

CASE 3650: Application of ALBERT
GACKLE FOR DOWN-HOLE COMMINGLING,
LEA COUNTY, NEW MEXICO.

Casa No.

3650

Application, Transcript,
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

September 11, 1968

Mr. Jason Kellahin ✓
Kellahin & Fox
Attorneys at Law
Post Office Box 1769
Santa Fe, New Mexico

Re: Case No. 3650
Order No. R-3316
Applicant:
Albert Gackle

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.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

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. 3650
Order No. R-3316

APPLICATION OF ALBERT GACKLE
FOR DOWN-HOLE COMMINGLING, LEA
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 6, 1967, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 11th day of September, 1967, 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, Albert Gackle, is the owner and operator of the Esmond "B" Well No. 3, located in Unit H of Section 33, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico.

(3) That pursuant to Order No. R-1057, dated September 30, 1957, said Esmond "B" Well No. 3 was dually completed to produce oil from the Middle Seven Rivers formation of the Jalmat Pool and from the Lower Seven Rivers and Upper Queen formations of the South Eunice Pool through parallel strings of tubing with separation of the pools accomplished by means of a packer set at 3635 feet.

(4) That the applicant seeks authority to remove the packer and one string of tubing from said well and to produce both zones of the dual completion through a single string of tubing.

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CASE No. 3650
Order No. R-3316

(5) That the subject well is located in an area in which there are numerous old wells which have open perforations in the Middle Seven Rivers formation and the Lower Seven Rivers formation, which wells were so completed prior to the re-delineation of the vertical limits of several pools in the general area; that these wells have been operated in exception to the provisions of Rule 303 (a) requiring all wells to be completed, cased, maintained, and operated so as to prevent communication between pools within the well-bore.

(6) That pressures between the pools in the area are such that no waste will occur if applicant is permitted to remove the packer and one string of tubing from the subject well as proposed.

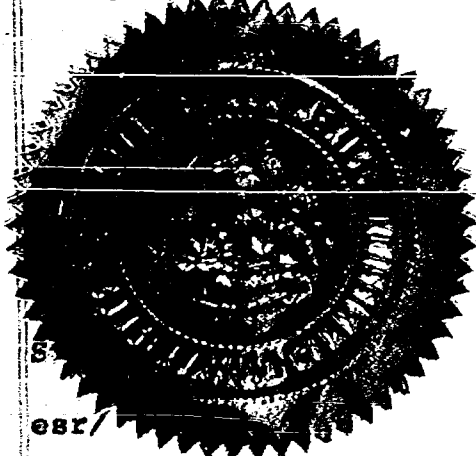
(7) That approval for the proposed commingling of production in the subject well will not violate correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Albert Gackle, is hereby authorized to remove the packer and one string of tubing from his Esmond "B" Well No. 3, located in Unit H of Section 33, Township 22 South, Range 36 East, NMPM, Lea County, New Mexico, and to produce oil from the Middle Seven Rivers formation of the Jalmat Pool and from the Lower Seven Rivers and Upper Queen formations of the South Eunice Pool through a single string of tubing; provided, however, that in no event shall said well be assigned more than a single well allowable.

(2) 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
DAVID F. CARGO, Chairman

Guyton B. Hays
GUYTON B. HAYS, Member

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

DOCKET NO. 26-67

DOCKET: SPECIAL HEARING - WEDNESDAY - AUGUST 30, 1967

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

CASE 3644: In the matter of the hearing called by the Oil Conservation Commission upon its own motion to consider the revision of Paragraph (1) of Order No. R-3221, to provide that the effective date for the prohibition of surface disposal of produced water from the North Bagley-Upper Pennsylvanian, North Bagley-Middle Pennsylvanian, North Bagley-Lower Pennsylvanian, North Bagley-Wolfcamp, and Northeast Bagley-Wolfcamp Pools, Lea County, New Mexico, or within one mile thereof, be changed from November 1, 1967, to some earlier date.

NOTE: A COPY OF THIS DOCKET WAS MAILED TO ALL PRODUCERS IN THE ABOVE-MENTIONED POOLS ON AUGUST 11, 1967.

DOCKET NO. 27-67

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 6, 1967

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

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

CASE 3431 (Reopened and continued from the August 9, 1967 Examiner Hearing)

In the matter of Case 3431 being reopened pursuant to the provisions of Order No. R-3100 to permit Sinclair Oil & Gas Company to show cause why its W. H. Turner Well No. 1 located in Unit L of Section 29, Township 21 South, Range 37 East, Lea County, New Mexico, a dual completion in the Drinkard and Blinebry Oil Pools, should not be completed in accordance with the provisions of Rule 112-A of the Commission Rules and Regulations.

CASE 3645: Application of Skelly Oil Company for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the promulgation of special pool rules for the Lazy "J" Pennsylvanian Pool, including a provision for 80-acre spacing units for that area east of a line drawn through the centers of Sections 26 and 35, and south of a line drawn along the south line of Sections 33, 34, and 35, all in Township 13 South, Range 33 East, Lea County, New Mexico.

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Docket No. 27-67

September 6, 1967 Examiner Hearing

- CASE 3646: Application of Texaco Inc. for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Delaware Sand through 12 wells in the Cotton Draw Unit Participating Area and through 3 wells on off-setting leases in Sections 10, and 28, Township 25 South, Range 32 East, Paduca-Delaware Pool, Lea County, New Mexico.
- CASE 3647: Application of Tenneco Oil Company for two waterflood projects, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute two waterflood projects by the injection of water into the Delaware Sand through two wells on its State Monsanto Lease, in Section 16, and through one well on its J. D. Sena, Jr. Lease, in Section 28, both in Township 25 South, Range 32 East, Paduca-Delaware Pool, Lea County, New Mexico.
- CASE 3648: Application of Tenneco Oil Company for a dual completion, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Jicarilla "A" Well No. 8 located in Unit H of Section 17, Township 26 North, Range 5 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of Tapacito-Gallup oil and Basin-Dakota gas through tubing, and the casing-tubing annulus, respectively, by means of a cross-over assembly.
- CASE 3649: Application of Texas Pacific Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Ella Drinkard Well No. 2 located in Unit E of Section 25, Township 22 South, Range 37 East, Lea County, New Mexico, in such a manner as to produce oil from an undesignated Ellenburger pool and from another undesignated pool, either pre-Ellenburger or Granite Wash, through parallel strings of tubing.
- CASE 3650: Application of Albert Gackle for down-hole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Jalmat and South Eunice Pools in the well-bore of his Esmond "B" Well No. 3 located in Unit H of Section 33, Township 22 South, Range 36 East, Lea County, New Mexico, with the assignment of a single allowable to said commingled production.

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Docket No. 27-67
September 6, 1967 Examiner Hearing

CASE 3635 (Corrected Notice):

Case 3635, Application of Cities Service Oil Company for an Exception to Order No. R-3221, Chaves County, New Mexico, was heard by the Commission on August 16, 1967. This notice is being given and the case will be re-opened to correct the location of one of the surface pits which were the subject of the hearing. The correct location of said pit is Unit E of Section 2, Township 14 South, Range 31 East, Chaves County, New Mexico, rather than Unit L of Section 2 as previously advertised.

CASE 3651: Application of Olen F. Featherstone for the creation of a new pool and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Permo-Pennsylvanian pool for his Mobil-State Well No. 1 located in Unit E of Section 32, Township 14 South, Range 35 East, Lea County, New Mexico, and for the promulgation of special rules therefor including a provision for 80-acre proration units.

CASE 3652: Application of Depco, Inc. for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of its Artesia Unit Area comprising 2400 acres, more or less, of State lands in Townships 17 and 18 South, Range 28 East, Eddy County, New Mexico.

CASE 3653: Application of Depco, Inc. for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its Artesia Unit Area by the injection of water into the Grayburg formation through 15 wells, Artesia Pool, Eddy County, New Mexico.

CASE 3654: Application of Mobil Oil Corporation for a waterflood expansion and for an amendment of Order No. R-1244, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its Bridges-State Waterflood Project by the conversion to water injection of its Bridges-State Wells Nos. 63 and 73 in Units K and G of Section 13; Wells Nos. 3 and 6 in Units O and E of Section 23; Well No. 47 in Unit K of Section 24; Well No. 5 in Unit C of Section 26, and Well No. 52 in Unit A of Section 27; its State G Well No. 3 in Unit G of Section 24 and State J Wells Nos. 1 and 4 in Units I and A of Section 22, all in Township 17 South, Range 34 East, Vacuum Pool, Lea County, New Mexico.

Applicant further seeks the amendment of Order No. R-1244 to provide that future operation and expansion of said project would be subject to the provisions of Rule 701-E of the Commission Rules and Regulations.

ir/

JASON W. KELLAHIN
ROBERT E. FOX

KELLAHIN AND FOX
ATTORNEYS AT LAW
54½ EAST SAN FRANCISCO STREET
POST OFFICE BOX 1769
SANTA FE, NEW MEXICO 87501

TELEPHONE 982-4315
AREA CODE 505

August 14, 1967

Case 3650

RECEIVED OFFICE COG

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Oil Conservation Commission
Post Office Box 2088
Santa Fe, New Mexico

Re: Application in behalf of Albert Gackle

Gentlemen:

Enclosed please find original and two copies of application on behalf of Albert Gackle for an order permitting commingling of production in the well bore from the Jalmat Oil Reservoir and the South Eunice Oil Reservoir in the Esmond B Well No. 3, for filing.

Yours very truly,

Jason W. Kellahin

JASON W. KELLAHIN

jwk;peg
Enc.

DOCKET MAILED

Date

8-23-67

JK

67 AUG 15 AM 7 59

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
ALBERT GACKLE, OPERATOR, FOR AN
ORDER PERMITTING COMMINGLING OF PRO-
DUCTION IN THE WELL BORE FROM THE
JALMAT OIL RESERVOIR AND THE SOUTH
EUNICE OIL RESERVOIR IN THE ESMOND
B WELL NO. 3, LOCATED IN UNIT H,
SECTION 33, TOWNSHIP 22 SOUTH, RANGE
36 EAST, N.M.P.M.

Case 3650

A P P L I C A T I O N

Comes now ALBERT GACKLE, and applies to the Oil Conser-
vation Commission of New Mexico for an order permitting the
commingling of production in the well bore from the Jalmat Oil
Reservoir and the South Eunice Oil Reservoir in the Esmond B
Well No. 3, located in Unit H, Section 33, Township 22 South,
Range 36 East, N.M.P.M., and in support thereof would show
the Commission:

1. Applicant is the operator and part owner of the
Esmond "B" lease, described as the NE $\frac{1}{4}$ of Section 33, Township
22 South, Range 36 East, Lea County, New Mexico. Monsanto
Company, 101 N. Marienfeld, Midland, Texas, 79704, is the owner
of the remaining working interest.

2. Applicant's Esmond "B" Well No. 3 was dually com-
pleted on November 7, 1957, in the Middle Seven Rivers forma-
tion through perforations 3518-3528, 3592-3608, and 3614-3622,
and in the Lower Seven Rivers and Queen formations through
perforations 3800-3805, 3807-3816, 3821-3825, 3832-3836,
3764-3776, 3746-3754, and 3702-3712, with production through
two strings of 2-3/8" tubing.

3. The Middle Seven Rivers zone has ceased natural flow and with present equipment operator is unable to efficiently pump the Lower Seven Rivers-Queen production below the dual completion packer. In view of the proposed Continental Oil Company South Eunice Waterflood Project, it is probably that the area and zones will be unitized.

4. It is requested that only one allowable be assigned to the well.

5. The granting of this application will result in the prevention of economic waste and the recovery of oil that would not otherwise be recovered.

6. A plat showing the subject well and offset wells is attached to this application.

7. The proposed subsurface commingling will not cause waste of reservoir energy nor impair the correlative rights of any other operator.

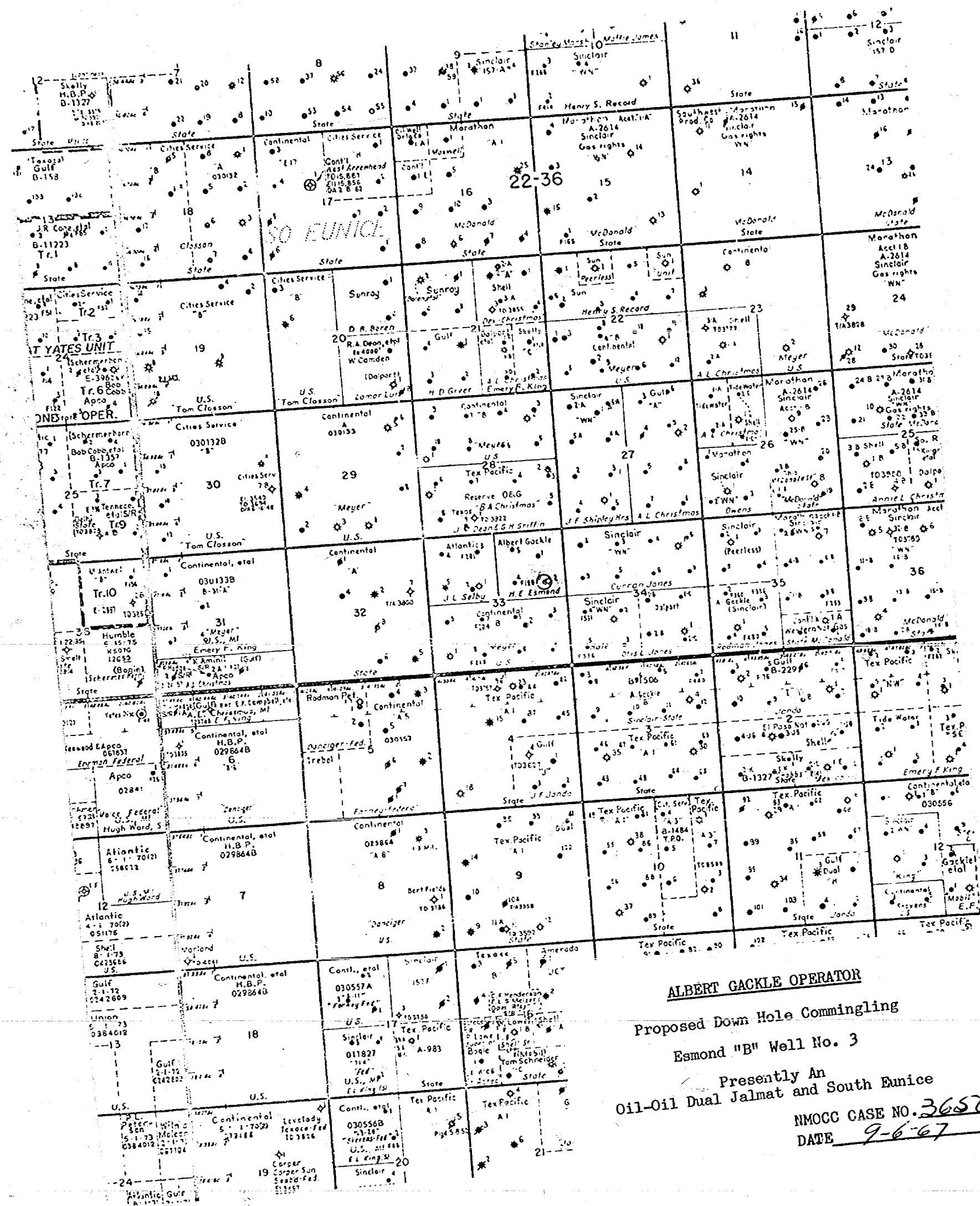
8. By copy of this application, all offset operators have been given notice of the applicant's request.

WHEREFORE, applicant requests that this matter be set for hearing before the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order authorizing the commingling within the well bore as proposed.

Respectfully submitted,
ALBERT GACKLE, Operator

BY: Jason W. Kellahan
Kellahan & Fox
Post Office Box 1769
Santa Fe, New Mexico

ATTORNEYS FOR OPERATOR



ALBERT GACKLE OPERATOR
Proposed Down Hole Commingling
Esmond "B" Well No. 3
Presently An
Oil-Oil Dual Jalmat and South Eunice
NMOCC CASE NO. 3650
DATE 9-6-67

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 6, 1967

EXAMINER HEARING

IN THE MATTER OF:)

Application of Albert Gackle for)
down-hole commingling, Lea County,)
New Mexico.)

Case No. 3650

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please. The next case will be case 3650.

MR. HATCH: Case 3650, Application of Albert Gackle for down-hold commingling, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin & Fox, appearing for the Applicant. We have one witness I would like to have sworn, please.

(Witness sworn.)

(Applicant's Exhibits 1 through 4 marked for identification.)

R A N D A L L M O N T G O M E R Y, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Randall Montgomery.

Q What business are you engaged in?

A I operate the properties of Albert Gackle, Operator.

Q In connection with your work as operator for Albert Gackle, have you had anything to do with the application in Case 3650?

A Yes, I have.

Q Mr. Montgomery, have you testified before the Oil Conservation Commission and made your qualifications a matter of record?

A I have.

MR. KELLAHIN; Are the witness's qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (By Mr. Kellahin) Mr. Montgomery, briefly state what is proposed by the application of Albert Gackle in Case 3650?

A Albert Gackle's Esmond Well No. 3 which is located in Section 33, Township 22 South, Range 36 East in the southeast quarter of the northeast quarter, is a dually completed well in the South Eunice Oil Field and the Jalmat Gas Field, being oil-oil dual with parallel strings of tubing. This oil-oil dual was authorized by Commission Order No. R-1057 approved September 30, 1957. What we propose to do at this time would be to remove the oil packer that has separated the two zones and commingle the oil in the common wellbore.

Q When was the well originally drilled? Do you have any history on the well?

A Yes; this well was completed 8-20-1957 in the Queen Formation in the Lower Seven Rivers. The hearing was held and the dual completion was approved in the Lower or in the Middle Seven Rivers. It was perforated production in the vertical limits of the Jalmat Pool.

Q Is the well a top allowable well at the present time?

A No, it is not. The South Eunice portion of the pay is making about one barrel of oil per day, with the gas too small to measure and the Jalmat is making five barrels of oil per day with a ratio of about 16,200 to one. This was the last gas-oil ratio filed with the Commission.

Q Is the production from the two zones presently being commingled?

A In the battery.

Q In the tank battery?

A In the tank battery.

Q You are now applying for permission to commingle in the well bore?

A Yes, sir.

Q Referring to what has been marked as Exhibit 1, would you identify that exhibit, please?

A Exhibit No. 1 is a Xerox copy of the Gamma Ray Neutron Log in question. Shown thereon are the zones that have been perforated in the well, and showing the vertical limits of the Jalmat and South Eunice Oil Pool.

Q Those vertical limits are the limits as defined by the Oil Conservation Commission, are they not?

A Yes.

Q They are defined presently as two separate pools?

A That is correct.

Q Is there any move under way toward a prospective waterflood in this area?

A Yes, Continental Oil Company is the expediter at this time for a unit covering approximately 3200 acres. This area may be expanded or contracted, depending on getting down to the final unitization, but this property is in the southwest portion of the proposed secondary recovery project and it is moving very rapidly.

Q What zones are proposed to be flooded in this waterflood project?

A They have marked them off as four different zones, zone one, two, three and four; zone one of which is in the Jalmat interval.

Q That's zone one, two, three and four as marked on Exhibit No. 1, is that correct?

A That's correct.

Q So the only zone that would not be involved in the waterflood project would be the upper zone in the Jalmat, is that correct?

A In this particular well, yes.

Q In this particular well?

A Yes, that particular zone is not included in the vertical limits of the proposed project.

MR. NUTTER: You mean this zone that's up here above 3550?

THE WITNESS: Yes.

MR. NUTTER: That little perforated interval there?

THE WITNESS: Yes.

Q (By Mr. Kellahin) Do you know whether that zone is contributing anything to the production from the Jalmat?

A We do not know, frankly, whether it is or not.

Q Now, referring to what has been marked as Exhibit No. 2, would you identify that exhibit?

A Exhibit No. 2 is a structural map contoured on top of the Queen Formation which is done in the interval that is proposed to be flooded, the contour interval of 20 feet. On that I have marked in yellow the wells that have been perforated in what is indicated as zone one on Exhibit 1 and

there are twenty-some wells in this proposed secondary recovery project that had zone 1 open and being commingled with their South Eunice wells.

Q When you say "Zone 1", are you saying, Mr. Montgomery, that the wells colored in yellow have been perforated in the Jalmat Oil Pool and the South Eunice Pool?

A Yes, sir.

Q And both zones are open and they are being commingled in the wellbore at the present time in those wells?

A That is correct.

Q And these are wells which would ultimately be included in the proposed waterflood project, is this correct?

A Yes, if the Commission will approve the project, the horizontal limits are proposed to be two hundred ten feet above the top of the Queen Formation.

MR. NUTTER: I would like to interrupt at this point.

MR. KELLAHIN: Yes.

MR. NUTTER: Mr. Montgomery, you will recall back around 1954, when the Commission redefined the vertical limits of some pools down in this general area and some of the wells were found to be perforated across the line of delineation. Would this be one of those instances here?

THE WITNESS: Yes. The some twenty-odd wells that are indicated

would be covered.

MR. NUTTER: How far this well was drilled and
cually completed afterwards?

THE WITNESS: Yes.

MR. NUTTER: But it was the same zones that were
redefined out of one pool and placed in another pool?

THE WITNESS: Yes, sir.

MR. NUTTER: So the wells marked in yellow were
permitted to continue to produce the way they were without
separation by packers?

THE WITNESS: That's correct.

MR. NUTTER: So in effect, what you are asking
for to day is for the newer well to be completed in the same
manner that these other wells are which were prepared prior
to the delineation?

THE WITNESS: Right. Some of the wells may have
been completed after the vertical limit determination. It's
my understanding that due to peculiar occurrences of oil in
this area, these intervals were considered to be in one reservoir.

MR. NUTTER: These wells marked in yellow are
completed in zone 1 plus some of these other zones?

THE WITNESS: That is correct.

MR. NUTTER: As a matter of fact, you were a

geologist that did all the redelineation when you worked for the Commission?

THE WITNESS: If there's any mistakes there, that's my fault.

MR. PORTER: Maybe he doesn't want to admit that. Just one question here, Mr. Montgomery. Where is the Esmond 3 well here on this exhibit?

THE WITNESS: There are two wells on that forty, Mr. Porter, Well Number 2 which is a gas well in the Yates Formation with a gas allowable, and then approximately a hundred feet west of there is Well Number 3 which is an oil-oil dual in the lower part of the Jalmat Gas Pool and in the South Eunice Pool.

MR. PORTER: Thank you.

Q (By Mr. Kellahin) In connection with the questions Mr. Nutter was asking, do you know of any instance where application has been submitted to the Commission for commingling in this area, other than the original pool delineation case?

A I know of no applications.

Q You don't know of any?

A No.

Q Referring to what has been marked as Exhibit No. 3, would you identify that exhibit, please?

A Exhibit No. 3 is a decline curve on the South

Eunice Oil Pool. The purpose of this is to point out the different producing characteristics of the dual-completed well through the years, obviously indicating that there had been separation and had been effective from the South Eunice Oil Pool. Our cumulative production has been approximately 38,000 barrels and from the Jalmat portion, which is illustrated on decline curve marked Exhibit No. 4 is the Jalmat portion. The gas production and oil production each have their own particular characteristics.

Q Will the gas production continue to account for the wide fluctuation in the graph, on the gas production?

A Connections were changed from time to time in the area, the systems, and we had a compressor, our gas purchaser had a gas compressor nearby, and sometimes it worked and sometimes it didn't. I am really not sure what could have happened other than operating problems.

Q What's the present situation as to this well and the South Eunice Pool?

A This well is presently shut in. We are not producing the well today. We took a packer leakage test just recently and we found there was communication and we have shut the well in.

Q You already have communication in the wellbores?

A Yes, sir. We will proceed with whatever the Commission directs, but we thought perhaps we would go ahead and have the hearing.

MR. NUTTER: When's the last packer leakage test that didn't leak?

THE WITNESS: Probably two or three years ago.

MR. NUTTER; What happened here in November of 1965, Mr. Montgomery, you had a very sudden decline in production and it has never come back up.

THE WITNESS: Yes, that looks very peculiar and it looks suspicious, at that time, frankly, that there may have been some mechanical problems. Frankly, I don't know what could have happened at that time.

Q (By Mr. Kellahin) Were you operator of the well at that time?

A Information of this particular character is not brought to my attention on a daily basis, but I was not aware of this change until such a time as I plotted these curves, which was in preparation for this hearing.

Q Your last packer leakage test, was that run subsequent to the filing of this application?

A It was.

Q What did you say was the productive capacity of this well from the South Eunice?

A The last gas-oil ratio test, South Eunice was one barrel of oil per day, the gas-oil ratio, the gas was too small to measure. The Jalmat was five barrels a day with 81 M. C. F.

Q Is the South Eunice being pumped?

A Yes, it is.

Q Referring to what has been marked as Exhibit No. 4, would you identify that exhibit?

A That is the decline curve on the Jalmat portion of the pay for this Esmond Well No. 3.

Q What did you say it produces?

A It produces approximately five barrels a day.

Q And what was the gas-oil ratio on it?

A 16,200 to 1.

Q Would you consider both zones marginal at this time?

A Yes, they are marginal.

Q In the event this application is not approved, in your opinion, would it be practical to continue to produce the South Eunice Pool?

A We would have to make a designation at that time which one we would abandon, would want to abandon, but we would temporarily abandon one of the zones, depending on the

outcome of the unitization of this area.

Q And waterflood?

A And waterflood, yes, sir.

Q You say a packer leakage test was recently run.

Do you have any pressure information on the two zones?

A No, I do not, but it was apparent. I have not seen the packer leakage test. I advised that the test be run and I understand the West Engineering ran the test and it has not been filed as yet, at least in the Santa Fe office. I am not sure about the Hobbs office, but I was advised that they were in communication on the basis of that test. The producing characteristics would indicate that it probably has been a fairly recent communication even though there was a big drop in the latter part of '65 in production of the producing characteristics of the Jalmat Pool do not change appreciably.

Q And that's the zone that is flowing?

A That is true.

Q And the other is pumped?

A Yes.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A They were.

MR. KELLAHIN: At this time, I offer in evidence Exhibits 1 through 4, inclusive.

MR. NUTTER: Gackle Exhibits 1 through 4 will be admitted in the record.

(Whereupon, Applicant's Exhibits 1 through 4 admitted in evidence.)

MR. KELLAHIN: That's all I have on direct examination.

MR. NUTTER: Are there any questions of the witness?

CROSS EXAMINATION

BY MR. NUTTER:

Q Isn't it true that the South Eunice Pool in this general area is at an advanced stage of depletion overall, and that pressures in there are practically nil?

A Yes, the average production is in the range of three or four barrels a day.

Q Isn't it also true that the pressure in the Jalmat Gas Pool has declined; that there still is some pressure in there?

A Yes.

Q If we have communication here, the obvious thing would be for pressure from the Jalmat to go into the South Eunice?

A If we could talk about the Jalmat reservoir in the sense of the upper porosity, I would agree with you.

The lower porosity has been in communication by production and through wellbores for many years.

Q What about this upper set of perforations in this well that's above zone 1? Do you think that that's the source of the gas that causes the high ratio here?

A The ratio is rather high, but the volume of gas is very small. It's not just many barrels of fluid so the ratio looks perhaps, well, that's what the ratio is, but it is a very small volume of gas. We have a Jalmat Gas well on this same lease which produces from the Yates sand.

Q That would be this No. 2 well on the same 40?

A That's correct.

Q And it's producing from the Yates?

A That's right.

Q Not from the Seven Rivers then?

A Right. That is the primary gas reservoir in the Jalmat Pool in this area. The Seven Rivers is predominantly oil pay in this area. As you recall, it is a unique type of occurrence for oil, these different sand stringers, depending on where they fall in the geologic section determines whether you have oil or gas and it's unfortunate that we can't divide this pool as easily as we can many other pools by name.

There are just too many exceptions to the rule to say, "Well,

if it's the Jalmat this is what kind of a well you are going to have." You may have an oil well or a gas well.

Q What is the general gas-oil contact in this area of approximately 150 feet above sea level, isn't it?

A Below sea level.

Q Or below sea level?

A That is true.

Q Do you know the elevation of this well off-hand?

A Yes, we are perforated higher in this instance. This is because of another exception. The elevation of the Well No. 3 is 3404 which would make a depth of 3554 should theoretically be the gas-oil contact.

Q Which would be in between your upper perforation and your second perforation then?

A Yes; we have visited with all the operators in this proposed secondary recovery project and pointed out this problem. They are debating whether to increase the vertical limits of this pool to include this upper perforations or ask us to abandon that particular set of perforations.

Q Is it the plan to selectively inject water in this proposed waterflood so that these zones will be kept separate as far as water injection is concerned?

A There are two theories in the committee that are

working on the project at this time. One group would like to do each zone individually and another group would like to do them all at one time. It's my opinion that the most feasible way is to try to do them all at one time. I think this is probably what the committee will eventually agree on.

Q By "doing them all at one time" you mean putting them all on injection and using one common well string of tubing to inject water into all of them, or would they be selectively injected and kept separate?

A Well, there are two schools of thought on that in this committee. My opinion is that they will probably say "run one string of tubing and one packer for an injection well," and whatever well fits the pattern for the injection well, they will flood all zones open in that well.

Q In other words, maybe two in one and two on the other string, or maybe three in one and one in three zones?

A Generally your off-set wells will be in the same zone.

Q You have mentioned that this proposed project was going to cover maybe 3200 acres. Which general area on Exhibit No. 2 would that be, Mr. Montgomery?

A Generally, we're talking about the east half of Section 20; Section 21; Section 22; the east half of the

east half of Section 29; all of 28; all of 27; all of 33;
and all of 34.

Q In other words, just about the area that you have
contoured here?

A Yes, sir. There have been recommendations that
this be expanded to make a larger plan.

MR. NUTTER: Are there any other questions of
the witness?

BY MR. PORTER:

Q Of these wells here that you have indicated in
yellow, were some of these older wells that were producing
from South Eunice perhaps back in the 30's and 40's?

A I have not checked that specifically, but I would,
if I were asked to guess, I would be reasonably sure that
some of them are.

Q And many of these were under consideration by
you when you reclassified those wells down there?

A Yes.

Q And indicated which wells should go into
the Jalmat and which would be in South Eunice?

A The decision was made by the Commission at that
time, that well would go in whichever pool its lowest

perforation happened to be in because we had many wells that were actually in two pools, but it wasn't anybody's fault, it was just one of those things.

Q It had developed over the years?

A Yes.

MR. PORTER: That's all.

MR. NUTTER: Are there further questions of the witness? If not, he may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kellahin?

MR. KELLAHIN; That's all.

MR. NUTTER: Does anyone have anything they wish to offer in Case 3650? We will take the case under advisement.

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and seal this 18th day of October, 1967.

Ada Dearnley
 Notary Public

My commission expires

June 19, 1971.

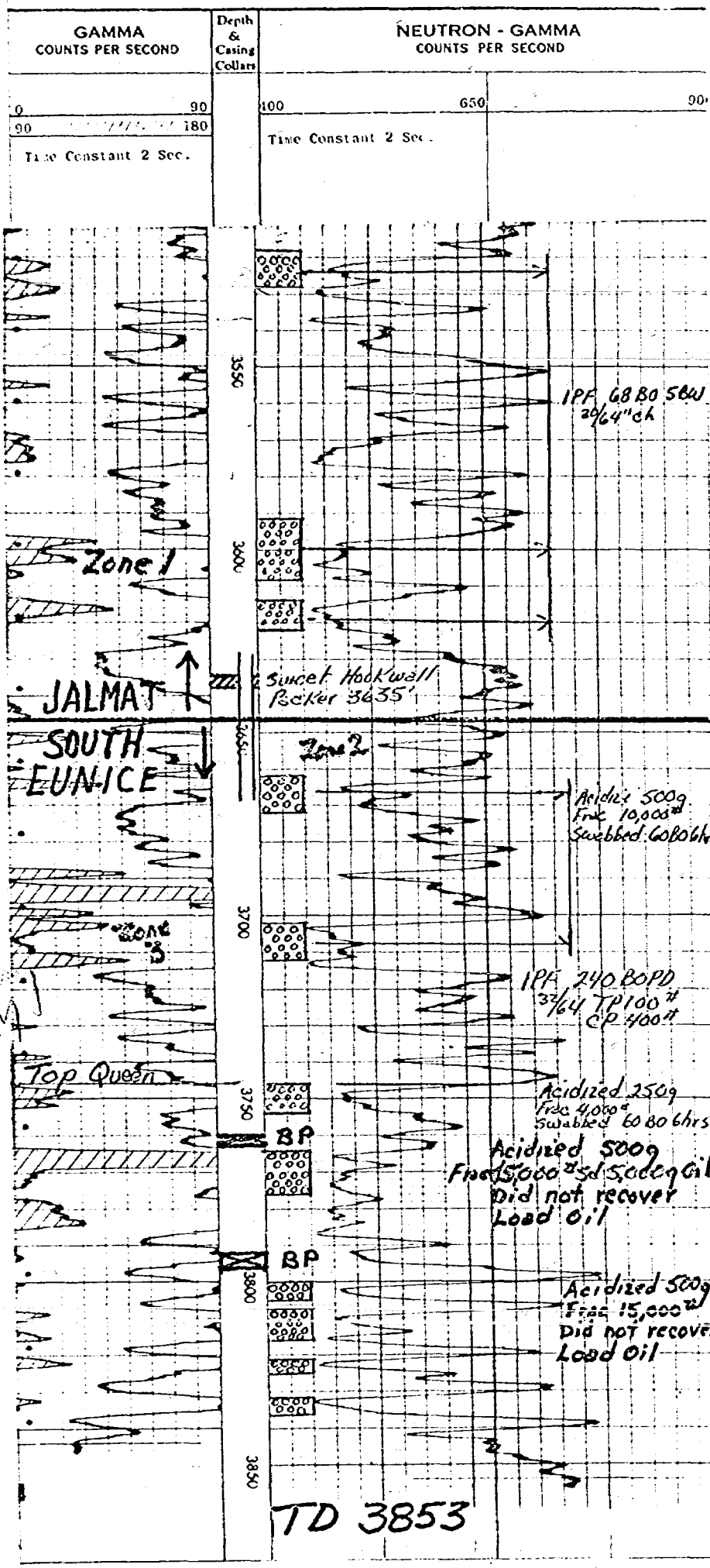
I do hereby certify that the foregoing is a complete record of the proceedings in the Bernalillo hearing of Case No. 300 heard by me on 9-6, 1967.

Notary Public, Executive
 New Mexico Oil Conservation Commission

ALBERT GACKLE OPERATOR
 ES-20ND # 3
 South Eunice Field
 Lea County, New Mexico

T.D. LOGGED 3854'
 T.D. DRILLER 3853'
 T.D. REACHED 3854'

DETAIL LOG
 (2680'-3854')



S.P. 17
 GOR 16200

1300
 Jan 7 1957

Journal
 R-1057
 9-20-57

Completed by R
 9-20-57

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 Gackle EXHIBIT NO. 7
 CASE NO. 3650

Exhibit No. _____

