

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

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

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
UNIT I, SEC 1, T18S, R31E
1980' FSL & 560' FEL

3b. Telephone No. (include area code)

(505)623-6604

5. Lease Serial No.

NMNM-106718

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

CHOLLA 1 FED #2

9. API Well No.

30-015-32105

10. Field and Pool, or Exploratory Area

TAMANO BONE SPRING

11. County or Parish, State

Eddy
LEA COUNTY, NM

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

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

- ☐ Acidize
☐ Alter Casing
☐ Casing Repair
☐ Change Plans
☐ Convert to Injection

- ☐ Deepen
☐ Fracture Treat
☐ New Construction
☐ Plug & Abandon
☐ Plug Back

- ☐ Production (start/resume)
☐ Reclamation
☐ Recomplete
☐ Temporarily Abandon
☒ Water Disposal

- ☐ Water Shut-Off
☐ Well Integrity
☐ Other

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 inspection.)

- 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

APPROVED

APR - 2 2003

GARY GOURLEY
PETROLEUM ENGINEER

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

Name (Printed/Typed)

Jan Atkinson

Title

Prod. Analyst

Date

21-Mar-03

Approved by

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.

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.

Title

Date

Office

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 #:	135576
Lease/Platform:	CHOLLA FED LEASE	Analysis ID #:	17997
Entity (or well #):	1	Analysis Cost:	\$40.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 135576 @ 75 °F					
Sampling Date:	3/8/01	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	3/13/01	Chloride:	97250.0	2743.07	Sodium:	34418.5	1497.12
Analyst:	MARILYN BRANNON	Bicarbonate:	109.8	1.8	Magnesium:	4445.0	365.66
TDS (mg/l or g/m3):	156426.8	Carbonate:	0.0	0.	Calcium:	16967.0	846.66
Density (g/cm3, tonne/m3):	1.113	Sulfate:	1067.0	22.21	Strontium:	321.0	7.33
Anion/Cation Ratio:	1	Phosphate:			Barium:	2.5	0.04
		Borate:			Iron:	291.0	10.52
		Silicate:			Potassium:	1555.0	39.77
					Aluminum:		
Carbon Dioxide:	700 PPM	Hydrogen Sulfide:		0.1 PPM	Chromium:		
Oxygen:		pH at time of sampling:			Copper:		
Comments:		pH at time of analysis:		5.82	Lead:		
		pH used in Calculation:		5.82	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	-0.35	0.00	0.09	112.97	0.09	86.76	0.09	32.53	1.08	1.20	0.96
100	0	-0.27	0.00	0.04	56.33	0.11	102.12	0.09	29.82	0.90	1.20	1.19
120	0	-0.18	0.00	0.01	10.84	0.15	138.27	0.09	31.03	0.75	1.20	1.42
140	0	-0.08	0.00	-0.02	0.00	0.22	186.17	0.10	35.25	0.62	0.90	1.65

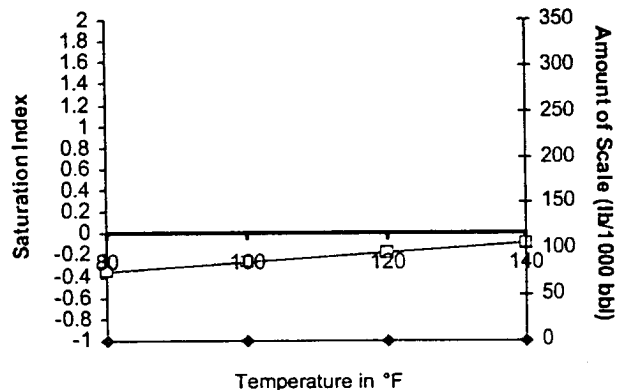
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.
Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.



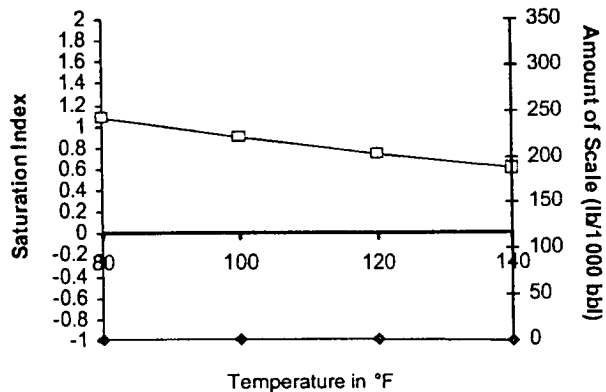
Scale Predictions from Baker Petrolite

Analysis of Sample 135576 @ 75 °F for HEYCO, 3/13/01

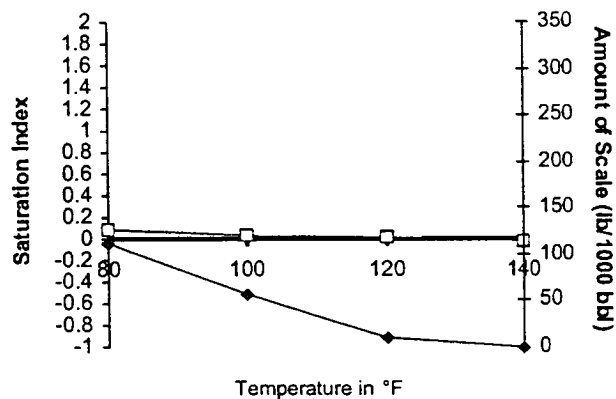
Calcite - CaCO_3



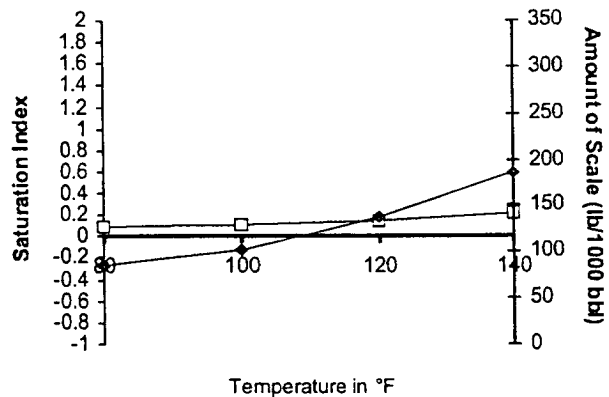
Barite - BaSO_4



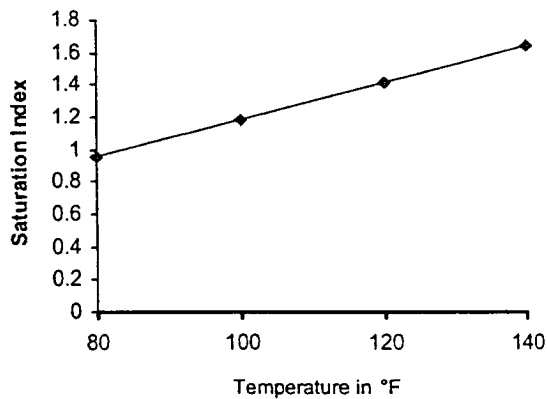
Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



Anhydrite - CaSO_4



Carbon Dioxide Partial Pressure



Celestite - SrSO_4

