

State of Alaska  
Department of Natural Resources  
DIVISION OF MINES AND MINERALS

P. O. Box 1391  
Juneau, Alaska

MINES BULLETIN

December, 1960

Vol. VIII

No. 12

MINING ACTIVITIES

THIRD DISTRICT - A spokesman for Glacier Mining Co. announced that development work on a molybdenum deposit in the Hayes Glacier area has been suspended indefinitely. According to the spokesman, exploration and sampling has proved that a sizable deposit exists in the undeveloped region 60 - 80 miles northwest of Anchorage but development of the deposit is hindered by lack of power.

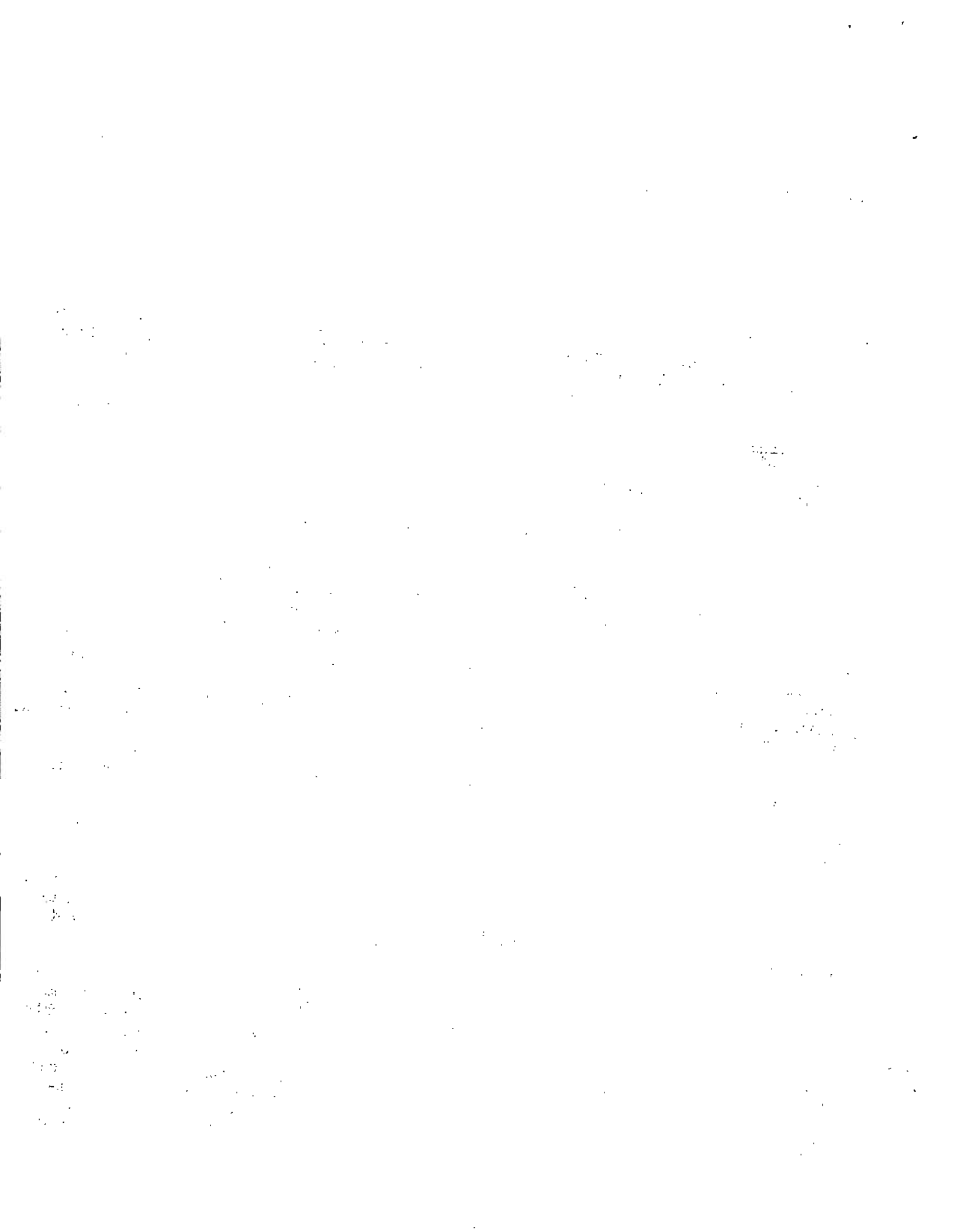
FOURTH DISTRICT - A 67-ounce gold nugget was found on Gaines Creek in the Ophir Mining District this summer. The find could not be confirmed, however, a number of mining people from the Ophir District insist they saw the nugget - far more valuable as a curiosity than for its actual monetary worth.

HEARINGS HELD ON PROPOSED REGULATIONS

Public hearings in Ketchikan, Juneau, Fairbanks, Nome and Anchorage were held last month to learn what the mining industry and others think of our preliminary draft of proposed regulations for mining on lands that the State will acquire from the Federal public domain. It is emphasized again that the regulations adopted will not affect any existing claims, for the State cannot select land subject to such claims nor will they affect future claim staking on Federal public domain. The regulations are to be the primary responsibility of the State Division of Lands; however, the DM&M is also concerned because its primary responsibility as established by law is to foster and promote the best interests of the mining industry. Both Divisions want to adopt regulations that will do the most to encourage the development of Alaska's mineral resources.

The preliminary draft of regulations was patterned after existing Federal and State laws to avoid confusion in operations between Federal and State lands. Prior to the hearings, we received many emphatic written statements urging us to take this opportunity while the "slate is clean" to begin with regulations that would make basic changes that, so the various writers state, have been needed in our mining laws for many years. Most of these statements urged adoption of features such as no discovery requirement, no extralateral rights, larger claims, "banking" ahead of assessment work, cash in lieu of assessment work, and making fee-simple title to claims easier to obtain. With reference to the discovery and fee-simple title recommendations, the State Constitution requires discovery for the acquisition of mining rights, and the Statehood Act prohibits the State from giving title (patent) to mineral rights.

The hearings brought much testimony and a few more written statements both for and against any departures from the present laws. Prospectors at Ketchikan mostly wanted claims kept the same size as at present, but favored elimination of extralateral rights, banking assessment work, and the privilege of paying cash in lieu of assessment work. At Juneau we heard from some company representatives who recommended 40-acre claims, elimination of extralateral rights, elimination of distinction between lode and placer claims, and provisions for paying cash in lieu of assessment work. They also recommended that we require plats of the claims to be filed with location certificates. At Fairbanks, the Alaska Miners Association members presented a written statement and



much oral testimony strongly urging retention of the present mining law features with no significant changes except that they felt the tunnel site was no longer needed. They felt that some part of the mobilization cost should be allowed for assessment work and urged that some measures be taken by the State to see that assessment work is actually done. At Nome, members of the AMA and others endorsed the statement of the Fairbanks members except that they recommended the elimination of extralateral rights. At Anchorage there was strong testimony for deleting extralateral rights, for larger claims, and for other changes mentioned above.

One thing that nearly everyone agreed upon at all the hearings was the need for pre-discovery protection, that is, some means of keeping nuisance stakers at a distance when a prospector has found indications that may lead to a legal discovery of valuable mineral upon further work. Proposals were made and discussed at great length for establishing what we will call a "prospecting site" that will, upon proper staking and application, allow a prospector the exclusive right to work in a certain area until he makes legal discoveries which allow him to stake regulation mining claims, or until the time limit runs out. Many different proposals were made as to the best size, length of time to be allowed, etc. for prospecting sites, but nearly everyone favored the general idea. Sizes were suggested from 40 acres to a square mile, and time limits from 6 months to 5 years.

The proposed regulations will now be redrafted. They will be sent to all who attended the hearings or sent in statements, and to others upon request, for their further comments for possible further revisions before adoption. If it seems advisable, another round of hearings could be held.

As it looks right now from preliminary conference following the hearings, the redraft will probably contain the following proposed provisions: Prospecting Sites: maximum size 160 acres, maximum number of 6 in any recording district, 1 year limit with extensions allowed on showing of need, "prospecting" work at \$5 per acre per year for 2 years starting with the date the site is staked and \$10/acre/year if extended longer, corners to be posted and lines to be flagged, location certificate to be posted on site and filed, and to carefully describe situation of site. Mining Claims: Maximum size 40 acres, no extralateral rights, no distinction between lode and placer, 4-post staking, brushed-out lines, corner posts and location notice to be maintained in good condition, lines N-S-E-W as near as practical, no limit of number of claims, \$100 worth of assessment work per claim per year.

Persons wishing copies of the redraft may obtain them from the Division of Mines and Minerals at Box 1391, Juneau, or the Division of Lands at 340 Sixth Ave., Anchorage. It is likely to be a few weeks before the redraft is ready, but we will be glad to put you on the mailing list for it when it becomes available.

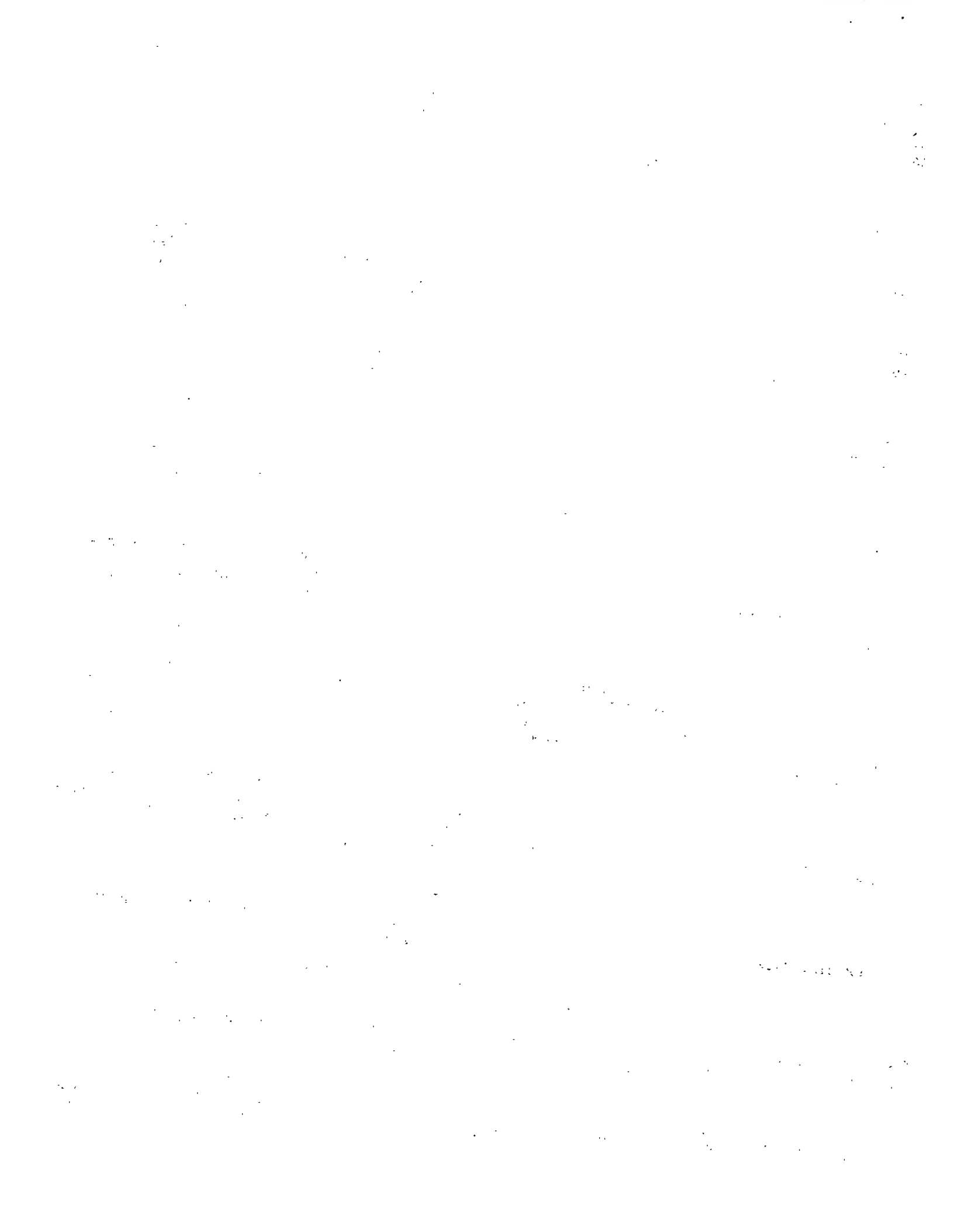
#### OIL NEWS

During the month of November, 1960, the Petroleum Branch of the Division of Mines and Minerals approved the following applications for permits to drill:

Standard Oil Co. of California, Swanson River Unit No. 34-15  
Standard Oil Co. of California, Falls Creek No. 1

To date this Division has approved a total of 26 applications for permits to drill, while at this time in 1959 only 15 applications had been received and approved.

This past month was marked by the completion of 2 wells and also the abandonment of 2 wells. On November 11, 1960, Standard Oil Co. of California, Operator, completed well No. "Soldotna Creek Unit" 34-33, Sec. 33 flowing at a calculated MER of 750 barrels



of 35.8° gravity clean oil. This completion brings the State's total number of oil producers to 15. In the Kenai Gas Field, Union Oil Co. of California, Operator, completed a step-out well approximately 2 miles east of the present production. On November 21, 1960, well No. "Kenai Unit" 14-4, Sec. 4, T 4 N, R 11 W, was completed, flowing gas at an estimated rate of 4100 MCF per day through a 3/8 bean from a perforated interval 4320 to 4311 feet.

On November 19, 1960, Colorado Oil & Gas Corp., Operator, abandoned well No. "Dangerous River Unit" 1, Sec. 17, T 29 S, R 37 E, CR B&M after reaching a total depth of 8,634 feet. A spokesman for the operator indicated that exploratory operations will probably be resumed sometime during the spring of 1961. Standard Oil Co. of California, Operator, abandoned a development well in the Swanson River Oil Field. On November 25, 1960, well No. "Swanson River Unit" 32-37, Sec. 27, was abandoned at a total depth of 11,604 feet. The operator is presently plugging back and the hole will be redrilled as a 24-27 location.

Current Drilling Activity as of November 25, 1960

<u>Operator</u>	<u>Well No.</u>	<u>Status</u>
Richfield SOCal	Kaliakh River Unit 2RD SCU 34-4	Drilling @ 8634' T.D. 10880', preparing to complete
SOCal	SCU 14-34	Drilling @ 8710'
SOCal	SCU 14-9	Drilling @ 8490'

STATE APPROVES 80 ACRE SPACING FOR SWANSON RIVER FIELD - A hearing was held in Anchorage on November 21, 1960, at which Standard Oil Co. of California, Western Operations, Inc., as operator of the Swanson River Field, petitioned the State for exception to the 160-acre well spacing provided for under the Alaska Oil and Gas Conservation Regulations, Title 11, AAC. The application asked for 80-acre well spacing for the Hemlock Zone of the Swanson River Field where justified by reservoir development.

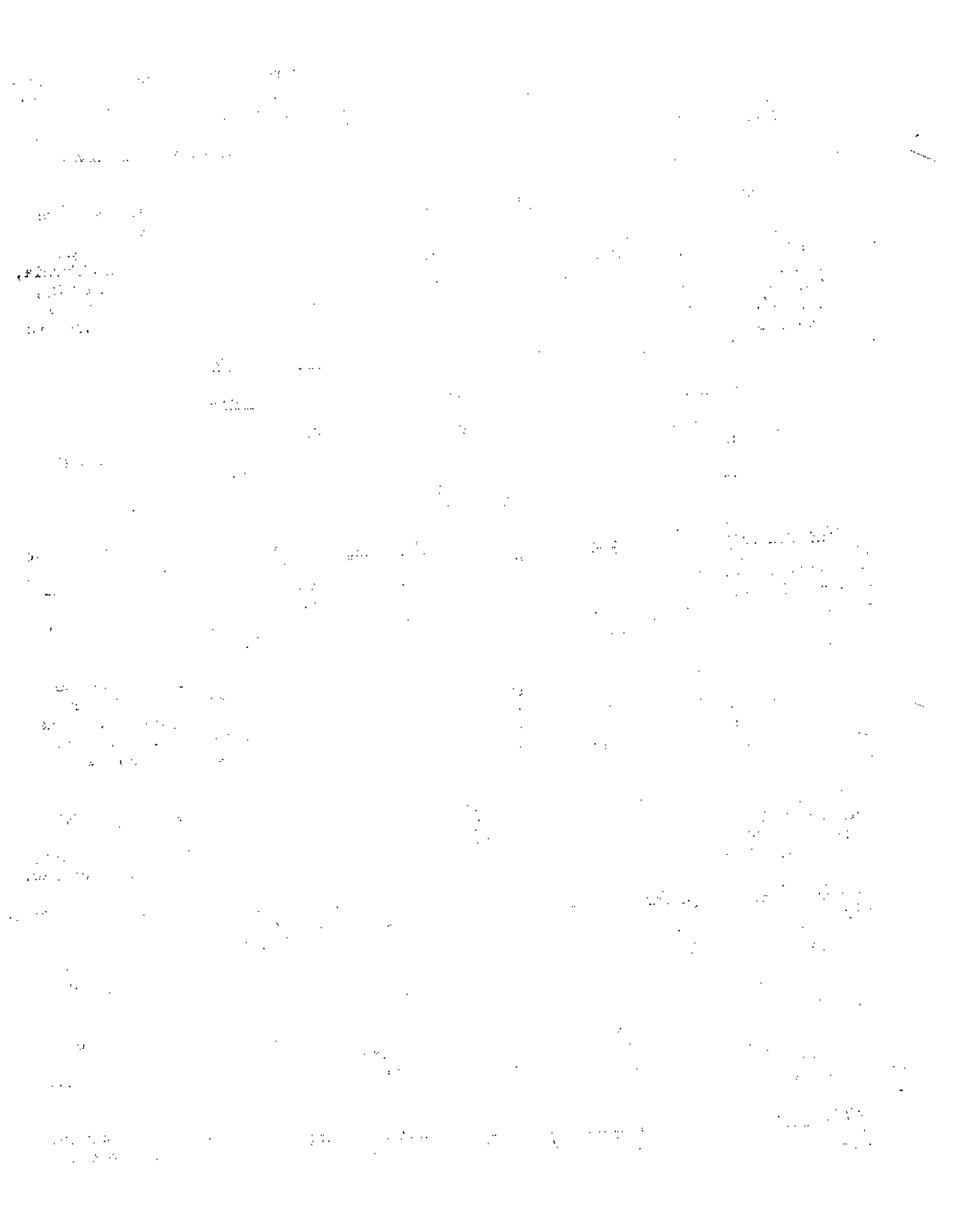
In support of the petition the operator submitted technical evidence in order to establish lack of reservoir continuity. Examination of the submittal by the oil and gas hearing committee showed the necessity of closer well spacing to properly drain the field and such finding was concurred in by the Oil & Gas Superintendent, U.S.G.S. An order was issued on November 25, 1960, allowing the operator to drill on 80-acre well spacing as petitioned.

The oil and gas committee is composed of James A. Williams, Director of the DM&M as chairman, Phil R. Holdsworth, Commissioner of the Department of Natural Resources, Donald D. Bruce, State Petroleum Geologist, Richard V. Murphy, State Petroleum Engineer, and Joseph Rudd, Committee Legal Counsel, Assistant District Attorney, Department of Law.

FIRST TANKER LOADS CRUDE AT NIKISKI - The Standard Oil Co. of California tanker, W.H. Berg, loaded some 100,000 barrels of crude from the Swanson River and Soldotna Creek Units at the new tanker terminal facility at Nikiski on November 12. The entire operation took slightly over 6 hours with the oil flowing through the 24-inch line into the tanker at a rate exceeding the designed flow-rate of 15,000 barrels per hour. At the mid-point of the loading operation the flow-rate reached 17,900 barrels per hour.

The tanker left the terminal late Saturday and Standard officials estimated the return trip to the company's Richmond, California, refinery would take about 5 days. Hereafter a tanker will load at Nikiski every 15 to 20 days, but if production continues to increase as expected, a tanker will be loaded each week.

STATE APPROVED DRILLING OF SOCAL'S FALLS CREEK NO. 1 WILDCAT - The DM&M on November 15, 1960, approved the permit to drill SOCal's Falls Creek No. 1 well to be located about



1 3/4 miles south of Clam Gulch on the Sterling Highway. The nearest producible field is the Kenai Gas Field some 19 miles to the NNE. The rig site will be onshore on fee land and bottom hole location will underlie State offshore lease ADL 00590.

OIL AND GAS SECTION OF THE DM&M RENAMED - On November 1, 1960, the Director of the Division of Mines and Minerals, James A. Williams, announced that the former Oil & Gas Section of the Division, located in Anchorage, had been redesignated the Petroleum Branch of the DM&M. Other branches in the DM&M are the Mining Branch and the Metallurgical Branch.

GAS PIPELINE FAILURE ACCOMPANIED BY EXPLOSION - During a high pressure test of the main transmission line from the Kenai Gas Unit wells on Kalifonsky Beach to supply Anchorage and vicinity, a failure occurred about 12 miles east of the wells sending a flame several hundred feet into the air but causing no damage. The break has been attributed to damaged pipe. Such breaks are not uncommon during tests which are conducted prior to placing gas line in operation to prevent subsequent service interruptions.

ATLANTIC PREPARES FOR 4 ARCTIC STRAT TESTS - Atlantic Refining Co. is awaiting freeze up to begin drilling on the first of 4 proposed stratigraphic tests above the Arctic Circle. They have already moved 400 tons of drilling equipment and supplies to Airport Creek on or near the Mackenzie River.

Proposed depths of the 4 strat tests is around 2,500 feet to be drilled by Tri-City Drilling Co. Extreme cold and maintenance of an adequate water supply are major problems. Atlantic estimates that it will take 90 to 105 days to complete the 4 well program. The wells, drilled on a 2,700,000 acre lease, will explore for shallow oil and provide information to further evaluate surface geological work.

#### OPEN FILE GEOLOGIC REPORTS

The Geological Survey is releasing in open files the following reports:

1. Total intensity aeromagnetic profiles of the Yukon Flats - Kandik Area, Alaska, by G. D. Andreasen.
2. An aeromagnetic reconnaissance of the Cook Inlet area, Alaska by Arthur Grantz, Isidore Ziety, and Gordon Andreasen.

The reports are on file at Brooks Memorial Mines Bldg., College, Alaska; 503 Cordova Bldg., Anchorage; and 329 2nd Ave., DM&M Bldg., Anchorage. Copies from which reproductions of text and illustrations can be made at private expense are available at Alaska Branch, U.S.G.S., 345 Middlefield Road, Menlo Park, California.

#### MOON GEOLOGY

The Geological Survey has programmed research work totaling \$205,000 for geologic analysis of photographs of the moon, terrestrial crater studies, investigations into the origins and composition of tektites, meteorites and related materials of possible impact origin, and experimental studies of the mechanics of impacting objects. Some of the related subjects Survey scientists hope to pursue include the nature and time-of-flight of particles in space and the nature of objects most likely to be found on the moon and their part in altering the face of the "moon."

#### MINING CLAIMS WHICH LIE NORTHWEST OF HAINES

A search for the owners of mining claims which lie northwest of Haines is continuing. The claims are located within 154,000 acres of land selected by the State of Alaska under the Mental Health Act. The mining claim owners are being sought to determine the extent of their claims since only unoccupied land may be patented to the State. If the claimants cannot be found, their holdings will be considered abandoned and the land will be patented to the State. Notices to missing claimants will be run in the Daily Alaska Empire. All owners of claims in the area should contact the Bureau of Land Management, Box 2511, Juneau.

## ARCTIC WILDLIFE RANGE

The Interior Department apparently will not create the 9 million acre Arctic Wildlife Range this year by the stroke of a pen. "The future of the Arctic Wildlife Range will probably depend on Congress," explains Interior Undersecretary Elmer F. Bennett.

### X-RAY FLUORESCENCE ANALYSIS

A method of ore analysis which has replaced existing chemical methods in ever-increasing numbers has been proved by rigid tests conducted by industry and scientific laboratories. Briefly, the method consists of the X-Ray fluorescence analysis of samples of ores, minerals, and other chemical compounds prepared through a fusion technique. The accuracy and rapidity of such analysis are immensely superior to, while considerably cheaper than, the standard methods used previously. "Sample Preparation Techniques for X-Ray Fluorescence Analysis" (P.R. No. 402) has just been published by the Quebec Department of Mines and can be obtained, upon request, from the Department of Mines, Quebec City, or from other offices of the Department elsewhere in the Province.

### E. AND M. J. METAL MARKET PRICES

	<u>Nov. 24,</u> <u>1960</u>	<u>Month</u> <u>Ago</u>	<u>Year</u> <u>Ago</u>
Copper, per lb.	30.0¢	33.0¢	34.3¢
Lead, per lb.	12¢	12¢	13¢
Zinc, per lb.	13¢	13¢	12.5¢
Tin, per lb.	102.9¢	102.3¢	100.5¢
Nickel, per lb.	74¢	74¢	74¢
Platinum, per oz.	\$81-85	\$81-85	\$77-80
Quicksilver, per flask	\$209-212	\$209-212	\$215-217
Silver, foreign	91.4¢	91.4¢	91.4¢
Silver, domestic, per oz.	90.5¢	90.5¢	90.5¢
Antimony ore, per unit	\$3.30-3.35	\$3.30-3.35	\$3.30-3.35
Chrome ore, per long ton	\$36-38	\$36-38	\$34-35
Titanium ore, per ton	\$23-26	\$23-26	\$23-26
Tungsten ore, per unit	\$22-24	\$24-25	\$22-24
Molybdenum conc. per lb.	\$1.25	\$1.25	\$1.25
Beryllium ore, per unit	\$46-48	\$46-48	\$46-48