

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NM OIL CONS COMMISSION  
Drawer DD  
NM 88210  
Artes (BORM) APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	7. If Unit or CA, Agreement Designation
2. Name of Operator Harvey E. Yates Company	8. Well Name and No. ARCO 5 FED. # 1
3. Address and Telephone No. P.O. Box 1993, Roswell, NM 88202 1-505-623-6601	9. API Well No. 30-015-26197
4. Location of Well (Footage, Sec., T., R., M, or Survey Description) E, 790' FWL & 1700' FNL SEC. 5, T-18S, R-31E	10. Field and Pool, or Exploratory Area SHUGART BONE SPRING, N.
	11. County or Parish, State EDDY CO., NM

12. CHECK APPROPRIATE BOX(es) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other
	<input type="checkbox"/> Change in Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log Form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

1. FORMATION: SHUGART BONE SPRING, N.  
2. BWPD: 6  
3. WTR ANALYSIS: SEE ATTACHED  
4. LEASE STORAGE: IN FIBERGLASS TANK  
5. WATER TRANSPORTED: BY TRUCK TO DISPOSAL  
6. OPERATOR: TENNESSEE WATER DISPOSAL  
TENNESSEE FEDERAL WELL # 1  
UNIT I, SEC. 21, T-19S, R-31E  
EDDY COUNTY, NM

OR LOCO HILLS WATER DISPOSAL COMPANY  
SEC. 16, T-17S, R-30E  
EDDY COUNTY, NM

14. I hereby certify that the foregoing is true and correct

Signed RAY E. NOKES Title PROD. MGR./ ENG. Date 12/16/94

(This space for Federal or State office use)

Approved by (ORIG. SGD.) JOE G. LARA Title PETROLEUM ENGINEER Date 1/13/95  
Conditions of approval, if any: See attached.



## Water Analysis Report

Analysis Number : 000003170

Company.....: Heyco  
 Location.....: Roswell, New Mexico  
 Field.....:  
 Lease.....: Arco Fed.  
 Sample Source....: Wellhead

Date of Sampling.....: 10/19/94  
 Date of Analysis.....: 10/19/94  
 Baker Representative.: Steven Stroud  
 Well#.....: 5-1  
 Analysis by.....: Stroud

## DISSOLVED SOLIDS

## CATIONS:

	mg/l	mc/l
Ca++	4440.00	222.00
Mg++	3025.60	248.00
Fe+++	5.00	0.27
Ba++	0.00	0.00
Na+	51654.09	2245.83
Mn++	0.00	0.00

## ANIONS:

Cl-	95000.00	2676.06
SO4--	1850.00	38.54
HCO3-	91.50	1.50
CO3--	0.00	0.00
OH-	0.00	0.00
S-	0.00	0.00
TOTAL HARDNESS.....		470.00
TOTAL SOLIDS (quantitative).....		156066.20
RESIDUAL HYDROCARBONS(ppm).....		0.00

\* = not determined

## DISSOLVED GASES

Hydrogen Sulfide, H2S.....	0.0
Carbon Dioxide, CO2.....	59.4
Oxygen, O2.....	0.0

## PHYSICAL PROPERTIES

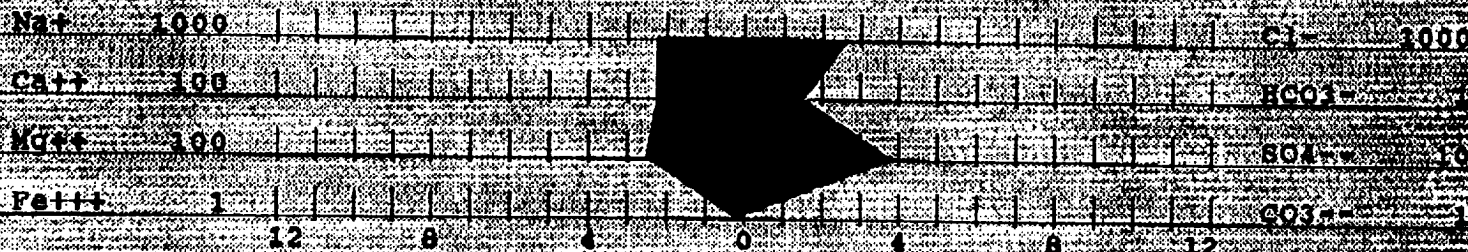
pH.....	5.9
Specific Gravity.....	1.075
TDS (calculated) ppm.....	156066.2
TIS (calculated) .....	3.0

## SCALE STABILITIES

Temp.	°C	°F	CaCO3	CaSO4	BaSO4
	20	68	-0.95	4090	0
	30	86	-0.74	4348	0
	40	104	-0.50	4988	0
Max entity, (calculated):				2750	0

## WATER ANALYSIS PATTERN

(number beside ion symbol indicates mc/l scale unit)



NOTES:

BUREAU OF LAND MANAGEMENT  
CARLSBAD RESOURCE AREA

Disposal of Produced Water From Federal Wells

Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency be notified of any change in your method or location of disposal.
2. Compliance with all provisions of Onshore Oil and Gas Order No. 7.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. All aboveground structures on the lease shall be painted sandstone brown, Federal Std. 595-20318, or 30318, within 90 days if you have not already done so.
6. Any on lease open top storage tanks or pits shall be covered with a wire screen or plastic/nylon netting to prevent entry by birds and other wildlife.
7. This approval does not constitute right-of-way approval for any off lease activities. If water is transported via a pipeline that extends beyond the lease boundary, you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.