

DATE IN 1/21/00	SUSPENSE 2/10/00	ENGINEER DC	LOGGED KN	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

2665

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]

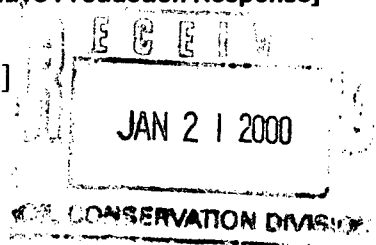
[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling
_ NSL _ NSP _ DD _ SD

Check One Only for [B] and [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 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.

<u>Mary Corley</u>	<u>Sr. Business Analyst</u>	<u>1/19/2000</u>
Print or Type Name	Signature	Date



Amoco Exploration & Production

501 Westlake Park Blvd.
Post Office Box 3092
Houston, TX 77079

January 19, 2000

**Ms. Lori Wrotenbery, Director
New Mexico Oil Conservation Division
2040 S. Pacheco Street
P. O. Box 6429
Santa Fe, NM 87505**

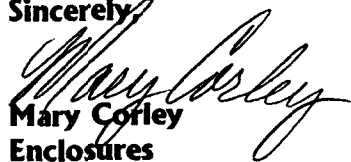
**Application for Exception to Rule 303-A- Downhole Commingling
Wilch A # 4
Unit D Section 25-T29N-R8W
Blanco Mesaverde and Basin Dakota Pools
San Juan County, New Mexico**

Enclosed please find an administrative application form (C-107-A) and attachments for downhole commingling for the captioned well. All working, overriding and royalty interests are identical in both zones, therefore, no notification of this application is required to be submitted via certified mail.

We respectfully request that this application for downhole commingling be approved within 20 days after the receipt of the application as all ownership is common in the zones to be commingled, waste will not occur, and correlative rights will not be violated.

Should you have questions regarding this application, do not hesitate to call me at 281-366-4491.

Sincerely,


**Mary Corley
Enclosures**

**cc: Frank Chavez, Supervisor
NMOCD District III
1000 Rio Brazos Road
Aztec, NM 87410**

**Duane Spencer
Bureau of Land Management
1235 La Plata Hwy.
Farmington, NM 87401**

James Dean

Well File

PRODUCTION ALLOCATION RECOMMENDATION

Wilch A #4

Production is proposed to be allocated based on the subtraction method using the future projection of production for production from the Dakota. That production shall serve as a base for production subtracted from total production for the commingled well. The balance of the production will be attributed to the Blanco Mesaverde. Attached is the future production decline estimate for the Dakota.

WORKING, OVERRIDING, and ROYALTY INTEREST OWNERS NOTIFICATION

Wilch A #4

All of the working, overriding, and royalty interest are identical in both proposed commingled zones.

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

311 South First., Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, New Mexico 87505

Form C-102**Revised October 18, 1994**

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-23477	Pool Code 71599 & 72319	Pool Name Basin Dakota & Blanco Mesaverde
Property Code 001215	Property Name Wilch A	Well Number 4
OGRID No. 000778	Operator Name AMOCO PRODUCTION COMPANY	Elevation 6347' GR

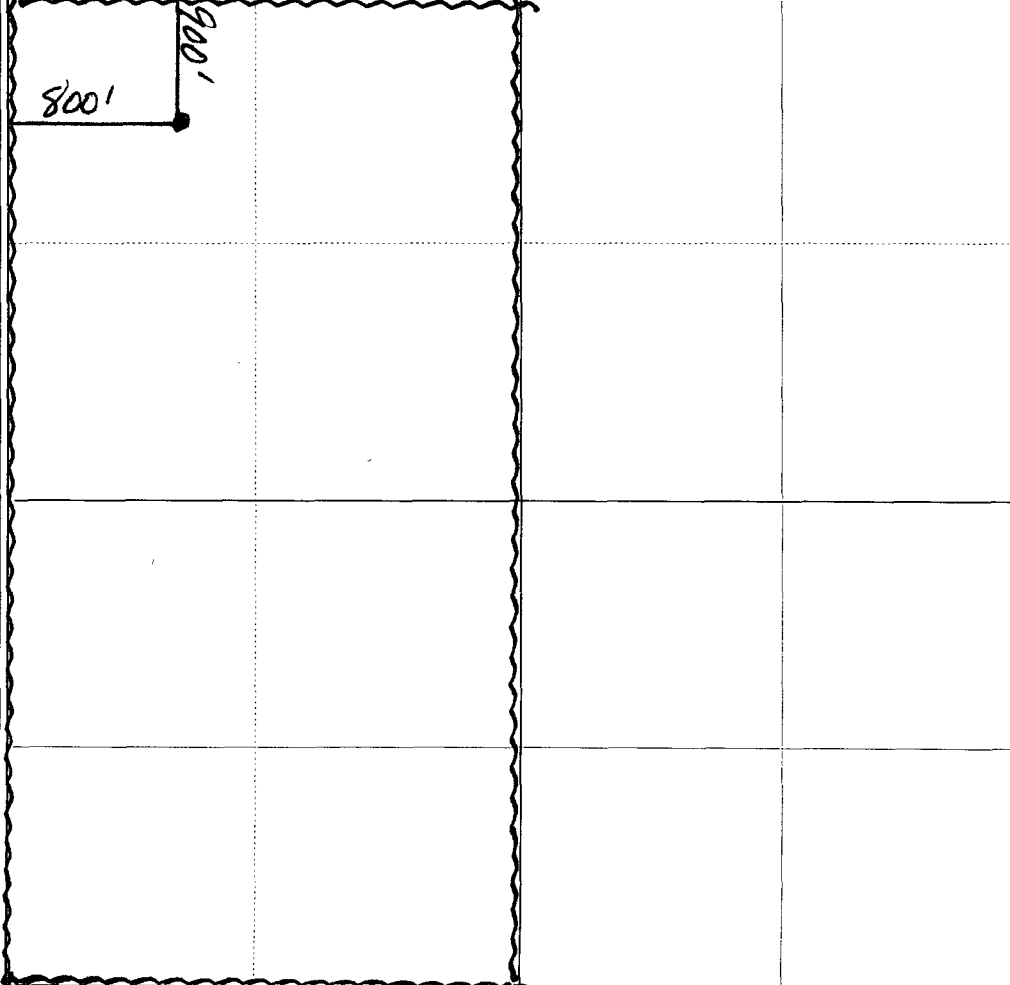
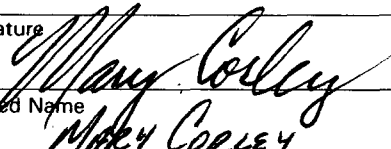
Surface Location

UL or lot no. UNIT D	Section 25	Township 29N	Range 8W	Lot. Idn	Feet from the 900'	North/South Line NORTH	Feet from the 800'	East/West Line WEST	County San Juan
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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
Dedicated Acreage: 320		Joint or Infill	Consolidation Code		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**

	OPERATOR CERTIFICATION
	<i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</i>
	Signature 
	Printed Name MARY CORLEY
	Position Sr. Business Analyst
	Date 01/19/2000
	SURVEY 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 knowledge and belief.</i>
	04/11/1979
	Date of Survey
	Signature & Seal of Professional Surveyor
	Fred B. Kerr, Jr.
	Certificate No. 3950

Wilch A 4

DK	0.08	PC	0.04
MV	0.07	FT	0.04
		CK	0.04

WELL NAME: **Wilch A 4**

FORMATION: **DK**

SURFACE PRESS: **182**

PERFS TOP: **7230**

BOTTOM: **7462**

$$(7230 + 7462) / 2 = 7346 \text{ Mid Perf}$$

$$7346 \times 0.08 = 588$$

$$587.68 + 182 = 770 \text{ Bottom Hole Pressure}$$

Initial Bottom Hole Pressure= **3231**

WELL NAME: **Hardie LS 3**

FORMATION: **MV**

SURFACE PRESS: **211**

PERFS TOP: **5020**

BOTTOM: **5786**

$$(5020 + 5786) / 2 = 5403 \text{ Mid Perf}$$

$$5403 \times 0.07 = 378$$

$$378.21 + 211 = 589 \text{ Bottom Hole Pressure}$$

Initial Bottom Hole Pressure= **2505**

WELL NAME: **Hardie LS 2A**

FORMATION: **MV**

SURFACE PRESS: **208**

PERFS TOP: **4658**

BOTTOM: **5611**

$$(4658 + 5611) / 2 = 5135 \text{ Mid Perf}$$

$$5134.5 \times 0.07 = 359$$

$$359.42 + 208 = 567 \text{ Bottom Hole Pressure}$$

Initial Bottom Hole Pressure= **2430**

WELL NAME: **Wilch A 4**

FORMATION: **MV**

$$\text{Initial Bottom Hole Pressure: } (2505 + 2430) / 2 = 2468$$

$$\text{Bottom Hole Pressure: } (589 + 567) / 2 = 578 \text{ est.}$$

$$\text{Hardie LS 3 + Hardie LS 2A BBLS } (94 + 695) / 2 = 395 \text{ est. annual production}$$

$$\text{Hardie LS 3 + Hardie LS 2A MCF } (54834 + 44344) / 2 = 49589 \text{ est. annual production}$$

ALLOCATION: SUBTRACTION METHOD

Wilch A 4 **Future Production Decline Estimate**

Month	Gas Volume
Jan-2000	71
Feb-2000	70
Mar-2000	70
Apr-2000	69
May-2000	69
Jun-2000	68
Jul-2000	68
Aug-2000	67
Sep-2000	67
Oct-2000	66
Nov-2000	66
Dec-2000	65
Jan-2001	64
Feb-2001	64
Mar-2001	63
Apr-2001	63
May-2001	62
Jun-2001	62
Jul-2001	61
Aug-2001	61
Sep-2001	60
Oct-2001	60
Nov-2001	59
Dec-2001	59
Jan-2002	59
Feb-2002	58
Mar-2002	58
Apr-2002	57
May-2002	57
Jun-2002	56
Jul-2002	56
Aug-2002	55
Sep-2002	55
Oct-2002	54
Nov-2002	54
Dec-2002	54

Month	Gas Volume
Jan-2003	53
Feb-2003	53
Mar-2003	52
Apr-2003	52
May-2003	51
Jun-2003	51
Jul-2003	50
Aug-2003	50
Sep-2003	50
Oct-2003	49
Nov-2003	49
Dec-2003	48
Jan-2004	48
Feb-2004	47
Mar-2004	47
Apr-2004	46
May-2004	46
Jun-2004	46
Jul-2004	45
Aug-2004	45
Sep-2004	44
Oct-2004	44
Nov-2004	44
Dec-2004	43
Jan-2005	43
Feb-2005	42
Mar-2005	42
Apr-2005	42
May-2005	41
Jun-2005	41
Jul-2005	41
Aug-2005	40
Sep-2005	40
Oct-2005	39
Nov-2005	39
Dec-2005	39

Month	Gas Volume
Jan-2006	38
Feb-2006	38
Mar-2006	38
Apr-2006	38
May-2006	37
Jun-2006	37
Jul-2006	37
Aug-2006	36
Sep-2006	36
Oct-2006	36
Nov-2006	36
Dec-2006	35
Jan-2007	35
Feb-2007	35
Mar-2007	34
Apr-2007	34
May-2007	34
Jun-2007	34
Jul-2007	33
Aug-2007	33
Sep-2007	33
Oct-2007	33
Nov-2007	32
Dec-2007	32
Jan-2008	32
Feb-2008	31
Mar-2008	31
Apr-2008	31
May-2008	31
Jun-2008	30
Jul-2008	30
Aug-2008	30
Sep-2008	30
Oct-2008	30
Nov-2008	29
Dec-2008	29

Month	Gas Volume
Jan-2009	29
Feb-2009	29
Mar-2009	28
Apr-2009	28
May-2009	28
Jun-2009	28
Jul-2009	27
Aug-2009	27
Sep-2009	27
Oct-2009	27
Nov-2009	27
Dec-2009	26
Jan-2010	26
Feb-2010	26
Mar-2010	26
Apr-2010	26
May-2010	25
Jun-2010	25
Jul-2010	25
Aug-2010	25
Sep-2010	25
Oct-2010	24
Nov-2010	24
Dec-2010	24
Jan-2011	24
Feb-2011	24
Mar-2011	23
Apr-2011	23
May-2011	23
Jun-2011	23
Jul-2011	23
Aug-2011	22
Sep-2011	22
Oct-2011	22
Nov-2011	22
Dec-2011	22

Wilch A 4 Future Production Decline Estimate

Month	Gas Volume
Jan-2012	22
Feb-2012	21
Mar-2012	21
Apr-2012	21
May-2012	21
Jun-2012	21
Jul-2012	21
Aug-2012	20
Sep-2012	20
Oct-2012	20
Nov-2012	20
Dec-2012	20
Jan-2013	20
Feb-2013	19
Mar-2013	19
Apr-2013	19
May-2013	19
Jun-2013	19
Jul-2013	19
Aug-2013	19
Sep-2013	18
Oct-2013	18
Nov-2013	18
Dec-2013	18
Jan-2014	18
Feb-2014	18
Mar-2014	18
Apr-2014	17
May-2014	17
Jun-2014	17
Jul-2014	17
Aug-2014	17
Sep-2014	17
Oct-2014	17
Nov-2014	16
Dec-2014	16

Month	Gas Volume
Jan-2015	16
Feb-2015	16
Mar-2015	16
Apr-2015	16
May-2015	16
Jun-2015	15
Jul-2015	15
Aug-2015	15
Sep-2015	15
Oct-2015	15
Nov-2015	15
Dec-2015	15
Jan-2016	14
Feb-2016	14
Mar-2016	14
Apr-2016	14
May-2016	14
Jun-2016	14
Jul-2016	14
Aug-2016	14
Sep-2016	13
Oct-2016	13
Nov-2016	13
Dec-2016	13
Jan-2017	13
Feb-2017	13
Mar-2017	13
Apr-2017	13
May-2017	13
Jun-2017	12
Jul-2017	12
Aug-2017	12
Sep-2017	12
Oct-2017	12
Nov-2017	12
Dec-2017	12

Month	Gas Volume
Jan-2018	12
Feb-2018	12
Mar-2018	11
Apr-2018	11
May-2018	11
Jun-2018	11
Jul-2018	11
Aug-2018	11
Sep-2018	11
Oct-2018	11
Nov-2018	11
Dec-2018	11
Jan-2019	10
Feb-2019	10
Mar-2019	10
Apr-2019	10
May-2019	10
Jun-2019	10
Jul-2019	10
Aug-2019	10
Sep-2019	10
Oct-2019	10
Nov-2019	10
Dec-2019	9
Jan-2020	9
Feb-2020	9
Mar-2020	9
Apr-2020	9
May-2020	9
Jun-2020	9
Jul-2020	9
Aug-2020	9
Sep-2020	9
Oct-2020	9
Nov-2020	9
Dec-2020	8

Month	Gas Volume
Jan-2021	8
Feb-2021	8
Mar-2021	8
Apr-2021	8
May-2021	8
Jun-2021	8
Jul-2021	8
Aug-2021	8
Sep-2021	8
Oct-2021	8
Nov-2021	8
Dec-2021	8
Jan-2022	8
Feb-2022	7
Mar-2022	7
Apr-2022	7
May-2022	7
Jun-2022	7
Jul-2022	7
Aug-2022	7
Sep-2022	7
Oct-2022	7
Nov-2022	7
Dec-2022	7
Jan-2023	7
Feb-2023	7
Mar-2023	7
Apr-2023	7
May-2023	7
Jun-2023	6
Jul-2023	6
Aug-2023	6
Sep-2023	6
Oct-2023	6
Nov-2023	6
Dec-2023	6

Wilch A 4

Future Production Decline Estimate

Month	Gas Volume
Jan-2024	6
Feb-2024	6
Mar-2024	6
Apr-2024	6
May-2024	6
Jun-2024	6
Jul-2024	6
Aug-2024	6
Sep-2024	6
Oct-2024	6
Nov-2024	6
Dec-2024	6
Jan-2025	5
Feb-2025	5
Mar-2025	5
Apr-2025	5
May-2025	5
Jun-2025	5
Jul-2025	5
Aug-2025	5
Sep-2025	5
Oct-2025	5
Nov-2025	5
Dec-2025	5
Jan-2026	5
Feb-2026	5
Mar-2026	5
Apr-2026	5
May-2026	5
Jun-2026	5
Jul-2026	5
Aug-2026	5
Sep-2026	5
Oct-2026	5
Nov-2026	4
Dec-2026	4

Month	Gas Volume
Jan-2027	4
Feb-2027	4
Mar-2027	4
Apr-2027	4
May-2027	4
Jun-2027	4
Jul-2027	4
Aug-2027	4
Sep-2027	4
Oct-2027	4
Nov-2027	4
Dec-2027	4
Jan-2028	4
Feb-2028	4
Mar-2028	4
Apr-2028	4
May-2028	4
Jun-2028	4
Jul-2028	4
Aug-2028	4
Sep-2028	4
Oct-2028	4
Nov-2028	4
Dec-2028	4
Jan-2029	4
Feb-2029	4
Mar-2029	3
Apr-2029	3
May-2029	3
Jun-2029	3
Jul-2029	3
Aug-2029	3
Sep-2029	3
Oct-2029	3
Nov-2029	3
Dec-2029	3

Month	Gas Volume
Jan-2030	3
Feb-2030	3
Mar-2030	3
Apr-2030	3
May-2030	3
Jun-2030	3
Jul-2030	3
Aug-2030	3
Sep-2030	3
Oct-2030	3
Nov-2030	3
Dec-2030	3
Jan-2031	3
Feb-2031	3
Mar-2031	3
Apr-2031	3
May-2031	3
Jun-2031	3
Jul-2031	3
Aug-2031	3
Sep-2031	3
Oct-2031	3
Nov-2031	3
Dec-2031	3
Jan-2032	3
Feb-2032	3
Mar-2032	3
Apr-2032	2
May-2032	2
Jun-2032	2
Jul-2032	2
Aug-2032	2
Sep-2032	2
Oct-2032	2
Nov-2032	2
Dec-2032	2

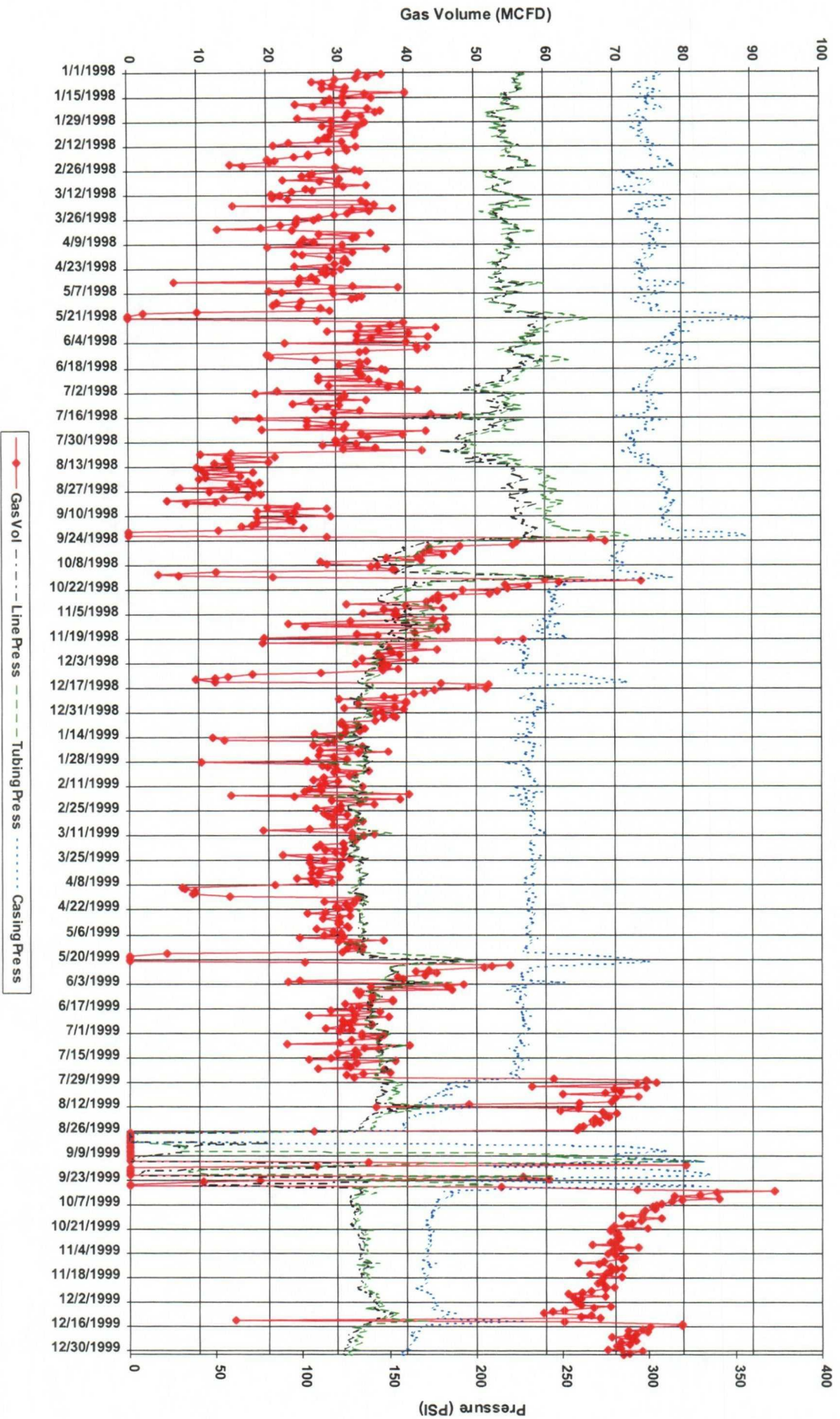
Month	Gas Volume
Jan-2033	2
Feb-2033	2
Mar-2033	2
Apr-2033	2
May-2033	2
Jun-2033	2
Jul-2033	2
Aug-2033	2
Sep-2033	2
Oct-2033	2
Nov-2033	2
Dec-2033	2
Jan-2034	2
Feb-2034	2
Mar-2034	2
Apr-2034	2
May-2034	2
Jun-2034	2
Jul-2034	2
Aug-2034	2
Sep-2034	2
Oct-2034	2
Nov-2034	2
Dec-2034	2
Jan-2035	2
Feb-2035	2
Mar-2035	2
Apr-2035	2
May-2035	2
Jun-2035	2
Jul-2035	2
Aug-2035	2
Sep-2035	2
Oct-2035	2
Nov-2035	2
Dec-2035	2

Wellname: WILCH A 004-DK

Flacwell: 97952701 API: 300452347700

Amoco - OIDB/Synergy Data

Daily Well Production



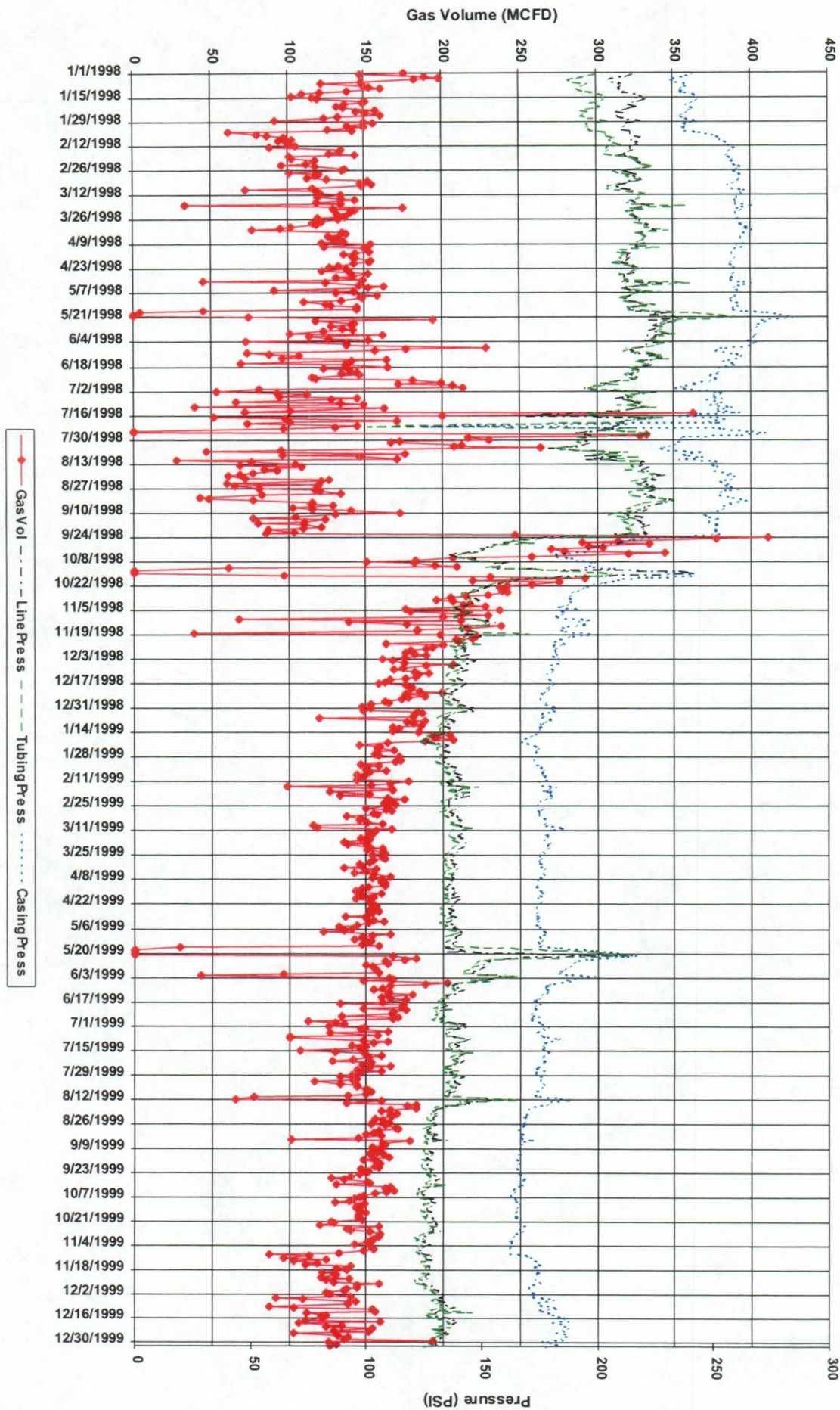
Wellname: **HARDIE LS 003-MV**

Flacwell: **97861601**

API: **300450789200**

Amoco - OIDB/Synergy Data

Daily Well Production



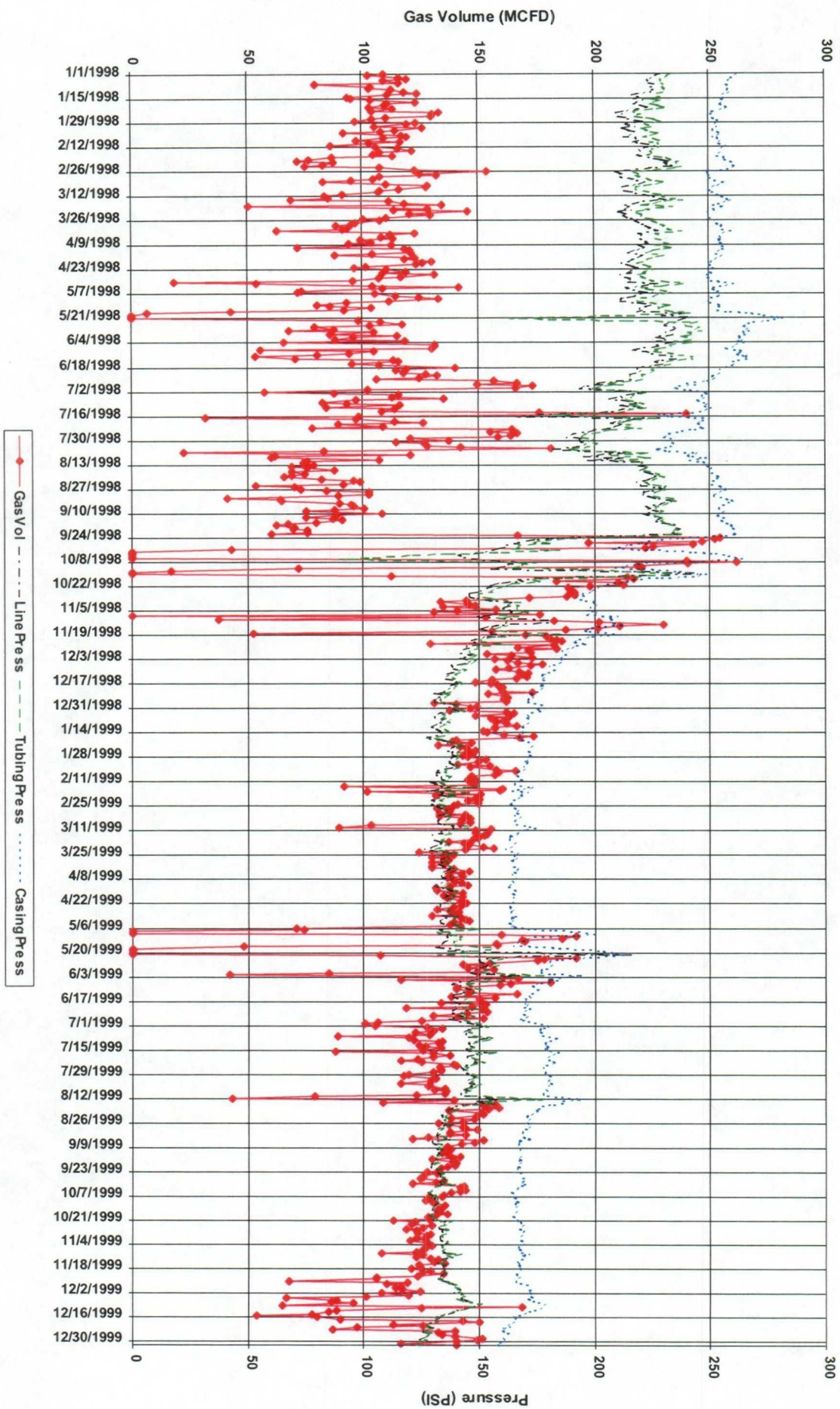
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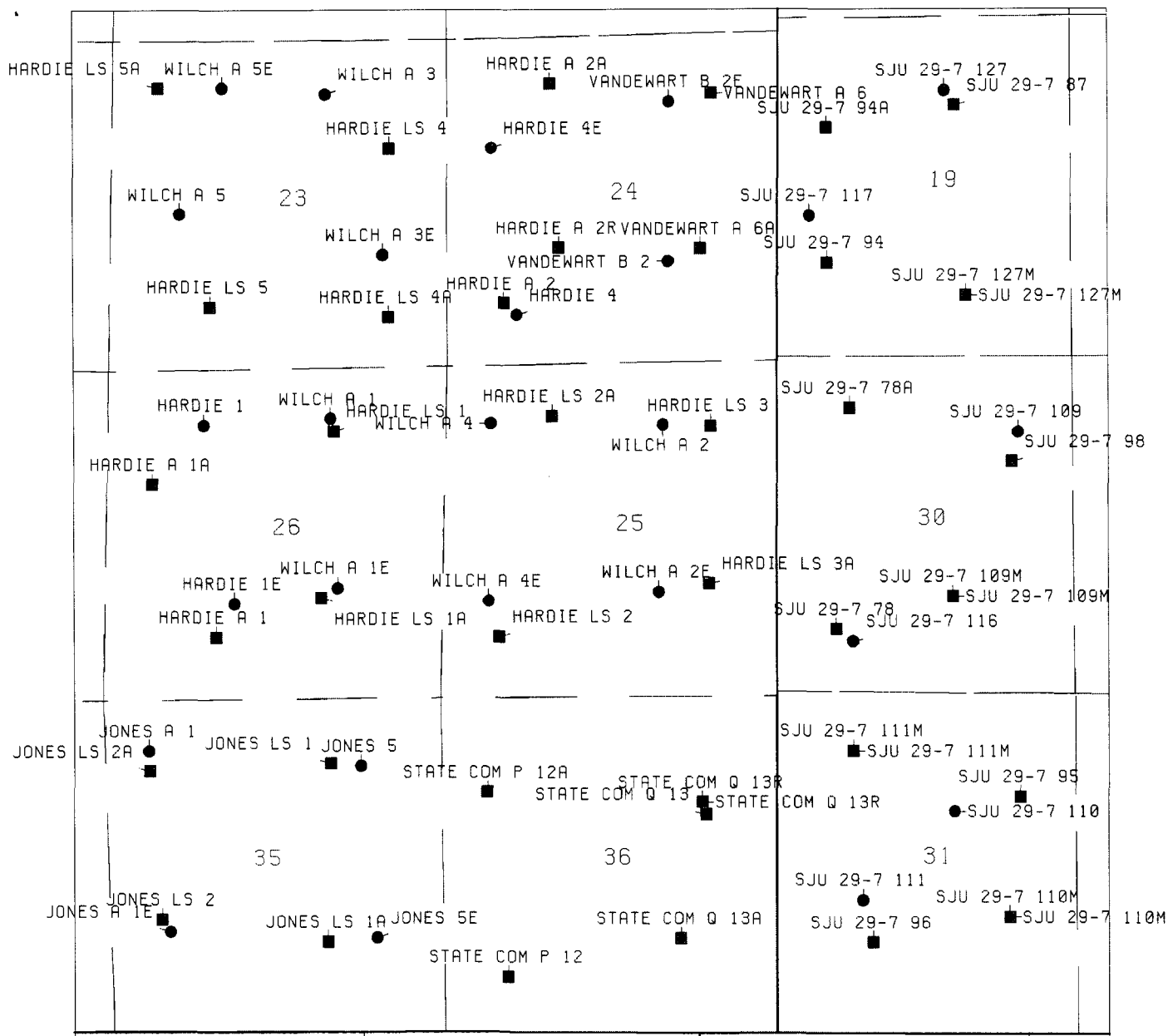
Flacwell: **97940801**

API: **300452281200**

Amoco - OI/DB/Synergy Data

Daily Well Production





■ MESAVERDE

● DAKOTA

AMOCO PRODUCTION COMPANY
HOUSTON, TX

WESTERN GAS BUSINESS UNIT

MESAVERDE & DAKOTA WELLS
T29N R8W SEC. 25
[REF. WILCH A 4]

SCALE 1"=2500'

DRAWN M. J. RITZ

DATE 19-JAN-2000

DRAWING

DISTRICT I
P.O. Box 1980, Hobbs NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-A
New 3-12-96

DISTRICT II
811 South First St., Artesia, NM 88210-2835

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

DISTRICT III
1000 Rio Brazos Rd. Aztec, NM 87410-1693

OIL CONSERVATION DIVISION
APPLICATION FOR DOWNHOLE COMMINGLING

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE
☒ YES ☐ NO

Amoco Production Company

PO Box 3092 Houston, TX 77253-3092

Operator Wilch A	Well No. 4	Address D 25-29N-08W	County San Juan
Lease		Unit Ltr. - Sec Twp - Rge	

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. **000778** Property Code **001215** API NO. **30-045-23477** 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	Blanco Mesaverde 72319		Basin Dakota 71599
2. Top and Bottom of Pay Section (Perforations)	4635' - 5395' EST		7230' - 7462'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	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) 2468 psig (est)	a.	a. 3231 psig (est)
	b. (Original) 578 psig (est)	b.	b. 770 psig
6. Oil Gravity (° API) or Gas BTU Content	1260 BTU		1122 BTU
7. Producing or Shut-In?	New zone		Producing
Production Marginal? (yes or no)	YES		YES
• If Shut-In, give data 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. • If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
			12/30/1999 71 MCFD 0 BCPD 0 BWPD
8. Fixed Percentage Allocation Formula -% for each zone	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 is 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 NO FEDERAL OR STATE LANDS

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. SEE ATTACHED
- * 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 Mary Corley TITLE Sr. Business Analyst DATE 1/19/2000
TYPE OR PRINT NAME Mary Corley TELEPHONE NO. (281) 366-4491