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March 22, 2000

VIA HAND DELIVERY

Mr. Michael Stogner, Hearing Examiner
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
2040 South Pacheco Street
Santa Fe, NM 87503

OF OWERSTON DE

Re: Case No.12272: Application of Falcon Creek Resources, Inc. for authority to inject water into six wells in the proposed West Teas (Yates-Seven Rivers) Unit Waterflood Project Area, Lea County, New Mexico.

Case No. 12331: Application of Falcon Creek Resources, Inc. for Statutory Unitization, Lea County, New Mexico.

Case No. 12332: Application of Chevron, USA Production Co. for approval of a Waterflood Project for its West Teas (Yates-Seven Rivers) Unit Area and qualification of the project for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico.

Dear Mr. Stogner:

Enclosed please find Falcon Creek Resources, Inc.'s Proposed Order of the Division in both a hard copy, and a copy on computer diskette. We hope you will find the enclosed to be helpful.

Mr. Michael Stogner March 22, 2000 Page 2

If you have any questions, please do not hesitate to give me a call. Thank you for your consideration.

Very truly yours,

Wara Daltox

Mara Dalton

Legal Assistant to William F. Carr

/md

Enclosure

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT **OIL CONSERVATION DIVISION**

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION **DIVISION FOR THE PURPOSE OF CONSIDERING:**

APPLICATION OF FALCON CREEK RESOURCES, INC. FOR AUTHORITY TO INJECT WATER INTO SIX WELLS IN THE PROPOSED WEST TEAS (YATES-SEVEN RIVERS) UNIT WATERFLOOD PROJECT AREA, LEA COUNTY, NEW MEXICO. **CASE NO. 12272**

APPLICATION OF FALCON CREEK RESOURCES, INC. FOR STATUTORY UNITIZATION, LEA COUNTY, NEW MEXICO.

CASE NO. 12331

APPLICATION OF CHEVRON U.S.A. PRODUCTION CO. FOR APPROVAL OF A WATERFLOOD PROJECT FOR ITS WEST TEAS (YATES-SEVEN RIVERS) UNIT AREA AND QUALIFICATION OF THE PROJECT FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE ENHANCED OIL RECOVERY ACT, LEA COUNTY, NEW MEXICO. CASE NO. 12332

O	R	D	ER	NO.	R	-	

FALCON CREEK RESOURCES, INC.'S PROPOSED **ORDER OF THE DIVISION**

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 17, 2000, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this _____ day of March, 2000, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant in Case 12272, Falcon Creek Resources, Inc. ("Falcon Creek") seeks approval to inject water into the Yates and Seven Rivers formations, West Teas-Yates Seven Rivers Pool, through six wells in its proposed Teas-Yates Seven Rivers Unit Waterflood Project.
- (3) In Case No. 12331, Falcon Creek, seeks the statutory unitization, pursuant to the "Statutory Unitization Act", Sections 70-7-1 through 70-7-21, N.M.S.A. (1978), for the purpose of establishing a secondary recovery project, of all mineral interests in the Unit Area comprising 1,320.00 acres, more or less, of State, Federal and Fee lands in Lea County, New Mexico; the applicant further seeks approval of the "Unit Agreement" and the "Unit Operating Agreement" which were submitted at the time of the hearing in evidence as applicant's Exhibit Nos. 3 and 4.
 - (4) In Case 12332, Falcon Creek, seeks authority:
 - (a) to institute a waterflood project in its West Teas (Yates-Seven Rivers)
 Unit Area by the injection of water into the West Teas (Yates-Seven Rivers) Pool, through six injection wells; and
 - (b) to qualify this project for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (5) The application in Case No. 12272 is duplicated in Case No. 12332, and Falcon Creek requested at the hearing that Case 12272 be dismissed.
 - (6) Division Case No. 12272 should be dismissed.
- (7) At the request of the applicant, Division Case Nos 12331 and 12332 were consolidated at the time of hearing.

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(8) The applicant proposes that said unit comprise the following described area in Lea County, New Mexico:

TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM

Section 4: SE/4

Section 9: S/2, NE/4, S/2 NW/4, NE/4 NW/4

Section 16: N/2, N/2 SW/4, NW/4 SE/4

Section 17: E/2 NE/4, NE/4 SE/4

- (9) The proposed unit shall be known as the West Teas (Yates-Seven Rivers)Unit and the Unit Area should be designated the West Teas (Yates-Seven Rivers) Unit Area ("the Unit Area").
- (10) The vertical limits of the formations to be included within the proposed Unit Area are within that stratigraphic interval underlying the Unit Area found between the top of the Yates formation and the base of the Seven Rivers Formation. The top of the Yates formation is defined as all points underlying the Unit Area correlative to the depth of 3,062 feet, and the base of the Seven Rivers formation is defined as all points underlying the Unit Area correlative to the depth of 3,358 feet, as said depths are identified on the Compensated Neutron/Litho-Density Log for the State No. 1 Well, located in the SE/4 NE/4 of Section 16, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico.
- (11) The Unit Area contains eighteen (18) separate tracts owned by approximately nine (9) different working interest owners. There are eleven (11) royalty owners and ten (10) overriding royalty owners in the proposed unit area.
- (12) At the time of hearing, the owners of approximately 98% of the working interest, and the owners of over 80% of the royalty and overriding royalty interest, had voluntarily joined in the proposed unitization. The 80% royalty owner approval includes federal lands owned by the United States. The U. S. Bureau of Land Management has indicated its preliminary approval by designating the unit as logical for conducting secondary recovery operations, and the New Mexico Commissioner of Public Lands, acting on behalf of the state's trust lands, has preliminarily approved the proposed unitization.
- (13) The Applicant has conducted negotiations with interest owners within the proposed unit area for over one year. Therefore, the applicant has made a good faith effort to secure voluntary unitization within the above-described Unit Area.

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- (14) All interested parties who have not agreed to unitization were notified of the hearing by applicant. At the hearing in this matter, no party appeared or otherwise objected to this application.
- (15) Falcon Creek proposes to institute a waterflood project at the expected cost of \$3.4 million for the secondary recovery of oil and associated gas, condensate, and all associated liquefiable hydrocarbons, within and to be produced from the proposed Unit Area (being the subject of Division Case No. 12332). The estimated reserves recoverable from the waterflood project are 2.1 million barrels of oil.
- (16) The unitized management, operation and further development of the West Teas (Yates-Seven Rivers)Unit Area, as proposed, is reasonable and necessary to effectively increase the ultimate recovery of oil and gas from the Unit Area.
- (17) The estimated additional cost of the proposed unitized operations within the Unit Area will not exceed the estimated value of the additional oil and gas plus a reasonable profit.
- (18) The participation formulas contained in the Unitization Agreement, allocate the produced and saved unitized substances to the separately owned tracts in the Unit Area, on a fair, reasonable and equitable basis.
- (19) Unitization and the adoption of the proposed unitized methods of operation will benefit the working interest owners and the royalty interest owners of the oil and gas rights within the Unit Area.
- (20) The West Teas (Yates Seven Rivers) Unit Agreement and Unit Operating Agreement, as applied to the Unit Area, provide for unitization and unit operation of the Unit Area upon terms and conditions that are fair, reasonable and equitable and which include:
 - (a) A participation formula which will result in fair, reasonable and equitable allocation to the separately owned tracts of the Unit Area of all oil and gas that is produced from the Unit Area and which is saved, being the production that is (i) not

used in the conduct of unit operations, or (ii) unavoidably lost;

- (b) A provision for the credits and charges to be made and the adjustment among the owners in the Unit Area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operations;
- (c) A provision governing how the costs of unit operations, including capital investments, shall be determined and charged to the separately owned tracts and how said costs shall be paid, including a provision providing when, how, and by whom the unit production allocated to an owner who does not pay his share of the costs of unit operations shall be charged to such owners, of the interest of such owners, and how his interest may be sold and the proceeds applied to the payment of his costs;
- (d) A provision for carrying any working interest owner on a limited or carried basis payable out of production, upon terms and conditions which are just and reasonable, and which allow an appropriate charge for interest for such service payable out of production, upon such terms and conditions determined by the Division to be just and reasonable.
- (e) A provision designating the Unit Operator and providing for the supervision and conduct of the unit operations, including the selection, removal or substitution of an operator from among the working interest owners to conduct the unit operations;

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- (f) A provision for a voting procedure for the decision of matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to his unit participation; and
- (g) a provision specifying the time when the unit operations shall commence and the manner in which, and the circumstances under which, the unit operations shall terminate and for the settlement of accounts upon such termination.
- (21) The statutory unitization of the West Teas (Yates-Seven Rivers)Unit Area is in conformity with the above findings, and will prevent waste and will protect the correlative rights of all owners of interest within the proposed Unit Area, and should be approved.
- (22) The operator of the propose West Teas (Yates-Seven Rivers) Unit Waterflood Project should take all steps necessary to ensure that the injected water enters and remains confined to only the proposed injection interval and is not permitted to escape from that interval and migrate into other formations producing intervals pools, or onto the surface from injection, production, or plugged and abandoned wells.
- (23) Injection should be accomplished through lined or otherwise corrosion resistant tubing installed in a packer set within 100 feet of the upper most injection perforations: the casing-tubing annulus in each well should be filled with an inert fluid and equipped with an approved gauge or leak detection device.
- (24) Prior to commencing injection operations, each injection well should be pressure tested throughout the interval from the surface down to the proposed upper most perforation to assure the mechanical integrity of each well.
- (25) The injection wells or pressurization system for each well should be so equipped as to limit injection pressure at the wellhead to no more than 0.2 pound per foot of depth from the surface to the top most injection perforation; however, the Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

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- (26) The operator should give advanced notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.
- (27) The proposed waterflood project should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.
- (28) The applicant further requests that the subject waterflood project be approved by the Division as a qualified Enhanced Oil Recovery Project ("EOR") pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (29) The evidence presented indicates that the subject waterflood project meets all criteria for approval.
- (30) The approved project area should initially comprise the area described in Finding Paragraph No. 4 above.
- (31) To be eligible for the EOR credit, prior to commencing injection operations the operator must request from the Division a Certificate of Qualification, which Certificate will specify the proposed project area as described above.
- (32) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the operator must apply to the Division for certification of a positive production response, which application shall identify the area actually benefitting from enhanced recovery; operations, and identify the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for the credit.
- (33) The injection authority granted herein for the proposed injection wells should terminate one year after the effective date of this order in the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

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IT IS THEREFORE ORDERED THAT:

- (1) The application of Falcon Creek Resources, Inc. ("Falcon Creek") in Case No. 12331 West Teas (Yates-Seven Rivers) Unit, covering 1320.00 acres, more or less, of State, Federal and Fee lands in the West Teas (Yates-Seven Rivers) Pool, Lea County, New Mexico, is hereby approved for statutory unitization, for the purpose of establishing a waterflood project, pursuant to the Statutory Unitization Act, Sections 70-7-1 through 70-7-21, NMSA, (1978).
- (2) The West Teas (Yates-Seven Rivers) Unit Agreement and the West Teas (Yates-Seven Rivers) Unit Operating Agreement, which were submitted to the Division at the time of hearing as Exhibits 3 and 4, respectively, are hereby incorporated by reference into this order.
- (3) The lands designated the West Teas (Yates-Seven Rivers) Unit Area shall comprise the following described acreage in Lea County, New Mexico.:

TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM

Section 4: SE/4

Section 9: S/2, NE/4, S/2 NW/4, NE/4 NW/4

Section 16: N/2, N/2 SW/4, NW/4 SE/4

Section 17: E/2 NE/4, NE/4 SE/4

- (4) The vertical limits of the "unitized formation" of said unitized area shall included that interval between the top of the Yates formation and the base of the Seven Rivers Formation with the top of the Yates formation defined as all points underlying the Unit Area correlative to the depth of 3,062 feet, and the base of the Seven Rivers formation defined as all points underlying the Unit Area correlative to the depth of 3,358 feet, as said depths are identified on the Compensated Neutron/Litho-Density Log for the State No. 1 Well, located in the SE/4 NE/4 of Section 16, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico.
- (5) Since persons owning the required statutory minimum percentage of interest in the Unit Area have approved, ratified, or indicated their preliminary approval of the Unit Agreement and the Unit operating Agreement, the interests of all persons within the Unit

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Area are hereby unitized whether or not such persons have approved the Unit Agreement or the Unit Operating Agreement in writing.

(6) The applicant as Unit operator shall notify the Division Director in writing of the removal or substitution of said Unit operator by any other working interest owner within the Unit Area.

IT IS FURTHER ORDERED THAT:

- (7) Falcon Creek is hereby authorized to institute a waterflood project in its West Teas (Yates-Seven Rivers) Unit Area by the injection of water into the West Teas (Yates-Seven Rivers) Pool, as found in that stratigraphic interval between the top of the Yates formation and the base of the Seven Rivers Formation with the top of the Yates formation defined as all points underlying the Unit Area correlative to the depth of 3,062 feet, and the base of the Seven Rivers formation defined as all points underlying the Unit Area correlative to the depth of 3,358 feet, as said depths are identified on the Compensated Neutron/Litho-Density Log for the State No. 1 Well, located in the SE/4 NE/4 of Section 16, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico, through 6 certain wells as further described in Exhibit "A" attached hereto and made a part hereof.
- (8) In compliance with Division General Rule 701.G(3), the waterflood project area, for allowable and tax credit purposes, shall comprise the following described 1320.00 acres in Lea County, New Mexico:

TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM

Section 4: SE/4

Section 9: S/2, NE/4, S/2 NW/4, NE/4 NW/4

Section 16: N/2, N/2 SW/4, NW/4 SE/4

Section 17: E/2 NE/4, NE/4 SE/4

(9) The applicant must take all steps necessary to ensure that the injected water only inters and remains confined to the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

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- (10) Injection shall be accomplished through lined or otherwise corrosion resistant tubing installed in a packer set within 100 feet of the upper most injection perforations: the casing-tubing annulus in each well should be filled with an inert fluid and equipped with an approved gauge or leak detection device.
- (11) The 6 water injection wells or pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 0.2 pound per foot of depth from the surface to the top most injection perforation.
- (12) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.
- (13) Prior to commencing injection operations, each injection well should be pressure tested throughout the interval from the surface down to the proposed upper most perforation to assure the mechanical integrity of each well.
- (14) The operator shall give advanced notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.
- (15) The applicant shall immediately notify the Supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing, or seal bore assembly in any of the injection wells, the leakage of water or oil from any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area, and shall take such steps as may be timely and necessary to correct such failure or leakage.
- (16) The applicant shall conduct injection operations in accordance with Division Rule Nos. 701 through 708 and shall submit monthly progress reports in accordance with Division Rules Nos. 706 and 1115.
- (17) This waterflood project and additional injection well added thereto in accordance with the provisions Division Rule 701.G (6).

FURTHERMORE:

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- (18) The subject waterflood project is hereby approved as an Enhanced Oil Recovery Project ("EOR") pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).
- (19) To be eligible for the EOR credit, prior to commencing injection operations the operator must request from the Division a Certificate of Qualification, which Certificate will specify the proposed project area as described above.
- (20) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the operator must apply to the Division for certification of a positive production response, which application shall identify the area actually benefitting from enhanced recovery; operations, and identify the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to the Department of Taxation and Revenue those lands and wells which are eligible for the credit.
- (21) The injection authority granted herein for the proposed injection wells should terminate one year after the effective date of this order in the operator has not commenced injection operations into the subject wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

FURTHERMORE:

- (22) The applicant is authorized to drill or convert to injection the six wells listed on Exhibit "A" attached hereto.
- (23) The application of Falcon Creek Resources, Inc. in Case 12272 approval to inject water into the Yates and Seven Rivers formations, West Teas-Yates Seven Rivers Pool, through six wells in its proposed Teas-Yates Seven Rivers Unit Waterflood Project, is hereby dismissed.
- (24) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

LORI WROTENBERY Director

SEAL

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EXHIBIT "A" CASE NOS. 12272,12331 AND 12332 ORDER NO. _____

Falcon Creek Resources, Inc. Proposed Injection Wells West Teas (Yates-Seven Rivers) Unit Waterflood Project Area

Township 20 South, Range 33 East, NMPM, Lea County, New Mexico

Well Name and Number	Footage Location	Section	<u>Unit</u>	Proposed Injection Interval (Feet)
Anasazi "4" Well #3	1650' FSL & 1980' FEL	. 4	J	3,230-3.292' 3,296-3,426'
Scharbauer "4" Well #3	660' FSL & 660' FEL	4	P	3,104-3,188' 3,262-3,279' 3,299-3,409'
Federal "9" Well #3	330' FNL & 2310' FWL	, 9	C	3,161-3,252' 3,147-3,154' 3,299-3,409'
Barber Federal Well #2	1980' FNL & 660' FWL	9	Е	3,138-3,219' 3,299-3,374'
Federal "9" Well #6	1,650' FNL & 990" FEL	9	Н	3,060-3,176' 3,194-3,260' 3,285-3,300'
State "BF" Well #4	330' FNL & 330" FEL	16	A	3,160-3,294' 3,150-3,156' 3,350-3,394'