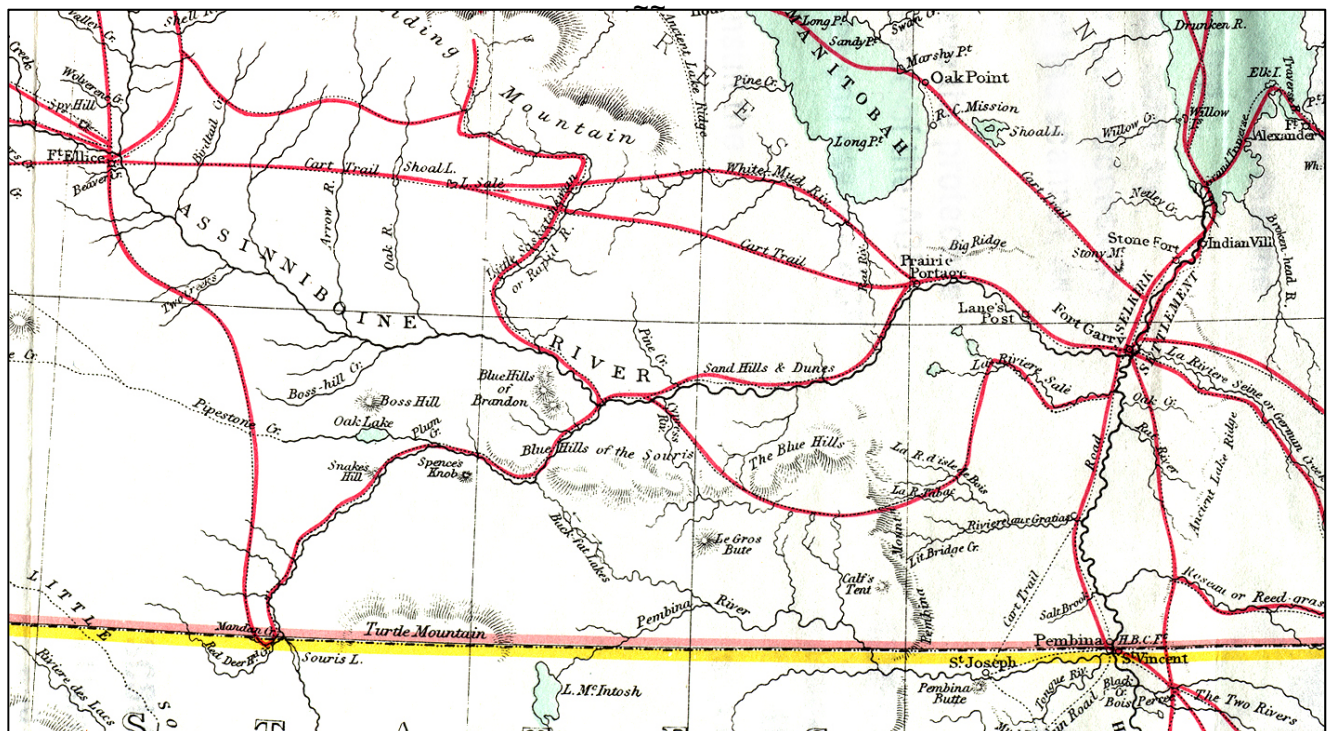


# EXCERPTS FROM THE REPORT OF THE ASSINIBOINE AND SASKATCHEWAN EXPLORING EXPEDITION OF 1858 GENERAL REPORT AND NARRATIVE OF THE EXPEDITION

The British North American Exploring Expedition, commonly called the Palliser Expedition, explored and surveyed the open prairies and rugged wilderness of western Canada from 1857 to 1860. The purpose of the expedition was to gather scientific information on Rupert's Land, including information on the geography, climate, soil, flora and fauna, to discover its capabilities for settlement and transportation. This was the first detailed and scientific survey of the region from Lake Superior to the southern passes of the Rocky Mountains.<sup>[2]</sup> The British portion of the expedition was led by John Palliser.

Henry Youle Hind (1823–1908) was a Canadian geologist and explorer. He was born in Nottingham, England, and immigrated to Toronto, Ontario in 1846. He taught chemistry and geology at Trinity College in Toronto. Hind led the Canadian portion of the expedition to prairies in 1857 and 1858. In 1857, Hind's "Red River Exploring Expedition" explored the Red and Assiniboine River valleys, and in 1858, the "Assiniboine and Saskatchewan Exploring Expedition" explored the Assiniboine, Souris, Qu'Appelle, and South Saskatchewan River valleys. The expeditions are described in his reports "*Narrative of the Canadian Red River Exploring Expedition of 1857*" and "*Reports of Progress on the Assiniboine and Saskatchewan Exploring Expedition*" in 1858.

Following immediately below is the journal entry 'Itinerary' version of Henry Youle Hind's two week long journey from Fort Garry to Fort Ellice via the Souris River, during the summer of 1858. Following that summary version is Hind's official account of the same journey.



Above: Map detail showing some the travel routes undertaken by Hind Expedition members in 1858 in southern Manitoba.

## ITINERARY

**FROM FORT GARRY SOUTH-WESTWARD TO THE 49<sup>TH</sup> PARALLEL, VIA THE ASSINIBOINE AND THE LITTLE SOURIS - FROM RED DEER'S HEAD RIVER – A FEW MILES SOUTH OF THE INTERESECTION OF THE BOUNDARY LINE AND THE LITTLE SOURIS – NORTHWARD TO FORT ELLICE.** (pgs. 149-152.)

*June 14, 1858. – Upper Fort Garry.* Commenced exploratory survey. Encamped on the prairie. Good pasturage.

*June 15. – Lane's Post.* – Pursued a good trail through a fertile country, partially settled. Fine prairies adapted for grazing and agriculture. Clumps of poplar. Heavy timber in the bays of the river. A detachment branched off at St. James' church to make a reconnaissance of the Big Ridge, from Stony Mountain to Prairie Portage.

*June 16. –* An attempt to survey the Assiniboine upstream in canoe had to be relinquished, in consequence of the swiftness of the current. Replaced canoe on a cart, and proceeded 15 miles further. Camped at a stagnant pool in the shelter of a bluff of poplar. Good grass. Heavy timber skirting the river.

*June 17. – Prairie Portage.* – By making an early start, Prairie Portage was reached at 1 p.m. crossed a level prairie, with rich soil and herbage, but nearly destitute of trees. The detachment from Stony Mountain arrived in the afternoon. Good grazing.

*June 18. – Prairie Portage.* – Occupied in repairing carts, completing equipment and making preparation to enter the Sioux country. Made a transverse section of the river, and levelled to determine its fall. Heavy thunder showers during the day.

*June 19. – The Bad Woods.* – Being unable to keep pace with the train, after entering the Bad Woods, observations with the micrometer had to be suspended, and the survey continued with the ordinary instruments for the trail and for reconnoitring. Correcting – by frequent observations – the main track distances determined from the verified mean rate of the wheeled vehicles. The position of prominent points established by cross bearings. Plenty of wood. Animals watered in the Assiniboine. Pasturage light and scanty.

*June 20. –* At the Half-way Bank, overlooking the valley of the Assiniboine, 7½ miles from the last camp, the latitude of 49 degrees 46' 19" was observed. Height of bank, 150 feet above river. Breadth of valley, one mile. Magnetic variations 13 degrees E. camped at 7 p.m., among sand dunes, from the summit of which Pembina Mountain near St. Joseph's was seen. Terrific thunderstorm after sunset. Water in ponds. Herbage short and stinted. Light sandy soil.

*June 21. –* Trail continues among sand dunes, ponds, scattered poplars and willows. Reached Bear's Head Hill, the highest peak of the sand hills about noon, and halted to allow the animals to graze. Before resuming journey, a thunder and hailstorm came on. the hailstones (1-1½ inches in diameter) cracked the bark of the canoes on the carts. After proceeding a few miles, another violent thunderstorm a camp at Sunset Lake. Good grazing only in detached areas.

*June 22. –* Trail still winds around sand hills and between ponds, varying from two to thirty chains in diameter. Smokes have now to be made for the animals at every camp. Mosquitoes and bulldogs

so annoying as to prevent them from feeding. The great heat of the weather during the day exhausts the animals and retards progress. A terrific thunderstorm lasting from 1.2 to 4 to 6 p.m., rendered an early camp necessary. Lightning very near and vivid. Incessant roar of thunder for an hour and a half. Plenty of water in lakelets. Grass light. Spruce and aspen on the sand hills.

*June 23.* – Observed for latitude, &c., at Pine Creek crossing, 130 miles from Fort Garry. A division followed Pine Creek from the cart trail to the Assiniboine, returning by the Devils' Hills (dunes of drifted sand). Still traversing sand dunes, with occasional intervals of light prairie, and grassy areas, between clusters and ranges of sand hills from 30 to 70 feet high, dotted with stunted oaks, and thinly clothed with small balsam spruce and poplar on their flanks. Country improves and passes gradually into rolling prairie, after leaving the old Brandon trail. Grazing improved.

*June 24.* – Directed course towards the Assiniboine and Souris Forks, reaching the Assiniboine opposite the mouth of the Little Souris, 146 miles from Fort Garry at 5:40 a.m. Halted to make observations, graze the animals, and breakfast. Warned this morning to prepare for an attack by the Sioux. The smoke of two fires in the valley of the river indicating their presence. Grasshoppers very numerous and destructive to baggage and harness. Effected the crossing of the Assiniboine, after completing observations; swimming the horses, ferrying the baggage in canoes, and towing the carts and waggon over. Proceeded up the left bank of the Souris, camping four miles from its mouth. Mounted guard during the night to avoid a surprise by the Sioux.

*June 25.* – Heavy showers of rain early this morning prevented the carts from advancing at the usual hours. Observed for latitude at a small affluent of the Souris. Camped at sunset on the banks of the Souris valley, between the Blue Hills of Brandon and the Blue Hills of the Souris. Valley very deep and broad. Scenery wild and picturesque. Good track over a rolling prairie. Soil, sandy loam. Precautionary measures continued. Herbage rich in the valley and in most of the hollows.

*June 26.* – Terrific thunderstorm last night, accompanied by boisterous wind and heavy rain. Remained at preceding camp the greater part of the day, in order to refresh the horses and make geological examinations and sketches of the valley. Resuming march at 4 p.m., travelled over two hours and camped at a beautiful point in the Souris valley, opposite Back Fat Creek, a tributary rising in the Back Fat lakes, from which the North Branch of Pembina River also issues. Crossed a rolling prairie of light sandy loam, with occasional stony ridges and small lakes. Obtained a magnificent view of the boundless, south-western prairies, with Turtle Mountain in the distance, before descending into the valley. Men and animals suffer much from the attacks of mosquitoes surrounding them in clouds.

*June 27.* – Struck camp at noon, having made the requisite observations and levelled across the valley. Traversed an undulating prairie with gravelly knolls crested with erratics at intervals. A few hummocks of small polar along margin of valley. Herbage short and scanty of the high ground, rich and exuberant on the low ground and in the alluvial bottoms.

*June 28.* – Striking camp and advancing at daylight, a halt as made at 8 a.m. to breakfast and to examine the shales exposed in the valley. Proceeded down river a short distance in canoe. The Souris is here 1 – 1½ chains broad and 2 ½ - 3 feet deep, with a swift current. Camped at 8 p.m.,

after journeying along the crest of the valley, over a light prairie with occasional areas of rich dark soil. Cold and stormy day. Strong north wind. Rain. Grazing good.

*June 29.* After crossing Plum Brook or Snake Creek and halting to graze the animals at Snake hill, layers of drift tertiary coal or lignite were discovered in the bank of the Souris. Engaged during the remainder of the day in sinking shafts and exploring for lignite in this locality. Made camp fires of lignite. Wood and water abundant.

*June 30. – Snake Hill.* – Still occupied in excavating for lignite, making sections and observations. Three men despatched to Oak Lake, to hunt with a view to save provisions, returned in the evening with a number of ducks and pelicans. Grazing tolerably good. Plenty of wood and water.

*July 1.* – Struck camp and started train at daylight. Halted for dinner at an old log house on the banks of the Souris, a winter Trading post of the Hon. Hudson's Bay Company. Crossed the "Round Plain" in afternoon, a beautiful grassy area about four miles in diameter, level as a bowling green, and surrounded by thickly wooded sand hills. Camped on a level plain, supporting luxuriant grass. This plain was flooded in 1852 to a considerable depth, and occupies an area of about a mile in width between the Souris and a range of low sand hills.

*July 2.* – Tents struck and brigade equipped for the march at 4 a.m. Traversed an undulating treeless prairie extending to Turtle Mountain on the left. Crossing Half-way Creek, and several deep gullies carrying the prairie drainage into the Souris, the train halted at Mandan Creek, another small affluent, so called from the numerous mounds or tumuli near its mouth, said to have been underground houses of the Mandan Indians. A careful examination of the tumuli was made by digging into them, but no vestiges of Indian remains were found. Camped on the banks of Red Deer's Head River, near its confluence with the Souris. Two sets of astronomical observations determined the latitude of this station to be 49 degrees 1' 44', or a fraction over two statute miles north of the international boundary, and in about 100 degrees 55' west longitude. Magnetic deviation, 16 degrees 53' E. Good grazing, wood, and water in the valley. Truck of Sioux observed.

*July 3.* – Remaining encamped till afternoon to make observations as well as to repair the carts and travelling gear, a detachment with an escort was enabled to make a reconnaissance of the Red Deer's Head river to its mouth. All having returned to camp, the horses were harnessed and the journey resumed by the train at 5 p.m. Striking in a S.W. direction, across an undulating prairie strewn with buffalo dung and scored with their tracks, a distant point of Red Deer's Head River within United States Territory was reached about 8:30 p.m., and a camp formed near a clump of trees growing on the margin of the river, with a view of taking in a supply of wood to be used as fuel in crossing the great treeless prairie lying between the boundary line and Fort Ellice. Some hostile Sioux in ambuscade in the vicinity of the encampment, attempting to stampede the hobbled horses after dark, showed the necessity of increased precaution and vigilance. The animals were accordingly picketed within the camp ring, and the number of watchers increased to eight. Traversed before camping a vast sandy plain with short and scrubby grass, burnt last year.

*July 4.* – Sioux heard by the watch during the night, and the tracks of their scouts observed in close proximity to the encampment this morning. Sufficient wood being distributed among the vehicles to last during a passage of five days across the great treeless prairie between this station and Fort

Ellice and camp being broken up at 10 a.m., the train winded its way in a northerly direction for about three hours across a light sandy prairie, dotted everywhere with bleached buffalo bones; and halted about three hours at a small pond with a margin of marsh. The animals being much fatigued by the excessive heat of the weather, only six miles farther were accomplished.

*July 5.* – Breaking up camp at daylight, the train was in travelling order and advanced at 4:30 a.m. Traversed a level plain with small gravelly knolls and low ridges at intervals. Soil generally light sandy loam. Grass short and scanty. Plenty of water in marshes, ponds, and stagnant creeks. No wood of any kind as far as the eye can reach. *Bois de vache* rarely seen. Saw several antelopes and shot a female today. Camped at sunset.

*July 6.* – Up at dawn. Train in motion about 4 a.m. Halted at Pipestone Creek for breakfast, having accomplished 13.78 miles, after five hours' travelling across a light sandy prairie with low knolls and ridges of gravel and boulders. Remaining here to determine the latitude and being delayed some time in fording the stream, owing to the steepness and miriness of its banks, the train did not get under way again till 2 p.m. Traversed a rolling woodless prairie with hard gravelly soil, supporting a scanty growth of grass, and camped at Boss Creek, a small affluent of the Assiniboine, flowing in a broad valley among low hills and knolls with gentle slopes. Standing Stone Mountain, Boss Hill, and Oak Lake were seen from a conical hill near the encampment.

*July 7.* – Horses caught, un-hobbled and ready for the march early. Train left camp site at 5 a.m. Crossing a level plain and fording Boss Hill Creek, a halt was made at a stagnant brook, after traversing a light sandy and gravelly prairie with short herbage. Thence journeying over a rolling prairie with very light soil, in many places covered with boulders and supporting occasional hummocks of poplar and willow, partially burnt, the Assiniboine was reached, a camp pitched at a small affluent, and the animals turned loose to graze a little after 4 p.m.

*July 8.* – Tents struck at 3, and the train advancing at 4 a.m. Halted to skin and cut up a buffalo bull "run" and shot this morning. Resuming march at 11 a.m., and crossing a rough prairie with hard gravelly soil covered with erratics, the Two Creeks (tributaries of the Assiniboine) were reached about 8 p.m. Having forded the creeks and camped, the remainder of the day was occupied in examining and searching for fossils in the shales exposed in the valley.

*July 9.* – Striking tents early, the horses were caught, and the train, with the exception of one cart, equipped for travel at 2:45 a.m. The ox although hobbled, could not be found, and three of the party, accompanied by the waggon and driver, hastened on to Fort Ellice, leaving the train to follow after recovering the ox, which was accomplished after a search of seven hours. Crossed an undulating prairie extending to the Assiniboine, with light sandy soil, except in the hollows, where a thin coating of vegetable mould is found. Halted to camp at a gully with stagnant water in the bottom, leading to the Assiniboine. Grass abundant and rich in the depressions. Plenty of water and wood. Buffalo seen again today.

*July 10.* – *Fort Ellice.* – Starting at 3 a.m., Fort Ellice was reached early. Before fording Beaver Creek, a level prairie, with soil of light, sandy loam was crossed. The monotony of the plain relieved here and there with clumps of light poplar and low sandy hills. Between Beaver Creek crossing and the fort, a well-beaten track passing over a sandy plain and hills or dunes of white sand were traversed.



*July 11. – Fort Ellice.* – Encamped within half a mile of the fort. Remained quietly encamped today, (Sunday,) much to the advantage of the wearied animals. Engaged at noon and at night in determining astronomically the position of this station by different sets of observations. Thunderstorm and rain in the afternoon.

## **CHAPTER 1. FORT GARRY TO THE MOUTH OF THE LITTLE SOURIS RIVER – THE MOUTH OF THE LITTLE SOURIS TO THE BOUNDARY LINE - FROM THE BOUNDARY LINE TO THE QU'APPELLE LAKES VIA FORT ELLICE.**

### **June 14, 1858 – The Start**

On the morning of the 14<sup>th</sup> June 1858, the half-breeds engaged for the expedition into the Prairie country west of Red River, assembled at our temporary quarters in the settlement, and began at once to load five Red River carts and a waggon of American manufacture, with two canoes, camp equipage, instruments, and provisions for a three months' journey. At noon the start was made, and the train proceeded to Fort Garry,\* a distance of eight miles, to take in a supply of flour and pemmican. We camped about half a mile from the Fort, and took an inventory of our baggage, and made such regulations and arrangements as are considered necessary at the commencement of a long journey through a country partly inhabited by hostile tribes of Indians, and not always affording a supply of food even to skilled hunters.

The whole party consisted of thirteen individuals besides myself, namely: Mr. Dickinson, surveyor, Mr. Fleming, assistant surveyor, Mr. Hime, photographer and assistant surveyor, six Cree half-breeds, a native of Red River of Scotch descent, one Blackfoot half-breed, one Ojibway half-breed, and one French Canadian. Our provisions consisted of one thousand pounds of flour, four hundred pounds of pemmican, one thousand rations of Crimean vegetables, a sheep, three hams, and tea for three months, with a few luxuries, such as pickles, chocolate, a gallon of port wine, and one gallon of brandy. Each cart was loaded with about 450 lbs. weight, and the waggon with double that amount. The canoes of birch bark, 18 feet long, weighed 150 lbs. each. At the White Horse Plains, 22 miles from Fort Garry, we purchased an ox to serve as a *dernier resort* in case we should not meet with buffalo; and at Prairie Portage, the last settlement on the Assiniboine, I engaged the services of an old hunter of Cree origin, who had been from his youth familiar with Indian habits and stratagems. The addition increased the party and material, before we left the last settlement, to fifteen men, fifteen horses, six Red River carts, one waggon, and one ox.



Above: Upper Fort Garry as sketched by Hind Expedition artist John Fleming in 1858. (Toronto Public Library – J. Robertson Coll.)

### June 15, 1858 – Lane's Post

Leaving our camp early on the morning of the 15th, we ascertained by leveling the altitude of an ancient lake ridge, near to St. James's Church, to be eleven feet above the prairie at Fort Garry, and about two miles from it. These ridges are common in the prairies of Red River, and do not necessarily point to an ancient lake margin, as it is probable that most of them were formed under water. They may be traced for many mileages, but are sometimes lost in the general rise of the prairie.

The ancient boundaries of Lake Winnipeg, where its waters were about 90 feet above their present altitude and occupied the whole of the country now covered by lakes Manitoba, Winnipegosis, and Winnipeg, with the intervening low land, is well defined in one direction by the Big Ride, which on one side or another of Red River is easily traced for more than three hundred miles; it is shown on the map. On arriving at St. James' Church, we separated into two divisions, Mr. Fleming and Mr. Hime, with the carts and waggon, proceeding to Lane's Post on the Assiniboine, twenty-four miles from Fort Garry, while Mr. Dickinson and myself with two half-breeds, struck in a north-westerly direction across the prairie to Stony Mountain, and thence to the Big Ridge, having arranged to meet at Prairie Portage.

In a wheat field opposite St. James's Church were several pigeon traps, construction of nets 20 feet long by 15 broad, stretched upon a frame; one side was propped up by a pole 8 feet long, so that when the birds passed under the net to pick up the grain strewed beneath, a man or a boy concealed by a fence or brush, withdrew the prop by means of a string attached to it, and sometimes succeeded in entrapping a score or more of pigeons at one fall. Near the net some dead trees are placed for the pigeons to perch on, and sometimes stuffed birds are used as decoys to attract passing flocks.

In pursuing our course to Stony Mountain we endeavoured to follow the ridge before alluded to, but after tracing it for several miles it became imperceptibly blended with the level prairie. Several ridges were crossed after we lost the first, but in all instances, they died away after having preserved their rounded form for two or three miles. Stony Mountain is a limestone island of Silurian age, having escaped the denuding forces which excavated the Red River valley. It is about four miles in circumference; its highest point is sixty feet above the prairie level. Horizontal layers of limestone, holding very few and obscure fossils, project on its west cliff-like sides. Its eastern exposure is gently sloping, and some ten feet from the summit, the remains of an ancient lake beach are well preserved. Viewed from a distance, Stony Mountain requires little effort of the imagination to recall the time when the shallow waters of a former extension of Lake Winnipeg, washed the beach on its flank, or threw up as they gradually receded, ridge after ridge, over the level floor of the lake, where now are to be found wide and beautiful prairies covered with a rich profusion of long grass.

Leaving the Stony Mountain our course lay westerly through a wet prairie to the Big Ridge. Grey cranes, ducks, and plover were numerous on the marshy areas, and in every little bluff\* of aspen or willow, the beautiful rice birds (*Dolichonyx oryzivora*) were seen and heard. Where we camped on the edge of a lake near the foot of the Big Ridge, bittern, grackle, and several varieties of duck flew to and fro in alarm at our invasion of their retreats. On the flank of the Big Ridge the cinnamon thrush (*Turdus rufus*) was noticed, but most common of all was the tyrant flycatcher (*Muscicapa tyrannus*), who endeavoured to hold undisputed sway over the bluff he had selected as his home. Near and west of Stony Mountain, many small barren areas occur, covered with a saline efflorescence; they may be traced to the Assiniboine, and beyond that river in a direction nearly due south to La Riviere Sale, and the 49<sup>th</sup> parallel. These saline deposits are important, as they in all probability serve, as will be shown hereafter, to denote the presence of salt bearing rocks beneath them, similar to those from which the salt springs of Swan River, Manitobah Lake, and La Riviere Sale issue.

### June 17, 1858 - Prairie Portage

Early on the morning of the 17<sup>th</sup> we ascended the Big Ridge. Its elevation above the prairie is about 60 feet; on its south side it slopes gently to the prairie level, to the north is a plateau, well wooded with aspens, stretching towards Lake Manitobah; the view from its summit extends far and wide over the Assiniboine prairies; and skirting its base on the south flank are groves of aspen and balsam poplar, with scattered oak trees and willow bushes. The pasturage in the open glades is of excellent quality and very abundant. The ridge is quite level and from 80 to 100 feet broad, devoid of trees, slightly arched and composed of gravel. Here and there it is cut by rivulets draining the marshes in the plateau on its northern side. As it approaches Prairie Portage its apparent deviation diminishes, until at the Portage River it is no longer discernible. We traced it for a distance of seventy miles, and it will be mentioned further on that a similar ridge, but one formed at an earlier period and at a higher level, is seen west of Manitobah Lake, near the Hudson's Bay Company's post, Manitobah House. It continues to preserve there the same characters of horizontality, uniform outline, gravelly formation, and admirable suitability to the purposes of a road, which have been already noticed in connection with the Big Ridge north of the Assiniboine and east of Red River. For many miles, ties for a railway might be laid upon both without a pebble being removed, and the only breaks in their continuity occur where streams from the plateau and higher grounds in the rear have forced a passage through them. The older ridge, however, follows the western contour of Lakes Winnipeg and Manitobah, and passes through a country not likely to be first selected by a large body of settlers. The big Ridge is important in so far that it forms the boundary of land of the first quality, which occupies the low prairie valleys of the Assiniboine and Red River. Soundings subsequently made in Lake Manitobah showed a uniform depth of eighteen feet for a distance exceeding sixty miles along its south-eastern coast, so that if its beds were exposed, it is probable that in process of time it would also become a rich and extensive prairie country, with its present beach distinctly visible as its old boundary. Indeed, the surface of the country between the Big Ridge, the Assiniboine, and Red River, is similar in gently undulating outline to the succession of undrained marshes, ridges, and bogs which exist between the west coast of Lake Manitobah, and points to a very gradual but constant drainage of this region after a long period of submergence.

We reached Prairie Portage in the evening, where we joined the main party. The Assiniboine at Lane's Post (June 16<sup>th</sup>) is about 120 feet broad, and its turbid water flows at the rate of one and a half miles per hour. A few miles west of Lane's Park, the saline efflorescence, before noticed as occurring in patches on the prairies and forming small barren areas, is no more to be seen; it consists of chloride of sodium and sulphate of magnesia, with a little chloride of calcium.

Grasshoppers were first observed at Lane's Post this year, they were a brood from the eggs deposited by a swarm which alighted on the White Horse Plain in September last. At Prairie Portage we found an Ojibway encampment in which were some of the refractory personages who had hitherto resisted the humane and unceasing efforts of Archdeacon Cochrane to Christianize them. Among the various methods tried by the Archdeacon to induce these wanderers to settle and farm, the first preliminary to the progress of Christianity among wild Indians, that of presenting the most docile with an ox and plough and teaching them to use it, was the least successful. At the first good opportunity, or during a time of scarcity, the ox and plough would be sold to the highest bidder for very much less than it cost. A promise to add another ox at the end of the year, if the first gift was faithfully preserved, was of no avail, - the charms of the buffalo plains were too tempting or the seduction of gambling too powerful to be withstood, notwithstanding the most solemn heathen promises. The school, however, gives better hope, and no doubt the rising generation, both Indian and half-breed at Prairie Portage, will form a thriving, industrious and Christian community.

Prairie Portage is very delightfully situated 65 miles west of Fort Garry, on the banks of the Assiniboine. The prairie here is of the richest description, towards the north and east, boundless to the eye. The river



bank is fringed with fine oak, elm, ash, and ash-leaved maple; on the south side is a forest from three to six miles deep; the river abounds in sturgeon and gold eyes, and within 18 miles, there is a splendid fishing station on the coast of Lake Manitobah, where the Portage people take vast numbers of white fish every fall. The old water course of the Assiniboine, near the Portage, now a long narrow lake, fringed with tall reeds, teems with wild fowl and grackle, among which we frequently noticed and procured specimens of the yellow-headed blackbird.

Prairie Portage will become an important settlement, not only on account of the vast extent of fertile country which surrounds it, but because it lies in the track of the buffalo hunters proceeding to the Gran Coteau and the South Branch by way of the Souris River. It is also near to the fertile country unwatered by White Mud River, and the road to the south-western flanks of the Riding Mountain passes by the Portage. The current of the river is very uniform here, careful levelling showed that it fell 1 18/100 inches a mile; its speed is two miles an hour. The cliff swallow (*hirundo fulva*) had built its nests in great numbers on the banks of the river, which are about 16 feet above the level of the water; I counted no less than thirteen groups of their nests within a distance of five miles, when drifting down in a canoe. The cliff swallow was afterwards seen in great numbers on the Little Souris, the South Branch of the Saskatchewan, and the Qu'Appelle River.

The first of a series of thunder storms which lasted for some weeks visited us this afternoon (17<sup>th</sup>). The warm rain fell in torrents and thoroughly wetted all who were exposed. Pigeons were flying in vast numbers across the Assiniboine, and the black tern was numerous on the prairies near the settlement. In descending the river for a few miles to inspect its banks, we had occasion to pass by a fish weir, where a number of Ojibways, from the camp near the Portage, were watching with spears in their hands for sturgeon. They took no notice of us as we passed, being too busily engaged, but on our return to the encampment we found them waiting with fish to barter for tobacco and tea. We made them a few trifling presents, and by way of recompense, sustained during the night the loss of a fine cheese, which, after curiously eyeing during supper, they had modestly asked for a morsel to taste. They found it excellent, no doubt, and quietly in the dead of night opened the basket in which it had been placed and abstracted it. In future, when Indians were around, all eatables and articles they might covet were properly secured, and the cheese proved to be our only loss during the exploration.

#### **June 19, 1858 – The Bad Woods**

Leaving Prairie Portage on the morning of the 19<sup>th</sup>, we took the trail leading to the Bad Woods, a name given to a wooded district about 30 miles long, by the buffalo hunters in 1852, who, in consequence of the floods of that year, could not pass to their crossing place at the Grand Rapids of the Assiniboine by the Plain or Prairie Road. There were four hundred carts in the band, and the hunters were compelled to cut a road through the forest of small aspens which forms the Bad Woods, to enable them to reach the high prairies. This labour occupied them several days, and will be long remembered in the settlements in consequence of the misery entailed by the delay on the children and women.

The trail lay for three miles through a continuation of the low prairies of the Assiniboine, when a sudden ascent of 20 to 25 feet introduced us to a different kind of country, the plateau beyond the Big Ridge, which here crosses the river, and forms the lowest or first step of the Pembina Mountain. The physical features of this boundary to a great table-land will be noticed at length in the sequel. The soil continues poor and sandy for several miles, supporting clumps of aspen interspersed with a few oaks in low places. The view across the Assiniboine reveals in the distance the Blue Hills, and between them and the river is a vast forest, which a subsequent exploration in the autumn showed to consist of oak, elm, ash and aspens, for two to three miles nearest to the Assiniboine; but beyond this limit the forest is almost entirely composed of aspens of small growth.

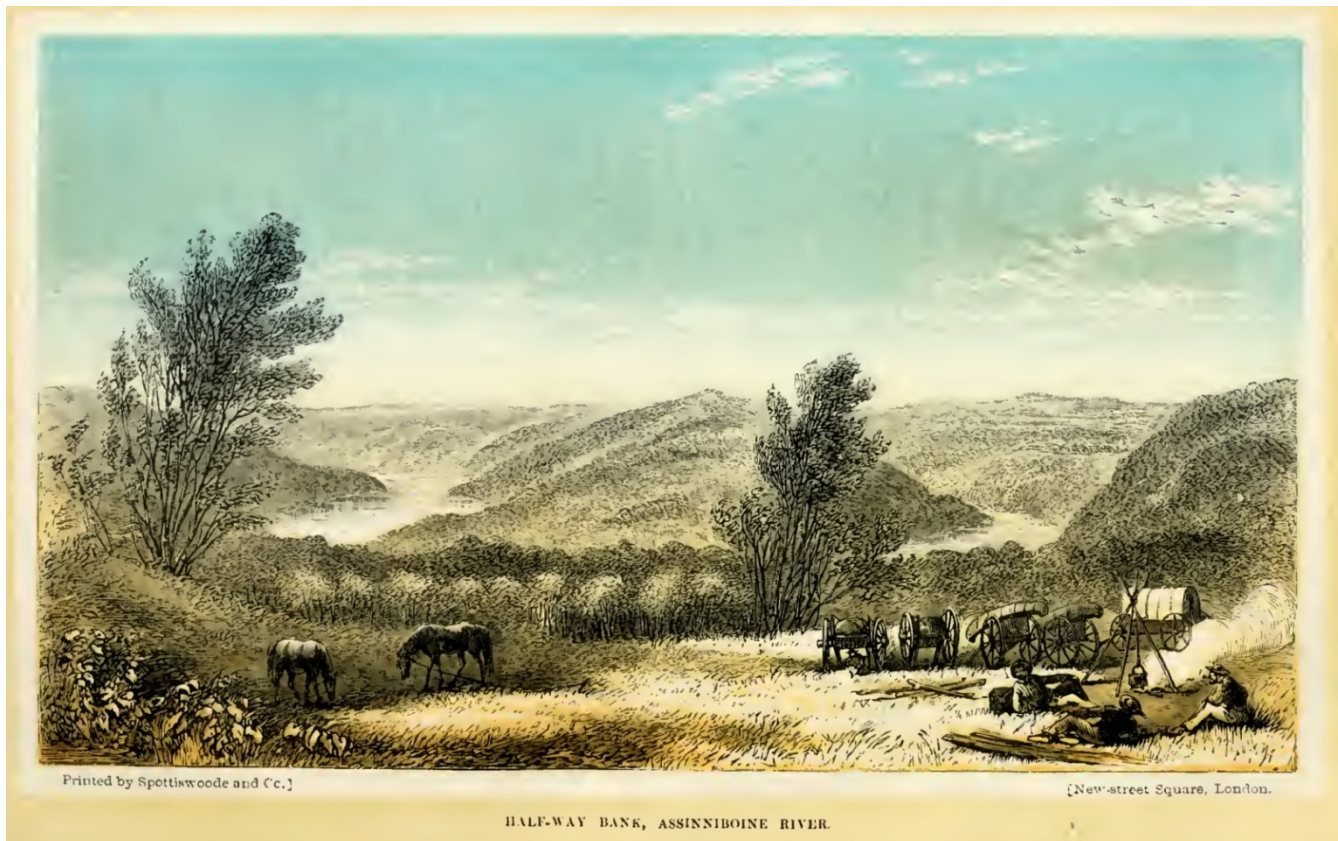
Grasshoppers were now seen in great numbers, and the first hummingbird was noticed here. The banks of the river showed recent watermarks twelve feet above its present level, willow and other trees overhanging the stream being barked by the action of ice during spring freshets at that elevation. Everywhere rabbits were numerous, and considerable areas occur covered with dead willows and aspens, barked by these animals in the winter, about two feet six inches above the ground. The height of the bank twenty-two miles from Prairie Portage is about 80 feet above the river, denoting a rapid rise in the general level of the country.

### **June 20, 1858 - The Half-way Bank**

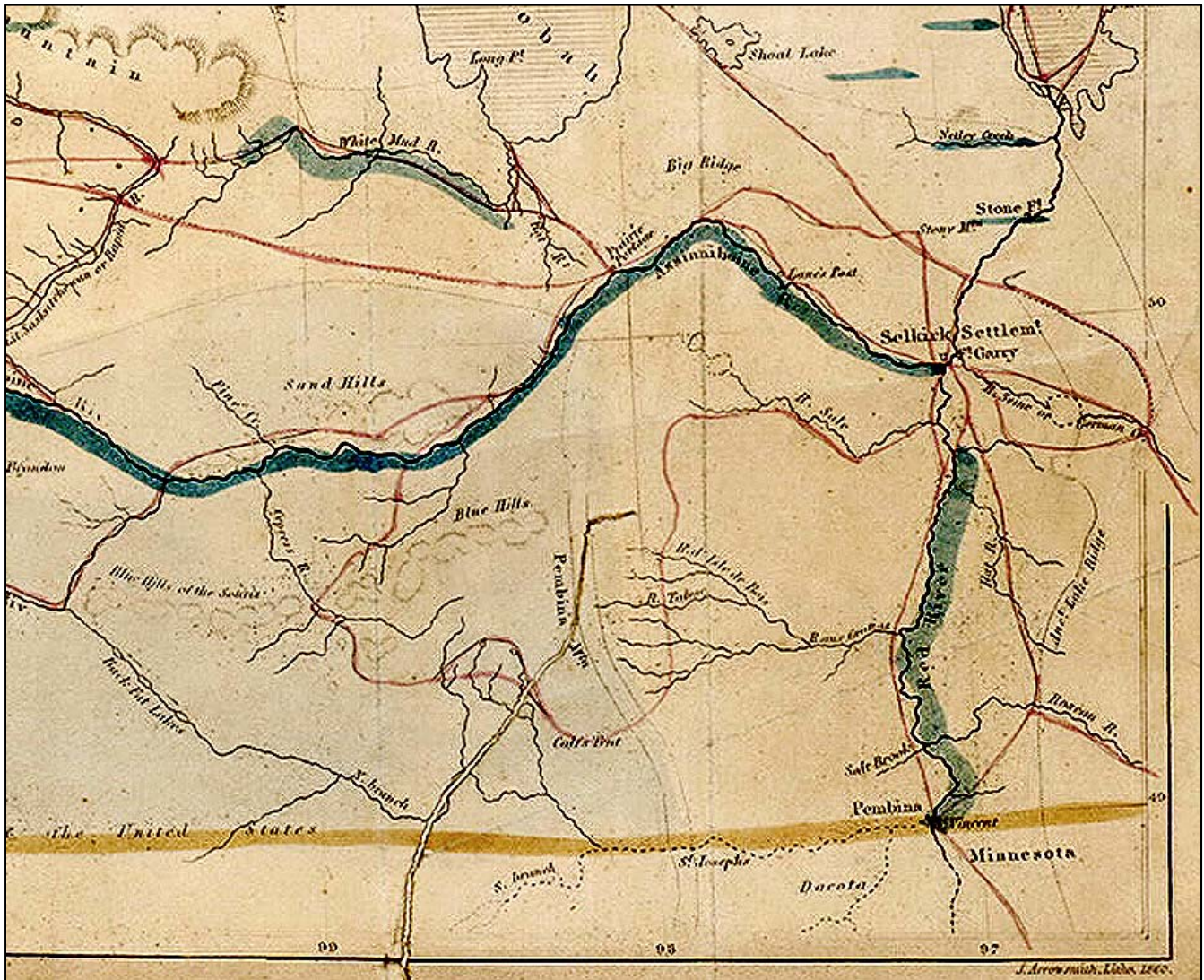
On the morning of the 20<sup>th</sup> we entered the Bad Woods and followed the road cut by the hunters in 1852. The aspens were much disfigured by countless numbers of caterpillars resembling those of the

destructive Palmer worm. In the afternoon we arrived at the Sandy Hills; they consist of rounded knolls covered with scrub oak and aspens. Our latitude today at the Half Way Bank was ascertained to be 49 degrees 46' 19", the height of the prairie 150 feet above the river, the breadth of the valley in which the river flowed 5,680 feet, and the variation of the compass 13 degrees E. after passing the point where the foregoing observations were made, the trail again enters the Bad Woods and continues through them until it strikes the Sandy Hills again. These rounded eminences have all the appearance of sand dunes covered with short grass and very stunted vegetation.

As we emerged from the Bad Woods a noble elk trotted to the top of a hillock and surveyed the surrounding country; a slight breath soon carried our wind as the hunter was endeavouring to approach him, he raised his head, snuffed the air and bounded off. Another terrible thunderstorm came on at sunset, with heavy rain and boisterous wind. The aspect of the country for many miles is that of a plain sloping gently to the east, and studded with innumerable mounds or hillocks of sand, thinly covered with a poor and scanty growth of grass; here and there small lakes or ponds occur fringed with rich verdure, but its general character is that of sterility. From the summit of an imposing sandhill, formerly a drifting dune, which we ascended on the 21<sup>st</sup>, the country lay mapped at our feet; as far as the eye could reach, north, east, and west, sand hills, sometimes bare but generally covered with short grass, were exposed to view.







Above: Route of Henry Hind's trek from Fort Garry on June 14, 1858 to the crossing of the Assiniboine River at the Souris Mouth on June 24, 1858. Also shown is "Mr Dickinson's" trek to the Blue (Cypress) Hills; Calf's Tent (Calf Mountain) to the La Salle River.

### **July 21, 1858 - Bear's Head Hill**

On the afternoon of this day a hailstorm of unusual violence caused us to halt. The stones penetrated the bark of our canoes and broke off the gum. The grasshoppers, which were very numerous just before the storm began, suddenly disappeared, but they might be found quietly clinging to the leaves of grass in anticipation of the storm. After it had passed, they re-appeared, apparently in undiminished numbers, although every member of the party, crouching for shelter under the cart and waggon, fully expected the complete annihilation of these destructive and troublesome insects. A wonderful instinct enables them to seek and find refuge from a pitiless hailstorm or a drenching rain. The same evening a thunderstorm of short duration again arrested our progress, but the sun set in gorgeous magnificence, with a brilliant rainbow and vivid flashes of lightning in the east. The cinnamon thrush is not uncommon among the sandy hills; we saw several during the day. The next day, we reached the pines, for which we had been anxiously looking, but to our disappointment they proved to be nothing more than balsam spruce in scattered clumps. Another thunderstorm this evening.

The heat of the weather began now to be very oppressive, and joined to the incessant attacks of mosquitoes and "bulldogs" proved very exhausting to the horses. At each camping-place we were compelled to make "smokes" to drive away these tormentors, otherwise the persecuted animals would endeavour to approach our camp fires, creating no small confusion in our cooking arrangements.

### **June 23, 1858 - Pine Creek crossing**

On the 23<sup>rd</sup>, we traversed a region of sand-hills and ridges, until we arrived at Pine Creek, a distance of eight miles from the preceding camp. Here the sand-hills are absolutely bare, and in fact drifting dunes. Sending the main party in advance, Mr. Dickinson and I set out to examine the valley of the Assiniboine where Pine Creek disembogues. The sand dunes were seen reposing on the prairie level, about 150 to 180 feet above the river. In crossing the country to regain the carts, our course lay across a broad area of drifting sand beautifully ripple-marked, with here and there numbers of the bleached bones of buffalo protruding from the west side of the dunes, memorials probably of former scenes of slaughter in buffalo pounds, similar to those which we witnessed some weeks afterwards at the Sandy Hills on the South Branch of the Saskatchewan. The progress of the dunes is very marked; old hillocks partially covered with herbage are gradually drifted by the prevailing covered with herbage are gradually drifted by the prevailing westerly wind to form new ones. Sometimes the area of pure sand was a mile across, but generally not more than half that distance. The largest expanse we saw was near the mouth of Pine Creek, it is called by the Indians "the Devil's Hills," and a more dreary, parched-looking region could scarcely be imagined.

### **June 24, 1858 - Little Souris mouth**

We reached the mouth of the Little Souris River on the 24<sup>th</sup>, and made preparations to cross the Assiniboine at this point. The distance traveled through the Sandy Hills was about forty-eight miles, their breadth does not exceed then miles. At the mouth of the Souris the grasshoppers were in countless numbers, and so voracious as to attack and destroy every article of clothing left for a few minutes on the grass. Saddles, girths, leather bags, and clothing of every description were devoured without distinction. Ten minutes sufficed them, as our half-breeds found to their cost, to destroy three pairs of woollen trousers which had been carelessly thrown on the grass. The only way to protect our property from the depredators was to pile it on the waggon and carts out of reach. There were two distinct broods of grasshoppers, one with wings not yet formed, which had been hatched on the spot, the other full-grown, invaders from the prairies south of the Assiniboine. We saw here one of the vast flights of these insects which afterwards were witnessed on a scale of alarming magnitude, giving rise in their passage through the air to optical phenomena of very rare and beautiful descriptions. As we cautiously approached the bank of the river



opposite the mouth of the Little Souris, on the look-out for Sioux Indians, some jumping deer and a female elk were observed gamboling in the river. A shot from a Minie rifle dispersed them and started from their lair two wolves who were watching the deer, patiently waiting for an opportunity to surprise them.

The volume of water in both rivers was carefully measured at their point of junction. The Assiniboine was found to be 230 feet broad, with a mean depth of 6 feet, and a current of one mile and a quarter per hour. The Little Souris was 121 feet broad, 2 feet 4 inches in mean depth, and flowing at the rate of half a mile an hour. Observing numbers of fish rising at grasshoppers in the Souris, we stretched a gill net across the mouth of the river, and succeeded in taking pickerel, gold-eyes, and suckers, the grey and the red. In a second attempt we caught a tartar; a huge sturgeon got entangled in the meshes of the gill net, and before we could land him, he succeeded in breaking away and carrying a portion of the net with him.



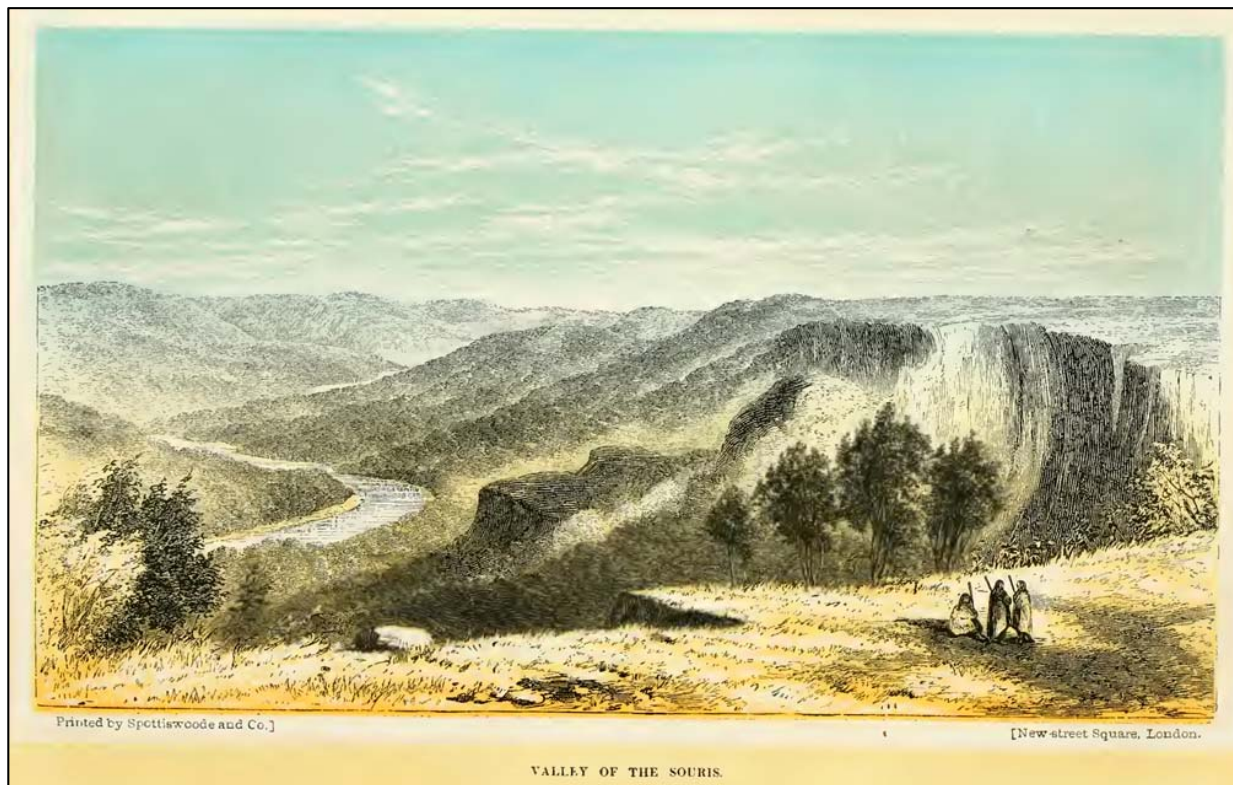
### **June 25, 1858 - Souris River valley**

Signs of Sioux Indians in the neighbourhood led to our keeping watch during the night; and on the morning of the 25<sup>th</sup> we proceeded cautiously up the valley of the Souris, keeping a sharp look out. On the left bank the Blue Hills of the Souris are visible ten miles from the mouth of the stream, and towards the west, the Moose Head Mountain is seen to approach the Grand Rapids of the Assiniboine. The first rock exposure in the alley was observed about fifteen miles from the mouth of the Souris. It consisted of a very fissile, dark-blue argillaceous shale, holding numerous concretions containing a large percentage of iron, partly in the state of carbonate and partly as the peroxide. Some very obscure fossils were found, with fragments of a large inoceramus. The shale weathers ash white. It is exposed in a cliff about ninety feet high; the upper portion of the cliff consists of yellow sand, superimposed by sandy loam holding limestone boulders and pebbles; the exposure of shale is seventy feet thick, in horizontal layers. The country west of the Souris, so far, is an open, treeless, and undulating prairie. On the east side, the Blue Hills are very

picturesque, their flanks and summits are wooded with aspen. Rain as usual, the day closing with a thunderstorm.

#### June 27, 1858 - Souris River valley

On the 27<sup>th</sup> we arrived at the westerly bend of the Souris in the midst of a very lovely, undulating country; the river is here fifty feet broad, and in its passage through the Blue Hills it has excavated a valley fully four hundred and fifty feet deep. Rock exposures are of frequent occurrence, the dip being 3 degrees south. Fragments and perfect forms, but very fragile, of a large inoceramus are common. The ferruginous concretions are disposed in regular layers, and constitute a marked feature of the Cretaceous rocks in this valley. A continuation of the valley of the Souris extends in a direction nearly south-east towards Pembina River, with which it is said by the half-breeds to interlock. Three lakes visible from our camp were stated to be the sources of Pembina River. A little stream issuing from the most westerly of these is called Back-fat rivulet, it flows into the Souris. Deer are very numerous at this beautiful bend of the river; it appears to be a favourite watering-place. The half-breeds of St. Joseph often make it their crossing-place when on a hunting expedition to the Grand Coteau. It is not improbable that it will become a point of importance if ever an emigrant route should be established from Minnesota to the Pacific, *via* the south branch of the Saskatchewan; and from the great distance saved by going through St. Joseph instead of Fort Garry, it is not improbable that this may yet be the case.



#### June 30, 1858 – The Blue Hills

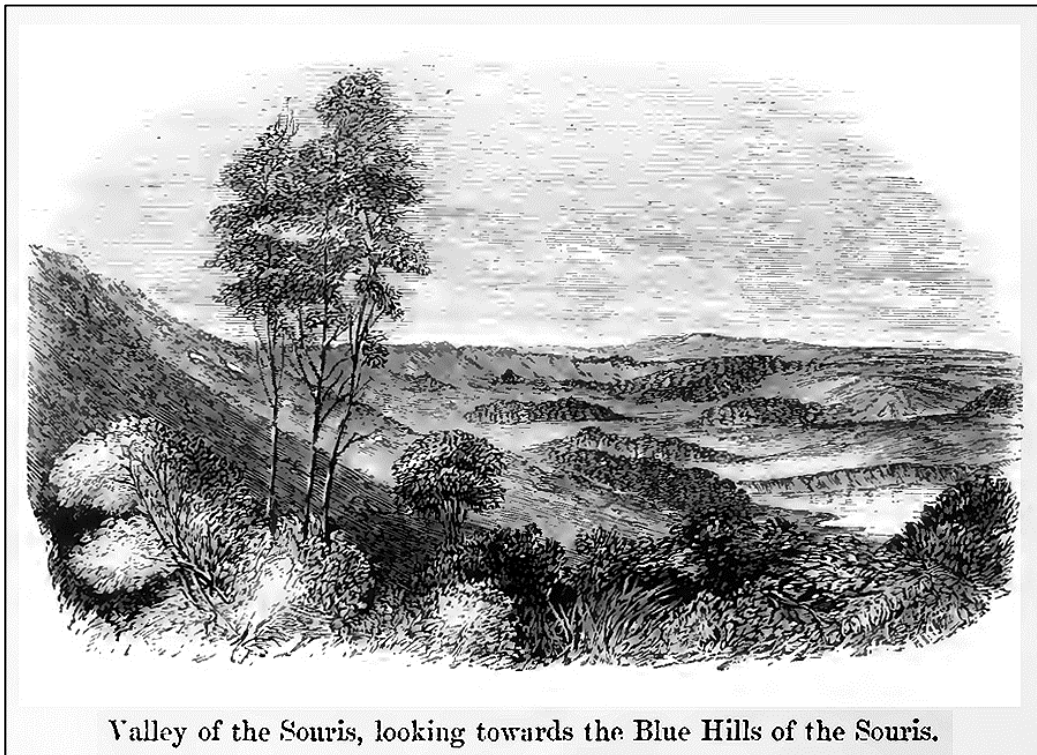
On the 30<sup>th</sup> we succeeded in passing the Blue Hills, and enjoyed on the evening of the same day one of the most sublime and grand spectacles of its kind which it is possible to witness. Before leaving the last ridge of the Blue Hills, we came suddenly upon the borders of a boundless level prairie on the opposite side of the river, one hundred and fifty feet below us, of a rich, dark-green colour, without a tree or shrub to vary its uniform level and yet with one conical hill apparently in its centre. Here we expected to find buffalo, but not a sign of any living creature could be detected with the aid of a good glass. The prairie had been burnt last



autumn, and the buffalo had not arrived from the south or west to people this beautiful level waste. What a magnificent spectacle this vast prairie must have furnished when the fire ran over it before the strong west wind!

From beyond the South Branch of the Saskatchewan to the Red River all the prairies were burned last autumn, a vast conflagration, extending for one thousand miles in length and several hundreds in breadth. The dry season had so withered the grass that the whole country of the Saskatchewan was in flames. The Rev. Henry Budd, a native missionary at the Nepoween, on the North Branch of the Saskatchewan, told me that in whatever direction he turned in September last, the country seemed to be in a blaze; we traced the fire from the 49<sup>th</sup> parallel to the 53<sup>rd</sup>, and from the 98<sup>th</sup> to the 108<sup>th</sup> degree of longitude. It extended, no doubt, to the Rocky Mountains.

A few miles west of the Blue Hills, being anxious to ascertain the dip of a very remarkable exposure of shale, with bands of ferruginous concretions, Mr. Dickinson leveled with the utmost care an exposure facing the south, and found it to be perfectly horizontal. At the base of the exposure, and on a level with the water's edge we succeeded in finding a layer of rock full of gigantic *Inoceramus*. One specimen measured 8½ inches in diameter, it was very fragile but the peculiar prismatic structure was remarkably well preserved. On attempting to raise it, it separated into thousands of minute prisms so characteristic of this shell.



Vast numbers of pigeons were flying in a north-westerly direction, and our friends the grasshoppers were everywhere abundant. From the Blue Hills to the South Bend of the river, rock exposures, possessing the characteristics already noticed, occurred at every bend of the river. The first specimen of lignite was seen near the mouth of Plum Creek, where we camped on the 29<sup>th</sup>. It was a water-worn rounded boulder. On points of the river valley were some fine oak, elm, balsam poplar, and aspen are found for the first 20 miles. The guelder rose is common on the ravines, wild prairie roses abundant, snowberry, and two varieties of cherry of frequent occurrence, as well as woodbine, wild convolvulus, and hop.

A little beyond Plum or Snake Creek we found numerous pebbles and boulders of lignite; and with a view to ascertain whether the lignite existed *in situ*, an excavation was made in the bank of the river and the

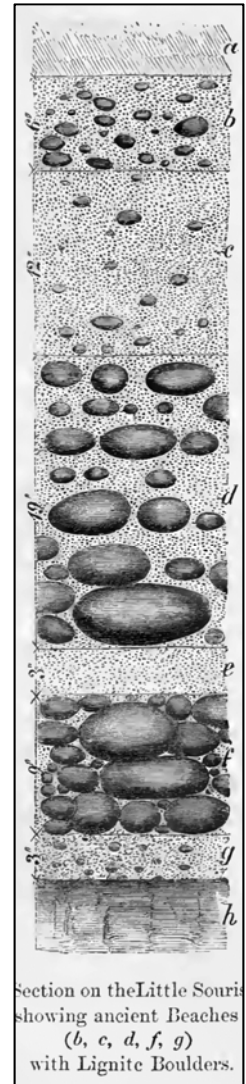
stratification for a depth of 25 feet exposed. The last exposures of the cretaceous shales were observed about three miles east of the bank where this trial was made. A few hours' labour revealed five old beaches, probably of an inland lake. These beaches were composed of sand and boulders of lignite from the size of a hen's egg to one foot in diameter. No fragment of lignite was found which did not possess a rounded or spheroidal form and a roughly polished or worn surface. An abundant supply was speedily obtained for a fire which was soon made on the bank; a strong sulphurous odour was emitted from the iron pyrites in the lignite. The section exposed the section which is shown in the woodcut on the next page. Some boulders when broken open exhibited streaks and small particles of a resinous substance like amber.

The low hills about Snake Creek are sand dunes, and on their sides an opuntia is very common. The prairie on the west of the Souris, as well as on the east, is treeless, the banks of Snake Creek support a thin belt of small forest trees, such as oak and ash, with a few ash-leaved maple. The annual fires prevent the willows and aspens from covering the country, which they would undoubtedly do until replaced by other species, if not destroyed to within a few inches of the root every time the fire sweeps over them. The banks of the Souris here are not more than 40 feet high, with level prairies on either hand, a few miles beyond the Snake Hills. Within four miles of the mouth of Plum Creek, Oak Lake, several miles in diameter, attracted the hunting portion of our party; they brought back some pelicans and a score of duck. Thunder storms as usual today and yesterday.

#### July 1, 1858 – Sand Hills

On the 1<sup>st</sup> July we arrived at the Souris sand hills, and made a section of the river bank where a land slip had produced a fine exposure to the water's edge. The formation consisted of five feet of blue clay above the level of the river, supporting four feet of ferruginous sand and gravel, on which reposed twelve feet of sandy loam and sand to the prairie level. The blue clay, capped by the ferruginous sand, was traced for a distance of 2½ miles, and showed a dip to the south of two feet in the mile, the clay disappearing beneath the water. No organic remains of any description were found, although a careful search was made, but boulders of lignite from 6 to 9 inches in diameter, were frequently seen in the bed of the river. The eggs of the nighthawk (*Chordeiles Virginianus*) were several times found on the bare ground, among the Sand Hills, with no approach to a nest for the helpless young. The parent birds endeavoured to draw us away from their eggs, fluttering as if wounded a short distance from them and uttering cries of distress. The Hudson's Bay Company have a post on the river among the sand hills, which is maintained only in winter, during the absence of the Sioux; these savage barbarians being altogether opposed to the approach of civilization near to their hunting-grounds, and entertaining besides a feeling of deadly hostility to the Red River half-breeds.

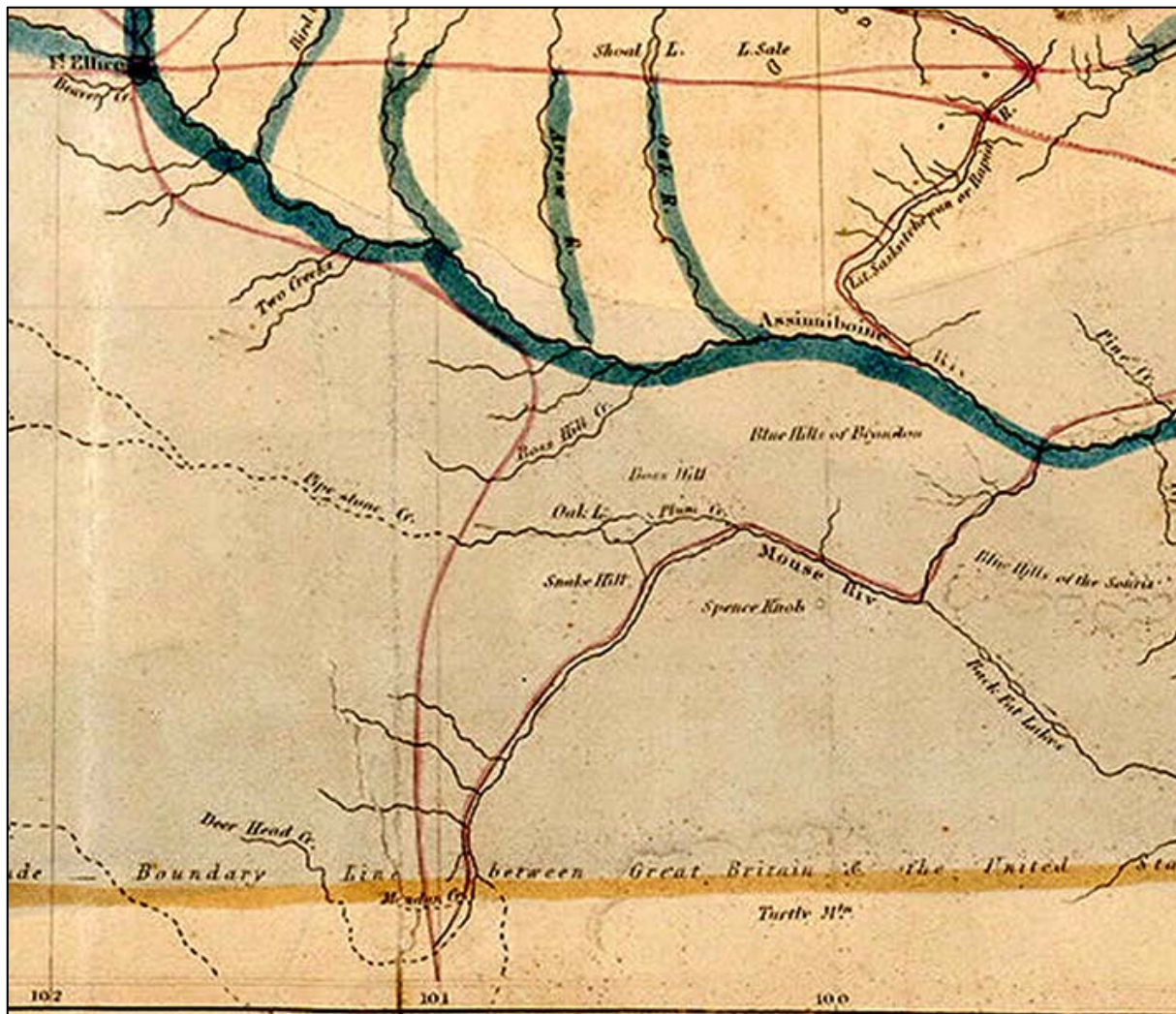
Near the Company's house we found on the river bank an extensive deposit of bog iron ore, capped by shell marl, and above the marl drifted sand. The banks of the river are here not more than 25 feet high, and on the east side there is a narrow fringe of fine timber. The Bois de Vache (dried buffalo dung) is distributed very abundantly in the prairie and through the sand hills and near to the company's post. In fact the buffalo were very numerous during the whole of the winter of 1856 and spring of 1857 on the banks of the Souris, but the great fires during the autumn of last year, have driven them south and north-west, and between the two branches of the Saskatchewan. The country becomes very low after passing the last sand-hills, and over



a large extent of prairie south of them, drift timber is distributed, showing the extraordinary rise in the waters of the river during the floods of 1852.

### July 2, 1858 - Red Deer's Head River (Antler River)

On the 2<sup>nd</sup> of July we observed the grasshoppers in full flight towards the north, the air as far as the eye could penetrate appeared to be filled with them. They commenced their flight about nine in the morning, and continued until half-past three or four o'clock in the afternoon. About that hour they settled around us in countless multitudes, and immediately clung to the leaves of grass and rested after their journey. On subsequent days, when crossing the great prairie from Red Deer's Head River to Fort Ellice, the hosts of grasshoppers were beyond all calculation; they appeared to be infinite in number. Early in the morning they fed upon the prairie grass, being always found most numerous in low, wet places where the grass was long. As soon as the sun had evaporated the dew, they took short flights, and as the hour of nine approached, cloud after cloud would rise from the prairie and pursue their flight in the direction of the wind, which was generally S.S.W. The number in the air seemed to be greatest about noon, and at times they appeared in such infinite swarms as to lessen perceptibly the light of the sun. The whole horizon wore an unearthly ashen hue from the light reflected by their transparent wings. The air was filled as with flakes of snow, and time after time clouds of these insects forming a dense body casting a glimmering silvery light, flew swiftly towards the north-north-east, at altitudes varying from 500 to perhaps 1000 feet.



Above: Route of Henry Hind's trek from the crossing of the Assiniboine River at the Souris Mouth on June 24, 1858 to arrival at Fort Ellice on July 11<sup>th</sup>.

Lying on my back and looking upwards as near to the sun as the light would permit, I saw the sky continually changing colour from blue to silver white, ash grey and lead colour, according to the numbers in the passing clouds of insects. Opposite to the sun the prevailing hue was a silver white, perceptibly flashing. On one occasion the whole heavens towards the south-east and west appeared to radiate a soft grey tinted light with a quivering motion, and the day being calm, the hum produced by the vibration of so many millions of wings was quite indescribable, and more resembled the noise popularly termed "a ringing in one's ears," than any other sound. The aspect of the heavens during the greatest flight we observed was singularly striking. It produced a feeling of uneasiness, amazement, and awe in our minds, as if some terrible unforeseen calamity were about to happen. It recalled more vividly than words could express the devastating ravages of the Egyptian scourges, as it seemed to bring us face to face with one of the most striking and wonderful exhibitions of Almighty power in the creation and sustenance of this infinite army of insects.

In the evening, when the grasshoppers were resting from their long journeys, or in the morning, when feeding on the grass leaves, they rose in clouds around us as we marched through the prairie; if a strong wind blew, they became very troublesome, flying with force against our faces, in the nostrils and eyes of horses, and filling every crevice in the carts. But fortunately, comparatively few flew on a windy day, otherwise it would have been almost impossible to have made headway against such an infinite host in rapid motion before the wind, although composed individually of such insignificant members.

Those portions of the prairie which had been visited by the grasshoppers wore a curious appearance; the grass was cut uniformly to one inch from the ground, and the whole surface was covered with the small, round, green exuviae of these destructive invaders.

The valley of the Souris, along which we travelled during the day, varies from one quarter to one mile broad; the river is not more than twenty-five feet across, and very shallow. It flows through a rich open meadow, twenty to thirty-five feet below the general level of the prairie, which on either hand is undulating, treeless, covered with short stunted grass, and showing abundance of last year's bois de vache. The first fresh buffalo tracks were seen today, and while taking observations for latitude, tracks of a different character and greater significance were discovered by one of the half-breeds; the fresh print of horses' feet, pronounced to be a few hours old, denoting the presence of Sioux or Assiniboines in our neighbourhood.

Before reaching the 49<sup>th</sup> parallel, the Souris meanders for several miles through a treeless valley, about a mile broad and sixty feet below the prairie level. Turtle Mountain on the east rises nobly from the great plain, the boundary line between British and American territory cutting it. The country west of the Souris is a treeless desert, in dry seasons destitute of water, and without a shrub or bush thicker than a willow twig. We ascertained the breadth of this arid, woodless tract to be at least sixty miles north of the Red Deer's Head River on the 49<sup>th</sup> parallel. Near the boundary line the Souris expands into a series of large ponds and marshes which are called the Souris Lakes. During periods of high water, they form a continuous lake of imposing magnitude, extending many miles south of the 49<sup>th</sup> parallel, consequently far within the United States territory.

A vast number of boulders are strewed over the hill bank of the Souris, near the 49<sup>th</sup> parallel, and on a point between a small brook and the river we found a number of conical mounds, and the remains of an intrenchment. Our half-breeds said it was an old Mandan village; the Indians of that tribe having formerly hunted and lived in this part of the Great Prairies. We endeavoured to make an opening into one of the mounds, and penetrated six feet without finding anything to indicate that the mounds were the remains of

Mandan lodges. There is a Mandan village near Fort Clark on the Missouri, and in the country drained by the Yellowstone the remains of this once numerous and powerful tribe are now to be found.

Having reached the 49<sup>th</sup> parallel and traced the Souris in search of Lignite in position for a distance of 100 miles, we altered our course to a good camping-ground on Red Deer's Head River, and made preparations for crossing a treeless prairie, at least sixty miles broad, in a direction nearly due north.

The Little Souris nowhere approaches the Missouri nearer than 30 or 40 miles. Beyond the Souris Lakes it flows in a valley 200 feet below the level of the prairie, with a wooded bottom from one half to two miles wide. The nearest timber in the direction of the proposed Pacific Railroad, near the 49<sup>th</sup> parallel, east of the Souris, is in the valley of Red River, 200 miles distant, and with the exception of cotton wood, there is no timber west of the Souris for 400 miles at the Bear's Paw. Where Mr. Tinkman crossed the Little Souris, far within the limits of the United States Territory (lat. 48 '02), he found it on the 21<sup>st</sup> July to be 120 feet wide, and too deep to ford. The effects of evaporation are plainly seen in the diminished volume of water which flows through the Blue Hills only a few miles from its junction with the Assiniboine.

### **July 3, 1858 - Red Deer's Head River (Antler River)**

While engaged in taking observations for latitude at the mouth of Red Deer's Head River, on the night of the 2nd July, John McKay, a Scotch half-breed, observed what he thought to be a wolf, approach the brow of a hill about two hundred yards from us, and after apparently gazing at the encampment for a few minutes it retired beyond view. The night was clear, and our tents being placed in the valley of the river close to its junction with that of the Souris, surrounded by steep hills about one hundred and fifty feet high, an object appearing on the brow of those in our rear could be seen projected against the sky.

McKay took no further notice of the strange visitor than to mention that he saw it and thought it was a wolf; but before we retired to our tents at 2 a.m. we noticed another figure, which he declared to be an Indian, appear near the same spot. Two of the party cautiously approached the foot of the hill, but before they reached it the figure crouched and slowly retired. The horses were gathered near the carts and a watch set, but daylight dawned without the re-appearance of the object of our suspicion. In the morning we endeavoured to discover tracks at the spot where it had appeared, but the hill being composed of gravel, the soil had received no impression which our most sharp-sighted half-breeds could detect. Having verified our observations on Polaris by a solar observation at noon, we started for a new camping ground about twelve miles up Red Deer's Head River, where we proposed to take in a supply of wood for fuel, before crossing the great prairie to Fort Ellice. On our way thither the old hunter who had joined us at Prairie Portage said he smelt fire; we all strained our olfactories to the utmost, but without detecting any odour which might be supposed to proceed from a burning substance; nevertheless the old hunter persisted in the statement that he had "smelt it." We camped at sunset close to the river, and while at supper some of the party distinctly heard the distant neigh of a horse; this of itself would have been considered sufficient warning, but when taken in connexion with the appearance of the object on the hill in the rear of our camp the night before, it was held to be conclusive evidence that we were watched by the Sioux, and that an attempt would be made in the night to steal our horses.

Our camp fires were put out immediately, the carts were placed close together, and a watch organized; the half breeds did not anticipate an attack until the approach of dawn, but the sudden galloping towards the carts soon after ten o'clock of several horses, who were feeding in the valley about one hundred yards from us, proved that Indians were near us. On hearing the horses approach, the men started up and ran to stop them, which they succeeded in doing before they passed the carts. Each horse was now tethered to a cart or stake, and the half-breeds crawling through the long grass arranged themselves in a half-circle about seventy yards from the carts, each with his gun loaded with buckshot. The night was dark, and perfect

silence was maintained in the camp; towards morning one man came in to report: he stated that he had heard "something" cross the river and crawl through the grass within a few yards of him; he waited a few minutes for more to follow before he fired or gave the alarm, and then cautiously crawled through the long grass in track of the "something" which had passed near to him. The track led him to within thirty yards of our tents, and then turned towards the river, and evidently crossed it. Morning soon dawned, and the watchers came in; we examined the tracks described by the half-breed who had first heard the intruders, and they were pronounced to be those of an Indian. Further examination in full daylight showed that we had been surrounded by a band, who, however, perceiving we were on the alert, and that the horses were tethered, made no attempt to steal them. Had it not been for the old hunter's excellent nose, there is little doubt that we should have lost our horses during the night.

#### **July 4, 1858 - The Great Prairie**

On the morning of the 4th, having loaded the carts with wood and taken a supply of water from Red Deer's Head River, which is here a rapid, clear stream, twelve feet broad, we started on a nearly due north course to cross the Great Prairie. The watermarks on the banks of Red Deer's Head River show that it rises fifteen feet during spring freshets, almost filling the low, narrow valley in which it flows. The banks are fringed with small balsam-poplar and aspen; patches of elm and oak occur on the points. The prairie for many miles north of this river appears to be perfectly horizontal; in passing through it we always seemed to be in the centre of a very shallow depression, with a uniform and well-defined horizon in all directions. Early in the morning the distant outline meeting the clear sky was best defined; as the day wore on refraction magnified the tufts of grass and small willows into bushes and trees, destroying the continuity of the fine horizontal line where sky and earth seemed to meet. Occasionally the effects of mirage were very delusive, beautiful tranquil lakes suddenly appeared in the distance, and as quickly faded from our view. Fortunately the almost daily thunderstorms which had occurred replenished the marshes and small ponds, and gave us an abundant supply of water, but in some seasons the buffalo hunters suffer much from the want of that necessary of life in crossing this vast treeless desert.

#### **July 5, 1858 – A Monotonous Journey**

On the afternoon of the 5th we arrived at the northern limit of the burnt prairie, as far as we could judge; south of our point of view, the aspect of the vast level tract was of a dark green hue, with short grass of this year's growth; northwards the colour of the prairie was brown, from the old grass of last year which had not been consumed by the fires. Whenever we approached the old and shallow beds of brooks, boulders became numerous. Some of the little valleys contained ponds, occupying the shallow bed, all of which would probably be united, and form a river in the spring of the year.

Among the birds noticed during this monotonous journey were turkey buzzards, ravens, barking crows and black terns; on the borders of several shallow ponds or marshes, which are often dry in the autumn, ducks were plentiful, and afforded us a grateful supply of fresh food. We saw some herds of cabri, and McKay succeeded in killing a female after a long chase. The grasshoppers were very numerous, and during four days filled the air like flakes of snow; they rose simultaneously when about to take their flight, from areas of two to twenty acres in extent, first perpendicularly to the height of twelve or fourteen feet, then in a slanting direction, until they had attained an elevation of from two to three hundred feet, after which they pursued a horizontal course before the wind. In a light breeze, the noise produced by their wings was like a gentle wind stirring; the leaves of a forest.

Our half-breeds informed us that this great prairie west of the Souris continues treeless and arid for a distance of sixty miles, it is then crossed by a river, probably the Moose Mountain Creek, shown on Capt. Palliser's map; beyond this river the prairie continues for eighty miles further without tree or shrub; and as



this was the utmost westerly limit to which any of them had journeyed in their buffalo hunting expeditions, they could afford us no further information respecting its extent. They were most of them familiar with the country south of the Great Prairie, the Grand Coteau de Missouri, where the buffalo range during the summer in vast herds.

#### **July 6, 1858 – Pipestone Creek**

On the 6th July we arrived at Pipestone Creek, and found the country swarming with a young brood of grasshoppers, with wings about a quarter of an inch long, showing that their progenitors had arrived in the preceding autumn in time to deposit their eggs in the soil. Innumerable hosts of these insects passed overhead during the day, and on looking up through an excellent marine glass, I could see them flying like scud at an immense height. Had it not been for the thunderstorms which daily refreshed and invigorated the herbage, it is probable that our cattle would have suffered seriously from the devastations of these insects.

Pipestone Creek is 20 feet broad at our crossing-place, with a swift current, and a depth of water varying from 1 1/2 to 3 feet. The valley is narrow, but rich and beautiful in comparison with the desolate prairie lying to the south. Among the trees fringing its banks the ash-leaved maple is most numerous, and the hop, together with the frost grape, is abundant on the edge of the stream. On the hills in its neighbourhood boulders are uniformly distributed, but on the highest a considerable number have been collected together by the Assiniboine Indians, and a rude monument erected in commemoration of a battle fought at a remote period.

#### **July 6, 1858 – Boss Hill Creek**

The level character of the country disappears after passing Pipestone Creek ; the prairie is either undulating and sandy, or varied with low hills of drift, on which boulders are scattered. On the evening of the 6th we camped at Boss Hill Creek, which flows into the Assiniboine through a broad valley among low hills and gentle slopes. From a conical eminence near our camp, Boss Hill, Standing Stone Mountain, and the woods fringing Oak Lake are visible.

The "Standing Stone" is probably the same familiar object in these regions as mentioned by the Rev. John West, who traveled during the winter of 1821 to Brandon House and the mouth of the Qu'appelle on a missionary journey. Mr. West relates that he stopped to breakfast at the Standing Stone, where the Indians had deposited bits of tobacco, small pieces of cloth, and other trifles, in superstitious expectation that it would influence their Manitou to give them buffaloes and a good hunt. During Mr. West's journey, now forty years since, buffalo were very numerous in the winter months on this part of the Assiniboine, and many bands of the race of Indians bearing that name made this part of the country their winter quarters. Mr. West saw an Indian corpse staged about ten feet from the ground, at a short distance from Brandon House, a provision post now abandoned by the Hudson's Bay Company.

We arrived at the Assiniboine about ten miles southeast of the Two' Creeks, after passing through a rolling prairie of light sandy soil, and in many places covered with boulders. Small hummocks of aspens, and clumps of partially burnt willows, were the only remaining representatives of an extensive aspen forest which formerly covered the country between Boss Creek and the Assiniboine. So great had been the change during twenty years in the general aspect of this region that our old hunter, who had undertaken to guide us in a straight line across the prairie from Red Deer's Head River, confessed that he did not " know the country" when within ten miles of the Assiniboine; he nevertheless declared his conviction that we should strike the river at the point to which he had promised to lead us. He had not visited it for twenty years, and during that interval the timber, which formerly consisted of aspens and willows, had nearly all disappeared. The old man was correct; the face of the country had changed, the aspen forest had been burnt, and no vestige, beyond the scattered hummocks and burnt willow clumps, remained; his "instinct" as he termed it,

and that singular facility which practised prairie wanderers possess, of journeying from point to point at great distances apart in a direct line, served him in lieu of memory or compass, for we struck the Assiniboine within two or three miles of the spot to which he had been directed to lead us.

The approach to this river is made by descending a steep slope, which forms the boundary of the prairie two or three miles from its present excavated valley. The plateau thus formed is covered with erratics, consisting of granite, gneiss, limestone, etc. The broad subordinate excavation in which the river flows is about one mile across, and from 200 to 250 feet deep. The narrow plateau covered with boulders points to a former condition of the Assiniboine valley, when a much larger river flowed in a wider and shallower valley 200 feet above its present level. The same remark applies to many other rivers in Rupert's Land, which, although now insignificant streams, yet flow through deep subordinate excavations in a broad but generally shallow and well defined trough with steep margins, erratics being dispersed over both margin and plateau. These records of former physical structure appear to indicate that the water once conveyed by these channels, must have been very largely in excess of the present supply.

### **July 8<sup>th</sup>, 1858 – Assiniboine River Valley**

On the morning of the 8th we passed through a good grazing country on the high prairie level, but being compelled to descend to the first plateau of the Assiniboine valley for water, we found our progress obstructed by a large number of erratics, which endangered the wheels of the carts. Here, however, we saw the first buffalo bull and after a chase of half an hour's duration, succeeded in killing him. Although very tough and rather strong flavoured, he was an acceptable addition to our larder. On arriving at the second of the Two Creeks, cretaceous rocks were again recognised. They had the same lithological aspect as those of the Souris; organic remains were scarce, but in sufficient numbers and variety to establish their position. A band of soft yellowish-green substance, resembling some varieties of soap-stone, was observed forming a characteristic feature in the exposure of the shales at this place. An analysis of the material composing the green band is introduced in the Chapter on the Cretaceous Series, Vol. 11. In the low valley of the Assiniboine, to which I descended, similar exposures arising

from land-slips were also seen. The section exposed was capped by about ten feet of coarse gravelly drift on the brink of the deep and broad excavation which now forms the valley proper of the river. The shales resemble those on the Souris, but contain fewer fossils, and are perhaps more fissile and less impregnated with oxide of iron.

Three more bulls were seen on the following morning, but being anxious to reach Fort Ellice, and already provided with meat, they were permitted to pass us unmolested. The country in the neighbourhood of Beaver Creek is undulating and attractive, but the soil is sandy, capable only of supporting a short stunted herbage. We arrived at the Fort on the morning of the 10th, and took up our camping-ground on the banks of Beaver Creek, close to the broad and deep valley of the Assiniboine.

Fort Ellice was at one period a post of considerable importance, being the depot of supplies for the Swan River District, now removed to Fort Pelly. The buildings are of wood, surrounded by a high picket enclosure. Mr. McKay, one of the sub-officers, was in charge at the time of our arrival. Some twenty years ago, before the smallpox and constant wars had reduced the Plain Crees to a sixth or eighth of their former numbers, this post was often the scene of exciting Indian display. Formerly Fort

Ellice used to be visited by the Crees alone, now it numbers many Ojibways among the Indians trading with it. The Ojibways have been driven from the woods by the scarcity of game, the large animals, such as moose deer and bear, having greatly diminished in numbers. Many of the wood Indians now keep horses, and enjoy the advantage of making the prairie and the forest tributary to their wants.

### **July 11, 1858 – Fort Ellice**

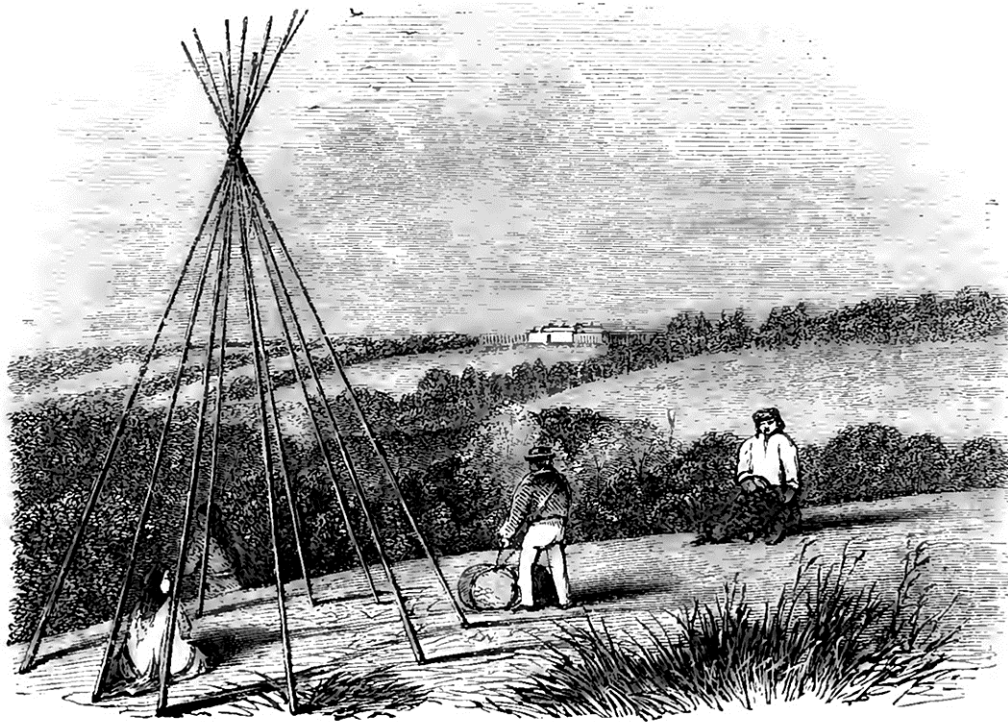
On the 11th July, a number of hunters attached to Fort Ellice came in with provisions, such as pemmican and dried buffalo meat, which they had prepared in the prairies a few days before, about thirty miles from the post, where the buffalo were numerous. Fort Ellice, the Qu'appelle post, and the establishment on the Touchwood Hills being situated on the borders of the great Buffalo Plains, are provision trading posts. The Hudson's Bay Company obtain from the Plain Crees, the Assinniboines, and the Ojibways, pemmican and dried meat to supply the brigades of boats in their expeditions to York Factory on Hudson's Bay, and throughout the northern interior. Pemmican is made by pounding or chopping buffalo meat into small pieces and then mixing it with an equal quantity of fat. It is packed in bags made of the hide of the animal, in quantities of about ninety pounds each. Dried meat is the flesh of the buffalo cut into long, broad, and thin pieces about two feet by fifteen inches, which are smoked over a slow fire for a few minutes and then packed into a bale of about sixty pounds. We had many opportunities of seeing the Cree women on the Qu'appelle, cut, prepare, and pack dried meat.

At Fort Ellice (longitude 101° 48' latitude 50° 24' 32", Captain Palliser) the thunder storms were as violent as on the Souris; not a day passed without lightning, thunder, and generally violent rain of half an hour's duration. The grasshoppers at this post had destroyed the crops last year, and, at the time of our visit, the young brood were well advanced, their wings being about one-third of an inch long. Full grown insects from the south were flying overhead or alighting in clouds around us, so that all hopes of obtaining a crop from the garden or potato fields were abandoned for this year. Provisions were very scarce at the post, and had it not been for the fortunate arrival of the hunters with some pemmican and dried meat, we should have been compelled to hunt or kill the ox.

From Mr. McKay I received a particular account of the "Great Bones" on Shell Creek, which had long been a source of wonder and awe to the Indians hunting on the left bank of the Assinniboine, and whose magnificent descriptions led me to suppose they might belong to a cetacean, and were worth a day's journey out of our track to visit and examine. They were seen many years ago protruding from the bank of Shell Creek, 20 feet below the prairie's level. Mr. McKay instructed some of the hunters attached to the post to bring them to him, but no Indians would touch them, and the half-breeds only brought a tooth and collar bone, which were stated by a medical gentleman to whom they were shown to have formerly belonged to a mammoth. Mr. Christie, of Fort Pelly, we were told, went to Shell Creek, with a view to collect more specimens ; he obtained some ribs, but in a state of crumbling decay; they were sent to Red River Settlement. The Indians had long regarded these ancient relics as the bones of a Manitou and worthy objects of veneration. An old Indian on Dauphin Lake, to whom reference will be made hereafter, described similar bones in the banks of Valley River leading to Dauphin Lake but the season was too late when exploring that part of the country to permit of an examination.

### **July 12, 1858 – Continuing Our Journey Westward**

On Monday, the 12th, preparations for continuing our journey westward were completed, by engaging an Indian to assist in paddling Mr. Dickinson down the Qu'appelle or Calling River from the Mission to its junction with the Assinniboine. ...page 313. ASSINNIBOINE AND SASKATCHEWAN EXPEDITION.



Fort Ellice, Beaver Creek.



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FISHING LAKES, QU'APPELLE RIVER.

Campsite in the Qu'Appelle River valley, near the shore of Fishing Lakes, July 15, 1858.

Full copies of Henry Youle Hinds expedition reports can be found online, at

:

- Canadian Red River Exploring Expedition, 1857  
<http://peel.library.ualberta.ca/bibliography/365/156.html>
- Assiniboine and Saskatchewan Exploring Expedition, 1858  
[https://archive.org/details/cihm\\_41513/page/n7](https://archive.org/details/cihm_41513/page/n7)

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