



HALLIBURTON SERVICES  
HOBBES, NEW MEXICO

To Chaparral Energy

Sample Number 180

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ATT: Mr. Ron Brown Fax; 405-749-9996

Submitted by Metax

Date Received 05-20-93

Well No. Llano Federal #1 / Hodges Fed Depth #1 Formation San Andres

County Lea, NM Field Sandhill Greyburg SA Source

Resistivity..... 0.0965 @ 78 deg F

Specific Gr..... 1.055

pH..... 8.6

Calcium\*..... 3000

Ca

Magnesium\*..... 2550

Mg

Chlorides\*..... 42000

Cl

Sulfates\*..... 3111

SO<sub>4</sub>

Bicarbonates\*..... 1468

HCO<sub>3</sub>

Soluble Iron\*..... nil

Fe

Remarks:

\*Milligrams per liter

Respectfully submitted,

Analyst: JLEUARK

HALLIBURTON COMPANY

By

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLES TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR

BUREAU OF LAND MANAGEMENT  
CARLEBAD 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 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. 595-20313, or 30313, 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, 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.