

WATER ANALYSIS REPORT



NL Treating Chemicals/NL Industries, Inc.
P. O. Box 4305 Houston, Texas 77210

				SHEET NUMBER	
COMPANY <i>TEXACO Producing Inc. (Gulf)</i>				DATE <i>6-18-85</i>	
FIELD <i>EUNICE AREA</i>			COUNTY OR PARISH <i>LEA</i>		STATE <i>Nm</i>
LEASE OR UNIT <i>A.L. Christmas "NCT-C"</i>		WELL(S) NAME OR NO. <i>#8A</i>		WATER SOURCE (FORMATION) <i>SAN ANDRES</i>	
DEPTH, FT.	BHT, F	SAMPLE SOURCE <i>Wellhead</i>	TEMP, F	WATER, BBL/DAY	OIL, BBL/DAY
DATE SAMPLED <i>6-18-85</i>		TYPE OF WATER ☒ PRODUCED ☐ SUPPLY ☐ WATERFLOOD ☐ SALT WATER DISPOSE			

WATER ANALYSIS PATTERN (NUMBER BESIDE ION SYMBOL INDICATES me/l* SCALE UNIT)

Na ⁺ 20	15	10	5	0	5	10	15	20 Cl ⁻
Ca ⁺⁺								HCO ₃ ⁻
Mg ⁺⁺								SO ₄ ⁼
Fe ⁺⁺⁺								CO ₃ ⁼

DISSOLVED SOLIDS

CATIONS
Total Hardness
Calcium, Ca⁺⁺
Magnesium, Mg⁺⁺
Iron (Total) Fe⁺⁺⁺
Barium, Ba⁺⁺
Sodium, Na⁺(calc.)

me/l*	mg/l*
<u>60</u>	<u>400</u>
<u>20</u>	<u>488</u>
<u>40</u>	<u>0.5</u>
<u>90.2</u>	<u>2074.6</u>

DISSOLVED GASES

Hydrogen Sulfide, H₂S _____ mg/l*
Carbon Dioxide, CO₂ _____ mg/l*
Oxygen, O₂ _____ mg/l*

ANIONS

Chloride, Cl⁻
Sulfate, SO₄⁼
Carbonate, CO₃⁼
Bicarbonate, HCO₃⁻
Hydroxyl, OH⁻
Sulfide, S⁼

me/l*	mg/l*
<u>84.5</u>	<u>3000</u>
<u>0.5</u>	<u>25</u>
<u>33.9</u>	<u>2067.9</u>
<u>31.3</u>	<u>500</u>

PHYSICAL PROPERTIES

pH 7.1
Eh (Redox Potential) _____ MV
Specific Gravity _____
Turbidity, JTU Units _____
Total Dissolved Solids (calc.) 8556 mg/l*
Stability Index @ _____ F
@ _____ F
CaSO₄ Solubility @ _____ F _____ mg/l*
@ _____ F _____ mg/l*
Max. CaSO₄ Possible (calc.) _____ mg/l*
Max. BaSO₄ Possible (calc.) _____ mg/l*
Residual Hydrocarbons _____ ppm(Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

Complete Analysis plus PO₄ (As₂S₃) + Fe

*NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

BTC ENGINEER <i>W. ONER</i>		DIST. NO. <i>821</i>	ADDRESS		OFFICE PHONE	HOME PHONE
ANALYZED <i>Lianon / Crenan</i>		DATE <i>6/19/85</i>	DISTRIBUTION ☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE ☐ BTC ENGINEER OR ☐ BTC LAB ☐ BTC SALES SUPERVISOR			