N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

Form 3160-5
(AUGUST 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE - Other instructions on reverse side***

5. Lease Serial No.: NMNM-18232
6. If Indian, Allottee or Tribe Name:
7. If Unit or CA, Agreement, Name and/or No.:
8. Well Name and No.: URSA MAJOR 8 FEDERAL #1
9. API Well No.: 30-025-34346-00-S1
10. Field and Pool, or Exploratory Area: YOUNG, BONE SPRING NORTH
11. County or Parish, State: LEA COUNTY, NM

1. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other
2. Name of Operator: Harvey E. Yates Company
3. Address: P.O. Box 1933, Roswell, NM 88202
3b. Telephone No. *(include area code)*: (505)623-6601
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*: SEC 8, T18S, R32E SWNW
1980' FNL & 660' FWL

12 CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☐ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (start/resume) | ☐ Water Shut-Off |
| ☑ Subsequent Report | ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Final Abandonment Notice | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☐ Other |
| | ☐ Change Plans | ☐ Plug & Abandon | ☐ Temporarily Abandon | |
| | ☐ Convert to Injection | ☐ Plug Back | ☑ Water Disposal | |

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

1. Formation: Bone Spring
2. BWPD: 0 (Well is SI)
3. Water Analysis: See Attached
4. Lease Storage: Stock tanks.
5. Water transported by truck to disposal.
6. Operator: I & W Inc.
PO Box 98
Loco Hills, NM 88255

to disposal well:
Walter Solt State SWD #1
Sec 5, T18S, R28E
Eddy County, NM

RECEIVED
AUG 2003
Hobbs OCD

ACCEPTED FOR RECORD
AUG 20 2003
GARY GOURLEY
PETROLEUM ENGINEER

Well is currently shut in.

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*: Jan Atkinson
Signature: Jan Atkinson
Title: Prod. Analyst
Date: 11-Mar-03

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by
Title
Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subjec lease which would entitle the applicant to conduct operations thereon.
Office

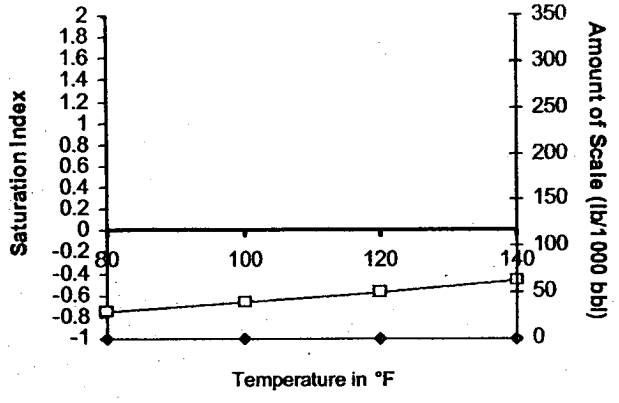
Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GWW

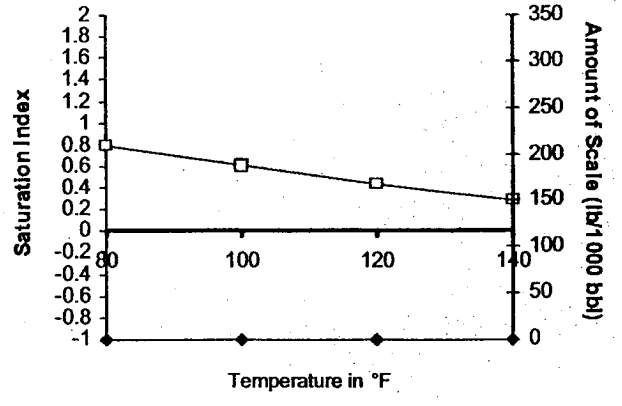
# Scale Predictions from Baker Petrolite

**Analysis of Sample 210905 @ 75 °F for HEYCO, 5/29/02**

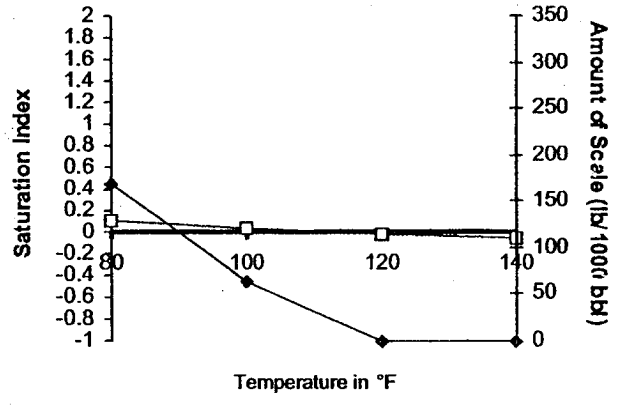
### Calcite - CaCO3



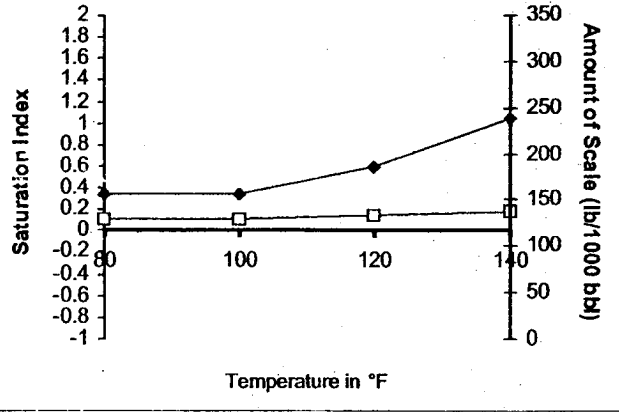

### Barite - BaSO4



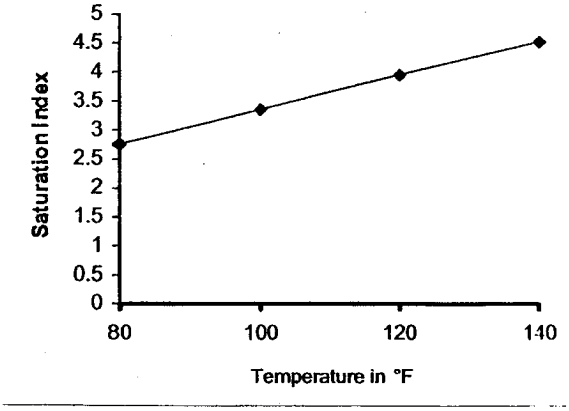

### Gypsum - CaSO4*2H20



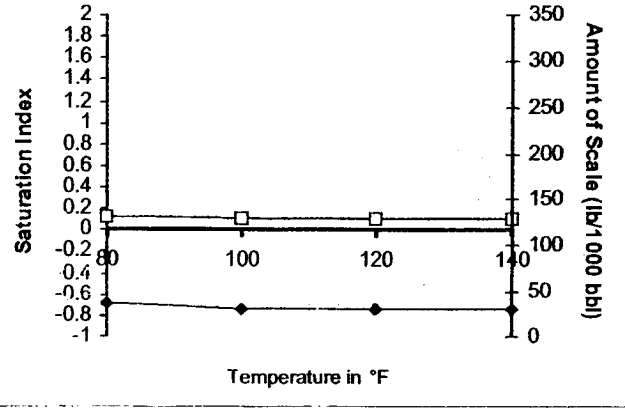

### Anhydrite - CaSO4




### Carbon Dioxide Partial Pressure




### Celestite - SrSO4



North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(915) 495-7240

# Water Analysis Report by Baker Petrolite

| | | | |
|---|---|---|---|
| Company: | HEYCO | Sales RDT: | 33517 |
| Region: | PERMIAN BASIN | Account Manager: | CURRY PRUIT (505) 910-9388 |
| Area: | HOBBS, NM | Sample #: | 210905 |
| Lease/Platform: | URSA MAJOR 8 FEDERAL | Analysis ID #: | 26108 |
| Entity (or well #): | 2 | Analysis Cost: | $40.00 |
| Formation: | UNKNOWN | | |
| Sample Point: | WELLHEAD | | |

| Summary | |
|---|---|
| **Sampling Date:** | 5/21/02 |
| **Analysis Date:** | 5/29/02 |
| **Analyst:** | SHEILA HERNANDEZ |
| **TDS (mg/l or g/m3):** | 189467.6 |
| **Density (g/cm3, tonne/m3):** | 1.126 |
| **Anion/Cation Ratio:** | 1 |
| Carbon Dioxide: | 225 PPM |
| Oxygen: | |
| Comments: | |

**Analysis of Sample 210905 @ 75 °F**

| Anions | mg/l | meq/l |
|---|---|---|
| **Chloride:** | **116187.0** | **3277.21** |
| **Bicarbonate:** | **123.0** | **2.02** |
| **Carbonate:** | **0.0** | **0.** |
| **Sulfate:** | **1538.0** | **32.02** |
| Phosphate: | | |
| Borate: | | |
| Silicate: | | |
| Hydrogen Sulfide: | | >5 PPM |
| pH at time of sampling: | | |
| pH at time of analysis: | | 5.45 |
| **pH used in Calculation:** | | **5.45** |

| Cations | mg/l | meq/l |
|---|---|---|
| **Sodium:** | **56012.7** | **2436.42** |
| **Magnesium:** | **3794.0** | **312.11** |
| **Calcium:** | **10660.0** | **531.94** |
| **Strontium:** | **243.0** | **5.55** |
| **Barium:** | **0.9** | **0.01** |
| **Iron:** | **188.0** | **6.79** |
| Potassium: | 721.0 | 18.44 |
| Aluminum: | | |
| Chromium: | | |
| Copper: | | |
| Lead: | | |
| Manganese: | | |
| Nickel: | | |

| Conditions | | Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp | Gauge Press. | Calcite $CaCO_3$ | | Gypsum $CaSO_4 \cdot 2H_2O$ | | Anhydrite $CaSO_4$ | | Celestite $SrSO_4$ | | Barite $BaSO_4$ | | $CO_2$ Press |
| °F | psi | Index | Amount | Index | Amount | Index | Amount | Index | Amount | Index | Amount | psi |
| 80 | 0 | -0.75 | 0.00 | 0.10 | 170.54 | 0.12 | 156.26 | 0.13 | 37.32 | 0.80 | 0.29 | 2.76 |
| 100 | 0 | -0.65 | 0.00 | 0.03 | 63.84 | 0.12 | 157.43 | 0.11 | 32.36 | 0.61 | 0.29 | 3.37 |
| 120 | 0 | -0.56 | 0.00 | -0.02 | 0.00 | 0.15 | 187.45 | 0.11 | 30.61 | 0.44 | 0.29 | 3.97 |
| 140 | 0 | -0.46 | 0.00 | -0.06 | 0.00 | 0.19 | 238.47 | 0.11 | 31.19 | 0.30 | 0.29 | 4.54 |

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.