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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

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

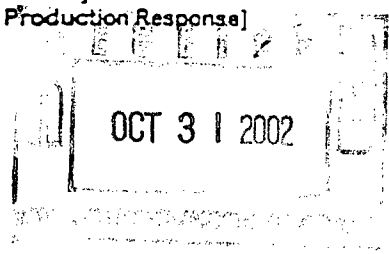
Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[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] 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, U, ORRI) is common. I further verify that all applicable API Numbers are included. 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

Don Graham
Print or Type Name

Don Graham
Signature

Production Superintendent
Title

10-29-02
Date



October 29, 2002

Ms. Lori Wrotenbery
NMOCD
1220 South Francis Dr
Santa Fe, New Mexico 87505

RE: Administrative Approval to Downhole Commingle
Energen Resources Corporation
Jicarilla 99 #7A
1980' FNL, 1980' FWL, Sec. 13, T26N, R3W, N.M.P.M.
Rio Arriba County, New Mexico
API # 30-039-26305

Dear Ms. Wrotenbery:

Energen Resources Corporation requests Administrative Approval to add the Gavilan Pictured Cliffs and downhole commingle it with the Blanco Mesa Verde in the subject well. Open hole log results show potential in the Pictured Cliffs Formation similar to offset producing wells. Since the Pictured Cliffs is marginal in this area, it is felt that commingling is the most economical way to produce the Pictured Cliffs reserves in this proration unit.

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 Commingle
2. C102 – Location plat showing each spacing unit and dedicated acreage
3. Production type curves for both the Pictured Cliffs and Mesa Verde
4. Offset operator plat
5. Well location plat
6. Proposed allocation method
7. Supporting pressure Data

In accordance with New Mexico Oil Conservation Division Rule 303C, all offset operators 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,

A handwritten signature in black ink, appearing to read "Don Graham".

Don Graham
Production Superintendent

DG/vd

cc: NMOCD – Aztec, BLM – Albuquerque

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

District II
811 South First Street, 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 May 15, 2000

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

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

APPLICATION FOR DOWNHOLE COMMINGLING

Energen Resources Corporation 2198 Bloomfield Highway, Farmington, NM 87401

Operator Address
Jicarilla 99 7A F- Sec 13 T26N R3W Rio Arriba, NM

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 162928 Property Code 21941 API No. 3003926305 Lease Type: Federal X State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Gavilan PC ✓		Blanco MV ✓
Pool Code	77360		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3730'-3778'		5831'-5999'
Method of Production (Flowing or Artificial Lift)	Not Completed		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)	814 Calc.		1479 Calc.
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1237 Est.		1257
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: Not Completed Rates:	Date: Rates:	Date: 9/2002 Rates: Oil – 1.4 BOPD Gas – 128 MCFD
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 % %	Oil Gas % %	Oil Gas % %

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:

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 Don Graham TITLE Production Superintendent DATE 10-29-02
TYPE OR PRINT NAME Don Graham TELEPHONE NO. (505) 325-6800

District I
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Depar.

Form C-102
Revised February 21, 1994

District II
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

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

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26305		*Pool Code 77360 / 72319	*Pool Name Gavilan Pictured Cliffs / Blanco Mesaverde
*Property Code	*Property Name JICARILLA 99		*Well Number 7A
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 7238

¹⁰ Surface Location

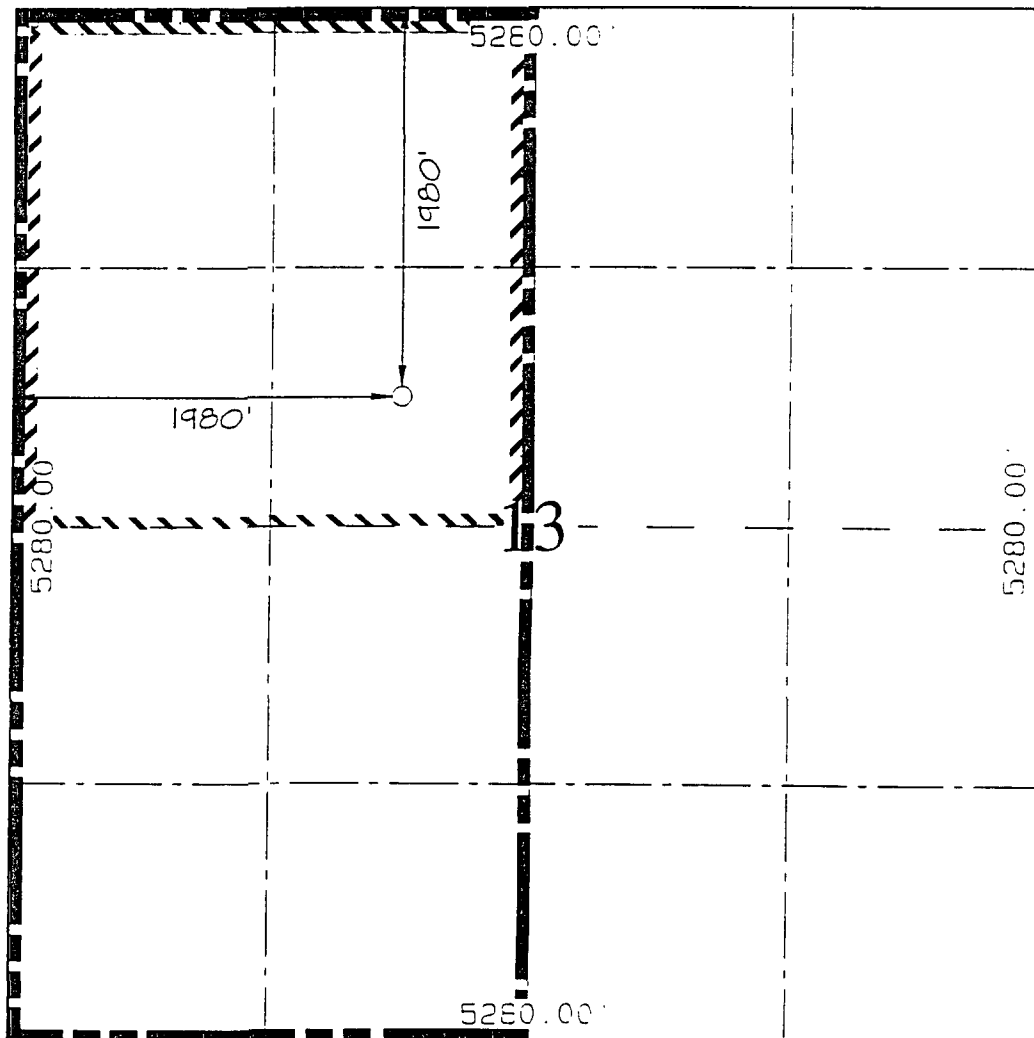
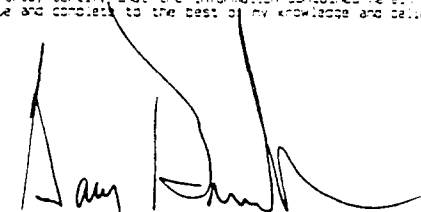

UL or lot no. F	Section 13	Township 26N	Range 3W	Lot Ion	Feet from the 1980	North/South line NORTH	Feet from the 1980	East/West line WEST	County RIO ARriba
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¹¹ Bottom Hole Location If Different From Surface

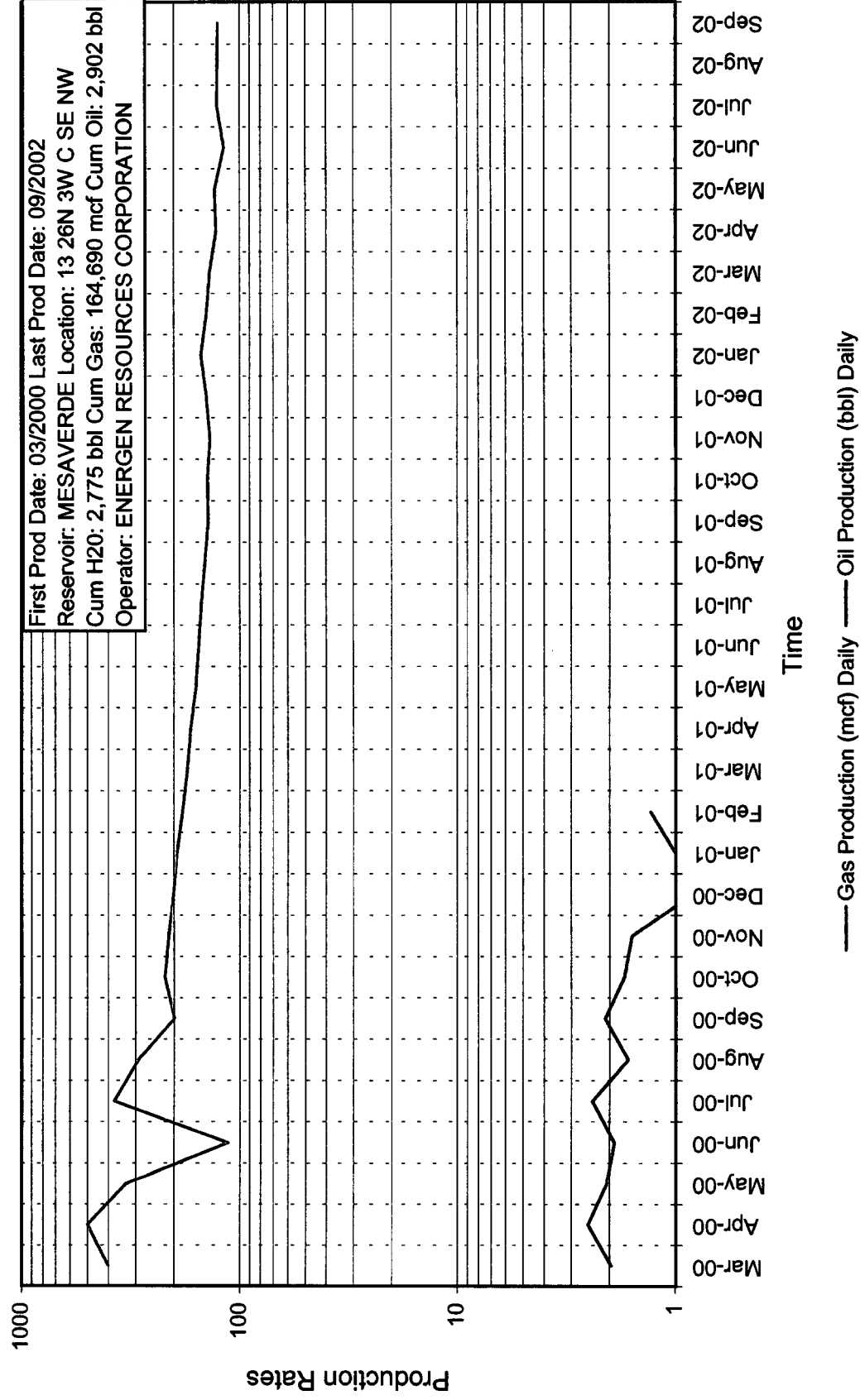
UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
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¹² Dedicated Acres 160 / 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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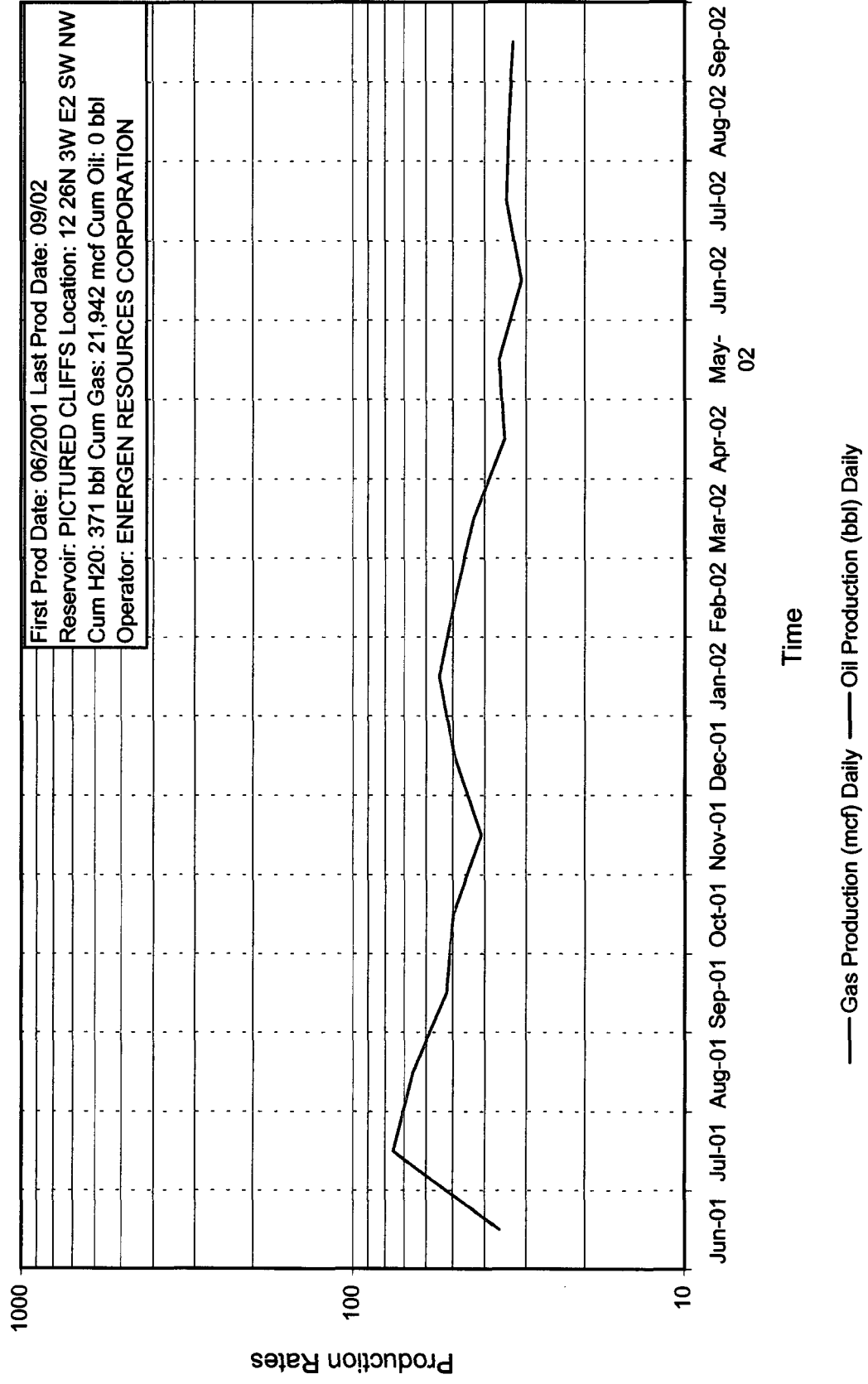
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief.</p> <p> Signature Gary Erick Printed Name Production Superintendent Title 10/22/02 Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes or 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>SEPTEMBER 24, 1999 Date of Survey Signature and Seal of Professional Surveyor  Certificate Number 6857</p>

JICARILLA 99 # 7A



JICARILLA 96#8B



Energen Resources Corporation

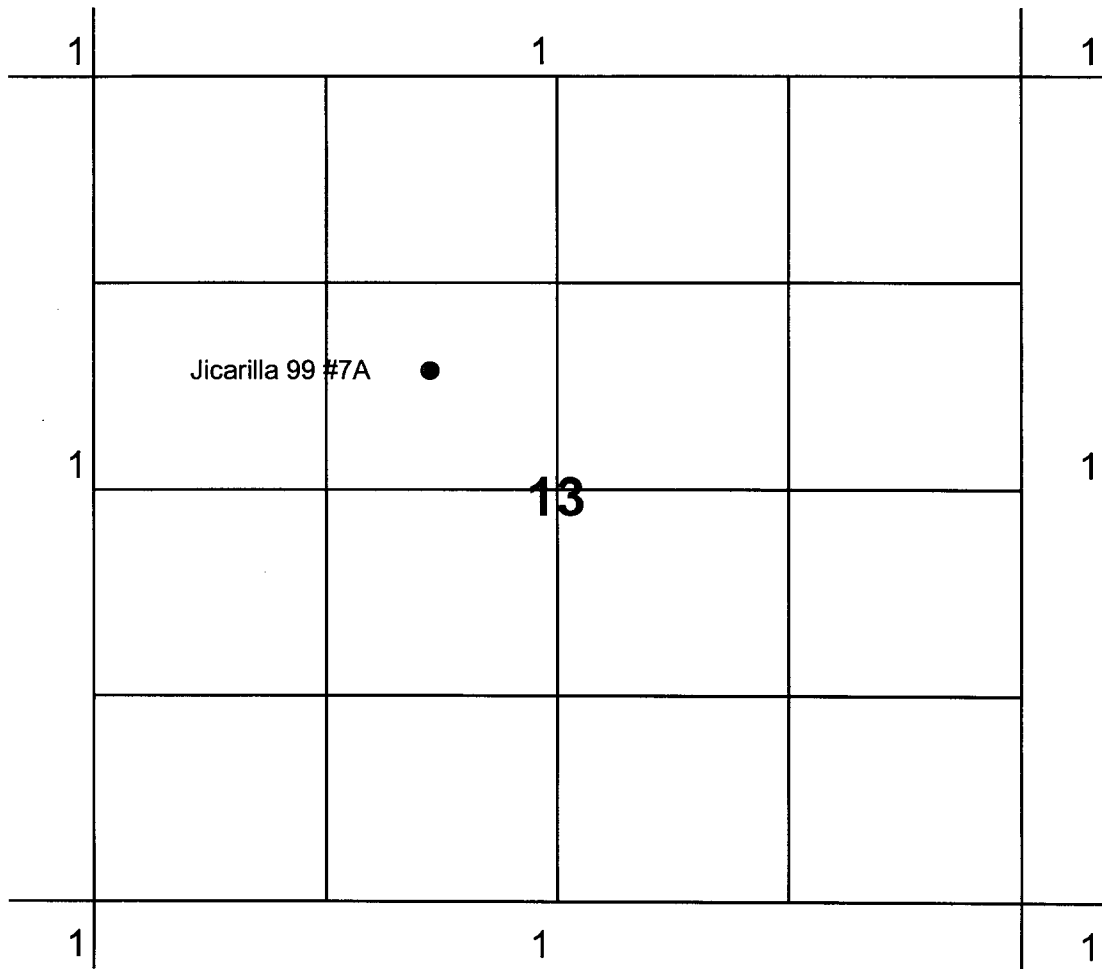
Jicarilla 99#7A

Offset Operator/Ownership Plat

Gavilan Pictured Cliffs/Blanco Mesaverde

Downhole Commingling

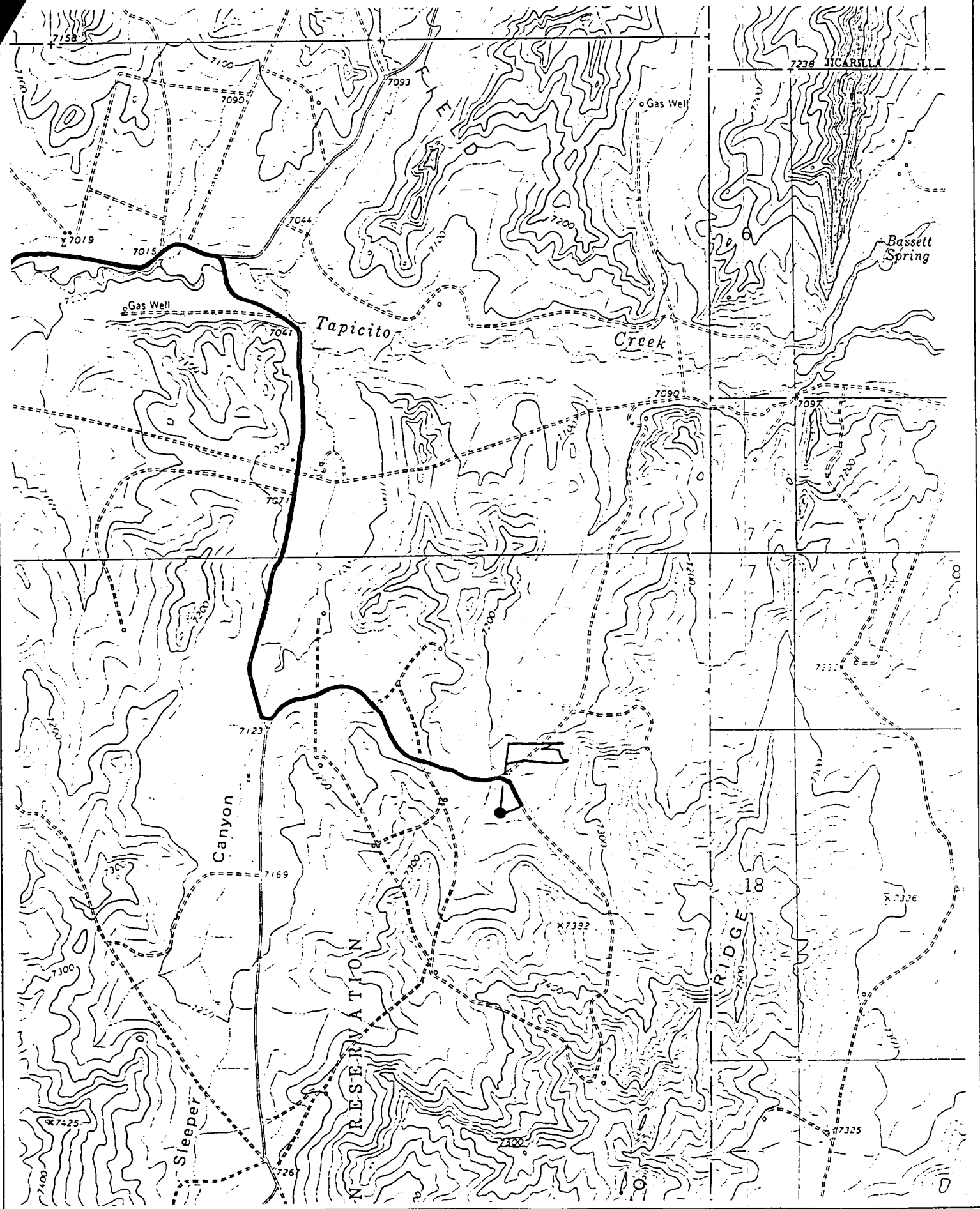
Township 26 N, Range 3 W



1.) Energen Resources

ENERGEN RESOURCES CORPORATION JICARILLA 99 #7A

1980' FNL & 1980' FWL, SECTION 13, T26N, R3W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO



Jicarilla 99#7A

Proposed Allocation Method

Produce total well stream for 60 days following Pictured Cliffs pay add
Pay add projected to add 70 MCFD from Pictured Cliffs

Total Stream = X

Mesaverde flow rate = 128 MCFD

MV Allocation = $128 / X$ as a percentage

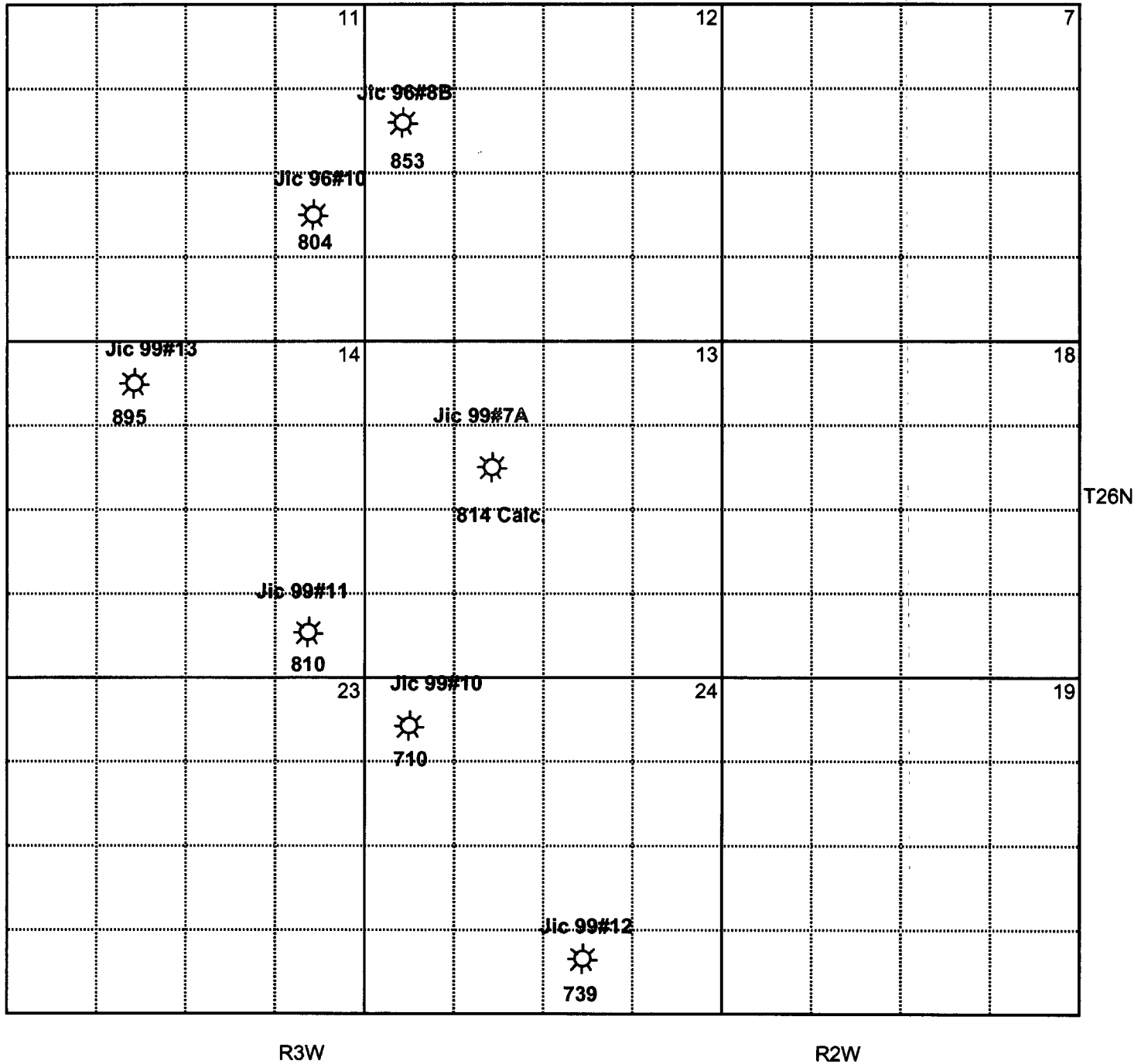
PC allocation = $(X - 128) / X$ as a percentage

PC Oil allocation = $((\text{Total Oil} - 1.4 \text{ BOPD to Mesaverde}) / \text{Total Oil})$ as a percentage of total production

Rates will be reported to NMOCD- Aztec for final allocation percentage determination

Jicarilla 99#7A

Pictured Cliffs Initial Bottom Hole Shut In Pressure



Jicarilla 99#7A BHP VS CUM

