

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
MICHAEL H. FELDEWERT
ANTHONY F. MEDEIROS

JACK M. CAMPBELL
1916-1999

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
FACSIMILE (505) 983-6043
E-MAIL: law@westofpecos.com

June 26, 2000

HAND DELIVERED

Mr. Mark Ashley, Hearing Examiner
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
2040 South Pacheco Street
Santa Fe, New Mexico 87505

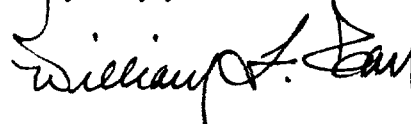
Re: Case No. 12112 (Reopened): Application of GP II Energy, Inc. for approval of a Waterflood Project and Qualification of the Project for the Recovered Oil Tax Rate Pursuant to the Enhanced Oil Recovery Act, Eddy County, New Mexico.

Dear Mr. Ashley:

Enclosed for your consideration in hard copy and on disc is GP II Energy, Inc.'s Proposed Order of the Division in the above-referenced case.

If you need any thing else from GP II to proceed with your consideration of this application, please advise.

Very truly yours,



William F. Carr

WFC/md

Enclosures

cc: M. A. Sirgo

**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 GP II ENERGY, INC. FOR
APPROVAL OF A WATERFLOOD PROJECT
AND QUALIFICATION OF THE PROJECT
FOR THE RECOVERED OIL TAX RATE
PURSUANT TO THE ENHANCED OIL
RECOVERY ACT, EDDY COUNTY, NEW MEXICO.**

**CASE NO. 12112
REOPENED
ORDER NO. R-_____**

**GP II ENERGY, INC.'S
PROPOSED ORDER OF THE DIVISION**

BY THE DIVISION:

This cause came on for hearing at 8:15 a. m. on June 1, 2000 at Santa Fe, New Mexico, before Examiner Mark Ashley.

NOW, on this ____ day of June, 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) In this case, the applicant, GP II Energy, Inc. ("GP II"), seeks authority to institute a waterflood project in the unitized formation of its North Square Lake Unit Area by the injection of water into North Square Lake-Queen-Grayburg-San Andres Pool, Eddy County, New Mexico, through 23 injection wells as shown on Exhibit A to this Order.

(3) GP II stated that its application 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) would be presented by separate application and requested that this portion of this case be dismissed.

(4) GP II Energy, Inc.'s applications for statutory unitization of the North Square Lake Unit Area (Case No. 12113) and approval of the unit waterflood project (Case No. 12112) were heard by a Division Examiner on February 4, 1999 and June 17, 1999.

(5) By Order No. R-11207, dated June 17, 1999, entered in Case No. 12113, the North Square Lake Unit was approved 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 in a unit area comprised of 6,125.30, acres, more or less, of State and Federal lands located in the following described acreage in Eddy County, New Mexico:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM

Section 25: E/2
Section 36: N/2

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM

Section 19: S/2
Section 20: S/2
Section 27: SW/4, W/2 SE/4, SE/4 SE/4, SW/4 NE/4,
S/2 NW/4, NW/4 NW/4
Sections 28 through 34: All

Sufficient ratifications of the Division's Statutory Unitization Order were obtained from the interest owners in the unit area and the unit became effective on January 1, 2000.

(6) The unitized formation is that interval underlying the North Square Lake Unit Area the vertical extent of which extends from the top of the Grayburg formation to the base of the San Andres formation from depths of 3,050 feet to 4,206 feet, respectively, as shown on the type log from the Zephyr "ZQ" State Well No. 1, located 330 feet from the North line and 2310 feet from the East line (Unit B) of Section 32, Township 16 South, Range 31 East, NMPM.

(7) The Division did not enter an order in Case 12112 but, instead, wrote GP II and expressed concern over the integrity of the data on the Application for Authorization to Inject and requested that GP II file an application to re-open Case No. 12112 when it was prepared to appear and present a revised C-108 complete with the elements necessary to process the application. The Division also directed that injection should not commence within the Unit Area until such time as the Division approves the proposed waterflood project and enters an order in Case No. 12112.

(8) GP II has not commenced injection in the Unit Area and has requested that Case 12112 be reopened to consider its revised application for Authorization to Inject (Division Form C-108) into the Phase I A and Phase IB portions of the Project Area.

(9) The proposed waterflood project is located in an area in which cooperative waterflood operations had been conducted during the 1960's and shares a common boundary on the south with an area in which Devon Energy Corporation is currently conducting waterflood operations with 40-acre five spot patterns like those proposed by GP II.

(10) Although GP II originally proposed to conduct cooperative waterflood operations in this area, due to varying overriding royalty burdens on these lands, development under a unit plan was necessary.

(11) In 1998, GP II proposed to unitize approximately 4500 acres in which it owned 100% of the working interest. However, the Bureau of Land Management required that the Unit Area be expanded to include 6,125.30 acres more or less. The North Square Lake Unit which was finally approved was the result of negotiations with the BLM and other interest owners therein.

(12) During February and March 2000, certain interest owners in the unit area contacted the Division and expressed concern about the status of operations in the unit area.

(13) At the time of hearing, GP II testified that it had contacted each of these owners and had responded to their concerns.

(14) Each of the complaining interest owners received notice of the hearing on the revised Application for Authorization to Inject.

(15) No interest owner appeared in opposition to the application or otherwise contacted the Division concerning this application.

(16) The evidence presented at the June 1999 hearing showed there are many vintage wellbores in the waterflood project area and that data on the wells in this area was often difficult to obtain.

(17) To be able focus on specific areas within the unit area and thereby obtain and better manage the data and issues related to wellbore integrity in this old producing area, GP II, after consultation with the Division, determined that it should implement this project in Phases.

(18) In this case, GP II Energy, Inc. seeks approval of its Application for Permit to Inject into Phases IA East and IB West which include the following acreage within the proposed waterflood project area:

PHASE IA EAST
TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM
Sections 27 and 28: All
Sections 33 and 34: All

PHASE IB WEST
TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM
Section 31: All
Section 36: All

(19) The wells located within the GP II's Phase IA and Phase IB areas of its proposed North Square Lake Unit Waterflood Project Area are in an advanced state of depletion and are only capable of marginal production.

(20) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(21) The operator of the proposed Phases I a East and Phase I B West of the North Square-Lake 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.

(22) 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.

(23) 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.

(24) 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.

(25) The operator should give advanced notification to the supervisor of the Artesia 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.

(26) 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.

(27) The injection authority granted herein for the proposed injection wells should terminate eighteen months after the effective date of this order if 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.

IT IS THEREFORE ORDERED THAT:

(1) GP II Energy, Inc. is hereby authorized to institute a waterflood project in its Phase IA East and Phase IB West areas of its North Square Lake Unit Waterflood Project Area (as described in Finding No. 18 above) by the injection of water into Grayburg and San Andres formations in the North Square Lake Queen-Grayburg-San Andres Pool as found in that stratigraphic interval underlying the Unit Area the vertical limits of which extend from the top of the Grayburg formation to the base of the San Andres formation from depths of 3,050 feet to 4,206 feet, respectively, as shown on the type log from the Zephyr "ZQ" State Well No. 1, located 330 feet from the North line and 2310 feet from the East line (Unit B) of Section 32, Township 16 South, Range 31 East, NMPM.

(2) The applicant must take all steps necessary to ensure that the injected water only enters 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.

(3) Injection into the wells shown of Exhibit "A" shall be accomplished through lined or otherwise corrosion resistant tubing installed in a packer set within 100 feet of the upper most injection perforations or casing shoe; the casing-tubing annulus in each well should be filled with an inert fluid and equipped with an approved gauge or leak detection device.

(4) The 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.

(5) 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.

(6) Prior to commencing injection operations into the wells shown on Exhibit "A", 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.

(7) The operator shall give advanced notification to the supervisor of the Artesia 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.

(8) The applicant shall immediately notify the Supervisor of the Artesia District Office of the Division of the failure of the tubing, casing, or seal bore assembly in any of the injection well shown on Exhibit "A", 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.

(9) The subject waterflood project is hereby designated the North Square Lake Unit Waterflood Project, and 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.

(10) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

S E A L

EXHIBIT "A"
CASE NO. 12112 REOPENED
ORDER NO. _____

GP II Energy, Inc.
Injection Wells
North Square Lake Unit Waterflood Project Area

PHASE I EAST
Township 16 South, Ranges 31 East, NMPM,

Sections 27 and 28: All
Sections 33 and 34: All

<u>Well Name and Number</u>	<u>Footage Location</u>	<u>Section</u>	<u>Unit</u>	<u>Interval (Feet)</u>
Sheldon Well #1 NSLU #63	1980' FSL & 1980' FWL	28	K	3,439-3449'
Kennedy Well #3 NSLU #64	2310' FSL & 1650' FEL	28	J	3,444-3,674'
Sheldon Well #5(2) NSLU #65	2310' FSL & 660' FEL	28	I	3,450-3,710'
Sheldon Well #2 NSLU #85	1980' FNL & 660' FWL	28	N	3,352-3,376'
Johnson B Well #7 NSLU #86	660' FSL & 1980" FEL	28	O	3,373-3,457' OH
Sheldon Well #3 NSLU #87	330' FSL & 626" FEL	28	P	3,446-3,708'
Valentine Well # 1	660' FSL & 660' FWL	27	M	3,492-3,815

NSLU #88

Johnson A 660' FNL & 1980' FWL 33 C 3,375-3,477 OH
Well #1
NSLU #110

Texas Trading 660' FNL & 1980' FEL 33 B 3,381-3,600 OH
Well # 3
NSLU #111

Johnson 660' FNL & 660' FEL 33 A 3,416-3,620 OH
Well #6
NSLU #112

Carper "AB" 660' FNL & 660' FWL 34 D 3,380-3,617 OH
Well # 4
NSLU #113

Johnson "A" 1980' FNL & 1980' FWL 33 F 3,363-3,612 OH
Well #3
NSLU #133

Texas Trading 1980' FNL & 1980' FEL 33 G 3,370-3,675 OH
Well # 4 3,449-3,615
NSLU #134

PHASE IB WEST
Township 16 South, Range 31 East, NMPM.

Section 31: All
Section 36: All

<u>Well Name and Number</u>	<u>Footage Location</u>	<u>Section</u>	<u>Unit</u>	<u>Interval (Feet)</u>
Grier Well #11 NSLU #101	660' FNL & 1980' FEL	31	B	2,988-3,297 OH 3,166-3,336
Grier Well #17 NSLU #102	330' FNL & 660' FEL	31	A	3,132-3,338
Grier Well #2 NSLU #123	1980' FNL & 660' FWL	31	E	3,092-3,240 OH 3,050-3,240
Grier Well #4Y NSLU #125	1980' FNL & 1,650' FWL	31	F	2,965-3,270 OH 3,076-3,265
Grier Well #5 NSLU #126	1980' FNL & 1980' FEL	31	G	2,985-3,333 OH 3,129-3,311
Grier Well #7X NSLU #127	1980' FNL & 660' FEL	31	H	3,055-3,376 OH 3,198-3,367
New Injection Well	1980' FSL & 660' FEL	31	I	2,980-3,350
Grier A Well #1 NSLU #143	1980' FSL & 511' FWL	31	L	2,985-3,060

Grier A Well #1 NSLU #144	1980' FSL & 1680' FWL	31	K	2,838-3,170 OH 3,032-3,232
Grier Well #6 NSLU #145	1980' FSL & 1980' FEL	31	J	2,988-3,338 OH
New Injection Well	1980' FSL & 660' FEL	31	I	2,980-3,350'