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June 29, 2007

Mr. Mark E. Fesmire, P.E. - Director  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: Administrative Approval to Downhole Commingle  
Energen Resources Corporation  
Jicarilla 96 #2B  
2430' FSL, 1265' FEL, Section 02, T26N, R3W, NMPM  
Rio Arriba County, New Mexico

Dear Mr. Fesmire:

Energen Resources Corporation requests administrative approval to downhole commingle the Gavilan-Pictured Cliffs (PC) and Blanco Mesa Verde (MV) 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.

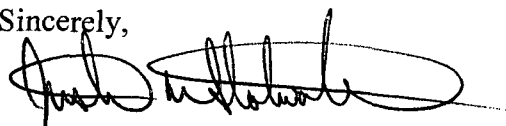
To comply with New Mexico Oil Conservation Rules, Energen Resources Corporation is submitting the following data for your approval of the proposed commingling.

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. Production curves from the current well completed in both the PC & MV.
5. Allocation method

In accordance with New Mexico Oil Conservation Division Rule 303C, Energen Resources operates all offset units.

If additional information is needed, please contact me at 505-325-6800.

Sincerely,



Justin M. Stolworthy  
District Engineer

xc:

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

DATE IN 12/10/07	SUSPENSE	ENGINEER WHT	LOGGED IN 5/3/07	TYPE 1245 C	APP NO. 0718450725
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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



### ADMINISTRATIVE APPLICATION CHECKLIST

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.

Justin Stalworthy  
 Print or Type Name

Signature

DISTRICT ENGINEER  
 Title

Date

stalwon@energy.com  
 e-mail Address

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised June 10, 2003

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  
EXISTING WELLBORE  
X Yes    No

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

APPLICATION FOR DOWNHOLE COMMINGLING

Energen Resources

2198 Bloomfield Highway, Farmington, New Mexico 87401

Operator Address  
Jicarilla 96 2B I Section 02, T26N, R3W N.M.P.M. Rio Arriba  
Lease Well No. Unit Letter-Section-Township-Range County  
162928 21938 30-039-26552 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 602	N/A	Blanco Mesa Verde
Pool Code	77360	N/A	72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3690' to 3740'	N/A	5428' to 5942'
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%	N/A	N/A within 150%
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1,343 BTU	N/A	1,241 BTU
Producing, Shut-In or New Zone	Producing	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: 02/20/2003 Rates: 0 BOPD/40 MCFPD/0.1 BWPD	Date: N/A Rates: N/A	Date: 05/24/2001 Rates: 0.2 BOPD/80 MCFPD/0.1 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 0 % Gas 33 %	Oil N/A % Gas N/A %	Oil 100 % Gas 67 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X 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 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:    Case No. 12857 R-11848

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 Justin M. Stolworthy TITLE District Engineer DATE 6-29-07

TYPE OR PRINT NAME Justin M. Stolworthy TELEPHONE NO. ( 505 ) 325-6800

E-MAIL ADDRESS jstolwor@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**

<sup>1</sup> API Number 30-039-26552	<sup>2</sup> Pool Code 72319	<sup>3</sup> Pool Name Blanco Mesa Verde
<sup>4</sup> Property Code 21938	<sup>5</sup> Property Name Jicarilla 96	<sup>6</sup> Well Number 2B
<sup>7</sup> OGRID No.	<sup>8</sup> Operator Name	<sup>9</sup> Elevation

<sup>10</sup> Surface Location

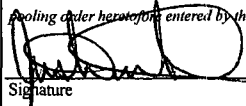
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	02	26N	3W		2430	South	1265	East	Rio Arriba

<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

<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.

<div style="position: relative; height: 470px;"> <div style="position: absolute; top: 50px; left: 50px; width: 50px; height: 50px; border: 1px solid black; text-align: center; line-height: 50px;">16</div> <div style="position: absolute; top: 690px; left: 310px; width: 80px; height: 50px; border: 1px solid black; text-align: center; line-height: 50px;">02</div> <div style="position: absolute; top: 710px; left: 500px; width: 50px; height: 50px; border: 1px solid black; border-radius: 50%;"></div> <div style="position: absolute; top: 730px; left: 550px; width: 60px; height: 30px; border: 1px solid black; text-align: center; line-height: 30px;">1265'</div> <div style="position: absolute; top: 850px; left: 510px; width: 40px; height: 50px; border: 1px solid black; text-align: center; line-height: 50px;">2430'</div> </div>	<p><sup>17</sup> <b>OPERATOR CERTIFICATION</b></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>  <span style="float: right;">6-29-07</span> </p> <p>Signature <span style="float: right;">Date</span></p> <p>Justin M. Stolworthy</p> <p>Printed Name</p>
	<p><sup>18</sup> <b>SURVEYOR CERTIFICATION</b></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>On File</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p>Neale C. Edwards</p> <p>NM 6857</p> <p>Certificate Number</p>

District I  
1625 N. French Dr., Hobbs, NM 88240  
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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**

<sup>1</sup> API Number 30-039-26552		<sup>2</sup> Pool Code 77360		<sup>3</sup> Pool Name Gavilan Pictured Cliffs	
<sup>4</sup> Property Code 21938		<sup>5</sup> Property Name Jicarilla 96			<sup>6</sup> Well Number 2B
<sup>7</sup> OGRID No.		<sup>8</sup> Operator Name			<sup>9</sup> Elevation


<sup>10</sup> Surface Location

UL or lot no. 1	Section 02	Township 26N	Range 3W	Lot Idn	Feet from the 2430	North/South line South	Feet from the 1265	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
<sup>12</sup> Dedicated Acres 160		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> 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.

16						<b>17 OPERATOR CERTIFICATION</b> <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>  Signature 6-29-07 Date  Justin M. Stolworthy Printed Name
						<b>18 SURVEYOR CERTIFICATION</b> <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> On File Date of Survey Signature and Seal of Professional Surveyor: Neale C. Edwards  NM 6857 Certificate Number

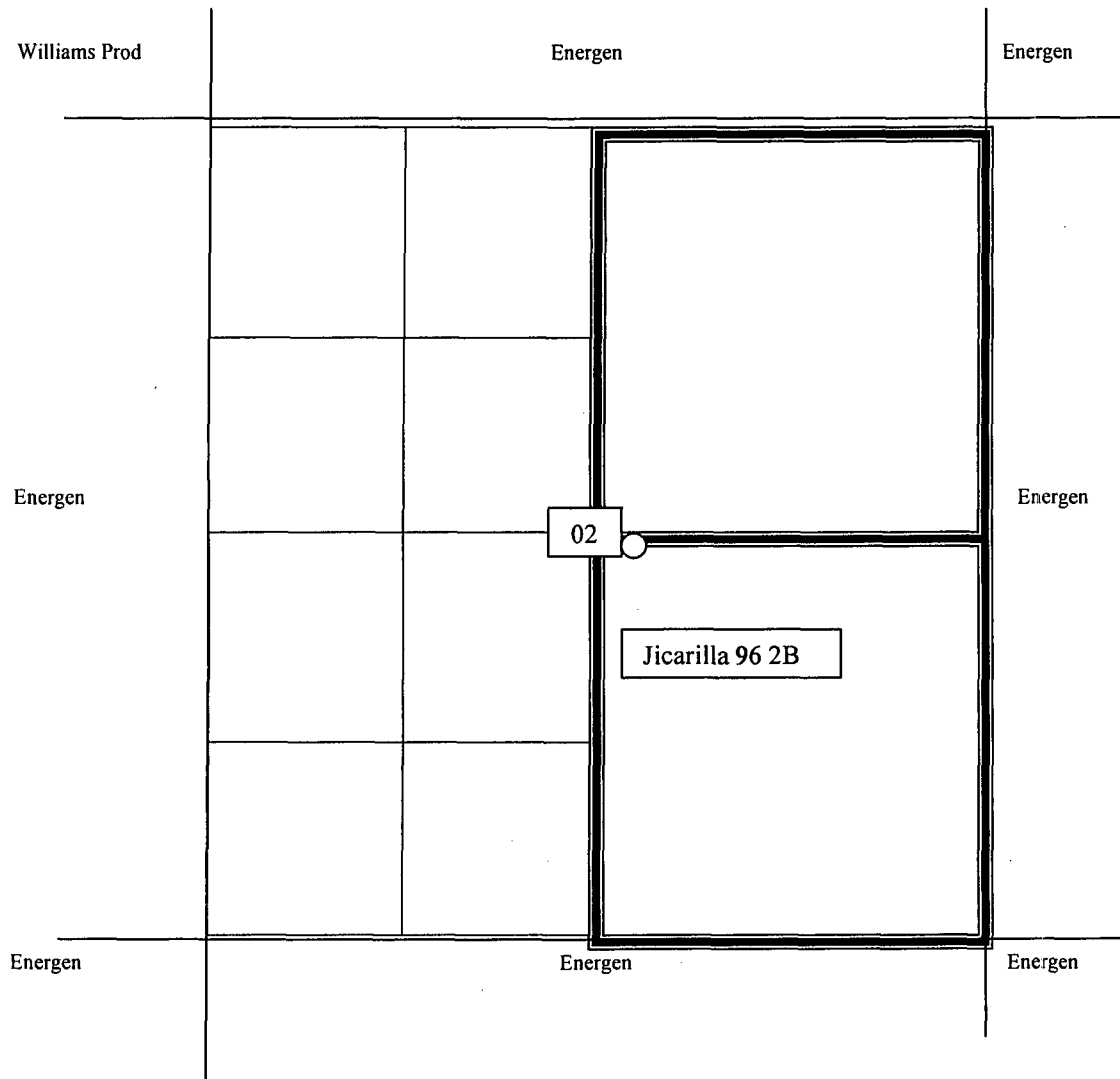
02

1265'

2430'

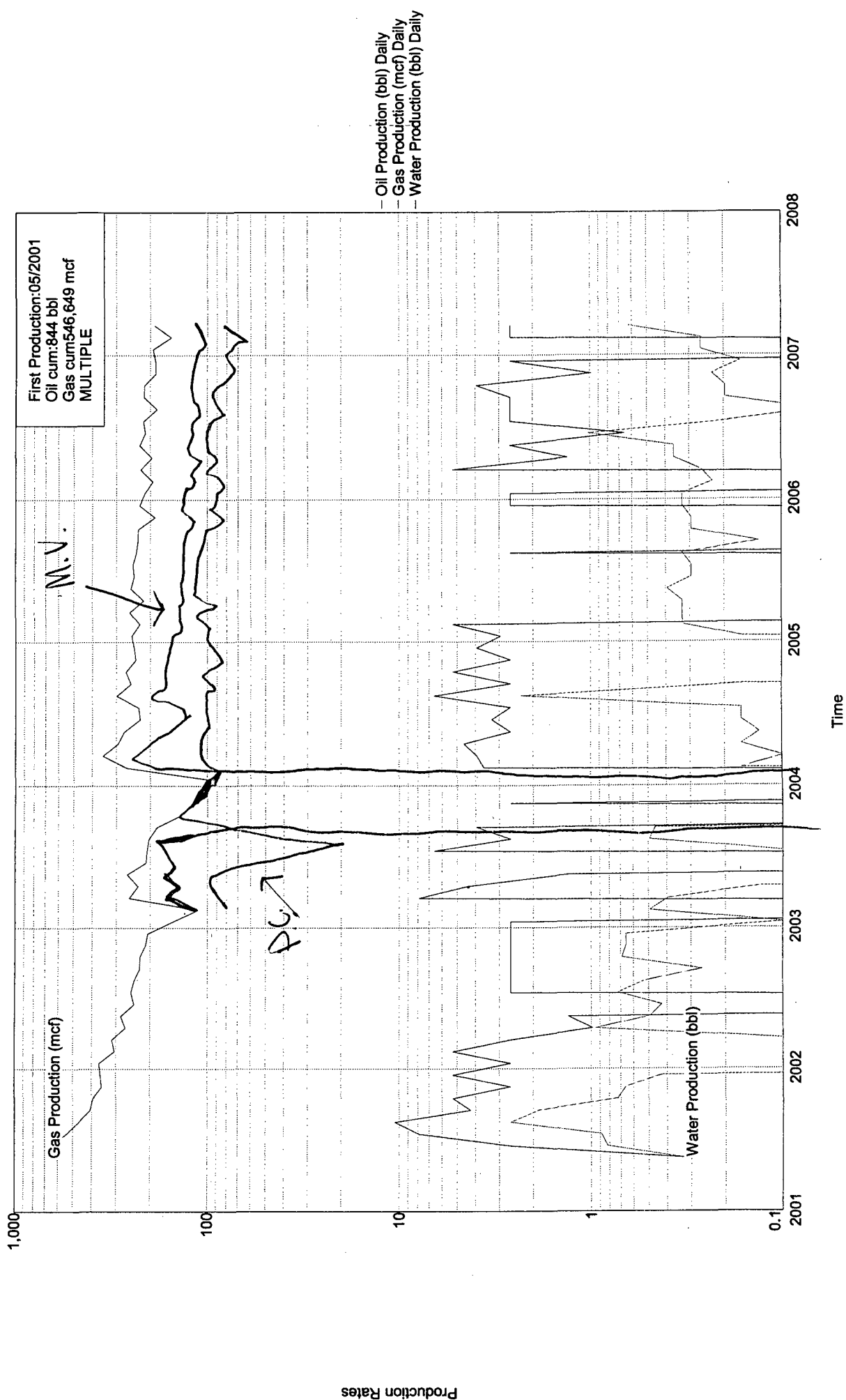
Energen Resources Corp.  
Jicarilla 96 #2B  
Offset Operator/ Ownership  
Plat  
Gavilan Pictured Cliffs/ Blanco Mesa  
Verde  
Downhole Commingling

Township 26 N, Range 3 W



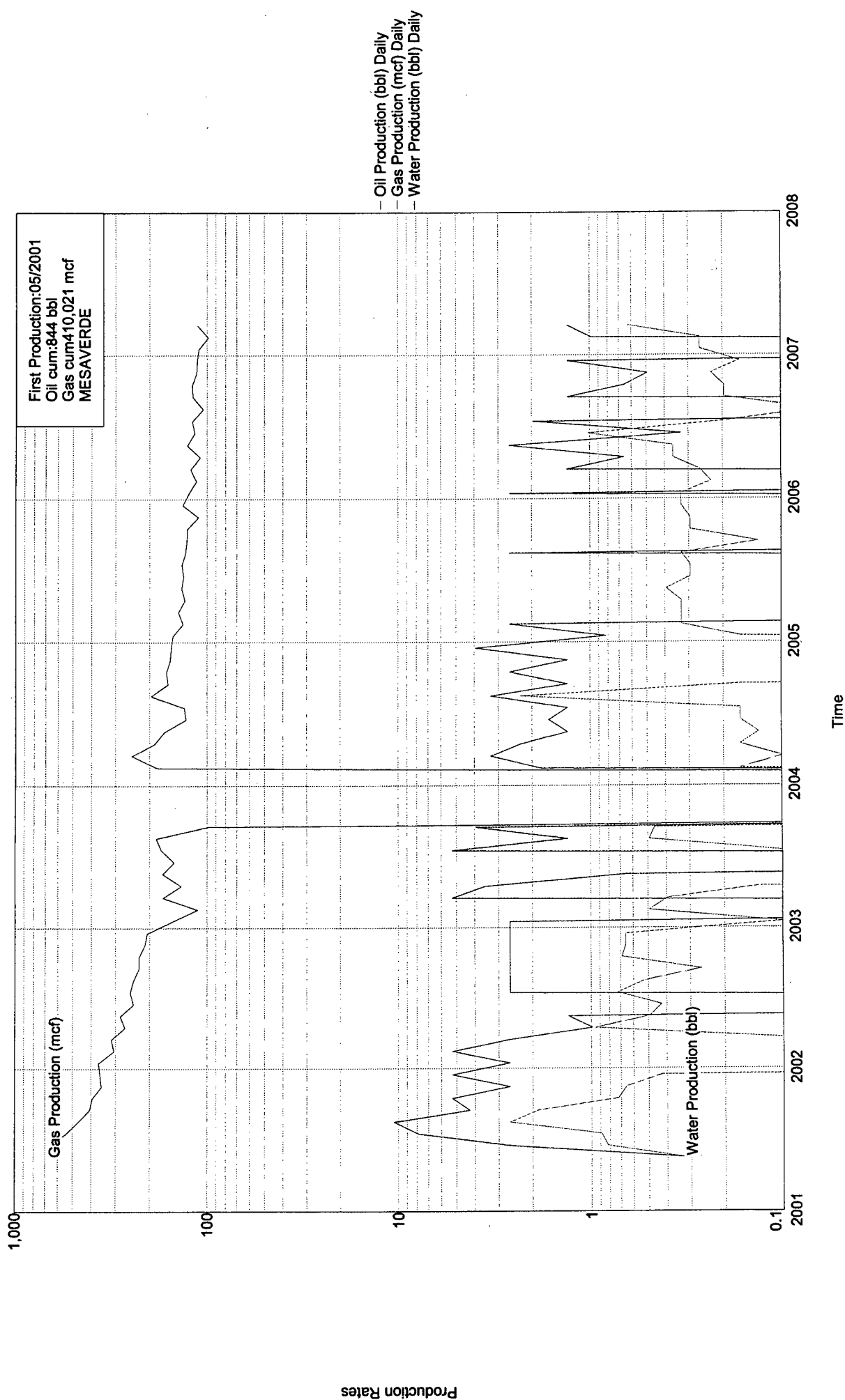
Lease Name: JICARILLA 95  
County, State: RIO ARBA, NM  
Operator: ENERGEN RESOURCES CORPORATION  
Field: MULTIPLE  
Reservoir: MULTIPLE  
Location:

# JICARILLA 95 - MULTIPLE MULTIPLE



Lease Name: JICARILLA 95  
County, State: RIO ARBA, NM  
Operator: ENERGEN RESOURCES CORPORATION  
Field: BLANCO  
Reservoir: MESAVERDE  
Location: 26 27N 3W SE NW SE

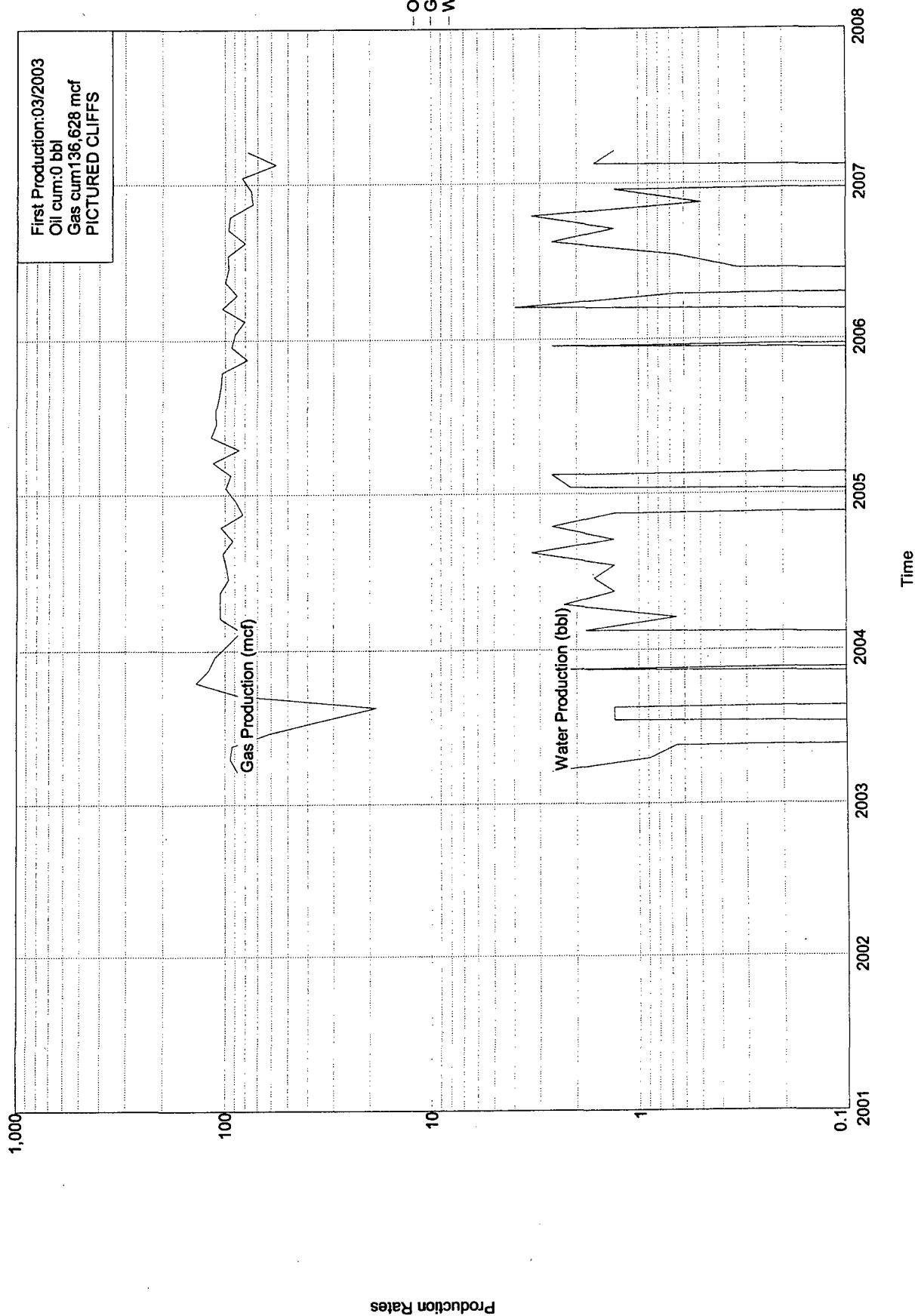
# JICARILLA 95 - BLANCO 8B MESAVERDE





Lease Name: JICARILLA 95  
County, State: RIO ARBA, NM  
Operator: ENERGEN RESOURCES CORPORATION  
Field: GAVILAN  
Reservoir: PICTURED CLIFFS  
Location: 26 27N 3W SE NW SE

JICARILLA 95 - GAVILAN 8B PICTURED CLIFFS



June 7, 2007

Procedure outline for Jicarilla 96 #2B

- A. Check location prior to rig-up for anchors and note any hazards which may impede rig-up.
- B. See Pertinent Data Sheet for wellbore information.
- 1. MIRU WSU. Blow the well down. Line up kill pump. Kill the well w/ 2% KCL as needed.

**Note:** BOP will have to be NU on an offset spool since this well is a dual completion – Pipe Rams will need to be for 2 3/8" X 1 1/2". Also an X-over will be needed for the TIW valve for 2 3/8" and 1 1/2" IJ.

- 2. MIRU SL unit and set a plug in the 2 3/8" Tubing sting 500' from surface and NDWH. NUBOP if pressure warrants. (**Note:** IJ will require slip grip elevators)
- 3. POOH with 1 1/2" IJ and lay it down.
- 4. MIRU SL and pull the plug out of the 2 3/8" tubing, if needed. POOH with 2 3/8" tubing and Baker type "R" packer @ 4072'.

**Note:** Fill may have to be cleaned out of the well with air – cleanout to PBTD of 6241'.

- 5. TIH with 2 3/8" tubing w/ a notched collar SN and land EOT at 5922'.
- 6. NDBOP. NUWH. RDMO WSU.
- 7. Turn well over to production.

Notification list of Working, Royalty, and overriding royalty interests

1) Royalty

Jicarilla Apache Tribe  
P.O. Box 507  
Dulce, NM 87528

Notification list of Offset Operators

1) Williams Production

Attn: Doug Bird  
One Williams Center  
PO Box 3102, MS 25-2  
Tulsa, Oklahoma 74101