

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: ARCO PERMIAN Well: CONOCO STATE AA-2

Contact: CHARLES KNIGHT Title: REGULATORY COMP. Phone: _____

DATE IN 5-20-97 RELEASE DATE _____ DATE OUT _____

Proposed Injection Application is for: _____ **WATERFLOOD** _____ Expansion _____ Initial

Original Order: R- _____ _____ Secondary Recovery _____ Pressure Maintenance

SENSITIVE AREAS

SALT WATER DISPOSAL _____ Commercial Well

WIPP _____ Capitan Reef

Coled

Data is complete for proposed well(s)? YES Additional Data Req'd _____

AREA of REVIEW WELLS

1 Total # of AOR

0 # of Plugged Wells

YES Tabulation Complete

Schematics of P & A's

NO Cement Tops Adequate

AOR Repair Required

INJECTION FORMATION

Injection Formation(s) DELAWARE Compatible Analysis YES

Source of Water or Injectate SAME

PROOF of NOTICE

Copy of Legal Notice

Information Printed Correctly

Correct Operators

Copies of Certified Mail Receipts

_____ Objection Received

_____ Set to Hearing _____ Date

NOTES: 1/2 MILE SE OF WIPP BOUNDARY

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? NO

COMMUNICATION WITH CONTACT PERSON:

1st Contact: _____ Telephoned _____ Letter _____ Date _____ Nature of Discussion _____

2nd Contact: _____ Telephoned _____ Letter _____ Date _____ Nature of Discussion _____

3rd Contact: _____ Telephoned _____ Letter _____ Date _____ Nature of Discussion _____



ARCO Permian

Oil & Water Dept.

Method 100-20

Method 100-20

Method 100-20

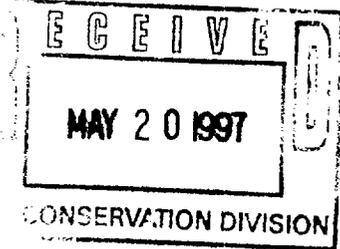
Method 100-20

SWD

6/4/97

May 19, 1997

New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505



Attn: David Catanach

Re: Application for Authorization to Inject (Form C-108)
Conoco State AA-2 #1
Unit A, Sec 1, T23S, R31E
Eddy County, New Mexico

Mr. Catanach,

Enclosed is an Application for Authorization to Inject (Form C-108) for the Conoco State AA-2 #1 located in Unit A, Sec 1, T23S, R31E, Eddy County, New Mexico.

This well was previously drilled to a TD of 5190' and plugged in 1961 as a dry hole. Plans are to re-enter the well and deepen to a new TD of 5800', run 5 1/2" casing and cement to surface. The proposed injection zone to be perforated will be the Delaware interval 4500'-5700'. Injection water will be produced Delaware water sourced from existing deep wells that ARCO Permian plans to plug back and from Delaware producers scheduled to be drilled in the near future.

If you have any questions or need additional data, please contact Elizabeth Casbeer at (915) 688-5570 or the undersigned.

Charles W. Knight, Jr.
(915) 688-5672

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

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

[A] Working, Royalty or Overriding Royalty Interest Owners

[B] Offset Operators, Leaseholders or Surface Owner

[C] Application is One Which Requires Published Legal Notice

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

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

[F] Waivers are Attached

[3] **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.

CHARLES KNIGHT, JR.
Print or Type Name

Charles W. Knight, Jr.
Signature

REGULATORY COMPLIANCE
Title

5/19/97
Date

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- II. Operator: ARCO Permian
Address: P.O. Box 1610, Midland, TX 79702
Contact party: Charles W. Knight, Jr. Phone: (915) 688-5672
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Charles W. Knight, Jr. Title Regulatory Compliance Agent
Signature: Charles W. Knight, Jr. Date: 5/19/97
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. Test data and logs previously filed with NMOCD on completion reports and subsequent sundries (various dates).

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED:

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Form C-108
Application For Authorization To Inject
ARCO Permian, Operator
Conoco State AA-2 #1
Section 2, T23S, R31E, Eddy Co., NM

- I. The purpose of the well is as a disposal well for area Delaware produced water.
- II. Operator: ARCO Permian
P.O. Box 1610
Midland, Texas 79702
Contact: Charles W. Knight, Jr. (915) 688-5672.
- III. Well Data: See Attachments A, B, and C.
- IV. This is not an expansion of an existing project.
- V. Map of wells and leases within 2 miles and 1/2 mile radius: See attachment D.
- VI. Data on wells within the 1/2 mile area of review: See attachment E, E1, & E2.
- VII.
 1. Proposed average daily injection volume: 4000 BWPD
Proposed maximum daily injection volume: 10,000 BWPD
 2. This will be a closed system.
 3. Proposed average daily injection pressure: unknown
Proposed maximum daily injection pressure: 1200 psi
 4. Sources of injection water will be produced water from area Delaware wells that are scheduled to be drilled on the Barclay State, Barclay Federal, and Medano State leases (see list of source wells, Attachment F). Since no wells have been drilled yet, there are no water analysis of the source water. A water analysis from nearby Delaware production (see Attachment G) is attached that is taken from a Yates Petroleum water tank that collects produced water from wells shown on Attachment H.
 5. A water analysis from the proposed Delaware injection target is not available, but is expected to be similar to the chlorides of Delaware wells listed in Attachment H.

- VIII. The proposed injection zone is the Delaware interval 4500'-5700'. The Delaware is a sandstone (containing siltstones and shale) of Permian age approximately 3850' thick found at a depth of 4500' to 8350'. Possible fresh drinking water zones overlie the proposed injection formation at depths to approximately 800'. No drinking water sources are found underlying the proposed injection zone.
- IX. The proposed injection interval may be may be acidized with 7 1/2% HCL as needed.
- X. All well logs and test data available have been previously submitted to the NMOCD. Once the well is re-entered and deepened, a copy of any additional logs run will be forwarded to the NMOCD.
- XI. No fresh water wells are found within a mile of the proposed injection well.
- XII. The applicant has examined geologic and engineering data and find there is no evidence of open faults or other hydrologic connection between the proposed disposal zone and any underground source of drinking water.
- XIII. Proof of Notice
- A. A copy of the application has been sent by certified mail to the surface owner and offset operators of leases within 1/2 mile (see list attached - Attachment I). A copy of the return receipts will be forwarded once available.
 - B. A copy of the legal advertisement is attached (Attachment J). Proof of publication in an Eddy County newspaper will be forwarded once available.
- XIV. Certification: See signature on form C-108.

Conoco State AA-2 #1
Unit A, Sec 1, T23S, R31E
Eddy County, New Mexico

Attachment A

III. Well Data

Section A:

1. Lease Name: Conoco State AA-2 #1
Location: 660' FNL, 660' FEL, Sec 1, T23S, R31E, Eddy County, NM
2. Casing & Cement:

EXISTING

<u>Casing Size</u>	<u>Setting Depth</u>	<u>Sacks Cement</u>	<u>Hole Size</u>	<u>Top of Cmt</u>
8 5/8"	380'	175	NA	circ. to surf

PROPOSED

5 1/2"	5800'	830	7 7/8"	circ. to surf
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NOTE: It is proposed to re-enter and deepen the Conoco State AA-2 #1 from the previously drilled TD of 5190' to a new TD of 5800'.

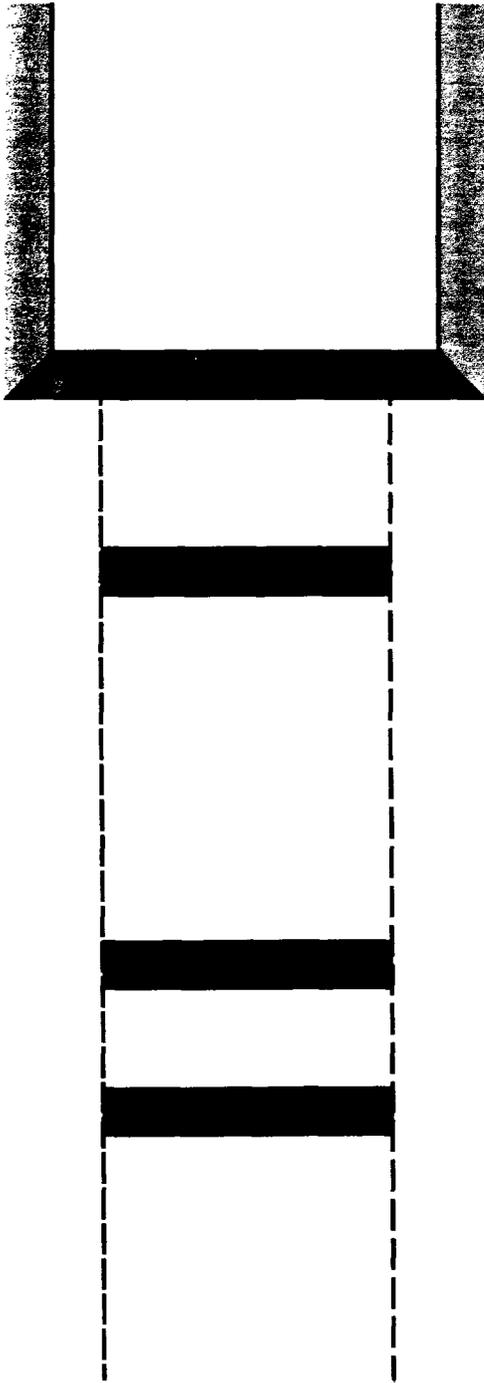
3. Tubing: 2 7/8" 6.5# plastic coated set at 4400'.
4. Packer: Baker or Guiberson Uni VI nickel plated or plastic coated set at 4300'.

Section B:

1. Injection Formation: Delaware Sand
Field or Pool Name: Livingston Ridge (Delaware)
2. Injection Interval: Delaware interval 4500'-5700' perforated
3. Original purpose of well: Drilled to test Delaware formation
4. Other perforated intervals, bridge plugs, cement plugs: well was plugged with plugs set at 321'-380' (15 sx), 720'-849' (20 sx), 4115'-4185' (20 sx), 4368'-4464' (25 sx).
5. Next higher oil or gas zone: None
Next lower oil or gas zone: Bone Springs

See current and proposed wellbore schematic (Attachments B and C)

Wellbore Schematic - Conoco State AA 2 #1 (current)



KB - 10'

8 5/8" 24# J-55 Casing set at 380'

Cemented w/ 175 sx cement.

Cement Plug 321'-380' 15sx

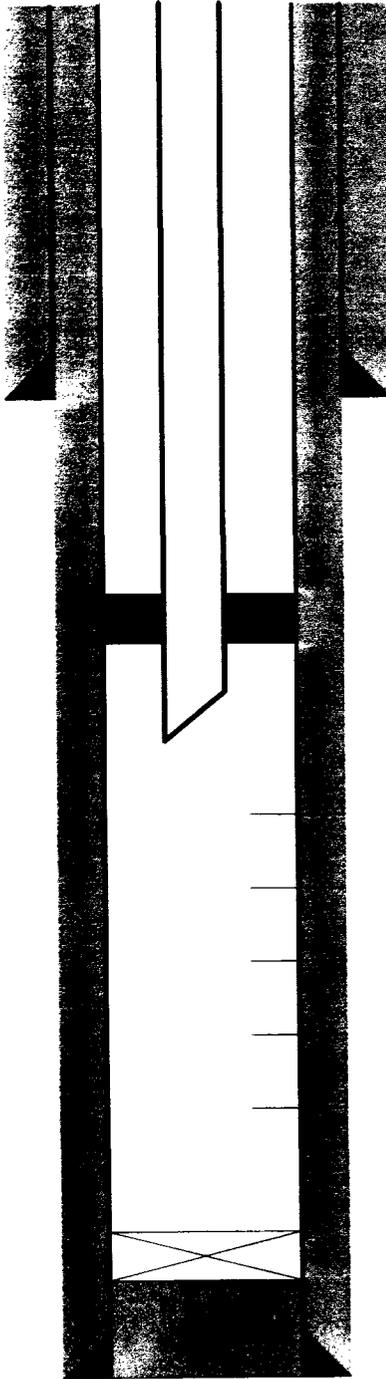
Cement Plug 849'-720' 20sx

Cement Plug 4115'-4185' 20sx

Cement Plug 4368'-4464 25 sx

**Drilled to a TD of 5190'
P&A 1961**

Wellbore Schematic - Conoco State AA 2 #1 (proposed)



KB - 10'

**8 5/8" 24# J-55 Casing set at 380'
cemented w/ 175 sx cement.**

Packer set at 4300' w/ 2 7/8" tubing

Perforations from 4500'-5700'

5 1/2" 15.5# J-55

Cement to surface .

TD at 5800'

Conoco State AA-2 #1
Unit A, Sec 1, T23S, R31E
Eddy County, New Mexico

Attachment E

VI. Data on wells within the 1/2 mile area of review:

The following well is the only well within 1/2 mile of the Conoco State AA-2 #1

Barclay State #1

1. Well type: Producing Morrow gas well
2. Construction, date drilled, location, depth, record of completion, schematic:
See attachments E1 and E2

BARCLAY STATE No. 1

LOCATION: 1980' FSL & 660' FEL, SEC. 02, T-23S, R-31E
EDDY COUNTY, NEW MEXICO

FORMER OPERATOR: UNION OIL OF CALIFORNIA

FORMER WELL NAME: BARCLAY STATE #1

LEASE SERIAL NUMBER: V-302-1 **API NUMBER:** 3001525534

SPUD DATE: 01/25/86

KB: 3485' GL: 3459' TD: 15,136' PBTD: 14,590'

CASING RECORD:

<u>Size</u>	<u>Wt</u>	<u>Grade</u>	<u>Depth</u>	<u>Cementing Record</u>
13-3/8"	54.5	J-55	743'	700 sxs cmt, circ
10-3/4"	45.5 & 40.5	S-80 & K-55	4466'	1,750 sxs cmt, circ
7-5/8"	29.7 & 26.4	S-95	12,600'	2,250 sxs cmt, (TOC @ 5500' by TS)
4-1/2" Lnr	13.5	N-80 & P-105	12,333-15,135'	500 sxs cmt, circ

LOGS:

<u>Date</u>	<u>Company</u>	<u>Log Name</u>	<u>Log Depth</u>
03/06/86	Schlumberger	CNL, LDT, BHC, NGT, DLL, MSFL	4,466'-12,607'
03/30/86	Schlumberger	CNL, LDT, BHC, NGT, DLL, MSFL	12,600'-15,137'

DST's:

INITIAL COMPLETION: IP: Morrow (14,062'-466'), Perf'd Lower Morrow w/4 spf 14,816'-15,068' (58 holes) & 14,062'-14,466' (96 holes). Well swab to SN and died. Kill Well and set CIBP @ 14,610' w/1.5 sx cmt on top to 14,590'. Set Otis "WB" pkr @ 12,275' RIH thru tbg and perf w/4 spf @ 14,062-068' (25 holes). RIH w/coil tbg & acidize perms w/6500 gals 15% Mor-Flo BC acid+700 scf/bbl N₂. CAOF: 649 MCFPD.

INITIAL COMPLETION DATE: 05/15/86

RECOMPLETION: 4/8/97 Set CIBP at 14,050' and top with 35' cement. Perf Upper Morrow interval 13,974'-13,982' w/4 spf (33 holes). Acidize with 4000 gal.s 7 1/2% MOD 101, CO2 foamed acid/methanol. 4/22/97 Flow well making 195 mcfd at 130 psi on a 22/64" choke.

WELLBORE SCHEMATIC

Barclay State No. 1

1980' FSL & 660' FEL

Sec. 02, T-23S, R-31E, Eddy Co., NM

API 30-015-25534

KB 3485'

GL 3459'

Spudded 01/25/86

Completed 05/15/86

RECOMPLETED 04/08/97

17-1/2" Hole
13-3/8" 54.5# J-55 @ 743'.
Set w/700 sxs cmt, circ.

12-1/4" Hole
10-3/4" 45.5 & 40.5# S-80 & K-55 csg @ 4466'
Set w/1750 sxs cmt, circ.

Halliburton DV tool @ 7999'

Otis "WB" Pkr @ 12,275'

9-1/2" Hole
7-5/8" 29.7 & 26.4# S-95 csg @ 12,800'
w/2250 sxs cmt, TOC @ 5500' by TS.

390 jts. 2-3/8" 4.7# N-80 & P-105 "AB" mod EUE tbg
set @ 12,275'

Top of Liner @ 12,333'

UPPER MORROW PERFS @ 13,974'-13,982' (33 holes)

CIBP SET AT 14,050' w/35' CMT ON TOP

Mid-Morrow Perfs @ 14,062'-466' (121 holes).

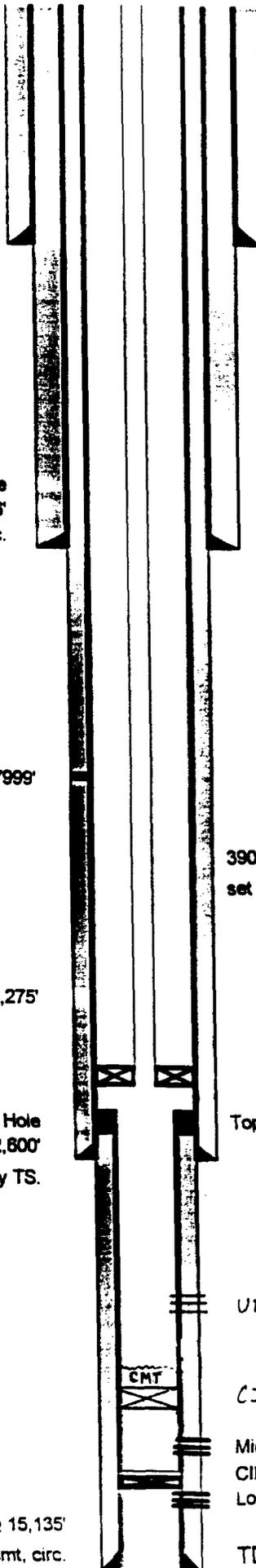
CIBP @ 14,610' w/20' cmt on top to 14,590'.

Lower-Morrow Perfs @ 14,816'-15,068' (56 holes).

4-1/2" 13.5# N-80 & P-105 Liner @ 15,135'
w/500 sxs cmt, circ.

TD @ 15,136'

PBTD @ 14,015'



Conoco State AA-2 #1
Unit A, Sec 1, T23S, R31E
Eddy County, New Mexico

Attachment F

VII. Item 4.

List of Produced Water Source Wells: None currently exist.

Water will be sourced from deep wells proposed to be plugged back to the Delaware or from Delaware wells scheduled to be drilled on the leases shown below:

Barclay State	Section 2, T23S, R31E, Eddy County, NM
Barclay Federal	Section 1, T23S, R31E, Eddy County, NM
Medano State	Section 36, T22S, R31E, Eddy County, NM

WATER ANALYSIS REPORT

Company : YATES PETROLUEM Date : 10/19/95
 Address : ARTESIA, NM Date Sampled : 10/18/95
 Lease : DAVID ROSS Analysis No. : 007
 Well : SWD
 Sample Pt. : TANK 35-22s-31e

ANALYSIS		mg/L		* meq/L
1. pH		5.5		
2. H2S		0 PPM		
3. Specific Gravity		1.185		
4. Total Dissolved Solids		286806.1		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO2		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)				
11. Bicarbonate	HCO3	85.0	HCO3	1.4
12. Chloride	Cl	178068.0	Cl	5023.1
13. Sulfate	SO4	0.0	SO4	0.0
14. Calcium	Ca	22240.0	Ca	1109.8
15. Magnesium	Mg	4022.4	Mg	330.9
16. Sodium (calculated)	Na	82390.7	Na	3583.8
17. Iron	Fe	NR		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO3)		72100.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
1110 *Ca <----- *HCO3	Ca(HCO3)2	81.0	1.4	113
/----->	CaSO4	68.1		
331 *Mg -----> *SO4	CaCl2	55.5	1108.4	61504
<-----/	Mg(HCO3)2	73.2		
3584 *Na -----> *Cl	MgSO4	60.2		
	MgCl2	47.6	330.9	15754
Saturation Values Dist. Water 20 C	NaHCO3	84.0		
CaCO3 13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	3583.8	209435
BaSO4 2.4 mg/L				

REMARKS:

----- ANDY MILLER

Attachment H

**Source Water Summary
David Ross AIT Federal #1 SWD
35-T22S-R31E
Eddy County, New Mexico**

Lease	Location	Chlorides, mg/l	Operator
David Ross SWD	35-22S-31E	178,068	Yates Petroleum
9-1	9-23S-31E	179,772	Santa Fe Energy
9-7	9-23S-31E	161,028	Santa Fe Energy
Medano A	16-23S-31E	164,010	Yates Petroleum
Medano B	16-23S-31E	182,754	Yates Petroleum
17-3	17-23S-31E	181,050	Santa Fe Energy
17-4	17-23S-31E	175,938	Santa Fe Energy
Pauline	32-23S-31E	188,292	Yates Petroleum
Sterling Silver 33	33-23S-31E	179,346	Santa Fe Energy
Sterling Silver 34	34-23S-31E	172,104	Santa Fe Energy
Saffron	2-23S-32E	166,992	Yates Petroleum
Amanda	11-23S-32E	172,530	Yates Petroleum
Continental	28-23S-32E	19,383	Yates Petroleum
Pronghorn AHO	6-23S-33E	95,850	Yates Petroleum
Pronghorn AAP	8-23S-33E	171,678	Yates Petroleum
Lily ALY	3-24S-31E	169,122	Yates Petroleum
Adeline	6-24S-31E	188,292	Yates Petroleum
Palladium 7-1	7-24S-31E	186,162	Santa Fe Energy
Squires ALR	7-24S-31E	184,458	Yates Petroleum
Cotton Draw	23-24S-31E	178,920	Yates Petroleum
Paduca	23-25S-32E	159,750	Yates Petroleum
Almost Texas	2-26S-31E	158,046	Yates Petroleum
Arapaho AKP	29-26S-33E	164,862	Yates Petroleum

Conoco State AA-2 #1
Unit A, Sec 1, T23S, R31E
Eddy County, New Mexico

Attachment I

XIII. Proof of Notice

List of Surface owner and Lease Operators Within 2 Miles:

Surface Owner: J.C. Mills
 P.O. Box 190
 Abernathy, TX 79311

Lease Operators Within 1/2 Mile:

ARCO Permian
P.O. Box 1610
Midland, Texas 79702

(Section 35-T22S-R31E - unleased Federal Minerals)
Bureau of Land Management
Roswell District Office
2909 W. 2nd Street
Roswell, New Mexico 88201

Attachment J

Legal Notice

ARCO Permian, P.O. Box 1610, Midland, Texas 79702, has filed form C-108 (Application For Authorization To Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the "Conoco State AA-2 #1" is located 660' FNL, 660' FEL, Section 2, Township 23 South, Range 31 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware formation. The disposal water will be injected into the Delaware formation at a depth of 4500'-5700', a maximum surface pressure of 1200 psi, and a maximum rate of 10,000 bwpd.

All interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days. Additional information can be obtained by contacting Charles W. Knight, Jr. at P.O. Box 1610, Midland, Texas 79702, or (915) 688-5672.

District I
PO Box 196, Hobbs, NM 88311-196
District II
PO Drawer DD, Artesia, NM 88311-0719
District III
1800 Rio Grande Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

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

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 Property Code 20805	4 Property Name CONOCO STATE AA-2	5 API Number 30-015-05940
		6 Well Number 1

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
A	2	23S	31E		600	NORTH	660	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 SWD; Delaware 96100	10 Proposed Pool 2
---	--------------------

11 Work Type Code E, D	12 Well Type Code S	13 Cable/Rotary R	14 Lease Type Code S	15 Ground Level Elevation 3442
16 Multiple NO	17 Proposed Depth 5800	18 Formations DELAWARE	19 Contractor NA	20 Spud Date 04-25-97

21 Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
EXISTING					
NA	8 5/8	24	380	175	SURE
PROPOSED					
7 7/8	5 1/2	15.5	5800	830	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.

It is proposed to re-enter this plugged well and deepen from 5190' to a new TD of 5800' and complete as a SWD as per the following steps:

1. Drill out the following plugs: 15 sx (321'-380'), 20 sx (720'-849'), 20 sx (4115'-4185'), 25 sx (4368'-4464').
2. Clean out 7 7/8" hole to current TD at 5190' (Delaware).
3. Deepen 610' with a 7 7/8" bit to a new TD of 5800' (Delaware).
4. Run 5 1/2" casing and cement to surface.
5. Perforate Delaware interval 4500'-5700' for disposal of produced Delaware water.

*Posted #0-1
NL-52-97*

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: <i>Charles W. Knight, Jr.</i>	Approved by: SUPERVISOR, DISTRICT II		
Printed name: CHARLES W. KNIGHT, JR.	Title:	Approval Date: APR 28 1997	Expiration Date: APR 28 1998
Title: AGENT	Conditions of Approval:		
Date: 04-17-97	Phone: 915 688-5672	Attached <input type="checkbox"/>	

David Catanach

From: Wentz, Christopher
Sent: Tuesday, May 20, 1997 4:49 PM
To: David Catanach
Cc: Jennifer Salisbury; Ben Stone
Subject: DOE/Westinghouse Contacts for Notice re: Conoco State AA-2, Well #1 C-108 Application

Following are the two individuals to be notified regarding any opportunities for interested parties to provide written or oral comments on the pending C-108 permit application for Arco Permian's Conoco State AA-2, Well #1. This existing, plugged well is proposed to be re-entered, deepened from 5,190' to 5,800', and completed as a Salt Water Disposal (SWD) well. It is located in Sec. 2, T.23S, R.31E, on a section of State land located at the SE corner of the WIPP withdrawal area boundary. Thanks for your assistance in this matter...I really appreciate it.

Beth Bennington
Environmental Program Manager
U.S. Department of Energy
Carlsbad Area Office
P.O. Box 3090
Carlsbad, NM 88221-3090
Phone: 505/234-7482 Fax: 505/887-0292

Doug Lynn
Land Use Coordinator
Westinghouse-Waste Isolation Division
P.O. Box 2078
Carlsbad, NM 88221-2078
Phone: 505/234-8739 Fax: 505/885-0974

Affidavit of Publication

No 18983

State of New Mexico,
County of Eddy, ss.

Amy McKay

being first duly sworn, on oath says:

That she is Business Manager
of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

May 28, 1997
_____, 19____
_____, 19____
_____, 19____
_____, 19____
_____, 19____

That the cost of publication is \$ 21.61,
and that payment thereof has been made and will be assessed as court costs.

Amy McKay

Subscribed and sworn to before me this

30th day of May, 1997

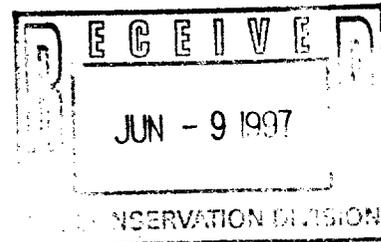
Donna Crump

My commission expires 8/1/98
Notary Public

May 28, 1997

ARCO Permian, P.O. Box 1610, Midland, Texas 79702, has filed form C-108 (Application For Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the "Conoco State AA-2 #1" is located 660' FNL, 660' FEL, Section 2, Township 23 South, Range 31 East, Eddy County, New Mexico. Disposal water will be sourced from area wells producing from the Delaware formation. The disposal water will be injected into the Delaware formation at a depth of 4500'-5700', a maximum surface pressure of 1200 psi, and a maximum rate of 10,000 bwpd.

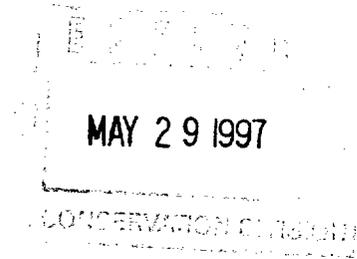
All interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501, within 15 days. Additional information can be obtained by contacting Charles W. Knight, Jr. at P.O. Box 1610, Midland, Texas 79702, or (915) 688-5672.





May 27, 1997

New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505



Attn: David Catanach

Re: Application for Authorization to Inject (Form C-108)
Conoco State AA-2 #1
Unit A, Sec 1, T23S, R31E
Eddy County, New Mexico

Mr. Catanach,

Enclosed is a copy of the certified mail receipts as required for the proof of notice portion of the form C-108.

If you have any questions or need additional data, please contact Elizabeth Casbeer at (915) 688-5570 or the undersigned.

Charles W. Knight, Jr.
(915) 688-5672

SENDER:
 1. Complete items 1 and/or 2.
 2. Complete items 3, 4, and 5.
 3. Print your name and address.
 4. Print the name and address of the addressee.
 5. Write "Return Receipt Requested" in the space provided. The Return Receipt Fee will be added to the date of delivery.

1. Article Addressed to:
 Beth Bennington
 Environmental Program
 U. S. Department of Energy
 Carlsbad Area
 P. O. Box 3090
 Carlsbad, NM

2. Signature (Agent)
[Signature]
 PS Form 3800, November 1989

I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Number
 P 219 771 651

4a. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

5. Date of Delivery
 5/23/97

6. Addressee's Address (Only if requested and fee is paid)

DOMESTIC RETURN RECEIPT

SENDER:
 1. Complete item 1 and/or 2.
 2. Complete items 3, 4, and 5.
 3. Print your name and address.
 4. Print the name and address of the addressee.
 5. Write "Return Receipt Requested" in the space provided. The Return Receipt Fee will be added to the date of delivery.

1. Article Addressed to:
 Doug Lynn
 Land Use Coordinator
 Westinghouse Waste Iso Div
 P. O. Box 2078
 Carlsbad, NM

2. Signature (Agent)
[Signature]
 PS Form 3811, November 1989

I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

3. Article Number
 P 896 844 629

4b. Service Type
 Registered Insured
 Certified COD
 Express Mail Return Receipt for Merchandise

5. Date of Delivery
 5/23/97

6. Addressee's Address (Only if requested and fee is paid)

DOMESTIC RETURN RECEIPT

Knight
 BIN #19 P 219 771 651



Receipt for Certified Mail

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Sent to		Beth Bennington
Street & No.		U. S. Department of Energy
P. O. Box and ZIP Code		P. O. Box 3090
P. O. State and ZIP Code		Carlsbad, NM 88221-3090
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, and Addressee's Address		
TOTAL Postage & Fees	\$	
Postmark or Date		5-21-97

*Lead
 Tom Wilk
 May 23, 1997*

PS Form 3800, June 1991

Knight P 896 844 629
 BIN #19



Certified Mail Receipt

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Sent to		Doug Lynn
Street & No.		Westinghouse-Waste Iso Div
P. O. Box and ZIP Code		P. O. Box 2078
P. O. State & ZIP Code		Carlsbad, NM 88221-2078
Postage	\$	
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Address of Delivery		
TOTAL Postage & Fees	\$	
Postmark or Date		5-21-97

*Rec'd
 May 23
 1997*

PS Form 3800, June 1990

SENDER:
 I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

Article Number
 P 219 771 661

Ab. Service Type
 Registered
 Insured
 Certified
 COD
 Express Mail
 Return Receipt for Merchandise

Date of Delivery
 5-21-97

Addressee's Address (Only if requested and fee is paid)

DOMESTIC RETURN RECEIPT

The Return Receipt Fee will be added to the date of delivery.
 Article delivered to:
 Bureau of Land Management
 Roswell District Office
 2909 West 2nd St
 Roswell, NM 88201

Signature (Agent)
Bab Baker

SENDER:
 I also wish to receive the following services (for an extra fee):
 1. Addressee's Address
 2. Restricted Delivery
 Consult postmaster for fee.

Article Number
 P 896 844 625

Ab. Service Type
 Registered
 Insured
 Certified
 COD
 Express Mail
 Return Receipt for Merchandise

Date of Delivery
 5-21-97

Addressee's Address (Only if requested and fee is paid)

DOMESTIC RETURN RECEIPT

The Return Receipt Fee will be added to the date of delivery.
 Article delivered to:
 J. C. Mills
 P. O. Box 190
 Abernathy, Texas

Signature (Addressee)
J. C. Mills

Signature (Agent)
Bab Baker

Knight P 219 771 661
 BIN #19



Receipt for Certified Mail

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Sent to Bureau of Land Management	
Street and No. Roswell District Office	
2909 West 2nd Street	
P.O., State and ZIP Code Roswell, New Mexico 88201	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 3.21
Postmark or Date	5-20-97

PS Form 3800, June 1991

Knight P 896 844 625
 BIN #19



Certified Mail Receipt

No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

Sent to J. C. Mills	
Street & No. P. O. Box 190	
P.O., State & ZIP Code Abernathy, Texas 79311	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	\$ 3.21
Postmark or Date	5-20-97

PS Form 3800, June 1990

Ben Stone

From: Wentz, Christopher
Sent: Tuesday, May 20, 1997 4:49 PM
To: David Catanach
Cc: Jennifer Salisbury; Ben Stone
Subject: DOE/Westinghouse Contacts for Notice re: Conoco State AA-2, Well #1 C-108 Application

Following are the two individuals to be notified regarding any opportunities for interested parties to provide written or oral comments on the pending C-108 permit application for Arco Permian's Conoco State AA-2, Well #1. This existing, plugged well is proposed to be re-entered, deepened from 5,190' to 5,800', and completed as a Salt Water Disposal (SWD) well. It is located in Sec. 2, T.23S, R.31E, on a section of State land located at the SE corner of the WIPP withdrawal area boundary. Thanks for your assistance in this matter...I really appreciate it.

Beth Bennington
Environmental Program Manager
U.S. Department of Energy
Carlsbad Area Office
P.O. Box 3090
Carlsbad, NM 88221-3090
Phone: 505/234-7482 Fax: 505/887-0292

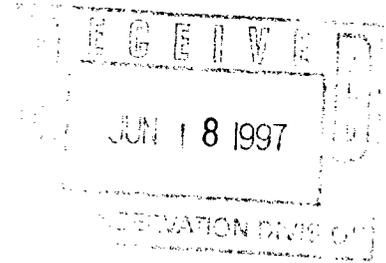
Doug Lynn
Land Use Coordinator
Westinghouse-Waste Isolation Division
P.O. Box 2078
Carlsbad, NM 88221-2078
Phone: 505/234-8739 Fax: 505/885-0974



Department of Energy

Carlsbad Area Office
P. O. Box 3090
Carlsbad, New Mexico 88221

June 16, 1997



David Catanach, Petroleum Engineer Specialist
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Dear Mr. Catanach:

The U.S. Department of Energy (DOE), Carlsbad Area Office (CAO) is resubmitting our original letter sent June 6, 1997 regarding the Application for Authorization to Inject for the Arco Permian well Conoco State AA-2. This letter was originally sent to the address indicated in the enclosed copy of Arco Permian's May 28, 1997 legal notification. It is our expectation that the CAO's request still be considered prior to the New Mexico Oil Conservation Division's decision on this permit application.

Sincerely,

A handwritten signature in cursive script that reads "Mary E. Bennington".

Mary E. Bennington
Environmental Programs Manager

Enclosures: 3

cc w/enclosures:
C. Wentz, NMEMNRD
S. Jones, WID

CAO 97-1389 [UFC 5400]





Department of Energy

Carlsbad Area Office
P. O. Box 3090
Carlsbad, New Mexico 88221

June 6, 1997

David Catanach, Petroleum Engineer Specialist
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Catanach:

The U.S. Department of Energy (DOE), Carlsbad Area Office (CAO) has completed a review of both the Application for Permit to Drill (APD) and the Application for Authorization to Inject (Form C-108) for the Arco Permian well location Conoco State AA-2. The CAO has identified no concerns regarding this injection well; however, we would like to request that any required testing and monitoring results that the State imposes through the permit be forwarded to the CAO for our consideration. We would request that this be made an additional stipulation under the permit.

If you have any further questions, please call me at 234-8132.

Sincerely,

A handwritten signature in cursive script that reads "Mary E. Bennington".

Mary E. Bennington
Environmental Programs Manager

cc:
Bryan Arrant, OCD, Artesia
Stewart Jones, WID

CAO 97-1367 [UFC 5400]





Department of Energy

Carlsbad Area Office
P. O. Box 3090
Carlsbad, New Mexico 88221

June 6, 1997

Bryan Arrant, Geologist
New Mexico Oil Conservation Division
811 South First
Artesia, New Mexico 88210

Dear Mr. Arrant:

A review of the Applications for Permit to Drill for the Arco Permian wells identified as Barclay State #2 and Barclay State #3 has been conducted following our May 18, 1997 discussions. The WIPP Land Management Group has verified the locations to be outside 330 feet of the WIPP land withdrawal boundary and, therefore, not encroaching on the WIPP boundary. Accordingly, the CAO has no concerns regarding these wells.

If you have any further questions, please call me at 234-8132.

Sincerely,

A handwritten signature in cursive script that reads "Mary E. Bennington".

Mary E. Bennington
Environmental Programs Manager

cc:
David Catanach, OCD
Stewart Jones, WID

CAO 97-1373 [UFC 5400]



