RETURN

To an Order of the Legislative Assembly for copies of the Exploration Report upon the Yukon Country by Captain William Moore.

F. G. VERNON,
Chief Commissioner of Lands and Works

Lands and Works Department,
25th April, 1888.

VICTORIA, B. C., Jan. 6th, 1888.

SIR,—According to your request I am putting before you a report and sketch of the Upper Yukon, also of the most practical pass to enter the navigable waters of the source of the Yukon River.

On leaving Victoria by steamer, thence to what is known as Skagua Harbour, Alaska Territory, five miles from the head of Lynn Canal on the east side, which is a safe anchorage, where an ocean steamer of a thousand tons could discharge freight, thence eighteen miles through Alaska Territory puts us over the summit of the "White Pass" on to the head-waters of the Yukon in British Columbia. The summit of the above pass has an estimated elevation of twenty-six hundred feet, and easy grade can be obtained. A concession will be given this spring by the Alaskan Government to construct a pack trail through this portion of Alaska Territory.

Immediately on crossing the summit a change of climate is perceptible, there being scarcely any rain and very little snow, averaging in depth from one to two and and a half feet.

The estimated distance from the summit to the navigable waters of Takoun Lake is about thirty-two miles, which can be reduced one-half of the land travel if the three small lakes (as shown on the sketch) are made use of either by small steamers or boats. Takoun Lake once entered, there are no further obstructions for a stern-wheel river steamer, excepting the White Horse Rapids and Miles' Cañon, round which a tramway can be built, a distance of three miles. From there a steamer can proceed to the Behring Sea.

On crossing the summit the country at once opens out low and rolling within the valley, which is from four to ten miles wide and comparatively open, though along the little lakes and streams it is thickly wooded, with occasional swamps. Timber runs small, from eight to twelve inches, and on nearing Takoun Lake it becomes larger, varying in size from eight to twenty-two inches—consisting chiefly of spruce.

Mountain sheep and caribou are abundant, particularly through this section of country, where good grass and meadow lands are not unusual.

The climate and timber in fact resembles very much that of Cassiar, as I learn from Mr. John Grant and others that Dease Lake in Cassiar District did not open until the 13th of June last year, while some of the lakes of the Yukon opened on the 1st of June and others on the 10th.

The rivers open much sooner, as will be seen by the following notes from Mr. Sommers' and my son's log:

"In the spring of 1886, May 1st, I came down and had open water all the way in on the rivers, finding the highest water about the 25th of July on Lewis River. The water remained high until the 1st of November, and on the 12th of November slush ice commenced running and continued to run until the 24th of December, when the river closed up.

"I worked my rocker on a low bar below the Hodelinga until November the 15th. The river commenced to open in places on April 20th.

"May 3rd, 1887, loaded our rafts and started down the Lewis River; encountered a heavy hail-storm, which obliged us to tie up at noon. May 4th, started out again at 6 A. M., and

when within three miles of the mouth of the Hodelinga River we came to a large ice jam, which necessitated our going into camp, where a week was spent in building boats. The ice jam, however, broke this afternoon."

According to information gathered from reliable sources:—From the 1st of May to the 15th of July there has been taken out at least one hundred and fifty thousand dollars, three-fourths of which was taken out on Forty-mile Creek, as, when a party of men came out early last spring on the ice and confirmed the statement of the strike of coarse gold on Forty-mile Creek, most of the men from Lewis River and the Hodelinga went right down to the new strike, which only left eight miners on the Hodelinga, and seven on Cassiar Bar and the vicinity, four men on Pelly River, fifteen on Stuart's River, and seven on Sixty-mile Creek.

With regard to the richness of Forty-mile Creek. Miners would not work eight-dollar diggings, they did not consider that amount as wages. They did make all the way from ten to one hundred and twenty-five dollars per day.

George Ramsay took out fifty-four dollars the first day he worked on Forty-mile Creek, from ground which had been abandoned by other miners, and made quite a little stake, so much so that he will start from Juneau for the mines again about the 1st of February with a stock of goods, included in which is one item of a hundred pairs of gum boots. Mr. Ramsay is an old Cassiar miner and a man of experience. Mr. Sommers, who worked on Forty-mile Creek and came out in company with me from Pelly River, told me that he did take out fourteen hundred dollars in eighteen days, which I know to be so, as I saw the gold, most of which was coarse.

M. Duvall and Joseph Gazelais also travelled out with me and had their gold dust weighed at Mr. Healy's store at the head of salt water; the former having eight hundred dollars and the latter twelve hundred dollars.

Single individuals have come out from the mines this fall with from two hundred to thirty-seven hundred dollars apiece on arriving at Juneau.

I do not know of a miner who has worked from fifteen to twenty days that has come out with less than two hundred dollars, and I have seen and conversed with the most of those who came out.

Forty-mile Creek, as it is termed by miners, is in fact considerable of a river, being a quarter of a mile wide at its mouth. Coarse gold has been found along this stream in the various places for a distance of one hundred and twenty miles. It appears that the gold varies in quality along the river at every gulch and zag. On some of the bars it is very fine, which necessitates the use of blankets or quicksilver, while other bars yield very coarse gold varying from five cents to thirty-six dollar pieces.

A few of the gulches emptying into this (creek or) river have been partially prospected, where gold has been found; but owing to the ground being frozen very little prospecting was done, with the exception of one gulch, eighty miles from the mouth, which has been prospected, claimed, and staked off. This ground prospected from twenty-five cents to one dollar and fifty cents to the pan. Mr. William Stuart and Mr. Franklin, the discoverers of this gulch, are located near the mouth of the gulch, where it empties into Forty-mile River, and they have prospects of seventy-five cents to the pan in the gravel. This gulch has been staked off for six miles from its mouth up, most of the claims of which have been laid over until next July on the representation of frozen ground and a scarcity of water, also that they (the miners) would have to clear off the timber and moss before it could be worked to any advantage. The source of this Forty-mile River heads close to one of the upper branches of the great Tananah River, which empties into the main Yukon at Nuklukahyet.

Forty-mile River has got more fall than the most of the streams in this country, although not so much as those of Cassiar and Cariboo, which makes it difficult for miners to get water for their sluices, consequently mining so far has been all done with rockers.

Some miners will take in steam pumps with them this spring. It is the opinion of practical miners that when the moss and timber is cleared off along the river sides and gulches (similar to what miners were obliged to do in Cassiar), the diggings will be extensive and rich.

The reason why miners left their ground in the latter end of July and early part of August, was that the supply of provisions had run out, causing some of them to live on flour straight. When the little steamer "New Rackett" arrived at Forty-mile Creek on the twenty-fifth of July from St. Michael's with eight tons of provisions (a portion of the old stock, as the new stock had not yet arrived by the Company's steamer from San Francisco), a large number of miners were obliged to come down to the mouth of the river and await the arrival

of the steamer, and when she did arrive with the above small amount of eight tons, it was sold in one day, and as the miners were not certain that another supply would be up, they began to start out, a great many more of whom would have wintered there if they were sure of getting an assorted supply of provisions.

It will be remembered that the trip out is a very hard one, owing to having to travel over five hundred miles against the current, and a string of lakes of over one hundred miles long, where continual southerly head winds prevail at this time of the year, often blowing heavily, compelling miners to camp for three days at a time, whereas steamers would accomplish the same trip in five days, as it is no trouble to run night and day on these rivers. From one hundred and twenty to one hundred and forty miners are wintering on and in the vicinity of Forty-mile River.

Nelson River, which was struck in the early part of August, fifty miles below Forty-mile River, has also a few men wintering there, where coarse gold has been found to pay two ounces per day to the man.

Provisions were sold at the mouth of Forty-mile River by Messrs. Harper, McQuesten & Co., who are the sole importers for the mining section by way of St. Michael's, at the following rates:—Flour, $17.50 ℔ 100 lbs.; beans, 20c. ℔ lb.; bacon, 40c. ℔ lb.; sugar, 33c. ℔ lb.; butter, 75c. ℔ lb.; dried fruit, 25c. ℔ lb.; which is considered by all miners of experience as being very reasonable, and all of whom speak in great praise of Messrs. Harper, Questen & Co. as the most moderate and fair-dealing merchants they have ever met with in any mining camp.

Every stream entering into the Upper Yukon has gold in it. The best paying bars of this section, so far as discovered, are situated from the mouth of the Hodelinga River down about seventy-five miles. Cassiar, Densmuir's, and McCormac's Bars, as marked on the sketch map, are the best paying ones, yielding from eight to forty dollars per day; also up the Hodelinga River at different places the above pay has been obtained.

What is now termed the Hodelinga River is entitled to the name of Yukon, as it is double as large as the Lewis at their junction, being a broad gentle stream, flowing from three to four miles per hour and navigable up to Arklun Lake for river steamers, then through this lake into what is called a continuation of the Hodelinga for another one hundred miles. Howe and Bennett's party travelled up this river eighty miles and found gold all the way, but not enough to induce them to stop and work. The Indians state that they can travel from the head of the above river to Sylvester's Landing, on Dease River, in three days

White River, one hundred and twenty-five miles below Pelly River, is navigable for about eighty miles, and prospects of five and eight dollars per day have been found. The upper portion of this river is a great resort for caribou, moose, and beaver.

Stuart's River, fifteen miles below White River, is navigable for about two hundred and fifty miles. The estimated amount of gold taken out of this river in the seasons of 1885 and 1886, is about one hundred and forty thousand dollars. There being very little fall in this river, miners experience considerable trouble in working sluices. Some parties are now negotiating to take steam pumps up there, as there is plenty of fine gold diggings on this stream which will pay from ten to fifty dollars per day with sluices. It is known that miners have made as high as one hundred and forty dollars a day with common rockers, although the gold was minutely fine.

Sheep River, about ninety miles below Forty-mile River, is the boundary of Alaska and the North-West Territory, according to Mr. Ogilvie's reckoning

Timber on Forty-mile River, principally spruce, ranges from eight to twenty inches diameter. Cold weather has been exaggerated in this section. According to Mr. Mersie's annual report to the Washington Government, for ten years previous to 1886, cold did not exceed sixty-nine degrees below zero, which was only on three different occasions. The above notes were given to Mr. Ogilvie at Montreal.

Most of the miners will winter at the mouth of Forty-mile River, where Messrs. Harper, McQuesten & Co. have built a large warehouse and three dwelling-houses.

Miners find no difficulty in keeping their cabins warm and comfortable by making use of Russian ovens, which are very simple to build, as they are made of stone in the shape of a large box-stove, from three to four feet long inside, from eighteen to twenty inches wide, and the same in depth, with an iron plate on top to cook on. The chimney is built of the same material. Miners who wintered here last winter and the previous winter went out every day to cut their regular fire-wood, and so far no severe cases of frozen limbs have occurred.

Indians travel and live in brush houses all winter. They subsist chiefly on dried moose caribou meat, and fish.

Brown and black bear, caribou, moose, lynx and wolverines are numerous through this section, but they must be hunted. Beaver are found principally on the heads of McQuesten (which empties into the Stuart), Pelly, and White Rivers. Black and silver-grey foxes are not uncommon; martin are abundant.

Caribou generally travel in bands. There has been known to be as many as five hundred in one drove, and during severe snow-storms, when snow lies too deep, these animals "yard up," that is—they all collect near a spot of timber where they can brouse and have shelter, then commence to tramp the snow down all round, so they can more easily walk to different trees. It is when they are thus situated that the hunter generally succeeds in making what he terms "good killing." When travelling through deep snow these animals each takes in routine his turn to "break up." When the leader becomes tired he steps on one side and takes the rear until his turn comes round again.

Moose have been known to dress as high as eight hundred and a thousand pounds. They confine themselves to a lower altitude than caribou.

Salmon are very plentiful in season—large and fat. They keep in good condition as high as Forty-mile River and Pelly, a distance of about eighteen hundred miles from the Behring Sea. Instances have been known where they have been caught weighing a hundred pounds, but their average weight runs from twenty to fifty pounds, for which miners pay respectively fifty and seventy-five cents to Indians. Grayling, a species of white-fish, and mountain trout are also plentiful.

Indians on the Lower Yukon, from Forty-mile River down, prefer trade to money, while the Chillcoots and Upper Yukon Indians take cash in preference to anything else. These (latter) Indians work well together, and keep the prices of their labour up, often making from eight to fourteen dollars per day, and will simply laugh at a man if he offers them a dollar and a half or two dollars for a day's work, while the former Indians on the Lower Yukon can be hired for fifteen dollars per month.

My son Ben started from Victoria for the Yukon on the 11th of March, 1887, joined his brother William at Juneau City, Alaska Territory, and both went in from there together, crossing the lakes on the ice. When they arrived at Forty-mile River on May 30th, according to understanding, my son William went mining there, with fair success, and Ben went down as helmsman on the steamer New Racket to St. Michael's, to take notes and make himself acquainted with the river for future steamboating purposes, and returned on the same steamer on July 25th to Forty-mile River, the round trip occupying fifty-three days. From there he came out to Pelly River, where he joined me. The following are a few notes from his log after leaving Forty-mile River for below:—

"June 2nd—Left Forty-mile River at 9 A. M. on the steamer New Racket. This steamer is 55 feet long, 13 feet beam, and 3 feet depth of hold. Her cylinders are 6 inches diameter by 30-inch stroke, and fire-box boiler, which burns two-foot wood. Average speed from eight to nine miles per hour.

"Stopped at one of Harper & McQuesten's trading posts, 60 miles below Forty-mile River, at 3 P. M. Took on a large quantity of furs, principally fox, beaver, bear, and martin. Also took in tow a ten-ton lighter, and started again at 5 P. M. Stopped three miles further down, and chopped wood for the steamer's use. Got under way again at 11 P.M. and run all night.

"June 3rd—100 miles above Fort Yukon. The river along here begins to widen out very much, with a great number of islands and different channels, making it very difficult to find the right one.

"Passed Fort Yukon (which lies just inside the Arctic circle) at 9:15 P.M. The fort is now, and has been entirely deserted for a number of years. The country along the river valley here is comparatively flat and low, and about 10 miles wide including the islands, with shallow water in places in the main channel, that is from 4 to 6 feet. We use no lights whatever aboard the steamer, as it is quite light all night, being sunset at 10:45 to-night.

"The Porcupine River, a large stream, puts into the Yukon about two miles below the fort near where the old stern-wheel steamer Yukon lies sunk on the starboard hand going down. There is said to be musk-ox on the upper branches of this river.

"The river from Fort Yukon makes a long bend, nearly due west, for a considerable distance. Stopped to chop wood at 10:30 P.M.

"June 4th—Started at 4 A. M.; stopped a couple of hours at an Indian village until Mr. Harper did some trading, and there heard the sad news of the murder of Bishop Seghers; stopped at an Indian village some miles further on where there was a number of Indians in birch bark canoes, which are very light, one Indian easily carrying a canoe that holds from four to five men. These canoes are very neatly made, the ribs being whittled from thin strips of birch, with gunwales of the same material, to which the bark is bound with very fine strips of dried roots, which resemble small bamboo split in two, and is very strong. The seams where the bark is bound on to the ribs are made water-tight with heated pitch gathered from trees, and when it becomes cold makes these little crafts thoroughly water-tight. Tied up for wind at 12 o'clock midnight. Noticed large trees in places, 25 feet from the present stage of the river, torn up by the roots and shattered into splinters, caused by the heavy grinding and jams of ice when the river breaks up early in the spring.

"June 5th—Started at 8 o'clock A. M.; tied up at 10:40 A. M. to fix a joint in the steam-chest. The Indians through this section use their dogs in large sleighs eight and ten feet long, having as many as ten to one sleigh; the Indians also use these dogs to pack stuff; very often they have from fifteen to twenty in one train, and with from forty to sixty pounds on their backs. These dogs have to depend entirely on themselves for food, and during the winter they see a hard time; some of them are good hunters, for which purpose they are also used, but they will steal anything in the shape of food; their heads look very much like a fox's. The Indians and traders place as much value on their best dogs as we would for a good horse. Indians are obliged to keep all their dried meats and food in caches about fifteen feet from the ground. The average size of these dogs runs about the same as our large collies.

"Stopped at a trading post at 7:30 P. M., where there are a large quantity of mammoth remains buried in the ground. The salmon run had not yet passed up. It is high water now on the Yukon. The chief of the Yukon tribe took a ride with us to-day. He is now about 70 years old and was once of great influence among his tribe. The natives here use their bows and arrows principally during winter in order to save ammunition. Game is not so plentiful here as it is on the upper river.

"Arrived at the head of the lower ramparts at 11:30 P. M., where the river is once more confined for a distance of 150 miles. The mountains along here come right to the water's edge, and very few islands.

"June 6th—Arrived at the rapids, fifty miles above Nuklukahyet, at 10 A. M. The river at this particular point is very much confined, being only about 600 yards from bank to bank, although the current does not average over six miles per hour, being very deep. A rocky ledge is situated in the centre, but is all covered at this stage of the water. Sheffland's Gulch, ten miles below the rapids on the starboard hand, is said to have yielded ten dollars per day. Arrived at the Company's trading post at 5 P.M.

"The Yukon River broke up here on the 21st of May, and was clear for navigation on the 28th. The Tananah River, a large stream, puts in on the port hand about ten miles above the post, which is also called Nuklukahyet, although the original Nuklukahyet is at the mouth of the Tananah River. About fifty Indians arrived here from the upper Tananah River, in birch bark canoes and on rafts, this afternoon to trade their furs. I saw a mammoth tusk here six feet long and weighing one hundred pounds, curved in shape and running gradually to a point on one end, with no signs of decay whatever.

"June 7th—Left the post at 8 A.M. Strong westerly wind and very cold all day.

"June 8th—Arrived at Kokerine's trading post this morning at 3 o'clock, and left again at 4 A.M. Weather still cold and raw. Saw the last camp where Archbishop Seghers slept (and was cruelly murdered), situated an the starboard hand, 30 miles above Nulatto.

"June 9th—Landed three prospectors, A. Brown, F. Moffat, and Mr. Powell, at the mouth of the Kiynkuk River, to the head of which they intend to travel, where there is said to be prospects of $15 per day.

"Arrived at Nulatto at 6:30 A.M.; left again at 7:30 A.M. Passed an Indian village 40 miles further down, where there is a portage to the sea coast of 60 miles, while by the river it is 280 miles.

"June 10th—Laid over 9 hours to procure firewood. Weather fine. Stopped at a place on the starboard hand, a few miles above Anvick, where we dug a few shovels of very good looking coal. It lies close to the river's edge. It burned very well in the furnace. Mr. Harper is of the opinion that by working into the bank a large quantity could be obtained, as it has probably slid down to its present position from further up the hill. Arrived at Anvick at

12 M., where the Alaskan Commercial Company's steamer "Yukon" was lying, ready to leave for St. Michael's. Was introduced to Capt. Peterson, her commander, and was shewn through the steamer, which was in prime condition throughout. This steamer (stern-wheel) is 80 feet length over all, 20 feet beam, 3½ feet depth of hold, and 9-inch by 36-inch cylinders; makes from 8 to 9 miles per hour. She has good, comfortable housework and cabins. She cannot stow more than 25 tons freight comfortably. The great disadvantage of these steamers is that they have to tow their freight in barges. The Anvick River puts in just below this landing. Left again at 3 P.M.

"Stopped at an Indian village this evening, where I saw several large sealskin boats, some 30 feet long and 6 feet wide. These boats carry a heavy load, and keep thoroughly water-tight as long as they are well oiled about once a week The skin is bound on to the frames with sinews. None of the villages passed, so far, possess more than 150 inhabitants, most of whom speak the Russian language.

"June 11th—Arrived at the Ikogmut or "Russian" Mission at 8 A.M. The priest shewed us all through his church, established in 1848, in which there are a few very valuable oil paintings and decorations. Procured a fresh supply of provisions and left at 10 A.M.

"June 12th—Arrived at Andrieffska at 5 A.M., an old Russian fort, situated about 180 miles from St. Michael's, and the last place of any note. The tide backs up to this place. We see thousands of geese and swans all along the river banks and low lands, where they have their nests amongst the tall grass. We are now obliged to depend entirely upon driftwood for the steamer's use, as no other wood can be procured to any advantage after getting below the Mission, but we have experienced no trouble whatever on the upper river in getting firewood, wherever we wished to stop. It consists chiefly of spruce; no pine at all.

"Left Andrieffska a 6 A.M. Weather very cold with a thick fog. Fifteen miles below this place the last mountains were left behind, and away off to our port a large lone mountain can be seen, rising abruptly from the water, which is called the Kuselvack mountain. It is diamond shaped, and partially covered with snow. Stopped 40 miles further down to get wood. Entered the Aphoon Slough at 5 p.m., which is a vast cut-off for us. It is 45 miles long, and opens out on the sea-coast 80 miles from St. Michael's. Stopped to cut drift-wood, and shot two large swans, measuring 6 feet across the wings from tip to tip. The Indian deck-hands called a flock of geese right close to the steamer by imitating their squaking, which these Indians can do so well that the whole flock circled round within a few feet of the steamer. In the meantime the Indians lost no time in succeeding to shoot four, two of which fell aboard the steamer.

"June 13th—Started at 1 A.M., turned into a little river called the Kooklick, about six miles from the coast, where an Indian village is situated; procured an abundant supply of fresh geese eggs and took in wood.

"The Esquimaux (or Mallamouts, as they are called here) live in underground houses (called by them baraba's) with rafters to keep the earth firmly up. The doorway, a hole in the ground about six feet square, is situated from ten to twenty-five feet from the baraba and communicates with the same through a crooked tunnel, which leads first one direction for five or six feet, thence at right angles another direction. At each of these turns hangs a large skin, forming a loose curtain doorway. This tunnel and doorways keep the cold air and winds from striking directly through into the baraba. The chimney, a hole in the centre of the roof about four feet square, is covered over at night with a very thin transparent skin. These natives are very short and stunted and subsist chiefly on fish, geese, fowls and eggs. They are fat, with large heads, and when they are seen crawling out of their tunnel doorway clothed in parki furs, which are made with a hood all in one, they resemble some wild animal. They use small seal-skin canoes (or as called by them, bidarkies) which hold from one to three men, with round holes in the top, where they sit flat down in the bottom; the balance is all covered over, so as no water can enter. In these they go out a long way from land to hunt seal, killing them with bone spears. They take tobacco and tea in trade in preference to any other article. The stronger the tobacco the better, of which they make snuff, and use it in this way rather than smoking it.

"June 14th—Started out this morning at 4 o'clock. The slough here in places is very shallow, and anchor ice lies on the bottom, obliging us to have the flood tide to go out on, although we run aground a couple of times, but soon backed off again. This (the Aphoon) mouth is the most northerly outlet of the Yukon. The distance from here to the most southerly (or Kuselvak) mouth is about 45 miles. The tide here has about ten feet rise and

fall. Run out to within fifteen miles of Point Romanoff, where we sighted a large field of ice and large icebergs. Could not find an opening, therefore were obliged to run back again and anchor. Weather very cold to-day, with north-easterly wind, our barge in tow being covered with ice.

"June 15th—Started out again this morning at six o'clock. Found an opening and succeeded in getting through the ice. The coast along here is very bold. From Point Romanoff to the canal we made good time, as the weather began to look threatening. From Aphoon Slough, or Pastolik Bay, to the canal is open to the full sweep of westerly winds and sea, but there are small rivers, putting in where we could get shelter if necessary, though for a large steamer drawing more than six feet it would be difficult to get into the mouths of these streams. Arrived at the canal, twenty miles from St. Michael's, which separates St. Michael's Island from the mainland, and is quite a cut off for us. This canal is not more than fifty feet wide in some places and very crooked. It runs through a low flat country of about twenty feet elevation and very shallow in places, being necessary to have high tide in order to get through.

"Arrived at St. Michael's at five P.M. Weather very cold, with a north-easterly wind. The Company's steamer "St. Paul" had not yet arrived from San Francisco. Our passengers, J. Stitz, Father Tosi, and two others, bid us farewell, and went ashore to await the arrival of the "St. Paul," by which they intend to go to San Francisco.

"Mr. Henry Newman, agent for the Alaska Commercial Company, paid us a visit to-day. He expects their steamer "Dora" here from San Francisco in a couple of days, from where she started twenty-eight days ago.

"St. Michael's Island is a very inhospitable shore, neither possessing firewood or fresh water. The former is obtained by sending their steamer outside twelve miles from where she loads, and tows barges with driftwood in. The latter (water) is procured three miles from here. The natives melt snow in place of water. There is about twenty feet rise and fall in the tide here. Considerable snow and ice lies on the beach. Had a snow-storm to-night. We intend to start up river again, after the arrival of the "Dora," with supplies for the miners on Forty-mile River, who were short of provisions when we left there."

(Signed) WILLIAM MOORE & SON.

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