

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 30-015-30332
⁴ Property Code 22954	⁵ Property Name WASHINGTON "33" STATE	⁶ Well No. 19

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
K	33	17S	28E		2360	SOUTH	2165	WEST	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 (O-G-SA)					¹⁰ Proposed Pool 2 3230				

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3669' GR
¹⁶ Multiple NO	¹⁷ Proposed Depth 3200	¹⁸ Formation SAN ANDRES	¹⁹ Contractor	²⁰ Spud Date 6/98

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4	8-5/8	24#	500'	450	CIRC. TO SURF.
7-7/8	5-1/2	15.5#	3200	1200	CIRC. TO SURF.
Post ID-1 7-18-98 API & LOC					

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

DRILL SURFACE HOLE W/FRESH WATER TO 500'. SET & CEMENT 8-5/8" CASING. 18 Hours WOC. (B6A)
DRILL 7-7/8" HOLE TO 2000; W/SATURATED BRINE. DRILL 3200' TD W/ SACT GEL
USING PRE-HYDRATED FW GEL SWEEPS, FL +/- 15CC. LOG WELL, RUN & CEMENT
5-1/2" CASING. COMPLETE AND TEST SAN ANDRES FORMATION.

SUBJECT WELL PLANNED AS A 3200' STRAIGHT HOLE.
3000 PSI BOPE WILL BE USED FORM 500' TO TD.

MSL-4060 6-19-98

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

Signature: *Elizabeth A. Casbeer*

Printed name: ELIZABETH A. CASBEER

Title: REG./COMP. ANALYST

OIL CONSERVATION DIVISION

Approved by: *Sign W. Green* B6A

Title: *District Supervisor*

Approval Date: 7-6-98 Expiration Date: 7-6-99

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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	Pool Code	Pool Name ARTESIA (Q-G-SA)
Property Code 22954	Property Name WASHINGTON 33 STATE	Well Number 19
OGRID No. 000990	Operator Name ARCO PERMIAN	Elevation 3669

Surface Location

UL or lot No. K	Section 33	Township 17 S	Range 28 E	Lot Idn	Feet from the 2360	North/South line SOUTH	Feet from the 2165	East/West line WEST	County EDDY
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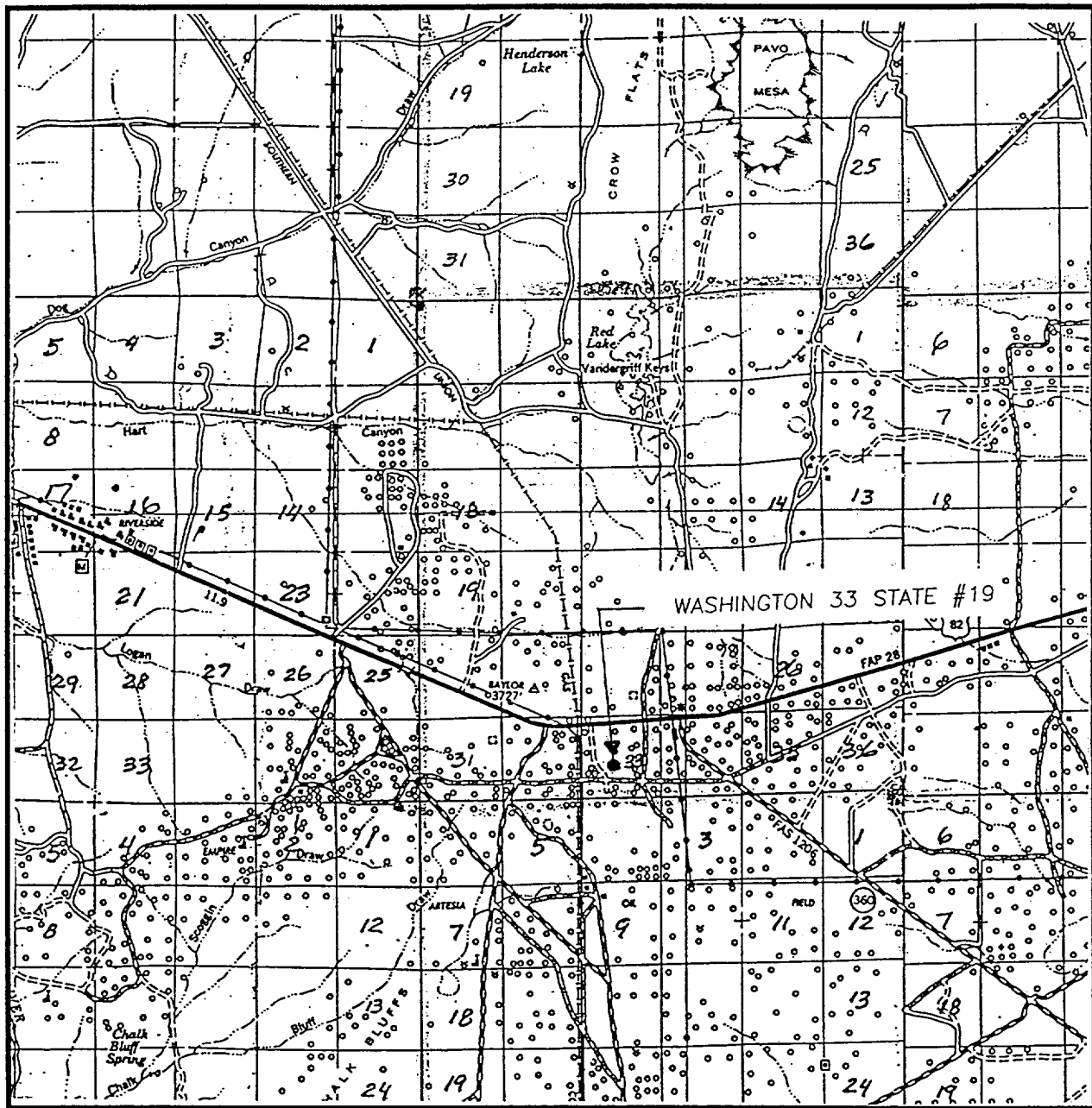
Bottom Hole Location If Different From Surface

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

				OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Elizabeth A. Casbeer</i> Signature ELIZABETH A. CASBEER Printed Name REG/COMP. ANALYST Title 5/13/98 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 <i>Ronald E. Edson</i> Seal of Professional Surveyor RONALD E. EDSON Printed Name 5-4-98 Date Certificate No. RONALD E. EDSON 3239 GARY E. EDSON 12641 MICHAEL D. EDSON 12185					

VICINITY MA



SCALE: 1" = 2 MILES

SEC. 33 TWP. 17-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2360' FSL & 2165' FWL

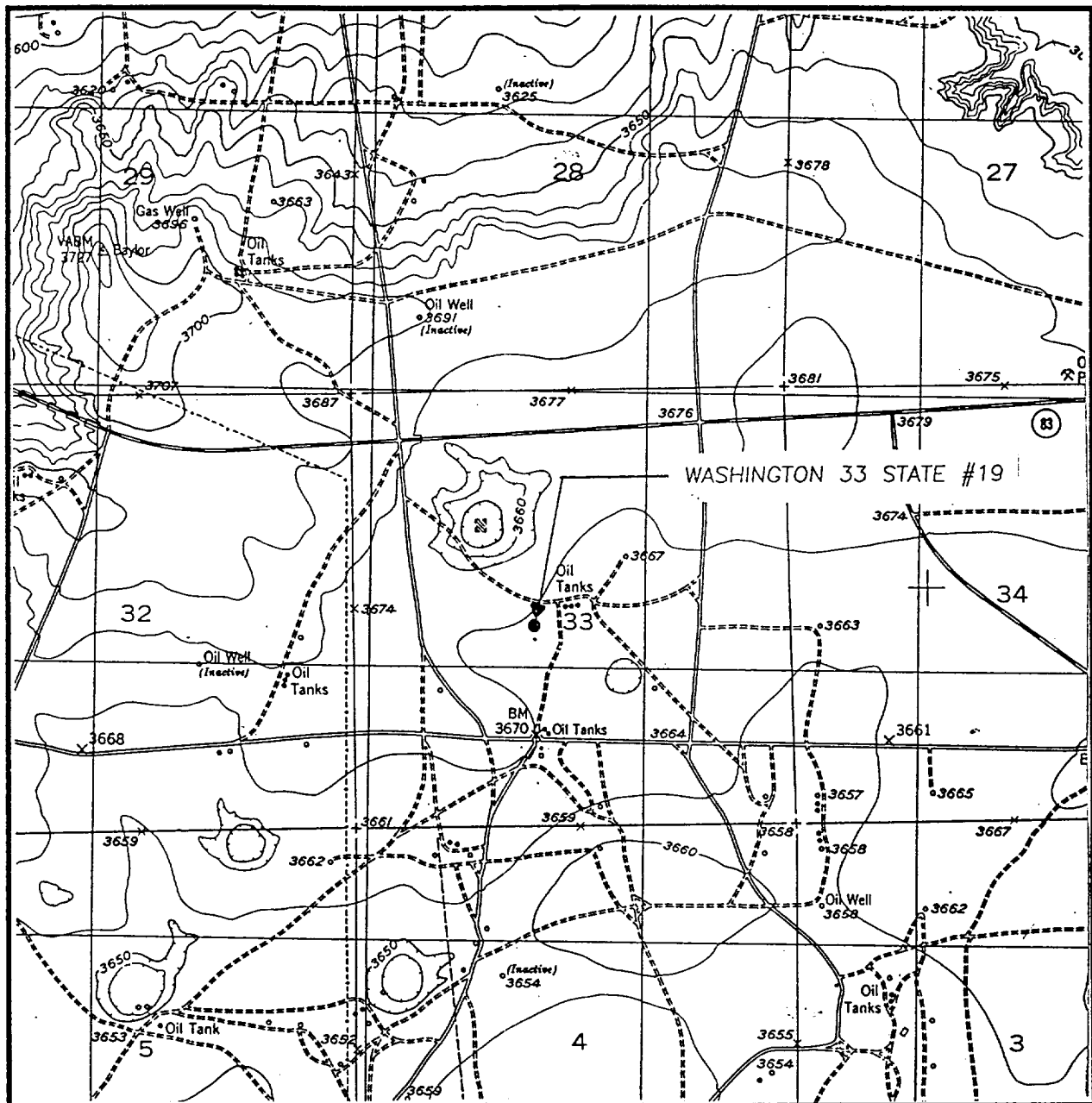
ELEVATION 3669

OPERATOR ARCO PERMIAN

LEASE WASHINGTON 33 STATE

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
RED LAKE - 10'

SEC. 33 TWP. 17-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2360' FSL & 2165' FWL

ELEVATION 3669

OPERATOR ARCO PERMIAN

LEASE WASHINGTON 33 STATE

U.S.G.S. TOPOGRAPHIC MAP

RED LAKE, N.M.

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

Subject Washington 33 # 19 Loc MAP

File

Page No

of

by

DW

Date

4/30/98

↑
East

Flair Vent Line



Old
Btry
Loc

Flowlines

F-30 Btry

Test Header

Original
2310 FSL
2310 FWL X

Phillips Buried Cox Line

Alt "A"
2360 FSL
2165 FWL

Flowlines

South

↓
West

Moved Alt "A" 50' North; 145' West



ARCO Permian
600 North Marienfeld
Midland TX 79701-437
Post Office Box 1610
Midland TX 79702-1610
Telephone 915 688 5570

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

May 12, 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 #19, a new well in Artesia (Q-G-SA) Pool. The location for this well, is 2360' FSL and 2165' FWL of Section 33, T17S, R28E, Eddy County, New Mexico. This well is an unorthodox location.

As required, we are submitting a plat showing the subject 40-acre spacing unit with the unorthodox location and other supporting attachments. Since this unorthodox location is completely surrounded by other ARCO tracts in the same lease, there will be no impact on any other party.

Should you have any questions, please do not hesitate to call me at 915-688-5570 or Dave Pearcy at 915-688-5355. Thank you for your assistance in this matter.

Sincerely,

Elizabeth A. Casbeer
Regulatory/Compliance Analyst

EAC:lc

cc: NMOCD, Artesia, New Mexico

Enclosures

**Geologic and Engineering Discussion for Washington "33" State #19
Unit K of Section 33, T17S, R28E, Eddy County, New Mexico**

ARCO Permian requests administrative approval for an unorthodox location for Washington 33 State #19, new well in the Artesia (Q-G-SA) Pool. This location is required for geologic reasons, and will be simultaneously dedicated along with #31 to Unit Letter K of Section 33.

As shown on the engineer's sketch plat, ARCO attempted to obtain an orthodox location for this well at 2310'FS & WL, but was prevented access by a major Empire Abo tank battery and numerous flowlines. We have shifted the location for #19 to the NW (to 2360'FSL, 2165'FWL) to allow adequate and safe setback for the small Unit rig we will use.

ARCO will require 2 strategically-spaced wellspots in each 40-acre tract to recover reserves in the an Andres dolomite, and later in the Yates-Seven Rivers and Queen-Grayburg "sands". An orthodox location for #31 has already been stated in the SW corner of Unit K to produce the San Andres, but we need this unorthodox location in the NE corner of Unit K to fully exploit the Queen-Grayburg-San Andres main pay. No orthodox location for #19 is available in this area due to topographical obstructions. Any shift south would place #19 too close to other wells to effectively drain the in-place oil. Direction drilling of these wells is untenable, since this would add approximately \$100,000 to the cost, and would not be economically justified with 50-85 MBO per-well reserves.

Since this unorthodox location is completely surrounded by ARCO tracts in the same lease, there will be no impact on any other party.