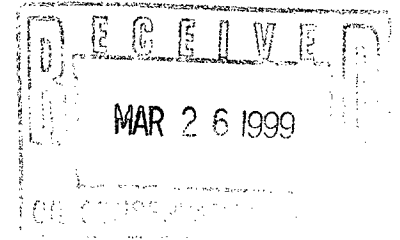




DHC 4/15/99



2078

March 25, 1999

Ms. Lori Wrotenberry
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: Administrative Approval to Downhole Commingle
Energen Resources Corporation
San Juan 32-5 Unit #8R Well
2075' FNL, 145' FEL, Sec. 27, T32N, R6W, N.M.P.M.
Rio Arriba County, New Mexico

Dear Ms. Wrotenberry:

Energen Resources Corporation requests administrative approval to downhole commingle the Blanco Mesaverde and Basin Dakota pools in the subject well.

The subject well is being proposed as a commingled well to economically recover gas from both zones of the underlying proration unit. As this is to be a newly drilled well, we propose the attached allocation method. Field rules and the San Juan 32-5 Unit Operating Agreement, to which this well is dedicated, provide for 320 acre spacing units for both the Blanco Mesaverde and Basin Dakota formations.

To comply with New Mexico Oil Conservation Rules, Energen Resources Corporation is submitting the following data for your approval of the proposed commingling:

1. For C107A - Application for Downhole Commingling
2. C-102 - Location plat showing each spacing unit and dedicated acreage
3. Offset operator plat
4. Well location plat.
5. Proposed Allocation Method
6. Technical and Economic Support Data

In accordance with New Mexico Oil Conservation Division Rule 303C, all offset operators, working interest and royalty owners are being notified of this application by certified mail. As an offset operator, if you have no objection to this application, you do not have to respond to this notification.

If additional information is needed, please contact me.

Sincerely,

Gary W. Brink
Production Superintendent

GWB/mt

cc: NMOCD - Aztec, BLM-Farmington, Offset Operators
F:\MONICA\PRODUCT\OCD\SJ32-5U8R 3-99.DOC

DISTRICT I

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

DISTRICT II

811 S. First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 875054-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☐ YES ☒ NO

APPLICATION FOR DOWNHOLE COMMINGLING

ENERGEN RESOURCES CORPORATION

2198 Bloomfield Highway, Farmington, NM 87401

Operator

Address

San Juan 32-5 Unit

8R

H

27

32N

6W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

OGRID NO. 162928

Property Code

API NO.

Spacing Unit Lease Types: (check 1 or more)

Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Blanco MV 72329		Basin DK 71599
2. Top and Bottom of Pay Section (Perforations)	4275 - 6060'		7945 - 8100'
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: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	a. (Current) Not Yet Drilled b. (Original) 1100 Est	a. b.	a. Not Yet Drilled b. 1100 Est
6. Oil Gravity (°API) or Gas BTU Content)	1000 BTU		974 BTU
7. Producing or Shut-In?	Not Yet Drilled		Not Yet Drilled
Production Marginal? (yes or no)	Yes (Dual Uneconomic)		Yes (Dual Uneconomic)
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: N/A Rates:	Date: Rates:	Date: N/A Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil: % Gas: % See %	Oil: % Gas: % Proposed % Method %	Oil: % Gas: %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones?

If not, have all working, overriding, and royalty interests been notified by certified mail?

Have all offset operators been given written notice of the proposed downhole commingling?

☐ Yes ☒ No
☒ Yes ☐ No
☒ Yes ☐ No11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well in on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

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

SIGNATURE Gary W. Brink TITLE Prod. Superintendent DATE 3/25/99TYPE OR PRINT NAME Gary W. Brink TELEPHONE NO. (505) 325-6800

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 72329/71599		3 Pool Name Blanco Mesaverde/Basin Dakota	
4 Property Code		5 Property Name SAN JUAN 32-5			6 Well Number 8R
7 OGRID No. 162928		8 Operator Name ENERGEN RESOURCES, INC.			9 Elevation 6413'

10 Surface Location

UL or lot no. H	Section 27	Township 32N	Range 6W	Lot Idn	Feet from the 2075'	North/South line NORTH	Feet from the 145'	East/West line EAST	County RIO ARRIBA
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres 320/320	13 Joint or Infill	14 Consolidation Code	15 Order No.
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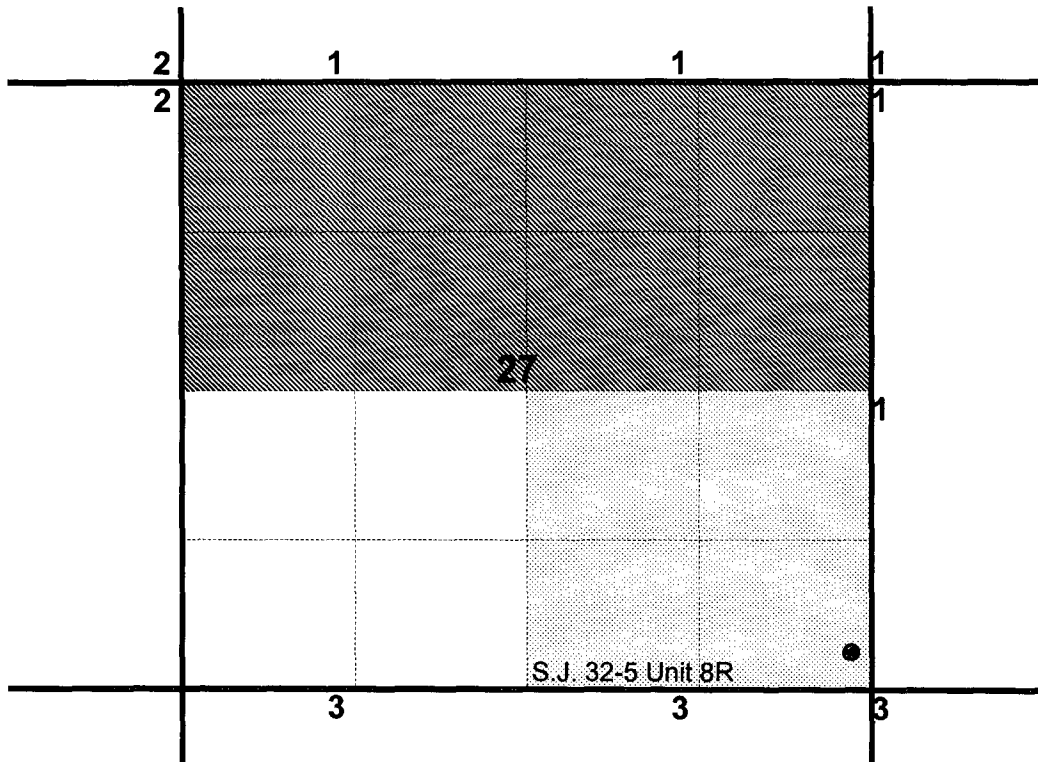
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

S89°47'W 2683.56'		S89°53'W 2681.58'		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>[Signature]</i></p> <p>Signature Gary W. Brink</p> <p>Printed Name Production Superintendent</p> <p>Title</p> <p>Date 2/18/99</p>
Section 27				
S87°40'W 2663.10'		N89°37'W 2845.26'		
<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>12/02/98</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p><i>[Signature]</i></p> <p>Certificate Number HENRY P. BROADHURST NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR</p>				

Energen Resources Corp.

San Juan 32-5 Unit #8R
Offset Operator / Ownership Plat
Blanco Mesa Verde/ Basin Dakota
Downhole Commingling

Township 32 N, Range 6 W



- 1) Energen Resources Corporation
- 2) Burlington Resources
P.O. Box 4289
Farmington, N.M. 87499-4289
- 3) Williams Production Company
1 Williams Center
P.O. Box 3102
Tulsa, Ok. 74101

ENERGEN RESOURCES INC.

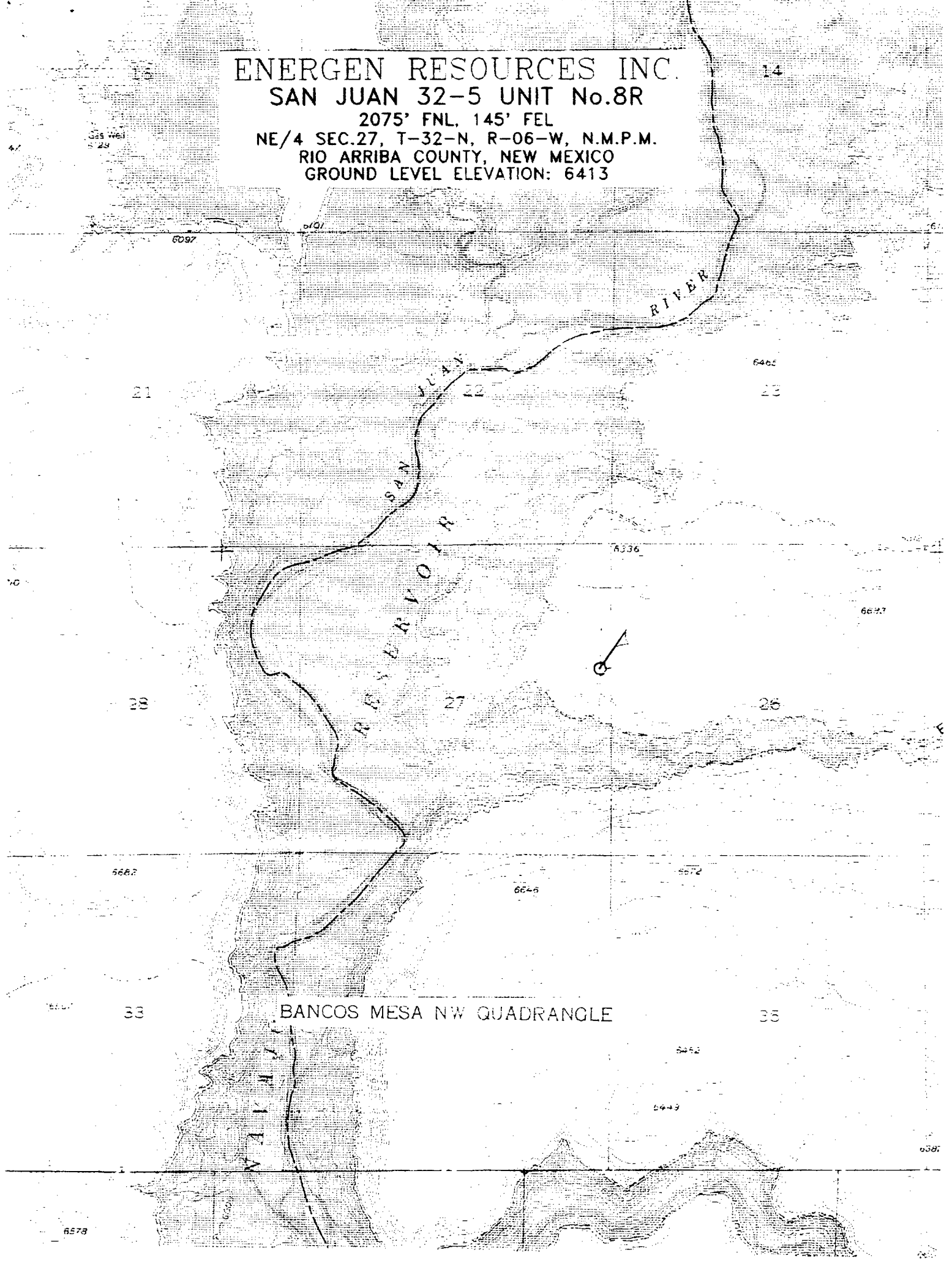
SAN JUAN 32-5 UNIT No.8R

2075' FNL, 145' FEL

NE/4 SEC.27, T-32-N, R-06-W, N.M.P.M.

RIO ARriba COUNTY, NEW MEXICO

GROUND LEVEL ELEVATION: 6413



RECOMMENDED ALLOCATION METHOD

1. Complete both Mesa Verde and Dakota intervals.
2. Clean out well to total depth with air and test combined flowstream.
3. Run RBP and set above Dakota interval. flow test Mesa Verde Zone.
4. Remove RBP and finalize completion.
5. Report flow test data to NMOCD Aztec district office.
6. Allocate Production as follows:

$$MV = MV \text{ test rate} / \text{Total combined rate}$$

$$Dk = \text{Total combined rate} - MV \text{ test rate} / \text{Total combined rate}$$