

## CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 279  
Casper, Wyoming

### WATER ANALYSIS REPORT

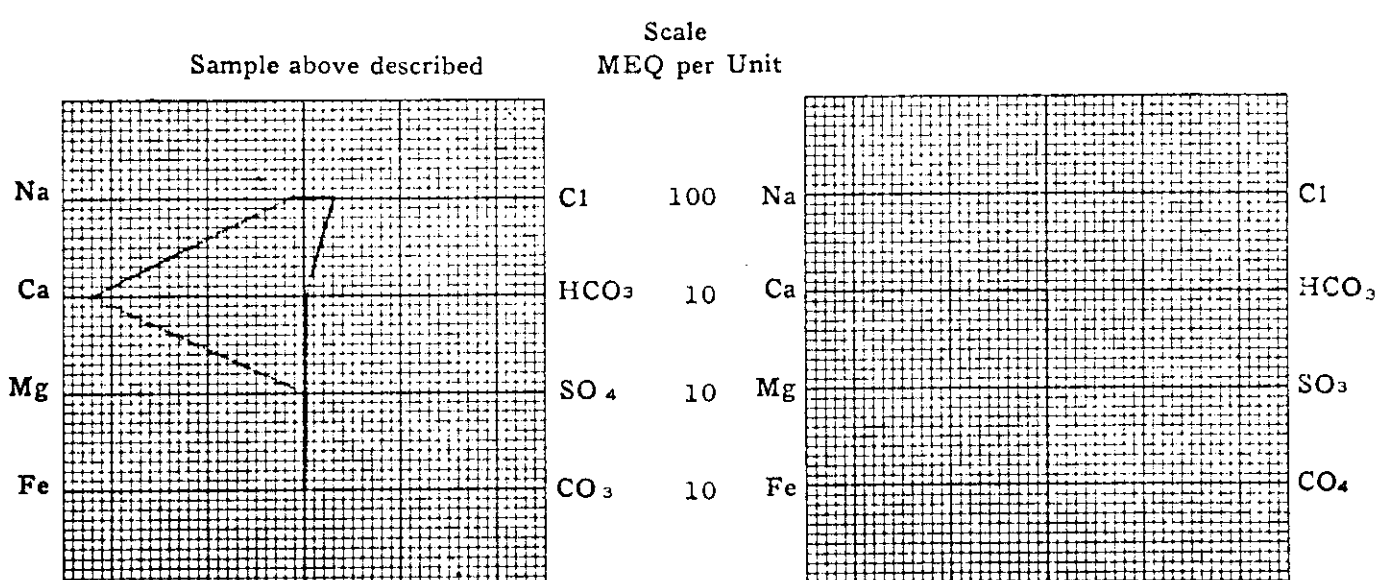
OPERATOR <u>Gulf Oil Corporation</u>	DATE <u>November 30, 1963</u> LAB NO. <u>19316-1</u>
WELL NO. <u>1 Porter</u>	LOCATION <u>SW NE 27-13S-4W</u>
FIELD <u>Wildcat</u>	FORMATION _____
COUNTY <u>Linn</u>	INTERVAL _____
STATE <u>Oregon</u>	SAMPLE FROM <u>DST No. 1 (Top)</u>

REMARKS & CONCLUSIONS: Muddy water, slightly yellow filtrate.  
Recovered 3,250 feet muddy salt water.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	2,538	110.38	Sulfate	82	1.71
Potassium	7	0.18	Chloride	11,900	335.58
Lithium	1	0.14	Carbonate	0	-
Calcium	4,597	229.39	Bicarbonate	171	2.80
Magnesium	Trace	-	Hydroxide	-	-
Iron	Absent	-	Hydrogen sulfide	Absent	-
<b>Total Cations</b>	<b>340.09</b>		<b>Total Anions</b>	<b>340.09</b>	

Total dissolved solids, mg/l - - - - - <u>19,209</u>	Specific resistance @ 68°F.: _____
NaCl equivalent, mg/l - - - - - <u>18,900</u>	Observed - - - - - <u>0.370</u> ohm-meters
Observed pH - - - - - <u>7.7</u>	Calculated - - - - - <u>0.360</u> ohm-meters

### WATER ANALYSIS PATTERN



(Na value in above graphs includes Na, K, and Li)  
NOTE: Mg/l=Milligrams per liter (ppm). Meq/l=Milligram equivalents per liter  
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

## CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 279  
Casper, Wyoming

### WATER ANALYSIS REPORT

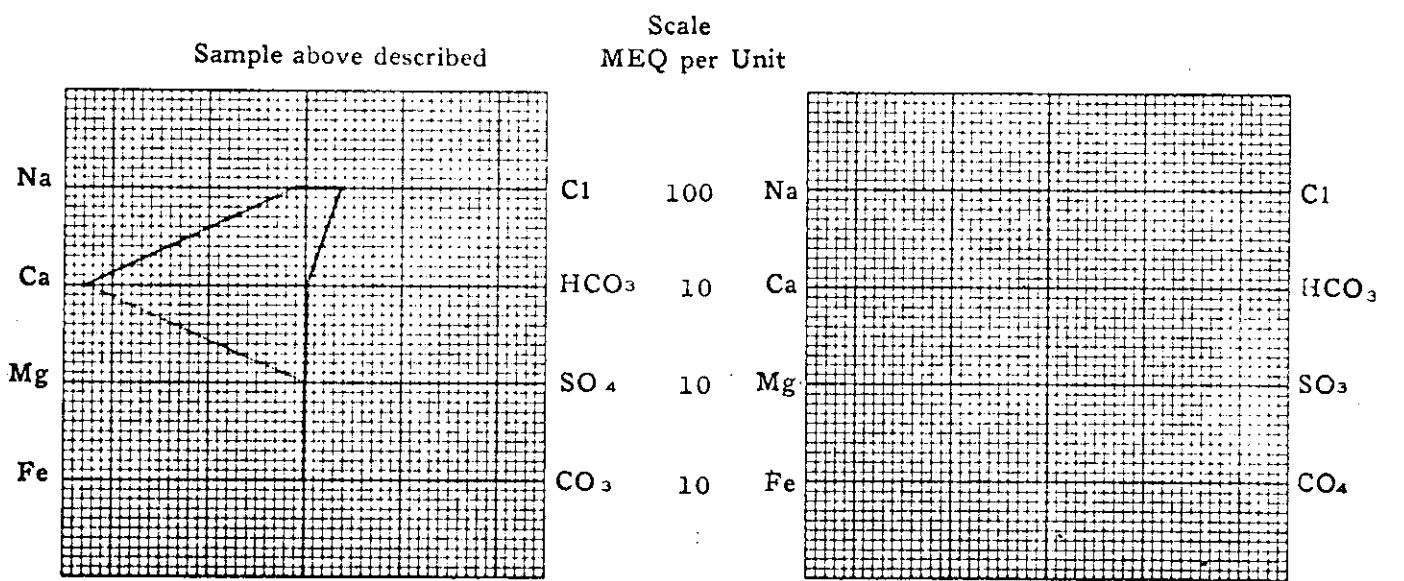
OPERATOR <u>Gulf Oil Corporation</u>	DATE <u>November 30, 1963</u> LAB NO. <u>19316-2</u>
WELL NO. <u>1 Porter</u>	LOCATION <u>SW NE 27-13S-4W</u>
FIELD <u>Wildcat</u>	FORMATION _____
COUNTY <u>Linn</u>	INTERVAL _____
STATE <u>Oregon</u>	SAMPLE FROM <u>DST No. 1 (Middle)</u>

REMARKS & CONCLUSIONS: Slightly cloudy water, clear filtrate.  
Recovered 3,250 feet muddy salt water.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	2,703	117.56	Sulfate	Trace	-
Potassium	7	0.18	Chloride	12,500	352.50
Lithium	1	0.14	Carbonate	36	1.20
Calcium	4,738	236.43	Bicarbonate	37	0.61
Magnesium	Trace	-	Hydroxide	0	-
Iron	Present	-	Hydrogen sulfide	Absent	-
<b>Total Cations</b>	<b>354.31</b>		<b>Total Anions</b>	<b>354.31</b>	

Total dissolved solids, mg/l - - - - - <u>20,003</u>	Specific resistance @ 68°F.: _____
NaCl equivalent, mg/l - - - - - <u>19,767</u>	Observed - - - - - <u>0.362</u> ohm-meters
Observed pH - - - - - <u>8.6</u>	Calculated - - - - - <u>0.350</u> ohm-meters

### WATER ANALYSIS PATTERN



(Na value in above graphs includes Na, K, and Li)  
NOTE: Mg/l=Milligrams per liter (ppm). Meq/l=Milligram equivalents per liter  
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components

## CHEMICAL & GEOLOGICAL LABORATORIES

P. O. Box 279  
Casper, Wyoming

### WATER ANALYSIS REPORT

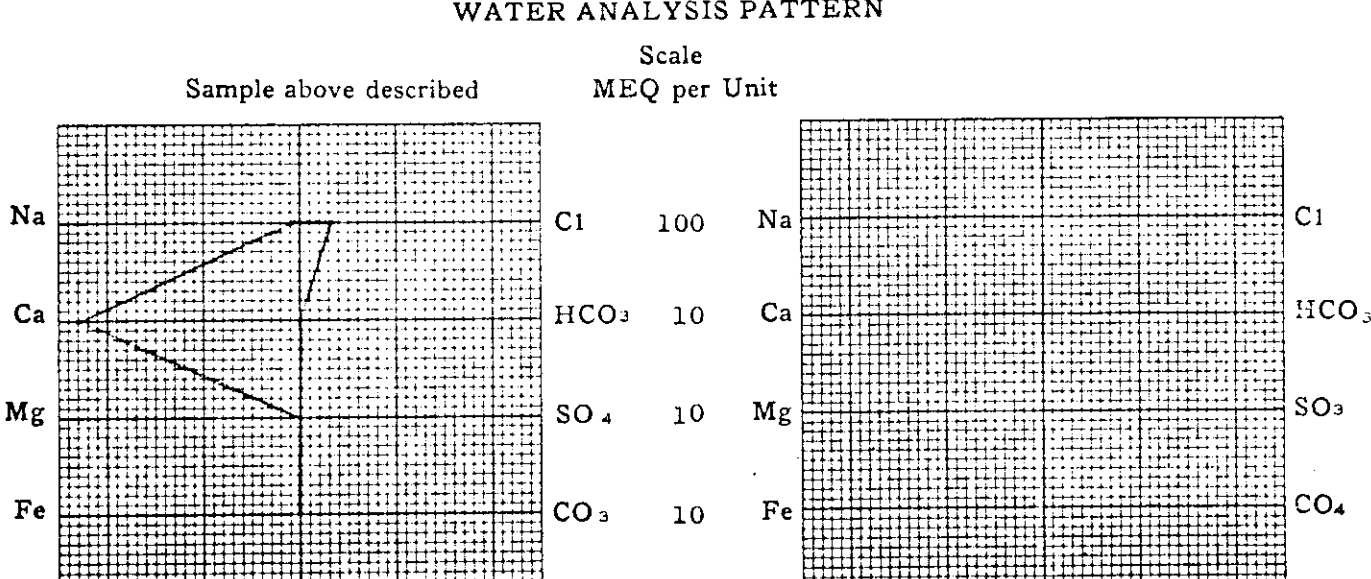
OPERATOR <u>Gulf Oil Corporation</u>	DATE <u>December 3, 1963</u> LAB NO. <u>19316-3</u>
WELL NO. <u>1 Porter</u>	LOCATION <u>SW NE 27-13S-4W</u>
FIELD <u>Wildcat</u>	FORMATION _____
COUNTY <u>Linn</u>	INTERVAL _____
STATE <u>Oregon</u>	SAMPLE FROM <u>DST No. 1 (Bottom)</u>

REMARKS & CONCLUSIONS: Cloudy water, clear filtrate.  
Recovered 3,250 feet muddy salt water.

Cations	mg/l	meq/l	Anions	mg/l	meq/l
Sodium	2,440	106.14	Sulfate	0	-
Potassium	6	0.15	Chloride	12,200	344.04
Lithium	1	0.14	Carbonate	-	-
Calcium	4,794	239.22	Bicarbonate	98	1.61
Magnesium	0	-	Hydroxide	-	-
Iron	Absent	-	Hydrogen sulfide	Absent	-
<b>Total Cations</b>	<b>345.65</b>		<b>Total Anions</b>	<b>345.65</b>	

Total dissolved solids, mg/l - - - - - <u>19,489</u>	Specific resistance @ 68°F.: _____
NaCl equivalent, mg/l - - - - - <u>19,228</u>	Observed - - - - - <u>0.360</u> ohm-meters
Observed pH - - - - - <u>6.4</u>	Calculated - - - - - <u>0.360</u> ohm-meters

### WATER ANALYSIS PATTERN



(Na value in above graphs includes Na, K, and Li)  
NOTE: Mg/l=Milligrams per liter (ppm). Meq/l=Milligram equivalents per liter  
Sodium chloride equivalent=by Dunlap & Hawthorne calculation from components