

50-110-10242

8/27/63

(2)

Formation

Sensitivity Log

NO. 36

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
811 S. 1st Str
Artesia, NM 88210-2834

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

CISF

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

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Yates Drilling Company

3. Address and Telephone No.

105 South 4th Street, Artesia, NM 88210 505-748-4500

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

990' FNL & 2040' FWL Section 19-18S-29E

5. Lease Designation and Serial No.

NM-05525-B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

South Loco Hills Waterflood

8. Well Name and No.

South Loco Hills #1

9. API Well No.

30 015 10242

10. Field and Pool, or Exploratory Area

Loco Hills, Qn, GRB, SA

11. County or Parish, State

Eddy County, NM

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

TYPE OF SUBMISSION

- ☐ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

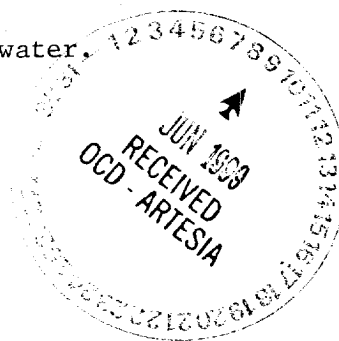
- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☐ Other _____
- ☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☒ Dispose Water

(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.)*

Yates Drilling Company respectfully requests permission to dispose of the produced water from the captioned well
The well produces approximately 5 barrels of water per day from the Grayburg formation.
The water is stored on location in a 210 barrel fiberglass tank.
The water will be trucked and disposed of by McDaniel Trucking to the Walter Solt SWD-130, Section 5-18S-28E, Eddy County, NM, OCD #SWD-318 or the Loco Hills SWD, Section 16-17S-30E, Eddy County, NM, OCD #R-6811-A.

Enclosed is a water analysis for the produced water.



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LAND RESOURCE AREA

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

Signed Loren J. Leudnai

Title Engineering Technician

(This space for Federal or State office use)

Approved by (ORIG. SGD.) GARY GOURLEY

Title PETROLEUM ENGINEER

Date JUN 08 1999



MILLER CHEMICALS, INC.

Post Office Box 298
Artesia, N.M. 88211-0298
(505) 746-1919 Office
(505) 746-1918 Fax

WATER ANALYSIS REPORT

Company : YATES DRILLING
Address : ARTESIA, NM
Lease : SLHU
Well : #1
Sample Pt. : WATER TANK

Date : 5/1/99
Date Sampled : 4/30/99
Analysis No. : 0091

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OFFICE OF LAND MGMT.
NATURAL RESOURCE AREA

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH	7.1			
2. H2S	0			
3. Specific Gravity	1.120			
4. Total Dissolved Solids		169714.4		
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	427.0	HCO3	7.0
12. Chloride	Cl	102240.0	Cl	2884.1
13. Sulfate	SO4	1500.0	SO4	31.2
14. Calcium	Ca	14000.0	Ca	698.6
15. Magnesium	Mg	-476.4	Mg	-39.2
16. Sodium (calculated)	Na	52023.9	Na	2262.9
17. Iron	Fe	NR		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO3)		33000.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	=	mg/L
+-----+	+-----+				
699 *Ca <----- *HCO3	7	Ca (HCO3) 2	81.0	7.0	567
----- /----->	-----	CaSO4	68.1	31.2	2126
-39 *Mg -----> *SO4	31	CaCl2	55.5	660.4	36644
----- <-----/	-----	Mg (HCO3) 2	73.2		
2263 *Na -----> *Cl	2884	MgSO4	60.2		
+-----+	+-----+	MgCl2	47.6		
Saturation Values Dist. Water 20 C		NaHCO3	84.0		
CaCO3	13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O	2090 mg/L	NaCl	58.4	2223.7	129953
BaSO4	2.4 mg/L				

REMARKS:

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ARTESIA AND MONTICELLO
FEDERAL RESERVE AREA

SCALE TENDENCY REPORT

Company	: YATES DRILLING	Date	: 5/1/99
Address	: ARTESIA, NM	Date Sampled	: 4/30/99
Lease	: SLHU	Analysis No.	: 0091
Well	: #1	Analyst	: A. MILLER
Sample Pt.	: WATER TANK		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	1.6	at	60 deg. F	or	16 deg. C
S.I. =	1.7	at	80 deg. F	or	27 deg. C
S.I. =	1.7	at	100 deg. F	or	38 deg. C
S.I. =	1.8	at	120 deg. F	or	49 deg. C
S.I. =	1.8	at	140 deg. F	or	60 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	1150	at	60 deg. F	or	16 deg. C
S =	1275	at	80 deg. F	or	27 deg. C
S =	1356	at	100 deg. F	or	38 deg. C
S =	1395	at	120 deg. F	or	49 deg. C
S =	1425	at	140 deg. F	or	60 deg. C

Respectfully submitted,
A. MILLER