

MINES AND PETROLEUM BULLETIN

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MINING NEWS

Status of Nonmetallic Minerals under the Land Freeze Clarified -- In the April issue of the Mines and Petroleum Bulletin (vol. XVII, No. 4) it is noted that the land freeze has raised questions about the validity of claims staked for asbestos and other nonmetallic minerals. The Division queried the Department of the Interior on two points in regard to the Pickett Act, which is the statutory authority for the land freeze: 1) Because the Pickett Act permits claims to be staked for metalliferous minerals, can the act be interpreted to mean locatable minerals as opposed to leasing act minerals? According to the Department of the Interior the wording of the act must be interpreted literally and it means metalliferous minerals only. Asbestos, barite, and other nonmetallic minerals may not be staked. Uranium ores are considered metallic minerals and may be staked under the land freeze. 2) When asked whether the Pickett Act could be amended to include nonmetallic minerals the opinion of the Department of the Interior is that an amendment is theoretically possible, but nothing could be done in time to alleviate the situation.

Bill to Stockpile Gold Introduced -- On April 15 Senator Karl Mundt (R. - S. Dak.) introduced a bill, S. 1826, that would authorize the federal government to buy and stockpile newly mined domestic gold for space, defense, and emergency uses. The bill provides for the purchase of up to 20 million ounces of gold at not less than \$45.00 per ounce nor more than \$75.00 per ounce, all of it is to be stockpiled. Contracts with producers would be entered into for terms of one to ten years. The longer term contracts would be to protect owners against the heavy cost of reopening inactive mines. Contracts would be with domestic producers whose principle product from a mining property is gold. The treasury price of \$35.00 per ounce would not be affected by the stockpile purchases.

The above information is from a memorandum by the American Mining Congress dated April 23. A copy of S. 1826 as it appeared in the April 15 Congressional Record is available at Division of Mines and Geology headquarters in College.

Congressional Review of Domestic Mineral Shortage Urged -- An April 18 bulletin from the American Mining Congress reported that Assistant Secretary of the Interior (Mineral Resources) Hollis M. Dole, told the House Interior Subcommittee on Mines and Mining on April 14 that the nation is in serious trouble in regard to its long-range mineral position. Dole noted that unless a massive program is launched on almost a crash basis to upgrade mining and minerals technology our standard of living will be severely limited due to mineral resource constraints in the next 20 to 30 years. A recent study shows that U. S. mineral technology is declining. Both demand and competition for minerals is increasing, Dole pointed out. Alternatives include increased foreign investment, exploitation of low grade domestic deposits and exploitation of deposits with mining and metallurgical problems. Other problems facing the mineral industry are lack of graduates in the mineral field, land pollution from past mining operations and disposal of waste materials.

Dole defined the government's position as recognition of minerals as critical and essential to the nation's economy and security and the need to assure an adequate, continuing and dependable supply of these vital materials. Dole asked that Congress consider the advisability of a study in depth of the nation's status and future prospects in regard to mineral raw materials.

Representatives Wayne Aspinall and John Saylor questioned the need for yet another study, but suggested action rather than planning is needed. Dole responded that he was not asking for another study but an in-depth review by Congress.

Snettisham Iron to be Developed -- The Alaska Reporting Service, Report No. 395, April 14, reported that the Commissioner of the Department of Economic Development, Frank H. Murkowski, announced that the Tokyo newspaper, Nihon Keizai, stated that the Marubeni Company and Marcona Corporation have agreed to a joint development project of iron deposits near Snettisham southeast of Juneau. Plans call for pelletizing two to four million tons of iron ore annually. The Snettisham deposit consists of titaniferous magnetite containing 15 to 20 percent total iron.

Marcona is a San Francisco-based corporation that mines and processes iron ore and operates an ocean fleet for shipping iron ore and other bulk commodities. Marubeni-Iida Company is a large Japanese trading company.

Development of the Snettisham deposit should create renewed interest in other low-grade Alaskan iron deposits such as Klukwan near Haines, Union Bay north of Ketchikan, and the west side of Cook Inlet near Kamishka Bay and Iliamna Bay.

EXPLORATION

Wallace O. Craig, Superintendent, U. S. Bureau of Indian Affairs, Fairbanks Agency, Arctic Bowl, Fairbanks, Alaska, 99701 has issued a "Notice of Availability of Nonexclusive Mineral Prospecting Permits on the Venetie-Chandalar Indian Reservation"

The Venetie-Chandalar Indian Reservation is north of the Yukon River. It extends from Venetie Landing at the mouth of the Chandalar River north to Arctic Village. Its western boundary is the Chandalar River and its eastern boundary is the Christian River. The reservation is in the Fort Yukon, Christian and Arctic quadrangles.

The reservation is open to prospecting for gold, silver and all other minerals except oil and gas, sand and gravel. Nonexclusive prospecting permits, without lease option, are available from the Fairbanks Indian Agency. Permits are for a period of one year. Airborne and surface prospecting are permitted, but bulldozing and drilling, other than hand drilling, are not allowed. Use of any tractor type vehicle is prohibited and the use of other types of surface vehicles must be cleared with the President of the native village of Venetie.

The permit fee is \$50.00; an acceptable surety bond in the amount of \$5,000 will also be required. If exclusive prospecting permits are issued at a later time the exclusive permit areas will be excluded from the nonexclusive permit area. Descriptions of excluded areas can be obtained from the Fairbanks Indian Agency.

About December 1, 1969 an advertisement to bid for exclusive mineral prospecting permits with option to lease all minerals except oil, gas, sand, and gravel will be issued. Tracts are not defined at this time; bidders may nominate tracts if the nomination is received by the Fairbanks Indian Agency before November 1, 1969. Bids will be opened before March 1, 1970.

A successful bidder on a tract will receive an exclusive prospecting permit for the entire tract. The permit will contain the right to perform all necessary exploration work and will carry the right to lease not more than 640 acres within the permit area. There is no limit on the number of leases an individual may have in a given tract. Terms and conditions of permits and leases will be available at the Fairbanks Indian Agency by December 1, 1969.

For further information or detailed maps of the reservation interested persons should contact the Fairbanks Agency Superintendent at the address given above.

NEW PUBLICATIONS

The following open file reports have been released by the U.S.G.S. and are available for consultation in the Alaskan U.S.G.S. and State Division of Mines and Geology offices. Material from which copies of these open file reports can be made at private expense is available at the Alaskan Geology Branch, U.S.G.S., 345 Middlefield Road, Menlo Park, California, 94025:

Analyses of outcrop and stream sediments from the Yakutat and Mt. St. Elias quadrangles, Alaska, by E. M. MacKevett, Jr., and George Plafker, 3 p.

Preliminary geologic map of the Eagle D-2 and D-3 quadrangles, Alaska, by Sandra H. B. Clark and Helen L. Foster, map and explanation (1 sheet)

Metallic mineral resources maps of eleven Alaska quadrangles (Afognak, Beaver, Bering Glacier, Bettles, Karluk, Kenai, Middleton Island, Taylor Mountains, Trinity Islands, Tyonek, Yakutat), compiled by Edward H. Cobb, 20 p., including 11 maps

Preliminary geologic map of Annette Island, Alaska, by Henry C. Berg, 1 map, explanation (2 sheets)

Availability of Palynological material from Naval Petroleum Reserve No. 4, XVIII: South Barrow Test Well No. 4, Knifeblade Test Wells Nos. 1, 2, 2A, by Richard A. Scott, 2 p.

Data on wells in the Matanuska-Susitna Borough area, Alaska, by A. J. Feulner, 28 p., 1 fig.

Selected references on Permafrost, and Related Engineering Problems in Alaska, compiled by Oscar J. Ferrians, Jr., 12 p.

The following circular has been released by the USGS and may be obtained free at the various USGS and Division of Mines and Geology offices:

Circular 615, "Some shorter Mineral Resource Investigations in Alaska". The Circular contains five articles dealing with economic geology of the state as follows:

- 1) Nickeliferous serpentinite near Beaver Creek, East-Central Alaska by R. L. Foster describes anomalous nickel values near Livengood.
- 2) Bedrock depth by resistivity soundings, Middle Fork of the Koyukuk River by L. A. Anderson and G. R. Johnson gives geophysical estimates of bedrock depth in the Wiseman area.
- 3) Boundary Creek molybdenum-silver occurrence by D. A. Brew and A. B. Ford discusses a molybdenum-silver discovery east of Juneau.

- 4) Geochemical data on the south ore zone, White Mountain mine and on the gold content of other mercury ores Southwestern Alaska by C. C. Hawley, E. E. Martinez, and John Marinenko presents analytical data on gold and other trace elements in some mercury ores, especially in the White Mountain area.
- 5) Geochemical data in the Siskonsina Pass area by Sandra H. B. Clark, W. H. Condon, H. L. Foster and J. M. Hoare discusses anomalous concentrations of gold, copper, and lead in the Alaska Range.

The USGS has released Bulletin 1247-D, "The Coal-bearing Group in the Nenana Coal Field, Alaska" by Clyde Wahrhaftig, J. A. Wolfe, E. B. Leopold and M. A. Lanphere, 30 p. In Bulletin 1247-D the coal-bearing group of rocks of the Nenana coal field in the vicinity of Healy are subdivided into five new formations. In ascending order these are: The Healy Creek, Sanctuary, Suntrana, Lignite Creek and the Grubstake formations. Fossil evidence shows that these continental sediments range in age from late Oligocene through late Miocene. Potassium-argon analyses of volcanic glass from the Grubstake formation show that it has an apparent age of 8.1 million years. The Bulletin may be purchased over the counter only from the USGS at 508 Second Avenue, Anchorage or from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402 for \$1.25.

The U. S. Bureau of Mines has released the following open file manuscript. It may be consulted at the U. S. Bureau of Mines offices in Anchorage, Fairbanks, and Juneau, U. S. Geological Survey Office in Anchorage and Fairbanks and the State Division of Mines and Geology offices in Fairbanks.

"Sampling for Gold in River Bars, Kuskokwim River Basin, Alaska," by Raymond P. Maloney

E. AND M.J. METAL MARKET PRICES

	<u>May 26</u>	<u>Month Ago</u>	<u>Year Ago</u>
Copper, per lb.	46.058¢	44.105¢	42¢
Lead, per lb.	14.3¢	14.3¢	13¢
Zinc, per lb.	14.5¢	14.0¢	14¢
Tin, per lb.	157.1¢	157.3¢	143.1¢
Nickel, per lb.	\$1.03	\$1.03	94¢
Platinum, per oz.	\$120-125	\$120-125	\$109-114
Mercury, per flask	\$512-520	\$497-510	\$538-550
Antimony ore, per unit	\$7.86-7.95	\$7.54-7.72	\$5.00-5.95
Beryllium powder, 98%	\$54-66	\$54-66	\$54-66
Chrome ore, long ton	\$31-35	\$31-35	\$31-35
Molybdenum conc, per lb.	\$1.72	\$1.62	\$1.62
Titanium ore, per ton	\$20-21	\$20-21	\$21-24
Tungsten, per unit	\$43.00	\$43.00	\$43.00
Silver, New York, per oz.	175.1¢	175.6¢	240.8¢
Gold, per oz.	\$43.65	\$43.45	----
Barite (drilling mud grade from E/MJ April)	\$12-16	\$12-16	----

OIL AND GAS NEWS

(prepared by the Division of Oil and Gas, 3001 Porcupine Drive, Anchorage, Alaska, 99504)

Ten applications for drilling permits were approved by the Division of Oil and Gas as follows:

Permit No. 69-37. Mobil Oil Corporation #3-9-11 Hemi State, API No. 50-029-20018. 1,339' FNL and 1,339' FEL, Section 3, T9N, R11E, U.M. This exploratory location is about 21 miles southwest of the Prudhoe Bay discovery well. This location was approved on April 18, 1969 and was omitted by error from the May, 1969 bulletin.

Permit No. 69-41. Texaco Inc. #1 Kad River, API No. 50-029-20021. 1,320' FNL and 1,320' FWL, Sec. 4, T8N, R18E, U.M. This exploratory location is about 27 miles southeast of the Prudhoe Bay discovery well.

Permit No. 69-47. Union Oil Company of California #G-21 Trading Bay Unit, API No. 50-133-20187. Surface location: 1,803' FSL and 1,407' FEL, Sec. 29, T9N, R13W, S.M. Bottom hole location: 1,350' FNL and 1,300' FWL, Sec. 33, T9N, R13W, S.M. This development location is in the McArthur River Field.

Permit No. 69-48. Tenneco Oil Company #1 Middleton Island State, API No. 50-169-20001. 550' FSL and 550' FEL, Sec. 28, T28S, R6W, C.R.M. This exploratory location is about three miles off the east coast of Middleton Island, in the Gulf of Alaska.

Permit No. 69-49. Mobil Oil Corporation #5-10-13 Hurl State, API No. 50-029-20027. 1,717' FNL and 2,147' FWL, Sec. 5, T10N, R13E, U.M. This exploratory location is about 10 miles southwest of Prudhoe Bay discovery well.

Permit No. 69-50. Phillips Petroleum Company #A-6 North Cook Inlet Unit, API No. 50-283-20026. Surface location: 1,259' FNL and 1,083' FWL, Sec. 6, T11N, R9W, S.M. Bottom hole location: 450' FSL and 800' FEL, Sec. 1, T11N, R10W, S.M. This development location is in the North Cook Inlet Field.

Permit No. 69-51. Standard Oil Company of California #32-25 Kavearak Point, API No. 50-029-20028. 1,360' FNL and 1,979' FEL, Sec. 25, T13N, R10E, U.M. This exploratory location is about 23 miles northwest of the Prudhoe Bay discovery well.

Permit No. 69-52. Standard Oil Company of California #32-14 Simpson Lagoon, API No. 50-029-20028. Surface location: 1,882' FNL and 1,479' FEL, Sec. 14, T13N, R9E, U.M. Bottom hole location: 1,140' FNL and 510' FWL, Sec. 14, T13N, R9E, U.M. This exploratory location is about 31 miles northwest of the Prudhoe Bay discovery well.

Permit No. 69-53. BP Oil Corporation #31-10-16 Sag Delta, API No. 50-029-20030. 1,055' FNL and 830' FEL, Sec. 31, T10N, R16E, U.M. This exploratory location is about 13 miles southeast of the Prudhoe Bay discovery well.

Permit No. 69-54. Mobil Oil Corporation #12-24 Granite Point State, API No. 50-133-20188. Surface location: 2,353' FNL and 1,269' FWL, Sec. 13, T10N, R12W, S.M. Bottom hole location: 2,140' FNL and 500' FWL, Sec. 24, T10N, R12W, S.M. This development location is in the Granite Point Field.

Permit No. 69-55. Union Oil Company of California #G-14A Trading Bay Unit, API No. 50-133-20189. Surface location: 1,825' FSL and 1,487' FEL, Sec. 29, T9N, R13W, S.M. Bottom hole location: 2,120' FSL and 1,150' FEL, Sec. 34, T9N, R13W, S.M. This development location is in the McArthur River Field and will replace the #G-14 well.

DRILLING ACTIVITY (as of May 23, 1969)

<u>Operator</u>	<u>Well Names & Numbers</u>	<u>Type</u>	<u>Status</u>
<u>Southern</u>			
Atlantic Richfield Company	W. Trading Bay State #S-4	D	Location
Gulf Oil Corporation	Middle Lake Unit #1	E	Suspended
Halbouty Alaska Oil Company	Theodore River #1	E	Drilling
Hill Production Company	Fishhook #1	E	Abandoned
Mobil Oil Corporation	Granite Point #32-23	D	Drilling
Mobil Oil Corporation	Granite Point #12-24	D	Location
Mobil Oil Corporation	Granite Point #UC #1-1	D	Drilling
Pan American Petroleum Corp.	David River #1-A	E	Drilling
Phillips Petroleum Co.	N. Cook Inlet Unit A-5	D	Comp. Gas Well
Phillips Petroleum Co.	N. Cook Inlet Unit A-6	D	Drilling
Shell Oil Company	MGS A-22-1	D	Drilling
Shell Oil Company	MGS "C" Line #1	D	Idle
Tenneco Oil Company et al	Middleton Island State #1	E	Location
Texaco Inc.	Trading Bay State TS-5	D	Temp. Susp.
Texaco Inc.	Trading Bay State TS-6	D	Location
Texaco Inc.	Trading Bay State TS-7	D	Completing
Texaco Inc.	Trading Bay State TS-8	D	Drilling
Union Oil Company of Calif.	Kenai Deep Unit #3	D	Location
Union Oil Company of Calif.	Kenai Deep Unit #4	D	Drilling
Union Oil Company of Calif.	Trading Bay State A-19	D	Location
Union Oil Company of Calif.	Trading Bay State A-20	D	Location
Union Oil Company of Calif.	Trading Bay Unit D-14	D	Comp. Oil Well
Union Oil Company of Calif.	Trading Bay Unit D-16	D	Drilling
Union Oil Company of Calif.	Trading Bay Unit D-19	D	Drilling
Union Oil Company of Calif.	Trading Bay Unit G-14	D	Abandoning
Union Oil Company of Calif.	Trading Bay Unit G-14-A	D	Drilling
Union Oil Company of Calif.	Trading Bay Unit G-16	D	Comp. Oil Well
Union Oil Company of Calif.	Trading Bay Unit G-21	D	Location
Union Oil Company of Calif.	Trading Bay Unit K-16	D	Comp. Wtr. Inj.
Union Oil Company of Calif.	Trading Bay Unit S-5	D	Drilling

DRILLING ACTIVITY (as of May 23, 1969) (cont'd)

<u>Operator</u>	<u>Well Names & Numbers</u>	<u>Type</u>	<u>Status</u>
<u>Northern</u>			
Atlantic Richfield Company	Delta State #1	E	Temp. Susp.
Atlantic Richfield Company	Kup River State #1	E	Drilling
Atlantic Richfield Company	Lake State #1	E	Drilling
Atlantic Richfield Company	Nora Federal #1	E	Drilling
Atlantic Richfield Company	W. W. Eileen State #1	E	Drilling
Atlantic Richfield Company	Put River State #1	E	Drilling
BP Oil Corporation	Put River #1	E	Temp. Susp.
BP Oil Corporation	Put River BP 3-11-13	E	Location
BP Oil Corporation	Put River BP 4-11-13	E	Location
BP Oil Corporation	Put River BP 9-11-13	E	Drilling
BP Oil Corporation	Put River BP 10-11-13	E	Drilling
BP Oil Corporation	Put River BP 33-11-13	E	Drilling
BP Oil Corporation	Put River BP 23-10-14	E	Location
BP Oil Corporation	Put River BP 24-10-14	E	Drilling
BP Oil Corporation	Sag Delta #1	E	Location
BP Oil Corporation	Sag Delta 31-10-16	E	Drilling
BP Oil Corporation	Sag Delta 31-11-16	E	Suspended
Colorado Oil and Gas Corp.	Shaviovik #1	E	Drilling
Hamilton Bros. Oil Company	Point Storkersen #1	E	Location
McCulloch Oil Corp.	E. Umiat Unit #2	E	Suspended
Mobil Oil Corp.	Mobil-Phillips Hemi State 3-9-11	E	Drilling
Mobil Oil Corp.	Hurl State 5-10-13	E	Drilling
Mobil Oil Corp.	Mobil-Phillips Kadler State 15-9-16	E	Drilling
Mobil Oil Corp.	Mobil-Phillips Kugaruk State #1	E	Temp. Susp.
Mobil Oil Corp.	Mobil-Phillips W. Kugaruk Unit #1	E	Drilling
Newmont Oil Corp.	E. Kugaruk Unit #1	E	Drilling
Pan American Petroleum Corp.	Kavik #1	E	Drilling
Sinclair Oil Corp.	BP Ugnu #1	E	Drilling
Standard Oil Co. of Calif.	Kavearak Point 32-25	E	R.U.
Standard Oil Co. of Calif.	Simpson Lagoon 32-14	E	R.U.
Standard Oil Co. of Calif.	SOCAL 31-25	E	Temp. Susp.
Texaco Inc.	Kad River #1	E	R.U.
Texaco Inc.	West Kavik Unit #1	E	Drilling

PRODUCTION - April, 1969 (pressure base 14.65 psi)

Field	Oil Bbls	Water-Bbls	Gas-MCF	Wells Prod.*	Cum. Oil	Cum. Gas
<u>OIL FIELDS</u>						
Granite Point	746,961	16,670	500,119	33 (4)	23,170,308	17,231,698
McArthur River	2,579,695	43,989	865,358	33 (10)	31,180,282	9,047,594
Redoubt Shoal					1,596	456
Middle Ground Shoal	815,677	39,337	525,243	49 (9)	27,894,287	13,436,448
Swanson River	983,817	143,937	2,713,366	33 (16)	92,951,465	69,033,471
Trading Bay	851,289	18,622	562,830	24 (7)	7,027,696	5,320,948
Prudhoe Bay	1,930	6	4,950	1	1,930	4,950
Total	5,979,546	262,561	5,171,866	173 (46)	182,227,564	114,075,565
<u>L.P.G.</u>						
Swanson River (Propane)	3,674				24,155	
<u>GAS FIELDS</u>						
Beluga River			22,903	3 (1)		3,283,998
Kenai			4,089,379	20 (2)		148,831,473
Kenai Deep	308		947,566	2	1,416	6,491,993
McArthur River			251,104	2		526,417
Moquawkie			40,278	1		589,306
Nicolai Creek			41,371	2 (1)		198,815
North Cook Inlet			20,884	1 (4)	**	49,181
Sterling			18,406	1 (1)		884,975
South Barrow			49,783	3 (1)		4,110,242
Trading Bay	177	7	15,569	1	3,380	298,088
Inactive Fields						12,028,261
Total	485	7	5,497,243	36 (10)	4,796	177,292,749
STATE GRAND TOTAL	5,980,031	262,568	10,669,109	209 (56)	182,256,515	291,368,314

Average per day: Oil, 199,334 bbls; Csg. Head, 172,396 MCF; Dry Gas, 183,241 MCF; Total Gas, 355,637 MCF.

* Dual completions are included as two wells; triple, as three. () Number of wells not producing in April

** N. Cook Inlet produced 28,297 in March - not reported previously.

Note: The cumulative total oil and gas figures have been corrected because of errors in production made by both Atlantic Richfield and Shell in their February and March reports which they revised in May.