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ABOVE THIS LINE FOR DIVISION LISE ONLY

# NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -2040 South Pacheco, Santa Fe, NM 87505



2004

	A	DMINISTRATIVE	APPLICATI	ON CO	VERSHEET
TH	IS COVERSHEET IS N	IANDATORY FOR ALL ADMINISTRA WHICH REQUIRE PROC	ATIVE APPLICATION FO	R EXCEPTIONS	S TO DIVISION RULES AND REGULATIONS
Appli	cation Acronym	s:			
	PC-Pool VJ		ling] [SD-Simuit I-Lease Commingl Off-Lease Storage n] [PMX-Pressui Dsai] [IPI-Injecti	taneous De ing] [PL:   [OLM-0 re Mainten: on Pressur	C-Pool/Lease Commingling] lff-Lease Measurement] ance Expansion]
[1]	TYPE OF AI [A]	PPLICATION - Check The Location - Spacing Unit		-	JUN 2 4 1998
	Check [B]	One Only for [B] or [C] Commingling - Storage -	Measurement PLC PC	OLS	O. CONSERVACION
	[C]	Injection - Disposal - Pre	essure Increase - En	nhanced Oi EOR	l Recovery  PPR
[2]	NOTIFICAT [A]	TION REQUIRED TO: - (  Working, Royalty or (			
	[B]	Offset Operators, Lea	seholders or Surface	ce Owner	
	[C]	Application is One W	hich Requires Pub	lished Lega	al Notice
•	[D]	Notification and/or Co	oncurrent Approva ement - Commissioner of Pub	I by BLM (	or SLO and Office
	[E]	☐ For all of the above, F	Proof of Notification	n or Public	eation is Attached, and/or,
	[F]	☐ Waivers are Attached			
[3]	INFORMAT	ION / DATA SUBMITTI	ED IS COMPLET	E - Certifi	cation
Regu appro ORR	llations of the O oval is accurate a I) is common. <u>I</u>	il Conservation Division. nd complete to the best of r understand that any omis	Further, I assert my knowledge and ssion of data (inclu	that the att where appl ading API	mplied with all applicable Rules and ached application for administrative icable, verify that all interest (WI, RI, numbers, pool codes, etc.), pertinent ckage returned with no action taken.
		Statement must be completed b			
		- Dagan S	Maahiee		
Print	or Type Name	\$ignature		Title	Date

#### DISTRICT I

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107-A New 3-12-96

\_\_ YES \_\_x\_ NO

### P.O. Box 1980, Hobbs, NM 88241-1980

OIL CONSERVATION DIVISION 2040 S. Pacheco Santa Fe, New Mexico 87505-6429

APPROVAL PROCESS: \_X\_ Administrative \_\_\_Hearing

DISTRICT II 811 South First St., Artesia, NM 88210-2835 DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

APPLICATION FOR DOWNHOLE COMMINGLING

**EXISTING WELLBORE** 

Burlington Resources Oil & Gas (			9, Farmington,	NM 87499
Allison Unit		ress 114-32N-07W		San Juan
ease	Well No. Unit	Ltr Sec - Twp - Rge	Spacii	County ng Unit Lease Types: (check 1 or more)
OGRID NO14538 Property Cod	e6784 API NO30-045	i-not assigned	•	, State, (and/or) Feex
The following facts are submitted in support of downhole commingling:	Ugger: Zone		mediate one	Lower Zone
1. Pool Name and Pool Code	Blanco Mesaverde - 72319	entifficili	MATTPY MARKET	Basin Dakota - 71599
Top and Bottom of Pay Section (Perforations)	will be supplied upon completion	1		will be supplied upon completion
3. Type of production (Oil or Gas)	gas			gas
4. Method of Production (Flowing or Artificial Lift)	flowing			flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift:	(Current) a. 469 psi (see attachment)	a.		a. 692 psi (see attachment)
Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones:	(Original) b. 1235 psi (see attachment)	b.		b. 3224 psi (see attachment)
Estimated or Measured Original	BTU 967			BTU 1082
6. Oil Gravity (API) or Gas BTU Content	5.0 007			310 1002
7. Producing or Shut-In?	shut in			shut in
Production Marginal? (yes or no)	no			yes
* If Shut-in and oil/gas/water rates of	Date: n/a	Date:		Date: n/a
last production  Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Rates:	Rates:		Rates:
* If Producing, give data and	Date: n/a	Date:		Date: n/a
oil/gas/water water of recent test (within 60 days)	Rates:	Rates:		Rates:
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: Gas: % will be supplied upon completion	Oil: % Gá	as: %	Oil: Gas: % will be supplied upon completion
9. If allocation formula is based u attachments with supporting dat 10. Are all working, overriding, and rolf not, have all working, overridin Have all offset operators been girl. Will cross-flow occur?x production be recovered, and wirls. Are all produced fluids from all collisions. Will the value of production be de 14. If this well is on, or communitize Land Management has been notif	a and/or explaining method and by alty interests identical in all cong, and royalty interests been not even written notice of the propose Yes No If yes, are fluids of the allocation formula be reliated by the allocation formula by the creased by commingling? Yereased by commingling? Yereased by commingling?	providing rate proj mmingled zones? ified by certified m id downhole comm compatible, will th olex Yes h each other? Yes _X_ No (If	pections or other rail?  pail?  paingling?  pe formations not  No (If No, atta  x Yes No  Yes, attach explain	required data. YesxNoYesxNo K_YesNo c be damaged, will any cross-flower ach explanation) o nation)
Land Management has been notif 15. NMOCD Reference Cases for Rule				
16. ATTACHMENTS:  * C-102 for each zone to  * Production curve for e  * For zones with no pro  * Data to support allocation list of all e	be commingled showing its space each zone for at least one year. (duction history, estimated prodution method or formula. offset operators. king, overriding, and royalty inteents, data, or documents require	acing unit and acre If not available, att action rates and su	eage dedication. ach explanation.) pporting data.	
l hereby certify that the informa				
SIGNATURE Sean World	1 -	servoir Engineer	•	

TYPE OR PRINT NAME <u>Sean Woolverton</u> TELEPHONE NO. (505) 326-9700

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

District II PÔ Drawer DD, Artesia, NM 88211-0719

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

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

State of New Mexico Energy, Minerals & Natural Resources Department

Revised February 21, 1994 Instructions on back

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

AMENDED REPORT

Form C-102

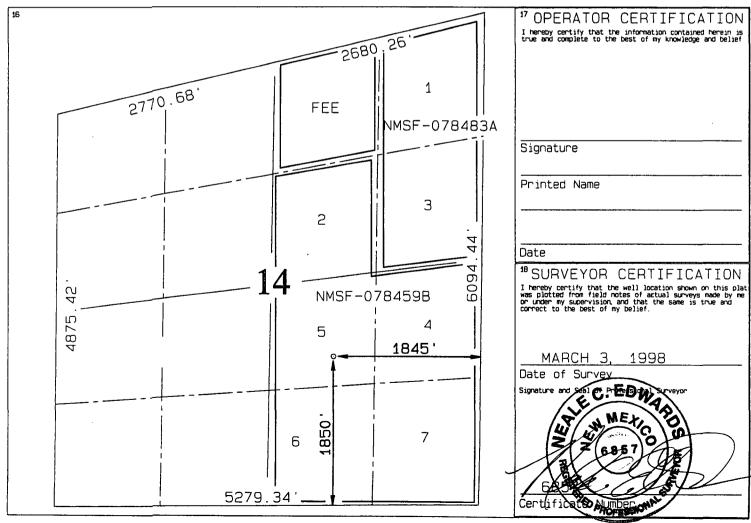
## OIL CONSERVATION DIVISION PO Box 2088 Santa Fe. NM 87504-2088

### WELL LOCATION AND ACREAGE DEDICATION PLAT

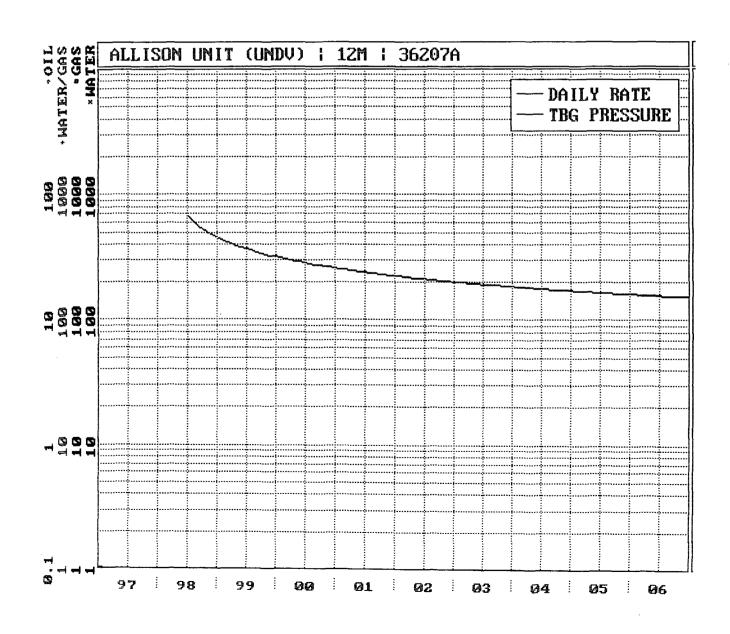
3,	API Numbe	ır		*Pool Cod	ie		³Pool Nam	е .	
<sup>1</sup> Property	Code					ty Name N UNIT		⁵ We	ell Number 12M
'OGRID	No.		BURLI	NGTON	*Operato RESOURCE	or Name ES OIL & GAS	COMPANY		levation 6841
					<sup>10</sup> Surface	Location			
UL or lot no.	Section 14	32N	Range 7W	Lot Idn	Feet from the	North/South line SOUTH	Feet from the	East/West line EAST	SAN JUAN

<sup>11</sup>Bottom Hole Location If Different From Surface Township North/South line Feet from the UL or lot no. Section Feet from the East/West line County <sup>13</sup> Joint or Infill <sup>14</sup> Consolidation Code <sup>15</sup> Order No. <sup>12</sup> Dedicated Acres

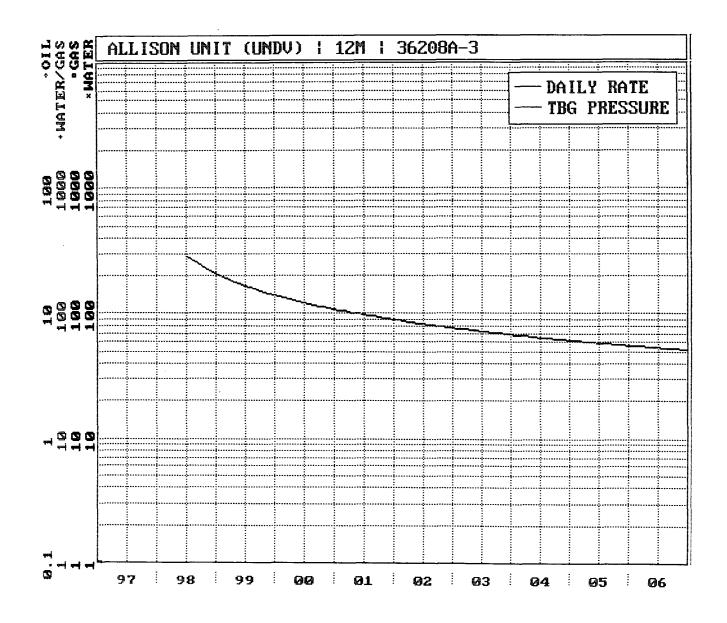
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



# Allison Unit #12M Expected Production Curve Blanco Mesaverde



# Allison Unit #12M Expected Production Curve Basin Dakota



# Allison Unit #12M

Bottom Hole Pressures Flowing and Static BHP Cullender and Smith Method Version 1.0 3/13/94

Mesaverde	Dakota	
MV-Current	<u>DK-Current</u>	
GAS GRAVITY 0.592  COND. OR MISC. (C/M) C  %N2 1.46  %CO2 2.58  %H2S 0  DIAMETER (IN) 2.375  DEPTH (FT) 6077  SURFACE TEMPERATURE (DEG F) 60  BOTTOMHOLE TEMPERATURE (DEG F) 137  FLOWRATE (MCFPD) 0  SURFACE PRESSURE (PSIA) 413  BOTTOMHOLE PRESSURE (PSIA) 469.2	GAS GRAVITY COND. OR MISC. (C/M) %N2 %CO2 %H2S DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA)	0.624  C 1.2 0.1 0 2 8115 60 198 0 581
MV-Original	DK-Original	
GAS GRAVITY  COND. OR MISC. (C/M)  %N2  1.46  %CO2  2.58  %H2S  DIAMETER (IN)  DEPTH (FT)  SURFACE TEMPERATURE (DEG F)  BOTTOMHOLE TEMPERATURE (DEG F)  FLOWRATE (MCFPD)  SURFACE PRESSURE (PSIA)  BOTTOMHOLE PRESSURE (PSIA)  1076  BOTTOMHOLE PRESSURE (PSIA)	GAS GRAVITY COND. OR MISC. (C/M) %N2 %CO2 %H2S DIAMETER (IN) DEPTH (FT) SURFACE TEMPERATURE (DEG F) BOTTOMHOLE TEMPERATURE (DEG F) FLOWRATE (MCFPD) SURFACE PRESSURE (PSIA) BOTTOMHOLE PRESSURE (PSIA)	0.624 C 1.2 0.1 0 2 8115 60 198 0 2658

Page No.: 3

`Print Time: Tue Dec 30 07:32:12 1997

Property ID: 2414 Property Name: ALLISON UNIT | 28 | 51697A-1

Table Name: K:\ARIES\RR98PDP\TEST.DBF

DATE	M_SIWHP Psi
10/12/67 10/13/67 08/15/68 04/16/69 06/02/70 07/19/71 08/10/72 06/18/73 04/18/74 06/02/76 00/10/78 00/10/78 00/10/78 00/10/78 07/01/80 05/18/82 07/02/84 03/18/86 09/31/89 09/31/89 09/31/89 11/18/91	1076.0 1089.0 618.0 597.0 519.0 555.0 470.0 463.0 470.0 386.0 386.0 386.0 386.0 602.0 633.0 613.0 657.0 657.0 482.0 470.0
03/29/93	413.0

Allison Unit #12M Mesaverde Offset

Page No.: 1

\*Print Time: Tue Dec 30 07:32:09 1997

Property ID: 12

Property Name: ALLISON UNIT | 12 | 53186B-1

Table Name: K:\ARIES\RR98PDP\TEST.DBF

Allison Unet #12M

07/24/58 2658.0 07/29/59 2177.0 02/22/60 1550.0 07/21/61 1401.0 12/26/61 1604.0 04/25/62 1521.0
05/06/63 1674.0 04/22/64 1620.0 05/03/65 1577.0 08/18/66 1497.0 03/06/67 1494.0 08/15/68 1349.0 04/16/69 1147.0 11/09/70 1249.0 07/19/71 1307.0 04/04/72 1155.0 08/10/72 1162.0 06/18/73 803.0 04/29/75 1171.0 08/08/77 1025.0 06/04/79 936.0 05/15/81 735.0 04/25/83 726.0 05/02/85 724.0 08/15/88 825.0 04/22/90 661.0 03/29/92 583.0 06/16/94 581.0

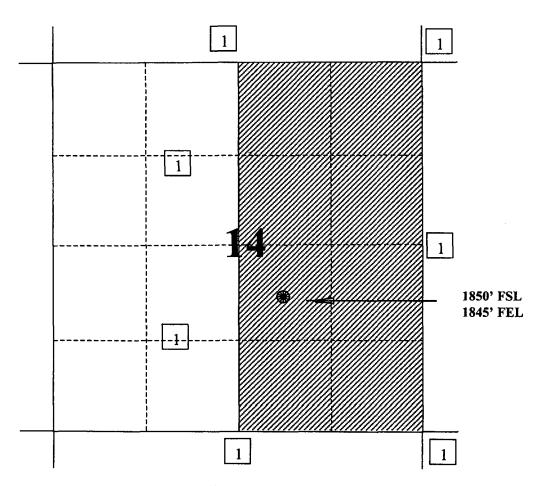
Dakota Offset

# **BURLINGTON RESOURCES OIL AND GAS COMPANY**

# Allison Unit #12M

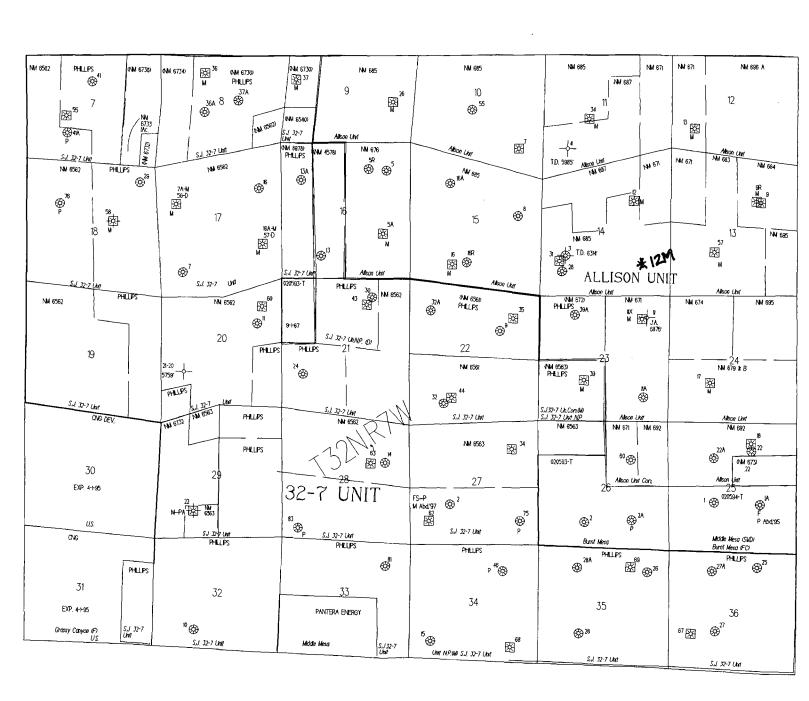
# OFFSET OPERATOR/OWNER PLAT Mesaverde / Dakota Formations Commingle Well

Township 32 North, Range 7 West



1) Burlington Resources

# Allison Unit #12M Blanco Mesaverde/ Basin Dakota 32N-7W-14P



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

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

CASE NO. 10743 Order No. R-9918

APPLICATION OF MERIDIAN OIL INC. FOR DOWNHOLE COMMINGLING AND FOR AN ADMINISTRATIVE DOWNHOLE COMMINGLING PROCEDURE WITHIN THE ALLISON UNIT AREA, SAN JUAN COUNTY, NEW MEXICO.

#### ORDER OF THE DIVISION

### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 17, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of July, 1993, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

#### FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Meridian Oil Inc., seeks approval to commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the Allison Unit Well No. 9R located 1720 feet from the North line and 1655 feet from the East line (Unit G) of Section 13, Township 32 North, Range 7 West, NMPM, San Juan County, New Mexico.
- (3) The applicant further seeks the adoption of an administrative procedure for authorizing the downhole commingling of Blanco-Mesaverde and Basin-Dakota Pool production within certain existing and subsequently drilled wells in its Allison Unit Area, San Juan County, New Mexico, without additional notice to each affected interest owner within the Unit Area.

- (4) The Allison Unit Well No. 9R is to be drilled as a replacement well for the Allison Unit Well No. 9 which is located 1765 feet from the North line and 1500 feet from the East line (Unit G) of Section 13 and which is currently completed in and producing from the Basin-Dakota Pool.
- (5) The Allison Unit Well No. 9 was drilled in 1955 and has cumulatively recovered some 4.4 BCF of gas from the Basin-Dakota Pool.
- (6) Due to the age and mechanical condition of the Allison Unit Well No. 9, the applicant has estimated that it will not recover some 1.7 BCF of gas in the Basin-Dakota Pool underlying the E/2 of Section 13.
- (7) Applicant's testimony indicates that due to economics, the Allison Unit Well No. 9R cannot be drilled solely to recover gas reserves in the Basin-Dakota Pool.
- (8) The applicant expects to encounter marginal production only from the Blanco-Mesaverde Pool.
- (9) The proposed downhole commingling is necessary in order for the applicant to economically recover Basin-Dakota and Blanco-Mesaverde Pool reserves underlying the E/2 of Section 13.
- (10) The Allison Unit is a Federal exploratory unit initially comprising some 11,705 acres in New Mexico and some 2,069 acres in Colorado. Within New Mexico, the unit comprises portions of Township 32 North, Ranges 6 and 7 West, NMPM, San Juan County. The unit was formed in 1950 and is currently operated by Meridian Oil Inc.
- (11) The evidence and testimony presented indicates that the Basin-Dakota and Blanco-Mesaverde Pools have both been substantially developed within the Allison Unit.
- (12) The applicant has identified numerous Mesaverde and Dakota well locations within the Allison Unit which by virtue of marginal gas reserves and resulting poor economics cannot be economically drilled and produced as stand alone units.
- (13) The current well economics and projected Dakota and Mcsaverde gas reserves underlying these respective tracts virtually assure that these wells must be downhole commingled in order to meet the economic criteria for drilling.
- (14) The applicant expects initial producing rates from both the Mesaverde and Dakota formations to be fairly marginal in nature.

- (15) The applicant further demonstrated through its evidence and testimony that within the wells it proposes or will propose to commingle within the Unit Area:
  - a) there will be no crossflow between the two commingled pools;
  - b) neither commingled zone exposes the other to damage by produced liquids;
  - c) the fluids from each zone are compatible with the other;
  - d) the bottomhole pressure of the lower pressure zone should not be less than 50 percent of the bottomhole pressure of the higher pressure zone adjusted to a common datum; and,
  - e) the value of the commingled production is not less than the sum of the values of the individual production.
- (16) The Dakota and Mesaverde Participating Areas within the Allison Unit are not common.
- (17) By virtue of different Participating Areas, the interest ownership between the Dakota and Mesaverde formations within any given wellbore is not common.
- (18) Applicant's Exhibit No. 2 in this case is a list of three hundred and fifty four (354) interest owners in the Dakota and Mesaverde Participating Areas within the Allison Unit. All such interest owners were notified of the application in this case.
- (19) Rule No. 303(C) of the Division Rules and Regulations provides that administrative approval for downhole commingling may be granted provided that the interest ownership, including working, royalty and overriding royalty interest, is common among the commingled zones.
- (20) Applicant's proposed administrative procedure would provide for Division approval to downhole commingle wells in the Allison Unit Area without hearing, and without the requirement that each interest owner in the Dakota and Mesaverde Participating Areas be notified of such commingling.
- (21) The downhole commingling of wells within the Allison Unit Area will benefit working, royalty and overriding royalty interest owners. In addition, the downhole commingling of wells within the Allison Unit Area should not violate the correlative rights of any interest owner.

- (22) evidence in this case indicates that. to each interest owner within the Dakota an Assaverde Participating Areas of subsequent downhole comminglings within the Allison Unit is unnecessary and is an excessive burden on the applicant.
- (23) No interest owner and/or offset operator appeared at the hearing in opposition to the application.
- (24) An administrative procedure should be established within the Allison Unit for obtaining approval for subsequently downhole commingled wells without notice to Unit interest owners and hearing, provided however that, all provisions contained within Rule No. 303(C) of the Division Rules and Regulations, with the exception of Part 1 (b)(v), are fully complied with.
- (25) The proposed administrative procedure for obtaining approval for downhole commingling will allow the applicant the opportunity to recover additional gas reserves from the Allison Unit Area which may otherwise not be recovered, thereby preventing waste, and will not violate correlative rights.
- (26) In the interest of prevention of waste and protection of correlative rights, the proposed downhole commingling within the Allison Unit Well No. 9R should be approved.
- (27) The applicant should consult with the supervisor of the Aztec District Office of the Division subsequent to the completion of the subject well in order to determine a proper allocation of production.
- (28) The operator should immediately notify the supervisor of the Aztec district office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.

#### IT IS THEREFORE ORDERED THAT:

- (1) The applicant, Meridian Oil Inc., is hereby authorized to commingle gas production from the Blanco-Mesaverde and Basin-Dakota Pools within the Allison Unit Well No. 9R located 1720 feet from the North line and 1655 feet from the East line (Unit G) of Section 13, Township 32 North, Range 7 West, NMPM, San Juan County, New Mexico.
- (2) The applicant shall consult with the supervisor of the Aztec district office of the Division subsequent to the completion of the subject well in order to determine a proper allocation of production.

- (3) The operator shall immediately notify the supervisor of the Aztec district office of the Division any time the subject well has been shut-in for seven consecutive days and shall concurrently present, to the Division, a plan for remedial action.
- (4) An administrative procedure for obtaining approval to downhole commingle wells within the Allison Unit, located in portions of Township 32 North, Ranges 6 and 7 West, NMPM, San Juan County, New Mexico, is hereby established.
- (5) In order to obtain Division authorization to downhole commingle wells within the Allison Unit, the applicant shall file an application with the Santa Fe and Aztec Offices of the Division. Such application shall contain all of the information required under Rule No. 303(C) of the Division Rules and Regulations, provided however that the applicant shall not be required to provide notice to all interest owners within the Dakota and Mesaverde Participating Areas in the Allison Unit of such proposed commingling. In addition, the application shall contain evidence that all offset operators and the United States Bureau of Land Management (BLM) have been notified of the proposed commingling.
- (6) Jurisdiction is hereby 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
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY

Director

SEAL