

DATE IN <u>1.24.12</u>	SUSPENSE	ENGINEER <u>MDVJ</u>	LOGGED IN	TYPE <u>DHC</u>	APP NO. <u>1202449968</u>
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



Emergen

Jicarilla 89 #3A

ADMINISTRATIVE APPLICATION CHECKLIST

30-039-22876

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

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.

<u>Adam Klem</u>	<u>[Signature]</u>	<u>District Engineer</u>	<u>1/19/12</u>
Print or Type Name	Signature	Title	Date
		<u>aklem @ energen.com</u>	
		e-mail Address	

I-15-27N-3W

January 20, 2012

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

RE: Approval to Downhole Commingle
Energen Resources Corporation
Jicarilla 89 #3A
1650' FSL, 1120' FEL, Section 15, T27N, R03W
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 all 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 505-324-4163.

Sincerely,



Adam Klem
District Engineer

xc:

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

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

Oil Conservation Division
1220 South St. Francis Dr.

APPLICATION TYPE
X Single

District III
Well
1000 Rio Brazos Road, Aztec, NM 87410

Santa Fe, New Mexico 87505

Establish Pre-Approved Pools

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

APPLICATION FOR DOWNHOLE COMMINGLING

X	Yes	No
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Energen Resources

2010 Afton Place, Farmington, New Mexico 87401

Operator
Jicarilla 89

#3A

Address
I Section 15, T27N, R3W

Rio Arriba

Lease 162928

Well No.
21936

Unit Letter-Section-Township-Range
30-039-22876

County

OGRID No.	Property Code	API No.	Lease Type:	Federal	State	Fee
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DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Gavilan Pictured Cliffs		Blanco Mesaverde
Pool Code	77360		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3824'-3850'		5614'-6132'
Method of Production (Flowing or Artificial Lift)	Artificial Lift - Plunger		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)	Not completed		1,000 psi OK
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1,341 BTU		1,341 BTU
Producing, Shut-In or New Zone	New Zone		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: Rates:	Date: 12/2011 Rates: 0 BOPD/ 40 MCFPD/0.15 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 N/A N/A	Oil Gas Turn in Later	Oil Gas

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes X No
Yes No

Are all produced fluids from all commingled zones compatible with each other?

Yes X No

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 X 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 TITLE District Engineer DATE 1/12/12

TYPE OR PRINT NAME Adam Klem TELEPHONE NO. (505) 324-4163

E-MAIL ADDRESS aklem@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 30-039-22876		² Pool Code 72319		³ Pool Name Blanco Mesaverde	
⁴ Property Code 21936		⁵ Property Name Jicarilla 89			⁶ Well Number 3A
⁷ OGRID No. 162928		⁸ Operator Name Energen Resources Corporation			⁹ Elevation 7064'

¹⁰ Surface Location


UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	15	27N	3W		1650	South	1120	East	Rio Arriba

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 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.

<div style="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 40px; border: 1px solid black; padding: 5px;">15</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="display: flex; justify-content: space-between;"> <div>  Signature </div> <div>1/11/2012 Date</div> </div> <div style="border-top: 1px solid black; padding-top: 5px;"> Adam Klem Printed Name </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="border-top: 1px solid black; padding-top: 5px;"> Date of Survey Signature and Seal of Professional Surveyor: </div> <div style="border-top: 1px solid black; padding-top: 5px;"> Certificate Number </div>	

15

1120'

→

1650'

↑

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Rd., Aztec, NM 87410
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State of New Mexico
Energy, Minerals & Natural Resources Department
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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 30-039-22876		² Pool Code 77360		³ Pool Name Gavilan Pictured Cliffs	
⁴ Property Code 21936		⁵ Property Name Jicarilla 89			⁶ Well Number 3A
⁷ OGRID No. 162928		⁸ Operator Name Energen Resources Corporation			⁹ Elevation 7064'

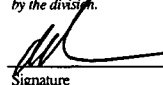
¹⁰ Surface Location

UL or lot no. I	Section 15	Township 27N	Range 3W	Lot Idn	Feet from the 1650	North/South line South	Feet from the 1120	East/West line East	County Rio Arriba
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¹¹ Bottom Hole Location If Different From Surface

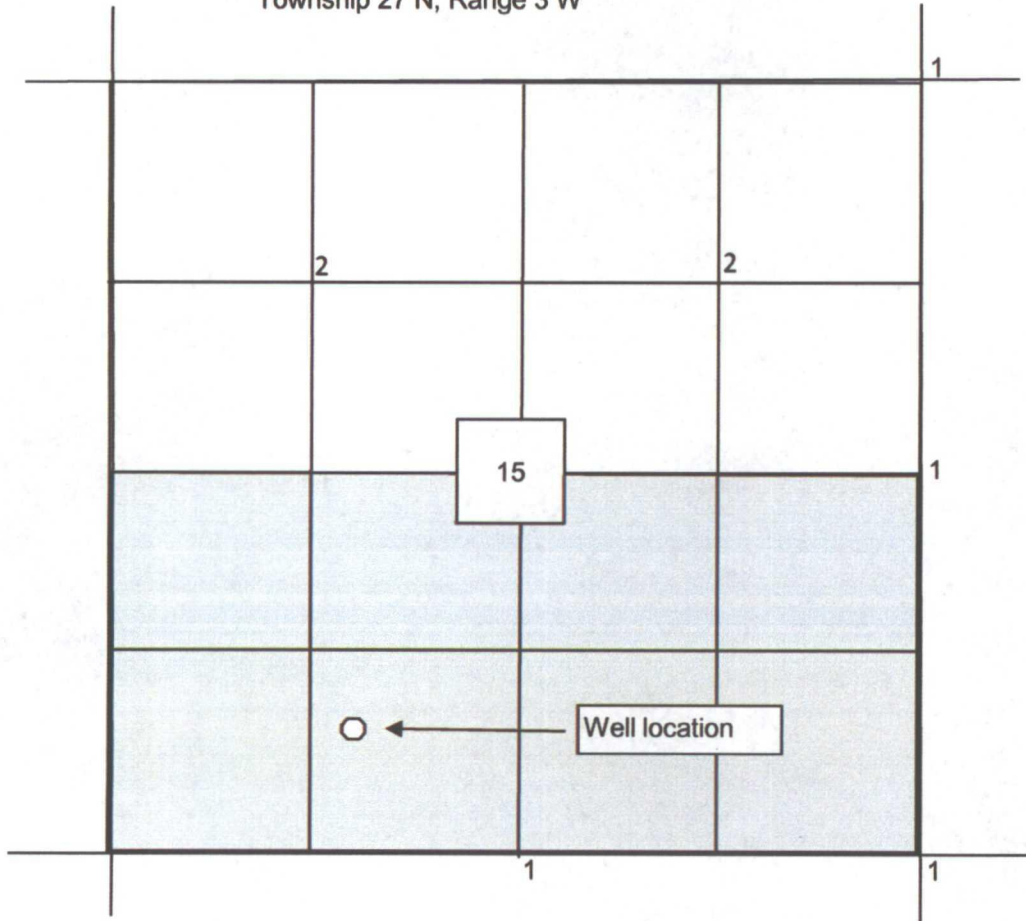
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 160		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 40px; border: 1px solid black; padding: 5px;">15</div> <div style="position: absolute; top: 20%; left: 60%;"> <div style="border: 1px solid black; padding: 2px;">1120'</div> <div style="position: relative; width: 50px; height: 10px; border: 1px solid black; margin: 0 auto;"></div> </div> <div style="position: absolute; top: 70%; left: 55%;"> <div style="border: 1px solid black; padding: 2px;">1650'</div> <div style="position: relative; width: 10px; height: 50px; border: 1px solid black; margin: 0 auto;"></div> </div> </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> <div style="display: flex; justify-content: space-between;"> <div>  Signature </div> <div>1/12/2012 Date</div> </div> <div style="border-top: 1px solid black; padding-top: 5px;">Adam Klem Printed Name</div>	
				<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> <div style="border-top: 1px solid black; padding-top: 5px;">Date of Survey</div> <div style="border-top: 1px solid black; padding-top: 5px;">Signature and Seal of Professional Surveyor:</div> <div style="border-top: 1px solid black; padding-top: 5px;">Certificate Number</div>	

Energen Resources Corp.
Jicarilla 89 #3A
Offset Operator/ Ownership Plat
Blanco Mesaverde/Gavilan Picured Cliffs
Downhole Commingling

Township 27 N, Range 3 W



- 1) Energen Resources
- 2) ConocoPhillips

Allocation Method: Jicarilla 89 #3A

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

Gavilan Pictured Cliff perforations: 3824'-3850'

Blanco Mesaverde: 5614'-6132'

Current rates:

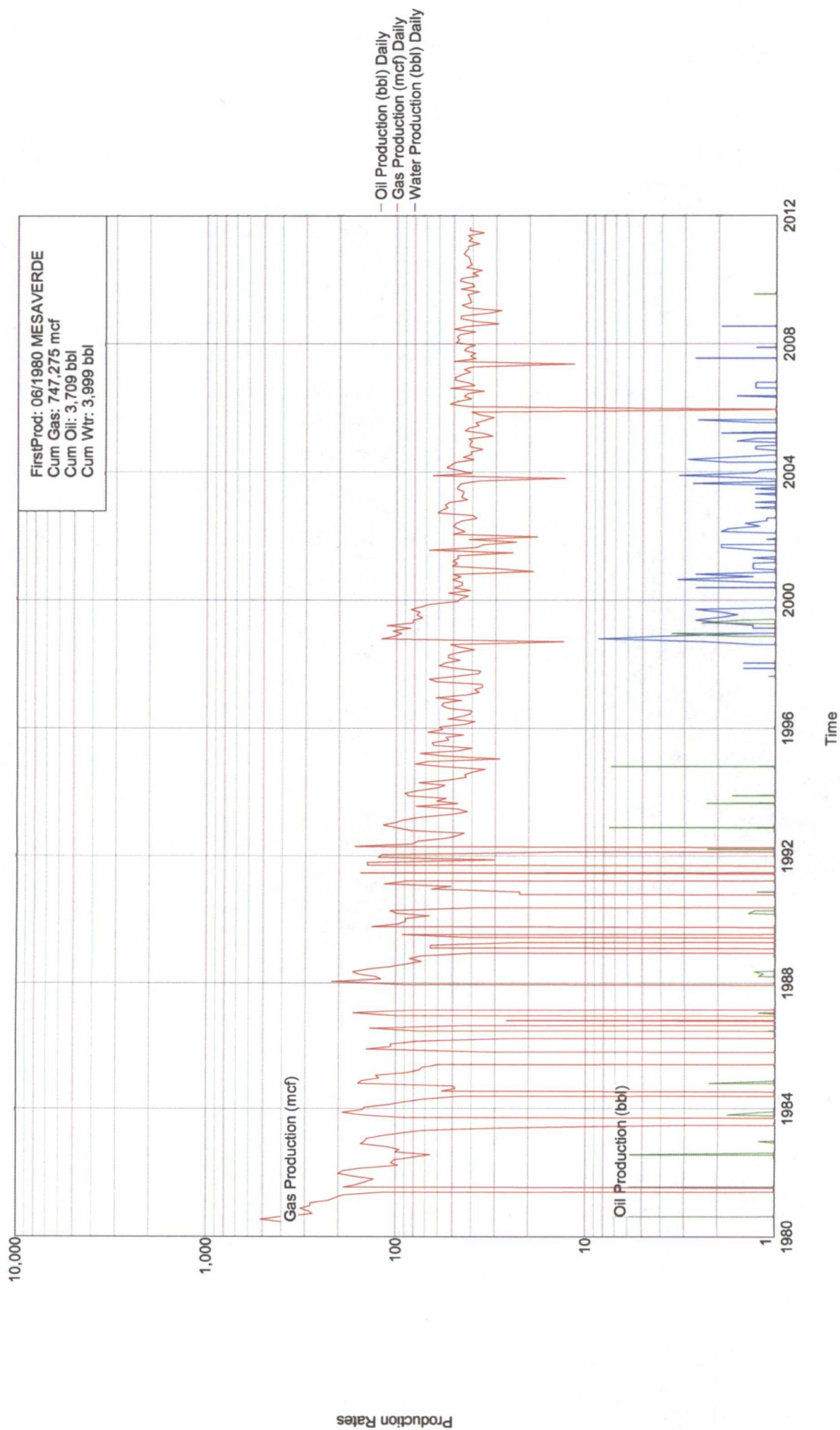
PC – not yet completed

MV - .11 BOPD, 40 MCFD, & .15 BWPD

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

Lease Name: JICARILLA 107
County, State: RIO ARBA, NM
Operator: ENERGEN RESOURCES CORPORATION
Field: BLANCO
Reservoir: MESAVERDE
Location: 33 26N 4W NW SE NW

JICARILLA 107 - 5



Lease Name: JICARILLA 107
County, State: RIO ARBA, NM
Operator: ENERGEN RESOURCES CORPORATION
Field: LINDRITH WEST
Reservoir: GALLUP DAKOTA
Location: 33 26N 4W NW SE NW

JICARILLA 107 - 5

