

30-015-23751

**C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Cordova SWD No. 1
(Originally Amoco's State IS #1Y)
Unit E Section 25-24S-27E
Eddy County, New Mexico**

- I. The purpose of completing this well is to make a disposal well for produced Delaware, Bone Springs and other sources water into the Delaware Sand formation.

Yates Petroleum Corporation plans to re-enter and convert this well to a water disposal well into the Delaware Sand.

- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
James M. Hill (505) 748-4219

- III. Well Data: See Attachment A

RECEIVED

- IV. This is not an expansion of an existing project.

MAR 31 2006

ODD-ARTESIA

- V. See attached map, Attachment B.

- VI. 1 well within the area of review penetrate the proposed injection zone. (See Attachment C)

- VII. 1. Proposed average daily injection volume approximately 2000 BWPd. Maximum daily injection volume approximately 5000 BWPd.

2. This will be a closed system.

3. Proposed average injection pressure –unknown.
Proposed maximum injection pressure –1,526 psi.

4. Sources of injected water would be produced water from the Delaware, Bone Springs and other sources. (Attachment D)

- VIII. 1. The proposed injection interval is the portion of the Delaware Sand formation consisting of porous Sandstone from estimated depths of 2,452-4,152'.

**Application for Authorization to Inject
Cordova No. 1**

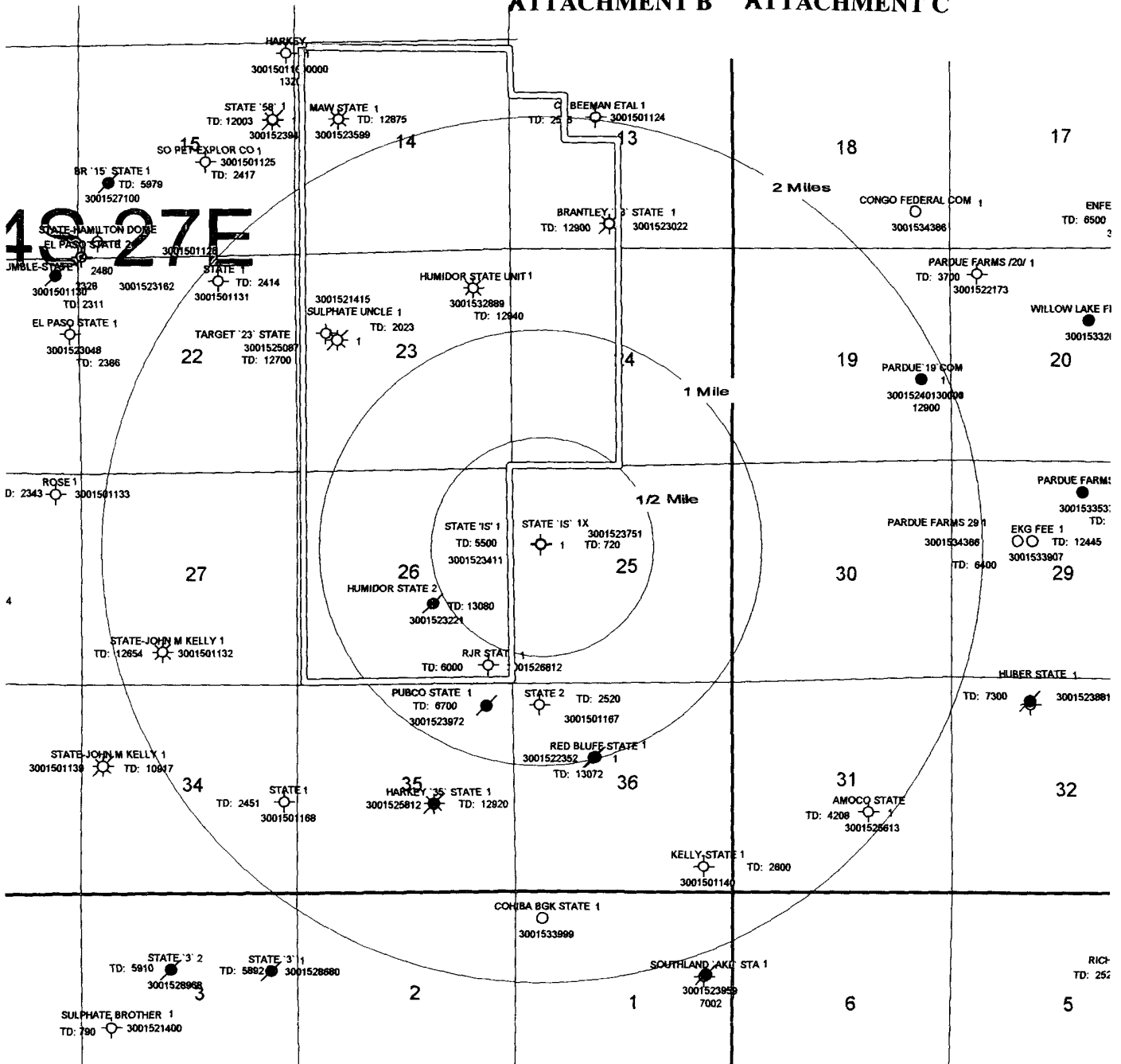
-2-

- 2. Possible Fresh water zones overlies the proposed injection formations at depths to approximately 50'. There are no fresh water zones underlying the formation.**
- IX. The proposed disposal interval may be acidized with 7-1/2% HCL acid or proppant fractured.**
- X. Logs were filed at your office when the well was drilled.**
- XI. There are no windmills within a one-mile radius of the subject location.**
- XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval. (Attachment G)**
- XIII. Proof of notice.**
 - A. Certified letters sent to the surface owner and offset operators attached (Attachment E)**
 - B. Copy of legal advertisement attached. (Attachment F)**
- XIV. Certification is signed.**

**Yates Petroleum Corporation
Cordova SWD No. 1
Unit E Sec. 25-24S-27E
Eddy County, New Mexico**

Attachment A

- III. Well Data
- A.
1. Lease Name/Location
Cordova SWD #1
API No. 30-015-23751
Unit E Sec. 25, T24S, R27E
Eddy County, New Mexico
 2. Casing Strings:
 - a. Present well condition
8-5/8" 24# K-55 ST&C @ 500' with 275 sx cement (circ)
5-1/2" 14# K-55 @ 5,497' with 2,325 sx cement
 - b. Present Status:
Plugged and Abandoned
 3. Proposed well condition:
Pressure test 5-1/2" casing and run.
3 1/2" 9.3 J55 or 2-7/8" 6.5 J-55 plastic-coated injection tubing @ +/- 2,300'.
 4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 2,300'.
- B.
1. Injection Formation: Delaware Sands
 2. Injection Interval will be through perforations from approximately 2,452-4,152' gross interval.
 3. Well was originally drilled for Delaware oil well. The sands were tested and proved to be wet by Amoco. The well will be a Delaware water disposal well (2,452-4,152') when work is completed.
 4. Perforations: High porosity sands to be selected between 2,452-4,152'
 5. Next higher (shallower) oil or gas zone within 2 miles-None.
Next lower (deeper) oil or gas zone within 2 miles-Brushy Canyon (Lower Delaware).



YATES PETROLEUM

CORDOVA SWD #1

Author:
Debbie Chavez

Date:
17 February, 2006

LH

Scale:
<scale>

ATTACHMENT D

**MILLER CHEMICALS, INC.**

Post Office Box 298

Artesia, N.M. 88211-0298

(505) 746-1919 Artesia Office

(505) 392-2893 Hobbs Office

(505) 746-1918 Fax

mci@plateautel.net

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
 Address : ARTESIA, NM
 Lease : KYLIE "AYV"
 Well : #1
 Sample Pt. : WATER TANK

Date : 3/29/06
 Date Sampled : 3/29/06
 Analysis No. : 00865

ANALYSIS		mg/L		* meq/L	
-----		-----		-----	
1.	pH	5.6			
2.	H2S	0			
3.	Specific Gravity	1.150			
4.	Total Dissolved Solids	281812.5			
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 195.0	HCO3	3.2	
12.	Chloride	Cl 174660.0	Cl	4926.9	
13.	Sulfate	SO4 375.0	SO4	7.8	
14.	Calcium	Ca 28800.0	Ca	1437.1	
15.	Magnesium	Mg 3079.5	Mg	253.4	
16.	Sodium (calculated)	Na 74659.2	Na	3247.5	
17.	Iron	Fe 43.8			
18.	Barium	Ba NR			
19.	Strontium	Sr NR			
20.	Total Hardness (CaCO3)	84600.0			

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter				Compound	Equiv wt X meq/L = mg/L		
+-----+				+-----+			
1437	*Ca <-----	*HCO3	3	Ca(HCO3)2	81.0	3.2	259
-----	/----->		-----	CaSO4	68.1	7.8	531
253	*Mg ----->	*SO4	8	CaCl2	55.5	1426.1	79135
-----	<-----/		-----	Mg(HCO3)2	73.2		
3247	*Na ----->	*Cl	4927	MgSO4	60.2		
+-----+				+-----+			
Saturation Values Dist. Water 20 C				MgCl2	47.6	253.4	12061
CaCO3 13 mg/L				NaHCO3	84.0		
CaSO4 * 2H2O 2090 mg/L				Na2SO4	71.0		
BaSO4 2.4 mg/L				NaCl	58.4	3247.5	189782

REMARKS: CORRECTED COPY

**MILLER CHEMICALS, INC.**

Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Artesia Office
(505) 392-2893 Hobbs Office
(505) 746-1918 Fax
mci@plateautel.net

SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 3/29/06
Address	: ARTESIA, NM	Date Sampled	: 3/29/06
Lease	: KYLIE "AYV"	Analysis No.	: 00865
Well	: #1	Analyst	: A. MILLER
Sample Pt.	: WATER TANK		

STABILITY INDEX CALCULATIONS

(Stiff-Davis Method)

CaCO₃ Scaling Tendency

S.I. =	0.4	at	70 deg. F	or	21 deg. C
S.I. =	0.4	at	90 deg. F	or	32 deg. C
S.I. =	0.4	at	110 deg. F	or	43 deg. C
S.I. =	0.4	at	130 deg. F	or	54 deg. C
S.I. =	0.4	at	150 deg. F	or	66 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS

(Skillman-McDonald-Stiff Method)

Calcium Sulfate

S =	469	at	70 deg. F	or	21 deg C
S =	505	at	90 deg. F	or	32 deg C
S =	529	at	110 deg. F	or	43 deg C
S =	537	at	130 deg. F	or	54 deg C
S =	537	at	150 deg. F	or	66 deg C

Respectfully submitted,
A. MILLER

Affidavit of Publication

NO. 19179

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott being dulysworn, says: That he is the Publisher of The

Artesia Daily Press, a daily newspaper of general
circulation, published in English at Artesia, said county
and county and state, and that the here to attached

Legal Notice

was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for
1 Consecutiv week/days on the same

day as follows:

First Publication March 5 2006

Second Publication _____

Third Publication _____

Fourth Publication _____

Subscribed and sworn to before me this

6th Day March 2006

Notary Public, Eddy County, New Mexico

My Commission expires September : 23, 2007**Copy of Publication:**

Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well the Cordova SWD No. 1 located in 2005' FNL & 660' FWL, Unit E, Section 25, Township 24 South, Range 27 East of Eddy County, New Mexico, will be used for salt-water disposal. Disposal waters from the Delaware Sands will be re-injected into the Delaware Sand at a depth of 2452'-4, 152' with a maximum pressure of 1526 psi and a maximum rate of 5000 BWPD.

All interested parties opposing the forementioned must file objections or requests for a hearing with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505-5472, within 15 days. Additional information can be obtained by contacting James M. Hill at (505) 748-4219.


Published in the Artesia Daily Press, Artesia, N.M. March 5, 2006.

Legal 19179

Attachment G

C-108 Application for Authorization to Inject
Yates Petroleum Corporation
Cordova SWD No. 1
API No. 30-015-23751
Unit E Sec. 25, T24S, R27E
Eddy County, New Mexico

Available engineering and geological data have been examined and no evidence of open faults of hydrologic connection between the disposal zone and any underground sources of drinking water has been found.



Ray Todany
Geologist
Yates Petroleum Corporation

3-1-2006

Date