

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

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SANTA FE, NEW MEXICO 87504-2265

TELEPHONE (505) 982-4285

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W. THOMAS KELLAHIN*

*NEW MEXICO BOARD OF LEGAL SPECIALIZATION
RECOGNIZED SPECIALIST IN THE AREA OF
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

FACSIMILE COVER SHEET

DATE: July 17, 1996

NUMBER OF PAGES: -2-
(including cover sheet)TIME: ^{8:45} 10:00 AM (Santa Fe)

TO: Michael E. Stogner

OF: NMOCD

FAX NO: (505) 827-8177

REF: NMOCD Cases 11522 & 11523

Phillips Petroleum Company's State 35 Unit

Lea County, N.M.

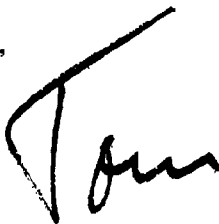
MESSAGE:

Dear Mike:

Attached are Phillips comments on the draft order I delivered to you yesterday. Apparently Larry Sanders of Phillips permitted the 3 NSLs administratively. However, no injection has been commenced because I have instructed them to wait for the order and certificate. Please let me know if you need anything else.

In accordance with our telephone conversation yesterday, please find attached a rough draft order to be edited and submitted to Stogner ASAP. Please call or fax me your suggested corrections and changes.

Regards,



This information contained in this Facsimile Message and Transmission is **ATTORNEY PRIVILEGED AND CONFIDENTIAL** information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is **strictly prohibited**. If you have received this Facsimile in error, please immediately notify us by telephone and return the original message to us at the above address via the U.S. Postal Service. Thank you.



PHILLIPS PETROLEUM COMPANY
4001 PENBROOK
ODESSA, TX, 79762

EXPLORATION & PRODUCTION GROUP
Permian Basin Region

July 17, 1996

Mr. W. Thomas Kellahin, Esq.
KELLAHIN AND KELLAHIN
P. O. Box 2265
Santa Fe, NM 87504-2265

RE: NMOCD CASE No's. 11522 & 11523
State-35 Unit
Section 35-T17S-R34E, NMPM
Lea County, New Mexico

Dear Tom:

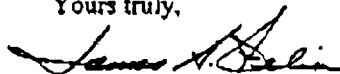
I have reviewed the proposed order you faxed to me yesterday and offer the following comments for your consideration:

1. Page 2, Paragraph (2), line 5: Reference is made to the following language, "*for the approval for the drilling of three producing wells at unorthodox locations.*". Please be advised that Phillips has already permitted and drilled the three producing wells at unorthodox locations. I point this out for information purposes only. If you are of the opinion the language should be in the proposed order, leave it in. I look to your counsel on this.
2. Page 3, Paragraph (7), line 4: Place a period after ("*CO₂*"), delete the remainder of the paragraph and add the following language: "The alternating slugs of CO₂ and water will be injected at a ratio of 1.4 to 1.0 respectively. A total of 45 BSCF of CO₂ and produced gas is planned to be injected. This volume of gas represents a 40% hydrocarbon pore volume slug.
3. Page 3, Paragraph (8): This paragraph relates back to comment number 1. above. I look to your recommendation on this language.
4. Page 6, Paragraph (2): Same as above.

I hope these comments are of some value to you.

If you have any questions regarding the above comments, please contact me at (915) 368-1373.

Yours truly,


James S. Welin

KELLAHIN AND KELLAHIN

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE

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Lea County, N.M.

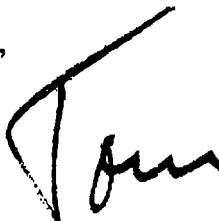
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PHILLIPS PETROLEUM COMPANY
4001 PENBROOK
ODESSA, TX, 79762

EXPLORATION & PRODUCTION GROUP
Permian Basin Region

July 17, 1996

Mr. W. Thomas Kellahin, Esq.
KELLAHIN AND KELLAHIN
P. O. Box 2265
Santa Fe, NM 87504-2265

RE: NMOCD CASE No's. 11522 & 11523
State-35 Unit
Section 35-T17S-R34E, NMPM
Lea County, New Mexico

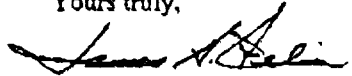
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NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

July 16, 1996

HAND DELIVERED

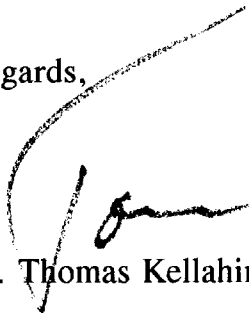
Mr. Michael E. Stogner
Chief Hearing Examiner
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87504

Re: NMOCD Case 11523
Phillips Petroleum Company
Pressure Maintenance Project
for the State-35 Unit

Dear Mike:

Attached is a "rough draft" order in the referenced case along with a diskette. which contains the draft order but not Exhibit "A" because I'm having trouble setting up the tab/columns (sorry--I've got to learn how to do that). I've faxed a copy to Phillips this morning to have them double check it for me and I'll let you know if they find any mistakes..

Regards,


W. Thomas Kellahin

**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:**

DRAFT

**CASE NO. 11523
Order No. R-_____**

**APPLICATION OF PHILLIPS PETROLEUM COMPANY
FOR APPROVAL OF ITS STATE-35 UNIT PRESSURE
MAINTENANCE PROJECT, INCLUDING UNORTHODOX
WELL LOCATIONS AND TO QUALIFY SAID EXPANSION
FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE
"NEW MEXICO ENHANCED OIL RECOVERY ACT,"
LEA COUNTY, NEW MEXICO**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 2, 1996, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this ___ day of July, 1996, 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, Phillips Petroleum Company, ("Phillips") seeks authority to institute a Tertiary Recovery Project ("Pressure Maintenance Project") in its proposed State-35 Unit by the injection of water and carbon dioxide into the Grayburg and San Andres formations of the Vacuum Grayburg-San Andres Pool, for the approval for the drilling of three producing wells at unorthodox well locations, and for the recovered oil tax rate for enhanced oil recovery for the expanded use of enhanced oil recovery technology within said pressure maintenance project ("a new EOR project").

(3) Phillips is the proposed operator of the proposed State-35 Unit ("Proposed EOR Project") which is intended to recover additional oil by means of a combination water and carbon dioxide injection ("WAG") into the Grayburg and San Andres formations of the Vacuum Grayburg-San Andres Pool within a project area containing 560 acres and consisting of four (4) Phillips operated interior injection wells, ten (10) lease line injection wells and sixteen (16) producing wells within the following described area:

TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM

Section 35: N/2
SE/4
E/2SW/4

(4) A portion of the project area was formerly part of the Phillips' operated Hale-Mable Vacuum G-SA Pressure Maintenance Project which was approved for water injection into the Grayburg and San Andres formations of the Vacuum Grayburg-San Andres Pool by Division Order R-7103 dated October 12, 19982 and amended to include water and polyacrylamide polymers by Order R-7103-A issued August 30, 1983.

(5) As of December 31, 1995, cumulative primary and secondary oil recovery from the Project Area had been 17,207,369 barrels of oil with an estimated additional one million barrels of oil to be recovered under the current mode of operations.

(6) The applicant testified that The Project is currently producing at approximately 420 BOPD at approximately 95 % watercut from sixteen (16) active producers. Ten lease line injectors and four interior injectors are currently active.

(7) Phillips seeks to institute a Tertiary Recovery Project for this Project Area by means of a significant change in the process used for the displacement of crude oil by the initiation of the injection of water-alternate-gas injection ("WAG") by using water and carbon dioxide ("CO2") in alternating slugs of produced gas and CO2 and slugs of water to be injected at a 1.4 to 1 ratio with a estimated total of 45 BCF of gas to be utilized or 40% PV slug.

(8) As part of this project, Phillips intends to drill infill producing wells of which three wells will be located at the following unorthodox locations all in Section 35:

State 35 Unit Well No. 8: 1120 feet FNL and 660 feet FEL,

State 35 Unit Well No.18: 2600 feet FSL and 660 feet FEL,

State 35 Unit Well No.28: 1170 feet FSL and 660 feet FEL.

said wells being so located in order to maximize the efficiency of the injection/production well pattern.

(9) The estimated amount of recoverable oil attributed to a positive production response from the expanded use of enhanced oil recovery technology for this proposed EOR project is an estimated 7,122,000 barrels of additional oil.

(10) The applicant testified that the initiation of pressure maintenance operations utilizing the methodology set forth in Paragraph (2) above, should result in the recovery of an additional 7,122,000 barrels of oil with a current undiscounted value of approximately \$10 million dollars for a project costs of approximately \$8,130,000 which includes the drilling of 6 additional infill producing wells and 2 replacement wells, converting 6 interior and 9 lease-line wells to water-alternate-gas (WAG) injection, construction of CO2 compression and distribution facilities and upgrading of the present production and water injection facilities.

(11) Applicant requests a project allowable for the unit of 5,000 barrels of oil per day in order to provide operational flexibility to maximize recovery from the unit and thereby prevent waste and protect correlative rights.

(12) The Commissioner of Public Lands for the State of New Mexico has issued its letter of preliminary approval for the unit and the Division has issued Order R-_____ which approved the unit in companion case 11522.

(13) In accordance with Division Rule 70-1, applicant provided evidence, exhibits and testimony which justifies the approval of the proposed injection wells all as identified on Exhibit "A" attached hereto.

(14) Maximum injection pressures have been established for this project based upon actual San Andres fracture gradients and therefore the injection wells or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 1850 psig.

(15) The evidence presented indicated that the subject "Project Area" meets all the criteria for certification by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(16) The certified "project area" should initially comprise the area within the Unit described in Finding No. (2) above, provided, however, that the "project area" eligible for the recovered oil tax rate may be contracted and reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.

(17) To be eligible for the EOR credit, the operator should advise the Division when water injection commences in the project area and requests the Division certify such phases or area to the New Mexico Taxation and Revenue Department.

(18) At such time as a positive production response occurs and within five years from the date off the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations. 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 with are eligible for the credit.

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

(20) The applicant testified that there are no "problem wells" within the one-half mile "area of review" and a review of applicant's Form C-108 confirms that all plugged and abandoned wells and all producing wells are cemented in a manner adequate to confine the injected fluid to the proposed injection interval.

(21) Prior to commencing injection operations, the applicant should be required to submit to the Santa Fe Office of the Division an executed copy of an Injection Lease-Line Agreement with the offset projects currently operated by Texaco in the West Vacuum Unit, the Vacuum (GBSA) Unit and the Central Vacuum Unit.

(22) The injection of water into each of the injection wells shown on Exhibit "A" should be accomplished through internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation or casing shoe; the casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(23) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and the mechanical integrity pressure tests in order that the same may be witnessed.

(24) The application 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.

(25) That approval of this application will prevent waste, result in the recovery of hydrocarbons which might not otherwise be recover, protect corrective rights and promote the interests of conservation.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Phillips Petroleum Company, is hereby authorized to institute a pressure maintenance project in its State-35 Unit by the injection of water and carbon dioxide into the Grayburg and San Andres formations of the Vacuum Grayburg-San Andres Pool, through the gross perforated and/or open hole interval from the top of the Grayburg formation down to the base of the San Andres formation being approximately 4000 feet to 4513 feet, respectively, as identified in the Hale-State Well No. 8, Unit P, Section 35, T17S, R34E in the following described wells (all of which are existing wells) as shown on Exhibit "A" attached hereto.

(2) Phillips is hereby authorized to drill infill producing wells at the following unorthodox locations all in Section 35:

State 35 Unit Well No. 8: 1120 feet FNL and 660 feet FEL,
State 35 Unit Well No.18: 2600 feet FSL and 660 feet FEL,
State 35 Unit Well No.28: 1170 feet FSL and 660 feet FEL.

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

(4) Injection into the wells shown on Exhibit "A" shall be accomplished through plastic lined tubing installed in a packer set approximately 100 feet of the uppermost injection perforation or casing shoe; the casing-tubing annulus shall be filled with an inert fluid and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(5) The injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to not more than 1850 psig.

(6) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the above pressure limit upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(7) Prior to commencing injection operations into the wells identified on Exhibit "A", the casing in each said wells shall be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(8) Prior to commencing injection operations, the applicant shall submit to the Santa Fe Office of the Division an executed copy of an Injection Lease-Line Agreement with Texaco Exploration and Producing, Inc. the operator of the offsetting waterflood/pressure maintenance project.

(9) The operator shall give advance notification to the supervision or 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.

(10) The applicant shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in any of the injection wells, the leakage of water or oil from or around 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.

(11) The subject pressure maintenance project is hereby designed the State-35 Unit Pressure Maintenance Project and shall be governed by the provisions of Rules Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(12) Monthly progress reports of the pressure maintenance project herein authorized shall be submitted to the Division in accordance with Rule 706 and 1115 of the Division Rules and Regulations.

(13) The project allowable shall be established at 5,000 barrels of oil per day which may be produced from any combination of wells in the unit including the transfer of allowables between or among wells within the project area shall be permitted.

(14) The subject pressure maintenance project is hereby certified as qualified "Enhanced Oil Recovery Project pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(15) The certified and approved "project area" shall initially coincide with the boundaries of the State-35 Unit, described in Finding (3) above, provided however, the "project area" eligible for the recovered oil tax rate may be contracted and reduced dependent upon the evidence presented by the applicant in its demonstration of the occurrence of a positive production response.

(16) 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.

(17) 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 positive production response, which application shall identify the area actually benefitting from enhanced recovery operations. 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.

(18) The injection authority granted herein for the injection wells described in Ordering paragraph () shall terminate one year after the effective date of this order if the operator has not commenced injection operations into these wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

CASE 11533
Order No. R-_____
Page -9-

(19) Jurisdiction of this case 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 designated above.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

STATE 35 UNIT

**ATTACHMENT III TO FORM C-108
APPLICATION FOR AUTHORIZATION TO INJECT**

PROPOSED UNIT INJECTION WELLS

<u>New Well Designation</u>	<u>Operator</u>	<u>Lease & Well No.</u>	<u>API Number</u>	<u>Sec-Tn-Rg</u>			<u>Footage</u>	<u>Current Statu</u>
State 35 # 6W	Phillips	H-35 # 15	3002528047	35	17S	35E	1295' FN, 2615' FW	TA Inj.
State 35 # 7W	Phillips	H-35 # 14	3002528046	35	17S	35E	1345' FN, 1210' FE	SA Prod
State 35 # 14W	Phillips	Hale # 14	3002528057	35	17S	35E	2630' FS, 1330' FW	SA Inj.
State 35 # 16W	Phillips	Hale # 15	3002528058	35	17S	35E	2630' FSL, 2630' FW	SA Inj.
State 35 # 17W	Phillips	Hale # 16	3002528059	35	17S	35E	2630' FS, 1330' FE	SA Inj.
State 35 # 23W	Phillips	Hale # 17	3002528060	35	17S	35E	1310' FS, 1310' FW	SA Inj.
State 35 # 25W	Phillips	Hale # 12	3002528055	35	17S	35E	1260' FS, 2630' FE	SA Inj.
State 35 # 26W	Phillips	Hale # 21	3002530615	35	17S	35E	1194' FS, 2040' FE	SA Prod
State 35 # 27W	Phillips	Hale # 13	3002528056	35	17S	35E	1360' FS, 1210' FE	SA Inj.
State 35 # 29W	Phillips	Hale # 18	3002528061	35	17S	35E	1410' FS, 10' FE	SA Inj.
State 35 # 37W	Phillips	Hale # 19	3002528062	35	17S	35E	10' FS, 1210' FE	SA Inj.

PROPOSED NON-UNIT INJECTION WELLS

Texaco	CVU # 159	3002527969	36	17S	35E	1310' FN, 100' FW	SA Inj.
Texaco	CVU # 160	3002527970	36	17S	35E	2602' FN, 35' FW	SA Inj.
Texaco	CVU # 161	3002527971	36	17S	35E	180' FS, 10' FW	SA Inj.
Texaco	Vac GBSAU # 62	3002527973	02	18S	34E	65' FN, 1330' FW	SA Inj.
Texaco	Vac GBSAU # 63	3002527974	01	18S	34E	50' FN, 2630' FE	SA Inj.

EXHIBIT "A"
NMOCD Order R-
Case 11523



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87506
(505) 827-7131

September 27, 1996

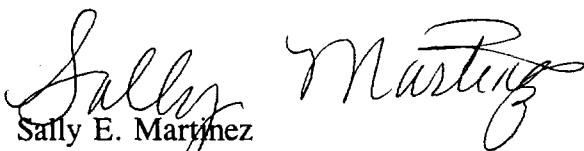
KELLAHIN & KELLAHIN
117 N. Guadalupe
P. O. Box 2265
Santa Fe, New Mexico 87504

RE: CASE NO. 11523
ORDER NO. R-10599-B

Dear Sir:

Enclosed herewith are two copies of the above-referenced Division order recently entered in the subject case.

Sincerely,


Sally E. Martinez
Administrative Secretary

cc: BLM - Carlsbad
Kathy Valdes - OCD
Taxation & Revenue Dept.