

DATE <u>7.22.11</u>	SUSPENSE	ENGINEER <u>WVG</u>	LOGGED <u>7.22.11</u>	TYPE <u>1120346288</u>
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NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

DHC-4456
PUNK
ENERGEN RLS
162928

Jicarilla 95 #1B

ADMINISTRATIVE APPLICATION COVERSHEET 30-039-26309

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [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 - Directional Drilling
[] NSL [] NSP [] DD [] SD

Check One Only for [B] and [C]

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

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

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

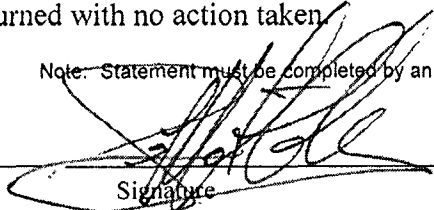
[A] [] Working, Royalty or Overriding Royalty Interest Owners
[B] [X] Offset Operators, Leaseholders or Surface Owner
[C] [] Application is One Which Requires Published Legal Notice
[D] [X] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands,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

[3] **INFORMATION / DATA SUBMITTED IS COMPLETE** - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Martín Cabrera
Print or Type Name


Signature

District Engineer
Title

7/22/11
Date

RECEIVED OCD

2011 JUL 21 A 11:56

July 6, 2011

Ms. Jami Bailey - Director
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

DHC

RE: Approval to Downhole Commingle
Energen Resources Corporation
Jicarilla 95 #1B
1980' FSL, 1900' FEL, Section 35, T27N, R03W, NMPM
Rio Arriba County, New Mexico

Dear Ms. Bailey:

Energen Resources Corporation requests approval to downhole commingle the Gavilan Pictured Cliffs and Blanco Mesaverde pools in the subject well. Due to the liquid loading problems commingling with plunger lift is the most economical method to recover gas from both zones in the subject well. We have successfully applied this method along with plunger lift in similar wells that have experienced liquid loading problems and it is felt this method would improve the overall producing efficiency of the well.

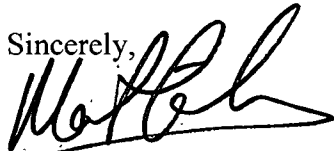
To comply with New Mexico Oil Conservation Rules, Energen Resources Corporation is submitting the following data for your approval of the proposed commingling.

1. C-107A - Application for Downhole Commingling
2. C-102 - Location plat showing each spacing unit and dedicated acreage
3. Offset Operator Ownership Plat
4. Allocation method

In accordance to New Mexico
Oil Conservation Division Rule 303C, Energen Resources will notify all Offset operators.

If additional information is needed, please contact me at 505-324-4122.

Sincerely,



Martín Cabrera
District Engineer

xc:

NMOCD – Aztec District Office
BLM- FFO notified via Federal Sundry Notice 3160-5 and sent NMOCD form C-107A

Form C-107A
Revised June 10, 2003

APPLICATION TYPE
X Single

 Establish Pre-Approved Pools
EXISTING WELLBORE
 X Yes No

APPLICATION FOR DOWNHOLE COMMINGLING

2010 Afton Place, Farmington, New Mexico 87401

Operator	Address			
Jicarilla 95	#1B	J Section 35, T27N, R3W N.M.P.M		Rio Arriba
Lease	Well No.	Unit Letter-Section-Township-Range		County
162928	21289	30-039-26309	X	
OGRID No.	Property Code	API No.	Lease Type:	Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Gavilan Pictured Cliffs	N/A	Blanco Mesaverde
Pool Code	77630	N/A	72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3822'-3964'	N/A	5627'-6259'
Method of Production (Flowing or Artificial Lift)	Artificial Lift - Plunger	N/A	Artificial Lift - Plunger
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 within 150% ≈ 1000 PSI	N/A	N/A within 150% ≈ 1000 PSI
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1,341 BTU	N/A	1,341 BTU
Producing, Shut-In or New Zone	New Zone	N/A	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: N/A Rates: N/A	Date: N/A Rates: N/A	Date: 07/2011 Rates: 0 BOPD/ 82 MCFPD/0.4 BWPD
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 0% N/A	Oil Gas N/A N/A % %	Oil Gas 100 % N/A

ADDITIONAL DATA

Will commingling decrease the value of production? Yes No X

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 [Signature] TITLE District Engineer DATE 7/06/11

TYPE OR PRINT NAME Martín Cabrera TELEPHONE NO. (505) 324-4122

E-MAIL ADDRESS mcabrera@energen.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. 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 October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-26309	² Pool Code 77360	³ Pool Name Gavilan Pictured Cliffs
⁴ Property Code	⁵ Property Name Jicarilla 95	⁶ Well Number 1B
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 7218'

¹⁰ Surface Location

UL or lot no. J	Section 35	Township 27N	Range 3W	Lot Idn	Feet from the 1980	North/South line South	Feet from the 1900	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
¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

<div style="border: 1px solid black; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; font-size: 2em; font-weight: bold;">35</div>	<div style="border: 1px solid black; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 50px; height: 50px; display: flex; align-items: center; justify-content: center;">1900'</div> <div style="border: 1px solid black; width: 50px; height: 50px; display: flex; align-items: center; justify-content: center;">1980'</div> </div>			¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</i> <div style="text-align: right;">6/09/11</div> <div style="display: flex; justify-content: space-between;"> <div>Signature</div> <div>Date</div> </div> <div style="display: flex; justify-content: space-between;"> <div>Martin Cabrera Printed Name</div> <div></div> </div>	
				¹⁸ SURVEYOR CERTIFICATION <i>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.</i> <div style="display: flex; justify-content: space-between;"> <div>Date of Survey</div> <div>Signature and Seal of Professional Surveyor:</div> </div> <div style="display: flex; justify-content: space-between;"> <div></div> <div>Certificate Number</div> </div>	

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
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Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-26309	² Pool Code 72319	³ Pool Name Blanco Mesaverde
⁴ Property Code	⁵ Property Name Jicarilla 95	⁶ Well Number 1B
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 7218'

¹⁰ Surface Location

UL or lot no. J	Section 35	Township 27N	Range 3W	Lot Idn	Feet from the 1980	North/South line South	Feet from the 1900	East/West line East	County Rio Arriba
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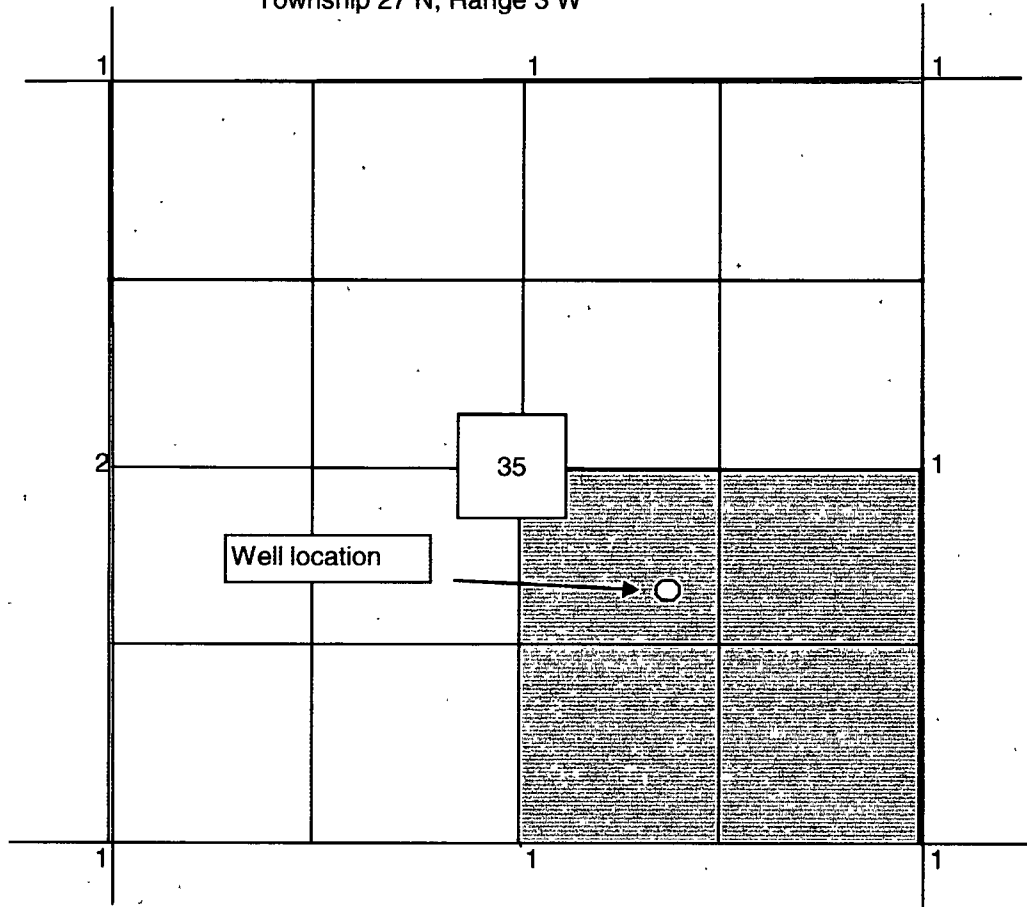
<div style="border: 1px solid black; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; font-size: 24px; font-weight: bold;">35</div>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p style="text-align: right;">6/09/11</p> <p>Signature _____ Date _____</p> <p>Martin Cabrera Printed Name</p>	
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: _____</p> <p>Certificate Number _____</p>	

1900'

1980'

Energen Resources Corp.
Jicarilla 95 #1B
Offset Operator/ Ownership Plat
Gavilan Pictured Cliffs/ Blanco Mesaverde
Downhole Commingling

Township 27 N, Range 3 W



- 1) Energen Resources
- 2) Williams Production

Allocation Method: Jicarilla 95 #1B

Energen Resources plans on DHC the Blanco Mesaverde and the Gavilan Pictured Cliffs

Gavilan Pictured Cliff perforations: 3822' to 3964'

Blanco Mesaverde: 5627' to 6259'

Current rates:

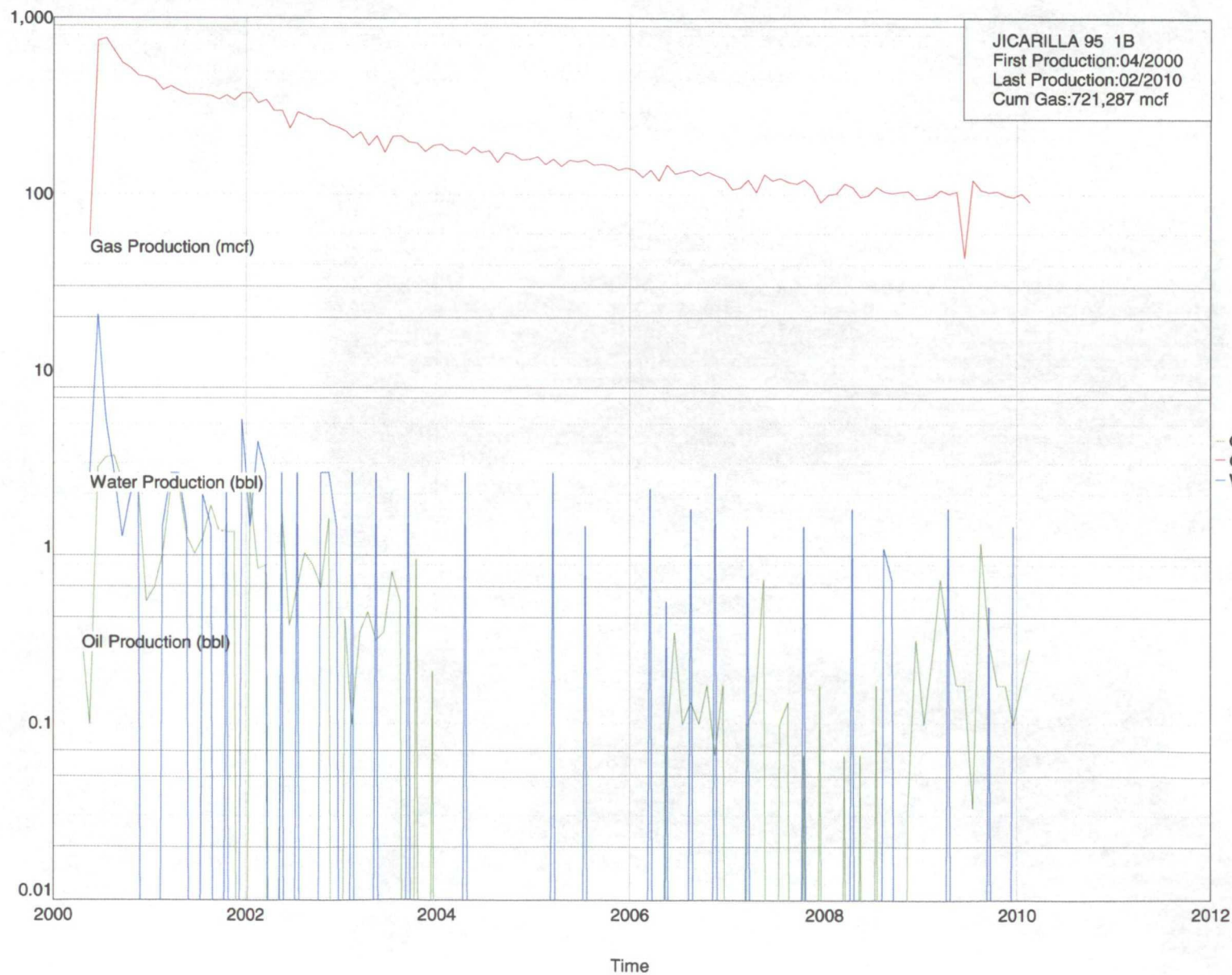
PC – not yet completed

WLGD – 0 BOPD, 82 MCFD, & 0.4 BWPD

Recommended Allocation: Subtraction method following 60 days of stabilized production. Rates reported to NMOCD – Aztec for final determination.

Lease Name: JICARILLA 95
County, State: RIO ARBA, NM
Operator: ENERGEN RESOURCES CORPORATION
Field: BLANCO
Reservoir: MESAVERDE
Location: 35 27N 3W NW SE

JICARILLA 95 - BLANCO



Jones, William V., EMNRD

From: Martin Cabrera [Martin.Cabrera@energen.com]
Sent: Wednesday, August 24, 2011 12:51 PM
To: Jones, William V., EMNRD
Cc: Ezeanyim, Richard, EMNRD
Subject: RE: DHC Application and Reservoir Pressure

William,

Sorry for the delay. I just got something back from our reservoir engineers.

Gavilan Pictured Cliffs: ~1000psi
Blanco Mesaverde: ~1000psi

If you need anything, please let me know.

Thank you,

Martín Cabrera
Energen Resources
San Juan Basin
(505)324-4122

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Friday, August 19, 2011 8:33 AM
To: Martin Cabrera
Cc: Ezeanyim, Richard, EMNRD
Subject: DHC Application and Reservoir Pressure

Hello Martin,
Hope you are doing well today!

In this Jicarilla 95 #1B (API No. 30-039-26309)... would you ask your engineers what they think the reservoir pressure is in the:

Gavilan; Pictured Cliffs Gas Pool and the
Blanco; Mesaverde Prorated Gas Pool

The DHC application needs this info, just email the numbers to me and I will put it on the form.

Thank You,

William V Jones, P.E.
Engineering, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
Tel 505.476.3448 ~ Fax 505.476.3462

