

SCALE TENDENCY REPORT  
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|            |                   |              |                   |
|------------|-------------------|--------------|-------------------|
| Company    | : YATES PETROLUEM | Date         | : 10/19/95        |
| Address    | : ARTESIA, NM     | Date Sampled | : 10/18/95        |
| Lease      | : ADELINE         | Analysis No. | : 003             |
| Well       | : BATTERY         | Analyst      | : SHAWNA MATTHEWS |
| Sample Pt. | : TANK            |              |                   |

STABILITY INDEX CALCULATIONS  
(Stiff-Davis Method)  
CaCO<sub>3</sub> Scaling Tendency

|      |   |      |    |            |    |           |
|------|---|------|----|------------|----|-----------|
| S.I. | = | -0.5 | at | 60 deg. F  | or | 16 deg. C |
| S.I. | = | -0.5 | at | 80 deg. F  | or | 27 deg. C |
| S.I. | = | -0.5 | at | 100 deg. F | or | 38 deg. C |
| S.I. | = | -0.5 | at | 120 deg. F | or | 49 deg. C |
| S.I. | = | -0.5 | at | 140 deg. F | or | 60 deg. C |

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

|   |   |     |    |            |    |          |
|---|---|-----|----|------------|----|----------|
| S | = | 476 | at | 60 deg. F  | or | 16 deg C |
| S | = | 529 | at | 80 deg. F  | or | 27 deg C |
| S | = | 562 | at | 100 deg. F | or | 38 deg C |
| S | = | 576 | at | 120 deg. F | or | 49 deg C |
| S | = | 586 | at | 140 deg. F | or | 60 deg C |

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
SHAWNA MATTHEWS