

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

811 South First St., Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87505-6429

Form C-107-A

New 3-12-96

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

YES NO

APPLICATION FOR DOWNHOLE COMMINGLING

CAULKINS OIL COMPANY

P.O. BOX 340, BLOOMFIELD, NM 87413

OPERATOR

ADDRESS

BREECH

377

M - SEC. 23-26N-7W

RIO ARRIBA

LEASE

WELL NO.

UNIT LTR. - SEC. - TWP. - RGE.

COUNTY

Spacing Unit Lease types: (check 1 or more)

OGRID NO. 003824

Property Code 2454

API NO. 30-039-25690

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	Pictured Cliffs Commingled Order R-5648	Mesa Verde Gallup } Commingled Order DHC-2031	Dakota Commingled Order DHC-2031
2. Top and Bottom of Pay Section (Perforations)	2986' to 3060'	MV 4654' to 5372' Gallup 6455' to 6892'	7328' to 7499'
3. Type of production (Oil or Gas)	Gas	Gas and Condensate	Gas and Condensate
4. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	Flowing
5. Bottomhole Pressure Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated or Measured Original	a. (Current) 530# b. (Original) 864 Estimated	a. Commingled b. MV 1210 Estimated Gallup 1466 Measured	a. 884# b. 2452 Measured
Oil Gravity (° API) or Gas BTU Content	1168 BTU	1187 BTU	1187 BTU
7. Producing or Shut-In	Shut-in	Shut-in	Shut-in
Production Marginal? (yes or no)	Yes	Yes	Yes
* If Shut-In, give date and oil/gas/water rates of last production <small>Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data</small>	Date: Nov 98 - April 99 Avg Rates: Oil Gas Water 0 59 1.5	Date: Nov 98 - April 99 Avg Rates: Oil Gas Water MV .21 45 .6 Gall .42 60 .8	Date: Nov 98 - April 99 Avg Rates: Oil Gas Water 2.07 144 .2
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula - % for each zone	Oil 0 % Gas 19 %	MV Oil 7 % Gas 14 % Gall 16 % 20 %	Oil 77 % Gas 47 %

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 the projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ NoIf not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ NoHave all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No11. 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 ☐ No13. 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 or Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOCD Reference Cases of Rule 303© Exceptions: ORDER NO(S). DHC-1920, R-10963, R-10239

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 Robert L. Verquer TITLE SUPERINTENDENT DATE June 28, 1999TYPE OR PRINT NAME ROBERT L. VERQUER TELEPHONE NO. (505) 632-1544

District I
PO Box 1980, Hobbs, NM 88241-1980
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2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

98 AUG 24 PM 1:01

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-25690	² Pool Code 72439	³ Pool Name SOUTH BLANCO PICTURED CLIFFS
⁴ Property Code 2454	⁵ Property Name BREECH	⁶ Well Number 377
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company	⁹ Elevation 6917 GR

¹⁰ Surface Location

UL or lot no. M	Section 23	Township 26N	Range 7W	Lot Idn	Feet from the 1165'	North/South line South	Feet from the 1025'	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 Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and Signature <u>Robert L. Verquer</u> Printed Name Robert L. Verquer Title Superintendent Date 8-21-98
				¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by 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 Professional Surveyor: Certificate Number

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-25690		² Pool Code 71599		³ Pool Name BASIN DAKOTA	
⁴ Property Code 2454		⁵ Property Name BREECH			⁶ Well Number 377
⁷ OGRID No. 003824		⁸ Operator Name Caulkins Oil Company			⁹ Elevation 6917 GR

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
M	23	26N	7W		1165'	South	1025'	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 320		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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

<p>¹⁶</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Robert L. Verquer</i> Signature</p> <p>Printed Name Robert L. Verquer</p> <p>Title Superintendent</p> <p>Date June 25, 1998</p>			
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Date of Survey</p>			
	<p>Signature and Seal of Professional Surveyor:</p>			
	<p>Certificate Number</p>			

RECEIVED
JUN 30 1999
OIL CON. DIV.
DIST. 3

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-25690		² Pool Code 93235	³ Pool Name ICE CANYON;GALLUP (G)
⁴ Property Code 2454	⁵ Property Name BREECH		⁶ Well Number 377
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company		⁹ Elevation 6917 GR

¹⁰ Surface Location

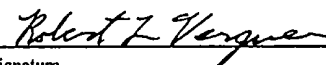
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	23	26N	7W		1165'	South	1025'	West	Rio Arriba

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 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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				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 Professional Surveyor: Certificate Number

RECEIVED
JUN 30 1999
OIL CON. DIV.
DIST. 3

1025'

1165'

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-25690		² Pool Code 72319	³ Pool Name BLANCO MESA VERDE
⁴ Property Code 2454	⁵ Property Name BREECH		⁶ Well Number 377
⁷ OGRID No. 003824	⁸ Operator Name Caulkins Oil Company		⁹ Elevation 6917 GR

¹⁰ Surface Location

UL or lot no. M	Section 23	Township 26N	Range 7W	Lot Idn	Feet from the 1165'	North/South line South	Feet from the 1025'	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 Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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¹⁶ 	<p style="text-align: center;">RECEIVED JUN 30 1998 OIL CON. DIV. DIST. 3</p>				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
					Signature 	
					Printed Name Robert L. Verquer	
					Title Superintendent	
Date June 25, 1998		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 Professional Surveyor:				
Certificate Number						

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals)

5. Lease

NMNM-03733

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

1. Oil Well ☐ Gas Well ☐ Other ☐
GAS WELL

8. Well Name and No.

BREECH 377

2. Name of Operator:

Caulkins Oil Company

9. API Well No.

30-039-25(90-00C1

3. Address of Operator:

(505) 632-1544

P.O. Box 340, Bloomfield, NM 87413

10. Field and Pool, Exploratory Area

DAKOTA, ICE CANYON; GALLUP, MESA VERDE, PICTURED CLIFFS, CHACRA

4. Location of Well (Footage, Sec., Twp., Rge.)

1165' F/S 1025' F/W

SEC. 23-26N-7W

11. Country or Parish, State

Rio Arriba Co., New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☐ Notice of Intent

☒ Subsequent Report

☐ Final Abandonment Notice

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other P&A Chacra/Commingle

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

☐ Dispose Water

17. Describe Proposed or Completed Operations:

5-14-99

Rigged up.

T.O.H. with 1 1/4" Pictured Cliffs – Chacra production tubing.

Released packer and T.O.H. with 2 1/16" Dakota – Gallup – Mesa Verde production tubing.

No holes found visually in either string, but both tubing strings were corroded from top of packer at 3955' to approximately 3000' indicating tubing submerged in water.

5-17-99

T.I.H. with 2 3/8" work string, retrievable bridge plug and packer searching for hole in casing.

Casing pressure tested to 2000# above Pictured Cliffs to surface and above Chacra to base of Pictured Cliffs – held OK.

Set retrievable bridge plug below Chacra perforations at 3922' and packer above Chacra perforations at 3832'.

Swabbed well to test Chacra perforations.

Following 18 swab runs, fluid level staying at 2200' with no indication of gas.

Swabbing test indicated Chacra zone was giving up too much water to produce and should be plugged and abandoned.

Approval to P&A zone was obtained verbally from both federal and state agencies.

(continued on page 2)

NOTE: The format is issued in lieu of U.S. BLM Form 3160-5

18. I HEREBY CERTIFY THE FOREGOING IS TRUE AND CORRECT

SIGNED: Robert L. Verquer TITLE: Superintendent DATE: June 28, 1999
ROBERT L. VERQUER

APPROVED BY: _____ TITLE: _____ DATE: _____
CONDITIONS OF APPROVAL, IF ANY

- 5-18-99 Pulled 2 stands, reset packer at 3706'.
Cemented Chacra perforations 3865' – 3885' through 2 3/8" tubing with 100 sacks (116 cu. ft.) class "H" plus 2% CaCl displaced with 15.5 bbls H₂O.
Attempted to squeeze perforations for 2 hours with no success.
Cleared tubing, pulled 1 stand, reset packer at 3642'.
Cemented perforations with 50 sacks (58 cu. ft.) class "H" plus 2% CaCl displaced with 15 bbls H₂O.
Squeezed perforations, shut-in tubing with 600 psi.
Shut-in 16 hours, waiting on cement.
- 5-19-99 Released pressure from tubing.
Released packer and T.O.H. T.I.H. with tubing and 4 3/4" bit.
Tagged cement at 3751'.
Drilled out 237' of cement to 3988'.
NOTE: Drilling hard cement at 3988', retrievable bridge plug was set at 3922'. During above cementing job retrievable bridge plug slid down hole to undetermined point.
Well producing a lot of water.
- 5-20-99 T.O.H. with tubing and bit.
T.I.H. with retrievable bridge plug and packer testing casing to isolate water source.
- 5-21-99 Tests indicated that Chacra perforations were still leaking.
Set packer at 3166' below Pictured Cliffs perforations, 2986' to 3060'.
Established injection rate, 1 bbl per minute at 600#.
Cemented hole with 50 sacks (58 cu. ft.) class "H" plus 2% CaCl.
During displacement formation squeezed to 3500# with 6.5 bbls of cement inside of tubing.
Released packer and T.O.H.
- 5-24-99 T.I.H. with tubing and 4 3/4" bit.
Tagged cement at 2849' above Pictured Cliffs perforations, 2986' to 3060'.
Drilling cement from 2849' to 3220', fell through.
- 5-25-99 Continued in hole with tubing and bit. Tagged cement at 3988'.
Drilled through cement at 4243'.
Continued in hole, tagged cement at 4539'.
Drilled down and found top of retrievable bridge plug at 4659'.
Mesa Verde perforations, 4647' to 5534'.
T.O.H. with bit.

5-26-99 Multiple runs with washover shoes and fishing tools.
thru Latched onto plug at 4687'.
5-28-99 T.O.H. with retrievable bridge plug.

6-1-99 Approval to commingle Pictured Cliffs with Dakota – Gallup – Mesa Verde was obtained verbally from
thru both BLM and Aztec Oil conservation Division, following required stabilized shut-in and potential test on
6-8-99 Pictured Cliffs formation.

T.I.H. with retrievable bridge plug and packer. Tested cemented Chacra perforations with 2000# - held OK.

Set retrievable bridge plug 3424' and packer at 2921'.

Acidized and balled off Pictured Cliffs perforations with 500 gallons 15% acid.

Knocked balls out of perforations.

Pumped 500 gallons 15% acid with 64,000 MSCF/N₂.

Average treating pressure 1300#. I. S.D.P. 1050#. Flowed back N₂ and acid.

Shut well in for 3 days. Shut-in pressure 530#.

3 hour calculated potential test 439 MCF/D. T.O.H. with packer and retrievable bridge plug.

6-9-99 Drilled out cement over Mesa Verde perforations from 4687' to 5398'.
thru Continued in hole with tubing. Cleaned out to 7535' below Dakota perforations.
6-15-99 T.O.H. with bit.

6-16-99 T.I.H. with retrievable bridge plug and packer.
Set retrievable bridge plug at 5720'. Set packer at 4433'.
Acidized and balled off Mesa Verde perforations with 1000 gallons 15% acid and 85,000 MSCF/N₂.
Flowed back N₂ and acid.

6-17-99 T.O.H. with retrievable bridge plug and packer.
T.I.H. with 2 3/8" production tubing to 7514'.
Flowed well over night with air package.

6-18-99 Landed 2 3/8" production tubing at 7451'.
Swabbed well in. Now flowing to clean up.

Commingling application attached.

**LAST 6-MONTHS PRODUCTION
FOR
BREECH 377**

DAKOTA

MONTH	GAS	OIL	DAYS	GAS DPA	OIL DPA
11/98	536	10	2	268	5.000
12/98	4,318	83	22	196	3.773
01/99	3,992	62	31	129	2.000
02/99	3,621	50	28	129	1.786
03/99	4,152	56	30	138	1.867
04/99	4,021	36	30	134	1.200
	20,640	297		144	2.077

MESA VERDE

MONTH	GAS	OIL	DAYS	GAS DPA	OIL DPA
11/98	166	3	2	83	1.500
12/98	1,340	8	22	61	0.364
01/99	1,239	5	31	40	0.161
02/99	1,124	5	28	40	0.179
03/99	1,289	5	30	43	0.167
04/99	1,248	3	30	42	0.100
	6,406	29		45	0.203

GALLUP

MONTH	GAS	OIL	DAYS	GAS DPA	OIL DPA
11/98	222	0	2	111	0.000
12/98	1,787	17	22	81	0.773
01/99	1,652	13	31	53	0.419
02/99	1,498	10	28	54	0.357
03/99	1,718	12	30	57	0.400
04/99	1,664	8	30	55	0.267
	8,541	60		60	0.420

PICTURED CLIFFS

MONTH	GAS	OIL	DAYS	GAS DPA	OIL DPA
11/98	1,510	---	4	378	---
12/98	5,042	---	31	163	---
01/99	1,292	---	31	42	---
02/99	428	---	28	15	---
03/99	235	---	31	8	---
04/99	152	---	22	7	---
	8,659	---		59	---

CAULKINS OIL COMPANY

P. O. BOX 340
BLOOMFIELD, NEW MEXICO 87413
PHONE: 505-632-1544
FAX 505-632-1471

June 28, 1999

The following list is all the offset operators to Caulkins Oil Company well Breech 377, section 23, township 26N, range 7W

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

Central Resources, Inc.
1776 Lincoln St. Suite 1010
Denver, CO 80202

Chateau Oil & Gas
5802 U.S. Hwy 64
Farmington, NM 87402

Conoco, Inc.
3315 Bloomfield Highway
Farmington, NM 87401

Dugan Production Corp.
709 E. Murray Drive Box 420
Farmington, NM 87401

Little Oil & Gas, Inc.
P.O. Box 1258
Farmington, NM 87499

Louis Dreyfus Natural Gas Company
1400 Quail Springs Corporate Park Suite 600
Oklahoma City, OK 73134

Taurus Exploraation USA, Inc.
2198 Bloomfield Highway
Farmington, NM 87402

Turner Production Company
C/O Little Oil & Gas, Inc.
P.O. Box 1258
Farmington, NM 87499

Universal Resource Corp.
1331 17th St. Suite 300
Denver, CO 80202

Unocal
1004 Big Spring
Midland, TX 79702

