



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Resource Area Headquarters

P. O. Box 1778

Carlsbad, New Mexico 88220

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

August 8, 2000



3162

C/SF

OPERATOR: Pogo Producing Company Lease No. NM70895

WELL NO. & NAME Sundance 10 Federal #1

LOCATION: NW 1/4 NW 1/4, Sec. 10, T. 24 S., R. 31 E., Eddy County, N.M.

The check list below indicates the information needed before your Waste or Salt Water Disposal method can be approved:

- Delaware Name(s) of formation(s) producing water on the lease.
- 109 BWPD Amount of water produced from each formation in barrels per day.
- Attached A water analysis of produced water from each zone shown at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates.
- 500 BBL FG tank How water is stored on the lease.
- Pipeline How water is moved to disposal facility.
- Ricks Exploration  
Little Field Fed. #1  
B/11/T24S/R31E  
Eddy County, NM  
NM-29234 Operator's name, well name and location, by 1/4 section, township and range, of the disposal facility. If the disposal facility is an approved disposal system, the operator's name and the name of the disposal system should suffice.

Supervisory Petroleum Engineer Technician

APPROVED  
SEP 18 2000

(ORIG. SGD.) DAVID R. GLASS

AUTHORIZED OFFICER, MINERAL  
BUREAU OF LAND MANAGEMENT

RECEIVED  
2000 AUG 10 P 12:32  
CARLSBAD RESOURCE AREA

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

# Endura Products Corp.

P.O. Box 3394 Midland, Texas 79706  
Phone (915) 684-4233 \* Fax (915) 684-4277

## WATER ANALYSIS

RECEIVED

2000 AUG 10 P 12:32

Date 7/24/95 Nutro Rep TERY SOLANSKY Code W-0045  
 Sampling Point/Date WELL HEAD - 7/22/95 State NEWMEXICO  
 Company POGO PRODUCING County EDDY  
 Field Lease SUNDANCE "10" FEDERAL Well #1

### DISSOLVED SOLIDS

<u>CATIONS</u>	mg/l	me/l
Sodium, Na <sup>+</sup> (Calc.)	116,081	5,047
Total Hardness as Ca <sup>++</sup>	6,080	0
Calcium, Ca <sup>++</sup>	5,160	258
Magnesium, Mg <sup>++</sup>	561	47
Barium, Ba <sup>++</sup>	2	0
Iron (Total) Fe <sup>+++*</sup>	32	2

### ANIONS

Chlorides, Cl <sup>-</sup>	190,000	5,352
Sulfate, SO <sub>4</sub> <sup>-</sup>	0	0
Carbonate, CO <sub>3</sub> <sup>-</sup>	0	0
Bicarbonate, HCO <sub>3</sub> <sup>-</sup>	98	2
Sulfide, S <sup>-*</sup>	0	0
Total Dissolved Solids (Calc.)	311,934	

### OTHER PROPERTIES

pH*	5.900
Specific Gravity, 60°/60 F	1.177
TURBIDITY	125

### SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO<sub>3</sub></u>	<u>CASO<sub>4</sub>*2H<sub>2</sub>O</u>	<u>CA SO<sub>4</sub></u>	<u>BA SO<sub>4</sub></u>
80	0.4587	-34.2494	-34.6295	-29.5015
120	1.0293	-34.2632	-34.4628	-29.6299
160	1.8909	-34.2749	-34.3019	-29.8336