

DATE <u>3/25/03</u>	SUSPENSE <u>NA</u>	ENGINEER <u>WVS</u>	LOGGED IN <u>KV</u>	TYPE <u>DHC</u>	FILE NO. <u>PKR/V0308557298</u>
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AMEND

#1049

ABOVE THIS LINE FOR DIVISION USE ONLY

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



RECEIVED

MAR 25 2003

Oil Conservation Division

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.

PEGGY COLE
Print or Type Name

Peggy Cole
Signature

REGULATORY Supr. 3-24-03
Title Date

pcole@br-inc.com
e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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
Single Well
Establish Pre-Approved Pools
EXISTING WELLBORE
Y Yes No

APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY PO BOX 4289, FARMINGTON, NM 87499

Operator Jicarilla 150 #6 Address L-02-26N-5W Rio Arriba
Lease Well No. Unit Letter-Section-Township-Range County
OGRID No. 14538 Property Code 16344 API No. 30-039-20240 Lease Type: X Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE	LOWER ZONE
Pool Name	OTERO CHACRA	BLANCO MESAVERDE	BS MESA GALLUP	BASIN DAKOTA
Pool Code	82329	72319	72920	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	WILL BE SUPPLIED UPON COMPLETION	5032'-5654'	7108'-7116'	7553'-7808'
Method of Production (Flowing or Artificial Lift)	NEW ZONE	ARTIFICIAL LIFT PLUNGER	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)	Original 449 psi From Jicarilla 150 #12 offset (see attachment)	Original 1137 psi Current 450 psi	Original 1161 psi Current 668 psi	Original 2965 psi Current 634 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1240 From Jicarilla 150 #12 offset	BTU 1221	BTU 1221	BTU 1221
Producing, Shut-In or New Zone	New Zone	Producing	Producing	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: See Attached	Date: 12/31/02 Rates: 122 Mcfd	Date: 12/31/02 Rates: 41 Mcfd	Date: 12/31/02 Rates: 41 Mcfd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	WILL BE SUPPLIED UPON COMPLETION	WILL BE SUPPLIED UPON COMPLETION	WILL BE SUPPLIED UPON COMPLETION	WILL BE SUPPLIED UPON COMPLETION

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X 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.
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 L. Tom Loveland TITLE SR. RESERVOIR ENGINEER DATE 3/24/03
nro
TYPE OR PRINT NAME L. Tom Loveland TELEPHONE NO. (505) 326-9700

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-102

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20240	Pool Name OTERO CHACRA (GAS)	Pool Code 82329
Property Code 16344	Property Name JICARILLA 150	Well No. 006
OGRID No. 14538	Operator Name Burlington Resources Oil and Gas Company	Elevation 6692

Surface And Bottom Hole Location

UL or Lot L	Section 2	Township 26N	Range 05W	Lot Idn	Feet From 1625	N/S Line S	Feet From 915	E/W Line W	County Rio Arriba
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.						

OPERATOR CERTIFICATION

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

Electronically Signed By: *[Signature]*

Title:

Date: *1-14-03*

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 belief.

Electronically Signed By: James Leese

Date of Survey: 7/1/1969

Certificate Number: 1462

District I
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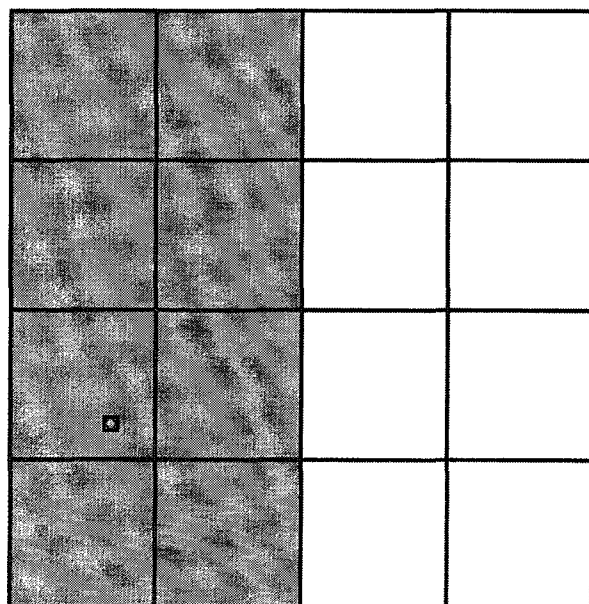
Form C-102

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20240	Pool Name BLANCO-MESAVERDE (PRORATED GAS)	Pool Code 72319
Property Code 16344	Property Name JICARILLA 150	Well No. 006
OGRID No. 14538	Operator Name Burlington Resources Oil and Gas Company	Elevation 6692

Surface And Bottom Hole Location

UL or Lot L	Section 2	Township 26N	Range 05W	Lot Idn	Feet From 1625	N/S Line S	Feet From 915	E/W Line W	County Rio Arriba
Dedicated Acres 319.81		Joint or Infill		Consolidation Code		Order No.			



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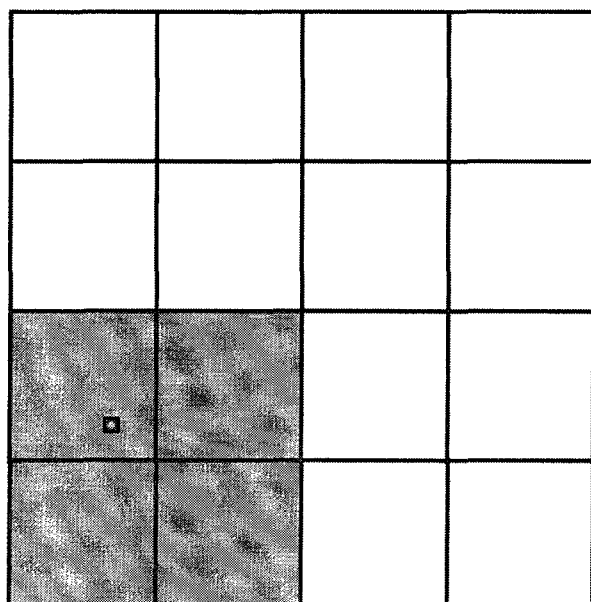
Form C-102

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20240	Pool Name BS MESA GALLUP (GAS)	Pool Code 72920
Property Code 16344	Property Name JICARILLA 150	Well No. 006
OGRID No. 14538	Operator Name Burlington Resources Oil and Gas Company	Elevation 6692

Surface And Bottom Hole Location

UL or Lot L	Section 2	Township 26N	Range 05W	Lot Idn	Feet From 1625	N/S Line S	Feet From 915	E/W Line W	County Rio Arriba
Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.						



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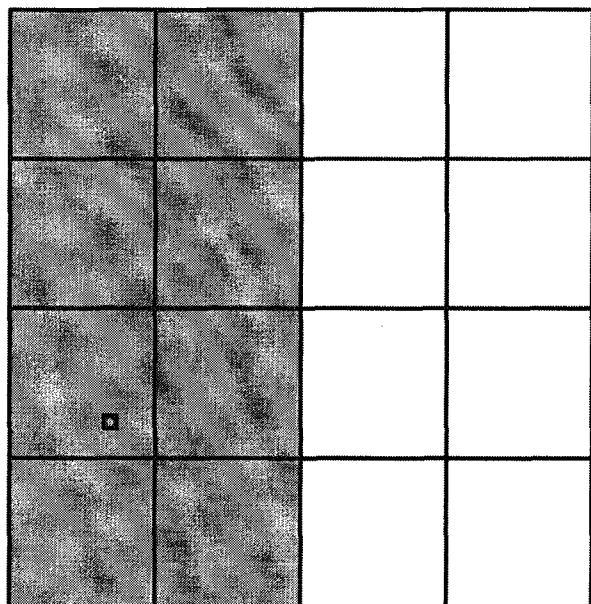
Form C-102

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-20240	Pool Name BASIN DAKOTA (PRORATED GAS)	Pool Code 71599
Property Code 16344	Property Name JICARILLA 150	Well No. 006
OGRID No. 14538	Operator Name Burlington Resources Oil and Gas Company	Elevation 6692

Surface And Bottom Hole Location

UL or Lot L	Section 2	Township 26N	Range 05W	Lot Idn	Feet From 1625	N/S Line S	Feet From 915	E/W Line W	County Rio Arriba
Dedicated Acres 319.81		Joint or Infill		Consolidation Code		Order No.			



OPERATOR CERTIFICATION

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Date:

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Electronically Signed By: James Leese

Date of Survey: 7/1/1969

Certificate Number: 1462

Jicarilla 150 #6
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 1/14/98

Chacra		Mesaverde	
<u>CH-Current</u>		<u>MV-Current</u>	
GAS GRAVITY	0	GAS GRAVITY	0.703
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0	%N2	0.00
%CO2	0	%CO2	0.0081
%H2S	0	%H2S	0
DIAMETER (IN)	0	DIAMETER (IN)	5.5
DEPTH (FT)	0	DEPTH (FT)	5343
SURFACE TEMPERATURE (DEG F)	0	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	0	BOTTOMHOLE TEMPERATURE (DEG F)	105.7
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	0	SURFACE PRESSURE (PSIA)	391
BOTTOMHOLE PRESSURE (PSIA)	#DIV/0!	BOTTOMHOLE PRESSURE (PSIA)	450.0
<u>CH-Original</u>		<u>MV-Original</u>	
GAS GRAVITY	0.719	GAS GRAVITY	0.657
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.00573	%N2	0.26
%CO2	0.00865	%CO2	0.86
%H2S	0	%H2S	0
DIAMETER (IN)	7	DIAMETER (IN)	5.5
DEPTH (FT)	1959	DEPTH (FT)	5343
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	92.7	BOTTOMHOLE TEMPERATURE (DEG F)	105.7
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	425	SURFACE PRESSURE (PSIA)	984
BOTTOMHOLE PRESSURE (PSIA)	448.5	BOTTOMHOLE PRESSURE (PSIA)	1137.1

Jicarilla 150 #6
Bottom Hole Pressures
Flowing and Static BHP
Cullender and Smith Method
Version 1.0 1/14/98

Gallup		Dakota	
<u>GP-Current</u>		<u>DK-Current</u>	
GAS GRAVITY	0.703	GAS GRAVITY	0.703
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.000294	%N2	0.00
%CO2	0.0081	%CO2	0.0081
%H2S	0	%H2S	0
DIAMETER (IN)	2.375	DIAMETER (IN)	2.375
DEPTH (FT)	7112	DEPTH (FT)	7681
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120.8	BOTTOMHOLE TEMPERATURE (DEG F)	125.7
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	552	SURFACE PRESSURE (PSIA)	517
BOTTOMHOLE PRESSURE (PSIA)	667.9	BOTTOMHOLE PRESSURE (PSIA)	633.5
<u>GP-Original</u>		<u>DK-Original</u>	
GAS GRAVITY	0.657	GAS GRAVITY	0.657
COND. OR MISC. (C/M)	C	COND. OR MISC. (C/M)	C
%N2	0.26	%N2	0.26
%CO2	0.86	%CO2	0.86
%H2S	0	%H2S	0
DIAMETER (IN)	2.375	DIAMETER (IN)	2.375
DEPTH (FT)	7112	DEPTH (FT)	7681
SURFACE TEMPERATURE (DEG F)	60	SURFACE TEMPERATURE (DEG F)	60
BOTTOMHOLE TEMPERATURE (DEG F)	120.8	BOTTOMHOLE TEMPERATURE (DEG F)	125.7
FLOWRATE (MCFPD)	0	FLOWRATE (MCFPD)	0
SURFACE PRESSURE (PSIA)	962	SURFACE PRESSURE (PSIA)	2375
BOTTOMHOLE PRESSURE (PSIA)	1161.2	BOTTOMHOLE PRESSURE (PSIA)	2965.0

Jicarilla 150 #6 - SICP/Z Data

Zone: Mesaverde

Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
9/9/1969	984	10/1/2002	0.8709	1130	0	N/A	1130
4/18/1971	900	10/1/2002	0.8807	1022	195.902	-0.551047	1130
5/17/1973	521	10/1/2002	0.9286	561	481.828	-1.180517	1130
5/3/1976	413	10/1/2002	0.943	438	813.101	-0.850942	1130
1/1/1980	439	10/1/2002	0.9395	467	1078.86	-0.614163	1130
4/2/1986	478	10/1/2002	0.9343	512	1338.23	-0.461993	1130
5/29/1991	438	10/1/2002	0.9396	466	1466.86	-0.45247	1130
4/29/1993	398	10/1/2002	0.945	421	1530.77	-0.462971	1130
???	53	N/A	1	53	3599.817	-0.299145	1130
						↓	↓
12/31/2002	???	10/1/2002	???	412	2399.94	-0.299145	1130

Z-Factor = 0.95
SICP (psig) = 391

Zone: Dakota

Date	SICP (psig)	Chromatograph Used	Z-Factor	SICP/Z (psig)	Cum Qg (MMCF)	Slope	Y Intercept
9/9/1969	2375	10/1/2002	0.7903	3005	0	N/A	3005
5/18/1971	1000	10/1/2002	0.8691	1151	156.542	-11.84712	3005
5/17/1973	1021	10/1/2002	0.8667	1178	302.199	-6.046202	3005
4/17/1977	895	10/1/2002	0.8813	1016	528.122	-3.767392	3005
8/1/1980	994	10/2/2002	0.8698	1143	694.558	-2.681412	3005
7/25/1983	1012	10/3/2002	0.8678	1166	826.048	-2.226288	3005
7/3/1985	890	10/4/2002	0.8819	1009	898.291	-2.222001	3005
???	53	N/A	1	53	1737.419	-1.699181	3005
						↓	↓
12/31/2002	???	10/1/2002	???	562	1437.57	-1.699181	3005

Z-Factor = 0.92
SICP (psig) = 517

Zone: Gallup

SICP	Chromatograph	SICP/Z	Cum Qg	Y
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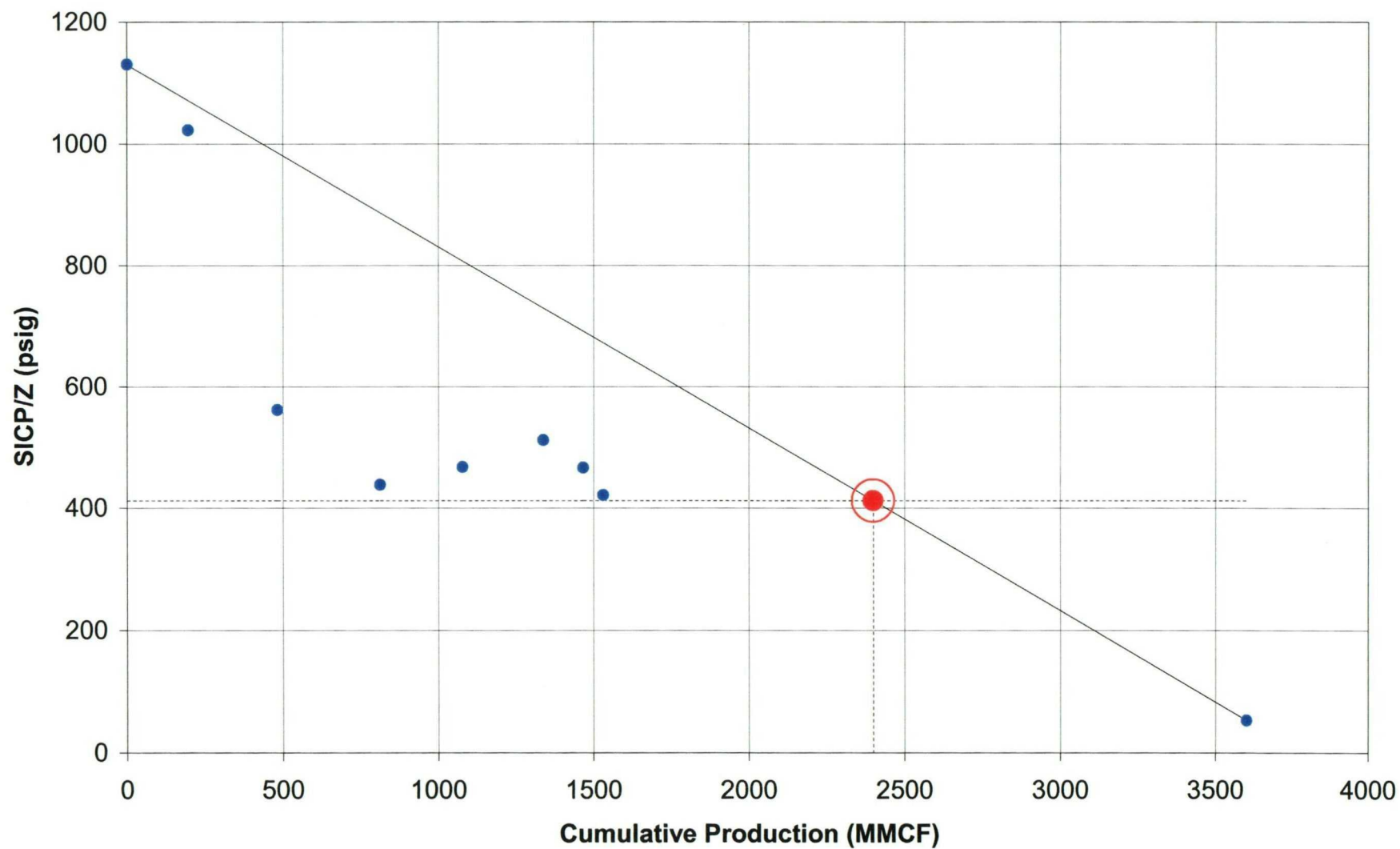
Date	(psig)	Used	Z-Factor	(psig)	(MMCF)	Slope	Intercept
4/23/1986	962	10/1/2002	0.8711	1104	25.985	N/A	1104
10/21/1987	817	10/1/2002	0.8887	919	57.382	-5.893253	1104
1/13/1988	817	10/1/2002	0.8887	919	63.428	-4.941657	1104
4/15/1993	631	10/1/2002	0.9126	691	140.393	-3.609186	1104
???	53	N/A	1	53	654.5806	-1.672539	1104
						↓	↓
12/31/2002	???	10/1/2002	???	587	309.359	-1.672539	1104

Z-Factor = 0.94
SICP (psig) = 552

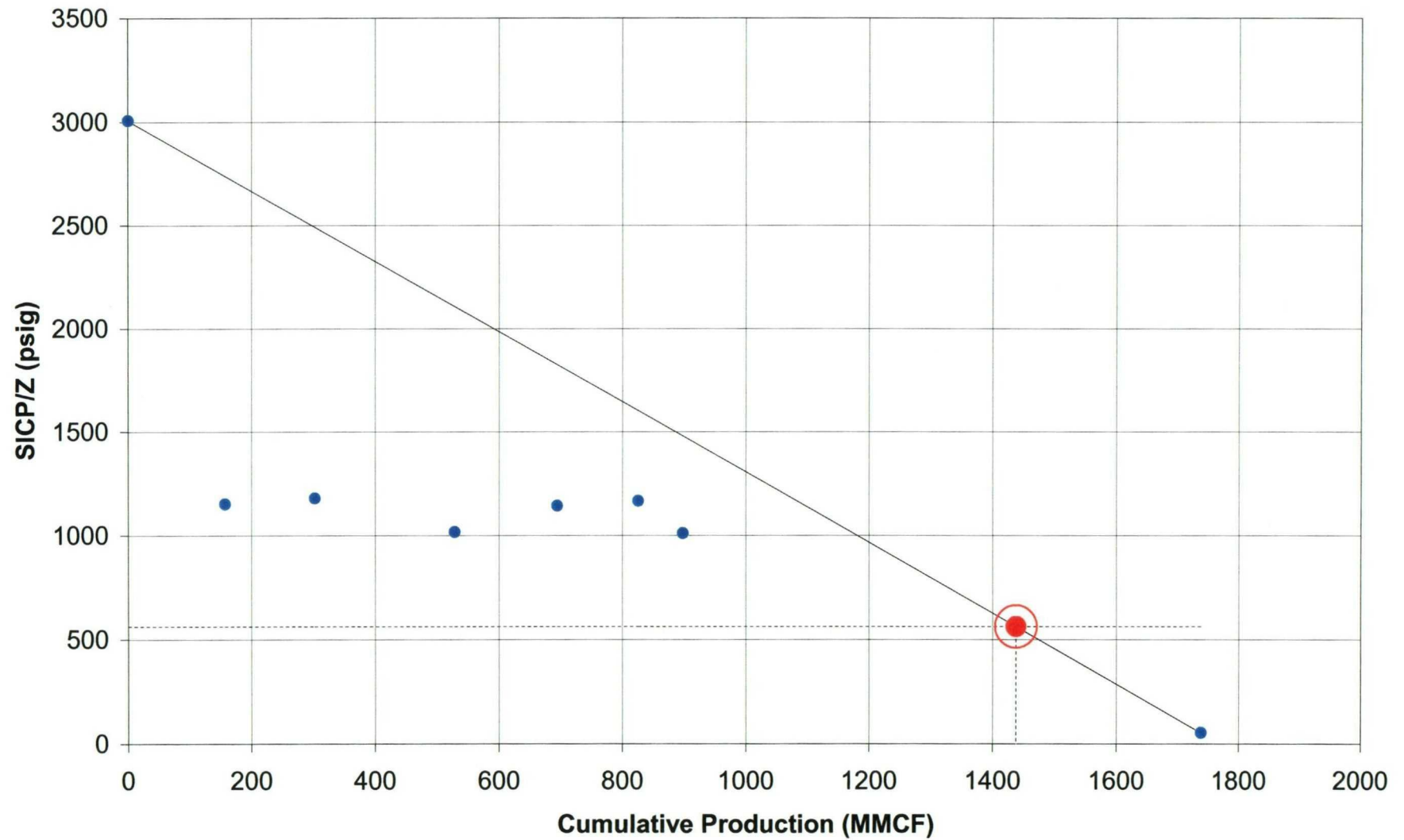
Offset Jicarilla 150 #1E Gallup

NOTE: THESE ARE ESTIMATES OF THE CURRENT RESERVOIR PRESSURE IN EACH ZONE. IT IS REALIZED THAT THE NEAR-WELLBORE PRESSURES FOR EACH ZONE SHOULD BE SIMILAR, DUE TO THEIR COMMINGLED STATUS.

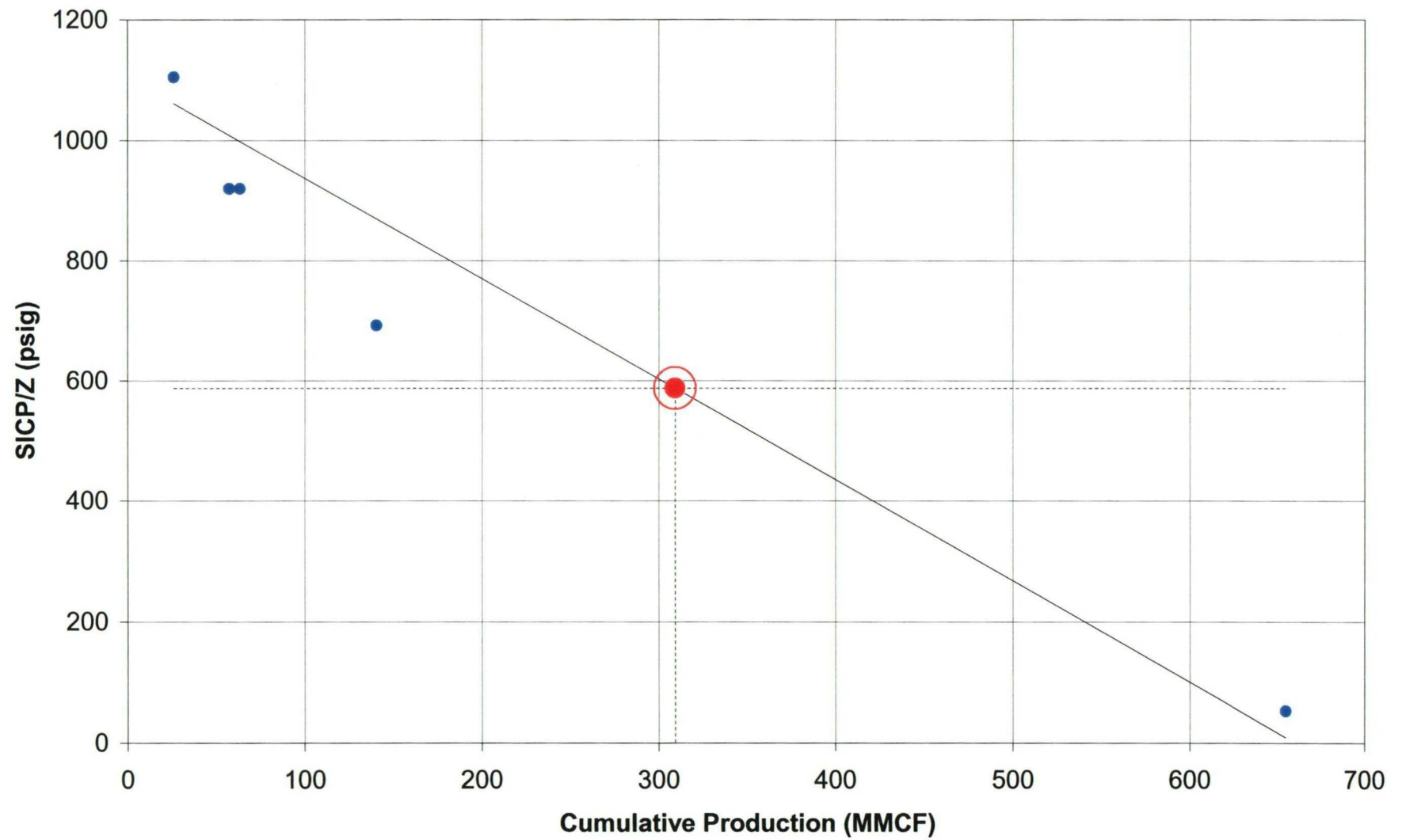
Jicarilla 150 #6 (MV)



Jicarilla 150 #6 (DK)

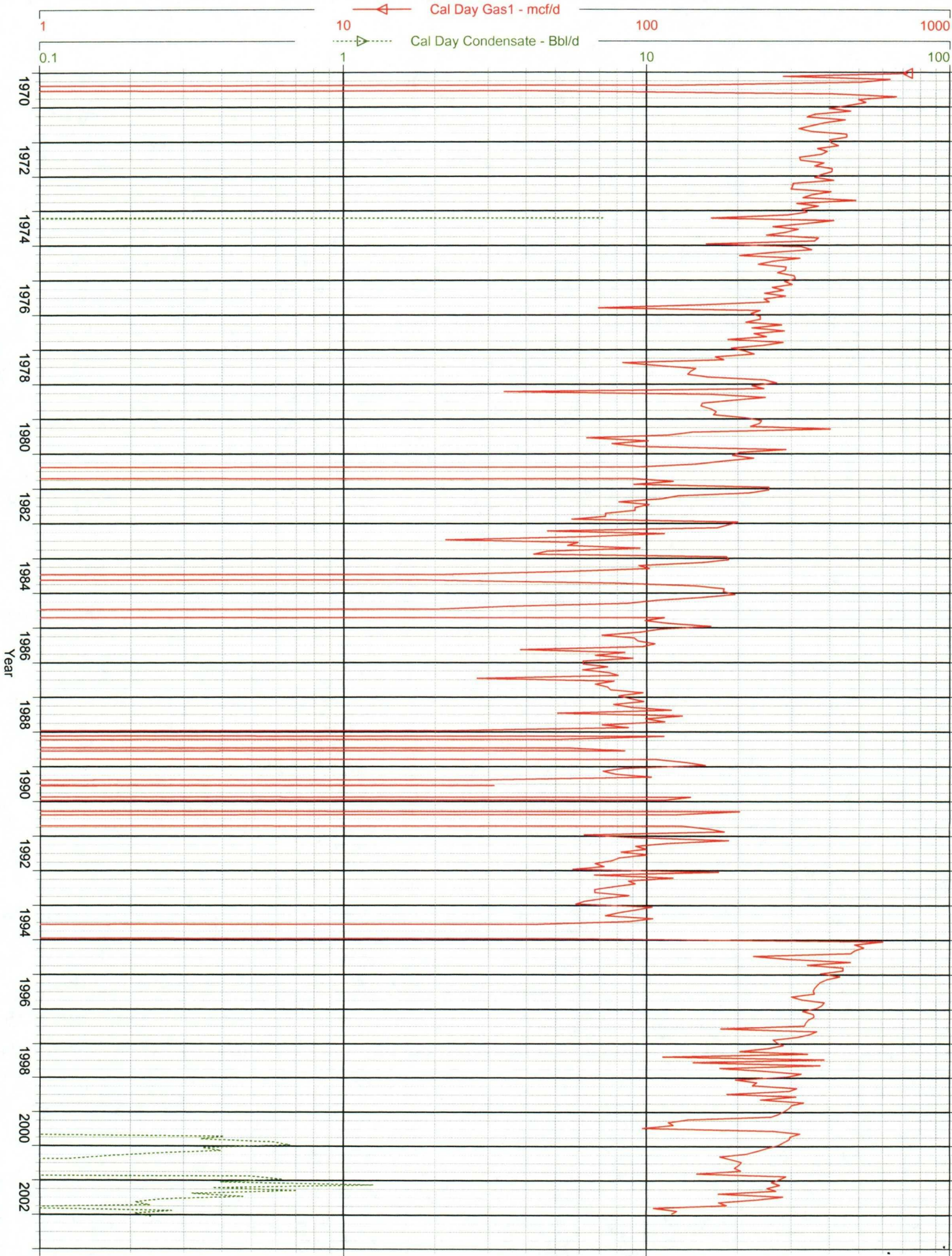


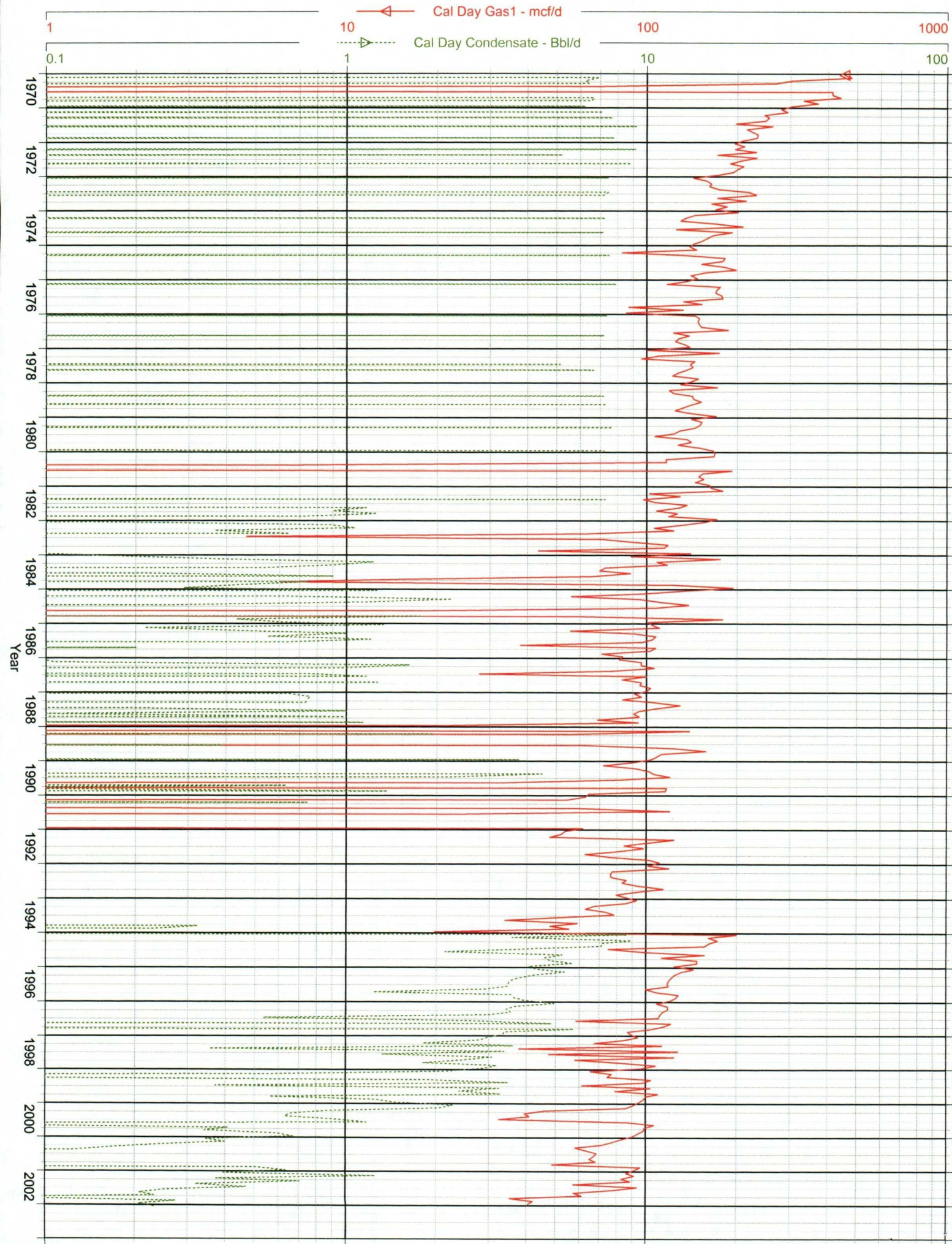
Jicarilla 150 #6 (GL)

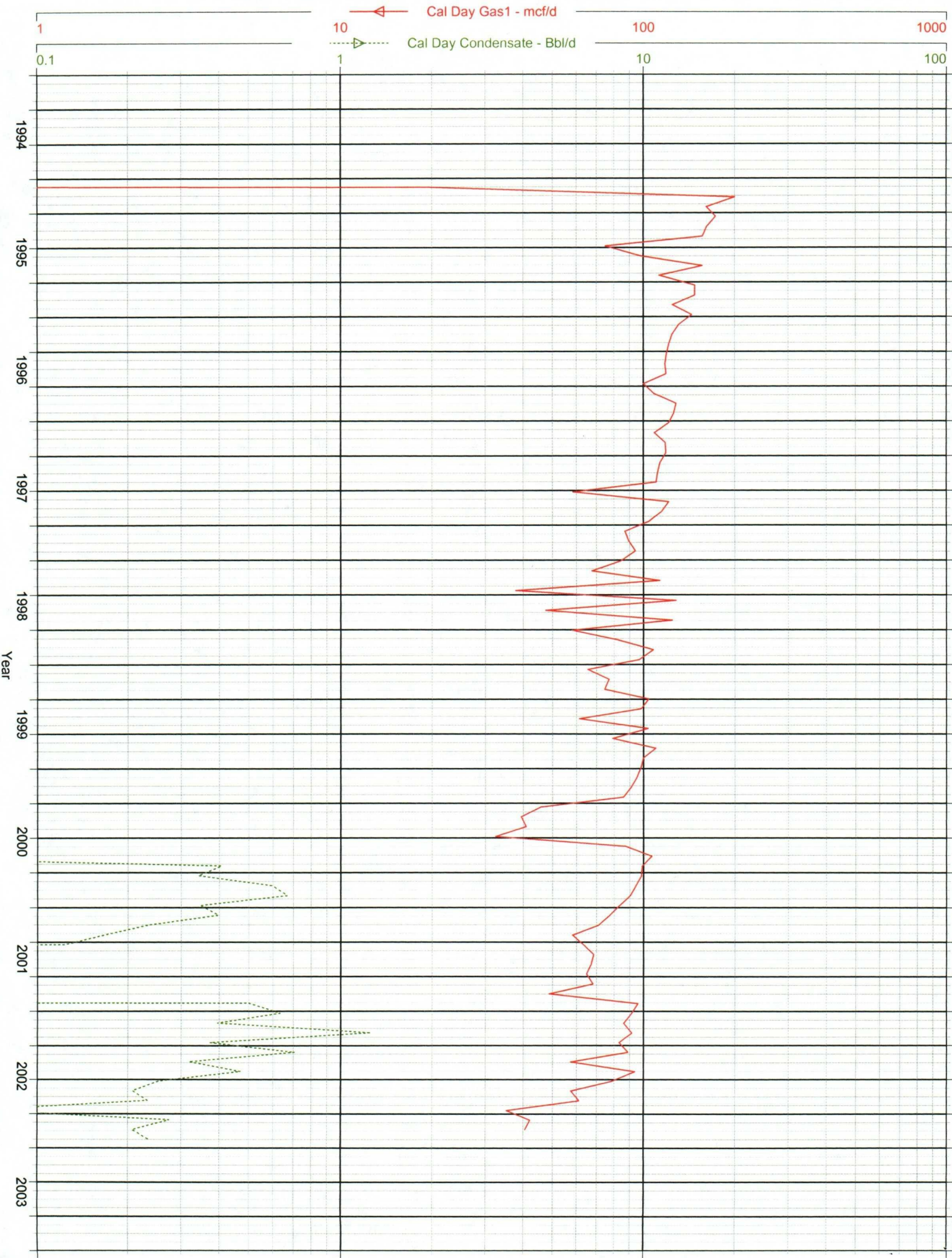


NY

JICARILLA 150 6 3589901 (311454631641.817) Date: Sep. 1969-Jan. 2003







BURLINGTON RESOURCES

Lewis Implementation Team

Memorandum

TO: New Mexico Oil Conservation Division
FROM: Lewis Implementation Team, Burlington Resources
DATE: December 2, 2002
RE: 2003 Chacra Recompletion Program Expected Production

Chacra-only production from 73 wells completed after 1970 was normalized and forecasted to result in the production model presented in Table 1. A graphical representation of this normalized production forecast is shown in the attached Figure 1. These wells are located in or near the Chacra Fairway in T-27-N, R-08-W; T-27-N, R-09-W; T-28-N, R-08-W; T-28-N, R-09-W; T-28-N, R-10-W; T-28-N, R-11-W; T-29-N, R-09-W; T-29-N, R-10-W; and T-29-N, R-11-W. Actual results from the individual payadds will certainly vary, but this production model represents the average results that should be achieved. Further delineation in the area will be made in 2003.

Table 1: 2003 Chacra production model.

Decline Type	Hyp to Exp
Initial Incremental Rate (MCF/D)	260
Initial Decline (%/yr, effective)	62
Final Decline (%/yr, effective)	1.6
Final Incremental Rate (MCF/D)	15
Hyperbolic Exponent, n	2.0
EUR (MMCF)	496

Figure 1. Graphical representation of the 2003 Chacra production model.

