

Case Number

6033

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
September 14, 1977

EXAMINER HEARING

IN THE MATTER OF:

Application of Basin Fuels, Inc., for  
salt water disposal, McKinley County,  
New Mexico.

CASE  
6033

BEFORE: Richard L. Stamets, Examiner.

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the New Mexico Oil  
Conservation Commission:

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Legal Counsel for the Commission  
State Land Office Building  
Santa Fe, New Mexico

For the Applicant:

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1 MR. STAMETS: We will call the next case, Number  
 2 6033.

3 MS. TESCHENDORF: Case 6033, application of Basin  
 4 Fuels, Inc., for salt water disposal, McKinley County,  
 5 New Mexico.

6 MR. STAMETS: Call for appearances in this case?

7 MR. COOLEY: I have one witness.

8 (THEREUPON, the witness was sworn.)

9  
 10 JACK D. COOK

11 was called as a witness for the applicant, and having been  
 12 first duly sworn, testified upon his oath as follows:

13  
 14 DIRECT EXAMINATION

15 BY MR. COOLEY:

16 Q State your name fully for the record?

17 A My name is Jack D. Cook and I reside 2910 Knudson  
 18 Avenue, Farmington, New Mexico.

19 Q What is your occupation, Mr. Cook?

20 A I am employed by 3E Company as a Petroleum Engineer.

21 Q What is your educational background?

22 A I have previously testified before the Commission  
 23 and if it would be necessary that I restate those qualifications  
 24 I would be glad to.

25 MR. COOLEY: Are his qualifications okay, Mr.

1 Examiner?

2 MR. STAMETS: Your qualifications have been  
3 accepted before and the witness is considered qualified.

4 MR. COOLEY: He is a Petroleum Engineer?

5 MR. STAMETS: Right.

6 Q (Mr. Cooley continuing.) Mr. Cook, what do you  
7 propose to do with respect to the application and the wells  
8 in question and would you tell the Examiner why you feel that  
9 this is necessary?

10 A Mr. Examiner, to comply with a number of federal  
11 requirements we are presently disposing of water via surface  
12 pits for the applicant here, Basin Fuels, in the Franciscan  
13 Lake Mesaverde Pool in McKinley County, New Mexico.

14 We have seven wells that are in non-compliance at  
15 this time and it is our proposal that we take one of the  
16 TA wells being the Slick No. 1 and make it into or put the  
17 whole thing into a pressure maintenance project whereby we  
18 would be injecting water into the Point Lookout zone.

19 Previously we had made application for a salt water  
20 disposal of this well and take all of the members of the  
21 Mesaverde section or formation and to inject into them. That  
22 would be the Menefee and the Point Lookout.

23 We would like to amend that -- change that from  
24 a salt water disposal application to a pressure maintenance  
25 application and to inject all of the produced water into

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1 the Point Lookout zone.

2 Q All right. What zones would those be?

3 A Specifically, it would be into perforations twenty-  
 4 seven fifty-two to fifty-five and in addition to that we  
 5 would open another sand development, lower member, of the  
 6 Point Lookout from twenty-seven eighty-two to twenty-seven  
 7 ninety-six.

8 Q What would this accomplish?

9 A Well, hopefully, there are offset wells that have  
 10 the same producing horizons open. Being a pressure maintenance  
 11 project we would hopefully be able to sustain some of the  
 12 pressure in the reservoir effecting the upper set of  
 13 perforations and the lower set of perforations that we propose  
 14 to open -- being two separate lenses or sand developments  
 15 in the Point Lookout -- two separate benches.

16 Q Now, if you were required to squeeze off or in  
 17 any way close off the perforations in the Menefee what  
 18 adverse effect would it have on future projects of this  
 19 operation?

20 A If I may make a clarification there, Mr. Examiner,  
 21 the particular well bore that we intend to use has six  
 22 separate intervals open and a number of the sand members  
 23 of the Mesa -- the Menefee section as well as the Point  
 24 Lookout -- the Francisian Lake Pool is a multi-pay area and  
 25 the sands in the Menefee are very lenticular and they are

1 limited in extent -- all of them are limited to the extent  
2 with the exception of the Point Lookout which is a blanket  
3 sand.

4 We would, in this case, like to set a packer above  
5 the Point Lookout and to leave the perforations in the Menefee  
6 that are presently open, exposed, and our reason for that  
7 being that it is a multi-pay zone or field and as we go ahead  
8 and develop it more than likely more than several of these  
9 may be important to future pressure maintenance.

10 We feel like if we are required to squeeze them  
11 off that it will damage them and perhaps damage them beyond  
12 repair and this particular well would then not be suited  
13 for future pressure maintenance type of well or an injection  
14 well.

15 Q Do you anticipate pressure maintenance in this  
16 zone?

17 A Yes, I would say actually, of course, that depends  
18 on what future development brings.

19 Q Economics, of course, must come into bear upon  
20 this but from a standpoint of production of additional oil  
21 and gas from this area pressure maintenance would be dictated,  
22 is that correct?

23 A Yes. There isn't any question about that. The  
24 Menefee part of the Mesaverde section there, the Menefee  
25 members, a solution gas, a drive type of reservoir and there

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1 is not any active water associated with it.

2 I say active -- there is a very limited amount  
3 of water produced with the Menefee, out of the Menefee  
4 pays, and I think certainly in time if the development  
5 justifies it it would warrant pressure maintenance into  
6 these sands and trying to go ahead and recover additional  
7 oil.

8 Q Would plugging or any sort of disassociation of  
9 these perforations that we presently have in the Menefee  
10 interfere or adversely effect the pressure maintenance project  
11 that you have in mind?

12 A Yes, squeezing them off and perhaps damaging them  
13 with cement would, if the project develops adversely, affect  
14 it.

15 Q Do you have any recommendations as an engineer with  
16 respect to whether these perforations should or should not be  
17 cemented or plugged off in any way?

18 A It would be my recommendation to the Examiner that  
19 the perforations be left as they are. That we isolate  
20 them with a packer and that we make provision to put a non-  
21 corrosive fluid, which in this case we would recommend oil,  
22 behind the packer and that we monitor our surface pressures  
23 so that we make sure that we do not have any commingling  
24 either via the tubing string or behind the pipe or whatever  
25 the case might be.

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Q Now, how would this be demonstrated? How could the Commission or any other engineer be aware of whether there was or wasn't any commingling or any sort of lost fluid?

A The frack gradients required to inject into the Point Lookout formation have demonstrated to us that pressure is going to be required to put water away.

Obviously, if the annular area stays static or zero pressure it would be a positive method of determining whether there is any communication established or not.

Q Would Basin Fuels be willing to have this situation tested at any and all times at the request of the Oil Conservation Commission?

A Yes, they would.

Q Now, we have another problem. Is it possible for you to so to say put the water away, we have to put it away, at the point oh two per foot level that has been established by the Oil Conservation Commission?

A I think some of the guidelines that the Commission has established being a gradient of point two PSI per foot will not allow us to use this well for injection purposes.

Mr. Examiner, do you have a copy of the application?

MR. STAMETS: This one?

A No, we have one here -- I would refer you to about the third or fourth sheet from the back of a table entitled "Treating Pressure Data - Point Lookout" and what I have done

1 here is to tabulate -- we have treated almost all of, in fact,  
2 we have treated all of the wells in the pool in the Point  
3 Lookout zone and you will notice from there our immediate  
4 shut in pressures and most of them are in the magnitude, at  
5 least, well, the least one we have is four hundred seventy-five  
6 and it runs up to eight hundred.

7 This would require a gradient of somewhere between  
8 point two-three and point three to be able to inject into  
9 the formation.

10 The particular well that we are proposing to convert  
11 into an injection status had an immediate shut in pressure  
12 of eight hundred after stimulation.

13 Q What would this require in terms of a gradient?

14 A Well, we feel like we would need a gradient somewhere  
15 in the range of point three.

16 MR. COOLEY: Mr. Examiner, is there any rule or  
17 regulation of the Oil Conservation Commission concerning  
18 this matter or is this simply a policy?

19 MR. STAMETS: A policy.

20 Q (Mr. Cooley continuing.) If demonstrated to the  
21 Examiner that it is simply a physical impossibility to  
22 dispose of the water that we are speaking of without causing  
23 any harm to any other formation would there be any problem  
24 concerning this situation?

25 MR. STAMETS: Higher pressures have been allowed

1 when it has been demonstrated that the results will not  
2 cause any danger of fresh waters.

3 MR. COOLEY: I would like for you to question  
4 the witness with respect to this.

5 MR. STAMETS: All right, as soon as I have a chance  
6 to look at these exhibits.

7  
8 CROSS EXAMINATION

9 BY MR. STAMETS:

10 Q Mr. Cook, I think what we will do is to label this  
11 packet as Exhibit Number One and number the pages in  
12 sequence and I believe we had better stop and do that right  
13 now --

14 MR. COOLEY: The reporter will do that will he  
15 not?

16 MR. STAMETS: Well, I need to know what I am talking  
17 about.

18 Q (Mr. Stamets continuing.) I have marked the Exhibit  
19 Number One with page numbers starting with one on the first  
20 page through thirteen being the map --

21 A Yes, sir, I have mine marked accordingly.

22 Q Okay. Now, on page thirteen does this constitute all  
23 of the wells which exist in this particular area?

24 A That is correct, Mr. Examiner.

25 Q So, there are no other wells which are not shown

1 completed in other formations or plugged or abandoned?

2 A. No, there are no plugged and abandoned wells at  
3 least for two miles and everything that you see there is  
4 presently in the field.

5 Q. So, the well that you propose injecting is an edge  
6 well in this particular pool?

7 A. Only from the standpoint, Mr. Examiner, that  
8 development hasn't gone any further than this.

9 This is a farm-out and it has a development clause  
10 in there and the client just has not developed it completely.

11 Q. What water volume are you talking about?

12 A. We are talking about -- I will refer to page ten  
13 of the exhibit. Right now we are producing seven hundred and  
14 forty barrels of water per day from the wells in the field.

15 Q. You seem to have quite a range in total dissolved  
16 solids and chloride content and why is that?

17 A. I can't answer that. The Menefee sands are relatively  
18 fresh as you will note there from the chlorides and when you  
19 get into the Point Lookout you do get into more saline waters  
20 ranging in magnitude of eighteen thousand milligrams per  
21 liter.

22 That is another reason why we amended our application.  
23 As we got into it and as we looked at the quality of water  
24 we felt like we would be putting water into the Point Lookout  
25 that was equivalent or of a better quality than was presently

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1 there.

2 Q So, that is what your amended application will  
3 result in is at least equivalent quality water going into  
4 the Point Lookout?

5 MR. COOLEY: A weighted average.

6 A That's correct. It certainly won't be any worse.

7 Q (Mr. Stamets continuing.) Now, do you have anything  
8 which shows the casing and cementing of those wells which are  
9 within a half a mile of the proposed injection wells?

10 A Yes. I would refer you to page eight of the exhibit  
11 and there I have tabulated the well names that are within  
12 a half a mile of the proposed well and the casing depths  
13 and the amount of cement used and the cement tops which  
14 are measured tops and the producing intervals and the  
15 location of each well.

16 Q So, the top -- the top of the cement seems to be  
17 well above any of the producing intervals in these wells?

18 A Yes, the top producing interval that we would have  
19 out there would be approximately nineteen hundred and fifty  
20 feet. In all cases we are from five to six hundred feet  
21 above that.

22 Q Okay. Now, looking at this Star Well No. 1, for  
23 example, it would appear to me that if that well were shut in  
24 and the water was injected to the point where it made its  
25 way over to that well in the Point Lookout and if that well

1 was shut in there would be an opportunity for the salty water  
2 to move up the hole and get into the shallower sand there  
3 at nineteen eighty feet?

4 A. No, Mr. Examiner, there are no perforations open  
5 in the Point Lookout in the Star No. 1 that is a Menefee  
6 producer.

7 Q. I see, and the other two wells are in the deeper  
8 zones?

9 A. Yes, they are. However, I would point this out  
10 that there is some commingling of the Menefee and the Point  
11 Lookout in the field which has been approved by the Commission.

12 Q. Now, you indicated that you would like to leave  
13 these upper perforations open in the injection well and  
14 load the backside of the -- or load the casing tubing annulus  
15 with oil.

16 Now, will that oil be supported in that annular  
17 space with the perforations open?

18 A. Yes, it will. Again, I don't have it tabulated  
19 but most all of our immediate shut in pressures in the  
20 stimulation of the Menefee have ranged anywhere from four  
21 hundred and fifty to eight hundred PSI. We never have had  
22 a well go on vacuum after stimulation. Anytime we have  
23 ever done any workovers we have never lost any fluids through  
24 circulation.

25 Q. How would Commission personnel from time to time

1 be able to verify that this oil was, indeed, standing in  
2 the hole?

3 A. What we would proposed to do is to install a  
4 pressure gauge where they could monitor that. Of course,  
5 it is going to be difficult to be able to see it is standing  
6 at the surface without leaving something open and I hesitate  
7 to do that.

8 MR. COOLEY: Will Basin stand willing for an  
9 inspection by the Oil Conservation Commission at all times  
10 with respect to this matter, is that correct?

11 A. Yes, that's correct. I was thinking and trying to  
12 determine a method we could use. I believe that being able  
13 to inspect -- the fact that we don't have any pressure on  
14 the annulus would be the most positive means of observing  
15 it there.

16 As I say, we are going to require surface pressures  
17 in the magnitude of eight hundred to nine hundred pounds  
18 and with the pressure gradients that have been established  
19 for treating in the Menefee I don't believe there is anyway  
20 that they would take fluids without pressure, either.

21 So, as long as we don't have any pressure on the  
22 annulus we certainly shouldn't have any communication.

23 I can't think of a way to tell you that we would be  
24 able to monitor the fluid level. The only way that I know  
25 of is that we could monitor it with a fluid level machine,

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1 if you would be willing to accept that. We could set up a  
2 procedure there and have him witness it.

3 Q (Mr. Stamets continuing.) Are you taking any  
4 fluids in there on a regular basis, periodically?

5 A We shoot fluid levels possibly every two months,  
6 something of that nature.

7 Q So, as to a requirement to take one of those after  
8 six months or a year would not be too burdensome?

9 A No, not whatsoever.

10 Q Do you do those by sonic?

11 A We use a sonic tool.

12 Q Referring to page eleven where you have the  
13 instantaneous shut in was that after a frack or acid treatment?

14 A Most of them were after acid treatments. All of  
15 the Point Lookout zones because of the fact that the acid  
16 stimulation indicated that they were not commercial, we did  
17 not go ahead with fracturing, obviously.

18 Q Was the injection pressure above frack pressure  
19 when you put the acid in there or can you tell?

20 A Would you rephrase that?

21 Q I was just wondering if the acid was injected at  
22 fracture rates or not?

23 A No. Our normal procedure is to go ahead and spot  
24 the acid on the bottom and let it edge away and use as low  
25 a breakdown pressure as we possibly can and not fracture it



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1 and clean up.

2 Q Trying to verify the frack pressure in there could  
3 you conduct separate tests on the injection well upon its  
4 completion?

5 A Yes, sir.

6 Q The tubing in the well would be plastic coated?

7 A I haven't got to that point, Mr. Examiner. We  
8 had a client -- well, I won't say a client -- we felt like  
9 that we would go ahead and use just bare steel. We had not  
10 had that much signs of corrosion and I don't feel that the  
11 waters are that corrosive to be right truthful with you.

12 I think that the bare steel will be adequate. If  
13 we find out that it isn't and we have means of monitoring  
14 it and, again, if the Commission requests it I am sure that  
15 the client will be glad to go ahead and have it plastic  
16 coated.

17 MR. COOLEY: That is correct.

18 MR. STAMETS: Are there any other questions of the  
19 witness? The witness may be excused.

20 Mr. Cooley would you like to offer your Exhibit  
21 Number One in this case?

22 MR. COOLEY: I offer Exhibit Number One and ask that  
23 it be admitted into evidence, please.

24 MR. STAMETS: Exhibit Number One will be admitted  
25 into evidence.

1 Mr. Cooley, concerning the amendment to the  
2 application it will be necessary to continue and readvertise  
3 this case at which time we can incorporate the record of  
4 today's hearing.

5 MR. COOLEY: Does the Examiner consider it necessary  
6 to readvertise the case?

7 MR. STAMETS: Yes.

8 MR. COOLEY: We will so submit.

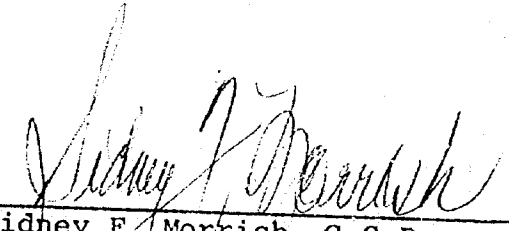
9 MR. STAMETS: Okay. The case will be taken under  
10 advisement.

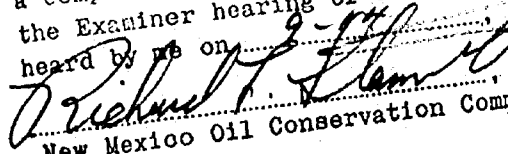
11 (THEREUPON, the witness was excused.)  
12  
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REPORTER'S CERTIFICATE

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

  
Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is,  
a complete record of the proceedings in  
the Examiner hearing of Case No. 6033,  
heard by me on 2-14-77, 1977.  
 Examiner  
New Mexico Oil Conservation Commission

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**OIL CONSERVATION COMMISSION**  
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October 20, 1977



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Re: CASE NO. 6033  
ORDER NO. R-5540

Applicant:

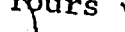
Basin Fuels, Inc.

Dear Sir:

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

Yours very truly

Yours very truly,

Yours very truly,  
  
JOE D. RAMEY  
Director

JDR/fd

Copy of order also sent to:

Hobbs OCC	x
Artesia OCC	x
Aztec OCC	x

Other

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

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

CASE NO. 6033  
Order No. R-5540

APPLICATION OF BASIN FUELS, INC.,  
FOR SALT WATER DISPOSAL,  
McKINLEY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 14, 1977, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 18th day of October, 1977, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Basin Fuels, Inc., is the owner and operator of the Slick Well No. 1, located in Unit 0 of Section 7, Township 20 North, Range 5 West, NMPM, Franciscan Lake-Mesaverde Pool, McKinley County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Mesaverde formation, with injection into the perforated interval from approximately 2752 feet to 2796 feet.

(4) That the nature of the proposed injection operation is such that it should more properly be classified as a pressure maintenance project.

(5) That the injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 2660 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(6) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the well-head pressure on the injection well to no more than 550 psi.

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Case No. 6033  
Order No. R-5540

(7) That the Secretary-Director of the Commission should be authorized to administratively approve a higher injection pressure upon a showing that such higher pressure will not result in fracturing of the confining strata.

(8) That the operator should notify the supervisor of the Aztec district office of the Commission of the date and time of the installation of injection equipment so that the same may be inspected.

(9) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(10) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Basin Fuels, Inc., is hereby authorized to institute a pressure maintenance project in the Franciscan Lake-Mesaverde Pool, McKinley County, New Mexico, by the injection of water into the Mesaverde formation, through its Slick Well No. 1, located in Unit O of Section 7, Township 20 North, Range 5 West, NMPM, McKinley County, New Mexico.

(2) That injection shall be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2660 feet, with injection into the perforated interval from approximately 2752 feet to 2796 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer;

PROVIDED FURTHER, that should casing perforations above a depth of 2660 feet in said Slick Well No. 1 not be squeezed, the operator shall demonstrate to the satisfaction of the supervisor of the Commission's district office in Aztec that the fluid column in the annulus will not "thief" into such perforations and shall determine such fluid level each six months reporting the results of such determination to the district supervisor.

(3) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the well-head pressure on the injection well to no more than 550 psi.

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Case No. 6033

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(4) That the Secretary-Director of the Commission may administratively authorize a higher wellhead injection pressure upon a showing by the operator that such higher pressure will not fracture the confining strata.

(5) That the operator shall notify the supervisor of the Aztec district office of the Commission of the date and time of the installation of disposal equipment and semi-annual injection well annulus fluid level tests so that the same may be inspected.

(6) That the operator shall immediately notify the supervisor of the Commission's Aztec district office of evidence of casing failure in the aforesaid injection well, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(7) That the project area shall comprise those proration units containing an injection well and any direct or diagonally offsetting proration unit containing a producing well.

(8) That the subject project is hereby designated the Franciscan Lake-Mesaverde Pressure Maintenance Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(9) That monthly progress reports of the project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Phil R. Lucero*  
PHIL R. LUCERO, Chairman

*Emery C. Arnold*  
EMERY C. ARNOLD, Member

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

SEAL

jr/

-3-

Case No. 6033  
Order No. R-5540

(4) That the Secretary-Director of the Commission may administratively authorize a higher wellhead injection pressure upon a showing by the operator that such higher pressure will not fracture the confining strata.

(5) That the operator shall notify the supervisor of the Aztec district office of the Commission of the date and time of the installation of disposal equipment and semi-annual injection well annulus fluid level tests so that the same may be inspected.

(6) That the operator shall immediately notify the supervisor of the Commission's Aztec district office of evidence of casing failure in the aforesaid injection well, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

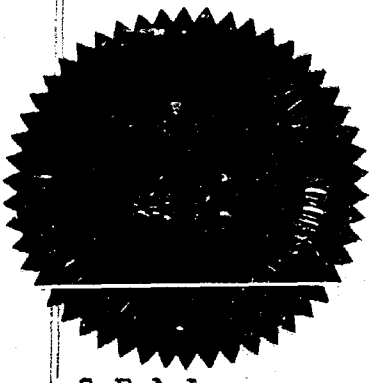
(7) That the project area shall comprise those proration units containing an injection well and any direct or diagonally offsetting proration unit containing a producing well.

(8) That the subject project is hereby designated the Franciscan Lake-Mesaverde Pressure Maintenance Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(9) That monthly progress reports of the project hereir. authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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



S E A L

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*Phil R. Lucero*  
PHIL R. LUCERO, Chairman

*Emery C. Arnold*  
EMERY C. ARNOLD, Member

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

jr/



Ex. 1  
3E COMPANY, INC. Can 00-23

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

August 16, 1977

New Mexico Oil Conservation Commission  
P.O. Box 2088  
Santa Fe, NM 87501

Attention: Joe D. Ramey  
Secretary - Director

RE: Basin Fuels, Inc.  
Salt Water Disposal  
Franciscian Lake Mesa Verde  
McKinley County, New Mexico

Dera Sirs:

Please accept this letter as an application to inject produced water for salt water disposal in the subject field. We ask that this application be expedited so that Basin Fuels may be in compliance with Federal Regulation NTL-2B. Since only Basin Fuels has producing wells within two miles of the injector, they should be the only operator to be damaged or benefit from such injection.

Points of the application are as follows:

1. The attached plat shows all locations within a two mile radius of the injection well. All of these wells belong to Basin Fuels, Inc.
2. A xerox copy of the log from Slick #1, 1980' FEL & 660' FSL, Sec 7, T20N, R5W, is attached.
3. A diagrammatic sketch of the proposed injection well showing all casing, perforations, cement tops and packer depths is attached.
4. Water will be injected in the Franciscian Lake Mesa Verde formation at perforations between 1948' and 2755'. Approximately 2000 barrels per day will ultimately be injected with an initial injection of 700 barrels per day. Injection water will come from producing wells completed in the same formation, all belonging to Basin Fuels.

will set packer at 2700'± & inject  
into perms 2752-55' & open point lookout  
perms 2782-2796.

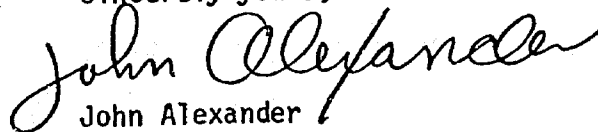
1

New Mexico Oil Conservation Commission  
Page 2  
August 16, 1977

5. Form C-108 is attached.

Please notify us, as agents for Basin Fuels, Inc., if you require further information, or if there is some problem in the method we have proposed.

Sincerely yours,

  
John Alexander

JA:st

Attachments

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020  
FARMINGTON, NEW MEXICO 87401

BASIN FUELS, INC.  
Slick #1

## Offset Lease Holders

Raymond Chorney	NM-7509 NM-7999	Lot 1 & 2 E/2 NW/4 of Sec 18
	NM-0555841	Lot 3 & 4 S/2 of NW/4 & SW/4 of Sec 5 E/2 Sec 7 W/2 Sec 8
El Paso Natural Gas	NM-055838A	W/2 Sec 7
B. J. Bradshaw	NM-8896	E/2 Sec 18 All of Sec 17
Miles J. McDough C. L. Williams	N00-7-14-20-5864 (Navajo Allotted Land)	SE/4 Sec 8

# 3E COMPANY, INC.

*Engineering • Energy • Exploration*

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

August 23, 1977

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

Attention: Mr. Joe Ramey  
State Petroleum Engineer

RE: Basin Fuels, Inc.  
Pressure Maintenance  
Franciscan Lake Mesa Verde  
Sec 7, T20N, R5W  
McKinley County, New Mexico

Dear Sir:

Basin Fuels, Inc. would like to change its original request for salt water disposal in the subject field to a pressure maintenance program. Mr. Carl Ulvog informed us via telephone on August 22, 1977, that we would have to go to a hearing in either case. Since Basin Fuels, Inc. does have Mesa Verde production within two miles of the requested injection well, we feel it best to change our request.

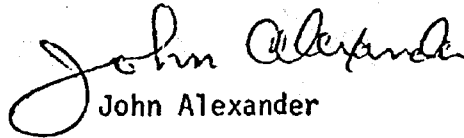
The points of our original application stand and will not be made here again.

The list of offset lease holders was not complete in the application and is updated by the attached list. These people have been notified.

We understand that this matter has been set for hearing on September 14, 1977.

Please notify us if you require further information or if there is some problem with our plan as proposed.

Sincerely yours,

  
John Alexander

JA:st

Enclosure

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# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020  
FARMINGTON, NEW MEXICO 87401

BASIN FUELS, INC.  
SLICK #1  
Sec 7, T20N, R5W  
McKinley County, New Mexico

## OFFSET LEASE HOLDERS

Mr. W. H. Brown 512 Petroleum Bldg. Casper, Wyoming 82601	NM-7245	Mary Ann Johnke P.O. Box 1368 Cheyenne, Wyoming 82001	NM-25792
Gene Grubitz III P.O. Box 1281 Santa Fe, NM 87501	NM-15646	Dr. John R. Iback, Jr. 9155 Beauclaire Circle West Jacksonville, FL 32217	NM-24455
Patrick T. Panos Trust 572 E. 6270 South Murry, Utah 84107	NM-21452	K. J. Feil 10430 60th Ave. South Seattle, Washington 98178	NM-A-23782
Husky Oil Company 1860 Lincoln Denver, CO 80203	NM-19154	Kirby Exploration Company P.O. Box 1745 Houston, Texas 77001	NM-5980
Merle C. Bay 2829 Forest Ave. Berkeley, CA 94705	NM-14092	Lucy M. English 707 N. Union Roswell, NM 88201	NM5979, 7254, 7250, 2783
Deborah A. Kennedy 4949 San Pedro Dr., N. E. Apt #47 Albuquerque, NM 87109	NM-28130	Gulf Oil Corporation Box 2100 Houston, Texas 77001	N00-C-14-20-5730 N00-C-14-20-5731
Robert E. Meyer, Jr. 836 Presido Drive Costa Mesa, CA 92626	NM-13952	Wilmer D. Landon 2275 Cherryville Road Littleton, CO 80121	NM-25802
Hayle Gentle 1117 S. Michigan Roswell, NM 88201	NM-7251	Sun Oil Company Box 2039 Tulsa, OK 74102	N00-C-14-20-4402 N00-C-14-20-4403 N00-C-14-20-4404

# 3E COMPANY, INC.

*Engineering • Energy • Exploration*

P.O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

August 23, 1977

Kirby Exploration Company  
P.O. Box 1745  
Houston, Texas 77001

RE: Basin Fuels, Inc.  
Pressure Maintenance  
Franciscan Lake Mesa Verde  
Sec 7, T20N, R5W  
McKinley County, New Mexico

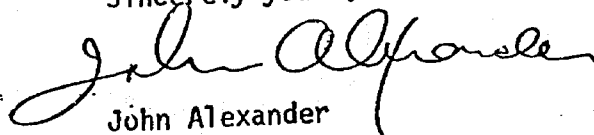
Dear Sir:

Please accept this letter as notice that Basin Fuels, Inc. intends to convert their Slick #1 in Sec 7, T20N, R5W of McKinley County, New Mexico to an injection well. Produced water will be injected in the Mesa Verde formation for pressure maintenance.

Please notify the New Mexico Oil Commission if you object to this procedure.

A public hearing has been set for September 14, 1977, in Santa Fe, New Mexico.

Sincerely yours,

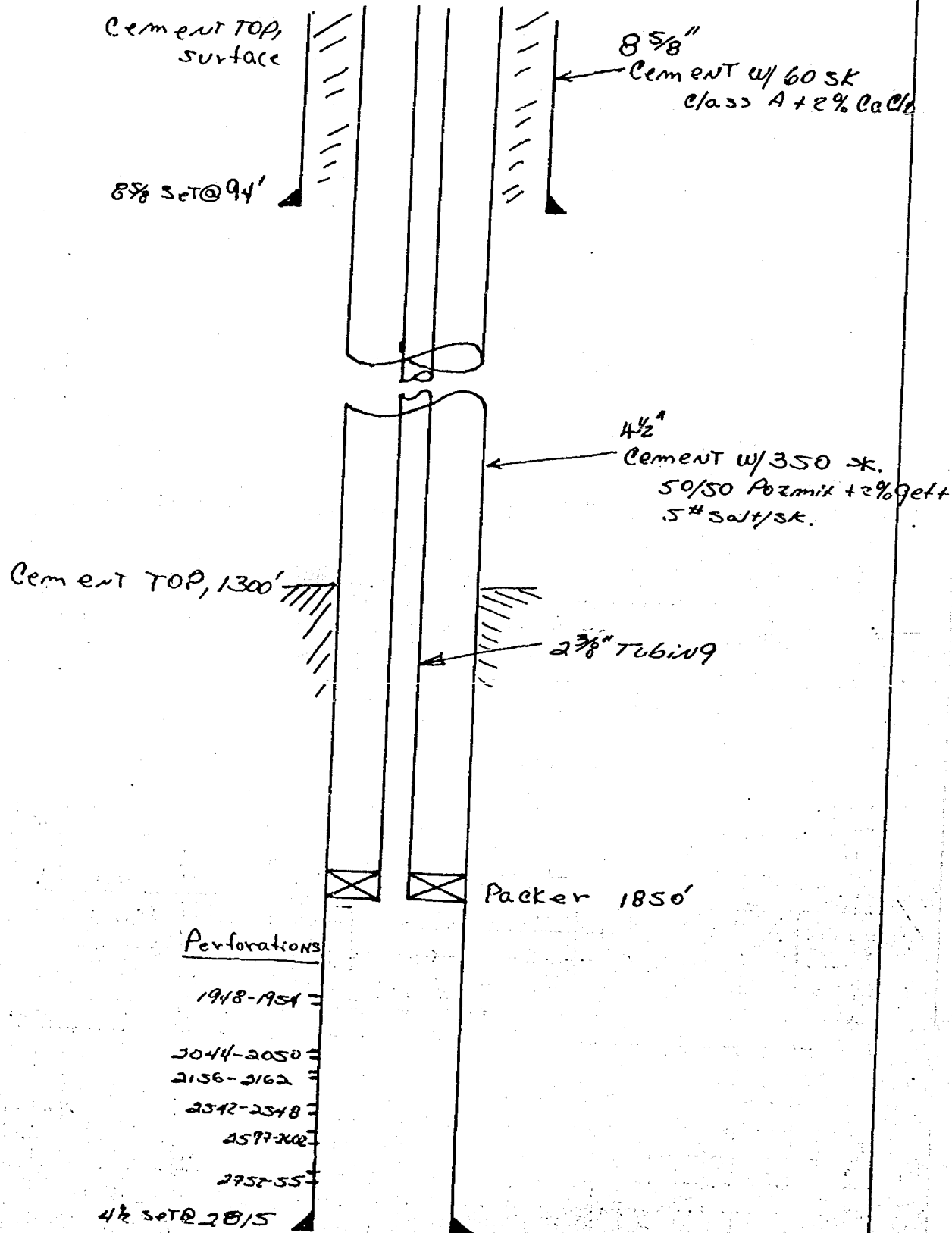
  
John Alexander

JA:st

6

# Basin Fw/5 TNC Slick #1 I Section Design

30 SHEETS 5 SQUARE  
42-381 30 SHEETS 5 SQUARE  
42-382 30 SHEETS 5 SQUARE  
42-383 30 SHEETS 5 SQUARE  
42-384 30 SHEETS 5 SQUARE  
NATIONAL



EA 877

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 —:— 505/327-4020

FARMINGTON, NEW MEXICO 87401

## EXHIBIT #

### PRESSURE MAINTENANCE APPLICATION

BASIN FUELS, INC.

SLICK #1

0-7-20N-5W

McKinley County, New Mexico

### Downhole Data - Wells ½ Mile Radius

<u>Well Name</u>	<u>Csg Size</u>	<u>Csg Depth</u>	<u>Amount Cement</u>	<u>Cement Top</u>	<u>Prod. Intervals</u>	<u>Location</u>
Scooter #1	4½"	2858'	400 Sks	1233'	2762-67 2726-30 2692-49 2106-12	D-18-20N-5I
Star #1	4½"	2883'	400 Sks	1008'	2114-20 2095-65 1980-86	M-7-20N-5W
Slick #2	4½"	2964'	350 Sks	1303'	2828-36 2816-23	G-7-20N-5W

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# 3E COMPANY, INC.

*Engineering • Energy • Exploration*

P. O. Box 190    —:—    505/327-4020

FARMINGTON, NEW MEXICO 87401

EXHIBIT NO.  
PRESSURE MAINTENANCE APPLICATION  
BASIN FUELS, INC.  
SLICK #1  
O-7-20N-5W  
McKINLEY CO., NEW MEXICO

WATER ANALYSIS - PERFORATION OPEN

<u>PERFORATIONS</u>	<u>FORMATION</u>	<u>CHLORIDES mg/l</u>
1948-1952	Menefee	990
2046-2050	Menefee	905
2156-2162	Menefee	2490
2542-2548	Menefee	6050
2597-2602	Menefee	12050
2752-2755	Point Lookout	17940

9

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. BOX 190 505/327-4020  
FARMINGTON, NEW MEXICO 87401

Exhibit #

## PRESSURE MAINTENANCE APPLICATION

BASIN FUELS, INC.  
SLICK #1  
0-7-20N-5W  
McKinley County, New Mexico

### Produced Water and Sample Analysis

<u>Well Name</u>	<u>Location</u>	<u>BOPD</u>	<u>BWPD</u>	<u>Total Dissolved Solid MG/L</u>	<u>Chl. MG/L</u>
Slick #2	G-7-20N-5W	11	296	30,588	18,105
Scooter #1	D-18-20N-5W	8	12	13,063	6,816
Star #1	M-7-20N-5W	17	19	4,308	1,037
Star #5	L-7-20N-5W	5	63	4,483	383
Easter Flats #1	H-12-20N-6W	17	11	3,741	440
Star #2	F-7-20N-5W	19	325	30,503	18,105
McCollum #1	P-12-20N-6W	11	14	3,950	767
TOTAL		78	740		

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

## EXHIBIT #

### PRESSURE MAINTENANCE APPLICATION

BASIN FUELS, INC.

SLICK #1

0-7-20N-5W

McKinley County, New Mexico

### Treating Pressure Data - Point Lookout

<u>Well Name</u>	<u>Location</u>	<u>Formation</u>	<u>Perfs.</u>	<u>Inj. Rate BPM</u>	<u>Treating Pressure-PSI</u>	<u>Immed. SIP-PSI</u>
Scooter #1	18-20N-5W	Point Lookout	2795-98	½	900	775
Slick #2	7-20N-5W	Point Lookout	2816-23 2828-36	½	475	475
Star #5	7-20N-5W	Point Lookout	2822-28	½	800	750
Star #2	7-20N-5W	Point Lookout	2828-35	15	1200	600
Easter Flats #1	12-20N-6W	Point Lookout	2794-00 2806-10 2832-36	½	725	675
Slick #1	7-20N-5W	Point Lookout	2752-55	½	1000	800



Dockets Nos. 30-77 and 31-77 are tentatively set for hearing on September 28 and October 12, 1977. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 14, 1977

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

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

- ALLOWABLE: (1) Consideration of the allowable production of gas for October, 1977, from fifteen prorated pools in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico.
- (2) Consideration of the allowable production of gas for October, 1977, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6016: (Continued from August 31, 1977 Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Land Oil Company, American Employers' Insurance Company, and all other interested parties to appear and show cause why the Garner Well No. 1 located in Unit D of Section 23, Township 14 South, Range 25 East, Chaves County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 5981: (Continued from July 6, 1977 Examiner Hearing)

Application of W. A. Monerief, Jr., for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of an oil pool for Upper-Pennsylvanian production for his State Well No. 1 located in Unit E of Section 26, Township 16 South, Range 33 East, Lea County, New Mexico, and the promulgation of special rules therefor, including a provision for 80-acre spacing.

CASE 5983: (Continued from July 20, 1977 Examiner Hearing)

Application of Yates Petroleum Corporation for the amendment of Order No. R-5445, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5445 to provide for a 200 percent risk factor for drilling the unit well rather than 20 percent. Said order pooled the N/2 of Section 19, Township 20 South, Range 25 East, Eddy County, New Mexico.

CASE 6024: Application of Read & Stevens, Inc., for two unorthodox gas well locations, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its R & J Federal Well No. 1 located in the center of Unit A of Section 20, Township 12 South, Range 31 East, and its Jackson Well No. 1, located in the center of Unit I of Section 25, Township 12 South, Range 30 East, Southeast Chaves-Queen Gas Area, Chaves County, New Mexico, the E/2 of said Section 20 and the S/2 of said Section 25, respectively, to be dedicated to the wells.

CASE 6025: Application of Roger C. Hanks for a special gas-oil ratio limitation, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a special gas-oil ratio limitation of 4000 cubic feet of gas per barrel of oil for the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico, retroactive to August 22, 1977.

CASE 6026: Application of William G. Rabe and Alice P. Rabe for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the NE/4 of Section 25, Township 27 North, Range 8 West, Blanco-Mesaverde Pool, San Juan County, New Mexico.

CASE 6027: Application of Great Lakes Chemical Corporation for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard gas proration unit comprising the SE/4 of Section 25, Township 27 North, Range 8 West, Blanco-Mesaverde Pool, San Juan County, New Mexico.

CASE 6028: Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its Luzon Unit Area comprising 5117 acres, more or less, of Federal and fee lands in Township 24 South, Ranges 35 and 36 East, Lea County, New Mexico.

CASE 6029: Application of Phillips Petroleum Company for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Tubb, Drinkard, East Brunson-McKee, and East Brunson-Ellenburger production in the wellbore of its Sims Well No. 6 located in Unit M of Section 24, Township 22 South, Range 37 East, Lea County, New Mexico.

- CASE 6030: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SE/4 SE/4 of Section 4, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to be dedicated to its re-entered Smith Well No. 1 located in Unit P of said Section 4, or in the alternative, to a well to be drilled at a standard location thereon. Also to be considered will be the cost of re-entering and recompleting or of drilling and completing the unit 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 recompleting or drilling said well.
- CASE 6032: Application of Burleson & Huff for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the SW/4 SW/4 of Section 21, Township 25 South, Range 37 East, Langlie-Mattix Pool, Lea County, New Mexico, to be dedicated to its re-entered Lanchart Well No. 1-Y located in Unit M of said Section 21, or, in the alternative, to a well to be drilled at a standard location thereon. Also to be considered will be the cost of re-entering and recompleting or of drilling and completing the unit 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 recompleting or drilling said well.
- CASE 6031: Application of Rex Alcorn for compulsory pooling and an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 SW/4 of Section 35, Township 16 South, Range 37 East, West Knowles-Drinkard Pool, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 2310 feet from the South line and 1960 feet from the West line of said Section 35. 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 6033: Application of Basin Fuels, Inc., for salt water disposal, McKinley County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Mesaverde formation through the perforated interval from 1948 feet to 2755 feet in its Slick Well No. 1 located in Unit O of Section 7, Township 20 North, Range 5 West, Franciscan Lake-Mesaverde Pool, McKinley County, New Mexico.
- CASE 6034: Application of Flag-Redfern Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the San Andres formation through the perforated interval from 4941 feet to 5022 feet in its Bilbrey "51" Well No. 1 located in Unit A of Section 23, Township 9 South, Range 37 East, Sawyer-San Andres Pool, Lea County, New Mexico.
- CASE 6035: Application of Southern Union Supply Co., for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the San Andres formation underlying the N/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, 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 6017: (Continued from August 31, 1977 Examiner Hearing)  
Application of E. L. Latham, Jr. and Roy G. Barton, Jr., for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Flying M-San Andres Pool, Lea County, New Mexico, 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 6036: Application of E. L. Latham, Jr., and Roy G. Barton, Jr., for compulsory pooling of a standard or a non-standard oil proration unit and an unorthodox location, or in the alternative, 40-acre spacing, Lea County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests in the Flying M-San Andres Pool underlying the E/2 NE/4 of Section 30, Township 9 South, Range 33 East, Lea County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location for said pool within 200 feet of the center of the NE/4 NE/4 of said Section 30, or an order pooling only the NE/4 NE/4 of Section 30 to form a non-standard 40-acre unit to be dedicated to the aforesaid well. In the alternative, applicants seek the amendment of the Flying M-San Andres Pool Rules to provide for 40-acre spacing, and seek an order pooling the aforesaid NE/4 NE/4 of Section 30 as a standard unit for said 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

Examiner Hearing - Wednesday - September 14, 1977  
Page 3 of 5

and completing the proposed 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 applicants as operator of the well and a charge for risk involved in drilling said well.

CASE 6037:

In the matter of the hearing called by the Oil Conservation Commission upon its own motion for the creation and extension of certain pools in Lea, Eddy, and Chaves Counties, New Mexico.

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Delaware production and designated as the Combs-Delaware Gas Pool. The discovery well is the Penroc Oil Corporation Combs Federal Well No. 1 located in Unit P of Section 15, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM  
Section 15: SE/4

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the East Lake-Morrow Gas Pool. The discovery well is the Coquina Oil Corporation Gulf Federal Well No. 1 located in Unit A of Section 5, Township 19 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 27 EAST, NMPM  
Section 5: N/2

(c) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Cisco production and designated as the Hume-Cisco Pool. The discovery well is Vaquero Independent Producers, Inc. Jackrabbit Draw Com Well No. 1 located in Unit L of Section 15, Township 16 South, Range 33 East, NMPM. Said pool would comprise:

TOWNSHIP 16 SOUTH, RANGE 33 EAST, NMPM  
Section 15: SW/4

(d) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the West Malaga-Morrow Gas Pool. The discovery well is the HNG Oil Company Ogden 8 Com Well No. 1 located in Unit H of Section 8, Township 24 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 24 SOUTH, RANGE 28 EAST, NMPM  
Section 8: E/2

(e) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Atoka production and designated as the Millman-Atoka Gas Pool. The discovery well is the Depco, Inc. DHI State B Well No. 1 located in Unit L of Section 11, Township 19 South, Range 28 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 28 EAST, NMPM  
Section 11: W/2

(f) CREATE a new pool in Lea County, New Mexico, classified as an oil pool for Abo production and designated as the Pearsall-Abo Pool. The discovery well is the Harvey E. Yates Company, Inc. South Maljamar Deep Well No. 1 located in Unit O of Section 30, Township 17 South, Range 32 East, NMPM. Said pool would comprise:

TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM  
Section 30: SE/4

(g) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Bone Springs production and designated as the Penlon-Bone Springs Pool. The discovery well is the Penroc Oil Corporation Allied B Well No. 1 located in Unit K of Section 27, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM  
Section 27: SW/4

(h) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Delaware production and designated as the Penlon-Delaware Gas Pool. The discovery well is the Penroc Oil Corporation Allied Com Well No. 2 located in Unit B of Section 27, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM  
Section 27: NE/4

(i) CREATE a new pool in Lea County, New Mexico, classified as a gas pool for Morrow production and designated as the Rock Lake-Morrow Gas Pool. The discovery well is the Union Oil Company of California Northern Natural State Well No. 1 located in Unit 0 of Section 28, Township 22 South, Range 35 East, NMPM. Said pool would comprise:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM  
Section 28: S/2

(j) EXTEND the Avalon-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM  
Section 22: S/2  
Section 27: All  
Section 34: N/2

(k) EXTEND the North Burton-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM  
Section 32: SW/4

(l) EXTEND the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM  
Section 24: All  
Section 25: E/2  
Section 36: All

TOWNSHIP 20 SOUTH, RANGE 28 EAST, NMPM  
Section 16: All  
Section 18: All  
Section 19: All  
Section 20: S/2  
Section 21: All  
Section 29: All  
Section 30: All  
Section 31: All  
Section 32: All  
Section 33: W/2

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM  
Section 4: Lots 3, 4, 5, 6, 11, 12, 13, & 14  
Section 5: All  
Section 8: S/2  
Section 17: All  
Section 20: All  
Section 29: W/2  
Section 30: All  
Section 31: N/2  
Section 32: W/2

(m) EXTEND the East Carlsbad-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 27 EAST, NMPM  
Section 35: S/2

(n) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM  
Section 13: N/2

(o) EXTEND the Cato-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 30 EAST, NMPM  
Section 1: NE/4

TOWNSHIP 9 SOUTH, RANGE 30 EAST, NMPM  
Section 8: NE/4

(p) EXTEND the Flying "M"-San Andres Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM  
Section 19: SE/4



- (q) EXTEND the Invian Draw-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM  
Section 7: SE/4 and N/2 SW/4  
Section 18: W/2 SW/4

- (r) EXTEND the South Leonard-Queen Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 26 SOUTH, RANGE 37 EAST, NMPM  
Section 11: SW/4

- (s) EXTEND the East Lusk-Bone Springs Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 32 EAST, NMPM  
Section 16: SE/4

- (t) EXTEND the West Tonto-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM  
Section 7: S/2 and NE/4

- (u) EXTEND the White City-Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 26 EAST, NMPM  
Section 9: All  
Section 19: All

\*\*\*\*\*

Docket No. 29-77

DOCKET: COMMISSION HEARING - TUESDAY - SEPTEMBER 20, 1977

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

---

CASE 5961: (REHEARING)

Application of D. L. Hannifin for amendment of Order No. R-4432, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-4432 to remove the present operator of the pooled proration unit comprising the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico, and to designate applicant as operator of said unit.

Case 6033

# 3E COMPANY, INC.

Engineering • Energy • Exploration

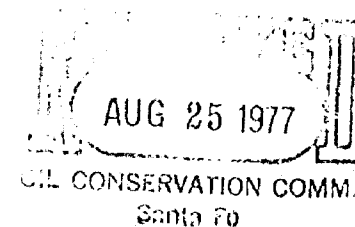
P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

August 23, 1977

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

Attention: Mr. Joe Ramey  
State Petroleum Engineer



RE: Basin Fuels, Inc.  
Pressure Maintenance  
Franciscan Lake Mesa Verde  
Sec 7, T20N, R5W  
McKinley County, New Mexico

Dear Sir:

Basin Fuels, Inc. would like to change its original request for salt water disposal in the subject field to a pressure maintenance program. Mr. Carl Ulvog informed us via telephone on August 22, 1977, that we would have to go to a hearing in either case. Since Basin Fuels, Inc. does have Mesa Verde production within two miles of the requested injection well, we feel it best to change our request.

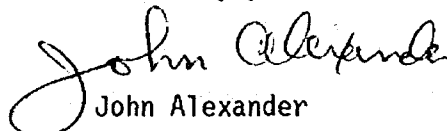
The points of our original application stand and will not be made here again.

The list of offset lease holders was not complete in the application and is updated by the attached list. These people have been notified.

We understand that this matter has been set for hearing on September 14, 1977.

Please notify us if you require further information or if there is some problem with our plan as proposed.

Sincerely yours,

  
John Alexander

JA:st

Enclosure

Case 6033

# 3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

BASIN FUELS, INC.  
SLICK #1  
Sec 7, T20N, R5W  
McKinley County, New Mexico

## OFFSET LEASE HOLDERS

Mr. W. H. Brown 512 Petroleum Bldg. Casper, Wyoming 82601	NM-7245	Mary Ann Johnke P.O. Box 1368 Cheyenne, Wyoming 82001	NM-25792
Gene Grubitz III P.O. Box 1281 Santa Fe, NM 87501	NM-15646	Dr. John R. Iback, Jr. 9155 Beauclaire Circle West Jacksonville, FL 32217	NM-24455
Patrick T. Panos Trust 572 E. 6270 South Murry, Utah 84107	NM-21452	K. J. Feil 10430 60th Ave. South Seattle, Washington 98178	NM-A-23782
Husky Oil Company 1860 Lincoln Denver, CO 80203	NM-19154	Kirby Exploration Company P.O. Box 1745 Houston, Texas 77001	NM-5980
Merle C. Bay 2829 Forest Ave. Berkeley, CA 94705	NM-14092	Lucy M. English 707 N. Union Roswell, NM 88201	NM5979, 7254, 7250, 2783
Deborah A. Kennedy 4949 San Pedro Dr., N. E. Apt #47 Albuquerque, NM 87109	NM-28130	Gulf Oil Corporation Box 2100 Houston, Texas 77001	N00-C-14-20-5730 N00-C-14-20-5731
Robert E. Meyer, Jr. 836 Presido Drive Costa Mesa, CA 92626	NM-13952	Wilmer D. Landon 2275 Cherryville Road Littleton, CO 80121	NM-25802
Hayle Gentle 1117 S. Michigan Roswell, NM 88201	NM-7251	Sun Oil Company Box 2039 Tulsa, OK 74102	N00-C-14-20-4402 N00-C-14-20-4403 N00-C-14-20-4404

Case 6033

# 3E COMPANY, INC.

Engineering • Energy • Exploration  
P.O. Box 190 — 505/327-4020  
FARMINGTON, NEW MEXICO 87401

August 16, 1977

PMX  
Sept 14

New Mexico Oil Conservation Commission  
P.O. Box 2088  
Santa Fe, NM 87501

Attention: Joe D. Ramey  
Secretary - Director

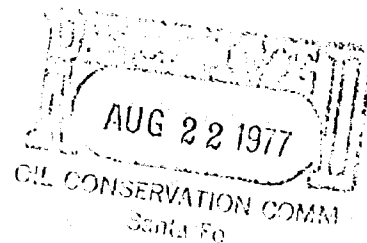
RE: Basin Fuels, Inc.  
Salt Water Disposal  
~~Franciscan~~ Lake Mesa Verde  
McKinley County, New Mexico  
*Franciscan*

Dera Sirs:

Please accept this letter as an application to inject produced water for salt water disposal in the subject field. We ask that this application be expedited so that Basin Fuels may be in compliance with Federal Regulation NTL-2B. Since only Basin Fuels has producing wells within two miles of the injector, they should be the only operator to be damaged or benefit from such injection.

Points of the application are as follows:

1. The attached plat shows all locations within a two mile radius of the injection well. All of these wells belong to Basin Fuels, Inc.
2. A xerox copy of the log from Slick #1, 1980' FEL & 660' FSL, Sec 7, T20N, R5W, is attached.
3. A diagrammatic sketch of the proposed injection well showing all casing, perforations, cement tops and packer depths is attached.  
*Franciscan*
4. Water will be injected in the ~~Franciscan~~ Lake Mesa Verde formation at perforations between 1948' and 2755'. Approximately 2000 barrels per day will ultimately be injected with an initial injection of 700 barrels per day. Injection water will come from producing wells completed in the same formation, all belonging to Basin Fuels.

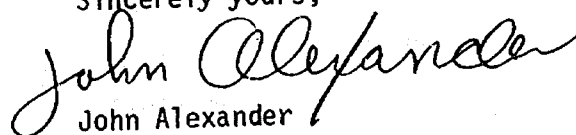


New Mexico Oil Conservation Commission  
Page 2  
August 16, 1977

5. Form C-108 is attached.

Please notify us, as agents for Basin Fuels, Inc., if you require further information, or if there is some problem in the method we have proposed.

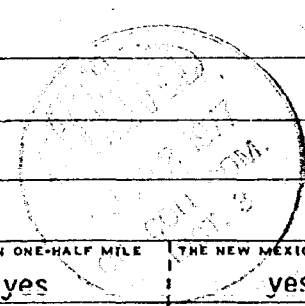
Sincerely yours,

  
John Alexander

JA:st

Attachments

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

OPERATOR <b>Basin Fuels, Inc.</b>		ADDRESS <b>Suite 300, 300 West Arrington, Farmington, NM</b>			
LEASE NAME <b>Slick</b>	WELL NO. <b>1</b>	FIELD <b>Franciscan Lake Mesa Verde</b>	COUNTY <b>McKinley</b>		
LOCATION UNIT LETTER <b>0</b> ; WELL IS LOCATED <b>660'</b> FEET FROM THE <b>south</b> LINE AND <b>1980</b> FEET FROM THE <b>east</b> LINE, SECTION <b>7</b> TOWNSHIP <b>20N</b> RANGE <b>5W</b> NMPM.					
CASING AND TUBING DATA					
NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	<b>8 5/8</b>	<b>94</b>	<b>60</b>	<b>surface</b>	<b>circulation</b>
INTERMEDIATE	<b>N/A</b>				
LONG STRING	<b>4 1/2</b>	<b>2815</b>	<b>350</b>	<b>1300</b>	<b>cement bond log</b>
TUBING	<b>2 3/8</b>	<b>1850</b>	NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker set @ 1850</b>		
NAME OF PROPOSED INJECTION FORMATION <b>Mesa Verde</b>			TOP OF FORMATION <b>1930</b>		BOTTOM OF FORMATION <b>2900' +</b>
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>tubing</b>		PERFORATIONS OR OPEN HOLES? <b>perforations</b>	PROPOSED INTERVAL(S) OF INJECTION <b>1948-2755</b>		
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>no</b>	IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>production</b>		HAS WELL EVER BEEN PERFORATED IN AN ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>No</b>		
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH					
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>none</b>		DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>none</b>		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>4000'</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBL/D.) <b>700</b>	MINIMUM <b>700</b>	MAXIMUM <b>2000</b>	OPEN OR CLOSED TYPE SYSTEM <b>closed</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>pressure</b>	APPROX. PRESSURE (PSI) <b>1000</b>
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE <b>yes</b>			WATER TO BE DISPOSED OF <b>yes</b>	NATURAL WATER IN DISPOSAL ZONE <b>yes</b>	ARE WATER ANALYSES ATTACHED? <b>no</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>Bill Chiquito, Pueblo Alto Trading Post, Cuba, New Mexico 87013</b>					
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL <b>Basin Fuels, Inc., Suite 300, 300 West Arrington, Farmington, NM. 87401</b>					
<div style="text-align: center;">  </div>					
HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?		SURFACE OWNER		EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL	
		<b>yes</b>		<b>yes</b>	
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?		PLAT OF AREA		ELECTRICAL LOG	
		<b>yes</b>		<b>yes</b>	
				DIAGRAMMATIC SKETCH OF WELL	
				<b>yes</b>	

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

John Alexander Agent 8-16-77  
(Signature) (Title) (Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing if the applicant so requests. SEE RULE 701.

## OIL CONSERVATION COMMISSION

Cyber DISTRICTOIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICODATE 8-22-77RE: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed SWD ✓ \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_Carl Elvaz

Gentlemen:

I have examined the application dated 8-16-77  
for the Basin Fuels, Inc. Slick #1 0-7-20N-5W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

In the absence of objection from offset operators  
approve the application subject to injection  
pressure limitation based on the  
current policy.

Yours very truly,

AR Kendrick

NEW MEXICO OIL CONSERVATION COMMISSION  
APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

Form C-108  
Revised 1-1-65

OPERATOR <b>Basin Fuels, Inc.</b>		ADDRESS <b>Suite 300, 300 West Arrington, Farmington, NM</b>	
LEASE NAME <b>Slick</b>		WELL NO. <b>1</b>	FIELD <b>Franciscan Lake Mesa Verde</b>
LOCATION <b>east</b>		UNIV. LETTER <b>0</b>	COUNTY <b>McKinley</b>
LINE, SECTION <b>7</b>		TOWNSHIP <b>20N</b>	RANGE <b>5W</b>
WELL IS LOCATED <b>660'</b>		FEET FROM THE <b>south</b>	
LINE AND <b>1980</b>		FEET FROM THE	

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
SURFACE CASING	8 5/8	94	60	surface	circulation
INTERMEDIATE	N/A				
LONG STRING	4 1/2	2815	350	1300	
TUBING	2 3/8	1850			cement bond log

NAME OF PROPOSED INJECTION FORMATION <b>Mesa Verde</b>		NAME, MODEL AND DEPTH OF TUBING PACKER <b>Baker</b>	
IS INJECTION THROUGH TUBING, CASING, OR ANNULUS? <b>tubing</b>		TOP OF FORMATION <b>set @ 1850</b>	
IS THIS A NEW WELL DRILLED FOR DISPOSAL? <b>no</b>		PERFORATIONS OR OPEN HOLES <b>perforations</b>	BOTTOM OF FORMATION <b>2900' +</b>
IF ANSWER IS NO, FOR WHAT PURPOSE WAS WELL ORIGINALLY DRILLED? <b>production</b>		PROPOSED INTERVAL(S) OF INJECTION <b>1948-2755</b>	
LIST ALL SUCH PERFORATED INTERVALS AND SACKS OF CEMENT USED TO SEAL OFF OR SQUEEZE EACH		HAS WELL EVER BEEN PERFORATED IN A ZONE OTHER THAN THE PROPOSED INJECTION ZONE? <b>No</b>	
DEPTH OF BOTTOM OF DEEPEST FRESH WATER ZONE IN THIS AREA <b>none</b>		DEPTH OF TOP OF NEXT LOWER OIL OR GAS ZONE IN THIS AREA <b>4000'</b>	
ANTICIPATED DAILY INJECTION VOLUME (BBLs.) <b>700</b>	MINIMUM <b>700</b>	MAXIMUM <b>2000</b>	DEPTH OF BOTTOM OF NEXT HIGHER OIL OR GAS ZONE IN THIS AREA <b>none</b>
ANSWER YES OR NO WHETHER THE FOLLOWING WATERS ARE MINERALIZED TO SUCH A DEGREE AS TO BE UNFIT FOR DOMESTIC, STOCK, IRRIGATION, OR OTHER GENERAL USE <b>no</b>		OPEN OR CLOSED TYPE SYSTEM <b>closed</b>	IS INJECTION TO BE BY GRAVITY OR PRESSURE? <b>pressure</b>
NAME AND ADDRESS OF SURFACE OWNER (OR LESSEE, IF STATE OR FEDERAL LAND) <b>Bill Chiquito, Pueblo Alto Trading Post, Cuba, New Mexico 87013</b>		WATER TO BE DISPOSED OF <b>yes</b>	APPROX. PRESSURE (PSI) <b>1000</b>
LIST NAMES AND ADDRESSES OF ALL OPERATORS WITHIN ONE-HALF (1/2) MILE OF THIS INJECTION WELL <b>Basin Fuels, Inc., Suite 300, 300 West Arrington, Farmington, NM 87401</b>		NATURAL WATER IN DISPOSAL ZONE <b>yes</b>	ARE WATER ANALYSES ATTACHED? <b>no</b>

HAVE COPIES OF THIS APPLICATION BEEN SENT TO EACH OF THE FOLLOWING?	SURFACE OWNER	EACH OPERATOR WITHIN ONE-HALF MILE OF THIS WELL	THE NEW MEXICO STATE ENGINEER
ARE THE FOLLOWING ITEMS ATTACHED TO THIS APPLICATION (SEE RULE 701-B)?	PLAT OF AREA	ELECTRICAL LOG	DIAGRAMMATIC SKETCH OF WELL
	<b>yes</b>	<b>yes</b>	<b>yes</b>
	<b>yes</b>	<b>yes</b>	<b>yes</b>

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

**John Alexander** (Signature) **Agent** (Title)

**8-16-77** (Date)

NOTE: Should waivers from the State Engineer, the surface owner, and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing if the applicant so requests. SEE RULE 701.



# 3E COMPANY, INC.

*Engineering • Energy • Exploration*

P. O. Box 190      505/327-4020  
FARMINGTON, NEW MEXICO 87401

August 16, 1977

New Mexico Oil Conservation Commission  
P.O. Box 2088  
Santa Fe, NM 87501

Attention: Joe D. Ramey  
Secretary - Director

RE: Basin Fuels, Inc.  
Salt Water Disposal  
Franciscan Lake Mesa Verde  
McKinley County, New Mexico

Dera Sirs:

Please accept this letter as an application to inject produced water for salt water disposal in the subject field. We ask that this application be expedited so that Basin Fuels may be in compliance with Federal Regulation NTL-2B. Since only Basin Fuels has producing wells within two miles of the injector, they should be the only operator to be damaged or benefit from such injection.

Points of the application are as follows:

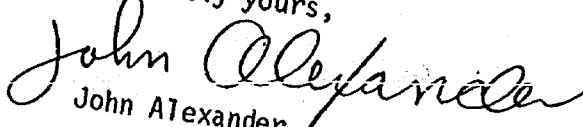
1. The attached plat shows all locations within a two mile radius of the injection well. All of these wells belong to Basin Fuels, Inc.
2. A xerox copy of the log from Slick #1, 1980' FEL & 660' FSL, Sec 7, T20N, R5W, is attached.
3. A diagrammatic sketch of the proposed injection well showing all casing, perforations, cement tops and packer depths is attached.
4. Water will be injected in the Franciscan Lake Mesa Verde formation at perforations between 1948' and 2755'. Approximately 2000 barrels per day will ultimately be injected with an initial injection of 700 barrels per day. Injection water will come from producing wells completed in the same formation, all belonging to Basin Fuels.

New Mexico Oil Conservation Commission  
Page 2  
August 16, 1977

5. Form C-108 is attached.

Please notify us, as agents for Basin Fuels, Inc., if you require further information, or if there is some problem in the method we have proposed.

Sincerely yours,

  
John Alexander

JA:st

Attachments

# 3E COMPANY, INC.

*Engineering • Energy • Exploration*

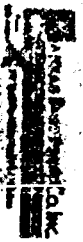
P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

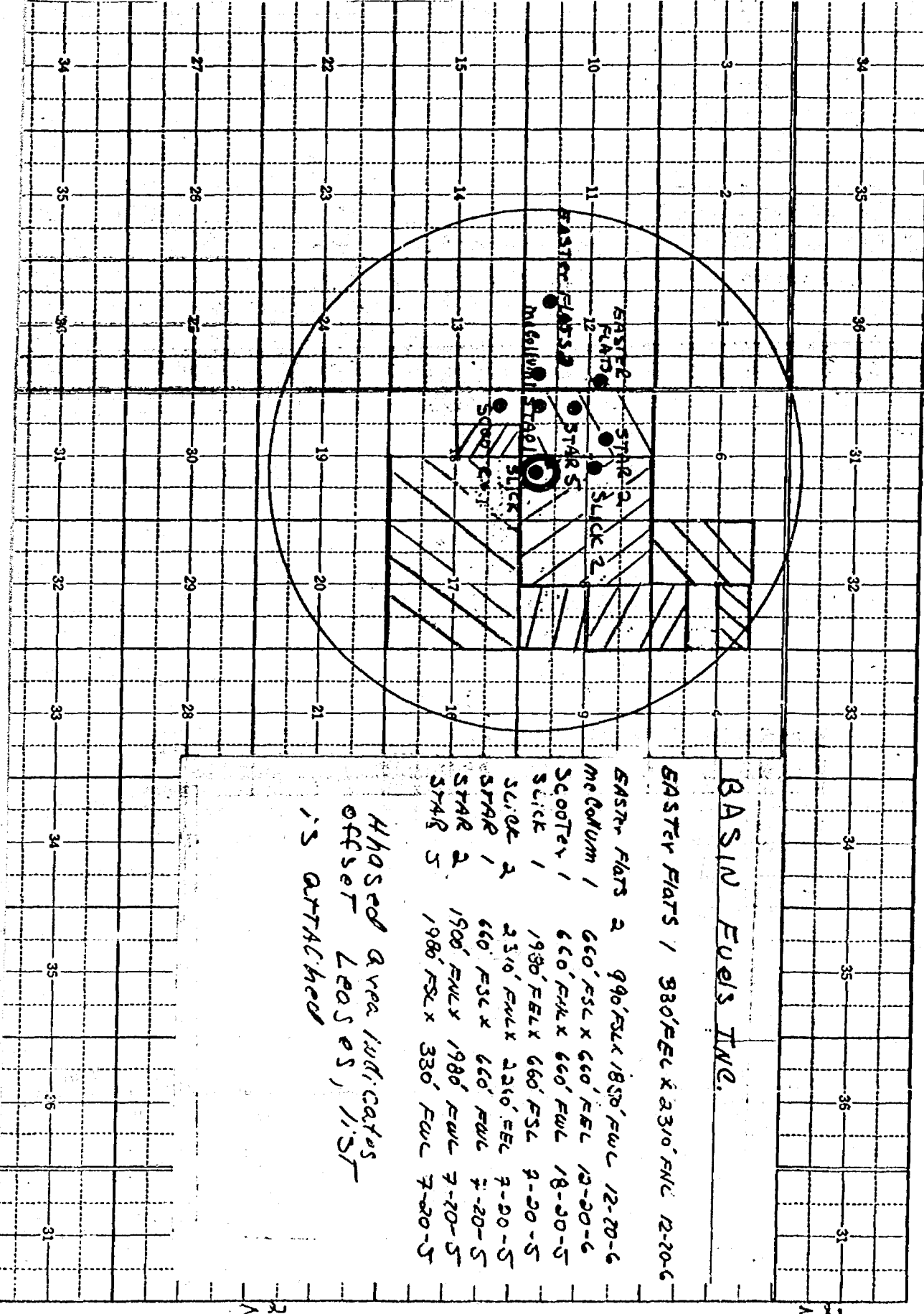
BASIN FUELS, INC.  
Slick #1

Offset Lease Holders

Raymond Chorney	NM-7509 NM-7999	Lot 1 & 2 E/2 NW/4 of Sec 18
	NM-0555841	Lot 3 & 4 S/2 of NW/4 & SW/4 of Sec 5 E/2 Sec 7 W/2 Sec 8
El Paso Natural Gas	NM-055838A	W/2 Sec 7
B. J. Bradshaw	NM-8896	E/2 Sec 18 All of Sec 17
Miles J. McDough C. L. Williams	N00-7-14-20-5864 (Navajo Allotted Land)	SE/4 Sec 8



State ..... Township 20 Range S-6 County McKinley State N.M.



BASIN FUELS INC.

EASTER FLATS 1 330' FUL X 2310' FUL 12-20-6

EASTER FLATS 2 990' FUL X 1830' FUL 12-20-6

McGowan 1 660' FUL X 660' FUL 12-20-6

SCOOTER 1 660' FUL X 660' FUL 18-20-5

SLICK 1 1980' FUL X 660' FUL 9-20-5

SLICK 2 2310' FUL X 2310' FUL 9-20-5

STAR 1 660' FUL X 660' FUL 7-20-5

STAR 2 1900' FUL X 1980' FUL 7-20-5

STAR 3 1980' FUL X 330' FUL 7-20-5

Hatched area indicates  
offset leases, 1/15  
is attached

# Basin Fuels INC. Slick #1 INjection Design

Cement TOP, surface  
 8 5/8" Cement w/ 60 SK class A + 2% CaCl<sub>2</sub>  
 8 5/8" SET @ 94'

4 1/2" Cement w/ 350 SK. 50/50 Pozmix + 2% gel + 5# salt/sk.

Cement TOP, 1300'

2 7/8" Tubing

Packer 1850'

## Perforations

1948-1951  
 2044-2050  
 2136-2162  
 2342-2348  
 2597-2602  
 2752-55  
 4 1/2" SET @ 2815'

40 SHEETS 3 SQUARE  
 20 SHEETS 3 SQUARE  
 20 SHEETS 3 SQUARE  
 NATIONAL

VA 8-77

Schulenberg

# WILDCAT NO. 1 SLICK

COUNTY MCKINLEY

FIELD or LOCATION WILDCAT

WELL NO. 1 SLICK

COMPANY BASIN FUEL INC.

COMPANY BASIN FUEL INC.

WELL NO. 1 SLICK

FIELD WILDCAT

COUNTY MCKINLEY STATE NEW MEXICO

LOCATION: API Serial No. 12946  
1980 FEL 660 FSL

Other Services:  
FDC-GR

Sec. 7 Twp. 20N Rge. 5W

Permanent Datum: GL  
Log Measured From KB  
Drilling Measured From KB, 12 Ft. Above Perm. Datum

Elev.: K.B. 6754  
D.F. 6753  
G.L. 6742

Date	6-21-75				
Run No.	ONE				
Depth-Driller	2800				
Depth-Logger	2815				
Btm. Log Interval	2814				
Top Log Interval	96				
Casing-Driller	8-5/8@82	@	@	@	
Casing-Logger	96				
Bit Size	7-7/8				
Type Fluid in Hole	FRESH WATER				
Dens.	---				
Visc.	---				
pH	---				
Fluid Loss	---				
Source of Sample	FLOWLINE				
Rm @ Meas. Temp.	2.1 @ 58 °F				
Rmf @ Meas. Temp.	1.66 @ 58 °F	@	@	@	@
Rmc @ Meas. Temp.	---	@	@	@	@
Source: Rmf	M	@	@	@	@
Rmc	1 C	@	@	@	@
Rm @ BHT	1.2 @ 102 °F	@	@	@	@
Circulation Stopped	0430				
Logger on Bottom	0800				
Max. Rec. Temp.	102 °F				
Equip.	7761 FARM				
Location	MATHEWS-DELANEY				
Recorded By	KENNEDY				
Witnessed By					

DRAFT

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

dr/

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

CASE NO. 6033

Order No. R- 5540

APPLICATION OF BASIN FUELS, INC., FOR  
SALT WATER DISPOSAL, MCKINLEY COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 14, 1977,  
at Santa Fe, New Mexico, before Examiner, Richard L. Stamets.

NOW, on this        day of September, 1977, the Commission,  
a quorum being present, having considered the testimony, the  
record, and the recommendations of the Examiner, and being fully  
advised in the premises,

FINDS:

(1) That due public notice having been given as required by  
law, the Commission has jurisdiction of this cause and the subject  
matter thereof.

(2) That the applicant, Basin Fuels, Inc.,  
is the owner and operator of the Slick Well No. 1,  
located in Unit 0 of Section 7, Township 20 North,  
Range 5 West, NMPM, Franciscan Lake-Mesaverde Pool,  
McKinley County, New Mexico.

(3) That the applicant proposes to utilize said well to  
dispose of produced salt water into the Mesaverde  
formation, with injection into the perforated interval  
from approximately 2752 feet to 2796 feet.

(4) That the injection should be accomplished through         
2 3/8-inch plastic lined tubing installed in a packer  
set at approximately 2660 feet; that the casing-tubing annulus  
should be filled with an inert fluid; and that a pressure gauge  
or approved leak detection device should be attached to the

*injection operation*  
(5) That the nature of the proposed ~~project~~ is such th  
it should more properly be classified as a pressure maintainan  
project.

annulus in order to determine leakage in the casing, tubing, or packer.

(6) That the injection well or system should be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than ~~545~~<sup>550</sup> psi.

(7) That the Secretary-Director of the Commission should be authorized to administratively approve a higher injection pressure upon a showing that such higher pressure will not result in fracturing of the confining strata.

(8) That the operator should notify the supervisor of the Aztec district office of the Commission of the date and time of the installation of injection equipment so that the same may be inspected.

(9) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(10) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Basin Fuels, Inc., is hereby authorized to institute a pressure maintenance project in the Franciscan Lake-Mesaverde Pool, McKinley County, New Mexico, by the injection of water into the Mesaverde formation, through its Slick Well No. 1, located in Unit O of Section 7, Township 20 North, Range 5 West, NMPM, <sup>McKinley</sup>~~Chavez~~ County, New Mexico.



(2) That injection shall be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2660 feet, with injection into the perforated interval from approximately 27~~5~~<sup>2</sup> feet to 2796 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer;

PROVIDED FURTHER, that should casing perforations above a depth of 2660 feet in said Slick Well No. 1 not be squeezed, the operator shall demonstrate to the satisfaction of the supervisor of the Commission's district office in Aztec that the fluid column in the annulus will not "thief" into such perforations and shall determine such fluid level each six months reporting the results of such determination to ~~the~~<sup>the</sup> district supervisor.

(3) That the injection well or system shall be equipped with a pop-off valve or acceptable substitute which will limit the wellhead pressure on the injection well to no more than ~~545~~<sup>550</sup> psi.

(4) That the Secretary-Director of the Commission may administratively authorize a higher wellhead injection pressure upon a showing by the operator that such higher pressure will not ~~fracture~~ fracture the confining strata.

(5) That the operator shall notify the supervisor of the Aztec district office of the Commission of the date and time of the installation of disposal equipment and <sup>semi-annual</sup> injection well annulus fluid level tests so that the same may be inspected.

(6) That the operator shall immediately notify the supervisor of the Commission's Aztec district office of evidence of casing failure in the aforesaid injection well, the leakage of water or oil from around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(7) That the project area shall comprise those proration units containing an injection well and any direct or diagonally offsetting proration unit containing a producing well.

(8) That the subject project is hereby designated the Franciscan Lake Mesaverde Pressure Maintenance Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

(9) That monthly progress reports of the project herein ~~authorized~~ authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

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

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

