BEFORE THE INDUSTRIAL COMMISSION

OF THE STATE OF NORTH DAKOTA

IN THE MATTER OF A HEARING CALLED ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF GOFOR OIL, INC., FOR PERMISSION TO DISPOSE OF SALT WATER PRODUCED WITH CRUDE OIL IN THE MOHALL FIELD, BOTTINEAU COUNTY, NORTH DAKOTA, BY INJECTING SAID WATER INTO THE DAKOTA SAND FORMATION THROUGH ITS GEORGE WITTEMAN NO. 1 WELL LOCATED IN THE NE/4 NE/4 OF SECTION 7, TOWNSHIP 161 NORTH, RANGE 83 WEST.

CASE NO. 910 ORDER NO. 970

ORDER OF THE COMMISSION

BY THE COMMISSION:

A hearing having been held in Grand Forks, North Dakota, on July 9, 1968, at 9:30 a.m., before Clarence B. Folsom, Jr., a Special Examiner appointed for the purpose.

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 no objection has been received from other operators in the area.
- (3) That the amount of salt water produced from the Madison Formation in the Mohall Field, Bottineau and Renville Counties, North Dakota, as a result of crude oil producing operations, exceeds the amount that can be readily disposed of by evaporation from surface pits.
- (4) That the Dakota-Lakota Group, within the limits of the Mohall Field, contains natural water of sufficient salinity to be unsuitable for domestic or irrigation use.
- (5) That the Dakota-Lakota Group in the Mohall Field is similar, in character, to the Dakota Sandstone in the other fields where successful salt water disposal projects already are in operation.
- (6) That unless some means of subsurface disposal is provided, surface damage will result and potable surface waters will be polluted.

IT IS THEREFORE ORDERED:

- (1) That Gofor Oil, Inc., be, and the same is hereby permitted to dispose of salt water into the Dakota Formation through the George Witteman No. 1 well located in the NE/4 NE/4 of Section 7, Township 161 North, Range 83 West, Mohall Field, Renville County, North Dakota.
- (2) That the permission granted in (1) above is conditioned upon the following considerations:

- (a) That the porous intervals above, and below, the proposed injection interval be properly protected by cement, squeezed through perforations in the casing, so as to prevent the migration of the injected water through the annulus behind the casing.
- (b) That the amounts of water injected, and the sources thereof, be reported to the State Geologist at the same time that crude oil production reports are submitted.
- (3) That this order shall remain in full force and effect until further order of the Commission.

DONE, at Bismarck, North Dakota, this 29 day of

THE NORTH DAKOTA INDUSTRIAL COMMISSION

William L. Guy, Governor

Helgi Johanneson, Attorney General

Arne Dahl, Commissioner of Agriculture

INDUSTRIAL COMMISSION STATE OF NORTH DAKOTA CASE NO. 910 ON A MOTION OF THE COMMISSION TO CONSIDER THE APPLICATION OF GOFOR OIL. INC. FOR PERMISSION TO DISPOSE OF SALT WATER PRODUCED WITH CRUDE OIL IN THE MOHALL FIELD, BOTTINEAU COUNTY, NORTH) - TRANSCRIPT DAKOTA, BY INJECTING SAID WATER INTO THE) DAKOTA SAND FORMATION THROUGH ITS GEORGE WITTEMAN #1 WELL LOCATED IN THE) NE NE OF SECTION 7, TOWNSHIP 161 N., RANGE 83 W. 10 11 Leonard Hall 12 University of North Dakota Grand Forks, North Dakota 13 Tuly 9, 1968 9:30 o'clock a.m. 14 16 Met pursuant to notice. 17 BEFORE THE NORTH DAKOTA STATE INDUSTRIAL COMMISSION. 18 CLARENCE B. FOLSOM, JR., PRESIDING. 19 APPEARANCES: VERN LUND, appearing for Gofor Oil, Inc. 21 22 23

MR. FOLSOM: The hearing will come to order. This is Case No. 1 910 on a motion of the Commission to consider the application of 2 Gofor Oil, Inc. for permission to dispose of salt water produced with crude oil in the Mohall Field, Bottineau County, North Da-5 kota, by injecting said water into the Dakota sand formation through its George Witteman #1 well located in the NE NE of section 7, Township 161 N., Range 83 W. This case has been referred to C. B. Folsom or Wesley Norton as Trial Examiners. Let the record show that there have been no written objections filed to these two 10 11 examiners; and so therefore, the hearing may proceed. Let the re-12 cord also indicate that this case was advertised as required by law. 13 Said advertisement having appeared in the Bismarck Tribune and the 14 Bottineau County Courant on June 26, 1968. Ten days having 15 elapsed since the appearance of these advertisements, the Com-16 mission has jurisdiction of this case; and we will proceed. Who 17 18 wishes to appear for the applicant? 19 MR. LUND: I do, Vern Lund, President of Gofor Oil. 20 MR. FOLSOM: Will you rise and take the oath? Do you solemnly 21 swear that the testimony you are about to give in the matter now in 22 hearing shall be the truth, the whole truth, and nothing but the 23 truth, so help you God? 24 MR. LUND: I do.

MR. FOLSOM: State your name, address, and who you represent.

MR. LUND: Vern Lund, Minot, North Dakota; I represent Gofor Oil.

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MR. FOLSOM: Have you ever appeared before the Industrial Com-
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   mission or its Examiners as an expert witness?
   MR. LUND: Yes, I have.
   MR. FOLSOM: You may proceed.
   MR. LUND: We merely ask to make a water disposal well of the
   Barron-Kidd-George Witteman #1 in the NE NE of section 7-161-83
   in Bottineau County. We propose to run 4 1/2 inch casing to a depth
   of 3100, bottom being the lower sand of the Dakota Formation.
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   MR. FOLSOM: What is the present condition of this well?
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   MR. LUND: It was plugged and abandoned in 1964 in December.
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   MR. FOLSOM: Is there any production from the Dakota sand in the
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   area?
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MR. LUND: No.

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MR. FOLSOM: What is the nature of the fluids in the Dakota sands? 16

MR. LUND: Brackish water. 17

18 MR. FOLSOM: What is the nature of the fluid you intend to dispose 19 of?

MR. LUND: Salt water with not total saturation but probably in the nature of 250 parts per million salt.

MR. FOLSOM: Has this Dakota Formation been used as a sait disposai reservoir in this area previously?

MR. LUND: Yes, I believe it has with an Amerada disposal well. 25

26 MR. FOLSOM: How much salt water do you intend to dispose of in 27 this well?

MR. LUND: Probably, for awhile, about 300 barrels a day. 1 MR. FOLSOM: Where will this water come from? 2 MR. LUND: It will come from our George Witteman #1 adjacent to this hole as well as from the Shurson #1, Gliseth #1 and #2, probably. MR. FOLSOM: Will this disposal well be available to other operators in this area for the disposal of salt water? MR. LUND: Yes, I presume it could be. The facilities would probably have to be set up if other than our own. 11 MR. FOLSOM: Do you know of anything else that would be per-12 tinent to this hearing? 13 MR. LUND: No, I do not. 14 MR. FOLSOM: What other operators are in the area adjacent to this? 15 MR. LUND: Quintana, Amerada, and Monsanto. 16 MR. FOLSOM: Have you had any correspondence with these opera-17 tors relative to the use of this well as a salt water disposal. 18 19 MR. LUND: No, I have not. It is my understanding that their dis-20 posal well is to the north end of the field, and this would be to the 21 extreme south end of the Mohall Field. 22 MR. FOLSOM: Does anyone else have anything to offer in con-23 nection with this application? Let the record show that there were 24 no parties appearing in opposition to the application and that the 25 Examiners are not in receipt of any communications regarding the

application. Do you have any exhibits to enter?

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MR. LUND: No, I do not.

MR. FOLSOM: There being nothing further to come before the Examiner at this time the hearing will adjourn. A transcript will be prepared and forwarded to the Industrial Commission for their action.

1	STATE OF NORTH DAKOTA)			
2	COUNTY OF GRAND FORKS)			
3	I CERTIFY that the record of this hearing was made under my			
4	direction, and has been continuously in my custody; that no aite			
5				
6	and belief.			
7	DONE at Grand Forks, North Dakota, this 9th day of July,			
8	\mathcal{A}			
9	Wallet B Valled			
10	Clarence B. Folsom, Jr.			
11	Chief Petroleum Engineer			
12				
13				
14	STATE OF NORTH DAKOTA)) ss			
15	COUNTY OF GRAND FORKS)			
16	I HEREBY CERTIFY that the foregoing is a true and correct			
17	transcript of the original tape recording of said hearing, and a full and complete statement of the testimony and other proceedings			
18	which it purports to contain.			
19	DONE at Grand Forks, North Dakota, this 9th day of July, 1968.			
20	Benita Rith			
21	Bonita Roth, Secretary			
22	North Dakota Geological Survey			
23				
24				
25				
26				
27				

EARL SCHWARTZ, Vice President KENMARE, N. D., PHONE 848-5415



201 Sullivan Building — P. O. Box 296 — Telephone 838-1114

June 12, 1968

Minot, North Dakota 58701

Ref: Examiner Hearing for
Water Disposal Well
George Witteman #1 (Barron Kidd)
NENE/4 Sec. 7-161N-83W
Bottineau County, North Dakota

North Dakota Geological Survey University of North Dakota Grand Forks, North Dakota

Attention: Mr. B. -Folsom

Dear Sir

We herewith request an examiner hearing to make a Salt Water Disposal Well of the above referenced dry hole in accord with the following plan:

- 1. Drill out cement plug in Surface Casing and the top of the Dakota Sand to the top of the second main Dakota sand body.
- Run 4 1/2" 9.51b. casing open ended to the top of the second sand. Cement with 150 sacks 1 to 1 posmix W/ 2% Gel.
- 3. Drill out and perforate to dispose of Salt Water.

In that time is of importance we would appreciate as early a date as possible for a hearing.

Very truly yours

GOLOK WIT THO.

Pres

Vern O. Lund

Copy to: Attorney General Office, Attention: J. Vanderwahl Bismarck, North Dakota.

AFFIDAVIT OF PUBLICATION

	STATE OF NORTH DAKOTA,
,	County of Burleigh.
	Mary Kuhn , being duly sworn, says that she is a clerk of The Bismarck Tribune and that the annexed printed copy of NOTICE OF PUBLICATION N. D. INDUSTRIAL COMMISSION BISMARCK, NORTH DAWOTA
	Notice of Publication - N. D. Industrial gives notice pursuant to law and
	annexed printed copy of Notice of Publication - N. D. Industrial Commission, Bismarck, North Dakota. Was taken from The Bismarck Tribune, a daily newspaper, which during the whole time of publication of said notice hereinafter stated, has been, and was printed and published in the City of Bismarck, County of Burleigh, and State of North Dakota. That the said notice was published in said newspaper on the following N. D. INDUSTRIAL COMMISSION BISMARCK, NORTH DAKOTA The State of North Dakota by its Industrial commission hereby gives notice pursuant to Isw and the rules and regulations of said Commission, promulgated thereby under of the following bublic hearing to be held at 1800 a.m., on 9 July 1985 in the Colorey Building, flux sity of North Dakota. That STATE OF APPTH DAKOTA TO-All named parties and persons having any class, title, interest, and persons having any class, title, interest,
	dates: 6/26/68 and notice to the public Case. No. 318: Op a motion of the
	Commission the consider the application of the applica
	in each and every issue of the full number thereof, commencing line the Mohall Field, Bottineau County, North Dakota by in-
	on the 26 day of June 1968, and Reta Sand Formation through its George Witteman No. 1 well lo-
•	stated, has been, and was printed and published in the City of Bismarck, County of Burleigh, and State of North Dakota. That the said notice was published in said newspaper on the following dates: 6/26/68
	Subscribed and sworn to before me this 27 day of Grand Forks, at 3.30 a.m. on 9 July 1958. Immediately after the conclusion of the hearing.
	June June D. 19 68 the examiner shall forward a transcript of said heading, together with exhibits received to the Cotanission for its action.
	Notary Public, Burleigh County, N. D.
	My commission expires March 7, 1972
	Cost of Publication, \$ 7.84
	MK JL-45 JOHN EHRMANTRAUT, Notary Public, BURLEIGH CO., N. DAK. My Commission Expires MARCH 7, 197
	HAROLD NELSON

Sidle Printer

AFFIDAVIT OF PUBLICATION	
STATE OF NORTH DAKOTA, County of Bottineau ss.	
Betty Jean Erickson of said State and County, being duly	
sworn, on her oath, says: That she is the bookkeeper of The Bottineau Courant, a legal newspaper of general circulation, printed and published in the City of Bottineau, North Dakota, and has been during the time hereinafter mentioned; that the advertisement of	NOTICE OF PUBLICATION N. D. INDUSTRIAL COMMISSION BISMARCK, NORTH DAKOTA The State of North Dakota by its Industrial Commission hereby gives
Notice of Publication - N. D. Industrial Com.	notice pursuant to law and the rules and regulations of said Commission promulgated thereunder of the follow-
a printed copy of which is hereto annexed, was printed and published in each issue of said newspaper for a period of1 consecutive weeks, to-wit:	promulgated thereunder of the following public hearing to be held at 9:30 a.m., on 9 July 1968, in the Geology Building, University of North Dakota, Grand Forks, North Dakota, STATE OF NORTH DAKOTA TO:
June 26 19_68; 19	All named parties and persons hav- ing any right title, interest or claim in the following case and notice to the
19;	public CASE NO. 370; can a motion of the Commission to consider the application of Gofor Oil, Inc., for per-
Date 19	mission to dispose of salt water produced with crude oil in the Mohall Field, Bottineau County, North Dakota by injecting said water into the
Sha Betty Erickson	kota by injecting said water into the Dakota Sand Formation through it George Witteman No. 1 well located in the NE NE of Section 7. T. 161 N., R. 83W., and for the purpose of this hearing Clarence B. Folsont Jr Wessel
HAROLD NELSON Subscribed and sworn to before me this State Printer A. D. 19	hearing Clarence B. Folsont, Jr Wesley D. Norson is directed to conduct a hearing at the Leonard Hall on the campus of the University of North Dakota, at Grand Forks, at 9:30 a. m. on 9 July 1968. Immediately after
	the conclusion of the hearing, the examiner shall forward a transcript of said hearing, together with exhibits received to the Commission for its action.
Notes Public, Bottineau County, N. D.	N. D. INDUSTRIAL COMMISSION William L. Guy, Governor

Notation Fee \$ ______ My commission expires Expires May 1, 1970

Received payment ______, 19____,