STATE OF ALASKA
DEPARTMENT OF MINES

Report

of the

Commissioner of Mines

for the

BIENNIUM ENDED DECEMBER 31, 1958

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DEPARTMENT OF MINES STAFF ON DECEMBER 31, 1958

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THE DEPARTMENT OF MINES

General Information and Activities

The Territorial Department of Mines*, under the management and direction of the Commissioner of Mines, has charge of all matters affecting exploration, development and mining of the mineral resources of Alaska; the collection and dissemination of all official information relative to the mineral resources, mines, and mining projects of the State; and has charge of the administration of the laws with respect to all kinds of mining and mining safety.

The Department of Mines (TDM) conducts a continuing survey of the mineral resources and mining operations of the State and disseminates information in regard thereto with a view toward perpetuating and assisting prospectors and miners; safeguards the lives and health of miners; protects investors in the mining industry; and otherwise fosters and promotes the best interests of the mining, mineral, and related industries of the State.

For the purpose of directly and personally aiding miners and prospectors and stimulating mineral discoveries, the Department of Mines maintains four public assay and field offices in the State located at Ketchikan, College, Anchorage, and Nome. Mining engineers travel "into the bush" to give advice and help. Assistance is also rendered to mining people and others at the Juneau office.

In view of the extreme need for increased mining production in Alaska, the Department is exerting every effort within its means to obtain basic information on mineral deposits of possible commercial importance and to distribute this information to interested miners and venture capital. Much time is spent in all offices in giving advice and assistance to exploration parties, researchers, and engineers or geologists representing mining com-

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*As this is written, Alaska has just become a State. Reorganization and renaming of the several Territorial Departments to form the new State government are pending, but have not yet been done. As a result, old Territorial names and designations must be used in this report, though they will soon be outdated.

panies who are looking for mining or invesment opportunities. Mining companies and investors outside of Alaska are contacted and urged to investigate Alaska's mineral possibilities. These efforts by the TDM have helped create a marked increase of venture capital expenditures in Alaska within the last three years. This increase has resulted in important discoveries.

The Department also works continually for needed changes in mining, land, and tax laws which will make new mining ventures easier to achieve.

Protection of investors is another field of endeavor in which the Department is very active. At the request of past, present, and prospective investors, various organizations and individuals are investigated and reported on as to their reliability, reputation, or methods employed. This is a distinct service to the legitimate operators as it helps maintain a good reputation for Alaskan mining in general.

The Department publishes a monthly mining news and information bulletin called the **TDM Bulletin.** It has been widely praised by all who have read it, and has many times received national recognition by the mining industry. Its primary aim is to keep Alaskan miners and prospectors informed on mineral and mining matters, but "outside" companies have found it useful to maintain Alaskan contacts. Even some of the top administrators in Washington, D. C. have used it to keep informed on Alaskan affairs. Circulation at present is nearly 1,500. Information circulars are also published as the need arises. Technical and informational papers are written for mining conventions and conferences to spread information on conditions and opportunities in Alaska.

The staff of the Juneau office of the Department includes Phil R. Holdsworth, Commissioner of Mines; James A. Williams, Mining Engineer; an Administrative Assistant; a Mineral Analyst; and a Clerk-Stenographer. Located in the Anchorage area are Martin W. Jasper, Mining Engineer; Wiley D. Robinson, Coal Mine Inspector; and Stephen P. Metzger, Assayer. Robert H. Saunders, Mining Engineer, and Donald R. Stein, Assayer, are stationed at College in the Fairbanks area. The Ketchikan office is presently operated by Ralph E. Pray, Assayer. The position

of Assayer-Engineer at Nome is filled by Willow M. Burrand. The TDM staff has been increased by only one person in the last six-year period.

Libraries of Alaskan publications issued by the U. S. Geological Survey, U. S. Bureau of Mines and the Atomic Energy Commission are maintained at the assay and field offices and the Juneau headquarters. These libraries are open to the public and, in addition to these publications, the Juneau office has collected much additional information on various properties throughout the State resulting from examinations and reports by engineers of the Department and others. The offices also maintain collections of classified rocks and minerals, including those of Alaskan origin, as a means of ready reference or identification by the prospector and miner.

Several thousand inquiries in regard to the mining industry and mining opportunities by visitors and by correspondence were answered during the biennium. Professional advice in the way of examinations and reports is offered to the prospector and miner by Departmental engineers. This service is offered to those who cannot afford the employment of a private consultant. Reports of examinations by TDM engineers for private individuals are for their information only, and results of same are only made public upon authorization by the property owners, which is usually given. Many requests for this type of advice were received and resulting examinations made by members of the Department staff. Services include making contacts between holders of mining ground and prospective purchasers, when requested. Geophysical exploration projects on a moderate scale are also carried out by Department engineers.

The Department's mineral analyst continues on a full-time basis the work on the complete bibliography and inventory of Alaskan mineral deposits authorized by the 1953 Legislature. During the project's first biennium, the work was done only when personnel could be spared from their regular duties. This project has been of great assistance to many individuals and mining company representatives who have come to the Juneau office in search of information on mining areas and properties for possible future operations. Although the work of detailed compilation is not complete, the project is sufficiently well organized so that

nearly all information on specific areas or properties can be obtained in a few minutes. It should be noted here that the TDM files of mineral information are organized so that all reports, maps, correspondence and data relating to area, prospects, or properties are filed according to geographical location in the State. The system of USGS quadrangles is used as a basis for the filing system. This makes an efficient arrangement, and eliminates almost entirely the possibility of accidentally missing important information on a particular property or area.

The Cental Recording function set up by the 1953 Legislature is continuing, and the claim location and assessment work affidavits are coming in regularly from the various U. S. Commissioners who are the recorders for their respective recording precincts. At the end of 1958, there were a total of 16,209 documents in the files, 2,512 having been received during 1957, and 4,628 during 1958. These represent ownership and other information on an estimated 16,000 unpatented claims in Alaska, and is the only way in which records on unpatented mining claims can be efficiently filed. In addition to being cross-indexed under three headings, this information is also being incorporated into the above-mentioned mineral deposit inventory so that current ownership of prospects can be easily determined from one record. This system is a step ahead of the files at any of the other State mining departments, and several of the Western State mining department executives have expressed their interest in following Alaska's lead in this field. A discussion and illustration of the trends of claim staking as indicated by the documents coming into Central Recording is included under "Prospecting and Exploration."

The Department of Mines is responsible for the Coal Miners Examining Board. The Commissioner of Mines and the Coal Mine Inspector are chairman and member respectively. Two other members are chosen from the industry by the industry: one from the operators and one from the coal miners' union. The purpose of the Board is to examine applicants who wish to obtain supervisory positions in the coal mines to determine if they have suficient experience and knowledge for the safety of the men who work under them. A total of 28 first class and 17 second class certificates have been issued since the Board's creation in 1953.

Chapter 129 enacted by the 1955 Legislature put the Department into the prospectors' equipment rental business. Under the provisions of this Act, there were purchased for rental to prospectors eight diamond core drills, sixteen Geiger counters, and sixteen Mineralights, which were divided equally among the four judicial divisions. A gasoline jack hammer was purchased later. This equipment has been rented out to many prospectors, helping their prospecting ventures greatly. Since the Act made no provision for disposition of the rental money, it has been regularly turned into Alaska's General Fund.

The TDM was given the task of examining and licensing explosives handlers in the construction industry in 1955. The law requires that all men hired for the purpose of detonating explosives must be certified by the TDM as fit and competent, and that the TDM must determine their fitness by examination. Miners, prospectors, and self-employed persons are exempt. Although it is felt by the Department that this function should more properly be administered by the Department of Labor, since the Act was passed expressly for the benefit of construction workers, the TDM has nevertheless done the work to the best of its ability without an increase in personnel. Explosives handlers' examinations are given at all stations and in other locations as field trips on regular business permitted. Also, trips are made to outlying communities to give examinations when the demand from a number of applicants justifies the travel, but this is kept to a minimum because of the extra expense involved. Examinations have been given to 326 applicants, of which 314 were successful and received certificates of fitness. A fee of $5.00 is charged for each examination, and the receipts are turned into the General Fund.

The 1957 Legislature passed a law creating a Prospector Assistance Program to be administered by the Department. Since the funds for the program were not available until July of 1957, the program was not started until 1958. The results for the first year are not encouraging and show that there is little demand from truly quallified prospectors for this type of assistance. The law requires that a person must prospect for at least 30 consecutive days and shall be allowed a maximum of $200 for transportation for the trip and $100 per month for supplies while "in the bush." Only bona fide residents of Alaska are eligible, and in

case of a surplus of qualified applicants, lots are drawn to determine who shall be on the program. It was decided to put 16 prospectors on the program in the 1958 season, but of these, only three completed their prospecting ventures as planned and two completed only part of the work they indicated on their applications would be done. For various reasons, the remainder of the chosen applicants did not go out at all. This program will be operated again in the season of 1959, but funds for further assistance after 1959 will probably not be available.

Chapter 40, SLA 1955 created the Oil and Gas Conservation Commission and included the Commissioner of Mines as a member and director. The Commissioner has been very active in directing this body and formulating policies for future regulation of oil production in regard to conservation. The stenographic and clerical work for the Oil and Gas Conservation Commission has been handled by the Juneau TDM staff.

As a result of the Richfield oil strike on the Kenai Peninsula on July 23, 1957, Alaska was admitted as a full member to the Interstate Oil Compact Commission. The Commissioner of Mines is Alaska's official representative to the IOCC, attends their meetings annually, and keeps them informed on oil matters pertaining to Alaska as well as receiving information of benefit to Alaska.

The 1957 Legislature created the Alaska Land Board to direct and set policies for the new Alaska Department of Lands. Certain department heads are members of this Board, and the Commissioner of Mines has been serving as its Chairman. This has created considerable work for the TDM staff at Juneau, where, like that of the Oil and Gas Conservation Commission, the clerical and stenographic work for the Board is done.

The Commissioner of Mines also serves as a member of the Alaska Resource Development Board.

Assay Offices and Field Stations

The assay offices and field stations of the Department of Mines at Ketchikan, College, Anchorage and Nome continued to perform analyses and mineral determinations during the biennium. This service is offered free of charge to prospectors and miners and serves to encourage the search for minerals in the

State. The following tabulation compares the number of assays made during the past four years:

	1955	1956	1957	1958
Gold and silver	1692	1535	2118	1606
Chemical analyses	1687	1517	1175	1835
Mineral identifications	655	628	471	435
Spectrographic analyses	224	339	151	196
Coal analyses	5	9	4	12
Totals	4263	4028	3919	4084

Assay offices and field stations of the Department are now satisfactory and adequate with the exception of the situation at College. As reported for several preceding years the College Assay Office has for many years been housed in quarters that are entirely inadequate and positively unsuitable for the large work load of the Fourth Division. It is in the basement of the old University power plant. This building has been condemned, and will be razed as modernization of the campus continues. For these reasons, a move of this office is imperative. It is hoped that funds will be forthcoming from the first State Legislature to make this move, and to provide space in the same new quarters for the Department's mining engineer stationed at College. This will allow closer cooperation between the assayer and engineer and provide better service to prospectors, miners, and the general mining-minded public than is presently possible.

The assay office at Ketchikan was moved during the biennium, a move that was necessary because of a request by the City of Ketchikan, which owned the former location. The TDM was fortunate in obtaining an old building which could be remodelled into a suitable assay office and laboratory. The remodelling is practically complete and the office is functioning well.

The Nome Assay Office operated satisfactorily throughout the biennium after the completion of the remodelling of the old building there in the previous biennium. The Assayer stationed at Nome also serves as a field engineer for the Second Division. Though the building is owned by the TDM, the office space is shared with the Department of Taxation personnel stationed there, resulting in a saving on expenses to both agencies.

The TDM building at Anchorage is modern and adequate. It contains the offices of the mining engineer and coal mine

inspector as well as the assay laboratory. Offices of future petroleum engineers and geologists will probably be there too.

Two special types of analyses are offered by the Department: spectrographic and fluorimetric. The spectrograph is located at the College office. It provides a means of determining quickly all the major and minor and most of the trace elements in an ore sample. This quite often results in finding certain valuable elements in a sample that otherwise may be accidentally missed by ordinary assay methods, and hence is a valuable addition to the TDM services.

The fluorimeter is at the Ketchikan office. This instrument is used to determine the actual amount of uranium in a sample. With Geiger or scintillation equipment, one can determine the relative total amounts of radioactivity in samples, but not the portion of the total that is caused by uranium only nor the amount that is caused by the other radioactive elements that are nearly always associated with uranium. The fluorimetric process takes the guesswork out of radioactive assaying.

Coal analyses are made at the College assay office. A charge is usually made for this particular service.

Field Investigations

Field examinations and technical assistance were given by members of the Department of Mines staff to those requesting this service. Examinations were made, and reports written or professional advice given, on mining properties and prospects throughout Alaska. Minerals concerned in these examinations were copper, iron, nickel, lead, gold, mercury, vermiculite, barite, coal, tungsten, chromite, and others. Reports and recommendations were made to mining companies and other potential purchasers of mining prospects on behalf of property holders, and assistance was given in a few of the negotiations. Technical advice was given at active mining operations, when requested, on mining methods and problems. Exploration drilling projects were assisted. The commercial possibilities of undeveloped coal beds were investigated.

Safety Inspections

In addition to geological and other types of examinations, the

TDM engineers also examined properties visited for safety conditions. Other properties were visited for safety reasons only. Tunneling projects were also visited for the purposes of safety inspections and enforcement, since by law all underground work is under the jurisdiction of the Department even though not connected with mining. The Commissioner of Mines visited oil well sites.

The Department is jointly responsible with the U. S. Bureau of Mines for the inspection and enforcement of safety conditions in Alaskan coal mines for the protection of the coal miners. Joint inspections with the Bureau safety inspector are made. Also, the regular monthly inspections of the coal mines by the TDM Coal Mine Inspector continued. The union-sponsored safety committees continued to work with the Department to keep the miners "safety conscious."

Cooperation with Federal Agencies

The TDM and the U. S. Bureau of Mines have in effect a formal signed agreement for the mutual cooperative interchange of information. This eliminates duplication of effort and is a saving of time and money. There has also been a free exchange of information with the U. S. Geological Survey and the Atomic Energy Commission.

Since the U. S. Bureau of Mines uses a system of mining district designations for its statistical reporting, and the U. S. Geological Survey now bases its geological information on its quadrangle system, the Department of Mines has adopted both systems in order to facilitate exchange of information with both agencies. In the text of this report, mining district designations are used in describing mining operations, etc., because the water shed boundaries of the districts seldom divide mining areas. In the appended tabulated list of active mining operations, both district and quadrangle designations are used in order that interested persons may also become familiar with the locations with respect to the USGS quadrangle maps which are published for the entire State and widely used.

The U. S. Geological Survey sends to the Department copies of "open file" reports pertaining to Alaska that are not available for public distribution, but which may be consulted at TDM

offices. The USGS also keeps the TDM appraised of its field work plans and other matters of importance so that the TDM can act accordingly in the best interests of the industry.

The Bureau of Land Management and the Forest Service have cooperated to the best of their ability in supplying information on the status of mineral lands and claims when requested. The Forest Service has received much information and help from the TDM in gathering information on mining claims and mineralized areas for their various programs, including the Public Law 167 program, which has to do with determining surface rights on unpatented claims.

In the matter of protection of the investor, there is good cooperation and exchange of information between the TDM and the Federal Securities Exchange Commission.

THE MINING INDUSTRY

Production

Alaska's total mineral production, dollarwise, for the 1957-1958 biennium increased by more than 4% over that of 1955-1956. This increase for the biennium was caused by larger production of mercury, which was more than doubled; stone, which was tripled; and uranium, produced in 1957 only. Coal, gold, and sand and gravel held about even between the two biennia. Though production for the biennium was a high point, the yearly trend is different and shows a drop of nearly 30% in 1958 from that of 1957. See Table I and Figure I. Production in 1957 reached the highest peak since before the War, but in 1958 it dropped to the lowest point since 1951. This large drop from 1957 to 1958 was chiefly because of the decline in production of coal, stone, and sand and gravel, in addition to the complete lack of uranium and chrome production in 1958. Production of mercury and platinum also dropped. Responsible, too, for the overall decline in value was the drop in unit values (prices) for nearly everything except gold.

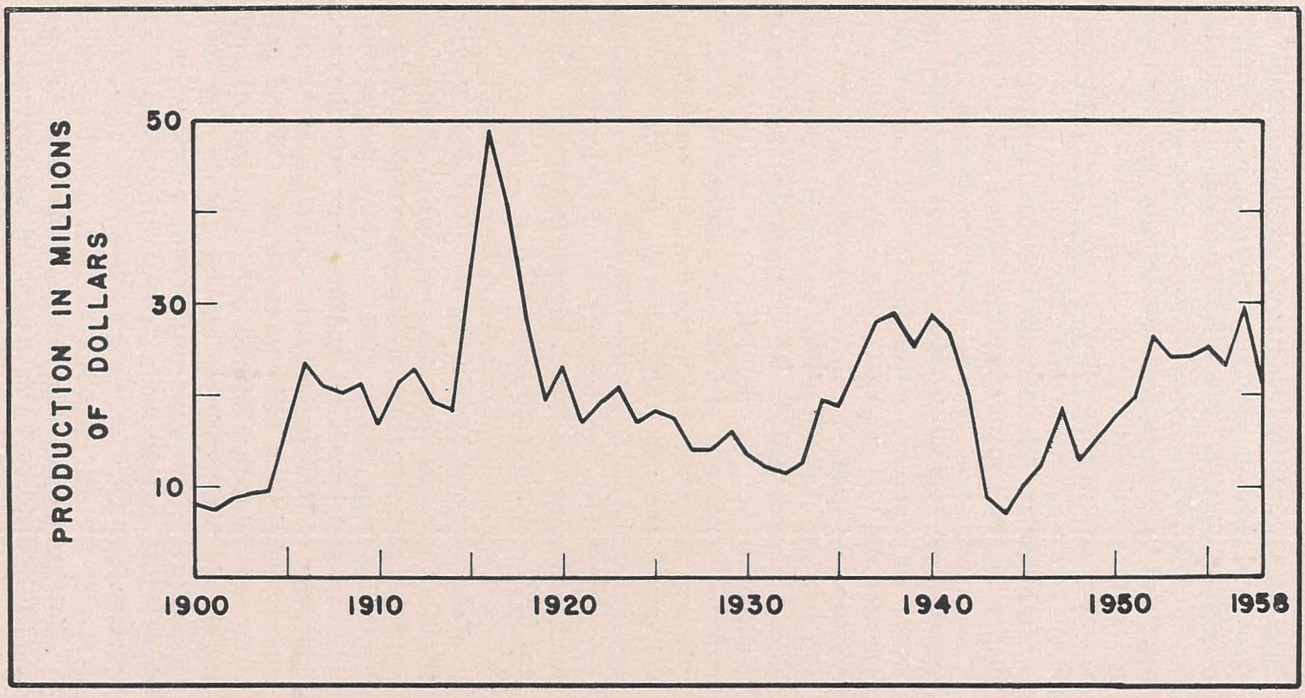
TABLE I

Mineral Production of Alaska, 1956-1958

		1956		1957		1958 (1)	
		Quantity	Value	Quantity	Value	Quantity	Value
Antimony	short tons	(2)	(2)	17	$ 4,000	.....	.....
Chromite	short tons	7,193	$ 711,481	4,200	431,000	.....	.....
Coal, bituminous	short tons	726,801	6,373,976	842,338	7,296,000	732,000	$6,350,000
Gold	troy ounces	209,206	7,325,360	215,467	7,541,000	215,000	7,500,000
Lead	short tons	1	314	9	3,000	1	(2)
Mercury	flasks 76 lbs.	3,280	852,539	5,461	1,349,000	3,200	(2)
Platinum	troy ounces	(2)	(2)	(2)	(2)	(2)	(2)
Sand and gravel	short tons	5,955,105	5,879,799	6,096,000	8,799,000	4,100,000	5,000,000
Silver	troy ounces	28,360	25,667	28,862	26,000	28,000	26,000
Stone	short tons	194,864	594,894	528,000	1,953,000	273,000	955,000
Uranium		.....	.....	(2)	(2)	.....	.....
Undistributed (3)			1,644,000		2,484,000		1,246,000
Total			$23,408,000		$29,886,000		$21,077,000

(1) All figures for 1958 and undistributed figures for 1957 are preliminary and subject to revision.
(2) Values included with "Undistributed" to avoid disclosing individual company incomes.
(3) Includes gem stones, platinum, uranium, antimony, and mercury.
Note: Above statistics prepared in cooperation with Alvin Kaufman, U. S. Bureau of Mines, Juneau, with the exception of the coal value for 1958 and the undistributed for 1957 and 1958, which are presented on authority of the TDM only. Note also that sand and gravel are not true minerals, but are carried by the U.S.B.M. for statistical reporting of mineral production throughout the U. S.

FIGURE I.
Annual Mineral Production, 1900-1958



Gold production held steady between 240,000 and 250,000 ounces per year for several years to the end of 1955. It dropped to 209,000 ounces in 1956 and has held at around 215,000 ounces in 1957 and 1958. It may hold near this average for a few more years, but by 1963 or 1964, gold production in Alaska will drop to less than half its present level unless there are unforeseen improvements in the price or economic conditions. Chrome production was nil in 1958 because of the closing of the General Services Administration purchasing program. Coal production declined mostly because of two mild winters and large existing military stockpiles. Mercury dropped because of difficulties at the Red Devil Mine, the only significant mercury producer. Uranium was mined in 1957 for the first time, but the operation did not resume in 1958. Silver is produced only as a byproduct of gold. Sand and gravel was higher in 1957 than both gold and coal, but in 1958 was back in third place again. Its decline is accounted for by temporarily decreased government construction activity, an activity which is not dependent on economic conditions and has no connection with the mining industry. As pointed out in the footnotes beneath the table, sand and gravel are not truly minerals, but are reported as such throughout the U. S. by the U.S.B.M. in its statistical work, so they are reported here for purposes of comparison. In 1958, production of stone was fourth highest in value in Alaska, mercury was fifth, and platinum was sixth.

Total base metal production increased slightly during the biennium, but this was solely due to the highly productive year of the Red Devil mercury mine in 1957. Base metals, of course, declined drastically from 1957 to 1958, in which year mercury was the only base metal produced, and that from only the one mine. The chief hope of increased mining production in Alaska lies in her copper, nickel, iron and coal resources. Oil and gas production in the near future are assured, barring unforeseen economic upsets and harsh tax measures applied before the industry gains momentum. Two wells were running production tests at the close of 1958, and the production was being shipped to a California refinery.

Total mineral production in Alaska since 1880 now adds up to $1,184,301,000. Of this total, gold has accounted for 62%, or

$729,622,000. Copper production has created 19% of the overall total, and totals $226,890,000, although no copper in significant quantities has been produced in Alaska since 1938 when the famous Kennecott Mine shut down. Coal production has reached a total of $85,684,000 and accounts for 7% of Alaska's overall total.

TABLE II

Average Metal Prices as Quoted by E. & M. J.

	1956	1957	1958	1/1/59
Copper, domestic, f.o.b. refinery	41.82	29.58	27.76	28.60
Copper, foregn, f.o.b. refinery	40.43	27.16	25.12	26.98
Lead, common, New York	16.01	14.66	12.11	13.00
Lead, common, St. Louis	15.81	14.46	11.91	12.80
Zinc, Prime Western, St. Louis	13.49	11.40	10.31	11.50
Tin, Straits, New York	101.41	96.26	95.13	98.38
Silver, foreign, New York	90.83	90.82	89.04	89.88
Quicksilver (per flask, 76 lb.)	$259.92	$246.98	$229.06	$220.00
Antimony, New York (cases)	36.47	36.59	33.08	32.59
Antimony, bulk, Laredo	33.00	33.00	29.49	29.00
Platinum, refined	$103.90	$ 89.45	$ 64.93	$ 52.00
Cadmium (producers quotation)	170.00	169.65	152.30	145.00
Aluminum, 99 plus percent, ingot	26.01	27.52	26.89	27.30
Magnesium, ingot	33.97	35.25	35.25	35.25
Nickel, electrolytic	65.17	74.00	74.00	74.00

In studying the production curve shown in Figure 1, several things should be kept in mind: (1) the curve represents only the dollar value of each year's production, (2) the price of gold increased from $20.67 to $35.00 per ounce in 1933, (3) although gold represents 62% of Alaska's total production since 1880, it is currently only 30 to 35% of the yearly production, and (4) while sand and gravel production was negligible and coal production slight before the War, they each have represented from 25 to 35% of Alaska's production for the past several years.

Prospecting and Exploration

The number of individual and independent prospectors in the field continues to decline since the big uranium excitement in 1955. Organized prospecting by mining companies and syndicates reached a peak in Alaka in 1957, then declined moderately in 1958 following a serious drop in metal prices. It is expected that prospecting will continue on about the same level in 1959 as in 1958, although presently strengthening metal markets may increase the overall exploration efforts. It is an unfortunate feature

of the mining industry that prospecting and exploration budgets are nearly always slashed in times of poor market conditions. Of the independent prospectors, only a relative handful of serious professionals are active for a significant period of time each summer. A large number of the "weekend" variety make short trips, but many of these have scant prospecting knowledge and experience. The poor response to the first year's Prospector Assistance Program, as related earlier in this report, is indicative of the small interest in full-time independent prospecting in Alaska. Also, the demand for the Department's rental prospecting equipment has been very slow for the past year.

The largest and most enthusiastic number of independent prospectors appear to be working out of Ketchikan, as has been the case for several years. During the past year, two of them purchased newly-developed aerial magnetometers and are flying them all over that section of Southeastern Alaska in the search for more iron deposits. One of these prospectors has made a very favorable-appearing discovery by this method. The prospectors of that area formed the Ketchikan Claim Holders Association in 1957. The TDM Assay Office in Ketchikan has been particularly valuable to the prospectors there in helping them with their mineralogical and other problems.

Anchorage is also an important center for prospecting activities. Several hundreds of visitors interested in some phase of mining or prospecting are accommodated by the TDM personnel there every year.

Although mining company prospecting was at a peak in 1957, the year 1958 was by far the most significant for discoveries made. In fact it was the best season for finding hitherto unknown deposits for many years. Nickel and copper discoveries of apparent major proportions were made in Southeastern Alaska, a significant mercury discovery was made in the Kuskokwim country, and an apparently large iron deposit was found in the Dillingham area. This latter deposit was found by the Humble Oil and Refining Co. while doing aerial magnetometer work in looking for indications of oil structures. No outcrops were visible, but drilling through the overburden at the location of the magnetic anomaly proved the presence of the iron. A total of 815 claims were staked there by Humble. These new discoveries prove the

point that the TDM has made again and again, that there are valuable "hidden" mineral deposits in Alaska yet to be discovered.

Important new iron reserves have been calculated for a large deposit in the Bradfield Canal area, between Wrangell and Ketchikan, as a result of further exploration in 1958. There have been more exploration drilling projects during the biennium than during any other time since the War. A major coal exploration project was launched in 1958. A swing to the use of helicopters and geophysical and geochemical methods by prospecting crews has been more noticeable during the biennium than before. Specific exploration projects are mentioned later under the appropriate mineral heading.

Records received from Mining Recorders throughout Alaska indicate the yearly number of claims staked and claims for which assessment work is recorded to be as follows:

	1953	1954	1955	1956	1957	1958
Claims staked	1286	1811	1821	1990	1410	2200
Assessment work	5774	6179	6505	6866	7318	7500

It can be seen that the number of claims staked in 1958 would be the lowest since 1953 were it not for the group of 815 Humble iron claims. Minerals for which the largest numbers of claims were staked during the biennium are the following in the order of their importance: iron, placer gold, copper, lode gold, nickel, limestone, silver-lead, and mercury. As in past biennia, the large numbers of gold claims staked continue to be surprising in view of the unfavorable gold mining conditions. Figure 2 is a graph showing the trends of the numbers of claims staked in each of Alaska's four Judicial Divisions for the past six years. The 1958 figures shown in this graph and the preceding table are estimates based on past experience on the time lag in receiving the documents. Claim staking in the Fourth Division shows a moderate and steady increase for the past three years, though it is noted that more than half of the claims staked there each year have been gold placer. Decreases have occurred for the past two years in the First and Second Divisions. Claim staking would have held about level in the Third Division during 1958 except for the Humble stakings, which caused the sharp rise in that curve.

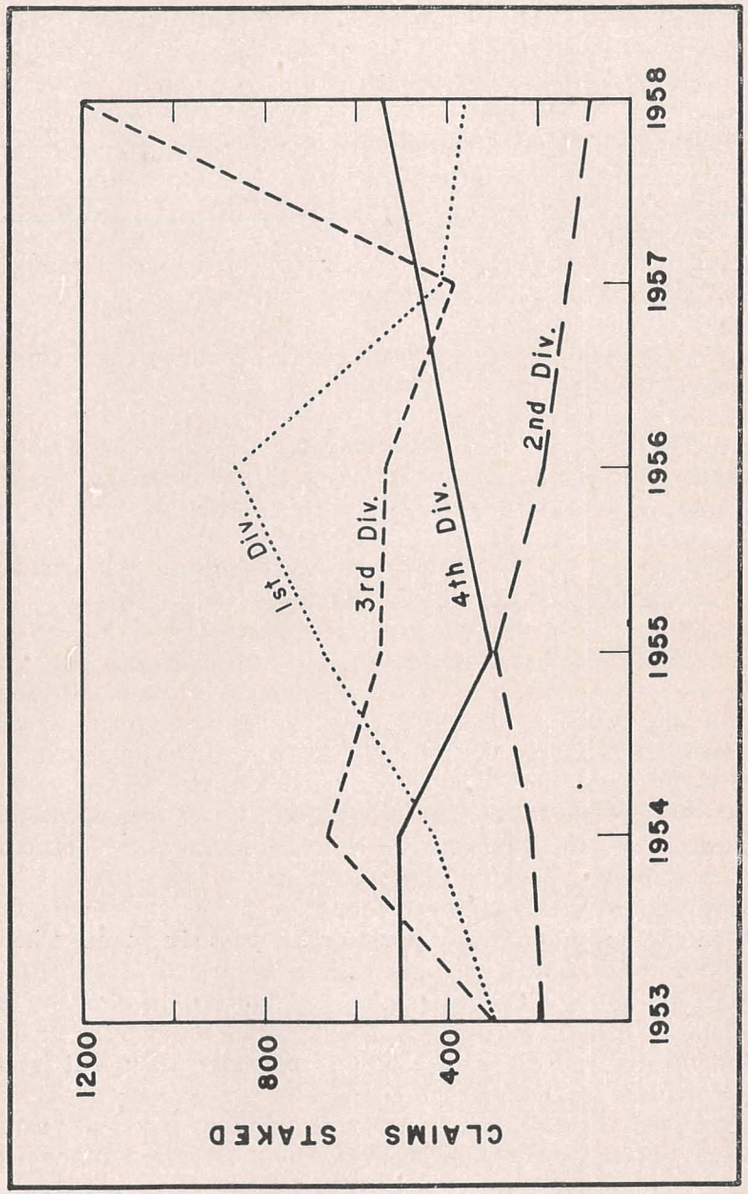


FIGURE 2.
Claims Staked by Division and Year

Three changes in mining law have been made during the biennium that are of particular interest to prospectors and claim holders: (1) the annual deadline for completion of assessment work has been changed from July 1 at noon to September 1 at noon, (2) geological, geophysical, and geochemical work on claims can now be counted as assessment work under certain prescribed conditions, and (3) in Alaska, claims for which assessment work has not been recorded at the end of the six-months period following the end of the assessment work year shall be considered abandoned and open to location by others. Further information on these matters can be obtained by writing to the Juneau office of the TDM. Of interest also is the new Federal Office of Mineral Exploration which has just been set up to replace the old DMEA for financial assistance to exploration projects. OME for Alaska will be administered at the Spokane, Washington office of the U.S.B.M.

As is well known to everyone in Alaska, oil exploration has increased fantastically during the biennium. Many millions of dollars were spent by oil companies, both large and small, which were active in Alaska. During the biennium, there were 12 wells completed or being drilled. In 1958, 17 companies placed geological and geophysical crews in the field, and used more than 50 helicopters.

Future and Needs of the Industry

It must be reported once again that gold mining is disappearing from the Alaskan scene because of the fixed price of gold and the continual inflationary spiral of operating costs. Government and defense construction, which has had the largest part in causing increased costs and wages in Alaska, is finally recognized here as a permanent Alaskan feature. Technologies of weapons and communications are advancing so rapidly that before a defense or communication system is completed, it is outmoded and another one must be started. Although it will be noted that gold production seems to be fairly well sustained in the face of a diminishing number of gold mining operations, there is positive evidence that this production will be cut to less than half in a few years under the present economic trends.

Coal mining is suffering from inroads made by oil in capturing portions of the Alaskan fuel market. Also, if and when atomic

power reactors are installed in Central or Interior Alaska, coal production will really be cut drastically. Hydro projects are also under discussion. A bright spot in the future is the Japanese export possibility. Investigations are underway which may lead to large exports of Alaskan coal for the Japanese steel industry.

In spite of the current market slump, the future of base metals in Alaska appears better now than at any time since the War. This is due to the recent discoveries of apparent major ore bodies and the increasing interest of the Japanese in our large iron deposits. Production of the iron deposits held by the large steel concerns will probably not be accomplished as soon as those in the hands of the smaller more aggressivee companies who have their sights on foreign market. Hopes are also high for early production of a large copper deposit in the Kobuk country now being drilled, and possible good results from the drilling of the large nickel property on Yakobi Island in Southeastern Alaska.

As nearly always, the mining industry needs more prospectors in the field, but more and more, as the grass-roots deposits are harder to find, the prospector needs a thorough knowledge of geology and mineralogy. If he can take advantage of the modern geophysical and geochemical methods available today, so much the better. The man on foot is still indispensable for most discoveries, and new discoveries must be made for the mining industry to grow, or even hold its own.

Huge parts of Alaska continue to be withdrawn, or be requested by Federal agencies for withdrawal, from prospecting and mining. Withdrawn areas, of course, are detrimental to the future of Alaskan mining, and are not necessary for the stated purpose of the withdrawals, as far as mining is concerned. It has been shown many times that mining and petroleum production can be carried on with no damage to the wilderness aspect, scenery, wildlife or other desired features of the surrounding country that the withdrawal is intended to preserve. When an area is closed to prospecting, there is no telling what deposits of strategic minerals may remain undiscovered there that might be of great help to the nation, and also to Alaska in increased revenues and population.

The mining industry still needs a means of obtaining the right to develop the many old patented claims in Alaska that have no

legal owners. The Land Registration Law was to have cured this ill, but the legal procedures have slowed its workings down to the point where the law is not effective in making the old patented claims available to those who wish to explore and develop them. A nominal property tax would solve the problem.

Of prime importance is the need for a real incentive that can be offered to investment capital to attract it to Alaska's mineral resources. Part of this incentive would be a tax structure favorable to prospective investment capital. Alaska was quite generous in this respect when in 1953 a 3½-year mining tax exemption was granted to all new operations. But the Alaska tax is small in comparison to the Federal tax. If the U. S. would follow the example set by the Dominion of Canada in this matter, the effect would soon be shown in an increase in Alaskan mining. Canadian mining has shown a phenominal growth since the War, and American capital is going into these Canadian developments by the billions of dollars. One Canadian province—British Columbia —made the mistake of passing some restrictive taxes against mining in 1957, only to see a large number of producing mines and exploration projects shut down practically overnight. It is reported that the mistake is now in the process of being rectified.

Precious Metals

Alaska's **lode gold mining** is practically nil. A few small intermittent operations of not more than 3 or 4 men are all that are active. Yelinore, Inc., did a little producing at the old Yellowband Mine in the Bremner area of the Nizina District, and Ed Toussaint of Fort Yukon built a mill and continued other preparations to mine the gold bearing quartz of the Summit claim in the Chandalar country. Wilson and Drake mined at Ester Dome in 1957, and the Fairbanks Mining Co. of Alaska performed exploration work at the old Lookout Mine in the same area. Fred Jenkins worked at the Flume Creek mine in the Eagle District, but did not produce. Some work was done in a gold mine within the city limits of Seward and at the old John Dryer mine along the Seward Highway. The famous huge Alaska Juneau mine is now selling its equipment and machinery for use elsewhere and scrap.

Placer gold mining is still caught in the same squeeze between the fixed price and increased operating costs. In addition to these two factors, the ground being mined is getting poorer as the

seasons go by. Statistics gathered by the U.S.B.M. indicate that the average ground worked in 1955 was worth 62c per cubic yard, while in 1956 and 1957 the average values were 46c and 44c respectively. As noted earlier in this report, gold production, though holding fairly steady in spite of fewer operators, will be cut to less than half in a few more years, barring unforeseen changes in the economic situation. This statement is predicated upon the public announcement of Alaska's largest producer, the U.S.S.R.&M. Co., that it does not anticipate continuing its two large operations (Fairbanks and Nome) beyond 1963 or 1964.

A trend has been noted among the nonfloating placer plants to the use of mobile elevated sluice boxes on wheels with various mechanisms to allow greater flexibility and efficiency of operation. Several operators investigated the possibilities of rubber-tired tractors or loaders in the place of bulldozers, hoping for lower operating and maintenance costs. Some of the placer operations will be mentioned here, and a complete list of active operations is included later in this report.

In the **First Division,** the only placer activity was further working of the Alaska Juneau mill tailings by Howard Hayes.

In the **Second Division** the Lucky Syndicate put their purchased dredge into operation in the Kougarok. Jack Bullock of Kotzebue purchased the operation of Havenstrite at Candle, and Parker and Raymond, previously of the Circle District, mined there. Pat Bliss was the only operator in the Koyuk District, and Eugene Tetinek likewise in the Marshall District. The U.S.S.R.&M. Co. operated their three dredges in the Nome area and Lee Brothers continued with one on the Solomon River. Kougarok Freight and Mining Co. did not dredge on Buster Creek in 1958. Edwards and France used a loader on their nonfloat operation on the Solomon River. C. E. "El" Stout remained the only active placer operator in the Shungnak District.

The **Third Division's** most active placer camp is the Yentna District. Several operations have started and stopped there, and others have changed hands, but little production has resulted. Hobb Enterprises had a good year on Slate Creek in the Chistochina in 1957, but in that district, little else happened. About the only other placer activity in the Third Division of particular interest was a short-lived 20-man operation on Dan Creek in the Nizina in 1958.

In the **Fourth Division,** the U.S.S.R.&M. Co. operated six dredges in the Fairbanks District during 1957, and seven in 1958. Dredge No. 3 at Chatanika began digging after an idle period of several seasons. Dredge No. 6 was moved from Gold Hill to Sheep Creek in early 1958. Chatham Creek Mining Co. moved from Chatham Creek to Last Chance Creek in 1958, and the Wolf Creek Mining Co. moved to Fish Creek the same year. Olive Creek Mines moved from that creek to Little Eva Creek near Ester. The U.S.S.R.&M. Co. dredged in the Hog River area with the dredge brought from Livengood, and continued preparations for dredging at Chicken in the Fortymile. Also in the Fortymile, Bruce and Cunningham started a new operation on Mosquito Fork and George Gilbertson did likewise. In the Koyukuk, Louis Koshalk and Associates started a new operation on Crevice Creek and Miller, Lindgrin, and Atwood a new one on Sheep Creek. Yukon Placer Mining Co. discontinued operations at Livengood. Other districts remained about the same.

Base Metals

Though no production has yet resulted — and may not for several more years — Alaska has made progress toward a base metals industry during the biennium. The most important advances have been mentioned earlier, but they will be elaborated on here, together with other base metal information.

Iron. As in the previous biennia, the search for new deposits was confined mostly to Southeastern Alaska because of the need for cheap transportation for that type of ore. Among the favorable bodies of magnetite are those at Klukwan, Port Snettisham, Union Bay, Duke Island, Bradfield Canal area, and several on Prince of Wales Island. In addition there is now the new discovery of Humble Oil and Refining Co. near Dillingham, discussed earlier. The Klukwan deposit is being drilled and sampled by Columbia Iron Mining Co., a subsidiary of the U. S. Steel, who also operated a pilot concentrating plant there in 1957. Most attention so far at Klukwan has been given to the alluvial portion of the deposit, which contains hundreds of millions of tons of material, but there is also considerable lode iron above the placer. More drilling and sampling has been done by Fremont Mining Co. at Port Snettisham on their claims and those of W. S. Pekovich of Juneau, and some exploration has been continued on Columbia's

property at Union Bay near Ketchikan. Mt. Andrew Mining Co. drilled for both full seasons on iron properties on Kasaan Peninsula of Prince of Wales Island, and also investigated others. The relatively new deposit in the Bradfield Canal area is on the North Bradfield River. Geophysical work has been done on it and drilling is planned.

Copper. The Prince William Sound, Nizina, and Ketchikan Districts seem the most promising areas for future production of copper, but it might come from the far north Kobuk country first. Bear Creek Mining Co., Kennecott exploration subsidiary, has been drilling a large and promising copper property north of the Kobuk River for two years. Late in the biennium, an option was taken on the Moose Creek copper show north of Palmer, and an exploration program there seems imminent. Large areas are being covered in various parts of Alaska by geochemical methods for copper. A prospecting group financed by Canadian mining interests staked a large number of claims on a promising copper show in the Juneau district. Favorable areas in the Nizina and Strelna areas have received attention in the past few years, particularly in 1957. The Maclaren River property near the new Denali Highway did not get into production, though some underground work was accomplished. Totem Exploration Co. of Ketchikan has been very active in looking for copper prospects in the southern part of the Panhandle.

Nickel. The Admiralty-Alaska Gold Mining Co. is still exploring its much-publicized deposit at Funter Bay on Admiralty Island. The large Yakobi Island deposits that were in dispute for so many years finally saw an intensive drilling program by the Devamin Co. in 1958, but results or future plans are not yet known. An interesting belt of nickel deposits extends from Yakobi Island south along the west coasts of Chichagof and Baranof Islands to Snipe Bay. Some activity was noted at the Spirit Mountain occurrence in the Copper River country, and another interesting nickel prospect is in the Salcha River area, held by Dean Ricks.

Tin. Tin is found in placer deposits in many locations in Alaska, but the Seward Peninsula is the area of most importance. Lode tin deposits are common there and considerable tin placer mining has been done in the past. However, because of economic conditions, all placer tin mining has been at a standstill since 1953, and

the only significant lode operation that has ever existed under the U. S. flag was forced to close in 1955. This was the U. S. Tin Corp. mine at Lost River. It was supported by government loans. The mine has since been offered for sale at auction, but the government repurchased it because of lack of suitable bids. Large placer tin reserves were outlined by drilling near Cape Mountain in 1952 and 1953, and make an attractive-appearing mining possibility, but no action has been taken. Placer tin has also been found in the Hot Springs District, Melozitna District, Fairbanks District, and others. Many years ago, a piece of tin "float" was found along Lynn Canal in Southeastern Alaska, indicating a possible source of lode tin somewhere in that country.

Mercury. There is quite a belt of cinnabar prospects extending from around the Red Devil mine near Sleetmute on the Kuskokwim River to the Marsh Mountain prospect near Dillingham. High mercury prices have kept exploratory and prospecting activities in this belt at a fairly high level, but the Red Devil remains the only producer except the one-man operation of Russel Schaefer on Cinnabar Creek. Sunshine Mining Co. spent both years drilling a mercury prospect near Kagati Lake in the Goodnews Quadrangle and the Cordero Mining Co. investigated certain prospects. One significant new discovery was made in 1958.

Tungsten. The Alaska Metals Mining Co. continued work throughout the biennium on its tungsten property at Gilmore Dome in the Fairbanks District. The mill that was built there in 1956 was not put into production because of the withdrawal of the tungsten price support in 1957. Rehabilitation work was continued by Hyder Mines, Inc. at the Riverside Mine in the Hyder District. Tungsten, in the form of scheelite, is found in gold placer deposits in various sections of Alaska.

Chromium. The Kenai Chrome Co., a major chrome producer, shut down its operation early in 1958 upon expiration of the government purchase program. The company was left holding several thousand tons of ore and concentrates which it had thought would be purchased. Bill Lyons made a small shipment in 1957. Seldovia Chrome Co. was not active in 1958. The chromite has all come from the Red Mountain area near Seldovia, but other chromite is known to exist on Baranof Island in Southeastern Alaska, near the Richardson Highway south of Tonsina, and other localities.

Molybdenum. This metal, too, is found in nearly every section of Alaska. Two or three of the prospects may have commercial importance. Representatives of Climax Molybdenum Co. staked a likely prospect in Glacier Bay, but their future plans are not known.

Lead and Zinc. Though many claims continue to be located for these metals, particularly on silver-lead prospects, there was little activity beyond the claim staking. The main hope for lead or zinc mining in Alaska is that there will be sufficient silver or copper with it to "sweeten" it enough to pay the transportation bill. Two silver-lead prospects were explored in the Fairbanks District, and Neal W. Foster of Nome did some drilling on a silver-lead prospect on the Seward Peninsula.

Antimony. No antimony was produced during the biennium. Mr. Pilgrim did not do any further work at the Stampede Mine. With antimony deposits in all sections of Alaska, a good market would doubtless create many small antimony mining enterprises.

Barium. Deposits of barite are located in Southeastern Alaska in the Petersburg and Ketchikan Districts, but are somewhat small. A new barite discovery was made during the biennium in the Third Division that may prove to be significant.

Bismuth. A bismuth prospect exists in the Nome District.

Nonmetallics

Little has happened in nonmetallics during the biennium. Alaska has deposits of asbestos, mica, sulfur, and others, but the demand and interest in these seem to be slipping. Also in Alaska are deposits of jade, pumice, graphite, building stone of many types, silica, rare earths, gypsum, and unlimited reserves of high-calcium limestone. Other deposits include garnet, marble, fluorite, calcite, kyanite, and bentonite. Interest in gem stocks and suitable lapidary materials continues to grow, and the market for jewelry materials, as well as mineral specimens, from Alaska is improving steadily.

The best mica deposits known so far are found on Sitklan Island, south of Ketchikan, and on the Seward Peeninsula. Two promising vermiculite prospects were examined in 1958 by Department engineers. Although preliminary testing shows that material is not of the highest quality, these prospects may still be of commercial importance. Vermiculite can be expanded into a thermal insulating material, for which there is a good market in Alaska. Asbestos deposits are fairly wide spread, but the Kobuk River asbestos is the best known to date. Sulfur exists in innumerable pyrite deposits about Alaska, and in volcanic sulfur deposits along the Alaska Peninsula and Aleutian Islands. After drilling for three years on two sulfide properties on Latouche Island in Prince William Sound, Northern Pyrites Co. dropped its option.

The only known Alaska jade is found in good quantities along the Kobuk River in the Shungnak District. The Empire Jade Co. has been making shipments from there, and Alfred Wolk of Skagway shipped 3,400 pounds for cutting and polishing. Pumice has not been mined for light weight aggregates lately, though it is available near Mt. Katmai on the shore of Cook Inlet.

Coal

A total of 13 coal mines were active during the biennium of which four were underground, two were one-man operations, and two were subcontractors to the Evan Jones mine. A list of the operators by name and address, etc., will be found in the last part of the report. With oil production approaching, and much talk of hydro projects and atomic reactors, the future of the coal mines is in doubt.

Matanuska Field. The Evan Jones Coal Co. continued its large underground operation and subcontracted two stripping operations to Wes Edwards and Minor Roop. Mrak Coal Co. operated on a larger scale than before. Paul Omlin and Rudy Sterbenz found two beds of exceptionally clean high-grade semibituminous near Chickaloon and formed the Castle Mountain Coal Co. to mine it. Pioneer Mining Co. changed hands and resumed operations at the old Premier Mine late in 1958.

Nenana Field. Suntrana Mining Co. mined coal from its underground mine throughout the biennium. Usibelli Coal Mine mined steadily but discontinued the underground part of its operation during 1958. Cripple Creek Coal Co. did not have sufficient coal contracts to keep it in operation for the full biennium, and Arctic Coal Co. mined intermittently. Usibelli established a retail outlet in Fairbanks in a laudable effort to improve

its coal sales to the individual consumer. A mine-mouth power plant has been considered seriously for the Nenana Field which would be a boon to the coal miners and the consumers alike. Power would be transmitted to Fairbanks.

Kenai Field. Two strip pits near Homer were operated occasionaly by Jack Gist and Bruno Augustino.

Point Barrow Field. The Meade River Coal Mine continued to operate to provide coal for the residents of Point Barrow until late in the biennium. It was reported at that time that gas from the Naval Petroleum Reserve No. 4 was piped into the village so that the coal would no longer be needed. Report was in error.

Broad Pass Field. A shipment of 26 tons of beneficiated coal to Fairbanks for testing purposes was made by Mrs. W. E. Dunkle from coal beds in this field developed by the late W. E. "Bill" Dunkle.

Bering River Field. Great interest is being shown in the possibilities of this undeveloped field for mining and shipping coking coal to Japan. A group of Japanese engineers, geologists, and industrialists visited the field with Alaskan engineers and representatives of the Jewell Ridge Coal Co. of Virginia, which is presently shipping coal to Japan from the East Coast. Negotiations are proceeding toward a several-hundred-thousand-dollar exploration project to determine if a large-scale mining and shipping operation can be made economically feasible.

Beluga Field. Preliminary investigations by the Department of Mines and U.S.B.M. have shown that some large coal beds exist in this field that should provide for economical mining operations. Exploration work is contemplated by the U.S.B.M.

Radioactives

Alaska's place in the ranks of uranium producers was short-lived. Climax Molybdenum Co. and prospectors Don Ross and Kelly Adams formed the Kendrick Bay Mining Co. to mine the deposit discovered by Ross and Adams in 1955. A 1¾ mile road was built to the property on Mt. Bokan at 1,000 feet elevation during June and part of July 1957, and the deposit was mined by open pit methods until October of that year. The ore was shipped to the uranium mill at Ford, near Spokane, Washington.

The operation was not resumed. Production records have not been made public.

Interest in uranium has been on the wane for some years, and is noted only occasionally at present. Southeast Mining and Exploration Co. drilled their prospect near William Henry Bay on Lynn Canal in the Juneau District in 1957, but results were not encouraging. An improved market or a big discovery are probably the only things that will revive a lively interest in Alaskan radioactives.

Oil and Gas

So much has happened in this category during the biennium that space is not available in this report to do it justice. Oil and gas will probably be the subject of a separate annual report from now on, whether by this agency or a new one created for that branch of the mineral industry. Only the highlights of Alaskan oil and gas developments for the biennium will be given here. The active companies are listed in the last part of the report.

Twelve wells were completed or being drilled during the biennium. Phillips Petroleum Co. finished Sullivan No. 2 (its third well) in March 1957, abandoned it as a dry hole, and ceased operations completely in that area, which was near Icy Bay and Yakataga on the Alaska Gulf Coast.

Standard Oil Co. of California and Richfield Oil Co. together drilled Swanson River No's. 1, 2, and 3 in the Swanson River Unit, Kenai Peninsula, of which the first two wells are producers and were undergoing production tests at the close of the biennium. No. 3 was abandoned as a dry hole. No. 4 is about to be drilled in the same area. No's. 5 and 6 are also planned for the same vicinity. Deep Creek No. 1 was drilled by the same companies south of the Kenai Moose Range wherein lie the others, but was abandoned as a dry hole.

Colorado Oil and Gas Corp. was drilliing its third well, Yakutat No. 3 near that town, at the close of the biennium. High gas pressures were encountered in the first two but no appreciable oil shows were reported.

Humble Oil and Refining Co. and Shell Oil Co.. have been drilling Bear Creek Unit No. 1 on the Alaska Peninsula near Puale

(Cold) Bay since September 1957. Much trouble has been encountered in this well and several million dollars have been spent on this one hole thus far. Drilling is presently approaching target depth.

Alaska Oil and Gas Development Co. and Aledo Oil Co. worked intermittently at continuing the drilling started near Eureka in 1953. Anchorage Gas and Oil Development Co. drilled intermittently in the Rosetta No. 3 near Houston on the Alaska Railroad. Late in the biennium, Alaska Consolidated Oil and Gas Co. moved into the old Havenstrite camp at Iniskin on the Alaska Peninsula and started drilling a new well there. The spudding-in time was 2 A.M., Christmas morning.

During the summer of 1958, it was reported that at least 17 oil companies had geological and geophysical exploration parties in the field. These parties were using more than 50 helicopters. Countless miles of aeromagnetic surveys were flown by aeromag crews. No portion of Alaska that is in a sedimentary basin or a possible oil province is being overlooked. About one-third of the State's 375 million acres is considered as possibly oil-bearing. At the close of the biennium Standard Oil of California and several other companies announced plans to proceed immediately with water-borne seismic exploration operations which will cover all of the submerged lands beneath Cook Inlet north of Homer.

Various pieces of Federal legislation were passed affecting oil and gas operations in Alaska during the biennium. A law was passed that raised the rental fees and royalty rates to the government from oil and gas leases, and at the same time raised Alaska's share of such receipts to 90%. It was made legal to lease lands beneath nontidal navigable waters. In the midst of Richfield and Standard's drilling program on the Kenai Moose Range, wildlife ranges were closed to oil and gas operations. This resulted in the Deep Creek Unit well being drilled while waiting to do more work on the Swanson River Unit. When the Range was reopened, half of it was, and still is, withheld from mineral production.

The PLO 82 area, consisting of 25,000,000 acres surrounding the Pet 4 area on the Arctic Slope, was opened to leasing except for 5 million acres in the northeast corner of Alaska, which, with another 4 million acres immediately to the south of it is being

withheld pending a decision to make a 9 million acre withdrawal for an Arctic Wildlife Refuge. Part of the known Gubik Gas Field in the vicinity of Umiat, is in the opened area, and competitive bidding was held for 26 parcels of land on this structure. Alaska Propane Co. of Fairbanks was high bidder on most of the parcels. This company has a franchise for construction of a pipeline to Fairbanks from the Gubik for the transmission of gas for local consumption. This will be a tremendous undertaking, if the decision is made to proceed with the construction.

The Alaska Oil and Gas Conservation Commission held hearings and promulgated rules and regulations governing oil and gas production practices in the interest of conservation. The Alaska Department of Lands also held hearings and is now preparing its rules, regulations, and procedures for leasing of oil and gas lands which will be acquired by the State.

In the meantime, the companies and the public have been frantically applying for oil and gas leases at the Anchorage and Fairbanks offices of the U. S. Bureau of Land Management. At the end of the bienium, a total of 40 to 45 million acres have been applied for and leases on about half of this acreage have been granted.

EMPLOYMENT AND ACCIDENTS AT MINES

Employment and Nonfatal Accidents

The following Table III reveals the trend of employment in the mining industry from 1914, the first year for which records are available, through 1958. Accidents and employment at the various types of mines are shown for each year of the biennium in Table IV. In this table, the accident figures for the placer operations other than dredging are not wholly accurate, for the accident reporting by the smaller operators is not complete. Table V indicates the number of man-shifts, accidents, and resulting time lost at different types of mines in Alaska for all the years for which records are available.

Coal mining being the most hazardous of the various types, particular care is taken in noting accident trends in that field. Comparative nonfatal coal mine accident statistics for the biennium follow:

	Man Shifts	Nonfatal Accidents	Accidents Per M.M.H.
Underground	64,250	74	143
Strip	68,951	84	152
Total Alaska	133,201	158	147
U. S. Average			47

Fatalities

Seven fatalities occurred in mines during the biennium, all of them in 1957. Of the seven deaths, six were in underground coal mines and one in an underground metal lode exploration project. Of the six coal fatalities, five were simultaneous in the worst Alaskan mining disaster for many years. Investigations revealed the following facts:

Philip V. Doherty, John E. Fowler, Sam Kwamdahl, Nick Uzelac, and Glen R. Vore, died January 18, 1957 in the Evan Jones Coal Company mine at Jonesville. The miners were killed by flame and forces of an underground explosion set off by an underburdened shot in the presence of an explosive mixture of methane and air and/or coal dust. The explosion was propagated by methane and coal dust.

Joe T. Peltola was fatally injured December 11, 1957 in the Suntrana Mine at Healy River. After waiting for smoke to clear from a blast, Peltola and his partner started back to the working place. For some unknown reason, and against previous warnings, Peltola travelled by a different route through a place where the roof coal had been working and was considered unsafe. A fall of the roof injured him so badly that he died enroute to the hospital.

Samuel W. Elsom was killed April 18, 1957 in the Admiralty-Alaska nickel property at Funter Bay, Chichagof Island. The accident occurred in a large exploratory drift which was being driven. The victim was operating a mucking machine when a roof fall killed him. He had been previously advised to bar down the overhead rock, as it looked dangerous, but had not taken the time to do so.

TABLE III

Employment at Mines, 1914 to 1958 Inclusive
Number of Men Employed at:

Year	Placers	Lode Mines and Milling Plants	Coal and Other Mines	Totals
1914	4,400	3,500	140	8,040
1915	4,400	3,850	160	8,410
1916	4,050	4,200	340	8,590
1917	3,550	3,220	270	7,040
1918	3,000	1,897	400	5,297
1919	2,180	1,757	310	4,247
1920	1,990	1,880	360	4,230
1921	2,150	1,681	400	4,231
1922	2,198	1,623	280	4,101
1923	2,080	1,500	270	3,851
1924	2,500	1,978	175	4,653
1925	2,700	1,745	116	4,561
1926	2,332	1,663	108	4,103
1927	2,325	1,930	114	4,369
1928	2,234	1,668	109	4,011
1929	2,354	1,605	89	4,048
1930	2,220	1,502	98	3,820
1931	2,163	1,323	78	3,564
1932	2,180	1,496	78	3,754
1933	2,063	1,246	68	3,377
1934	2,195	1,451	79	3,725
1935	2,323	1,665	89	4,077
1936	2,605	1,867	105	4,577
1937	3,136	1,957	92	5,185
1938	3,470	2,071	218	5,759
1939	3,928	1,986	229	6,143
1940	4,240	1,974	149	6,363
1941	3,965	1,805	218	5,988
1942	2,175	1,065	249	3,489
1943	556	581	312	1,449
1944	658	489	393	1,540
1945	903	238	309	1,450
1946	1,694	446	334	2,474
1947	1,824	384	280	2,488
1948	1,938	309	267	2,514
1949	1,838	262	323	2,423
1950	1,722	243	297	2,262
1951	1,219	202	287	1,708
1952	1,286	222	404	1,912
1953	1,460	270	394	2,124
1954	1,356	299	345	2,000
1955	1,331	420	287	2,038
1956	1,323	386	282	1,991
1957	1,166	415	314	1,895
1958	1,042	276	286	1,604

TABLE IV

Summary of Accidents and Employment at Mines in Alaska
1957-1958

Number of Mines	Group	Number of Men Employed	Number Shifts Worked	Results of Accidents: Fatal	Results of Accidents: Nonfatal	Total Time Lost Days
	(1957)					
	PLACER MINES:					
22	Dredges	785	178,800	0	186	804
78	Nonfloat	284	39,200	0	2	2
14	Hydraulic	25	2,080	0	0	0
17	Small scale hand	20	2,200	0	0	0
19	Others*	52	4,730	0	0	0
150		1,166	227,010	0	188	806
	COAL MINES:					
4	Underground	157	36,231	6	48	1,004
8	Strip	157	35,606	0	50	971
12		314	71,837	6	98	1,975
	LODE MINES:					
115	Metal**	395	44,400	1	26	171
2	Nonmetal	2	240	0	0	0
117		397	44,640	1	26	171
	MILLS:					
2	Metal	18	4,920	0	11	244
281	Totals	1,895	348,407	7	323	3,196
	(1958)					
	PLACER MINES:					
22	Dredges	695	158,000	0	91	339
79	Nonfloat	242	33,400	0	2	2
11	Hydraulic	39	3,240	0	0	0
16	Small scale hand	18	1,980	0	0	0
17	Others*	48	4,370	0	0	0
145		1,042	200,990	0	93	341
	COAL MINES:					
4	Underground	139	28,019	0	26	603
8	Strip	147	33,345	0	34	212
12		286	61,364	0	60	815
	LODE MINES:					
104	Metal**	264	31,700	0	7	57
2	Nonmetal	2	240	0	0	0
106		266	31,940	0	7	57
	MILLS:					
1	Metal	10	3,000	0	3	54
264	Totals	1,604	297,294	0	163	1,267

* Includes prospectors, exploration, and placer drift operations.
** Includes prospectors, exploration, and intermittent operations.
For explanation of placer mining classifications, see footnote at end of List of Alaska Mining Operations.

TABLE V

Summary of Man-Shifts Worked, Fatal and Nonfatal Accidents, and Time Lost in All Mines in Alaska

Year	Man-Shifts Worked at			Fatalities			Nonfatal Accidents			Time Lost (Days)		
	Placer Mines	Lode Mines and Mills	Coal Mines	Placer Mines	Lode Mines and Mills	Coal Mines	Placer Mines	Lode Mines and Mills	Coal Mines	Placer Mines	Lode Mines and Mills	Coal Mines
1912				6	6							
1913				10	15							
1914				5	14							
1915				4	19							
1916				7	22		27	736				
1917				9	24		11	705				
1918				1	12		0	199				
1919				0	13		5	350	5			
1920				0	9		0	302			2,831	
1921		568,615	103,389	0	12		0	249			3,519	471
1922		537,180	55,309	0	5	0	0	252			4,344	250
1923	84,948	618,359	66,927	2	9	0	7	230	42	394	3,991	673
1924	117,545	468,890	51,398	0	16	0	30	327	6	560	4,882	75
1925	405,000	592,326	34,353	0	6	0	0	303	5	No report	5,639	109
1926	418,744	563,992	51,398	1	6	1	90	365	10	1,042	5,308	75
1927	418,235	555,155	34,915	2	7	1	178	259	13	3,267	4,819	445
1928	445,707	559,081	32,766	3	6	0	152	302	2	2,048	5,981	19
1929	420,249	524,836	25,525	5	9	0	142	255	6	1,657	4,301	197
1930	484,301	486,515	30,101	0	7	0	123	271	7	1,096	3,979	221
1931	437,573	425,201	22,129	0	6	0	92	167	5	1,251	2,668	101
1932	441,335	445,876	22,267	0	5	0	67	163	14	765	2,630	250
1933	437,267	403,021	19,805	1	7	0	90	177	2	1,077	2,381	9
1934	478,908	443,265	20,514	0	6	0	95	220	7	1,313	3,784	201
1935	499,765	458,440	23,571	2	6	0	116	266	12	1,250	4,372	291
1936	496,370	515,105	27,285	2	8	0	89	284	8	1,014	3,780	149
1937	547,748	548,929	25,267	2	2	16	129	298	14	1,733	5,007	407
1938	607,624	595,520	27,744	2	5	0	112	351	20	1,365	5,091	423
1939	683,624	548,121	26,643	1	3	0	158	302	15	2,263	4,247	488
1940	718,153	552,579	34,450	4	4	0	162	313	29	1,999	4,260	721
1941	657,142	517,347	54,779	1	1	0	151	325	38	1,978	5,069	630
1942	358,185	300,785	68,593	2	2	2	72	149	41	1,129	3,002	746
1943	82,780	155,370	84,694	0	3	1	1	82	37	54	1,338	635
1944	98,117	81,246	101,609	0	1	0	0	18	89	0	386	2,057
1945	145,260	52,224	84,523	0	0	3	5	2	64	22	10	1,417
1946	297,529	116,670	82,303	0	1	1	44	12	75	521	131	952
1947	351,916	85,361	80,691	1	1	1	65	8	47	869	110	646
1948	390,566	66,602	74,273	0	0	1	55	7	48	1,003	322	613
1949	361,494	54,796	86,602	0	0	0	59	12	66	538	427	1,292
1950	343,974	52,850	70,364	0	0	1	38	14	63	656	596	941
1951	222,577	33,035	66,985	1	0	0	45	1	66	402	10	834
1952	246,065	40,060	85,438	1	0	0	27	0	88	200	0	904
1953	284,390	34,490	112,636	1	1	2	53	12	160	616	98	2,049
1954	265,820	43,410	81,049	1	3	1	46	20	71	374	190	1,048
1955	253,220	62,460	76,449	0	1	0	154	6	82	944	138	574
1956	252,005	61,900	79,489	0	1	0	124	32	74	918	317	691
1957	227,010	49,560	71,837	0	1	6	188	37	98	806	415	1,975
1958	200,990	34,940	61,364	0	0	0	93	10	60	341	111	815

LIST OF ALASKA MINING OPERATIONS ACTIVE DURING THE BIENNIUM, 1957-1958

Name and Address of Operator	Location of Mine	Recording Precinct and (USGS Quadrangle)	Type of Operation	Aprox. Crew
Admiralty Alaska Gold Mining Co. Box 2642, Juneau	Funter Bay Admiralty Dist.	Juneau (Juneau)	Nickel-copper lode development	4
Alaska Exploration & Mining Co. Dorothy Wolfe-Trepte Box 136, Pullman, Wash. or Talkeetna	Bird Creek Yentna Dist.	Talkeetna (Talkeetna)	Hydraulic	1
Alaska Juneau Gold Mining Co. Box 2419, Juneau	A. J. Mine, Juneau Juneau Dist.	Juneau (Juneau)	Gold lode and mill (selling equipment and scrap)	21
Alaska Metals Mining Co., Inc. Box 2051, Fairbanks	Gilmore Dome Fairbanks Dist.	Fairbanks (Fairbanks)	Tungsten exploration and mill construction	3
Alaska Nickel Co. Fred Jenkins, Eagle	Flume Cr. Eagle Dist.	Fairbanks (Eagle)	Gold lode development	5
Alder Creek Mining Co. Box 1999, Fairbanks	Fairbanks Cr. Fairbanks Dist.	Fairbanks (Livengood)	Nonfloat	8
**Alluvial Golds, Inc. 4732-46th N.E. Seattle 5, or Coal Creek	Woodchopper Cr. Circle Dist.	Fairbanks (Charley River)	Gold dredge	19
Amero, A. W. Chandalar	East Fork Chandalar River Chandalar Dist.	Fairbanks (Chandalar)	Prospecting	1
Anaconda Company, The Box 1764, Spokane 10, Wash.	Alaska general	Several	Mineral investigations	1
*Anchorage Mineral Development and Exploration Co., Anchorage Ronald Trumbell	Grubstake Cr. Chistochina Dist.	Chitina (Gulkana)	Placer prospecting	2
Anderson, Ellis Chandalar	Tobin Cr. Chandalar Dist.	Fairbanks (Chandalar)	Small scale hand	1
Anderson, Tury and Associates Fairbanks	Kougarok Dist.	Fairbanks (Fairbanks)	Lode prospecting	2
Atlas Mines George J. Waldhelm Box 755, Nome	Dahl Cr. Kougarok Dist.	Cape Nome (Bendeleben)	Nonfloat	1
*Bale, May and Lindfors, Hugo Box 97, Nome	Iron Cr. Nome Dist.	Cape Nome (Solomon)	Small scale hand	1
Barrett, Frank Chicken	Mosquito Fork Fortymile Dist.	Fairbanks (Eagle)	Prospecting	1
Basin Creek Mining Co. Herbert Engstrom Box 554, Nome	Basin Cr. Nome Dist.	Cape Nome (Nome)	Nonfloat	2
Bear Creek Mining Co. W. 508 Cataldo, Spokane, Wash.	Ruby Cr. Shungnak Dist.	Noatak-Kobuk (Ambler River)	Copper lode development	17

Beaver, M., Stephens, V., and Brandl, P. and R. Box 4042, Star Route, Spenard	Nugget Cr. Yentna Dist.	Talkeetna (Talkeetna)	Nonfloat	3
**Beck and McFarland Gakona	Slate Cr. Chistochina Dist.	Chitina (Mt. Hayes)	Nonfloat	10
Beckwith, Rea Box 119, Anchorage	Alaska general	Several	Mineral investigations	1
Belanger, George Box 1771, Palmer	Nelchina Dist.	Chitina (Talkeetna Mts.)	Prospecting	1
Berg, Rinehart Chitina	Ruby Cr. Shungnak Dist.	Noatak-Kobuk (Ambler River)	Copper lode development	1
Beshores, Paul and Associates Box 1161, Mollala, Oregon	Kugruk River Fairhaven Dist.	Fairhaven (Bendeleben)	Nonfloat	1
*Bittner, Paul Central	Deadwood Cr. Circle Dist.	Fairbanks (Circle)	Hydraulic	1
**Bittner Paul Central	Hot Springs Dist.	Hot Springs (Tanana)	Prospecting	1
Blackjack Mining Association Mile 1½ S. Tongass, Ketchikan	Southeast Alaska	Several	Prospecting	1
Blazek and Cessnun Box 1109, Ketchikan	Southeast Alaska	Several	Air and ground prospecting	1
Bliss, Patrick J. Ungalik	Ungalik Cr. Koyuk Dist.	Cape Nome (Norton Bay)	Nonfloat	3

*Bodis, George Box 64, Nome	Bryan Cr. Kougarok Dist.	Cape Nome (Bendeleben)	Nonfloat	1
*Bogan, P. W., and Massoz, G.B. Box 1354, Seward	East Point Mine Hope Dist.	Seward (Seward)	Gold lode	2
Bolyan, George and Helen Cobol	Chichagof Dist.	Sitka (Sitka)	Prospecting	1
*Bowman, Jack Reagan Hotel, Ketchikan	Ketchikan Dist.	Ketchikan (Ketchikan)	Prospecting	1
Breen, Amos 643-3rd Ave., Fairbanks	Circle Dist.	Fairbanks (Circle)	Lode prospecting	1
Breseman, John W. Box 796, Pelican	Chichagof Dist.	Sitka	Prospecting	1
*Bronnicke, Fred Chistochina	Ahtell Cr. Chistochina Dist.	Chitina (Gulkana)	Lode gold prospecting	1
Brown, Erwin General Delivery, Petersburg	Southeast Alaska	Several	Prospecting	1
Brown, Walter Hyder	Hyder Dist.	Hyder (Ketchikan)	Prospecting	2
**Bruce, F. L. and Cunningham, Al Chicken	Mosquito Cr. Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	2
Burnette, Dewey and Hunter, Martha Box 1995, Fairbanks	Crooked Cr. Kantishna Dist.	Fairbanks (Mt. McKinley)	Nonfloat	2

**Burns, Joseph	Hunter Cr. Rampart Dist.	Rampart (Tanana)	Nonfloat	3
**C and P Mining Co. Anchorage	Dan Cr. Nizina Dist.	(McCarthy)	Hydraulic	20
Canyon Creek Mining Co. Jens Kvamme & Sons, Akiak	Marvel Cr. Aniak Dist.	Kuskokwim (Bethel)	Nonfloat	4
Carstens, Heine C. Central	Portage Cr. Circle Dist.	Fairbanks (Circle)	Nonfloat	2
*Carter and Love Box 945, Ketchikan	Ketchikan Dist.	Several	Prospecting	2
Casanoff, Jack Kiana	Klery Cr. Kiana Dist.	Noatak-Kobuk (Baird Mts.)	Small scale hand	1
Cassell, J. B. Hollis	Hollis Ketchikan Dist.	Ketchikan (Craig)	Prospecting	2
Casto, Steve 33 Mile, Haines	Porcupine Cr. Juneau Dist.	Haines (Skagway)	Small scale hand	1
Chandalar Mining Co. Hugh Matheson, Jr. 613-3rd Ave., Anchorage	Big Cr. Chandalar Dist.	Fairbanks (Chandalar)	Nonfloat	4
Chappell, Oliver L. Wiseman	Thompson Gulch and Nolan Cr. Koyukuk Dist .	Fairbanks (Wiseman)	Hydraulic	1
Chatham Creek Mining Co. Berg, Tweiten, and Wickstrom Box 64, Fairbanks	Last Chance, trib. to L. Eldorado Fairbanks Dist.	Fairbanks (Livengood)	Nonfloat	3

Chicken Hill Mines, Inc. Les Knappe, Chicken	Lost Chicken Hill Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	3
Cleveland, Robert Shungnak	Shungnak River Shungnak Dist.	Noatak-Kobuk (Shungnak)	Jade placer	1
Cline, Harvey Cordova	Yakataga Beach Yakataga Dist.	Cordova (Bering Glacier)	Small scale hand	1
Collinsville Mines, W. W. Renfrew 1557 H Street, Anchorage	Mills and Twin Crs. Yentna Dist.	Talkeetna (Talkeetna)	Placer prospecting	2
Columbia Iron Mining Co. 525 William Penn Place Pittsburgh 30, Pa.	Southeast Alaska	Several	Mineral investigation, aerial recon., drilling.	8
Conkle, Earl J., and Associates Box 423, Ketchikan	Clover Pass Ketchikan Dist.	Ketchikan (Ketchikan)	Prospecting and lode exploration	1
Connell, Paul A. Central	Circle and Black Dists.	Fairbanks (Circle and Charley River)	Prospecting	1
Cordero Mining Co. 131 University Ave. Palo Alto, Calif.	Aniak Dist.	Several	Mercury lode exploration	3
*Coronado Copper and Zinc Co. 209 Tabor Bldg., Wallace, Idaho	Alaska general	Several	Mineral investigations and exploration	7
Crane, Fred and Associates Kotzebue	Northwestern and Northern Alaska Regions	Noatak-Kobuk (Several)	Prospecting	2
*Crook and Dodson Fairbanks	Tungsten Hill Fairbanks Dist.	Fairbanks (Fairbanks)	Tungsten lode development	2

Dahl Creek Mine Charles E. "El" Stout 709-5th Ave., Fairbanks, or Kobuk	Dahl Cr. Shungnak Dist.	Noatak-Kobuk (Shungnak)	Nonfloat	3
**Davidson, Wes Davidson Log Ketchkan	Thorne River Ketchikan Dist.	Ketchikan (Craig)	Prospecting	1
Davis, Bon Box 45, Nome	Gold Run Port Clarence Dist.	Cape Nome (Teller)	Nonfloat	1
Davis Mines, Inc., Talbert E. Davis 1511 Mary Ann, Fairbanks	Shovel Cr. Selawik Dist.	Noatak-Kobuk (Shungnak)	Nonfloat	2
DeCoursey Mountain Mining Co. Red Devil	Red Devil Mine Aniak Dist.	Kuskokwim (Sleetmute)	Mercury lode and mill	36
*DeCoursey Mountain Mining Co. Red Devil	Red Top Mercury Property Bristol Bay Dist.	Bristol Bay (Dillingham)	Mercury lode development	4
Degnan, Joseph A. Ophir	Madison Cr. Innoko Dist.	Innoko (Ophir)	Nonfloat	2
Dickman, O. J. Teller	Kigluaik Mtns. Nome Dist.	Cape Nome (Teller and Nome)	Prospecting	1
Dotson, R. L. "Red" Mile 8½ N. Tongass, Ketchikan	Ketchikan Dist.	Several	Prospecting	1
E and K Mining Co. O. Enstrom and N. Kupoff 123 Wendell Ave., Fairbanks	American Cr. Hot Springs Dist.	Hot Springs (Tanana)	Nonfloat	2
Eckers, Theron Kasaan	Kasaan Peninsula Ketchikan Dist.	Ketchikan (Craig)	Prospecting	2

Edgecumbe Exploration Co. C. T. and G. H. Morgan Box 758, Sitka	Silver Bay Chichagof Dist.	Sitka (Sitka)	Gold lode maintenance	2
Edwards and Francis Co. H. W. Edwards and Jack Francis Box 513, Nome	Solomon River Nome Dist.	Cape Nome (Solomon)	Nonfloat	3
Eisenmenger, William 410-11th St., Fairbanks	Tibbs Cr. Goodpaster Dist.	Fairbanks (Big Delta)	Lode prospect	1
Emerick, Rollie Delta Junction	Several	Several	Prospecting	1
Empire Jade Co. Gene Joiner, Kotzebue	Jade Cr. Kiana Dist.	Noatak-Kobuk (Ambler River)	Jade recovery and cutting	1
**Fairbanks Mining Co. of Alaska 503-5th Ave., Fairbanks	Lookout Mine Fairbanks Dist.	Fairbanks (Fairbanks)	Lode prospect	4
Falls, Bentley Box 33, Livengood	Wilbur Cr. Tolovana Dist.	Fairbanks (Livengood)	Nonfloat	1
**Far North Mining and Development Co. Candle or Kotzebue	Candle Cr.	Fairhaven (Candle)	Nonfloat	4
Flat Creek Placers Fullerton Brothers, Flat	Flat Cr. Iditarod Dist.	Mt. McKinley (Iditarod)	Nonfloat	5
Folwarzney, John Box 902, Ketchikan	Helm Bay and McLean Arm Ketchikan Dist.	Ketchikan (Craig and Dixon Entrance)	Prospecting and lode exploration	3

Foreman, Ken and Boedecker Box 1543, Ketchikan	Hollis Ketchikan Dist.	Ketchikan (Craig)	Prospecting	1
Foster, Neal W. Box 279, Nome	Seward Peninsula Several	Fairhaven and Cape Nome (Several)	Lode prospecting	1
*Frasca, John Box 1182, Fairbanks	Circle Dist.	Fairbanks (Circle)	Placer prospecting	1
Fremont Mining Co. Box 125, Forest Grove, Oregon	First and Third Divisions	Several	Mineral explorations	14
Gagnon Placers Talkeetna	Cottonwood and Willow Crs. Yentna Dist.	Talkeetna (Talkeetna)	Placer testing	2
*Gangola, Joe Route 1, N. Tongass, Ketchikan	Ketchikan Dist.	Several	Prospecting	2
Gearhart	Camp Cr. Fortymile Dist.	Fairbanks (Eagle)	Small scale hand	1
Ghezzi, Alfred Sr. Box 1857, Fairbanks	Third and Fourth Divisions	Several	Prospecting	1
**Gilbertson, George, and Associates Fairbanks	Mosquito Fork Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	4
Gillette, B. F. Box 285, Nome	Anvil Bench Nome Dist.	Cape Nome (Nome)	Small scale hand	1
*Gold Placers, Inc. 4732-46th N.E., Seattle 5, or Coal Creek	Coal Cr. Circle Dist.	Fairbanks (Charley River)	Gold dredge	5

Goldstream Mining Co. Denny G. Breaid Box 2116, Fairbanks	Goldstream Cr. Fairbanks Dist.	Fairbanks (Fairbanks)	Stripping only	1
Goodnews Bay Mining Co. 422 White Bldg., Seattle 1, or Platinum	Salmon River and tribs. Goodnews Bay Dist.	Bethel (Hagemeister Island)	Platinum dredge and nonfloat	40
Gordon, Tom Anchorage	Twin Cr. Yentna Dist.	Talkeetna (Talkeetna)	Nonfloat	2
Gouldsberry, Anson Seward	Crown Point Mine Hope Dist.	Seward (Seward)	Gold lode development	2
Grant Mining Co. Frank C. Edgington Box 53, Tanana	Grant Cr. Melozitna Dist.	Ft. Gibbon (Melozitna)	Nonfloat	2
H and T Mining Co. Jack Haynes and Carl Thomas Box 1138, Seward	Last Chance Mine, Seward Seward Dist.	Seward (Seward)	Gold lode preparation	2
Hancock, K. S. Haines	Porcupine Cr. Juneau Dist.	Haines (Skagway)	Small scale hand	1
Hansen ,Burnett F. Eagle	Crooked Cr. Eagle Dist.	Fairbanks (Eagle)	Nonfloat	3
Hassel Mining Co. Harold Hassel Box 1071, Fairbanks	Ready Bullion Cr. Fairbanks Dist.	Fairbanks (Fairbanks)	Nonfloat	4
*Havenstrite Oil Co. Mining Division, Candle	Candle Cr. Fairhaven Dist.	Fairhaven (Candle)	Nonfloat	20

Havrilack, Harry Rampart	Ruby Cr. Rampart Dist.	Rampart (Tanana)	Nonfloat	1
*Hayes, Howard Box 1136, Douglas	Juneau Dist.	(Several)	Prospecting	2
*Heiner, Larry Box 182, Petersburg	Petersburg and Kupreanof Dists.	Several	Prospecting	1
Herman, Bob Box 163, Nome	Darling Cr. Nome Dist.	Cape Nome (Nome)	Nonfloat	1
Hibbard, Bill Box 525, Craig	Ketchikan Dist.	Several	Prospecting	1
Hickok, Clara and Engelhorn, Forest Talkeetna	Thunder Cr. Yentna Dist.	Talkeetna (Talkeetna)	Hydraulic	4
*Hinchey, Ken 1300 A St., Anchorage	Chisna River Chistochina Dist.	Chitina (Mt. Hayes)	Nonfloat	8
*Hobb Enterprises, Inc. 232 B St., Anchorage	Slate Cr. Chistochina Dist.	Chitina (Mt. Hayes)	Nonfloat	14
**Hofstad, Richard Petersburg	Petersburg Dist.	Several	Prospecting	1
Hogendorn, Jack Deering	Inmachuck River Fairhaven Dist.	Fairhaven (Bendeleben)	Hydraulic	1
Hope Mine R. V. Watkins Box 521, Fairbanks	Faith Cr. Fairbanks Dist.	Fairbanks (Circle)	Nonfloat	3

Huff, and Caldwell 309 Buren, Ketchikan	Gravina Island Ketchikan Dist.	Ketchikan (Ketchikan)	Copper prospect	2
**Humble Oil and Refining Co. 1829 E. 5th Ave., Anchorage	Bristol Bay Dist.	Bristol Bay (Dillingham)	Iron lode exploration	10
Hyder Mines, Inc. 904 Fourth Ave., Seattle or Hyder	Riverside Mine Hyder Dist.	Hyder (Bradfield Canal)	Silver-lead-tungsten lode preparations	2
I-L & M Co. Box 2015, Ketchikan	Kendrick Bay and others Ketchikan Dist.	Ketchikan (Several)	Air and ground prospecting for uranium	1
**Inmachuck Mining Co. Grant H. Nelson Nome	Inmachuck River Fairhaven Dist.	Fairhaven (Bendeleben)	Gold dredge	6
Johansen, Engbert Chicken	Ingle Cr. Fortymile Dist.	Fairbanks (Eagle)	Small scale hand	1
Johnson, Iver M. Fairbanks	Chisana Dist.	Fairbanks (Nabesna)	Nonfloat	2
Johnson, John Box 2255, Ketchikan	Thorne Arm Ketchikan Dist.	Ketchikan (Ketchikan)	Prospecting	1
Johnson, Pete Manley Hot Springs	Eureka Cr. Hot Springs Dist.	Hot Springs (Tanana)	Small scale hand	1
*Jurich, John and Carr, Tom Livengood	Lillian Cr. Tolovana Dist.	Fairbanks (Livengood)	Nonfloat	2
*Kenai Chrome Co. 1334 Bannister Road, Anchorage	Red Mountain Homer Dist.	Seldovia (Seldovia)	Chromium lode and mill	29

*Kendrick Bay Mining Co. Mines Park, Golden, Colo. or Box 2189, Ketchikan	Kendrick Bay Ketchikan Dist.	Ketchikan (Dixon Entrance)	Uranium lode	15
*Ketchum Creek Mining Co. Al Swatch Fairbanks	Ketchum Cr. Circle Dist.	Fairbanks (Circle)	Nonfloat	1
Kettendorf, James Box 657, Hagamon Road Fairbanks	Rose Creek Fairbanks Dist.	Fairbanks (Fairbanks)	Small scale hand	1
**Kimball, John and Hamlin, Jack	Eldorado and White Crs. Valdez Creek Dist.	Talkeetna (Healy)	Hydraulic	3
Kloss, Herman and Davis, Jack (K & D Claims) Sunset Cove	Sunset Cove Petersburg Dist.	Juneau (Sumdum)	Gold-antimony lode development and prospecting	2
Koby, Jack Box 952, Juneau	Juneau Dist.	Juneau (Juneau)	Prospecting	1
*Kodiak Exploration Co. Box 448, Kodiak	Kodiak Island Kodiak Dist.	Kodiak (Kodiak)	Tungsten prospecting	3
*Kodiak Exploration Co. Box 448, Kodiak	Sitkalidak Island Kodiak Dist.	Kodiak (Kodiak)	Copper lode development	2
Kopanski, Max Skagway	Juneau Dist.	Skagway (Skagway)	Prospecting	1
**Koshalk, Louis and Associates 833-4th Ave., Fairbanks	Crevice Cr., trib. John River Koyukuk Dist.	Fairbanks (Wiseman)	Nonfloat	3

*Kougarok Freight and Mining Co. Straub and Towner Box 558, Nome	Buster Cr. Nome Dist.	Cape Nome (Nome)	Gold dredge	2
Lake Creek Placers Fred Pitts Big Lake	Lake Cr. Koyukuk Dist.	Koyukuk (Chandalar)	Hydraulic	3
Langlow, Jens Central	Switch Cr. Circle Dist.	Fairbanks (Circle)	Hydraulic	1
Lanning, Tony Manley Hot Springs	Thanksgiving Cr. Hot Springs Dist.	Hot Springs (Tanana)	Nonfloat	1
Lee Brothers Dredging Co. Box 208, Nome	Solomon River Nome Dist.	Cape Nome (Solomon)	Gold dredge	12
**Lemke, W. E. Box 628, Petersburg	Petersburg Dist.	Petersburg	Iron prospect	1
Leonard, Harry B. Wiseman	Smith Cr. Koyukuk Dist.	Fairbanks (Wiseman)	Small scale hand	1
Lillie, Angus and Associates Tokeen	Koskiusko Island Petersburg Dist.	Petersburg (Petersburg)	Prospecting	2
Lindquist, Hjalmer 133 N. Marion, Bremerton or Ophir	Bedrock and Ester Crs. Innoko Dist.	Innoko (Ophir)	Nonfloat	1
Lindsay, George c/o R. E. Baumgartner Seward	Oracle property Hope Dist.	Seward (Seward)	Gold lode	2

Little Creek Mine Ivor C. Carlson Ophir	Little Cr. Innoko Dist.	Innoko (Ophir)	Nonfloat	2
Locke, Barney Anchorage	Third Division	Several	Prospecting	1
*Loken, K. H. and Bedlington, Dick 423-3rd St., Juneau	Southeast Alaska	Several	Air and ground prospecting	2
Lone Jack Mining Co. David White Hollis	Hollis Ketchikan Dist.	Ketchikan (Craig)	Gold lode development and prospecting	1
Long Creek Mining Co. Robert Deacon Ruby	Long Cr. Ruby Dist.	Nulato (Ruby)	Nonfloat	4
Lucky Seven Mining Co. Walter E. Roman, Miller House	Mammoth Cr. Circle Dist.	Fairbanks (Circle)	Nonfloat	4
Lucky Syndicate A. L. Schneider and S. L. Godfrey Box 615, Nome	Kougarok River Kougarok Dist.	Cape Nome (Bendeleben)	Gold dredge	7
*Lucky Ten Associates 1112 Tongass, Ketchikan	Ketchikan Dist.	Several	Prospecting	2
*Lyons, Bill Star Route, Anchorage	Red Mountain area Homer Dist.	Seldovia (Seldovia)	Chromium prospecting and small shipment	2
McCombe, Robert Chicken	S. Fork Fortymile River Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	1

McGee, L. Anchorage	Canyon Cr. Hope Dist.	Seward (Seward)	Nonfloat	4
McWilliams, Howard F. Box 1317, Anchorage	Third Division	Several	Prospecting	1
Macasaet, Albert Klawock	Klawock Ketchikan Dist.	Ketchikan (Craig)	Prospecting	1
Maclaren River Copper Corp. Copper Center or Box 981, Anchorage	Maclaren River Valdez Cr. Dist.	Talkeetna (Mt. Hayes)	Copper lode development	2
Magill, Fred Box 444, Petersburg	Southeast Alaska	Several	Lode prospecting	1
Magnuson, Warren Ophir	Fourth Division	Several	Prospecting	1
Marvel Creek Mining Co. Aniak	Marvel Cr. Aniak Dist.	Kuskokwim (Bethel)	Nonfloat	2
**Mathews, John Petersburg	Petersburg Dist.	Petersburg (Several)	Prospecting	1
Maurer, Ernest L. 513 B Fourth Ave., Fairbanks	First Chance Cr. Fairbanks Dist.	Fairbanks (Fairbanks)	Nonfloat	1
Meldrum, William Chicken	Stonehouse and Chicken Crs. Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	1
**Miller, James, Lindgrin, Earl and Atwood, M. J.	Sheep Cr. Koyukuk Dist.	Fairbanks (Wiseman)	Nonfloat	3

Minalaska, Inc. Magnuson Brothers, Ophir	Gaines Cr. Innoko Dist.	Innoko (Iditarod)	Gold dredge	6
Mineral Basin Mining Corp. Arthur Moa Box 126, Hyder	Mountain View Property Hyder Dist.	Hyder (Ketchikan)	Lode exploration and prospecting	1
Mineral Research, Inc. 2 Marine Way, Juneau	Southeast Alaska	Several	Air and ground prospecting	1
Minerals, Inc. W. W. Gilkey	Yakutat Dist.	Juneau (Yakutat and Mt. Fairweather)	Beach placer investigations	4
Miscovich Brothers Flat	Otter Cr. Iditarod Dist.	Mt. McKinley (Iditarod)	Nonfloat	4
Miscovich Brothers Fairbanks	Poorman Cr. Ruby Dist.	Nulato (Ruby)	Nonfloat	2
**Montana Phosphate Products, Ltd. 408-402 W. Pender St. Vancouver 2, B. C.	Southeast Alaska	Several	Mineral investigations and reconnaissance	8
Montana Bar Placers David C. Weston, Boundary	Fortymile River Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	1
**Montana Phosphate Products, Ltd. C. M. S. Co., Ltd. Trail, B. C.	Trocadero Bay Ketchikan Dist .	Ketchikan (Craig)	Copper exploration	5
**Moran, Casey Ketchikan	Prince of Wales Island Ketchikan Dist.	Ketchikan (Craig)	Iron prospect	2

Mt. Andrew Mining Co. Box 358, Ketchikan or 1011-1030 W. Georgia St., Vancouver 5, B. C.	Kasaan Peninsula Ketchikan Dist.	Ketchikan (Craig)	Iron and copper exploration drilling	5
Mt. Parker Mining Co. A. F. Parker Box 2127, Juneau	Mt. Parker Mine Juneau Dist.	Juneau (Mt. Fairweather)	Gold lode maintenance	1
Munoz, Juan Box 1738, Juneau	Southeast Alaska	Several	Prospecting and exploration	1
Nelson, Howard L. Gakona	Limestone Cr. Chistochina Dist.	Chitina (Mt. Hayes)	Nonfloat	3
*Neubauer, Jack 613 Third Ave., Anchorage	Niukluk River Council Dist.	Cape Nome (Solomon)	Gold dredge	4
**Newlun, O. H.	Prince of Wales Island Ketchikan Dist.	Ketchikan (Craig)	Prospecting	1
*Newmont Mining Corp. of Canada, Ltd., Room 604, 749 W. Hastings Vancouver, B. C.	Alaska general	Several	Mineral investigations	4
New York-Alaska Gold Dredging Corp. 2503 Smith Tower, Seattle or Nyac	Tuluksak River California Cr., Rock Cr. Aniak Dist.	Bethel (Russian Mission)	3 gold dredges	50
*No Grub Mining Co. Ray Montesano Gen., Del., Fairbanks	No Grub Cr. Fairbanks Dist.	Fairbanks (Big Delta)	Nonfloat	7

North American Dredging Co. C. M. Clark 912 White Bldg., Seattle or Flat	Flat Cr. Iditarod Dist.	Mt. McKinley (Iditarod)	Gold dredge	9
Northern Lights Mining Co. Patrick Savage Ruby	Long Cr. Ruby Dist.	Nulato (Ruby)	Nonfloat	5
*Northern Pyrites Corp. 230 Park Ave. New York 17, New York	Latouche Island Prince William Sound Dist.	Valdez (Seward)	Sulfide exploration, core drilling	6
Novatney, Robert 104-9th St., Juneau	Helm Bay Ketchikan Dist.	Ketchikan (Ketchikan)	Gold lode development	1
*Nugget Bench Mining Co. 133 Fifth Ave., Anchorage	Nugget Cr. Yentna Dist.	Talkeetna (Talkeetna)	Placer preparation	3
**Nugget Mining Co. Steven Petersen Nome	Niukluk River Council Dist.	Cape Nome (Solomon)	Gold dredge	4
O'Brien, Jim and Dunsmire, Jim Cooper Landing	Surprise Cr. Hope Dist.	Seward (Seward)	Placer drift	2
Olive Creek Mines Carl Parker Box 552, Fairbanks	Little Eva Cr. Fairbanks Dist.	Fairbanks (Fairbanks)	Nonfloat	5
Olson, Henry T. "Tiger" Taku Harbor	Juneau and Admiralty Dists.	Juneau (Sumdum)	Prospecting	1
**O'Neill Ventures Box 2000, Anchorage	Upper Falls Cr. Yentna Dist.	Talkeetna (Talkeetna)	Placer exploration	4

*(Operator unknown)	Grubstake Gulch Willow Cr. Dist.	Wasilla (Anchorage)	Hydraulic	1
Ott, Joe Box 744, Pelican	El Nido property Chichagof Dist.	Sitka (Sitka)	Gold and tungsten prospecting	1
Otter Dredging Co. Ogriz and Kobler Flat	Otter Cr. Iditarod Dist.	Mt. McKinley (Iditarod)	Gold dredge	7
Owens, J. E. 704-10th, Fairbanks	Sheenjek Dist.	Fairbanks	Prospecting	1
*Parker and Raymond Mining Co. Box 462, Fairbanks	Mastodon Cr . Circle Dist.	Fairbanks (Circle)	Nonfloat	3
Pekovich, W. S. Box 2642, Juneau	Port Snettisham Juneau Dist.	Juneau (Sumdum)	Iron lode development	1
Petersburg Explorations Dave Ohmer Petersburg	Southeast Alaska	Several	Air and ground prospecting	1
Pettyjohn, Fred S. 4 Eleanor St., Fairbanks	S. Slope Alaska Range	Talkeetna (Several)	Lode prospecting	1
Pieper and Eichner 2312 Tongass, Ketchikan	Southeast Alaska	Several	Copper and iron prospecting	2
*Pioneer Exploration Co. Carl Bradley Box 125, Wrangell	Southeast Alaska	Several	Air and ground prospecting	1
*Polfus, Bernard and Associates 112½-8th Ave., Anchorage	Lewis River Redoubt Dist.	Anchorage (Tyonek)	Nonfloat	2

Price, Stanton c/o Dean Goodwin Box 1262, Juneau	Windfall Harbor Admiralty Dist.	Juneau (Sitka)	Prospecting	1
Prince Creek Mining Co. S. E. Agoff Flat	Prince Cr. Iditarod Dist.	Mt. McKinley (Iditarod)	Nonfloat	4
Prince of Wales Mining Co. Box 898, Ketchikan or 1011-1030 W. Georgia St. Vancouver 5, B. C.	Southeast Alaska	Several	Mineral reconnaissance and prospecting	4
Prospectors, Inc. 544-2nd Ave., Fairbanks	Myrtle Cr. Koyukuk Dist.	Fairbanks (Chandalar)	Prospecting	3
Puntila, Waino Ophir	Little Cr. Innoko Dist.	Innoko (Ophir)	Nonfloat	3
Purdy Brothers Chicken	Chicken Cr. Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	2
Purdy, Fred Hollis	Hollis Ketchikan Dist.	Ketchikan (Craig)	Prospecting	2
Purkeypile, I. W. and Associates Fairbanks	Tonzona Dist.	Mt. McKinley (Talkeetna)	Lode prospecting	3
Quail Creek Mining Co. Wm. Redig and M. C. Haugdahl 512 Front St., Graehl, Fairbanks	Quail Cr. Rampart Dist.	Rampart (Livengood)	Nonfloat	2
Quitsch, William Valdez	Mineral Cr. Valdez Dist.	Valdez (Valdez)	Gold lode	1

Radovan, Martin McCarthy	Glacier Cr. Nizina Dist.	McCarthy (McCarthy)	Copper lode prospecting	1
*Rainbow Mining Co. Frank Whaley Box 266, Nome	Grouse Cr. Kougarok Dist.	Cape Nome (Bendeleben)	Nonfloat	2
Rambaud and Hanks Chicken	Napoleon Cr. Fortymile Dist.	Fairbanks (Eagle)	Hydraulic	3
Rhode Island Creek Mines A. W. Pringle Manley Hot Springs	Rhode Island Cr. Hot Springs Dist.	Hot Springs (Tanana)	Nonfloat	3
Ricks, Dean Fairbanks	Fairbanks Dist.	Fairbanks (Big Delta)	Prospecting	1
Robinson, George F. Boundary	Wade Cr. Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	1
Roop, Minor and Co. Box 173, Anchorage	Valdez Cr. Valdez Cr. District	Talkeetna (Healy)	Placer testing and preparations	3
Rosander, Toivo Ophir	Yankee Cr. Innoko Dist.	Innoko (Iditarod)	Nonfloat	2
Schaefer, Russel Crooked Creek	Cinnabar Cr. Aniak Dist.	Kuskokwim (Taylor Mtns.)	Mercury lode	1
Schulze, Henry McCarthy	Vicinity of McCarthy Nizina Dist.	McCarthy (McCarthy)	Copper lode development	1
**Scott, R. J. Box 491, Skagway	Juneau Dist.	Skagway (Skagway)	Prospecting	1

**Seely, Robert	Fortymile River Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	2
*Seldovia Mining Co. Frank Raby Seldovia	Red Mountain area Homer Dist.	Seldovia (Seldovia)	Chromium prospecting	2
Sheldon, John and Vetter, Rudy and Adolph	Head of Bedrock Cr. Fairbanks Dist.	Fairbanks (Livengood)	Lead-antimony prospecting	3
*Shell, Louis Seward	Canyon Cr. Hope Dist.	Seward (Seward)	Hydraulic	3
Shotter, Frank Hoonah	Juneau and Sitka Dists.	Several	Prospecting	1
Sirilo, Julius Box 625, Bethel	Aniak Dist.	Kuskokwim	Prospecting	1
*Sona Mining Co., Inc. 236-4th Ave., Anchorage	Pass Cr. Yentna Dist.	Talkeetna (Talkeetna)	Nonfloat	13
*Southeastern Mining and Exploration Co., Inc. Box 1121, Juneau	Near William Henry Bay Juneau Dist.	Juneau (Juneau)	Uranium lode drilling	3
*Spirit Mountain Mining Co. Ray Trotachau Sultan, Wash.	Canyon Cr. Nizina Dist.	Chitina (Valdez)	Nickel-copper prospecting	5
Squaw Creek Mining Co. Jack Wilke Boundary	Canyon Cr. Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	1

Stanich Brothers Wiseman	Porcupine Cr. Koyukuk Dist.	Fairbanks (Wiseman)	Nonfloat and placer drift	2
**Steears, Al	Southeast Alaska	Several	Prospecting	2
**Stoakes, Charles Box 1619, Ketchikan	Moira Sound Ketchikan Dist.	Ketchikan (Craig and Dixon Entrance)	Prospetcing	1
Strandberg Mines, Inc. 926-4th Ave., or Box 2099 Anchorage	Alaska general	Several	Mineral investigations	2
Strandberg Mines, Inc. Box 2099, Anchorage	Eureka Cr. Hot Springs Dist.	Hot Springs (Tanana)	Nonfloat	14
Strandberg Mines, Inc. Box 2099, Anchorage	Indian River Hughes Dist.	Fort Gibbon (Hughes)	Nonfloat	10
Strandberg Mines, Inc. Box 2099, Anchorage	Colorado Cr. Innoko Dist.	Innoko (Ophir)	Nonfloat	9
Strandberg Mines, Inc. Box 2099, Anchorage	Iron Cr. Yentna Dist.	Talkeetna (Talkeetna Mtns.)	Prospecting	2
Stuver, Jules Flat	Marietta Cr. Iditarod Dist.	Mt. McKinley (Iditarod)	Hydraulic	1
*Sulgas Properties, Ltd. 604-744 W. Hastings St. Vancouver 1, B. C.	Alaska general	Several	Mineral investigations	6
Sunshine Mining Co. 738 Peyton Bldg. Spokane 1, Wash.	Kagati Lake Bethel Dist.	Bethel (Goodnews Bay)	Mercury lode exploration	3

**Sweepstakes Mine Chas. Moon and Baldwin Box 371, Nome	Sweepstakes Cr. Koyuk Dist.	Cape Nome (Candle)	Nonfloat	2
T and T Mining Co. Wm. Thomas 503-7th Ave., Fairbanks or Rampart	Hunter Cr. Rampart Dist.	Rampart (Tanana)	Nonfloat	1
Taraski, A. J. Talkeetna	Cache Cr. Yentna Dist.	Talkeetna (Talkeetna)	Placer prospecting	1
Tetinek, Eugene Fortuna Ledge	Willow Cr. Marshall Dist.	Wade Hampton (Russian Mission)	Nonfloat	1
*Thorpe	Grubstake Gulch Willow Creek Dist.	Wasilla (Anchorage)	Gold lode	1
**Timroth Exploration Co. Grand Junction, Colo.	Alaska general	Several	Mineral explorations	5
Titus, Jack and Cook, Fred Solomon	Shovel Cr. Nome Dist.	Cape Nome (Solomon)	Small scale hand	2
Totem Exploration Co. Joe Blazek 317 Dock St., Ketchikan	Southeast Alaska	Several	Prospecting-exploration and diamond drilling	2
Toussaint, Ed Fort Yukon	Big Cr. Chandalar Dist.	Fairbanks (Chandalar)	Gold lode development	1
**Towle, George 2535-4th, Ketchikan	Southeast Alaska	Several	Aerial Magnetometer	2

*Tronstad, Ted Box 1015, Fairbanks	Dahl Cr. Shungnak Dist.	Noatak-Kobuk (Shungnak)	Hydraulic (also jade recovery)	1
Tweet, N. B. and Sons Teller	Kougarok River Kougarok Dist.	Cape Nome (Bendeleben)	Nonfloat, hydraulic, and dredge	6
U.S.S.R. & M. Co. Box 1170, Fairbanks	Fairbanks Dist.	Fairbanks (Fairbanks and Livengood)	6 gold dredges	350
U.S.S.R. & M. Co. Box 1170, Fairbanks	Hogatza River Hughes Dist.	Ft. Gibbon (Hughes)	Gold dredge	35
U.S.S.R. & M. Co. Box 1170, Fairbanks	Mosquito Fork Fortymile Dist.	Fairbanks (Eagle)	Stripping	17
U.S.S.R. & M. Co. Box 438, Nome	Nome Dist.	Cape Nome (Nome)	3 Gold dredges	150
Uotila, Gus Ophir	Ophir Cr. Innoko Dist.	Innoko (Ophir)	Nonfloat	4
Uranium 56 Box 917, Ketchikan	Southeast Alaska	Several	Air and ground prospecting	1
Vogler, Joe, Hirst, Earl, and Martin, Albin	Morelock Cr. Rampart Dist.	Rampart (Tanana)	Prospecting	3
Wackwitz, Charles and Fred Box 1595, Fairbanks	Bedrock Cr. Fairbanks Dist.	Fairbanks (Livengood)	Prospect development	2
Wall, Melvin Airport Machinery Co., Merrill Field, Anchorage	Valdez Cr. Valdez Cr. Dist.	Talkeetna (Healy)	Placer and lode prospect- ing	1

Watson, Mrs. Ben Cape Yakataga	Yakataga Beach Yakataga Dist.	Cordova (Bering Glacier)	Small scale hand	2
Wattamuse Mining Corp. Nat Browne, Route 1, Burton, Wash. or Goodnews Bay Village	Slate Cr. Goodnews Bay Dist.	Bethel (Goodnews)	Nonfloat	2
**Weimer, J. Central	Miller Cr. Circle Dist.	Fairbanks (Circle)	Nonfloat	2
Weinard, Otto F. and Fred Candle	Mud Cr. Fairhaven Dist.	Fairhaven (Candle)	Nonfloat	5
Weisner Trading Co. Ira Weisner and Jim Pierce Rampart	Little Minook and Hoosier Crs. Rampart Dist.	Rampart (Tanana)	Nonfloat	4
Western Alaska Mining Co. R. J. Anderson Box 121, Spenard	Kolmakof property Aniak Dist.	Kuskokwim (Sleetmute)	Mercury lode development	1
Whitehead, Fred Boundary	Chicken Cr. Fortymile Dist.	Fairbanks (Eagle)	Nonfloat	1
Williams, Burton A. May Creek via Cordova	Rex Gulch Nizina Dist.	McCarthy (McCarthy)	Small scale hand	1
*Wilson and Drake Mining Co. C. Drake and W. L. Wilson 612 Gamble, Anchorage or Berry	Ester Dome Fairbanks Dist.	Fairbanks (Fairbanks)	Gold lode prospect	2
Withrow, Alfred W. Bettles Field	Koyukuk River Koyukuk Dist.	Fairbanks (Bettles)	Small scale hand	1

Wiurm, Andrew Box 491, Nome	Dome Cr. Kougarok Dist.	Cape Nome (Bendeleben)	Hydraulic	1
Wolf Creek Mining Co., Inc. Box 141, Fairbanks	Fish Cr. Fairbanks Dist.	Fairbanks (Livengood)	Nonfloat	7
*Wolk, A. C. Box 852, Skagway	Juneau Dist.	Skagway (Skagway)	Prospecting	1
Woodman, I. N. Box 573, Valdez	Nelchina Dist.	Several	Prospecting	1
Yelinore, Inc. Paul Fretz 947 Orcas St., Anchorage	Yellow Band Property Nizina Dist.	McCarthy (McCarthy)	Gold lode prospecting	4
**Yool, Robert and Larsen, Clyde Manley Hot Springs	Cooney Cr. Hot Springs Dist.	Hot Springs (Tanana)	Nonfloat	2
**Yukon Consolidated Gold Corp., Ltd. Dawson City	Southeast Alaska	Several	Mineral investigations	1
*Yukon Placer Mining Co., Inc. Box 1108, Fairbanks	Livengood Cr. Tolovana Dist.	Fairbanks (Livengood)	Nonfloat	12
Zaiser, Clarence Ruby	Greenstone Cr. Ruby Dist.	Nulato (Ruby)	Nonfloat	3
Zaiser, Leonard McGrath	Hidden Cr. McGrath Dist.	Mt. McKinley (Medfra)	Nonfloat	1
Zimin, Nick South Naknek	Alaska Peninsula and Bristol Bay Dist.	Several	Prospecting	1

**Zukoev, James	Bonnifield Dist.	Nenana (Fairbanks)	Nonfloat	1
Zurek, W. J. Miller House	Mastodon Cr. Circle Dist.	Fairbanks (Circle)	Small scale hand	1

*1957 only

**1958 only

"Nonfloat" indicates mechanical placer gold operation using draglines and/or bulldozers to transport gravel to non-floating washing plant, bedrock sluiceboxes, or elevated sluices.

"Hydraulic" indicates placer gold operations in which gravel is excavated and transported to sluiceboxes solely by water jets from hydraulic nozzles.

"Small scale hand" indicates placer gold operation in which gravel excavation and transportation is accomplished by hand or ground sluicing.

ACTIVE COAL MINES, 1957-1958

Name and Address of Operator	Location of Mine	Mining District and (USGS Quadrangle)	Type of Operation	Approx. Crew
Arctic Coal Co., Inc. Box 1386, Fairbanks or Lignite	Lignite Cr. Nenana Field	Bonnifield Dist. (Healy)	Strip	10
Augustino, Bruno Box 23, Homer	Near Homer Kenai Field	Homer Dist. (Seldovia)	Strip	1
Castle Mountain Coal Co. Box 1292, Palmer	Near Chickaloon Matanuska Field	Willow Cr. Dist. (Anchorage)	Strip	4
Cripple Creek Coal Co. Box 529, Fairbanks	Cripple Cr. Nenana Field	Bonnifield Dist. (Healy)	Strip	13
Edwards Strip Subcontracting under Evan Jones	Jonesville Mine Matanuska Field	Willow Cr. Dist. (Anchorage)	Strip	15
Evan Jones Coal Co. Box 619, Anchorage or Jonesville	Jonesville Mine Matanuska Field	Willow Cr. Dist. (Anchorage)	Underground	70
Gist Strip Mine Jack C. Gist, Box 55, Homer	Near Homer Kenai Field	Homer Dist. (Seldovia)	Strip	1
Meade River Coal Co. Ed Burnell, Barrow	Meade River Pt. Barrow Field	Barrow Dist. (Meade River)	Underground	12
Minor Roop Strip Subcontracting under Evan Jones	Jonesville Mine Matanuska Field	Willow Cr. Dist. (Anchorage)	Strip	29

Mrak Coal Co. Box 16, Sutton	Near Eska Matanuska Field	Willow Cr. Dist. (Anchorage)	Strip	31
Pioneer Mining Co., Inc. 2405 Glenwood Ave., Anchorage	Premier Mine Matanuska Field	Willow Cr. Dist. (Anchorage)	Underground	4
Suntrana Mining Co., Inc. 521-3rd Ave., Anchorage or Suntrana	Healy Cr. Nenana Field	Bonnifield Dist. (Healy)	Underground	53
Usibelli Coal Mine, Inc. Suntrana	Healy Cr. Nenana Field	Bonnifield Dist. (Healy)	Strip	44

OIL AND GAS COMPANIES ACTIVE DURING THE BIENNIUM, 1957-1958

Name and Alaskan Address of Company	Home or Regional Office	Type of Activity
Alaska Consolidated Oil Co., Inc.	80 Wall St., New York City 5,	Drilling
Alaska Gulf Oil & Gas Development, Inc.	6157 Collins St. Pedley, California	Leasing
Alaska Oil & Gas Development Box 2000, Anchorage		Drilling, associated with Aledo
Alaska Oil & Mineral Co., Inc.	80 Wall St., New York City 5,	Leasing
Alaska Propane Co., Inc. 208 Cushman St. or Box 967, Fairbanks		Leasing, preparing for drilling and gas pipeline
Alaska Tidelands Oil Co., Inc. First National Bank Bldg. 638 Fourth Ave., Anchorage		Leasing
Alaska-Yukon Refiners & Distributors, Ltd. c/o Walter Sczudlo 209 Lacey St., Fairbanks		Preparations for petroleum distribution
Aledo Oil Co.	750 West Fifth St., Fort Worth 2,	Drilling, associated with Alaska Oil & Gas Development
Amerada Petroleum Corp.	417 South Hill St., Los Angeles	Geophysical

Anchorage Gas & Oil Develoment Co., Inc. 134 E. Second St., Anchorage		Drilling
Anderson-Prichard Oil Corp.	1000 Liberty Bank Bldg. Oklahoma City 2,	Leasing
Apache Oil Corp.	823 South Detroit Ave., Tuls:	Leasing
Ashland Oil & Refining		Leasing
Atlantic Refining Co., Inc.	937 Atlantic Bldg. Box 2819, Dallas	Leasing
Aztec Oil & Gas Co.	920 Mercantile Securities Bldg. Dallas	Leasing
Benedum, Paul G.	Benedum-Trees Bldg., Pittsburgh 22	Leasing, geological
Bintliff, David C., Interests	1312 Bank of the Southwest Building Houston	Leasing
Blackwell Oil & Gas Co.	507 Enterprise Bldg., Tulsa 3	Leasing
Bristol Bay Oil Co.	815 Sixth St. West, Calgary, Alberta	Leasing
British American Oil Producing Co.	Mercantile-Dallas Bldg., Dallas	Geophysical
Champlin Oil & Refining Co.	Box 9365, Fort Worth	Leasing
Cities Service		Leasing
Clark Oil & Refining		Leasing

Colorado Oil & Gas Corp. Yakutat		Drilling, seismic work
Continental Oil Co.	1137 Wilshire Blvd., Los Angeles 17	Drilling, associated with Colorado Oil & Gas
Cortez Oil Co.	1700 Broadway, Denver	Leasing
Cosden Petroleum		Leasing
Delhi-Taylor Oil Corp.	Corrigan Tower, Dallas	Leasing
El Paso Natural Gas Products Co.	Box 1161, El Paso	Geophysical
Exploration Services, Inc. Professional Bldg; 529 Sixth St., or Box 2061, Fairbanks		Consulting
Franco Western Oil Co.	3132 Eighteenth St., Bakersfield	Leasing
Frankfort Oil Co.	Davis Bldg., Dallas	Drilling, associated with Colorado Oil & Gas
General Petroleum Corp. Carrington Bldg. or Box 1734, Anchorage	612 South Flower St. Los Angeles 54	Geophysical, associated with Great Basins
Global Exploration Co.	800 Petroleum Club Bldg. Denver 2	Geophysical
Great Basins Petroleum Co.	Suite 87, Quinby Bldg. 650 South Grand Ave., Los Angeles 17	Geophysical

Gulf Oil		Leasing
Halbouty Alaska Oil Co. (Halasko) First National Bank Bldg., Anchorage	Halbouty Bldg., 5111 Westheimer Road, Houston 27	Preparing to drill, associated with King
Hiawatha Oil & Gas Co.	Petroleum Club Bldg., Denver	Leasing
Home Oil Co., Ltd.	304 Sixth Ave., West Calgary, Alberta	Leasing
Honolulu Oil Corp.	215 Market St., San Francisco 5	Leasing
Humble Oil & Refining Co. 1829 East Fifth Ave., or Box 248, Anchorage	Humble Bldg., Box 2180, Houston	Drilling, geophysical, associated with Shell
Iniskin Unit Operator, Inc.	811 West Seventh, Los Angeles 17	Leasing
Kerr-McGee Oil Industries, Inc.	Kerr McGee Bldg., Oklahoma City	Leasing
Kewanee Oil Co.	1401 South Boulder or Box 2239, Tulsa	Leasing
King Oil, Inc.	Oil & Gas Bldg. Wichita Falls, Texas	Preparing to drill, associated with Halbouty
Monterey Oil Co.	550 South Flower St. Los Angeles 17	Leasing
Northern Development Co.	Box 1413, Tacoma	Leasing

Ohio Oil Co. 522 K Street, Anchorage	550 South Flower St. Los Angeles 17	Geophysical, associated with Union
Pan American Petroleum Corp.	Box 591, Pan American Bldg., Tulsa 2	Geophysical
Phillips Petroleum Co. Loussac Sogn Bldg., 439 D St., Anchorage	Bartlesville, Oklahoma	Leasing
Plymouth Oil Co.	505 Eighth Ave., West Bldg. Calgary, Alberta	Leasing
Polaris Exploration Co., Inc. 306 B St., Anchorage		Leasing
Pure Oil Co.	Box 271, Tulsa	Leasing
Reserve Oil & Gas Co.	64 Pine St., San Francisco 11	Leasing
Richfield Oil Corp. Fifth Ave. & E St., Anchorage	555 South Flower St. Los Angeles	Drilling, geophysical, associated with Standard of California
Shell Oil Co.	Suite 1055, Dexter Horton Bldg. Seattle 4	Drilling, geophysical, associated with Humble
Signal Oil & Gas		Leasing
Sinclair Oil & Gas Co.	Box 521, Tulsa	Geophysical
Skelly Oil Co.	Box 1650, Tulsa	Leasing
Snowden, James H.	750 West Fifth St., Fort Worth	Leasing

Socony Mobile Oil		
Sohio Petroleum Co.	1400 Skirvin Tower Hotel Oklahoma City	Leasing
Standard Oil Co. of California 209 Fireweed Lane, Anchorage	225 Bush St., San Francisco 20	Drilling, geophysical, associated with Richfield
Standard Oil (Ind.)		Leasing
Standard Oil (N. J.)		Leasing
Sun Oil Co.	1608 Walnut St., Philadelphia 3	Leasing
Sunray Mid-Continent Oil Co. Carrington Bldg., or Box 854, Anchorage	714 West Olympic Blvd. Los Angeles 15	Geophysical
Suntide Refining		Leasing
Superior Oil Co.	550 South Flower St. or Box 3051 Terminal Annex Los Angeles	Leasing
T.U.L.M. Corp.	2206 Commerce Bldg., Houston 2	Leasing
Texaco (Alaska), Inc. (The Texas Co.)	3350 Wilshire Blvd., Los Angeles	Leasing
Texas National Petroleum Co.	902 South Coast Bldg., Houston 2	Leasing
Texota Oil Co.	Box 9338, Fort Worth 7	Leasing

Tidewater Oil Co.	4201 Wilshire Blvd., Los Angeles 5	Leasing
Union Oil Co. of California Carrington Bldg. or Box 1872, Anchorage	Box 7600, Los Angeles 54	Geophysical, associated with Ohio
Western Gulf Oil Co. Fourth Ave. Bldg., Anchorage	1200 Statler Center 900 Wilshire Blvd., Los Angeles 17	Geophysical
Yakutat Development Co.	Wyatt Bldg., Washington, D. C.	Leasing

LISTS OF REPORTS ISSUED BY THE COMMISSIONER OF MINES AND CORRESPONDING PRECEDING OFFICIALS

*Report of the Mine Inspector for the Territory of Alaska to the Secretary of the Interior, fiscal year ended June 30, 1912.

*Report of the Mine Inspector for the Territory of Alaska to the Secretary of the Interior, fiscal year ended June 30, 1913.

*Report of the Mine Inspector for the Territory of Alaska to the Secretary of the Interior, fiscal year ended June 30, 1914.

*Report of the Territorial Mine Inspector to the Governor of Alaska for the year 1915

*Report of William Maloney, Territorial Mine Inspector, to the Governor of Alaska for the year 1916.

*Report of the Territorial Mine Inspector to the Governor of Alaska for the year 1917.

*Annual Report of the Territorial Mine Inspector to the Governor of Alaska, 1920.

*Annual Report of the Territorial Mine Inspector to the Governor of Alaska, 1921.

*Annual Report of the Mine Inspector to the Governor of Alaska, 1922.

*Annual Report of the Mine Inspector to the Governor of Alaska, 1923.

*Report upon industrial accidents, compensation and insurance in Alaska for the biennium ending December 31, 1924.

*Report of the Territorial Mine Inspector, calendar years 1925-26.

*Report of cooperation between the Territory of Alaska and the United States in making mining investigations and in the inspection of mines for the biennium ending March 31, 1929.

*Report of cooperation between the Territory of Alaska and the United States in making mining investigations and in the inspection of mines for the biennium ending March 31, 1931.

*Mining investigations and mine inspection in Alaska, biennium ending March 31, 1933.

*Report of the Commissioner of Mines to the Governor, biennium ending December 31, 1936.

*Report of the Commissioner of Mines to the Governor, biennium ending December 31, 1938.

*Report of the Commissioner of Mines to the Governor, biennium ending December 31, 1940.

*Report of the Commissioner of Mines to the Governor, two biennia ended December 31, 1944.

Report of the Commissioner of Mines, biennium ended December 31, 1946.

Report of the Commissioner of Mines, biennium ended December 31, 1948.

Report of the Commissioner of Mines, biennium ended December 31, 1950.

*Report of the Commissioner of Mines, biennium ended December 31, 1952.

Report of the Commissioner of Mines, biennium ended December 31, 1954.

*Report of the Commissioner of Mines, biennium ended December 31, 1956.

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*Joesting, Henry R., Strategic mineral occurrences in interior Alaska: Pamphlet No. 1, May 1942.

*Joesting, Henry R., Supplemental to Pamphlet No. 1—Strategic mineral occurrences in interior Alaska: Pamphlet No. 2, March 1943.

*Andersen, Eskil, Mineral occurrences other than gold deposits in Northwestern Alaska: Pamphlet No. 5-R, May 1944.

*Stewart, R. L., Prospecting in Alaska (26-page pamphlet), December 1944. (Revised to November 1949).

*Glover, A. E., Industrial minerals as a field for prospecting in Alaska, including a glossary of elements and minerals (82-page booklet) March 1945. (Revised to May 1946)

Anderson, Eskil, Asbestos and jade occurrences in the Kobuk River region, Alaska; Pamphlet No. 3-R, May 1945.

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