CASE 6765: MESA PETROLEUM COMPANY FOR AN EXCEPTION TO ORDER NO. R-111-A AND UNORTHODOX WELL LOCATION, EDDY COUNTY, NEW MEXICO

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CASE NO.

6765

APPlication,
Transcripts,
Small Exhibits,

ETC.



ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

January 18, 1980

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

Mr. William F. Carr Campbell and Black Attorneys at Law Post Office Box 2208 Santa Fe, New Mexico	Re: CASE NO. 6765 ORDER NO. R-6238						
	Applicant:						
	Mesa Petroleum Company						
Dear Sir:							
Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.							
JOE D. RAMEY							
Director							
JDR/fd							
Copy of order also sent to:							
Hobbs OCD x							
Artesia OCD X							
Aztec OCD							
Other							

STATE OF NEW MUXICO ENERGY AND MINLRALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6765 Order No. R-6238

APPLICATION OF MESA PETROLEUM COMPANY FOR TWO EXCEPTIONS TO ORDER NO. R-111-A AND AN UNORTHODOX CIL WELL LOCATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on December 12, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 16th day of January, 1980, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Mesa Petroleum Company, seeks an exception to the casing/cementing rules for the Oil-Potash Area as promulgated by Order No. R-III-A to permit two proposed wells, its Bass Federal Wells Nos. 2 and 3, to be located in Units F and D, respectively, of Section 6, Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico, to be completed with a string of surface casing set at approximately 500 feet with cement circulated to the surface, and a production casing string set at total depth in the Delaware formation at approximately 2300 feet with cement circulated to the surface.
- (3) That the applicant further requests approval for the unorthodox location of the aforesaid Bass Federal Well No. 2, which would be drilled at a point 1450 feet from the North line and 1850 feet from the West line of said Section 6.

-2-Case No. 6765 Order No. R-6238

- (4) That the aforesaid Bass Federal Well No. 3, heing located in the NW/4 NW/4 of Section 6, Township 20 South, Range 31 East, NMPM, is not within the Potash-Oil Area as defined by Division Order No. R-111-A, as amended, and that therefore no exception to the casing/cementing rules of said Order is necessary for said well.
- (5) That the evidence presented indicates that the proposed Bass Federal Well No. 2, by being at the proposed unorthodox location, will be at least 1000 feet lateral distance from the nearest potash ore body, and that the approval of the proposed casing/cementing exception for said well will have no adverse effect on known potash reserves.
- (6) That the unorthodox location for the aforesaid Bass Federal Well No. 2 will not impair the correlative rights of any owner of oil and gas rights in the area.
- (7) That for any well drilled pursuant to this order, the applicant should report the following both to the district office of the Division and the U.S.G.S:
 - (a) Any water flows encountered; and
 - (b) The top of the cement around the production casing as determined by temperature survey if such cement does not circulate.
- (8) That approval of the subject application will protect correlative rights, will prevent waste and will not cause the waste of potash.
 - (9) That the application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant, Mesa Petroleum Company, is hereby authorized an exception to the casing/cementing rules for the Potash-Oil Area as promulgated by Order No. R-III-A to permit its Bass Federal Well No. 2 which will be drilled at an unorthodox location 1450 feet from the North line and 1850 feet from the West line of Section 6, Township 20 South, Range 31 East, NMPM, Eddy County, New Mexico, to be completed with a string of surface casing set at approximately 500 feet with cement circulated to the surface, and a production casing string set at total depth in the Delaware formation at approximately 2300 feet with cement circulated to the surface.

-3-Case No. 6765 Order No. R-6238

- (2) That the above-described unorthodox location for said Bass Federal Well No. 2 is hereby approved.
- (3) That for any well drilled pursuant to this order, the applicant shall report the following, both to the district office of the Division and the U.S.G.S:
 - (a) Any water flows encountered; and
 - (b) The top of the cement around the production casing as determined by temperature survey if such cement does not circulate.

PROVIDED HOWEVER, that on any such well, the applicant may be required to re-dement the production casing to the surface if cement on said casing did not circulate to the surface.

- (4) That that portion of this case relating to a casing/cementing exception for applicant's proposed Bass Federal Well No. 3 is hereby dismissed.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

> STATE OF NEW MEXICO OIL CONSERVATION DIVISION

JOE D. RAMEY Director

SEAL

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 12 December 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Mesa Petroleum Company for an exception to Order No. R-111-A and an enorthodox well location, Eddy County, New Mexico.

CASE 6765

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel for the Division

State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

William F. Carr, Esq. CAMPBELL & BLACK P. A.

Jefferson Place

Santa Fe, New Mexico 87501

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MICHAEL P. HOUSTON

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MR. NUTTER: Call Case Number 6765.

MR. PADILLA: Application of Mesa Petroleum Company for an exception to Order No. R-111-A and an unorthodox well location, Eddy County, New Mexico.

MR. CARR: Mr. Examiner, I'm William F. Carr, appearing for Mesa Petroleum Company. I have one witness who needs to be sworn.

(Witness sworn.)

MICHAEL P. HOUSTON

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

DIRECT EXAMINATION

BY MR. CARR:

Q. Will you state your full name and place of residence, please?

A. Michael P. Houston. I live in Midland, Texas.

0. Mr. Houston, by whom are you employed and in what capacity?

A. I'm employed by Mesa Petroleum as an Operations Manager in Midland, Texas.

A Have you previously testified before this Commission, had your credentials accepted and made a matter of record?

A. Yes, I have and they have.

Q. Are you familiar with the subject of this application?

A. Yes, I am.

MR. CARR: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q. Will you please describe to the Examiner the nature of Mesa's application today?

A. It's a twofold application. One, is an exception to Order R-111-A for the Bass Federal No. 2 and Bass Federal No. 3.

MR. NUTTER: Correction, Mr. Houston, I've been looking at this thing since we advertised this case and I don't believe that one of these wells requires an exception to R-111-A.

Now, am I correct in that one of them is going to be drilled in the northwest northwest of 6 and the other in the southeast northwest of 6?

A. That's -- that's correct.

MR. NUTTFR: Well --

A. Let's see. Say that last location again.

MR. NUTTER: Well, the one in the northwest northwest of 6 is a standard location, is it not?

A That's correct. Yes.

MR. NUTTER: And the one in the southeast of the northwest of 6 is an unorthodox location, right?

A. No, I believe those are exactly reversed.

I believe the unorthodox location is in the -- I'm sorry. I'm

getting confused. You're correct.

MR. CARR: That's correct.

MR. NUTTER: Okay. Now, according to my map, which may be in error, that north half of the northwest of 6 is not in R-111-A.

A. We - we have a map from the potash people that indicates it is in R-111.

MR. NUTTER: Well, maybe you'd need an exception, then. My map didn't show that it was.

A. I'm sorry, this is a USGS map that we're using.

MR. CARR: But it would show that the -
MR. NUTTER: Let me go get R-111-A and

we'll get this thing straightened out once and for all, because

I don't believe --

(Thereupon a discussion was had

off the record.)

MR. CARR: For the record, then, Mr. Examiner, we will proceed to make a record for an exception for both the Bass Federal No. 2 and the Bass Federal No. 3, and Mr. Houston will continue, then, stating the nature of Mesa's application.

MR. NUTTER: Okay, proceed.

- A. And we're also applying for an unorthodox drilling location of the Bass Federal No. 2.
- Q Have you prepared for introduction in this case certain exhibits?
 - A. Yes, I have.
- Q. Will you please refer to what has been marked for identification as Mesa's Exhibit Number One and review this for the Examiner?
- The Exhibit Number One shows a shaded portion of Section 6 of Township 20 South, 31 East, which is the area of interest that Mesa Petroleum has interest in, which until the time of the meeting I felt like was probably all within the R-111-A area.

Subsequent to the initiation of this meeting we found that the northwest quarter of the northwest is not listed in k-lll-A.

The two locations that we're talking about drilling are the Bass Federal No. 2, which is the unorthodox

location, located 1450 from the north line and 1850 from west line of this section, and the Bass Federal No. 3, 730 from north line and 910 from west line.

Mr. Houston, first taking the matter of
the exception to Order No. R 111-A, would you explain to the
Examiner those parts of the order you're requesting an exception
to and what Mesa plans to do if the exception is in fact granted?

A. Section 4, paragraph 3 and 3-B, 3-A and 3-B of the R-111-A order states that -- let's see -- states that wells drilled to the shallow zone, and those are defined as being less than 5000 feet in depth, must have a salt protection string set not less than 100 feet nor more than 600 feet below the base of the salt. And in this immdiate area, we have the Rustler which is approximately 400 feet and the Tansill picked at approximately 1800 feet. Both of these wells are shallow zone-type wells that will be drilled to a depth less than 5000 feet and we are proposing to go to a casing program which would be more economical than that required by the R-111-A requirements, if carried out to the T.

Q. Will you now refer to what has been marked for identification as Mesa's Exhibit Number Two and summarize the data contained thereon for Mr. Nutter?

A. Yes. If we're considering the wells being in R-111-A, we would have to set a string of 13-3/8ths casing

at approximately 500 feet, as indicated on the lefthand portion of Exhibit Two, another string of casing, in this case, 8-5/8ths casing would be required to be set at 1800 feet, and then the production string of casing set at total depth of approximately 2300 feet.

We are proposing to eliminate one string by setting only 500 feet of 8-5/8ths casing for surface pipe and then eliminating the salt protection string at 1800 feet, and then just setting 4-1/2 inch casing to total depth of approximately 2300 feet.

Q. Has Mesa used this casing program in surrounding wells?

A Yes, we have. We've used this casing program in the Bass Federal No. 1, which is located 460 from north line and 1980 from west line of Section 6, Township 20 South, Range 31 East. It's the well in the northeast quarter of the northwest quarter.

cessive pressures. That well is not producing any oil or appreciable gas quantities at the present time. We feel like that on treatment we possibly fraced from the Yates formation down into the Capitan Reef, and we are producing at the present time 100 percent water.

It is outside the R-lll-A area and as I mentioned before, we have no problem with the casing program

Exhibit Number Two. There were some minimal salty materials encountered based upon logs from 500 to 1200 feet in that particular well that was drilled, the Bass Federal No. 1, but -- well, I might just give you some particulars of that -- of the Bass Federal No. 1.

Total depth is 2210 feet and we did cement the 4-1/2 inch long string casing back to the surface. As a matter of fact, both strings are cemented to the surface.

- Q. And does it appear that the cementing job is adequate to insulate the casing from any salt deposits?
- A. We feel like that it is. We ran a bond log over the pay interval. We didn't run a bond log all the way to the surface, but we had indicated good bond.
- Mave you reviewed the proposed casing plan with the potash companies which are directly affected?
 - A. We have.
- Q. And have you secured waivers from those companies?
 - A. Yes, we have.
- Q. And Exhibits Three and Four are the waivers from Mississippi and Duval, is that correct?
 - A. That is correct, yes, sir.
 - Q. Would you please refer to what has been

marked for identification as Mesa Petroleum Company Exhibit Number Five and with respect to the proposed locations for the Bass Federal 2 and Federal 3, show the Examiner where the active potash mining lies?

A. On Exhibit Number Five? Exhibit Number Five was furnished to us by Duval Corporation at a joint meeting, a scale of 1 inch equal 300 feet, and our proposed locations for Bass Federal No. 2 and Bass Federal No. 3 are so indicated in the center right portion of this particular exhibit.

The potash mining area is indicated by the little, dark, blocked in configuration here in more or less the center of the particular map. And on this particular exhibit we have 1000 feet of distance or separation between potash mining areas and the proposed two locations. This was jointly arrived at in discussions with the potash mining people, and our two wells, or two proposed wells, are outside this 1000-foot arc.

And who is the actual mining company in this area?

A. The mining company, Duval, has leased the potash mining rights to Mississippi Chemical.

Q. Mr. Houston, what safety precautions are to be taken during the drilling of the Bass Federal 2 and the Bass Federal No. 3?

A We would be employing the same safety precautions as we used on the Bass Federal No. 1, in that hydraulic double ram POPs would be used, one pipe ram, one blank ram. We would anticipate no high pressures based upon the drilling of the Bass Federal No. 1 in an almost adjacent area, and in that particular well, mud weights of 10 pound per gallon were used in reaching total depth.

Q. In your opinion will the casing program proposed by Mesa adequately protect fresh water zones and adequately protect potash deposits?

Me certainly believe that, yes. There's no reason to believe any potash deposit would be encountered, and certainly if they are, they would be protected by the cementing program.

Q. Have you discussed the locations and the casing program with representatives of the United State Geological Survey?

A. Yes, we have.

Q. And is the casing program which you are going to use in each of the two wells which are the subject of this hearing, the same that was used in the Bass Federal No. 1?

A. That's correct, they are.

Q And was that approved by the USCS?

A We had an informal discussion with the USGS personnel. They always like to defer final comment to the

NMOCD and -- but they indicated that there would be no problem as far as they were concerned, and I think that this is probably substantiated by the fact that the Bass Federal No. 1 was drilled in the same manner.

Q. Have you prepared economic studies for the Bass Federal Two and the Bass Federal 3, comparing the cost of the R-111-A casing program and the proposed Mesa casing program?

A. Yes, I have, and it's listed as Exhibit
Number Six.

Q. Will you please refer to that and summarize the data contained thereon for Mr. Nutter?

A Again, you're looking at probably the -well, you're looking at the R-lll-A casing program on the lefthand side of the sheet and our proposed casing program on the
righthand side of the sheet, and running through the numbers real
quickly, there is a difference primarily due to the extra string
of casing, the extra cement, higher drilling costs in water and
chemicals, of about \$40,000 per well.

Q Mr. Houston, with regard to the unorthodox drilling location, first, what would be an orthodox location?

A. Yes.

). For the No. 2.

A. An orthodox location would be no closer than 330 feet to the quarter quarter section.

Q. And again, what is the location you're proposing?

A. We are proposing 1450 from north line and 1650 from west line.

Now, this unorthodox location is not being requested because of geologic considerations, is it?

it. Topographical reasons have entered into it, and in conjunction with working with the potash people, all three factors combined we selected this location.

0. In your opinion if the exception requested today is granted, will the economic production of oil and gas be promoted in this area?

A. Yes, it will.

Q. In your opinion will potash deposits be adequately protected?

A. I think they will, yes.

Q. If this application is granted, will waste be prevented and correlative rights protected?

A. Yes, they will.

Q. Word Exhibits One through Six either prepared by you or have you reviewed them and can you testify of your own knowledge as to their accuracy?

A. That's correct, Yes, they were.

MR. CARR: At this time, Mr. Examiner, we would offer into evidence Applicant's Exhibits One through Six.

MR. NUTTER: Mesa Exhibits One through Six will be admitted in evidence.

CROSS EXAMINATION

BY MR. MUTTER:

Q. Mr. Houston, that No. 2 Well is located 130 feet from the quarter quarter section line rather than the minimum required 330 feet, is that correct?

A. I beg your pardon. I thought it was 200 feet. I'm sorry. Let's see, you're correct. I stand corrected. It is 130 feet.

Q. And who owns the 40 acres to the north of it there?

A. We've drilled a well on that particular quarter section.

O. That's your --

A. We're the operators, yes, sir.

Q. That's your 40 acres --

A Yes, sir.

Q -- where you've got that well that you previously mentioned.

A. We're not 100 percent owners, but we're

the operators, yes, sir.

Q. So in effect, the only acreage that you're crowding by moving this location to 130 feet is your own acreage.

A. That's correct. We had originally even talked about drilling a well in the southwest quarter of the northwest quarter, but in discussion with the potash people we eliminated that location at the meeting that I mentioned that we obtained this particular Exhibit Number Five.

Q. And you can't get 1000 feet away from the mine by drilling there, can you?

A. Correct. That's correct. I might back up just a little further. They originally objected to all of these locations and through joint reconciliation we've given a little bit and they've given a little bit. That's the reason for their waiver letters on Exhibits Three and Four.

Now there's substantial difference in the drilling costs, or completion costs, for the wells under the proposed program versus the R-lll program. I notice even there is a difference in the drilling costs. Is that because you'd have to drill a larger diameter hole?

A. Yes, sir, these are variable costs only.

These are not total well costs. In other words, most everything else would be the same, naturally, tubing and so forth, but you are absolutely right, the \$1350 per foot would be because you're

drilling a 17-1/2 inch hole to start with; the slower penetration time; and approximately a day and a half longer to reach TD.

Q. I see.

MR. NUTTER: Are there any other questions of Mr. Houston? He may be excused.

Do you have another witness, Mr. Carr?

MR. CARR: No, sir, I do not.

MR. NUTTER: Do you have anything further

in this case?

MR. CARR: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case Number 6765?

We'll take the case under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sally W. Boyd, C.S.R.

do hereby certify that the foregoing is a complete record of the proceedings in the Examiner mounting of Case do. 6765 heard by me on 12/12 19.74.

, Examiner

Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
STATE LAND OFFICE BLDG.
SANTA FE, NEW MEXICO
12 December 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Mesa Petroleum Company for an exception to Order No. R-111-A and an unorthodox well location, Eddy County, New Mexico. 6765

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

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- 9. And does it appear that the cementing job is adequate to insulate the casing from any salt deposits?
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A. The mining company, Duval, has leased the potash mining rights to Mississippi Chemical.

o Mr. Houston, what safety precautions are to be taken during the drilling of the Bass Federal 2 and the Bass Federal No. 3?

A. We would be employing the same safety precautions as we used on the Bass Federal No. 1, in that hydraulic double ram POPs would be used, one pipe ram, one blank ram. We would anticipate no high pressures based upon the drilling of the Bass Federal No. I in an almost adjacent area, and in that particular well, mud weights of 10 pound per gallon were used in reaching total depth.

- In your opinion will the casing program proposed by Mesa adequately protect fresh water zones and adequately protect potash deposits?
- No reason to believe any potash deposit would be encountered, and certainly if they are, they would be protected by the cementing program.
- A Have you discussed the locations and the casing program with representatives of the United State Geological Survey?
 - A Yes, we have.
- and is the casing program which you are going to use in each of the two wells which are the subject of this hearing, the same that was used in the Bass Federal No.
 - A That's correct, they are.
 - Q And was that approved by the USGS?
- A. We had an informal discussion with the USGS personnel. They always like to defer final comment to the

NHOCD and -- but they indicated that there would be no problem as far as they were concerned, and I think that this is probably substantiated by the fact that the Lass Federal We. I was drilled in the same manner.

Q Have you propared economic studies for the Bass Federal Two and the Bass Federal 3, comparing the cost of the R-111 A casing program and the proposed Masa casing program?

A. Yes, I have, and it's listed as Exhibit
Number Six.

Q Will you please refer to that and summarize the data contained thereon for Mr. Mutter?

well, you're looking at the R-111-A casing program on the lefthand side of the sheet and our proposed casing program on the righthand side of the sheet, and running through the numbers real quickly, there is a difference primarily due to the extra string of casing, the extra cement, higher drilling costs in water and chemicals, of about \$40,000 per well.

Mr. Houston, with regard to the unorthodox drilling location, first, what would be an orthodox location?

A Yes.

Q. For the No. 2.

An orthodox location would be no closer than 330 feet to the quarter quarter section.

- 2. We are proposing 1450 from north line and 1850 from west line.
- Q NOW, this unorthodox location is not being requested because of geologic considerations, is it?
- it. Topographical reasons have entered into it, and in conjunction with working with the potash people, all three factors combined we selected this location.
- In your opinion if the exception requested today is granted, will the economic production of oil and gas be promoted in this area?
 - A Yes, it will.
- 0 In your opinion will potash deposits be
 adequately protected?
 - A I think they will, yes.
- Description of this application is granted, will waste

 be prevented and correlative rights protected?
 - A Yes, they will.
- g Were Exhibits One through Six either prepared by you or have you reviewed them and can you testify of your own knowledge as to their accuracy?
 - A That's correct. Yes, they were.

would offer into evidence Applicant's Exhibits One through Six.

MR. HUTTER: Hesa Lubibits One through Six will be admitted in evidence.

CROSS ENVERTABLISH

BY MR. NUTTER:

feet from the quarter quarter section line rather than the minimum required 330 feet, is that correct?

A I beg your pardon. I thought it was 200 feet. I'm sorry. Let's see, you're correct. I stand corrected. It is 130 feet.

A We've drilled a well on that particular quarter section.

- Q That's your --
- A We're the operators, yes, sir.
- g That's your 40 acres --
- A Yes, sir.
- Q -- where you've got that well that you previously mentioned.
 - he're not 100 percent owners, but we're

the operators, yes, six.

- g fo in effect, the only acreage that you're crowding by moving this location to 130 feet is your own acreage.
- talked about drilling a well in the southwest quarter of the northwest quarter, but in discussion with the potash people we eliminated that location at the meeting that I mentioned that we obtained this particular Exhibit Number Five.
- And you can't get 1000 feet away from the mine by drilling there, can you?
- Just a little further. They originally objected to all of these locations and through joint reconciliation we've given a little bit and they've given a little bit. That's the reason for their waiver letters on Exhibits Three and Four.
- Mow there's substantial difference in the drilling costs, or completion costs, for the wells under the proposed program versus the R-111 program. I notice even there is a difference in the drilling costs. Is that because you'd have to drill a larger diameter hole?
- These are not total well costs. In other words, most everything else would be the same, naturally, tubing and so forth, but you are absolutely right, the 313 50 per foot would be because you're

drilling a 17-1/2 inch hole to start with; the slower penetration time; and approximately a day and a half longer to reach TD.

g I see.

MR. HUTTER: Are there any other questions of Mr. Houston? He may be excused.

Do you have another witness, Mr. Carr?

MR. CAPR: No, sir, J do not.

MR. HUTTER: Do you have anything further

in this case?

MR. CARR: Nothing further.

HR. HUTTER: Does anyone have anything they

wish to offer in Case Number 6765?

We'll take the case under advisement.

(Hearing concluded.)

REPORTER'S CERTIFICATE

I, SALLY W. BOYD, a Certified Shorthand Reporter

DO HEREBY CERTIFY that the foregoing and attached Transcript of

Hearing before the Oil Conservation Division was reported by me;

that the said transcript is a full, true, and correct record of

the hearing, prepared by me to the best of my ability:

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete intend of the proceedings in the Examiner hearing of Case to. 6767, heard by the on 1976.

Oil Concervation Division

- Application of Sun Oil Company for an unorthodox location, non-standard gas precation unit, Ini III findings, and simultaneous dedication, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State "AY" Well No. 5, located in Unit E of Section 36, Township 7 South, Range 35 East, Todd-Upper San Andres Gas Pool, to be simultaneously dedicated with its State "AY" Well No. 3 in Unit F of Section 36 to a 160-acre non-standard gas proration unit comprising the NW/4 of Section 36. Also sought are findings that the proposed well is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing unit well.
- CASE 6761: Application of Phillips Petroleum Company for an unorthodox gas well location and approval of infill drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of an Atoka-Morrow test well to be drilled 660 feet from the North and West lines of Section 2, Township 24 South, Range 28 East; applicant further seeks a finding that the drilling of said well is necessary to effectively and efficiently drain that portion of the provation unit, being the W/2 of said Section 2, which cannot be so drained by the existing well.
- Application of Joe Don Cook for an exception to Order No. R-3221, Eddy County, New Mexico.

 Applicant, in the above-styled cause, seeks an exception to Order No. R-3221 to permit disposal of produced brine into an unlined surface pit located in Section 1, Township 19 South, Range 31 East, Shugart Pool.
- Application of Adams Exploration Company for compulsory pooling and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the North Osudo-Morrow Gas Pool underlying Section 16, Township 20 South, Range 36 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South and West lines of said Section 16. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 6729: (Continued from November 14, 1979, Examiner Hearing)

Application of Adams Exploration Company for compulsory pooling, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying Section 16, Township 20 South, Range 36 East, North Osudo-Morrow Gas Pool, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

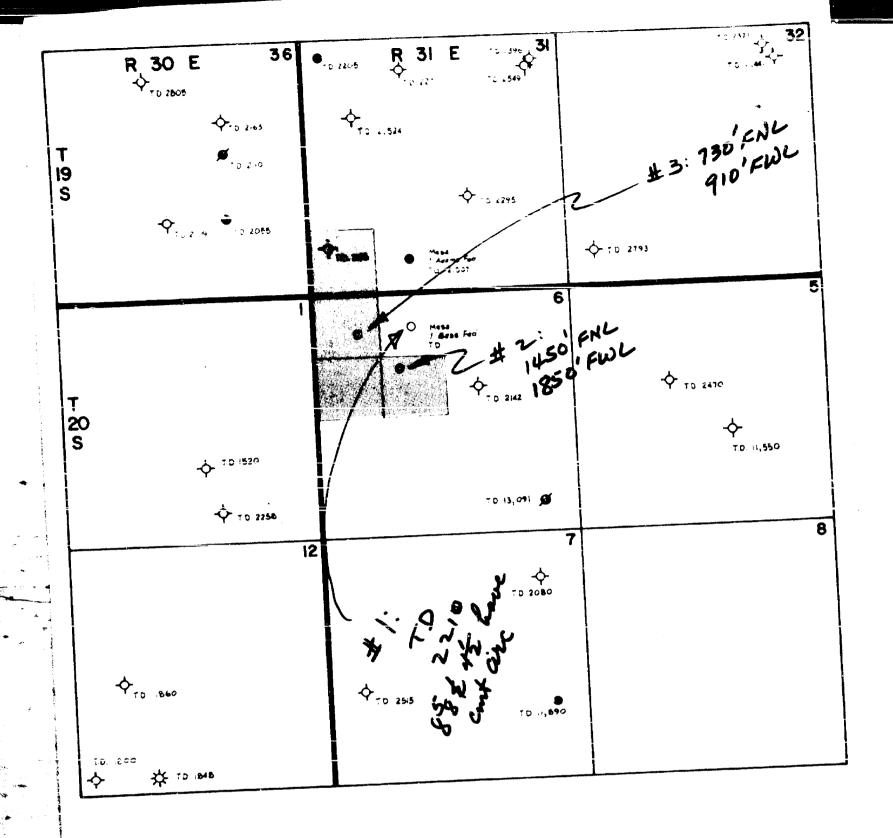
CASE 6725: (Continued from November 28, 1979, Examiner Hearing)

Application of Tenneco 0il Company for three non-standard gas proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 291.23-acre non-standard gas proration unit comprising the W/2 of Section 6 and the NW/4 of Section 7, a 347.58-acre unit comprising the W/2 of Section 19 and the NW/4 of Section 30, and a 375.17-acre unit comprising the SW/4 of Section 30 and the W/2 of Section 31, all in Township 29 North, Range 8 West, Basin-Dakota Fool, each unit to be dedicated to a well to be drilled at a standard location thereon.

CASE 6751: (Continued from November 28, 1979, Examiner Hearing)

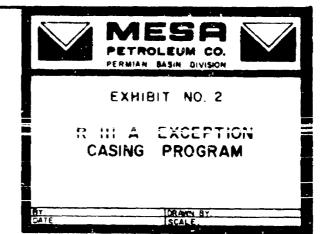
Application of Tenneco 0il Company for the rescission of special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the rescission of the special pool rules for the Catclaw Draw-Morrow Gas Pool to provide for 320-acre spacing rather than 640 acres. In the absence of objection, the pool rules will be rescinded and the pool placed on standard 320-acre spacing for Pennsylvanian gas pools rather than the present 640-acre spacing.

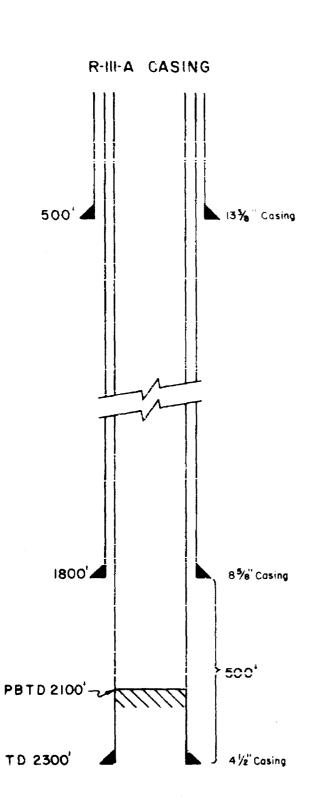
- CASE 6764: Application of Lee Crane for surface commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the surface commingling of undesignated Ojo Alamo and Oswell-Farmington production from his Martin Wells Nos. 1 and 3 located in Section 34, Township 30 North, Range 11 West.
- CASE 6765: Application of Mesa Petroleum Company for an exception to Order No. R-111-A and an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing-cementing rules of Order No. R-111-A to complete its Bass Federal Well No. 2 to be drilled at an unorthodox location 1450 feet from the North line and 1850 feet from the West line and its Bass Federal Well No. 3 to be drilled in Unit D. both in Section 6. Township 20 South, Range 31 East, by setting surface casing in the "Red Bed" section of the basal Rustler formation and production casing at total depth. Both casing strings would have cement circulated to the surface.

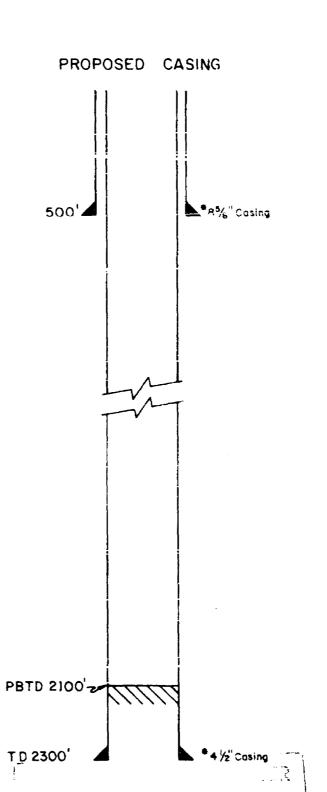


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 \clubsuit Cement to be circulated to surface after running $85\!\!/\!\!\!/e''$ and $41\!\!/\!\!\!/e''$ casing strings to cover all pay and salt zones.

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6765



October 11, 1979

COT 1 T 1978

MESA-PBD

Mr. J. R. Walls, General Manager Mississippi Chemical Corporation P. O. Box 101 Carlsbad, New Mexico 88220

Dear Mr. Walls:

Mesa Petroleum Co. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" Casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

It should be noted, that the locations of the two proposed wells have been located more than 1000 feet from the open mine workings located in the southwest portion of the section as shown by the attached diagram per an agreement reached between representatives of Mesa Petroleum Co, Mississippi Chemical Corporation, Potash Company of America Division, and Duval Corporation on October 4, 1979.

It is requested that you signify that your company has no objections to the proposed operations and locations by signing and returning the original of this letter.

Yours very truly,

Marchael P. Wonton

Michael P. Houston Operations Manager mesa

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MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Mississippi Chemical Corporation

By: J. R. Walls, General Manager



Úctober 11, 19/9

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MESA-PBD

Mr. John Magraw, Resident Manager Duval Corporation P. O. Box 511 Carlsbad, New Mexico 88220

Dear Mr. Magraw:

Mesa Petroleum Co. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

It should be noted, that the locations of the two proposed wells have been located more than 1000 feet from the open mine workings located in the southwest portion of the section as shown by the attached diagram per an agreement reached between representatives of Mesa Petroleum Co, Mississippi Chemical Corporation, Potash Company of America Division, and Duval Corporation on October 4, 1979.

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Yours very truly,

undrael P. Wonton

Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Duyal Corporation

John Magray, Resident Manager

VARIABLE COSTS OF DRILLING - CASING PROGRAM

R-111A CASING PROGRAM

PROPOSED PROGRAM

TANGIBLES - 500' of 13-3/8" @ \$15 = \$7,500 1800' of 8-5/8" @ \$10 = 18,000 Wellhead Equipment 10,500 \$36,000	500° of 8-5/8" @ \$10 = Wcllhead Equipment	\$ 5.000 8,000 \$13,000
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INTANGIBLES -

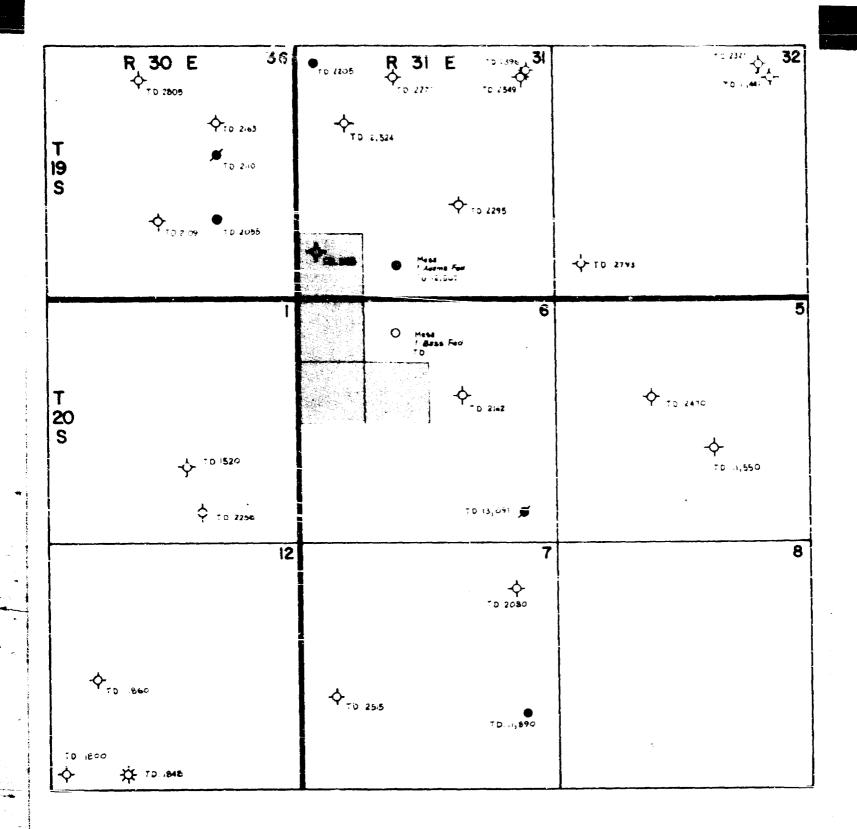
Cement and Services:

13-3/8" =	7,300 7,000 31,050 4,000	8-5/8" = \$ 4,000 4-1/2" = 7,800 2300' @ \$10.25 = 23,575 2,500 1,000 1,000 \$39,875
Totals	\$92,850	\$52,875

DIFFERENCE = \$39,975

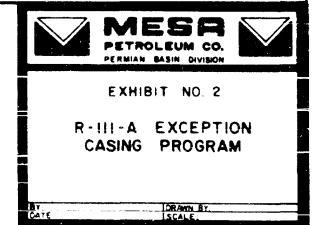
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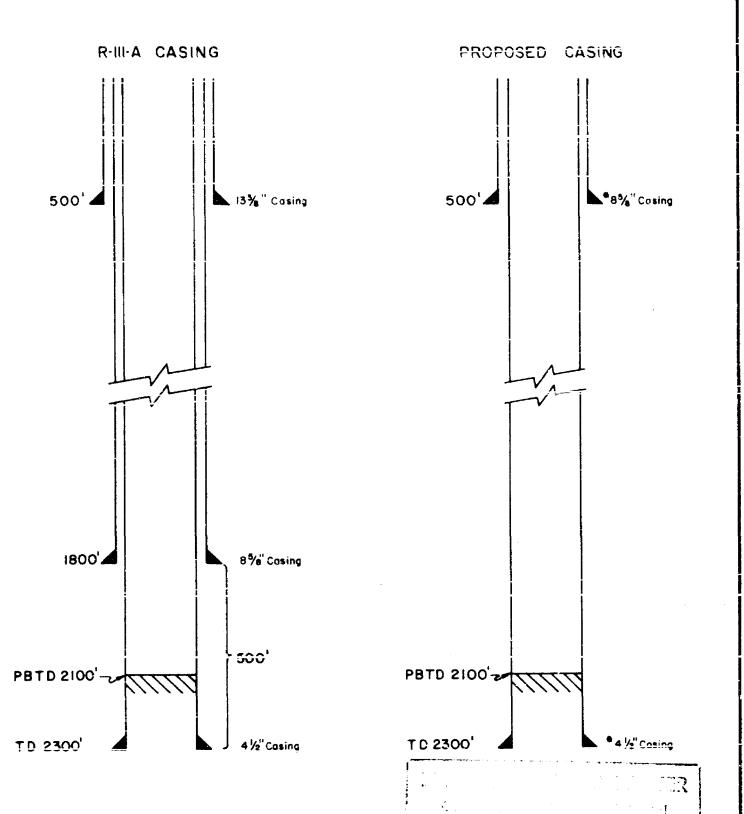
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Cement to be circulated to surface after running 8½" and 4½" casing strings to cover all pay and salt zones.



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MESA-PBD

October 11, 1979

Mr. John Magraw, Resident Manager Duval Corporation P. O. Box 511 Carlsbad, New Mexico 88220

Dear Mr. Magraw:

Mesa Petroleum to. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

It should be noted, that the locations of the two proposed wells have been located more than 1000 feet from the open mine workings located in the southwest portion of the section as shown by the attached diagram per an agreement reached between representatives of Mesa Petroleum Cc, Mississippi Chemical Corporation, Potash Company of America Division, and Duval Corporation on October 4, 1979.

It is requested that you signify that your company has no objections to the proposed operations and locations by signing and returning the original of this letter.

Yours very truly,

unchael P. Wouston

Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Duyai Corporation
W Magrow 10-15-79

John Magray, Resident Manager



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MESA-PBD

October 11, 1979

Mr. J. R. Walls, General Manager Mississippi Chemical Corporation P. O. Box 101 Carlsbad, New Mexico 88220

Dear Mr. Walls:

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Yours very truly,

minacl P. Nouston

Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Mississippi Chemical Corporation

By: J. R. Walls, General Manager

VARIABLE COSTS OF DRILLING - CASING PROGRAM

R-111A CASING PROGRAM

PROPOSED PROGRAM

TANGIBLES -	500' of 13-3/8" @ \$15 = \$	7,500		-
	1800' of 8-5/8" @ \$10 =	18,000 500'	of 8-5/8" @ \$10 =	\$ 5,000
	Wellhead Equipment		ead Equipment	8,000
	<u> </u>	36,000		\$13,000

INTANGIBLES -

Cement and Services:

13-3/8"	= \$ 4,500	-	
8-5/8"	= 7,300	8-	5/8" = \$4,000
4-1/2"		4-	1/2" = 7.800
Drilling 2300'@ \$13.50	= 31,050	2300' @ \$10.25	= 23,575
Mud, Water & Chemicals	= 4,000		2,500
Hauling and Freight	= 1,500		1,000
Miscellaneous	1,500		1,000
Sub Total	\$56,850		\$39,875
Totals	\$92,850		\$52,875

DIFFERENCE = \$39,975

Oppl 6765

CAMPBELL AND BLACK, P.A.

LAWYERS

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

POST OFFICE BOX 2208

JEFFERSON PLACE

SANTA FE. NEW MEXICO 87501

TELEPHONE (505) 988-4421

November 19, 1979

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

Case 6765

Re: Application of Mesa Petroleum Company for an Exception to Order R-111A and an Unorthodox Well Location, Eddy County, New Mexico.

Dear Mr. Ramey:

Enclosed in triplicate is the application of Mesa Petroleum Company in the above-referenced matter.

The applicant requests that this matter be included on the docket for the examiner hearing scheduled to be held on December 12, 1979.

truly yours,

William F. Carr

WFC:1r

Enclosures

cc: D. Dale Gillette

BEFORE THE OIL CONSERVATION DIVISION NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN RE: APPLICATION OF §
MESA PETROLEUM CO. FOR §
AN EXCEPTION TO ORDER § CASE NO. 6765
NO. R-111-A, AND AN §
UNORTHODOX DRILLING LOCATION §

APPLICATION

as "Applicant") by and through its attorneys, and hereby makes application for an order granting an exception to certain requirements of Order No. R-111-A, Case No. 270 (hereinafter referred to as the "Potash Order"), issued the 13th day of October, 1955, by the Oil Conservation Commission of New Mexico (hereinafter referred to as the "Commission"), and further, requests approval of an unorthodox drilling location, and in support thereof would show the following:

1. Applicant is the owner of 47.20% working interest in oil and gas leases covering an area including the SW/4 SW/4, Section 31, Township 19 South, Range 31 East; the NW/4 NW/4, the SW/4 NW/4 and the SE/4 NW/4 of Section 6, Township 20 South, Range 31 East of Eddy County, New Mexico, encompassing 160 acres, more or less, as shown in greater detail on Mesa Petroleum Co. Exhibit No. 1 attached hereto and incorporated herein.

- 2. Applicant proposes to drill two development wells within said tracts which wells would be located as follows:
 - (a) Bass Federal #2 1450 feet FNL and 1850 feet FWL of Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico
 - (b) Bass Federal #3 730 feet FNL and 910 feet FWL of Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico
- 3. Applicant requests an exception from the requirements of Section IV, subparagraphs 3(a) and 3(b)(i) of the Potash Order as those provisions would affect the drilling of the above described wells. Applicant proposes instead to drill and set surface casing in the "Red Bed" section of the basal Rustler formation, estimated at 500 feet (as required under Section IV, subparagraph 2(a) of the Potash Order), thereafter to drill to a total depth of approximately 2300 feet where completion casing will be set and cemented with sufficient volume to cover all pay and salt zones, and tie cement back into surface casing. Attached hereto and incorporated herein is Mesa Petroleum Co. Exhibit No. 2 which further describes the casing program.
- 4. Applicant has been advised that there exists an open potash mine running through the NW/4 of Section 6 and the SW/4 of Section 6. Said potash deposits are under lease from the U. S. Government to the Duval Corporation (hereinafter referred to as "Duval"), which in turn has subleased

the deposits to the Mississippi Chemical Corporation (hereinafter referred to as "Mississippi"), which company now operates the mine. Prior to filing this Application, Applicant has engaged in discussions with Duval and Mississippi regarding the proposed well locations of the Bass Federal #2 and the Bass Federal #3, as well as the proposed casing program set forth in Paragraph 3 herein. As a result of those discussions, Duval and Mississippi have approved the proposed locations and have likewise approved Mesa's proposed casing program and have evidenced their consent by the execution of separate letters both dated October 11, 1979, copies of which are attached hereto as Mesa Petroleum Co. Exhibits 3-A and 3-B, respectively. Each proposed well location is in excess of 1000 feet from the open mine working located in Section 6 (see attachment to Exhibits 3-A and 3-B).

- 5. Applicant believes that the proposed wells are outside the area of proven potash deposits, and are sufficiently removed from any open potash mine, so that no good and valid reason exists to set a "salt protection" casing string as provided in the Potash Order. Further, Applicant would show that to set "salt protection" casing on each well would increase the cost of drilling the well by approximately \$90,000.
- 6. In order to maintain the 1000 feet margin between the open potash mine and the proposed well locations,

Applicant has been required to propose a well location for its Bass Federal #2 which is an unorthodox location under the Commission's spacing rules.

7. By granting the requested exception, and by authorizing the unorthodox drilling location, the Commission's stated objective of preventing waste, protecting correlative rights and permitting the economic recovery of oil and gas from the potash minerals area will be promoted, and at the same time assuring the conservation of New Mexico's potash deposits.

WHEREFORE, PREMISES CONSIDERED, the Applicant prays that this Application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law, the Division enter its Order granting an exception to the Potash Order as requested by Applicant in this Application, authorizing an unorthodox drilling location for Applicant's Bass Federal #2 well as requested in this Application, and for such other and further relief as may be proper.

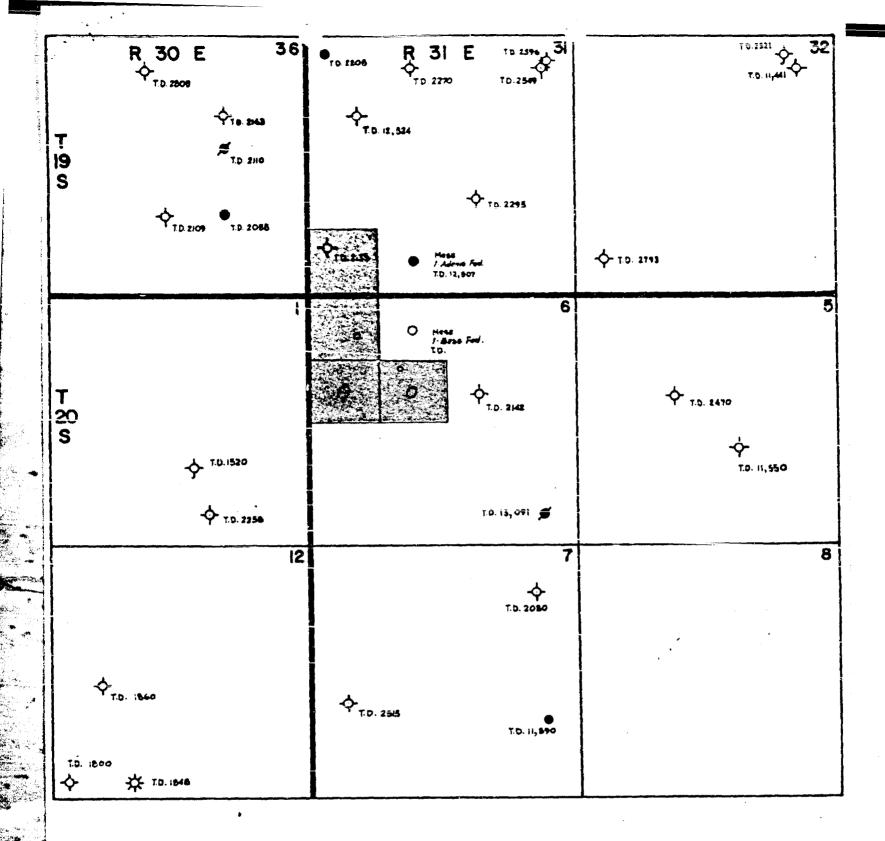
Respectfully submitted,

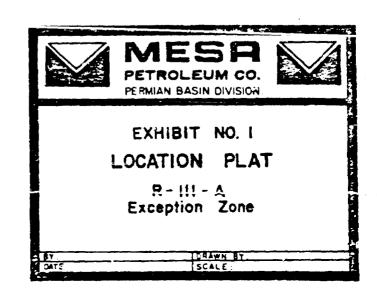
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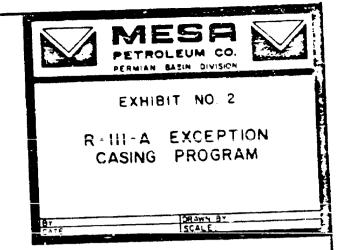
y: William F. J.

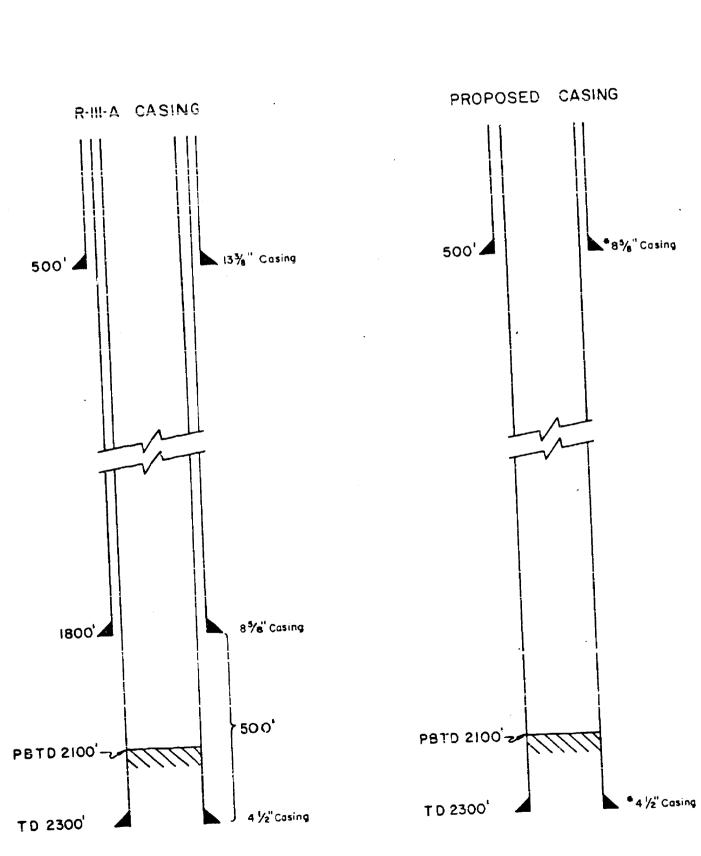
D. D. DENT
D. DALE GILLETTE
Mesa Petroleum Co.
P. O. Box 2009
Amarillo, Texas 79189

Attorneys for Mesa Petroleum Co.









Cement to be circulated to surface after running 85€ and 4½ casing strings to cover all pay and salt zones.



October 11, 1979

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MESA-PBD

Mr. John Magraw, Resident Manager Duval Corporation P. O. Box 511 Carlsbad, New Mexico 88220

Dear Mr. Magraw:

MESA PETROLEUM CO. EXHIBIT NO. 3-A

Mesa Petroleum Co. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" Casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

It should be noted, that the locations of the two proposed wells have been located more than 1000 feet from the open mine workings located in the southwest portion of the section as shown by the attached diagram per an agreement reached between representatives of Mesa Petroleum Co, Mississippi Chemical Corporation, Potash Company of America Division, and Duval Corporation on October 4, 1379.

It is requested that you signify that your company has no objections to the proposed operations and locations by signing and returning the original of this letter.

Yours very truly,

Muchael P. Nouston

Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Duyal Corporation

John Magray, Resident Manager

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00T 17 1979

MESA-PBD

Mr. J. R. Walls, General Manager Mississippi Chemical Corporation P. O. Box 101

Carlsbad, New Mexico 80220

MESA PETROLEUM CO.

Dear Mr. Walls:

October 11, 1979

Mesa Petroleum Co. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

It should be noted, that the locations of the two proposed wells have been located more than 1000 feet from the open mine workings located in the southwest portion of the section as shown by the attached diagram per an agreement reached between representatives of Mesa Petroleum Co, Mississippi Chemical Corporation, Potash Company of America Division, and Duval Corporation on October 4, 1979.

It is requested that you signify that your company has no objections to the proposed operations and locations by signing and returning the original of this letter.

Yours very truly,

Muchael P. Wonston

Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Mississippi Chemical Corporation

By: J. R. Walls, General Manager

 ∇ LC 063241 C 730 FNL 9 910 FWL 1450 FML 1850' FWL

BEFORE THE OIL CONSERVATION DIVISION NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

IN RE: APPLICATION OF	§		
MESA PETROLEUM CO. FOR	§		1
AN EXCEPTION TO ORDER	S	CASE NO.	6765
NO. R-111-A, AND AN	§		
UNORTHODOX DRILLING LOCATION	§		

APPLICATION

comes now mesa petroleum co. (hereinafter referred to as "Applicant") by and through its attorneys, and hereby makes application for an order granting an exception to certain requirements of Order No. R-111-A, Case No. 270 (hereinafter referred to as the "Potash Order"), issued the 13th day of October, 1955, by the Oil Conservation Commission of New Mexico (hereinafter referred to as the "Commission"), and further, requests approval of an unorthodox drilling location, and in support thereof would show the following:

l. Applicant is the owner of 47.20% working interest in oil and gas leases covering an area including the SW/4 SW/4, Section 31, Township 19 South, Range 31 East; the NW/4 NW/4, the SW/4 NW/4 and the SE/4 NW/4 of Section 6, Township 20 South, Range 31 East of Eddy County, New Mexico, encompassing 160 acres, more or less, as shown in greater detail on Mesa Petroleum Co. Exhibit No. 1 attached hereto and incorporated herein.

2. Applicant proposes to drill two development wells within said tracts which wells would be located as follows:

(a) Bass Federal #2 1450 feet FNL and 1850 feet FWL of Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico

- (b) Bass Federal #3 730 feet FNL and 910 feet FWL of Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico
- 3. Applicant requests an exception from the requirements of Section IV, subparagraphs C(a) and S(b)(i) of the Potash Order as those provisions would affect the drilling of the above described wells. Applicant proposes instead to drill and set surface casing in the "Red Bed" section of the basal Rustler formation, estimated at 500 feet (as required under Section IV, subparagraph 2(a) of the Potash Order), thereafter to drill to a total depth of approximately 2300 feet where completion casing will be set and cemented with sufficient volume to cover all pay and salt zones, and tie cement back into surface casing. Attached hereto and incorporated herein is Mesa Petroleum Co. Exhibit No. 2 which further describes the casing program.
- 4. Applicant has been advised that there exists an open potash mine running through the NW/4 of Section 6 and the SW/4 of Section 6. Said potash deposits are under lease from the U. S. Government to the Duval Corporation (hereinafter referred to as "Duval"), which in turn has subleased

the deposits to the Mississippi Chemical Corporation (hereinafter referred to as "Mississippi"), which company now operates the mine. Prior to filing this Application, Applicant has engaged in discussions with Duval and Mississippi regarding the proposed well locations of the Bass Federal #2 and the Bass Federal #3, as well as the proposed casing program set forth in Paragraph 3 herein. As a result of those discussions, Duval and Mississippi have approved the proposed locations and have likewise approved Mesa's proposed casing program and have evidenced their consent by the execution of separate letters both dated October 11, 1979, copies of which are attached hereto as Mesa Petroleum Co. Exhibits 3-A and 3-B, respectively. Each proposed well location is in excess of 1000 feet from the open mine working located in Section 6 (see attachment to Exhibits 3-A and 3-B).

- outside the area of proven potash deposits, and are sufficiently removed from any open potash mine, so that no good and valid reason exists to set a "salt protection" casing string as provided in the Potash Order. Further, Applicant would show that to set "salt protection" casing on each well would increase the cost of drilling the well by approximately \$90,000.
 - 6. In order to maintain the 1000 feet margin between the open potash mine and the proposed well locations,

Applicant has been required to propose a well location for its Bass Federal #2 which is an unorthodox location under the Commission's spacing rules.

7. By granting the requested exception, and by authorizing the unorthodox drilling location, the Commission's stated objective of preventing waste, protecting correlative rights and permitting the economic recovery of oil and gas from the potash minerals area will be promoted, and at the same time assuring the conservation of New Mexico's potash deposits.

WHEREFORE, PREMISES CONSIDERED, the Applicant prays that this Application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law, the Division enter its Order granting an exception to the Potash Order as requested by Applicant in this Application, authorizing an unorthodox drilling location for Applicant's Bass Federal #2 well as requested in this Application, and for such other and further relief as may be proper.

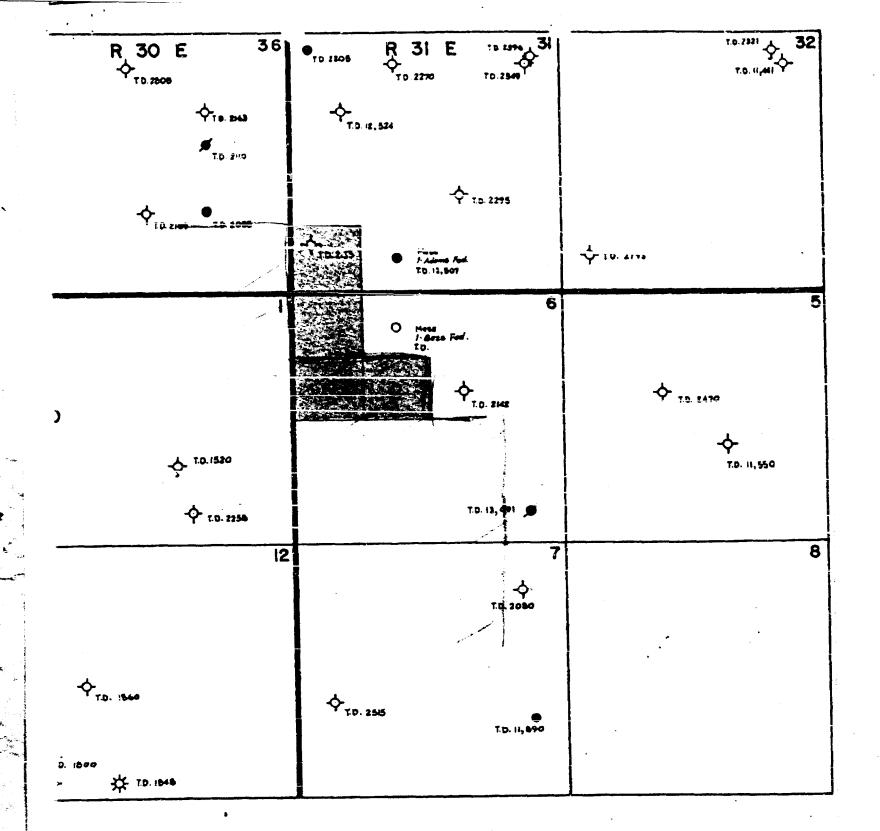
Respectfully submitted,

CAMPBELL AND BLACK, P.A.

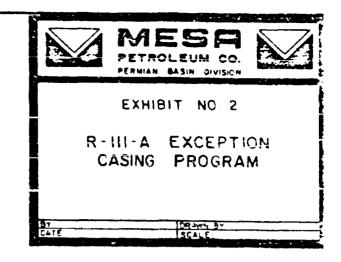
y: 4 William Q. C

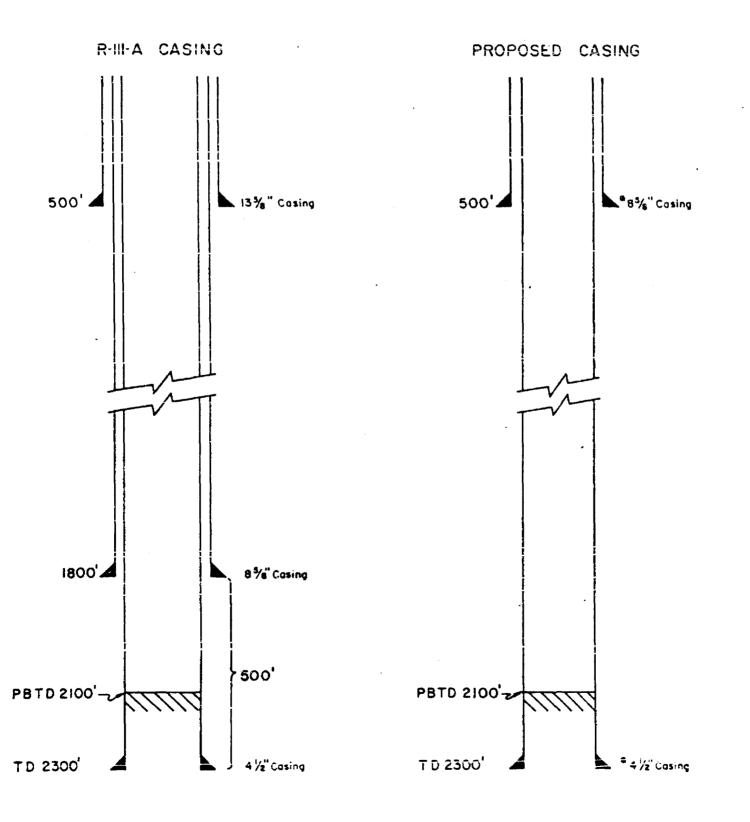
D. D. DENT
D. DALE GILLETTE
Mesa Petroleum Co.
P. O. Box 2009
Amarillo, Texas 79189

Attorneys for Mesa Petroleum Co.











October 11, 1979

RECEIVED

OCT 1 G 1979

MESA-PBD

Mr. John Magraw, Resident Manager Duval Corporation P. O. Box 511 Carlsbad, New Mexico 88220

Dear Mr. Magraw:

MESA PETROLEUM CO. EXHIBIT NO. 3-A

Mesa Petroleum Co. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

It should be noted, that the locations of the two proposed wells have been located more than 1000 feet from the open mine workings located in the southwest portion of the section as shown by the attached diagram per an agreement reached between representatives of Mesa Petroleum Co, Mississippi Chemical Corporation, Potash Company of America Division, and Duval Corporation on October 4, 1979.

It is requested that you signify that your company has no objections to the proposed operations and locations by signing and returning the original of this letter.

Yours very truly.

unchael P. Wouston

Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

John Magray, Resident Manager

730 FNL 910 FWL 1450 FAL 1850' FWL



RECSIVED

October 11, 1979

CCT 1 7 1979

Mr. J. R. Walls, General Manager Mississippi Chemical Corporation P. O. Box 101 Carlsbad, New Mexico 88220 MESA-PBD

MESA PETROLEUM CO. EXHIBIT NO. 3-B

Dear Mr. Walls:

Mesa Petroleum Co. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

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Michael P. Wonston

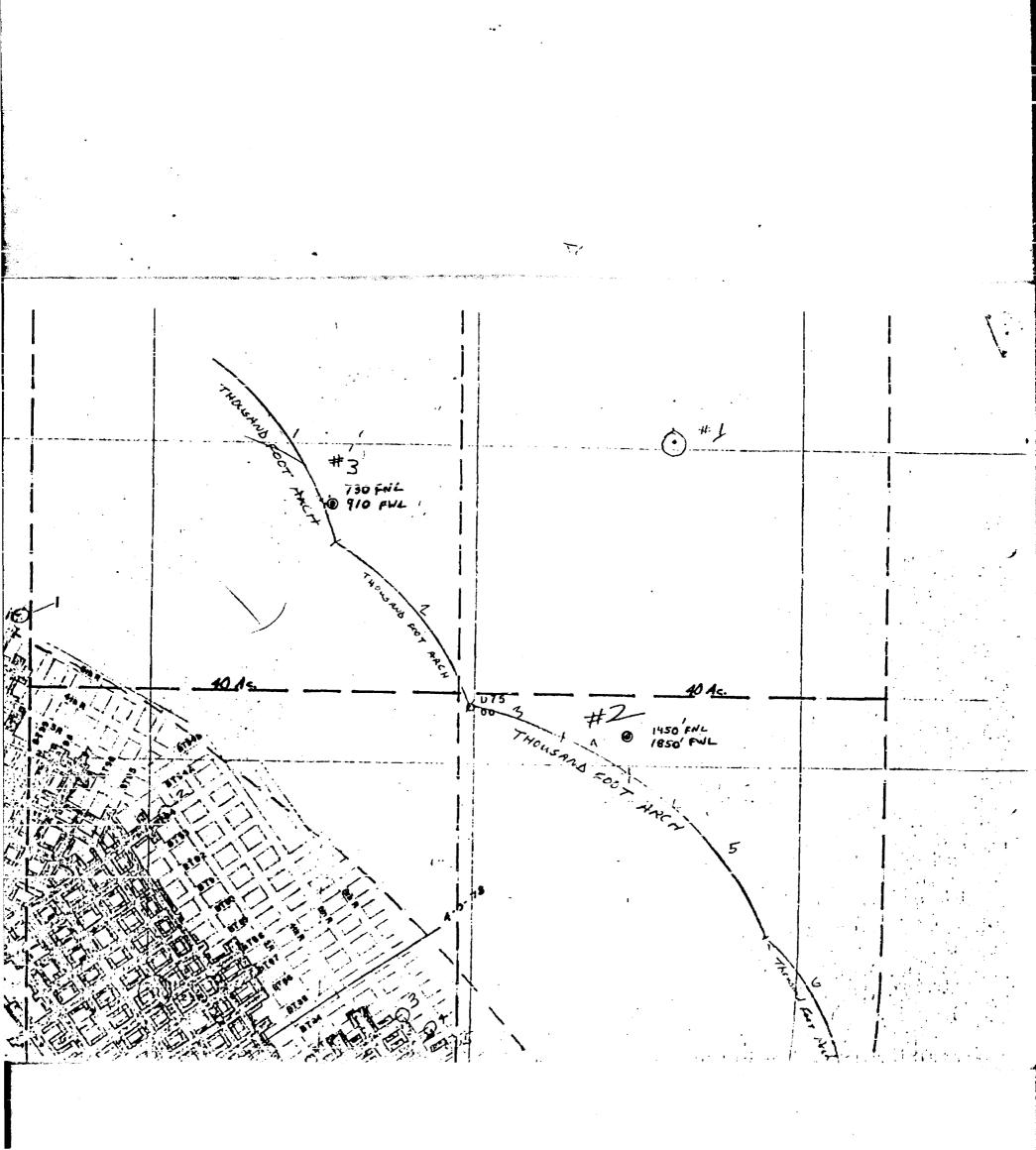
Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Mississippi Chemical Corporation

By: J. R. Walls, General Manager



BEFORE THE OIL CONSERVATION DIVISION NEW MEXICO DEPARTMENT OF ENERGY AND MIMERALS

IN RE: APPLICATION OF	§		
MESA PETROLEUM CO. FOR	§		1
AN EXCEPTION TO ORDER	ş	CASE NO.	6765
NO. R-111-A, AND AN	S	•	
UNORTHODOX DRILLING LOCATION	6		

APPLICATION

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l. Applicant is the owner of 47.20% working interest in oil and gas leases covering an area including the SW/4 SW/4. Section 31, Township 19 South, Range 31 East; the NW/4 NW/4, the SW/4 NW/4 and the SE/4 NW/4 of Section 6, Township 20 South, Range 31 East of Eddy County, New Mexico, encompassing 160 acres, more or less, as shown in greater detail on Mesa Petroleum Co. Exhibit No. 1 attached hereto and incorporated herein.

2. Applicant proposes to drill two development wells within said tracts which wells would be located as follows:

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1450 feet FNL and 1850
feet FWL of Section 6,
Township 20 South, Range
31 East, Eddy County, New
Mexico

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- 3. Applicant requests an exception from the requirements of Section IV, subparagraphs 3(a) and 3(b)(i) of the Potash Order as those provisions would affect the drilling of the above described wells. Applicant proposes instead to drill and set surface casing in the "Red Bed" section of the basal Rustler formation, estimated at 500 feet (as required under Section IV, subparagraph 2(a) of the Potash Order), thereafter to drill to a total depth of approximately 2300 feet where completion casing will be set and cemented with sufficient volume to cover all pay and salt zones, and tie cement back into surface casing. Attached hereto and incorporated herein is Mesa Petroleum Co. Exhibit No. 2 which further describes the casing program.
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- 5. Applicant believes that the proposed wells are outside the area of proven potash deposits, and are sufficiently removed from any open potash mine, so that no good and valid reason exists to set a "salt protection" casing string as provided in the Potash Order. Further, Applicant would show that to set "salt protection" casing on each well would increase the cost of drilling the well by approximately \$90,000.
- 6. In order to maintain the 1000 feet margin between the open potash mine and the proposed well locations,

Applicant has been required to propose a well location for its Bass Federal #2 which is an unorthodox location under the Commission's spacing rules.

7. By granting the requested exception, and by authorizing the unorthodox drilling location, the Commission's stated objective of preventing waste, protecting correlative rights and permitting the economic recovery of oil and gas from the potash minerals area will be promoted, and at the same time assuring the conservation of New Mexico's potash deposits.

WHEREFORE, PREMISES CONSIDERED, the Applicant prays that this Application be set for hearing before the Division's duly appointed examiner, and that after notice and hearing as required by law, the Division enter its Order granting an exception to the Potash Order as requested by Applicant in this Application, authorizing an unorthodox drilling location for Applicant's Bass Federal #2 well as requested in this Application, and for such other and further relief as may be proper.

Respectfully submitted,

CAMPBELL AND BLACK, P.A.

D. D. DENT

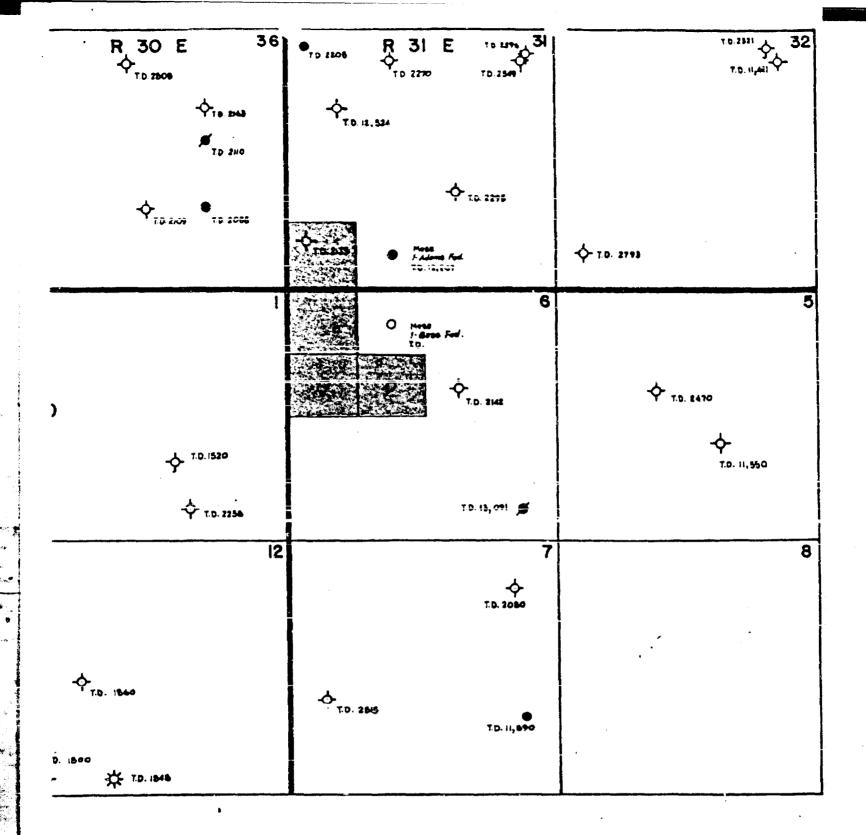
D. DALE GILLETTE

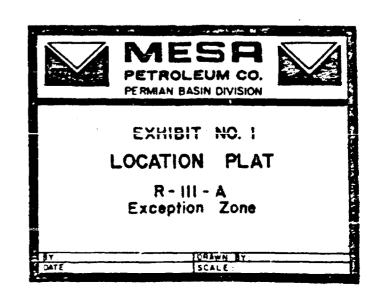
Mesa Petroleum Co.

P. O. Box 2009

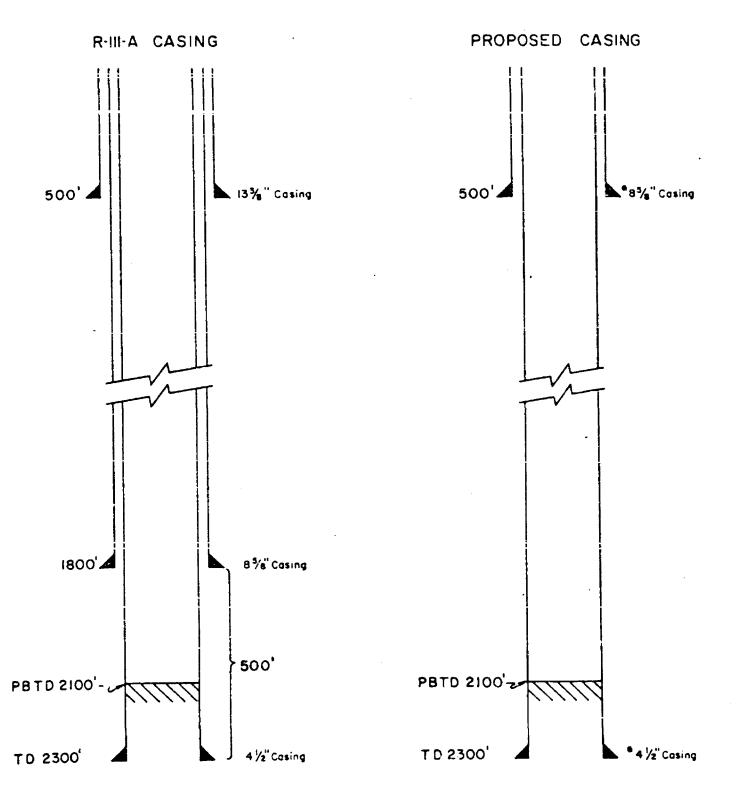
Amarillo, Texas 79189

Attorneys for Mesa Petroleum Co.









 $[\]bullet$ Cement to be circulated to surface after running $8\%^{\prime\prime}$ and $4\%^{\prime\prime}$ casing strings to cover all pay and salt zones.



October 11, 1979

RECEIVED

OCT 1 G 1979

MESA-RED

Mr. John Magraw, Resident Manager Duval Corporation P. O. Box 511 Carlsbad, New Mexico 88220

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unchael P. Houston

Michael P. Houston Operations Manager

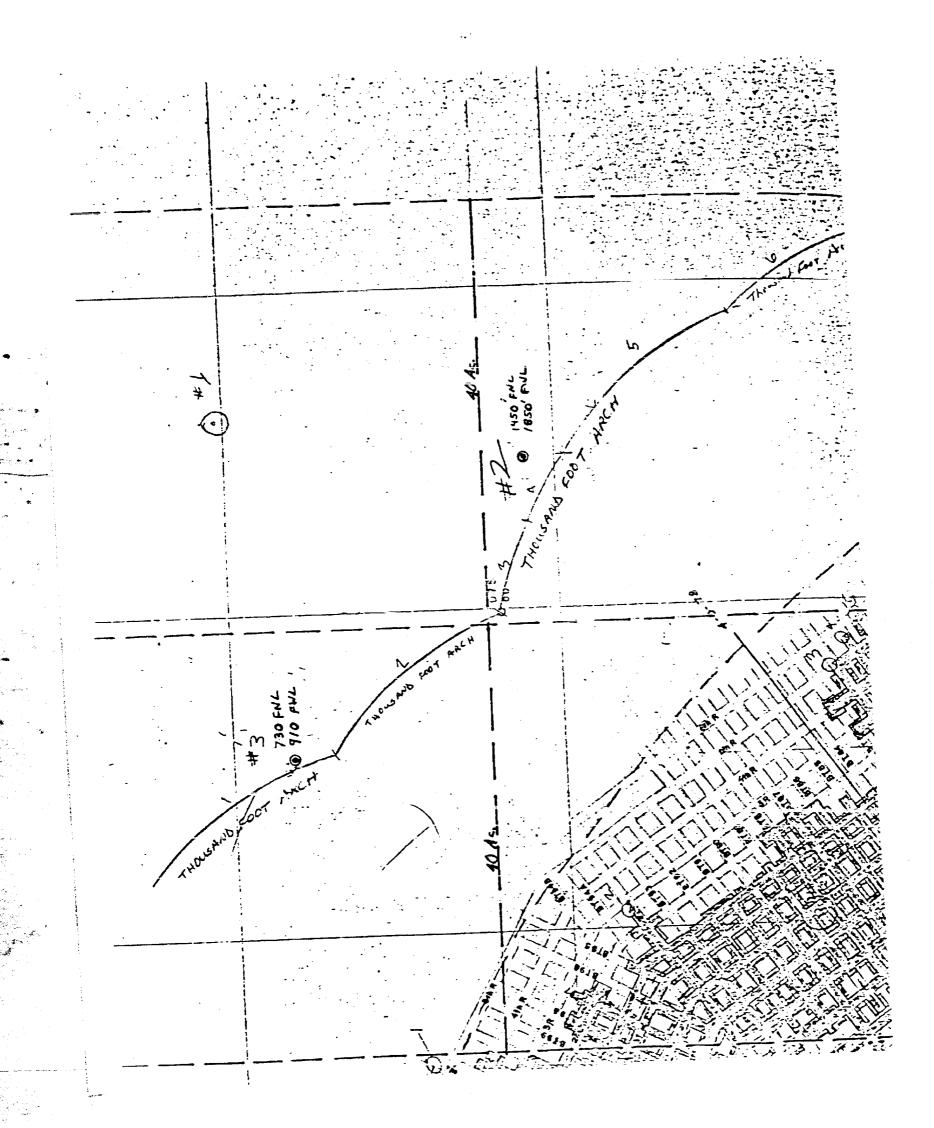
MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Buyal Corporation

John Magray, Resident Manager

NACE A DETROI ELINA CO





October 11, 1979

Mr. J. R. Walls, General Manager Mississippi Chemical Corporation P. O. Box 101 Carlsbad, New Mexico 88220

Dear Mr. Walls:

RECSIVED

CCT 17 1979

MESA-PBD

MESA PETROLEUM CO. EXHIBIT NO. 3-B

Mesa Petroleum Co. is proposing to drill two development wells in Section 6, Township 20 South, Range 31 East, Eddy County, New Mexico. These wells are to be designated as the Bass Federal #2 located 1450' FNL & 1850' FWL and the Bass Federal #3 located 730' FNL & 910' FWL. It is further intended to drill these wells under an amended casing program omitting the intermediate "salt protection" string. Instead, Mesa Petroleum Co. plans to run a surface string to approximately 500', and circulate cement to the surface. Next, a production string of 4-1/2" casing would be run to total depth and cement circulated to the surface. This method has been used on adjacent area wells and provides excellent protection. Appropriate logs will be provided to Mississippi Chemical Corp. for the salt zones after the well is drilled.

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Muchael P. Nouston

Michael P. Houston Operations Manager

MPH/mp

The undersigned has no objections to the operations and locations outlined above.

Mississippi Chemical Corporation

By: J. R. Walls, General Manager

77 730 FNL 910 FWL 1450 FML 1850' FWL

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

WR

CASE NO. R-6238

APPLICATION OF MESA PETROLEUM CA FOR TWO EXCEPTIONS TO ORDER NO. R-111-A AND AN UNORTHODOX OIL WELL LACATION, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on December 12, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this ____ day of January, 1487, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Meso Petroleum Compseeds an exception to the casing/cementing rules for the Oil-Potash Area as promulgated by Order No. Reliberation permit two proposed wells, its Bass be located in Units of Section 6. Township 20 South, Range action 31 East, Eddy County, New Mexico, to be completed with a string Mos. 2 of surface casing set at approximately 500 feet with cement and 3, Circulated to the Surface, and a production casing string set at total depth in the Delaware formation at approximately 2300 feet with a volume of cement calculated to be sufficient to circulated to the surface.
 - (3) That the applicant further proposes that it be permitted to complete other possible wells that it may drill to the Leo Queen-Grayburg-San Andres Pool in the same manner as that proposed for the subject well, and that such possible additional wells would be located on the following described lands:
 - (3) That the applicant further requests approval for the unorthodox location of the aforesaid Bass Federal WEII NO. 2, which would be drilled at a point 1450 feet from the North line and 1850 feet from the North line and 1850 feet from the locat line of Said Section 6.

Of Street

(4) That the aforesaid Base Federal Well No. 3, being laceted in the NW/4 NW/4 of Section 6, Township 20 South, Range 31 East, NMPM. is not within the Polash Difference Area as defined by Division Order No. R-111-A, as that therefore to the Casing/Cementing times of said Order is necessary for Jaid Wall.

(3) That the evidence presented indicates that the proposed Ban Federal W211 No. 2, by being and the proposed unorthodox location, will be at least 1000 feet lateral distance from the nearest potash one body, and that the approval of the proposed casing cementing exception for said WELL WILL have no adverse effect on Known potash reserves.

(6) That the unorthodox location for the aforesaid Bass Federal will not impair the casulative rights of any corner of oil and gas rights in the area

- (7) That for any well drilled pursuant to this order, the applicant should report the following both to the district office of the Division and the U.S.G.S: and may be required to circulate sement to the surface around the production casings.
 - (a) Any water flows encountered; and
 - (b) The top of the cement around the production casing as determined by temperature survey if such cement does not circulate.
- (8) That approval of the subject application will protect correlative rights, will provent waste and will not cause the waste of potash.

IT IS THEREFORE ORDERED:

Anorthodox location 1450 feet from the North line and 1850 feet from the North line.

(1) That the applicant, Mesa Petroleum on is hereby authorized an exception to the casing/cementing rules for the Polastic Area as promulgated by Order No. R-111-A to permit its Bass Federal Well No. Z which will be drilled at an of Section 6.

Township 20 South, Range 31 East, NMPM,

Best Eddy County, New Mexico, to be completed with a string of surface casing set.

With cement circulated to the surface, mately 2360 feet with cement circulated to the surface,

(2) That the above-described amorthalog location los said Base Federal Well No. 2 is housty approved.

- (3) That for any well drilled pursuant to this order, the applicant shall report the following, both to the district office of the Division and the U,S,G,S;
 - (a) Any water flows encountered; and
 - The top of the cement around the production casing as determined by temperature survey if such cement does not circulate.

PROVIDED HOWEVER, that on any such well, the applicant may be required to re-cement the production casing to the surface if cement on said casing did/circulate to the surface.

That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary,

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

> STATE OF NEW MEXICO DIL CONSERVATION PIVISION

JOE D. RAMEY Director

SEAL

(4) That that portion of this case relating to a casing/comenting exception for applicant's proposed Base Federal Well no 3 is horty dismissed.