

CMD : ONGARD 09/13/04 14:33:27  
 OG6CLOG C105-WELL COMPLETION OR RECOMP CASING LOG OGOMES -TPRT

OGRID Identifier : 16696 OXY USA INC  
 Prop Identifier : 27111 BRAVO DOME CARBON DIOXIDE GAS UNIT  
 API Well Identifier : 30 59 20338 Well No : 181  
 Surface Locn - UL : G Sec : 18 Twp : 22N Range : 34E Lot Idn :  
 Multiple comp (S/M/C) : S TVD Depth (Feet) : 2501 MVD Depth (Feet) : 2501  
 Spud Date : 09-20-1995 P/A Date :  
 Casing/Linear Record:

S Size	Grade Weight	Depth(ft)	Depth(ft)	Hole Size	Cement	TOC
(inches)	(lb/ft)	Top-Liner	Bot-Liner	(inches)	(Sacks)	(feet) Code
8.625	24.0	0.0	710.0	12.250	375	C
5.500	5.9	0.0	2501.0	7.875	300	C

E00009: Enter data to modify record

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 PF08 PF09 COMMENT PF10 TLOG PF11 PF12

CMD : ONGARD 09/13/04 14:33:33  
OG6IWCMD INQUIRE WELL COMPLETIONS OGOMES -TPRT

API Well No : 30 59 20338 Eff Date : 01-01-2001 WC Status : A  
Pool Idn : 96010 BRAVO DOME CARBON DIOXIDE GAS 640  
OGRID Idn : 16696 OXY USA INC  
Prop Idn : 27111 BRAVO DOME CARBON DIOXIDE GAS UNIT

Well No : 181  
GL Elevation: 4929

U/L Sec Township Range North/South East/West Prop/Act (P/A)  
-----  
B.H. Locn : G 18 22N 34E FTG 1961 F N FTG 1979 F E P  
Lot Identifier:  
Dedicated Acre: 640.00  
Lease Type : P  
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

M0025: Enter PF keys to scroll  
PF01 HELP PF02 PF03 EXIT PF04 GOTO PF05 PF06  
PF07 PF08 PF09 PF10 NEXT-WC PF11 HISTORY PF12 NXTREC

CMD : ONGARD  
OG6ACRE C102-DEDICATE ACREAGE

09/13/04 14:33:39  
OGOMES -TPRT  
Page No : 1

API Well No : 30 59 20338 Eff Date : 10-26-1995  
Pool Idn : 96010 BRAVO DOME CARBON DIOXIDE GAS 640  
Prop Idn : 27111 BRAVO DOME CARBON DIOXIDE GAS UNIT  
Spacing Unit : 46720 OCD Order :  
Sect/Twp/Rng : 18 22N 34E Acreage : 640.00 Revised C102? (Y/N) :  
Dedicated Land:

S Base U/L Sec Twp Rng Acreage L/W Ownership Lot Idn

A	18	22N 34E	40.00	N	FE
B	18	22N 34E	40.00	N	FE
C	18	22N 34E	40.00	N	FE
F	18	22N 34E	40.00	N	FE
G	18	22N 34E	40.00	N	FE
H	18	22N 34E	40.00	N	FE
I	18	22N 34E	40.00	N	FE
J	18	22N 34E	40.00	N	FE
K	18	22N 34E	40.00	N	FE

E0005: Enter data to modify or PF keys to scroll

PF01 HELP PF02 PF03 EXIT PF04 GOTO PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 LAND PF11 NXTSEC PF12 RECONF

CMD : ONGARD 09/13/04 14:33:42  
 OG6ACRE C102-DEDICATE ACREAGE OGOMES -TPRT  
 Page No : 2

API Well No : 30 59 20338 Eff Date : 10-26-1995  
 Pool Idn : 96010 BRAVO DOME CARBON DIOXIDE GAS 640  
 Prop Idn : 27111 BRAVO DOME CARBON DIOXIDE GAS UNIT Well No : 181  
 Spacing Unit : 46720 OCD Order : Simultaneous Dedication:  
 Sect/Twp/Rng : 18 22N 34E Acreage : 640.00 Revised C102? (Y/N) :  
 Dedicated Land:

S	Base U/L	Sec	Twp	Rng	Acreage	L/W	Ownership	Lot	Idn
N	18	22N	34E	40.00	N	FE			
O	18	22N	34E	40.00	N	FE			
P	18	22N	34E	40.00	N	FE			
D	1	18	22N	34E	40.14	N	FE		
E	2	18	22N	34E	40.02	N	FE		
L	3	18	22N	34E	39.90	N	FE		
M	4	18	22N	34E	39.78	N	FE		

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 LAND PF11 NXTSEC PF12 RECONF

CMD : ONGARD 09/13/04 14:33:54  
OG6IPRD INQUIRE PRODUCTION BY POOL/Well OGOMES -TPRT  
Page No: 1

OGRID Identifier : 16696 OXY USA INC

Pool Identifier : 96010 BRAVO DOME CARBON DIOXIDE GAS 640

API Well No : 30 59 20338 Report Period - From : 01 2003 To : 08 2004

API Well No	Property Name	Prodn. Days		Production Volumes			Well Stat
		MM/YY	Prod	Gas	Oil	Water	
30 59 20338	BRAVO DOME CARBON DI	01 03	31	33358		21	P
30 59 20338	BRAVO DOME CARBON DI	02 03	28	29543		25	P
30 59 20338	BRAVO DOME CARBON DI	03 03	31	31646		19	P
30 59 20338	BRAVO DOME CARBON DI	04 03	30	30812		15	P
30 59 20338	BRAVO DOME CARBON DI	05 03	31	32445		20	P
30 59 20338	BRAVO DOME CARBON DI	06 03	30	31599		23	P
30 59 20338	BRAVO DOME CARBON DI	07 03	31	31407		17	P

Reporting Period Total (Gas, Oil) : -----

M0025: Enter PF keys to scroll

PF01 HELP PF02 PF03 EXIT PF04 GOTO PF05 PF06 CONFIRM  
PF07 BKWD PF08 FWD PF09 PF10 NXTPool PF11 NXTOGD PF12

CMD : ONGARD 09/13/04 14:33:58  
 OG6IPRD INQUIRE PRODUCTION BY POOL/Well OGOMES -TPRT  
 Page No: 2

OGRID Identifier : 16696 OXY USA INC

Pool Identifier : 96010 BRAVO DOME CARBON DIOXIDE GAS 640

API Well No : 30 59 20338 Report Period - From : 01 2003 To : 08 2004

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water	Well Stat
30 59 20338	BRAVO DOME CARBON DI	08 03 31	30912	19 P
30 59 20338	BRAVO DOME CARBON DI	09 03 30	29613	17 P
30 59 20338	BRAVO DOME CARBON DI	10 03 31	30012	20 P
30 59 20338	BRAVO DOME CARBON DI	11 03 30	28673	24 P
30 59 20338	BRAVO DOME CARBON DI	12 03 31	29472	P
30 59 20338	BRAVO DOME CARBON DI	01 04 31	29215	23 P
30 59 20338	BRAVO DOME CARBON DI	02 04 29	27079	23 P

Reporting Period Total (Gas, Oil) : -----

E0049: User may continue scrolling.

PF01 HELP PF02 PF03 EXIT PF04 GOTO PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 NXTPool PF11 NXTOGD PF12

CMD : ONGARD 09/13/04 14:34:00  
 OG6IPRD INQUIRE PRODUCTION BY POOL/WELL OGOMES -TPRT  
 Page No: 3

OGRID Identifier : 16696 OXY USA INC

Pool Identifier : 96010 BRAVO DOME CARBON DIOXIDE GAS 640

API Well No : 30 59 20338 Report Period - From : 01 2003 To : 08 2004

API Well No	Property Name	Prodn. Days MM/YY Prod	Production Volumes Gas Oil Water	Well Stat
30	59 20338 BRAVO DOME CARBON DI	03 04 31	28436	19 P
30	59 20338 BRAVO DOME CARBON DI	04 04 30	26978	16 P
30	59 20338 BRAVO DOME CARBON DI	05 04 31	28546	21 P
30	59 20338 BRAVO DOME CARBON DI	06 04 30	26576	20 P

Reporting Period Total (Gas, Oil) : 536322 342

E0049: User may continue scrolling.

PF01 HELP PF02 PF03 EXIT PF04 GOTO PF05 PF06 CONFIRM  
 PF07 BKWD PF08 FWD PF09 PF10 NXTPool PF11 NXTOGD PF12

Sec : 18 Twp : 22N Rng : 34E Section Type : NORMAL

1 40.14 Fee owned U	C 40.00 Fee owned U	B 40.00 Fee owned U	A 40.00 Fee owned U
2 40.02 Fee owned U	F 40.00 Fee owned U	G 40.00 Fee owned U A	H 40.00 Fee owned U
3 39.90 Fee owned U	K 40.00 Fee owned U	J 40.00 Fee owned U	I 40.00 Fee owned U
4 39.78 Fee owned U	N 40.00 Fee owned U	O 40.00 Fee owned U	P 40.00 Fee owned U

159.84

160

160

160

= 639.84



Disposal

PO Box 1980, Hobbs, NM 88241-1980

District II

PO Drawer DD, Artesia, NM 88211-0719

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

PO Box 2088  
Santa Fe, NM 87504-2088

Form C-101

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address: AMOCO PRODUCTION COMPANY P. O. BOX 606 CLAYTON, NEW MEXICO 88415		OGRID Number 000778
		API Number 30 - 0
Property Code 000335	Property Name BDCDGU 2234	Well No. 181

Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
G	18	22N	34E		1961'	NORTH	1979'	EAST	UNION

Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County

Proposed Pool 1 BRAVO DOME CARBON DIOXIDE GAS (640)	Proposed Pool 2
--	-----------------

Work Type Code N	Well Type Code C	Cable/Rotary R	Lease Type Code P	Ground Level Elevation
Multiple NO	Proposed Depth 2470	Formation TUBB	Contractor SITTON	Spud Date JULY 1, 1995

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.250"	8.625"	24#/FT STEEL	700 FT.	450 SACKS	SURFACE
7.875"	5.50"	5.91#/FT FGLASS	2400 FT.	270 SACKS	SURFACE
		15.50#/FT STEEL			

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

MUD PROGRAM 0-700' FRESH WATER/NATIVE MUD  
700'-2400' FRESH WATER/STARCH/GEL

BOP PROGRAM ATTACHED

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Linda Oates</i>		OIL CONSERVATION DIVISION	
Printed name: LINDA OATES		Approved by: <i>[Signature]</i>	
Title: SR. ADMINISTRATIVE ASSISTANT		Title: DISTRICT SUPERVISOR	
Date: JUNE 1, 1995		Approval Date: 6/16/95	Expiration Date: 6/16/95
Phone: 713/366-4510		Conditions of Approval: Attached <input type="checkbox"/>	

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

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

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

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

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

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code 96010	<sup>3</sup> Pool Name BRAVO DOME CARBON DIOXIDE GAS (640)
<sup>4</sup> Property Code 000335	<sup>5</sup> Property Name BDCDGU 2234		<sup>6</sup> Well Number 181
<sup>7</sup> OGRID No. 000778	<sup>8</sup> Operator Name AMOCO PRODUCTION COMPANY		<sup>9</sup> Elevation 4929.80'

<sup>10</sup> Surface Location

UL or lot no. G	Section 18	Township 22N	Range 34E	Lot Idn.	Feet from the 1961'	North/South line NORTH	Feet from the 1979'	East/West line EAST	County UNION
--------------------	---------------	-----------------	--------------	----------	------------------------	---------------------------	------------------------	------------------------	-----------------

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 640	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code U	<sup>15</sup> 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

<sup>16</sup>	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>Linda Oates</i> Signature LINDA OATES Printed Name Sr. Administrative Assistant Title June 1, 1995 Date
	<sup>18</sup> 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.  February 15, 1995 Date of Survey Signature and Seal of Professional Surveyor  <i>Larry A. Fisher</i> LARRY A. FISHER Certificate Number 11013

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-059-20338
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.

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'  
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER CO2	7. Lease Name or Unit Agreement Name BDCDGU-2234
2. Name of Operator Amoco Production Company	8. Well No. 181
3. Address of Operator PO Box 606, Clayton, NM 88415	9. Pool name or Wildcat: Tubb
4. Well Location Unit Letter <u>G</u> : <u>1961</u> Feet From The <u>North</u> Line and <u>1979</u> Feet From The <u>East</u> Line Section <u>18</u> Township <u>22N</u> Range <u>34E</u> NMPM <u>Union</u> County 10. Elevation (Show whether DF, RKB, KT, GR, etc.) <u>4929.80 GR</u>	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER <input type="checkbox"/>		OTHER <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103

2234-181G

1. MIRURT 9/20/95

2. Drill 12.25" hole to 710'

3. Run 8.625 K55 24# ST&C casing. CSA 710'

4. Cement with 375 sacks of Class C cement and additives.

5. Circulate 71 sacks to pit.

6. WOC.

7. Test casing and BOP to 500 psi. OK

8. Drill 7.875" hole from 710'-2501'. Run Logs.

9. Run 7 joints of 5.5" K55 15.50# ST&C casing and 76 joints of 5.5" 2000 psi Star fiberglass casing.

10. CSA 2501'. Cement with 300 sacks of Class C and additives. Circulate 27 sacks to pit.

11. RD MORT 9/22/95

12. Wait on completion unit

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

SIGNATURE Billy E. Prichard TITLE Field Foreman DATE 9/26/95  
TYPE OR PRINT NAME Billy E Prichard TELEPHONE NO 374-3053

(This space for Seal Use)

APPROVED BY R. E. Johnson TITLE DISTRICT SUPERVISOR DATE 9-28-95

Submit to Appropriate  
District Office  
State Lease - 6 copies  
Fee Lease - 5 copies  
DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-105  
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO.

30-059-20338

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:  
OIL WELL ☐ GAS WELL ☐ DRY ☐ OTHER CO2

b. Type of Completion:  
NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER

7. Lease Name or Unit Agreement Name

BDCDGU-2234

2. Name of Operator

Amoco Production Company

8. Well No.

181

3. Address of Operator

PO Box 606, Clayton, NM 88415

9. Pool name or Wildcat

Tubb

4. Well Location

Unit Letter G : 1961 Feet From The North Line and 1979 Feet From The East Line

Section 18 Township 22N Range 34E NMPM Union County

10. Date Spudded 9/20/95 11. Date T.D. Reached 9/22/95 12. Date Compl. (Ready to Prod.) 10/9/95 13. Elevations (DFA, RKB, RT, GR, etc.) 4929.80 GR 14. Elev. Casinghead 4929.80

15. Total Depth 2501' 16. Plug Back T.D. 2484' 17. If Multiple Compl. How Many Zones? 18. Intervals Drilled By Rotary Tools 0 to TD Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name

2200' to 2449', Tubb

20. Was Directional Survey Made

No

21. Type Electric and Other Logs Run

Dual Laterolog

22. Was Well Cored

No

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8.625	24#	710'	12.25	375 sks Class C	71
5.5	15.5 & 5.9	2501'	7.875	300 sks Class C	27

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)

Perf 2200' to 2449', 6 spf, 570 total shot  
Hole size 0.52.

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED

28. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)	
10/13/95	Flowing - Pitot tube				Prod	
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.
10/9/95	24hrs	2"				
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)
	28#			4190		

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

vented

Test Witnessed By

Bill Prichard

30. List Attachments

Logs mailed previously

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature

Billy E. Prichard

Printed

Name Billy E. Prichard Title Field Foreman Date 10/17/95

## INCLINATION REPORT

OPERATOR AMOCO RPRODUCTION COMPANY ADDRESS P. O. BOX 2000 LEVELLAND, TX. 79336  
CO.

LEASE NAME WELL NO. 2234-181-G FIELD

LOCATION BDCDGL

LOCATION

DEPTH	ANGLE INCLINATION DEGREES	DISPLACEMENT	DISPLACEMENT ACCUMULATED
460	.50	4.03	4.03
676	.75	2.85	6.88
1167	.75	6.48	13.36
1666	.75	6.59	19.94
2254	1.00	10.29	30.23
2501	1.25	5.40	35.63

I hereby certify that the above data as set forth is true and correct to the best of my knowledge and belief.

SITTON DRILLING COMPANY

Title PRESIDENT

### AFFIDAVIT:

Before me, the undersigned authority, appeared Ronald Sitton known to me to be the person whose name is subscribed herebelow, who, on making deposition, under oath states that he is acting for and in behalf of the operator of the well identified above, and that to the best of his knowledge and belief such well was not intentionally deviated from the true vertical whatsoever.

Ronald Sitton  
AFFIANT'S SIGNATURE

Sworn and subscribed to in my presence on this the 25 day of September, 1995.

Linda Christopher  
Notary Public in and for the County  
of Lubbock, State of Texas

SEAL

**Amoco Production Company**  
PO Box 606  
Clayton, New Mexico 88415

## **NOTICE OF GAS CONNECTION**

This is to notify the Oil Conservation Division that connection for the transportation of gas from Amoco Production's Bravo Dome Carbon Dioxide Gas Unit Well No. 2234-181G, Meter Station No. 632377, Located in Unit letter G, Section 18 Township 22 North, Range 34 East, Union County, New Mexico, Bravo Dome 640 acre spacing area was made on 10/13/95 by Amoco Production Company.

First delivery date: 10/13/95.

**Amoco Production Company**

Representative Bill E. Prichard

Title: Field Foreman

2816193

Submit 3 Copies  
to Appropriate  
District Office

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-103  
Revised 1-1-89

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

OIL CONSERVATION DIVISION  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

WELL API NO. <b>30-059-20338</b>
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name <b>BDCDGU-2234</b>
8. Well No. <b>181</b>
9. Pool name or Wildcat <b>Tubb</b>

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" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> CO2	
2. Name of Operator <b>Amoco Production Company</b>	
3. Address of Operator <b>PO Box 606, Clayton, NM 88415</b>	
4. Well Location Unit Letter <b>G</b> : <b>1961</b> Feet From The <b>North</b> Line and <b>1979</b> Feet From The <b>East</b> Line Section <b>18</b> Township <b>22N</b> Range <b>34E</b> NMPM <b>Union</b> County 10. Elevation (Show whether DF, RKB, RT, GR, etc.) <b>4929.80 GR</b>	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
OTHER: <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: <b>Completion</b> <input checked="" type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

2234-181G

1. ML/RU CTBU 10/9/95.
2. Clean out drilg mud to 2484' x spot perf fluid.
3. Perf 2200'-2449' 6 Spf, 570 Total shots.
4. RD MOCTBU 10/9/95
5. Flow test well 24 HRS. Shut in.
6. WO pipeline connection.

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

SIGNATURE Billy E. Prichard TITLE Field Foreman DATE 10/17/95  
TYPE OR PRINT NAME Billy E Prichard TELEPHONE NO 374-3053

(This space for Sign User)

APPROVED BY Ry E. Johnson TITLE DISTRICT SUPERVISOR DATE 10/26/95  
CONDITIONS OF APPROVAL IF ANY:

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

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

Form C-104  
Revised February 21, 1994  
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5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Operator name and Address Amoco Production Company PO Box 606 Clayton, NM 88415		OGRID Number 000778
		Reason for Filing Code
API Number 30-0 59-20338	Pool Name BRAVO DOME CARBON DIOXIDE GAS (640)	Pool Code 96010
Property Code 335	Property Name BDCDGU - 2234	Well Number 181

II. Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
G	18	22N	34E		1961	North	1979	East	Union

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	18	22N	34E		1961	North	1979	East	Union
Loc Code P	Producing Method Code F	Gas Connection Date 10/13/95	C-129 Permit Number	C-129 Effective Date	C-129 Expiration Date				

III. Oil and Gas Transporters

Transporter OGRID	Transporter Name and Address	POD	O/C	POD ULSTR Location and Description
000778	Amoco Production Co. PO Box 606	28/6/93	G	

IV. Produced Water

POD	POD ULSTR Location and Description

V. Well Completion Data

Spud Date	Ready Date	TD	PBTD	Perforations
9/20/95	10/9/95	2501'	2484	2200'-2449'
Hole Size	Casing & Tubing Size	Depth Set	Sacks Cement	
12.25	8.625	710'	375	
7.875	5.5	2501'	300	

VI. Well Test Data

Date New Oil	Gas Delivery Date	Test Date	Test Length	Tbg. Pressure	Csg. Pressure
	10/13/95	10/1/95	24 hrs		28#
Choke Size	Oil	Water	Gas	AOF	Test Method
2"			4190	4190	F

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Billy E. Prichard</i>		OIL CONSERVATION DIVISION Approved by: <i>[Signature]</i> Title: <b>DISTRICT SUPERVISOR</b> Approval Date: <i>10/26/95</i>
Printed name: Billy E. Prichard Title: Field Foreman Date: 10/17/95 Phone: 374-3053		

If this is a change of operator fill in the OGRID number and name of the previous operator			
Previous Operator Signature	Printed Name	Title	Date



# INCLINATION REPORT

OPERATOR AMOCO RPRODUCTION COMPANY ADDRESS P. O. BOX 2000 LEVELLAND, TX. 79336  
CO.

LEASE  
NAME

WELL  
NO.

FIELD

2234-  
181-G

BDCDGL

LOCATION

DEPTH	ANGLE INCLINATION DEGREES	DISPLACEMENT	DISPLACEMENT ACCUMULATED
460	.50	4.03	4.03
676	.75	2.85	6.88
1167	.75	6.48	13.36
1666	.75	6.59	19.94
2254	1.00	10.29	30.23
2501	1.25	5.40	35.63

I hereby certify that the above data as set forth is true and correct to the best of my knowledge and belief.

SITTON DRILLING COMPANY

Title PRESIDENT

## AFFIDAVIT:

Before me, the undersigned authority, appeared Ronald Sitton known to me to be the person whose name is subscribed herebelow, who, on making deposition, under oath states that he is acting for and in behalf of the operator of the well identified above, and that to the best of his knowledge and belief such well was not intentionally deviated from the true vertical whatsoever.

Ronald Sitton  
AFFIANT'S SIGNATURE

Sworn and subscribed to in my presence on this the 23 day of September, 1995.

Linda Christopher  
Notary Public in and for the County  
of Lubbock, State of Texas

SEAL

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
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  
PO Box 2088  
Santa Fe, NM 87504-2088

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☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address. AMOCO PRODUCTION COMPANY P. O. BOX 606 CLAYTON, NEW MEXICO 88415		OGRID Number 000778 API Number 30-059-20338
Property Code 000335	Property Name BDCDGU 2234	Well No. 181

<sup>7</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County
G	18	22N	34E		1961'	NORTH	1979'	EAST	UNION

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County

Proposed Pool 1 BRAVO DOME CARBON DIOXIDE GAS (640)	Proposed Pool 2
--	-----------------

Work Type Code N	Well Type Code C	Cable/Rotary R	Lease Type Code P	Gross Land Elevation
Multiple NO	Proposed Depth 2470	Formation TUBB	Contractor SITTON	Spud Date JULY 1, 1995

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.250"	8.625"	24#/FT STEEL	700 FT.	450 SACKS	SURFACE
7.875"	5.50"	5.91#/FT FGLASS	2400 FT.	270 SACKS	SURFACE
		15.50#/FT STEEL			

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

MUD PROGRAM 0-700' FRESH WATER/NATIVE MUD  
700'-2400' FRESH WATER/STARCH/GEL

BOP PROGRAM ATTACHED

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name:  
LINDA OATES

Title:  
SR. ADMINISTRATIVE ASSISTANT

Date:  
JUNE 1, 1995

Phone:  
713/366-4510

OIL CONSERVATION DIVISION

Approved by:

Title: DISTRICT SUPERVISOR

Approval Date: 6/16/95

Expiration Date: 6/16/96

Conditions of Approval:  
Attached ☐

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
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State of New Mexico  
Energy, Minerals & Natural Resources Department

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code 96010	<sup>3</sup> Pool Name BRAVO DOME CARBON DIOXIDE GAS (640)
<sup>4</sup> Property Code 000335	<sup>5</sup> Property Name BDCDGU 2234	<sup>6</sup> Well Number 181
<sup>7</sup> OGRID No. 000778	<sup>8</sup> Operator Name AMOCO PRODUCTION COMPANY	<sup>9</sup> Elevation 4929.80'

<sup>10</sup> Surface Location

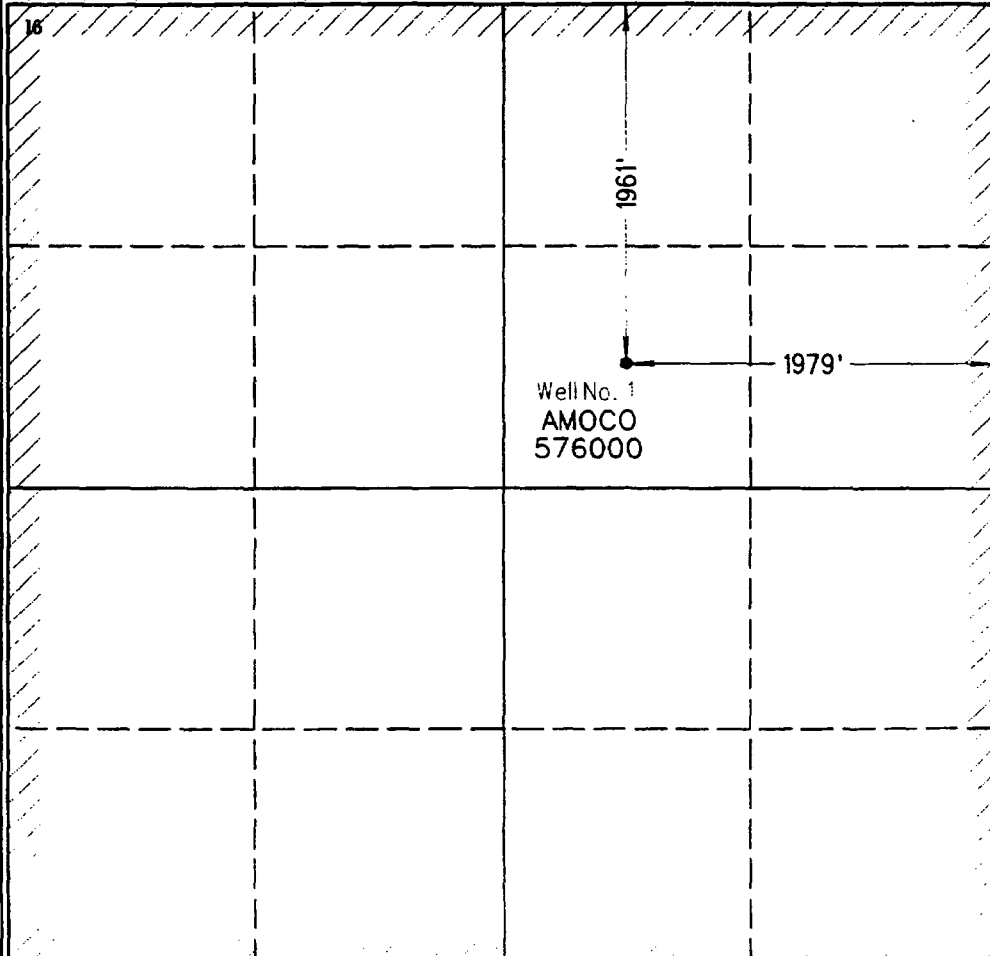
UL or lot no. G	Section 18	Township 22N	Range 34E	Lot Idn.	Feet from the 1961'	North/South line NORTH	Feet from the 1979'	East/West line EAST	County UNION
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres 640	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code U	<sup>15</sup> 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

<div><p><sup>16</sup></p></div>	<div><p><sup>17</sup> 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>Linda Oates</i> Signature LINDA OATES Printed Name Sr. Administrative Assistant Title June 1, 1995 Date</p></div> <div><p><sup>18</sup> 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 belief.</p><p>February 15, 1995 Date of Survey Signature and Seal of Professional Surveyor <i>Larry A. Fisher</i> LARRY A. FISHER Certificate Number 11013</p></div>
--	---

District I  
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PO Drawer DD, Artesia, NM 88211-0719  
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		API Number 30 - 0
Property Code 000335	Property Name BDCDGU 2234	Well No. 181

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	18	22N	34E		1961'	NORTH	1979'	EAST	UNION

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UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Proposed Pool 1 BRAVO DOME CARBON DIOXIDE GAS (640)	Proposed Pool 2
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MUD PROGRAM 0-700' FRESH WATER/NATIVE MUD  
700'-2400' FRESH WATER/STARCH/GEL

BOP PROGRAM ATTACHED

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

Signature: *Linda Oates*  
Printed name: LINDA OATES

Title: SR. ADMINISTRATIVE ASSISTANT

Date: JUNE 1, 1995  
Phone: 713/366-4510

OIL CONSERVATION DIVISION

Approved by: *Ry E. Johnson*

Title: DISTRICT SUPERVISOR

Approval Date: 6/16/95 Expiration Date: 6/16/96

Conditions of Approval:  
Attached ☐

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<sup>7</sup> OGRID No. 000778	<sup>8</sup> Operator Name AMOCO PRODUCTION COMPANY	<sup>9</sup> Elevation 4929.80'

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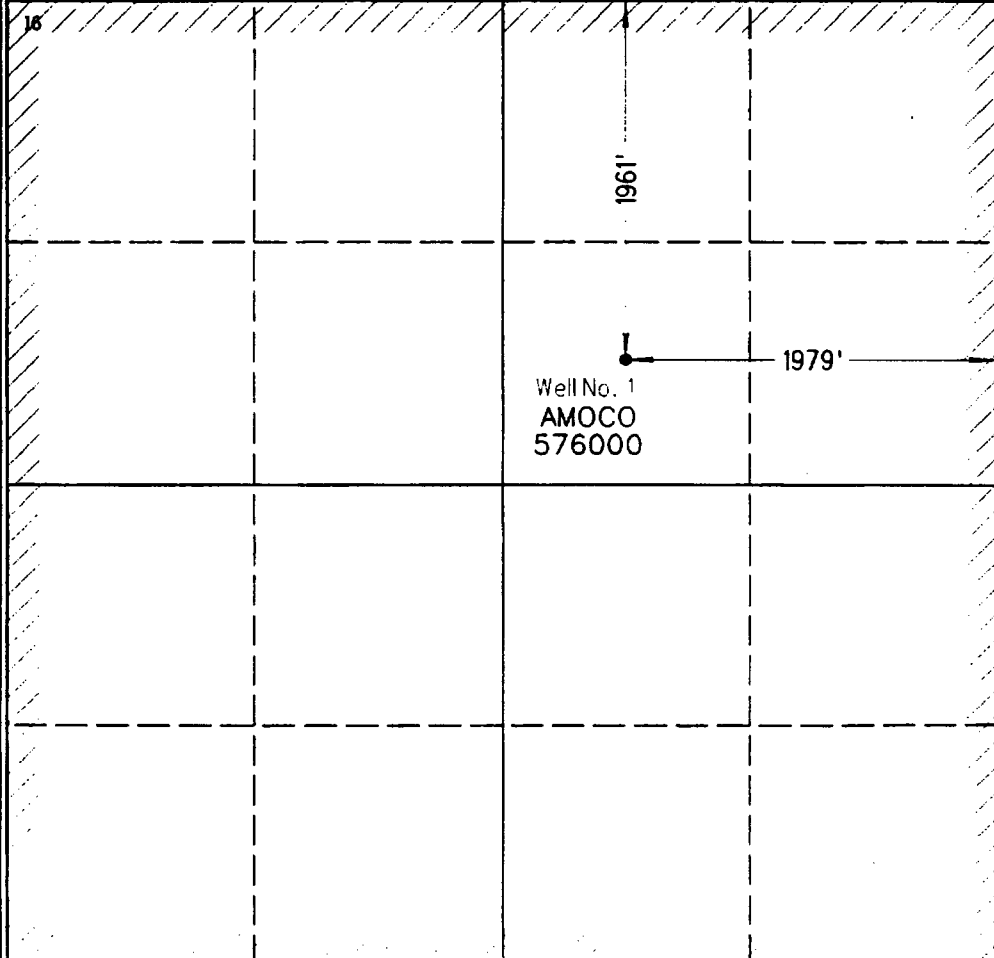
UL or lot no. G	Section 18	Township 22N	Range 34E	Lot Idn.	Feet from the 1961'	North/South line NORTH	Feet from the 1979'	East/West line EAST	County UNION
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UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
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--	---



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**August 12, 2004**

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

**OXY USA, Inc.  
P. O. Box 50250  
Midland, Texas 79710-0250**

**Attention: David Stewart**  
*david\_stewart@oxy.com*

**Administrative Order NSL-5096**

Dear Mr. Stewart:

Reference is made to the following: (i) your initial application submitted to the New Mexico Oil Conservation Division ("Division") on June 1, 2004 (*administrative application reference No. pSEM0-415530509*); (ii) the Division's initial response by letter dated June 23, 2004 from Mr. Michael E. Stogner's, Engineer/Hearing Officer in Santa Fe, requesting additional information to complete your application; (iii) Mr. Richard E. Foppiano's response on your behalf by letter dated July 8, 2004 with attachments; (iv) Mr. Foppiano's e-mail correspondence of Monday, July 12, 2004; (v) Mr. Stogner's reply to Mr. Foppiano by e-mail on Tuesday morning, July 13, 2004; (vi) Mr. Alan J. Schwartz's e-mail letter to Mr. Roy Johnson, Supervisor District IV – Santa Fe, concerning this matter dated July 14, 2004; (vii) Mr. Schwartz's e-mail correspondence to Mr. Johnson on Monday, July 19, 2004; (viii) Mr. Stogner's telephone conversation with Mr. J. E. Gallegos on Thursday, July 29, 2004; (ix) Mr. J. E. Gallegos's telefax letter, on behalf of Poole Leasing Inc. and Poole Chemical Inc., of objection to Mr. Stogner on July 30, 2004; (x) your telefax and e-mail correspondence with Messrs. Stogner and Johnson on August 2 and 3, 2004 addressing Mr. Gallegos's concerns; (xi) Mr. Danny Holcomb's e-mail correspondence with Mr. Johnson on Wednesday, August 4, 2004; (xii) Mr. Stogner's response to Mr. Gallegos by hand-written note on August 11, 2004; and (xiii) the records of the Division in Santa Fe, including the files in Division Cases No. 8190 and 11497 and Division Administrative Orders NSL-3966 (SD), as amended, NSL-3688 (SD), NSL-4762, and NSL-4873 (SD): all concerning OXY USA, Inc.'s ("OXY") request for:

- (a) five (5) unorthodox "infill" Bravo Dome carbon dioxide gas (CO<sub>2</sub>) well locations, all within existing standard 640-acre, more or less, gas spacing units for the Bravo Dome Carbon Dioxide (640-acre) Gas Pool (96010) within its Bravo Dome Carbon Dioxide Gas Unit (BDCDGU), Union and Harding Counties, New Mexico;

(b) three (3) "initial" Bravo Dome carbon dioxide gas (CO<sub>2</sub>) wells, each well to be drilled at an unorthodox location on a proposed 640-acre, more or less, gas spacing unit within the Bravo Dome Carbon Dioxide (640-acre) Gas Pool in Union County, New Mexico; and

(c) two (2) "replacement" Bravo Dome carbon dioxide gas (CO<sub>2</sub>) wells, each well to be drilled at an unorthodox location on a 640-acre, more or less, gas spacing unit within the Bravo Dome Carbon Dioxide (640-acre) Gas Pool in Union County, New Mexico.

All of Section 17, Township 21 North, Range 33 East, NMPM, Harding County, New Mexico, comprising 640 acres, which is currently dedicated to the BDCDGU "2133" Well No. 171 (API No. 30-021-20136), located at a standard CO<sub>2</sub> gas well location 1980 feet from the North and West lines (Unit F) of Section 17, is to be simultaneously dedicated to Well No. 171 and to OXY's proposed BDCDGU "2133" Well No. 172 (API No. 30-021-20333) to be drilled at an unorthodox infill CO<sub>2</sub> gas well location 1002 feet from the South line and 1650 feet from the East line (Unit O) of Section 17.

All of Section 21, Township 21 North, Range 33 East, NMPM, Harding County, New Mexico, comprising 640 acres, which is currently dedicated to the BDCDGU "2133" Well No. 211 (API No. 30-021-20269), located at a standard CO<sub>2</sub> gas well location 1926 feet from the North line and 2008 feet from the East line (Unit G) of Section 21, is to be simultaneously dedicated to Well No. 211 and to OXY's proposed BDCDGU "2133" Well No. 212 (API No. 30-021-20334) to be drilled at an unorthodox infill CO<sub>2</sub> gas well location 660 feet from the South line and 330 feet from the West line (Unit M) of Section 21.

All of Section 5, Township 22 North, Range 34 East, NMPM, Union County, New Mexico, comprising 634.56 acres, which is currently dedicated to the BDCDGU "2234" Well No. 51 (API No. 30-059-20259), located at a standard CO<sub>2</sub> gas well location 1650 feet from the South and East lines (Unit J) of Section 5, is to be simultaneously dedicated to Well No. 51 and to OXY's proposed BDCDGU "2234" Well No. 52 (API No. 30-059-20464) to be drilled at an unorthodox infill CO<sub>2</sub> gas well location 1650 feet from the North line and 330 feet from the West line (Unit E) of Section 5.

All of Section 6, Township 22 North, Range 34 East, NMPM, Union County, New Mexico, comprising 639.88 acres, which is currently dedicated to the BDCDGU "2234" Well No. 61 (API No. 30-059-20322), located at a standard CO<sub>2</sub> gas well location 2075 feet from the South line and 2031 feet from the West line (Unit K) of Section 6, is to be simultaneously dedicated to Well No. 61 and to OXY's proposed BDCDGU "2234" Well No. 62 (API No. 30-059-20452) to be drilled at an unorthodox infill CO<sub>2</sub> gas well location 990 feet from the North and West lines (Lot 4/Unit D) of Section 6.

All of Section 7, Township 22 North, Range 34 East, NMPM, Union County, New Mexico, comprising 641.00 acres, which is currently dedicated to the BDCDGU "2234" Well No. 71 (API No. 30-059-20128), located at a standard CO<sub>2</sub> gas well location 1980 feet from the North and West lines (Unit F) of Section 7, is to be simultaneously dedicated to Well No. 71 and to OXY's proposed BDCDGU "2234" Well No. 72 (API No. 30-059-20453) to be drilled at an unorthodox infill CO<sub>2</sub> gas well location 2310 feet from the North line and 990 feet from the East line (Unit H) of Section 7.

All of Section 2, Township 22 North, Range 33 East, NMPM, Union County, New Mexico, comprising 640.36 acres, is to be dedicated to OXY's proposed BDCDGU "2233" Well No. 021 (API No. 30-059-20462) to be drilled as an initial well within this unit at an unorthodox CO<sub>2</sub> gas well location 762 feet from the North line and 2544 feet from the West lines (Lot 2/Unit C) of Section 2.

All of Section 26, Township 23 North, Range 33 East, NMPM, Union County, New Mexico, comprising 640 acres, is to be dedicated to OXY's proposed BDCDGU "2333" Well No. 261 (API No. 30-059-20456) to be drilled as an initial well within this unit at an unorthodox CO<sub>2</sub> gas well location 660 feet from the North line and 330 feet from the East line (Unit A) of Section 26.

All of Section 30, Township 23 North, Range 34 East, NMPM, Union County, New Mexico, comprising 638.92 acres, is to be dedicated to OXY's proposed BDCDGU "2334" Well No. 301 (API No. 30-059-20458) to be drilled as an initial well within this unit at an unorthodox CO<sub>2</sub> gas well location 1650 feet from the South line and 660 feet from the West line (Lot 3/Unit L) of Section 30;

All of Section 25, Township 23 North, Range 33 East, NMPM, Union County, New Mexico, comprising 640 acres, is to be dedicated to OXY's proposed BDCDGU "2333" Well No. 252 (API No. 30-059-20455) to be drilled as a replacement well at an unorthodox CO<sub>2</sub> gas well location 504 feet from the South line and 1454 feet from the West line (Unit N) of Section 25; the Division's records indicate that the BDCDGU "2333" Well No. 251 (API No. 30-059-20127), drilled in 1981 by Amoco Production Company ("Amoco") at a standard CO<sub>2</sub> gas well location 1980 feet from the North and West lines (Unit F) of Section 25, never produced and was subsequently plugged and abandoned by Amoco in October, 1999.

All of Section 36, Township 23 North, Range 33 East, NMPM, Union County, New Mexico, comprising 640 acres, is to be dedicated to OXY's proposed BDCDGU "2333" Well No. 362 (API No. 30-059-20457) to be drilled as a replacement well at an unorthodox CO<sub>2</sub> gas well location 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 36; the Division's records indicate that the BDCDGU "2333" Well No. 361 (API No. 30-059-20033), drilled in 1979 by Amoco at a standard CO<sub>2</sub> gas well location 1980 feet from the South and East lines (Unit J) of Section 36, never produced and was also plugged and abandoned by Amoco in October, 1999.



OXY USA, Inc.  
August 12, 2004  
Page 4

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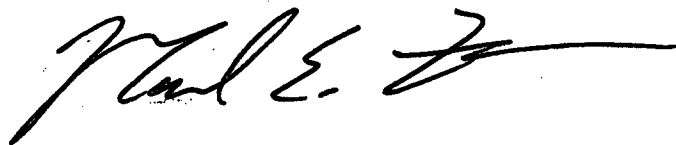
Division Administrative Order NSL-5096

From the information provided by the applicant, the royalty interests in all of the affected offsetting acreage to the proposed unorthodox locations have either been notified by certified mail or have ratified the Bravo Dome Carbon Dioxide Gas Unit (BDCDGU) Agreement.

By authority granted me under the provisions of Rule 5 of the "*Special Rules and Regulations for the Bravo dome 640-Acre Area*," as promulgated by Division Order No. R-7556, dated June 19, 1984, as amended by Division Order No. R-7556-A, dated June 10, 1987, Decretory Paragraph No. (4) of Division Order No. R-10576, and Division Rule 104.F (2), the above-described BDCDGU "2133" Wells No. 172 and 212, BDCDGU "2233" Well No. 21, BDCDGU "2234" Well Nos. 52, 62, and 72, BDCDGU "2333" Well Nos. 252, 261, and 362, and BDCDGU "2334" Well No. 301, all to be drilled at unorthodox CO<sub>2</sub> gas well locations, are hereby approved.

Jurisdiction of this matter shall be further retained for the entry of any such subsequent orders, as the Division may deem necessary.

Sincerely,



Mark E. Fesmire, P. E.  
Director

MF/ms

cc: Roy Johnson, District Supervisor – NMOCD, Santa Fe  
New Mexico State Land Office - Santa Fe  
Danny J. Holcomb, Operations Manager (OXY USA, Inc.) - Aristad, New Mexico  
W. Thomas Kellahin, Legal Counsel for OXY USA, Inc. – Santa Fe  
Richard E. Foppiano, Regulatory Team Leader (OXY USA, Inc.) – Houston  
Alan J. Schwartz, Land Negotiator (OXY USA, Inc.) - Houston

**STATE OF NEW MEXICO  
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**CASE NO. 11497  
Order No. R-10576**

**APPLICATION OF AMOCO PRODUCTION  
COMPANY FOR FOURTEEN UNORTHODOX  
INFILL CARBON DIOXIDE GAS WELL  
LOCATIONS, UNION COUNTY, NEW  
MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on March 21, 1996, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 1st day of April, 1996, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Amoco Production Company, seeks an exception to Rule No. (4) of the Special Rules and Regulations for the Bravo Dome 640-Acre Area as promulgated by Division Order No. R-7556, to allow the drilling of the following described fourteen carbon dioxide infill gas wells at unorthodox gas well locations, all located in Union County, New Mexico:

**WELL NAME & NUMBER**

**WELL LOCATION**

BDCDGU 2135 Well No. 182  
BDCDGU 2234 Well No. 232  
BDCDGU 1835 Well No. 082  
BDCDGU 2234 Well No. 262  
BDCDGU 2134 Well No. 243  
BDCDGU 2234 Well No. 223

660' FNL & 660'FWL (D)-18-21N-35E  
660' FSL & 660'FWL (M)-23-22N-34E  
660' FSL & 1980'FWL (N)- 8-18N-35E  
660' FSL & 560'FWL (M)-26-22N-34E  
660' FSL & 660'FEL (P)-24-21N-34E  
660' FNL & 385'FWL (D)-22-22N-34E

BDCDGU 2234 Well No. 212	660' FSL & 660'FWL (M)-21-22N-34E
BDCDGU 2134 Well No. 132	450' FSL & 450'FEL (P)-13-21N-34E
BDCDGU 1835 Well No. 072	1980' FSL & 1980'FWL (K)- 7-18N-35E
BDCDGU 2135 Well No. 183	660' FSL & 660'FEL (P)-18-21N-35E
BDCDGU 1835 Well No. 162	660' FSL & 660'FEL (P)-16-18N-35E
BDCDGU 1835 Well No. 163	660' FNL & 1980'FWL (C)-16-18N-35E
BDCDGU 2234 Well No. 213	560' FNL & 660'FWL (D)-21-22N-34E
BDCDGU 2234 Well No. 172	660' FNL & 660'FEL (A)-17-22N-34E

(3) The applicant further requests the establishment of an administrative procedure whereby additional infill wells proposed to be drilled at unorthodox locations based upon geologic and engineering considerations may be approved administratively by the Division.

(4) At the time of the hearing, it was determined that the BDCDGU 1835 Well No. 072 is located at a standard gas well location, and therefore, the unorthodox location request for this well should be dismissed.

(5) The subject wells are all located within the Amoco Production Company Bravo Dome Carbon Dioxide Gas Unit. In addition, the wells are located within the Bravo Dome 640-Acre Area as defined within Division Order No. R-7556, entered in Case No. 8190 on June 19, 1984.

(6) The Bravo Dome 640-Acre Area is currently governed by Special Rules and Regulations as contained within said Order No. R-7556 which require, in part, 640-acre standard gas spacing and proration units with wells to be located no closer than 1,650 feet from the outer boundary of the section nor closer than 330 feet from any quarter-quarter section line or subdivision inner boundary. The rules further allow the drilling of infill gas wells within a standard spacing unit (Rule No. (2)) provided that such wells are located no closer than 1,320 feet from any other well drilling to or capable of producing from the Bravo Dome 640-Acre Area.

(7) According to applicant's evidence and testimony, it has recently undertaken a study to determine the feasibility of infill drilling within the Bravo Dome 640-Acre Area. Initially, the applicant identified approximately 450 well locations which may be candidates for infill drilling. Utilizing the following described criteria, the applicant has identified the fourteen wells described in Finding No. (2) above as being the top candidates for infill drilling at this time:

- a) areas where infill drilling can maximize ultimate recovery;
- b) areas where infill drilling will result in wells with relatively high deliverabilities (2.5 + MMCFGD); and,
- c) minimize costs by locating wells near existing surface facilities.

(8) According to applicant's testimony, the proposed unorthodox locations for those wells located on its Leg 9 Gathering System, being the BDCDGU Well Nos. 2135-182, 2234-232, 2234-262, 2134-243, 2234-223, 2234-212, 2134-132, 2135-183, 2234-213, and 2234-172, are necessary due to engineering considerations (i.e. reservoir pressure, drainage, ultimate gas recovery, etc.).

(9) Applicant's evidence further indicates that the proposed unorthodox locations for those wells located on its Leg 6 and 7 Gathering System, being the BDCDGU Well Nos. 1835-082, 1835-072, 1835-162, and 1835-163, are based upon geologic as well as engineering considerations, namely the presence of a northwest to southeast trending fault which traverses each of the well's proration units.

(10) To aid in its determination of those areas within the Bravo Dome 640-Acre Area where infill drilling can maximize recovery, the applicant has built a field-wide computer simulation model which is composed of a reservoir model component and a surface facility model component.

(11) The evidence presented indicates that the applicant has obtained a good history match between the computer simulation and past production within the model area. This indicates that applicant's computer simulation should be capable of accurately predicting future field performance.

(12) The computer simulation was utilized by the applicant to select those infill well locations where incremental gas recovery would be maximized.

(13) The results of the reservoir simulation indicate that drilling the infill wells at the proposed unorthodox locations instead of standard well locations within the subject proration units should result in the recovery of an additional 13 BCF of carbon dioxide gas which would otherwise not be recovered, thereby preventing waste.

(14) All of the affected offset acreage is located within the Amoco Production Company Bravo Dome Carbon Dioxide Gas Unit.

(15) The applicant testified that it has examined the affected offset acreage to determine whether or not there are royalty interest owners who have not ratified the Unit Agreement, and therefore may be affected by the proposed unorthodox locations. Applicant determined that there are such interest owners, however, applicant testified that it has historically been unsuccessful in locating these interest owners.

(16) No other offset operator and/or interest owner appeared at the hearing in opposition to the application.

(17) Approval of the subject application will afford the applicant the opportunity to recover additional gas reserves from each of the subject proration units which may otherwise not be recovered, thereby preventing waste, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will not violate correlative rights.

(18) Pursuant to Division Rule No. 104.F., which was recently amended by Division Order No. R-10533, future unorthodox gas well locations within the Bravo Dome 640-Acre Area based upon geologic or engineering considerations should qualify for administrative approval, provided however, that the supervisor of the Division's Santa Fe District Office should have the authority to require additional notice by the applicant to those offset interest owners deemed to be affected by any proposed unorthodox location.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Amoco Production Company, is hereby authorized to drill the following described thirteen infill carbon dioxide gas wells within the Bravo Dome 640-Acre Area at unorthodox gas well locations, all located in Union County, New Mexico:

**WELL NAME & NUMBER**

**WELL LOCATION**

BDCDGU 2135 Well No. 182  
BDCDGU 2234 Well No. 232  
BDCDGU 1835 Well No. 082  
BDCDGU 2234 Well No. 262  
BDCDGU 2134 Well No. 243  
BDCDGU 2234 Well No. 223  
BDCDGU 2234 Well No. 212  
BDCDGU 2134 Well No. 132  
BDCDGU 2135 Well No. 183  
BDCDGU 1835 Well No. 162  
BDCDGU 1835 Well No. 163

660' FNL & 660'FWL (D)-18-21N-35E  
660' FSL & 660'FWL (M)-23-22N-34E  
660' FSL & 1980'FWL (N)- 8-18N-35E  
660' FSL & 560'FWL (M)-26-22N-34E  
660' FSL & 660'FEL (P)-24-21N-34E  
660' FNL & 385'FWL (D)-22-22N-34E  
660' FSL & 660'FWL (M)-21-22N-34E  
450' FSL & 450'FEL (P)-13-21N-34E  
660' FSL & 660'FEL (P)-18-21N-35E  
660' FSL & 660'FEL (P)-16-18N-35E  
660' FNL & 1980'FWL (C)-16-18N-35E

BDCDGU 2234 Well No. 213  
BDCDGU 2234 Well No. 172

560' FNL & 660' FWL (D)-21-22N-34E  
660' FNL & 660' FEL (A)-17-22N-34E

(2) Each of the subject wells shall be dedicated to the existing 640-acre standard gas spacing and proration unit on which it is located.

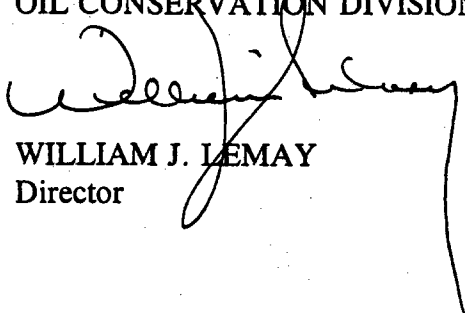
(3) Applicant's request for an unorthodox location approval for its BDCDGU 1835 Well No. 072 is hereby dismissed.

(4) Pursuant to Division Rule No. 104.F., future unorthodox gas well locations within the Bravo Dome 640-Acre Area based upon geologic or engineering considerations shall qualify for administrative approval, provided however, that the supervisor of the Division's Santa Fe District Office shall have the authority to require additional notice by the applicant to those offset interest owners deemed to be affected by any proposed unorthodox location.

(5) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LEMAY  
Director

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