

Case No.

312

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

TRANSCRIPT OF HEARING

October 23, 1951

Case 312

E. E. GREEBON
ADA DEARNLEY
COURT REPORTERS
BOX 1303
PHONES 5-9422 AND 5-9546
ALBUQUERQUE, NEW MEXICO

BEFORE THE
OIL CONSERVATION COMMISSION
STATE OF NEW MEXICO

IN THE MATTER OF:

Application of Buffalo Oil Company
to extend gas injection operations
in the Maljamar Pool, Lea and
Eddy Counties, New Mexico.

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) Case No. 312
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TRANSCRIPT OF HEARING

October 23, 1951

MR. SPURRIER: We will proceed to Case No. 312.

(Mr. Kellahin reads the Notice of Publication.)

MR. CAMPBELL: My name is Jack M. Campbell of Atwood, Malone and Campbell, representing the Buffalo Oil Company.

H. G. ELLIS,

having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. CAMPBELL:

Q State your name please.

A H. G. Ellis.

Q Where do you live, Mr. Ellis?

A Artesia, New Mexico.

Q By whom are you employed?

A Buffalo Oil Company.

Q In what capacity?

A Vice President in charge of Production.

Q Have you testified before this Commission on previous occasions as Vice President in charge of Production?

A I have.

MR. CAMPBELL: Does the Commission wish me to qualify the witness or will his qualifications be acceptable.

MR. SPURRIER: They are acceptable.

Q Your company has made application in Case No. 312, to make gas injections in the surface area where the Maljamar Pool in Lea and Eddy Counties, New Mexico is situated.

Will you state to the Commission the reason for this application.

A We have drilled three wells into the Yates Sand which is now designated as the Baish Pool. Those wells have not been very profitable -- have not been profitable -- and we now desire to try and augment the production by injecting gas into the well that is close to two of them in an effort to increase production.

Q I hand you what has been marked Exhibit A and ask you to state what that is.

A That is a map of Section 21-17-32, showing in red the three wells in the Baish Pool which are drilled into the Yates Sand, as well as the wells in the Maljamar Pool surrounding it.

Q Is your company the only operator in that area which has wells drilled in the Yates Sand?

A That's right.

Q And there are no other Yates Sand wells in the vicinity? Is that correct?

A None other in the vicinity at all.

Q Has there been sufficient exploration in the Yates Sand in the area to determine the approximate pool limits?

A Practically, well definitely determined, yes.

Q And is the estimated pool limits shown on Exhibit A what has been determined by the drilling of additional wells?

A This is the limit of the pool.

Q I now hand you what has been identified as Exhibit B, and ask you to state what that is.

A This is a schematic drawing showing the casing that has been cemented in our Baish A-7 well, which is the well into which we desire to inject gas. Showing the depths to which these casings, various casings, have been cemented.

Q Will you state to the Commission the manner in which that well has been completed with reference to what you are proposing by the application?

A Originally when the well was drilled it was completed in the Yates Sand and ten and three-quarter inch casing was cemented in the top of the sand with a depth of 2301 feet. Later on when the well was deepened into the Maljamar pay a string of 8 and five-eighths inch casing was set at 3050 feet and cemented back to the bottom of the Yates Sand. Another -- for a string of 7 inch casing was then set at 3821 feet above the then six zone pay and cemented back into the Yates in five-eighths inch casing.

Q Now, where do you intend to inject this gas?

A In the Bradenhead between the ten and three-quarter and the eight and five-eighths inch casing.

Q And what protection will you then have to avoid the comingling of this gas with the oil pay zone in what you call the Maljamar pay?

A There are two strings of casing both of which were cemented, the eight and five-eighths cemented from about 600 feet which is immediately below the Yates. And then inside of that there is a string of seven inch casing cemented back at about 800 feet.

Q Do you feel that by this method of completion you have eliminated any possibility of communication?

A Definitely eliminated it.

Q Where do you propose to get the gas for this gas injection project?

A From the Maljamar Cooperative Repressuring agreement.

Q Have you consulted with them in connection with this application?

A I have.

Q I hand you what has been identified as the Exhibit C and ask you to state what that is.

A This is a letter from the Maljamar Cooperative Repressuring Agreement, dated September 27, 1951, and signed by J. Wright, Project Engineer.

Q Does that letter grant their permission to use excess gas that they may have available for this secondary recovery project of yours?

A It does.

MR. CAMPBELL: I offer in evidence Exhibits A, B and C.

MR. SPURRIER: They will be accepted.

MR. CAMPBELL: Is it agreeable with you this project of gas injection be maintained only so long as there is excess gas available from the Maljamar Agreement?

A It is.

Q Is it correct, Mr. Ellis, that other than the fact that you are using excess gas from that Agreement, that there is no connection between your project here and the Maljamar Repressuring project?

A No connection whatever.

MR. CAMPBELL: That is all.

MR. SPURRIER: Does anyone care to question this witness? Or are there any further comments in the case? Does this conclude your case, Mr. Campbell?

MR. CAMPBELL: Yes.

MR. SPURRIER: We will take the case under advisement and go on to Case 308.

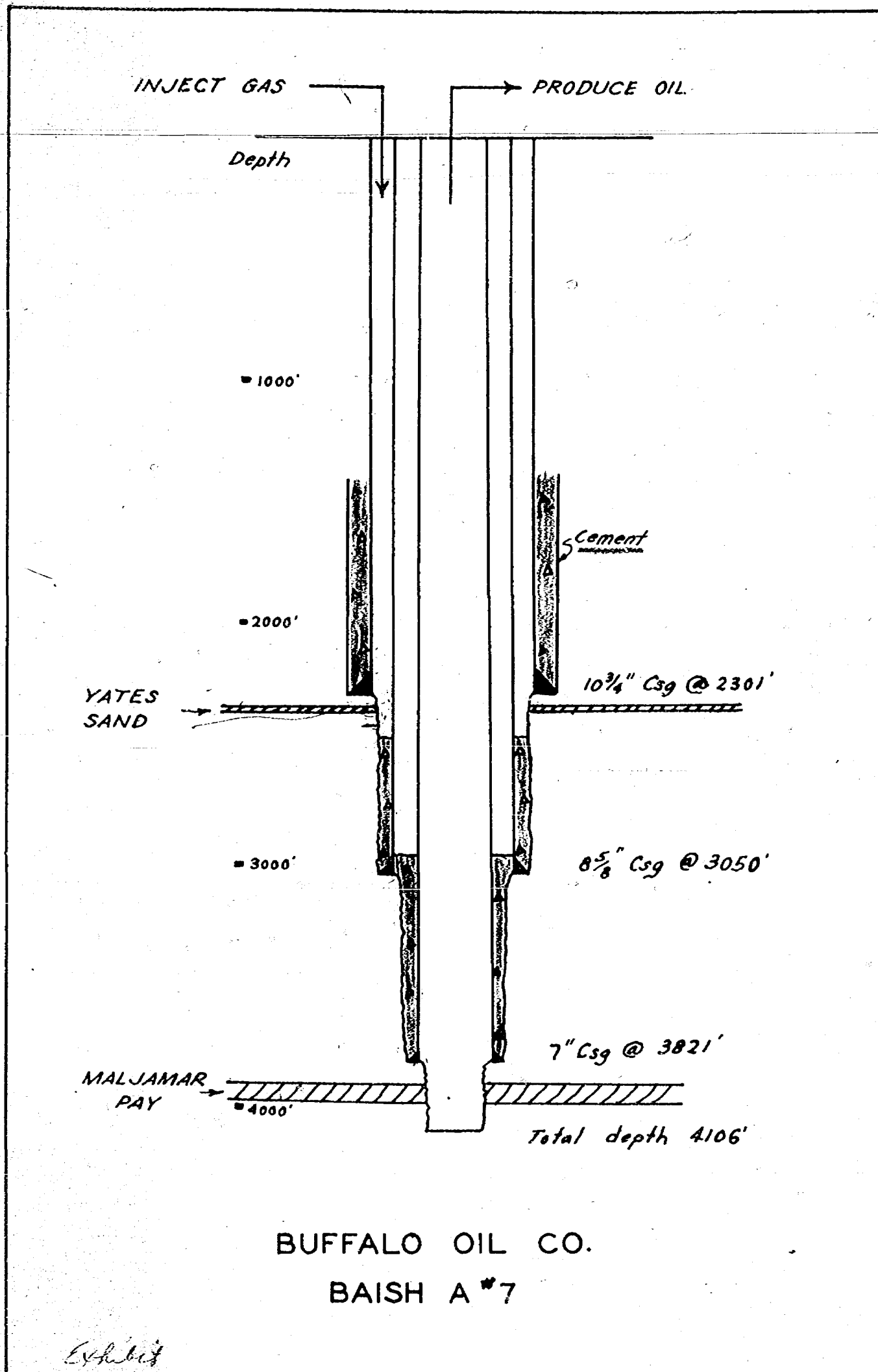
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STATE OF NEW MEXICO)
 : SS
COUNTY OF BERNALILLO)

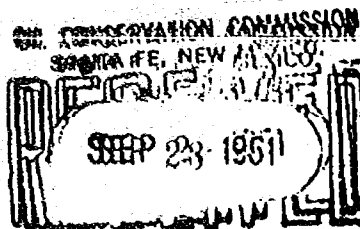
I HEREBY CERTIFY that the foregoing and attached
Transcript of Hearing before the Oil Conservation Commission,
in Case No. 312, taken on October 23, 1951, at Santa Fe,
is a true and correct record of the same to the best of
my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this 19 day of
November, 1951.

E. E. Green
reporter



Ex. B Case 312



BUFFALO OIL COMPANY

A MARYLAND CORPORATION
GULF STATES BUILDING

DALLAS, TEXAS

CARPER BUILDING
ARTESIA, N. M.

Sept. 26, 1951

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Gentlemen:

On September 13, 1951, we transmitted a letter requesting approval to use our Balish A Well #7 as an injection well by means of utilizing the bradenhead and conducting an experimental gas drive on the Yates Sand. In writing this letter we were under the impression that a hearing would not be required since this was being conducted within the Maljamar Cooperative Repressuring Agreement, with the consent of the operators within this Cooperative Area.

In discussing this with Mr. George Graham by telephone on September 25, 1951, Mr. Graham was of the opinion that a hearing would be required and he stated the case would be heard on October 23, 1951. Mr. Graham also requested that we furnish the Commission with two more copies of our letter along with a diagram showing the method by which we propose to inject gas into the Yates Sand, while at the same time producing oil from the Maljamar pay. We are attaching both copies of the letter and also the diagram which shows that gas will be injected between the 10-3/4" casing and the 8-5/8" casing, and in this manner will be injected into the Yates Sand. The Maljamar pay is completely separated from the Yates Sand by means of two strings of casing, of which the 8-5/8" casing is cemented at 3050' and the 7" casing is cemented at 3821'. This well is already equipped in this condition and no work would be required, except to connect the gas injection line into the bradenhead at the surface. There might be some doubt as to whether this type completion would actually be considered as a dual completion since each pay zone is completely segregated from the other by strings of casing.

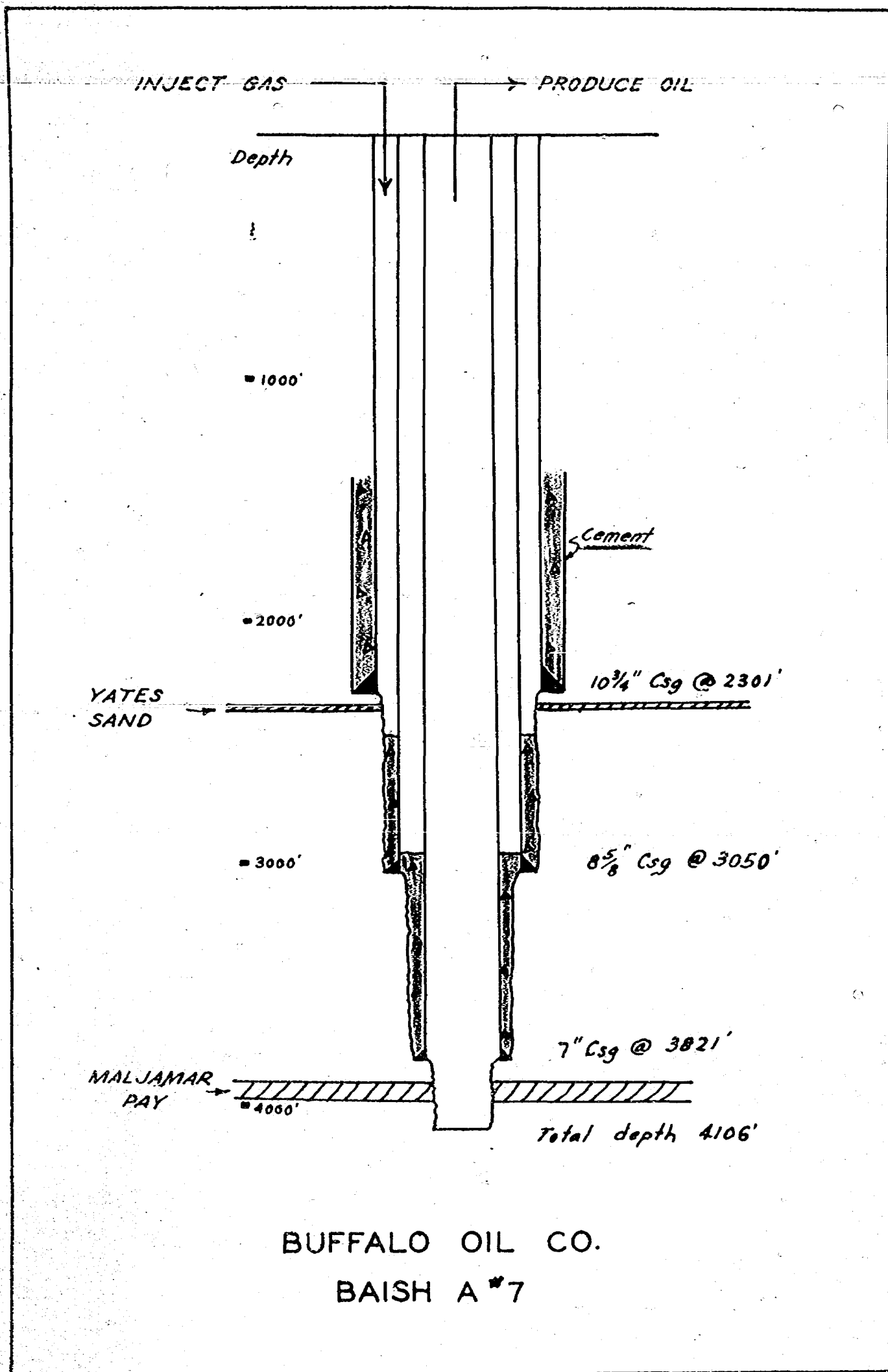
We trust that the attached information will furnish sufficient data for your consideration.

Yours very truly,

BUFFALO OIL COMPANY

By Ralph L. Gray
Asst. Supt.

RLG:lt



OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO.

RECEIVED
SEP 17 1951

BUFFALO OIL COMPANY

A MARYLAND CORPORATION
GULF STATES BUILDING

DALLAS, TEXAS

CARPER BUILDING
ARTESIA, N. M.

September 13, 1951

New Mexico Oil Conservation Commission
Attention: Mr. R. R. Spurrier, Director
Box 871
Santa Fe, New Mexico

Dear Sir:

The Buffalo Oil Company desires to extend gas injection operations now being carried on in the Maljamar Field. However, the present injection program only covers wells completed in the Maljamar pool which are producing from the Grayburg and San Andres formations below 3600 ft.

The attached map shows the wells in Section 21-T 17S-R 32E., in Lea County, New Mexico. Besides the wells completed in the Maljamar Pool, the Buffalo Oil Company has three wells completed in the Yates Sand at about 2500 ft. These are Baish A-17Y, 18-Y and 19-Y.

The map also indicates a proposed gas injection well at Baish A #7. This well was originally completed in the Yates Sand at a depth of 2365 ft., and had 10-3/4" casing set at 2301 ft. The well was deepened to the Maljamar pay in October, 1945. In deepening it was anticipated that it might be desirable to inject gas into the Yates Sand at some future date, so a string of 8-5/8" casing was cemented at 3050 ft. with 78 sacks of cement, which would leave the Yates sand open to the bradenhead between the 10-3/4" and 8-5/8" casing strings. The oil string for the Maljamar pay is 7" casing set at 3821 ft. Therefore our Baish A well #7 is now equipped in such a manner that we can produce from the Maljamar Pool through the 7" casing, and at the same time inject gas into the Yates Sand by putting the gas between the 8-5/8" and 10-3/4" casing strings.

The Yates Sand has not shown to be a profitable pay formation in this area, so only three wells have been drilled to this zone. However, it is possible that gas injection will increase the oil recovery. We are therefore, proposing to conduct this as a pilot test to determine if gas injection will increase oil recovery from the Yates Sand in this area. Future drilling and injection facilities would depend on what results we obtain from this experiment.

N.M. Oil Conservation Commission
R. R. Spurrier
Sept. 13, 1951
Page #2

Gas for injection is available from the plant serving the Maljamar Cooperative Repressuring Agreement. The plant has an excess of gas suitable for injection, so we will use gas that would otherwise be vented to the air. Injection volume will be about 100 MCF per day.

As this is within the Maljamar Cooperative Repressuring Agreement, we have obtained permission from the operators within this Cooperative Area to proceed with this gas injection program. However, the program will not affect any other operator other than Buffalo.

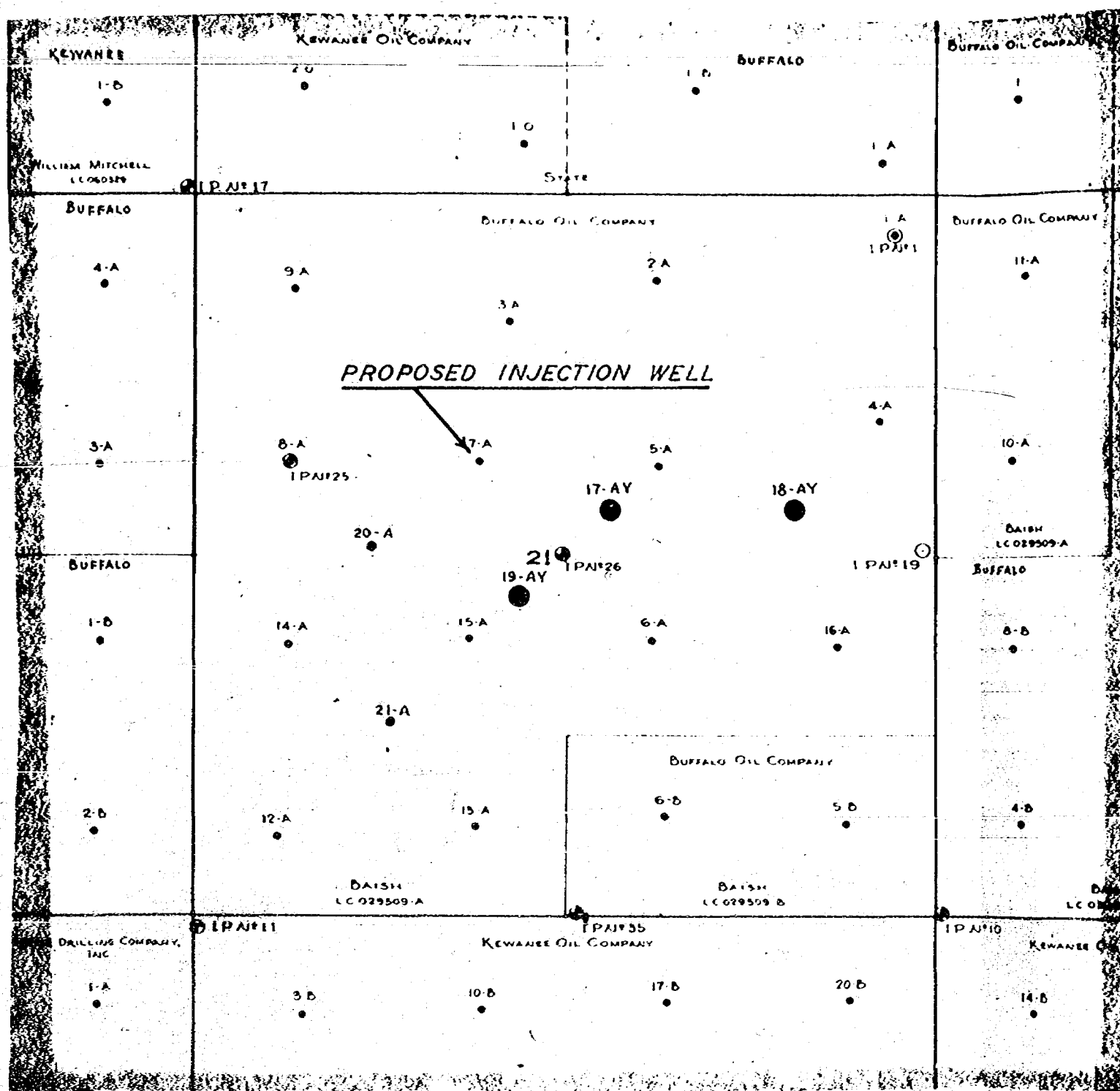
We shall appreciate your early approval of this proposal, so that we may start utilizing this gas that is now being burned.

Yours very truly,

BUFFALO OIL COMPANY

By Ralph L. Gray
Asst. Supt.

RLG:lt



SEC. 21 - T 17 S - R 32 E.
MALJAMAR FIELD
LEA CO., N. MEX.

- WELL COMPLETED IN YATES SAND
- WELL COMPLETED IN MALJAMAR PAY
- ⊙ GAS INPUT WELL - MALJAMAR PAY

SCALE: 1" = 1000'

RLG 9-7-51

OPERATORS COMMITTEE

EMERY CARPER
F. D. BAKER
F. M. JACOBSON
E. G. WOODS
GUS W. ARNOLD
D. A. POWELL

MALJAMAR COOPERATIVE
REPRESSURING AGREEMENT

ROOM 200 BOOKER BUILDING
ARTESIA, NEW MEXICO

EMERY CARPER
CHAIRMAN

F. D. BAKER
VICE CHAIRMAN

F. M. JACOBSON
SECRETARY

September 27, 1951

Buffalo Oil Company
Carper Bldg.
Artesia, N. M.

Attn: Mr. Ralph Gray

Dear Mr. Gray;

This is to advise you that the Engineering Committee representing the Operators in the Maljamar Cooperative Repressuring Agreement, in their meeting of September 21st approved the use of 100 MCF of gas per day for injection into the Yates pool for gas injection purposes. They did specify that if the gas was desired for injection purposes at a future date in the Grayburg or San Andres horizon by any of the operators participating in MCRA, that the Engineering Committee would have the authority to evaluate such request and upon their evaluation, approve or disapprove this volume being used in the Yates horizon.

In checking our operations since the installation of a new compressor we find that we vented to air after processing, these volumes for the following months:

| | |
|------------|-----------|
| March 1951 | 7,698 MCF |
| April | 3,004 MCF |
| May | 3,139 MCF |
| June | 4,468 MCF |
| July | 3,657 MCF |
| August | 1,805 MCF |

The small decline in August was created by plant difficulties so it definitely indicates that there is sufficient gas available for your request.

Yours truly,

MALJAMAR COOPERATIVE
REPRESSURING AGREEMENT

William J. Wright
William J. Wright,
Project Engineer

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Ex. C

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. 312
ORDER NO. R-106

THE APPLICATION OF BUFFALO OIL
COMPANY FOR APPROVAL OF USE OF
ITS BAISH A WELL NO. 7, SECTION 21,
TOWNSHIP 17 S., RANGE 32E, NMPM.,
LEA COUNTY, NEW MEXICO, FOR GAS
INJECTION PURPOSES IN THE YATES SAND.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at Santa Fe, New Mexico at 10 a. m., October 23, 1951, before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission," upon petition of Buffalo Oil Company.

NOW, on this 31st day of October, 1951, the Commission, a quorum being present, having considered all of the testimony adduced and exhibits received at said hearing, 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 case and the subject matter thereof.

(2) That it would be in the interests of conservation, prevent waste and protect correlative rights to permit the petitioners to conduct a gas injection program in the Yates Sand through its Baish A No. 7 well, located in Section 21, Township 17 S., Range 32 E., NMPM, on an experimental basis.

(3) That gas, in excess of the needs of the Maljamar Cooperative Repressuring Agreement, is available from the plant serving the Maljamar Cooperative Repressuring Agreement, and such excess gas is now being vented to the air, and is available to carry out the gas-injection program as proposed by the petitioner.

IT IS THEREFORE ORDERED:

(1) That Buffalo Oil Company is hereby granted permission to inject gas in the Yates Sands through its Baish A No. 7 well, Section 21, Township 17 South, Range 32 East, NMPM., Lea County, New Mexico.

(2) That said gas injection program is to be conducted on an experimental basis, injection to be made between the 8-5/8 inch and the 10-3/4 inch casing strings, and production from the Maljamar Pool, Lea County, New Mexico, may continue through the 7-inch casing.

(3) That no change in plans for the injection of gas into the Yates Sand shall be made except upon application to the Commission, and the Commission may act administratively upon such application if, in its opinion, the rights of third parties are not affected thereby.

Case No. 312
Order No. R-106

Nothing in this order shall be construed as affecting, changing or modifying the Maljamar Repressuring Agreement as provided by Commission Order No. 485, or as creating any vested right to gas from the Maljamar Repressuring Agreement source, or from any other source.

IT IS FURTHER ORDERED, that jurisdiction of this case be, and the same hereby is retained by the Commission for such further order or orders as may seem necessary to the Commission for the promotion of conservation, prevention of waste or protection of correlative rights.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Edwin L. Mechem

EDWIN L. MECHEM, Chairman

GUY SHEPARD, Member

R. R. Spurrer

R. R. SPURRIER, Secretary

SEAL