

CASE 4388: Application of HUMBLE
OIL & REFINING FOR AN EXCEPTION
TO ORDER NO. R-3221, AS AMENDED.

Case Number

4388

Application
Transcripts.

Small Exhibits

ETC.

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

205 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6491 • ALBUQUERQUE, NEW MEXICO



BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 5, 1970

EXAMINER HEARING

IN THE MATTER OF:

Application of Humble Oil & Refining
Company for an exception to Order No.
R-3221, as amended, Chaves County,
New Mexico.

Case No. 4388

BEFORE: Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Case 4388.

MR. HATCH: Case 4388, Application of Humble Oil & Refining Company for an exception to Order No. R-3221, as amended, Chaves County, New Mexico.

MR. HINKLE: We have one witness we would like to have sworn.

(Witness sworn.)

MR. UTZ: Appearances in the case?

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant, Cox & Eaton, Roswell, New Mexico, representing Humble Oil and Refining Company.

MR. UTZ: You may proceed.

B. K. BEVILL

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

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, your residence and by whom you are employed.

A B. K. Bevill, Hobbs, New Mexico, Humble Oil and Refining Company.

Q Are you a petroleum engineer?

A Yes.

Q Have you testified before the Commission?

A Yes, I have.

Q And your qualifications as a petroleum engineer are on record with the Commission?

A Yes, sir.

Q Are you familiar with the application of Humble in this case?

A Yes, I am.

Q What is Humble seeking to accomplish by this application?

A Humble requests exception to Order R-3221. We seek permission to dispose of water produced in conjunction with oil or gas or both and to unline the surface pits on our Florence B. Lusk lease, DeSmet Federal and Hesse Federal lease in the Double L Queen Pool, Chaves County, New Mexico.

Q Have you prepared or has there been prepared under your direction certain exhibits for introduction in the case?

A Yes, sir.

(Whereupon Exhibits 1 through 3 were marked for identification.)

Q Refer to Exhibit Number 1 and explain this to the Commission.

A Exhibit 1 is a plat of the area in question. Outlined in red are Humble's leases for which we are asking exception to Rule 3221. Now outlined in green are leases held

by other companies which already have exception to R-3221. To the north is the Double L Queen Pool and the wells to the south are in the Silimar Queen Pool. Also on this chart you will note some black checkmarks in Sections 1 and in Section 30 to the north and in Section 3 to the west. These represent windmills.

Q Have you made a personal inspection of this area?

A Yes, I have.

Q Are there any peculiarities as far as these windmills are concerned?

A Yes, sir, there are. In Section 1 and also in Section 30 to the north the windmills are used to pick up water out of pits.

Q In other words, they are not really wells?

A No, sir, they are not. The ranchers have a rather unique system here of using continuous wind power to pick up water out of pits and put it into drinking troughs for the cattle. What they actually do is dig out a big deep pit in one of the drainage draws and put a windmill on the back of it and it lifts the water out of the pit into the drainage troughs.

Q Did you take samples of the water out of these pits?

A No, sir, I didn't. The water was very foul, stagnant and I didn't think they would be of any value.

Q What about the windmills shown in Section 3?

A The windmill shown in Section 3 is a water well, is a sub-surface water well.

Q Do you have any information as to the depth of this well or the character of the water?

A Yes, sir, I talked to one of the ranch people, got his permission to get a sample out of this well and I asked him how deep it was and he said, "All I know is that it's pretty deep." Now I checked with the State Water Engineer, Mr. Wright, in Roswell, about water in this particular area. He stated that his records showed no water wells, no sub-surface water wells in Sections 6 or 7, the sections in which the leases are concerned. Now I asked him about surrounding water wells and he said his records were not up-to-date and he had no information. He did state that if there were any underground water wells in this area, they would most likely be producing from the Triassic. This would probably be the Santa Rosa, as a water producing formation.

Q And about how deep is that?

A Between two and three-hundred feet.

Q So the chances are the well in 3 is producing two or three-hundred feet?

A Very likely is.

Q What is the character of the water being produced from the well?

A It's good sweet water. I tasted it.

Q That is the only sweet water that you know of in the area?

A The rancher I talked to said that is the only sweet water well anywhere close to these leases. He has a sweet water well at his ranch house, which is about ten miles away from here. He said that all other sub-surface water wells in the area were extremely jippy.

Q Now if the application of Humble is approved, where will your disposal pits be located?

A The Lusk pit, which is the lease to the north, will be located at the battery, about 600 feet north of Well No. 2. The DeSmet pit will be located at the battery, about 300 feet southeast of Well No. 1. The Hesse Federal pit, located at the battery, about 300 feet southwest of Well No. 1.

Q What size are the pits you contemplate using?

A The pits that we are presently using are 25 by 25 standard pits which are allowed for sunk purposes only.

Q Would these be used or otherwise --

A Very likely they would have to be enlarged.

Q What quantities of water do you anticipate will be disposed of?

A At present from the Lusk lease we are producing thirty-one barrels per day, from the DeSmet Federal lease

twenty-eight barrels per day and from the Hesse Federal seventy-one barrels per day. I don't believe that we will ever go over possibly a hundred barrels for each one of these leases.

Q Have you made an analysis or has an analysis been made of the water you intend to dispose of?

A Yes, sir.

Q Refer to Exhibit 2 and explain that.

A Exhibit 2 is a water analysis of the typical water, produced water, taken from one of the leases in the Double L Pool. The one that we are particularly interested in, you will note, will be chlorides down at the bottom which is shown at 19,467, which is fairly close to saturation.

Q Like sea water? Or sea water, more or less?

Q I don't know what sea water is, but it's almost saturated.

Q Did you have an analysis made of the water in the well in Section 3 you testified to?

A Yes, I did.

Q Refer to Exhibit 3.

A Exhibit 3 is an analysis of the sample of the water that I took from the ranch water well. Incidentally, they named this water well the "Little Lucky". You will note that the chlorides here are only 106.

Q That is considered pretty good water?

A That is good water.

Q In your opinion, from the investigation you have made and all the information available, will the disposal of water as you have indicated be detrimental to any fresh water formations in the area?

A We don't believe it will.

MR. HINKLE: I would like to offer in evidence Exhibits 1 through 3.

MR. UTZ: Without objection, Exhibits 1 through 3 will be entered into the record of this case.

(Whereupon, Applicant's Exhibits 1 through 3 were admitted.)

Does that complete your case?

MR. HINKLE: That's all.

CROSS EXAMINATION

BY MR. UTZ:

Q What is the surface drainage in the area?

A I haven't seen a contour map of this area, but just from looking at it and standing on the ground I am sure it comes from northeast to southwest. The cap rock actually is about six or eight miles to the east.

Q Cap rock is east in this area?

A Yes, sir, the drainage in this area runs to the river.

Q And the beds, underlying beds, in this area would probably dip the same direction?

A I presume so.

Q In your opinion then, there would be no possibility of this water contaminating the fresh water well in Section 3?

A It's our opinion it will not cause any contamination.

Q Now did you talk to the State Engineer in Roswell, you said?

A Yes, sir, by telephone.

Q Did he voice any opinion as to this?

A No, he didn't.

MR. UTZ: Any other questions of the witness?

The witness may be excused.

Statements?

The case will be taken under advisement.

I N D E XWITNESSPAGE

B. K. BEVILL

Direct Examination by Mr. Hinkle

2

Cross Examination by Mr. Utz

8

E X H I B I T SEXHIBITMARKEDOFFERED AND
ADMITTEDApplicant's 1
through 3

3

8

STATE OF NEW MEXICO)
) SS
 COUNTY OF BERNALILLO)

I, SOVEIDA GONZALES, Court Reporter, 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.

Soveida Gonzales
 COURT REPORTER

I do hereby certify that the foregoing is
 a complete record of the proceedings in
 the hearing of Case No. 4388
 heard by me on Aug 5 1978
[Signature]
 New Mexico Oil Conservation Commission



OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO
P. O. BOX 2088 - SANTA FE
87501

GOVERNOR
DAVID F. CARGO
CHAIRMAN

LAND COMMISSIONER
ALEX J. ARMIJO
MEMBER

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

August 12, 1970

Mr. Clarence Hinkle
Hinkle, Bondurant, Cox & Eaton
Attorneys at Law
Post Office Box 10
Roswell, New Mexico 88201

Re: Case No. 4388
Order No. R-4011
Applicant:
Humble Oil & Refining 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

ALP/ir

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. 4388
Order No. R-4011

**APPLICATION OF HUMBLE OIL & REFINING
COMPANY FOR AN EXCEPTION TO ORDER NO.
R-3221, AS AMENDED, CHAVES COUNTY,
NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 5, 1970, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 12th day of August, 1970, 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, Humble Oil & Refining Company, is the owner and operator of certain wells on its Florence B. Lusk, DeSmet Federal, and Hesse Federal Leases located in Sections 6 and 7, Township 15 South, Range 30 East, NMPM, Double L-Queen Pool, Chaves County, New Mexico.

(3) That Order (3) of Commission Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any other place or in any manner which

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CASE No. 4388
Order No. R-4011

would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks an exception to the provisions of the aforesaid Order (3) to permit the disposal of salt water produced by applicant's wells located on its aforesaid Florence B. Lusk, DeSmet Federal, and Hesse Federal Leases in said Sections 6 and 7 in an unlined surface pit located on each of the subject leases.

(7) That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pits.

(8) That the applicant should be permitted to dispose of water produced by wells located on the subject leases in unlined surface pits located thereon.

IT IS THEREFORE ORDERED:

(1) That the applicant, Humble Oil & Refining Company, is hereby granted an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both, by its wells located on its Florence B. Lusk, DeSmet Federal, and Hesse Federal Leases comprising, respectively, the NW/4 of Section 6, the W/2 SW/4 of Section 6, and the W/2 NW/4 of Section 7, Township 15 South, Range 30 East, NMPM, Double L-Queen Pool, Chaves County, New Mexico, in an unlined surface pit located on each of said leases.

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CASE No. 4388

Order No. R-4011

(2) That the Secretary-Director of the Commission may by administrative order rescind such authority whenever it reasonably appears to the Secretary-Director that such rescission would serve to protect fresh water supplies from contamination.

(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


ALEX J. ARMIJO, Member


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


esr/

4388

Heard 8-5-70

Rec'd 8-10-70

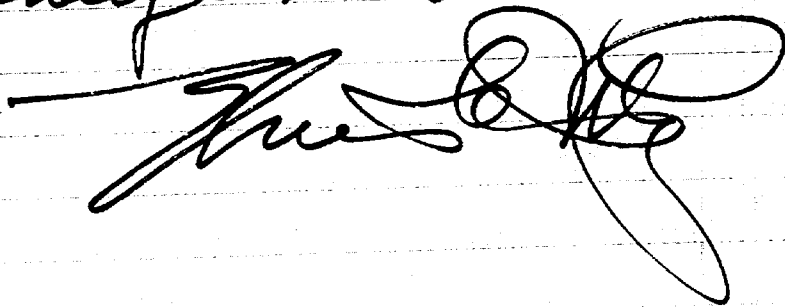
Grant Humber and exception
to R-3221 for 3 leases as
follows:

1. Lawrence B. Suck. NW 6-15-30
2. Deemer. Fed. W/2, SW/4 6-15-30
3. Hesse. Fed. W/2, NW/4 7-15-30.

One Pit on each lease will
be used.

at present about 130 B&WPD
will be disposed off.

The only fresh water in the
area is one well directly
west of the leases $2\frac{3}{4}$ mi.
The drainage in the area is
SW.



Docket No. 18-70

DOCKET: EXAMINER HEARING - WEDNESDAY - AUGUST 5, 1970

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 4385: (Continued from the July 15, 1970 Examiner Hearing)

Application of King Resources Company for a unit agreement, Otero County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Brokeoff Mountain Unit Area comprising 37,747 acres, more or less, of Federal, State and Fee lands in Townships 24, 25, and 26 South, Ranges 19 and 20 East, Otero County, New Mexico.

CASE 4388: Application of Humble Oil & Refining Company for an exception to Order No. R-3221, as amended, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Order No. R-3221, as amended, which order prohibits the disposal of water produced in conjunction with the production of oil on the surface of the ground in Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico. Said exception would be for applicant's Florence B. Lusk, DeSmet Federal, and Hesse Federal leases located in Sections 6 and 7 of Township 15 South, Range 30 East, Double L Queen Pool, Chaves County, New Mexico. Applicant seeks authority to dispose of salt water produced by wells on said leases in unlined surface pits located in the vicinity of said wells.

CASE 4389: Application of Coastal States Gas Producing Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Upper Pennsylvanian formation through the perforated interval from 9789 to 9924 feet in its State "27" Well No. 2 located in Unit F of Section 27, Township 14 South, Range 32 East, Tulk-Pennsylvanian Pool, Lea County, New Mexico.

CASE 4390: Application of Murphy H. Baxter for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North E-K Queen Unit Area comprising 978 acres, more or less, of State lands in Township 17 South, Range 33 East, and Township 18 South, Ranges 33 and 34 East, E-K Yates-Seven Rivers-Queen Pool, Lea County, New Mexico.

Examiner Hearing - August 5, 1970

Docket No. 18-70

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- CASE 4391: Application of Murphy H. Baxter for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in its North E-K Queen Unit Area by the injection of water into the Queen formation through 4 wells located in Units A, D, F, and G of Section 7, Township 18 South, Range 34 East, E-K Yates-Seven Rivers-Queen Pool, Lea County, New Mexico. Applicant further seeks a procedure whereby said project may be expanded administratively without a showing of well response.
- CASE 4392: Application of Southwestern Natural Gas, Inc. for the assignment of back allowable, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the assignment of back allowable to its Mershon Gas Comm Well No. 1 located in Unit A of Section 21, Township 22 South, Range 23 East, Indian Basin-Upper Pennsylvanian Gas Pool, Eddy County, New Mexico, for the period from the date of completion of said well on September 22, 1969, to the date of connection of said well on June 4, 1970.
- CASE 4393: Application of Mobil Oil Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation in the open-hole interval from 12,240 feet to 12,463 feet in its Santa Fe Pacific Well No. 3 located in Unit M of Section 26, Township 9 South, Range 36 East, Crossroads-Devonian Pool, Lea County, New Mexico.
- CASE 4394: Application of Phillips Petroleum Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Plata Deep Unit Area comprising 5,600 acres, more or less, of Federal and State lands in Sections 8, 9, 10, 11, 14, 15, 16, 22 and 23 of Township 20 South, Range 32 East, Lea County, New Mexico.
- CASE 4395: Application of Consolidated Oil & Gas, Inc. for salt water disposal, Lea 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 8915 to 8926 feet in its Shipp Well No. 1-17 located in Unit H of Section 17, Township 17 South, Range 37 East, Midway Abo Pool, Lea County, New Mexico.

Examiner Hearing - August 5, 1970

Docket No. 18-70

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CASE 4396: Application of Klabzuba, Munson and Seaman for a dual completion and salt water disposal, Chaves County, New Mexico. Applicants, in the above-styled cause, seek authority to dually complete its (Varel) Avalanche Journal Well No. 1 located in Unit N of Section 18, Township 10 South, Range 28 East, Chaves County, New Mexico, in such a manner as to produce gas from the San Andres formation in the perforated interval from 2186 to 2204 feet of the Race Track (San Andres) Pool through the casing-tubing annulus and dispose of produced salt water through tubing into the San Andres formation of said pool in the perforated interval from 2262 to 2289 feet.

CASE 4397: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit Rio Trust and all other interested persons to appear and show cause why the following Rio Trust wildcat wells located in Section 2, Township 1 North, Range 2 East, Rio Arriba County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program:

Little Chama Valley Co. Well No. 1
located 660 feet from the North line
and 1380 feet from the West line;

Sargent Well No. 1 located 925 feet
from the West line and 1445 feet from
the South line.

CASE 4267: (Reopened)

In the matter of Case No. 4267 being reopened by the Oil Conservation Commission on its own motion to permit Edward M. Kriss and all other interested parties to appear and show cause why the Edward M. Kriss Little Chama Valley Company Well No. 1, a wildcat well, located 545 feet from the North line and 1530 feet from the West line of Section 2, Township 1 North, Range 2 East, Rio Arriba County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program.

CASE 4398: Application of Michael P. Grace and Corinne Grace for compulsory pooling and unorthodox gas well locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2

Examiner Hearing - August 5, 1970

Docket No. 18-70

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(Case 4398 continued)

and the S/2 of Section 2, Township 23 South, Range 26 East, Eddy County, New Mexico, to form two 320-acre proration units for the production of gas from any or all zones of the Pennsylvanian formation. Said N/2 and S/2 to be dedicated to wells to be drilled respectively, at unorthodox locations 2500 feet from the North line and 330 feet from the East line of said Section 2 and 990 feet from the South line and 660 feet from the East line of said Section 2.

Also to be considered will be the costs of drilling said wells, a charge for the risk involved, provisions for the allocation of actual operating costs, and the establishment of charges for supervision of said wells.

CASE 4354: (Continued from the July 1, 1970, Examiner Hearing)

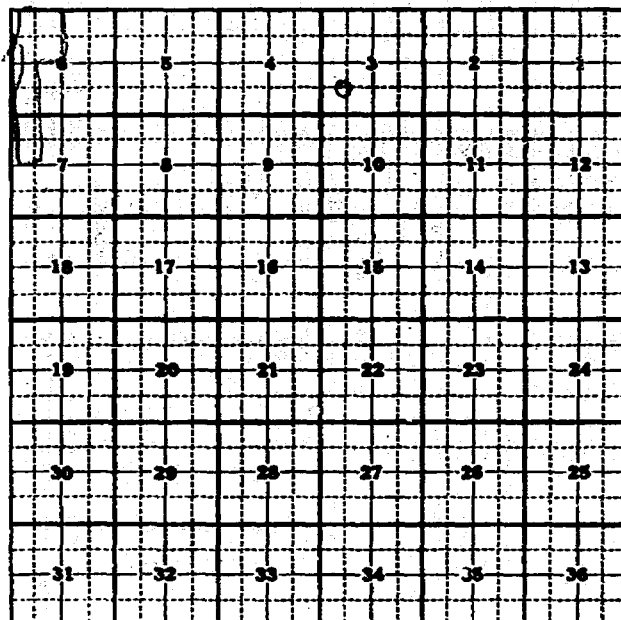
Application of Michael P. Grace and Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the N/2 of Section 11, Township 23 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, said acreage to be dedicated to a well to be drilled in either the NE/4 NW/4 or the NW/4 NE/4 of said Section 11. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

Name

Address

Ph.

Remarks



T R State
or County

HUMBLE OIL & REFINING COMPANY

P. O. Box 1600
Midland, Texas 79701
June 29, 1970

22-2: Request for Exception to R-3221
Double L Queen Pool,
Chaves County, New Mexico

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

Attn: Mr. A. L. Porter, Jr., Secretary Director

Gentlemen:

Humble Oil & Refining Company respectfully requests a hearing before the Commission to consider its application for exception to Order R-3221, as amended, Double L Queen Pool, Chaves County, New Mexico. Humble seeks permission to dispose of water produced in conjunction with oil or gas or both, into unlined surface pits. The following leases, showing location and approximate present water production, are involved (see map attached):

- | | | |
|---------------------|-----------------------------------|------------------------|
| 1. Florence B. Lusk | NW/4, Sec. 6, T-15-S, R-30-E | 31 bbls. water per day |
| 2. DeSmet Federal | W/2, SW/4, Sec. 6, T-15-S, R-30-E | 28 bbls. water per day |
| 3. Hesse Federal | W/2, NW/4, Sec. 7, T-15-S, R-30-E | 71 bbls. water per day |
- A typical analysis of the produced water is attached.

Water production on these leases resulted from recent development and is being disposed into the tank battery emergency pits on a temporary permit. The Lusk pit is located at the tank battery, about 600 feet north of Well 2. The DeSmet pit is located at the battery, about 300 feet southeast of Well 1. The Hesse Federal pit is located at the battery, about 300 feet southwest of Well 1. The pits presently being used are 25' x 25' standard emergency pits.

The State Engineer records show no subsurface water wells in Section 6 and 7. Cable tool drilling in the pool has had no shows of fresh subsurface water. The nearest subsurface water well is located in the southwest quarter of Section 3, T-15-S, R-30-E, and it is believed to be producing from the Triassic from 200 feet to 300 feet deep. We believe that no damage or contamination to fresh water will result from unlined surface pits.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

L. H. Byrd

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	1
CASE NO.	4388

Attachments

cc: Mr. Jim Knauf
U.S.G.S.
Drawer 0
Albuquerque, New Mexico

DOWELL DIVISION OF THE DOW CHEMICAL COMPANY

WATER ANALYSIS REPORT

Typical

TO: HUMBLE OIL + REFINING COMPANY
~~PO BOX 3166~~
~~MIDLAND TEXAS 79701~~

LABORATORY NO.: HOBBS015
 DATE: MAY 29, 1970

WELL NAME + NO.: DESMET #1
 FIELD: DOUBLET
 COUNTY: LEA-Chaves
 SAMPLE PT.: WELL

DEPTH: 2000 FT
 FORMATION: QUEEN
 STATE: NEW MEXICO
 SAMPLE ID: PRODUCED

*Sample
 Bleed
 from flow tank
 (Prod. fluids had
 been treated w/ Enjay 784
 Demulsifier.)*

DISSOLVED SOLIDS

OTHER PROPERTIES

CATIONS MG/L MEQ/L

SODIUM, NA 103928 4510
 CALCIUM, CA 4000 199
 MAGNESIUM, MG 9245 760

PH = 5.50
 SP GR = 1.200
 RESISTIVITY = .0000

ANIONS

CHLORIDES, CL 191467 5399
 SULFATES, SO4 3200 66
 BICARBONATES, HCO3 274 4

THE CALCIUM SULFATE STABILITY INDEX IS 16.99

A POSITIVE NUMBER INDICATES THE CALCIUM SULFATE IN SOLUTION
 EXCEEDS THE SATURATION LIMIT AND CAN PRECIPITATE.

REMARKS AND RECOMMENDATIONS:

BEFORE EXAMINER UTZ
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. 2
 CASE NO. 4388

DOWELL DIVISION OF THE DOW CHEMICAL COMPANY

WATER ANALYSIS REPORT

TO: HUMBLE OIL + REFINING COMPANY
BROADMOOR BUILDING ATTENTION/BOB BEVILL
HOBBES, NEW MEXICO

LABORATORY NO.: HOBBS00166
DATE: JULY 21, 1970

WELL NAME + NO.: WATER WELL
FIELD: ~~LITTLE LUCKY~~
COUNTY: CHAVES
SAMPLE PT.: WELL

DEPTH: UNKNOWN
FORMATION: UNKNOWN
STATE: NEW MEXICO
SAMPLE ID: FRESH

DISSOLVED SOLIDS

OTHER PROPERTIES

CATIONS	MG/L	MEQ/L
SODIUM, NA	128	5
CALCIUM, CA	59	2
MAGNESIUM, MG	6	0

ANIONS	MG/L	MEQ/L
CHLORIDES, CL	106	2
SULFATES, SO4	220	4
BICARBONATES, HCO3	91	1

PH = 8.40
SP GR = 1.000
RESISTIVITY = .0000

THE CALCIUM SULFATE STABILITY INDEX IS -21.56

A NEGATIVE NUMBER INDICATES THE CALCIUM SULFATE IN SOLUTION DOES NOT EXCEED THE SATURATION VALUE AND SHOULD NOT PRECIPITATE.

REMARKS AND RECOMMENDATIONS:
TRACE OF CARBONATE ION PRESENT

THANK FOR CALLING DOWELL. JIM RUCKER

BEFORE EXAMINER UTZ	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	3
CASE NO.	4388

HUMBLE OIL & REFINING COMPANY

P. O. Box 1600
Midland, Texas 79701
June 29, 1970

22-2: Request for Exception to R-3221
Double L Queen Pool,
Chaves County, New Mexico

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

Attn: Mr. A. L. Porter, Jr., Secretary Director

Gentlemen:

Humble Oil & Refining Company respectfully requests a hearing before the Commission to consider its application for exception to Order R-3221, as amended, Double L Queen Pool, Chaves County, New Mexico. Humble seeks permission to dispose of water produced in conjunction with oil or gas or both, into unlined surface pits. The following leases, showing location and approximate present water production, are involved (see map attached):

1. Florence B. Lusk	NW/4, Sec. 6, T-15-S, R-30-E	31 bbls. water per day
2. DeSmet Federal	W/2, SW/4, Sec. 6, T-15-S, R-30-E	28 bbls. water per day
3. Hesse Federal	W/2, NW/4, Sec. 7, T-15-S, R-30-E	71 bbls. water per day

A typical analysis of the produced water is attached.

Water production on these leases resulted from recent development and is being disposed into the tank battery emergency pits on a temporary permit. The Lusk pit is located at the tank battery, about 600 feet north of Well 2. The DeSmet pit is located at the battery, about 300 feet southeast of Well 1. The Hesse Federal pit is located at the battery, about 300 feet southwest of Well 1. The pits presently being used are 25' x 25' standard emergency pits.

The State Engineer records show no subsurface water wells in Section 6 and 7. Cable tool drilling in the pool has had no shows of fresh subsurface water. The nearest subsurface water well is located in the southwest quarter of Section 3, T-15-S, R-30-E, and it is believed to be producing from the Triassic from 200 feet to 300 feet deep. We believe that no damage or contamination to fresh water will result from unlined surface pits.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

L. H. Byrd

Attachments

cc: Mr. Jim Knauf

U.S.G.S.
Drawer 0

Antelope New Mexico

DRAFT

GMH/esr

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. 4388

Order No. R- 4011

APPLICATION OF HUMBLE OIL & REFINING
COMPANY FOR AN EXCEPTION TO ORDER NO.
R-3221, AS AMENDED, CHAVES COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 5, 1970,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this _____ day of August, 1970, 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, Humble Oil & Refining Company, is
the owner and operator of certain wells on its Florence B. Lusk,
DeSmet Federal, and Hesse Federal Leases located in Sections 6
and 7, Township 15 South, Range 30 East, NMPM, Double L-Queen
Pool, Chaves County, New Mexico.

(3) That Order (3) of Commission Order No. R-3221, as
amended, prohibits in that area encompassed by Lea, Eddy, Chaves,
and Roosevelt Counties, New Mexico, the disposal, subject to
minor exceptions of water produced in conjunction with the
production of oil or gas, or both, on the surface of the ground,

or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any other place or in any manner which would constitute a hazard to any fresh water supplies and said disposal has not previously been prohibited.

(4) That the aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(5) That the State Engineer has designated, pursuant to Section 65-3-11 (15), N.M.S.A., 1953 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(6) That the applicant seeks an exception to the provisions of the aforesaid Order (3) to permit the disposal of salt water produced by applicant's wells located on its aforesaid Florence B. Lusk, DeSmet Federal, and ^{Hesse} ~~Hesse~~ Federal Leases in said Sections 6 and 7 in ^{on each of the subject leases.} ~~unlined surface pits located in the vicinity of said wells.~~

(7) *That there appears to be no shallow fresh water in the vicinity of the subject pits for which a present or reasonably foreseeable beneficial use is or will be made that would be impaired by contamination from the subject pits.*

(8) *That the applicant should be permitted to dispose of water produced by wells on located on the subject leases in unlined surface pits located thereon.*

IT IS THEREFORE ORDERED:

(1) That the applicant, Humble Oil & Refining Company, is hereby granted an exception to Order (3) of Commission Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both, by its wells located on its Florence B. Lusk, DeSmet Federal, and Hesse *confining respectively, the NW 1/4 of Section 6, the W 1/2 SW 1/4 of Section 6,* Federal Leases, ~~in Sections 6 and 7~~, Township 15 South, Range 30 East, NMPM, Double L-Queen Pool, Chaves County, New Mexico, in ~~an~~ *on each of the said leases.* unlined surface pits located, ~~in the vicinity of said wells.~~

(2) That the Secretary-Director of the Commission may by administrative order rescind such authority whenever it reasonably appears to the Secretary-Director that such rescission would serve to protect fresh water supplies from contamination.

(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.