Please do not destroy or throw away this publication. If you have no further use for it write to the Geological Survey at Washington and ask for a frank to return it

---

UNITED STATES DEPARTMENT OF THE INTERIOR
Harold L. Ickes, Secretary

GEOLOGICAL SURVEY
W. C. Mendenhall, Director

Bulletin 857—B

PAST PLACER-GOLD PRODUCTION FROM ALASKA

BY

PHILIP S. SMITH

Mineral resources of Alaska, 1932
(Pages 93–98)

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1933

For sale by the Superintendent of Documents, Washington, D. C. - - - - - - - - - Price 5 cents

PAST PLACER-GOLD PRODUCTION FROM ALASKA

By Philip S. Smith

To the end of 1930 Alaska, according to the records of the Geological Survey, had produced placer gold to the value of $258,962,000 from mines widely scattered throughout its length and breadth. The distribution of the placers from which the gold was recovered has been stated in more or less detail in the annual summaries published by the Geological Survey on the mineral industry of Alaska and also in its more complete reports on many of the individual mining districts. Although these summaries and reports have furnished information regarding the larger regions, they have not always given specific details regarding the smaller districts. Furthermore, there has been no recent attempt to assemble and publish in one place the scattered statistics regarding the placer-gold production by years and by regions and districts. The purpose of the present report is to set forth in condensed but comprehensive form a summary of the placer-gold production of Alaska so far as it can be determined from the available official records.

At the outset it should be realized that the records on which the accompanying tabulations are based are not all complete or detailed enough to be used for as minute analysis as is desired for the present purpose. This is especially true of the older records, for in some of them the subdivisions used do not correspond with those now adopted and the data are not such as to permit their recalculation to fit the present need. For instance, it is almost certain that some small amounts of gold were recovered by prospectors from nearly every district in the year preceding the first recorded production for that district as given in the following tables. These amounts, however, were small and so far as known have been attributed to one or another of the older nearby districts, so that they appear in the regional totals and affect the district totals only to a minor extent.

Even in the more recent records there are uncertainties that cannot be entirely eliminated. One of the most serious causes of uncertainty is due to the methods employed even currently in collecting this information regarding the placer production for each year. The uncertainties due to this cause have been described as follows:[1]

> The methods used in collecting and interpreting the information that forms the basis of this report indicate that it is more difficult to obtain accurate facts regarding the production of placer gold than regarding any of the other items.

---

[1] Smith, P. S., Mineral industry of Alaska in 1930: U.S. Geol. Survey Bull. 836, pp. 25-26, 1931.

This is due to the great number of small producers, who are widely scattered and many of whom are in the most remote parts of the Territory. The gold they produce frequently passes through many hands before it finally reaches a mint or assay office, so that a single lot is difficult to trace. It may appear in the reports of the individual and then lose its identity by being lumped with other gold by the storekeeper who took it in exchange for supplies, and still further consolidated by the bank, perhaps in some distant district, to which it was sent by the merchant, and its course perhaps still further obscured by being shipped to another bank before being turned in to the mint. Every reasonable effort has been made to check the information from different sources and to adjust discrepancies so far as possible. As a result it is believed that the figures given for the total placer production and its distribution by years among the larger regions are in accord with the actual facts. The distribution of this total among the different districts, however, is open to much more serious errors, as gold produced in one district, unless reported to the Geological Survey by the original producer, may be credited to some other district through which it passed in the course of trade.

Another cause of uncertainty that affects current records and becomes even more troublesome in interpreting the older ones arises through the necessity of combining the records of certain districts so as to avoid disclosing information given to the Geological Survey in confidence, because publishing the separate records would afford insight into an individual's production of placer gold. This difficulty is believed to have been largely avoided in the present report, because the records here given have not been brought up beyond 1930 and because the grouping adopted prevents recognition of the production of individuals.

In the interest of arithmetical accuracy the statistics as tabulated have been followed precisely in arriving at the totals stated. This has led to an appearance of greater accuracy than is warranted by the quality of the data used. For instance, the total production from the Nome district is stated as $67,707,200, though as is evident from the detailed table, an estimated figure that may be in error as much as $100,000 makes up part of that total. Furthermore, most of the annual figures for that camp are stated only to the nearest whole number of thousands, and as the table embraces the record for 34 years its total as given may be some tens of thousands of dollars different from the total that would have been obtained if the annual figures had been determined to the last integer. However, had the figures in the table been rounded off or recomputed to conform with the mathematical process of indicating significant figures, they would not have coincided with the available district or regional records nor with the records that have been published for Alaska's annual placer-gold production.

The most reliable group of figures in the following tabulation are the totals for each of the calendar years. This comes about through the fact that practically all Alaskan gold entering the channels of trade passes at different times through various depositories such as banks, smelters, mints, or assay offices, to reach which it undergoes transportation by mail or express or passes through customs. There are therefore many diverse modes of checking the gross output of gold from Alaska in addition to the direct inquiry that is sent by the Geological Survey to each known mine or operator who may have produced some gold.

Next in degree of accuracy are the records regarding the annual production of each of the major Alaska regions. Here too the facilities for checking the reports from one source against those from other sources permit determining the facts with considerable reliability. The sum of the outputs from all the major regions has been verified and made to equal exactly the total production of Alaska for the year or the period stated.

When, however, this regional production is broken down for distribution among the different districts that constitute the region, serious difficulties of reconciling the various available records arise. For instance, in the Kuskokwim region in 1914, 1915, and 1916 all the placer-gold production is recorded as having come from the McKinley district, though it is known from other sources that some gold was also produced during these years in the Goodnews Bay district. At this late date it is obviously impossible to determine positively the reason for the omission of the record of the Goodnews Bay district in those years. It is possible that the gold from Goodnews Bay was incorrectly credited to some region other than the Kuskokwim, but the simplest and most likely explanation is that in the old records the district was not separately listed from the McKinley district and therefore its gold production is included with the gold from that district. In order that possibilities of this sort may be reflected in the tables, appropriate symbols have been interjected to show that the amount in one column is believed to be too low or in another too high. In this way the writer has avoided altering the statements afforded by the official records. Such a device, however, does not meet the need of supplying some sort of quantitative value for the omitted or duplicated records, if a total for the district is to be struck. Therefore with full realization of the probability of introducing errors of considerable magnitude, the writer has stated as a single gross figure his estimate of the amounts that should be added to or subtracted from the figures given in the column to correct these deficiencies. This procedure has been adopted because it was believed to be subject to less inaccuracy than that of inserting separate estimates in the various columns for each of the missing years. In other words, it was believed that whereas an estimated total for a period of several years might be out perhaps 10 percent, an estimate for each of the individual years comprising that period might well be out as much as 100 percent.

Arranged in the order of the magnitude of their total placer-gold production up to the end of 1930 the larger Alaskan regions ranked as follows:

Yukon	$147, 353, 900
Seward Peninsula	94, 191, 000
Copper River	5, 361, 700
Cook Inlet	5, 052, 820
Kuskokwim	3, 840, 400
Southeastern Alaska	2, 788, 980
Northern Alaska	373, 200
	258, 962, 000

Arranged in the order of the magnitude of their total placer-gold production up to the end of 1930 the Alaskan districts ranked in the following order:

District	Region	Value
Fairbanks	Yukon	$79, 630, 600
Nome	Seward Peninsula	67, 707, 200
Iditarod	Yukon	20, 321, 400
Council	Seward Peninsula	11, 809, 600
Circle	Yukon	7, 132, 300
Hot Springs	do	6, 814, 000
Fortymile	do	6, 165, 900
Ruby	do	5, 798, 800
Fairhaven	Seward Peninsula	5, 727, 100
Tolovana	Yukon	5, 233, 600
Solomon-Bluff	Seward Peninsula	5, 196, 900
Koyukuk	Yukon	4, 971, 500
Innoko	do	4, 486, 600
McKinley	Kuskokwim	2, 702, 400
Chistochina	Copper River	2, 696, 800
Nizina	do	2, 606, 600
Yentna	Cook Inlet-Susitna	2, 443, 500
Kougarok	Seward Peninsula	2, 223, 200
Kenai	Cook Inlet	1, 990, 200
Rampart	Yukon	1, 422, 900
Juneau	Southeastern Alaska	1, 368, 880
Richardson	Yukon	1, 329, 900
Marshall	do	1, 247, 300
Porcupine	Southeastern Alaska	1, 100, 300
Koyuk	Seward Peninsula	970, 500
Chisana	Yukon	786, 200
Tuluksak-Aniak	Kuskokwim	680, 000
Eagle	Yukon	593, 300
Port Clarence	Seward Peninsula	556, 500
Valdez Creek	Cook Inlet-Susitna	475, 700
Kantishna	Yukon	475, 100
Bonnifield	do	434, 500
	Northern Alaska	373, 200
Chandalar	Yukon	356, 400
Yakataga	Southeastern Alaska	319, 800
Goodnews Bay	Kuskokwim	243, 200
Georgetown	do	214, 800
Indian River	Yukon	129, 500
Southwestern Alaska	Cook Inlet-Susitna	97, 320
Nelchina	Copper River	58, 300
Willow Creek	Cook Inlet-Sustina	46, 100
Gold Hill	Yukon	24, 100
		258, 962, 000

In the accompanying table are set forth the complete statistics of the production of the various districts so far as they can now be determined from the official records. In addition to the specific facts regarding the value of the placer-gold production of each area for each year, as well as the total value by years, districts, and regions, the table serves as a more or less graphic representation of the history of the development of the placer industry throughout the Territory. Thus at a glance may be visualized the relative time when each of the

Placer gold produced in Alaska, 1880–1930

Year	Southeastern Alaska				Copper River region				Cook Inlet-Susitna region						Yukon region																				Kuskokwim region					Seward Peninsula								Northwestern Alaska	Grand total	Year
	Juneau	Porcupine	Yakataga	Total	Nizina	Chistochina	Nelchina	Total	Kenai Peninsula	Willow Creek	Yentna-Cache	Valdez Creek	Southwestern Alaska	Total	Fortymile	Eagle	Circle	Rampart	Hot Springs	Tolovana	Fairbanks	Richardson	Chisana	Bonnifield	Kantishna	Chandalar	Koyukuk	Indian River-Hughes	Gold Hill	Ruby	Innoko	Iditarod	Marshall	Total	McKinley	Georgetown	Tuluksak-Aniak	Goodnews Bay	Total	Nome	Solomon and Bluff	Council	Koyuk	Fairhaven	Kougarok	Port Clarence	Total			
1880	$6,000			$6,000																																													6,000	1880.
1881	15,000			15,000																																													15,000	1881.
1882	20,000			20,000																																													20,000	1882.
1883	50,000			50,000											1,000																			1,000															51,000	1883.
1884	50,000			50,000											1,000																			1,000															51,000	1884.
1885	100,000			100,000											25,000																			25,000															125,000	1885.
1886	120,000			120,000											30,000																			30,000															150,000	1886.
1887	100,000			100,000											30,000																			30,000															130,000	1887.
1888	100,000			100,000											35,000																			35,000															135,000	1888.
1889	100,000			100,000											40,000																			40,000															140,000	1889.
1890	100,000			100,000											50,000																			50,000															150,000	1890.
1891	117,000		$3,000	120,000											100,000																			100,000															220,000	1891.
1892	127,500		2,500	130,000											110,000																			110,000															240,000	1892.
1893	44,000		6,000	50,000											200,000																			200,000															250.000	1893.
1894	32,000		18,000	50,000											390,000		10,000																	400,000															450,000	1894.
1895	11,000		39,000	50,000					$50,000					$50,000	559,000		150,000																	709,000															809,000	1895.
1896	b 40,000		a	40,000					120,000					120,000	100,000		700,000																	800,000															960,000	1896.
1897	b 15,000		a	15,000					175,000					175,000	a		b 460,000																	460,000						15,000							15,000		665,000	1897.
1898	b 19,000	$1,000	a	20,000					150,000					150,000	a		b 400,000																	400,000						75,000							75,000		645,000	1898.
1899	b 21,000	9,000	a	30,000					150,000					150,000	250,000		250,000																	500,000						2,800,000							2,800,000		3,480,000	1899.
1900	b 13,000	50,000	a	63,000		$25,000		$25,000	135,000					135,000	293,000		250,000										107,000							650,000						3,433,500	825,000	165,000		200,000	50,000	76,500	4,750,000		5,623,000	1900.
1901	9,000	b 110,000	a	119,000		115,000		115,000	66,000					66,000	176,500		200,000										173,500							550,000						3,320,000	120,000	600,000		50,000	40,000		4,130,000		4,980,000	1901.
1902	10,000	b 140,000	a	150,000	$32,000	225,000		257,000	120,000					120,000	400,000		200,000										200,000							800,000						3,150,000	210,000	1,000,000		150,000	50,000		4,560,000		5,887,000	1902.
1903	20,000	b 150,000	a	170,000	50,000	225,000		275,000	100,000					100,000	196,100		200,000		262,900		40,000						301,000							1,000,000						2,900,000	290,000	1,000,000		200,000	75,000		4,465,000		6,010,000	1903.
1904	a	b 89,000	10,000	99,000	150,000	250,000		400,000	100,000				$5,000	105,000	207,000		200,000	90,000	145,000		400,000						200,000							1,242,000						2,864,000	200,000	900,000		125,000	75,000		4,164,000	15,000	6,025,000	1904.
1905	a	b 140,000	a	140,000	75,000	290,000		365,000	100,000		$35,000			135,000	255,000		200,000	80,000	120,000		6,000,000			30,000	50,000		165,000							6,900,000						3,400,000	200,000	500,000		300,000	400,000		4,800,000		12,340,000	1905.
1906	19,680	25,000	a	44,680	65,000	150,000		215,000	57,000		30,000		10,320	97,320	260,000	40,000	300,000	275,000	180,000		9,320,000	100,000		35,000	75,000		165,000							10,750,000						6,100,000	200,000	500,000		500,000	100,000	100,000	7,500,000		18,607,000	1906.
1907	6,000	2,000	15,000	23,000	60,000	40,000		100,000	25,000		150,000		10,000	185,000	140,000	15,000	200,000	325,000	175,000		7,845,000	325,000		15,000	5,000	28,000	100,000				10,000			9,183,000						5,550,000	200,000	500,000		600,000	100,000	50,000	7,000,000		16,491,000	1907.
1908	b 15,000	a	20,000	35,000	70,000	80,000		150,000	25,000	$25,000	100,000	$100,000	10,000	260,000	150,000	10,000	175,000	75,000	125,000		9,180,000	250,000		20,000	10,000	25,000	220,000		5,000		70,000			10,315,000	3,000				3,000	a	a	a		a	a	a	5,120,000	5,000	15,888,000	1908.
1909	b 50,000	a	10,000	60,000	30,000	50,000		80,000	30,000	5,000	100,000	50,000	5,000	190,000	200,000	25,000	225,000	100,000	325,000		9,650,000	150,000		65,000	10,000	5,000	420,000		5,000		400,700			11,580,700	40,000				40,000	a	a	a		a	a	a	4,290,000	12,000	16,252,700	1909.
1910	3,000	77,000	10,000	90,000	50,000	60,000		110,000	40,000		150,000	30,000	5,000	225,000	150,000	15,000	225,000	50,000	300,000		6,224,300	30,000		10,000	10,000	3,500	160,000		2,000		325,000	500,000		8,004,800	25,000				25,000	a	a	a		a	a	a	3,500,000	30,000	11,984,800	1910.
1911	10,000	45,000	20,000	75,000	55,000	75,000		130,000	25,000	2,000	63,000	30,000	5,000	125,000	200,000	12,000	350,000	32,000	785,000		4,544,000	41,000		25,000	15,000	1,000	130,000	10,000	5,000		300,000	2,600,000		9,050,000	15,000			10,000	25,000	a	a	a		a	a	a	3,100,000	35,000	12,540,000	1911.
1912	10,000	40,000	10,000	60,000	78,000	80,000		158,000	25,000	1,000	52,000	8,000	8,000	94,000	200,000	20,000	325,000	43,000	400,000		4,176,000	21,000		25,000	24,000	1,000	215,500	24,500		170,000	300,000	2,700,000		8,645,000				8,000	8,000	a	a	a		a	a	a	3,000,000	25,000	11,990,000	1912.
1913	5,000	42,000	3,000	50,000	100,000	80,000		180,000	25,000	4,000	45,000	6,000	2,000	82,000	125,000	20,000	175,000	25,000	400,000		3,328,000	55,000	50,000	20,000	15,000	2,000	368,000	32,000		785,000	280,000	2,100,000		7,780,000	50,000			3,000	53,000	a	a	a		a	a	a	2,500,000	35,000	10,680,000	1913.
1914	5,000	35,000	8,000	48,000	115,000	55,000		170,000	45,000	6,000	50,000	4,000	4,000	109,000	50,000	50,000	215,000	30,000	750,000		2,514,000	100,000	250,000	20,000	20,000	6,000	260,000	25,000		1,000,000	200,000	2,060,000	20,000	7,570,000	b 100,000			a	100,000	a	a	a		a	a	a	2,700,000	33,000	10,730,000	1914.
1915	a	b 55,000	10,000	65,000	140,000	60,000		200,000	70,000		45,000	25,000	5,000	145,000	50,000	40,000	230,000	35,000	610,000	80,000	2,465,000	70,000	160,000	20,000	20,000	5,000	290,000	15,000		700,000	190,000	2,050,000	20,000	7,050,000	b 100,000			a	100,000	1,500,000	255,000	680,000		250,000	140,000	75,000	2,900,000	20,000	10,480,000	1915.
1916	a	b 80,000	a	80,000	140,000	150,000	$10,000	300,000	70,000	2,000	60,000	23,000	5,000	160,000	50,000	30,000	300,000	40,000	800,000	700,000	1,800,000	80,000	40,000	21,000	20,000	9,000	310,000	10,000		850,000	220,000	1,950,000	320,000	7,550,000	b 80,000			a	80,000	1,542,000	343,500	670,500		191,500	111,000	91,500	2,950,000	20,000	11,140,000	1916.
1917	a	b 35,000	2,000	37,000	120,000	100,000	2,000	222,000	30,000		140,000	30,000	7,000	207,000	80,000	13,000	200,000	33,000	450,000	1,150,000	1,310,000	25,000	40,000	12,000	15,000	15,000	250,000	5,000		885,000	175,000	1,500,000	425,000	6,583,000	50,000	40,000	15,000	30,000	135,000	a	a	a		a	a	a	2,601,000	25,000	9,810,000	1917.
1918	a	b 9,000	1,000	10,000	135,000	100,000	4,000	239,000	8,000		150,000	2,000	3,000	163,000	75,000	25,000	175,000	24,000	150,000	875,000	800,000	6,000	15,000	12,000	30,000	13,000	150,000	3,000	1,000	400,000	120,000	1,240,000	150,000	4,264,000	57,000	5,000	8,000	30,000	100,000	447,000	49,000	307,000	136,000	113,000	50,000	7,000	1,109,000	15,000	5,900,000	1918.
1919	1,000	10,000	14,000	25,000	120,000	60,000	5,000	185,000	13,000		95,000	2,000	5,000	115,000	41,000	20,000	135,000	30,000	100,000	525,000	730,000	10,000	27,000	10,000	15,000	10,000	110,000	4,000	3,000	165,000	150,000	725,000	100,000	2,910,000	290,000	20,000	17,000	23,000	350,000	698,000	124,000	225,500	89,000	81,000	39,500	3,000	1,360,000	25,000	4,970,000	1919.
1920	600	400	3,000	4,000	120,000	75,000	5,000	200,000	10,000		35,000	10,000	6,000	61,000	40,000	15,000	55,000	20,000	50,000	200,000	580,000	7,000	20,000	5,000	25,000	18,000	90,000	1,000	1,000	170,000	103,000	505,000	90,000	1,995,000	215,000	10,000	65,000	15,000	305,000	540,000	50,000	360,000	160,000	120,000	55,000	15,000	1,300,000	8,000	3,873,000	1920.
1921	500		1,500	2,000	140,000	78,000	2,000	220,000	25,000		120,000	20,000	2,000	167,000	50,000	16,000	60,000	20,000	35,000	285,000	570,000	3,000	23,000	16,000	12,000	30,000	78,000		2,000	170,000	110,000	350,000	30,000	1,860,000	471,000	20,000	16,000	13,000	520,000	585,000	120,000	420,000	152,000	120,000	45,000	8,000	1,450,000	7,000	4,226,000	1921.
1922	a	a	a	3,000	90,000	74,000	1,000	165,000	39,900	100	223,000	30,000		293,000	50,000	24,000	121,000	18,000	55,000	221,000	693,000	2,000	29,000	10,000	32,000	83,000	132,000			123,000	224,000	280,000	22,000	2,119,000	457,000	48,000	22,000	15,000	542,000	485,000	111,000	375,000	109,000	150,000	32,000	3,000	1,265,000	8,000	4,395,000	1922.
1923	a	a	a	3,500	102,000	40,500	1,500	144,000	38,000		189,000	20,000		247,000	53,000	23,000	114,000	16,000	62,000	164,000	603,000	16,000	23,000	13,000	13,000	42,000	37,000			72,000	153,000	228,000	12,000	1,644,000	245,000	24,000	13,000	10,000	292,000	598,000	89,000	360,000	59,000	107,000	50,000	7,000	1,270,000	8,000	3,608,500	1923.
1924	a	a	a	7,000	106,600	20,900	2,500	130,000	27,900		137,900	3,000		168,800	31,800	49,800	90,200	16,000	83,400	189,500	b 680,400	a	23,400	12,500	18,800	17,900	54,000			84,600	161,200	207,100	19,900	1,740,500	238,900	a	15,900	13,900	268,700	848,500	69,000	148,600	51,700	82,600	31,600	13,000	1,245,000	4,000	3,564,000	1924.
1925	a	a	a	5,000	109,200	32,000	3,000	144,200	14,900		196,000	3,500		214,400	39,800	35,000	149,600	8,000	73,200	194,100	b 520,800	a	24,000	10,000	11,900	8,000	49,800			39,900	167,500	223,100	9,900	1,564,600	b 171,500	a	10,000	9,900	191,400	740,200	85,900	46,700	44,900	111,500	47,300	12,000	1,088,500	14,900	3,223,000	1925.
1926	a	a	a	8,000	72,000	25,000	5,000	102,000	23,000	500	96,500	6,000		126,000	60,000	28,000	162,000	12,000	65,000	148,000	462,000	6,000	18,000	5,000	9,000	5,000	68,000			36,000	242,000	196,000	7,000	1,529,000	b 37,000	a	80,000	7,000	124,000	1,390,000	107,000	80,000	30,000	203,000	55,000	8,000	1,873,000	7,000	3,769,000	1926.
1927	5,000	10,000	5,000	20,000	67,500	16,500	5,000	89,000	12,000	500	46,000	7,500		66,000	37,000	19,000	72,000	10,000	75,000	151,000	347,000	3,000	15,000	5,000	7,000	8,000	78,000			52,000	244,000	150,000	9,000	1,282,000	48,000	8,000	90,000	5,000	151.000	953,000	113,000	87,000	24,000	143,000	28,000	17,000	1,365,000	9,000	2,982,000	1927.
1928	600	6,100	3,100	9,800	76,300	27,900	5,800	110,000	16,900		41,600	14,300		72,800	79,100	16,500	80,500	7,500	77,000	151,000	940,100	7,400	16,000	7,400	4,400	8,700	46,200			2,800	113,200	296,200	3,500	1,876,500	9,000	5,000	198,600	4,900	217,500	750,000	69,500	77,800	17,900	123,000	13,100	5,000	1,056,300	4,100	3,347,000	1928.
1929	200	4,800	5,000	10,000	66,000	14,000	3,000	83,000	15,000		58,000	25,000		98,000	68,000	16,000	109,000	4,900	82,000	118,000	1,138,000	7,000	7,000	5,000	5,000	6,000	32,000		100	36,000	142,000	277,000	5,000	2,058,000	45,000	3,000	113,000	4,000	165,000	1,442,000	25,000	60,000	25,000	126,000	16,000	4,000	1,698,000	5,000	4,117,000	1929.
1930	300	3,000	3,700	7,000	72,000	23,000	3,500	98,500	13,600		35,500	26,400		75,500	37,600	16,000	69,000	3,500	78,500	82,000	2,782,000	3,500	5,800	5,600	3,000	6,300	11,500			38,500	86,000	184,000	4,000	3,416,800	15,000	11,800	16,500	1,500	44,800	981.000	41,000	46,500	21,000	80,500	19,700	1,500	1,191,200	3,200	4,837,000	1930.
Estimated additions for omissions (a)	50,500	26,000	97,000												400,000							12,000														20,000		40,000		20,600,000	1,300,000	2,700,000	51,000	1,500,000	600,000	60,000				Estimated additions for omissions (a).
Estimated deductions for excesses (b)	53,000	94,000															400,000				12,000														60,000															Estimated deductions for excesses (b).
	1,368,880	1,100,300	319,800	2,788,980	2,606,600	2,696,800	58,300	5,361,700	1,990,200	46,100	2,443,500	475,700	97,320	5,052,820	6,165,900	593,300	7,132,300	1,422,900	6,814,000	5,233,600	79,630,600	1,329,900	786,200	434,500	475,100	356,400	4,971,500	129,500	24,100	5,798,800	4,486,600	20,321,400	1,247,300	147,353,900	2,702,400	214,800	680,000	243,200	3,840,400	67,707,200	5,196,900	11,809,600	970,500	5,727,100	2,223,200	556,500	94,191,000	373,200	258,962,000	

different districts began to furnish some significant amounts of gold and the continuity of production since that time. In fact, the complete span of productive life of some of the camps may be recognized by the shortness of the column of figures. The record of the Indian River district of the Yukon region is a good example of this condition, for the camp first became notably productive in 1911 and had ceased to yield any significant amounts of placer gold by 1921. The reader should be cautioned, however, against interpreting a marked falling off in the production of a district as indicating that the life of the district is drawing to a close. The history of all placer camps shows that the years immediately following the discovery of the camp mark a time of high production, which comes mainly from rich deposits that are easily and cheaply mined. As these deposits are relatively soon exhausted, the boom days are succeeded before long by a decline in the production that marks a period before the introduction of extensive mechanical devices for the mining of the lower-grade deposits and, in some camps, a period when owing to the remoteness of the camp costs are high. Some camps never pass to the stage of being developed by extensive equipment, and consequently their decline is unchecked. In others the introduction of extensive mechanical equipment or additional discoveries follow so quickly on the bonanza period that the inevitable decline is not strongly marked. A graph of the production of placer gold in the Fairbanks district up to 1927 is fairly representative of the growth and decline of a placer camp. In that district there was the sudden jump in production to a peak soon after the discovery of the camp, after which there was a decline, followed by an even larger production a few years later. Then followed decreasing production for a number of years during which practically all parts of this area were more or less thoroughly searched. In that search many deposits which could not then be worked at a profit were disclosed. With the completion of the Alaska Railroad, however, and as an outcome of the various events that made the region more accessible and lowered mining costs, some of these formerly unprofitable deposits became attractive, and their development was undertaken. The result has been that for the last 4 years the production from that camp has taken a decided upward turn, and there is no reason to predict that for some time to come this trend will be interrupted by a serious decline.

The methods used in winning the placer gold reported in these tables range widely in their efficiency and cost. The records as to the amounts of gold produced by each of the different mining methods are not available. In fact, it is difficult to make any simple classification of the varied methods that have been used, because there is an almost uninterrupted sequence of elaboration from the individual prospector using only a shovel and gold pan to the complex dredge with most complete and up-to-date equipment. However, it appears that by far the greatest amount of placer gold has been recovered by methods involving only manual labor or simple mechanical equipment such as can be operated by a small boiler for power or water under a moderate head such as can be supplied by relatively short ditches. Of the more elaborate mechanical methods of mining placer ground, dredging has yielded the greatest amount of gold. This method was first tried in Alaska in 1903 and, having proved successful, has been used more and more extensively until in 1930 nearly 81 percent of the placer gold recovered was mined by dredges. In the period between 1903 and 1930 nearly 18½ percent of all the placer gold recovered was produced by dredges, but dredge output had been more than 16½ percent of the total amount of placer produced by all methods since placer mining began in the Territory. In the course of dredge-mining operations about 90,097,000 cubic yards of gravel has been mined, which has yielded placer gold worth $42,920,000, or an average value per cubic yard of 47.6 cents.

The following table furnishes a record of the production of Alaska dredges for each year. The persistent decrease shown in the gold content of the gravel mined indicates that increased efficiency of the machines and of their operation permits successful mining of deposits that formerly would not have been attractive:

Placer gold produced by dredges in Alaska

Year	Dredges operated	Value of gold output from dredges	Cubic yards of gravel handled by dredges	Value of gold recovered by dredges per cubic yard	Percentage of gold recovered by dredges to total placer gold
1903	2	$20,000	----------	----------	0.0
1904	3	25,000	----------	----------	.0
1905	3	40,000	----------	----------	.0
1906	3	120,000	----------	----------	.6
1907	4	250,000	2,644,300	$0.70	1.5
1908	4	171,000	----------	----------	1.8
1909	14	425,000	----------	----------	2.6
1910	18	800,000	----------	----------	6.7
1911	27	1,500,000	2,500,000	.60	12.0
1912	38	2,200,000	3,400,000	.65	18.3
1913	35	2,200,000	4,100,000	.54	20.6
1914	42	2,350,000	4,450,000	.53	21.9
1915	35	2,330,000	4,600,000	.51	22.2
1916	34	2,679,000	3,900,000	.69	24.0
1917	36	2,500,000	3,700,000	.68	25.5
1918	28	1,425,000	2,490,000	.57	24.2
1919	28	1,360,000	1,760,000	.77	27.4
1920	22	1,129,900	1,633,900	.69	29.2
1921	24	1,582,500	2,799,500	.57	37.4
1922	23	1,767,800	3,186,400	.55	40.2
1923	25	1,848,600	4,645,000	.40	51.2
1924	27	1,563,300	4,342,700	.36	43.9
1925	27	1,572,300	3,144,600	.50	48.8
1926	32	2,291,000	5,730,000	.40	60.8
1927	28	1,740,000	6,084,000	.29	58.4
1928	27	2,185,000	6,371,000	.34	65.3
1929	30	2,932,000	8,709,600	.336	71.2
1930	27	3,912,600	9,906,000	.395	80.9
	----------	42,920,000	90,097,000	.476	16.6