

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

MAR 22 2002

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply**

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
[B] ☒ Offset Operators, Leaseholders or Surface Owner
[C] ☐ Application is One Which Requires Published Legal Notice
[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

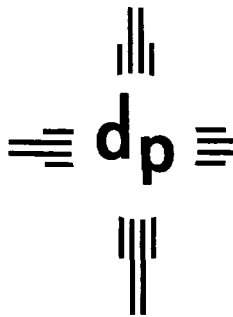
Kurt Fagrelus
Print or Type Name

Kurt Fagrelus
Signature

Geologist
Title

3/19/02
Date

dugan@cptnet.com
e-mail Address



dugan production corp.

March 21, 2002

CERTIFIED 7000 1670 0013 8143 4117

Mr. Michael E. Stogner
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Application for Administrative Approval of
Unorthodox Location for Dugan Production Corp.'s Federal I #90
2605' FNL & 660' FWL (W/2)
Unit E, Section ~~14~~ ~~North~~, T29N, R14W
San Juan County, New Mexico
Basin Fruitland Coal Pool

30-045-31032

Dear Mr. Stogner:

Dugan Production hereby requests approval for an unorthodox location for the referenced well. Attached for your reference are the following exhibits:

1. Well location and acreage dedication plat (NMOCD Form C-102)
2. Topographic map
3. Offsetting operator map

The unorthodox location is necessary due to topographic conditions.

By certified mail, a copy of this application and request for administrative approval has been sent to all Fruitland Coal offsetting operators and the Bureau of Land Management.

Please contact me if you have any questions or need additional information.

Sincerely,

Kurt H. Fagrelus
Geologist

Attachments

cc:

Certified/Return Receipt Requested - 7000 1670 0013 8143 4131

Richardson Operating Company 1700, Lincoln St., Ste 1700, Denver, CO. 80203 -

2 NSL Package

Bureau of Land Management- 1235 La Plata Hwy., Farm. NM 87401 -

2 NSL Package

NMOCD, 1000 Rio Brazos Road, Aztec, NM 87410

1 NSL Package

District I
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Revised February 21, 1991
Instructions on form
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District II
PO Drawer CO, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code	*Property Name FEDERAL I		*Well Number 90
*OGRID No 006515	*Operator Name DUGAN PRODUCTION CORPORATION		*Elevation 5446'

¹⁰ Surface Location

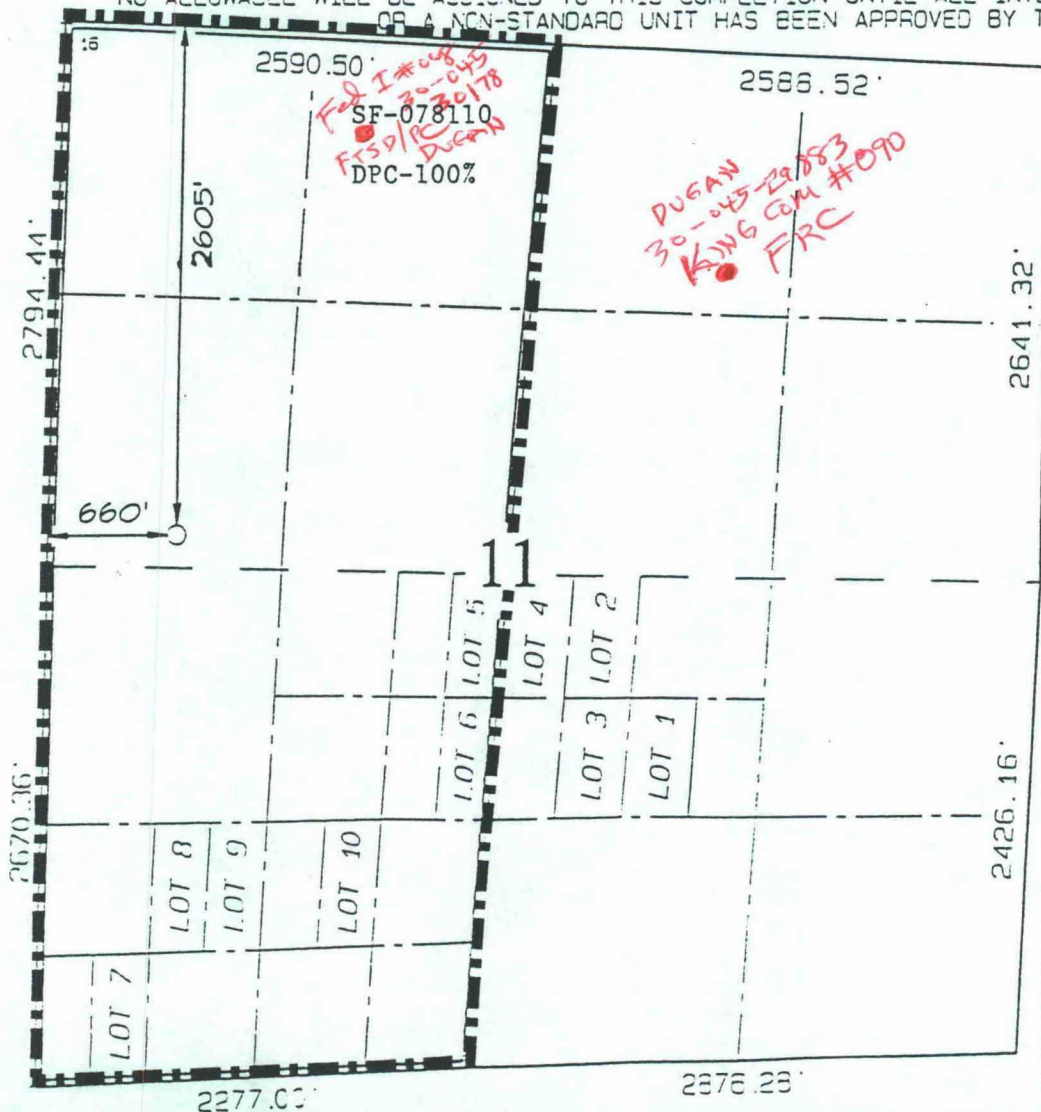
UL or lot no	Section	Township	Range	Lot (n)	Feet from the	North/South line	Feet from the	East/West line	County
E	11	29N	14W		2605	NORTH	660	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot (n)	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 316.11 Acres - (W/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information
contained herein is true and complete
to the best of my knowledge and belief

Kurt Fagrelus
Signature

Kurt Fagrelus

Printed Name

Geologist

Title

March 18, 2002

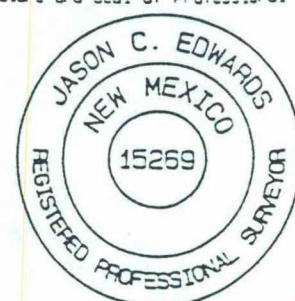
Date

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location
shown on this plat was plotted from field
notes of actual surveys made by me or under
my supervision, and that the same is true
and correct to the best of my belief.

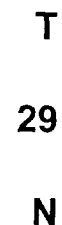
Survey Date: FEBRUARY 25, 2002

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

R 14 W



Application for Unorthodox Proration Unit

All Offsetting Operators Are Working Interest Owners

API	Wells (29N 14W) Name	Sec	UL	NS	EW	Operator	OGRD	Prop	Pool	Formation/ Notes	Gas2000	Oil2000	Gas2001	Oil2001
30-045-08867	FEDERAL I #002	1	A	790N	990E	DUGAN PRODUCTION CORP	6515	3682	71599		1879	0	1559	0
30-045-29991	FEDERAL I #100	1	B	950N	1835E	DUGAN PRODUCTION CORP	6515	3682	71629	BASIN FRUITLAND COAL	0	0	1649	0
30-045-20397	FEDERAL I #004	1	C	1100N	1600W	DUGAN PRODUCTION CORP	6515	3682	78160		20931	0	9630	0
30-045-08861	FEDERAL I #003	1	D	1030N	1070W	DUGAN PRODUCTION CORP	6515	3682	0		0	0	0	0
30-045-30592	FEDERAL I #004R	1	D	1090N	900W	DUGAN PRODUCTION CORP	6515	3682	78160	HARPER HILL FR SAND PC	0	0	5638	0
30-045-23207	FEDERAL I #005	1	G	1590N	1800E	DUGAN PRODUCTION CORP	6515	3682	0	0 HARPER HIL FRT SD PC (P&A 10-3-00)	0	0	0	0
30-045-20721	FEDERAL I #006	1	J	1850S	1800E	DUGAN PRODUCTION CORP	6515	3682	0		0	0	0	0
30-045-29351	FEDERAL I #005R	1	J	1790S	1820E	DUGAN PRODUCTION CORP	6515	3682	78160	HARPER HILL FT SND PC	32561	0	34962	0
30-045-23199	COM #002	2	A	1125N	1070E	DUGAN PRODUCTION CORP	6515	3621	78160		4213	0	1517	0
30-045-23940	COM #001E	2	A	666N	1097E	DUGAN PRODUCTION CORP	6515	3621	71599		16908	25	16888	11
30-045-30576	COM #002R	2	B	907N	1450W	DUGAN PRODUCTION CORP	6515	3621	78160	HARPER HILL FRUITLAND PC	0	0	19133	0
30-045-29986	COM #004	2	C	790N	1575E	DUGAN PRODUCTION CORP	6515	3621	78160	HARPER HILL FT SD PC EXT	98837	0	50924	0
30-045-08722	COM #001	2	J	1750S	1820E	DUGAN PRODUCTION CORP	6515	3621	71629	BASIN DAK(ZA)/BAS FRT COAL	96226	0	68465	0
30-045-23267	COM #003	2	J	1850S	1450E	DUGAN PRODUCTION CORP	6515	3621	78160		1358	0	2430	0
30-045-29935	COM #091	2	L	2510S	790W	DUGAN PRODUCTION CORP	6515	3621	71629	BASIN FRUITLAND COAL	29904	0	45826	0
30-045-30202	WF FEDERAL 3 #001	3	D	1255N	1095W	RICHARDSON OPERATING CO	19219	25983	86620	TWIN MDS PC EXT	9759	0	43552	0
30-045-29989	FEDERAL I #099	3	H	1488N	1106E	DUGAN PRODUCTION CORP	6515	3682	71629	BASIN FRUITLAND COAL	32067	0	62622	0
30-045-30181	FEDERAL I #007	3	J	1560S	1605E	DUGAN PRODUCTION CORP	6515	3682	78160	HARPER HILL FTSD PC	41179	0	86320	0
30-045-30168	WF FEDERAL 3 #002	3	L	2495S	1290W	RICHARDSON OPERATING CO	19219	25983	71629	BASIN FRUITLAND COAL	14666	0	59292	0
30-045-25630	LOCKE #001	3	P	1120S	1120E	SOUTHLAND ROYALTY CO	21281	10539	0		0	0	0	0
30-045-30180	FEDERAL I #098	10	B	1200N	1850E	DUGAN PRODUCTION CORP	6515	3682	71629	BASIN FRUITLAND COAL	20404	0	58411	0
30-045-30444	ROP CO 10 #001	10	D	1272N	673W	RICHARDSON OPERATING CO	19219	27015	0	HARPER HILL FR SND PC	0	0	0	0
30-045-25867	LOCKE #002	10	G	1850N	1650E	ENERGEN RESOURCES CORPORATION	162928	22041	71599		7955	68	5183	44
30-045-25951	MCWHORTER DUNCAN #001	10	K	1565S	1820W	ENERGEN RESOURCES CORPORATION	162928	22042	71599		11604	87	8432	83
30-045-30448	ROP CO 10 #002	10	K	1772S	1948W	RICHARDSON OPERATING CO	19219	27015	78160	HARPER HILL FT SND PC/BASIN FT COAL	0	0	19485	0
30-045-29883	KING COM #090	11	B	1128N	1511E	DUGAN PRODUCTION CORP	6515	24405	71629	BASIN FRUITLAND COAL	3361	0	10364	0
30-045-30178	FEDERAL I #008	11	C	790N	1530W	DUGAN PRODUCTION CORP	6515	3682	78160	HARPER HILL FT SD PC EXT	28661	0	91459	0
30-045-21624	NAVAJO TRIBAL H #015	13	A	890N	790E	MOUNTAIN STATES PETROLEUM CORP	147701	18732	0	W KUTZ PC (P&A 10-17-98)	0	0	0	0
30-045-30652	NAVAJO 13 #001	13	A	1300N	1230E	RICHARDSON OPERATING CO	19219	29190	0	BASIN FT COAL/W KUTZ PC	0	0	0	0
30-045-30653	NAVAJO 13 #002	13	E	1978N	1221W	RICHARDSON OPERATING CO	19219	29190	0	W KUTZ PC	0	0	0	0
30-045-08280	NAVAJO TRIBAL H #013	13	K	1830S	1830W	RICHARDSON OPERATING CO	19219	23871	96160	SWD,MESAVERDE	0	0	0	0
30-045-13101	NAVAJO TRIBAL H #005	13	M	705S	660W	RICHARDSON OPERATING CO	19219	23871	79680	BASIN FRT COAL/W KUTZ PC (MV ZA)	25974	0	61135	0
30-045-08363	NAVAJO TRIBAL H #012	14	E	1830N	810W	RICHARDSON OPERATING CO	19219	23871	79680	W KUTZ PC (GAL ZA)	0	0	11151	0
30-045-30485	WF NAVAJO 14 #001	14	I	1690S	660E	RICHARDSON OPERATING CO	19219	27159	79680	WEST KUTZ PC	0	0	9741	0
30-045-30522	BENALLY 14 #003	14	K	1592S	1320W	RICHARDSON OPERATING CO	19219	28927	0	BASIN FRUITLAND COAL/W KUTZ PC	0	0	0	0

Will Jones

(CEDAR HILL-FRUITLAND BASAL COAL GAS (VERTICAL LIMITS EXTENSIONS) POOL - Cont'd.)

further defined and described as having vertical limits consistent within the vertical extension of the Cedar Hill-Fruitland Basal Coal Pool.

(3) Rule 1 of said Division Order No. R-7588, as amended is hereby suspended and shall be replaced with the following:

RULE 1. (A) Each well completed or recompleted in the Cedar Hill-Fruitland Basal Coal Pool shall be spaced, drilled, operated and prorated in accordance with the Special Rules and Regulations herein-after set forth.

RULE 1. (B) A Cedar Hill-Fruitland Basal Coal Pool well will be defined as one which meets a preponderance of the generally characterized coalbed methane criteria as derived from:

- (a) Wireline log data;
- (b) Drilling time;
- (c) Drill cutting;
- (d) Mud logs;
- (e) Completion data;
- (f) Gas analysis;
- (g) Water analysis;
- (h) Reservoir performance;
- (i) Any other evidence that indicates the production is predominantly coal methane.

No one characteristic of lithology, performance or sampling will either qualify or disqualify a well from being classified as a coal gas well. Absent any finding to the contrary, any well completed in accordance with these rules that has met a preponderance of the criteria for determining a coal well is therefrom presumed to be completed in and producing from the Cedar Hill-Fruitland Basal Coal Pool. The District Supervisor may, at his discretion, require that an operator document said determination of the appropriate pool or require an order under the provisions of General Rule 303(c) authorizing the commingling of pools in the event a coal well fails to meet the criteria for a coal well as set forth in this rule.

IT IS FURTHER ORDERED THAT:

(4) Any well drilling to or completed in a coal member of the Fruitland formation within this vertical extension of the Cedar Hill-Fruitland Basal Coal Pool on or before November 1, 1988 that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of said rule. The operator of any such well shall notify the Aztec District Office of the Division, in writing, of the name and location of any such well on or before January 1, 1989.

(5) Applicant's request to authorize downhole commingling of Fruitland Sandstone Gas and Fruitland Coal Gas at the District Office level of the Division is hereby denied.

(6) This case shall be reopened at an examiner hearing in October, 1990, at which time the operators in the subject pool may appear and show cause why the vertical extension of the Cedar Hill-Fruitland Basal Coal Pool should not be rescinded and Division Order No. R-7588, as amended, should not be reinstituted as they existed prior to the issuance of this order.

(7) 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.

BASIN-FRUITLAND COAL GAS POOL

San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico

Order No. R-8768, Creating and Adopting Temporary Operating Rules for the Basin-Fruitland Coal Pool, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, November 1, 1988, as Amended by Order No. R-8768-A, July 16, 1991, and Order No. R-8768-B, February 10, 2000.

In the Matter of the Hearing called by the Oil Conservation Division (OCD) on its own Motion for Pool Creation and Special Pool Rules, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico.

CASE NO. 9420
Order No. R-8768

ORDER OF THE DIVISION

BY THE DIVISION: This Cause came on for hearing at 8:30 a.m. on July 6, 1988, at Farmington, New Mexico, before Examiner David R. Catanach.

NOW, on this 17th day of October, 1988, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) Division Case Nos. 9420 and 9421 were consolidated at the time of the hearing for the purpose of testimony.

(3) The Oil Conservation Division, hereinafter referred to as the "Division", on the recommendations of the Fruitland Coalbed Methane Committee, hereinafter referred to as the "Committee", seeks the creation of a new pool for the production of gas from coal seams within the Fruitland formation underlying the following described area in San Juan, Rio Arriba, McKinley, and Sandoval Counties, New Mexico:

Township 19 North, Ranges 1 West through 6 West;
Township 20 North, Ranges 1 West through 8 West;
Township 21 North, Ranges 1 West through 9 West;
Township 22 North, Ranges 1 West through 11 West;
Township 23 North, Ranges 1 West through 14 West;
Township 24 North, Ranges 1 East through 16 West;
Township 25 North, Ranges 1 East through 16 West;
Township 26 North, Ranges 1 East through 16 West;
Township 27 North, Ranges 1 West through 16 West;
Township 28 North, Ranges 1 West through 16 West;
Township 29 North, Ranges 1 West through 15 West;
Township 30 North, Ranges 1 West through 15 West;
Township 31 North, Ranges 1 West through 15 West;
Township 32 North, Ranges 1 West through 13 West;

(4) The Division further seeks, also upon the recommendations of the Committee, the promulgation of special pool rules, regulations, and operating procedures for said pool including, but not limited to, provisions for 320-acre spacing and proration units, designated well locations, well density, horizontal wellbore and deviated drilling procedures, venting and flaring rules, downhole commingling, and gas well testing requirements.

(BASIN-FRUITLAND COAL GAS POOL - Cont'd.)

(5) In companion Case No. 9421, the Division seeks to contract the vertical limits of twenty-six existing Fruitland and/or Fruitland-Pictured Cliffs Gas Pools to include only the Pictured Cliffs sandstone and/or Fruitland sandstone intervals.

(6) The Committee, which included representatives of the oil and gas industry, New Mexico Oil Conservation Division, Colorado Oil and Gas Conservation Commission, Bureau of Land Management, and Southern Ute Indian Tribe, was originally formed in 1986 for the purpose of studying and making recommendations to the Division as to the most orderly and efficient methods of developing coal seam gas within the Fruitland formation.

(7) Geological evidence presented by the Committee indicates that the Fruitland formation, which is found within the geographic area described above, is composed of alternating layers of shales, sandstones, and coal seams.

(8) The evidence at this time further indicates that the coal seams within the Fruitland formation are potentially productive of natural gas in substantial quantities.

(9) The gas originating from the coal seams within the Fruitland formation is composed predominantly of methane and carbon dioxide and varies significantly from the composition of the gas currently being produced from the sandstone intervals, and as such, represents a separate common source of supply.

(10) A new pool for gas production from coal seams within the Fruitland formation should be created and designated the Basin-Fruitland Coal Gas Pool with vertical limits comprising all coal seams within the equivalent of the stratigraphic interval from a depth of approximately 2450 feet to 2880 feet as shown on the Gamma Ray/Bulk Density log from Amoco Production Company's Schneider Gas Com "B" Well No. 1 located 1110 feet from the South line and 1185 feet from the West line of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(11) The proposed horizontal pool boundary, which represents the geographic area encompassed by the Fruitland formation, contains within it, an area previously defined as the Cedar Hill-Fruitland Basal Coal Gas Pool (created by Division Order No. R-7588 effective February 1, 1984); said area currently comprises Sections 3 through 6 of Township 31 North, Range 10 West, and Sections 19 through 22 and 27 through 34 of Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(12) The proposed horizontal boundary of the Basin-Fruitland Coal Gas Pool should be amended to exclude that acreage currently defined as the Cedar Hill-Fruitland Coal Gas Pool described in Finding No. (11) above.

(13) The Committee has recommended the promulgation of special rules and regulations for the Basin-Fruitland Coal Gas Pool including a provision for 320-acre spacing and proration units, and in support thereof presented pressure interference data obtained from producing and pressure observation wells located within the Cedar Hill-Fruitland Coal Gas Pool, which indicates definite pressure communication between wells located 2180 feet apart (radius of drainage of a 320-acre proration unit = 2,106 feet).

(14) Further testimony and evidence indicates that due to the unique producing characteristics of coal seams (i.e. initial inclining production rates), engineering methods such as decline curve analysis and volumetric calculations traditionally used to aid in the determination of proper well spacing, cannot be utilized.

(15) The Committee further recommended the adoption of a provision in the proposed pool rules allowing for the drilling of a second well on a standard 320-acre proration unit in order to give an operator flexibility when addressing regional geological trends.

(16) Dugan Production Corporation, Merrion Oil and Gas Corporation, Hixon Development Company, Robert L. Bayless, and Jerome P. McHugh and Associates, hereinafter referred to as the "Dugan Group", appeared at the hearing and presented geologic and engineering evidence and testimony in support of a proposal which includes the following:

1. Establishment of an area within the Southern portion of the Basin-Fruitland Coal Gas Pool to be developed on 160-acre spacing and proration units.

2. Creation of a demarcation line and buffer zone separating the 320-acre spacing portion of the pool and the proposed 160-acre spacing portion of the pool.

(17) The Dugan Group owns oil and gas leasehold operating rights in the Fruitland formation in various areas of the San Juan Basin, and currently operates numerous wells producing from coal seams and sandstone intervals within the Fruitland formation.

(18) The Dugan Group has defined the location of the proposed demarcation line and 160-acre spacing area by utilizing a preponderance of geologic factors such as coal rank, depth of burial, thermal maturation, thickness of coal, and amount of gas in place.

(19) In support of the proposed 160-acre spacing area for the subject pool, the Dugan Group presented production data obtained from four producing wells, the Nassau Well Nos. 5, 6, 7 and 8 located in Section 36, Township 27 North, Range 12 West, NMPM, San Juan County, New Mexico, which indicates that the production rate from said Nassau Well No. 5 was unaffected by initiation of 160-acre offset production in said Nassau Well Nos. 6, 7, and 8.

(20) The evidence presented by the Dugan Group further indicates however, that the Nassau Well Nos. 5, 6, 7, and 8 are producing from commingled coal seam and sandstone intervals within the Fruitland formation, and as such, do not conclusively demonstrate 160-acre non-interference exclusively within the coal seams.

(21) Insufficient evidence exists at the current time to justify the creation of a 160-acre spacing area and demarcation line within the Basin-Fruitland Coal Gas Pool.

(22) The best technical evidence available at this time indicates that 320-acre well spacing is the optimum spacing for the entire Basin-Fruitland Coal Gas Pool.

(23) In order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, and to otherwise protect correlative rights, special rules and regulations providing for 320-acre spacing units should be promulgated for the Basin-Fruitland Coal Gas Pool.

(24) The special rules and regulations should also provide for restrictive well locations in order to assure orderly development of the subject pool and protect correlative rights.

(25) Due to the relatively large area encompassed by the Basin-Fruitland Coal Gas Pool, and the relatively small amount of reservoir data currently available, the special rules and regulations should be promulgated for a temporary period of two years in order to allow the operators in the subject pool the opportunity to gather additional reservoir data relative to the determination of permanent spacing rules for the subject pool and/or specific areas within the pool.

(26) The evidence and testimony presented at the hearing is insufficient to approve at the present time, the proposed provision allowing for the drilling of a second well on a standard 320-acre proration unit.

(BASIN-FRUITLAND COAL GAS POOL - Cont'd.)

(27) The Committee further recommended the adoption of a provision in the Special Rules and Regulations allowing the venting or flaring of gas from a Basin-Fruitland Coal Gas well during initial testing in an amount not to exceed a cumulative volume of 50 MMCF or a period not to exceed 30 days.

(28) The evidence presented does not justify the establishment of a specific permissible volume of gas to be vented or flared from Basin-Fruitland Coal Gas Wells at this time, however, the supervisor of the Aztec district office of the Division should have the authority to allow such venting or flaring of gas from a well upon a demonstration such flaring or venting is justified and upon written application from the operator.

(29) Evidence and testimony presented at the hearing indicates that the gas well testing requirements as contained in Division Order No. R-333-I may cause damage to a Basin Fruitland Coal Gas Well, and that special testing procedures should be established.

(30) The special rules and regulations promulgated herein should include operating procedures for determination and classification of Basin-Fruitland Coal Gas Wells, horizontal wellbore and deviated drilling procedures, and procedures and guidelines for downhole commingling.

(31) This case should be reopened at an examiner hearing in October, 1990, at which time the operators in the subject pool should be prepared to appear and present evidence and testimony relative to the determination of permanent rules and regulations for the Basin-Fruitland Coal Gas Pool.

IT IS THEREFORE ORDERED THAT:

(1) Effective November 1, 1988, a new pool in all or parts of San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, classified as a gas pool for production from Fruitland coal seams, is hereby created and designated the Basin-Fruitland Coal Gas Pool, with vertical limits comprising all coal seams within the equivalent of the stratigraphic interval from a depth of approximately 2450 feet to 2880 feet as shown on the Gamma Ray/Bulk Density log from Amoco Production Company's Schneider Gas Com "B" Well No. 1 located 1110 feet from the South line and 1185 feet from the West line of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(2) The horizontal limits of the Basin-Fruitland Coal Gas Pool shall comprise the following described area in all or portions of San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, with the exception of Section 3 through 6 of Township 31 North, Range 10 West, and Section 19 through 22, and 27 through 34 of Township 32 North, Range 10 West, San Juan County New Mexico, which said acreage currently comprises the Cedar Hill-Fruitland Basal Coal Gas Pool:

Township 19 North, Ranges 1 West through 6 West;
 Township 20 North, Ranges 1 West through 8 West;
 Township 21 North, Ranges 1 West through 9 West;
 Township 22 North, Ranges 1 West through 11 West;
 Township 23 North, Ranges 1 West through 14 West;
 Township 24 North, Ranges 1 East through 16 West;
 Township 25 North, Ranges 1 East through 16 West;
 Township 26 North, Ranges 1 East through 16 West;
 Township 27 North, Ranges 1 West through 16 West;
 Township 28 North, Ranges 1 West through 16 West;
 Township 29 North, Ranges 1 West through 15 West;
 Township 30 North, Ranges 1 West through 15 West;
 Township 31 North, Ranges 1 West through 15 West;
 Township 32 North, Ranges 1 West through 13 West;

(3) Temporary Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
BASIN-FRUITLAND COAL GAS POOL

RULE 1. Each well completed or recompleted in the Basin-Fruitland Coal Gas Pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. A gas well within the Basin-Fruitland Coal Gas Pool shall be defined by the Division Director as a well that is producing from the Fruitland coal seams as demonstrated by a preponderance of data which could include the following:

- a. Electric Log Data
- b. Drilling Time
- c. Drill Cuttings of Log Cores
- d. Mud Logs
- e. Completion Data
- f. Gas Analysis
- g. Water Analysis
- h. Reservoir Performance

i. Other evidence which may be utilized in making such determination.

RULE 3. (As Amended by Order No. R-8768-A, July 16, 1991) The Division Director may require the operator of a proposed or existing Basin-Fruitland Coal Gas well, Fruitland Sandstone well, or Pictured Cliffs Sandstone well, to submit certain data as described in Rule (2) above, which would not otherwise be required by Division Rules and Regulations, in order to demonstrate to the satisfaction of the Division that said well will be or is currently producing from the appropriate common source of supply. The confirmation that a well is producing exclusively from the Basin-Fruitland Coal Gas Pool shall consist of approval of Division Form C-104, provided however that such approval shall be for Division purposes only, and shall not preclude any other governmental jurisdictional agency from making its own determination of production origination utilizing its own criteria.

RULE 4. (As Amended by Order No. R-8768-A, July 16, 1991) Each well completed or recompleted in the Basin-Fruitland Coal Gas Pool shall be located on a standard unit containing 320 acres, more or less, comprising any two contiguous quarter sections of a single governmental section, being a legal subdivision of the United States Public Lands Survey.

Individual operators may apply to the Division for an exception to the requirements of Rule No. (4) to allow the drilling of a second well on standard 320-acre units or on approved non-standard units in specifically defined areas of the pool provided that:

(a) Any such application shall be set for hearing before a Division Examiner;

(b) Actual notice of such application shall be given to operators of Basin-Fruitland Coal Gas Pool wells, working interest owners of undrilled leases, and unleased mineral owners within the boundaries of the area for which the infill provision is requested, and to all operators of Basin-Fruitland Coal Gas Pool wells within one mile of such area, provided however any operator in the pool or other interested party may appear and participate in such hearing.

Such notice shall be sent certified or registered mail or by overnight express with certificate of delivery and shall be given at least 20 days prior to the date of the hearing.

RULE 5. (As Amended by Order No. R-8768-A, July 16, 1991) The Supervisor of the Aztec district office of the Division shall have the authority to approve a non-standard gas proration unit within the Basin-Fruitland Coal Gas Pool without notice and hearing when the unorthodox size or shape is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and/or consists of an entire governmental section and the non-standard unit is not less than 70% nor more than 130% of a standard as proration unit. Such approval shall consist of acceptance of Division Form C-102 showing the proposed non-standard unit and the acreage contained therein.

(BASIN-FRUITLAND COAL GAS POOL - Cont'd.)

RULE 6. (As Amended by Order No. R-8768-A, July 16, 1991) The Division Director may grant an exception to the requirements of Rule (4) when the unorthodox size or shape of the gas proration unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and the non-standard gas proration unit is less than 70% or more than 130% of a standard gas proration unit, or where the following facts exist and the following provisions are complied with:

(a) the non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) The non-standard unit lies wholly within a governmental half section, except as provided in paragraph (c) following.

(c) The non-standard unit conforms to a previously approved Blanco-Mesaverde or Basin-Dakota Gas Pool non-standard unit as evidenced by applicant's reference to the Division's order number creating said unit.

(d) The applicant presents written consent in the form of waivers from all offset operators or owners of undrilled tracts and from all operators owning interests in the half section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.

(e) In lieu of paragraph (d) of this rule, the applicant may furnish proof of the fact that all of the aforesaid parties were notified by certified or registered mail or overnight express mail with certificate of delivery of his intent to form such non-standard unit. The Division Director may approve the application if no such party has entered an objection to the formation of such non-standard unit within 30 days after the Division Director has received the application.

(f) The Division Director, at his discretion, may set any application under Rule (6) for public hearing.

RULE 7. (As Amended by Order No. R-8768-B, Effective February 10, 2000.) Wells drilled or recompleted on every standard or non-standard unit in the Basin-Fruitland Coal Gas Pool shall be located in the NE/4 or SW/4 or a single governmental section and shall be located no closer than 660 feet to any outer boundary of the proration unit nor closer than 10 feet to any interior quarter or quarter-quarter section line or subdivision inner boundary.

RULE 8. The Division Director may grant an exception to the requirements of Rule (7) without hearing when an application has been filed for an unorthodox location necessitated by topographical conditions, the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at an orthodox or approved unorthodox location for such original horizon, or the drilling of an intentionally deviated horizontal wellbore. All operators or owners of undrilled tracts offsetting the proposed location shall be notified of the application by registered or certified mail, and the applicant shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all parties described above or if no objections to the unorthodox location has been entered within 20 days after the Director has received the application.

RULE 9(A). The Division Director shall have the authority to administratively approve an intentionally deviated well in the Basin-Fruitland Coal Gas Pool for the purpose of penetrating the coalbed seams by means of a wellbore drilled horizontally, provided the following conditions are complied with:

(1) the surface location of the proposed well is a standard location or the applicant has obtained approval of an unorthodox surface location as provided for in Rule (8) above.

(2) The bore hole shall not enter or exit the coalbed seams outside of a drilling window which is in accordance with the setback requirements of Rule (7), provided however, that the 10 foot setback distance requirement from the quarter-quarter section line or subdivision inner boundary shall not apply to horizontally drilled wells.

(B) To obtain administrative approval to drill an intentionally deviated horizontal wellbore, the applicant shall file such application with the Santa Fe and Aztec offices of the Division and shall further provide a copy of such application to all operators or owners of undrilled tracts offsetting the proposed gas proration unit for said well by registered or certified mail, and the application shall state that such notice has been furnished. The application shall further include the following information:

(1) A copy of Division Form C-102 identifying the proposed proration unit to be dedicated to the well.

(2) Schematic drawings of the proposed well which fully describe the casing, tubing, perforated or open hole interval, kick-off point, and proposed trajectory of the drainhole section.

The Director may approve the application upon receipt of written waivers from all parties described above or if no objection to the intentionally deviated horizontal wellbore has been entered within 20 days after the Director has received the application. If any objection to the proposed intentionally deviated horizontal well is received within the prescribed time limit as described above, the Director shall, at the applicant's request, set said application for public hearing.

(C) During or upon completion of drilling operations the operator shall further be required to conduct a directional survey on the vertical and lateral portions of the wellbore and shall submit a copy of said survey to the Santa Fe and Aztec Offices of the Division.

(D) The Division Director, at his discretion, may set any application for intentionally deviated horizontal wellbores for public hearing.

RULE 10. Notwithstanding the provisions of Division Rule No. 404, the Supervisor of the Aztec District office of the Division shall have the authority to approve the venting or flaring of gas from a Basin-Fruitland Coal Gas Well upon a determination that said venting or flaring is necessary during completion operations, to obtain necessary well test information, or to maintain the producibility of said well. Application to flare or vent gas shall be made in writing to the Aztec district office of the Division.

RULE 11. Testing requirements for a Basin-Fruitland Coal Gas well hereinafter set forth may be used in lieu of the testing requirements contained in Division Order No. R-333-I. The test shall consist of a minimum twenty-four hour shut-in period, and a three hour production test. The Division Director shall have the authority to modify the testing requirements contained herein upon a showing of need for such modification. The following information from this initial production test must be reported:

1. The surface shut-in tubing and/or casing pressure and date these pressures were recorded.

2. The length of the shut-in period.

3. The final flowing casing and flowing tubing pressures and the duration and date of the flow period.

4. The individual fluid flow rate of gas, water, and oil which must be determined by the use of a separator and measurement facilities approved by the Supervisor of the Aztec district office of the Division; and

(BASIN-FRUITLAND COAL GAS POOL - Cont'd.)

5. The method of production, e.g. flowing, pumping, etc. and disposition of gas.

RULE 12. The Division Director shall have the authority to approve the commingling within the wellbore of gas produced from coal seams and sandstone intervals within the Fruitland and/or Pictured Cliffs formations where a finding has been made that a well is not producing entirely from either coal seams or sandstone intervals as determined by the Division. All such applications shall be submitted to the Santa Fe office of the Division and shall contain all the necessary information as described in General Rule 303 (C) of the Division Rules and Regulations, and shall meet the prerequisites described in 303 (C) (1) (b). In addition, the Division Director may require the submittal of additional well data as may be required to process such application.

RULE 13. The Division Director may approve the commingling within the wellbore of gas produced from coal seams and sandstone intervals within the Fruitland and/or Pictured Cliffs formations where a well does not meet the prerequisites as described in General Rule 303 (C) (1) (b) provided that such commingling had been accomplished prior to July 1, 1988, and provided further that the application is filed as described in Rule (12).

IT IS FURTHER ORDERED THAT:

(4) The locations of all wells presently drilling to, completed in, commingled in, or having an approved APD for the Basin-Fruitland Coal Gas Pool are hereby approved; the operator of any well having an unorthodox location shall notify the Aztec district office of the Division in writing of the name and location of the well within 30 days from the date of this order.

(5) Pursuant to Paragraph A. of Section 70-2-18, N.M.S.A. 1978, Comp., contained in Laws of 1969, Chapter 271, existing gas wells in the Basin-Fruitland Coal Gas Pool shall have dedicated thereto 320 acres in accordance with the foregoing pool rules; or pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing and proration units established by the Division and dedicated thereto.

(6) In accordance with (5) above, the operator shall file a new Form C-102 dedicating 320 acres to the well or shall obtain a non-standard unit approved by the Division. The operator shall also file a new C-104 with the Aztec district office of the Division.

(7) Failure to comply with Paragraphs (5) and (6) above within 60 days of the date of this order shall subject the well to a shut-in order until such requirements have been met.

(8) This case shall be reopened at an examiner hearing in October, 1990 at which time the operators in the subject pool may appear and present evidence and testimony relative to the determination of permanent rules and regulations for the Basin-Fruitland Coal Gas Pool.

(9) 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.

VADA-DEVONIAN POOL
Lea County, New Mexico

Order No. R-8770, Adopting Temporary Operating Rules for the Vada-Devonian Pool, Lea County, New Mexico, October 26, 1988.

Order No. R-8770-A, May 30, 1990, rescinds the temporary operating rules adopted in Order No. R-8770, October 26, 1988.

Application of Union Pacific Resources Company for Pool Extension and Special Pool Rules, Lea County, New Mexico.

CASE NO. 9439
Order No. R-8770

ORDER OF THE DIVISION

BY THE DIVISION: This cause came on for hearing at 8:15 a.m. on August 17, 1988, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 26th day of October, 1988, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) Division Case Nos. 9439 and 9440 were consolidated at the time of the hearing for the purpose of testimony.

(3) By Order No. R-8667 dated June 10, 1988, the Division created and defined the Vada-Devonian Pool with horizontal limits consisting of the SW/4 of Section 26, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico.

(4) The applicant, Union Pacific Resources Company, seeks to extend the horizontal limits of the Vada-Devonian Pool to include the NW/4 of Section 35, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, and further seeks the promulgation of temporary special rules and regulations for said pool, including a provision for 80-acre spacing and proration units, designated well locations, and a poolwide exception to Division Rule No. 111 allowing for directional drilling or well deviations of more than five degrees in any 500-foot interval.

(5) The applicant is the owner and operator of the discovery well for said pool, the State "26" Well No. 1 located 330 feet from the South line and 2310 feet from the West line of said Section 26.

(6) The applicant is also the owner and operator of the State "26" Well No. 2 located 1910 feet from the South line and 1980 feet from the East line (Unit J) of said Section 26, which was spudded on April 21, 1988, was drilled to a depth of 12,953 feet and is currently being sidetracked to an unorthodox subsurface location within a 150-foot radius of a point 1910 feet from the South line and 2580 feet from the East line (Unit J) of said Section 26, (being the subject of companion Case No. 9440).

(VADA-DEVONIAN POOL - Cont'd.)

(7) The applicant has also proposed the drilling of the State "35" Well No. 1 to be located 725 feet from the North line and 2040 feet from the West line (Unit C) of said Section 35.

(8) It is the policy of the Division to extend pools only after wells have been drilled and completed and inasmuch as the State "35" Well No. 1 has not been drilled, that portion of the application requesting extension of the subject pool to include the NW/4 of said Section 35 should be denied.

(9) With little production history available from the State "26" Well No. 1, the applicant presented reservoir volumetric calculations and recovery rates which indicate that 80-acre spacing should be appropriate for the subject pool.

(10) In order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells and to otherwise protect correlative rights, temporary special rules and regulations providing for 80-acre spacing units should be promulgated for the subject pool.

(11) The temporary special rules and regulations should also provide for restrictive well locations in order to assure orderly development of the pool and protect correlative rights.

(12) Although the applicant requested that the temporary rules and regulations for the subject pool remain in effect for a period of two years, a period of 18 months should allow sufficient time for the operators in the subject pool to gather reservoir information to show that an 80-acre unit in the area can be efficiently and economically drained and developed by one well.

(13) The applicant further seeks to incorporate into the special rules and regulations for the subject pool a provision allowing a well to be directionally drilled or to unintentionally deviate more than five degrees in any 500-foot interval, provided that the cumulative displacement is not greater than 410 feet from the center of a governmental quarter-quarter section and provided that the subsurface location is no closer than 250 feet to the outer boundary of the spacing and proration unit when it encounters the top of the Devonian formation.

(14) In support of its proposal, the applicant presented evidence which indicates that due to geologic circumstances in the area, substantial drift has been encountered during the drilling of the State "26" Wells Nos. 1 and 2 at depths below approximately 9,500 feet.

(15) The applicant seeks approval of said provision to avoid the additional time and expense incurred in directionally drilling wells back toward the vertical.

(16) The deviation surveys from the State "26" Wells Nos. 1 and 2, presented as evidence in this case, indicate a maximum cumulative bottomhole displacement of 322 feet and 310 feet, respectively.

(17) Approval of the subject proposal will allow operators in the subject pool to economically drill wells to test the Devonian formation and will protect correlative rights provided that the bottomhole set back distance proposed by the applicant be adjusted to require that the cumulative displacement is not greater than 330 feet from the center of a governmental quarter-quarter section and provided that the bottomhole location is no closer than 330 feet to the outer boundary of the spacing and proration unit.

(18) This case should be reopened at an examiner hearing in April, 1990, at which time the operators in the subject pool should be prepared to appear and show cause why the temporary pool rules for the Vada-Devonian Pool should not be rescinded.

IT IS THEREFORE ORDERED THAT:

(1) The portion of the application requesting the extension of the horizontal boundary of the Vada-Devonian Pool to include the NW/4 of Section 35, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, is hereby denied.

(2) Temporary Special Rules and Regulations for the Vada-Devonian Pool, Lea County, New Mexico, previously created and defined by Division Order No. R-8667 dated June 10, 1988, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
VADA-DEVONIAN POOL

RULE 1. Each well completed or recompleted in the Vada-Devonian Pool or in the Devonian formation within one mile thereof, and not nearer to or within the limits of another designated Devonian pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a governmental quarter section being a legal subdivision of the United States Public Lands Survey, provided however, nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit.

RULE 3. For good cause shown, the Director may grant an exception to the requirements of Rule 2 without hearing when an application has been filed for a non-standard unit comprising one or more governmental quarter-quarter sections or lots, or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of a governmental quarter-quarter section or lot.

RULE 5. The Division Director may grant an exception to the requirements of Rule 4 without hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at a standard or approved non-standard location for such original horizon. All operators offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators offsetting the proposed location or if no objection to the unorthodox location has been entered within 20 days after the Director has received the application.

RULE 6. During drilling operations, an operator shall not be required to deviate a well back towards the vertical when the deviation of the well exceeds more than five degrees in any 500-foot interval provided that: