

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
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-101
Revised October 18, 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

¹ Operator name and Address ARCO PERMIAN P.O. BOX 1610 MIDLAND, TX 79702		² OGRID Number 000990
		³ API Number 30-0 15-22417
⁴ Property Code 22954	⁵ Property Name WASHINGTON "33" STATE	⁶ Well No. 29

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
P	33	17S	28E		1050	SOUTH	250	EAST	EDDY

⁸ Proposed 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
⁹ Proposed Pool 1 ARTESIA (Q-G-SA)					¹⁰ Proposed Pool 2 3230				

¹¹ Work Type Code R	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3659
¹⁶ Multiple NO	¹⁷ Proposed Depth 3200	¹⁸ Formation SAN ANDRES	¹⁹ Contractor HONDO	²⁰ Spud Date 3-22-78

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11	8-5/8	24#	600	300	SURE
7-7/8	5-1/2	15.5	6378	1080	SURE

²² 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

ORIGINALLY DRILLED AND COMPLETED AS THE EMPIRE ABO UNIT H-321 IN 1978.
TD @ 6378'. TESTED ABO @ 6140-6250'. TA'D W/CIBP @ 6144' 1-11-96. PROPOSE
TO DUMP 35' CEMENT ON CIBP @ 6144', RUN CNL-GAMMA RAY-CCL AND PRF SAN ANDRES
AS INDICATED BY LOG. TEST AND FRAC AS NEEDED.

NSL - 915B

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

Signature: *Laurie Cherry*
Printed name: LAURIE CHERRY

Title: REG./COMP. ASST.

OIL CONSERVATION DIVISION

Approved by: *Jim W. Burns* B60

Title: *District Supervisor*

Approval Date: 7-7-98 Expiration Date: 7-7-99

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

State of New Mexico
Energy, Minerals and Natural Resources Depart

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-22417	Pool Code	Pool Name ARTESIA (Q-G-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 29
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3659

Surface Location

UL or lot No. P	Section 33	Township 17 S	Range 28 E	Lot Idn	Feet from the 1050	North/South line SOUTH	Feet from the 250	East/West line EAST	County EDDY
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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 Acres 40	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

05	03	01
06	04	02
07	09	013
08	010	012
014		
021	019	15
022	031	017
023	018	016
024	027	030
025	028	29
026		

OPERATOR CERTIFICATION

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

Laurie Cherry
Signature
LAURIE CHERRY
Printed Name
REG. / COMP. ASST
Title
6/16/98
Date

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.

MARCH 3, 1998

Date Surveyed
Signature
Professional Surveyor
RONALD J. EDSON
3239
12641
12185
5-4-98
48-11-0371

Certificate No. RONALD J. EDSON 3239
GARY EDSON 12641
JAMES MCDONALD 12185

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
[DD-Directional Drilling] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

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

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

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

RECEIVED
OCD - ARTESIA

[] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

LAURIE CHERRY
Print or Type Name

Laurie Cherry
Signature

REG/COMP. ASST.
Title

6/16/98
Date

**Geologic and Engineering Discussion for Washington 33 State #29
Unit P of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for unorthodox location for Washington 33 State #29 and #30 in the Artesia (Q-G-SA) Field, both as recompletions of wells drilled to a deeper horizon. Both wellbores are required for geologic reasons, and will be simultaneously dedicated to Unit Letter P of Section 33.

ARCO will require 2 strategically spaced wellspots in each 40-acre tract to recover reserves in the Artesia pool. Wherever possible, our well pattern dictates a wellbore in the NE quadrant and SW quadrant of each 40 acres. Recompletion of these Empire (Abo) wellbores, which are 949 ft. apart, will prevent wasteful drilling, even though #30 is "off-patterns".

At a future date, we anticipate a waterflood could be initiated to effectively sweep both dolomite and sand reservoirs. Optimum results can only be achieved with good spacing of the primary wells. Core results show the Queen-Grayburg-San Andres "sand" pays should yield 130 MBO per 40 acres, but the modest 35 MBO recovered from "sand" wells on and surrounding our lease indicates that 10-20 acre drainage for these pays is reasonable.

We have therefore determined that two wells per 40 acres will effectively drain this reservoir and protect correlative rights. Where inexpensive recompletions are available, 700 ft. between wells will avoid wasteful drilling. "Ten-acre" locations in the same half of any 40-acre unit should be avoided until waterflood startup. With current technology, the drainage radius for these San Andres wells is probably 10 acres, so we do not expect to be affecting any offset owner's correlative rights with these unorthodox locations.



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Gentlemen:

Under the provisions of NMOCD Rule 104.F(d), ARCO Permian requests administrative approval for unorthodox location for its Washington "33" State #29, a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-321 is 1050' FSL and 250' FEL of Section 33, T17S, R28E, Eddy County, New Mexico. This well was drilled at an approved unorthodox location for the original horizon.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location, a map identifying the adjoining and diagonal encroached-upon leases and wells, and a list of affected parties.

Should you have any questions, please do not hesitate to call Dave Percy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Laurie Cherry
Regulatory/Compliance Assistant

:lc

cc: NMOCD, Artesia, New Mexico


Enclosures

STATE OF TEXAS

COUNTY OF MIDLAND

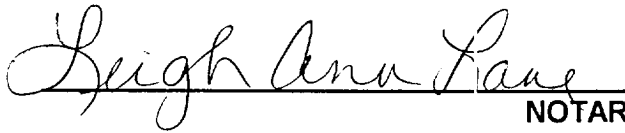
BEFORE ME, the undersigned authority on this day personally appeared Laurie Cherry, a Regulatory Compliance Assistant with ARCO Permian, who being by me duly sworn, deposes and states that the persons listed on the foregoing attached list has been sent a copy on June 16, 1998 Oil Conservation Division Form C-101 (and supporting documentation) entitled, "Application For Permit to Drill or Deepen" for the Washington "33" State #29.

ARCO Permian



Laurie Cherry

SUBSCRIBED AND SWORN TO before me on June 16, 1998, to certify which witness my hand and seal of office.



NOTARY PUBLIC, STATE OF TEXAS



LEIGH ANN LANE
Notary Public, State of Texas
My Commission Expires: 12-12-2000



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

Bulldog Energy Corp
P. O. Box 668
Artesia, New Mexico 88210

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 29 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-321 is 1050'FSL and 250'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,

Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

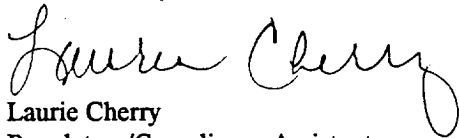
Marbob Energy Corp
P. O. Box 227
Artesia, New Mexico 88211

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 29 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-321 is 1050'FSL and 250'FEL of Section 33, T1'S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,



Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

Mack Chase, Trustee
P. O. Box 1767
Artesia, New Mexico 88211

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 29 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-321 is 1050'FSL and 250'FEL of Section 33, T1'S, R28E, Eddy County, New Mexico.

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Sincerely,

Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures



ARCO Permian
600 North Marienfeld
Midland TX 79701-4373
PO Box 1610
Midland TX 79702-1610
Telephone 915 688 5200

June 16, 1998

CERTIFIED RETURN RECEIPT MAIL

SDX Resources, Inc.
P. O. Box 5061
Midland, Texas 79704

Ladies and Gentlemen:

This letter will serve as notice that ARCO Permian has requested administrative approval from the NMOCD for an unorthodox location for Washington "33" State 29 under Rule 104.F. (3), due to geological conditions. It is a recompletion of a previously drilled well in the Empire Abo Unit, to the Artesia (Queen-Grayburg-San Andres) Field. The location for this well, formerly known as the EAU #H-321 is 1050'FSL and 250'FEL of Section 33, T17S, R28E, Eddy County, New Mexico.

Should your company have any objection, it must be filed in writing within twenty (20) days from the date of this notice. The Division Director may approve the unorthodox location if no objection to the unorthodox location has been made within 20 days after the application has been received.

Sincerely,

Laurie Cherry
Regulatory/Compliance Assistant

:lc

Enclosures

**OFFSET OPERATORS
WASHINGTON "33" STATE #29**

**SDX Resources, Inc.
P. O. Box 5061
Midland, Texas 79704**

**Marbob Energy Corp.
P. O. Box 227
Artesia, New Mexico 88211**

**Mack Chase, Trustee
P. O. Box 1767
Artesia, New Mexico 88211**

**Bulldog Energy Corp.
P. O. Box 668
Artesia, New Mexico 88210**

Section 33 (below)

T 7 S R 28 E

27

29
KERSEY
CO.

MACK CHASE

CONOCO
FINA

Arco, et al

MARBOB
Penrod
U-GAS

MARBOB
ALURA
To 3500'

KERSEY

E

32

F

G

KERSEY

H

Castle
& Wigzell

Marbob

(Sec. 28)

#1 33

ARCO 34

LAURETTA
(PHILLIPS)

MARBOB

Arco, et al
(fin)

291 Sandstone Frong

30 Finn

Finn

Arco

SDX
SDX

0 330 660

1" = 1000'
660

- ▽ San Andres recomplate candidates
- + San Andres Locations
- Primary Yesso Locations
- R Recomplate alternative in Yesso
- ⊕ Possible / Contingent Yesso 12

20P 2/19/78

well tested on H/List.

ARCO Permian

EMPIRE ABO Unit
Well # H-321

TD 6350
PB 6221

KB 10
5 1/2" Casing

Perf: 6174-6184

1-5 1/2" CIBP Running Tool	3.00
1-2" Seating nipple	1.10
99-2 3/8" Tubing	<u>6135.79</u>
	6139.89
	<u>4.00</u>
	6143.89

CIBP Set @ 6143.89

Sec. 33 T178 R28E
Unit LTR P
1050 FSL 250 FEL

DIAMOND RENTAL, I.C.

(505) 392-6498

P.O. BOX 5275

HOBBS, N.M. 88240

Store _____

Charge Sheet No. _____

19 _____

Customer's Name _____

Description _____

	Feet	Feet	Feet	Feet	Feet
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Total					

Total Footage _____ Total Jts. _____

Tallied by _____

Received by _____