CASE 3663: Application of STOLTZ & CO. for an amendment to ORDER NO. R-3238, Lea County, N. M.

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Application, Transcript.
5 mall Exhibits, Etc.

#### GOVERNOR DAVID F. CARGO CHAIRMAN

### State of New Mexico

## Bil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

October 11, 1967

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico Re: Case No. 3663
Order No. R-3238-B
Applicant:
STOLTZ & COMPANY

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

Carbon copy of drder also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other Mr. Frank Irby

# 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. 3663 Order No. R-3238-B

APPLICATION OF STOLTZ & COMPANY FOR AN AMENDMENT TO ORDER NO. R-3238, LEA COUNTY, NEW MEXICO.

#### ORDER OF THE COMMISSION

#### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on October 4, 1967, at Santa Fe, New Mexico, before Examiner Daniel 8. Nutter.

NOW, on this <a href="lith">11th</a> day of October, 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,

#### PINDS:

- (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 by Order No. R-3238, dated May 29, 1967, the applicant, Stoltz & Company, was authorized to utilize a playa lake known as Lane Salt Lake and located in Sections 12 and 13, Township 10 South, Range 32 East, and Sections 6 and 7, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, for the disposal of produced salt water.
- (3) That Order (3) of said Order No. R-3238 prohibits the disposal of water into said Lane Salt Lake when the water level of said lake is 4142 feet or more above sea level as referenced to the elevation of the Sun Oil Company State "F" Well No. 1,

-2-CASE No. 3663 Order No. R-3238-B

located near the northeast bank of said lake at a point 657.4 feet from the South line and 511.7 feet from the East line of Section 6, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, the ground elevation of said well being 4177 feet above sea level.

- (4) That the evidence presented in Case 3663, from which Order No. R-3238 issued, showed the ground elevation of the aforementioned reference well to be 4177 feet above sea level and the apparent high water level in the subject lake to be 4141 feet above sea level.
- (5) That a re-survey of the subject lake shows the correct ground elevation of the aforementioned reference well to be 4176 feet above sea level and the correct elevation of the water level of the lake during average conditions to be 4143.5 feet above sea level.
- (6) That the applicant seeks the amendment of the aforesaid Order (3) of Order No. R-3238 to correct the maximum permitted water level for disposal purposes in said lake and to correct the ground elevation of the reference well in said Order No. R-3238.
- (7) That in order to permit the utilization of the subject lake for disposal purposes, within the intent of Order No. R-3238, Order (3) of Order No. R-3238 should be amended to reflect the aforementioned corrected elevations.

#### IT IS THEREFORE ORDERED:

- (1) That Order (3) of Order No. R-3238, dated May 29, 1967, is hereby amended to read as follows:
- "(3) That in no event shall disposal of water into said Lane Salt Lake be permitted when the water level of said lake is 4145.26 feet or more above sea level as referenced to the elevation of the Sun Oil Company State "F" Well No. 1, located near the northeast bank of said lake at a point 657.4 feet from the South line and 511.7 feet from the East line of Section 6, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, the ground elevation of said well being 4176 feet above sea level."

-3-CASE No. 3663 Order No. R-3238-B

(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 CONSTRUCTION COMMISSION

DAVID F. CARGO, Chairman

GUTTON B. HAYS, Member

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

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# NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico

October 4, 1967

EXAMINER HEARING

IN THE MATTER OF:

Application of Stoltz and Company )
for an amendment to Order No. R-3238, )
Lea County, New Mexico.

Case 3663

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING



MR. NUTTER: The hearing will come to order please.

The next case will be Case 3663.

MR. HATCH: Case 3663. Application of Stoltz and Company for an amendment to Order No. R-3238, Lea County, New Mexico.

MR. KELLAHIN: Jason Kellahin of Kellahin and Fox, Santa Fe, appearing for the Applicant. I have one witness I'd like to have sworn.

#### (Witness sworn)

E D L. R E E D, 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 My name is Ed L. Reed.
- Q And what business are you engaged in, Mr. Reed?
- A I am a Consulting Hydrologist.
- Q Where are you located?
- A Midland, Texas.
- Q In connection with the application of Stoltz and Company, in Case Number 3663, did you testify at the previous hearings that were held in connection with this same matter of walt water disposal in the Lane Lake?

- A Yes, sir.
- Q Were your qualifications stated in the record at that time?
  - A They were.
  - Q Are the witness' qualifications accepted?

    MR. NUTTER: They are.
- Q (By Mr. Kellahin) Mr. Reed, are you familiar with the application in Case 3663 before the Commission today?
  - A Yes, sir.
  - Q What is the purpose of this application?
- A The purpose of the application is to establish the elevation of the spring on the basis of a level survey prepared by Mr. John Sherman and setting the elevation of this spring accurately, with respect to a bench mark, being the iron hub at the Sun Oil Company Number 1, State, located in the southeast forty acres of Section 6, Township 10 South, Range 33 East. The original elevation of the spring, as determined by plane table, p-1-a-n-e, plane table survey, was established at 4142.5.
- Q Is that the testimony that was offered in the first case involved in this application?
  - A That is correct.
  - Q And was that corrected at the second Hearing?
- A That was corrected at the second Hearing to read, 4145.76.

Q And is that based on this survey by Sherman?

A It is. In the original testimony at this Hearing, it was my opinion that the discharge of water into Lane Lake, if kept within a half foot below the elevation of the spring, would constitute an adequate margin of safety relative to the possible discharge of water from the Lake into the ground-water zone. It was further testified at the second Hearing, which had as it's purpose, the changing of locations of observation wells, drilled in connection with this study and described in the results of those observation wells, was stated that the reversal of the hydrolic gradient in the Ogallala, as confirmed and demonstrated by the three observation holes previously drilled, amounted to about sixteen feet.

today, that a volume of water, both natural in flow, and salt water discharge into the Lake, maintained at an elevation at a half a foot below the elevation of the spring would provide an adequate amount of protection from any possible leakage. I will also further state an opinion to the Examiner as was stated in the previous testimony, that an even higher elevation would be possible, since, at the elevation of the spring, there is still some fourteen feet of demonstrated reversal of the hydrolic gradient.

It therefore, would be my recommendation to the Commission, that the Order be amended to provide discharges of brine up to 30,000 barrels per day into the Lake so long as the water level in the Lake remain below elevation 4145.26.

- Q Do you have an exhibit showing those levels on the spring at the present time?
  - A I do, sir.
  - Q Will you have that marked as Exhibit 1, please, sir.
  - A Yes, sir.

(Whereupon, Exhibit 1 was marked for identification)

Q I'd like to offer Exhibit 1 in evidence.

MR. NUTTER: Off the record.

(Whereupon an off the record discussion was held)

MR. KELLAHIN: That's all I have on direct examination. We offer the Exhibit in evidence.

MR. NUTTER: Applicant's Exhibit Number 1 in this case reopened. Is it reopened or a new case number?

MR. HATCH: New Case.

MR. NUTTER: Applicant's Exhibit Number 1 in Case 3663 will be admitted in evidence.

(Whereupon Stoltz and Company's Exhibit Number 1 was admitted in evidence)

# CROSS EXAMINATION

By Mr. Nutter:

- Mr. Reed, at the original Hearing for the Lane Salt Lake, the figure given for the elevation of the lake Bed was 4141. What is that corrected elevation now, for the lake itself?
- The lowest point in the lake has been estimated by Mr. Sherman at 4142.5. A 4143.0 contour has been drawn around about a third of the area of the Lake bottom, and a 414315 has been drawn completely around the Lake.
  - Mr. Reed, now I have in my hand what is identified as Stoltz Exhibit Number 1, in Case 3607, which was the June Hearing for the Lane Salt Lake, and I note that those figures and those lines are on this Exhibit. Are you reading from an Exhibit that is similar to the one that was entered in June?
    - yes, that is correct.
    - Now, I see a dotted line that goes the entire perimeter A of the Lake and it's elevation is given as 4143.5.
      - That is correct. A
      - What does that line represent?
      - That is the lowest line that Mr. Sherman could carry completely around the Lake, at the time he was here, which I believe was in June; June the 16th.

- Does that mean that's the lowest line that could Q be physically trod upon?
  - Yes, sir, that is correct.
- And it was dry and safe to walk around that dotted line?
  - Yes, sir. A
  - And inside of that the bed gets mushy, is that right? Q
  - I believe that is correct, yes, sir.
  - Now, what is the line that is given as 4143, then that covers only a portion of the southeast side of the lake?
  - That is the portion of the 4143 contour which could be drawn, well, upon which stations could be physically occupied. And on the map, or at least my copy of the map, Mr. Sherman has written, "the red is guessed at too muddy, some water". The red, being the continuation of the 43 foot contour and the drawing of the 42.5 contour.
    - 42.5?
    - Yes, sir. That may not show on your copy, but this is the copy he sent to me, and those are his numbers. That 41 --, yes, he extended the 43 foot contour around and estimated the 4142.5.
    - In other words, right here in the extreme southeast corner of the southwest corner of Section 6, there was

an area that was the lowest point in the Lake; it was 42.5 estimated, but it was impossible to go out and reach that point?

- A That's correct.
- Q And that is the lowest level of the Lake?
- A That's correct.
- Q Now, what was the date that Mr. Sherman made this most recent survey of the Lake, Mr. Reed?
- A I have a note here, high water level on 6, 3rd and 4th of 1967, I believe that was the day the two days he was on the ground.
- Q Now, in your opinion, water levels on the 3rd and
  4th of June of a normal summer, would represent what water level
  as far as the Lake water level is concerned. Would it be an
  unsually low point as far as the weather cycle is concerned,
  or would it be a high water mark, or just what would it represent
  in your opinion?
- A In my opinion it would probably represent an average condition or perhaps a little above average condition for this Lake.
- Q I see. So, at average conditions or slightly above average conditions, the highest or the lowest line that would be able to be walked upon, would be 4143.5, and the spring is

14145.76. So then you have a difference between the spring level and the dry line which can be walked upon; it is the difference between 414.76 and 4143.5, which gives us 2.25 feet; is this correct?

A Yes, sir, that is correct.

Q Now, the original elevation given for the bench mark, being the old Sun Oil Company Well, was 4177 feet above sea level. Now this elevation has also been corrected, has it not?

A I believe that it has on Mr. Sherman's final map.

He has taken the bench mark as being a three-quarter-inch

pipe at the Sun location, 4176.0.

Q So in other words, that elevation was corrected. It's actually one foot lower than the original elevation, determined by Mr. Sherman?

A I believe this is correct.

Then our new elevation for our reference point is 4176?

A Yes, sir.

MR. NUTTER: Off the record.

(Whereupon an off the record discussion was held)

MR. NUTTER: Are there any other questions of Mr. Reed? He may be excused.

A Thank you sir.

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

MR. KELLAHIN: That's all I have, Mr. Nutter. Thank

MR. NUTTER: Does anyone have anything they wish to offer in Case 3663? If not, we'll take the case under advisement and the Hearing is adjourned.

#### CASE REOPENED

MR. NUTTER: The case is reopened.

MR. KELLAHIN: I would like to move that the record in the two previous Cases involving Lane Lake, I don't have those numbers. It would be Case Number 3570 and Case Number 3607, be incorporated in the record in Case Number 3663.

MR. NUTTER: If there is no objection, the record in Case Number 3570 and Case Number 3607 will be incorporated in the record of Case Number 3663. If there is nothing further, the case will be taken under advisement and the Hearing is adjourned.

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WITNESS		
ED L. REED Direct Exa	mination by Mr. Kellahin mination by Mr. Nutter	2

## EXHIBITS

EXHIBIT	\$2 ************************************	MARKED	ADMITTED
Stoltz and Example 1	Company's	5	5

STATE OF NEW MEXICO ) ; so

I, JIMMIE DON PETTY, Notary Public 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 and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 26th day of October, 1967.

Jammie Don Gelley
Notary Public

My Commission Expires: September 15, 1971

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- old level 444142.5 4145.76

Hegh water mark - ald new

water level aug June 3, 4, 1967 - 4143.74 daes be mean low water mark

Jason brought there figures from Stalty-Lake Bottom 4142.5 feet Safte waln-level-4145.26 Safe level - besting level -Ed Read will be here to testif Check Haber application

#### DOCKET: EXAMINER HEARING - WEDNESDAY - OCTOBER 4, 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 3661: Application of Sunray DX Oil Company for salt water disposal, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Bough "E" zone of the Pennsylvanian formation in the interval 9248 feet to 9254 feet in its New Mexico Federal "F" Well No. 1 located in Unit Hoil Section 13, Township 8 South, Range 34 East, Milnesand Field, Roosevelt County, New Mexico.

#### CASE 3390 (Reopened)

In the matter of Case No. 3390 being reopened pursuant to the provisions of Order No. R-3058, which order established 80-acre spacing units for the East Hightower-Lower Pennsylvanian Pool, Lea County, New Mexico, for a period of 18 months. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 3662: Application of El Paso Natural Gas Company for a non-standard gas proration unit and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the approval of a 230.32-acre non-standard gas proration unit comprising all of lots 9, 10, 11, 12, 13, and 14 of Section 6, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its Shell State Com "E" Well No. 1 at an unorthodox location for said pool 3300 feet from the North line and 1980 feet from the East line of said Section 6.

Application of Stoltz & Company for an amendment to Order No. R-3238, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-3238 which authorized applicant's use of Lane Salt Lake in Township 10 South, Ranges 32 and 33 East, Lea County, New Mexico, for salt water disposal purposes. Applicant specifically seeks the amendment of paragraph (3) of Order No. R-3238 to correct the maximum permitted water level for disposal purposes in said lake and to correct the ground elevation of the reference well in said order. The above corrections are necessitated by a re-survey of the subject lake.

ease 3663: