

DATE IN 3-18-05	SUSPENSE 4/2/05	ENGINEER Jones	LOGGED IN 3-21-05	TYPE SWD	APP NO PSEM0508033445
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



30-005-63706

### ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

#### Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [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 - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD  
 Check One Only for [B] or [C]  
 [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM ☐ SAN FRANCISCO  
 [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR  
 [D] Other: Specify \_\_\_\_\_

- [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

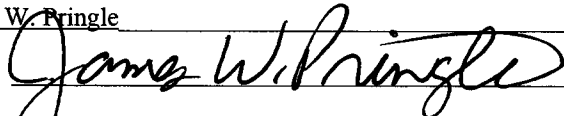
- [3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

- [4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

James W. Pringle      James W. Pringle      Operations Eng      3/15/05  
 Print or Type Name      Signature      Title      Date  
 jpringle@ypcnm.com  
 e-mail Address

**APPLICATION FOR AUTHORIZATION TO INJECT Pay SWD #2 30-005-63706**

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage  
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Yates Petroleum Corporation  
ADDRESS: 105 South 4<sup>th</sup> Street, Artesia, New Mexico 88210  
CONTACT PARTY: James W. Pringle PHONE: (505) 748-4182
- 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 X 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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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 sources 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: James W. Pringle TITLE: Operations Engineer  
SIGNATURE:  DATE: 03-08-05  
E-MAIL ADDRESS: jpringle@ypcnm.com
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

### 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 the 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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

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

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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.

## INJECTION WELL DATA SHEET

OPERATOR: Yates Petroleum Corporation

WELL NAME &amp; NUMBER: Pay SWD #2

WELL LOCATION: 660' FSL & 660' FWL  
FOOTAGE LOCATION

UNIT LETTER M

SECTION 11

TOWNSHIP 8S

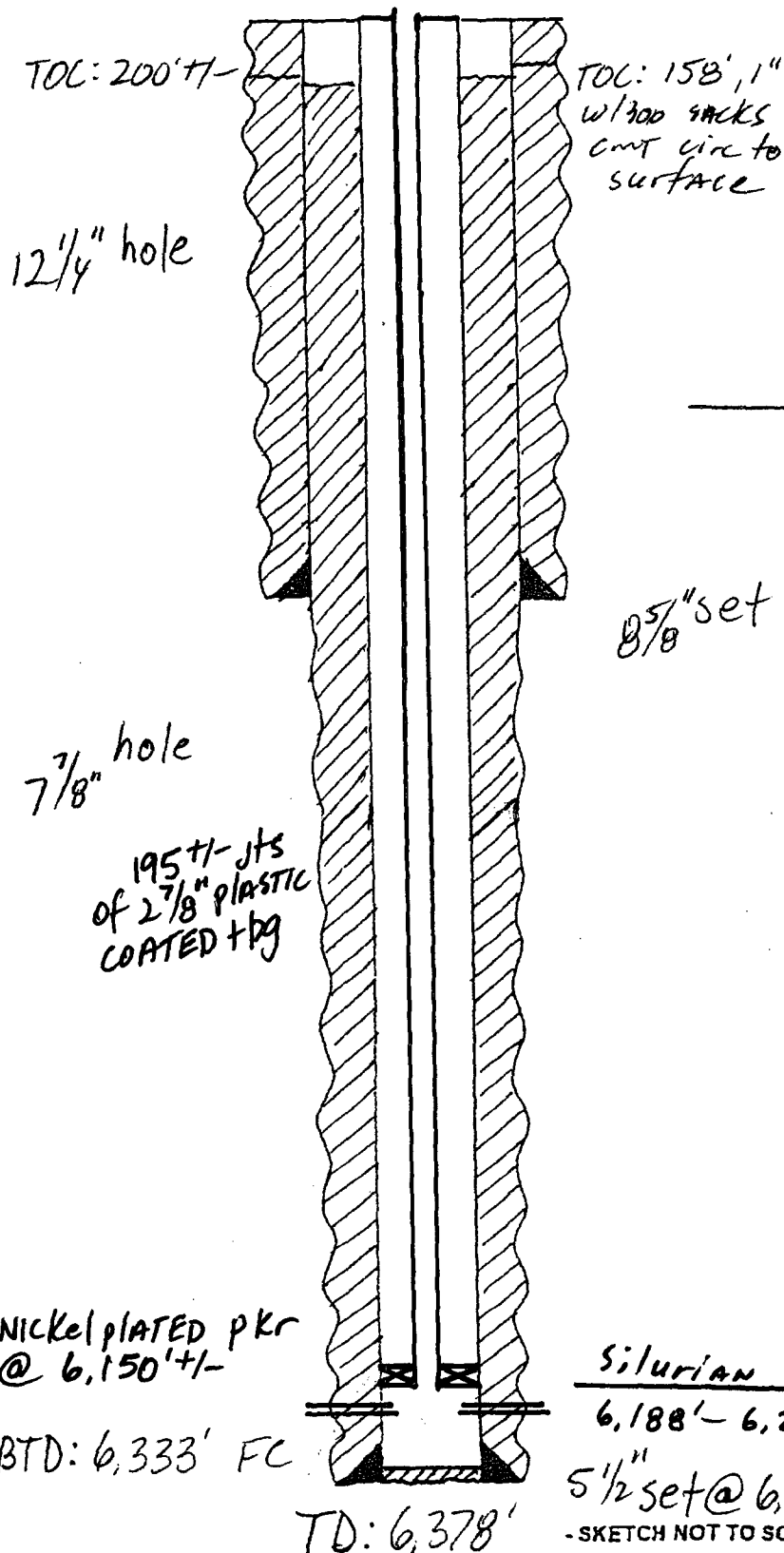
RANGE 26E

WELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingHole Size: 12 1/4" Casing Size: 8 5/8" @ 1,048'Cemented with: 1,200 sx. or ft<sup>3</sup>Top of Cement: surface Method Determined: visualIntermediate CasingHole Size:                      Casing Size:                     Cemented with:                      sx. or ft<sup>3</sup>Top of Cement:                      Method Determined:                     Production CasingHole Size: 7 7/8" Casing Size: 5 1/2"Cemented with: 1,125 sx. or ft<sup>3</sup>Top of Cement: 200' Method Determined: CBLTotal Depth: 6,378'Injection Interval6,188' feet to 6,222' perforated

(Perforated or Open Hole; indicate which)

WELLNAME: PAV "AYV" Fed. Com #2 FIELD: N. FOOR RANCH  
 LOCATION: 660' FSL & 660' FWL, SEC 11 TBS, R26E, CHAVES Co, NM.  
 GL: 3,899' ZERO: \_\_\_\_\_ AGL: \_\_\_\_\_ KB: 3,918"  
 SPUD DATE: 11/19/05 COMPLETION DATE: \_\_\_\_\_  
 COMMENTS: \_\_\_\_\_

CASING PROGRAM	
SIZE/WT/GR/CONN	DEPTH SET
8 5/8", 24.0 #14, J-55, STX	1,048'
5 1/2", 15.50 #14, J-55, LTH	6,378'



8 5/8" set @ 1,048' cmtD w/ 900 SACKS

Silurian

6,188' - 6,222' w/ 4 js pf

5 1/2" set @ 6,378' cmtD w/ 1,125 SACKS  
 DATE: 2/7/05 JLP

- SKETCH NOT TO SCALE -

**INJECTION WELL DATA SHEET**

Tubing Size: 2 7/8" Lining Material: plastic

Type of Packer: Guiberson Uni-VI nickel plated

Packer Setting Depth: 6,150' +/-

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

1. Is this a new well drilled for injection? \_\_\_\_\_ Yes X No \_\_\_\_\_

If no, for what purpose was the well originally drilled? the well was drilled to be a producing  
oil or gas well

2. Name of the Injection Formation: Silurian

3. Name of Field or Pool (if applicable): Foor Ranch, North (Pre-Permian)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. no

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Strawn top of Strawn - 5848', Cisco top of Cisco - 5714'

Wolfcamp top of WLF - 5150', Abo top of Abo - 4450'

**C-108 Application for Authorization to Inject  
Yates Petroleum Corporation  
Pay SWD #2  
Unit M Sec. 11, T8S, R26E  
Chaves County, New Mexico**

- I. The purpose of completing this well is to make a disposal well for produced Cisco water into the Silurian Dolomite Formation.**

**Yates Petroleum Corporation plans to convert this well to a water disposal well into the Silurian formation.**

- II. Operator: Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, NM 88210  
James W. Pringle (505) 748-4182**
- III. Well Data: See Attachment A**
- IV. This is not an expansion of an existing project.**
- V. See attached map, Attachment B.**
- VI. Three wells within the area of review penetrate the proposed injection zone. (See Attachment C)**
- VII. 1. Proposed average daily injection volume approximately 1000 BWPD. Maximum daily injection volume approximately 1750 BWPD.**
- 2. This will be a closed system.**
- 3. Proposed average injection pressure – 750 psi.  
Proposed maximum injection pressure – 1000 psi.**
- 4. Sources of injected water would be produced water from the Cisco. (Attachment D)**
- VIII. 1. The proposed injection interval is the Silurian from 6188' - 6222'.**

**Underground water sources of drinking water are in the Alluvial fill from surface to 300'.**

**Application for Authorization to Inject  
Pay SWD #2**

**-2-**

**2. Possible Fresh water zones overlie the proposed injection formations at depths to approximately 300'. There are no water zones underlying the formation.**

**IX. The proposed disposal interval may be acidized with 20% HCL acid.**

**X. Logs were filed at your office when the well was drilled.** ✓

**XI. 0 water wells exists 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 letter sent to the surface owner and offset operators attached (Attachment E)**

**B. Copy of legal advertisement attached. (Attachment F)**

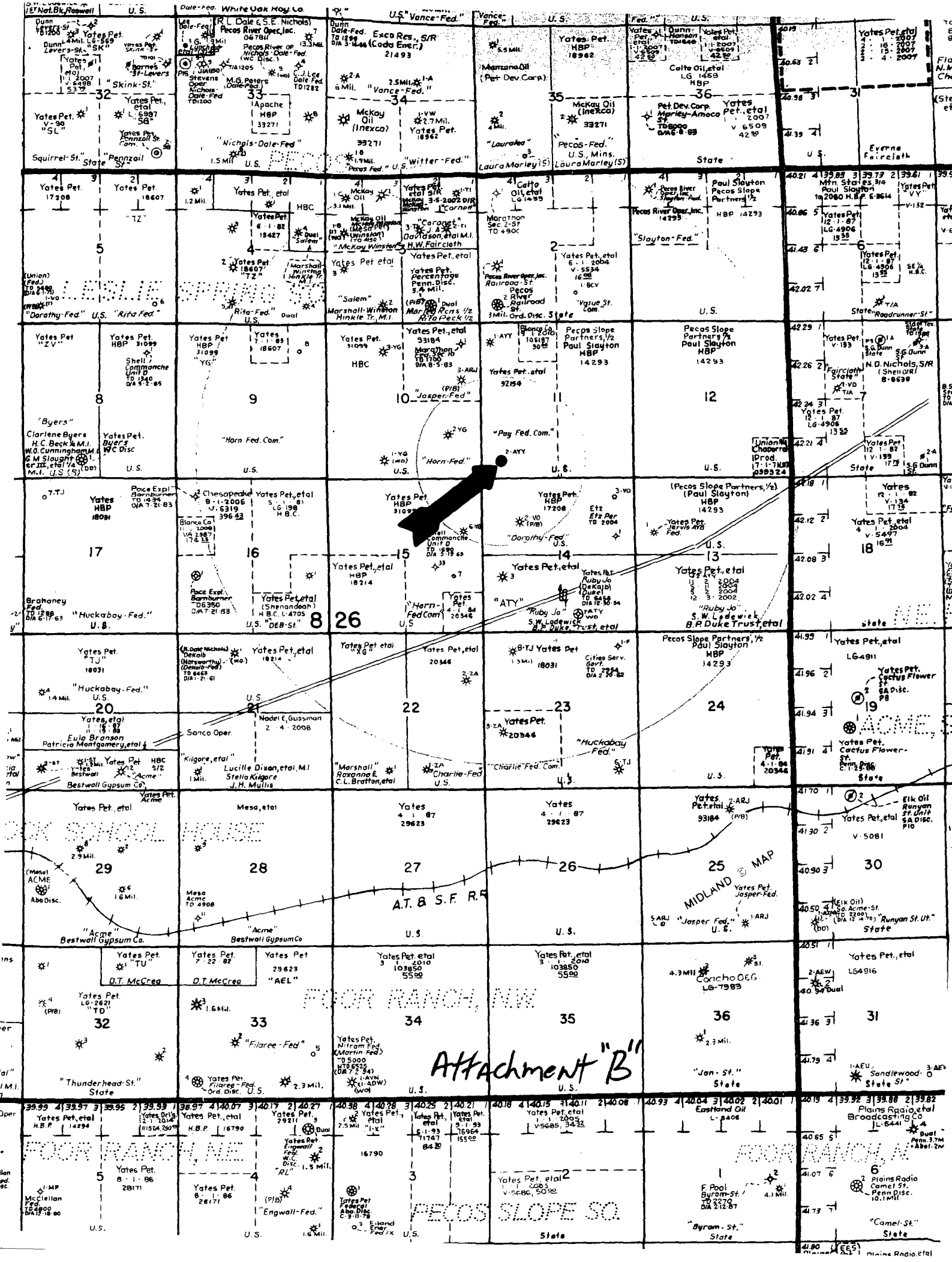
**XIV. Certification is signed.**



**Yates Petroleum Corporation  
Pay SWD #2  
Chaves County, New Mexico**

**Attachment A**

- III. Well Data
- A.
1. Lease Name/Location  
Pay SWD #2  
M-Sec 11, T8S-R26E  
660' FSL & 660' FWL
  2. Casing Strings:
    - a. Present well condition  
8 5/8", 24.00#, J-55 ST&C set @ 1,048' (circ)  
5 1/2", 15.50#, J-55, LT&C set @ 6,378', TOC – 200'+/-
    - b. Present Status:  
SI waiting on completion
  3. Proposed well condition:  
Casing same as above.  
2 7/8" plastic-coated tubing w/ a nickel-plated Guiberson Uni-VI packer set @ 6,150' +/-.
- B.
1. Injection Formation: Silurian.
  2. Injection Interval will be through perforations from approximately 6,188' to 6,222'.
  3. Well was originally drilled as an exploratory Silurian well. Well will be a Silurian disposal well.
  4. Next higher (shallower) oil or gas zone within 2 miles - Strawn.  
Next lower (deeper) oil or gas zone within 2 miles - none.



Yates Petroleum Corporation  
Pay SWD #2  
Unit M, Sec. 11, T8S-R26E  
Chaves County, New Mexico

Tabulation of data on wells within area of review

API	Well Name	Well #	Operator Name	Type	Spud Date	Comp Date	Total Depth	Producing Zone	Perforations	Completion Information
30-005-63220	Horn YG Federal	2	Yates Petroleum Corporation	Gas	2/15/00	5/17/00	6,040'	Pecos Slope Abo - N Four Ranch Pre-Permian	4,436' - 4,776' 5,418' - 5,802'	8 5/8" @ 932' (circ) 5 1/2" @ 6,038' TOC @ 3,850'
30-005-63462	Horn YG Federal	6	Yates Petroleum Corporation	Gas	5/11/02	10/15/02	6,565'	Pecos Slope Abo	4,452' - 4,825'	8 5/8" @ 1,012' (circ) 5 1/2" @ 6,565' TOC @ 3,670'
30-005-63376	Dorothy VO Federal	2	Yates Petroleum Corporation	Gas	6/22/01	4/26/02	6,531'	Pecos Slope Abo	4,566' - 4,950'	8 5/8" @ 1,004' (circ) 5 1/2" @ 6,531' TOC @ 2,880'

X



# Water Analysis

Date: 12/30/2004

2401 Sivley, Artesia NM 88210  
Phone (505) 746-3140 Fax (505) 746-2293

## Analyzed For

Company	Well Name	County	State
Yates Petroleum Corp.	Ruby Jo 1	<del>Chaves</del> Chaves	New Mexico

## Sample Source

## Sample #

1

## Formation

## Depth

Specific Gravity	1.165	SG @ 60 °F	1.167
pH	6.04	Sulfides	Not Tested
Temperature (°F)	70	Reducing Agents	Not Tested

## Cations

Sodium (Calc)	in Mg/L	66,098	in PPM	56,640
Calcium	in Mg/L	20,000	in PPM	17,138
Magnesium	in Mg/L	1,200	in PPM	1,028
Soluble Iron (FE2)	in Mg/L	25.0	in PPM	21

## Anions

Chlorides	in Mg/L	140,000	in PPM	119,966
Sulfates	in Mg/L	400	in PPM	343
Bicarbonates	in Mg/L	24	in PPM	21

Total Hardness (as CaCO3)	in Mg/L	55,000	in PPM	47,129
Total Dissolved Solids (Calc)	in Mg/L	227,748	in PPM	195,157
Equivalent NaCl Concentration	in Mg/L	195,120	in PPM	167,198

## Scaling Tendencies

\*Calcium Carbonate Index 488,000

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

\*Calcium Sulfate (Gyp) Index 8,000,000

Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable

\*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

## Remarks

Report # 1710

Attachment "D"  
(produced water)

CISO du  
water

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118  
TELEPHONE (505) 748-1471

S. P. YATES  
CHAIRMAN OF THE BOARD  
JOHN A. YATES  
PRESIDENT  
PEYTON YATES  
EXECUTIVE VICE PRESIDENT  
RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

March 8, 2005

Bureau of Land Management  
Armando Lopez  
2909 2<sup>nd</sup> Street  
Roswell, New Mexico 88201

Dear Mr. Lopez;

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation's Pay SWD #2, located in; Unit M, Section 11, T8S-R26E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4182.

Sincerely,

A handwritten signature in cursive script that reads 'James W. Pringle'.

James W. Pringle  
Operations Engineer

JWP  
Enclosure

MARTIN YATES, III  
1912 - 1985  
FRANK W. YATES  
1936 - 1986



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ARTESIA, NEW MEXICO 88210-2118  
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RANDY G. PATTERSON  
SECRETARY  
DENNIS G. KINSEY  
TREASURER

March 8, 2005

Oil Conservation Division  
Tim Gum  
1301 Grand Ave.  
Artesia, New Mexico 88210

Dear Mr. Gum;

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates Petroleum Corporation's Pay SWD #2, located in Unit M, Section 11, T8S-R26E, Chaves County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 748-4182.

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James W. Pringle  
Operations Engineer

JWP  
Enclosure

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1912 - 1985  
FRANK W. YATES  
1936 - 1986



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SECRETARY  
DENNIS G. KINSEY  
TREASURER

February 28, 2005

Roswell Daily Record  
2301 N. Main  
Roswell, New Mexico 88240

Gentlemen:

Yates Petroleum Corporation desires to place a public notice in your newspaper for one day. The notice is enclosed. Please place this notice in your paper on Sunday, March 6, 2005 and forward a copy of it with your billing as soon as possible to:

Yates Petroleum Corporation  
105 S 4<sup>th</sup> Street  
Artesia, NM 88210  
**Attn: James W. Pringle**

If you have any questions, please contact me at 748-4182. Thank you for your cooperation in this matter.

Sincerely,

James W. Pringle  
Operations Engineer

JWP  
Enclosure

## **Attachment F**

### **Legal Notice**

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 Pay SWD #2, located in Unit M, Section 11, T8S-R26E, Chaves County, New Mexico, will be used for salt water disposal. Disposal waters from the Cisco will be re-injected into the Silurian at a depth of 6188'- 6222' with a maximum pressure of 1,000 psig and a maximum rate of 1750 BWPD.

All interested parties opposing the aforementioned 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. Contacting James W. Pringle at (505) 748-4182 can obtain additional information.



AFFIDAVIT OF PUBLICATION

COUNTY OF CHAVES  
STATE OF NEW MEXICO

I, Fran Saunders,  
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of:

one time

beginning with the issue dated

March 6th 2005

and ending with the issue dated

March 6th 2005

-----

*Fran Saunders*  
Clerk

Sworn and subscribed to before me

This 8th Day of March 2005

*Marylon L. Shipper*  
Notary Public

My Commission expires  
July 25, 2006

(SEAL)

**Publish March 6, 2005**

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**Attachment G**

C-108 Application for Authorization to Inject  
Yates Petroleum Corporation  
Pay SWD #2  
Unit M Sec. 11, T8S, R26E  
Chaves 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.

  
\_\_\_\_\_  
Tim Miller  
Geologist  
Yates Petroleum Corporation

3-2-05  
Date