



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

## ADMINISTRATIVE ORDER DHC-3553

Black Hills Gas Resources, Inc.  
350 Indiana Street  
Suite 400  
Golden, CO 80401

Attention: Allison Newcomb

*JICARILLA 29 2 31 #014  
API No. 30-039-29317  
Unit A, Section 31, Township 29N, Range 02W, NMPM,  
RIO ARRIBA County, New Mexico  
Undesignated BURRO CANYON TERTIARY (97035), and  
BASIN FRUITLAND COAL (GAS) (71629), and  
Undesignated CHOZA MESA PICTURED CLIFFS (GAS)(74960) Pools*

Dear Ms. Newcomb:

Reference is made to your recent application for an exception to Rule 303.A. of the Division Rules and Regulations to permit the above-described well to commingle production from the subject pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303.C., and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion or otherwise required separation of the zones is hereby placed in abeyance.

In accordance with Division 303C.(1)(f), the production attributed to any commingled pool within the well shall not exceed the allowable applicable to that pool.

*Assignment of allowable to the well and allocation of production from the well shall be as follows.*

<i>BURRO CANYON TERTIARY Pool</i>	<i>Oil-NA%</i>	<i>Gas-4%</i>
<i>BASIN FRUITLAND COAL (GAS) Pool</i>	<i>Oil-NA%</i>	<i>Gas-32%</i>

CHOZA MESA PICTURED CLIFFS (GAS) Pool	Oil-NA%	Gas-64%
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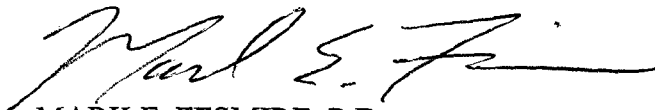
These percentages shall be amended only with written permission of the Division.

REMARKS: The operator shall notify the Aztec District Office of the Division upon implementation of commingling operations.

Pursuant to Rule 303C(2), the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on August 17, 2005.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P.E.  
Director

cc: Oil Conservation Division – Aztec  
Bureau of Land Management - Farmington

District I  
1625 N. French Drive, Hobbs, NM 88240

District II  
1301 W. Grand Avenue, Artesia, NM 88210

District III  
1000 Rio Brazos Road, Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

RECEIVED

AUG 12 2005

OIL CONSERVATION  
DIVISION

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

APPLICATION TYPE  
☒ Single Well  
☐ Establish Pre-Approved Pools  
EXISTING WELLBORE  
☐ Yes ☒ No

APPLICATION FOR DOWNHOLE COMMINGLING

Black Hills Gas Resources, Inc. 350 Indiana Street, Suite 400, Golden, CO 80401  
Operator Address

Jicarilla 29-02-31 14 A-31-29N-02W Rio Arriba, NM  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 013925 Property Code API No. 30-039-29317 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE <i>UNDES</i>	INTERMEDIATE ZONE	LOWER ZONE <i>UNDES CHOZA MESA</i>
Pool Name	Burro Canyon, Tertiary	Basin Fruitland Coal	Pictured Cliffs <i>302</i>
Pool Code	97035	71629	<i>72400</i> <i>74960</i>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3280'-3282'	3404'-3438'	3449'-3550'
Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	n/a	n/a	2352, 2397 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1.0575	1.0575	1.0575
Producing, Shut-In or New Zone	Producing	Producing	Producing
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: 4/11/05 Rates: 22 mcfpd	Date: 4/1/05 Rates: 162 mcfpd	Date: 3/27/05 Rates: 325 mcfpd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas % 4 %	Oil Gas % 32 %	Oil Gas % 64 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ No ☐  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ☐ No ☐

Are all produced fluids from all commingled zones compatible with each other? Yes ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes ☒ No ☐

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

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 working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE *Allison Newcomb* TITLE Engineering Technician DATE 8/9/2005

TYPE OR PRINT NAME Allison Newcomb TELEPHONE NO. (720)210-1308

E-MAIL ADDRESS anewcomb@bhep.com

## C107A Supplemental Information

Jicarilla 29-02-31 #14

Production and Pressure Data

Pictured Cliffs/Fruitland Basin and Tertiary Formations

The Pictured Cliffs formation was perforated at intervals 3449' – 3469', 3500' – 3510' and 3540' – 3550' with 4 jspf. Based upon pressure data obtained from the breakdown and fracture stimulation treatment the fracturing pressure of the Upper Pictured Cliffs formation at mid-perforation is 2352 psi with a fracture gradient of 0.68 psi/ft. Based upon pressure data obtained from the breakdown and fracture stimulation treatment the fracturing pressure of the Lower Pictured Cliffs formation at mid-perforation is 2397 psi with a fracture gradient of 0.68 psi/ft. After fracture stimulation and clean up the Pictured Cliffs formation was flow tested for twenty-four hours, 325 MCFPD.

The Fruitland Coal Basin formation was perforated at intervals 3404 – 3406', 3420' – 3426' and 3436' – 3438' with 4 jspf. The Fruitland Coal Basin formation was not fracture stimulated. The Fruitland Coal Basin formation was flow tested for twenty-four hours, 162 MCFPD.

The Tertiary formation was perforated at intervals 3280' – 3282' with 2 jspf. The tertiary formation was not fracture stimulated. A stabilized flow test was conducted for twenty-four hours, 22 MCFPD.

The allocation method that has been agreed upon between Black Hills Gas Resources, Inc. and the Jicarilla Apache Nation is to use a percent based on the initial test for allocation of the produced volumes from the downhole commingled formations. In summary, the following calculations reflect the allocation percentages for the subject well.

Formation Name	Gas Flow Rate (MCFPD)	Water Rate (BWPD)	Allocation Factor
Pictured Cliffs	325		64%
Tertiary	22		4%
Basin, Fruitland Coal	162		32%
<b>Total</b>	509		100%

## Owner's List

300001 265 JIC 29-02-31 14

7041	JICARILLA APACHE NATION PO Box 2053 Albuquerque, NM 87103	.20 ROY BPO .225 ROY APO
999030	BLACK HILLS GAS RESOUR 350 Indiana St. Suite 400 Golden, CO 80401	.80 WOR BPO .775 ROY APO

French Dr., Hobbs, N.M. 88240

CT II  
W. Grand Ave., Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102

Revised June 10, 2003

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code 72400	Pool Name East Blanco; Pictured Cliffs
Property Code 24245	Property Name JICARILLA 29-2-31		Well Number 14
OGRID No. 013925	Operator Name MALLON OIL COMPANY		Elevation 7068

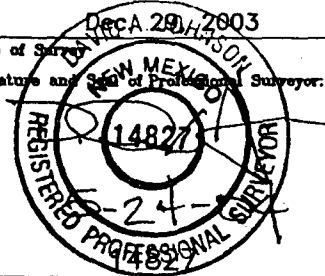
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	31	29-N	2-W		430	NORTH	880	EAST	RIO ARriba

<sup>11</sup> 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
Dedicated Acres			Joint or Infill		Consolidation Code		Order No.		

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

<sup>13</sup> SEC. CORNER FD. 2 1/2" BC. U.S.G.L.O. 1917  LOT 1	N 89-13-08 W	5239.2' (M)	430' FD. MARKED STONE  880'          5201.8' (C)          N 00-48-40 W	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  <u>Kathy L. Schneebeck</u> Signature Kathy L. Schneebeck Printed Name Agent for Mallon Oil Company Title July 15, 2004 Date
LOT 2				
LOT 3				
LOT 4				<sup>18</sup> 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.  DECA 28 JUN 2003 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

CALC'D CORNER  
POSITION FROM SURVEY  
RECORDS, STONE & REBAR  
DESTROYED BY CONSTRUCTION

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-29317	<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name Basin Fruitland
<sup>4</sup> Property Code	<sup>5</sup> Property Name JICARILLA 29-2-31	<sup>6</sup> Well Number 14
<sup>7</sup> OGRID No. 013925	<sup>8</sup> Operator Name Black Hills Gas Resources, Inc.	<sup>9</sup> Elevation 7068

<sup>10</sup> Surface Location

UL or lot no. A	Section 31	Township 29-N	Range 2-W	Lot Idn	Feet from the 430	North/South line NORTH	Feet from the 880	East/West line EAST	County RIO ARriba
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<sup>11</sup> 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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<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup> SEC. CORNER FD. 2 1/2" BC. U.S.G.L.O. 1917  LOT 1	N 89-13-08 W  LAT. 36°41'17"N (NAD 83) LONG. 107°04'42"W (NAD 83)	5239.2' (M)	880' FD. MARKED STONE 430'	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  <u>Allison Newcomb</u> Signature Allison Newcomb Printed Name Engineering Technician Title May 20, 2005 Date
LOT 2			5201.8' (C)	
LOT 3		31	N 00-48-40 W	<sup>18</sup> 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.  Dec. 29, 2003 Date of Survey Signature and Seal of Professional Surveyor: <u>DAVID A. JOHNSON</u> NEW MEXICO 14827 REGISTERED PROFESSIONAL SURVEYOR Certificate Number
LOT 4				CALC'D CORNER POSITION FROM SURVEY RECORDS, STONE & REBAR DESTROYED BY CONSTRUCTION

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
1301 W. Grand Ave., Artesia, N.M. 88210

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29317	*Pool Code 97035	*Pool Name Burro Canyon, Tertiary
*Property Code	*Property Name JICARILLA 29-2-31	*Well Number 14
*OGRID No. 013925	*Operator Name Black Hills Gas Resources, Inc.	*Elevation 7068

<sup>10</sup> Surface Location

UL or lot no. A	Section 31	Township 29-N	Range 2-W	Lot Idn	Feet from the 430	North/South line NORTH	Feet from the 880	East/West line EAST	County RIO ARRIBA
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<sup>11</sup> 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
Dedicated Acres 160		Joint or Infill		Consolidation Code		Order No.			

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LOT 4			CALC'D CORNER POSITION FROM SURVEY RECORDS, STONE & REBAR DESTROYED BY CONSTRUCTION	