

Form 3160-5
(July 1989)
(Formerly 9-331)

N. M. OIL CONS. COMMISSION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BLM Roswell District
Modified Form No.
NM60-3160-4

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		3a. Area Code & Phone No. 505-622-1127		8. FARM OR LEASE NAME Lechuza Federal	
2. NAME OF OPERATOR Strata Production Company				9. WELL NO. #2	
3. ADDRESS OF OPERATOR P. O. Box 1030, Roswell, New Mexico 88202-1030				10. FIELD AND POOL, OR WILDCAT East Livingston Ridge Delaware	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1650' FSL & 1650' FWL				11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 15-22S-32E	
14. PERMIT NO. 30-025-31603		15. ELEVATIONS (Show whether DF, RT, GR, etc.) 3728' GR		12. COUNTY OR PARISH Lea	
				13. STATE NM	

Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

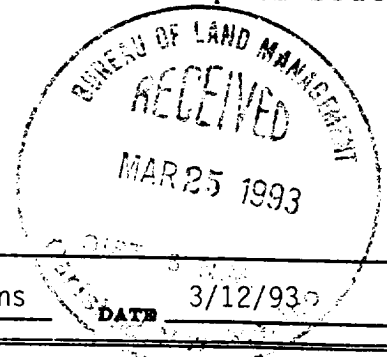
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

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

17. 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.)

In response to your letter dated February 4, 1993 regarding the NTL-2B approval, please review the following:

- a) Produces from the Delaware formation.
- b) Produces approximately 224 bbls water per day.
- c) Water analysis attached.
- d) Produced water is moved via 3" poly pipe to the Gilmore Federal #1 SWD. Water is not stored on location.
- e) Gilmore Federal #1 SWD is operated by Strata Production Company and is located 1980' FSL & 660' FEL in Section 21, Township 22 South, Range 32 East, Lea County. SWD-470.
- f) No pits on location.
- g) SWD-470.



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

SIGNED Frank J. Murray

TITLE Vice President/Operations

DATE 3/12/93

(This space for Federal or State office use)

APPROVED BY (WING. SEC.) JOE G. LARA

TITLE Assistant Secretary

DATE 4/30/93

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

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. That this agency be notified of any change in your method or location of disposal.
2. Compliance with all provisions of NTL-2B.
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 shall be covered with a wire screen to prevent entry by birds and other wildlife.
7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
8. If water is transported via a pipeline that extends beyond the lease boundary, then 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.

SCALE TENDENCY REPORT

Company	: STRATA PRODUCTION	Date	: 11/25/92
Address	: ARTESIA, NEW MEXICO	Date Sampled	: 11/20/92
Lease	: LECHUZA FEDERAL	Analysis No.	: 2820
Well	: #2	Analyst	: SHELIA DEARMAN
Sample Pt.	: WELLHEAD		

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

S.I. =	-0.2	at	60 deg. F	or	16 deg. C
S.I. =	-0.3	at	80 deg. F	or	27 deg. C
S.I. =	-0.3	at	100 deg. F	or	38 deg. C
S.I. =	-0.3	at	120 deg. F	or	49 deg. C
S.I. =	-0.3	at	140 deg. F	or	60 deg. C

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

S =	466	at	60 deg. F	or	16 deg C
S =	518	at	80 deg. F	or	27 deg C
S =	551	at	100 deg. F	or	38 deg C
S =	564	at	120 deg. F	or	49 deg C
S =	573	at	140 deg. F	or	60 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SHELIA DEARMAN

TRETOLITE

Chemicals and Services



16010 Barker's Point Lane • Houston, Texas 77079
713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

Reply to: P.O. Box FF
Artesia, New Mexico 88210
(505) 746-3588 Phone
(505) 746-3580 Fax

WATER ANALYSIS REPORT

Company : STRATA PRODUCTION
Address : ARTESIA, NEW MEXICO
Lease : LECHUZA FEDERAL
Well : #2
Sample Pt. : WELLHEAD

Date : 11/25/92
Date Sampled : 11/20/92
Analysis No. : 2820

ANALYSIS		mg/L		* meq/L
1. pH	5.6			
2. H ₂ S	3 PPM			
3. Specific Gravity	1.190			
4. Total Dissolved Solids		294497.9		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO ₂		100 PPM		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)		40.0		
11. Bicarbonate	HCO ₃	48.8	HCO ₃	0.8
12. Chloride	Cl	184090.1	Cl	5192.9
13. Sulfate	SO ₄	95.0	SO ₄	2.0
14. Calcium	Ca	25683.3	Ca	1281.6
15. Magnesium	Mg	6096.9	Mg	501.6
16. Sodium (calculated)	Na	78454.0	Na	3412.5
17. Iron	Fe	29.7		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO ₃)		89240.2		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	X meq/L	= mg/L
1282 *Ca <----- *HCO ₃	Ca(HCO ₃) ₂	81.0	0.8	65
----- /----->	CaSO ₄	68.1	2.0	135
502 *Mg -----> *SO ₄	CaCl ₂	55.5	1278.8	70962
----- <----- /	Mg(HCO ₃) ₂	73.2		
3413 *Na -----> *Cl	MgSO ₄	60.2		
----- +----- +	MgCl ₂	47.6	501.6	23879
Saturation Values Dist. Water 20 C	NaHCO ₃	84.0		
CaCO ₃ 13 mg/L	Na ₂ SO ₄	71.0		
CaSO ₄ * 2H ₂ O 2090 mg/L	NaCl	58.4	3412.5	199428
BaSO ₄ 2.4 mg/L				

REMARKS:

----- D. CANDA / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SHELIA DEARMAN