

BACHMAN PRODUCTION SPECIALTIES, INC.
307 'C' AVENUE, AIRPORT ADDITION
GREAT BEND, KS. 67530

LABORATORY REPORT

DATE: March 24, 2003

TO: Lebsack Oil Production

BELOW ARE THE RESULTS OF OUR EXAMINATION OF WATER
SAMPLES TAKEN ON: March 10, 2003:

<u>LEASE</u>	<u>SULFATE REDUCING BACTERIA</u>	
Foster 1-18	1-9	Bacteria/ml

LABORATORY ANALYST

FEIST

SALES REPRESENTATIVE

Doug Keiswetter

Oilfield Products Incorporated of Kansas

P. O. Box 545

GREAT BEND, KANSAS 67530

(316) 752-4911

WATER ANALYSIS for:

Date of Analysis: FEBRUARY 4, 1994
Company: Lebsack Oil
County:
Lease/Well #: Foster 1-18
Type of Water: Produced
Temp., C:
Use:
Field Engineer: Jack Sarff

Analysis #:
Attention:
State: Kansas
Formation:
Total fluid:
Sample Source: Bleeder
Date of Sampling: FEBRUARY 1, 1994
Analysis By: Seth Turner

DISSOLVED SOLIDS				DISSOLVED GASES	
CATIONS	mg/l	me/l	AS CaCO3		mg/l
Ca++	4,320.0	216.0	10,800.0	Hydrogen Sulfide, H2S:	0.0
Mg++	1,049.2	86.0	4,300.0	Carbon Dioxide, CO2 :	68.0
Fe+++	250.0	13.4	672.0	Oxygen, O2 :	N/D
Ba++	0.0	0.0	0.0		
Na+	38,900.0	1,691.3	84,565.2		
Mn++	N/D	N/D	N/D		
ANIONS					
Cl-	71,000.0	2,000.0	100,000.0		
SO4--	175.0	3.6	182.3		
CO3--	0.0	0.0	0.0		
HCO3-	189.1	3.1	155.0		
OH-	0.0	0.0	0.0		
S--	0.0	0.0	0.0		
TOTAL HARDNESS :		302.0	15,100.0		
TOTAL SOLIDS (quantitative):			115,883.0		
RESIDUAL HYDROCARBONS :			N/D		

PHYSICAL PROPERTIES

pH : 6.5
Specific Gravity : 1.075
TDS (calc.) p.p.m. : 115,883.3

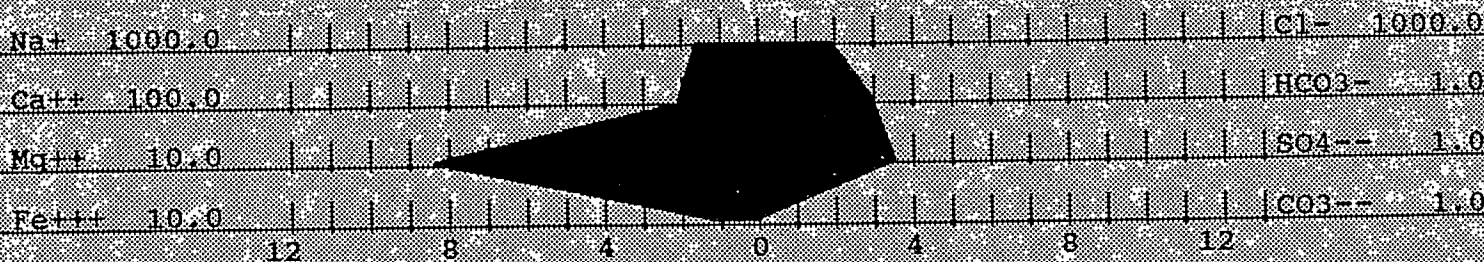
SCALE STABILITIES

Temp.				
°C.	°F.	CaCO3	CaSO4	BaSO4
32	90	-0.10	3403	2
38	100	0.03	3550	3
49	120	0.31	4093	3

Max entity, (calc): 257 0

WATER ANALYSIS PATTERN

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



RECOMMENDATION:

Wayne - I would say the water is about the same.

N/D = not determined

Jack

Oilfield Products Incorporated of Kansas

P. O. Box 545

GREAT BEND, KANSAS 67530

WATER ANALYSIS for:

(316) 752-4911.

Date of Analysis: FEBRUARY 4, 1994

Company: Lebsack Oil

County:

Lease/Well #: Foster 1-18

Type of Water: Produced

Temp., C:

Use:

Field Engineer: Jack Sarff.

Analysis #: 47

Attention:

State: Kansas

Formation:

Total fluid:

Sample Source: Bleeder

Date of Sampling: FEBRUARY 17, 1994

Analysis By: Seth Turner

<u>DISSOLVED SOLIDS</u>			
<u>CATIONS</u>	<u>mg/l</u>	<u>me/l</u>	<u>AS CaCO3</u>
Ca++	4,320.0	216.0	10,800.0
Mg++	1,049.2	86.0	4,300.0
Fe+++	250.0	13.4	672.0
Ba++	0.0	0.0	0.0
Na+	38,900.0	1,691.3	84,565.2
Mn++	N/D	N/D	N/D
<u>ANIONS</u>			
Cl-	71,000.0	2,000.0	100,000.0
SO4--	175.0	3.6	182.3
CO3--	0.0	0.0	0.0
HCO3-	189.1	3.1	155.0
OH-	0.0	0.0	0.0
S--	0.0	0.0	0.0
TOTAL HARDNESS :		302.0	15,100.0

<u>DISSOLVED GASES</u>	
	<u>mg/l</u>
Hydrogen Sulfide, H ₂ S:	0.0
Carbon Dioxide, CO ₂ :	68.0
Oxygen, O ₂ :	N/D

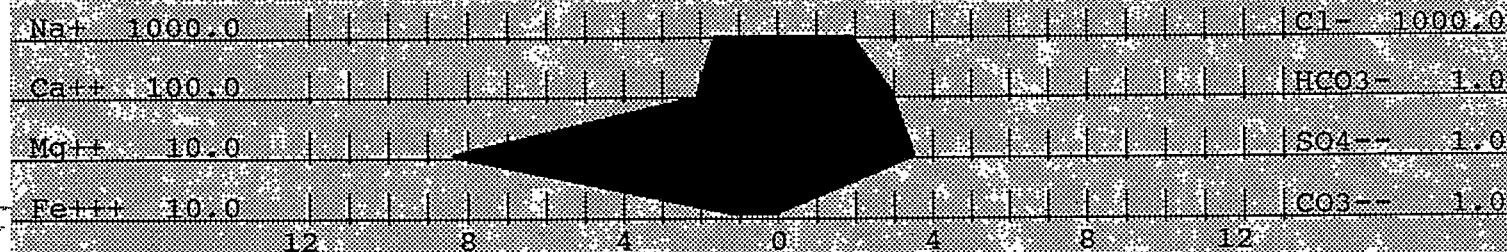
<u>PHYSICAL PROPERTIES</u>	
pH	6.5
Specific Gravity	1.075
TDS (calc.) p.p.m.	115,883.3

<u>Temp.</u>		<u>CaCO₃</u>	<u>CaSO₄</u>	<u>BaSO₄</u>
<u>°C.</u>	<u>°F.</u>			
32	90	-0.10	3403	2
38	100	0.03	3550	3
49	120	0.31	4093	3

TOTAL SOLIDS (quantitative):	115,883.0			
RESIDUAL HYDROCARBONS :	N/D	Max. entity, (calc):	257	0

WATER ANALYSIS PATTERN

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



RECOMMENDATION:

Wayne. I would say the water is about the same.

N/D = not determined

Jack