

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

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)
UNIT O, 660' FSL & 1980' FEL
SEC 6, T18S, R32E

5. Lease Serial No.
LC029410B

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement, Name and/or No.

8. Well Name and No.
PEARSALL 6 FEDERAL #2

9. API Well No.
30-025-35588

10. Field and Pool, or Exploratory Area
YOUNG, BONE SPRING NORTH

11. County or Parish, State
LEA COUNTY, NM

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

TYPE OF SUBMISSION

TYPE OF ACTION

- | | | | | |
|-------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (start/resume) | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice | <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input type="checkbox"/> Other _____ |
| | <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug & Abandon | <input type="checkbox"/> Temporarily Abandon | |
| | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input checked="" type="checkbox"/> 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 recompleat 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 recompleat 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 reclamation.)

- Formation: Bone Spring
- BWPD: 1
- Water Analysis: See Attached
- Lease Storage: Stock tanks.
- Water transported by truck to disposal.
- 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

APR - 2 2003

GARY GOURLEY
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)
Sen Atkinson

Title
Prod. Analyst

Signature
Sen Atkinson

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 subject 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.

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 #:	211030
Lease/Platform:	PEARSALL 6 FEDERAL	Analysis ID #:	32290
Entity (or well #):	2	Analysis Cost:	\$40.00
Formation:	UNKNOWN		
Sample Point:	HEATER TREATER		

Summary		Analysis of Sample 211030 @ 75 °F			
		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	3/10/03	Chloride:	94282.0	Sodium:	47669.0
Analysis Date:	3/14/03	Bicarbonate:	109.8	Magnesium:	2133.0
Analyst:	SHEILA HERNANDEZ	Carbonate:	0.0	Calcium:	7936.0
TDS (mg/l or g/m3):	154417.5	Sulfate:	932.0	Strontium:	274.0
Density (g/cm3, tonne/m3):	1.111	Phosphate:		Barium:	0.7
Anion/Cation Ratio:	1	Borate:		Iron:	160.0
		Silicate:		Potassium:	921.0
Carbon Dioxide:	170 PPM	Hydrogen Sulfide:	<5 PPM	Aluminum:	
Oxygen:		pH at time of sampling:	6	Chromium:	
Comments:		pH at time of analysis:		Copper:	
		pH used in Calculation:	6	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 ·2H ₂ O		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	-0.40	0.00	-0.21	0.00	-0.21	0.00	0.05	15.69	0.56	0.30	0.74
100	0	-0.31	0.00	-0.27	0.00	-0.20	0.00	0.03	10.26	0.37	0.30	0.92
120	0	-0.21	0.00	-0.32	0.00	-0.17	0.00	0.03	8.15	0.21	0.00	1.1
140	0	-0.11	0.00	-0.35	0.00	-0.11	0.00	0.03	9.05	0.06	0.00	1.27

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

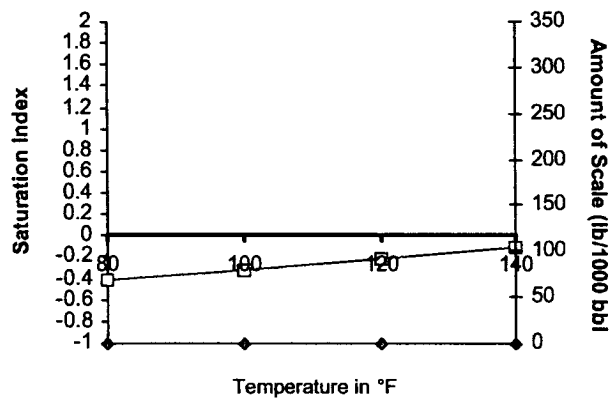
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

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

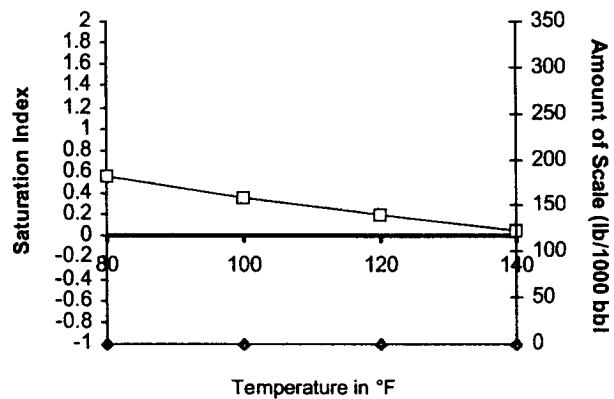
Scale Predictions from Baker Petrolite

Analysis of Sample 211030 @ 75 °F for HEYCO, 3/14/03

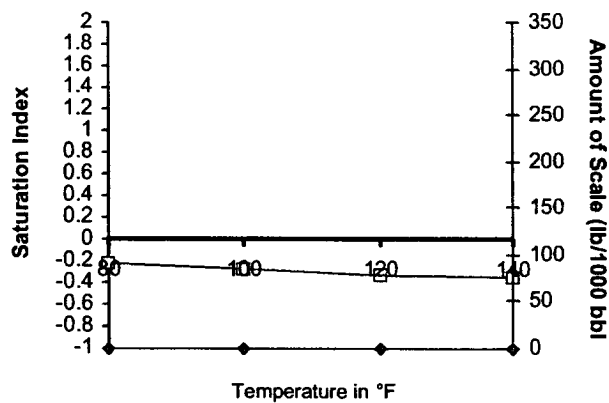
Calcite - CaCO_3



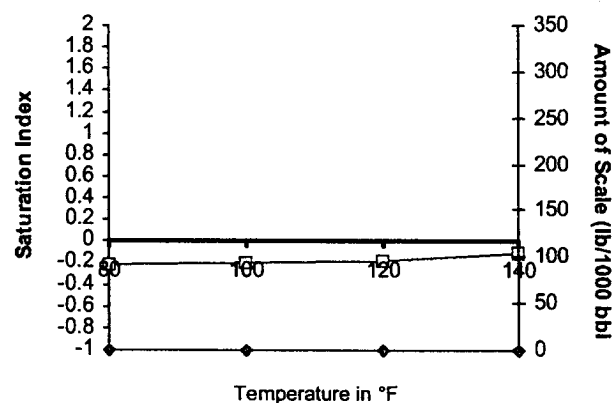
Barite - BaSO_4



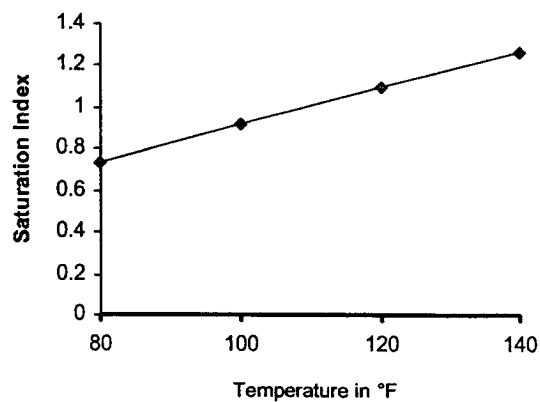
Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



Anhydrite - CaSO_4



Carbon Dioxide Partial Pressure



Celestite - SrSO_4

