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

JASON KELLAHIN (RETIRED 1991)

August 13, 2001

HAND DELIVERED

Ms. Lori Wrotenbery, Director Oil Conservation Division 1220 South Saint Francis Drive Santa Fe, New Mexico 87505 Case 12722

Re: Application of Occidental Permian Limited
Partnership ("OXY") to amend Division Order
R-6199 concerning the expansion of its North
Hobbs Grayburg-San Andres Unit Pressure Maintenance
Project and to qualify the project for the recovered
oil tax rate pursuant to the "New Mexico Enhanced Oil
Recovery Act," Lea County, New Mexico

Dear Ms. Wrotenbery:

On behalf of Occidental Permian Limited Partnership, please find enclosed our referenced application which we request be set for hearing on the next available Examiner's docket now scheduled for September 6, 2001.

Also enclosed is our proposed advertisement of this case for the NMOCD docket.

Very truly you

W. Thomas Kellahin

cc: Occidental Permian Limited Partnership Attn: Richard E. Foppiano

Application of Occidental Permian Limited Partnership ("OXY") to amend Division Order R-6199 concerning the expansion of its North Hobbs Grayburg-San Andres Unit Pressure Maintenance Project, and to qualify the project for the recovered oil tax rate pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico. Applicant seeks approval: (i) to convert a portion of this project (Phase I) from water injection to a tertiary recovery project by the injection of carbon dioxide (CO2) and produced water and the reinjection of CO2, produced water, and produced gases including methane, natural gas liquids and hydrogen sulfide (H2S) utilizing existing and new wellbores; (ii) an increase in the authorized surface injection pressure; (iii) an increase in the gas oil ratios; (iv) an exception from Rule 704.A(2); (v) an exception from the one year commencement of injection and to qualify Phase I of the Unit for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5. This project includes all or portions of Sections 13-14, 23-25, 26, 36 of T18S, R37E and all or portions of Sections 17-20, 28, 29-33 of T18S, R38E, NMPM, Lea County, New Mexico. This project is located on the west side of the City of Hobbs, New Mexico

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

IN THE MATTER OF THE APPLICATION OF OCCIDENTAL PERMIAN LIMITED PARTNERSHIP ("OXY") TO AUTHORIZE THE EXPANSION OF ITS NORTH HOBBS GRAYBURG-SAN ANDRES UNIT PRESSURE MAINTENANCE PROJECT, AMEND DIVISION ORDER R-6199-A, AN INCREASED INJECTION PRESSURE, INCREASED GAS OIL RATIO, EXCEPTION FROM ONE YEAR COMMENCEMENT OF INJECTION, AN EXCEPTION FROM RULE 704.A(2), AND TO QUALIFY THIS EXPANSION FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT," LEA COUNTY, NEW MEXICO

CASE NO 12722

APPLICATION

Comes now OCCIDENTAL PERMIAN LIMITED PARTNERSHIP ("OXY"), by its attorneys, Kellahin & Kellahin, and applies to the New Mexico Oil Conservation Division ("Division") to amend Division Order R-6199 concerning the expansion of its North Hobbs Grayburg-San Andres Unit Pressure Maintenance Project as follows: (i) to convert a portion of this project (Phase I) from water injection to a tertiary recovery project by the injection of carbon dioxide (CO2) and produced water and the reinjection of CO2, produced water, and produced gases including methane, natural gas liquids and hydrogen sulfide (H2S) including existing and new wellbores; (ii) an increase in the authorized surface injection pressure; (iii) an increase in the gas oil ratios; (iv) an exception from Rule 704.A(2); (v) an exception from the one year commencement of injection; and to qualify Phase I of the Unit for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5. This project is includes all or portions of Sections 13-14, 23-25, 26, 36 of T18S, R37E and all or portions of Sections 17-20, 28, 29-33 of T18S, R38E, NMPM, Lea County, New Mexico;

and in support states:

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- (1) Upon the application of Shell Oil Company, the North Hobbs Grayburg San Andres Unit ("North Hobbs Unit") was statutorily unitized on October 3, 1979 by the New Mexico Oil Conservation Commission Order R-6198 entered in Case 6652.
- (2) Oxy is the current operator of the North Hobbs Unit Pressure Maintenance Project ("Existing EOR Project") which was approved by Commission Order R-6199 (Case 6653) issued effective November 30, 1979.
- (3) At the time of unitization, the Unit consisted of 10,649.53 acres, more or less being a portion of the Hobbs Grayburg-San Andres Pool and the pressure maintenance project consisted of some 70 injection wells for the injection of water into the Grayburg-San Andres formation.
- (4) Order R-6199 authorized Shell to operate the pressure maintenance project "by the injection of water."
- (5) Ultimate primary oil recovery from the Unit has been 275 MMBBLs. Under the current secondary recovery project, ultimate secondary oil recovery is estimated to be 45.2 MMBBLs. Total oil production from the Unit as of January, 2001 has been 333 MMBLs and 556 BCFG.
- (6) The Unit is currently producing at 6100 BOPD and 226,000 BWPD from 144 active producers. 83 injectors are currently active.
- (7) Within a portion of this Unit identified as Phase I, OXY seeks to convert this secondary recovery project to a tertiary recovery project by means of a significant change in the process used for the displacement and recovery of crude oil as follows:
 - (a) within that portion of Phase I identified as the Gas Injection Area, by injection of carbon dioxide ("CO2") and produced water; and
 - (b) within that portion of Phase I identified as the Gas Reinjection Area, by the re-injection of produced water and gases produced within the unit including CO2, natural gas liquids, methane and H2S; (See Exhibit A)
- (8) The estimated amount of recoverable oil attributable to a Positive Production Response from water injection to CO2 injection and/CO2/water/produced gas re-injection for the Phase I area of this existing EOR Project is 76 MMBLs of additional oil.

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- (9) Oxy will demonstrate that its proposal to re-inject all produced gases within a portion of Phase I is essential in order to have an economically viable project and produced gas re-injection can be accomplished safely;
- (10) OXY intends to utilize wellbores as follows: to convert existing water injection wells to CO2/water injectors; convert existing producers to injectors; reactivate temporarily abandoned wellbores for injection and/or production; and to drill new producers and/or injectors. (See Exhibits B & C)
- (11) Results of some 25 step rate tests performed in the past demonstrate a minimum bottom hole parting pressure of 2600 psi for this formation. OXY proposes to operate at three different maximum surface injection pressures based upon substances injected that result in **bottom** hole pressures not greater than 2400 psi.
- (12) Oxy's proposed surface pressure limitations will be greater than the Division's standard 0.2 psi per foot of depth. Surface injection pressures higher than the Division's standard are necessary because of friction pressure losses down the tubing, the lighter density (as compared to water) of the gaseous injectants caused by their composition and temperature and in order to attain the injection rates necessary to make this project economically viable.
- (13) Compliance with this proposed bottom hole pressure limitation of 2400 psi can best be achieved by allowing OXY to inject up to the following maximum surface injection pressures for the following substances:

CO2 only injection: 1250 psi Water injection: 1100 psi produced gas injection: 1770 psi

- (14) In order to make the injection of CO2 economically practicable, it is necessary to increase in the current total gas to total oil ratio limitation from 3500 mcf/bbl to 6,000 mcf/bbl.
- (15) Oxy seeks an exception from the Division practice of requiring that actual injection commence within one (1) year of approval of an injection well.
- (16) Division Rule 704.A(2) requires an initial mechanical integrity test on an injection well once every 5 years unless the "annular pressure of wells injecting at positive pressure under a packer" is measured. OXY plans to install automated pressure monitoring devices that will continuously measure the annular pressure and alert company representatives if a certain pressure level is detected then immediate action can be taken.

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These devices will also provide for automatic and immediate shut-in of the injection well at a certain pressure condition on the tubing-casing annulus. Because of this real time monitoring will satisfy the objectives of Rule 704.A(2), Oxy requests the Division exempt its injection wells from being pressure tested at set intervals.

- (17) In accordance with Division Rule 701, OXY is submitting satisfactory evidence on Division Form C-108 in compliance with Division Rule 701. See Exhibit D
 - (18) In accordance with Division Order R-9708, the following is submitted:
 - a. Operator's name and address:

Occidental Permian Limited Partnership P. O. Box 4294 Houston, Texas 79210-4294

- b. Description of the Phase I Project Area:
 - (1) Plat outlining Phase One Project Area:

See Exhibit "A"

(2) Description of the Phase One Area:

T18S, R37E NMPM

Sec 13: SE/4 and W/2

Sec 14: All Sec 23-25: All

Sec 26: E/2NE/4 and NW/4NE/4

Sec 36: NE/4, E/2NW/4 and N/2SE/4

T18S, R38E NMPM

Sec 17: S/2NW/4 and SW/4

Sec 18: NE/4 and S/2

Sec 19: All

Sec 20: S/2 and NW/4

Sec 21: SW/4

Sec 28: W/2

Sec 29-30: All

Sec 31: N/2 and N/2S/2

Sec 32: N/2 and N/2S/2

Sec 33: NW/4

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(3) Total acres in Phase One Project Area:

8,200 acres, more or less

(4) Name of the subject Pool and formation:

San Andres formation of the Hobbs Pool (Grayburg-San Andres)

- c. Status of operations in the project area:
 - (1) unit name:

North Hobbs Grayburg-San Andres Unit Order R-6198 issued November 30, 1797 (statutory unitization order)

- (2) (if an application has been made for approval of a unit plan) concurrently with this application,
 OXY has filed to amend the statutory unitization order to include approval of this tertiary recovery project
- (3) N/A (if not unitized, identify each lease in project area....)
- d. Method of recovery to be used:
 - (1) a tertiary recovery process involving the application of a carbon dioxide miscible fluid displacement mechanism. Fluids to be injected include produced water, carbon dioxide, produced gases including methane, natural gas liquids and H2S
 - (2) Approved by Order R-6199
 issued November 30, 1979
 Expansion approved by Order R-6199-A
 issued August 4, 1983

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- (3) N/A (if the project has not been approved....)
- e. Description of the Phase One Project Area:
 - (1) a list of producing wells: See Exhibit "C"
 - (2) a list of injection wells: See Exhibit "B"
 - (3) Capital cost of additional facilities:
 - \$ 321 million
 - (4) Total Project Costs:
 - \$511 million
 - (5) Estimated total value of the additional production that will be recovered as a result of this tertiary recovery project:

An additional 76 mmbls of oil with a current undiscounted gross value of \$ 1520 MM

(6) Anticipated date of commencement of injection:

fourth quarter of 2002

(7) the type of fluid to be injected and the anticipated volumes:

maximum water injection rate of 100,000 BWPD

maximum CO2 injection rate of 110 MMCFPD

maximum rejection of CO2 and all produced gases of 80 MMCFPD

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(8) Explanation of changes in technology:

This is a miscible carbon dioxide flood superseding a waterflood. The process will involve a tapered WAG (water alternating with gas), injection of a CO2 slug size equal to 60% hydrocarbon pore volume (HPCV) on a 160-acre 9 spot pattern (for zone 1 and 2); and a tapered WAG with an injection of a CO2 slug size equal to 80% of the HPCV on a 40-acre 5 spot pattern for zone 3.

f. Production data:

historical production graph See Exhibit E oil production forecast See Exhibit F

Wherefore, Applicant requests that this application be set for hearing and that after said hearing, the Division enter its order approving this application.

 $\langle V. | IIII \rangle$

W. Thomas Kellahin

KELLAHIN & KELLAHIN

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Santa Fe, New Mexico 87504

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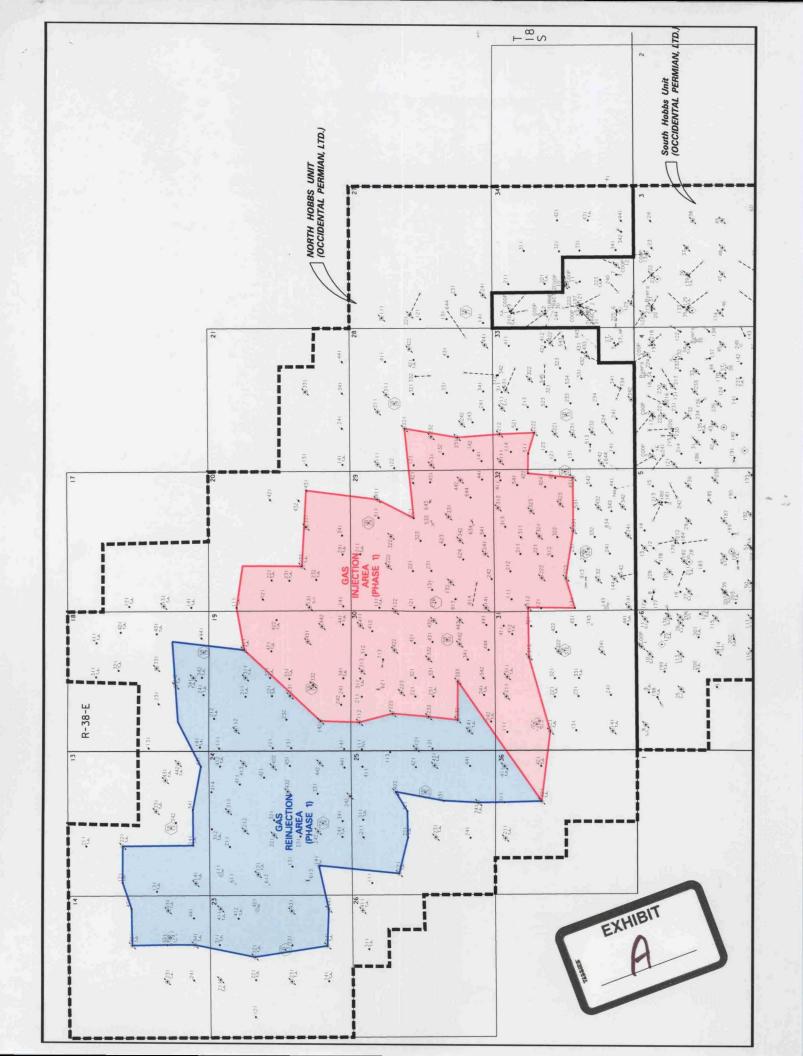
CERTIFICATION

STATE OF TEXAS

COUNTY OF HARRIS

I, Richard E. Foppiano, having been first duly sworn, state that I am a petroleum engineer, a duly authorized representative of Occidental Permian Limited Partnership ("OXY"), have knowledge of the facts herein and therefor certify that the facts set forth in this Application are true and accurate to the best of my own knowledge and belief.

Richard E. Foppiano



	North Ho	bbs	Unit	CO	2 Proje	ct	XHIBIT
			jectio			***	
Well	Footage Location	Section	Township	Range	Current Status	CO2 Status 1	Status 2
121	1980' FNL & 660' FWL	13	18S	37E	TA Prod	lapictor less	
141	660' FSL & 660' FWL	13	18S	37E	TA Inj	letteres (+1)	
221	1980' FNL & 1980' FWL	13	18S	37E	TA Inj	Institute For	
241	660' FSL & 1980' FWL	13	18S	37E	TA Prod	Producer	(मिलिसीम)
341	660' FSL & 1980' FEL	13	18S	37E	Producer	(P)):7+12#1	
441	330' FSL & 330' FEL	13	185	37E	Producer	lettereien	
321	2310' FNL & 1650' FEL	14	185	37E	TA Inj	lemeko	
341	660' FSL & 1650' FEL 330' FSL & 2310' FEL	14	18S 18S	37E	TA Prod	161(114)(6)	
342 112	990' FNL & 990' FWL	18 19	18S	38E	TA Prod	(a) (a) (b) (b)	 -
142	1200' FSL & 1300' FWL	19	18S	38E	Injector Injector	lytain: falanin:	
231	2310' FSL & 2310' FWL	19	18S	38E	Injector	fatteterter	
232	2501' FSL & 1410' FWL	19	18S	38E	Producer	ម៉ាម្រង់ម៉ា.	
311	1309' FNL & 2310' FEL	19	18S	38E	TA Prod	mearo	
332	1430' FSL & 2535' FEL	19	18S	38E	Injector	Producer	Injector
411	1300' FNL & 1300' FEL	19	18S	38E	TA Prod	File (Profile	,
431	1650' FSL & 990' FEL	19	18S	38E	Injector	Injector	
233	1610' FSL & 1850' FWL	20	18S	38E	TA Prod	Injector	
321	1650' FNL & 1650' FEL	23	18S	37E	TA Prod	meem	
341	990' FSL & 1650' FEL	23	18S	37E	TA Prod	Tele teller	
121	1650' FNL & 990' FWL	24	18S	37E	TA Prod	forfice des	
141	1315' FSL & 1315' FWL	24	18S	37E	Producer	1010-76	
212	1263' FNL & 2605' FWL	24	18S	37E	Injector	Producer	विभिन्न क
331	1320' FSL & 1325' FEL	24	18S	37E	Producer	Interference	
411	990' FNL & 990' FEL	24	18S	37E	Producer	व्यासम्बद्ध	
413	1200' FNL & 206' FEL	24	18S	37E	Injector	Producer	门间进口。
414	10' FNL & 1280' FEL	24	185	37E	Producer	tage Server.	
431	990' FSL & 330' FEL	24	185	37E	Producer	60065	
432	2741' FSL & 1286' FEL	24	185	37E	Injector	Producer	_ লালনাত্র
121	1260' FSL & 200' FEL 1650' FNL & 990' FWL	24 25	18S 18S	37E 37E	Injector TA Inj	Producer	विश्वकार
341	660' FSL & 1650' FEL	25	185	37E	TA Inj	FATE THE PAT	
411	330' FNL & 330' FEL	25	185	37E	Producer	141 15 76	
422	1550' FNL & 1300' FEL	25	18S	37E	Injector	rational	
221	1910' FNL & 1650' FWL	28	185	38E	Injector	Injector	-
231	1325' FSL & 1325' FWL	28	18S	38E	Injector	Injector	
122	1600' FNL & 180' FWL	29	18S	38E	Injector	Producer	Injector
132	1623' FSL & 1218' FWL	29	18S	38E	Injector	Injector	,0000
141	330' FSL & 330' FWL	29	18S	38E	Injector	injector	
222	1370' FNL & 850' FWL	29	18S	38E	Injector	Injector	
241	330' FSL & 2310' FWL	29	18S	38E	Injector	Injector	
242	100' FSL & 1400' FWL	29	18S	38E	Producer	Injector	
321	2310' FNL & 1650' FEL	29	18S	38E	Producer	Injector	
331	1650' FSL & 1650' FEL	29	18S	38E	Injector	Injector	
342	1230' FSL & 2500' FEL	29	185	38E	Injector	Injector	
411	990' FNL & 990' FEL	29	185	38E	TA Inj	Injector	
442	1230' FSL & 220' FEL	29	185	38E	Injector	Injector	
112	200' FNL & 1310' FWL	30	185	38E	Injector	Producer	DOCTOR

08/08/2001

1310' FNL & 195' FWL

1470' FNL & 1395' FWL

30

18S

185

38E

38E

Injector

Producer

113

222

	47701 5011 0 0 1051 7041		400				
223	1770' FNL & 2405' FWL	30	18S	38E	Injector	Producer	Injecto
232	1400' FSL & 1370' FWL	30	188	38E	Injector	Intro Ar	
233	2455' FSL & 1480' FWL	30	18S	38E	Injector	Producer	Hillipotes
312	520' FNL & 1448' FEL	30	188	38E	Producer	Injector	
313	405' FNL & 2272' FEL	30	18S	38E	Injector	Injector	
331	2335' FSL & 2310' FEL	30	18S	38E	Producer	Injector	
332	2470' FSL & 1600' FEL	30	18S	38E	Injector	Injector	
333	1400' FSL & 2430' FEL	30	18S	38E	Injector	Producer	Ingreso
422	1520' FNL & 1300' FEL	30	185	38E	Injector	Injector	
432	2260' FSL & 178' FEL	30	18S	38E	Injector	Injector	
442	1300' FSL & 1050' FEL	30	18S	38E	Injector	Injector	
443	1300' FSL & 160' FEL	30	18S	38E	Injector	Injector	
444	215' FSL & 1225' FEL	30	185	38E	Producer	Injector	
121	1980' FNL & 990' FWL	31	185	38E	TA Prod	injector	
312	1262' FNL & 1520' FEL	31	185	38E	Injector	Injector	
112	1370' FNL & 330' FWL	32	185	38E	Injector	Injector	
131	2310' FNL & 330' FWL	32	185	38E	Producer	Injector	
222	1720' FNL & 1370' FWL	32	185	38E	Injector	Injector	-
223	2630' FNL & 1420' FWL	32	185	38E	Injector	Producer	Injecto
312	210' FNL & 1400' FEL	32	185	38E	Injector	Producer	Injector
321	1650' FNL & 2310' FEL	32	18S	38E	Injector	Producer	Injector
323	1370' FNL & 1400' FEL	32	185	38E	Injector	Injector	
422	1385' FNL & 110' FEL	32	185	38E	Producer	Injector	
423	2540' FNL & 1280' FEL	32	18S	38E	Injector	Injector	
431	2310' FSL & 330' FEL	32	185	38E	Injector	Injector	
111	330' FNL & 330' FWL	33	18S	38E	Producer	Injector	
212	205' FNL & 1420' FWL	33	18S	38E	Injector	Producer	Injecto
222	1520' FNL & 1470' FWL	33	185	38E	Injector	injector	
321	1650' FNL & 1650' FEL	36	185	37E	TA Inj	1477 + 443	
118JP	J/P	18	18S	38E	New	Tillian 199	
118LN	L/N	18	185	38E	New	fighter of the	
18MN	M/N	18	185	38E	New	12/1/20 40	
112A	D	19	18S	38E	New	F. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	
142A	N ASSISSI SON EST	19	185	38E	New	1517 (11.10)	
431A	1650' FSL & 660' FEL	20	185	38E	Plugged	Injector	
120DF	D/F	20	185	38E	New	Injector	
312A	В	24	18S	38E	New	117, 1, 484	
331A	J	24	18S	38E	New	(Minimum ext	
124G	G	24	185	38E	New	\$4,3-1	
124F	F	24	185	38E	New	FAT HAN	
25AB	A/B	25	185	38E	New	ISTERNA PAR	
323A	G	29	185	38E	New	Injector	
342A	0	29	185	38E	New	Injector	
442A	P	29	18S	38E	New	Injector	
129E	E F	29	185	38E	New	Injector	
222A		30	185	38E	New	ीं विशेषक के विशेषक के किए किए के अनुवार के किए के कि	
342A	О Н	30 30	18S 18S	38E	Plugged	Injector	
422A 442A	P	30	18S	38E 38E	New New	Injector	
312A	В	31	18S	38E	New	Injector	
222A	F	32	18S	38E	New	Injector Injector	
323A	G	32	185	38E	New		_
331A	2310' FSL & 2310' FEL	32	185	38E		Injector	
33 IA	2310 FGL & 2310 FEL	32	103	301	New	Injector	
					that will be inject	ing CO2, water ar	

North Hobbs Unit CO2 Project

Phase 1 Producing Well List

Section Townshi	Range	Well	Current Status	Future Status
13 18 South	37 East	131	TA Prod	Infill Producer
13 18 South	37 East	241	TA Prod	Infill Producer
13 18 South	37 East	331	TA Inj	Infill Producer
13 18 South	37 East	442	TA Inj	Infill Producer
14 18 South	37 East	331	TA Prod	Infill Producer
14 18 South	37 East	421	Producer	Infill Producer
14 18 South	37 East	431	TA Prod	Producer
14 18 South	37 East	441	Producer	Infill Producer
18 18 South	38 East	242	TA Prod	Infill Producer
19 18 South	38 East	111	TA Prod	Producer
19 18 South	38 East	121	Producer	Producer
19 18 South	38 East	141	Producer	Producer
19 18 South	38 East	211	TA Prod	Infill Producer
19 18 South	38 East	212	TA Prod	Producer
19 18 South	38 East	212	Producer	Infill Producer
19 18 South	38 East	221	TA Prod	Producer
19 18 South	38 East	232	Producer	Infill Producer
19 18 South	38 East	241	Producer	Producer
19 18 South	38 East	242	Producer	Producer
19 18 South	38 East	321	TA Prod	Producer
19 18 South	38 East	332	Injector	Infill Producer
19 18 South	38 East	341	TÁ Prod	Producer
19 18 South	38 East	421	TA Prod	Infill Producer
19 18 South	38 East	422	TA Prod	Producer
19 18 South	38 East	441	TA Prod	Producer
20 18 South	38 East	111	TA Prod	Infill Producer
20 18 South	38 East	131	TA Prod	Infill Producer
20 18 South	38 East	14 1	Producer	Producer
20 18 South	38 East	221	TA Prod	Infill Producer
20 18 South	38 East	241	TA Prod	Infill Producer
20 18 South	38 East	341	Producer	Producer
23 18 South	37 East	311	TA Prod	Infill Producer
23 18 South	37 East	331	Producer	Infill Producer
23 18 South	37 East	411	TA Prod	Producer
23 18 South	37 East	421	Producer	Infill Producer
23 18 South	37 East	431	TA Prod	Producer
23 18 South	37 East	441	Producer	Infill Producer
24 18 South	37 East	111	TA Prod	Infill Producer
24 18 South	37 East	131	Producer	Infill Producer
24 18 South	37 East	211	Producer	Producer
24 18 South	37 East	212	Injector	Infill Producer
24 18 South	37 East	221	Injector	Producer
24 18 South	37 East	231	Producer	Producer
24 18 South	37 East	242	Injector	Infill Producer
24 18 South	37 East	311	Injector	Producer
24 18 South	37 East	321	Producer	Producer
24 18 South	37 East	341	Producer	Producer



24 18 South	37 East	342	Injector	Droducer
24 18 South	37 East	412	TA Prod	Producer Producer
24 18 South	37 East	412	Producer	
24 16 South	37 East	412		Producer
		413	Injector	Infill Producer
24 18 South	37 East		Producer	Infill Producer
24 18 South	37 East	421	Producer	Producer
24 18 South	37 East	432	Injector	Infill Producer
24 18 South	37 East	441	Producer	Producer
24 18 South	37 East	442	Injector	Infill Producer
25 18 South	37 East	111	Producer	Infill Producer
25 18 South	37 East	221	TA Prod	Infill Producer
25 18 South	37 East	311	TA Prod	Producer
25 18 South	37 East	331	Producer	Infill Producer
25 18 South	37 East	421	Producer	Producer
25 18 South	37 East	441	Producer	Infill Producer
28 18 South	38 East	111	Injector	Infill Producer
28 18 South	38 East	121	Producer	Producer
28 18 South	38 East	132	Producer	Producer
28 18 South	38 East	141	Producer	Producer
28 18 South	38 East	142	Producer	Producer
29 18 South	38 East	111	TA Prod	Producer
29 18 South	38 East	121	Producer	Producer
29 18 South	38 East	122	Injector	Infill Producer
29 18 South	38 East	131	Producer	Producer
29 18 South	38 East	221	Producer	Infill Producer
29 18 South	38 East	231	Producer	Producer
29 18 South	38 East	544	Producer	Infill Producer
29 18 South	38 East	623	Producer	Producer
29 18 South	38 East	624	Producer	Producer
29 18 South	38 East	634	Producer	Producer
29 18 South	38 East	643	Producer	Producer
29 18 South	38 East	813	Producer	Infill Producer
30 18 South	38 East	111	SI Prd	Producer
30 18 South	38 East	112	Injector	Infill Producer
30 18 South	38 East	113	•	
		121	Producer	Infill Producer
30 18 South	38 East		Injector	Producer
30 18 South	38 East	131	Producer	Producer
30 18 South	38 East	221	Producer	Producer
30 18 South	38 East	223	Producer	Infill Producer
30 18 South	38 East	231	TA Prod	Producer
30 18 South	38 East	233	Injector	Infill Producer
30 18 South	38 East	312	Producer	Infill Producer
30 18 South	38 East	321	Producer	Producer
30 18 South	38 East	333	Injector	Infill Producer
30 18 South	38 East	341	Producer	Producer
30 18 South	38 East	412	Producer	Producer
30 18 South	38 East	421	Producer	Producer
30 18 South	38 East	431	Producer	Infill Producer
30 18 South	38 East	444	Producer	Infill Producer
30 18 South	38 East	621	Producer	Producer
30 18 South	38 East	713	Producer	Producer
31 18 South	38 East	111	Producer	Infill Producer

31 18 South	38 East		131	Producer	Producer
31 18 South	38 East		211	TA Prod	Producer
31 18 South	38 East		231	Producer	Producer
31 18 South	38 East		311	TA Inj	Producer
31 18 South	38 East		321	Producer	Producer
31 18 South	38 East		411	Producer	Producer
31 18 South	38 East		421	Producer	Infill Producer
31 18 South	38 East		422	Producer	Producer
31 18 South	38 East		431	Producer	Producer
31 18 South	38 East		743	Producer	Producer
32 18 South	38 East		111	Producer	Producer
32 18 South	38 East		212	Producer	Infill Producer
32 18 South	38 East		232	Producer	•
					Producer
32 18 South	38 East		312	Producer	Infill Producer
32 18 South	38 East		313	Producer	Producer
32 18 South	38 East		321	Injector	Infill Producer
32 18 South	38 East		331	Injector	Producer
32 18 South	38 East		332	Injector	Infill Producer
32 18 South	38 East		411	Producer	Producer
32 18 South	38 East		421	Producer	Producer
32 18 South	38 East		422	Producer	Infill Producer
32 18 South	38 East		424	Producer	Producer
32 18 South	38 East		512	Producer	Producer
32 18 South	38 East		531	Producer	Infill Producer
32 18 South	38 East		541	Producer	Producer
32 18 South	38 East		542	Producer	Producer
32 18 South	38 East		913	Producer	Producer
33 18 South	38 East		114	Producer	Producer
33 18 South	38 East		123	Producer	Producer
33 18 South	38 East		212	Injector	Infill Producer
33 18 South	38 East		221	Injector	Infill Producer
33 18 South	38 East		511	Producer	Producer
36 18 South	37 East		311	Producer	Infill Producer
36 18 South	37 East		411	TA Inj	Producer
36 18 South	37 East		421	TA Prod	Infill Producer
13K 18 South	37 East	N/A			New Producer
13M 18 South	37 East	N/A			New Producer
13MN 18 South	37 East	N/A			New Producer
13N 18 South	37 East	N/A			New Producer
13O 18 South	37 East	N/A			New Producer
13P 18 South	37 East	N/A			New Producer
18M 18 South	38 East	N/A			New Producer
18N 18 South	38 East	N/A			New Producer
18O 18 South	38 East	N/A			New Producer
19B 18 South	38 East	N/A			New Producer
19C 18 South	38 East	N/A			New Producer
19C 18 South	38 East	N/A			
19J 18 South	38 East	N/A			New Producer
19K 18 South		N/A			New Producer
	38 East				New Producer
19L 18 South	38 East	N/A		Dhomasad	New Producer
20J 18 South	38 East	331A		Plugged	New Producer
20O 18 South	38 East	N/A			New Producer

24I 18 South	37 East	N/A	New Producer
24J 18 South	37 East	N/A	New Producer
25A 18 South	37 East	N/A	New Producer
25B 18 South	37 East	N/A	New Producer
29F 18 South	38 East	N/A	New Producer
29G 18 South	38 East	N/A	New Producer
29H 18 South	38 East	N/A	New Producer
29J 18 South	38 East	N/A	New Producer
29M 18 South	38 East	N/A	New Producer
30D 18 South	38 East	N/A	New Producer
30I 18 South	38 East	N/A	New Producer
30J 18 South	38 East	N/A	New Producer
30K 18 South	38 East	N/A	New Producer
30L 18 South	38 East	N/A	New Producer
30N 18 South	38 East	N/A	New Producer
30P 18 South	38 East	N/A	New Producer
31G 18 South	38 East	321A	New Producer
31J 18 South	38 East	N/A	New Producer
32B 18 South	38 East	N/A	New Producer
32E 18 South	38 East	N/A	New Producer
32G 18 South	38 East	N/A	New Producer

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505



APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage Application qualifies for administrative approval? Yes No						
П.	OPERATOR: Occidental Permian Limited Partnership						
	ADDRESS: P.O. Box 4294 Houston, TX 77210-4294						
	CONTACT PARTY: Richard E. Foppiano, Rm. 320D, WL2 PHONE: (281) 552-1303						
Ш	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? X Yes No If yes, give the Division order number authorizing the project: R-6199 (11/30/79)						
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.						
VI.	Attach a tabulation of data on all wells of public record within the area of review which 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.						
VIL	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.). 						
*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 (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/1 or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.						
IX.	Describe the proposed stimulation program, if any.						
* X.	Attach appropriate logging and text data on the well. (If well logs have been filed with the Division they need not be submitted).						
*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.						
XIL	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.						
XIII.	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: Richard E. Foppiano TITLE: Senior Advisor - Reg. Affairs						
	SIGNATURE: DATE: August 8, 2001						
* .	If the information required under Section VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. Bearing October 3, 1979; Case No. 6653, Order No. R-6199, effective November 30, 1979						

North Hobbs Unit CO2 Project Area

