

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

9 January 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of B & E, Inc. for amend- CASE  
ment to Division Order No. R-7031, 8800  
Eddy County, New Mexico.

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division: Jeff Taylor  
Attorney at Law  
Legal Counsel to the Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For the Applicant: Roger E. Yarbrow  
Attorney at Law  
MAREK & YARBROW P. A.  
P. O. Drawer AA  
Carlsbad, New Mexico 88221-AA

## I N D E X

T. E. (TIM) KELLY

Direct Examination by Mr. Yarbrow 5

Cross Examination by Mr. Catanach 9

Redirect Examination by Mr. Yarbrow 12

PHIL WITHROW

Direct Examination by Mr. Yarbrow 14

Cross Examination by Mr. Catanach 20

1  
2 MR. CATANACH: Call next Case  
3 Number 8800.

4 MR. TAYLOR: The application of  
5 B & E, Incorporated, for amendment of Division Order No. R-  
6 7031, Eddy County, New Mexico.

7 MR. CATANACH: Are there ap-  
8 pearancss in this case?

9 MR. YARBRO: Mr. Examiner,  
10 Roger E. Yarbrow, Marek and Yarbrow, Carlsbad, New Mexico,  
11 Post Office Drawer AA.

12 I'll call two witnesses appear-  
13 ing for the applicant.

14 MR. CATANACH: Are there any  
15 other appearances in this case?

16 Will the witnesses please stand  
17 and be sworn in?

18  
19 (Witnesses sworn.)  
20

21 MR. YARBRO: Mr. Examiner, if I  
22 may, I'd like to call to the attention of the Commission  
23 that in Case Number 7612 this matter was taken up in con-  
24 siderable detail.

25 I have a copy of the transcript

1 in that hearing that was heard in 1982 and I would submit it  
2 to the Commission for administrative notice.

3 I would also like to point out  
4 that the order that came out of that hearing approved the  
5 application for the discharge at that time, set a capacity  
6 limit of 7500 barrels, and made a specific finding that the  
7 capacity of the systems to be built was 14,400 barrels per  
8 day.

9 The first witness that I will  
10 call is Mr. Tim Kelly.

11  
12 T. E. (TIM) KELLY,  
13 being called as a witness and being duly sworn upon his  
14 oath, testified as follows, to-wit:

15  
16 DIRECT EXAMINATION

17 BY MR. YARBRO:

18 Q Mr. Kelly, would you state your name for  
19 the record, please, sir?

20 A Tim Kelly.

21 Q And what's your employment?

22 A I am President of Geohydrology Asso-  
23 ciates, a water resources consulting firm in Albuquerque.

24 Q Have you testified before the Division  
25 before?

1 A Yes, I have.

2 Q And in what capacity?

3 A As an expert witness.

4 Q Concerning?

5 A Concerning the hydrologic conditions in  
6 Eddy and Lea County.

7 Q Okay, sir.

8 MR. YARBRO: Would the Division  
9 accept him as an expert or should I further qualify him?

10 MR. CATANACH: Mr. Kelly, when  
11 was the last time you testified, do you recall?

12 A I believe it was in 1984.

13 MR. CATANACH: Okay, the wit-  
14 ness is considered qualified.

15 Q Mr. Kelly, at my request did you go to  
16 Eddy County, New Mexico, and review the hydrological condi-  
17 tions surrounding the group of salt lakes, including the  
18 Great Salt Lake, Laguna Tres, Laguna Cuatro, and other un-  
19 named lakes in that area?

20 A Yes.

21 Q When did you go down there, sir?

22 A In November, 1985.

23 Q And at that time did you examine the area  
24 surrounding B & E's operating salt water disposal facility?

25 A Yes, sir.

1                   Q           Did you examine the areas of water where  
2 the system was discharging into the lake system?

3                   A           Yes, I did.

4                   Q           Let me ask you, did you notice anywhere  
5 in the lake system any type of petroleum products?

6                   A           No, sir.

7                   Q           All right, sir. Would you give the Divi-  
8 sion a brief description of the hydrological conditions that  
9 exist in this lake area system?

10                  A           The lake area system consists of a number  
11 of lakes, the largest of which is the Great Salt Lake, or La  
12 Sala Grande, and then there are a number of tributary lakes,  
13 Laguna Uno, Laguna Tres, up through Laguna Seis, as well as  
14 Lindsey Lake. All of these are in Nash Draw, which is a  
15 collapsed structure geologically that is presently occupied  
16 by the potash industry to a large extent.

17                               The area may have had had fresh water  
18 years ago; however, since the potash industry began dischar-  
19 ging in 1947 there's been no evidence of fresh water and  
20 many of the stock wells in that area have been abandoned.

21                               The discharge from the potash refineries  
22 go into the ground or into these lakes. IMC, the largest  
23 discharger, is at the south end and immediately north of the  
24 B & E facility, and it discharges about 5000 gallons a  
25 minute into Laguna Uno. All of this is hydrologically con-

1 nected, both groundwater and surface water, with the major  
2 discharge point being surface evaporation off of these lakes  
3 and La Sala Grande.

4 The total surface area of these lakes is  
5 roughly 16,000 acres, of which about half is La Sala Grande  
6 and the other half are miscellaneous lakes in the system  
7 that drain into La Sala Grande.

8 Q Are there any fresh water systems that  
9 are threatened in any way by the disposal of brine water  
10 through B & E's facility?

11 A No, sir. As near as we were able to de-  
12 termine, the nearest fresh water is a stock well which is  
13 approximately two miles east of the facility.

14 Q And that isn't it a fact that that is up-  
15 stream from where B & E is discharging?

16 A Yes, it is.

17 Q Okay. Did you also perform for B & E an  
18 evaluation of the lake system in 1982?

19 A Yes, I did.

20 Q Could you compare for the Division your  
21 findings in 1985 as compared to 1982?

22 A The -- the water levels in the lakes in  
23 1985 were lower than they were in 1982, approximately 8  
24 tenths of a foot, or 10 inches below the 1982 levels, so  
25 there is a connection between Laguna Cuatro and Laguna Tres

1 under a county road through a culvert, and we measured the  
2 discharge through that in 1982 and the discharge was about  
3 500 gallons a minute. In November of '85 it was 470 gallons  
4 a minute.

5 So, basically, the system has improved  
6 rather than deteriorated since 1982.

7 Q Could you therefore give the Division  
8 your conclusion as to whether or not the system currently  
9 under operation by B & E, has it had any impact on the sys-  
10 tem?

11 A No, sir.

12 Q Okay, and no adverse impact?

13 A It's had no adverse impact on the system.

14 Q You understand, do you not, Mr. Kelly,  
15 that B & E is now seeking permission from the Divison to ex-  
16 pand its authority to dispose of brine water into the system  
17 from 7500 barrels per day to 15,000 barrels per day, is  
18 that correct, sir?

19 A Yes, sir.

20 Q And have you reached a conclusion as to  
21 whether or not that would have any adverse impact on the  
22 water system?

23 A I don't believe it would have any adverse  
24 impact, no, sir.

25 Q All right, sir. And you've already tes-

1       tified that there's no impact on fresh water supplies in the  
2       area, is that correct?

3               A               That's correct.

4               Q               From a hydrological viewpoint, is there  
5       any reason that you are aware of that the Division should  
6       not grant the additional authority requested by B & E?

7               A               No, sir.

8               Q               B & E also has pending in this applica-  
9       tion a second matter in that B & E is seekign authority to  
10      use open pits for the disposal of solid waste products.

11              You have discussed with Mr. Withrow, have  
12      you not, sir, the system that he proposes to use and how he  
13      intends to put the solid waste into the pits?

14              A               Yes, I have.

15              Q               In your opinion, sir, would the estab-  
16      lishment of solid waste pits in that area adversely affect  
17      the hydrological system?

18              A               No, sir.

19                              MR.    YARBRO:       Mr.   Examiner,  
20      that's all the questions I have of this witness.

21

22                              CROSS EXAMINATION

23      BY MR. CATANACH:

24              Q               Mr.   Kelly, would the additional water  
25      being dumped into the lake, is this going to raise the

1 level?

2           A           The, during the past two years the -- B &  
3 E has put in approximately 2500 gallons per day and there  
4 has been a decline in the water levels, so if they doubled  
5 that or went to their full capacity, in my opinion it might  
6 raise the level of the lake but it would not be detrimental  
7 to the surface.

8           Q           Mr. Kelly, can you -- are you qualified  
9 to answer a question about the type of solids that are going  
10 to be disposed into this --

11           A           Well, it's my understanding they're going  
12 to be the solids resulting from well drilling, the cuttings,  
13 the drilling mud, and so forth.

14           Q           Do you know or -- okay, do you know if  
15 there is any fresh water in the immediate area? You said  
16 there was a well two miles away?

17           A           Two miles away is the nearest stock well  
18 that we were able to locate that had fresh water. It was  
19 marginal as far as potability is concerned. It had nearly  
20 1000 parts per million dissolved solids.

21           Q           Even though there are some wells in the  
22 immediate area, do you know that there is not fresh water in  
23 the area?

24           A           We've -- the study that we did for the  
25 Bureau of Reclamation in 1978, we drilled over 50 test holes

1 in Nash Draw itself and were unable to find any fresh water  
2 in Nash Draw itself, and that would certainly include this  
3 area.

4 I might also mention that the site is not  
5 far north of the WIPP site and the work down there, which we  
6 have been a subcontractor on, has failed to show any fresh  
7 water, either.

8 Q Do you have any information at this time  
9 about the construction of the pits, how many pits you're  
10 going to use?

11 A I think Mr. Withrow can address that.  
12 It's my understanding they're going to be unlined pits, but  
13 the fact that their content will be largely bentonite and  
14 drill cuttings suggests to me that there'll be very little  
15 water escape from these, and if so, it would be similar to  
16 the chemical composition of the brine being discharged, so  
17 it would have no effect on the system.

18 Q Mr. Kelly, do you know the capacity of  
19 the system as it is right now, your -- the capacity of your  
20 system?

21 A The design capacity --

22 Q Yes.

23 A -- is 7500 gallons -- or 7599 barrels per  
24 day.

25 Q But the maximum capacity?

1                   A           Of the lakes?    I'm sorry, I don't under-  
2 stand.

3                   Q           Your disposal system?

4                               MR. WITHROW:   If I -- can I an-  
5 swer that?

6                               MR. CATANACH:   Oh, it's okay to  
7 wait till you testify.

8                               MR. WITHROW:   Okay.

9                               MR. CATANACH:   Okay.   I have no  
10 further questions of Mr. Kelly at this time.

11                              MR. YARBRO:    If I might just  
12 clarify a couple of points.

13

14

REDIRECT EXAMINATION

15 BY MR. YARBRO:

16                   Q           The fresh water well that's some two  
17 miles away, that well is upstream, is it not, from the dis-  
18 posal facility?

19                   A           That's correct. The groundwater movement  
20 is from the well towards the facility.

21                   Q           Okay. Therefore, does the disposal of  
22 brine water into the lake system from the B & E facility, is  
23 there any reasonable probability that the water would flow  
24 back to the fresh water well?

25                   A           No, sir.

1           Q           You testified that the B & E increased  
2 capacity might raise the level in the lake system, is that  
3 not --

4           A           That's correct.

5           Q           -- you testified to that. In your testi-  
6 mony in 1982 you also testified that it might raise the  
7 level of the lake system, isn't that correct, sir?

8           A           Yes.

9           Q           And as a matter of fact, since that time  
10 it has decreased, hasn't it?

11          A           Yes, sir.

12          Q           With regard to the system's capability,  
13 Mr. Kelly, you don't have any firsthand knowledge of the  
14 exact capacity of the system, do you, sir?

15          A           No, we don't. Our calculations of the  
16 system were based on evaporation studies in one lake for one  
17 year, but it's a very complex area and I feel that the cal-  
18 culations that we made are conservative as far as the capa-  
19 city of the system is concerned.

20          Q           I'm not sure when the Examiner asked you  
21 if he was talking about the lake system or the B & E plant  
22 system.

23                       Other than what Mr. Withrow has informed  
24 you, you have no firsthand knowledge of the capacity of the  
25 B & E plant system, do you?

1           A           No, I don't.

2           Q           Okay.

3                       MR. CATANACH: Okay, I have no  
4 further questions.

5                       MR. YARBRO: I'd like to call  
6 Mr. Withrow at this time.

7

8                       PHIL WITHROW,  
9 being called as a witness and being duly sworn upon his  
10 oath, testified as follows, to-wit:

11

12                       DIRECT EXAMINATION

13 BY MR. YARBRO:

14           Q           Would you state your name for the record,  
15 please?

16           A           Phil Withrow, President of B & E.

17           Q           Mr. Withrow, you appeared before the Com-  
18 mission in 1982 seeking permission to establish the first  
19 salt water disposal facility on this lake system, is this  
20 correct?

21           A           Yes, sir.

22           Q           And the Commission, as a result of that  
23 hearing, actually granted you, or B & E, Inc., authority for  
24 two stations with a maximum capacity of 7500 barrels per day  
25 for each station. Isn't that correct?

1           A           That's correct.

2           Q           You've only put in one of the stations.

3           A           That's correct.

4           Q           That station is on private property, is  
5 it not, sir?

6           A           Yes, it is.

7           Q           At this time you've chosen not to use the  
8 other station because it's either on State land or BLM land  
9 and the facility that you have is taking care up to this  
10 point of the needs that you have.

11          A           That's correct.

12          Q           All right, sir. When you appeared before  
13 the Commission in 1982, you discussed with them about  
14 building a plant that would handle a maximum capacity of  
15 14,400 barrels per day, isn't that correct, sir?

16          A           That's correct.

17          Q           Would you tell the Examiner what the ac-  
18 tual capacity of the plant that was built was?

19          A           We constructed a plant that basically  
20 will have twice the capacity of what we were granted author-  
21 ity to put water in the lake on a daily basis.

22                    The reason that we built it twice as  
23 large is due to construction cost and standard size tanks we  
24 used, we were able to double the size of it for about the  
25 cost of building a plant that would just handle 7500 bar-

1 rels.

2 We used standard 750 and 1000 barrel  
3 tanks and we didn't have to build any special equipment or  
4 special size tanks to accommodate the number of barrels per  
5 day that we could (not clearly understood), so we wound up  
6 with a system that has a capability of putting 15,000 bar-  
7 rels a day through this system, and within a few dollars, we  
8 built a plant double the size of what we were granted  
9 authority to put in the lake.

10 Q C. E. Matco designed that system for B &  
11 E, Inc., didn't they, Mr. Withrow?

12 A Yes, they did.

13 Q And in preparation for this hearing, did  
14 you visit with the engineer for C. E. Matco who designed and  
15 supervised the construction of your plant?

16 A Several times.

17 Q Who was that individual, sir?

18 A Bill Ball.

19 Q And did Mr. Ball express an opinion to  
20 you, sir, as to whether or not the plant was capable of  
21 handling 15,000 barrels per day?

22 A In Mr. Ball's opinion it will handle  
23 15,000 barrels a day and they built a little -- they were  
24 conservative in their estimate.

25 The truth of the matter is it will handle

1 close to 22,000 barrels a day.

2 Q That was Mr. Ball's opinion?

3 A Yes, sir.

4 A But conservatively, it will handle 15,000  
5 barrels a day.

6 Q You heard me ask Mr Kelly about the dis-  
7 posal or whether or not he had observed any petroleum by-  
8 products in the lake system itself, Mr. Withrow.

9 First of all, let me ask you, you have a  
10 man at the scene of the disposal facility twice a day, is  
11 that correct, sir?

12 A Yes, sir, a minimum of at least two hours  
13 each visit.

14 Q Okay. Have you ever observed the dispo-  
15 sal of any petroleum related products into the lake system  
16 from your disposal facility and has any of your employees  
17 responsible for the supervision of that disposal facility  
18 ever reported to you the observation of any petroleum re-  
19 lated products coming from the plant?

20 A (Inaudible.)

21 Q Mr. Withrow, the other request that you  
22 have before the Commission under this same number relates to  
23 the use of open pits, is that correct, sir?

24 A Yes, sir.

25 Q Could you, first of all, tell the Exam-

1     iner what type of products you would like to dispose of in  
2     those pits?

3             A             Primarily drilling mud that's hauled --  
4     it is put in reserve pits at the drilling wells and they  
5     need to put that somewhere so they can close the pits at a  
6     drilling site.

7             And we've had calls to do that. There's  
8     no place in Eddy County to do that, so when we pick it up  
9     with vacuum trucks, we take it to over in Lea County. To my  
10    knowledge there's no place in Eddy County to dispose of  
11    drilling mud or cuttings that come from the well itself.

12            They're required to remove that some-  
13    times, especially if it's an in-town drilling site.

14                         MR. YARBRO: Mr. Examiner, at-  
15    tached to our application is a description of the process?

16                         Do you desire me to have him go  
17    through them?

18                         MR. CATANACH: No, sir, I may  
19    have some questions on it later.

20                         MR. YARBRO: Okay.

21             Q             Mr. Withrow, after the pits are within a  
22    certain feet of the surface, after you fill them up, how,  
23    first of all, how full or close to the surface do you pro-  
24    pose to fill the pits?

25             A             Within two feet.

1           Q           And then after you get there, what would  
2 you do with the pits?

3           A           Well, we'd allow them to dry for a long  
4 period of time; any moisture evaporate out of them; and pro-  
5 bably we would break those pits or leave them set for a long  
6 time, and we would eventually cover them up and dig new  
7 pits, if necessary.

8           Q           Have you observed the open pits being  
9 used in Lea County?

10          A           Yes, sir.

11          Q           And is there any significant difference  
12 between the open pits that you propose and the open pits  
13 that are being used in Lea County?

14          A           No, sir.

15          Q           Can you tell the Division the name of the  
16 location where the open pits are in Lea County?

17          A           It belongs to Larry Squires. He owns a  
18 transport truck in Lea County, called General Petroleum.

19          Q           So far as you know those pits are ap-  
20 proved by this Division?

21          A           Yes, for several years.

22          Q           All right, sir. Mr. Withrow, is it your  
23 opinion that the pits are needed in Eddy County for the pur-  
24 poses of conservation?

25          A           Yes, sir.

1           Q           And with regard to your request to expand  
2 the capacity of your existing salt water disposal facili-  
3 ties, is it your opinion that that expansion is necessary  
4 for the purpose of conservation?

5           A           Yes, sir.

6                               MR. YARBRO: Pass the witness.

7

8                               CROSS EXAMINATION

9 BY MR. CATANACH:

10           Q           Mr. Withrow, the original plans for your  
11 system, were they submitted in the case -- in the cases re-  
12 ferred to?

13           A           Yes, sir.

14           Q           Originally?

15           A           Yes, sir.

16           Q           Back in 1982?

17           A           Yes, sir.

18           Q           Are there any substantial differences be-  
19 tween the way the plant was actually constructed and the  
20 plans that you submitted to the Division at that time?

21           A           No, sir, there's not any.

22           Q           Except the size.

23           A           Except that when we built the plant it  
24 will handle a lot more than we've every put through it.

25           Q           Mr. Withrow, are you aware why back in

1 1982 that you were limited to 7500 barrels a day at that  
2 time?

3 A As I read the hydrological report at that  
4 time, we were told that the lakes would probably evaporate  
5 14-to-20,000 barrels -- 15-to-20,000 barrels a day, any one  
6 lake would.

7 But to be conservative, so that we -- in  
8 the case of a lot of cloudy weather or evaporation (not un-  
9 derstood), we were limited to 7500 barrels at that time to  
10 stay well below the evaporation capacity.

11 Q Concerning your pits that you plan to  
12 construct, do you plan to dispose of any kind of drilling  
13 fluids that contain petroleum products?

14 A No, sir.

15 Q Mr. Withrow, will these pits be fenced in  
16 compliance with orders by the Division?

17 A The particular piece of property we're on  
18 now is fenced on two sides and it borders the lake on the  
19 other side, which it is covered by an outside fence.

20 Q So it is protected from --

21 A Yes, sir.

22 Q -- livestock getting in.

23 A Yes, sir.

24 Q The three pits that you plan to drill, is  
25 that sufficient for your -- for your needs at this time?

1           A           Yes, sir, there may be point in time as  
2 we fill one of those pits with drilling mud we would need to  
3 add an additional pit. That's what is taking place in Lea  
4 County. When they fill one they just build another pit, as  
5 needed.

6                           MR. CATANACH: I have no  
7 further questions of this witness.

8                           Are there any other questions  
9 of this witness?

10                           If not, he may be excused.

11                           MR. YARBRO: Mr. Examiner, do  
12 you desire a copy of the transcript in the first hearing?

13                           MR. CATANACH: I don't really  
14 need it. We have copies here.

15                           Is there anything further in  
16 Case 8800?

17                           If not, it will be taken under  
18 advisement.

19

20

(Hearing concluded.)

21

22

23

24

25

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY  
CERTIFY that the foregoing Transcript of Hearing before the  
Oil Conservation Division (Commission) was reported by me;  
that the said transcript is a full, true, and correct record  
of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 8800  
heard by me on January 9 1986.

David R. Catanz, Examiner  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

22 January 1986

EXAMINER HEARING

IN THE MATTER OF:

Application of B & E, Inc. for  
amendment to Division Order No.  
R-7031, Eddy County, New Mexico.

CASE  
8800

BEFORE: Michael E. Stogner, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation  
Division:

Jeff Taylor  
Legal Counsel to the Division  
Oil Conservation Division  
State Land Office Bldg.  
Santa Fe, New Mexico 87501

For the Applicant:

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MR. STOGNER: Let's go ahead  
and call Case 8800.

MR. TAYLOR: The application of  
B & E, Incorporated, for amendment to Division Order No. R-  
7031, Eddy County, New Mexico.

MR. STOGNER: This case was  
heard January 9th, 1986, but due to an advertisement error  
this case was readvertised and continued for today.

We'll now call for appearances.

MR. WITHROW: Mr. Stogner, I  
appear for B & E Incorporated.

THE REPORTER: Would you state  
your name?

MR. WITHROW: Bill Withrow.

MR. STOGNER: Will you spell  
your last name?

MR. WITHROW: W-I-T-H-R-O-W.

And, Mr. Stogner, I appear  
without counsel as President of B & E, and would like to,  
due to the advertisement error, just ask that the -- that on  
the 9th we did appear with counsel and witnesses and pre-  
sented testimony and evidence.

But if there are no inter-  
venors, that our evidence be accepted as it was presented on

1 the 9th.

2 MR. STOGNER: Thank you, Mr.  
3 Withrow. Do you wish to present any additional evidence at  
4 this time?

5 MR. WITHROW: No, sir.

6 MR. STOGNER: Or any additional  
7 testimony?

8 MR. WITHROW: No, sir.

9 MR. STOGNER: Does anybody else  
10 wish to appear in this case today, offer any additional evi-  
11 dence or testimony?

12 There being none, if you have  
13 nothing further, Mr. Withrow, this case will be taken under  
14 advisement.

15 MR. WITHROW: Thank you.

16 MR. STOGNER: Thank you for  
17 coming.

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19 (Hearing concluded.)

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## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY  
CERTIFY that the foregoing Transcript of Hearing before the  
Oil Conservation Division (Commission) was reported by me;  
that the said transcript is a full, true, and correct record  
of the hearing, prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 8800  
heard by me on 22 January 1986.

Michael E. Segner, Examiner  
Oil Conservation Division