

Permian Treating Chemicals

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Devon Energy
Lease : CW Trainer
Well No.: Fresh Water Well
Salesman:

Sample Loc. :
Date Analyzed: 04-January-1996
Date Sampled :

ANALYSIS

1. pH 9.090
2. Specific Gravity 60/60 F. 1.003
3. CaCO₃ Saturation Index @ 80 F. +0.906
@ 140 F. +1.606

Dissolved Gasses

- | | MG/L | EQ. WT. | *MEQ/L |
|---------------------|----------------|---------|--------|
| 4. Hydrogen Sulfide | Not Present | | |
| 5. Carbon Dioxide | Not Determined | | |
| 6. Dissolved Oxygen | Not Determined | | |

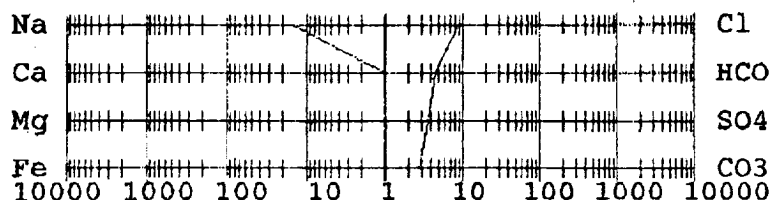
Cations

- | | | | |
|----------------------------------|--------------|----------|-------|
| 7. Calcium (Ca ⁺⁺) | 10 | / 20.1 = | 0.50 |
| 8. Magnesium (Mg ⁺⁺) | 6 | / 12.2 = | 0.49 |
| 9. Sodium (Na ⁺) | 348 | / 23.0 = | 15.13 |
| 10. Barium (Ba ⁺⁺) | Below 10 (6) | | |

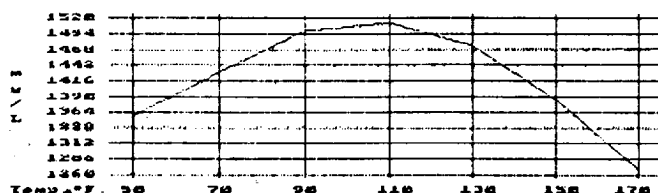
Anions

- | | | | |
|--|------------|----------|------|
| 11. Hydroxyl (OH ⁻) | 0 | / 17.0 = | 0.00 |
| 12. Carbonate (CO ₃ ⁼) | 77 | / 30.0 = | 2.57 |
| 13. Bicarbonate (HCO ₃ ⁼) | 259 | / 61.1 = | 4.24 |
| 14. Sulfate (SO ₄ ⁼) | 165 | / 48.8 = | 3.38 |
| 15. Chloride (Cl ⁻) | 300 | / 35.5 = | 8.45 |
| 16. Total Dissolved Solids | 1,088 | | |
| 17. Total Iron (Fe) | 1 | / 18.2 = | 0.05 |
| 18. Total Hardness As CaCO ₃ | 50 | | |
| 19. Resistivity @ 75 F. (Calculated) | 2.963 /cm. | | |

LOGARITHMIC WATER PATTERN *meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION			
COMPOUND	EQ. WT. X	*meq/L =	mg/L.
Cl Ca(HCO ₃) ₂	81.04	0.50	40
HCO ₃ CaSO ₄	68.07	0.00	0
SO ₄ CaCl ₂	55.50	0.00	0
CO ₃ Mg(HCO ₃) ₂	73.17	0.49	36
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	0.00	0
NaHCO ₃	84.00	3.25	273
NaSO ₄	71.03	3.38	240
NaCl	58.46	8.45	494

*Milli Equivalents per Liter

This water is somewhat corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

EXHIBIT "H"

