dg OB

#### STATE OF NEW MEXICO

#### ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS



POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

ADMINISTRATIVE ORDER NO. SWD-403

#### APPLICATION OF AMOCO PRODUCTION COMPANY

## ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Amoco Production Company made application to the New Mexico Oil Conservation Division on October 3, 1990, for permission to complete for salt water its Florance Well No. 2, located in Unit C of Section 11, Township 30 North, Range 9 West, NMPM, San Juan County, New Mexico.

#### THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations.
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified; and
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met.
- (4) No objections have been received within the waiting period prescribed by said rule.

#### IT IS THEREFORE ORDERED THAT:

(1) The applicant herein, Amoco Production Company is hereby authorized to complete its Florance Well No. 2 located in Unit C of Section 11, Township 30 North, Range 9 West, NMPM, San Juan County, New Mexico, in such a manner as to permit the injection of salt water for disposal purposes into the Morrison, Bluff and Entrada formations at approximately 7500 feet to approximately 8400 feet through 3 1/2-inch plastic lined tubing set in a packer located at approximately 7450 feet.

Administrative Order No. SWD-406 Amoco Production Company October 24, 1990 Page 2

#### IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

The operator shall run a cement bond log on the 13 3/8" casing string prior to setting any intermediate casing. The operator shall notify the supervisor of the Division's Aztec district office of the date and time of conductance of said bond log in order that said operation may be witnessed.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

Prior to commencing injection operations into said well, the operator shall obtain a formation water sample from the Morrison, Bluff and Entrada formations, and shall have said samples analyzed, with the results to be furnished to the Santa Fe office of the Division.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1500 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Morrison, Bluff and Entrada formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Aztec district office of the Division of the failure of the tubing, casing or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

Administrative Order No. SWD-406 Amoco Production Company October 24, 1990 Page 3

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule 706 and 1120 of the Division Rules and Regulations.

Approved at Santa Fe, New Mexico, on this 24th day of October, 1990.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY

Director

SEAL

cc: Oil Conservation Division - Aztec

US Bureau of Land Management - Farmington



#### STATE OF NEW MEXICO

# ENERGY AND MINERALS DEPARTMENT

# OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR

1(XX) FIIO BITAZOS FIOAD AZTEC, NEW MEXICO 07410 (505) 334-0178

Makes 3-3-90 Attack
Date: 3-3-90 All m 2. Caramico
Oil Conservation Division P.O. Box 2000
Santa Fe, NM 87504-2088
Re: Proposed MC Proposed DMC Proposed NSL Proposed SWD Proposed WFX Proposed PMX
Gentlemen: SwD
I have examined the application dated 2.24-96
for the Muoco Production Car Florance SwD #2 Operator Lease & Well No.
Unit, S-T-R and my recommendations are as follows:
Appane
Recomend a Division approved cement bond log on
any pipe except surface cusing before as more string
Yours truly,
Sureh Sureh

A	r	Ρ	1	7	7	<b>A</b> '	1	Ω	N	٢	n	R	Α	11	T	1	4 (	11	7 1	7	' /	١T	ī	n	N	T	0	ı	N.	11	Гſ	٦,	ľ
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1.	Purpose: Secondary Recovery Prensure Maintenance Disposal Storage Application qualifies for administrative approval? Syes Too
11.	Operator: Among Production Company
	Address: P.O. Box 800, Denver Cb 80201
	Contact party: Brooke Bell Phone: (303)830-5341
111.	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
ν.	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:
	<ol> <li>Proposed average and maximum daily rate and volume of fluids to be injected;</li> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and</li> <li>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.).</li> </ol>
*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: Brooke S. Rell Title Sr. Petroleum, Engineer
	Name: Brooke S. Bell Title Sr. tetroleum Engineer Signature: Dato: 9/14/90
submi	e information required under Sections VI, VIII, X, and XI above has been previously tled, it need not be duplicated and resubmitted. Please show the date and circumstance earlier submittal.



- III. A. See Injection Well Data Sheet
  - B.1. Names of injection formations are <u>Morrison</u>, <u>Bluff</u>, and <u>Entrada</u>.

(No field or pool name for these formations.)

- 2. The injection intervals of 7500' 8400' will be selected from logs run to total depth. Intervals will be perforated with 4 spf.
- 3. This well will be drilled for the purpose of water disposal.
- 4. No remedial cement work is anticipated.
- 5. The Dakota formation, top 7236', is the next higher formation known to produce gas in this area; there is no known lower oil or gas producing formation.
- VI. There is one well within the area of review inwhich the TD may have penetrated the top of the Morrison by 25 feet. The well is the Florance No. 114. The well has since been plugged back to the Fruitland with a PBTD of 2848 feet. Find attached a copy of Amoco's Scout Ticket information on the subject well. This well does not require remedial action to isolate the proposed injection horizons in the area.
- VII. 1. Rate of disposal will be determined by a step rate injection test. The primary use of the facility will be for disposal of produced water from area Fruitland coal development wells. The amount of water to be injected will depend on this development.
  - The proposed injection system will be designed as a closed system.
  - 3. Maximum injection pressure will be determined by a step rate injection test. Average injection pressure will be kept below this maximum pressure.

#### Florance SWD No. 2

4. Disposal water will be produced from area Fruitland coal wells. Below are water analyses representative of the water which will be disposed of in the subject well.

	Na	Ca	Mg	K	Cl	HCO3	SO4	CO3	TDS
Florance D-1	6350	20	47	_	2609	11578	0	528	21150
Florance K-3	6430	80	15	10	1560	14700	0	0	22800
Riddle B-1	7121	52	53	_	1705	16378	0	0	25300
Schwerdtfeger 1	7484	32	44	_	994	18544	0	0	27100

Compatibility - Attached is a copy of the results of an Amoco scaling tendency program which supports the source water is compatible with the injection zone water.

- 5. Attached are analyses of water samples from the Blackwood Nichols NEBU # 501, NW 1/4, Section 20, T30N, R7W, Rio Arriba County, New Mexico.
- VIII. The closest overlying aquifers are the Ojo Alamo, Animas, San Jose, and Nacimiento. The Ojo Alamo should be encountered in this well from 1750' to 1927'. There are no known aquifers below the Entrada.

The proposed injection zones are the sandy and porous portions of the Morrison, Bluff, and Entrada formations. At the proposed Florance SWD No. 2 location the zones could be described as follows:

Morrison - light gray to gray, fine grained to medium grained, well rounded and slightly calcareous sandstones. Individual sandstone bodies are expected to be 10 to 50' thick, separated by shales and siltstones. Some sandstones may be slightly arkosic, but generally are quartzitic with some friable sands. Overall depth is estimated at 7508' with overlying unit being Burro Canyon and the underlying unit being type Bluff member. A possible thickness of 400' sand is anticipated.

Bluff - light red to pink to gray, fine grained to medium grained sandstones. Clean, slightly friable, sorted. Individual sandstones are expected to be 10' to 20' thick, separated by shales and siltstones. Overall depth of zone is estimated at 7908' with approximately 300' of porous sandstone. Rests on top of Todilto.

#### Florance SWD No.2

Entrada - gray to white, hard, fine to medium grained sandstone. Well sorted and well rounded. Depth of zone is estimated at 8350' with the upper 250' being porous sandstone. Rests on Chinle.

- IX. Stimulation will consist of perforating selected porous intervals in the Morrison, Bluff, and Entrada. These intervals will be stimulated using a sand water frac treatment. Details of the design will be based on the logs.
- X. Test information and logs will be provided to the District NMOCD office as available.
- XI. A search of records at the State Engineers Office shows no fresh water wells permitted within a one-mile radius of the proposed location. In addition, a field search of the surrounding area revealed no fresh water wells.
- XII. I hereby certify that I have examined available geologic and engineering data and can find no evidence of connection between the disposal zone and underground drinking water sources.

Brocke S. Bell

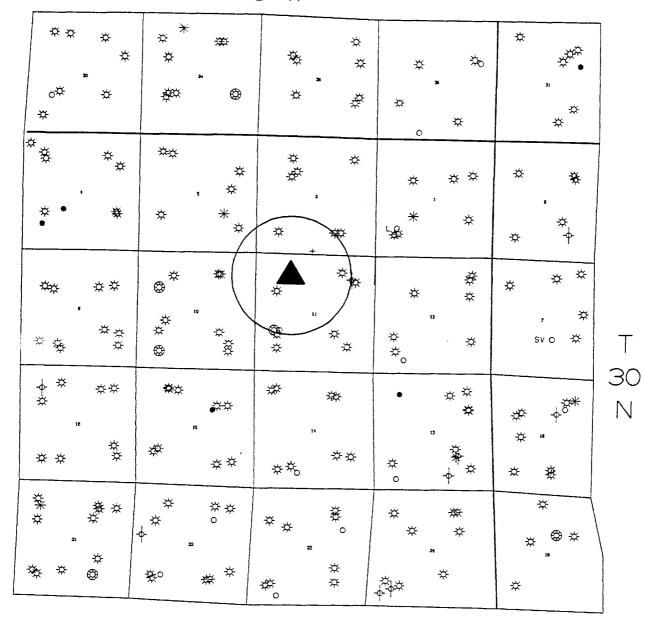
Sr. Petroleum Engineer

XIII. Proof of notice is attached. Copies of the executed receipts for certified mail will be forwarded once they are returned to Amoco from the postal service. Find attached a copy of the Public Notice published in the local newspaper.

### INJECTION WELL DATA SHEET

	Amoco Production	1 Company		Florance S	SWD		
2	Operator	955' FNL X 1600	I Taur	7	DND		
	Well No.	Footage Locat New Mexico	ion	Section	<del></del>	30N	9W
	Schematic	New Mexico				Township	Range
	<u> </u>				Tabu	lar Data	
			Sur	face Casing			
			Size	20	Pf	Cemented with	500 ev
						determined by	
				e size _26"			<u>cri caración</u>
•		20" csg @ 250'	Inte	ermediate Ca	sing		
						Cemented with	1700 sv
•		▶ 13 3/8" csg				determined by	
		@ 3160'		size17 1			
			Long	String Ir	nterme	diate Casing	
			Size	9 5/8 "		Cemented with	1400 sx.
			TOC .	2800 :	feet	determined by	bond log
		9 5/8" csg 5300	Hole	size <u>12 1</u>	_/4"		
			Tota	l depth53	800		
2 1 /2			Inje	ction interv	val		
3 1/2	'tog		750			cted intervals	<b>()</b>
			T	Long String		t to <u>8400</u>	feet
				~			
						Cemented with	
						letermined by	bond log
	7"	csg @ 8600'		size <u>8 1/2"</u>			
		1-8 1 0000	Total	depth <u>8600</u>	)' 		
Tubi	lng size 31,	/2" lined	with	plastic			,
	er Inverted Lok-			(ma	ateri	al)	in a
(or	(brand and ) describe any	model) other casing-		_packer at	7430	(approx)	feet
	r Data	other casing-	tubing	g seal).			
1.	— <del>—</del>	injection for	mation	Mormicon I	നും		
2.		d or Pool (if			biuii,	and Entrada	
3.		w well drilled			·	7	
		hat purpose wa					
4.	Has the well intervals an used). No	ever been per d give pluggir	forat ng det	ed in any o ail (sacks	ther or ce	zone(s)? Lisement or bridge	t all such
_							
5.	Give the dep gas zones (pe 4602' - Mesave	th to and name ools) in this orde, 7236' - Dako	of a area. ota.	ny overlying _2552' - Fru	g and itland	/or underlying , 2850' - Picture	g oil or ed Cliffs,
		·-					

R 9 W



AMOCO PRODUCTION COMPANY

Sec II-T30N-R9W San Juan County

New Mexico

Scale: 2640 Ft/Inch

Sept 11, 1990

4.

SCALE FREDICTIONS, MIXTURE NO. 1: 90.0 FERCENT FRUITLAND 5.0 PERCENT ENTRADA 5.0 PERCENT MORRISON

CALCULATED COMPOSITION OF MIXTURE NO. 4810. 136. 31. = (402)(CL)= 1 IN MG/L: 2123. 192. 9697.

7) 11 (03) =(HC03)=

SPECIFIC GRAVITY= MOLAL IONIC STRENGTH= 0.229 1.012

(SR)#

(BA)=

0

# SCALING TENDENCIES(MG/L):

715 4 PC 11 TE TE	1 + 0 . 1 + 20 . 1 +
DEX = ANAL	4000.0 4000.0 4000.0 4000.0 4000.0 4000.0
A POSITIVE SCALE INDEX INDICATES SCALE PRECIPITATION CAN SOCIO	CO2(FXI) 0.000 0.000 0.000 0.000 0.000
S SCALE PRECIE	CASD4 -4515. -3342. -2544. -1964.
M SOLUBILIT	EASO4  -111.
Υ	100EX(MG/L) SRSO4 -335 -354 -297 -141 -82
	00000000000000000000000000000000000000

THE MAGNITUDE OF THE SCALE INDEX INDICATING THE MAXIMUM AMOUNT WHICH COULD PRECIPITATE. A NEGATIVE SCALE INDEX INDICATES THE WATER IS UNSATURATED AND NO SCALE PRESTATE OF THE WATER IS UNSATURATED AND NO SCALE PRECIPITATION WILL OCCUR.

2047. 2047. 2047.

75 SUTTLE	SIREET	AI IEN:	IL CLARK	DATE SAMPLED:	8/1/88	. ATTACH
PO BOX 260	5 ,	FO BOX 123	7	KELL HAME: NEBU	UNIT 501	
DURANGO, C	0 81302	DURANGO, C	D 81302	LOCATION:		
(303) 247-4	1220	(303) 247-	0728	FURNATION: ENTR	ADA WATER	
			•	SAMPLED FRUM:		
CDS ID 1:	1119			WELL DM/Off:		•
CONSTITUENT		ppn	ępi	•		
Sodium	Na +	4760	207.	1		•
Potassium	<b>κ</b> +	169	4.3	3	•	Item 2A SWD-339
Calcium	Ca ++	1310	65.	4		i .
Magnesium	Ng ++	29.4-	2.	1		1
Iron Total	Fe++ & Fe+++	164	B.1	3		
FOSITIVE SUI	B-TOTAL	6432.4	287.9779	7		
Chloride	C1 -	8280	233.:	5		·
Carbonate	C93 =	0	0.0	)		
Bicarbonate	HCO3-	152	2.5	5		
Hydroxide	DH -	0	0.0	)		
Sulfate	S04 =	2100	43.7	1		
HEGATIVE SUE	3-IDTAL	10532	277.70928	)		
Total Dissol	lved Solids	19000 ppm.				
pH		5.07 units				
Specific Gra	avity	1.01 £ 73 F.				
Resistivity		45 oha-a			•	

APPROVED BY:

DR. JOE BOWDEN, DIRECTOR

This Laboratory report may not be published or used for advertising or in connection with advertising of any kind without prior written permission from CDS Laboratories.

Results are based on analysis made at the time samples are received at the laboratory.

75 SUTTLE STREET	ATTEN: L	CLARK DATE SAUFLED: 3/X/88	
PO BOX 2605	FO BOX 1237	WELL NAME: NEPU UNIT 501	
DURANGO, CO 81302	DURANGO; CO	B1302 LUCATION:	
(303) 247-4220	(303) 247-072	B FORMATION: MURRISON FERFS	<b>5.</b>
		SAM LED FRUM:	
CDS ID #: 1120		WELL DN/OFF:	•
CONSTITUENT	ppa	epa	
Sodium Ha +	10600	461.1	Item 3A
Potassium K +	1810	46.3	SWD-339
Calcium Ca ++	685	34.2	; .
Hagnesium Mg ++	65.9	5.4	1
Iron Total Fe++ & Fe+++	230	12.4	•
POSITIVE SUB-TOTAL	13390.9	557.3565	
	19944	r., 2	
Chloride C1 -	18200	513.2	
Carbonale CD3 =	0	0.0	
Bicarbonate HCU3-	537	8.8	
Hydroxide OH -	0	0.0	
Sulfate SU4 =	1750	36.4	
NEGATIVE SUB-IDIAL	20487	558.47643	
Total Dissolved Solids	35100 ppm		
pH .	6.71 units		
Specific Gravity	1.023 € 73 F.		
Resistivity	24 oha-m		

APPRUVED BY:

DR. JUE BOWDEN, DIRECTOR

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Results are based on analysis made at the time samples are received at the laboratory.

Gorbachev if he were Soviet leader.

During the question-and-answer session at Moscow State, Reagan also said he believes "Germany has rejoined the civilized world" and will not repeat Nazi atrocities.

Reagan, in the Soviet Union at Gorbachev's invitation, said, "We should be teaching our students the languages of each others' countries so that we can really cement the friendship.

"If young people like you, in the world, could get to know each other, there would never be another war," he said in the conference room of the university's mammoth administration building.

#### Thatcher proposes code

PRAGUE, Czechoslovakia (AP) - In a speech to Parliament today. British Prime Minister Margaret Thatcher proposed that a 35-nation summit this fall adopt a universal code of rights for Europe and North America.

She also urged that the 12-nation European Community offer full membership to Czechoslovakia and Eastern Europe's other new democracies as soon as they have introduced Western-style economies

Mrs. Thatcher also apologized for the 1938 Munich Treaty, in which Britain en-dorsed Adolf Hitler's division of this Central European nation.

"We failed you in 1938, when a disastrous policy of appeasement allowed Hitler to extinguish your independence," she

#### M&Ms yanked

HONG KONG (AP) — Authorities or-dered all packets of M&Ms candy withdrawn from Hong Kong stores today after an anonymous letter claimed one bag of the candy had been poisoned to punish the U.S. manufacturer for co-sponsoring the Asian Games in Beiling.

The letter, delivered to several newspapers late Monday, says one packet of M&Ms had been laced with sodium cyanide, a deadly poison.

The letter condemns Mars, Inc. of Hackettstown, N.J., which makes M&bis. for sponsoring the games, which open in Belting on Saturday.

It criticizes China's Communist leaders for their bloody crackdown on a movement for democracy in China in June 1989. Hundreds of unarmed civilians were killed then when the military cleared central Beiling of protesters.

#### 101 Legal

Notice
Notice is hereby given that Amoco Production Company, 200 Amoco Court. Farmington, New M e x i co 8 74 0 1 505-327-9200, Attn. Buddy Snaw, intends to drift the Pritchard SWD No. 1 for use as a water disposal well Application will be lifed with the New Mexico Oil Conservation Division

Division Pritchard SWD No will be located in the NE /4NW/4 of Section 34. Township 31 North, Range 9 Wast N.M.P.M. The well will

Range 9 West N Me Mine well will be drilled to a total depth of 8620' and the injection of 8620' and the injection process. Buff. and Entrada formations. Rate of disposal will be determined by a step-rate injection test.

Any persons, Irrm association, or corporation, of the United States of America deeming that the granting of the above application will impair or be detrimental to their watering the proposal set forth and application. The protest shall set forth in writing all protestant's reasons why the application should not be approved and must be filed with the Oil and Casc Continued in management.

servation Division, P. O. Box 2088, Santa Fe, New Mexico 87501, within 15 days of the date of the last publication of this notice Legal No. 26477 published in the Farmington Daily Times, Farmington, New Mexico on Tuesday, September 18, 1990

LEGAL NOTICE LEGAL NOTICE

Meridan D, inc., hereby gives notice to the pubic that uniper the
provisions of the Natural
Gas Policy Act of 1978
(NGPA) it is tiling an application for "New Onshore Production and
High Cost Coal Seam
Gas" determinations (Section 103 and 107) for the
following welks) located in
San Juan County, New
Mexico.

following well(s) located in San Juan County, New Mexico.
Lewis Park #100, SW/4 of NE/4 of Section 13, T-31N, R-8W in the comments by the public will be accepted by District Manager, Bureau of Lano Management, 435 Montano Rd., Albuquerque NM for a 15-day period beyond the date the BLM determines the application to be complete.

plete Legal No 26438 pub-lished in the Farmington, Daily Times, Farmington, New Mexico on Tuesday, September 18, 1990



Notice Notice is hereby given that Amoco Production Company, 200 Amoco that Amoco Producismon Company, 200 Amoco Court, Farmington, New Mexico 8 7 4 0 1, 505 326 9200. Attn Buddy Shaw, intends to drall the Riddle SWD No. 1 for maker disposal use as a water disposal well Application will be filed with the New Mexico Oil Conservation

Oil Conservation
Division
Riddle SWD No. 1 will
be located im the SE/AS
A of Saction 16, Township
30 North. Range 9 West,
N. M.P. M. The with will
be drilled to a total depth
10 84101 and the enection
zone will be in to the Morrison, Bluff, and Entrada
formations. Rate of disposal will be determined
by a step-rate injection
test.

Any persons, firm, as-

test.

Any persons, firm, association, or corporation, or corporation, of the United States of America, deeming that the granting of the above application will impair or be detrimental to their waterights may protest in writing the proposal sel forth in said application. The protest snail set forth in writing all protestant's reasons why the application should not be approved and must be tilded with the Oit and Gas Conservation Division, P. O. Box 2088, Sante Fe, New Maxico 87501, within 15 days of the date of the last publication of this notice Legal No. 26478 published in the Farmington Daily Times, Farmington, New Mexico on Tuesday, September 18, 1990. Any persons, firm, as-

Notice is hereby given that Amoco Production Company, 200 Amoco Court, Farmington, New Me xic o 8 7 4 0 1, 505-326-9200, Attn. Bud-505-326-9200, Attn. Bud-dy Shaw, intends to drill the Fiorance SWD No. 2 for use as a water disposal well. Application will be filled with the New Mexico Oil Conservation

need with the rew Mexico
Oil Conservation
Division
Florance SWD No. 2
will be located in the NE
HNW/4 of Section 11.
Township 30 North.
Range 9 West.
N M P M. The well will
be drieled to a total depth
of 6600° and the injection
zone will be in to the Morrison, Bluff. and Entrada
formations. Rate of disposal will be determined
by a step-rate injection
test

by a step-rate injection test
Any persons, firm, as sociation, or corporation of the United States of America, deeming that the granting of the above application will impay or be detrimental to their water rights may protest in writing the process set florth in said application. The protest shall set forth in right application. The protest shall set forth in right application that the Oil and fast Conscience of the approved and must be filed with the Oil and Gas Conservation Division. P. O. Box 2088. Santa Fe, New Mexico 87501 within 15 days of the date of last publication of this notice. Legal No. 26476 published in the Farmington. New Mexico on Tuesday September 18, 1990.

LEGAL NOTICE
Mendian Oil Inc. on behalf of Southland Royalty Company, hereby gives notice to the public that under the provisions of the Natural Gas Policy Act of 1978 (NCPA) it is projections for the projections for the projections of the Natural Gas Policy Act of 1978 (NCPA) it is Ining applications for "New Onshore Production and High Cost-Coal Seam Gas" determinations (Section 103 and 107) for the following welks) located in San Juan County, New Mexico:

Grenier #101, NE/4 of SW/4 of Section 7, T-31N, R-11W East Com #105, NE



#### **Amoco Production Company**

Southern Division 1670 Broadway P.O Box 800 Denver, Colorado 80201 303-830-4040

T. D. Autry Division Production Manager

September 14, 1990

(See Attached Addressee List)

File: KJK-131-WF

Proposed Water Disposal Well Florance SWD No. 2

Dear Sir:

This is to advise you that Amoco Production Company is requesting approval from the Division Director of the New Mexico Oil Conservation Division to drill a water disposal well:

Florance SWD No. 2 955' FNL x 1600' FWL Section 11, T30N, R9W San Juan County, New Mexico

Find attached a copy of the application that is being submitted. Please note that you have 15 days from the date this application is received to file any objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501.

Very truly yours,

7.Davity/kgk

Attachment

Well Name:

Florance SWD #2

Location:

NE 1/4 NW 1/4 - 11-T30N-R9W San Juan County, New Mexico

#### Parties to be Noticed:

Land	Surface Owner	Working Interest
<u>T30N-R9W</u> Sec 2: S 1/2	State of New Mexico	El Paso Production Company c/o Meridian Oil Inc. P. O. Box 4289 Farmington, NM 87499-4289
		Total Minatome Corporation P. O. Box 4326 Houston, TX 77210-4326
		Amoco Production Company P. O. Box 800 Denver, CO 80201
Sec 3: SE 1/4	U.S.A.	Conoco Inc. 3817 Northwest Expressway Oklahoma City, OK 73112-1400
		Amoco Production Company
Sec 10: E 1/2	U.S.A.	El Paso Production Company
Sec 11: N 1/2, SW 1/4	U.S.A.	Amoco Production Company Conoco Inc.
Sec 11: SE 1/4	U.S.A.	El Paso Production Company