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300 AMERICAN HOME BUILDING P. O. DRAWER 239

ARTESIA, NEW MEXICO 88211-0239

August 9, 1984

AREA CODE 505 746-3508

Energy and Minerals Department Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

> Re: West Loco Hills Grayburg Unit Carbon Dioxide Pilot Project

Gentlemen:

Enclosed for filing, please find three copies of each of the following:

- 1. Application of Yates Petroleum Corporation for a Carbon Dioxide Injection Pilot Project, Eddy County, New Mexico.
- 2. New Mexico Oil Conservation Division Form C-108.

We ask that this Application be set for hearing before an Examiner, and that we be furnished with a docket of said hearing.

Thank you.

Sincerely yours,

LOSEE, CARSON & DICKERSON, P.A.

Chad Dickerson

CD:pvm Enclosures

cc: Mr. E. Robert Tisdale

BEFORE THE OIL CONSERVATION DIVISION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF YATES PETROLEUM CORPORATION FOR A CARBON DIOXIDE INJECTION PILOT PROJECT, EDDY COUNTY, NEW MEXICO

CASE NO. 6324

APPLICATION

COMES NOW Yates Petroleum Corporation, by its attorneys, and in support hereof, respectfully states:

1. Applicant is the operator of the West Loco Hills Grayburg Unit, covering the Loco Hills Grayburg Sand, the top of which is found at 2,767 feet, and the base of which is found at 2,792 feet, on the Gamma Ray Neutron Log of the Newmont-Ballard Well No. B-6 located in the SE/4 SW/4 NE/4 Section 1, Township 18 South, Range 29 East, N.M.P.M., Eddy County, New Mexico, together with Grayburg Sand Stringers encountered at varying intervals between the depths from 100 feet above the top and 50 feet below the bottom of the principal sand body shown by said log, underlying the lands set forth on the plat attached hereto as Exhibit "A" and incorporated by reference. This Application covers all proration units owned or operated by Applicant which directly or diagonally offset the injection tracts hereinafter described.

- 2. Applicant proposes to institute a pilot project to inject carbon dioxide and water into the Grayburg formation, in two wells proposed to be drilled as follows:
 - (a) West Loco Hills Unit G4S Tract 13-12, located 1,980 feet from the north line and 10 feet from the east line; and
 - (b) West Loco Hills Unit G4S Tract 6-5, located 1,475 feet from the south line and 10 feet from the east line

of Section 12, Township 18 South, Range 29 East, N.M.P.M.

- 3. That said pilot project is in an area wherein primary recovery and secondary recovery operations have been conducted.
- 4. That the proposed pilot project is of an experimental nature to evaluate the effectiveness of carbon dioxide injection into the subject reservoir, and as such, will require the drilling of a number of wells at close proximity to each other for purposes of injection and production, and to provide a study of zone isolation, vertical heterogeneity, reservoir directional variation, and the carbon dioxide displacement process.
- 5. That in the event the pilot project is successful and indicates the desirability and economic feasibility of the process, the pilot project would be expanded to include additional lands and wells, and would result in the production of otherwise unrecoverable oil, thereby preventing waste.

- 6. That the pilot project is to be conducted well within the boundaries of the West Loco Hills Grayburg Unit Area, a unitized area, and will therefore not impair correlative rights.
- 7. Oil Conservation Division Form C-108 is submitted herewith.
- 8. That the proposed pilot project should be approved, as well as certain non-standard locations and provisions for additional injection, production, and observation wells at orthodox and unorthodox locations, and expansion of the pilot.
- 9. That Applicant has, after several extensions by the Artesia office of the New Mexico Oil Conservation Division, been ordered to properly plug and abandon, or to temporarily abandon, numerous wells within the West Loco Hills Grayburg Unit. If the pilot is successful, such wells may be utilized in the expansion of the carbon dioxide project, and Applicant requests an extension of the order to so plug and abandon or temporarily abandon such wells until the success or failure of the project has been determined.

WHEREFORE, Applicant prays:

A. That this Application be set for hearing before an Examiner and that notice of said hearing be given as required by law.

B. That, upon hearing, the Division enter its order authorizing Applicant to drill the two wells mentioned above, and to inject carbon dioxide for its pilot project as stated above.

C. That provision be made for Administrative Expansion if the pilot project is successful to include the entire West Loco Hills Grayburg Unit Area.

D. That an extension until July 1, 1987, of the obligation to Plug or Temporarily Abandon existing wells in the West Loco Hills Grayburg Unit Area be granted, pending results of the pilot project, to determine whether such wells can be utilized in the project.

E. And for such other and further relief as may be just in the premises.

YATES PETROLEUM CORPORATION

Chad Dickerson

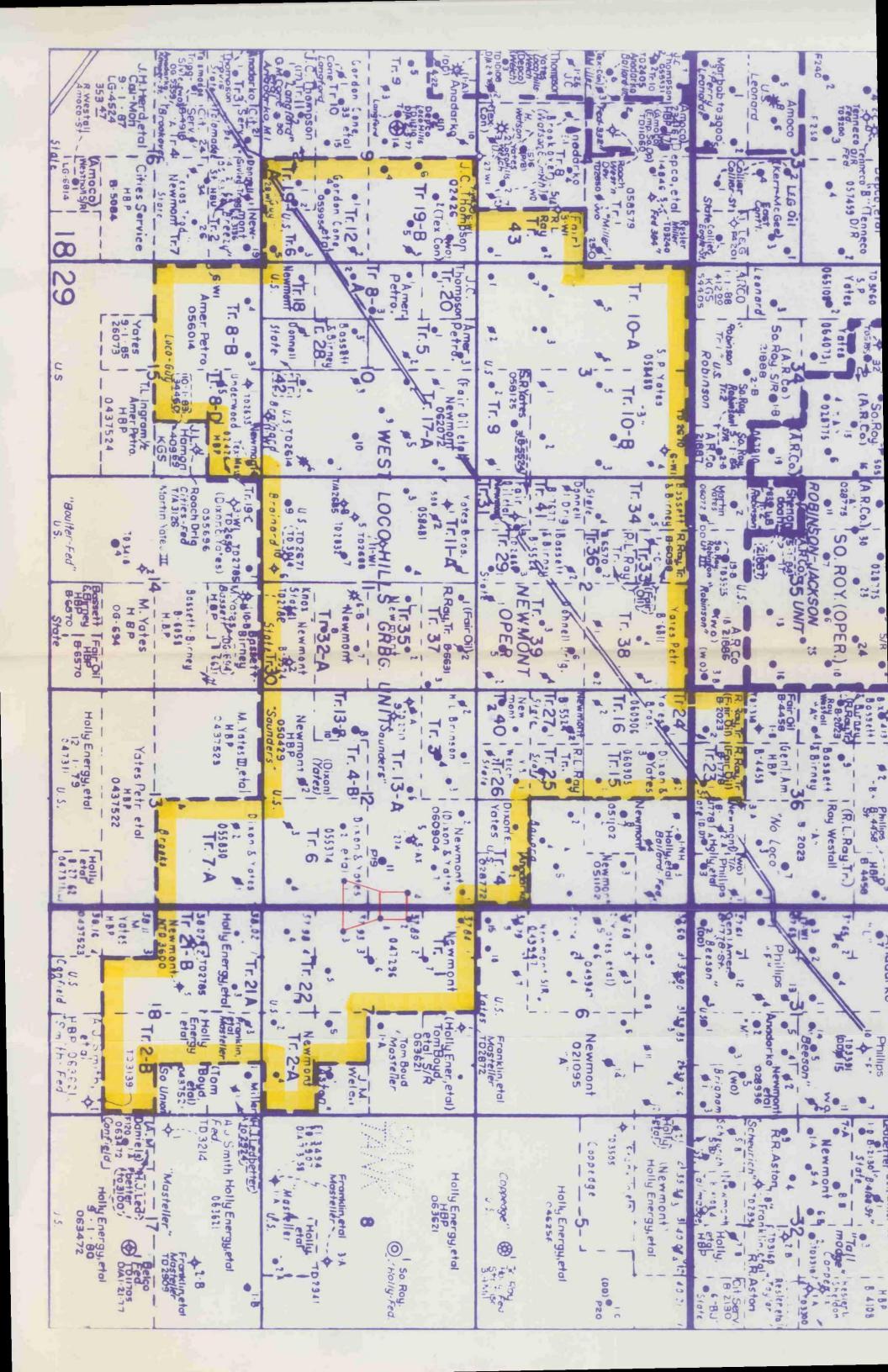
Chad Dickerson

LOSEE, CARSON & DICKERSON, P.A. P. O. Drawer 239

Artesia, New Mexico 88210

(505) 746-3508

Attorneys for Applicant



STATE OF NEW MEXICO ENERGY AND HINERALS DEPARTMENT

DIL CONSERVATION DIVISION

FOST OFFICE BOX 2008

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO 87501

FORM C-108 Revised 7-1-81

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APPLIC	ATION FOR AUTHORIZATION TO INJECT ($\alpha 16.5329$		
ı.	Purpose: X Tertiary Purpose: X Section Control Pressure Maintenance Disposal Storage Application qualifies for administrative approval? yes X no		
11.	Operator: Yates Petroleum Corporation		
	Address: 207 South Fourth Street, Artesia NM 88210		
	Contact party: E. Robert Tisdale Phone: (505) 748-1331 ext 162		
111.	Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.		
IV.	Is this an expansion of an existing project? yes no If yes, give the Division order number authorizing the project		
٧.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.		
VI.	Attach a tabulation of data on all wells of public record within the area of review whic penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.		
VII.	Attach data on the proposed operation, including:		
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). 		
111.	Attach appropriate geological data on the injection zone including appropriate lithologically, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.		
IX.	Describe the proposed stimulation program, if any.		
х.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)		
XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.		
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.		
III.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.		
XIV.	Certification		
	I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.		
	Name: E. Robert Tisdale Title CO2 Pilot Project Engineer		
	Signature: E, Robert Usdale Date: 1 August 1984		
subm:	he information required under Sections VI, VIII, X, and XI above has been previously itted, it need not be duplicated and resubmitted. Please show the date and circumstance he earlier submittal.		

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Loco Hills CO2 Pilot Flood C-108

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: Tertiary Recovery

Application qualifies for administrative approval? No

II. Operator:

Yates Petroleum Corporation

Address:

207 South 4th Street

.

Artesia, New Mexico 88210

Contact Party: E. Robert Tisdale

Phone: (505) 748-1331 Ext 162

III. Well Data:

A. The following well data must be submitted for each injection well covered by this application.

- 1. Lease name; well no.; location by Section, Township and Range, and footage location within the section.
 - a. West Loco Hills Unit G4S Tract 13-12 Section 12-18S-29E 1980 FNL - 10 FEL
 - b. West Loco Hills Unit G4S Tract 6-5 Section 12-18S-29E 2475 FSL - 10 FEL
- Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

	Surface	Production
Casing size:	8 5/8"	5 1/2"
Depth:	400' +	2850 ' +
Cement:	350 sx	400 sx
Hole Size:	12 1/4"	7 7/8"
Top of Cement:	Surface	Surface
Top determined by:	Circulating	Circulating

3. A description of the tubing to be used including its size, lining material, and setting depth.

Tubing Size: 2 7/8"
Lining Material: Spin Coat

Depth: Just above perforations

Loco Hills CO2 Pilot Flood C-108 Page 2

4. The name, model and setting depth of the packer used or a description of any other seal system or assembly used.

Packer Name: Watson Packer

Model: J-Lok

Depth: Just above perforations

- III. B. The following must be submitted for each injection well covered by this application.
 - The name of the injection formation and, if applicable, the field or pool name.

Formation: Grayburg Field: Loco Hills

Pool Name: Loco Hills Queen Grayburg San Andres

2. The injection interval and whether it is perforated or open hole.

About 2800' - 2820', perforated

 State if the well was drilled for injection or, if not, the original purpose of the well.

These wells are being drilled for injection.

4. Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

There are no other perforated intervals.

5. Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

Higher: Penrose Sand - 2350'

Lower: Premier - 3050'

IV. Is this an expansion of an existing project?

No. However the Loco Hills Waterflood was previously authorized by the Oil Conservation Commission of New Mexico Case No. 1511, Order No. R-1267 and Case No. 2473, Order No. R-2178. (See attached)

- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. (See attached map)
- VI. Tabulation of well data. (See attached)
- VII. Attach data on the proposed operation, including:

Proposed average & maximum daily rate and volume of fluids to be injected:

40 tons CO2 per day per well alternating with 225 bbls per day per well H2O. Fifteen days of CO2 to be followed with 15 days of H2O.

2. Whether the system is open or closed.

The system is closed.

3. Proposed average and maximum injection pressures:

H20 and C02 surface injection pressure not to exceed 2000 psi.

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water.

Injection fluid is CO2 trucked in to the site.

Injection fluid is fresh water delivered from Maljamar Fresh Water System by pipeline and produced water. These waters are compatible as has been proven by injecting them into the West Loco Hills Unit since 1963.

Analysis of CO2 is not available at this time; however, we will probably be using food quality CO2 which is 99.9% pure. Analysis of fresh water is attached.

VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

The Loco Hills Sand, which is the zone to be injected, goes from 14 to 61 feet thick with an average of 18 feet. The top of the Loco Hills Sand has a depth range from 2,366 to 2,880 feet. The composition consists of light gray to white and light brown, very finely grained, silty sandstone, sandy dolomite and minor shale.

The geologic name of the underground source of drinking water overlying the injection zone is the Rustler formation. The Rustler formation extends down to 360 feet and is comprised of anhydrite and interfingering redbeds. It averages 160 feet in thickness. All shallow water overlying the Rustler is comprised of redbeds. Additional information on file, Case No. 1511, Order No. R-1267.

Loco Hills CO2 Pilot Flood C-108 Page 4

IX. Describe the proposed stimulation program if any.

Small acid job only - less than 10,000 gallons

X. Attach appropriate logging and test data on the well.

There is none - we propose to drill new injection wells. Information will be submitted when the wells have been drilled.

XI. Attach a chemical analysis of fresh water from 2 or more fresh water wells within one mile of an injection well.

There are no fresh water wells within the one mile radius.

- XII. Affirmative statement: see attached.
- XIII. Proof of Notice: see attached.

LOCO HILLS POOL (GRAYBURG WATERFLOOD) Eddy County, New Mexico

Order No. R-1267, Authorizing Newmont Oil Corporation to Conduct a Pilot Waterflood in the Grayburg Formation of the Loco Hills Pool, Eddy County, New Mexico, October 25, 1958.

Application of Newmont Oil Corporation for an order authorizing a pilot waterflood pro-ject in the Loco Hills Pool, Eddy County, New Mexico.

CASE NO. 1511 Order No. R-1267

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on October 2, 1958, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 25th day of October, 1958, the Commission, a quorum being present, having considered the application, the evidence adduced and the recommendations of the Examiner Elvis A. Utz, 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, Newmont Oil Corporation, proposes to institute a pilot waterflood project in the Loco Hills Pool to inject water into the Grayburg formation through five (5) wells located in Section 6, Township 18 South, Range 30 East, N.M.P.M., Eddy County, New Mexico, and through one (1) well located in Section 1, Township 18 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.
 - (3) That the proposed injection wells are as follows: Yates "A" No. 2 NE/4 NW/4 Section 6 T-18-S, R-30-E Yates "A" No. 11 NW/4 NE/4 Section 6 T-18-S, R-30-E Yates No. 5 NW/4 SW/4 Section 6 T-18-S, R-30-E Yates No. 2 SW/4 NW/4 Section 6 T-18-S, R-30-E Yates No. 3 SE/4 NW/4 Section 6 T-18-S, R-30-E Ballard "B" No. 5 NE/4 NE/4 Section 1 T-18-S, R-29-E
- (4) That the proposed pilot waterflood injection project will not adversely affect the interests of any other operators in the Loco Hills Pool.
- (5) That the proposed program will promote conservation and will tend to prevent waste through the production of oil which might not otherwise be recovered.

IT IS THEREFORE ORDERED:

- (1) That the application of Newmont Oil Corporation for permission to institute a pilot waterflood project in the Gray-burg formation of the Loco Hills Pool in Eddy County, New Mexico, be and the same is hereby approved.
- (2) That the following-described wells be and the same are

(2) That the following-described wells be and the same hereby authorized as water injection wells:
Yates "A" No. 2 NE/4 NW/4 Section 6 T-18-S, R-30-E
Yates "A" No. 11 NW/4 NE/4 Section 6 T-18-S, R-30-E
Yates No. 5 NW/4 SW/4 Section 6 T-18-S, R-30-E
Yates No. 2 SW/4 NW/4 Section 6 T-18-S, R-30-E
Yates No. 3 SE/4 NW/4 Section 6 T-18-S, R-30-E
Ballard "B" No. 5 NE/4 NE/4 Section 1 T-18-S, R-29-E
(3) That monthly progress reports on the waterflood

(3) That monthly progress reports on the waterflood project herein authorized shall be submitted to the Commission in accordance with Rule 704 and Rule 1119 of the Commission Rules and Regulations.

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

MALJAMAR POOL

(Yates Sand Gas Injection)

Lea County, New Mexico.

Order No. R-106, Authorizing Buffalo Oil Company to Inject Gas Into the Yates Sand in the Maljamar Pool, Lea County, New Mexico, October 31, 1951.

The application of Buffalo Oil Company for approval of use of its Baish A Well No. 7, Section 21, Township 17 S., Range 32 E, N.M.P.M., Lea County, New Mexico, for gas injection purposes in the Yajes Sand.

CASE NO. 312 Order No. R-106

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing 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,

- 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., N.M.P.M., 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, N.M.P.M., 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-% inch and the 10-% 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.

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 designated.

LOCO HILLS POOL (West Grayburg No. 4 Sand Unit Area Waterflood) Eddy County, New Mexico

Order No. R-2178, Authorizing Newmont Oil Company to Expand its Loco Hills Waterflood Project by Inclusion of the West Loco Hills Grayburg No. 4 Sand Unit Area, Loco Hills Pool, Eddy County, New Mexico

Application of Newmont Oil Company for expansion of its Loco Hills Waterflood Project, Eddy County, New Mexico.

CASE NO. 2473 Order No. R-2178

New Mexico Page 95

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on January 4, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 30th day of January, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

- (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, Newmont Oil Company, seeks permission to expand its Loco Hills Waterflood Project to include the West Loco Hills Grayburg No. 4 Sand Unit Area, comprising 5,320 acres, more or less, in Townships 17 and 18 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico, which unit was approved by Order No. R-2166.
- (3) That the applicant seeks permission to operate the expanded waterflood project as a "capacity" type flood unrestricted by the allowable provisions of Rule 701 E.
- (4) That in the interest of increasing ultimate recovery in the Loco Hills Pool, the applicant should be authorized to conduct waterflood operations in the West Loco Hills Grayburg No. 4 Sand Unit Area by the injection of water into the Loco Hills Sand; that the allowables to be assigned to wells in this project should be governed by the provisions of Rule 701 E, except that a buffer zone should be established in which allowables would be unrestricted.
- That production from wells outside the buffer zone should be tanked separately from production from wells inside the buffer zone unless the applicant receives approval from the Commission for some other satisfactory means of determining production from each of the two areas.
- (6) That for the purpose of determining the project area and computing the project allowable under Rule 701 E, any producing well in said project area lying outside the buffer zone should be entitled to receive credit for offsetting an injection well regardless of whether the injection well is in the buffer zone or in the project area.

IT IS THEREFORE ORDERED:

(1) That the applicant, Newmont Oil Company, is hereby authorized to institute a waterflood in the Loco Hills Pool within the West Loco Hills Grayburg No. 4 Sand Unit Area located in Townships 17 and 18 South, Ranges 29 and 30 East, NMPM, Eddy County, New Mexico, by the injection of water initially into the following-described wells:

Ballard B No. 1—SE/4 NW/4 Section 1, Township 18
South, Range 29 East
Dixon Yates Federal No. 2—SE/4 SE/4 Section 1, Township 18 South, Range 29 East
Newmont Canfield No. 1-A—NW/4 NW/4 Section 7, Township 18 South, Range 30 East

(LOCO HILLS (WEST GRAYBURG NO. 4 SAND UNIT AREA WATERFLOOD) POOL-Cont'd.)

SECTI

(2) That the ultimate project area for said waterflood shall consist of all the acreage within the said West Loco Hills Grayburg No. 4 Sand Unit Area, except the following-described acreage which shall constitute a buffer zone:

TOWNSHIP 17 SOUTH, RANGE 29 EAST Section 36: S/2 SW/4

TOWNSHIP 18 SOUTH, RANGE 29 EAST Section 1: W/2 and S/2 SE/4 Section 12: NE/4 and N/2 NW/4

TOWNSHIP 18 SOUTH, RANGE 30 EAST Section 7: NW/4

(3) That the wells located within the above-described buffer zone may be operated at unrestricted rates of production.

(4) That all producing wells located within said waterflood project and outside the above-described buffer zone shall be operated and produced in accordance with the allowable provisions of Rule 701 E of the Commission Rules and Regulations.

(5) That for the purpose of determining the project area and computing the project allowable under Rule 701 E, any producing well in said project area lying outside the buffer zone shall be entitled to receive credit for offsetting an injection well regardless of whether the injection well is in the buffer zone or in the project area.

(6) That production from wells outside the buffer zone shall be tanked separately from production from wells inside the buffer zone unless the applicant receives approval from the Commission for some other satisfactory means of determining production from each of the two areas.

(7) 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.

TOTAH-GALLUP POOL (Tenneco Pressure Maintenance Project and Rules) San Juan County, New Mexico

Order No. R-2190, Authorizing Tenneco Oil Company to Institute a Pressure Maintenance Project and Adopting Rules to Govern, in the Totah-Gallup Pool, San Juan County, New Mexico, February 21, 1962.

Application of Tenneco Oil Company for a Pressure Maintenance Project, San Juan County, New Mexico.

CASE NO. 2484 CASE NO. 2484 Order No. R-2190

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on January 24, 1962, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 21st day of February, 1962, the Commission, a quorum being present, having considered this application, the evidence adduced, and the recommendations of the Examiner, Elvis A 11tz and being fully advised in the promises

Elvis A. Utz, and being fully advised in the premises,