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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

JUL 14 2003

OIL CONSERVATION DIVISION

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, RI, 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.

Charlie Donahue
Print or Type Name

Chad Imel
Signature

District Engineer
Title

7/10/03
Date



July 10, 2003

Ms. Lori Wrotenbery
NMOCD
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Administrative Approval to Down-hole Commingle
Energen Resources Corporation
Carson #2
1470' FSL, 810' FWL, Sec. 7, T30N, R4W, N.M.P.M.
Rio Arriba County, New Mexico
API # 30-039-22083

Dear Ms. Wrotenbery,

Energen Resources Corporation requests Administrative Approval to add the East Blanco Pictured Cliffs and down-hole commingle it with the Blanco Mesaverde/Wildcat Gallup in the subject well. The Mesaverde/Gallup was previously commingled in accordance with DHC-2740. Open hole logs show potential in the Pictured Cliffs 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. Form C107A – Application for Downhole Commingle
2. C102 – Location plat showing each spacing unit and dedicated acreage
3. Production type curves for the Pictured Cliffs, Gallup and Dakota
4. Offset Operator Plat
5. Well location plat
6. Proposed allocation method
7. Supporting pressure data

In accordance to 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 cursive script that reads "Charlie Donahue".

Charlie Donahue
District Engineer

CD/vd

cc: NMOCD – Aztec, BLM – Farmington, Offset Operators

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 June 10, 200
Submit to Appropriate District Office
State Lease - 4 Copie
Fee Lease - 3 Copie

AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-22083		² Pool Code 72400/72319/96426		³ Pool Name East Blanco Pictured Cliffs WC:30N04W07K Gallup/Blanco Mesaverde/	
⁴ Property Code 21185	⁵ Property Name Carson			⁶ Well Number 2	
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation			⁹ Elevation 6692'	

¹⁰ Surface Location

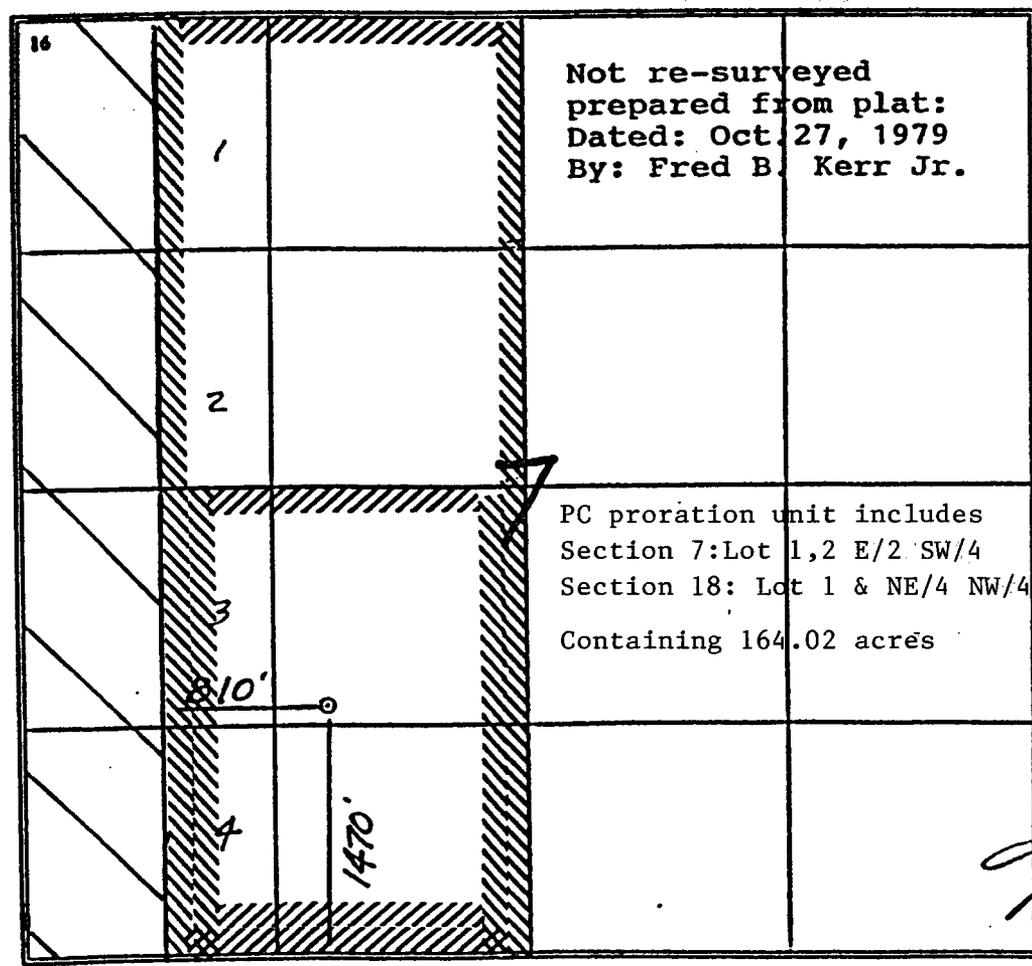
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	07	30N	04W		1470	South	810	West	Rio Arriba

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 164.02 109.29 W/218.30	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



¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Charlie Donahue
Signature
Charlie Donahue
Printed Name
District Engineer
Title
07/10/03
Date

¹⁸ 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 knowledge and belief

Date of Survey
Signature and Seal of Registered Surveyor:
[Signature]
6857
Certificate Number

DISTRICT I

1625 N. French Dr., Hobbs, NM 88240

DISTRICT II

811 S. First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

DISTRICT IV

2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 875054-6429

Form C-107-A
Revised March 17, 1999

APPROVAL PROCESS:

Administrative Hearing

EXISTING WELLBORE

YES NO

APPLICATION FOR DOWNHOLE COMMINGLING

ENERGEN RESOURCES CORPORATION

2198 Bloomfield Highway, Farmington, NM 87401

Operator

Address

Carson

2

K

7

30N

4W

Rio Arriba

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 162928

Property Code 21185

API NO. 30-039-22083

Federal State (and/or) Fee

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	<i>Und.</i> East Blanco PC 72400	Blanco MV 72319	Wildcat Gallup 96426
2. Top and Bottom of Pay Section (Perforations)	3455 - 3690'	5624 - 6095'	7099 - 7512'
3. Type of production (Oil or Gas)	Gas	Gas	Gas
4. Method of Production (Flowing or Artificial Lift)	Not Completed	Flowing	Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) Not Completed b. (Original) 1075 Est.	a. 895 Calc. b. 1089 Calc.	a. 895 Calc. b. 2607 Calc.
6. Oil Gravity (° API) or Gas BTU Content)	1020 BTU Est.	1036 BTU	1036 BTU
7. Producing or Shut-In?	Not Completed	Producing	Producing
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give 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: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates: Not Completed	Date: 7/07/03 Rates: 0/41/1	Date: 7/07/03 Rates: 0/84/2
8. Fixed Percentage Allocation Formula -% for each zone (total of %'s to equal 100%)	Oil: % Gas: %	Oil: % Gas: %	Oil: % Gas: %

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? Yes No
If not, have all working, overriding, and royalty interests been notified by certified mail? Yes No
Have all offset operators been given written notice of the proposed downhole commingling? Yes No

11. Will cross-flow occur? Yes No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. Yes No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? Yes No

13. Will the value of production be decreased by commingling? Yes No (If Yes, attach explanation)

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

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____

16. 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 all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

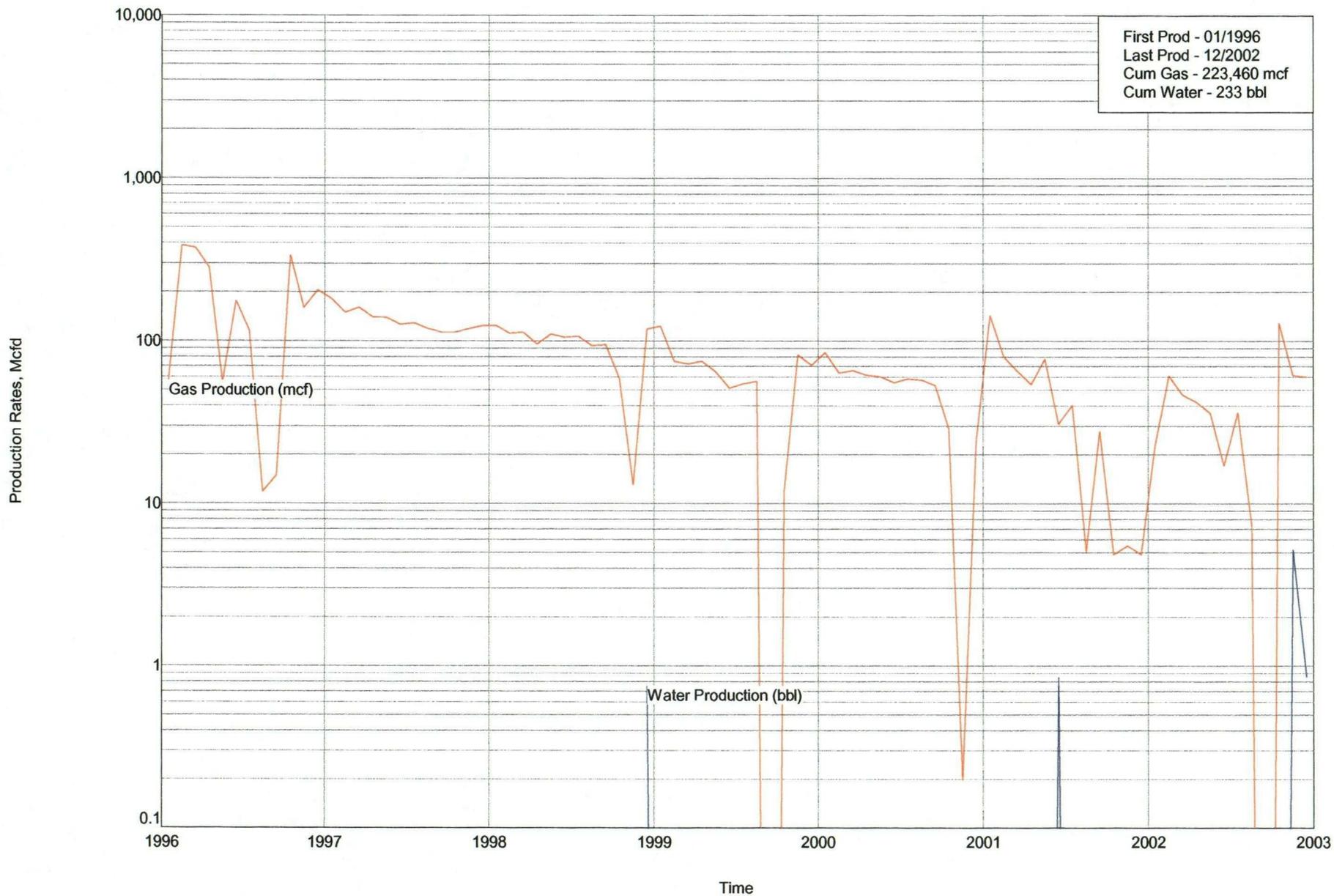
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Charlie Donahue TITLE District Engineer DATE 7/10/2003

TYPE OR PRINT NAME Charlie Donahue TELEPHONE NO(505) 325-6800

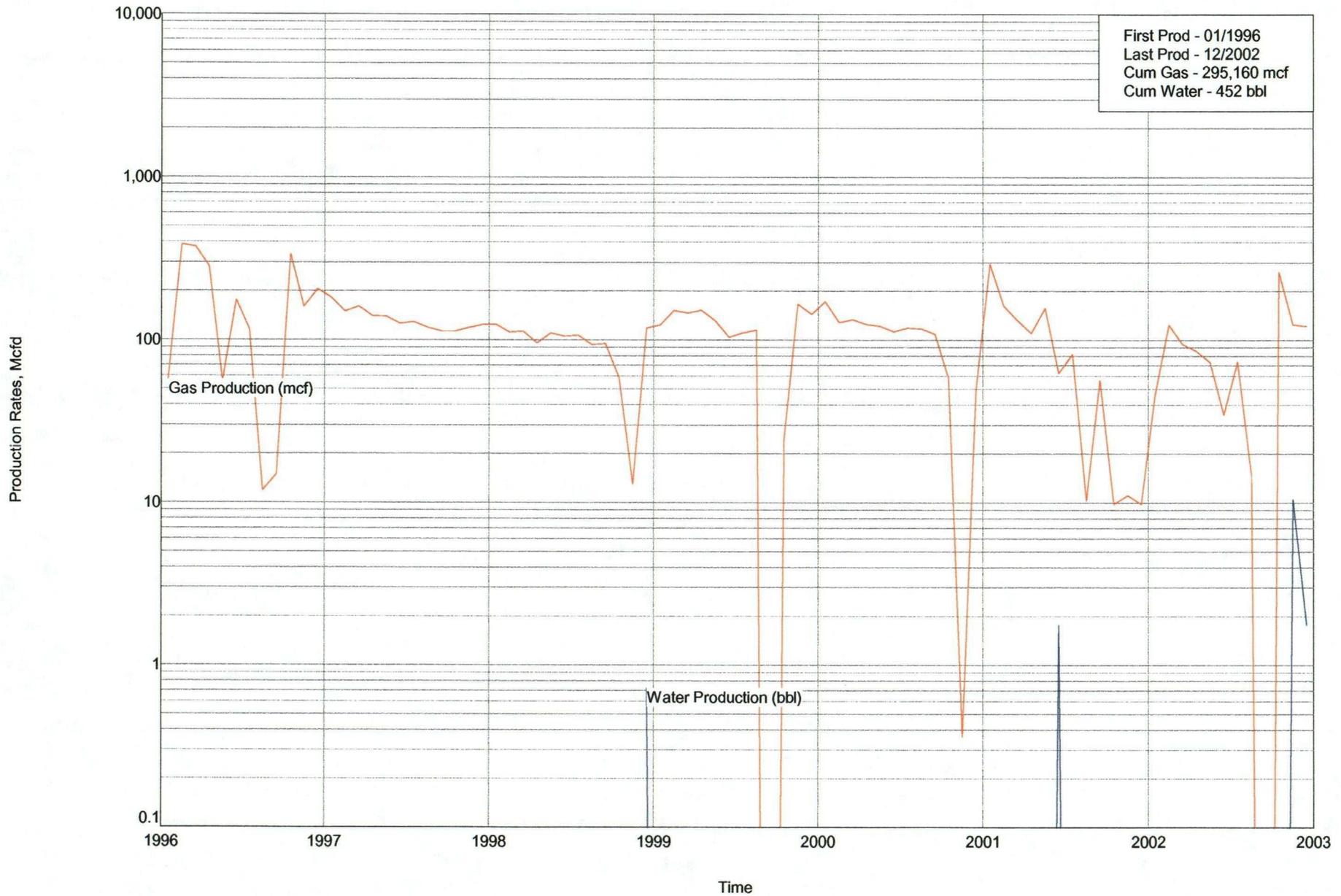
Lease Name: CARSON
County, State: RIO ARBA, NM
Operator: ENERGEN RESOURCES CORPORATION
Field: BLANCO
Reservoir: MESAVERDE
Location: 7 30N 4W SE NW SW

CARSON #2



Lease Name: CARSON
County, State: RIO ARBA, NM
Operator: ENERGEN RESOURCES CORPORATION
Field: WILDCAT 30N04W07K
Reservoir: GALLUP
Location: 7 30N 4W SE NW SW

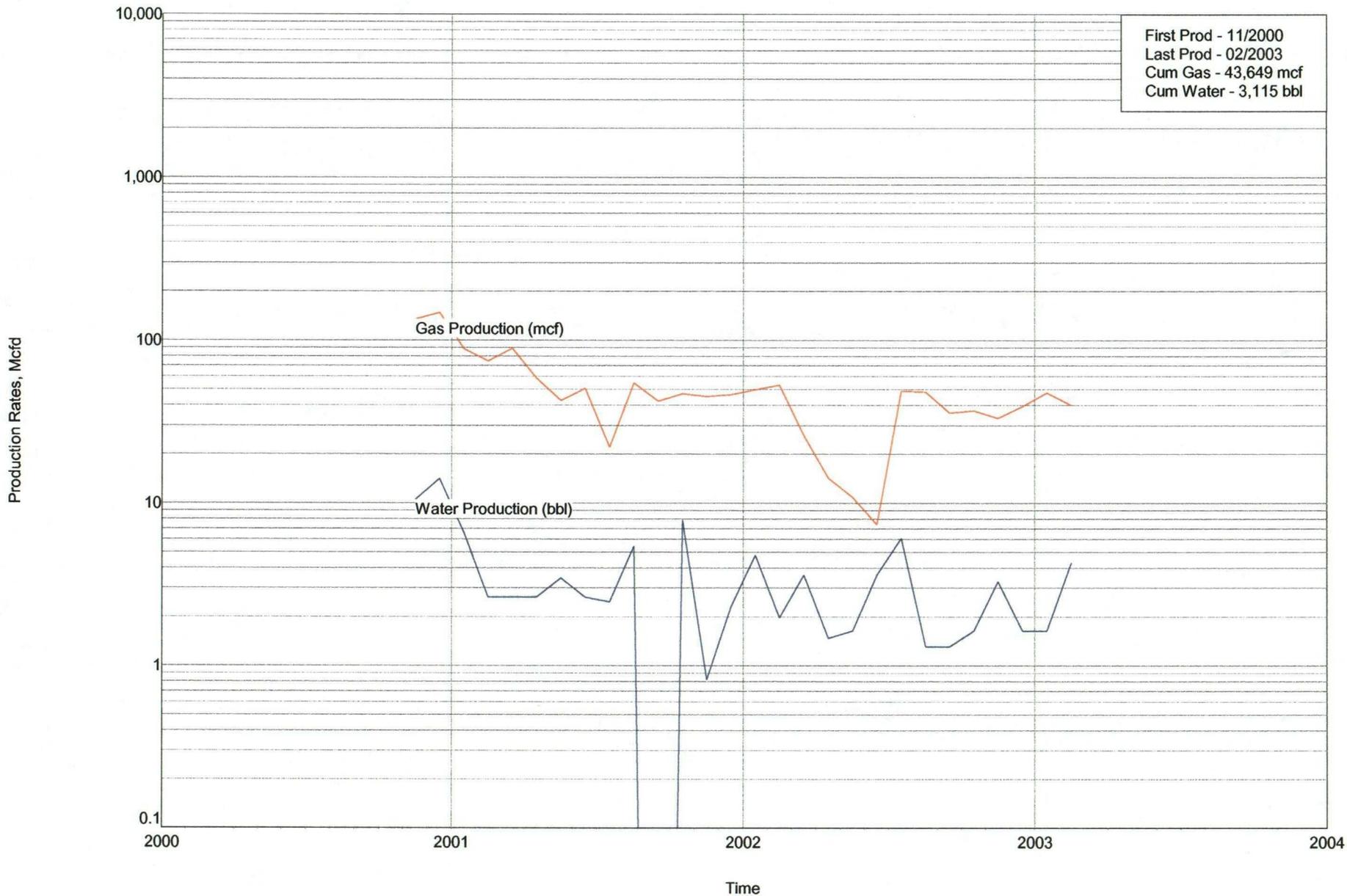
CARSON #2



Lease Name: SAN JUAN 30 4 UNIT
County, State: RIO ARBA, NM
Operator: ENERGEN RESOURCES CORPORATION
Field: BLANCO EAST
Reservoir: PICTURED CLIFFS
Location: 8 30N 4W NW SE NE

PC TYPE CURVE

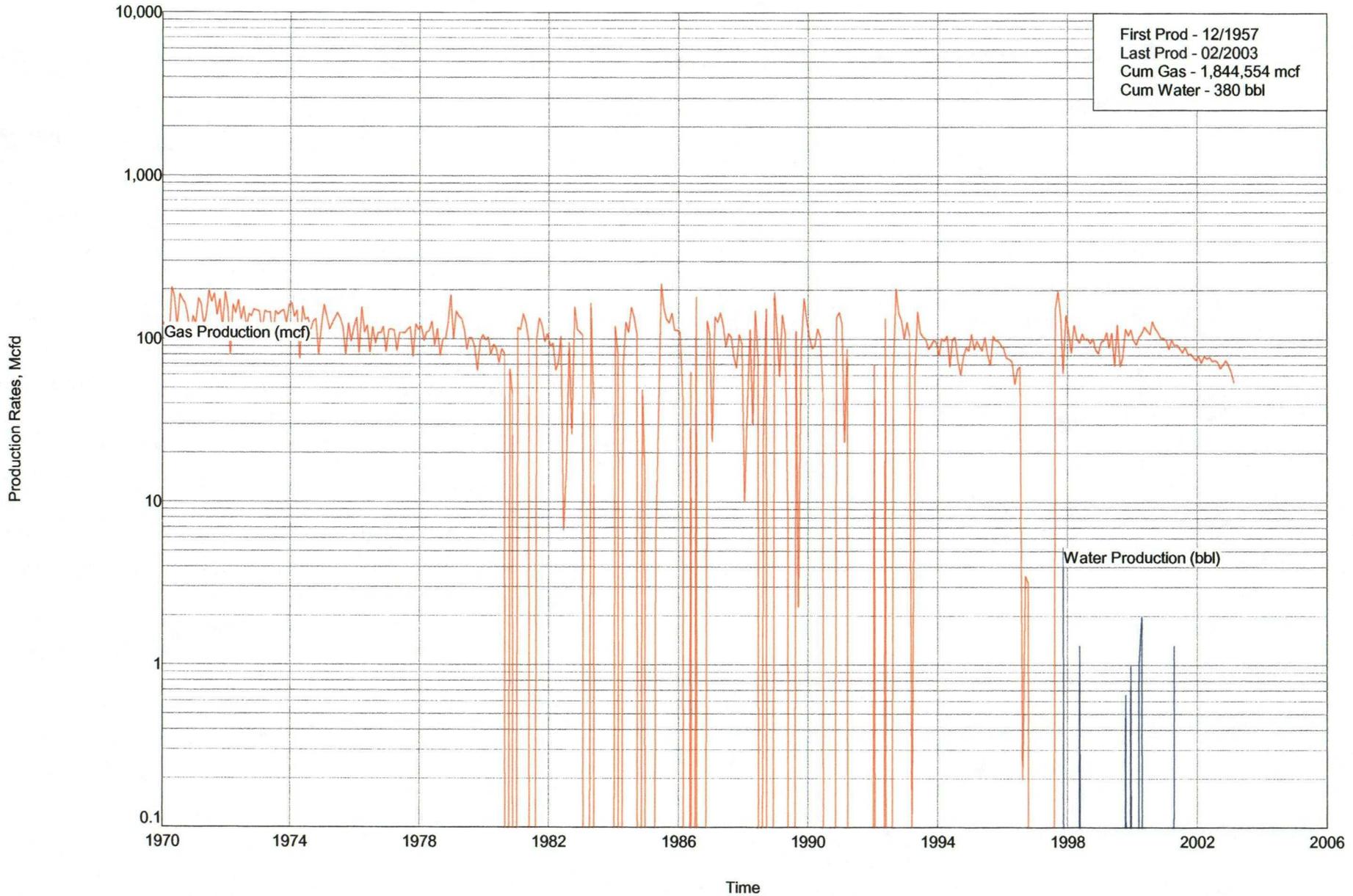
SAN JUAN 30 4 UNIT #46



Lease Name: SAN JUAN 30 4 UNIT
County, State: RIO ARBA, NM
Operator: ENERGEN RESOURCES CORPORATION
Field: BLANCO EAST
Reservoir: PICTURED CLIFFS
Location: 17 30N 4W SW NE NE

PC TYPE CURVE

SAN JUAN 30 4 UNIT #17



Energen Resources Corporation

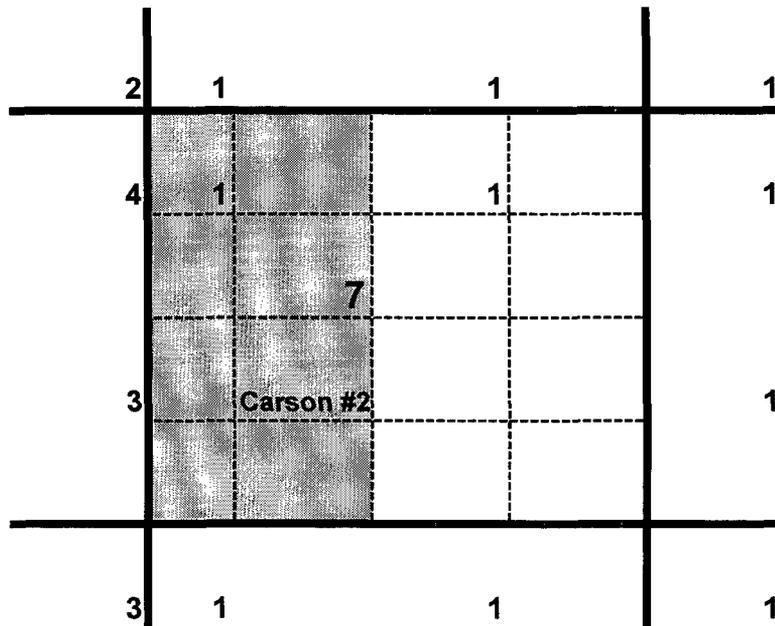
Carson #2

Offset Operator / Ownership Plat

East Blanco PC/Blanco Mesaverde/Wildhorse Gallup

Downhole Commingling

Township 30 North, Range 4 & 5 West



1) Energen Resources

2) Burlington Resources
P.O. Box 4289
Farmington, NM 87499

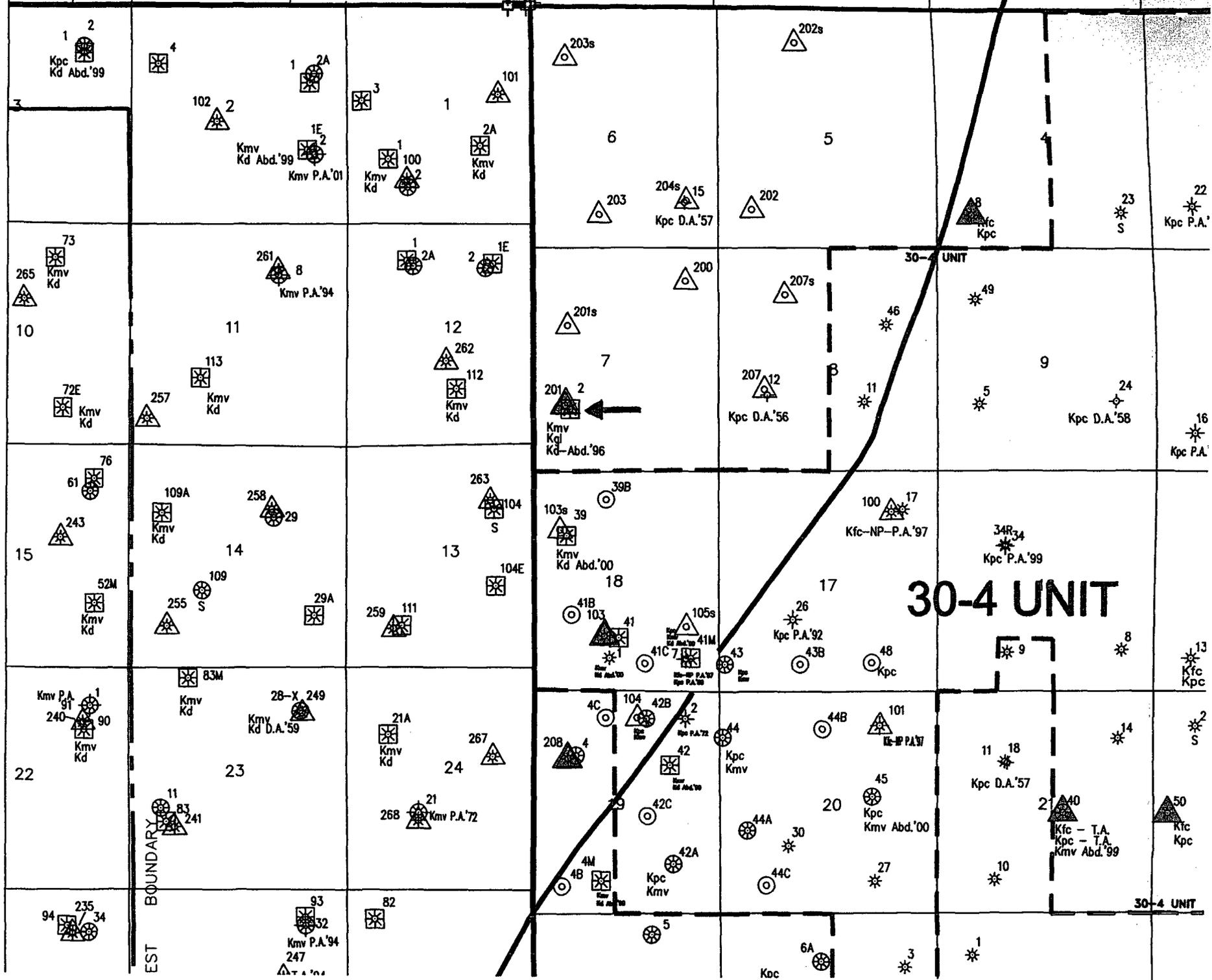
3) Jennifer Barber
ConocoPhillips
P.O. Box 2197
3 Westlake Building
Houston, TX 77252-2197

4) Schalk Development Company
PO Box 25825
Albuquerque, NM 87125

1884
Kmv Kd

Kmv P.A.'95
Kd Abd.'83

6-28-91
Kpc Kmv } D.A.'54 Kfc S.I.



T
30
N

EST BOUNDARY

30-4 UNIT

30-4 UNIT

Carson #2

Proposed Allocation Method

In accordance with DHC-2740 the allocation for the current wellbore configuration is Mesaverde-33% of the Gas, Gallup-67% of the gas; 100% of the oil.

Currently, the well is producing 125 MCFD and 0 BOPD as a commingled Blanco Mesaverde/Wildcat Gallup. It is anticipated that the Pictured Cliffs will add 75-125 MCFD to the total flow stream.

Following 60 days of stabilized production from the Pictured Cliffs pay add, use subtraction method as follows:

Total stream = X

Mesaverde/Gallup = 125 MCFD

Mesaverde/Gallup Allocation = $125 / X$ as a percentage

Split allocation for MV/GL per previous approved rates

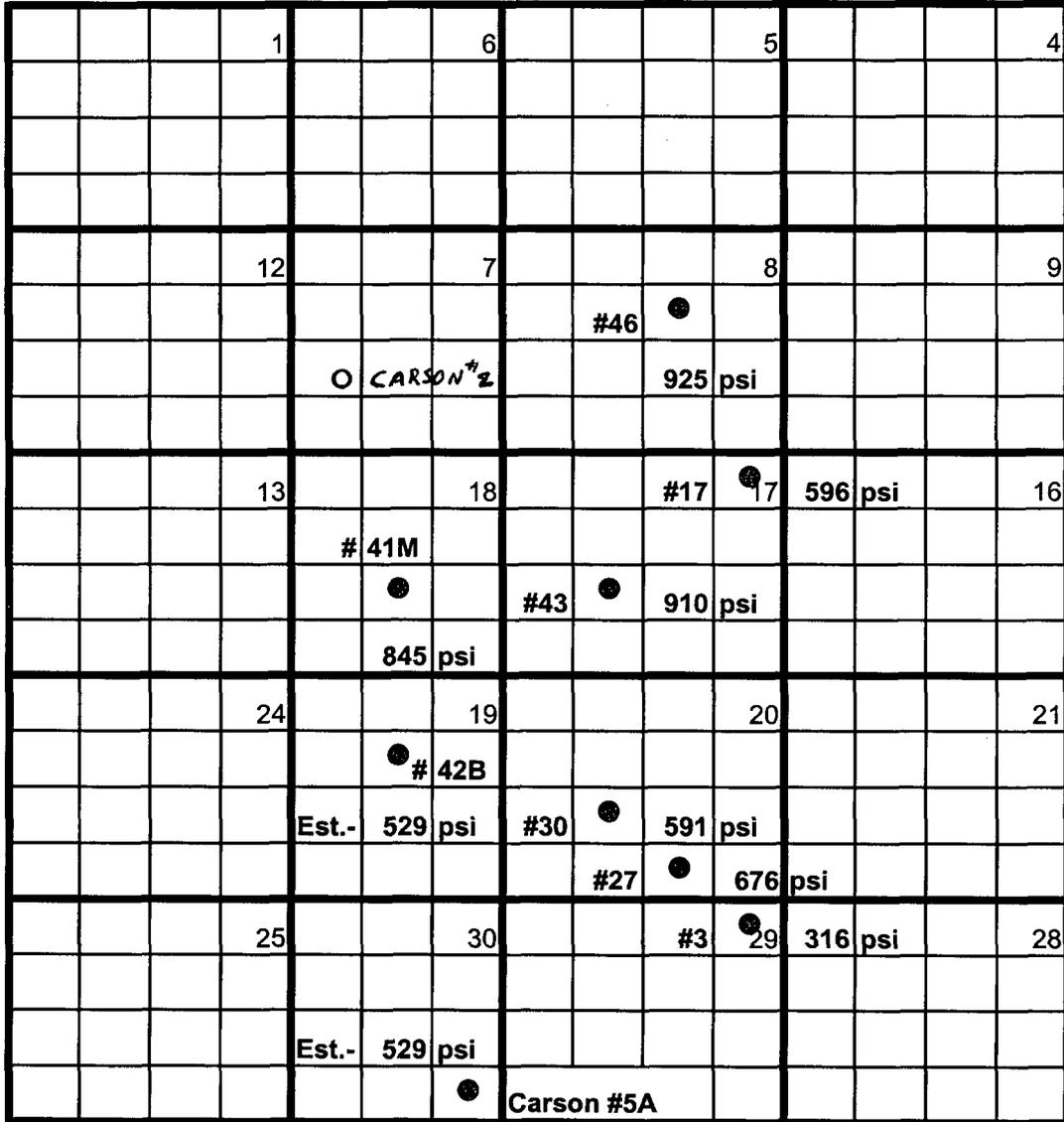
PC allocation = $(X-125)/X$

PC oil allocation = 0%

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

Energen Resources Corporation

Current Pictured Cliffs Bottomhole Pressures Area offsetting Carson #2



Energen Resources Corporation

Initial Pictured Cliffs Bottomhole Pressures Area offsetting Carson #2

		1		6			5			4
		12		7			8			9
						#46 ●	Oct-00			
							1051 psi			
		13		18		#17 ●	Nov-57			16
			#41M ●				1228 psi			
			Nov-01	#43 ●	Dec-00					
			950 psi		1095 psi					
		24	#42B ●	19			20			21
			Nov-02			1192 psi				
			980 psi	#30 ●	Aug-59					
					#27 ●		1249 psi	Oct-58		
		25		30		#3 ●	Jul-55			28
							1225 psi			
			990 psi							
			Carson #5A ●		Oct-03					