

CASE 4510: Application of AMERADA
HESS CORP. FOR RULES FOR BRONCO
SILUTO-DEVONIAN POOL, LEA COUNTY.

Case Number

4510

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 24, 1971

EXAMINER HEARING

IN THE MATTER OF:)
)
)
Application of Amerada Hess Corporation) Case No. 4510
for amendment of special pool rules, Lea)
County, New Mexico.)
)

BEFORE: Elvis A. Utz, Examiner.

TRANSCRIPT OF HEARING

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1 MR. UTZ: Case 4510.

2 MR. HATCH: Application of Amerada Hess Corporation
 3 for amendment of special pool rules, Lea County, New Mexico.

4 MR. KELLAHIN: If the Examiner please, Jason
 5 Kellahin, Kellahin and Fox, Santa Fe, appearing for the
 6 Applicant. We have one witness I would like to have sworn.

7 (Witness sworn.)

8 (Whereupon, Applicant's Exhibits 1 through 7 were marked
 9 for identification.)

10 MR. UTZ: Are there other appearances?

11 MR. KELLAHIN: If the Examiner please, Case 4510 is
 12 the application of Amerada Hess Corporation for an amendment
 13 to the special pool rules for the Bronco Siluro-Devonian Pool,
 14 Lea County, New Mexico.

15 As the Examiner knows, the pool is presently prorated
 16 on the basis of a joint hearing which was held between the Oil
 17 Conservation Commission of New Mexico and the Texas Railroad
 18 Commission; not exactly a joint hearing, but representatives of
 19 the Texas Railroad Commission did come to Santa Fe and partici-
 20 pate in the hearing on the New Mexico portion of the pool and
 21 likewise, representatives of the New Mexico Commission attended
 22 the Texas Railroad Commission's hearings in Austin.

23 As result of that, an order was entered to prorate
 24 this pool which lies in Lea County, New Mexico, and Yoakum
 25 County, Texas, and the present allowable under these pool rules

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1 is 227 barrels of oil per day. Now, the Applicant in this
 2 case proposes and feels that at this time the pool is being
 3 discriminated against under our statewide proration orders
 4 and we seek to put this pool under the statewide proration
 5 orders which would give an allowable with a proportional
 6 factor of 5.67.

7 The present allowable, as I said, was 227 barrels of
 8 oil per day; the increase on the basis of the present allowable
 9 that has been assigned to other pools in the state would be 454
 10 barrels per day. Now, representatives of Amerada Hess Corpo-
 11 ration have consulted with the Texas Railroad Commission. They
 12 express no objection to any change.

13 They have applied to the Texas Railroad Commission
 14 for a similar hearing to be held contingent upon approval of
 15 this application by the State of New Mexico. In other words,
 16 in effect, they have said or at least their staff has recom-
 17 mended that Texas go along with whatever decision has been
 18 made by the New Mexico Commission.

19 I think that rather sums up the position of the
 20 Applicant in this case. Of course, we have the further pro-
 21 posal that bottom hole pressure tests no longer be required and
 22 I think our evidence will amply support that as well.

23 RICHARD FRAZIER,

24 having been first duly sworn, testified as follows:
 25

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DIRECT EXAMINATION

BY MR. KELLAMIN:

Q Would you state your name, please?

A Richard Frazier.

Q By whom are you employed and in what position, Mr. Frazier?

A Employed by Amerada Hess Corporation.

Q Is that spelled F-r-a-z-i-e-r?

A That's right.

Q What is your position with Amerada Hess Corporation?

A I am a petroleum engineer in the technical service section in Midland. I handle proration matters for the Midland region and for the Seminole-Hobbs region.

Q Does that area you handle proration matters for include the Bronco Siluro-Devonian?

A Yes, it does.

Q Have you ever testified before the Oil Conservation Commission or one of its examiners?

A No, I have not.

Q For the benefit of the Examiner, would you briefly outline your education and experience as a petroleum engineer?

A I graduated from the University of Tulsa in May of 1970 with a Bachelor of Science Degree in petroleum engineering. I have been employed by Amerada Hess Corporation for three years.

Prior to graduation, I was employed as a junior

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1 petroleum engineer in the reservoir engineering section
 2 in Tulsa. Since graduation, my position has been that of
 3 petroleum engineer in the technical service section in
 4 Midland.

5 MR. KELLAHIN: Are the witness' qualifications
 6 acceptable?

7 MR. UTZ: Yes, sir, they are.

8 Q (By Mr. Kellahin) Mr. Frazier, you heard the statement
 9 I made in regard to the application in this case. Do you
 10 have anything to add to that or modify it?

11 A No, sir.

12 Q Now, referring to what has been marked as the Applicant's
 13 Exhibit Number 1, would you identify that exhibit, please?

14 A Exhibit Number 1 is a map showing the location and owner-
 15 ship of the wells in the Bronco Pool. The map also points
 16 out that the pool is divided into two nearly equal parts
 17 by the New Mexico-Texas border.

18 Q Is the number of wells in the two states substantially
 19 the same?

20 A Yes. There are currently nine producing wells in New
 21 Mexico and eleven in Texas.

22 Q I see. Now, referring to what has been marked as the
 23 Applicant's Exhibit Number 2, would you identify that
 24 exhibit?

25 A Exhibit Number 2 is a structure map contoured on the top

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- 1 of the Devonian Formation. The map shows that the Pool
 2 consists of the series of three anticlinal traps which
 3 are separated by common water table.
- 4 Q It has been developed then in those anticlinal traps
 5 and the outlines of the pool has been defined, is that
 6 correct?
- 7 A Yes.
- 8 Q In both states?
- 9 A Yes.
- 10 Q No further development would be anticipated?
- 11 A No, that's correct.
- 12 Q Now, referring to what has been marked as Exhibit Number
 13 3, would you identify that exhibit?
- 14 A Exhibit Number 3 is a general data sheet for the Bronco
 15 Pool. Some of the more important items we have listed
 16 are average porosity, 5.8 percent, average permeability,
 17 148 millidarcies, gas-oil ratio, 138 cubic feet per
 18 barrel, producing mechanism is an active water drive,
 19 reservoir is approximately seventy-four percent depleted
 20 and the overall recovery efficiency is expected to be
 21 around 51 percent.
- 22 Q Is that typical of an active water drive pool?
- 23 A This is above average recovery for a water drive reservoir
 24 such as this.
- 25 Q Now, referring to what has been marked as Exhibit Number

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1 4, would you identify that exhibit?

2 A Exhibit Number 4 is a performance graph for the total pool.
 3 The oil production curve shows a gradual decline of ap-
 4 proximately 5 percent per year. Oil production reached
 5 a peak in 1958, when an average of 156,000 barrels per
 6 month were produced.

7 The current producing rate is approximately 60,000
 8 barrels per month. Water curve shows a fairly steady
 9 increase over the life of the pool. From 1964 through
 10 1966, the water production declined due to plug back
 11 treatments on five Amerada Hess Wells. The decline for
 12 1970 in water production is due to the abandonment of two
 13 high water cut wells.

14 Currently, water production amounts to approximately
 15 86 percent of the total flood production.

16 Q Do you have any more wells in the pool that could be
 17 plugged back to cut off the water?

18 A This is a possibility. We haven't made a complete study
 19 of this, but it is a possibility.

20 Q Would you comment on the information shown on the bottom-
 21 hole pressures?

22 A Bottom-hole pressure curve shows that the original
 23 pressure was 4789 PSI. Pressure declined approximately 500
 24 PSI from 1952 to 1961. During this time the pool pro-
 25 duced twelve and a half million barrels of oil. From

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1 1961 to 1967 the pool produced nine million barrels of
 2 oil but the reservoir pressure remained essentially
 3 constant.

4 Pressure deviated less than one percent from a value
 5 of 4270 PSI. This indicates that at a reservoir pressure
 6 of approximately 4270 PSI, the pressure differential
 7 between the oil zone and the aquifer was sufficient to
 8 allow water influx to keep pace with oil withdrawals and
 9 maintain constant pressure.

10 Q Would continued bottom-hole pressure surveys serve any
 11 purpose in this pool in your opinion?

12 A In my opinion they would not. These surveys were dis-
 13 continued in 1968 because at that time the reservoir was
 14 approximately 70 percent depleted and a very good fifteen-
 15 year pressure history had been obtained and the reservoir
 16 pressure had shown no indication of declining.

17 Q In the event the Commission were to approve this appli-
 18 cation, which would result in an increased allowable, in
 19 your opinion would that affect your bottom-hole pressure
 20 any materially?

21 A No, it would not.

22 Q You feel the water encroachment would still keep pace
 23 and maintain the pressures substantially as they are?

24 A Yes, that's correct.

25 Q Do you have anything else to add in connection with this

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1 exhibit?

2 A Yes. This slow decline in oil production and the increas-
 3 ing water production, the maintenance of reservoir pressure,
 4 all indicate the reservoir has an efficient water drive
 5 mechanism.

6 Q Now, turning to what has been marked as the Applicant's
 7 Exhibit Number 5, would you identify that exhibit?

8 A Exhibit Number 5 is a tabulation of the production and
 9 pressure data which was plotted on Exhibit 4.

10 Q That is the basis, then, of your Exhibit Number 4?

11 A Yes.

12 Q Referring to Exhibit Number 6, would you identify that
 13 exhibit?

14 A Exhibit Number 6 is a tabulation of the latest well test
 15 data for the wells in the New Mexico portion of the pool.
 16 Also shown are the current allowable for the wells and
 17 the anticipated production increase if the top unit
 18 allowable were calculated by the statewide methods.

19 Only three of the nine wells would be affected by
 20 the change in top allowable. At the current normal unit
 21 allowable, if the change is granted, all of the New Mexico
 22 wells would be classified marginal.

23 Q None of them would be able to make the allowable that
 24 would be assigned on the basis of the present statewide
 25 allowable, is that correct --

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- 1 A That is correct.
- 2 Q -- with the depth factor?
- 3 A Right.
- 4 Q Is there a market for the increase in oil that would
- 5 result from this change?
- 6 A Yes. If we could refer to Exhibit Number 7 on this
- 7 question, it's a letter from Phillips Petroleum Company
- 8 stating that they would purchase the additional oil and
- 9 that they have sufficient pipe line capacity to process
- 10 the crude.
- 11 Q Now, approval of this application would result in an
- 12 increase in production of water as well, would it not?
- 13 A Yes.
- 14 Q Would you have any problem in disposing of the increased
- 15 water?
- 16 A No. The water will be disposed of by the Bronco salt
- 17 water disposal system which is operated by Amerada Hess.
- 18 The system currently has excess disposal capacity of at
- 19 least 3,000 barrels per day.
- 20 Q Any other operators using this system?
- 21 A Yes, Atlantic Richfield and Sohio use this system.
- 22 Q Would you be able to handle the increased water production
- 23 from their wells, too?
- 24 A There will be no change in the production from their wells.
- 25 Q They are producing at capacity now, is that correct?

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- 1 A Yes.
- 2 Q What about other operators in the New Mexico side of the
- 3 pool? Do you know what they are doing with their water?
- 4 A They dispose of it themselves. Texaco is the only other
- 5 producer that --
- 6 Q And they have their own disposal system?
- 7 A Yes, they do.
- 8 Q As far as you know, it would handle any increase in
- 9 production, would it?
- 10 A Yes, but their well, as far as I know, would not be
- 11 affected by this increased allowable.
- 12 Q Now, what did you say the GOR in this pool is?
- 13 A It was 138.
- 14 Q There would be some slight increase in gas production,
- 15 then, is that correct?
- 16 A Yes.
- 17 Q What disposition would be made of that gas?
- 18 A Well, at the present time Amerada Hess uses all of its
- 19 produced gas to operate lease equipment. In addition to
- 20 the produced gas, we are also having to buy supplemental
- 21 gas for fuel. Even with the predicted increase in gas
- 22 production it will still be necessary to supplement our
- 23 gas for fuel.
- 24 Q Now, Mr. Frazier, in your opinion, would any waste occur
- 25 if the production from this pool is increased at this

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1 stage?

2 A No. For fourteen years of the pool's eighteen-year life
 3 the total oil withdrawal rate has been higher than that --
 4 than the rate anticipated if the top allowable is in-
 5 creased. Reservoir performance to date has been excellent.

6 Reservoir pressure has been maintained at approxi-
 7 mately 90 percent of the original value and the recovery
 8 efficiency is calculated to be 51 percent, which is about
 9 7 percent higher than the average for a water drive
 10 carbonate reservoir.

11 Q Have any individual wells in the pool been produced at
 12 the rates that would result from approval of this appli-
 13 cation?

14 A Yes. For short periods of time the wells have been
 15 produced for well test purposes and to make up production
 16 due to down time.

17 Q On the basis of those tests was there any increase in the
 18 percentage of water produced?

19 A No, the water percentages remained constant.

20 Q Now, in your opinion, will there be any increase in the
 21 rate of water encroachment relative to oil production as
 22 a result of the increase in allowable which we are seek-
 23 ing?

24 A No.

25 Q In other words, you say that this pool is capable of

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1 producing at statewide allowable rates?

2 A Yes, that's right.

3 Q And no waste would occur?

4 A Correct.

5 Q On that basis, would you say that this pool is presently
 6 being discriminated against in the assignment of allow-
 7 ables?

8 A In my opinion, it is.

9 Q Were Exhibits 1 through 7 prepared by you or under your
 10 supervision?

11 A Yes, they were.

12 MR. KELLAHIN: At this time I would like to offer
 13 in evidence Exhibits 1 through 7.

14 MR. UTZ: Without objection, Exhibits 1 through 7 will
 15 be entered into the record of this case.

16 MR. KELLAHIN: That completes the direct examination
 17 of the witness.

18 CROSS EXAMINATION

19 BY MR. UTZ:

20 Q Mr. Frazier, this is a Devonian Pool, right?

21 A Yes, it is.

22 Q How many other Devonian Pools are in New Mexico, approxi-
 23 mately, and if so, are they water drive also?

24 A All Devonian Pools in New Mexico are water drive, yes,
 25 sir.

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- 1 Q Now, looking at Exhibit 6, do you have a column there for
- 2 the present allowable?
- 3 A Yes, I do.
- 4 Q Which one is it?
- 5 A Current allowable in barrels per day.
- 6 Q That would be for the Federal B Number 1, 227 and for the
- 7 Ward's 1 and 2, 250 and 250?
- 8 A Right. This has been increased due to additional acreage
- 9 which has been assigned to these wells. We have an
- 10 acreage factor of 1.1.
- 11 Q Now, the change in allowable would be the second column
- 12 to the right of that --
- 13 A The next column.
- 14 Q -- increased production if allowable calculated by state-
- 15 wide method? No, this is water.
- 16 A Yes. The oil production is right next to -- this would
- 17 be the increase. The allowable would be the wells' capacity
- 18 in all these cases.
- 19 Q That would be what, 268 in the first case, 297 and 337, is
- 20 that it?
- 21 A Yes, that's correct.
- 22 Q So, the figures in the third column from the left, oil
- 23 barrels per day, 41, 47 and 87, that is the increase,
- 24 then?
- 25 A Yes, that's the difference between the current allowable

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1 and the test capacity.

2 Q It's your testimony, then, that this increase would not
 3 detrimentally affect the producing capacity of these wells
 4 even though it is an active water drive?

5 A That's correct.

6 Q Your basis for that is what, again?

7 A Basically due to past performance of the reservoir. The
 8 total withdrawals from the reservoir have been in excess
 9 of what we anticipate and no harmful affects have been
 10 noticed. The reservoir pressure will continue to be more
 11 than adequate to keep the pressure above bubble point
 12 pressure which would be the minimum pressure we could
 13 stand without damaging the reservoir.

14 Q There would be no danger of coning the water into these
 15 well bores?

16 A To our knowledge, no. If this occurred, of course, we
 17 would have to slow the rates down.

18 Q Be a little late, then, wouldn't it?

19 A Well --

20 Q Judging from the percentage of water you are producing
 21 now, I think it would be a little late at that point,
 22 86 percent, isn't it?

23 A Yes, that's a field-wise basis. Our best wells' water
 24 percentage is much less than that. The Ward Number 2
 25 currently produces no water.

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- 1 Q Federal B Number 1 produces quite a bit, doesn't it?
- 2 A Yes, it does.
- 3 Q 215 to 268, that's almost half water, isn't it?
- 4 A I'm sorry.
- 5 Q I say, 215 water you anticipate it will produce a day and
- 6 268 oil?
- 7 A Yes. Well, actually, it will be 268 barrels of oil and
- 8 1424 barrels of water. This would be the increased water.
- 9 Q Oh, I see. Sure.
- 10 A This was taken off.
- 11 Q It will be hard to tell whether that one is coning or not,
- 12 won't it?
- 13 A I think it will.
- 14 MR. UTZ: Are there other questions of the witness?
- 15 MR. HATCH: In this column, the 175 barrels would be
- 16 the additional oil and that's from the New Mexico side?
- 17 THE WITNESS: New Mexico side only.
- 18 MR. HATCH: The 450 would be the --
- 19 THE WITNESS: This was an approximate figure. There
- 20 is one well in the Texas side which is currently top allowable.
- 21 It would produce approximately an additional 227 barrels per
- 22 day, so I think 402 barrels per day would be the increase we
- 23 would expect.
- 24 MR. UTZ: Are there other questions?
- 25 MR. HATCH: Yes, one other. You said you do plan to

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1 appear before the Texas Railroad Commission if this was approved?

2 THE WITNESS: Right.

3 MR. HATCH: But you don't have any date or any hearing
 4 set?

5 THE WITNESS: No. It will be contingent upon the
 6 approval here.

7 MR. HATCH: And if you appeared there and they refused,
 8 then, would you anticipate coming back here for reduction in this
 9 or would you anticipate letting it ride?

10 MR. KELLAHIN: Actually, with a slight increase in
 11 oil production in New Mexico, I don't think it will be material
 12 any way. Wouldn't be worthwhile to come back to change it.

13 MR. HATCH: That's all.

14 MR. UTZ: Other questions? The witness may be
 15 excused.

16 (Witness excused.)

17 MR. UTZ: Statements? The case will be taken under
 18 advisement. We will adjourn until 1:30.

19 (Whereupon, the hearing was adjourned until 1:30 the
 20 same day.)
 21
 22
 23
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I N D E X

WITNESS

PAGE

RICHARD FRAZIER

Direct Examination by Mr. Kellahin

4

Cross Examination by Mr. Utz

13

E X H I B I T S

Nos. 1 through 7

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1 STATE OF NEW MEXICO)
) ss
 2 COUNTY OF BERNALILLO)

3 I, GLENDA BURKS, Court Reporter in and for the County of
 4 Bernalillo, State of New Mexico, do hereby certify that the
 5 foregoing and attached Transcript of Hearing before the New
 6 Mexico Oil Conservation Commission was reported by me; and that
 7 the same is a true and correct record of the said proceedings
 8 to the best of my knowledge, skill and ability.

9
 10 Glenda Burks
 11 Court Reporter

22 I do hereby certify that the foregoing is
 23 a complete record of the hearing
 24 the hearing being held on Feb 24 1971
 25 before me on 4570
[Signature]
 New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
BRUCE KING
CHAIRMAN

**LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER**

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

March 16, 1971

Mr. Jason Kellahin
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 4510
Order No. R-4118
Applicant:

Amerada Hess Corporation

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC x
 Artesia OCC _____
 Aztec OCC _____

Other _____

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. 4510
Order No. R-4118

APPLICATION OF AMERADA HESS CORPORATION
FOR AMENDMENT OF SPECIAL POOL RULES, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 24, 1971, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 16th day of March, 1971, 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 Special Rules and Regulations governing the Bronco-Siluro-Devonian Pool, Lea County, New Mexico, were promulgated by Order No. R-510, dated July 15, 1954, which order was issued after joint hearings by the New Mexico Oil Conservation Commission and the Railroad Commission of Texas.
- (3) That Rule 4 of Order No. R-510 established an allowable for the New Mexico portion of the Bronco-Siluro-Devonian Pool of 227 barrels of oil per day for standard proration units of 40 acres until further order.
- (4) That Rule 5 of Order No. R-510 required the datum reservoir pressure be determined for all wells in the pool annually.
- (5) That the applicant, Amerada Hess Corporation, seeks the amendment of the Special Rules and Regulations governing the

-2-

CASE No. 4510
Order No. R-4118

Bronco-Siluro-Devonian Pool to permit the assignment of an allowable to wells in the subject pool on the basis of the statewide oil allowable rules and to no longer require the taking of datum reservoir pressures.

(6) That should the above requests be granted, the applicant proposes to petition the Railroad Commission of Texas for similar changes for that portion of the subject pool lying in Texas.

(7) That the allowable production for wells in New Mexico of like depth has increased greatly since the issuance of Order No. R-510.

(8) That in order to allocate or distribute the allowable production of oil among the fields in the state on an equitable basis, the top unit allowable for wells in the subject pool should be determined in accordance with Rule 505 of the Commission Rules and Regulations.

(9) That there is no longer any need to determine the datum reservoir pressure of the wells in the pool.

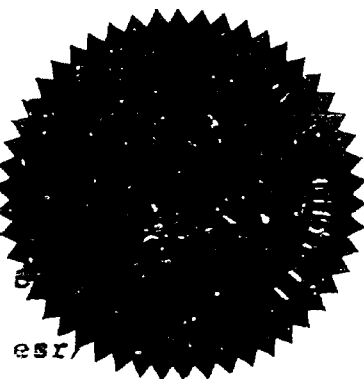
(10) That the Special Rules and Regulations governing the Bronco-Siluro-Devonian Pool should be amended by deleting therefrom Rules 4 and 5.

IT IS THEREFORE ORDERED:

(1) That, effective April 1, 1971, the Special Rules and Regulations governing the Bronco-Siluro-Devonian Pool, Lea County, New Mexico, are hereby amended by deleting therefrom Rules 4 and 5.

(2) 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.



STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Bruce King
BRUCE KING, Chairman

Alex J. Armijo
ALEX J. ARMIO, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

BYRON TUNNELL, Chairman
JIM C. LANGDON, Commissioner
BEN RAMSEY, Commissioner



ARTHUR H. BARBECK
Chief Engineer

ERNEST O. THOMPSON BUILDING

CAPITOL STATION - P. O. DRAWER 12967

AUSTIN, TEXAS 78711

March 11, 1971

ALL OPERATORS IN THE BRONCO (SILURO-DEVONIAN) FIELD, YOAKUM COUNTY,
TEXAS

In re: Amerada letter dated February 25, 1971
concerning amendment to Special Order
No. 8-29645

Gentlemen:

The Commission considered the request set out in the above styled letter and ruled that the periodic bottomhole pressure rule in Special Order No. 8-29645 be rescinded and that the allowable for each of the wells on the Texas side be set according to the allowable established on the New Mexico side.

It will be necessary for one of the operators on the Texas side of this field to send a copy of the New Mexico bi-monthly proration order.

The rules and changes become effective March 1, 1971.

Yours very truly,

Bob R. Harris, Director
Research and Inspection

BRH:kr

cc: Lubbock District Office
Amerada Hess Corp.
New Mexico Oil Conservation Commission



western union

Telegram

KA097 NSA319

1971 FEB 23 PM 1 56

NS MDA068 DJ PD=MIDLAND TEX 23 240P CST=
NEW MEXICO OIL CONSERVATION COMM=
SANTA FE NMEX

RE: CASE NO. 4510.=.

ATLANTIC RICHFIELD COMPANY SUPPORTS THE APPLICATION OF
AMERADA HESS CORPORATION TO AMEND ORDER R-510, TO PERMIT
THE ASSIGNMENT OF ALLOWABLE TO WELLS IN THE BRONCO
SILURO=DEVONIAN POOL ON THE BASIS OF STATEWIDE OIL
ALLOWABLE RULES AND TO ABOLISH THE REQUIREMENT OF
TAKING BOTTOM HOLE PRESSURE TESTS. ATLANTIC RICHFIELD
COMPANY IS A WORKING INTEREST OWNER IN WELLS OPERATED

WU 1201 (R 5-69)



western union

Telegram (247)

BY AMERADA HESS AND IN OTHER WELLS PRODUCING FROM THE
SAME POOL=

W P TOMLINSON ATLANTIC RICHFIELD CO==

4510 R-510=

WU 1201 (R 5-69)



Telegram

1971 FEB 22 PM 4 39

KA107 NSB411

(439)c

NS MDA097 PB PD=MIDLAND TEX 22 440P CST=
NEW MEXICO OIL CONSERVATION COMMISSION=
ATTN ALVIS A UTZ SANTAFE NMEX=

THIS IS TO ADVISE CITIES OIL COMPANY, AN OPERATOR IN
THE BRONCHO DEVONIAN FIELD, YOAKUM COUNTY TEXAS HAS NO
OBJECTION TO AMERADA HESS CORPORATIONS APPLICATION IN
CASE 4510 TO AMEND RULE R=510 TO PERMIT ASSIGNMENT OF
ALLOWABLES ON THE BASIS OF STATEWIDE OIL ALLOWABLE RULES
E F MOTTER CITIES SERVICE OIL CO REGION ENGINEER
SOUTHWESTERN REGION PRBUCTION DIVN==

4510 R=510=

WU 1201 (R 5-69)

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARINGS
HELD JOINTLY BY THE NEW MEXICO
OIL CONSERVATION COMMISSION AND
THE RAILROAD COMMISSION OF TEXAS
FOR THE PURPOSE OF CONSIDERING:

CASE NO. 672
ORDER NO. R-510

THE MATTER OF PRORATION METHODS,
MAXIMUM EFFICIENT RATE OF PRODUCTION,
AND SPECIAL POOL RULES FOR OIL AND GAS
POOLS EMBRACING LANDS WITHIN THE STATES
OF TEXAS AND NEW MEXICO: NAMELY, THE
BRONCO-SILURO-DEVONIAN POOL IN LEA
COUNTY, NEW MEXICO (THE TEXAS PORTION
OF WHICH LIES IN YOAKUM COUNTY AND IS
TERMED THE BRONCO POOL.)

ORDER OF THE COMMISSION

BY THE COMMISSION:

WHEREAS, After due notice, the Railroad Commission of Texas and the New Mexico Oil Conservation Commission held a joint hearing in Santa Fe, New Mexico, on February 26, 1954, to consider the adoption of rules and regulations to govern the drilling, completion and operation of wells in the Bronco-Siluro-Devonian Pool, Lea County, New Mexico, and Yoakum County, Texas; and

WHEREAS, After due notice, the Railroad Commission of Texas and the New Mexico Oil Conservation Commission held a joint hearing in Austin, Texas, on April 2, 1954, to consider the adoption of rules and regulations to govern the drilling, completion and operation of wells in the Bronco-Siluro-Devonian Pool, Lea County, New Mexico, and Yoakum County, Texas; and

NOW, on this 15th day of July, 1954, the Oil Conservation Commission of New Mexico, a quorum being present, having considered the records and testimony adduced, and being fully advised in the premises,

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, it has jurisdiction of this case and the subject matter thereof.

(2) That waste will take place in said pool unless rules are adopted by the Commission for the prevention thereof, and that the rules and regulations hereinafter set forth are necessary to prevent such waste and to provide for a more orderly development and operation of said field.

IT IS THEREFORE ORDERED, by the Oil Conservation Commission of New Mexico that the following rules, in addition to such of the Commission's general rules and regulations as are not in conflict herewith, be and the same are hereby adopted to govern the drilling, completion and operation of wells in the Bronco-Siluro-Devonian Pool, Lea County, New Mexico.

RULE 1. The permitted gas-oil ratio for all wells shall be two thousand (2000) cubic feet of gas per barrel of oil produced. Any oil well producing with a gas-oil ratio in excess of two thousand (2000) cubic feet of gas per barrel of oil shall be allowed to produce daily only that volume of gas obtained by multiplying the daily oil allowable of such well as determined by the applicable rules of the Commission by two thousand (2000) cubic feet. The gas volume thus obtained shall be known as the daily gas limit of such well. The daily oil allowable therefor shall then be determined and assigned by dividing the daily gas limit by its producing gas-oil ratio.

RULE 2. The acreage assigned to the individual oil well for the purpose of allocating allowable oil production thereto shall be known as a proration unit. No proration unit shall consist of more than forty (40) acres except as hereinafter provided, and the two farthestmost points in any proration unit shall not be in excess of twenty-one hundred (2100) feet removed from each other; provided, however, that in the case of long and narrow leases or in cases where, because of the shape of the lease such is necessary to permit the utilization of tolerance acreage, the Commission may, after proper showing grant exceptions to the limitations as to the shape of proration units as herein contained. All proration units, however, shall consist of continuous and contiguous acreage which can reasonably be considered to be productive of oil.

If after the drilling of the last well on any lease and the assignment of acreage to each well thereon in accordance with the regulations of the Commission, there remains an additional unassigned lease acreage of less than forty (40) acres, then and in such event the remaining unassigned lease acreage up to and including a total of twenty (20) acres may be assigned to the last well drilled on such lease or may be distributed among any group of wells located thereon so long as the proration units resulting from the inclusion of such additional acreage meet the limitations prescribed by the Commission.

Operators shall file certified plats of their properties in the pool, which plats show all those things pertinent to the determination of the acreage claimed for each well hereunder.

RULE 3: The casing program of all wells hereafter drilled in said pool shall include at least three (3) strings of pipe set in accordance with the following program:

(a) The surface casing shall consist of new or reconditioned pipe with an original mill test of not less than one thousand (1000) pounds per square inch, and shall be set and cemented below the top of the red beds; provided, however, that not less than three hundred (300) feet of surface string shall be set. Cement shall be by the pump and plug method, and sufficient cement shall be used to fill the annular space back of the pipe to the surface of the ground or the bottom of the cellar. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twentyfour (24) hours before drilling the plug. The casing shall be tested by pump pressure of at least five hundred (500) pounds per square inch applied at the well head. If at the end of thirty (30) minutes the pressure shows a drop of one hundred and fifty (150) pounds per square inch, or more, the casing shall be condemned. After the corrective operations, the casing shall again be tested in the same manner.

(b) The intermediate string shall consist of new or reconditioned pipe that has been tested to two thousand (2000) pounds per square inch, and shall be set no higher than the top of the San Andres formation at an approximate depth of forty-five hundred (4500) feet. Sufficient cement shall be used to fill the calculated annular space back of the pipe to at least as high as the bottom of the surface pipe. Cement shall be by the pump and plug method, and the cement shall be allowed to stand a minimum of twelve

(12) hours under pressure and a total of twenty-four (24) hours before initiating tests or drilling the plug. The casing shall be tested by pump pressure of at least one thousand (1000) pounds per square inch applied at the well head. If at the end of thirty (30) minutes the pressure shows a drop of one hundred and fifty (150) pounds per square inch, or more, the casing shall be condemned. After the corrective operations, the casing shall again be tested in the same manner.

(c) The producing or oil string shall be new or reconditioned pipe that has been tested to three thousand (3000) pounds per square inch, and shall be set no higher than the top of the producing formation. Cement shall be by the pump and plug method, and sufficient cement shall be used to fill the calculated annular space behind the pipe to a point at least thirty-three hundred (3300) feet above the shoe. Cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests. The casing shall be tested by pump pressure of at least fifteen hundred (1500) pounds per square inch applied at the well head. If at the end of thirty (30) minutes the pressure shows a drop of two hundred (200) pounds per square inch, or more, the casing shall be condemned. After the corrective operations, the casing shall again be tested in the same manner.

At the option of the operator, a liner may be run in lieu of a full length producing or oil string, such liner to extend not less than 200 feet above the shoe of the next larger casing string. The liner shall be secured to the next larger casing string in a manner approved by the New Mexico Oil Conservation Commission through a duly authorized representative or the District 1 Oil and Gas Inspector. Such liner shall be tested in the manner prescribed above for the testing of producing or oil strings.

RULE 4: The production allowable for said pool within New Mexico shall be, and the same hereby is fixed at 227 barrels of oil per day beginning at 7 o'clock a.m., M.S.T. on June 1, 1954, and continuing until further order.

RULE 5: The datum reservoir pressure of all wells in the pool shall be determined annually and the testing period shall be during the months of October and November; the results thereof to be reported to the Commission on or before the fifteenth (15) of December of each year. All pressure determinations shall be reported at a datum of eight thousand (8000) feet below sea level. Prior to testing, all wells shall be shut in for a period of not less than forty-eight (48) hours or more than seventy-two (72) hours. All offset operators shall be notified at least forty-eight (48) hours before such test is made on any well, and any operator in the pool shall have the privilege of witnessing such pressure determinations. Said pressures shall be taken on all flowing wells with subsurface pressure gauge or other method of equal accuracy and may be taken on pumping wells with sonic devices or other method of equal accuracy.

RULE 6: All operators shall take a GOR test not sooner than 30 days nor later than 60 days following the completion or recompletion of an oil well. A GOR test shall be made annually on all oil wells producing from the Bronco-Siluro-Devonian reservoir pool. Such tests shall be made in accordance with Commission Rule 301, and shall be taken during the months of April and May of each calendar year. Results of such tests shall be reported on Commission Form C-116 not later than June 15 of the year in which the test was made.

IT IS FURTHER ORDERED, That this cause be held open on the docket for such other and further orders as may be necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.
STATE OF NEW MEXICO, OIL CONSERVATION COMMISSION (Signed by: Edwin L. Mechem, Chairman;
E. S. Walker, Member; R. R. Spurrier, Secretary and Member) ig

(Case 4502 continued)

TOWNSHIP 14 SOUTH, RANGE 35 EAST
SECTION 34: NW/4

TOWNSHIP 15 SOUTH, RANGE 35 EAST
Section 3: NW/4
Section 4: S/2 and NW/4

CASE 4503: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Penroc Oil Corporation and all other interested persons to appear and show cause why the intentional deviation of Penroc Oil Corporation State Well No. 2, having a surface location 360 feet from the South line and 330 feet from the East line of Section 28, Township 17 South, Range 28 East, Empire-Abo Pool, Eddy County, New Mexico, to a bottom hole location 123 feet from the South line and 149 feet from the East line of said Section 28 should be approved and why the allowable assigned to said well should not be reduced to offset any advantage gained by said bottom-hole location over other producers.

CASE 4508: Application of Continental Oil Company for the assignment of discovery allowable and promulgation of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the assignment of an oil discovery allowable to its SEMU Well No. 10 located in Unit F of Section 29, Township 20 South, Range 38 East, Warren-Devonian Pool, Lea County, New Mexico. Applicant further seeks the promulgation of special rules for said pool, including provisions for 80-acre spacing units.

CASE 4509: Application of Continental Oil Company for an amendment of Order No. R-2016, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-2016 to permit the commingling of Paddock oil production from its Mitchell A and B leases in Sections 17, 18, 19 and 20, Township 17 South, Range 32 East, Maljamar-Paddock Pool, Lea County, New Mexico, without first separately metering the production from said leases.

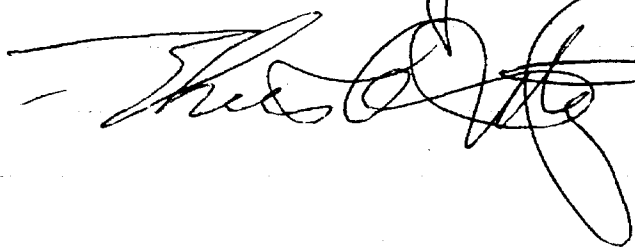
CASE 4510: Application of Amerada Hess Corporation for amendment of special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-510, which order established special pool rules for the Bronco Lluro-Devonian Pool, Lea County, New Mexico, to permit the assignment of allowable to wells in said pool on the basis of the statewide oil allowable rules and to no longer require the taking of bottom-hole pressure tests.

4510
Heard R-24-71
Rec. 2-26-71

Grant. Amerado-Hess' request
for an amendment to rule 4 & 5
of Order R-510.

Rule 4 should be deleted to
allow the allowable to be set
in accordance with the
stipulated ~~NWA~~ ^{NWA}.

Rule 5 should be deleted
so that B.H.P. shall not
be required any longer.

- This 

DATA SHEET
BROOKO SILURO-DEVONIAN POOL

Location: Lea County, New Mexico and Yoakum County, Texas

Discovery Well: Amerada Hess Corp. - L. R. Weems No. 1 - November, 1952

Number of Wells:	<u>Producing</u>	<u>Former Producers</u>
New Mexico	9	5
Total Pool	20	9

Productive Acres: 1200-A Total Pool, 570-A New Mexico

Producing Horizon: Devonian

Depth: 11,600' ✓

Rock Description: Vugular, fractured, intergranular dolomite

Average Porosity: 5.8% (core data)

Average Permeability: 148 md. (core data)

Average Water Saturation: 16% (logs)

Average Pay Thickness: 190' Gross, 150' Net

Oil Gravity: 44° API

GOR: 138 SCF/BBL

Bubble Point: 450 psi

Initial BHP: 4789 psi at - 8000' datum

Producing Mechanism: Active water drive

Current Producing Rate: (November, 1970)	<u>Oil-B/D</u>	<u>Water-B/D</u>	<u>Gas-MCF/D</u>
New Mexico	1050	2076	121
Total Pool	2034	9456	197

Cumulative Production: New Mexico 10,599,662 Barrels
Total Pool 22,856,000 Barrels

Ultimate Recovery: 30,700,000 Barrels

Percent Depleted: 74%

Recovery Efficiency: 51%

BEFORE EXAMINER UTZ
OIL CON. DIVISION CO. DIVISION
<i>amerada</i> WELL NO. <u>3</u>
CASE NO. <u>4510</u>

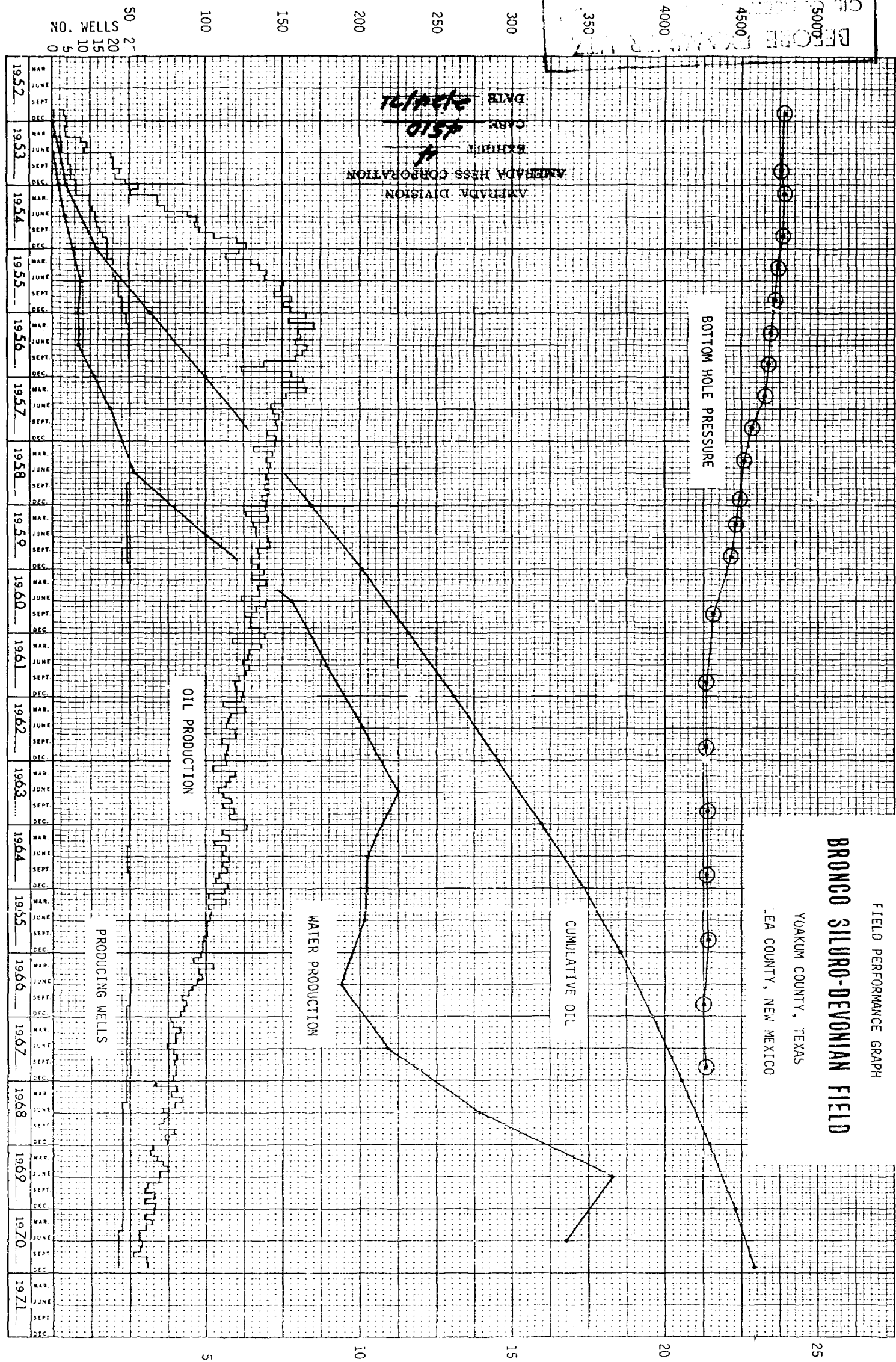
AMERADA DIVISION
AMERADA HESS CORPORATION
EXHIBIT 3
CASE 4510
DATE 2/24/71

FIELD PERFORMANCE GRAPH

BRONCO SILURO-DEVONIAN FIELD

YOAKUM COUNTY, TEXAS
LEA COUNTY, NEW MEXICO

CASE NO. H-510
CUMULATIVE OIL PRODUCTION - MM BBLs
DATE 12/1/71
EXHIBIT #
AMERADA HESS CORPORATION



CUMULATIVE OIL PRODUCTION - MM BBLs.

BRONCO SILURO-DEVONIAN POOL
PRESSURE-PRODUCTION DATA

<u>Year</u>	<u>Oil</u>	<u>Water</u>	<u>Cumulative Oil</u>	<u>Percent Water</u>	<u>Average Pressure</u>	<u>Date</u>
1952	16,774	0	16,774	0%	4789	Nov. 1952
1953	341,133	10,000	357,907	3%	4769	Oct. 1953
1954	1,038,430	80,000	1,396,337	7%	4775	Feb. 1954
					4775	Oct. 1954
1955	1,691,537	211,200	3,087,874	11%	4729	Apr. 1955
					4725	Oct. 1955
1956	1,879,350	208,000	4,967,224	10%	4694	Apr. 1956
					4675	Oct. 1956
1957	1,795,211	464,000	6,762,435	20%	4648	Apr. 1957
					4561	Oct. 1957
1958	1,683,329	622,400	8,445,764	27%	4514	Apr. 1958
					4479	Oct. 1958
1959	1,616,176	1,224,000	10,061,940	43%	4469	Apr. 1959
					4437	Oct. 1959
1960	1,590,185	1,873,600	11,652,125	54%	4309	Oct. 1960
1961	1,510,038	2,139,200	13,162,163	58%	4281	Oct. 1961
1962	1,400,519	2,432,616	14,562,682	63%	4264	Oct. 1962
1963	1,370,604	2,702,258	15,933,286	56%	4281	Oct. 1963
1964	1,353,321	2,460,000	17,286,607	65%	4271	Oct. 1964
1965	1,230,660	2,435,368	18,517,267	66%	4286	Oct. 1965
1966	1,103,365	2,252,958	19,620,632	67%	4250	Oct. 1966
1967	942,526	2,626,103	20,563,158	74%	4271	Oct. 1967
1968	878,331	3,339,812	21,441,489	79%		
1969	798,079	4,398,839	22,239,568	85%		
1970 (11 mo.)	617,304	3,692,434	22,856,872	86%		

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
amerada EXHIBIT NO. 5
CASE NO. 4510

AMERADA DIVISION
AMERADA HESS CORPORATION
EXHIBIT 5
CASE 4510
DATE 2/24/71

BEFORE EXAMINATION
OIL COMPANY
amerada
CASE NO. *4510*

WELL TEST DATA
BRONCO SILURO-DEVONIAN POOL
NEW MEXICO PORTION

Increased Production If
Allowable Calculated By
Statewide Method

Lease	Well	Date	Oil B/D	Water B/D	GOR SCF/BB1.	Current Allowable B/D	Oil B/D	Water B/D	Gas MCF/D
<u>Amerada Hess Corporation</u>									
Federal "A"	No. 2	1-12-71	60	41	177	60		No Change	
Federal "B"	No. 1✓	1-20-71	268✓	1424✓	57	227✓	41	215✓	2.3
Federal "B"	No. 2	1-21-71	155	1192	12	155		No Change	
H. D. Schenck	No. 1	1-12-71	110	69	90	110		No Change	
L. W. Ward	No. 1✓	1-6-71	297✓	195	84	250*	47	31	3.9
L. W. Ward	No. 2✓	12-20-70	337✓	0	110	250*	87	0	9.6
L. W. Ward	No. 3	1-10-71	86	570	476	86		No Change	
<u>Atlantic Richfield Company</u>									
Barnes and Golden	No. 1		#105	1379	171	105		No Change	
<u>Texaco, Inc.</u>									
H. H. Harris	No. 2		# 56	2	97	56		No Change	
Total			1313	4872	141 MCF	1138	175	246	15.8

Determined from Proration Schedule and Production Data

* Top Allowable Increased due to Acreage Factor

AMERADA DIVISION
AMERADA HESS CORPORATION
EXHIBIT 6
CASE 4510
DATE 2/24/71



PHILLIPS PETROLEUM COMPANY

P. O. Box 771
Midland, Texas
February 18, 1971

Mr. Richard Frazier
Amerada Hess Corporation
P. O. Box 591
Midland, Texas

Dear Sir:

This is in reference to the possibility of Amerada Hess increasing production in the Bronco Field, Lea County, New Mexico, which production is currently being purchased by Phillips and gathered by Phillips Pipe Line Company.

You have indicated the possibility of increasing said production in the range of 450 barrels per day and had inquired as to Phillips' ability to purchase this additional production. This is to advise that Phillips would purchase such additional production and at the present time we have sufficient pipe line capacity to handle this increased volume. We anticipate no foreseeable limitations as to the ability of our pipe line to handle additional crude produced in this area; but, in the event pipe line capacity becomes a problem, the only alternate recourse would be pipe line proration.

If we can be of any further assistance, please advise.

Yours very truly,

O. A. Bim, Regional Mgr.
Supply Division
Supply & Transportation Dept.

OAB:pse

RECORDED
FILED
AMERADA
CASE NO. 4510

AMERADA DIVISION
AMERADA HESS CORPORATION
EXHIBIT 7
CASE 4510
DATE 2/24/71

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BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF AMERADA HESS CORPORATION FOR
AN AMENDMENT OF ORDER NO. R-510,
BRONCO SILURO-DEVONIAN POOL,
LEA COUNTY, NEW MEXICO

Case 4510

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 an order amending Order No. R-510, entered in Case No. 672 on July 15, 1954, being the operating rules for the Bronco-Siluro-Devonian Pool, Lea County, New Mexico, by rescinding Rules 4 and 5 of said pool rules, and in support thereof would show the Commission:

1. Under the terms of Order No. R-510, the production allowable for the pool was set at 227 barrels of oil per day, which allowable is common to the Bronco-Siluro-Devonian Pool in New Mexico, and the Bronco Pool in Yoakum County, Texas.

2. Wells in the pool are capable of making in excess of the allowable set in Order No. R-510, and the pool allowable should be assigned on the basis of the state-wide oil allowable rules of the state of New Mexico, and a market is available for the oil to be produced if the pool is prorated under the state-wide rules.

3. Under the present rules the Bronco-Siluro-Devonian Pool is being discriminated against in the assignment of allowables, and the assignment of the allowable production to the pool is not reasonable under present conditions, contrary to the provisions of law.

COCKET MAILED
5-11-71

4. No waste will occur if the pool is prorated under the provisions of the state-wide rules of the Commission, in lieu of the present rules contained in Order No. R-510.

5. At the present state of the reservoir, the bottom hole pressure tests required by Rule 5 of Order No. R-510 are not necessary, and should no longer be required.

WHEREFORE, applicant prays that this application be set for hearing before the Commission's duly appointed examiner at the hearing scheduled for February 24, 1971, and that after notice and hearing as required by law, the Commission enter its order amending Order R-510 as requested.

Respectfully submitted,
AMERADA HESS CORPORATION

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

ATTORNEYS FOR APPLICANT

DRAFT

GMH/esr
3-4-71

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:

RECORDS CENTER

CASE No. 4510

Order No. R-4118

APPLICATION OF AMERADA HESS CORPORATION
FOR AMENDMENT OF SPECIAL POOL RULES, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on February 24, 1971,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this day of March, 1971, 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 Special Rules and Regulations governing the Bronco-
Siluro-Devonian Pool, Lea County, New Mexico, were promulgated by
Order No. R-510, dated July 15, 1954, which order was issued after
joint hearings by the New Mexico Oil Conservation Commission and
the Railroad Commission of Texas.

(3) That Rule 4 of Order No. R-510 established an allowable
for the New Mexico portion of the Bronco-Siluro-Devonian Pool of
227 barrels of oil per day for standard proration units of 40
acres until further order.

(4) That Rule 5 of Order No. R-510 required the datum
reservoir pressure be determined for all wells in the pool
annually.

(5) That the applicant, Amerada Hess Corporation, seeks the amendment of the Special Rules and Regulations governing the Bronco-Siluro-Devonian Pool to permit the assignment of an allowable to wells in the subject pool on the basis of the statewide oil allowable rules and to no longer require the taking of datum reservoir pressures.

(6) That should the above requests be granted, the applicant proposes to petition the Railroad Commission of Texas for similar changes for that portion of the subject pool lying in Texas.

(7) That the allowable production for wells in New Mexico of like depth has increased greatly since the issuance of Order No. R-510.

(8) That in order to allocate or distribute the allowable production of oil among the fields in the state on an equitable basis, the top unit allowable for wells in the subject pool should be determined in accordance with Rule 505 of the Commission Rules and Regulations.

(9) That there is no longer any need to determine the datum reservoir pressure of the wells in the pool.

(10) That the Special Rules and Regulations governing the Bronco-Siluro-Devonian Pool should be amended by deleting therefrom Rules 4 and 5.

IT IS THEREFORE ORDERED:

(1) That, effective ^{April 1, 1971,} ~~the date of this order~~, the Special Rules and Regulations governing the Bronco-Siluro-Devonian Pool, Lea County, New Mexico, are hereby amended by deleting therefrom Rules 4 and 5.

(2) 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.

CASE 4511: Application of SKELLY
OIL COMPANY FOR A NON-STANDARD
GAS PRORATION UNIT.