

MINES AND PETROLEUM BULLETIN

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MINING ACTIVITIES

Although practically no mining company or exploration party wants publicity on its activities in Alaska, information is generally available which indicates this will be a busier year than the preceding ones. Information given here is limited to common knowledge picked up in discussions among mining men or from news releases and is not, nor will be, published in this Bulletin as a result of information given directly to this Division in confidence.

An Alaskan helicopter operator reports that mining business contracted for this year is already 50% higher than the total business done last year. Shell Oil and American Smelting and Refining have apparently joined forces and are back in Nome for further offshore exploration activities. They apparently will be drilling off the ice once again next winter. Another major oil company, Amerada, has acquired a number of offshore prospecting permits off Seward Peninsula and apparently will be actively exploring there. John Brockway of Juneau is planning some 1200 feet of diamond drilling on his copper prospect on Baker Peak on Chichagof Island. Newmont is reported drilling its patented nickel property beneath Brady Glacier in Glacier Bay National Monument. The Pass Creek copper prospect north of the Denali Highway will be drilled again this year. Humble Oil and Atlantic Refining have respective hardrock field parties active in Alaska this summer. We have not heard if Pan American Petroleum and Sinclair are continuing their mining exploration efforts.

An Anchorage syndicate known as Alminex is actively staking claims in Southeast Alaska. Alaska Yukon Minerals, Inc. of Anchorage is continuing development of properties in the Copper River area. St. Eugene Mining Company of Falconbridge, Ltd. is continuing its reconnaissance work throughout Alaska and its development work at the Kasna Creek copper property south of Lake Clark. Kennecott Copper Corp. is engaged in surface drilling only at present at its Bornite property with a crew of 40 men - all Alaskan Natives. Bear Creek Mining Company also has a crew doing reconnaissance in that general region. Hanna Mining Company is continuing its investigation of various properties throughout the State.

OIL AND GAS NEWS

Eleven applications for drilling permits were approved by the Division's Petroleum Branch as follows:

Permit No. 68-48. Texaco, Inc., #1-T.S. Trading Bay, A.P.I. No. 50-133-20120.
Surface location: 620' FNL and 2,072' FEL, Sec. 34, T10N, R13W, S.M. Bottom
hole location: 500' FSL and 530' FEL, Sec. 27, T10N, R13W, S.M. This develop-
ment location is in the Trading Bay Field.

Permit No. 68-49. Union Oil Company of California #2 Kenai Deep Unit, A.P.I. No. 50-133-20121. Surface location: 405' FNL and 4,381' FWL, Sec. 7, T4N, R11W, S.M. Bottom hole location: 405' FNL and 1,950' FWL, Sec. 8, T4N, R11W, S.M. This development location is in the Kenai Gas Field.

Permit No. 68-50. Texaco, Inc., #2-T.S. Trading Bay, A.P.I. No. 50-133-20122. Surface location: 662' FNL and 2,003' FEL, Sec. 34, T10N, R13W, S.M. Bottom hole location: 840' FSL and 1,500' FWL, Sec. 34, T10N, R13W, S.M. This development location is in the Trading Bay Field.

Permit No. 68-51. Union Oil Company of California #43-6A Kenai Unit, A.P.I. No. 50-133-20123. Surface location: 205' FNL and 4,381' FWL, Sec. 7, T4N, R11W, S.M. Bottom hole location: 1,875' FSL and 500' FEL, Sec. 6, T4N, R11W, S.M. This development location is in the Kenai Gas Field.

Permit No. 68-52. Marathon Oil Company #3 Beaver Creek Unit, A.P.I. No. 50-133-20124. Surface location: 800' FNL and 1,600' FWL, Sec. 34, T7N, R10W, S.M. Bottom hole location: 660' FSL and 1,980' FEL, Sec. 27, T7N, R10W, S.M. This development location is in the Beaver Creek Gas Field.

Permit No. 68-53. Yukon Services, Inc., #1 Campbell Point, A.P.I. No. 50-283-20014. The location is 1,210' FSL and 1,147' FEL, Sec. 31, T13N, R4W, S.M. This exploratory location is about six miles southwest of downtown Anchorage.

Permit No. 68-54. Shell Oil Company #C-33-26 Middle Ground Shoal, A.P.I. No. 50-133-20125. Surface location: 499' FSL and 1,534' FEL, Sec. 23, T8N, R13W, S.M. Bottom hole location: 1,850' FSL and 1,870' FEL, Sec. 26, T8N, R13W, S.M. This development location is in the Middle Ground Shoal Field.

Permit No. 68-55. Mobil Oil Corporation #2 Moquawkie, A.P.I. No. 50-283-20015. The location is 3,600' FNL and 500' FWL, Sec. 6, T11N, R11W, S.M. This exploratory location is in the Moquawkie Gas Field and is subject to Conservation Order #64.

Permit No. 68-56. Pan American Petroleum Corporation #12 South Middle Ground Shoal Unit, A.P.I. No. 50-133-20126. Surface location: 695' FSL and 1,875' FWL, Sec. 35, T8N, R13W, S.M. Bottom hole location: 380' FSL and 330' FWL, Sec. 2, T7N, R13W, S.M. This development location is in the Middle Ground Shoal Field.

Permit No. 68-57. Union Oil Company of California #G-13 Trading Bay Unit, A.P.I. No. 50-133-20127. Surface location: 1,831' FSL and 1,493' FEL, Sec. 29, T9N, R13W, S.M. Bottom hole location: 1,900' FNL and 2,300' FEL, Sec. 30, T9N, R13W, S.M. This development location is in the McArthur River Field.

Permit No. 68-58. Standard Oil Company of California W.O.I. #43-30 Kustatan Unit, A.P.I. No. 50-133-20128. 2058' FSL and 1,447' FEL, Sec. 30, T7N, R15W, S.M. This exploratory location is in lower Cook Inlet, just southwest of West Foreland.

DRILLING ACTIVITY (as of June 26, 1968)

<u>Operator</u>	<u>Well Names & Numbers</u>	<u>Type</u>	<u>Status</u>
Atlantic Richfield Co.	Prudhoe Bay #1	E	Testing
Atlantic Richfield Co.	Sag River State #1	E	Drilling
Marathon Oil Corp.	Beaver Creek Unit #3	D	Location
Mobil Oil Corp.	Granite Point State #22-13	D	Comp. Oil Well
Mobil Oil Corp.	Granite Point State #33-14	D	Drilling
Mobil Oil Corp.	Granite Point State #44-11	D	Location
Mobil Oil Corp.	Granite Point State #42-23	D	Drilling
Mobil Oil Corp.	Moquawkie #2	E	Location
Pan American Petroleum Corp.	Granite Point State 17586 #5	D	Drilling
Pan American Petroleum Corp.	Granite Point State 17587 #5	D	Drilling
Pan American Petroleum Corp.	Granite Point State 18742 #14	D	Temp. Susp.
Pan American Petroleum Corp.	Granite Point State 18742 #18	D	Comp. Oil Well
Pan American Petroleum Corp.	Granite Point State 18742 #21	D	Location
Pan American Petroleum Corp.	Granite Point State 18742 #22	D	Drilling
Pan American Petroleum Corp.	Granite Point State 18742 #23	D	Testing
Pan American Petroleum Corp.	Granite Point State 18742 #25	D	Drilling
Pan American Petroleum Corp.	Granite Point State 18742 #27	D	Completing
Pan American Petroleum Corp.	MGS State 17595 #12	D	Location
Pan American Petroleum Corp.	South MGS Unit #9	D	Testing
Pan American Petroleum Corp.	South MGS Unit #10	D	Temp. Susp.
Pan American Petroleum Corp.	South MGS Unit #11	D	Drilling
Pan American Petroleum Corp.	South MGS Unit #12	D	Location
Shell Oil Company	Bachatna Creek #1	E	Location
Shell Oil Company	MGS C-22-26	D	Comp. Oil Well
Shell Oil Company	MGS C-33-26	D	Drilling
Standard Oil Co. of Calif.	Kustatan Unit 43-30	E	Drilling
Texaco, Inc.	Trading Bay T.S. #1	D	Location
Texaco, Inc.	Trading Bay T.S. #2	D	Location
Union Oil Co. of Calif.	Kenai Unit 43-6A	D	Location
Union Oil Co. of Calif.	Kenai Deep Unit #2	D	Location
Union Oil Co. of Calif.	Trading Bay State A-14	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay State A-15	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay State A-16	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit D-7	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit D-8	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit G-9	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit G-10	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay Unit G-11	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit G-12	D	Location
Union Oil Co. of Calif.	Trading Bay Unit G-13	D	Location
Union Oil Co. of Calif.	Trading Bay Unit K-3	D	Location
Union Oil Co. of Calif.	Trading Bay Unit K-7	D	Location
Union Oil Co. of Calif.	Trading Bay Unit K-8	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit K-9	D	Drilling
Yukon Services, Inc.	Campbell Point #1	E	Location

"E" indicates an exploratory well, and "D" a development well.

PRODUCTION - May 1968 (Gas pressure base 14.65 psi)

<u>Field</u>	<u>Oil-Bbls</u>	<u>Water-Bbls</u>	<u>Gas-MCF</u>	<u>*No. of Wells</u>	<u>Cum. Oil</u>	<u>Cum. Gas</u>
Granite Point	1,210,772	14,975	966,247	26 (3)	13,766,720	9,661,250
McArthur River	1,831,582	25,821	523,745	17	6,816,216	1,902,385
Middle Ground Shoal	1,233,717	67,920	547,387	43 (3)	15,982,162	7,216,203
Swanson River	1,163,595	162,358	2,176,124	34 (16)	80,661,616	41,803,507
Trading Bay	234,392	840	213,759	15 (5)	1,692,236	1,609,683
TOTAL	5,674,058	271,914	4,427,262	135 (27)	118,918,950	62,193,028
Beluga River			161,403	4		591,957
Kenai			2,884,736	17 (1)		105,364,812
Kenai Deep			24,219	1		600,554
Moquawkie			8,078	1		65,839
Sterling			14,841	1 (1)		676,678
South Barrow			38,648	3		3,629,898
Trading Bay	643		8,687	1		97,549
Inactive Gas Fields						12,028,261
Total Dry Gas	643		3,140,612	28 (2)		123,055,548
STATE GRAND TOTALS	5,674,701	271,914	7,567,874	163 (29)	118,919,593	185,248,576

*Dual completions are included as two wells; triple, as three. () Number of producers shut-in, standing or inactive this month.

ASSAY POLICY STATEMENT

With our assay lab facilities now consolidated at College, we desire to give the same rapid service to those who must mail their samples to us as to those who can hand-carry their samples to the lab. To accomplish this and give the fairest and best service we can within the intent of the law, we are adopting the procedures and requirements listed below. These have been presented to all branches of the Alaska Miners Association and have received no adverse comment.

1. Each samples submitted should bear a number or letter or some other identifying mark, particularly when a number of samples are submitted together. Assay results will be reported in accordance with the identifying marks.
2. A statement should be submitted with samples saying what elements or minerals each sample is to be assayed for. Please do not say merely "assay for anything of value", or "a complete analysis". Identifications will be made when requested.
3. On receipt of a sample, we will estimate its date of completion. The written estimates will be handed to the submitter in person or promptly mailed so that the distant submitter will know we have received his sample and when he can expect results.
4. Samples will be assayed in the chronological order of their receipt at the laboratory except as provided in paragraphs 5, 6, and 7. Special priorities may be given by the Director when warranted.

5. Samples should consist of pieces small enough to go into our 3-inch lab crusher. Samples requiring hand-breaking by lab personnel will normally be set aside until there are no other samples waiting for assay.
6. Samples should be dry. The home-baking oven is handy for this purpose. Drying samples in the lab takes up needed space and delays the work. Samples which are too wet for processing will be set aside until dry before being placed in chronological order for work.
7. The Division's assaying function is intended for supporting prospectors and stimulating discoveries. Its original intent was not to support exploration, drilling, or production operations. Also, it is not fair to the individual prospector who mails in occasional samples from out in the bush to keep his work waiting while large numbers of samples are being assayed for the above type operations. Until further notice, work on samples from any one person or property in the regular chronological order as received will be limited to 10 man-hours. After this amount of work is done, the remaining samples, together with any further samples from that person or property submitted in the meantime, will be scheduled for another like amount of work following all other samples waiting for work at that time. This work-time limit will be on a trial basis. It may be changed as conditions vary.
8. The type and quality of the analyses to be given any sample will be at the discretion of the Lab Supervisor. The choice will depend on the quality of the sample and the problem at hand. It is usually wasteful to do detailed, precise analyses on "grab" samples or samples casually taken. Approximate results are sufficient for such samples. Only samples carefully taken and precisely located which are representative of a body of mineralization, or a series of samples designed to solve a particular problem, are worthy of extensive, accurate, quantitative work.
9. Where it appears warranted, unless requested differently, samples will be (1) given a spectrographic analysis to determine if any base metals are present in significant amounts, then (2) assayed for precious metals if it appears warranted and (3) assayed for such base metals as can be seen and are shown by the spectrograph to be significant.
10. All samples will be checked for radioactivity starting as soon as we have our lab counter in operation.
11. Lab personnel should not pan samples down except as a normal concentration method chosen by them for a specific analytical process. Anyone can pan and should not expect the lab people to use up lab time doing such work for them.
12. Lab personnel are not intended for consultation on prospecting, geology, marketing, and related matters, and their work should not be interrupted for such. Needed consulting will be available from the engineers and geologists of the Division. When no engineer or geologist is available, the Lab Supervisor will provide consultation and will call on other lab personnel if advisable.
13. We have well-developed procedures for most analyses, but some elements are rarely called for or may require elaborate instrumentation for which we are not equipped. We will do the best we can, consistent with sample quality. In cases where our laboratory is limited

in its capability and the sample deserves more attention from another source, it will be so indicated in the lab report.

14. Lab reports will indicate estimated precision or accuracy of values reported in quantitative analyses.
15. Unused portions of samples will be held for one month and sample pulps for six months after which they will be discarded. The submitter may claim the sample or pulps during those times.

NEW DIVISION PUBLICATIONS

The Division of Mines and Minerals recently issued Geochemical Report No. 13, "Geochemical Investigations of Selected Areas in the Yukon Tanana Region of Alaska 1965 and 1966." This report presents information and data obtained by geochemical investigations of stream sediments of the upper Tolovana River basin in the Tolovana Mining District, the Pedro Dome-Coffee Dome area in the Fairbanks Mining District, the Mastodon Dome-Porcupine Dome area in the Circle Mining District, and the Columbia Creek-O'Brien Creek area in the Fortymile Mining District. All four districts are placer districts. Significant numbers of samples taken in the later three areas contained anomalous amounts of base metals. Areas worthy of further study or prospecting are suggested.

The report consists of 14 pages of text, 13 page-size geochem maps and numerous pages of graphs and tables of geochem analyses results. The author is Willow M. Burand, former Mining Engineer of the Division. The report may be obtained by mail from the College office of the Division (Box 5-300) or "over the counter" at our Anchorage and Juneau offices. The price is \$1.00.

We regret that we are late with our report publications this year. Four more reports will be out later this summer, barring any printing problems. Next year we will be back on our schedule of getting the reports out prior to the field season.

NEW USGS PUBLICATIONS

USGS Bulletin 1246, "Metalliferous Lode Deposits of Alaska," became available last February, but we neglected to mention it. We apologize to the authors, Henry C. Berg and Edward H. Cobb, for this oversight, for it is a most useful publication. This 254-page bulletin contains an inventory of mines and prospects and their geologic settings plus maps. It can be obtained by mail from the Superintendent of Documents, Government Printing Office, Washington, D.C. (price not stated) or purchased over the counter at the USGS public inquiries office, Skyline Building, Anchorage.

The following circulars have recently been released by the USGS and may be obtained free at the various USGS and Division of Mines and Minerals offices.

Circular 559, "Lead, zinc, and silver deposits of Bowser Creek, McGrath A-2 quadrangle, Alaska," by B.L. Reed and R.L. Elliott. Although preliminary and brief, the report calls attention to mineral possibilities in a part of the Alaska Range that has had no previous mining.

Circular 564, "Occurrences of gold and other metals in the upper Chulitna district, Alaska," by C.C. Hawley and Allen L. Clark. The report discusses an area on the south flank of the Alaska Range that has a number of long-inactive mines and prospects. New geologic and geochemical studies suggest that further exploration by private industry is warranted at some of them.

Circular 565, "Cassiterite in gold placers at Humboldt Creek Serpentine-Kougarok area Seward Peninsula, Alaska," by C.L. Sainsbury, Reuben Kachadoorian, Thomas E. Smith, and William C. Todd, describes the large amounts of cassiterite found in certain gold placers on the Seward Peninsula and points out the possibility of a nearby lode source for the tin.

Circular 569, "Geochemical anomalies and metalliferous deposits between Windy Fork and Post River southern Alaska Range," by Bruce L. Reed and Raymond L. Elliott, describes seven areas in which geochemical sampling of stream sediments indicates unusual concentrations of lead, zinc, silver, copper, or molybdenum.

Circular 570, "Suggested areas for prospecting in the central Koyukuk River region, Alaska," by Thomas P. Miller and Oscar J. Ferrians, Jr., defines seven areas favorable for prospecting based on unusual amounts of copper, lead, zinc, silver, and gold in stream sediment samples and mineralized outcrops.

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

Reconnaissance geologic map of the Tanacross quadrangle, Alaska, by Helen L. Foster. 13 p., 1 map and explanation, scale 1:250,000.

Preliminary geologic map of the Eagle B-1 and C-1 quadrangles, Alaska, by Helen L. Foster and Terry C. Keith. 1 map, scale 1:63,360.

Geology and lode gold deposits of the Nuka Bay area, Kenai Peninsula, Alaska, by Donald H. Richter. 52 p., 1 pl., 10 figs., 4 tables (map scale, 1:63,360).

Results of stream-sediments sampling between Windy Fork and Post River, southern Alaska Range, by Raymond L. Elliott and Bruce L. Reed. 4 p., 1 table (8 sheets), 1 index map, scale 1:125,000.

Results of stream sediments sampling in parts of the southern Alaska Range, by Bruce L. Reed and Raymond L. Elliott. 18 p. text, 29 figs.

NEW BARITE PLANT

A new barite processing plant will be in operation soon at the mouth of the Kenai River, according to the Alaska Barite Co. The barite will be shipped there from the company's mine at Castle Island near Petersburg. Formerly it was shipped to Texas. The product of the plant

will be drilling mud, which will be used by the Alaska oil industry. The new facility will employ about 10 men the year around. It is mounted on a 42 by 255-foot barge.

The barite deposit at Castle Island has now been mined down to sea level. Plans are to continue the mining to the lowest level possible.

E. AND M. J. METAL MARKET PRICES

	<u>June 24</u>	<u>Month Ago</u>	<u>Year Ago</u>
Copper, per lb	42¢	42¢	38¢
Lead, per lb	13¢	13¢	14¢
Zinc, per lb	14¢	14¢	14¢
Tin, per lb	141.4¢	143.1¢	154.8¢
Nickel, per lb	94.00¢	94.00¢	85.25¢
Platinum, per oz	\$109-114	\$109-114	\$109-112
Mercury, per flask	\$510-525	\$538-550	\$475-491
Antimony ore, per unit	\$5.00-5.95	\$5.00-5.95	\$5.20-6.20
Beryllium powder, 98% (lb)	\$54-66	\$54-66	\$54-66
Chrome ore, long ton	\$31-35	\$31-35	\$31-35
Molybdenum conc, per lb	\$1.62	\$1.62	\$1.62
Titanium ore, per ton	\$20-21	\$21-24	\$21-24
Tungsten, per unit	\$43.00	\$43.00	\$43.00
Silver, New York, per oz	244.60¢	240.80¢	130.10¢
Gold, Engelhard, per oz	\$41.30*	\$42.10	---

* Lowest buying price reported by Engelhard Industries at which offers can be obtained for delivery at Newark, N.J.