based on current
 prod & cum
 prod on surround-
 ing wells

same reasons

Amenda 6074 5

JICARILLA APACHE 'A' No. 8
Sec. 26, T25N, R5W
Rio Arriba County, New Mexico

8 5/8" Csg. Cement Circulated

8 5/8" OD 24" Csg. @ 225'

4 1/2" Csg. Cement Circulated

1 1/2" Tubing (Proposed)

Top of Pictured Cliffs 2993'
Perfs: 3001' - 3013',
3045' - 3054'

PKR 3196

Top of Chacra 3854'
Perfs: 3875' - 3896'
3975' - 3980'
3984' - 3990'

DOD 4001'

TD 4020'

4 1/2" OD 10.5" Csg. @ 4018'

Amenda	6
CASE NO.	6074

JICARILLA APACHE 'F' No. 12
Sec. 22, T25N, R5W
Rio Arriba County, New Mexico

8 5/8" Csg. Cement Circulated

8 5/8" OD 24[#] Csg. @ 264'

4 1/2" Csg. Cement Circulated

1 1/2" Tubing (Proposed)

Top of Pictured Cliffs 3048'
Perfs: 3050' - 3074'

PKR 3272

Top of Chacra 3900'
Perfs. 3916' - 3939'

DCJ 3985'

TD 4070'

4 1/2" OD 10.5[#] Csg. @ 4070'

APPROVED	6074	8
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Amerada

6074⁹

12 1/2 YEARS BY MONTHS 46 6600
1 1/2 YEARS X 3 LOG CYCLES
K. DUFFIN & LOGS CO.

MCF GAS/MONTH

10,000

1,000

1977

19

19

19

19

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

Kellahin and Fox
ATTORNEYS AT LAW
800 DON GASPAN AVENUE
P. O. BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4318
AREA CODE 505

November 4, 1977

V-7 1977
RECEIVED BY COMMISSION

Mr. Dan Nutter
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: NMOCC Case No. 6074
Downhole commingling
Amerada Hess

Dear Dan:

Please find enclosed Mr. Grant B. Miller's supplemental data used to allocate production between the Pictured Cliff and Chacra zones which you requested at the hearing on October 26, 1977.

Very truly yours,

W. Thomas Kellahin
W. Thomas Kellahin

CC: Mr. Grant B. Miller

WTK:kfm

Enclosure

OFFSET PRODUCTION PICTURED CLIFFS - CHACRA

JICARILLA APACHE A - 8

WELL NAME	LOCATION	OPERATOR	MONTHLY PRODUCTION MCF 12 MONTH AVERAGE	CUMMULATIVE MCF JULY 1977
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Blanco Pictured Cliff South

Jicarilla Contract # 19	I Sec. 27 25-5	Getty	1775	551,004
Jicarilla Contract # 15	G Sec. 34 25-5	Getty	1166	493,736
Jicarilla Apache A # 4	P Sec. 26 25-5	AHC	1950	569,450
Averages:			1630 MCF	538,063 MCF

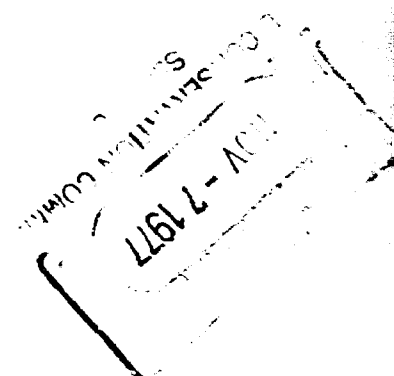
Otero Chacra

Jicarilla C. # 19	I Sec. 27 25-5	Getty	1502	660,059
Jicarilla C. # 15	G Sec. 34 25-5	Getty	863	291,202
Jicarilla Apache A # 6	E Sec. 26 25-5	AHC	666	359,261
Jicarilla Apache A # 4	P Sec. 26 25-5	AHC	2603	932,361
Averages:			1409 MCF	560,721 MCF

Total Production Both Zones	3039 MCF	109,784 MCF
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% of total, Pictured Cliffs	53.6%	49.0%
% of total, Chacra	46.4%	51.0%

Suggested Allocation	Pictured Cliffs	50%
	Chacra	50%



OFFSET PRODUCTION PICTURED CLIFF - CHACRA

JICARILLA APACHE F - 12

WELL NAME	LOCATION	OPERATOR	MONTHLY PRODUCTION MCF 12 MONTH AVERAGE	CUMMULATIVE MCF JULY 1977
<u>Blanco Pictured Cliff South</u>				
Jicarilla Contract 148 # 7	P Sec. 15 25-5	Amoco	592	242,280
Jicarilla Contract 148 # 8	F Sec. 23 25-5	Amoco	934	294,110
Jicarilla C. #10	M Sec. 22 25-5	Getty	1862	702,459
Averages:			1129 MCF	412,983 MCF
<u>Otero Chacra</u>				
Jicarilla Contract 148 # 15	N Sec. 15 25-5	Amoco	1185	523,591
Jicarilla Apache F. #6	E Sec. 22 25-5	AHC	2272	1176,160
Jicarilla C. # 10	M Sec. 22 25-5	Getty	1067	797,523
Jicarilla Apache A #3	N Sec. 23 25-5	AHC	1185	858,264
Jicarilla V 148 # 16	N Sec. 14 25-5	Amoco	2281	775,347
Averages:			1598 MCF	826,177 MCF
Total Both Zones			2727 MCF	1,239,160 MCF
% of Total, Pictured Cliffs			41.4%	33.3%
% of Total, Chacra			58.6%	66.7%
Suggested Allocation			Pictured Cliffs 40%	
			Chacra 60%	

OFFSET PRODUCTION PICTURED CLIFFS - CHACRA

JICARILLA APACHE A - 8

WELL NAME	LOCATION	OPERATOR	MONTHLY PRODUCTION MCF 12 MONTH AVERAGE	CUMMULATIVE MCF JULY 1977
<u>Blanco Pictured Cliff South</u>				
Jicarilla Contract # 19	I Sec. 27 25-5	Getty	1775	551,004
Jicarilla Contract # 15	G Sec. 34 25-5	Getty	1166	493,736
Jicarilla Apache A # 4	P Sec. 26 25-5	AHC	1950	569,450
Averages:			1630 MCF	538,063 MCF
<u>Otero Chacra</u>				
Jicarilla C. # 19	I Sec. 27 25-5	Getty	1502	660,059
Jicarilla C. # 15	G Sec. 34 25-5	Getty	863	291,202
Jicarilla Apache A # 6	E Sec. 26 25-5	AHC	666	359,261
Jicarilla Apache A # 4	P Sec. 26 25-5	AHC	2603	932,361
Averages:			1409 MCF	560,721 MCF
Total Production Both Zones			3039 MCF	109,784 MCF
% of total, Pictured Cliffs			53.6%	49.0%
% of total, Chacra			46.4%	51.0%
Suggested Allocation			Pictured Cliffs 50%	Chacra 50%

OFFSET PRODUCTION PICTURED CLIFF - CHACRA

JICARILLA APACHE F - 12

WELL NAME	LOCATION	OPERATOR	MONTHLY PRODUCTION MCF 12 MONTH AVERAGE	CUMMULATIVE MCF JULY 1977
<u>Blanco Pictured Cliff South</u>				
Jicarilla Contract 148 # 7	P Sec. 15 25-5	Amoco	592	242,280
Jicarilla Contract 148 # 8	F Sec. 23 25-5	Amoco	934	294,110
Jicarilla C. #10	M Sec. 22 25-5	Getty	1862	702,459
Averages:			1129 MCF	412,983 MCF
<u>Otero Chacra</u>				
Jicarilla Contract 148 # 15	N Sec. 15 25-5	Amoco	1185	523,591
Jicarilla Apache F. #6	E Sec. 22 25-5	AHC	2272	1176,160
Jicarilla C. # 10	M Sec. 22 25-5	Getty	1067	797,523
Jicarilla Apache A #3	N Sec. 23 25-5	AHC	1185	858,264
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% of Total, Chacra			58.6%	66.7%
Suggested Allocation			Pictured Cliffs 40%	
			Chacra 60%	

OFFSET PRODUCTION PICTURED CLIFFS - CHACRA

JICARILLA APACHE A - 8

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Jicarilla Contract # 19	I Sec. 27 25-5	Getty	1775	551,004
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Jicarilla Apache A # 4	P Sec. 26 25-5	AHC	1950	569,450
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Jicarilla C. # 19	I Sec. 27 25-5	Getty	1502	660,059
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Jicarilla Apache A # 6	E Sec. 26 25-5	AHC	666	359,261
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Averages:			1409 MCF	560,721 MCF
Total Production Both Zones			3039 MCF	109,784 MCF
% of total, Pictured Cliffs			53.6%	49.0%
% of total, Chacra			46.4%	51.0%
Suggested Allocation			Pictured Cliffs 50%	
			Chacra 50%	

OFFSET PRODUCTION PICTURED CLIFF - CHACRA

JICARILLA APACHE F - 12

WELL NAME	LOCATION	OPERATOR	MONTHLY PRODUCTION MCF 12 MONTH AVERAGE	CUMMULATIVE MCF JULY 1977
<u>Blanco Pictured Cliff South</u>				
Jicarilla Contract 148 # 7	P Sec. 15 25-5	Amoco	592	242,280
Jicarilla Contract 148 # 8	F Sec. 23 25-5	Amoco	934	294,110
Jicarilla C. #10	M Sec. 22 25-5	Getty	1862	702,459
Averages:			1129 MCF	412,983 MCF
<u>Otero Chacra</u>				
Jicarilla Contract 148 # 15	N Sec. 15 25-5	Amoco	1185	523,591
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% of Total, Pictured Cliffs			41.4%	33.3%
% of Total, Chacra			58.6%	66.7%
Suggested Allocation			Pictured Cliffs 40%	
			Chacra 60%	

Case 6074

SEP 29 1977

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN and FOX
ATTORNEYS AT LAW
800 DON GASPAR AVENUE
P. O. BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

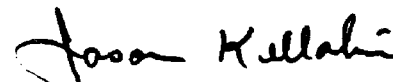
September 28, 1977

Mr. Joe D. Ramey, Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Enclosed for filing is the application of Amerada Hess Corporation for approval of downhole commingling. We would appreciate this being set for the first available hearing.

Yours very truly,


Jason W. Kellahin

JWK:kfm

CC: Mr. Gib Miller

Enclosure

P 29 1977

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

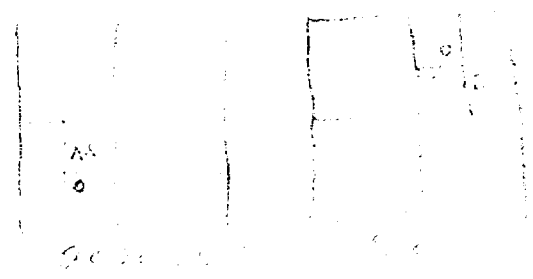
IN THE MATTER OF THE APPLICATION
OF AMERADA HESS CORPORATION FOR
APPROVAL OF DOWNHOLE COMMINGLING,
RIO ARriba COUNTY, NEW MEXICO

A P P L I C A T I O N

Comes now Amerada Hess Corporation and applies to the Oil Conservation Commission of New Mexico for permission to commingle gas production in the well bore from the Pictured Cliffs and Chacra zones in its Jicarilla Apache "A" No. 8 and Jicarilla Apache "F" No. 12 wells, and in support thereof would show the Commission:

1. Applicant proposes to commingle South Blanco-Pictured Cliffs and Otero-Chacra gas in its Jicarilla Apache "A" Well No. 8, located 960 feet from the South line and 1690 feet from the West line of Section 26, Township 25 North, Range 5 West, N.M.P.M., Rio Arriba County, New Mexico. The well initially tested in the Pictured Cliffs at a rate of 1,207 MCFD, but current production is approximately 250 MCFD. The Chacra zone initially tested at a rate of 1,092 MCFD but has been shut-in since the initial test.

2. Applicant further proposes to commingle South Blanco-Pictured Cliffs and Otero Chacra gas in its Jicarilla Apache "F" Well No. 12, located 1650 feet from the East line, and 990 from the North line of Section 22, Township 25 North, Range 5 West, N.M.P.M., Rio Arriba County. The well initially tested at a rate of 750 MCFD from the pictured cliffs but has been shut-in since initial test. The Chacra tested at a rate of



753 MCFD and current production is at approximately 222 MCFD.

3. Approval of commingling in the well bore of these two wells will result in the production of gas that would not otherwise be recovered, prolong the life of the wells, and will not interfere with correlative rights of any owners, including offset operators.

WHEREFORE applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving commingling of production as requested.

Respectfully submitted,

AMERADA HESS CORPORATION

By Jason Kellahin
KELLAHIN & FOX
P. O. Box 1769
Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

dr/

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 6074

Order No. R- 5578

APPLICATION OF AMERADA HESS CORPORATION
FOR DOWNHOLE COMMINGLING, RIO ARRIBA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 26,
1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of November, 19 77, the Commission,
a quorum being present, 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 Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Amerada Hess Corporation, is the
owner and operator of the Jicarilla Apache "A" Well No. 8 located in Unit N of
Section 26 and its the xxxxxxxx
Jicarilla Apache "F" Well No. 12 located in Unit B
of Section 22, Township 25 North, Range
5 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle South
Blanco-Pictured Cliffs and Otero-Chacra production
within the wellbore of the above-described wells

(4) That from the South Blanco-Pictured Cliffs zone, ^{each of} the
subject wells is capable of low ^{levels of} marginal production only.

(5) That from the Otero-Chacra zone, ^{each of} the
subject wells is capable of low ^{levels of} 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.

Case No. _____
Order No. R- _____

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

(8) That to afford the Commission 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 Commission any time ^{either of} the subject wells is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production to each of the commingled zones in the ^{aforesaid well No 8,} subject well, 50 percent of the commingled Cliffs production should be allocated to the South Blanco-Pictured/ zone, and 50 percent of the commingled Otero-Chacra production to the Otero-Chacra zone, ^{and in the aforesaid well No 12, 40 percent of the production should be allocated to the Pictured Cliffs zone and 60 percent to the Chacra zone.}
IT IS THEREFORE ORDERED:

(1) That the applicant, Amerada Hess Corporation, is hereby authorized to commingle South Blanco-Pictured Cliffs and Otero-Chacra production within the wellbores of its Jicarilla Apache "A" Well No. 8 located in Unit N of Section 26 ~~of the~~ and its Jicarilla Apache "F" ~~located in Unit~~ Well No. 12 located in Unit B of Section 22 ^{both in} Township 25 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

(2) That 50 percent of the commingled Cliffs production shall be allocated to the South Blanco-Pictured Cliffs zone and 50 percent of the commingled Otero-Chacra production shall be allocated to the Otero-Chacra

^{zone in Well No. 8 and 40 percent of the production shall be allocated to the Pictured Cliffs zone and 60 percent to the Chacra zone in}
(3) That the operator of the subject well shall immediately ^{either of the aforesaid} notify the Commission's Aztec district office any time ^{the} wells has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

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

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