



CHEMICAL & GEOLOGICAL LABORATORIES OF ALASKA, INC.

P.O. BOX 4-1276
Anchorage, Alaska 99509

TELEPHONE (907)-279-4014
274-3364

ANCHORAGE INDUSTRIAL CENTER
5633 B Street

WATER ANALYSIS REPORT

OPERATOR Husky Oil Company **DATE** May 20, 1980 **LAB NO.** 3629-2
WELL NO. South Barrow No. 20 **LOCATION** _____
FIELD NPRA **FORMATION** SAG RIVER
COUNTY _____ **INTERVAL** DST No. 1
STATE Alaska **SAMPLE FROM** Top of Tools

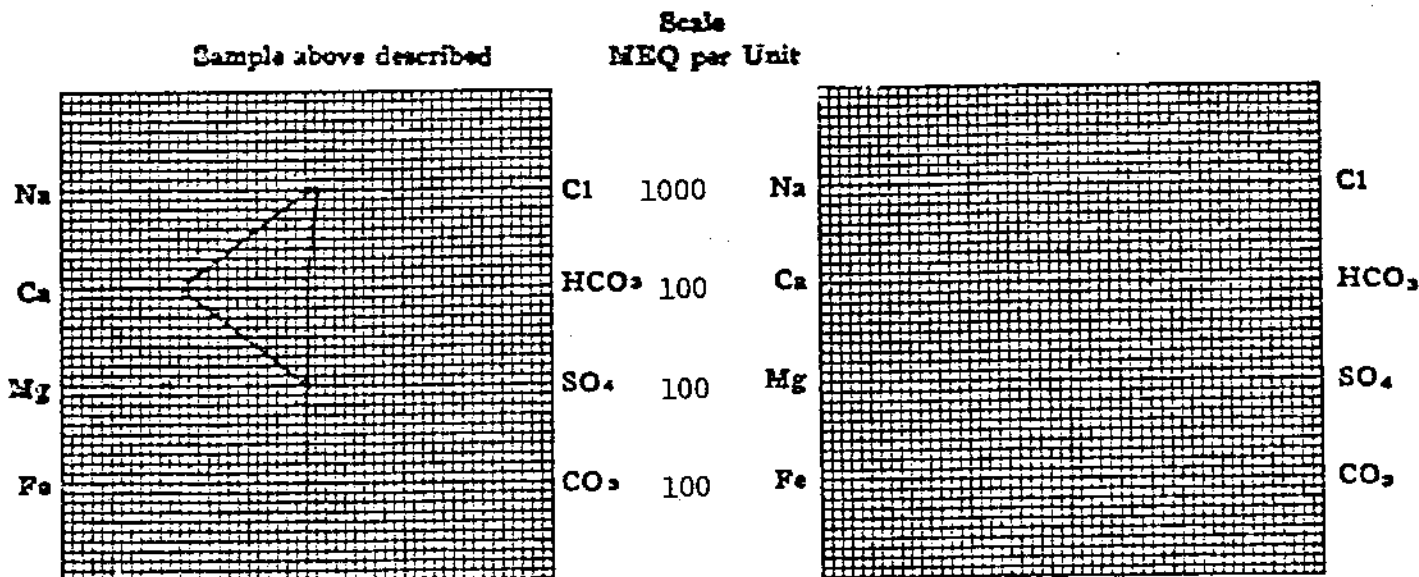
REMARKS & CONCLUSIONS: Hydrocarbon Content, mg/l-----2100
Gross Chromatograph indicates hydrocarbons similar to
Diesel Fuel.

Cations			Anions		
	mg/l	meq/l		mg/l	meq/l
Sodium	495	21.53	Sulfate	480	9.98
Potassium	145	3.71	Chloride	46000	1297.20
Calcium	26288	1311.79	Carbonate	280	9.32
Magnesium	15	1.23	Bicarbonate	0	--
Iron	-	--	Hydroxide	370	21.76
Total Cations		1338.26	Total Anions		1338.26

Total dissolved solids, mg/l 74073
 NaCl equivalent, mg/l 72606
 Observed pH 10.9

Specific resistance @ 68°F.:
 Observed 0.11 ohm-meters
 Calculated 0.11 ohm-meters

WATER ANALYSIS PATTERN



(No value in above graphs includes Na, K, and Li)
 NOTE: Mg/l = Milligrams per liter Meq/l = Milligram equivalents per liter
 Sodium chloride equivalent = by Doolittle & Hawthorne calculation from components



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WATER ANALYSIS REPORT

OPERATOR Husky Oil Company **DATE** May 20, 1980 **LAB NO.** 3629-3
WELL NO. South Barrow No. 20 **LOCATION** _____
FIELD NPRA **FORMATION** SAG RIVER
COUNTY _____ **INTERVAL** DST No. 1
STATE Alaska **SAMPLE FROM** Pit Sample

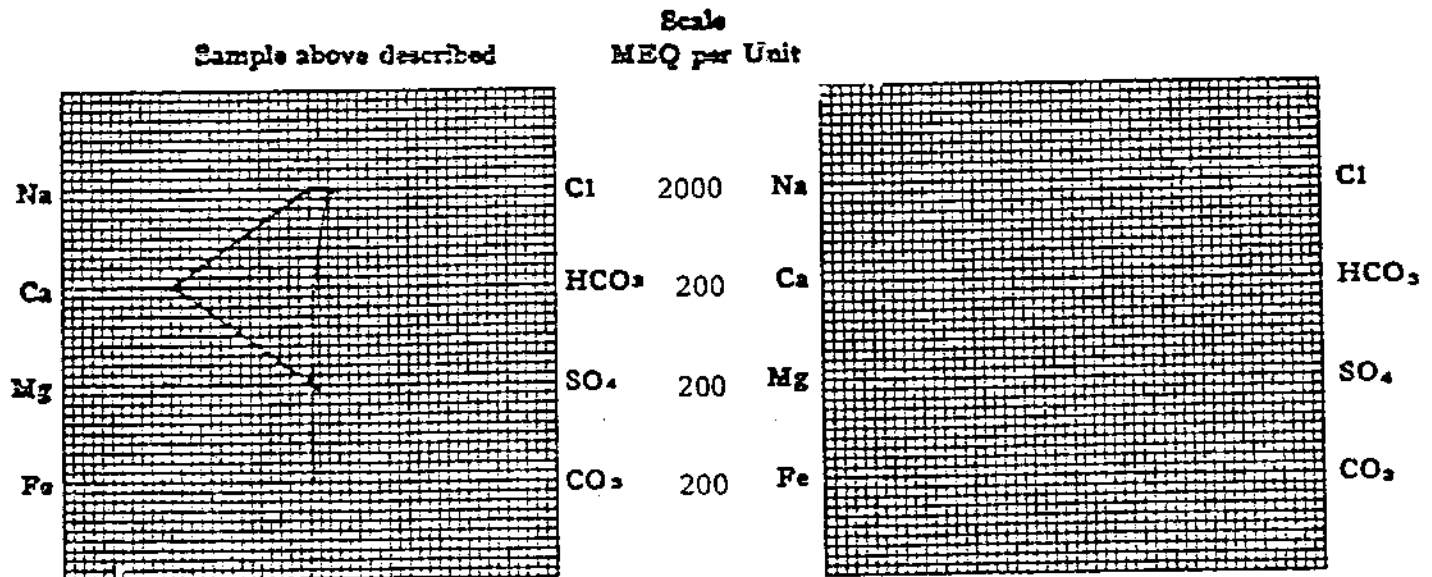
REMARKS & CONCLUSIONS:

Cations			Anions		
	mg/l	meq/l		mg/l	meq/l
Sodium	215	9.35	Sulfate	27	0.56
Potassium	340	8.70	Chloride	100000	2820.00
Calcium	56233	2806.01	Carbonate	120	4.00
Magnesium	40	3.29	Bicarbonate	170	2.79
Iron	-	-	Hydroxide	0	-
Total Cations		2827.35	Total Anions		2827.35

Total dissolved solids, mg/l - - - - 157059
 NaCl equivalent, mg/l - - - - 154361
 Observed pH - - - - - 9.1

Specific resistance @ 68°F.:
 Observed - - - - 0.06 ohm-meters
 Calculated - - - - 0.06 ohm-meters

WATER ANALYSIS PATTERN



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



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WELL FILE

WATER ANALYSIS REPORT

ONPRA
MENLO PARK
FILE COPY
LAB NO. 9629-4

OPERATOR Husky Oil Company DATE May 20, 1980
WELL NO. 20 LOCATION _____
FIELD NPRA FORMATION Production Test No. 1
COUNTY _____ INTERVAL Flareline-Sample No. 1
STATE Alaska SAMPLE FROM _____

REMARKS & CONCLUSIONS: Hydrocarbon Content, mg/l-----50
INSUFFICIENT SAMPLE FOR CHROMATOGRAPHIC ANALYSIS.

Cations			Anions		
	mg/l	meq/l		mg/l	meq/l
Sodium	910	39.59	Sulfate	87	1.81
Potassium	90	2.30	Chloride	40000	1128.00
Calcium	21561	1075.91	Carbonate	0	—
Magnesium	180	14.80	Bicarbonate	170	2.79
Iron	—	—	Hydroxide	0	—
Total Cations		1132.60	Total Anions		1132.60

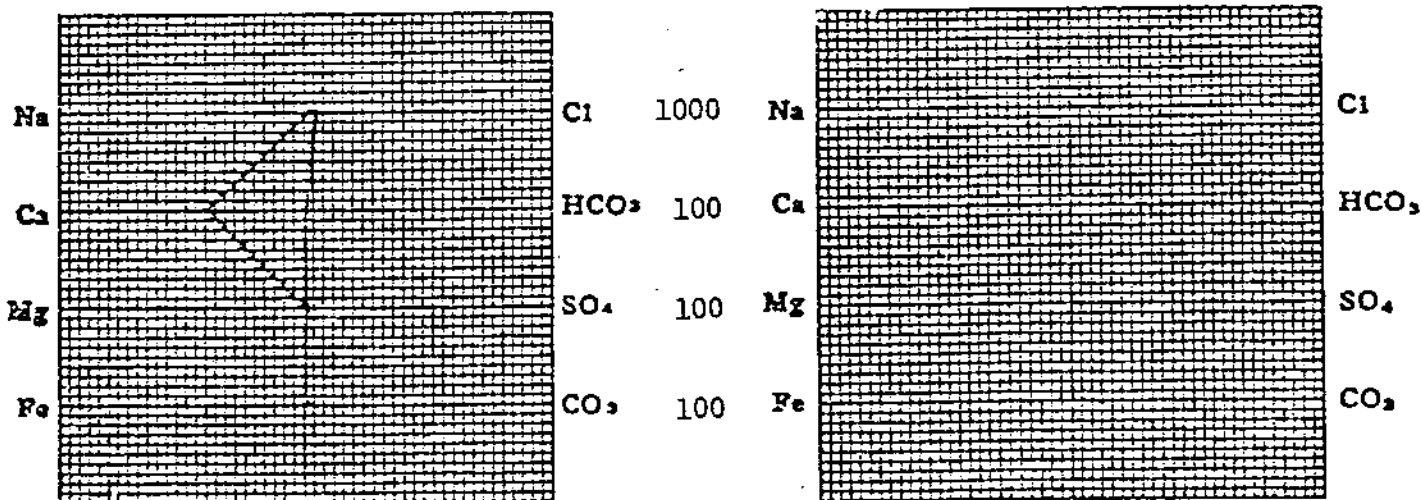
Total dissolved solids, mg/l	62913	Specific resistance @ 58°F.:	
NaCl equivalent, mg/l	61933	Observed	0.12 cm-meters
Observed pH	5.0	Calculated	0.13 cm-meters

WATER ANALYSIS PATTERN

Scale

Sample above described

MEQ per Unit



(Na value in above graphs includes Na, K, and Li)

NOTE: Mg/l = Milligrams per liter Meq/l = Milligram equivalents per liter
Sodium chloride equivalent = by Dumas & Hawthorne calculation from components



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WATER ANALYSIS REPORT

OPERATOR Husky Oil Company DATE May 20, 1980 LAB NO. 3629-5
 WELL NO. South Barrow No. 20 LOCATION _____
 FIELD NPRA FORMATION Barrow Sands
 COUNTY _____ INTERVAL Production Test No. 1
 STATE Alaska SAMPLE FROM Flareline-Sample No. 2

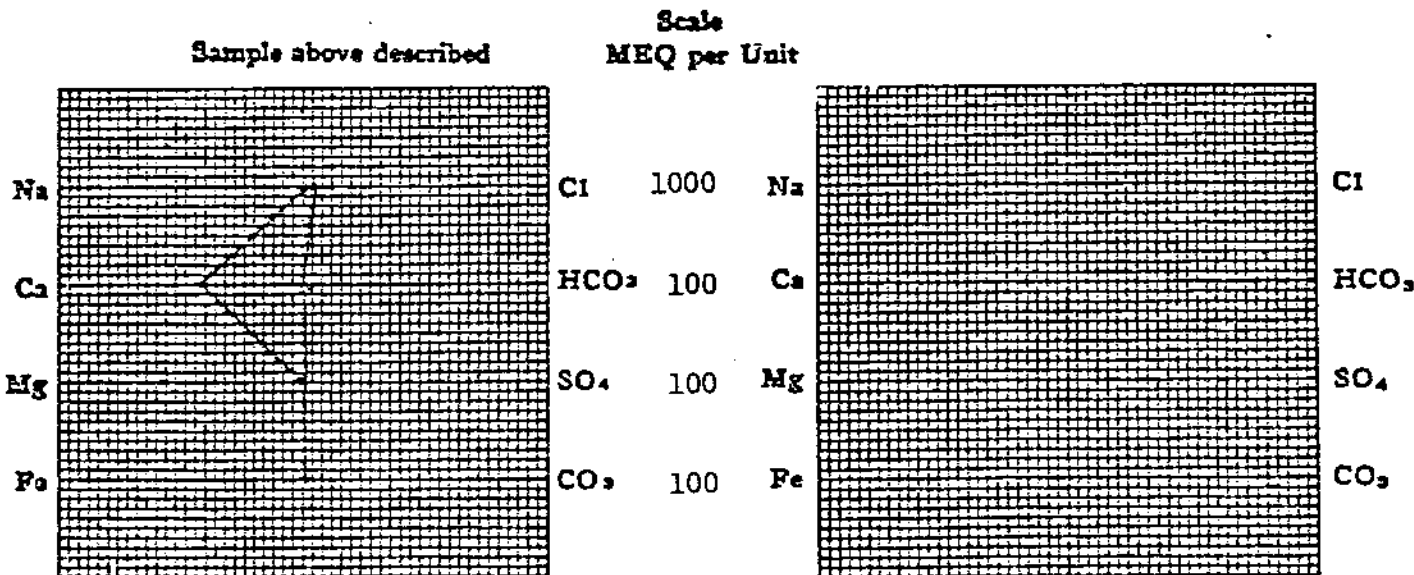
REMARKS & CONCLUSIONS: Hydrocarbon Content, mg/l-----31
INSUFFICIENT SAMPLE FOR CHROMATOGRAPHIC ANALYSIS

Cations			Anions		
	mg/l	meq/l		mg/l	meq/l
Sodium	860	37.41	Sulfate	110	2.29
Potassium	85	2.18	Chloride	40000	1128.00
Calcium	21622	1078.93	Carbonate	0	---
Magnesium	175	14.39	Bicarbonate	160	2.62
Iron	-	---	Hydroxide	0	---
Total Cations		1132.91	Total Anions		1132.91

Total dissolved solids, mg/l - - - - 62931
 NaCl equivalent, mg/l - - - - 61934
 Observed pH - - - - 4.9

Specific resistance @ 68°F.:
 Observed - - - - 0.13 cm-cmeters
 Calculated - - - - 0.13 cm-cmeters

WATER ANALYSIS PATTERN



(No value in above graphs includes Na, K, and Li)
 NOTE: Mg/l = MEQ-grams per liter Meq/l = MEQ-gram equivalents per liter
 Sulfate chloride equivalent = by Dumble & Hirthorne calculation from components