CASE 7202: LAYTON ENTERPRISES, INC. FOR A WATERFLOOD PROJECT, ROOSEVELT COUNTY, NEW MEXICO

Sec. 1

1.

1.1

CASE NO.

7202

APPIICATION, Transcripts, Small Exhibits, ETC.



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

POST OFFICE BY # STATE LAND (744-3.5.5) SANTA FE, NEW ME #-15051 827-2434

May 1, 1981

Mr. George Hunker Hunker-Fedric Attorneys at Law Post Office Box 1837 Roswell, New Mexico 88201 Re: CASE NO. 7202 ORDER NO. R-6677

Applicant:

Layton Entarprises, Inc.

Dear Sir:

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

purs very truly, JOE D. RAMEY Director

JDR/fd

Copy of order also sent to:

Hobbs OCD Artesia OCD Aztec OCD

Other

Í

Page 2 of 4

Examiner Hearing - Wednesday - March 25, 1981

CASE 7200: Application of Estovil Producing Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Belco Fed. Well No. 1 located in Unit O of Section 15, Township 23 South, Range 34 East, to produce gas and gas liquids from the Strawn and Morrow formations, Antelope Ridge Field, thru parallel strings of tubing.

<u>CASE 7201</u>: Application of Layton Enterprises, Inc. for a unit agreement, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Todd Lower San Andres Unit Area, comprising 3256 acres, more or less, of Federal and State lands in Township 7 South, Ranges 35 and 36 East.

- CASE 7202: Application of Layton Enterprises, Inc. for a waterflood project. Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the San Andres formation thru 4 injection wells located in Sections 30, 31 and 32 of its Todd Lower San Andres Unit in Township 7 South, Range 36 East.
- CASE 7203: Application of Southern Union Exploration Co. of Texas for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the Susco Bough "C" Unit Area, comprising 2560 acres, more or less, of State lands in Township 10 South, Range 33 East.
- <u>CASE 7204</u>: Application of Bass Enterprises Production Company for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Delaware formation in the interval from 3820 feet to 3915 feet in its Federal Legg Well No. 1 in Unit B of Section 27, Township 22 South, Range 30 East, Quahada Ridge Field.
- CASE 7205: Application of Supron Energy Corporation for a non-standard gas proration unit, San Juan County, New Mexico. Applicant, in the above styled cause, seeks approval of a 160-acre non-standard Blanco Mesaverde gas proration unit comprising the NE/4 of Section 35, Township 31 North, Range 12 West, to be dedicated to a well to be drilled at a standard location thereon.
- CASE 7183: (Continued from March 11, 1931, Examiner Hearing)

Application of Flag-Redfern Oil Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill its Osudo St. Com Well No. 2 at an unorthodox location 990 feet from the North and East lines of Section 18, Township 20 South, Range 36 East, North Osudo-Morrow Gas Pool.

- CASE 7206: Application of Mobil Producing Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Devonian formation through perforations from 12,212 feet to 12,218 feet and the open hole interval from 12,240 feet to 12,355 feet in its Santa Fe Pacific Well No. 3 in Unit M of Section 26, Township 9 South, Range 36 East, Crossroads Field.
- CASE 7207: Application of Mobil Producing Inc. for lease commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the commingling of Vacuum Grayburg-San Andres production from the State J and State II leases in Section 22, Township 17 South, Range 34 East.
- CASE 7208: Application of Gulf Oil Corporation for the amendment of pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of the White City-Pennsylvanian Gas Fool Rules to provide for 320-acre spacing rather than 640 acres with well locations specified as being at least 1650 feet from the end boundary and 660 feet from the side boundary of the provision unit.
- CASE 7129: (Continued from February 25, 1981, Examiner Hearing)

Application of Koch Exploration Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the N/2 of Section 28, Township 28 North, Range 8 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

CASE 7169: (Continued from February 25, 1981, Examiner Hearing)

Application of Koch Exploration Company for compulsory pooling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Dakota formation underlying the S/2 of Section 22, Township 28 North, Range 8 West, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well, and a charge for risk involved in drilling said well.

	(G- 1) FresServ Gran		•			
_	An a Strang and a service and		и ж и на поло	J]	5	
			St	29		
	And	(Guif)		Franklin, Asten , Franklin, Asten 4663-0 4663-0 28 28 Ma Mass Franklin, U.S. 25-41.		AR. Delity Bost of 16
	é	17.77 - 71/2 71 - 71/2 72 - 72/2 82.0000 - 10 - 1- 74 - 63.0000 - 10 - 10 - 74 - 63.0000 - 10	Stete	Transford WWCT WWCT WWCT WWCT WWCT WWCT WWCT WWC	A Hannon E A Hannon 22 (Station Marrie - Ere Marrie - Ere Marrie - Ere Marrie - Ere	Trantin Trantin Trantin Trantin Trantin
	LL W Johnson	LB.Modgent Action 2.21-77 Land 2.21-77 Lan		Tranklin, Aston (1997) Stranklin, Aston (1997) Tranklin, Aston (1997)	e A la	Rent Vorte Anness In the the the Anness In the the the the the the Tentor Press P
	Kohhiern Com 1552 L Ling 1552	10 P 0 (1 2007) 10 E 1 276 1 23 2 5 5 5 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Sun Ar 10 (S L + Hygy 1 Sit Jone Sit Jone Sit Jone Sit Jone Sit Jone Sit Jone Sit Jone	Stannin (Teves) Agrin (Teves) astrict (Teves) astrict (Teves) astrict (Teves) astrict (Teves) (S. Ming Score) (S. Ming Scor	Micron For Micron For 24 1000 10	13 TL Ingrom Shire with U.S.
	Stote State	State St	Siver Non Normal State Non State Non State Non Normal State Normal Normal State Non Normal State Normal Normal State Normal Normal Normal State Normal Nor	Asten Franklin J. Kontoline J. Kontoline	Astor C. Fail- Astor C. Fail- C. Sa F C. Sa F	Star P (1338) Star P (1338) Star P (1338) Star P (1338) Star P (1338) Star P (1338)
4. So the second s second second sec second second sec	LW: Jinmang et al.	Alignitic A Kienergen A Kienergen A Kienergen Alignitic Alignit Alignitic Alignitic Alignitic Alignit	realin Allan K Bar K Bar Galey St. Frenklin Altan Galey St. Frenklin Altan Frenklin Alt	initian initia	Unit and Jumest Control of The States	Williammen(3) U. 1 Amese 100-1972 100-1972 100-1972 100-1972 11-172 11-
	J.A. Kverkergen, C.Hing Sarreiter etal	Citige Service Cities Service units in 23 and 16 a	R. Aston, elouty (2007) R. Aston, elouty (2007) R. Aston, elouty (2007) C. L. 10:00 C. L. 10:00 S. 10:10 S. 10:10 S. 10:10	Arten Arten Arten Collar Colla	Link Humble 1.18:00 1.18:00 1.18:00 2.1 2.1 2.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	Perton 16 DETENTION
	J.S.Sprinkle.ma J.S.Sprinkle.ma 14 15 16 17 16 17 16 16 16 16 16 16 16 16 16 16	Alaguerth LMC. Corp. cfal	o 3 4 1 EM Testan	Annard Frenkling Frankling Annard Frenkling Annard K. Malant Annard K. Malant A	Transition Transition	Au Pombe J E Wagers Sy Humble J Shert E Humble Hum
	IL STOLEN	And not y you pit			Humble Humb 10.1.1.77 Humb 13.19 Humble Agenton 13.1.77 Humble 13.1.77 Humble 13.1.77 Humb	Herner Herner

a state and the second











60 1201- 7202



and the second secon адалы но.<u>6 Ď</u> C. M. 7201 - 7202

.



ELECTION MANAGER MUSTER C RECEIVERATION DIVISION ECHIER NO. 574 CASE NO. 1201 - 7202





KB Elev. DF Elev.___ GL Elev._ * Datum TOC @ SUNFACE CEMENT RUE D. 18 -CEMENT PLUE 219-303 8-5 O.D., 24 WT, V-55 GRADE, LANDED AT 293, CMT'D. WITH 250 SX. CEMENT PLUG 1861- 1585 52" CASING STUR 1535 CEMENT PLUG \$067- \$285 PERFORATIONS 4232-85 PBTP \$301 520.D. 155WT, V.55 GRADE, LANDED AT \$306, CMT'D. WITH 250 SX. FRANKLIN, ASTON & FATIR WELL NAME & NO. LIVAUDAIS No 6 FIELD TODO EAS PILLES PBTD ______O/ COUNTY ROOSTVELT STATE NM TD <u>4306</u> LOCATION P-A 12 14-65

1201 - 1202



PERCENT FRAME BE MEDIAS CL COMMERTING LINES . Chus HO. 7201- 7202

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

> CASE NO. 7202 Order No. R-6677

APPLICATION OF LAYTON ENTERPRISES, INC. FOR A WATERFLOOD PROJECT, ROUSEVELT COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on <u>March 25, 1981</u>, at Santa Fe, New Mexico, before Examiner Daniel 5. Nutter.

NOW, on this <u>30th</u> day of April, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDSt

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Layton Enterprises, Inc., seeks Buthority to institute a waterflood project on its Todd Lower San Andres Unit Area, Todd-Lower San Andres Pool, by the injection of water into the San Andres formation through four injection wells in Sections 30, 31 and 32 of its Todd Lower San Andres Unit in Township 7 South, Range 36 East, NMPM, Roosevelt County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

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

(5) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection

-Z-Case No. 7202 Order No. K-6677

interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(6) That the injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 850 psi, but the Division Director should have authority to increase anid pressure limitation, should circumstances warrant.

(7) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Layton Enterprises, Inc., is hereby authorized to institute a waterflood project on its Todd Lower San Andres Unit Area, Todd-Lower San Andres Pool, by the injection of water into the San Andres formation through the followingdescribed wells in Township 7 South, Range 36 East, NMPM, Roosevelt County, New Mexico:

	Lease Name	Well No.	Unit Letter	Section	
	Liveudias	7	I	30	
i.	Habbe "R"	1	С	31	
	Atlantic-Smith	2	I	31	
	G ates State	2	С	32	

(2) That injection into each of said wells shall be through internally coated tubing, set in a packer which shall be located as near as practicable to the uppermost perforation; that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing or packer in any of said 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 timely steps as may be necessary or required to correct such failure or leakage.

(4) That the injection wells herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 850 psi,

=3= Case No. 7202 Opder No. 8-6677

SEĂL

fd/

provided howsver, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(5) That the subject waterflood project is hereby designated the Layton Todd Lower San Andres Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

(6) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in secondance with Rules 704 and 1115 of the Division Rules and Regulations.

(7) That 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 hereinabove designated.

STATE OF NEW MEXICO ON CONSERVATION DIVISION JOE D. RAMEY Director

UNIT AGREEMENT TODD LOWER SAN ANDRES UNIT COUNTY OF ROOSEVELT STATE OF NEW MEXICO



UNIT AGREEMENT TODD LOWER SAN ANDRES UNIT ROOSEVELT COUNTY, NEW MEXICO

ection	Index	P
	Preliminary Recitals	
1	Enabling Act and Regulations	
2	Unit Area and Definitions	
3	Exhibits	
4	Expansion	
3 4 5	Unitized Land	
	Unit Operator	
6 7	Resignation or Removal of Unit Operator	
8	Successor Unit Operator	
9	Accounting Provisions and Unit Operating Agreement.	
10	Recounting Provisions and unit Operating Agreement.	
10	Rights and Obligations of Unit Operator	
12	Plan of Operations	
13	Tract Participation	
14	Tracts Qualified for Participation	
5-A,B,C	Allocation of Unitized Substances	
16	Outside Substances	
17	Royalty Settlement	
18	Rental Settlement	
19	Conservation	
20	Drainage	
21	DOE Regulations	
22	Statutory Unitization	
23	Leases and Contracts Conformed and Extended	
24	Covenants Run With Land	
25	Effective Date and Term	
26	Rate of Prospecting, Development and Production	
27	Nondiscrimination	
28	Appearances	
29	Notices	
30	No Waiver of Certain Rights	
31	No Waiver of Certain Rights	
• -	Realty	
32	Unavoidable Delay	
33	Loss of Title	
34	Nonjoinder and Subsequent Joinder	
35		
	Counterparts	
36		
37	Taxes	
38	No Partnership	
39	rroduction as of the filective Date	
40	No Sharing of Market	

Exhibit "A" (Map of Unit Area) Exhibit "B" (Schedule of Ownership and Tract Participation) Exhibit "C" (Section 202 of Executive Order 11246)

UNIT AGREEMENT FOR THE DEVELOPMENT AND OPERATION OF THE TODD LOWER SAN ANDRES UNIT ROOSEVELT COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the _____ day of _____, 19__, by and between the parties subscribing, ratifying, or consenting hereto, and herein referred to as the "parties hereto,"

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty. or other oil and gas interests in the unit area subject to this agreement; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Secs. 181 et seq., authorizes Federal lessees and their representative to unite with each other, or jointly or separately with others, in collectively adopting and operating a cooperative or unit plan of development or operation of any oil or gas pool, field, or like area, or any part thereof for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Section 1, Chapter 88, Laws 1943, as amended by Section 1 of Chapter 176, Laws of 1961) (Chapter 19, Article 10, Section 45, New Mexico Statutes 1978 Annotated), to consent to and approve the development or operation of State lands under agreements made by lessees of State land jointly or severally with other lessees where such agreements provide for the unit operation or development of part of or all of any oil or gas pool, field or area; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Section 1, Chapter 88, Laws 1943, as amended by Section 1, Chapter 162, Laws of 1951) (Chapter 19, Article 10, Section 47, New Mexico Statutes 1978 Annotated) to amend with the approval of lessee, evidenced by the lessee's execution of such agreement or otherwise, any oil and gas lease embracing State lands so that the length of the term of said lease may coincide with the term of such agreements for the unit operation and development of part or all of any oil or gas pool, field or area; and

WHEREAS, the Oil Conservation Division of the State of New Mexico (hereinafter referred to as the "Division") is authorized by an Act of the Legislature (Chapter 72, Laws of 1935 as amended) (Chapter 70, Article 2, Section 2 et seq., New Mexico Statutes 1978 Annotated) to approve this agreement and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interest in the Unit Area covering the land hereinafter described to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operation of the area subject to this agreement under the terms, conditions, and limitations herein set forth;

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this agreement their respective interest in the below-defined unit area, and agree severally among themselves as follows:

SECTION 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of Feburary 25, 1920, as amended, supra, and all valid pertinent regulations, including operating and unit plan regulations, heretofore issued thereunder or valid, pertinent, and reasonable regulations hereafter issued thereunder are accepted and made a part of this agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the state in which the non-Federal land is located, are hereby accepted and made a part of this Agreement.

SECTION 2. UNIT AREA AND DEFINITIONS. For the purpose of this Agreement, the following terms and expressions as used herein shall mean:

(a) "Unit Area" is defined as those lands described in Exhibit "B" and depicted on Exhibit "A" hereof, and such land is hereby designated and recognized as constituting the Unit Area, containing 3,255.60 acres, more or less, in Roosevelt County, New Mexico.

(b) "Land Commissioner" is defined as the Commissioner of Public Lands of the State of New Mexico.

(c) "Division" is defined as the Oil Conservation Division of the Department of Energy and Minerals of the State of New Mexico.

(d) "Director" is defined as the Director of the United States Geological Survey.

(e) "Secretary" is defined as the Secretary of the Interior of the United States of America, or his duly authorized delegate.

(f) "Department" is defined as the Department of the Interior of the United States of America.

(g) "Supervisor" is defined as the Oil and Gas Supervisor of the United States Geological Survey for the area in which the Unit Area is situated.

(h) "Unitized Formation" shall mean that subsurface portion of the Unit Area commonly known as the lower San Andres formation, and which is the same formation that was encountered between the logged depths of 4235' (subsea elevation of -84') and 4286' (subsea elevation of -135') in Franklin, Aston & Fair, Incorporated's Val State Well No. 1 as shown on the Schlumberger Compensated Formation Density Log of said well dated January 7, 1967, which well is located 1980' FSL and 1980' FEL of Section 30, T-7-S, R-36-E, Roosevelt County, New Mexico.

(i) "Unitized Substances" are all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons, other than outside substances, within and produced from the Unitized Formation, of the Unitized Land.

(j) "Tract" is each parcel of land described as such and given a Tract number in Exhibit "B".

(k) "Tract Participation" is defined as the percentage of participation shown on Exhibit "B" for allocating Unitized Substances to a Tract under this Agreement.

(1) "Unit Participation" is the sum of the percentages obtained by multiplying the Working Interest of a Working Interest Owner in each Tract by the Tract Participation of such Tract.

(m) "Working Interest" is the right to search for, produce and acquire Unitized Substances whether held as an incident of ownership of mineral fee simple title, under an oil and gas lease, or otherwise held, which interest is chargeable with and obligated to pay or bear, either in cash or out of production, or otherwise, all or a portion of the cost of drilling, developing and producing the Unitized Substances from the Unitized Formation

-2-

and operations thereof hereunder. Provided that any royalty interest created out of a working interest subsequent to the execution of this Agreement by the owner of the working interest shall continue to be subject to such working interest burdens and obligations.

(n) "Working Interest Owner" is any party hereto owning a Working Interest, including a carried working interest owner, holding an interest in Unitized Substances by virtue of a lease, operating agreement, fee title or otherwise. The owner of oil and gas rights that are free of lease or other instrument creating a Working Interest in another shall be regarded as a Working Interest Owner to the extent of seven-eighths (7/8) of his interest in Unitized Substances, and as a Royalty Owner with respect to his remaining one-eighth (1/8) interest therein.

(o) "Royalty Interest" or "Royalty" is an interest other than a Working Interest in or right to receive a portion of the Unitized Substances or the proceeds thereof and includes the royalty interest reserved by the lessor or by an oil and gas lease and any overriding royalty interest, oil payment interest, net profit contracts, or any other payment or burden which does not carry with it the right to search for and produce unitized substances.

(p) "Royalty Owner" is the owner of a Royalty Interest.

(q) "Unit Operating Agreement" is the agreement entered into by and between the Unit Operator and the Working Interest Owners as provided in Section 9, infra, and shall be styled "Unit Operating Agreement, Todd Lower San Andres Unit, Roosevelt County, New Mexico".

(r) "Oil and Gas Rights" is the right to explore, develop and operate lands within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.

(s) "Outside Substances" is any substance obtained from any source other than the Unitized Formation and injected into the Unitized Formation.

(t) "Unit Manager" is any person or corporation appointed by Working Interest Owners to perform the duties of Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 7 hereof.

(u) "Unit Operator" is the party designated by Working Interest Owners under the Unit Operating Agreement to conduct Unit Operations.

(v) "Unit Operations" is any operation conducted pursuant to this Agreement and the Unit Operating Agreement.

(w) "Unit Equipment" is all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

(x) "Unit Expense" is all cost, expense, or indebtedness incurred by Working Interest Owners or Unit Operator pursuant to this Agreement and the Unit Operating Agreement for or on account of Unit Operations.

SECTION 3. EXHIBITS. The following exhibits are incorporated herein by reference: Exhibit "A" attached hereto is a map showing the Unit Area and the boundaries and identity of tracts and leases in said Unit Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each tract, percentages and kind of ownership of oil and gas interests in all land in the Unit Area, and Tract Participation of each Tract. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibit "C" attached hereto is the provisions of paragraphs 1 through 7 of Section 202 of Executive Order 11246. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes render such revision necessary or when requested by the Supervisor, and copies of such revision shall be filed with the Land Commissioner, and not less than seven copies shall be filed with the Supervisor.

SECTION 4. EXPANSION. The above described Unit Area may when practicable be expanded to include therein any additional Tract or Tracts regarded as reasonably necessary or advisable for the purposes of this Agreement. Such expansion shall be effected in the following manner:

(a) The Working Interest Owner or Owners of a Tract or Tracts desiring to bring such Tract or Tracts into this unit, shall file an application therefor with Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice of the proposed expansion to each Working Interest Owner in the Unit Area and in the Tract proposed to be included in the unit, setting out the basis for admission, the Tract Participation to be assigned to each Tract in the enlarged Unit Area and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if at least three Working Interest Owners having in the aggregate eighty percent (80%) Unit Participation then in effect have agreed to inclusion of such Tract or Tracts in the Unit Area, then Unit Operator shall:

(1) After obtaining preliminary concurrence by the Director, prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional Tract or Tracts, the Tract Participation to be assigned thereto and the proposed effective date thereof; and

(2) Deliver copies of said notice to the Land Commissioner, the Supervisor, each Working Interest Owner and to the lessee and lessor whose interests are affected, advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

(3) File, upon the expiration of said thirty (30) day period as set out in (2) immediately above with the Land Commissioner and Supervisor the following: (a) evidence of mailing or delivering copies of said notice of expansion; (b) an application for approval of such expansion; (c) an instrument containing the appropriate joinders in compliance with the participation requirements of Section 14, and Section 34, infra; and (d) a copy of all objections received along with the operator's response thereto.

The expansion shall, after due consideration of all pertinent information and approval by the Land Commissioner and the Supervisor, become effective as of the date prescribed in the notice thereof, preferably the first day of a month subsequent to the date of notice. The revised Tract Participation of the respective Tracts included within the Unit Area prior to such enlargement shall remain the same ratio one to another.

SECTION 5. UNITIZED LAND. All land committed to this Agreement as to the Unitized Formation shall constitute land referred to herein as "Unitized Land" or "Land subject to this Agreement". Nothing herein shall be construed to unitize, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Unitized Formation as defined in Section 2(h) of this Agreement.

-4-

SECTION 6. UNIT OPERATOR. LAYTON ENTERPRISES, INC. is hereby designated the Unit Operator, and by signing this instrument as Unit Operator, agrees and consents to accept the duties and obligations of Unit Operator for the operation, development, and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interests in Unitized Substances, when such interests are owned by it and the term "Working Interest Owner" when used herein shall include or refer to the Unit Operator as the owner of a Working Interest when such an interest is owned by it.

Unit Operator shall have a lien upon interests of Working Interest Owners in the Unit Area to the extent provided in the Unit Operating Agreement.

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, the Land Commissioner and the Supervisor unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period. The resignation or removal of Unit Operator shall not release Unit Operator from any liability for any default by it hereunder occurring prior to the effective date of its resignation or removal.

The Unit Operator shall, upon default or failure in the performance of its duties and obligations hereunder, be subject to removal by Working Interest Owners having in the aggregate seventy-five percent (75%) or more Unit Participation then in effect exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the Land Commissioner and the Supervisor.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter provided, the Working Interest Owners shall be jointly responsible for the performance of the duties of the Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a Unit Manager to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a Working Interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, books and records, materials, appurtenances and any other assets used in connection with the Unit Operations and used by the Working Interest Owners to the new duly qualified successor Unit Operator or to the Unit Manager if no such new Unit Operator is elected. Nothing herein shall be construed as authorizing the removal of any material, equipment or appurtenances needed for the preservation of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator or Unit Manager who resigns or is removed hereunder from any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners shall select a successor Unit Operator as herein provided. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the Land Commissioner and the Supervisor. If no successor Unit Operator or Unit Manager is selected and qualified as herein provided, the Land Commissioner and/or the Director, at their election, may declare this Agreement terminated.

-5-

In selecting a successor Unit Operator the affirmative vote of three or more Working Interest Owners having a total of sixtyfive percent (65%) of more of the total Unit Participation shall prevail; provided that if any one Working Interest Owner has a Unit Participation of more than thirty-five percent (35%), its negative vote or failure to vote shall not be regarded as sufficient unless supported by the vote of one or more other Working Interest Owners having a total Unit Participation of at least five percent (5%). If the Unit Operator who is removed votes only to succeed itself or fails to vote, the successor Unit Operator may be selected by the affirmative vote of the owners of at least seventy-five percent (75%) of the Unit Participation remaining after excluding the Unit Participation of Unit Operator so removed.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other contracts and such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by the Unit Operator and the Working Interest Owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Agreement shall prevail. Copies of any Unit Operating Agreement executed pursuant to this Section shall be filed with the Land Commissioner and with the Supervisor as required prior to approval of this Agreement.

SECTION 10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Upon request, acceptable evidence of title to said rights shall be deposited with said Unit Operator, and together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

SECTION 11. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances and that the object and purpose of this Agreement is to formulate and to put into effect an improved recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources. The parties hereto agree that the Unit Operator may, subject to the consent and approval of a Plan of Operation by the Working Interest Owners, the Supervisor, the Land Commissioner and the Division, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil, liguefied petroleum gases and any one or more other substances or combination of substances, whether produced from the Unitized Land or not, and that the location of input wells and the rates of injection therein shall be governed by standards of good geologic and petroleum engineering practices and conservation methods. Subject to like approval the Plan of Operation may be revised as conditions may warrant.

-6-

The initial Plan of Operation shall be filed with the Supervisor, the Land Commissioner and the Division concurrently with the filing of this Unit Agreement for final approval. Said initial plan of operations and all revisions thereof shall be as complete and adequate as the Supervisor, the Land Commissioner and the Division may determine to be necessary for timely operation consistent herewith. Upon approval of this Agreement and the initial plan by the Supervisor and Commissioner, said plan, and all subsequently approved plans, shall constitute the operating obligations of the Unit Operator under this Agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for like approval a plan for an additional specified period of operations. After such operations are commenced, reasonable diligence shall be exercised by the Unit Operator in complying with the obligations of the approved Plan of Operation.

Notwithstanding anything to the contrary herein contained, should the Unit Operator fail to commence Unit Operations for the secondary recovery of Unitized Substances from the Unit Area within eighteen (18) months after the effective date of this Agreement, or any extension thereof approved by the Supervisor, this Agreement shall terminate automatically as of the date of default.

SECTION 12. USE OF SURFACE AND USE OF WATER. The parties have to the extent of their rights and interests, hereby granted to Unit Operator the right to use as much of the surface of the Unitized Land as may reasonably be necessary for Unit Operations; provided that nothing herein shall be construed as leasing or otherwise conveying to the Unit Operator a site for water, gas injection or other plants or camp site.

Unit Operator shall have free use of water or brine or both from the Unitized Land for Unit Operations, except water from any well, lake, pond or irrigation ditch of a surface Owner, unless approval for such use is granted by the surface Owner.

Unit Operator shall pay the Owner for damages to growing crops, timber, fences, improvements and structures on the Unitized Land that result from Unit Operations, and such payments shall be considered as items of unit expense to be borne by all the Working Interest Owners of lands subject hereto.

SECTION 13. TRACT PARTICIPATION. In Exhibit "B" attached hereto there are listed and numbered the various Tracts within the Unit Area, and set forth opposite each Tract are figures which represent the Tract Participation, during Unit Operations if all Tracts in the Unit Area qualify as provided herein. The Tract Participation of each Tract as shown in Exhibit "B" was determined in accordance with the following formula:

Tract Participation = 70% A + 10% B + 10% C + 10% D

- Where A = Ratio of the barrels of ultimate primary oil determined to be producible from each Tract to the summation of the barrels of ultimate primary oil determined to be producible from all Tracts.
 - B = Ratio of the cumulative barrels of primary oil produced by each Tract as of January 1, 1979 to the summation of the cumulative barrels of primary oil produced by all Tracts as of January 1, 1979.
 - C = Ratio of the barrels of remaining primary oil of each Tract as of January 1, 1979 to the summation of the barrels of remaining primary oil of all Tracts as of January 1, 1979.
 - D = Ratio of the current production rate from each Tract during the calender year 1978 to the summation of the production rate from all Tracts during the calender year 1978.

In the event less than all Tracts are qualified on the Effective Date hereof, the Tract Participation shall be calculated on the basis of all such qualified Tracts rather than all Tracts in the Unit Area.

SECTION 14. TRACTS QUALIFIED FOR PARTICIPATION. On and after the Effective Date hereof, the Tracts within the Unit Area

which shall be entitled to participation in the production of Unitized Substances shall be those Tracts more particularly described in Exhibit "B" that corner or have a common boundary (Tracts separated only by a public road or a railroad right-ofway shall be considered to have a common boundary), and that otherwise qualify as follows:

(a) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this Agreement and as to which Royalty Owners owning seventy-five percent (75%) or more of the Royalty Interest have become parties to this Agreement.

(b) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this Agreement, and as to which Royalty Owners owning less than seventy-five percent (75%) of the Royalty Interest have become parties to this Agreement, and as to which (1) the Working Interest Owner who operates the Tract and at least seventy-five percent (75%) of all other Working Interest Owners in such Tract have joined in a request for the inclusion of such Tract, and as to which (2) owners of seventy-five percent (75%) of the combined Unit Participation in all Tracts that meet the requirements of Section 14(a) above have voted in favor of the inclusion of such tract.

(c) Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest have become parties to this Agreement, regardless of the percentage of Royalty Interest therein that is committed hereto; and as to which (1) the Working Interest Owner who operates the Tract and a total of seventy-five percent (75%) or more of the other Working Interest Owners in such Tract who have become parties to this Agreement have joined in a request for inclusion of such Tract, and have executed and delivered, or obligated themselves to execute and deliver an indemnity agreement indemnifying and agreeing to hold harmless the other owners of committed Working Interests, their successors and assigns, against all claims and demands that may be made by the owners of Working Interest in such Tract who are not parties to this Agreement, and which arise out of the inclusion of the Tract; and as to which (2) the owners of seventy-five percent (75%) of the Unit Participation in all Tracts that meet the requirements of Section 14(a) and 14(b) have voted in favor of the inclusion of such tract and to accept the indemnity agreement. Jpon the inclusion of such a Tract, the Tract Participations which would have been attributed to the non-subscribing owners of Working Interest in such Tract, had they become parties to this Agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in such Tract who have become parties to such agreements, and joined in the indemnity agreement, in proportion to their respective Working Interests in the Tract.

If on the Effective Date of this Agreement there is any Tract or Tracts which have not been effectively committed to or made subject to this Agreement by qualifying as above provided, then such Tract or Tracts shall not be entitled to participate hereunder. Unit Operator shall, when submitting this Agreement for final approval by the Land Commissioner and the Supervisor, file therewith a schedule of those tracts which have been committed and made subject to this Agreement and are entitled to participate in Unitized Substances. Said schedule shall set forth opposite each such committed Tract the lease number or assignment number, the owner of record of the lease, and the percentage participation of such tract which shall be computed according to the participation formula set forth in Section 13 (Tract Participation) above. This schedule of participation shall be revised Exhibit "C" and upon approval thereof by the Land Commissioner and the Supervisor, shall become a part of this Agreement and shall govern the allocation of production of Unitized Substances until a new schedule is approved by the Land Commissioner and Supervisor. SECTION 15.A. ALLOCATION OF UNITIZED SUBSTANCES. All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on unitized land for drilling, operating, camp and other production or development purposes and for injection or unavoidable loss in accordance with a Plan of Operation approved by the Supervisor) shall be apportioned among and allocated to the qualified tracts in accordance with the respective tract participations effective hereunder during the respective periods such unitized substances were produced, as set forth in the schedule of participation in Exhibit "B". The amount of unitized substances so allocated to each tract, and only that amount (regardless of whether it be more or less than the amount of the actual production of unitized substances from the well or wells, if any, on such tract) shall, for all intents, uses and purposes, be deemed to have been produced from such tract.

The unitized substances allocated to each tract shall be distributed among, or accounted for, to the parties entitled to share in the production from such tract in the same manner, in the same proportions, and upon the same conditions, as they would have participated and shared in the production from such tracts, or in the proceeds thereof, had this Agreement not been entered into; and with the same legal force and effect.

No tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of unitized substances.

If the working interest and/or the royalty interest in any tract are divided with respect to separate parcels or portions of such tract and owned now or hereafter in severalty by different persons, the Tract Participation shall in the absence of a recordable instrument executed by all owners and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the number of surface acres in each.

SECTION 15.B.1 OIL ALLOCATION TO TRACTS DURING PRICE CONTROLS. During the period when the price at which all or part of the oil produced from the Unit may be sold is controlled by laws, rules, regulations, or orders of the federal government or other governmental agency authorized by law permitting or requiring portions of such oil to be sold at different price levels, the total quantity of oil allocated each month in accordance with Section 15.A shall consist of Stripper Oil, Newly Discovered Oil, Upper-Tier Oil, and Lower-Tier Oil to be separately allocated to the several Tracts as follows:

SECTION 15.B.2.1 DEFINITIONS. As used in this Section 15.B only:

(a) Stripper Oil and Newly Discovered Oil are categories of oil that qualify for world prices under the applicable laws and regulations of the federal government.

(b) Imputed Stripper Gil. Under the regulations referred to in Section 15.B, a portion of the crude oil produced from the Unitized Formation may be classified as Stripper Oil if prior to the Effective Date a Tract has qualified as a stripper well lease. Any portion of such production of Unitized Substances which is permitted under said regulations and any amendments or interpretations thereof to be classified as Stripper Oil or Imputed Stripper Oil by reason of such qualification of such Tract before the Effective Date shall be apportioned to such Tract and for the purposes hereof shall be deemed Imputed Stripper Oil for such Tract.

(c) Imputed Newly Discovered Oil. Under the regulations referred to in Section 15.B, a portion of the crude oil produced from the Unitized Formation may be classified as Newly Discovered Oil if prior to the Effective Date a Tract has produced and sold as a Newly Discovered property lease. Any portion of such production of Unitized Substances which is permitted under said regulations and any amendments or interpretations thereof be classified as Newly Discovered Oil or Imputed Newly Discovered Stripper Oil by reason of such qualification of such Tract before the Effective Date shall be apportioned to such Tract and for the purposes hereof shall be deemed Imputed Newly Discovered Oil for such Tract.

(d) Upper-Tier Oil which includes New Oil is that which qualifies for sale at the Upper-Tier ceiling price under applicable laws and regulations of the federal government.

(e) Imputed Upper-Tier Oil for any Tract is the total number of barrels of Upper-Tier Oil produced from such Tract during the 12 months immediately preceding the Effective Date, divided by 12.

(f) Lower-Tier Oil (Old Oil) is oil which under applicable laws and regulations of the federal government may not be sold as Stripper Oil, Newly Discovered Oil or Upper-Lier Oil.

SECTION 15.B.2.2. TOTAL OIL TO BE ALLOCATED. The total quantity of oil produced and saved shall be allocated to the several Tracts as provided in Section 15.A.

SECTION 15.B.2.3. ALLOCATION OF STRIPPER OIL. The total quantity of oil which is permitted to be sold as Stripper Oil shall be allocated to the several Tracts as follows:

(a) Each Tract which produced Stripper Oil during the 12 months immediately preceding the Effective Date shall be allocated a quantity of Stripper Oil equal to the quantity of Imputed Stripper Oil for that Tract; provided, however, that if the total quantity of Stripper Oil for the Unit is less than the total quantity of Imputed Stripper Oil for all Tracts, the total quantity of Stripper Oil for the Unit shall be allocated to the several Tracts in proportion to the quantities of Imputed Stripper Oil for such Tracts.

(b) If the quantity of Stripper Oil allocated to any Tract exceeds the quantity of total oil allocated to such Tract in Section 15.B.2.2, the quantity of Stripper Oil allocated to such Tract shall be reduced to the quantity of total oil allocated in Section 15.B.2.2.

(c) Any remaining Stripper Oil shall be allocated to all Tracts which may have been allocated less Stripper Oil than the quantity of total oil allocated to such Tract in Section 15.B.2.2, in proportion to their respective Tract Participations.

(d) Steps (b) and (c) will be repeated, if necessary, until all Stripper Oil has been allocated and no Tract has been allocated more Stripper Oil than the amount of total oil allocated in Section 15.B.2.2.

SECTION 15.B.2.4. ALLOCATION OF NEWLY DISCOVERED OIL. The total quantity of oil which is permitted to be sold as Newly Discovered Oil shall be allocated to the several Tracts as follows:

(a) Each Tract which produced and sold as Newly Discovered Oil preceding the Effective Date shall be allocated a quantity of Newly Discovered Oil equal to the quantity of Imputed Newly Discovered Oil for that Tract; provided, however, that if the total quantity of Newly Discovered Oil for the Unit is less than the total quantity of Imputed Newly Discovered Oil for all Tracts, the total quantity of Newly Discovered Oil for the Unit shall be allocated to the several Tracts in proportion to the quantities of Imputed Newly Discovered Oil for such Tracts. (b) If the quantity of Newly Discovered Oil allocated to any Tract exceeds the quantity of total oil allocated to such Tract in Section 15.B.2.2 less the quantity of Stripper Oil allocated to each tract in Section 15.B.2.3, the quantity of Stripper Oil allocated to such Tract shall be reduced to the quantity of total oil allocated in Section 15.B.2.2.

(c) Any remaining Newly Discovered Oil shall be allocated to all Tracts which may have been allocated less Stripper Oil and Newly Discovered Oil than the quantity of total oil allocated to such Tract in Section 15.8.2.2, in proportion to their respective Tract Participations.

(d) Steps (b) and (c) will be repeated, if necessary, until all Newly Discovered Oil has been allocated and no Tract has been allocated more Newly Discovered Oil than the amount of total oil allocated in Section 15.B.2.2.

SECTION 15.B.2.5. ALLOCATION OF UPPER-TIER OIL. After all Stripper Oil has been allocated as provided in Section 15.B.2.3, and Newly Discovered Oil has been allocated as provided in Section 15.B.2.4, the total quantity of oil which is permitted to be sold as Upper-Tier Oil shall be allocated to the several Tracts as follows:

(a) Each Tract which produced Upper-Tier Oil during the 12 months immediately preceding the Effective Date shall be allocated a quantity of Upper-Tier Oil equal to the quantity of Imputed Upper-Tier Oil contributed by that Tract to the total quantity of Imputed Upper-Tier for the Unit; provided, however, that if the total quantity of Upper-Tier Oil for the Unit is less than the total quantity of Imputed Upper-Tier Oil for all Tracts, the total quantity of Upper-Tier Oil for the Unit shall be allocated to the several Tracts in proportion to the quantities of Imputed Upper-Tier Oil for such Tracts.

(b) If the quantity of Upper-Tier Oil allocated to any Tract exceeds the quantity of total oil allocated to such Tract in Section 15.B.2.2, less the quantity of Stripper Oil allocated to such Tract in Section 15.B.2.3, and less the quantity of Newly Discovered Oil allocated to each Tract in Section 15.B.2.4, the quantity of Upper-Tier Oil allocated to such Tract shall be reduced to the quantity of total oil allocated to such tract in Section 15.B.2.2, less the quantity of Stripper Oil allocated to such Tract in Section 15.B.2.3, and less the quantity of Newly Discovered Oil allocated to each Tract in Section 15.B.2.4.

(c) Any remaining Upper-Tier Oil shall be allocated to all Tracts which have been allocated less Stripper Oil, Newly Discovered Oil and Upper-Tier Oil than the quantity of total oil allocated in Section 15.B.2.2, in proportion to their respective Tract Participations.

(d) Steps (b) and (c) shall be repeated, if necessary, until all Upper-Tier Oil has been allocated and no Tract has been allocated more Upper-Tier Oil, Newly Discovered Oil and Stripper Oil than the quantity of total oil allocated in Section 15.B.2.2.

SECTION 15.B.2.6. ALLOCATION OF LOWER-TIER OIL. The quantity of Lower-Tier Oil allocated to each Tract shall be calculated by subtracting from the quantity of total oil allocated to such Tract in Section 15.B.2.2 the quantity of Stripper Oil allocated to such Tract in Section 15.B.2.3, the quantity of Newly Discovered Oil allocated to such Tract in Section 15.B.2.4, and the quantity of Upper-Tier Oil allocated to such Tract in Section 15.B.2.5. SECTION 15.B.2.7. AMENDMENT BY WORKING INTEREST OWNERS. This Section 15.B may be amended or deleted by vote of the Working Interest Owners using the voting procedure set out in Article 4.3 of the Unit Operating Agreement if in the opinion of the Working Interest Owners (a) application of Section 15.B as written becomes unworkable or inequitable as a result of changes in laws or regulations of any governmental agency pertaining to price controls, or (b) amendment or deletion of this Section 15.B is necessary to comply with applicable laws, rules, regulations, or orders of any governmental agency having jurisdiction.

SECTION 15.C. TAKING UNITIZED SUBSTANCES IN KIND. The Unitized Substances allocated to each Tract shall be delivered in kind to the respective Working Interest Owners and parties entitled thereto by virtue of the ownership of oil and gas rights therein. Each Working Interest Owner and the parties entitled thereto shall have the continuing right to receive such production in kind at a common point within the Unit Area and to sell or dispose of the same as it sees fit. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose on unitized land, provided the same are so constructed, maintained and operated as not to interfere with operations carried on pursuant hereto. Subject to Section 17 hereof, any extra expenditure incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party responsible therefor under the controlling lease or contract. In the event any Interest Owner shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unitized Formation currently as and when produced, then so long as such condition continues, Unit Operator, for the account and at the expense of the Working Interest Owner of the Tract or Tracts concerned, and in order to void curtailing the operation of the Unit Area, may, but shall not be required to, sell or otherwise dispose of such production to itself or to others on a day-to-day basis, provided that all contracts of sale by Unit Operator of any other party's share of Unitized Substances shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the circumstances, but in no event shall any such contract be for a period in excess of one year, and at not less than the prevailing market price in the area for like production, and the account of such Working Interest Owner shall be charged therewith as having received such production. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the Working Interest Owner of the Tract or Tracts concerned. Notwithstanding the foregoing, Unit Operator shall not make a sale into interstate commerce of any Working Interest Owner's share of gas production without first giving such Working Interest Owner sixty (60) days' notice of such intended sale.

Any Working Interest Owner receiving in kind or separately disposing of all or any part of the Unitized Substances allocated to any Tract, or receiving the proceeds therefrom if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all Royalty, Overriding Royalty and Production Payments due thereon, and each such party shall hold each other Working Interest Owner harmless against all claims, demands and causes of action by owners of such royalty, overriding royalty and production payments.

If, after the Effective Date of this Agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) hereof, or any Tract or Tracts within the Unit Area not committed hereto as of the Effective Date hereof but which are subsequently committed hereto under the provisions of Section 14 (Tracts Qualified for Participation) and Section 34 (Nonjoinder and Subsequent Joinder); or if any Tract is excluded from this Agreement as provided for in Section 33 (Locc of Title), the schedule of participation as shown in Exhibit "B" shall be revised by the Unit Operator; and the revised Exhibit "B", upon approval by the Land Commissioner and the Supervisor, shall govern the allocation of production on and after the effective date thereof until a revised schedule is approved as hereinabove provided. If the Unit Area is enlarged, the revised Tract Participations of the Tracts which were within the Unit Area prior to the enlargement shall remain in the same ratio one to another.

SECTION 16. OUTSIDE SUBSTANCES. If gas obtained from formations not subject to this Agreement is introduced into the Unitized Formation for use in repressuring, stimulating of production or increasing ultimate recovery which shall be in conformity with a Plan of Operation first approved by the Land Commissioner and the Supervisor, a like amount of gas with appropriate deduction for loss or depletion from any cause may be withdrawn from unit wells completed in the Unitized Formation royalty free as to dry gas, but not royalty free as to the products extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved Plan of Operator or as otherwise may be consented to or prescribed by the Land Commissioner and the Supervisor as conforming to good petroleum engineering practices and provided further that such right of withdrawal shall terminate on the termination date of this Agreement.

SECTION 17. ROYALTY SETTLEMENT. The State of New Mexico and United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the substances produced from any Tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such Tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any Royalty due under the leases, except that such Royalty shall be computed on Unitized Substances as allocated to each Tract in accordance with the terms of this Agreement. With respect to Federal leases committed hereto on which the royalty rate depends upon the daily average production per well, such average production shall be determined in accordance with the operating regulations pertaining to Federal leases as though the committed Tracts were included in a single consolidated lease.

If the amount of production or the proceeds thereof accruing to any Royalty Owner (except the United States of America) in a Tract depends upon the average production per well or the average pipeline runs per well from such Tract during any period of time, then such production shall be determined from and after the effective date hereof by dividing the quantity of Unitized Substances allocated hereunder to such Tract during such period of time by the number of wells located thereon capable of producing Unitized Substances as of the Effective Date hereof, provided that any Tract not having any well so capable of producing Unitized Substances on the Effective Date hereof shall be considered as having one such well for the purpose of this provision.

All Royalty due the State of New Mexico and the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the respective Tract or Tracts committed hereto, in lieu of actual production from such Tract or Tracts.

Each Royalty Owner (other than the State of New Mexico and the United States of America) that executes this Agreement represents and warrants that it is the owner of a Royalty Interest in a Tract or Tracts within the Unit Area as its interest appears in Exhibit "B" attached hereto. If any Royalty Interest in a Tract or Tracts should be lost by title failure or otherwise in whole or in part, during the term of this Agreement, then the Royalty Interest of the party representing himself to be the owner thereof shall be reduced proportionately and the interests of all parties shall be adjusted accordingly. SECTION 18. RENTAL SETTLEMENT. Rentals or minimum Royalties due on the leases committed hereto shall be paid by Working Interest Owners responsible therefor under existing contracts, laws and regulations provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum Royalty in lieu thereof, due under their leases. Rental for lands of the State of New Mexico subject to this Agreement shall be paid at the rate specified in the respective leases from the State of New Mexico. Rental or minimum Royalty for lands of the United States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America, unless such rental or minimum Royalty is waived, suspended or reduced by law or by approval of the Secretary or his duly authorized representative.

SECTION 19. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to Federal and State laws and regulations.

SECTION 20. DRAINAGE. The Unit Operator shall take appropriate and adequate measures to prevent drainage of Unitized Substances from unitized land by wells on land not subject to this Agreement.

The Unit Operator, upon approval by the Working Interest Owners, the Supervisor and the Land Commissioner, is hereby empowered to enter into a borderline agreement or agreements with working interest owners of adjoining lands not subject to this Agreement with respect to operation in the border area for the maximum economic recovery, conservation purposes and proper protection of the partics and interest affected.

SECTION 21. DOE REGULATIONS. Working Interest Owners agree to release Unit Operator from any and all losses, damages, injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Unit Operator's interpretation or application of rules, rulings, regulations or orders of the Department of Energy or predecessor agencies to the extent Unit Operator's interpretation or application of such rules, rulings, regulations or orders were made in good faith. Working Interest Owners further agree to reimburse Unit Operator for their proportionate share of any amounts Unit Operator may be required to refund, rebate or pay as a result of an incorrect interpretation or application of the above noted rules, rulings, regulations or orders, together with their proportionate part of interest and penalties owing by Unit Operator as a result of such incorrect interpretation or application of such rules, rulings, regulations or orders.

SECTION 22. STATUTORY UNITIZATION. If and when Working Interest Owners owning at least seventy-five percent (75%) of the Unit Participation and Royalty Owners owning at least seventy-five percent (75%) of the Royalty Interest have become parties to this Agreement or have approved this Agreement in writing and such Working Interest Owners have also become parties to the Unit Operating Agreement, Unit Operator may make application to the Division for statutory unitization of the uncommitted interests pursuant to the Statutory Unitization Act (Chap. 70, Art. 7, N.M.S. 1978 Ann.). If such application is made and statutory unitization is approved by the Division, then effective as of the date of the Division's order approving statutory unitization, this Agreement and/or the Unit Operating Agreement shall automatically be revised and/or amended in accordance with the following:

(1) Section 14 of this Agreement shall be revised by substituting for the entire said section the following:

"SECTION 14. PARTICIPATION. On and after the Effective Date hereof, all Tracts within the Unit Area shall be entitled to participation in the production of Unitized Substances." (2) Section 25 of this Agreement shall be revised by substituting for the first three paragraphs of said section the following:

"SECTION 25. EFFECTIVE DATE AND TERM. This Agreement shall become effective on the first day of the calendar month next following the effective date of the Division's order approving statutory unitization upon the terms and conditions of this Agreement, as amended (if any amendment is necessary) to conform to the Division's order; approval of this Agreement, as so amended, by the Land Commissioner; and the filing by Unit Operator of this Agreement or notice thereof for record in the office of the County Clerk of Roosevelt County, New Mexico. Unit Operator shall not file this Agreement or notice thereof for record, and hence this Agreement shall not become effective, unless within ninety (90) days after the date all other prerequisites for effectiveness of this Agreement have been satisfied, such filing is approved by Working Interest Owners owning a combined Unit Participation of at least sixty-five percent (65%) as to all Tracts within the Unit Area.

"Unit Operator shall, within thirty (30) days after the Effective Date of this Agreement, file for record in the office of the County Clerk of Roosevelt County, New Mexico, a certificate to the effect that this Agreement has become effective in accordance with its terms, therein identifying the Division's order approving statutory unitization and stating the Effective Date."

(3) This Agreement and/or the Unit Operating Agreement shall be amended in any and all respects necessary to conform to the Division's order approving statutory unitization.

Any and all amendments of this Agreement and/or the Unit Operating Agreement that are necessary to conform said agreements to the Division's order approving statutory unitization shall be deemed to be hereby approved in writing by the parties hereto without any necessity for further approval by said parties, except as follows:

(a) If any amendment of this Agreement has the effect of reducing any Royalty Owner's participation in the production of Unitized Substances, such Royalty Owner shall not be deemed to have hereby approved the amended agreement without the necessity of further approval in writing by said Royalty Owner; and

(b) If any amendment of this Agreement and/or the Unit Operating Agreement has the effect of reducing any Working Interest Owner's participation in the production of Unitized Substances or increasing such Working Interest Owner's share of Unit Expense, such Working Interest Owner shall not be deemed to have hereby approved the amended agreements without the necessity of further approval in writing by said Working Interest Owner.

SECTION 23. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Secretary and the Land Commissioner, respectively, shall and by their approval hereof, or by the approval hereof by their duly authorized representatives, do hereby establish, alter, change or revoke the drilling, producing, rental, minimum Royalty and Royalty requirements of Federal and State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following: (a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each part or separately owned Tract subject to this Agreement, regardless of whether there is any development of any particular part or Tract of the Unit Area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling, producing or improved recovery operations performed hereunder shall be deemed to be performed upon and for the benefit of each Tract, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.

(c) Suspension of drilling or producing operations on all unitized lands pursuant to direction or consent of the Land Commissioner and the Secretary, or their duly authorized representatives, shall be deemed to constitute such suspension pursuant to such direction or consent as to each Tract of unitized lands.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development, or operation for oil and gas which by its terms might expire prior to the termination of this Agreement, is hereby extended beyond any such term so provided therein, so that it shall be continued in full force and effect for and during the term of this Agreement.

(e) Any lease embracing lands of the State of New Mexico which is made subject to this Agreement shall continue in force beyond the term provided therein as to the lands committed hereto until the termination hereof.

(f) Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto shall be segregated as to that portion committed and that not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the effective date hereof. Provided, however, that notwithstanding any of the provisions of this Agreement to the contrary, such lease (including both segregated portions) shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease if oil or gas is, or has heretofore been discovered in paying quantities on some part of the lands embraced in such lease committed to this Agreement or, so long as a portion of the Unitized Substances produced from the Unit Area is, under the terms of this Agreement, allocated to the portion of the lands covered by such lease committed to this Agreement, or, at any time during the term hereof, as to any lease that is then valid and subsisting and upon which the lessee or the Unit Operator is then engaged in bona fide drilling, reworking, or improved recovery operations on any part of the lands embraced in such lease, then the same as to all lands embraced therein shall remain in full force and effect so long as such operations are diligently prosecuted, and if they result in the production of oil or gas, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

(g) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Section 17(j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any (Federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the Effective Date of unitization; provided, however, that any such lease as to the nonunitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in Paying Quantities." SECTION 24. COVENANTS RUN WITH LAND: The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereundar by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer;

SECTION 25. EFFECTIVE DATE AND TERM. This Agreement shall become binding upon each party who executes or ratifies it as of the date of execution or ratification by such party and shall become effective on the first day of the calendar month next following the approval of this Agreement by the Supervisor, the Land Commissioner and the Commission.

If this Agreement does not become effective on or before April 1, 1981, it shall ipso facto expire on said date (hereinafter called "expiration date") and thereafter be of no further force or effect, unless prior thereto this Agreement has been executed or ratified by Working Interest Owners owning a combined Participation of at least eighty percent (80%); and at least seventy-five percent (75%) of such Working Interest Owners committed to this Agreement have decided to extend said expiration date for a period not to exceed one (1) year (hereinafter called "extended expiration date"). If said expiration date is so extended and this Agreement does not become effective on or before said extended expiration date, it shall ipso facto expire on said extended expiration date and thereafter be of no further force and effect.

Unit Operator shall file for record within thirty (30) days after the Effective Date of this Agreement, in the office where a counterpart of this Agreement is recorded, a certificate to the effect that this Agreement has become effective according to its terms and stating further the effective date.

The terms of this Agreement shall be for and during the time that Unitized Substances are produced from the unitized land and so long thereafter as drilling, reworking or other operations (including improved recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days unless sooner terminated as herein provided.

This Agreement may be terminated with the approval of the Land Commissioner and the Supervisor by Working Interest Owners owning eighty percent (80%) of the Unit Participation then in effect whenever such Working Interest Owners determine that Unit Operations are no longer profitable, or in the interest of conservation. Upon approval, such termination shall be effective as of the first day of the month after said Working Interest Owners' determination. Notice of any such termination shall be filed by Unit Operator in the office of the County Clerk of Roosevelt County, New Mexico, within thirty (30) days of the effective date of termination.

Upon termination of this Agreement, the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate Tracts just as if this Agreement had never been entered into.

If not otherwise provided by the leases unitized under this Agreement, Royalty Owners hereby grant Working Interest Owners a period of six months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations. SECTION 26. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The Director is hereby vested with authority to alter or modify from time to time, in his discretion, the rate of prospecting and development and within the limits made or fixed by the Commissioner to alter or modify the quantity and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification; provided, further, that no such alteration or modification shall be effective as to any land of the State of New Mexico as to the rate of prospecting and development in the absence of the specific written approval thereof by the Land Commissioner and as to any lands in the State of New Mexico or privately-owned lands subject to this Agreement or to the quantity and rate of production from such lands in the absence of specific written approval thereof by the Division.

Powers in this Section vested in the Director shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice, and thereafter subject to administrative appeal before becoming final.

SECTION 27. NONDISCRIMINATION. Unit Operator in connection with the performance of work under this Agreement relating to leases of the United States, agrees to comply with the clauses set forth in Exhibit "C" attached hereto and made a part hereof.

SECTION 28. APPEARANCES. Unit Operator shall have the right to appear for or on behalf of any interests affected hereby before the Land Commissioner, the Department, and the Division, and to appeal from any order issued under the rules and regulations of the Land Commissioner, the Department or the Division, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Land Commissioner, the Department or the Division or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his or its own expense to be heard in any such proceeding.

SECTION 29. NOTICES. All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid certified or registered mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 30. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State wherein said Unitized Lands are located, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive; provided, however, each party hereto covenants that it will not resort to any action to partition the unitized land or the Unit Equipment.

SECTION 31. EQUIPMENT AND FACILITIES NOT FIXTURES ATTACHED TO REALTY. Each Working Interest Owner has heretofore placed and used on its Tract or Tracts committed to this Agreement various well and lease equipment and other property, equipment and facilities. It is also recognized that additional equipment and facilities may hereafter be placed and used upon the Unitized Land as now or hereafter constituted. Therefore, for all purposes of this Agreement, any such equipment shall be considered to be personal property and not fixtures attached to realty. Accordingly, said well and lease equipment and personal property is hereby severed from the mineral estates affected
by this Agreement, and it is agreed that any such equipment and personal property shall be and remain personal property of the Working Interest Owners for all purposes.

SECTION 32. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue improved recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as, the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 33. LOSS OF TITLE. In the event title to any Tract of unitized land shall fail so as to render the Tract inoperable under this Agreement and the true owner cannot be induced to join this Agreement, such Tract shall be automatically regarded as not committed hereto as of the first day of the calendar month in which the failure of title is determined and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any Royalty, Working Interest or other interest subject thereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided, that as to State or Federal land or leases, no payments of funds due the State of New Mexico or the United States of America shall be withheld, but such funds shall be deposited as directed by the Land Commissioner and/or the Supervisor (as the case may be), to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

SECTION 34. NONJOINDER AND SUBSEQUENT JOINDER. Joinder by any Royalty Owner, at any time, must be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty Owner to be regarded as effectively committed. Joinder to this Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as effectively committed to this Agreement.

Any oil or gas interest in the Unitized Formations not committed hereto prior to submission of this Agreement to the Land Commissioner and the Supervisor for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Section and of Section 14 (Tracts Qualified for Participation) hereof, at any time up to the effective date hereof on the same basis of participation as provided in said Section 14, by the owner or owners thereof subscribing, ratifying, or consenting in writing to this Agreement and, if the interest is a Working Interest, by the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that from and after the Effective Date hereof the right of subsequent Joinder as provided in this Section shall be subject to such requirements or approvals and on such basis as may be agreed upon by Working Interest Owners owning not less than sixty-five percent (65%) of the Unit Participation then in effect, and approved by the Land Commissioner and Supervisor. Such subsequent joinder by a proposed Working Interest Owner must be evidenced by his execution or ratification of this Agreement and the Unit Operating Agreement and, where State or Federal land is involved, such Joinder must be approved by the Land Commissioner or Supervisor. Such Joinder by a proposed Royalty Owner must be evidenced by his execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder in behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent joinder to this Agreement shall be effective as of the first day of the month following the filing with the Land Commissioner and the Supervisor of duly executed counterparts of any and all documents necessary to establish effective commitment of any Tract or interest to this Agreement, unless objection to such joinder by the Land Commissioner or the Supervisor is duly made sixty (60) days after such filing.

SECTION 35. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing, specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the land within the described Unit Area.

SECTION 36. JOINDER IN DUAL CAPACITY. Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests owned or controlled by such party; provided, that if the party is the owner of a Working Interest, he must also execute the Unit Operating Agrocement.

SECTION 37. TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the unitized land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No taxes shall be charged to the United States or to the State of New Mexico, nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 38. NO PARTNERSHIP. The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligation as herein provided.

SECTION 39. PRODUCTION AS OF THE EFFECTIVE DATE. Unit Operator shall make a proper and timely gauge of all leases and other tanks within the unitized land in order to ascertain the amount of merchantable oil above the pipeline connection in such tanks as of the effective date hereof. All such oil which has then been produced in accordance with established allowables shall be and remain the property of the Interest Owner entitled thereto, the same as if the unit had not been formed; and the responsible Working Interest Owner shall promptly remove said oil from the unitized land. Any such oil not so removed shall be sold by Unit Operator for the account of such Working Interest Owners, subject to the payment of all Royalty to Royalty Owners under the terms hereof. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances produced after Effective Date hereof.

If, as of the Effective Date hereof, any Tract is over-produced with respect to the allowable of the wells on that Tract and the amount of over-production has been sold or otherwise disposed of, such over-production shall be regarded as a part of the Unitized Substances produced after the Effective Date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract. SECTION 40. NO SHARING OF MARKET. This Agreement is not intended to provide and shall not be construed to provide, directly or indirectly, for any cooperative refining, joint sale or marketing of Unitized Substances.

Attest:	"UNIT OPERATOR" LAYTON ENTERPRISES, INC.
Secretary	By Don R. Layton, President
Secretary	Don R. Layton, President
Date	_
Attest:	TRINITY RESOURCES, INC.
Secretary	ByPresident
Date	
Attest:	HANOVER PETROLEUM CORPORATION
Secretary	ByPresident
Date	—
Attest:	HARVARD & LeMAY EXPLORATION LTD. 1976A
Secretary Date	
Attest:	DEVACQ LTD.
Secretary	By
Date	
Date	LaDORA LUCAS
Attest:	GETTY OIL COMPANY
	By
Secretary	
Date	-

-21-

Attest:

Secretary
Date

Attest:

Secretary
Date_____

Attest:

Secretary

Date____

Attest:

Secretary Date

Attest:

Secretary

Date_____

Attest:

Secretary Date_____

AMOCO PRODUCTION COMPANY

By_____ SUN OIL COMPANY By_____ TEXACO, INC. By_____ GULF OIL CORPORATION By_____ MONUMENT ENERGY CORPORATION Ву_____ SOUTHWESTERN, INC. Ву_____

-22-

STATE OF	TEXAS)	
COUNTY OF	LUBBOCK)	SS

	The foregoing instrument was acknowledged before me this	day
of	, 1980, by Don R. Layton President	
of	LAYTON ENTERPRISES, INC., a Texas corporation, for and on behalf	of
	ld corporation	<u> </u>

My commission expires:	Notary Public
STATE OF) COUNTY OF) ss	
The foregoing instrument w	as acknowledged before me this
My commission expires:	Notary Public
STATE OF) ss COUNTY OF)	
The foregoing instrument w day of, 1980, by of	as acknowledged before me this,,
My commission expires:	Notary Public
STATE OF) COUNTY OF) ss	
The foregoing instrument w day of, 1980, by _ of	as acknowledged before me this

My commission expires:

Notary Public

COUNTY OF)	
day of, 1980, by	was acknowledged before me this
My commission expires:	Notary Fublic
STATE OF) COUNTY OF) ss	
The foregoing instrument v day of, 1980, by _ of	was acknowledged before me this,
My commission expires:	Notary Public
day of, 1980, by _ of	was acknowledged before me this,
My commission expires:	Notary Public
day of, 1980, by _	was acknowledged before me this,

STATE OF)	
COUNTY OF) ss	
day of, 1980, by of	s acknowledged before me this
My commission expires:	Notary Public
STATE OF) ss	
day of , 1980, by	s acknowledged before me this
of	· · · · · · · · · · · · · · · · · · ·
My commission expires:	Notary Public
STATE OF) COUNTY OF) ss	
day of, 1980, by	s acknowledged before me this,
	•
My commission expires:	Notary Public
STATE OF) ss COUNTY OF) ss	
	a colonged before the thick
day of, 1980, by of	s acknowledged before me this,
My commission expires:	Notary Public
- •	



				EXHIB TODD ROOSE	EXHIBIT "B" TO UNIT AGREEMENT TODD LOWER SAN ANDRIS UNIT ROOSEVELT COUNTY, NEV MEXICO	H.			
Tract No.	Lease Name, Description of Land and No. Acres	Serial No. & Lease Date	Lessee of Record	Basic Roy. & Percent	Overriding Royalty Owner & Percentage		Lower San Andres Production W.I. Ownership & Percentage	on le	Percent Unit Participation
FEDERAL	L LEASES:								
1.	Mark Federal #7 75-35E	LC 062529-A 12/1/51	Texaco, Inc.	USA 125%	R.	5% 2%	Petrol. Com of 76.25%)	- .19062500 C0	.2906636656
	Sec. 25: NE _x W ₂ SE _x (240)				W. J. Weaver Jack L. McClellan	.5% 1%	ity 8.7 Ard	4479687500	.6830596142
							LEG. 19/0A (6.25% of 76.25%)	.0476562500	.0726659164
								.0762500000	.1162654663
							Trinity Resources, Inc. (100% of 22.50%)	.2250000000	.34307 84250
							Lapora Lucus (100% of: 1.25%)	.0125000000	.01905 99125 1.52479 10000
1-A.	Mark Federal #6 75_358	LC 062529-A	Texaco, Inc.	USA 1 242	E. R. Kain W. J. Weaver	2% • 5%	Texaco, Inc. (100% of 25%)	2500000000)	.35844.15000
	Sec. 25: E½SE½ (80)				Jack L. McClellan	1%	Petrol. Cor of 57.1875%)	.1429687500	.20498:17328
							Trinity Kesources, inc. (58.75% of 57.1875%) - Harvard & LeMay Explor.	. 3359765625	.48171:7721
							(6.25% of 57.1875%) -	.0357421875	.05124:19332
							if 57.1875%)	.0571875000	.0819934931
							(100% of 16.8750%) -	.1687500000	.2419480125
							(100% of .9375%)	. 0093750000	$\frac{.0134415563}{1.4337660000}$
:	,								
					• <u> </u> 1				
		· · ·							
								1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

		2.	Tract
Linam "A" 7S-36E Sec. 19: SE'zSE'z (40)	Livaudais 7S-36E Sec. 30: Lots 1,2,3, 4, E ¹ 2W ² 2, E ¹ 2SE ¹ 2,SE ¹ 4,NE ¹ 2 (427.40)	Solsbery 7S-36E Sec. 29; Sl ³ 4;SE ³ 4 (40)	Lease Name, Lease Name, Description of Land and No. Acres
NM 0321281 11/1/62	NM ()139989-A 2 6/1/61	NM 050476 2/1/60	Seríal No. & Lease Date
Amoco Prod. Co.	Murphy Minerals Corp.	Featherstone Developmenć Corp.	Lessee of Record
USA 12½%	USA 125%	USA 12½%	EXHIBIT " TODD LOW ROOSEVELT Basic Roy. Ov & Percent. Ow
Richard L. and Barbara J. Peterson 1 Robert H. Hays H. A. Hackathan -2-	Marcel Livaudais, Jr. a Carol Black Livaudais	None	EXHIBIT "B" TO UNIT AGREEMENT TODD LOWER SAN ANDRES UNIT ROOSEVELT COUNTY, NEW MEXICO Roy. Overriding Royalty ent. Owner & Percentage
Getty Oil Company 242 242 242	and Hanover Petroleum Corp. 5% (PPI) (25% of 76.25%) Trinity Resources, Inc. (58.75% of 76.25%) Harvard & LeMay Explor. Ltd. 1976A (6.25% of 76.25%) Devacq Ltd. (10% of 76.25%) Trinity Resources, Inc. (100% of 22.50%) LaDora Lucas (100% of 1.25%)	Amoco Production Co.	Lower San Andres Production W.I. Ownership & Percentage
- 1.00000000	 .1906250000 .4479687500 .0476562500 .07625000000 .22500000000 .01250000000 	- 1.0000000000	1on
0.6430;10000	1.3113.65469 3.0816.543851 0.3278.66367 0.5245.86188 1.5478.88750 <u>0.085989375</u> <u>6.8791950000</u>	9.5022)70000	Percent Unit Partic Lpation

TOTAL FEDERAL ACREACE: ŝ 4-A. No. Tract Spradley 7S-36E Lease Name, Description of Land and No. Acres Sec. 29: WigSElg (80) 7S-36E Sec. 29: Saknuk, Suk (200) Peterson "A" 1,107.40 10/1/63 NM 0449372 Serial No. & Lease Date 11/1/62 NH 0321281 Co. Amoco Prod. Amoco Prod Co. Lessee of Record & Percent. Basic Roy. USA 12¹2% USA 124% EXHIBIT "B" TO UNIT AGREEMENT TODD LOWER SAN ANDRES UNIT ROOSEVELT COUNTY, NEW MEXICO Richard L. and Barbara J. Peterson Robert H. Hays Mrs. Wilton E. Spradley 1%(PPI)Amoco Production Co. Charles C. Langdon 1%(PPI) Overriding Royalty Owner & Percentage H. A. Hackatham မှ 1/2% 24% 24% Amoco Production Co. Lower San Andres Percentage W.I. Ownership & Percentage - 1.0000000000 - 1.000000000 3.9713150000 4.4760320000 Percert Unit Partic ipation

 7. State "AY" 7. State "AY"
State "AV" 7S-35E Sec. 36: N ¹ s, SE ¹ c (480) E-10047 5/15/56 Sun 011 Co. State N.M. None 12.5% Sun 011 Company 12.5% sun 011 Company . .

ې •	- . .	8-A.	8.	Tract No.
N.M. "CT" 78-35E Sec. 35: N ¹ 2, N ¹ 2SE ¹ 4 (400)		Atlantic 7S-36E Sec. 31: E\sW\ (80)	State "BC" 7S-36E Sec. 31: Lots 3,4 (74.11)	Lease Name, Description of Land and No. Acres
LG-1395 10/15/57	0G174 9/118/56	0G-174 9/18/56	06-174 9/18/56	Serial No. & Lease Date
Texaco, Inc.	Atlantic Richfield Co.	Atlantic Richfield Co.	Atlantic Richfield Co.	Lessee of Record
State N.M. 12.5%	State N.M. 12.5%	State N.M. 12.5%	State N.M. 12.5%	Basic Roy. Ov. 6 Percent. Ow
ነ 5 1	Atlantic Richffeld Co. 1/16 Grant M. Smith 1%	Atlantic Richfield Co. 12.5%		DUMER SAN ANDRES UNIT VELT COUNTY, NEW MEXICO Overriding Royalty Owner & Percentage
Texaco, Inc.	Hanover Petroleum Corp. (25% of 75%) Trinity Resources, Inc. (58.75% of 75%) Harvard & LeMay Explor. Ltd. 1976-A (6.25% of 75%) Devacq Ltd. (10% of 75%) Trinity Resources, Inc. (100% of 23.125%) LaDora Lucas (100% of 1.875%)	Monument Energy Corp. Southwestern, Inc. John Turner William Penn John Hill K. V. Dunn		Lower San Andres Production W.I. Ownership & Percentage
- 1.000	18; 046 075 231			t ion tage
1.0000000	.18750000 .44062500 .04687500 .07500000 .23125000	.56250000 .06250000 .12500000 .12500000 .12500000 .06250000	.50000000	
8.077280(1000	1.20130/6250 2.8230658687 0.3003261563 0.4805218500 1.4816093375 <u>0.120130625</u>	1.16531/3750 0.12947!3750 0.2589587500 0.2589587500 0.12947!3750 <u>0.12947!3750</u> <u>2.07167(0000</u>	0.3699815000 0.3699815000 0.7399710000	Percent Unit Participation

Hobbs 7S-361 Sec. 3 (160) (160)										
Description of Land Serial No. Lease of Lease of Basic Boy. Overstains Boy.lty Lover San Andres Production Percent Percent Hobb. "" 0c-1617 Getty 011 State N.M. Hobber " Hanver Percentem Corp. Percent - </th <th>0839113875 7129110000</th> <th>.01250000</th> <th>یں مع مول 1.25%)</th> <th></th> <th>-6-</th> <th></th> <th></th> <th></th> <th></th> <th>•</th>	0839113875 7129110000	.01250000	یں مع مول 1.25%)		-6-					•
Description of Land Serial No. Lease of Assic Roy. Overriding Royalty Lover San Andres Production Percent approximation Percent		.07625000 .22500000	of 76.25%) y Resources, % of 22.50%) Tucas	•						•
Description of Land Garial No. Lessee of Basic Roy. Overriding Royalty Lower San Andres Production Percentage W.1. Owner Shift & Fercentage Percentage Percentage<	0.31991:1648	.04765625	1970-A .25% of 76.25%) cq Ltd.							
Description of Land Serial No. Lessee of & Basic Roy. Description (Corp. 1) Lower San Andres Production Percent Partic Hobbs "2" Goc-1617 Getty 011 State N.M. State N.M. Hanover Partoleum Corp. 12/16/57 .2500000 0.22671 Sec. 19; SW43EV 12/16/57 Getty 011 State N.M. Getty 011 State N.M. Hanover Partoleum Corp. Harvard & LeMay Explor. 06520000 0.22671 Yal State Sec. 30; WpEy 00-1617 Getty 011 State N.M. Getty 011 State N.M. Getty 011 Co. 12.57 Hanover Petroleum Corp. Local 12/16/57 0652000 0.02860 0.02880 Yal State Sec. 30; WpEy 02-1617 Getty 011 State N.M. Getty 011 Co. 12.57 Hanover Petroleum Corp. Local 2570 of 5.2530 19062500 1.4546; Yal State 02-1617 Getty 011 State N.M. Getty 011 Co. 12.57 Hanover Petroleum Corp. Local 2570 of 7.2550; 19062500 1.4546; Yal State 02-1617 Getty 011 State N.M. Getty 012 of 7.6.255; 04765625 0.36366; <td>3.00717-13495</td> <td>.44796875</td> <td>B.75% of 76.25% ard & LeMay Exp</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>100)</td> <td>_</td>	3.00717-13495	.44796875	B.75% of 76.25% ard & LeMay Exp						100)	_
Description of Land Serial No. Lesse of Lasse Dete Basic Roy. Overriding Royalty Lover San Andres Production Percent Partic Hobb. "2" 79-36: Sec. 19: SW38k 00-1617 12/16/57 Getty 011 Co. State N.M. Getty 011 12.5X State N.M. Hanover Petroleum Corp. Harvard & LeMay Explor. 2500000 17/11412 Resources, Inc. 5ec. 30: W4Ey 06-1617 12/16/57 Getty 011 Co. State N.M. Getty 011 Co. 12.5X Hanover Petroleum Corp. Harvard & LeMay Explor. 0625000 0.0616 0625000 0.09666 0.0616 0.09666 Val State (160) 06-1617 12/16/57 Getty 011 Co. State N.M. Getty 011 Co. 12.5X Hanover Petroleum Corp. Ltd. 1976-A 0625000 0.09666 0625000 0.09666 0.0616 0.09666 Val State (160) 06-1617 02.5X Getty 011 12.5X State N.M. Getty 011 Co. 12.5X Hanover Petroleum Corp. (23.6 7 fo.25X) 0625000 0.09666 0625000 0.09666 0.0616 0.09666 Val State (160) 06-1617 12.5X Getty 011 Co. 12.5X Hanover Petroleum Corp. (100X of 76.25X) 1906200 1.4546: 44796875 1906250 1.4546: 44796875 04766825 0.30366 <t< td=""><td>1.2796486594</td><td>.19062500</td><td>Petroleum of 76.25%) Resources</td><td>1 5 7 % %</td><td></td><td></td><td>Murphy Minerals Corp.</td><td>نى</td><td>ares starte S-36E ec. 32: NW%</td><td>11. 7 5</td></t<>	1.2796486594	.19062500	Petroleum of 76.25%) Resources	1 5 7 % %			Murphy Minerals Corp.	نى	ares starte S-36E ec. 32: NW%	11. 7 5
Description of Land Serial No. Lessee of Lesse of Lesse Basic Roy. Overriding Royalty Lover San Andree Production W.I. Ownership 6 Percentage Percent Partic Hobbs "2" 75-36E OG-1617 12/16/57 Getty 011 Co. State N.M. 12.52 State N.M. Co. State N.M. 12.52 Hanover Petroleum Corp. Ltd. 136-A 2500000 Manover Petroleum Corp. Ltd. 136-A 0625000 0.24671 Val. State 75-36E 0G-1617 12/16/57 Getty 011 Go. State N.M. 12.52 Getty 011 L.2.52 State N.M. Labover Petroleum Corp. Ltd. 136-A 0625000 Devacq Ltd. 0625000 Co. 0.06467 Co. Val. State 75-36E 0G-1617 L2/16/57 Getty 011 Go. State N.M. L.2.52 Getty 011 Co. 12.52 Hanover Petroleum Corp. Ltd. 136-A 19002000 Co.28667 19002000 Co.28667 19002000 Co.28667 1902200 Labover Ltd. 1902200 Co.252 44796875 3.41849 Val. State 75-36E 0.12.52 0476525 0476525 0.36366 1400 0.02 of 72.2020 04765625 0.36366 1600 0.02 of 72.2020 2250000 1.71692 10002 of 72.2020 2250000 1.71692 <td>0.6953807250 7.6310980000</td> <td>.01250000</td> <td>.25%)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	0.6953807250 7.6310980000	.01250000	.25%)							
Description of Land Serial No. Lessee of Lessee of Acres Basic Roy. Overriding Royalty Lower San Andres Production Percent Partic Hobbs "Z" 0C-1617 Getty 011 State N.M. Ouner 6 Percentage W.I. Ownership 6 Percentage Partic Y5-56E 0C-1617 Getty 011 State N.M. I2.5X Hanover Patroleum Corp. 2500000 0.24671 Ys-36E 0C-1617 Getty 011 State N.M. I2.5X I2.5X<	1.7169970500	.22500000	2.50%)						a.	
Description of Land Serial No. Lessee of Encord Basic Roy. Overriding Royalty Lower San Andres Production Percentage Particl Hobbs "2" 0G-1617 Getty 011 State N.M. Percentage Hanover Patroleum Corp. 2500000 0.24671 75-36E 12/16/57 Go. 12.52 N.M. Finity Resources, Inc. 58750000 0.24671 Sec. 19: SM4SEk 0G-1617 Getty 011 State N.M. Getty 011 Co. 12.52 Hanover Patroleum Corp. 58750000 0.24671 75-36E 12/16/57 Go. 011 State N.M. Getty 011 Co. 12.52 Ltd. 1976-A 06250000 0.05160 75-36E 0G-1617 Getty 011 State N.M. Getty 011 Co. 12.52 Hanover Petroleum Corp. 1000000 0.09860 75-36E 0G-1617 Getty 011 State N.M. Getty 011 Co. 12.52 Hanover Petroleum Corp. 10000000 0.09860 7600 12.52 Co. 12.52	0.5818712225	.07625000								
 Description of Land Serial No. Lessee of Basic Roy. Overriding Royalty Lower San Andres Production and No. Acres 6 Lesse 0 Etc Record 6 Percentage V.I. Owner San Andres Production Particl Nobs "Z" OG-1617 Getty 011 State N.M. Sec. 19: SW4SE4 Val State OG-1617 Getty 011 State N.M. Sec. 30: W4E4 (160) Wals State OG-1617 Co. Getty 011 State N.M. Co. State N.	0.3636695140	.04765625	976-A 5% of 76.25%) Ltd.							
Image: Description of Land Serial No. Lessee of Record Basic Roy. Overriding Royalty Lower San Andres Production Percent Particle and No. Acres & Lesse Dite Record & Percent. Owner & Percentage W.I. Ownership & Percentage Particle Hobbs "Z" OG-1617 Getty 011 State N.M. Owner & Percentage Hanover Patroleum Corp. - .25000000 0.24671 7S-36E 12/16/57 Co. 12.5% I2.5% I2.5% I2.5% I2.5% I.d. 1976-A - .58750000 0.24671 Sec. 19: SW43E4 OG-1617 Getty 011 State N.M. Getty 011 Co. 12.5% I.d. 1976-A - .06250000 0.05167 Val State OG-1617 Getty 011 State N.M. Getty 011 Co. 12.5% Hanover Petroleum Corp. - .10000000 0.098680 Val State OG-1617 Getty 011 State N.M. Getty 011 Co. 12.5% Hanover Petroleum Corp. - .10000000 0.098680 Val State OG-1617 Getty 011 State N.M. Getty 011 Co. 12.5% Hanover Petroleum Corp.	3.4184934322	.44796875	f 76.25% eMay Exp						(101)	-
Description of Land Serial No. Lessee of & Basic Roy. Overriding Royalty Lower San Andres Production Percent Hobbs "Z" 7S-36E Sec. 19: SW4SE% OG-1617 12/16/57 Getty Oil Co. State N.M. 12.5% Owner & Percentage Hanover Patroleum Corp. Trinity Resources, Inc. Ltd. 1976-A 2500000 58750000 0.24671 0.57970 Vol Central OG-1617 (0.57) Getty Oil Co. State N.M. 12.5% Hanover Patroleum Corp. Trinity Resources, Inc. 58750000 2500000 0.57970 0.24671 0.58750000 0.24671 0.57970 Vol Central 0.24671 12.5% 12.5% 10000000 0.06167 0.24671 0.00000 0.37970	1.4546780563	.19062500	Petroleum Corp. of 76.25%) Resources. Inc.	12,5%	y 011		ty	0G-1617 12/16/57		
Description of LandSerial No.Lessee of Lessee of & Lessee of & Basic Roy.Overriding Royalty Overriding RoyaltyLower San Andres Production W.I. Ownership & PercentagePercent Partic ParticHobbs "Z" 7S-36E Sec. 19: SW43E4OC-1617 12/16/57Getty Oil Co.State N.M. 12.5%State N.M. 12.5%Hanover Petroleum Corp25000000 Trinity Resources, Inc58750000 Harvard & LeMay Explor.0.24671 0.2500000	0.0616792500 0.0986868000 0.9868680000	.06250000 .10000000								
Description of Land Serial No. Lessee of Basic Roy. Overriding Royalty Lower San Andres Production Percent and No. Acres & Lease Date Record & Percent. Owner & Percentage W.I. Ownership & Percentage Partic	0.2467.170000 0.5797849500	.25000000 .58750000	Patroleum Corp. Rasources, Inc. & LeMay Explor.				Getty Oil Co.	0C-1.617 12/1.6/57	<u> </u>	10.
	Percent Unit Partic pation		1		rid: r &	Basic Roy. & Percent.	1	erial Lease	Ŭ Û	let

EXHIBIT "B" TO UNIT AGREEMENT TODD LOWER SAN ANDRES UNIT ROOSEVELT COUNTY, NEW MEXICO

			-7-					e.
						<u>,255.60</u>	TOTAL UNIT ACREAGE: 3.	TOTAL I
					% of unit % of unit	2,148.20 = 65.98% 1,107.40 = 34.02%	TOTAL STATE ACREACE: 2 TOTAL FEDERAL ACREACE: 1	TOTAL : TOTAL :
				12.J%	Corp.	7/1/2	(40)	
0.0142420000	Sun Ofl Company - 1.00000000	St		State N.M.	Yates	V-40	N.M. "H.N."	14.
0.0208177313 1.1102790000	LaDora Lucas (100% of 1.875%)01875000	Ę	·					
0.256 520187	Trinity Resources, Inc. (100% of 23.125%)23125000	' <u>H</u>						
0.083:1709250	Devacq Ltd. (10% of 75%)07500000	<u>م</u> (
0.0520443281	Led. 1976-A (6.25% cf 75%)04687500	5 F 4						
0.4892166844	(58.75% of 75%)44062500 Harvard & LeMay Explor.	H .			00 		1	
0.208.773125	\sim	5% 1% н	Joe Don Cook Grant M. Smith	State N.M. 12.5%	Murphy Minerals Corn	K-6454-3 10/18/66	Cook 7S-36E San 32: NEGULA	13.
							(160)	•
				12.5%	Corp.	8/16/66	7S-36E Sec. 32: NE%	
9.5319090000	Gulf 011 Corporation - 1.00000000	C C		State N.M.	Gulf Oil	K-6285	Roosevelt	12.
Percent Unit Participation	Lower San Andres Production W.I. Ownership & Percentage	E L	Overriding Royalty Owner & Percentage	Basic Roy. & Percent.	Lessee of Record	Serial No. & Lease Date	Lease Name, Description of Land and No. Acres	Trace No.
			FILT COUNTY, NEW MEXICO	ROOSEVELT				
×			LOWER SAN ANDRES UNIT	TODI LOW				

Ex.

.

EXHIBIT "B" TO UNIT AGREEMENT TODD LOWER SAN ANDRES UNIT ROOSEVELT COUNTY, NEW MEXICO

EXHIBIT "C"

SUPPLEMENT

EQUAL EMPLOYMENT OPPORTUNITY PROVISION

During the performance of this contract, the Operator agrees as follows:

- (1) The Operator will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Operator will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include, but not he limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. The Operator agrees to post in conspicuous places, available to employees and applicants for employment notices to be provided setting forth the provisions of this non-discrimination clause.
- (2) The Operator will, in all solicitations or advertisements for employees placed by or on behalf of the Operator, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- (3) The Operator will send to each labor union or representative of workers with which Operator has a collective bargaining agreement or other contract or understanding, a notice to be provided, advising the said labor union or workers' representatives of the Operator's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Operator will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Operator will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to Operator's books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the Operator's non-compliance with the non-discrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the Operator may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The Operator will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Operator will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions including sanctions for non-compliance: <u>Provided</u>, <u>however</u>, that in the event the <u>Operator becomes involved in</u>, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Operator may request the United States to enter into such litigation to protect the interests of the United States.

Operator acknowledges that Operator may be required to file Standard Form 100 (EEO-1) promulgated jointly by the Office of Federal Contract Compliance, the Equal Employment Opportunity Commission and Flans for Progress with the appropriate agency within 30 days of the date of contract award if such report has not been filed for the current year and otherwise comply with or file such other compliance reports as may be required under Executive Order 11246, as amended and Rules and Regulations adopted thereunder.

Operator further acknowledges that Operator may be required to develop a written affirmative action compliance program as required by the Rules and Regulations approved by the Secretary of Labor under authority of Executive Order 11246 and supply Cities with a copy of such program if Cities so requests.

CERTIFICATION OF NONSEGREGATED FACILITIES

By entering into this contract, the Operator certifies that Operator does not and will not maintain or provide for Operator's employees any segregated facilities at any of Operator's establishments, and that Operator does not and will not permit Operator's employees to perform their services at any location, under Operator's control, where segregated facilities are maintained. The Operator agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means, but is not limited to, any waiting rooms. work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. Operator further agrees that (except where Operator has obtained identical certifications from proposed contractors and subcontractors for specific time periods) Operator will obtain identical certifications from proposed contractors and subcontractors prior to the award of contracts or subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Oppor-tunity clause; that Operator will retain such certifications in Operator's files and that Operator will forward the following notice to such proposed contractors and subcontractors (except where the proposed contractors or subcontractors have submitted identical certifications for specific time periods): Notice to prospective contractors and subcontractors of requirement for certifications of nunsegregated facilities. A Certificate of Nonsegregated Facilities must be submitted prior to the award of a contract or subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each contract and subcentract or for all contracts and subcontracts during a period (i.e., quarterly, semiannually, or annually).

LAW OFFICES OF HUNKER-FEDRIC, P. A. BUITE 240, HINKLE BUILDING POST OFFICE BOX 1837 ROSWELL, NEW MEXICO 88201



TELEPHONE 682-2700

GEORGE H. HUNKER, JR. DON M. FEDRIC

March 11, 1981

Mr. Joe D. Ramey, Secretary-Director New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. D.S. Nutter

Re: Todd Lower San Andres Water Flood Project Case No. 7202

Gentlemen:

We hand you herewith in triplicate, the Application of Layton Enterprises, Inc. for approval of its Todd Lower San Andres Water Flood Project in Roosevelt County, New Mexico. Will you please file this application.

We would like to have a hearing on the matter on March 25, 1981. Advise.

Sincerely yours,

HUNKER-FEDRIC, P.A.

George H. Hunker, Jr.

GHH:dd Enc.

xc: Donald R. Layton, Pres. Layton Enterprises, Inc. 3103 - 79th St. Lubbock, Texas 79423, w/enc.

xc: Mr. Joe L. Johnson, Jr. Stephens Engineering P.O. Box 2249 Wichita Falls, Texas 76307, w/enc.

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

OIL CONS RVATION DIVISION SANTA FE

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

CASE NO. 7202

APPLICATION OF LAYTON ENTERPRISES, INC., FOR APPROVAL OF THE TODD LOWER SAN ANDRES WATER FLOOD PROJECT, ROOSEVELT COUNTY, NEW MEXICO.

APPLICATION

Layton Enterprises, Inc. respectfully requests approval of the Todd Lower San Andres Water Flood Project, Roosevelt County, New Mexico, and in support thereof, shows:

1. That Operator seeks authority pursuant to Rule 701 and Commission Memorandum 3-77 (August 24, 1977) to institute a water flood project in the Todd Lower San Andres Pool by the injection of water into the Lower San Andres formation. The proposed water flood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

2. Attached to this Application is a plat showing the location of the four proposed injection wells (marked with a triangle), all of which have produced or are producing from the Todd Lower San Andres formation as follows:

> Layton Enterprises, Inc., Livaudais #7, 1,980 FSL and 660 FEL Section 30, Township 7 South, Range 36 East;

> Layton Enterprises, Inc., Hobbs "R" #1, 330 FNL, 1,650 FWL, Section 31, Township 7 South, Range 36 East;

Layton Enterprises, Inc., Atlantic-Smith #2, 2,180 FSL, 660 FEL, Section 31, Township 7 South, Range 36 East;

Layton Enterprises, Inc., Gates State #2, 660 FNL, 1,980 FWL, Section 32, Township 7 South, Range 36 East.

3. Attached to this Application is a tabular summary of all wells within one-half (1/2) mile of the injection wells which penetrate the injection zone, showing casing strings, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification, and location.

4. Attached to this Application are schematic drawings of all plugged and abandoned wells within one-half (1/2) mile which have penetrated the injection zone, showing all information as to casing string, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification and location, together with the size and location of all plugs and the date of abandonment.

5. Also attached is a diagrammatic sketch of the four proposed injection wells showing complete casing, tubing, cementing and other construction detail.

LAYTON APPLICATION (continued)

6. Testimony will be adduced at the hearing regarding expected injection pressures and volume of fluids to be injected, in connection with which Operator agrees that it will not inject at pressures any greater than permitted by order or by regulation. Operator will take all steps necessary to insure that injected water enters only 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.

7. Operator requests that an administrative procedure be adopted whereby Operator may obtain approval for producing wells and injection wells at orthodox and unorthodox locations in addition to or in lieu of the wells herein approved. Operator agrees that should its application be approved, the project should be governed by the provisions of Rules 701, 702 and 703 of the Division Rules and Regulations.

WHEREFORE, Applicant prays that the above described Todd Lower San Andres Water Flood Project, Roosevelt County, New Mexico, be approved and that hearing be set before the Examiner at the Examiner hearing on March 25, 1981, or as soon thereafter as the same may be heard.

-2-

Respectfully submitted,

LAYTON ENTERPRISES, INC.

uno By George H. Hunker, Jr.

Hunker-Fedric, P.A. P.O. Box 1837 Roswell, New Mexico 88201 (505) 622-2700 Attorneys for Applicant

	No and		5. State	America 12 19 17 1-327 1-327 5	
Ar a Carron Carron Carron		Sun	29		Superior Relativity Superior Relativity 26 0 10 10 10 10 10 26 0 10 10 10 10 26 0 10 10 10 26 0 10 10 26 0 0 10 0 10 26 0 0 10 0 10 0 10 0 0 0 0 0 0 0 0 0 0 0
G.D. Williamsen G.D. W	 Kathien (go al 29 Mr.) & Kathien (go al 29 Mr.) & Spean (Guil) Grann (Guil) Guil) Guil)	27 Franklin, Aston (Frair 6. 20. 7) 16. 19. 19 16. 19 17 16. 19 16. 19 16. 19 16. 19 17 17 17 18 19 18 19 19 19 19 19 19 19 19 19 19 19 19 19	4400 Franklin, Aston (Franklin, As	Central Control 1	P.R.Bors P.R.Bors C. J. Br Site Barr St 16 16 7
Tenneco 1.1.177 1.16.77 1.16.77 1.1.177	1) 1) 1/1.22	al Army lat and Army ch at a second lat and a second lat a second		JL.McClellon Attont Foir 0 0 0 1 1 10 E.A.Hanson 22 (resear) 22 (resear) 22 (resear) 22 (resear) 22 (resear) 22 (resear) 24 (resear) 24 (resear) 25 (resear) 26 (r	Since Reye ", and Fred Henderson(S) Fred Henderson(S) Fred Henderson (S) Texos 0: 15 15 15 15 15 15 15 15 15 15 15 15 15 1
Lotwineter Lactorit Stri Lacy Gory Rothier Cone Liney Gory Rothier Cone Line Cone Hill? The Strike Committee Lothier Cone Lothier Cone	LB.Hodgest Artec 2.21-77 L L. 1047 x.21-77 L L. 1047 x.215 2 Strt MILNESAND Strt	(стаса б-лаза ф.ст -35 ест д.ст f.' f	Trankin, Aston (, Forr Scrankin, Aston (, Forr Strankin, Star (, L) Strankin, Star (, L) Strankin, Star (, Star) Strankin, Aston (, Forr Starkin, J. Star) Starkin, J. Star,	76	() 24. 16. 16. 16. 16. 16. 16. 16. 16. 16. 16
	0	Sun 2 Ar 1981 Pras 7 Bras 1 Blat 4 Cones 1 Cones 1 Con		Heiner Histor Hanner Ha	L. C. Vadan 'ta Cath Ramey Tereso 0 - Tereso 0 - Tereso 1 - T.L. Ingrom 54 hay balle 2 - Kath
Transling Cronsell Training Cronsell Training Cronsellin Asian Training Cronsellin Asian Training Cronsellin Asian Training Cronsellin Asian Training Cronsellin Training Cronsellin Training Cronsellin State 0 ver Marrell	Antonyo Ant	Shree van var 5 at 5	30	31 F Forkit, Ason (Fair) Amoco (Fair) 4 - 0 (Fair) 1.1 - 17 5 - 0 (Fair) 0.3120 9 - 0 (Fair) 0 (Fair) 19 - 0 (Fair) 0 (Fair) 19 - 0 (Fair) 1.9 - 0 (Fair)	Branch (Branch) Branch
Life Life C. A Kachergen, efol	2. 42.27 9/2.1/ 71/8.49 9.1/2.1 1.2.4 1.2.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.3.4 1.4	reankin Aslan 1. E Forder St. Gater St. Frankin Astan State Kussen Kussen State State State Kussen State Kussen State State Kussen State Kussen State State Kussen State Kussen State Kussen	2 28 2 2 6		Williamson.(S) 04.918 Williamson.(S) 04.918 I Ameso I A I A I A I A I A I A I A I A
J. A Kachergen, Cities Sarvice, e toi s. 1. m Segmon	Cities Service Cities Service I		A A A A A A A A A A A A A A A A A A A		Wirit 044312 "7 : 20 - 75 "7 : 20 - 75 "8 220 0 224 0 244 0 244 0 244 16 16 16 16
Sprinklerted U.C. Corp. alul 1943 10 C.Antworks 10 C.Antworks 10 C.Antworks 10 C.Antworks 10 C.Antworks 10 C.Antworks 10 C.Antworks	Aline are or girls a side at the second at t	A Lignum Oll Le Fist: Oburn 3 A	Interest Log State Log State L		A Wernler J. E. Wester 's' Humble J. E. Wester 's' J. E. Wester 's' Humble J. E. Wester 's' J. J. J
L. E. Harris U.S. Harris H. Harris H. H. K. H. H. K. H. H. C. Corp H. H. C. Corp		Nelle	Humber Humber Haity Haity Haity Haity 26 26	Ň	

KB Elev. DF Elev. GL Elev. * Datum TOC Q SURFACE CEMENT PLUG 0-25 - CEMENT FLUG 265-335 8 0.D., 19 WT, 7-55 GRADE, LANDED AT 325, CMT'D. WITH 250 SX. - CEMENT PLUG 1155 1225 - 1'2" CASING STUB - 1212 TOP OF CEMENT 3007 - CEMENT FLUG 4027- 4297 0000 PERFORATIONS \$210-86 PBTD 1297 42 O.D. 10.5 WT, <u>7.55</u> GRADE, LANDED AT 4324, CMT'D. WITH 200 SX. Amoco WELL NAME & NO. PETERSON A No 3 FIELD TODO SAN ANORES PBTD \$297 COUNTY ROOSEVELT STATE N.M. TD 4321 LOCATION P# A 4.16-71 Í.







1000 SAN 4N.	chies Un	דונ			7	ne	200	PI	2 5	S.	m	me	1: f	0.	~	171	٤	
WELLS WITHIN																		
		-												4			<u></u>	
- OPERATOR				<u> </u>		1		Se		 c	0.		10		T	<u> </u>	Pio	0
- LEASE, U	VELL NO.		20	CA	TIO N	- 4 •	`	<u>_U</u>	<u>- • • • • • • • • • • • • • • • • • • •</u>					MENT			· ~~	
				an ar chuile.			126	Der		Em	wr-	Sx	7.				DEFT	~
1 LAYTON FUTERP	MILES INA		Ţ		T			111	1		III	1			\square			
? Mare Freeke			2	2.5-	7:3:	攌	4	ari			뮰		H.	et als	3	52	4130	
3 ATRANTIC ST		Į.	7	3/	7.30	30	3/8	30	>1		50	:	2Ur	FACE	3	1/2	433	53
1 HOBBS R			=		1-3	- H L		35	0		62	2		FFLE.	4	12	437	rs I
S COUR Sr. 1	Up. 1				-73			24	ارت	1	50			FACE	13	1/2	435	54
6 LYNDUDALS A	4				7-36			28		┝╌┝╌╢	SØ			FACE	13	14	430	শ্ব
	2	¥			7.31			28	Ц.		ď		1 1 1	FACE	13	狚	97	id.
					730			24	∠∥_		50			4(2	S	씱	141-	24
9 SKELLY ST. A					7-30			240			SÓ	<u> </u>	\$425		╶╫╾╇	<u>'</u>	43	
10	21		· +		7-36	_		11	<u> </u>		SÓ		_	FAC		<u>/</u>	430	
11	3				7-30	· · · · · ·	TZ		·	╏┼╼╌╽	צו			ACE	4		f130	
12	7							285		<u>⊢ —</u> –]	50		SURF		Б		430	- hr
and 1) Sores Sr.					7-30			298	• ·	7	50		SARC			1	43b	- 11
	2	iK			7-30			29		1-1-1-1	50	H-=	50150	1	IS,		432	
13			_	_			_	295		++	75 75	_	sure				4338	- 11
	4					- 11	1.4	282			75		int			-+	<u>43</u> 68	
11 VAL STATE	No. 1	 }	4-	39	713	မျၓ	718	294	2-∦		0		spi-e	ACE	비뇌	1/2	425	ᆀ
<u>13</u> <u>Son</u>						#	5/											_
	Vo Z		<u>A</u>	30-	77	25	78	363		2	20		SURF	ACE	44	2	<u> 432</u> :	乳
20 Monument 21 Aricaric St	. No. 1		K.		73		27		$-\parallel$						╫ _┍		4.7.0	
21 Aricarie Sr	. 20.1		K-	<u> -//-</u>	73	40	13	221		22	2			ve	12	2	4334	
31 Hmoco						-#		┟╍┢				┝╌╢			╢╢			\parallel
	b. 1A	*	и	70	-7-3		42	BZZ		25	6		SULFI			¥.	4329	
3 TEXERSON NO		*	/		-7-3	-#	127	317		25		t { -	SURF				4298	
	1	1 11	E	10		10	120	825		129			sues				4324	11
2	2 A				7-3	· • • • • • • • • • • • • • • • • • • •	1	BIT		27	i	1-11	sare	++	4		1326	
SPRADLEY FED		f					117-	29		250			SULF		4	2	433:	
GULE OIL COPP			, <u> </u>	-/	1	-	'					├			╶╫┸┥			-
AN STATE			83	121	7-34	10	33	63		224	Ь ;		sur	ice	4	K.	43-0	# , {
	2				7-36					225	<u> </u>		SUREA	+			1+00	
					1-36		13			225		<u>}}}</u>	SULFO				1445	
::			Ī			-							T					
34					- -	- -										3		
FRANKLIN ASTO	N : FAIR																	
Linpuppis	No 6	*	A.	30.	- 7-3	68	32	931		150			91.1	NE 1	5		30%	
	•																	
										1		I - I	-					
		*		21	i si si si		in	0	ر لي لم	fue	eve	0	de	ec	I			
	-	11	-	d	Ar.	= E	12	131	11	1	1 · · ·	Jeal	1					
	· · · · · · · · · · · · · · · · · · ·	1																
· · · ·		1	ΤĒ	1			1			1	1		1			r	r ·	ا الارد

•

6	?	8	3	10	11	12	13
erions CA-	ING	Torre	FROMENS	A	°≠ A	WELLS	
	CEMERIT	DEPTH	INTERVAL		PLUGS		DATE OF
Corrent-Sx	TOP			SKS.C	CAFAT & D.	EPTH	AFRACONMENT
11350	3.06	K1307	4230-4	2-13			2
250	2891	1(333	41280 - 43	15			3
250	3278	4375	4259 - 13	b!:			
250	2891	4354	4300 - 43	4411111			5
11550	2763	413151	4234-42	751111			6
250	2348	(1240	4332444	66			,
275	2109	4276	4237 - 42	72			8
300	2981	4305		86			9
350	2764	43001		78			10
375	FILLE	4300		876 11			
300	2574	4305	∽┦╋╼╾ ┠╌┍ ╌╍╼╼╋╼╼═┿	90			12
250	2863	4-306		86			13
275	2782	4320	4274-44	\$7			1 1 1 1 1 1 1
300	3001	4338	4282 - 42				15
300	2576	4308		SE			15
250	2850	#293	4236-42	┣──┣─╈╈╋╺┢╺┢╸ ┙			17
							18
ZdO	B447	\$325	4235-4280				19
							20
250	2891	4333	F2BZ 317				21
							22
							23
309	3012	8329	4247-428%	10 0	25 25-	- 3052 - 333	0 1/21/74 24
300	2981	17298	4232-4272	0		-1231-1301	7/10/71 25
300	3007	4324	4210-4256	10-0-25		155-1225	<i>4/16/71</i> 26
3-7	3009	+297	4249-4290				27
Bod	3013	4302	6257-6254				28
92	399	4322	4291-4298				
1150	SURFICE	43:00	4318-4324				31
250	SURFACE	4420	7108-4415				32
							33
	╫╊╌╧╊╧╧╊═	╶╫╌┠╼╌╴┠╺╌╴╊					34
	╶╫╼╴╏╌╴╼╌╞╼╸╺╴╞╶╸				<u> </u>		35
250	3299	4306	4232-4285	10- 2.	2 30-		
					303 30-	- 4067-428	
	2						
				;	in the second se	ir pri v sin	

SAN QUERES ()	UIT - TABUCA	Tirel wer S 24	or ALC							-
5 WITTIN ONE	- Ther Mille O	F INTERTION	Wells							
PATOR		iochos Cashera		"mal Cosin	16 7	0102 P	Peorini			11/511
EASE, Wall No.	-00ATION	2	nosule .		EMENE L	14.4	WIEDVAL		11-1	
		- FIAN (SETENTIN - 201)		(1)				285.000		
ON LUTEILFILLES INC.	P 25-7-35 2 2 0	72	FA A	250		307 42	2			
Sr No	1-7-36		FACE 5 1/2			20	220-43/5			
Bes R No.2	2,22 2-7-	202 202 202	FLF 313			12	1-43			
Sr. No. 1	808	3 1/50 502	512			1	-1-			
1 als allo 1			51/2 B		 	~	234 - 4275			
2	2,52 -2-26 2,8		ENS 3M	-	+	6	9967 + 1366			
S	30-7-3656/8		5/S 324		+	1	237 - 4272			
4 St. No. 1	31 2 36 2 18			-			22428	<u>a</u>		
. 2	878		C/17 24-				1			
5			ACE 412		+		9140	76		
	3/-7.36				19972 4	4305 425				
7	32-7-26 858	150 50150	<u>ƙ</u> -				4			· }
63	7 3 8 8 5/8	5 1 175 5	ice 42				1-420	8		
	-7-36 858	2 175 Supp	ce 5/2 430		 	d8 4267	- 429			
STATE No. 1			304 2/C			-	+		· · · · · · · · · · · · · · · · · · ·	
STATE No 2	A 20-7-25 878 363	3 250 Surf.	412 4325	200	8447 4325	25 4235-	5-4280			
ORENT										•
wrie Sr. No.1	X 31-7-363 878 33	225 520	e 5/2 4334	0.50	433	- 282+	2-317			-
0					· · · ·		-		Ý., I	
FREDN No. 1 A	M 29-7-34 C 73	250 541.67	CE 416 4325	300		9 42	128.6	6212	32 24- 305-3	53
A	818 25-2-62	2000	ce 4/2			89	4272		p,	8-117
<i>A</i>	29-7-26073	290 2	£ 4/2		2007 432	A 1	0-9256 25	245 33	- N	7- 1:9
	1 7	275 5456	e 4 2 f 326	302	7 10 × 10 × 10 × 10 × 10 × 10 × 10 × 10	2 7	0624-6			
Un Coro I on I			-							
1 STATE No. 1	32 7-36	225 Surs,	ee 4/2 43.6	8	399 43	22	1.4			
2	·w.	S		1-		6	5			
Ś	7-56 833	225 Surfac	1 .		uncocce 442	0	08-44/5			
										
IKUN ASTON : Form			1							
pupers No 6	* 12 30-7-25 813 293	(20) Sturide	E 57 1306		202 1	4206	4232-9295	0 - 2/0-24	00	067-92
•	· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·				·	
	* - relier ano	icano de	2					:		
	7- (0/27- L) - F	103AC Weac								







•



STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION



SANTA FE

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

1.75 F

CASE NO. 7202

APPLICATION OF LAYTON ENTERPRISES, INC., FOR APPROVAL OF THE TODD LOWER SAN ANDRES WATER FLOOD PROJECT, ROOSEVELT COUNTY, NEW MEXICO.

APPLICATION

Layton Enterprises, Inc. respectfully requests approval of the Todd Lower San Andres Water Flood Project, Roosevelt County, New Mexico, and in support thereof, shows:

1. That Operator seeks authority pursuant to Rule 701 and Commission Memorandum 3-77 (August 24, 1977) to institute a water flood project in the Todd Lower San Andres Pool by the injection of water into the Lower San Andres formation. The proposed water flood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

2. Attached to this Application is a plat showing the location of the four proposed injection wells (marked with a triangle), all of which have produced or are producing from the Todd Lower San Andres formation as follows:

> Layton Enterprises, Inc., Livaudais #7, 1,980 FSL and 660 FEL Section 30, Township 7 South, Range 36 East;

> Layton Enterprises, Inc., Hobbs "R" #1, 330 FNL, 1,650 FWL, Section 31, Township 7 South, Range 36 East;

Layton Enterprises, Inc., Atlantic-Smith #2, 2,180 FSL, 660 FEL, Section 31, Township 7 South, Range 36 East;

Layton Enterprises, Inc., Gates State #2, 660 FNL, 1,980 FWL, Section 32, Township 7 South, Range 36 East.

3. Attached to this Application is a tabular summary of all wells within one-half (1/2) mile of the injection wells which penetrate the injection zone, showing casing strings, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification, and location.

Attached to this Application are schematic drawings of all plugged and abandoned wells within one-half (1/2) mile which have penetrated the injection zone, showing all information as to casing string, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification and location, together with the size and location of all plugs and the date of abandonment.

Also attached is a diagrammatic sketch of the four proposed injection wells showing complete casing, tubing, cementing and other construction detail.

LAYTON APPLICATION (continued)

6. Testimony will be adduced at the hearing regarding expected injection pressures and volume of fluids to be injected, in connection with which Operator agrees that it will not inject at pressures any greater than permitted by order or by regulation. Operator will take all steps necessary to insure that injected water enters only 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.

7. Operator requests that an administrative procedure be adopted whereby Operator may obtain approval for producing wells and injection wells at orthodox and unorthodox locations in addition to or in lieu of the wells herein approved. Operator agrees that should its application be approved, the project should be governed by the provisions of Rules 701, 702 and 703 of the Division Rules and Regulations.

WHEREFORE, Applicant prays that the above described Todd Lower San Andres Water Flood Project, Roosevelt County, New Mexico, be approved and that hearing be set before the Examiner at the Examiner hearing on March 25, 1981, or as soon thereafter as the same may be heard.

-2-

Respectfully submitted,

LAYTON ENTERPRISES, INC.

Juniol George H. Hunker, Jr.

Hunker-Fedric, P.A. P.O. Box 1837 Roswell, New Mexico 88201 (505) 622-2700 Attorneys for Applicant

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

OIL CONS NON DIVISION SANTA FE

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

CASE NO. 7202

APPLICATION OF LAYTON ENTERPRISES, INC., FOR APPROVAL OF THE TODD LOWER SAN ANDRES WATER FLOOD PROJECT, ROOSEVELT COUNTY, NEW MEXICO.

APPLICATION

Layton Enterprises, Inc. respectfully requests approval of the Todd Lower San Andres Water Flood Project, Roosevelt County, New Mexico, and in support thereof, shows:

1. That Operator seeks authority pursuant to Rule 701 and Commission Memorandum 3-77 (August 24, 1977) to institute a water flood project in the Todd Lower San Andres Pool by the injection of water into the Lower San Andres formation. The proposed water flood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

2. Attached to this Application is a plat showing the location of the four proposed injection wells (marked with a triangle), all of which have produced or are producing from the Todd Lower San Andres formation as follows:

> Layton Enterprises, Inc., Livaudais #7, 1,980 FSL and 660 FEL Section 30, Township 7 South, Range 36 East;

> Layton Enterprises, Inc., Hobbs "R" #1, 330 FNL, 1,650 FWL, Section 31, Township 7 South, Range 36 East;

Layton Enterprises, Inc., Atlantic-Smith #2, 2,180 FSL, 660 FEL, Section 31, Township 7 South, Range 36 East;

Layton Enterprises, Inc., Gates State #2, 660 FNL, 1,980 FWL, Section 32, Township 7 South, Range 36 East.

3. Attached to this Application is a tabular summary of all wells within one-half (1/2) mile of the injection wells which penetrate the injection zone, showing casing strings, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification, and location.

4. Attached to this Application are schematic drawings of all plugged and abandoned wells within one-half (1/2) mile which have penetrated the injection zone, showing all information as to casing string, setting depths, sacks of cement used, cement tops, total depth, producing interval, well identification and location, together with the size and location of all plugs and the date of abandonment.

5. Also attached is a diagrammatic sketch of the four proposed injection wells showing complete casing, tubing, cementing and other construction detail.

LAYTON APPLICATION (continued)

6. Testimony will be adduced at the hearing regarding expected injection pressures and volume of fluids to be injected, in connection with which Operator agrees that it will not inject at pressures any greater than permitted by order or by regulation. Operator will take all steps necessary to insure that injected water enters only 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.

7. Operator requests that an administrative procedure be adopted whereby Operator may obtain approval for producing wells and injection wells at orthodox and unorthodox locations in addition to or in lieu of the wells herein approved. Operator agrees that should its application be approved, the project should be governed by the provisions of Rules 701, 702 and 703 of the Division Rules and Regulations.

WHEREFORE, Applicant prays that the above described Todd Lower San Andres Water Flood Project, Roosevelt County, New Mexico, be approved and that hearing be set before the Examiner at the Examiner hearing on March 25, 1981, or as soon thereafter as the same may be heard.

Respectfully submitted,

LAYTON ENTERPRISES, INC.

<u> A. Anulse</u> Bv George H. Hunker, Jr.

Hunker-Fedric, P.A. P.O. Box 1837 Roswell, New Mexico 88201 (505) 622-2700 Attorneys for Applicant

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTYPENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 25 March 1981 EXAMINER HEARING IN THE MATTER OF: Application of Layton Enterprises Inc., for a unit agreement, Roosevelt County, New Mexico. Application of Layton Enterprises, Inc., for a waterflood project, Roosevelt County, New Mexico. BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING For the Oil Conservation Division: For the Applicant: For the Applicant: For the Applicant: For the Applicant: For the Applicant: Ceorge H. Hunker, Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201		
SANTA FE, NEW MEXICO 25 March 1981 EXAMINER HEARING IN THE MATTER OF: Application of Layton Enterprises Inc., for a unit agreement, Roosevelt) County, New Mexico. Application of Layton Enterprises. Inc., for a waterflood project, Roosevelt County, New Mexico. BEFORE: Daniel S. Nutter BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING For the Oil Conservation Division: For the Applicant: George H. Hunker. Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 Participation 1981 Enter State Land Office 88201 Enter State Land Office 88201 CASE CASE CASE CASE CASE CASE CASE CASE CASE CASE CASE CASE T201 and T201 and T201 and T201 and T201 and T201 and T201 and T201 APP S A R A N C E S Solution State Land Office Bldg. Santa Fe, New Mexico 87501 State Land Office Bldg. Santa Fe, New Mexico 88201 State Land Office 88201 State State Land Office 88201 State State Land Office 88201 State State Land Office 88201 State State Sta		ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION
Image: Construction of layton Enterprises Image: Conservation of layton Enterpris	3	SANTA FE, NEW MEXICO
 IN THE MATTER OF: Application of Layton Enterprises Inc., for a unit agreement, Roosevelt) CASE Application of Layton Enterprises, Application of Layton Enterprises, Inc., for a waterflood project, Roosevelt County, New Mexico. TRANSCRIPT OF HEARING BEFORE: Daniel S. Nutter BEFORE: Daniel S. Nutter BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING A P P E A R A N C E S For the Oil Conservation Bivision: For the Applicant: George H. Hunker, Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 	4	
<pre>IN THE MATTER OF: Application of Layton Enterprises Inc., for a unit agreement, Roosevelt) CaSE T201 and Application of Layton Enterprises. Inc., for a waterflood project, Roosevelt County, New Mexico. BEFORE: Daniel S. Nutter BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING For the Oil Conservation Division: Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bidg. Santa Fe, New Mexico 87501 For the Applicant: For the Applicant: For the Applicant: CaSE T201 CASE T201 CASE T201 CASE T201 CASE T201 CASE T201 CASE T201 CASE T201 CASE T201 CASE T201 CASE T2</pre>	5	
8 Application of Layton Enterprises Inc., for a unit agreement, Roosevelt County, New Mexico. CASE 7201 and 7202 9 Application of Layton Enterprises, Inc., for a waterflood project, Roosevelt County, New Mexico. 7202 11 BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING 7202 12 BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING 7202 13 A P P E A R A N C E S 14 A P P E A R A N C E S 15 For the Oil Conservation Division: Ernest L. Padilla, Esq. Santa Fe, New Mexico 37501 18 For the Applicant: George H. Hunker. Jr. HUNNER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 98201 20 For the Applicant: George H. Hunker. Jr. HUNNER, FEDRIC P. A. P. O. Box 1837 21 Roswell, New Mexico 98201		IN THE MATTER OF:)
9 Application of Layton Enterprises, Inc., for a waterflood project, Roosevelt County, New Mexico. and T202 11 BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING 13 A P P E A R A N C E S 14 A P P E A R A N C E S 15 For the Oil Conservation Division: 17 Division: 18 Santa Fe, New Mexico 87501 19 For the Applicant: 20 For the Applicant: 21 For the Applicant: 22 Roswell, New Mexico 88201		Inc., for a unit agreement, Roosevelt) CASE
10 Inc., for a waterflood project, Roosevelt County, New Mexico. 7202 11 Roosevelt County, New Mexico. 7202 12 BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING 7202 13 A P P E A R A N C E S 14 A P P E A R A N C E S 15 For the Oil Conservation Division: Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501 18 For the Applicant: George H. Hunker Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 20 For the Applicant: George H. Hunker Jr. HUNKER, Second Baseling 21 Roswell, New Mexico 88201	9) and
<pre>12 BEFORE: Daniel S. Nutter 13 BEFORE: Daniel S. Nutter 14 A P P E A R A N C E S 15 For the Oil Conservation 17 Division: 18 Division: 18 Division: 19 20 For the Applicant: 21 For the Applicant: 22 For the Applicant: 23 24 24 25 26 27 27 28 28 28 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20</pre>	10	Inc., for a waterflood project,) 7202
BEFORE: Daniel S. Nutter TRANSCRIPT OF HEARING A P P E A R A N C E S For the Oil Conservation Division: For the Oil Conservation Division: For the Applicant: For the Applicant: Ceorge H. Hunker Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 Santa Fe, New Mexico 88201	11	Roosevelt County, New Mexico.)
 A P P E A R A N C E S For the Oil Conservation Division: For the Oil Conservation Division: For the Applicant: For the Applicant: For the Applicant: George H. Hunker Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 Roswell, New Mexico 88201 	12	
15 APPEARANCES 16 Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501 19 For the Applicant: George H. Hunker Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 21 Applicant: Several Applicant 23 Applicant Applicant 24 Applicant Several Applicant	13	IRANSCRIPT OF HEARING
<pre>15 16 17 For the Oil Conservation 17 Division: 18 Legal Counsel to the Division 18 State Land Office Bldg. 19 20 For the Applicant: 21 George H. Hunker Jr. 21 HUNKER, FEDRIC P. A. 22 Roswell, New Mexico 88201 23 24</pre>	14	APPEABANCES
 For the Oil Conservation Division: For the Oil Conservation Division: Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501 For the Applicant: George H. Hunker Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 New Mexico 88201 	15	
18 State Land Office Bidg. 18 Santa Fe, New Mexico 87501 19 Sonta Fe, New Mexico 87501 20 For the Applicant: George H. Hunker Jr. 21 HUNKER, FEDRIC P. A. 22 Roswell, New Mexico 88201 23 24		
Santa Fe, New Mexico 87501 Por the Applicant: George H. Hunker Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 23		State Land Office Bldg.
For the Applicant: 21 George H. Hunker Jr. HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 24		Santa Fe, New Mexico 87501
 HUNKER, FEDRIC P. A. P. O. Box 1837 Roswell, New Mexico 88201 	20	For the Applicant:
Z2 Roswell, New Mexico 88201 Z3 24	21	HUNKER, FEDRIC P. A.
24	22	
	23	
25	24	
	25	
li -		

.
1		
2	INDEX	
3		
4	JOE L. JOHNSON JR.	
5	Direct Examination by Mr. Hunker	4
6	Cross Examination by Mr. Hutter	12
7	Redirect Examination by Mr. Hunker	13
8	Recross Examination by Mr. Nutter	14
9	Cross Examination by Mr. Padilla	17
10		
11		
12		
13		
14	ЕХНІВІТЅ	
15		
16	Applicant Exhibit One, Plat	5
17	Applicant Exhibit Two, (Unit Agreement	6
18	Applicant Exhibit Three, Plat	8
19	Applicant Exhibit Four, Diagrammatic Sketches	3
20	Applicant Exhibit Five, Summary	9
21	Applicant Exhibit Six, Diagrammatic Sketches	11
22		
23		
24		
25		
		ж ²

ŧ

1 3 2 MR. NUTTER Call next Case Number 7201. 3 MR. PADILLA: Application of Layton 4 Enterprises, Inc., for a unit agreement, Roosevelt County, 5 New Mexico. 6 MR. HUNKER: Mr. Examiner, I'm George 7 H. Hunker, Junior, Roswell, New Mexico. I represent Layton ð Enterprises, Inc., in connection with Case Number 7201, which 9 is an application for approval of a unit agreement. 10 I also represent Layton Enterprises in 11 connection with the waterflood project, which is a necessary 12 adjunct to the unit agreement, and I ask that you permit us 13 to put on our testimony in this matter in a consolidated 14 fashion. 15 MR. NUTTER: We will now call Case Number 16 7202. 17 MR. PADILLA: Application of Layton 18 Enterprises. Inc., for a waterflood project, Roosevelt County, 19 New Mexico. 20 MR. NUTTER: Do you have any other wit-21 nesses, Mr. Hunker? 22 MR. HUNKER: No. 23 24 (Witness sworn.) 25

1 4 2 3 JOE L. JOHNSON, JR. 4 being called as a witness and being duly sworn upon his oath, 5 testified as follows, to-wit: 6 7 DIRECT EXAMINATION 6 BY MR. HUNKER: 9 For the record will you give the Examinet Q. 10 address, and occupation? your name 11 My name is Joe L. Johnson, Junior. I'm Ă. 12 a petroleum engineer with Stevens Engineering, Wichita Falls. 13 Have you prepared engineering studies Q. 14 of the Todd Lower San Andres Field? 15 Yes, sir, I have. A. 16 Did you do this on behalf of Layton 0 17 Enterprises, Inc.? 18 Yes, T have. Ā. 19 How long have you been working on this Ç. 20 project, Mr. Johnson? 21 Total time about eight years. A. 22 Are you familiar with the applications 0. 23 that have been filed in these cases by Layton for approval of 24 unitization and for approval of the waterflood project? 25 Yes, I am. A.

1		5
2	Q.	Have you previously testified before
3	the Commission and ha	d your qualifications made a matter of
4	record and found to b	e acceptable?
5	λ.	Yes, they are.
6		MR. HUNKER: Are the witness' qualifica
7	tions acceptable?	
8	-	MR. NUTTER: Yes, they are.
9	Ç.	You've prepared certain exhibits. I'd
0		first to Exhibit Number One and tell the
1	Examiner what that ex	
2	A.	Exhibit Number One is a map indicating
13		
14		contained within the proposed Todd Lower
15	San Andres Unit.	
	Q	How many acres are involved in this unit
16	А.	3,255.
17	Q.	And what part of the acreage is Federal?
18	λ.	Approximately 34 percent.
19	Q	What part is State?
20	P.	65, 66 percent.
21	Q	Does the area that you have depicted on
22	this exhibit include	all of the wells that are producable from
23	the Todd Lower San An	dres formation?
24	Ā.	Yes, they do.
25	Q.	Looking further to the exhibit that's

- ----

been marked Number Two, will you tell the Examiner what that exhibit is?

6

1

2

3

5

8

Exhibit Two is a unit agreement of the Λ. proposed Todd Lower San Andres Unit.

6 Turn to page two of that agreement and Ω. 7 explain the formation that is to be unitized.

The unitized formation is described under <u>B</u>. 9 (h) of Section 2, and it is - reads as follows: Commonly 10 known as the Lower San Andres formation and which is the same 11 formation that was encountered between the logged depths of 12 4235 feet subsea elevation minus 84 foot and 4286 foot subsea 13 elevation minus 135 in the Franklin Astin FAir, Incorporated, 14 Bough State Well No. 1.

15 Turn to page seven of the unit agreement Q. 16 and describe the tract participation formula.

17 Tract participation formula consists Α. 18 of four parts. A 70 percent weight is given to ultimate 19 primary as a percentage of the primary in the entire field; 20 10 percent weight is given to the cumulative primary produced 21 by each tract as of January 1, 1979, as to the summation of 22 the cumulative primary of the -- all tracts; 10 percent weight 23 is given to the ratio of barrels of remaining oil for each 24 tract as of January 1, 1979, to the summation; and 10 percent 25 is given to the ratio of current production rate from each

1 7 2 tract during the calendar year 1978 to the summation of the 3 production rate from all tracts during the calendar year of ٬78. 5 Q. Why was a single stage formula used in 6 connection with this unit? 7 A. It was felt that it was -- would be ----8 since the primary was virtually gone from this property, there's 9 very little remaining primary, that it would be a fair method 10 in which to handle the investment, et cetera. 11 Ω. What is the status of the producing wells 12 in the field at the present time? 13 A. At the present time the field is pro-14 ducing approximately 100 barrels to 120 barrels a day, or 15 about two to three barrels of oil per well. 16 Q. They're stripper wells, in other words? 17 λ. Yes, sir. 18 Ð. And it's in the final stages of depletion 19 as far as the primary is concerned, is that correct? 20 That is correct. Ā. 21 In your opinion, Mr. Johnson, will the Q. 22 formula protect the correlative rights of royalty owners as 23 well as the working interest owners? 24 Yes, it will. В. 25 If the agreement is approved, is it your Q.

г	
1	8
2	opinion that such approval will be in the interest of conser-
3	vation and the protection of and the prevention of waste?
4	λ. Yes. sir, it will.
5	0 In connection with Case Number 7202
6	the waterflood case, explain what Layton expects to accomplish
7	by the waterflood project.
8	A. We anticipate initially starting with
9	a pilot project utilizing four injection wells and then based
10	on the performance of these four wells expanding the project
11	in approximately one to two years.
12	Anticipated recovery in the way of
13	secondary recovery would be in the vicinity of 1-1/2 to 2
14	million barrels of oil.
15	Q. Referring to Exhibit Number Three will
16	you explain what that exhibit shows?
17	2. Exhibit Three indicates the wells that
18	we anticipate using as injection wells to start with.
19	0. And how are they identified?
20	A They're identified with a triangle around
21	each of the wells.
22	0 And the circled wells, does that mean
23	anything?
24	NO, SIT.
25	Q. Turning to Exhibit Four, which is in four

Ĺ

1	<u>0</u>
2	parts, Four A, D, C, and D, vill you tell the Examiner what
3	those refer to or demonstrate?
4	A. These are diagrammatic shetches of wells
5	that have been plugged and abandoned in the general vicinity
6	of a half mile of each injection well.
7	0. Where did you obtain the information
8	for these exhibits?
9	A. We obtained it from the State files.
10	0. Now, referring to -
11	MR. NUTTUR: Well, before you get off
12	those, Mr. Johnson, on these exhibits I don't see any identi-
13	fication of the location of them. Would you point out the
14	location so I could get them in the record?
15	MR. HUNKER: It will be shown, if the
16	Examiner please, on the tabular summary which, I think, is the
17	next exhibit.
18	MR. NUTTER: Okay.
19	0 Is that correct, Mr
20	h. Yes.
21	MR. NUTTER: Okay, go ahead.
22	0. Referring to Exhibit Number Five, Mr.
23	Johnson, will you tell the Examiner what that exhibit shows?
24	A Exhibit Five is a tabular summary of
25	all wells within 1/2 mile of the injection wells.
1	

.

•

1		lû		
2	Ο. Ατο	the four plugged and abandoned wells		
3	shown in that exhibit als	30?		
4	A. Yes	5, zir.		
5	r. Arc	they marked with an asterisk?		
6	ħ. Yes	5, sir.		
7	Q. And	l is the location of these wells shown		
8	on the exhibit?			
9	A. Yes	s, sir, that's the first column.		
0	Q. Nov	what does this tabular surmary show,		
.1	Mr. Johnson?			
2	à, The	a tabular summary indicates the loca-		
3	tion of the wells, the su	urface casing used, the amount, as		
4	well as the amount of cer	ment used, the top of the cement. It		
5	also indicates production	n casing that was run, the size of tha		
6	casing, the depth at which	ch it was set, cement used on that		
7	cementing job, the top of	cementing job, the top of the cement, total depth of the well,		
8	the producing interval, a	and any data concerning plugged and		
9	abandoned wells, such as	plugs, sacks of cement, depth.		
20	Q. A1	l right. Where did you obtain that		
21	information?			
22	A. Als	so from the State files.		
23	Q The	at's your Exhibit Number Five, is that		
24	correct?	ì		
25	A. The	at is correct.		

en de la companya de Nacional

ł

•

5		
1		11
2	r.	Referring to Exhibit Number Six, which
3	is in Cour parts, A, I	3, C, and D, vill you explain to the
4	Examiner what that exh	nibit shows?
5		These are diagrammatic shetches of the
6	planned injection well	is for the project and the planned method
7	in which these wells v	vill be completed, for injection purposes.
8	Ç	Are these typical of waterflood projects.
9	Mr. Johnson?	
10	3.	Xes, they are.
11	0.	Are they self-explanatory?
12	Ą.	Yes, sir.
13	<u>0</u>	And they also indicate the precise loca-
14	tion of the four wells	s that are going to be used for injection
15	purposes in the pilot	flood, is that correct?
16	Α.	Yes, sir, they do identify that.
17	Ω.	In your opinion will the approval of
18	the waterflood projec	t be in the interest of conservation and
19	the prevention of was	te?
20	ñ.	Yes, sir, it will.
21	Q.	Will correlative rights be protected?
22	Α.	Yes, sir.
23	Q.	Have you anything further that you'd
24	like to add to your t	estimony?
25	P.	No, sir.

and an and the second second

12 1 2 MR. HUNHUR: I'd like to offer at this 3 time Exhibits One through Six on behalf of the applicant. 4 MR. NUTTEP: Exhibits One through Six 5 will be entered into the record of Cases 7201 and 7202. 6 7 CROSS EXAMINATION 8 BY MR. NUTTER: 9 Now, Mr. Johnson, on your Exhibit Number 0. 10 Five you show the surface pipe that has been run in each of 11 these wells in the area and it looks like it probably averages 12 anywhere to 272 feet to 363 feet, somewhere in that neighbor-13 hood. 14 What is the depth of the fresh water in 15 the area, do you know? 16 No, sir, I'm not positive of that. Ζ. 17 There is very little fresh water in this general vicinity but 18 I would assume it would be more in the vicinity of 200 or less 19 Yeah, well, I would imagine so, just Q. 20 looking at the surface pipe. 21 Uh-huh. Α. 22 It's probably set below the Surface Q. 23 water, but you don't know exactly? 24 No, sir, 1 don't. There are a few ----Α. 25 few windmills out there but I don't know how deep they are.

1 13 2 0, Now, coment has been circulated to the 3 surface on each one of these surface strings, is that correct? That is correct. λ. 5 And then for the four wells within a e 6 half mile of the injection vells, which has been plugged, you 7 show the location of those plugs on your Exhibit Four A through 8 Four D, and you've also indicated on Exhibit Five the location 9 of those plugs, is that correct? 10 That is correct. Α. 11 MR. HUMKER: I have one or two other 12 guestions. 13 MR. MUTTER: Okay, Mr. Hunker. 14 15 PEDIRECT EXAMINATION 16 BY MR. HUMKER: 17 Have you made recommendations to the a. 18 operator regarding pressures and the volume of fluid to be 19 injected? 20 Yes, sir, we have. A. 21 What do you recommend at thi sparticular Q. 22 time? 23 We're anticipating approximately 200 A. 24 barrels a day per injection well as an initial point of 25 starting; a maximum pressure in the vicinity of 800 to 900

1 14 2 p ounds. 3 Vill care be taken by the operator to Ç. 4 insure that the water enters only the proposed injection in 5 terval and not permit it to escape? 5 Yes, sir. A. 7 Are you requesting on behalf of operator O. 8 that administrative procedures be adopted whereby the operator 9 can obtain approval administratively for additional producing 10 and injection wells at both orthodox and unorthodox locations? 11 A. Yes, sir. 12 MR. HUNKER: I have nothing further, Mr. 13 Nutter. 14 15 RECROSS EXAMINATION 16 BY MR. NUTTER: 17 Mr. Johnson, your proposed injection 0 18 pressure would be between 800 and 900 pounds. Now the Divi-19 sion's rule of thumb for limiting of injection pressures in 20 the absence of information to the contrary would be 0.2 of 21 a pound per foot of depth to the uppermost perforation. 22 On Exhibit Six C, is -- I can't tell 23 exactly what that upper perforation is. Is that 4080 or 4282 24 or just what is that? 25 That's 4282. Α.

ata terminika jiwaka 🕶 🗫 na 🗤

15 Í 2 Okay, the most shallow of the injection 0 3 zones, then, would be on Exhibit Six A, which is 4240. 4 Ā. Yes, sir. 5 And that rule of thumb that I mentioned Q. 6 would be 0.2 of a pound, or 848 pounds --7 That's correct. Λ. 8 Q. ---per square inch. Is that a suitable 9 maximum for your present plans? 10 λ, We think it would be, yes, sir. 11 Okay. Now I see these injection wells 0 12 are equipped with tubing and packer and the annulus, I presume 13 would be loaded with an inhibitive fluid? 14 Yes, sir. A. 15 And equipped with pressure gauge or 0 1ó other device at the surface to indicate whether there's a 17 leak in tubing, packer, or casing? 18 That is correct. A 19 Now, looking at the unit boundary as Ç/ 20 depicted on Exhibit One, and looking at the plat showing the 21 location of the wells on Exhibit Number Three, I don't see 22 the unit boundary on here, but the unit boundary is spread 23 out in such a manner that all of these producing wells shown 24 on Exhibit Three are included in the unit area? 25 Yes, sir, you need to take note now to Α.

1	
1	16
2	the northwest there are several gas wells, you'll notice,
3	which are producing from a different interval of the San Andres
4	They are not included in the unit. Only the oil producing
5	wells are the ones that are brought into the unit area.
6	Q Okay. Now how about the - there are
7	some oil wells, or there is an oil well in the southwest of
8	the northwest of Section 26. Is that producing from another
9	pool?
0	A. 26, yes, sir. I believe that well is
1	plugged now.
2	Q. Is it?
3	A. I believe so.
4	Q. Just bear with me a minute. I'm going
5	to draw the unit outline on this plat.
6	MRNKER: I'll be glad to furnish
7	you one. I just didn't have time.
8	MR. NUTTER: Oh, this will be all right.
9	You've got one non-contiguous () going up there in Section
20	20 to take in that old well, I see.
21	A. Yes, sir.
22	0. I notice you do have some gas wells in
23	the north half of Section 31 included in the unit area, and
24	also Section 35, I beg your pardon, and also a gas well
25	that's in the northeast of the southeast of Section 35. Is

- · · ·

.

1	17
2	that is that a unit woll?
3	A Yes, sir, those are shown as gas wells
4	but they are now oil wells.
5	9. I see.
6	MR. NUTTER: Are there any further
7	questions of Mr. Johnson? He may be oh, Mr. Padilla.
8	
9	CROSS FXAMINATION
10	BY MR. PADILLA:
11	0 Kr. Johnson, I believe you I'm not
12	sure whether you testified to this or not, but did you get
13	preliminary approval from the Land Commissioner and the USGS
14	for your unit agreement?
15	MR. HUNKER: I'll answer that. We
16	have not from the Commissioner of Public Lands but we have
17	from the USGS.
18	MR. PADILLA: I have nothing further.
19	MR. NUTTER: How about the working in-
20	terest commitment to the unit, Mr. Hunker?
21	MR. HUNKER: We've had well, I
22	think that Mr. Johnson can testify to that.
23	MR. MUTTER: I notice from Exhibit
24	Number One that most of the leases in here are labeled as
25	being Layton Enterprises leases. You have a few other com-

Í

1 18 2 panies. 3 I don't have a recent percentage but in 3. à a series of meetings that we've had there at this point appears 5 to be no objection from any of the operators at this time, 6 but as to the amount that have signed and sent their unit 7 agreement in, I just don't know. 8 MR. NUTTER: Obviously the Layton leases 9 are committed to the unit. 10 Yes, they are. Α. ĺİ MR. MUTTER: And we do have correspondence 12 here from a couple of companies. 13 I see. Α. 14 MR. NUTTER: How about Texaco? Do you 15 know the status of negotiations with Texaco? 16 Texaco has been for it all the way. А. 17 MR. LAMAR: Mr. Examiner. 18 MR. NUTTER: Yes, sir, state your name 19 for the record, Amease. 20 MR. LAMAR. I am J. R. Lamar and I am 21 employed by the Amoco Production Company in Houston, Texas. 22 On behalf of Amoco, and as Amoco is a 23 working interest owner in this field, Amoco has been involved 24 in negotiations here and we approve the plan and we recommend 25 that you approve the unit.

ĩ 19 2 MR. NUTTER: Thanka, Mr. Lamar. So 3 we've heard from Amoco. Will you read our correspondence, 4 Mr. Padilla? 5 MR. FADIULE: Mr. Fxaminer, Sun Oil 6 Company and Getty Oil Company both have filed a concurrence 7 of this -- for this unit agreement. 8 MR. MUTTER: Mr. Johnson or Mr. Hunker, 9 do you know the status of the Gulf negotiations? 10 λ. Again, in the meetings we have had no 11 indication of any objection from Guif. 12 MR. NUTTER: And Monument Energy? 13 A. The same. 14 MR. NUTTER: So you think you will have 15 100 percent? 16 Λ. Looks like we'll have 100 percent. 17 We've fought for eight years to get it, but we'll get it. 18 MR. NUTTER: Okay, are there any further 19 questions of Mr. Johnson? He may be excused. 20 Do you have anything further, Mr. Hunker? 21 MR. HUNKER: Nothing further. 22 MR. NUTTER: Does anyone have anything 23 they wish to offer in Case 7201 or 7202? 24 We'll take the cases under advisement. 25 (Hearing concluded.)

.

20

CERTIFICATE

1

2

3

4

5

8

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Í

SALLY W. BOYD, C.S.R. kt. 1 Box 193-B Sania Fe, New Mexico 27501

505) 455-7409

œ

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Sachy Les. Boyd C.S.R.

I do hereby certify that the foregoing is d contr A dens in the 72¢ heard Examiner Oll Conservation Division

" Layton Eulerpres. . Suce Tode Paris of DF 141; 10 1000 con Co. 4411 30 31 32 1136 Rayton Enterprises, Suc. Todd Rower SH Waihlarea Rooxevelt Co. 3255.60 Gener Fed & State, 75 35E\$75 36E Called in ley Geo Gunker 3/4/81 Writer apple to fallow

DRAFT

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CAS	E NO7	202
Ord	er No. R	6677

APPLICATION OF LAYTON ENTERPRISES, INC.

FOR A WATERFLOOD PROJECT, ROOSEVELT

COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on <u>March 25</u>, 19<u>81</u>, at Santa Fe, New Mexico, before Examiner <u>Daniel S. Nutter</u>. NOW, on this <u>day of April</u>, 19<u>81</u>, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Layton Enterprises, Inc.

seeks authority to institute a waterflood project on its Told

Lower San Indres Unit HERA. Told Kower Sen San Andres Pool, by the injection of water into the

formation through four injection wells in Sections 30, 31 and 32 of its Todd Lower San Andres Unit In

Township 7 South , Range 36 East , NMPM, Roosevelt

County, New Mexico.

(3) That the wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(4) That the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste. (5) That the operator should take all steps necessary to ensure that the injected water enters only 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.

(6) That the injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than <u>850</u> psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

 (7) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, <u>Layton Enterprises, Inc.</u> is hereby authorized to institute a waterflood project on its <u>Intervention Sem Andrease</u>, <u>Table Cares Sem Pool</u> by the injection of water into the <u>Sem Andreas</u> formation through the following-described wells in Township <u>7 South</u>, Range <u>36 East</u>, NMPM, <u>Roosevelt</u> County, New Mexico:

Lease Nam - Smith sutes state

(2) That injection into each of said wells shall be through internally coated tubing, set in a packer which shall be located as near as practicable to the uppermost perforation; that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) That the operator shall immediately notify the supervisor of the Division's <u>Hobbs</u> district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from 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 timely steps as may be necessary or required to correct such failure or leakage.

(4) That the injection wells herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than <u>group</u> psi, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(5) That the subject waterflood project is hereby designated the <u>Legion Told Lower San Andres</u> Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

(6) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 704 and 1115 of the Division Rules and Regulations.

(7) That 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 hereinabove designated.