

CASE 5428: AMAX CHEMICAL CORP.
for the extension of the Potash-
Oil Area, Eddy County, N. M.

March 19th

CASE No.

5428

Application,

Transcripts,

Small Exhibits

ETC.

MR. NUTTER BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
19 March 1975

EXAMINER HEARING

IN THE MATTER OF:

Case 5428. (Continued from the February
19, 1975, Examiner Hearing)

Application of Amax Chemical Corporation
for the extension of the Potash-Oil Area,
Eddy County, New Mexico. Applicant, in
the above-styled cause, seeks the exten-
sion of the Potash-Oil Area in Eddy County,
New Mexico, as defined by Order No. R-111-A,
as amended, by the addition of the following
described lands:

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TOWNSHIP 19 SOUTH, RANGE 29 EAST

Section 13: S/2 SE/4

Section 14: W/2 SW/4

Section 23: N/2 NW/4, SE/4 NW/4, S/2 NE/4

Section 24: NW/4, W/2 NE/4, NE/4 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST

Section 14: W/2 NE/4

Section 18: SW/4

BEFORE: Daniel S. Nutter, Examiner.

For the New Mexico Oil
Conservation Commission:

William H. Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico 87501

For the Applicant:

Thomas Kellahin, Esq.
KELLAHIN AND FOX
500 Don Gaspar
Santa Fe, New Mexico 87501

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STATE-WIDE DEPOSITION NOTARIES
225 JOHNSON STREET
SANTA FE, NEW MEXICO 87501
TEL. (505) 982-0386

MR. NUTTER: Case 5428.

MR. CARR: Application of Amax Chemical Corporation
for the extension of the Potash-Oil Area, Eddy County,
New Mexico.

MR. KELLAHIN: Tom Kellahin of Kellahin and Fox,
appearing on behalf of Superior Oil Company in opposition
to Amax Corporation, the original applicant.

If the Examiner please, Superior and Amax
have entered into a stipulated agreement whereby Superior
will withdraw its protest to extension of the potash
area as applied for in Case 5428. In return, Amax
has agreed that Superior may drill wells at orthodox
locations in the south halves of Sections 23 and 24
based on 320-acre units.

MR. NUTTER: Mr. Kellahin, at the hearing of this
case on February 19th, Mr. Jason Kellahin appeared in
opposition to the extension of the proposed potash
area as advertised in this case and he appeared on behalf
of Superior, Gulf, and Southland royalties. Do those
companies also withdraw their objections?

MR. KELLAHIN: They do, Mr. Examiner.

MR. NUTTER: So in other words we have a record
made on the hearing on February 19th. Are you prepared

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for the Commission to enter an order based on the record made of that?

MR. KELLAHIN: Yes, sir.

MR. NUTTER: All right, thank you. We'll take Case Number 5428 under advisement and the hearing is adjourned.

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STATE OF NEW MEXICO)
)
 COUNTY OF SANTA FE)

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, Notary Public and General Court Reporter, Santa Fe, New Mexico, DO HEREBY CERTIFY that the facts stated in the caption hereto are true and correct; that I reported the captioned proceedings; that the foregoing 4 pages, numbered 1 through 4 inclusive, is a full, true and correct transcript of my notes taken during the hearing.

WITNESS my hand and seal, this 12th day of April, 1975, at Santa Fe, New Mexico.

Sally Walton Boyd
 Sally Walton Boyd
 Notary Public and General Court Reporter

My Commission expires:
 10 September 1975

I hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5428, heard by me on 3/19, 1975.
[Signature], Examiner
 New Mexico Oil Conservation Commission

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 19, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Amax Chemical Cor-
poration for the extension of the
Potash-Oil Area, Eddy County, New
Mexico.

Case No.
5428

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil
Conservation Commission:

Thomas Derryberry, Esq.
Legal Counsel for the
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State Land Office Bldg.
Santa Fe, New Mexico

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E X H I B I T S

AMAX CHEMICAL CORPORATION's Exhibits
I through VI admitted into evidence

MR. NUTTER: We call the next case, 5428.

MR. DERRYBERRY: Case 5428. Application of
Amax Chemical Corporation for the extension of the Potash-
Oil Area, Eddy County, New Mexico.

MR. NUTTER: At this time we'll call for appear-
ances in Case No. 5428.

MR. FEEZER: Mr. Examiner, I'm Mr. C.A. Feezer
from the firm Dow and Feezer in Carlsbad, and I am appearing
on behalf of the Applicant, Amax Chemical Corporation.
There are three witnesses; do you want those at this time
or not?

MR. NUTTER: I'd like just to get appearances at
this time.

MR. FEEZER: All right.

MR. KELLAHIN: If the Examiner please, Jason
Kellahin of Kellahin & Fox of Santa Fe appearing on behalf
of Superior Oil Company, Gulf Oil Corporation, and Southland
Royalties Company.

MR. NUTTER: Any other appearances? Would you
proceed, Mr. Feezer?

MR. FEEZER: The witnesses anticipated to be used
by the Applicant today are Mr. Bob Kirby, Mr. Dan Desai and
Mr. Bob Brown. We wish them sworn now.

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MR. NUTTER: All three Witnesses stand and be sworn, please.

(Witnesses sworn.)

ROBERT E. KIRBY

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. FEEZER:

Q Would you state your name, please?

A Robert E. Kirby.

Q And where are you employed?

A Amax Chemical Corporation.

Q How long have you been employed by Amax?

A 8-1/2 years.

Q What is your position with Amax?

A Chief Mine Engineer.

Q Would you state for the Hearing Examiner where you had your educational training in this field?

A I have a Bachelor Degree in Mining Engineering from the Wisconsin Institute of Technology, Blackhill, Wisconsin.

Q After obtaining your degree in Mining Engineering have you had experience in this area for employers other than

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than Amax?

A In New Mexico, yes, New Jersey Zinc Company.

Q How long have you been engaged in total time as a mine engineer either for this Applicant company or any other company?

A Since 1955, right at 20 years.

MR. FEEZER: Is the Examiner satisfied with his qualifications?

MR. NUTTER: Yes, sir, he is qualified.

BY MR. FEEZER:

Q Mr. Kirby, in connection with this Application have you prepared certain exhibits that purport to show various, both above and underground, aspects of the area which is sought to be included in R-111-A?

A I have.

Q Mr. Kirby, let me ask you if there is a mark on the lower, right-hand corner showing this to be Exhibit 1?

A Yes, there is.

Q And the scale is 1 inch equals 1000 feet, dated 12/74, is that correct?

A Yes.

Q And in connection with this Exhibit did you prepare it or was it prepared under your supervision at the

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Amax offices in Carlsbad?

A Yes, sir.

Q In reference to the various lines and other information is there not in the upper, left-hand corner information as to what the various lines and dots with colors indicate?

A Yes, sir.

Q Calling your attention to the dashed -- I think it should be described as a purple or reddish-purple -- line; this outlines for the Examiner the boundaries of R-111-A as is pertinent to the Amax property at this time, is that correct?

A Yes, sir.

Q And the area outlined in dashed black represents a lease boundary and a sublease, is that correct?

A Dashed black and solid black, yes.

Q All right. And the dashed black in the lower, left-hand corner of Exhibit 1 is the only area on the map that involves a sublease, is that correct?

A Yes, sir.

Q And in reference to the yellow area, would you tell the Commission and the Examiner what this is?

A The yellow areas are present open-pine workings

in our first 128th level.

Q Now, in the lower, left-hand portion of Exhibit 1 an area is outlined in a reddish or orange red color with 6 hole locations. Would you tell the Examiner what this area in this color stands for?

A This area is an outline mineable quality ore in our third or what we call our upper-ore level.

Q Also in this area a blue circle with a red dot in the center shows on the Exhibit. Will you tell us what that depicts?

A This is the location of our present development plans for this pocket of ore.

Q Would it be proper to refer to this as a slope?

A Yes, sir.

Q Is it in progress at this time; is work being done upon it?

A Yes, sir.

Q Referring now to the area outlined in green. This represents, according to the map prepared, the requested extension. Can you tell the Examiner how many acres are embraced in this area?

A 680 acres.

Q Is a meter of fact on this area only on the right-

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hand side, this is 600, is that not correct?

A 800 acres in this.

Q And the 80 is the portion on the east side or the right-hand portion of the map where there is a circle marked "49," is that correct?

A Yes, sir.

MR. FEEZER: I would like to call the attention of the Examiner at this time to the fact that there may be an error on the bottom of the Application as to total acres. If it showed 960 on your copy this was erroneous at the bottom of page one; in fact the total acres applied for are 880, not 960; I don't know whether it shows it or not.

MR. NUTTER: Is the notice given in the advertisement of the case correct as far as description is concerned?

MR. FEEZER: Yes it is; we've double checked it.

MR. NUTTER: No mention was made of the number of acres in the advertisement?

MR. FEEZER: That's right.

MR. NUTTER: Just the description of the land.

BY MR. FEEZER:

Q Now, will you describe the various circles which are in red on Exhibit 1 in the lower, right-hand portion, starting with what has been marked Hole No. 37?

A This is a surface test, the assay and height given, 4 feet, and 14.2 percent K20; this is the total K20 value in the third ore zone.

Q For purposes of assisting those who are hearing your testimony I hand you what has been marked as Exhibit IV and ask you to refer to that if you need to from time to time. Interrupting just for a moment the chain of the testimony, Exhibit IV represents what?

A This is a list of the holes, surface test holes and underground holes pertinent in this western area and also in the eastern area and area of our extension request.

Q And as you commenced your testimony on Hole No. 37, the data relating to that hole is set forth on Exhibit IV on the top line, is that correct?

A Yes, sir.

Q All right. Continuing on with your testimony in connection with Hole No. 37, tell the Examiner what that represents?

A For 48-inch mining height we would have a weighted average percent K20 14.2 percent; this is total K20 value. It also lists the Sections, Townships and Range and the percent mineral.

Q And the percent mineral which shows on Exhibit

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IV but not on Exhibit 1 is additional information about that surface hole, is that correct?

A That's correct.

Q Referring now to the other holes within the outlined area in the reddish or orange area, U-12, will you tell the Examiner what "U" stands for first?

A It is an up-hole drilled from our open-mine workings in the first level through the third-ore zone.

Q And U-12 is described in about the middle of Exhibit No. IV, Section 13, 19, 29, is that correct?

A Yes, sir.

Q Would you go ahead and tell us what else your findings are in relation to U-12?

A Out of 48-inch mining height we would have a weighted average of 11.32 percent K20, total K20.

Q And Hole No. 70?

A Hole No. 70 is a surface hole and it's No. 3 on the list up there with 48-inch mining height and it averages 14.5 percent total K20.

Q And W-5?

A W-5 is another surface hole; at 48-inch mining height the total K20 is 13.13, 13.2 rounded off on the map.

Q 143?

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A 143 is another surface hole; this is in fact a PCA hole. At 48-inch mining height the total K20 would be 12.4 percent.

Q On Exhibit IV, is this the last one on the Exhibit where it should in fact show 143 or 43 or is that another hole?

A No, 143.

Q All right. And it does not appear because it is a PCA hole on this Exhibit, is that right?

A It appears on this Exhibit, yes, sir.

Q Oh, here it is, in the middle. Thank you. And Hole No. 91?

A Hole No. 91 at 48-inch mining height has a total of 13.1 K20.

Q The area in green, which is seen on the left-hand side of Exhibit 1, of which you seek inclusion, is covered by existing leases at that time which are held by the Corporation?

A Yes, sir.

Q Are all of the holes that you have so far testified to within the lease boundary or sublease boundary to your knowledge?

A Yes, sir.

Q I hand you Exhibit 3, and also Mr. Nutter and Mr. Kellahin this Exhibit, and ask you if this Exhibit discloses the leases by number as to their being State, Federal, and their expiration date of the 3 Federals which are involved in this requested extension?

A Yes, sir.

Q Now, referring to the right-hand side of the Exhibit where you have a small 80-acre tract in green, you have a hole designated as No. 49. Would you indicate from both the Exhibit I and Exhibit IV what that test hole shows?

A This is a surface test hole; at 48-inch mining height it assays 11.0 percent K20.

Q Before we move away from this area, a portion of the yellow line as to your open-mine workings intrudes in that green area on the right-hand side of the Exhibit, is that correct?

A Yes, sir.

Q And that means what?

A That means we have mined beyond the present R-111 boundary.

Q Now, rather than solid, there are various outlines which are not closed formations on the Exhibit, which are in the same orange-red color on the east side or right-hand

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of this Exhibit 1. Will you tell the Examiner what this depicts as to an underground situation?

A This is our estimate of the mineable ore outline in the third zone in this area. It is not closed on the east because of a lack of drilling information from the surface.

Q Can you tell the Examiner what the situation is regarding the eastern portion or the portion of land east of your present leaseholdings so far as further exploration is concerned?

A At the present time we have the location for one surface hole stake which will be drilled within several weeks, two to three months. East, beyond our present boundary, we have applications in to the Bureau of Land Management for drilling permits and lease.

Q But at the present time is there going to be any access to that land for core drilling?

A There is no access at the present time for this core drilling.

MR. NUTTER: Is that all east of this boundary R-111-A at the present time?

MR. KIRBY: Yes, sir, that is.

BY MR. FEEZER:

Q In reference to Hole No. 50 would you tell the Examiner what your findings were there?

A Hole No. 50 is a surface hole; at 48-inch mining height we have an assay of total K20 15.54 percent.

Q Now, on the Exhibit on the right-hand side you have another slope with a blue circle set forth approximately an inch-and-a-half in diameter. Would you tell Mr. Nutter what that depicts?

A This is a location of access slopes to this ore body in this area. This has been developed; we are in position to mine production schedule at this time.

Q From what level?

MR. NUTTER: Where is that slope being mined?

MR. KIRBY: The slope was put in on about 11-percent grade from our lower ore level, our main ore level, up to the third ore or upper ore zone.

BY MR. FEEZER:

Q And which direction is that?

A It's going to the northeast.

MR. NUTTER: So the one that you mentioned over here on the left side, that's going to the south?

MR. KIRBY: That is going directly south.

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MR. NUTTER: Okay.

BY MR. FEEZER:

Q To fill in the data on Exhibit I, will you tell the Examiner what is depicted by the blue circle in the center of the Exhibit close to the U-5 designation?

A In the center of the Exhibit the blue depicts the location of a planned third slope to gain access to this area in the south center of our lease to extract this ore.

MR. NUTTER: Now that slope would go south?

MR. KIRBY: This slope will go south, yes, sir.

BY MR. FEEZER:

Q And this is in the planning stage; it is not yet activated, is that correct?

A That's correct.

Q Now, coming back to the left-hand side of the Exhibit, can you tell the Hearing Examiner what progress is made, what the immediate plans are, for the development of the area marked in red both within your present boundary and south of the R-111-A boundary?

A The Hole 91, which was drilled this past July or August, enabled us to tie up this piece of property as ore body and it also necessitated immediate plans for extraction

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in this area. In our main ore zone we are retreating from west to east or from left to right, and in order that we mine this ore we have to get in there at this time and we are proceeding to develop this area right now.

Q You're telling the Commissioner you have started in right now; you're in operation to get to the second, the upper ore zone?

A Yes, sir.

Q Now, there are three other holes within the green boundary on Exhibit I which are marked respectively from left to right 87, 90, and 93, and they're yellow circles. Will you tell the Examiner what those indicate?

MR. NUTTER: Mr. Feezer, I believe you said, "87, 90."

MR. FEEZER: 87, 90, 93.

MR. NUTTER: Is it 90 or 92?

MR. FEEZER: I have 90 and 93 on mine.

MR. NUTTER: On this it says 92.

MR. KIRBY: It should be 92 and you must have an error on that chart.

MR. FEEZER: All right.

MR. KIRBY: That middle one is 92.

MR. FEEZER: 92. Is yours correct, Mr. Kellahin?

MR. KELLAHIN: Yes, sir.

BY MR. FEEZER:

Q For record purposes then, Holes Nos. 87, 92, and 93. Will you tell the Examiner what these indicate?

A These holes are colored yellow; the weighted-average assay at 48-inch mining heights is less than 11 percent K20. This is considered below our mining cut-off.

Q Before leaving Exhibit I, is it your judgment as a mining engineer that the ore as outlined in the orange-red portion of this Exhibit, with the 6 holes that you have testified to, of a commercially recoverable quantity and mineable at this time?

A Yes, sir, they are.

Q And is that portion of the mine working to the west to some extent already outside the boundaries of R-111-A?

A Yes, sir, it is.

Q Is it your judgment as a mining engineer that if, in the event a well were to be drilled for exploratory oil and gas purposes within the area you've shown in green which you seek to include without a protective order, would it cause a threat or hazard to the orderly development of the

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Potash body as outlined on this map and in your testimony?

A Yes, sir.

Q Have in fact such wells been applied for or drilling started at any time in the recent past?

A Yes, sir.

(Whereupon, a discussion
was held off the record.)

BY MR. FEEZER:

Q Mr. Kirby, you now have before you what has been marked Exhibit II as shown on the lower, right-hand corner of the Exhibit on the same scale of 1 inch equals 1000 feet, with a legend in the upper, right-hand corner in this instance, and will you tell the Examiner what Exhibit No. II represents?

A The orange outline again is our open-mine workings and our main ore level, our first ore zone. The green again is the requested extension of R-111-A area.

Q Three pertinent dots in blue appear in the right-hand side of this Exhibit marked respectively from north to south Bell Petroleum Co., Superior Oil Co., and The Petroleum Corporation. Will you tell the Examiner what they represent?

A These dots represent locations for which applications

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to drill were submitted to the Oil Conservation Commission this past several months.

Q Now, in connection with Bell Petroleum --

MR. FEEZER: Does the Commissioner wish to take additional notice of what occurred in that regard; do you want it in the record?

MR. NUTTER: It ought to be in the record; we know what happened, but it ought to be in the record.

MR. FEEZER: All right.

BY MR. FEEZER:

Q Do you have knowledge of this, as to what Bell Petroleum did in connection with the site shown for the well here?

A They applied to drill a well there.

Q And did they in fact commence a well or was there a finding or direction from the Oil Conservation Commission to stop the drilling?

A They were denied permission to drill.

Q Would such a well, had it been allowed to proceed, have penetrated your open-mine workings?

A Yes, sir.

Q Would it have constituted a serious hazard, in your judgment as a mining engineer, the orderly development

of your ore body?

A Yes, sir.

Q Coming now to the Superior Oil Company location shown in Exhibit II, a designation of 270 feet shows on this Exhibit. Will you tell the Examiner what that indicates?

A This indicates the actual distance between the well location and the face of our open-mine workings.

Q And what disposition to your knowledge was made of this application by Superior Oil to drill within the R-111-A area at the location shown on Exhibit II?

A This location was also denied.

Q What was your reaction as a mining engineer to the prospect of an oil or gas well for exploratory purposes being drilled within 270 feet of the face?

A Alarming.

Q As to the third or southernmost dot on Exhibit II marked "The Petroleum Corporation." Will you explain the designation and footages there?

A Petroleum Corporation applied for this location and had in fact had this application approved and did start drilling. 1375 feet is the actual distance scale from the location to our nearest open-pit workings.

Q And in reference to Exhibit No. I, would this Petroleum Corporation well it drilled be within or very close to what you believe is the defined-upper-ore body as shown on Exhibit I?

A It would be very close to and possibly within.

Q It is not possible with certainty or complete accuracy to determine our sow (sic) test at this time, is that right?

A At this time, no.

Q Now, referring to the east side of Exhibit No. II, here again where the 80 acres are involved, do you have any knowledge of applications for drilling an oil well or gas well within that 80 acres or close to it?

A No knowledge of any.

Q Is there any pertinence as to Exhibit II for discussion by you for added information for the Examiner about this area on this Exhibit?

A No. This Exhibit was prepared to more clearly show our intrusion beyond the present R-111-A of our mine workings.

Q And your purpose of seeking the extension on R-111-A for this 80 acres is what, if you will please state?

A Primarily to protect ourselves in where we have over-extended and mined beyond the R-111-A and to protect this area for future potash development in the third ore zone.

Q And Exhibit I shows by Hole No. 49 that the third ore zone extends into this 80, is that correct?

A Yes, sir.

Q Is there anything further on either Exhibit I or II which I have not asked or inquired about that you believe would be material for the Examiner to understand?

A No, sir.

Q I hand you what has been described as Exhibit V and ask you if you will indicate to the Examiner what that depicts?

A This is a listing of the mineralogy of our product which we are mining at Amax property, which is silvite formula KCL, percent K2O in which our drill-hole data is converted to, 100 percent KCL or 100 percent silvite is equal to 63 percent K2O.

Q Is it your estimate from the drill-hole data that you've obtained, in the areas that you have so far testified about, that the anticipated ore that you will recover from the area included in that area sought to be

extended in K-111-A, will meet this criteria?

A Yes, sir.

Q Do you understand what the accepted criteria is for commercially recoverable or mineable ore in the potash basin at this time?

A Yes, sir.

Q Would you tell the Examiner what that is?

A At this particular time a 4-foot at 10 percent K2O is considered acceptable mining material. We have used 11 percent cut-off before this.

Q Is the Amax property in Eddy County, through its mill, capable of handling this grade of ore?

A It is capable of handling it if blended with our higher-grade first ore zone material.

Q And is that in effect what your mining plan will be; a blending operation?

A Yes, sir.

Q If this application is approved and you can safely mine within the extended areas will this further the extension of the life of this mining property in Eddy County?

A Yes, sir.

Q Now, in connection with the extension of K-111-A

and your projected upper ore zone, without detail can you tell the Examiner whether or not special commitments of any sort have been made by the Company to recover this ore?

A Yes, sir. We have on order, or recently been delivered, special equipment which will allow us to mine at these reduced heights in the range of 48 inches.

Q And, insofar as mining engineering and geology estimates of the values of the ore bodies as outlined on Exhibit I, with particular reference to the orange-yellow area or upper ore body, can you tell the Examiner what your estimates are in that regard?

A The ore body --

Q (Interrupting) Translated to dollars.

A (Continuing) The ore pod to the west, the recoverable-value product is in the range of 15-and-a-half million dollars.

Q Based on what price-per-ton figure?

A \$40 per ton price.

Q And can you give the Examiner a projection as to the necessary time involved for the presumable full recovery of this upper ore zone delineated on Exhibit I?

A Our best estimate at this time is 5 years

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from our initial mining we will have completed mining this area.

Q Is there anything further that you can give to the Examiner in the way of information about this Application at this time?

A I think it's covered pretty well.

MR. FEEZER: Pass the Witness, Mr. Examiner.

MR. NUTTER: Are there any questions of the Witness? Mr. Kellahin?

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Kirby, talking about first, the last Exhibit showing the well locations, you said The Petroleum Corporation's location was approved and it commenced drilling, is that correct?

A That's right, sir. They drilled some 290 feet, 270 feet, and pulled out, cemented the well, and moved off. Their explanation was "a change of plans." Now, this is all I know.

Q Is that all you know?

A That's all I know, yes, sir.

Q Do you know who Petroleum Corporation is?

A I'm not familiar with it.

Q Are you familiar with -- you have it on here "Bell Petroleum;" isn't that Belco?

MR. NUTTER: No, that's Bell Petroleum.

BY MR. KELLAHIN:

Q Do you know whether those well locations are on Federal, State or fee lands?

A The three locations are on State lands, yes, sir.

Q State lands?

A State lands.

Q Are you familiar with the procedures required by the State Land Office for obtaining a suspension of the lease in potash area?

A I think so, yes.

Q Are you aware that the Company is compelled in the first instance to apply for a permit to drill, and then have it refused?

A Yes, sir.

Q Do you know whether that was not the reason for these applications?

A I have been told that probably this was the case.

Q But at the time Bell Petroleum applied you were actually mining underneath that location, is that correct?

A We were mining in the area. That exact location

we had already finished, but it's open-mine workings.

Q It's still open?

A Yes, sir.

Q Now, in connection with what you have completed, are you familiar with the five-year plan which you filed with the Oil Conservation Commission?

A Yes, sir.

Q On that plan, am I correct or incorrect, don't you show the western portion of your open-mine workings as already second-mined?

A Yes, sir.

Q What does second-mining amount to in this area; do you pull pillars?

A Yes, sir.

Q Has it subsided?

A Yes, sir.

Q Then that's not open-mining?

A The area is open; we cannot re-enter the area but it is open as far as the passage of air.

Q But it is subsided?

A It is subsiding at this time.

Q And will continue to do so?

A Yes, sir.

Q To what degree has subsidence continued; do you have any idea?

A I would -- the rate of subsidence, of course, is in varying degrees. At the time of mining it is quite great and we would probably drop, we have measured a foot-and-a-half to two foot of drop as far as we can see as we retreat out and we cannot go back in, of course, and measure it in the mine beyond that, but the surface will continue to move for quite a long time after our mining is completed.

Q In previous cases there has been some testimony, Mr. Kirby, to the effect that within 5 years subsidence would be substantially completed, would you agree with that?

A I think I would agree with that, yes.

Q And when did you pull the pillars?

A Within the past two years in this whole area we have been pulling pillars right along in this area.

Q So in, say, three more years that should be completely subsided?

A Three to four more years.

Q Three to four more years?

A Yes.

Q And at that stage, why, any oil well could be drilled?

A In our open-mine workings, sir?

Q I'm not talking about the open-mine workings; I'm talking about the area where you pulled the pillars and it has subsided.

A These are still open-mine workings, sir.

Q Well, I don't follow your definition, then, of an open-mine working.

A Once we mine out an area we do not construct a barrier to separate this from where we are presently mining. We still have a passage of air through this area; we do not physically -- our employees or anyone -- go back under this, but the air does cross through there and will continue to do so.

Q For how long?

A For as long as this property is being worked, probably.

Q In other words subsidence won't be complete in five years, is this your testimony?

A It has nothing to do with subsidence; subsidence will not close the gap.

Q Does not close the gap?

A Does not close the gap.

Q Now, since you have done your second mining in

that area, it would not be possible to use those workings to proceed on down through the south and west, would it?

A No, we will not use those workings.

Q Now, you would mine, then, the red area out of your present workings in Section 13?

A That's it.

Q And on your five-year plan that is all you propose to work, isn't it; during the next five years?

A In this area?

Q Yes, sir.

A We will be working both the red area, which is the upper zone, and also we will be working in the first ore zone in the same area.

Q Which is marked in yellow in the other part?

A Which is marked in yellow, yes, sir.

Q But you don't show the yellow zone on this map?

A No, not our future mining, no, sir.

Q And you haven't shown any future mining on your five-year plan, have you?

A No, sir. This has been -- these development plans are just concurrent with our present drilling program and this particular area, just within the past month, has been -- the development on it has been --

Q (Interrupting) Now, what drilling was done in the past month?

A Within the past month; this whole 91 has been drilled within the past several months, but the planning stages and the overall development of our future mining has come together within the past month and we have started to --

Q (Interrupting) When was your No. 5 holed in?

A This is an old hole, one of the original surface holes on the property.

Q And 143 Hole?

A I'm afraid I have no idea of when it was drilled at all.

Q It's an old hole?

A It's also an old hole.

Q And the No. 70 Hole?

A 70 is probably -- well I couldn't tell you exactly; it's one of the old holes. The rest of the holes are all older, except for that 91.

Q 91 is the only new hole and it's several months ago?

A Yes, sir.

Q Did you prepare the five-year plan that is filed

with the Oil Conservation Commission?

A Yes, sir.

Q And on the basis of that you only show that you're going to mine this area in Section 24, is that correct, without reference to the upper zone at all?

A Yes.

Q You referred to the ore in this area as being commercial ore, and I believe in response to a later question, why, you were talking about some economics in the situation. Are you prepared to testify on the economics in mining this area?

A To a degree, yes, sir.

Q What price are you getting for potash; it's long-term contracts I'm talking about.

A I don't think I am as qualified to testify to that as another witness.

Q You have another witness to testify to that?

A Yes.

Q You used a \$40-per-ton price; where did you arrive at that?

A From our discussion with our management, yes, sir.

Q But you personally don't know whether you're selling it for \$40 a ton or \$30 a ton, do you?

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A Well, I take their word, yes, sir, I don't --

Q (Interrupting) Personally you don't?

A Personally, I don't know.

Q You haven't seen the contract?

A No, sir.

Q In connection with the mineable ore you need a figure of 4 feet for 10 percent. That's the USGS figure, isn't it?

A Yes, sir.

Q Can you actually mine ore in the 40-foot percent?

A Yes, sir. We cannot refine it as a separate entity. As I said, we could refine that ore, we could mine it and produce a profit out of that by blending it with --

Q (Interrupting) With other ore?

A With other ore, yes.

Q So actually you use 44 percent, don't you?

A We are a little on the conservative side; we think 11 percent is possible.

Q Well, now, the 11 percent; did I misunderstand you or did you say that this No. 87 Hole and No. 92 Hole are less than that in both holes?

A Less, yes, sir.

Q So that would, more or less, at least on present

day economics, condemn that area, would it not?

A Yes, sir.

Q You refer to the first and the third zone; are you mining both of them?

A We are preparing, we are at the point of producing from both zones, yes. We are mining right now from the first ore zone, the lowest zone.

Q The first zone, the lowest?

A Yes, sir.

Q How deep is this?

A In this area?

Q Yes, in this area.

A It would be in the range of 750 feet, varying, of course, with the surface topography.

Q And how about the third zone?

A It's approximately 25 to 30 feet above in this area.

Q Have you mined the third zone in other parts of this mine working?

A We have done a little mining in our development on this east side.

Q And all the rest of it has been in the first zone?

A Yes, sir.

Q In the mine workings to the west, is that correct?

A Yes.

Q And you are presently mining the first zone in the west?

A Yes.

Q In what area?

A We're mining right to the north of that yellow area, directly to the north of the blue circle there.

MR. MUTTER: Perhaps you could indicate for the record, Mr. Witness, areas closest to the holes not shown by numbers.

BY MR. KELLAHIN:

Q If you can say the Section No. and the hole.

A Well, Hole No. 16 in 83 right in that area and just to the east of U-12 and Hole 70; we have two panels there presently being mined.

Q To the east?

A To the east of those yes.

Q You're not mining to the south of Hole 70 at the present time?

A No, sir.

Q And did you say a figure of about 5 years to complete the mining in that area?

A This is a judgment at the time.

Q Projection?

A Projection.

Q In connection with your mining in the old workings where you have mined it out and pulled the pillars, you actually -- and I'm now referring to that area of Hole 86 -- you have mined things there which you could analyze and know whether you had first ore or not, couldn't you?

A Yes. At the time of our mining in the vicinity of Hole 86 our mine faces were assayed, yes, sir, and they were at the cut-off point and we stopped mining.

Q Wouldn't that indicate that the cut-off point would extend over to the south in this green area?

A I didn't understand that, sir.

Q Well, you say you reached the cut-off point to the south of that Hole 86?

A Yes, sir.

Q Well, that would indicate that you wouldn't care to mine on down further south into that green area then, wouldn't it?

A Not at that point, no sir.

Q And how about to the south and west toward Hole 87?

A No, sir.

Q The same situation?

A We cannot justify or anticipate any mining in that area.

Q Mr. Kirby, what's the reason for including this area to the south and west of that Hole 86?

A Our present open-mine workings, which has been second-mined are extended beyond the present R-111-A area. We have absolutely no protection from an oil company coming in and drilling very close proximity or even into this open-mine workings.

Q Well, now, you've only --

A (Interrupting) Applying for locations in very close proximity, so we are asking for protection in this area for our mine workings, yes, sir.

Q Actually you have not mined very far outside of R-111-A, have you?

A Not very far.

Q So what you're really talking about is the effect of subsidence out here and it's effect on mining, is that your problem?

A No, sir.

Q You just don't want anybody to drill --

A (Interrupting) We don't want anybody drilling

in close proximity or into our open-mine workings.

Q Well, as a mining engineer, what would you call close proximity? You have a 1320-foot border around here.

A We feel that -- this, of course is always open; there have been discussions of half-mile distances, and we feel that what we are asking for here would be sufficient protection. We know that we are not going to mine farther in this area and we feel that we would be sufficiently protected if we were granted this extension.

Q Well, back on the other side of your red area, due east in Section 13 and 14, you have no indication of commercial ore in that area, do you?

A This is on the east side of the map you are speaking of?

Q No, the east side of the west side.

MR. NUTTER: Are you talking about around holes 92 and 93, Jason?

MR. KELLAHIN: That's right.

A No. No, sir; we do not have any indication of mineralization.

Q There again you are concerned with anybody drilling close to your mine, is this correct?

A This is primarily one of our big concerns, yes, sir.

Q Well, now to sum it up, Mr. Kirby, is it your testimony that the only indication of commercial ore you have had, that you are concerned about in this case, is that within the red area?

A This ore is in the upper zone and we are going to mine it. Our concern is also for our main ore reserves. Even though they are not in the area we have mined beyond the extension here in Section 18, this is in Federal land and we are protected, and this -- we have first ore reserve, which I haven't shown on this map. We will be mining in this area.

Q You have given no testimony in regard to this extension as to the first ore zone or reserve, have you?

A No, sir, but they are there; they are very --

Q (Interrupting) Is somebody else going to testify to this?

A I don't think so.

MR. KELLAHIN: Thank you very much, Mr. Kirby.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Kirby, your main body would be that yellow area it covers here, the first body, is that right?

A Yes, sir.

Q Now, what is the depth in this area?

A On the west area it would be about 750 feet; way on the east side it's down around 1000 feet; there is an abrasional dip toward the east.

Q And how far above the first-ore body is your third-ore body you're looking at now?

A It varies from 25 to 40 feet; 45 feet in some areas.

Q Above the top of the first?

A Yes.

Q To the bottom of the third?

A Yes, sir. The interval is less in the west area of our mine and the east area is a little thicker.

Q Well, now, on your Exhibit No. IV you do show Hole No. 87 on that Exhibit with 15.6 percent K20 at 48 inches. How is this, Mr. Kirby, is that commercial?

A This is an error.

MR. FEEZER: You're referring to Hole 93, Mr. Examiner?

MR. NUTTER: 87.

MR. FEEZER: 87; that got by us; that should be, I believe, 10.5 or something in that range. That got typed

in there before we could --

MR. NUTTER: (Interrupting) That 15.6 is wrong though?

MR. FEEZER: 15.6 is in error. To make certain about Exhibit IV, Mr. Nutter, with your concurrence, has shown that there is an error. Are there any others to your knowledge as to figures, percent of K2O, mineralization, that need to be corrected at this time?

MR. KIRBY: I have no knowledge of any, no, sir.

MR. FEEZER: All right.

MR. NUTTER: Does anyone else have any questions of Mr. Kirby?

MR. KELLAHIN: Could I ask just one other question?

MR. FEEZER: And I would like to redirect just a little bit.

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Kirby, have you any current evidence on the surface of subsidence on the mined-out area?

A Current evidence; not documented. We have no visible current evidence. We did for many years surface subsidence surveys and we have over the past several years -- past four or five years -- discontinued this. We continue

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to take convergence measurements underground in each of
our second mine workings, but --

Q (Interrupting) Could you roughly say on this map
where that subsidence occurred and how far it extended back
in the mine, or do you know?

A I haven't plotted it. Like I said, we haven't
surveyed it. We keep a visual check on surface cracks
which could develop into something hazardous and we do fill
them in in this western area; we have done that.

Q Well, do you ascribe to the 750-foot radius for
the effect of the subsidence in the surface?

A We feel that this is -- yes, sir. At a 750-foot
depth this would put 45-degree-subsidence slope or angle
whichever you wish.

Q You agree.

A Yes, sir.

MR. KELLAHIN: Thank you.

MR. NUTTER: Mr. Feezer.

REDIRECT EXAMINATION

BY MR. FEEZER:

Q To avoid the friendly sandbagging, Mr. Kellahan,
in reference to your first ore zone in the area of Hole 93,
you did not testify to the Examiner about your ore zone and

it does not purport to show it on this Exhibit, correct?

A The third ore zone?

Q The first ore zone.

A No. All we show is our open-mine workings; we do not show future mining areas.

Q And is it not a fact that this is to a large extent proprietary in nature as to where your reserves are in the main ore zone?

A Yes.

Q But is it a fact that there are mine-ore reserves in the first ore zone in the area of Hole 93 in the --
I think it's a 160 acre portion in the square?

MR. KELLAHIN: If the Examiner please, I object to the question. If the Witness considers the information proprietary information I object to his drawing conclusions based on evidence that is not before --

MR. NUTTER: Objection sustained. We have to have the information before we can consider whether it --

MR. FEEZER: (Interrupting) All right.

BY MR. FEEZER:

Q To the extent that it applies to this 160 acres in the area where Hole 93 shows, can you indicate to the Examiner the nature and extent of the ore body that you

believe is of commercial quality?

A Yes, sir.

Q All right, if you will.

A From the southwest tip of this open-mine working area here to the southeast tip of the other in this area we do have a block of mineable ore in there in the first-ore zone, yes, sir.

Q And is that described roughly in that area?

MR. NUTTER: Let's see if we can identify this on the record, Mr. Kirby. In other words, you would be drawing a line due east from approximately Hole 70, is that it?

MR. KIRBY: That is correct, sir.

MR. NUTTER: And intercepting the yellow line over in the southwest quarter of Section 18?

MR. KIRBY: Yes, sir; it would approximate that line.

MR. NUTTER: Now, I've drawn it on my Exhibit; is this correct, where I have drawn this dotted line?

MR. KIRBY: That would be a good estimate; it may go beyond that a little bit.

BY MR. FEEZER:

Q And is that another reason why, in your judgment as Amax Mine Engineer, you believe this extension is appropriately requested at this time?

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-RECROSS

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A Yes, sir, it is.

MR. FEEZER: Thank you.

MR. NUTTER: Are there any further question?

MR. KELLAHIN: Mr. Feezer has opened up some new information here and I would like to ask a couple of questions about it.

RECROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Kirby, actually most of the area you have delineated in connection with this most recent questioning already falls within the area R-111-A?

A Yes, sir.

Q And as I understand your previous testimony the grade of ore in 93 is less than 11 percent?

A The grades in the holes indicated on this Exhibit are only for the upper ore zone, sir. Our main-ore zone grades are not indicated by color or number or anything.

Q What is the No. 1 ore-zone grade?

A The cut-off is 11 percent. We are using the --

Q (Interrupting) What grade did you find here in Hole 93?

A Barren.

Q What is the situation at the base of your workings

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in Section 18?

A They are at the cut-off point; we have stopped
mining --

Q (Interrupting) So they do not extend any further
south?

A No, not any further south.

MR. KELLAHIN: Thank you.

MR. NUTTER: Are there any further questions of
the Witness? He may be excused.

MR. FEEZER: Our next witness is Mr. R.D. Brown.

(Witness previously sworn.)

ROBERT D. BROWN

called as a witness, having been first duly sworn, was
examined and testified as follows:

DIRECT EXAMINATION

BY MR. FEEZER:

Q Would you state your name, please, for the record.

A Robert D. Brown.

Q And what is your address and occupation?

A Address, 610 West Riverside Drive, Carlsbad, New
Mexico, and I am General Manager of Amax Chemical Corporation
in Carlsbad.

Q How long have you been the General Manager of that

property, Mr. Brown?

A For five years.

Q And prior to that time were you associated with Amax Chemical Company either there or elsewhere in the mining business?

A Yes, I was.

Q Would you indicate to the Examiner how long?

A Since 1953.

Q Have you served in various capacities with the Company in Carlsbad?

A Yes, I have.

Q Among others, besides that of General Manager, which positions have you held from time to time?

A Accountant, Chief Accountant, Comptroller, Assistant Industrial Relations Manager.

Q In reference to your present position as the Manager of the Amax property, can you give the present, pertinent information regarding economic data as to the sales of potash in this country from your property, domestic sales, price, and so on.

A Right. I did not bring a current price list, but the current price list depends on the grades of product that you sell, but the current price list reflects somewhere

around \$47 or \$48 per ton. The past couple months it has averaged somewhere around \$42 to \$43 per ton. Our projections for the balance of the year, we project that we will get an average price of \$50 per ton of potash.

Q Is there any differentiation between what you are describing as domestic price and off-shore sales?

A At the present time the price for off-shore sales is higher than domestic; I'm talking about what we think the average will be.

Q Now, you were present during the testimony of the Mining Engineer for the Company. In connection with the sale of the product that you anticipate to recover from the area shown on Exhibit I, both east and west, as the Manager of Amax Properties, do you believe there is commercially recoverable potash in those areas?

A I'm positive of it.

Q And as Manager have you made decisions that commit the Company to pursue this mining in this area?

A Yes. We have already developed slopes in the east; we are in the process of developing slopes in the west; we have ordered over a million-dollars worth of equipment especially designed to handle this low-grade ore and we plan to order more in the coming year.

Q How is the muriate of potash sold from the Carlsbad Basin?

A I'm not

Q (Interrupting) Your customary sale is an f.o.b. Carlsbad?

A Yes, f.o.b. Carlsbad, yes.

Q And the prices you have given heretofore on your estimate are f.o.b. Carlsbad prices?

A That is correct.

Q In connection with the capital outlay that is estimated for this projected area into the area sought to be acquired, as well as your presently included area, do you have any figures that would be of material value in assisting the Examiner in making a decision? Capital outlay?

A I would say to mine this upper-ore zone we will probably spend, before we are through, somewhere around \$3,000,000 in additional equipment. Now, part of this is due to the fact that we have to mine more tons from these low-grade areas to get the same amount of finished product, and part of it is due to the fact that we have to have specialized equipment, lower-height equipment, to operate in the 48-inch heights.

Q In connection with costs and profits, have you had

prepared, or prepared yourself, an exhibit which you have before you which shows break-even calculations as to the per-ton of product?

A Yes, sir.

MR. FEEZER: I do not have a number on this, Mr. Nutter, but if we may, we can each individually mark it, I think, as Exhibit VI, is that correct?

(Whereupon, a discussion
was held off the record.)

BY MR. FEEZER:

Q Would you tell us, Mr. Witness, what this Exhibit No. VI depicts?

A Yes, sir. We periodically work a "break-even calculation." This has to be updated every three or four months due to changes in sales price, due to changes in operating costs. In this particular instance we have taken our 1975 standard costs and estimated what these costs would be at various sales prices per ton from \$30 to \$50, and at various ore grades from 6 percent to 14 percent.

Q Now, that line runs from left to right across the top of the page, is that correct?

A Right.

Q And the price per tons are on the left; there is

no dollar sign set forth but it starts with 50 dollars and goes to 30?

A That is correct.

Q Go ahead, now, with your explanation.

A All right. For example, at \$50 per ton at 13 percent ore, our operating costs based on our 1975 standard costs would be \$23.15, so we would have a net profit per ton of \$26.85. This is before Federal and State income tax.

Q And these figures projected for the various grades and the various prices down to a \$30-per-ton figure resulting in a \$8.71-per-ton profit as shown in the lower right-hand box, is that right?

A That is correct at 14 percent ore.

Q 14 percent ore. Mr. Kirby used a figure of \$40 per ton. That figure is at the approximate center of the Exhibit. Would you comment on what has been happening to the price picture for potash in the last six months, or longer, if you believe it pertinent?

A All right. The price of potash went down to about \$13 a ton in 1970, and it has gradually risen. A year ago it was up around \$22 a ton; at the present time it is around \$42 a ton, and we project that it will be \$50 a ton average for the balance of the year.

Q Have you recently participated in a fertilizer industry round table in Washington, D.C.

A No, sir, I did not, however I --

Q (Interrupting) Do you have access to the data that was put out at that conference?

A Yes, sir.

Q And in connection with its effect, insofar as potash is concerned, are you able to tell the Examiner what the projections are for the demand and price as estimated by the fertilizer industry?

A Yes, sir. I would like, if I have permission, to read an excerpt of this presentation; it was presented by Everett C. Horn, President of Amax Chemical, and reflects what we feel is going to happen to the price of potash, and why. If I may quote this, or read it: (Reading) Let's take an example of an older potash company --

MR. KELLAHIN: (Interrupting) If the Examiner please, I would object to this. The Witness is not here to be cross-examined. Mr. Brown is familiar with all the information that went into this and --

MR. FEEZER: (Interrupting) I will lay a foundation, Mr. Examiner.

BY MR. FEEZER:

Q As the Manager of Amax, are you responsible for, or is the Potash Property of Carlsbad responsible for sales of this product? Do you participate in it?

A I participate in it but I do not have that responsibility.

Q It's not direct responsibility but you have to sell the product when it comes out?

A That's right.

Q Are you familiar with and do you understand the marketing procedure of potash?

A Yes, sir, I do.

Q And are you in concurrence with the figures, or the documented figures, that are available to the industry about the price and the projections of potash?

A Yes, I am.

Q And would you tell the Examiner what those are?

A I feel that the price of potash will have to be in the \$50 to \$60-per-ton, in that range, in the future. If they are not, there will be no further development for potash.

Q And what, in your judgment, is the basis for that procedure to develop?

A The high capital costs and the fact that most of the high-grade ore deposits in the United States are already taken up or are depleted.

Q In connection with the present mine workings as shown on Exhibits I and II, in the orderly development of this mining property, is it now based on the present price of potash economically practical to pursue the upper-level ore?

A Very definitely.

Q And is it your judgment as the Manager of this mine that to pursue this upper-level ore as shown on the exhibits that extensions of R-111-A to protect the open-mine workings should occur?

A Yes.

Q Are you in agreement with your Engineer about the five-year projection, and if so, will you explain why?

A I am in agreement; I work with him very closely; we plan to mine that western area in conjunction with mining from lower-ore zone, and I look to his calculations and I agree with his assumptions.

Q In connection with the line drawn on Exhibit II by the Examiner, where there was some testimony regarding the main-ore body, does this also, in your judgment as the

Manager, need protection by extension of R-111-A?

A Yes, sir, it does.

Q As a manager of this property, could you indicate what would be the replacement cost of your surface installations if you had to do it at this time?

A We think in the neighborhood of \$85,000,000 at our plant.

Q And if these underground workings were endangered or a gas intrusion became a fact, would it in effect nullify the value of that surface investment?

A Very definitely.

Q Would it pose, as a Manager, in your judgment, a hazard to the life of the workmen operating underground equipment in the mine?

A Yes, sir.

Q Is there anything further that you can tell the Examiner about the economics of the area proposed sought for extension or potash price in general, or material?

A All I can say is we wouldn't be going up there, we wouldn't be investing in new mining equipment, if we didn't think it was an economical ore body. We're certain it's an economical ore body.

Q And by the same token, in need of protection?

MR. FEEZER: Pass the Witness.

MR. NUTTER: Any questions of this Witness?

CROSS EXAMINATION

BY MR. KELLAHIN:

Q Mr. Brown, you testified on your projections on price of potash; did you make a projection in '69 when the price was high?

A Did I make a projection in '69?

Q Yes. What price did you anticipate then?

A In '69 we projected about what it was.

Q It fell off sharply after that didn't it?

A Yes. Well, it was low in '69 too.

Q Did you project an increase to what it was?

A No, we didn't. In '69 we projected it would be that price or lower in 1970, and it was.

Q Well, did you make projections in 1966 when it was at \$21.44?

A Did I make a projection for when?

Q For the future years, '67, '68.

A Yes, we did.

Q Did you forecast the drop in the price in potash?

A We thought there would be some drop; we didn't realize it would be nearly what it was.

Q You didn't realize it would go to \$14.96 in '59?

A No, sir, I did not.

Q Now, in connection with this projection of the price of potash, did I understand that you were testifying on what some other employee of your company had come up with in connection with a conference of some kind?

A That is correct.

Q Where was this conference?

A It was in Washington D.C.

Q In connection with what?

A It was a fertilizer industry round table held at the Sheraton Hotel in Washington, D.C.

Q When was that?

A That was on December 3rd, 1974.

Q Are you familiar with the grand jury investigation of price fixing in potash?

A Yes, I am.

Q And your company is being investigated?

A Yes, it is.

Q Now, on your Exhibit VI you have "cost-per-ton of product" and as I understand it, that's your historical experience on --

A (Interrupting) No, it is not historical experience

because you can't base anything on historical experience.

Q What is it?

A This is our best projection.

Q What is it based on?

A It is based on past experience and based on our projection of inflation, what we might have to pay in union -- it's based on our 1975 standard costs, which is our best estimate based on all the information and knowledge that we have of what our costs are going to be for this year.

Q Do you take your total cost of operation and divide that against the total tonnage produced and say that is your cost per ton?

A That is correct.

Q Well, what were your total costs and what was your total tonnage for 1974?

A I do not have that figure available right now.

Q That is what this is based on?

A No, it isn't. It is based on 1975 projections, standard costs.

Q Well, what is the tonnage and what costs did you use for 1975?

A We used 10,000 tons of product and -- I have to

calculate --

Q (Interrupting) That's refined product?

A That's the total product. Now, for 14 percent you would have to mine a lot less ore than you would 6, but these figures are based on the fact that we're not going to process at any of these grades; we're going to blend the ore from the lower ore zone with the ore from the upper ore zone and maintain somewhere over a 15 percent K20 grade through our mill.

Q Well, you're talking about mineable ore, aren't you?

A Yes I am.

Q Let's just confine this thing to this third ore zone here. What kind of ore are you talking about mining here?

A We're talking about mining roughly 13 percent ore, 12 to 13 percent ore.

Q What does it cost you to mine that ore?

A Just exactly what we have right here, these percentages.

Q Well, you've got 13 percent, and I don't understand how to read your exhibit; could you give me the figure?

A If we sold it at \$40 a ton and we had 10 percent ore we think it would cost us \$25.19 a ton; this is finished product.

Q Now, that is based on your estimates of your total cost of operation?

A That is correct.

Q Exclusive of income tax?

A Exclusive only of Federal and State income tax.

Q But that does include your Severance tax and other applicable taxes?

A Yes, it does.

Q What figure do you use; you say it is 650 tons of product?

A Yes.

Q What does it cost you to mine 650 tons of product?

A Multiply 650 by \$25.19, that will give it to you.

Q Will that give an accurate figure?

A Well, it's as accurate as we can estimate it.

Q It is a reflection of your actual cost of operation?

A That is correct.

Q What goes into those cost of operations?

A All plant costs, everything at the plant, including royalties, property taxes, all taxes; all costs except, as I

BROWN-CROSS

said before, Federal and State income taxes that can be prorated to us; even our home office prorated expense goes into this.

Q It is all prorated back to the mine?

A That's correct.

Q Now, does it include the depletion factor?

A Yes, depreciation, very definitely.

Q I'm talking about depletion of the ore body; do you take that into --

A (Interrupting) We have already dispensed that bookwise at our particular plant so there is no more depletion in this particular cost item.

Q In this mine at the present time?

A That is correct.

MR. KELLAHIN: Thank you, Mr. Brown.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Brown, at the top of this Exhibit VI it says, "Includes Division G and A" under that 230-per-ton product. What does that mean?

A Yes, sir. That is a proration. We have potash interests also in Canada and this is the general and administrative expense from our New York and Greenwich, Connecticut, office prorated

back to us. Some of this expense is prorated to, of course, the ore that we get from Canada.

Q So the "G and A" means general and administrative expenses; this is overhead back East?

A Back East, that is correct.

Q Okay. Now, would you clarify in my mind why, as the sales price per ton goes up from \$30 to \$50, that we have an increase in the cost of mining and processing this from \$25.25 to \$27 for 10 percent ore?

A Yes, sir. It is due primarily to property and production taxes and royalties. The more you get for your Potash -- we have -- I don't know whether you know our system of property and production tax, but it is based on gross sales. As our gross sales go up our property and production tax goes up. The same thing is true of royalties, severance tax, gross receipts tax, the whole bit.

Q Okay. So this is primarily then the taxes on the product?

A Right.

Q It becomes more as the value goes up?

A Right.

MR. NUTTER: Are there any further questions of this Witness? He may be excused. Do you have another

witness, Mr. Feezer?

MR. FEEZER: No, sir, we will conclude with this
Witness.

MR. NUTTER: Does anyone have any further testimony
in this case?

(Whereupon, a discussion
was held off the record.)

MR. FEEZER: For the record purposes I need to
move for admission of Exhibits I through VI at this time,
if there is no objection.

MR. NUTTER: Amax Exhibits I through VI will be
admitted into evidence.

(Whereupon Amax Exhibits
I through VI were admitted into
evidence.)

MR. KELLAHIN: If the Examiner please, I have
already talked to Mr. Feezer about this, and we were unable
to get Mr. Warnock in this case until Monday. I have no
qualm with the legal notice in this case but my company did
not know of the case until the 12th and they called me and
we immediately started trying to arrange to put on a case,
so I would like to ask that the case be recessed and perhaps
we can -- you can't agree on a date right at the moment?

BROWN-DIRECT

CASE 5428

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MR. FEEZER: I'm a little reluctant right at the moment because of commitments with the management people of a labor negotiation coming up shortly and I would like to communicate with you and with Mr. Nutter about a date in the near future.

MR. KELLAHIN: If that is satisfactory, that is satisfactory with us; we can try to arrange a date for the continued case.

MR. NUTTER: Okay. We can continue this case but we're going to assume that all parties of interest have had notice of this Hearing today and are present, and the only way we can continue it without a definite date would be if you waived any further legal notice that we will make personal contact with the date that the Hearing is set. As far as I know we have two appearances, Mr. C.A. Feezer of Carlsbad for Amax Chemical, and Mr. J.W. Kellahin of Santa Fe for Superior Oil Company, Gulf and Scuthland Royalty, is this correct?

MR. KELLAHIN: That is correct, and we will waive any further notice.

MR. NUTTER: If it is agreeable to all parties, then we will continue this case to some indefinite time and arrangements will be made so each counsel will be

CASE 5428
65

definitely notified at the time of the place of Hearing.

MR. KELLAHIN: Thank you.

(Whereupon, the Hearing
was concluded at 3:02 p.m.)

CASE 5428

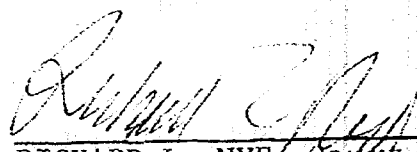
55

STATE OF NEW MEXICO)

COUNTY OF SANTA FE)

SS.

I, RICHARD L. NYE, Court 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 proceedings, to the best of my knowledge, skill and ability.


RICHARD L. NYE, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5428, heard by me on 2/19, 1975.


Examiner
New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

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

March 25, 1975

I. R. TRUJILLO
CHAIRMAN

**LAND COMMISSIONER
PHIL R. LUCERO
MEMBER**

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

**Mr. C. A. Feezer
Dow and Feezer
Attorneys at Law
Post Office Box 128
Carlsbad, New Mexico 88220**

Re: CASE NO. 5428
ORDER NO. R-111-J

Applicant:
AMAX CHEMICAL CORPORATION

Dear Sir:

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

Very truly yours,

A. H. Porter, Jr.

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Copy of order also sent to:

Hobbs OCC	<u> x </u>
Artesia OCC	<u> x </u>
Aztec OCC	

Other Mr. Jason Kellahin

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. 5428
Order No. R-111-J

APPLICATION OF AMAX CHEMICAL
CORPORATION FOR THE EXTENSION
OF THE POTASH-OIL AREA, EDDY
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 19, 1975,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 25th day of March, 1975, 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, Amax Chemical Corporation, seeks
an extension of the Potash-Oil Area as defined in Order No.
R-111-A, as amended, by the addition of the following described
lands in Eddy County, New Mexico:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 13: S/2 SE/4

Section 14: W/2 SW/4

Section 23: N/2 NW/4, SE/4 NW/4, S/2 NE/4

Section 24: NW/4, W/2 NE/4, NE/4 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 14: W/2 NE/4

Section 18: SW/4

(3) That the evidence presented indicates that the above-
described acreage contains potash deposits in commercial quanti-
ties.

(4) That to promote the orderly development of the natural
resources in the potash-oil area, Order No. R-111-A should be
amended to include the above-described acreage in the Potash-
Oil Area.

-2-

Case No. 5428
Order No. R-111-J

IT IS THEREFORE ORDERED:

(1) That Order No. R-111-A, as amended, be and the same is hereby amended to include the following-described acreage within the confines of the Potash-Oil Area in Eddy County, New Mexico:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 13: S/2 SE/4

Section 14: W/2 SW/4

Section 23: N/2 NW/4, SE/4 NW/4, S/2 NE/4

Section 24: NW/4, W/2 NE/4, NE/4 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 14: W/2 NE/4

Section 18: SW/4

(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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



I. R. Trujillo

I. R. TRUJILLO, Chairman

Phil R. Lucero

PHIL R. LUCERO, Member

A. L. Porter, Jr.

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

S E A L

jr/

EXHIBIT III

Leases Involved in R-111A Extension

<u>Lease No.</u>	<u>Expiration Date</u>
M-2657 A	State
M-873	State
LC-067319 A	September 10, 1990
LC-067319 B	September 10, 1990
LC-067319 C	September 10, 1990

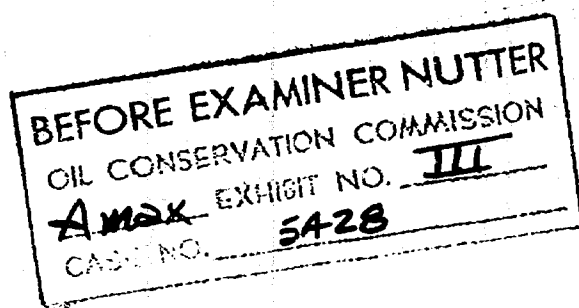


EXHIBIT IV

Core Tests in Vicinity of Ore Bodies Shown on

Exhibit I

Hole No.	Sec.	TWP	Range	Thickness	% K ₂ O	% Mineral
37	↑	13	19	29	48"	<u>14.21</u> 22.45
73		14	19	29	48"	7.8 12.32
70		13	19	29	48"	<u>14.51</u> 22.93
71		14	19	29	48"	8.6 13.59
91	<i>drilled on July or Aug 74</i>	24	19	29	48"	<u>13.05</u> 20.62
86		23	19	29	48"	5.3 8.37
W-5		13	19	29	48"	<u>13.18</u> 20.82
87		23	19	29	48"	<u>15.6</u> 25.65
143		24	19	29	48"	<u>12.4</u> 19.59
83	West	13	19	29	48"	Barren -
U-12		13	19	29	48"	<u>11.32</u> 17.89
82		14	19	29	48"	Barren -
74	(14	19	29	48"	12.03 19.01
56	↑	10	19	30	48"	17.68 27.93
S1A		10	19	30	48"	15.48 24.46
21		10	19	30	48"	14.82 23.42
49		14	19	30	48"	<u>11.01</u> 17.40
55	East	15	19	30	48"	9.79 15.47
50		14	19	30	48"	<u>15.54</u> 24.55
43	↓	14	19	30	48"	12.28 19.40

in error

Eastern 80

*Re U-12
it is an up-hole drill
from workings*

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
Amex EXHIBIT NO. *IV*
CASE NO. *542B*

EXHIBIT V

MINERALOGY OF PRINCIPAL MINERAL

Sylvite

Formula

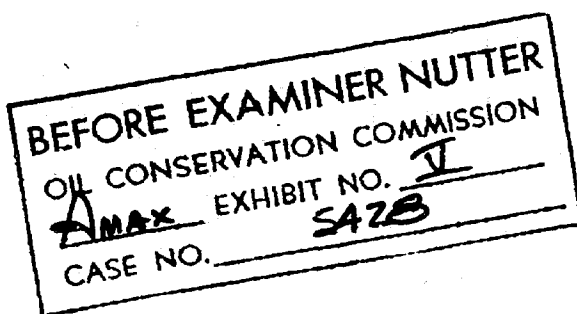
KCL

% K₂O

100% KCL = 63.17% K₂O

Conversion Factor

1.58 (multiply % K₂O by 1.58 to find
% mineral)



4'10% is considered acceptable
they have used 11% as ~~cut~~ cut off

AMAX CHEMICAL CORPORATION - CARLSBAD
Break Even Calculation
Includes Division G & A at \$2.30 P/T Product

incl & adm expense

Sales Price P/T	Ore Grade	Cost Per Ton Product				
		6%	8%	10%	12%	14%
50		36.40	30.60	27.13	24.81	23.15
48		36.21	30.42	26.94	24.62	22.97
46		36.03	30.23	26.76	24.44	22.78
44		35.84	30.04	26.57	24.25	22.59
42		35.65	29.86	26.38	24.06	22.41
40		35.46	29.67	26.19	23.88	22.22
38		35.28	29.49	26.01	23.69	22.04
36		35.09	29.30	25.82	23.50	21.85
34		34.91	29.11	25.64	23.32	21.66
32		34.72	28.92	25.45	23.13	21.48
30		34.53	28.74	25.26	22.94	21.29

Profit or (Loss) Per Ton Product				
6%	8%	10%	12%	14%
13.60	19.40	22.87	25.19	26.85
11.79	17.58	21.06	23.38	25.03
9.97	15.77	19.24	21.56	23.22
8.16	13.96	17.43	19.75	21.41
6.35	12.14	15.62	17.94	19.59
4.54	10.33	13.81	16.12	17.78
2.72	8.51	11.99	14.31	15.96
.91	6.70	10.18	12.50	14.15
(.91)	4.89	8.36	10.68	12.34
(2.72)	3.08	6.55	8.87	10.52
(4.53)	1.26	4.74	7.06	8.71

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
AMAX EXHIBIT NO. VI
CASE NO. 5428

*all costs except
fed & state inc
tax are incl
in costs*

*price of
potash 13 / ton is 70
dropped to
up to 22 last year
42 now
expect 50 for 75*

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

KELLAHIN AND FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
POST OFFICE BOX 1789
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

February 14, 1975

Mr. A. L. Porter, Jr., Director
Oil Conservation Commission of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Case No. 5428 - Application of Amax Chemical
Corporation for extension of the Potash-Oil Area

Dear Mr. Porter:

The Superior Oil Company, Gulf Oil Corporation, and Southland Royalty Company, owners of oil and gas mineral interests within the area covered by the extension of the oil-potash area sought by Amax Chemical Corporation, intend to appear and oppose the proposed extension. Hearing on the proposed extension is presently set for February 19, 1975.

Notice of the hearing was received by Superior in their Midland office on February 12, and they have had no time in which to prepare for the hearing. I have contacted a competent mining engineer, who states he will need additional time to check the area involved and prepare his report on the presence or absence of potash bearing ores in commercial quantities.

For this reason we request that the hearing, scheduled before the Commission's examiner be vacated, and that the case be rescheduled for hearing before the full Commission sometime after the middle of March, which should give sufficient time to prepare. We are not adverse to a hearing before an examiner, but hearing before the Commission will probably avoid unnecessary delay and expense.

By copy of this letter I am advising the attorney for Amax Chemical Corporation of this request.

Your consideration of this request for a continuance will be appreciated.

Yours very truly,

Jason W. Kellahin
Jason W. Kellahin

JWK:ks

cc: C. A. Feezer, Esq.
Williard B. Wagner, Jr., Esq.

DOW
A. FEEZER

DOW AND FEEZER
ATTORNEYS AT LAW
BUS TERMINAL BUILDING
P.O. BOX 128
CARLSBAD, NEW MEXICO 86220

885-3236 - 885-5994
AREA CODE 505

February 24, 1975

Mr. Daniel S. Nutter, Chief Engineer
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Application of Amax Chemical Corpora-
tion for an Order amending R-111A and
seeking an extension of Potash-Oil Area in
Eddy County.

Dear Mr. Nutter:

As Mr. Brown, the manager for Amax Chemical Corporation,
indicated to you, his time schedule is complicated by labor
negotiations and you suggested we advise you of times that
would be satisfactory for us to continue the Hearing on the R-111A
extension application. We would prefer a morning hearing on
either Friday, March 21st or Friday, March 28th, so that we could
complete the balance of the Hearing and return to Carlsbad during
the afternoon hours.

Mr. Kellahin indicated that his schedule was quite flexible
and with enough notice he could arrange his schedule to correspond
with you and us. We hope that one of the above dates will be
convenient for scheduling of the completion of this case.

We await your response.

Very truly yours,

DOW & FEEZER

C. A. Feezer

2/27
Feezer called
after 1 PM on 3/19
is OK w/ him
CAF/ah
Jason was called 2/28
cc: Mr. Jason W. Kellahin
& also agreed.
cc: Mr. Bob Brown

I advised both that
my conversation w/
them constituted official
notice inasmuch as they have
both waived legal notice

Jason K called
suggests either the 19th
or 21st as the 28th
is good Friday.
Called Feezer's office
2/25. Suggested the
19th or 21st, preferably the
19th (we could hear this
case at the conclusion of
the docket scheduled
for that date)
Feezer will
call on the
26th.

Docket No. 7-75

Dockets Nos. 8-75 and 9-75 are tentatively set for hearing on April 2, and April 16, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 19, 1975

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. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas from seventeen prorated pools in Lea, Eddy, Roosevelt, and Chaves Counties, New Mexico, for April, 1975;
- (2) Consideration of the allowable production of gas from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico, for April, 1975.

CASE 5415: (Continued from the February 19, 1975, Examiner Hearing)

Application of Burk Royalty Co., for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Double L Queen Unit Area, comprising 2670 acres, more or less, of Federal, State, and fee lands in Townships 14 and 15 South, Ranges 29 and 30 East, Chaves County, New Mexico.

CASE 5409: (Continued & Readvertised)

Application of Atlantic Richfield Company for a non-standard gas proration unit, an unorthodox gas well location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 320-acre non-standard gas proration unit comprising the SE/4 of Section 12 and the NE/4 of Section 13, both in Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its George W. Toby WN Wells Nos. 4, 1, and 1-A, located, respectively, in Units I and P of said Section 12 and in Unit A of said Section 13.

CASE 5438: Application of Exxon Corporation for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of temporary special rules for the Fairview Mills-Wolfcamp Gas Pool, Township 25 South, Range 34 East, Lea County, New Mexico, including a provision for 640-acre spacing units.

CASE 5439: Application of Gulf Oil Corporation for the amendment of Order No. R-4079, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4079, which order, as amended, authorized the commingling, prior to measurement, of Hobbs Grayburg-San Andres, Hobbs-Blaine, and Bowers-Seven Rivers production from its W. D. Grimes "A" and "B" Leases in Sections 32 and 33, Township 18 South, Range 38 East, Lea County, New Mexico, to include in said commingling authority Hobbs-Drinkard production.

- CASE 5440: Application of Gulf Oil Corporation for two unorthodox oil well locations, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its South Penrose Skelly Wells Nos. 220 and 262 to be located, respectively, 1034 feet from the South line and 2635 feet from the West line of Section 5 and 1300 feet from the South line and 1139 feet from the East line of Section 8, both in Township 22 South, Range 37 East, Penrose Skelly Pool, Lea County, New Mexico. Applicant further seeks the amendment of Order No. R-2794 to provide an administrative procedure for the approval of additional unorthodox locations for injection and producing wells within the South Penrose Skelly Unit Area.
- CASE 5441: Application of J. Gregory Merrion and Robert L. Bayless for down-hole commingling, Rio Arriba County, New Mexico. Applicants, in the above-styled cause, seek authority to commingle undesignated Gallup and Basin-Dakota production in the wellbore of the El Paso Canyon Largo NP Well No. 1, located in Unit K of Section 3, Township 24 North, Range 6 West, Rio Arriba County, New Mexico.
- CASE 5442: Application of David Fasken for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of his Feil Federal Well No. 1, to be drilled 660 feet from the North and West lines of Section 28, Township 20 South, Range 25 East, Cemetery-Morrow Gas Pool, Eddy County, New Mexico, the N/2 of said Section 28 to be dedicated to the well.
- CASE 5443: Application of Sun Oil Company for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Bone Spring production for its Jennings-Federal Well No. 1, located in Unit F of Section 15, Township 19 South, Range 32 East, Lea County, New Mexico, and the promulgation of special pool rules therefor, including a provision for 160-acre proration units.
- CASE 5444: Application of C & K Petroleum, Inc., for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a new gas pool for production from the Wolfcamp formation for its Harold Olive Com No. 1 Well, located in Unit O of Section 14, Township 22 South, Range 26 East, Eddy County, New Mexico, and the promulgation of temporary special rules therefor, including a provision for 320-acre spacing units.
- CASE 5445: Application of C & K Petroleum, Inc., for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp formation underlying the S/2 or, in the alternative, the SE/4 of Section 14, Township 22 South, Range 26 East, Eddy County, New Mexico, to be dedicated to its Harold Olive Com Well No. 1, located at an orthodox location in the SE/4 of said Section 14. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of the applicant as operator of the well and a charge for the risk involved in drilling said well.

CASE 5446: Application of C & K Petroleum, Inc., for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a new oil pool for Strawn production for its Shipp "27" Well No. 1, located in Section 27, Township 16 South, Range 37 East, Lea County, N. M. and the promulgation of temporary special rules thereof, including a provision for 80-acre proration units.

CASE 5447: Application of C & K Petroleum, Inc., for amendment of Order No. R-4857, Lea County, New Mexico. Applicant, in the above-styled cause, seeks amendment of Order No. R-4857, which order pooled all mineral interests in the Pennsylvanian formation underlying the SW/4 SE/4 of Section 27, Township 16 South, Range 37 East, Lea County, New Mexico, to pool all such mineral interests underlying the S/2 SE/4 of said Section 27.

CASE 5428: (Continued from the February 19, 1975, Examiner Hearing)

Application of Amax Chemical Corporation for the extension of the Potash-Oil Area, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the extension of the Potash-Oil Area in Eddy County, New Mexico, as defined by Order No. R-111-A, as amended, by the addition of the following described lands:

TOWNSHIP 19 SOUTH, RANGE 29 EAST

Section 13: S/2 SE/4

Section 14: W/2 SW/4

Section 23: N/2 NW/4, SE/4 NW/4, S/2 NE/4

Section 24: NW/4, W/2 NE/4, NE/4 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST

Section 14: W/2 NE/4

Section 18: SW/4

Case 5428

JAMES L. DOW
CHARLES A. FEEZER

DOW AND FEEZER
ATTORNEYS AT LAW
BUS TERMINAL BUILDING
P. O. BOX 128
CARLSBAD, NEW MEXICO 88220

885-3236 - 885-5994
AREA CODE 505

December 10, 1974

Mr. Daniel S. Nutter, Chief Engineer
Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Application of Amax Chemical
Corporation for an Order amending
R-11A and seeking an extension of
Potash-Oil Area in Eddy County.

Dear Mr. Nutter:

As per our telephone conversation, I enclose three copies
of the application of Amax Chemical Corporation for an exten-
sion of R-11A.

You had requested that I call this to your attention and
indicate that based on present Commission hearings already
scheduled that this matter would be set in Santa Fe on February
19, 1975. *by hrg*

I would appreciate your acknowledging this to me and indi-
cating the time and room number of the hearing.

Very truly yours,

C. A. Feezer
C. A. Feezer

CAF:ah

cc: Mr. Bob Kirby
Amax Chemical Corporation
P. O. Box 279
Carlsbad, New Mexico 88220

DOCKET MAILED

2-7-75

DOCKET MAILED

Date *3-6-75*

For *3-19-75* hearing

Case 5428

BEFORE THE NEW MEXICO OIL CONSERVATION
COMMISSION OF THE STATE OF NEW MEXICO

APPLICATION OF AMAX CHEMICAL
CORPORATION FOR AN ORDER AMENDING
R-111A AND SEEKING AN EXTENSION OF
THE POTASH-OIL AREA IN EDDY COUNTY,
NEW MEXICO.

No. _____

A P P L I C A T I O N

COMES NOW Amax Chemical Corporation, a Delaware corporation,
and authorized to do business in the State of New Mexico, states:

1. Amax Chemical Corporation is the owner of the following
described potash leases and sub-leases, to-wit:

Federal - LC067319 A, B and C

State - M2657A and M19051

State - M873 Sub-lease.

which leases and permits cover among other property the following
described lands, to-wit:

2	SECTION 14	Township 19S	Range 29E
	W $\frac{1}{2}$ SW $\frac{1}{4}$ ✓	Containing approximately 80 acres	
3	SECTION 23	Township 19S	Range 29E
	N $\frac{1}{2}$ NW $\frac{1}{4}$ ✓	Containing approximately 80 acres	
	SE $\frac{1}{4}$ NW $\frac{1}{4}$ ✓	"	" 40 "
	S $\frac{1}{2}$ NE $\frac{1}{4}$ ✓	"	" 80 "
1	SECTION 13	Township 19S	Range 29E
	S $\frac{1}{2}$ SE $\frac{1}{4}$ ✓	Containing approximately 80 acres	
11	SECTION 24	Township 19S	29E
	NW $\frac{1}{4}$ ✓	Containing approximately 160 "	
	W $\frac{1}{2}$ NE $\frac{1}{4}$ ✓	"	" 80 "
	NE $\frac{1}{4}$ NE $\frac{1}{4}$ ✓	"	" 40 "
10	SECTION 18	Township 19S	Range 30E
	SW $\frac{1}{4}$	Containing approximately 160 acres	

Case 5428

SECTION 14

Township 19S

Range 30E

W $\frac{1}{2}$ NE $\frac{1}{4}$ ✓

Containing approximately 80 acres

2. Amax Chemical Corporation has heretofore mined from the first ore zone, as numbered by the U.S.G.S., but an upper ore zone, as disclosed by coring, indicate the presence of potentially commercial recoverable potash within the boundaries of the properties described.

3. Further basis for this Application of extension is for the protection of open mine workings within the area from oil or gas intrusions. The lands applied to be included are within the oil-potash area as outlined by the federal government.

4. Mining operations of the Applicant, in some instances, are already beyond the oil-potash boundaries as described in the OCC Order R-111A as amended and your Applicant is without protection from oil and gas development on State lands where there are open mine workings.

5. The names and addresses of parties interested in the Application as known to the Applicant are as follows:

Superior Oil Company
P. O. Box 1900
Midland, Texas 79701

Mr. C. H. Madsen
Bell Petroleum Company
218 First Saving Bldg.
Midland, Texas 79701

Southland Royalty
405 Wilco Building
Midland, Texas 79701

Mr. A. L. Worley, Jr.
Allied Chemical Corporation
Union Texas Petroleum Division
P. O. Box 2120
Houston, Texas 77001

E. A. Culbertson and Wallace Irwin
P. O. Box 1071
Midland, Texas 79701

WHEREFORE, AMAX CHEMICAL CORPORATION requests that the Commission fix a time and place for hearing before the Commission

Case 5428

after proper notice, at the Oil and Gas Commission at Santa Fe,
New Mexico.

Respectfully submitted,
AMAX CHEMICAL CORPORATION

By C. A. J. [Signature]
Attorney for Amax Chemical
Corporation.

Examiner Hearing - Wednesday - February 19, 1975

Docket No. 5-75

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← CASE 5428: Application of Amax Chemical Corporation for the extension of the Potash-Oil Area, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the extension of the Potash-Oil Area in Eddy County, New Mexico, as defined by Order No. R-11-A, as amended, by the addition of the following described lands:

TOWNSHIP 19 SOUTH, RANGE 29 EAST

Section 13: S/2 SE/4
Section 14: W/2 SW/4
Section 23: N/2 NW/4, SE/4 NW/4, S/2 NE/4
Section 24: NW/4, W/2 NE/4, NE/4 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST

Section 14: W/2 NE/4
Section 18: SW/4

- CASE 5423: Application of Cities Service Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in formations of Pennsylvanian age or older underlying the W/2 of Section 29, Township 21 South, Range 27 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at an orthodox location within the spacing unit. Also to be considered will be the cost of drilling and completing said well and the allocation of such costs, as well as actual operating costs and charges for supervision. Also to be considered is the designation of the applicant as the operator of the well and a charge for the risk involved in drilling said well.
- CASE 5424: Application of Cities Service Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Dark Canyon Unit Area, comprising 2560 acres, more or less, of State lands in Township 23 South, Range 25 East, Eddy County, New Mexico.
- CASE 5425: Application of Continental Oil Company for an unorthodox location and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a non-standard 480-acre gas proration unit comprising the W/2 of Section 13 and the E/2 E/2 of Section 14, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to its Lockhart B Wells Nos. 4 and 8, located at unorthodox locations in Units H and P, respectively, of Section 13, and to its Lockhart B Well No. 7, at an unorthodox location in Unit D of said Section 14. Applicant further seeks approval for the simultaneous dedication of a 320-acre non-standard gas proration unit comprising the S/2 of Section 12, Township 19 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to its State KN-12 Wells Nos. 1 and 2, located at unorthodox locations in Units P and N, respectively, of said Section 12.
- CASE 5426: Application of Continental Oil Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Bell Lake Unit Well No. 16 to be drilled 660 feet from the North and East lines of Section 7, Township 24 South, Range 34 East, South Bell Lake-Morrow Gas Pool, Lea County, New Mexico, the N/2 of said Section 7 to be dedicated to said well.
- CASE 5427: Application of Penroc Oil Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Allied B Com Well No. 1, located in Unit K of Section 27, Township 20 South, Range 27 East, Eddy County, New Mexico, in such a manner as to produce oil from the Bone Springs formation through tubing and gas from the Morrow formation through the casing-tubing annulus by means of a cross-over assembly.

- CASE 5417: Application of Atlantic Richfield Company for a non-standard gas proration unit, two unorthodox locations, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 640-acre non-standard gas proration unit comprising the S/2 of Section 24 and the N/2 of Section 25, both in Township 22 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its McDonald State WN Wells Nos. 12 and 24, located, respectively, at unorthodox locations in Unit M of Section 24, and in Unit Z of Section 25.
- CASE 5418: Application of Joel B. Burr, Jr. and William J. Cooley for permission to flare casinghead gas, McKinley County, New Mexico. Applicants, in the above-styled cause, seek an exception to Order No. R-4070, to permit the flaring of casinghead gas produced by their Coleman Well No. 2, located in Unit C of Section 8, Township 17 North, Range 8 West, Lone Pine Dakota D Oil Pool, McKinley County, New Mexico.
- CASE 5419: Application of J. Gregory Merrion & Robert L. Bayless for downhole commingling, Rio Arriba County, New Mexico. Applicants, in the above-styled cause, seek authority to commingle Gavilan-Pictured Cliffs and Blanco-Mesaverde production in the wellbore of their North Lindrith Unit Com Well No. 1, located in Unit M of Section 20, Township 26 North, Range 2 West, Rio Arriba County, New Mexico.
- CASE 5420: Application of Texaco, Inc., for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to convert its New Mexico "DM" State (NCT-1) Well No. 1, located in Unit N of Section 21, Township 13 South, Range 33 East, Lazy J Pennsylvanian Pool, Lea County, New Mexico, to dispose of produced salt water into the Pennsylvanian formation through the perforated interval from approximately 9742 to 9792 feet.
- CASE 5421: Application of Texaco, Inc., for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Justis Tubb-Drinkard and North Justis-Fusselman production in the wellbore of its G. L. Erwin "B" Federal Well No. 3, located in Unit I of Section 35, Township 24 South, Range 37 East, Lea County, New Mexico.
- CASE 5422: Application of Hilliard Oil and Gas, Inc., for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of temporary special rules for the EK-Bone Springs Pool, in Township 18 South, Range 34 East, Lea County, New Mexico, including a provision for 80-acre spacing and proration units.
- CASE 5122: (Reopened) (Continued from the January 22, 1975, Examiner Hearing)
- In the matter of Case 5122 being reopened pursuant to the provisions of Order No. R-4693, which order established temporary special pool rules for the East Lusk-Wolfcamp Oil Pool, Lea County, New Mexico, including a provision for 160-acre spacing and proration units and a limiting gas-oil ratio of 4000 to 1. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing and proration units with a limiting gas-oil ratio of 2000 to 1.

Docket No. 5-75

Dockets Nos. 6-75 and 7-75 are tentatively set for hearing on March 5 and March 19, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 19, 1975

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. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

- ALLOWABLE:
- (1) Consideration of the allowable production of gas for March, 1975, from seventeen prorated pools in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico.
 - (2) Consideration of the allowable production of gas for March, 1975, from five prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
 - (3) Consideration of purchaser's nominations for the one-year period beginning April 1, 1975, for both of the above areas.

CASE 5402: (Continued from the January 22, 1975 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Tyra & Tyra, Fidelity and Deposit Company of Maryland and all other interested parties to appear and show cause why the Tyra & Tyra BTA Lulu Well No. 1 located in Unit C of Section 22, Township 9 South, Range 35 East, Lea County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5415: Application of Burk Royalty Co. for a unit agreement, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Double L Queen Unit Area, comprising 2670 acres, more or less of Federal, State, and fee lands in Townships 14 and 15 South, Ranges 29 and 30 East, Chaves County, New Mexico.

CASE 5416: Application of Tesoro Petroleum Corporation for a unit agreement, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Coal Creek Unit Area comprising 11,225 acres, more or less, of State and Federal lands in Township 23 North, Ranges 12 and 13 West, San Juan County, New Mexico.

CASE 5409: (Continued from the February 5, 1975, Examiner Hearing)

Application of Atlantic Richfield Company for a non-standard gas proration unit, an unorthodox gas well location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 320-acre non-standard gas proration unit comprising the SE/4 of Section 12 and the NE/4 of Section 13, both in Township 24 South, Range 36 East, Jalmat Gas Pool, Lea County, New Mexico, to be simultaneously dedicated to its George W. Toby WN Wells Nos. 4, 1, and 1-A, located, respectively, in Units A and H of said Section 12 and in Unit A of said Section 13.

DR.

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. 5428

Order No. R-111-J

APPLICATION OF AMAX CHEMICAL
CORPORATION FOR THE EXTENSION
OF THE POTASH-OIL AREA, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 19, 1975
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of March, 1975, 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, Amax Chemical Corporation, seeks
an extension of the Potash-Oil Area as defined in Order No.

R-111-A by the addition of the following described lands in
Eddy County, New Mexico:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 13: S/2 SE/4

Section 14: W/2 SW/4

Section 23: N/2 NW/4, SE/4 NW/4, S/2 NE/4

Section 24: NW/4, W/2 NE/4, NE/4 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 14: W/2 NE/4

Section 18: SW/4

(3) That the evidence presented indicates that the above-described acreage contains potash deposits in commercial quantities.

(4) That to promote the orderly development of the natural resources in the potash-oil area, Order No. R-111-A should be amended to include the above-described acreage in the Potash-Oil Area.

IT IS THEREFORE ORDERED:

(1) That Order No. R-111-A, as amended, be and the same is hereby amended to include the following-described acreage within the confines of the Potash-Oil Area in Eddy County, New Mexico:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM

Section 13: S/2 SE/4

Section 14: W/2 SW/4

Section 23: N/2 NW/4, SE/4 NW/4, S/2 NE/4

Section 24: NW/4, W/2 NE/4, NE/4 NE/4

TOWNSHIP 19 SOUTH, RANGE 30 EAST, NMPM

Section 14: W/2 NE/4

Section 18: SW/4

(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.