

HEYCO

PETROLEUM PRODUCERS



HARVEY E. YATES COMPANY

P.O. BOX 1933

ONE SUNWEST CENTRE

505 / 623-6601

FAX 505 / 622-4221

ROSWELL, NEW MEXICO 88202-1933

October 6, 1989

Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

Attention: Zilla Padilla

Ex. VIII (a)


Re: T-19S, R-32E, NMPM
Section 16: SW/4
Lea County, New Mexico
Produced Brine Disposal Into
An Unlined Surface Pit

Gentlemen:

Attached to this letter is a copy of the application of Harvey E. Yates Company, filed with the New Mexico Oil Conservation Division requesting approval for disposal of produced brine into an unlined surface pit, located in the SW/4 of Section 16, T-19S, R-32E, Lea County, New Mexico. The State of New Mexico owns surface rights within one-half mile of the proposed disposal pit and we are required to give you notice of this application and the hearing thereon, which is scheduled for 8:00 A.M. on October 18, 1989, at the New Mexico Oil Conservation Division Conference Room, State Land Office Building, Santa Fe, New Mexico.

If you have no objection to the granting of this application, please execute the waiver below as indicated and return one copy of this letter to the address in the letterhead.

Very truly yours,


Larry L. Brooks
Geologist, CPG #4028


RHS/dlm
Enclosures
luskstte/LL

THE COMMISSIONER OF PUBLIC LANDS OF THE STATE OF NEW MEXICO HEREBY
WAIVES ANY AND ALL OBJECTIONS TO GRANTING OF THE ABOVE DESCRIBED
APPLICATION.

By:

Title:

Date:


Commercial Leasing Manager
10/12/89

HEYCO

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P O BOX 1933

ONE SUNWEST CENTRE

505/623 6601

FAX 505/622 4221

ROSWELL, NEW MEXICO 88202 1933

October 6, 1989

Bureau of Land Management
1717 West 2nd
Roswell, New Mexico 88201

Attention: Armando Lopez

EX. VIII (6)

Re: T-19S, R-32E, NMPM
Section 16: SW/4
Lea County, New Mexico
Produced Brine Disposal Into
An Unlined Surface Pit

Gentlemen:

Attached to this letter is a copy of the application of Harvey E. Yates Company, filed with the New Mexico Oil Conservation Division requesting approval for disposal of produced brine into an unlined surface pit, located in the SW/4 of Section 16, T-19S, R-32E, Lea County, New Mexico. The United States of America owns surface rights within one-half mile of the proposed disposal pit and we are required to give you notice of this application and the hearing thereon, which is scheduled for 8:00 A.M. on October 18, 1989, at the New Mexico Oil Conservation Division Conference Room, State Land Office Building, Santa Fe, New Mexico.

If you have no objection to the granting of this application, please execute the waiver below as indicated and return one copy of this letter to the address in the letterhead.

Very truly yours,

Larry L. Brooks
Larry L. Brooks
Geologist, CPG #4028

RHS/dlm
Enclosures
luskhrng/LL

THE UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF LAND MANAGEMENT HEREBY WAIVES ANY AND ALL OBJECTIONS TO GRANTING OF THE ABOVE DESCRIBED APPLICATION.

By: _____
Title: _____
Date: _____

Sgd 10/6/89 By Armando Lopez.



A Baker Hughes company

WATER ANALYSIS
for
HEYCO

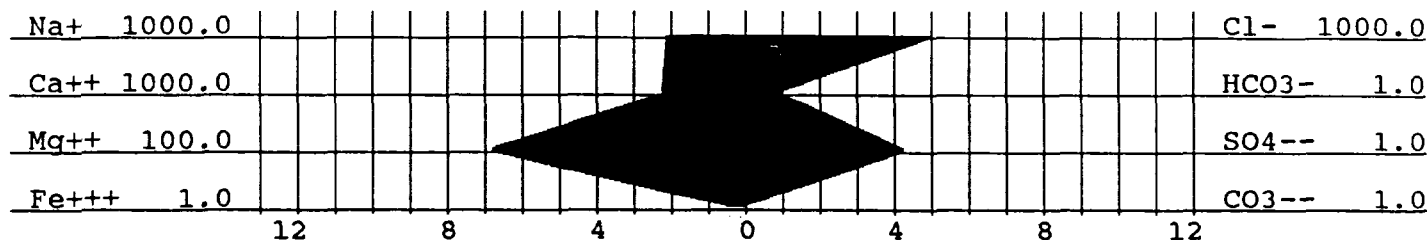
SEP 14 1989

(b)

Date of Analysis: SEPTEMBER 12, 1989 Analysis #: 4352
Company: HEYCO Company Address:
State: Field:
Lease: LUSK 16 STATE Well #: # 1
Oil (bbl/day): N/D Water (bbl/day): N/D
Type of Water: PRODUCED Temp., C: 20
Sample Source: WELLHEAD Date of Sampling: SEPTEMBER 12, 1989
Representative: STEVE STROUD Analysis By: S. BOXLEY

WATER ANALYSIS PATTERN

(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness	: 3000.00	
Calcium, (Ca++)	: 2300.00	46110.66
Magnesium, (Mg++)	: 700.00	8505.98
Iron, (Fe+++)	: 0.54	10.00
Barium, (Ba++)	: N/D	N/D
Sodium, Na+(calc.)	: 2187.93	50322.45
Manganese, (Mn++)	: 0.00	0.00

ANIONS

Chloride, Cl-	: 5183.10	183993.61
Sulfate, SO4--	: 4.37	210.00
Carbonate, CO3--	: 0.00	0.00
Bicarbonate, HCO3--	: 1.00	61.01
Hydroxyl, OH-	: 0.00	0.00
Sulfide, S--	: 0.00	0.00
TOTAL SOLIDS (quant.)		290495.90

DISSOLVED GASES

Hydrogen sulfide:	0.00	mg/l
Carbon dioxide	: 237.60	mg/l
Oxygen	: 1.00	mg/l

PHYSICAL PROPERTIES

pH	: 6.10
Spec Grav.	: 1.185
TDS (calc.)	: 289214.72

SCALE STABILITIES

Temp., C	CaCO3	CaSO4	BaSO4
10.0	N/D	N/D	N/D
20.0	N/D	N/D	N/D
30.0	N/D	N/D	N/D
Max entity, (calc.)	0	0	0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

REMARKS: @ 20' C SEVERE CARBONATE SCALING

@ 20' C CALCIUM SULFATE SCALING IS UNLIKELY



A Baker Hughes company

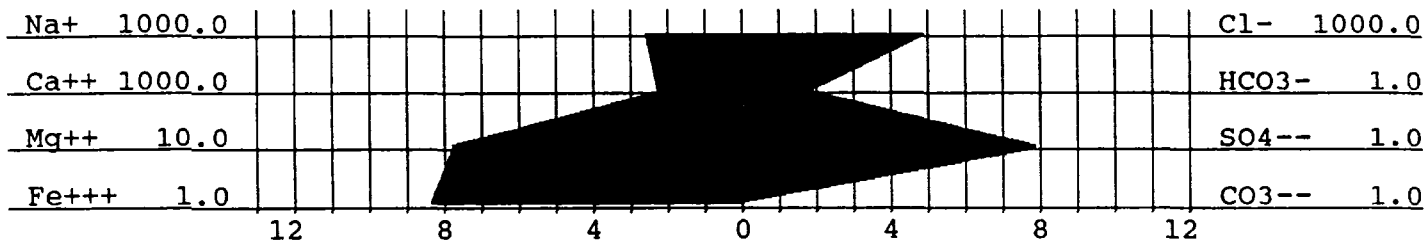
WATER ANALYSIS
for
HEYCO

Ex. #8a

Date of Analysis:	SEPTEMBER 12, 1989	Analysis #:	4354
Company:	HEYCO	Company Address:	
State:		Field:	
Lease:	LUSK 16 STATE	Well #:	# 2
Oil (bbl/day):	N/D	Water (bbl/day):	N/D
Type of Water:	PRODUCED	Temp., C:	20
Sample Source:	WELLHEAD	Date of Sampling:	SEPTEMBER 12, 1989
Representative:	STEVE STROUD	Analysis By:	S. BOXLEY

WATER ANALYSIS PATTERN

(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness	: 2420.00	
Calcium, (Ca++)	: 2340.00	46912.59
Magnesium, (Mg++)	: 80.00	972.11
Iron, (Fe+++)	: 8.60	160.00
Barium, (Ba++)	: N/D	N/D
Sodium, Na+(calc)	: 2651.93	60994.48
Manganese, (Mn++)	: 0.00	0.00

ANIONS

Chloride, Cl-	: 5070.42	179993.61
Sulfate, SO4--	: 8.12	390.00
Carbonate, CO3--	: 0.00	0.00
Bicarbonate, HCO3--	: 2.00	122.03
Hydroxyl, OH-	: 0.00	0.00
Sulfide, S--	: 0.00	0.00
TOTAL SOLIDS (quant.):		290210.30

DISSOLVED GASES

Hydrogen sulfide:	0.00	mg/l
Carbon dioxide	: 316.80	mg/l
Oxygen	: 2.00	mg/l

PHYSICAL PROPERTIES

pH	: 5.65
Spec Grav.	: 1.185
TDS (calc.)	: 289546.84

SCALE STABILITIES

Temp., C	CaCO3	CaSO4	BaSO4
10.0	N/D	N/D	N/D
20.0	N/D	N/D	N/D
30.0	N/D	N/D	N/D
Max entity, (calc.)	1582		0
RESIDUAL HYDROCARBONS:		N/D	

N/D = not determined

REMARKS: @ 20' C SEVERE CARBONATE SCALING

@ 20' C CALCIUM SULFATE SCALING IS UNLIKELY