

CASE 3880: Application of ANNE
BURNETT WINDFOHR, dba WINDFOHR
OIL CO. FOR SALT WATER DISPOSAL.

Case Number

3880

Application
Transcripts.

Small Exhibits

ETC.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

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

October 22, 1968

Mr. Fred A. Watson
Watson & Watson
Attorneys at Law
Post Office Drawer E
Artesia, New Mexico 88210

Re: Case No. 3880
Order No. R-3525
Applicant:
Anne Burnett Windfohr

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC x

Aztec OCC

Other State Engineer Office

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. 3880
Order No. R-3525

APPLICATION OF ANNE BURNETT WINDFOHR,
DBA WINDFOHR OIL COMPANY, FOR SALT WATER
DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 9, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 22nd day of October, 1968, 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, Anne Burnett Windfohr, dba Windfohr
Oil Company, is the owner and operator of the Windfohr Oil Company
Jackson "B" Well No. 23 located in Unit J of Section 24, Township
17 South, Range 30 East, NMPM, Jackson-Abo Pool, Eddy County, New
Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Abo formation, with
injection into the perforated interval from approximately 6970
feet to 7028 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic-lined tubing installed in a packer set at
approximately 6900 feet; that the casing-tubing annulus should

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CASE No. 3880
Order No. R-3525

be filled with an inert fluid; and that a pressure gauge should be attached to the annulus or the annulus left open at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

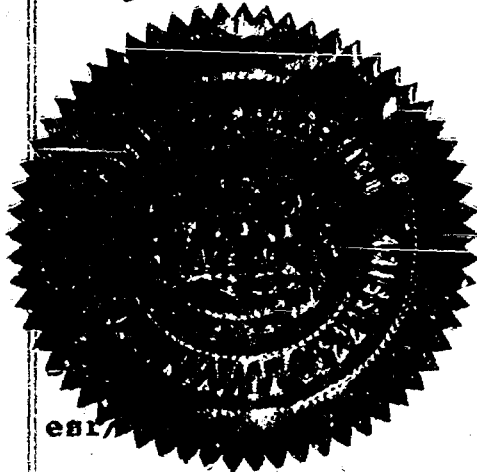
(1) That the applicant, Anne Burnett Windfohr, dba Windfohr Oil Company, is hereby authorized to utilize the Windfohr Oil Company Jackson "B" Well No. 23, located in Unit J of Section 24, Township 17 South, Range 30 East, NMPM, Jackson-Abo Pool, Eddy County, New Mexico, to dispose of produced salt water into the Abo formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 6900 feet, with injection into the perforated interval from approximately 6970 feet to 7028 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 left open at the surface in order to determine leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of the disposal operations in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(3) 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

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

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

Case 3880

Heard 10-8-68

Rec. 10-14-68

Grant Windfob Oil Co. permission to convert ~~its~~ their Jackson B #23. 1470' / S, 1280' / E, 24-125-30 E. & a 3 1/2" D well.

Annulus shall be down plaster coated $2\frac{3}{8}$ " tubing & under a packer set at approx. 6200, into the Jackson. Also at 6970-7028' (perfs) Annulus shall be filled with non-corrosive fluid and a gauge installed at the surface or left open.

Thos A. H.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO



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17 14034

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
October 9, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Anne
Burnett Windfohr, dba
Windfohr Oil Company, for
salt water disposal, Eddy
County, New Mexico.

Case No. 3880

BEFORE: Elvis A. Utz: Examiner

TRANSCRIPT OF HEARING

(Whereupon, Applicant's Exhibits One through Eight, inclusive, were marked for identification.)

MR. UTZ: The hearing will come to order, please.

Case 3880.

MR. HATCH: Case 3880, application of Anne Burnett Windfohr, dba Windfohr Oil Company, for salt water disposal, Eddy County, New Mexico.

MR. WATSON: I am Fred A. Watson of Watson and Watson, Attorneys, Artesia, New Mexico, and Mr. Ralph L. Gray, Consulting Engineer, will be the witness for the Applicants.

MR. UTZ: Are there any other appearances? You map proceed.

(Witness sworn.)

RALPH L. GRAY

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

DIRECT EXAMINATION

BY MR. WATSON:

Q State your name, please?

A Ralph L. Gray.

Q You are a Consulting Engineer from Artesia, New Mexico?

A Yes, sir.

MR. WATSON: Mr. Gray has testified many times

before the Commission and I assume his qualifications are acceptable without further foundation.

MR. UTZ: Yes, sir, they are.

Q (By Mr. Watson) Now, Mr. Gray, will you refer to what is called Applicant's Exhibit Number One and please state what that is and what it depicts?

A Exhibit Number One is a map showing ownership within a two mile radius of the Windfohr Oil Company Jackson B lease and, also, Exhibit Number One shows the wells completed in the Abo formation with red circles, wells that are producing from the Fren Pool are indicated by the green circles, and wells which are producing from the Grayburg-Jackson Pool in this area are indicated by the blue dots without any colored circles.

This application is for the purpose of authorizing the Applicant to use their Jackson B Well Number 23 as a water disposal well to dispose of water produced from the Abo formation. This well is located in northwest quarter of the southeast quarter of Section 24 of Township 17 South, Range 30 East.

Q Referring you to what's been marked Applicant's Exhibit Number Two, will you describe that Exhibit, sir?

A May I add just one more statement about Exhibit One. This map shows acreage as Nash-Windfohr and Brown on the map and this name later was changed to Windfohr Oil Company which is the present designation. I just wanted to call that to the

attention of the Examiner.

Exhibit Number Two is a tabulation showing oil production for the Gissler B Number 11 and Number 12 and the Jackson B Number 22, 23, and 24, which are the five Abo wells which are operated by the Applicant.

This shows that as of September the 1st, 1968, the Gissler B Number 11 had produced 72,107 barrels of oil; the Gissler B Number 12, 95,461; Jackson B Number 22, 79,916; Jackson B Number 23, 58,790, and Jackson B Number 24 has produced 50,277 barrels.

Q Will you please describe Exhibit Number Three?

A Exhibit Number Three shows a water analysis of the Abo water. This has a specific gravity of 1.029 and pH of 7.3. I won't read all of the mineral components, but I'll call your attention to the chloride content which is 35,100 parts per million.

Q Now, did you prepare an exhibit on the well data for the Jackson b-23 well?

A Yes, sir.

Q That's been marked as Exhibit Number Four. What does that show, sir?

A Exhibit Number Four shows pertinent well data for

Jackson B Well Number 23 which is the well proposed for water disposal. This well was completed April 28, 1961. It was drilled to a total depth of 7,028 feet. The well is perforated from 6,970 to 7,028 feet. The initial potential flowed 132 barrels of oil per day on a half-inch choke.

Q Referring you to Exhibit Number Five labeled, "Diagrammatic sketch of the Windfohr Oil Company, Jackson B-23 Well," will you state the completion which that indicates?

A Exhibit Number Five, the diagrammatic sketch, shows that surface casing was eight and five-eighths, cemented at a depth of 1,653 feet with 900 sacks of cement which was circulated to the surface. A string of seven-inch casing was cemented at a depth of 2,988. This isn't a normal string, but the Applicant had some hole trouble which required the use of this seven-inch string. A portion of this was later cut and pulled out of the hole.

The production string is four and a half inch, cemented at 7,028 feet with 275 sacks and this was cemented back to the lower part of the eight and five-eighths surface casing.

The proposed conversion for a disposal well will provide for running two and three-eighths OD up set tubing which will be internally coated with plastic and a packer will be set

at approximately sixty-nine hundred feet and the water will be pumped below the packer.

Q Now, will you please describe Exhibit Number Six?

A Exhibit Number Six is a portion of the gamma ray neutron log for the Jackson B Number 23 Well. This exhibit shows the top of the Abo reef and shows the four and a half inch casing point and the perforated intervals.

Q And Exhibit Number Seven is a structure map?

A Yes, that's correct. Exhibit Number Seven is a structural contour map with contours shown on top of the Abo reef. This map includes a large portion of the Jackson-Abo Pool, and also includes the Cedar Lake Abo Pool which is just to the east of the Jackson Abo Pool.

The Jackson B Number 23 Well is located on this map with a red arrow and you will note that there is a dry hole shown in the southeast quarter of the southeast quarter of Section 24 which is designated Well Number 25. This well drilled to the Abo formation and was found dry and was plugged back to the shallower formations. This dry hole separates oil production in the Jackson-Abo Pool from Abo wells completed in the Cedar Lake Abo Pool.

Also, we might state that the Jackson B Number 23 Well is located at the lowest structural point on the reef formation and that was the main reason why this well was selected

for a disposal well.

Q And referring to the Applicant's Exhibit Eight, what does that consist of?

A Exhibit Eight is a cross section drawn through a large number of wells and the Jackson-Abo Pool as well as the Cedar Lake Abo Pool and, here again, I'd like to call your attention to the designation on the cross section which, at the time it was prepared, the Applicant went under the name of Nash, Windfohr and Brown and, at the present time, this should be Windfohr Oil Company.

The cross section shows the top of the Abo formation and the top of the Abo reef and it indicates the intervals or the perforated intervals that each well is producing from. Here again, you'll note that the Jackson B Number 23 is located low, structurally, in the Jackson-Abo Pool.

Q Then the purpose of this application, Mr. Gray, is to provide a disposal well for produced water, produced in the Abo formation, is that correct?

A Yes, sir, that's correct.

Q It's not a water flood or a secondary recovery program?

A No, sir, that's not the purpose of it.

Q Do you have an idea as to anticipated volume to be injected at this time back into the Abo formation?

A The volume of water which is now being produced from the Windfohr wells is in the range of three to 400 hundred barrels per day. However, we have had some inquiries from other operators in the vicinity who will wish to use this well as a disposal well for their produced water, and we are, at the present time, making a study of this situation and are contacting other operators in the area and we are not actually certian at this time the exact quantity of water that might be injected into this well.

Q The Applicant would like for the order, if approval be given, to be written in such a way that there could be additional operators injecting water?

A Yes. In our application we have purposely omitted any reference to the wells which will contribute or furnish water which are to be disposed of in this injection well, and we would request that the Commission, if they see fit to grant this order, word their order in such a way as to permit the Applicant to take water from other Abo wells in the pool and dispose of into this well.

Q Now then, Mr. Gray, were Exhibits One through Eight both inclusive, compiled and prepared by you or under your supervision?

A Yes, sir.

MR. WATSON: Applicant moves the introduction of Exhibits One through Eight.

MR. UTZ: Without objection, Exhibits One through Eight will be entered into the record in this case.

(Whereupon, Applicant's Exhibits Numbers One through Eight, inclusive, were entered into the record.)

Q (By Mr. Watson) Is there any further information which you wish to give to the Commission?

A No, sir.

MR. WATSON: Applicant rests.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Gray, referring to Exhibit Number Five, did you state how you intend to take care of the annulus?

A Well, the annulus will be loaded with a non-corrosive fluid and will either be left open or will be equipped with a pressure gauge which will be read at frequent intervals to detect any possible leak that might occur, either by packer failure or tubing failure.

Q Do you know how far the cement came up inside of the eight and five-eighths?

A The cement was calculated to come up at least to the bottom of the shoe and, to my knowledge, there was not a temperature survey run.

Q Have you made any estimates or tests to show how

much water this well take?

A Yes, we have. We recently perforated the bottom two sections, which we show in the well data, and in the process of this completion work, the well took approximately 1400 barrels per day. That's just a day or two period. Of course, this quantity will probably decrease and we're not certain whether we'll be able to inject water by gravity over any length of time or whether it will be necessary to install a pump.

Q This was by gravity?

A Yes, sir.

Q What type packer do you plan to put into it?

A Well, this will be a tension-type packer.

Q And because of the fact that this well was low on structure, you don't anticipate it will cause any water problems to production in the area?

A We hope it won't.

Q Would this possibly act similar to water injection?

A Quite similar, yes, sir.

Q Are the wells in this area still flowing or are they --

A No, they're on pump.

MR. UTZ: Any questions of the witness? He may be excused. Are there statements in the case? The case will be

taken under advisement.

I N D E X

WITNESS

PAGE

RALPH L. GRAY

Direct Examination by Mr. Watson

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Cross Examination by Mr. Utz

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EXHIBIT

MARKED

OFFERED AND
ADMITTED

Applicant's 1
through 8

2

9

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, Charlotte J. Macias, Court Reporter in and for the
 County of Bernalillo, State of New Mexico, do hereby certify that
 the foregoing and attached Transcript of Hearing before the
 New Mexico Oil Conservation Commission was reported by me and
 that the same is a true and correct record of the said
 proceedings, to the best of my knowledge, skill and ability.

Charlotte Macias
 Court Reporter

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the Franklin hearing of Case No. 3880
 heard by me on 6/9/65.

Thomas G. Miller, Chairman
 New Mexico Oil Conservation Commission

Docket No. 29-68

DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 9, 1968

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

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 3872: Application of Union Oil Company of California for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to fully complete its Federal "A" Well No. 1 located in Unit P of Section 12, Township 15 South, Range 34 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Morton-Wolfcamp Pool and the disposal of produced salt water through the intermediate casing-production casing annulus into the San Andres and such other formations as may occur in the open-hole interval from approximately 4620 to 7350 feet.

CASE 3873: Application of R. G. McPherson 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 in the open-hole interval from approximately 5250 feet to 5854 feet in his S. P. Johnson Well No. 1 located 990 feet from the West line and 1650 feet from the South line of Section 5, Township 18 South, Range 39 East, South Carter-San Andres Pool, Lea County, New Mexico.

CASE 3874: Application of Gulf Oil Company - U. S. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Paddock and Blinbry Oil Pools in the well-bore of its C. L. Hardy Well No. 2 located in Unit N of Section 20, Township 21 South, Range 37 East, Lea County, New Mexico, with the provision that no more than one single allowable well be produced from said well.

CASE 3875: Application of Pan American Petroleum Corporation for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well in exception to the Fowler-Ellenburger Rules at an unorthodox location 910 feet from the North line and 1980 feet from the West line of Section 15, Township 24 South, Range 37 East, Lea County, New Mexico.

October 9, 1968, Examiner Hearing

Docket 29-68

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- CASE 3876: Application of Newmont Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Young (Queen) Unit Area comprising 1320 acres, more or less, of federal and state lands in Township 18 South, Range 32 East, Young (Queen) Pool, Lea County, New Mexico.
- CASE 3877: Application of Newmont Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Young (Queen) Unit Area by the injection of water into the Queen formation through 17 wells located in Sections 9, 16, 17, 19, 20, 21, and 29, Township 18 South, Range 32 East, Young (Queen) Pool, Lea County, New Mexico.
- CASE 3878: Application of General American Oil Company of Texas for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier sand through two injection wells located in Unit M of Section 8, and Unit G of Section 17, Township 16 South, Range 30 East, West Henshaw-Grayburg Pool, Eddy County, New Mexico.
- CASE 3879: Application of Walter Duncan Oil Properties for an unorthodox oil well location, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a well at an unorthodox oil well location 1000 feet from the North line and 1242 feet from the East line of Section 36, Township 32 North, Range 18 West, San Juan County, New Mexico. Said well would be projected to the Dakota formation.
- CASE 3880: Application of Anne Burnett Windfohr, dba Windfohr Oil Company, for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Abo formation in the perforated interval from approximately 6970 feet to 7028 feet in the Windfohr Oil Company Jackson "B" Well No. 23 located in Unit J of Section 24, Township 17 South, Range 30 East, Jackson-Abo Pool, Eddy County, New Mexico.
- CASE 3881: Application of J. M. Huber Corporation for the creation of a new oil pool and for special pool rules, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Devonian oil pool for its Lone Star Federal Well No. 1 located in the NE/4 NE/4 of Section 20, Township 8 South, Range 36 East, Roosevelt County, New Mexico, and for the promulgation of special rules therefor including a provision for 80-acre proration units.

- CASE 3882: Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Teague Blinebry Pool, Lea County, New Mexico.
- CASE 3883: Application of Solar Oil Company for a special gas-oil ratio limitation, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 506 of the Commission Rules and Regulations to provide for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil in the Imperial Tubb-Drinkard Pool, Lea County, New Mexico.
- CASE 3884: Application of Marathon Oil Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Miller Ranch Unit Area comprising 5,276 acres, more or less, of State, Federal and Fee lands in Townships 21 and 22 South, Range 25 East, Eddy County, New Mexico.
- CASE 3885: Application of Sinclair Oil & Gas Company for a waterflood expansion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Turner "B" Grayburg-Jackson Waterflood Project, Grayburg-Jackson Pool, by the conversion to water injection of 12 additional injection wells located in Sections 20, 29, and 30, Township 17 South, Range 31 East, Eddy County, New Mexico.
- CASE 3886: Application of Sinclair Oil & Gas Company for the amendment of a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks amendment of its Guadalupe Ridge Unit Agreement, unitizing certain lands in Eddy County, New Mexico, and approved by Order No. R-3471, to conform to certain requirements of the Director of the United States Geological Survey. In the absence of objection, the case will be submitted and an order issued upon the basis of the application and exhibits attached thereto.
- CASE 3887: Application of Kersey & Company for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Premier sand of the Grayburg formation through two wells to be located in Units E and K of Section 12, Township 18 South, Range 28 East, Artesia Pool, Eddy County, New Mexico. Applicant further proposes to produce oil from the Upper Grayburg through parallel strings of tubing, if said zones are productive in the subject wells.

- CASE 3888: Application of Amerada Petroleum Corporation for a dual completion, salt water disposal and tubing exception, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State E "B" Well No. 1 located in Unit E of Section 27, Township 10 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the North Echols-Devonian Pool and the disposal of produced salt water through the tubing-casing annulus into the San Andres formation through perforations in said casing from approximately 5220 feet to 5250 feet. Applicant also seeks an exception to the tubing requirements of Commission Rule 107 in that said tubing would be set more than 250 feet above the upper most Devonian perforation.
- CASE 3889: Application of BTA Oil Producers for the creation of a new pool and special pool rules, Lea and Roosevelt Counties, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new pool for the production of oil from the Bough C zone of the Pennsylvanian formation for its well located in Section 5, Township 9 South, Range 36 East, Lea County, New Mexico, and for the promulgation of special rules therefor including a provision for 160-acre proration units and for the assignment of an 80-acre allowable factor of 4.77.
- CASE 3890: Application of Pan American Petroleum Corporation for special pool rules and a non-standard gas proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Empire-Pennsylvanian Gas Pool, Eddy County, New Mexico, including a provision for 320-acre spacing units with wells to be located in either the northwest quarter or the southeast quarter of the section. Applicant further seeks approval of a 280-acre non-standard gas proration unit comprising the SE/4, S/2 SW/4, and the NW/4 SW/4 of Section 30, Township 17 South, Range 28 East, Empire-Pennsylvanian Gas Pool, to be dedicated to its State V Com Well No. 1 located 990 feet from the South and East lines of said Section 30.

WINDFOHR OIL COMPANY
OIL PRODUCTION - JACKSON ABO POOL
EDDY COUNTY, NEW MEXICO

YEAR	GISSLER "B"		JACKSON "B"		
	#11	#12	#22	#23	#24
1961			16,682	10,809	
1962	17,508	16,593	16,125	14,570	6,336
1963	19,544	19,545	9,558	4,844	4,005
1964	8,380	8,028	4,633	2,169	1,741
1965	15,923	20,899	13,379	2,081	9,528
1966	6,245	15,064	9,102	1,576	6,825
1967	2,564	11,261	7,032	1,605	10,146
Cumulative	70,164	91,390	76,511	37,654	38,581
1968					
Jan.	226	610	503	167	1,724
Feb.	199	538	430	143	1,477
Mar.	211	570	463	154	1,586
Apr.	203	550	435	145	1,492
May	297	486	449	150	1,538
June	275	448	380	127	1,304
July	279	456	384	130	1,336
Aug.	253	413	361	120	1,239
Cumulative	72,107	95,461	79,916	38,790	50,277

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
App EXHIBIT NO. 2
CASE NO. 3880

EXHIBIT #2

RALPH L. GRAY
PETROLEUM ENGINEERING

WINDFOHR OIL COMPANY
WATER ANALYSIS

Source of Water: Abo produced water from Jackson "B"
heater treater.

Date of Sample: May 12, 1967

Specific Gravity at 60° F. - 1.0290

PH - 7.3

Ca - 3,905 mg/liter

Mg - 1,845

SO₄ - 3,610

Cl - 35,100

Fe - .08

H₂S - 3,500

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
App EXHIBIT NO. 3
CASE NO. 3880

RALPH L. GRAY
PETROLEUM ENGINEERING

EXHIBIT #3

WELL DATA

WINDFOHR OIL COMPANY

JACKSON "B" WELL #23

Location: 1420' from south and 1980' from east lines
of Section 24-T.17S-R.30E.

Completed: April 28, 1961.

Elevation: 3681 D.F.

Total Depth: 7028'

Casing: 8-5/8" at 1653' with 900 sx.

7" at 2988' with 50 sx.

4 1/2" at 7028' with 275 sx.

Perforations: 6970-78

7002-06

7018-28

Treatment: Acidized with 100 gallons of 15% acid and
2,000 gallons of 28% acid.

Initial Potential: Flowed 132 BOPD on 1/2" choke,

Tubing Pressure 50 psi.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
App. EXHIBIT NO. 4
CASE NO. 3880

EXHIBIT #4

RALPH L. GRAY
PETROLEUM ENGINEERING

DIAGRAMMATIC SKETCH

WINDFOUR OIL COMPANY - JACKSON "B" #23

PROPOSED INJECTION WELL

Top of cement (8-5/8") at surface.

Base of Salt - 1392'

Top of cement (4 1/2") at 1600'.

Top of 7" - 1882'

Top of cement (7") at 2322'

8-5/8" 24# J-55 at 1653' with 900 sx.

7" 20# J-55 at 2988' with 50 sx.
Pulled 1106'.

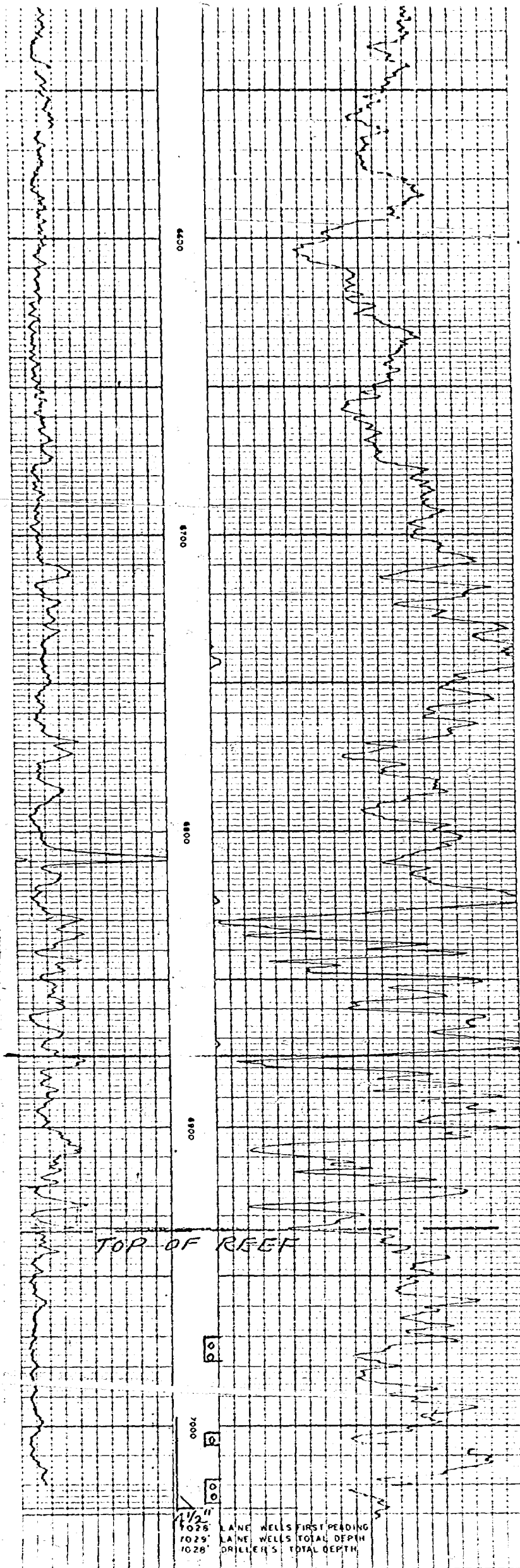
Will set packer at approximately 6900'.

Perforations 6970-7028

Total Depth - 7028'

4 1/2" 11.6# J-55 at 7028' with 275 sx.

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
App. EXHIBIT NO. 5
CASE NO. 3880



NASH, WINIFORD B BROWN
JACKSON B-23
AND CAT
LODY COUNTY, NEW MEXICO

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
App. EXHIBIT NO. 6
CASE NO. 3880

NEIL B. WATSON
FRED A. WATSON

LAW OFFICES
WATSON & WATSON
CARPER BUILDING - P. O. DRAWER E
ARTESIA, NEW MEXICO
38210

AREA CODE 505
746-4151 · 746-2201

September 13, 1968.

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

Case 3880

Attention: Mr. A. L. Porter, Jr., Secretary-Director.

Dear Mr. Porter:

I herewith enclose, in triplicate, the Application of Anne Burnett Windfohr, d/b/as Windfohr Oil Company, to convert the Jackson "B" Lease Well No. 23 in NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, Township 17 South, Range 30 East, N.M.P.M., Eddy County, New Mexico, to a water injection well. As set forth in the Application, the purpose of the requested conversion is to provide a disposal well for water produced from Abo wells, and it is not an application for a water flood secondary recovery program.

Since there are wells producing from the injection formation within less than two miles, I believe that this Application will have to be considered after notice and by hearing rather than as an administrative matter.

The enclosed Application contains our Certificate showing that a copy, with Exhibits, has been mailed to the State Engineer and that two copies have been delivered to the United States Geological Survey, because the lease involved is a United States Oil and Gas Lease.

Please set the matter for hearing before an Examiner and cause the proper notices to be published and advise us of a hearing date.

Very truly yours,

Fred A. Watson
Fred A. Watson.

FAW:drm
Enclosures.

cc. Mr. Ralph Gray, Consulting Engineer.
cc. Office of the State Engineer.
cc. Mr. John Rush Vann, Windfohr Oil Company.

60 SEP 16 1968
DOCKET MAILED

Date 9-26-68

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

IN RE: APPLICATION OF ANNE BURNETT WINDFOHR,)
d/b/as WINDFOHR OIL COMPANY, FOR AUTHORITY)
TO CONVERT THE JACKSON "B" NO. 23 WELL IN)
NW $\frac{1}{4}$ SE $\frac{1}{4}$ OF SECTION 24, TOWNSHIP 17 SOUTH,)
RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW)
MEXICO, TO AN INJECTION WELL AND TO INJECT)
PRODUCED WATER INTO THE ABO FORMATION IN)
SAID WELL.)

Case No. 3880

A P P L I C A T I O N

COMES NOW Anne Burnett Windfohr, an individual, d/b/as Windfohr Oil Company, and hereby makes application for authority to convert the Jackson "B" Lease Well No. 23, located in NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 24, Township 17 South, Range 30 East, N.M.P.M., Eddy County, New Mexico, to a water injection well and to inject produced water into the Abo Formation in said well, and, in support of said application, states:

1. That applicant is the operator of United States Oil and Gas Lease N.M.-2747, whereon the said Jackson "B" Lease Well No. 23 is located.
2. That applicant seeks authority to convert the said Jackson "B" Lease Well No. 23 to a water injection well and to inject produced water therein and into the Abo Formation, for the purpose only of disposing of produced water produced from other wells which are completed and producing in the Abo Formation.
3. That there are attached hereto and made a part hereof the following Exhibits, to wit:

Exhibit "1" is a plat showing the Jackson "B" Lease Well No. 23, and also showing the location of all other wells within a radius of 2 miles from said proposed injection well and the formations from which said wells are producing or have produced. Said plat also indicates the lessees.

Exhibit "2" is a log of the Jackson "B" Lease Well No. 23.

Exhibit "3" is a diagrammatic sketch of the proposed conversion of the Jackson "B" Lease Well No. 23 to an injection well.

4. The kind of fluid to be injected will be produced water produced from other oil and gas wells in the vicinity, completed and producing in the Abo Formation, and it is proposed to inject said water back into the Abo Formation. The purpose of the Application is to provide a means of disposing of produced water, rather than to provide for a secondary recovery program. The anticipated volume to be injected initially, based on the amount of water presently produced from other wells operated by applicant, is approximately 400 barrels per day.

5. That a complete copy of this Application, together with all Exhibits, has been forwarded to the Office of the State Engineer, Capitol Building, Santa Fe, New Mexico, as is shown by the certificate attached hereto.

WHEREFORE, applicant requests a hearing before an examiner and requests authority for the conversion of the above named well and the injection of produced water therein and into the Abo Formation, for disposal purposes.

ANNE BURNETT WINDFOHR, d/b/as
WINDFOHR OIL COMPANY

by

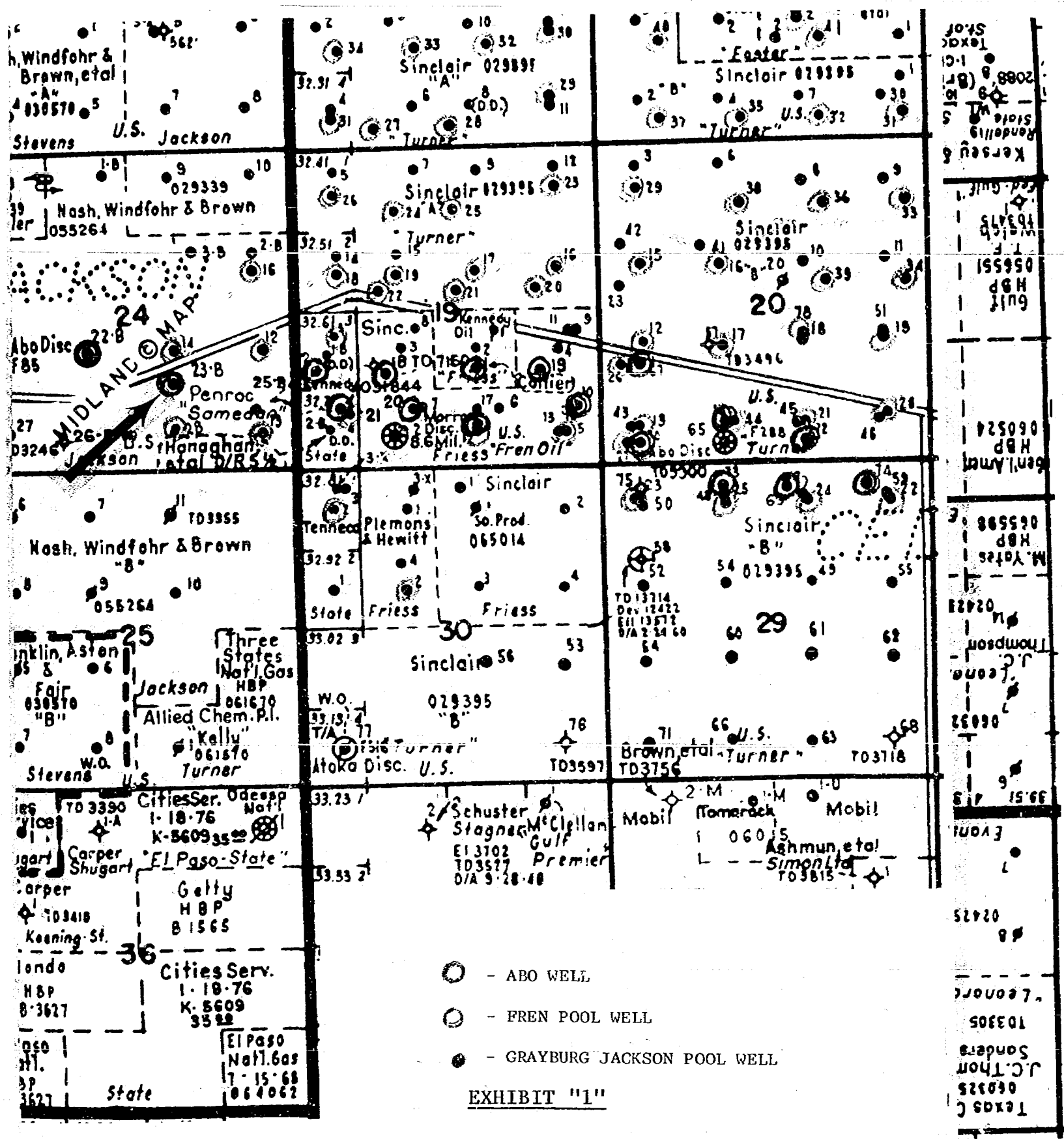
WATSON AND WATSON

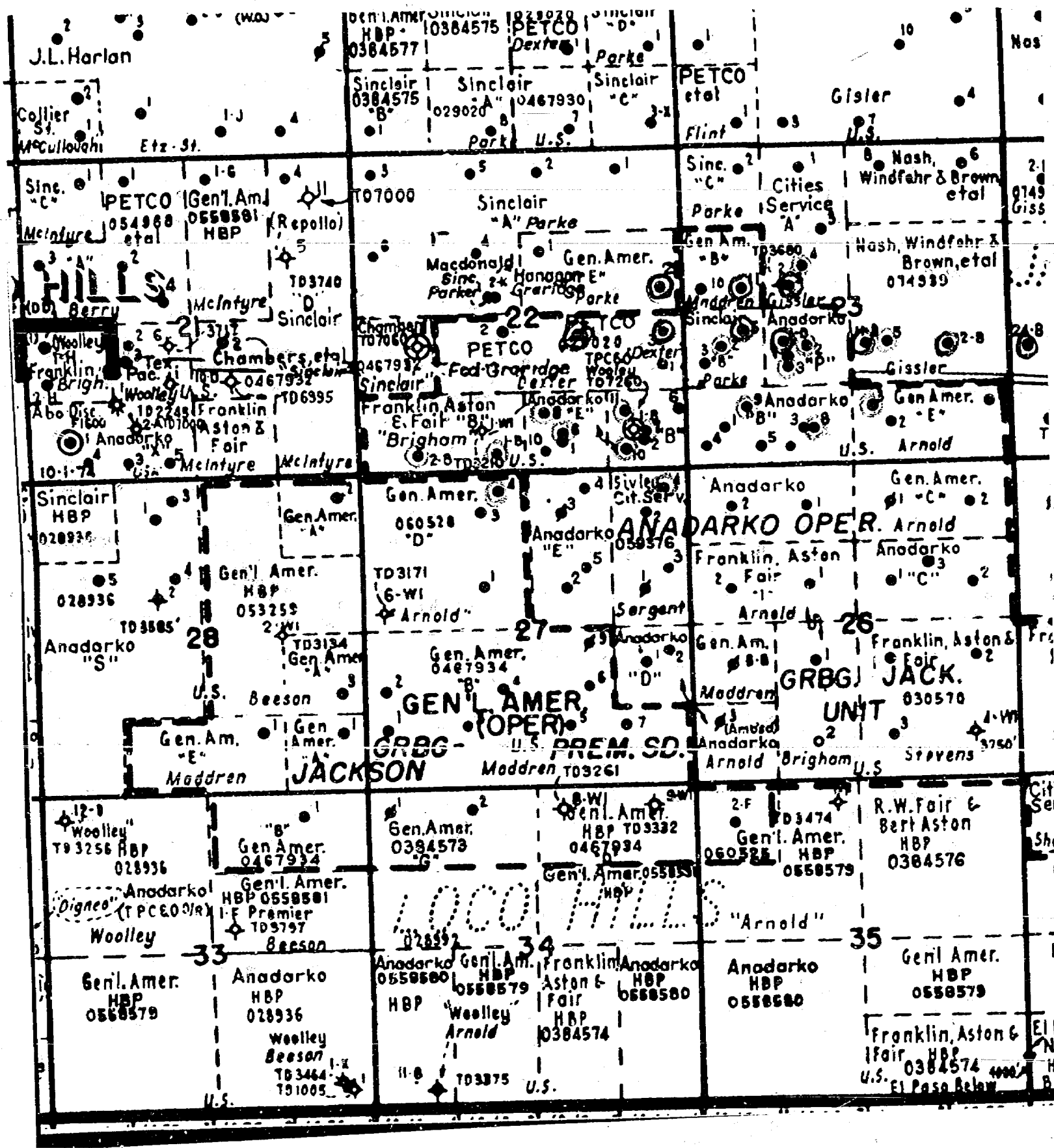
Fred A. Watson
Attorneys for Applicant,
P. O. Drawer E,
Artesia, New Mexico 88210.

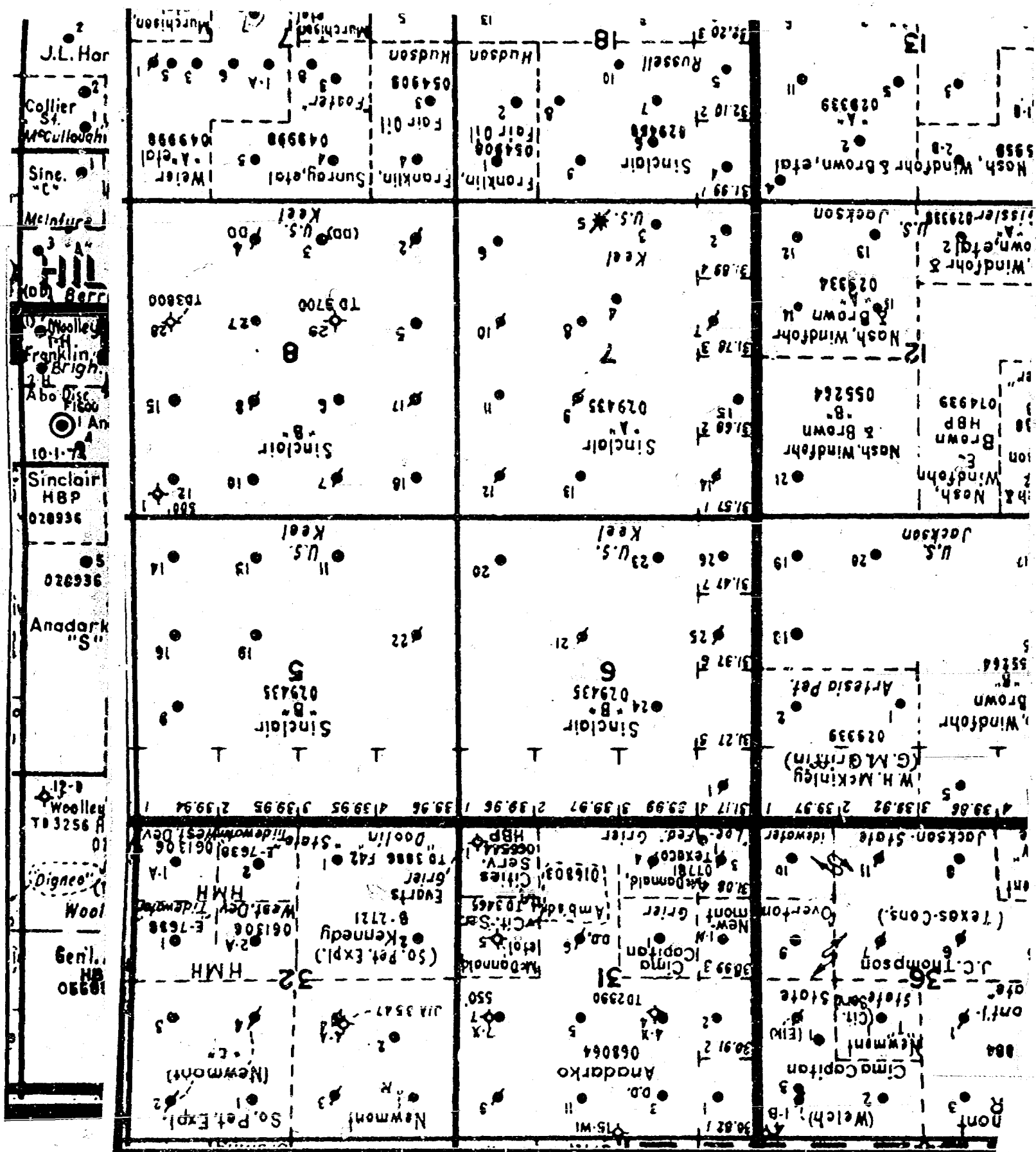
CERTIFICATE

I do hereby certify that, on the 13th day of September, 1968, I mailed a true and complete copy of this Application, together with all exhibits, to the Office of the State Engineer, Capitol Building, Santa Fe, New Mexico, and that I delivered two true and complete copies, together with all exhibits, to the United States Geological Survey Office, in Artesia, New Mexico.

Fred A. Watson







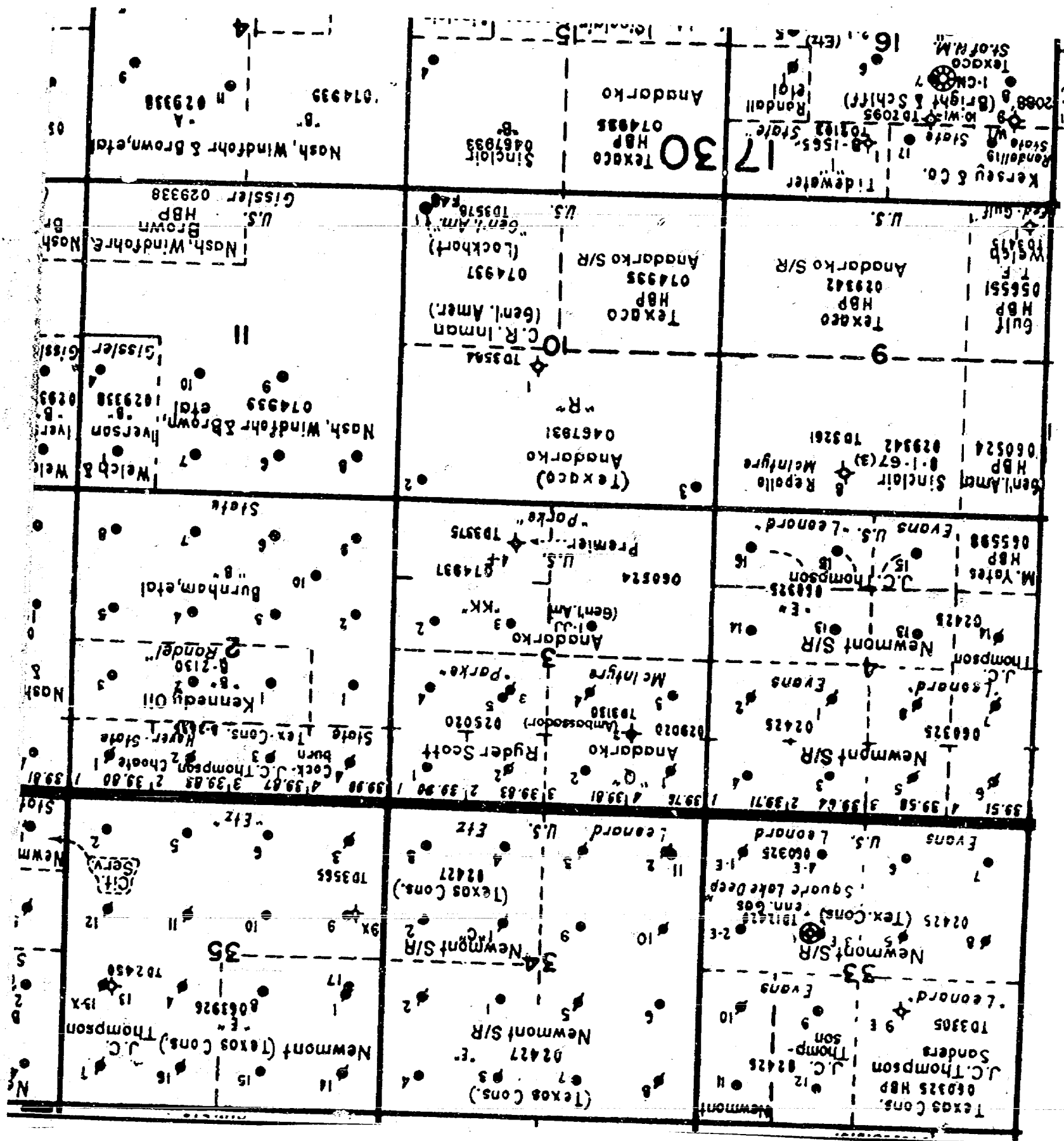
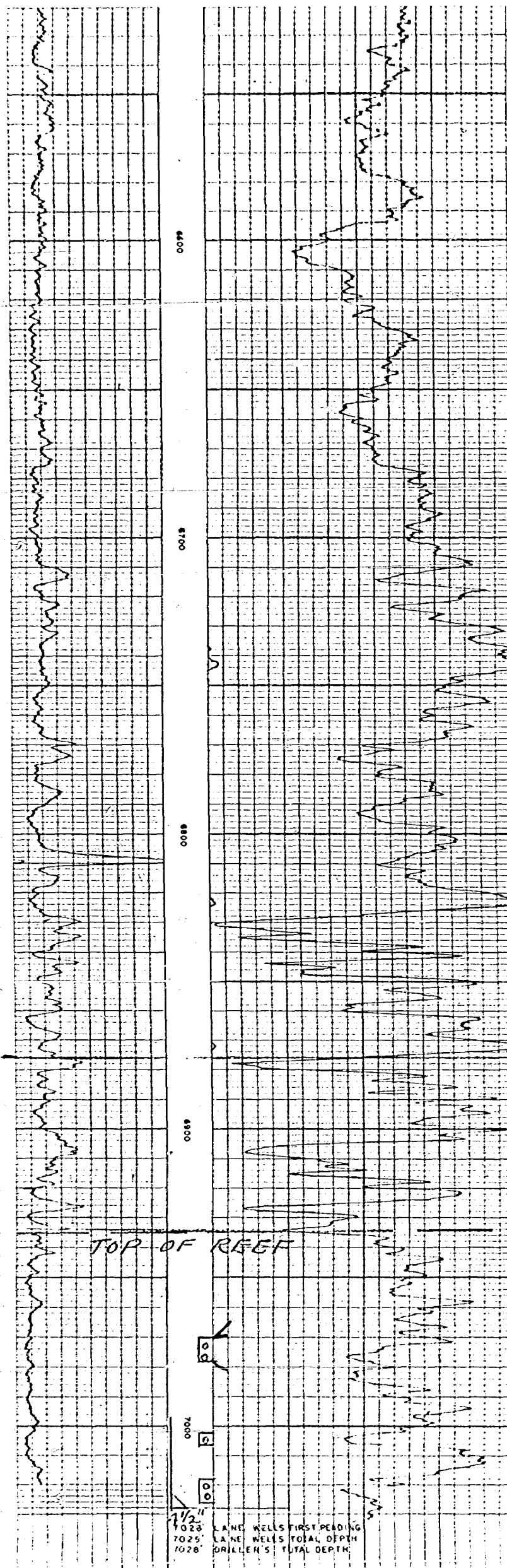


EXHIBIT "2"



NASH, ANDREWS & BROWN
JACKSON B-23
ANDREWS
EDDY COUNTY, NEW MEXICO

Page 3880

EXHIBIT "3"

DIAGRAMMATIC SKETCH

WINDFOHR OIL COMPANY - JACKSON "B" #23

PROPOSED INJECTION WELL

Top of cement (8-5/8") at surface.

Base of Salt - 1392'

Top of cement (4 1/2") at 1600'.

Top of 7" - 1882'

Top of cement (7") at 2322'

8-5/8" 24# J-55 at 1653' with 900 sx.

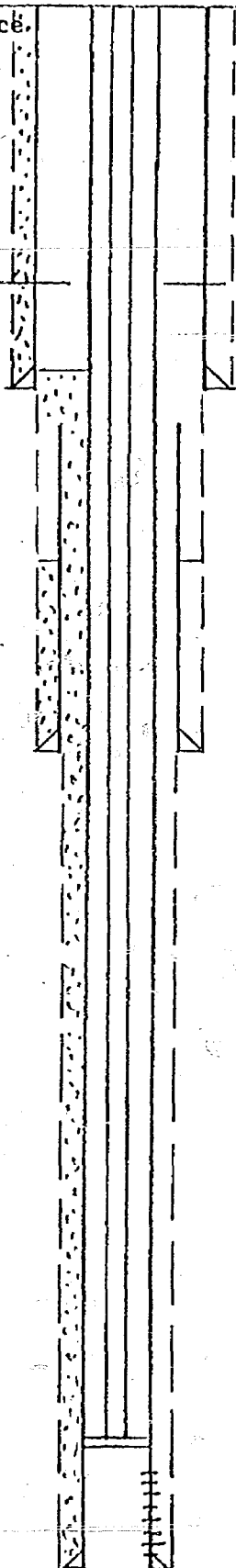
7" 20# J-55 at 2988' with 50 sx.
Pulled 1106'.

Will set packer at approximately 6900'.

Perforations 6970-7028

4 1/2" 11.6# J-55 at 7028' with 275 sx.

Total Depth - 7028'



DRAFT

GMM/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3880

Order No. R- 3525
[Handwritten signature]
[Handwritten date: 10-17-68]

APPLICATION OF ANNE BURNETT WINDFOHR,
DBA WINDFOHR OIL COMPANY, FOR SALT WATER
DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 9, 1968,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this day of October, 1968, 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, Anne Burnett Windfohr,
dba Windfohr Oil Company
Windfohr Oil Company
is the owner and operator of the Jackson "B" Well No. 23,
located in Unit J of Section 24, Township 17 South, Range
30 East, NMPM, Jackson-Abo Pool, Eddy County,
New Mexico.

(3) That the applicant proposes to utilize said well to
dispose of produced salt water into the Abo formation,
with injection into the perforated interval from approximately
6970 feet to 7028 feet.

(4) That the injection should be accomplished through
2 3/8-inch plastic-lined tubing installed in a packer set at

approximately 6900 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge should be attached to the annulus or the annulus left open at the surface in order to determine leakage in the casing, tubing, or packer.

(5) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Anne Burnett Windfohr, dba
Windfohr Oil Company
Windfohr Oil Company
is hereby authorized to utilize the Jackson "B" Well No. 23
located in Unit J of Section 24, Township 17 South, Range
30 East, NMPM, Jackson-Abo Pool, Eddy
County, New Mexico, to dispose of produced salt water into the
Abo formation, injection to be accomplished through
2 3/8-inch tubing installed in a packer set at approximately
6900 feet, with injection into the perforated interval
from approximately 6970 feet to 7028 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 left open at the surface in order to determine
leakage in the casing, tubing, or packer.

(2) That the applicant shall submit monthly reports of the
disposal operations in accordance with Rules 704 and 1120 of the
Commission Rules and Regulations.

(3) 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.