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ABSTRACTS

FROM

REPORTS ON TOWNSHIPS WEST OF THE FOURTH MERIDIAN

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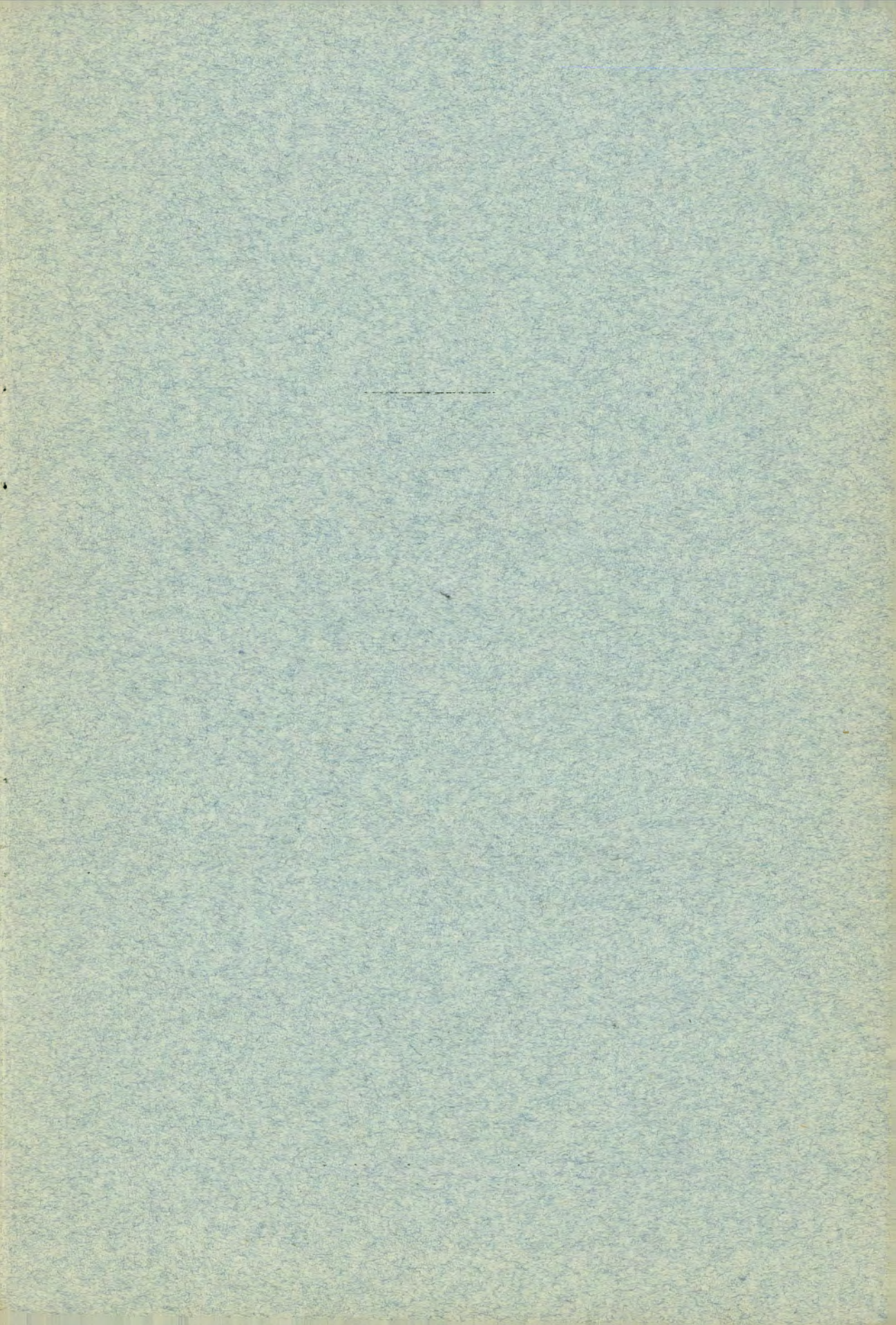
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BETWEEN APRIL, 1909, AND JULY, 1910

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ABSTRACTS

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NOTICE.

The following descriptions of townships recently surveyed have been prepared from the field notes and reports of the surveyors.

The townships in this pamphlet, are placed in ranges, the number of the range being at the top of the page and the number of the township in heavy figures on the left side.

E. DEVILLE,
Surveyor General.

**LIST OF TOWNSHIPS, REPORTS OF WHICH ARE CONTAINED IN THIS
PAMPHLET.**

WEST OF THE FOURTH MERIDIAN.

<i>Township.</i>	<i>Range.</i>
1, 2, 3, 4, 5, 56, 57, 58, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80.	1
3, 56, 57, 58, 61, 62, 63, 64.	2
3, 58, 61, 62.	3
3, 57, 58, 61, 62.	4
1, 2, 3.	5
3, 4, 5, 6.	6
1, 6, 7, 61, 62.	7
1, 6, 7, 8, 61, 62.	8
1, 6, 7, 8, 61, 62.	9
1, 3, 4, 5, 6, 7, 8, 61, 62.	10
1, 3, 4, 5, 6, 7, 8.	11
4, 57.	12
1.	14
64, 65.	15
67.	16
1, 6, 7, 65, 66, 67, 68.	17
1, 65, 66, 67, 68.	18
1.	19
1.	20
62, 63.	25
62, 63, 64.	26
62, 63, 64.	27

TOWNSHIPS WEST OF THE FOURTH MERIDIAN

RANGE 1.

This township is most readily reached by trail from Maple Creek, a town on the main line of the Canadian Pacific railway. This trail passes through the west side of township 1, range 29, west of the third meridian, and from there it is good travelling across the prairie into this township. Settlers from the south may readily reach the township through Montana which has good trails and is well settled along the international boundary south of this township. The soil in the central and easterly part is mostly clay loam with clay subsoil, while in the westerly part it becomes more sandy. The surface is all open prairie, and level or very gently undulating. With sufficient rainfall this would be a good farming district but it has the appearance of being usually quite dry and better suited for grazing; it would be a splendid place for sheep. There are no hay sloughs and because of the very dry season the hay on the open prairie was short. The only water available is in a creek in the west side of the township which stopped running in September. There were no frosts and the climate was very dry. The nearest timber is in the Cypress hills to the north about forty miles. Coal may be obtained from a hill in Montana about fifteen miles to the southeast. There are no stone-quarries or minerals of any kind. Game is very scarce.—*J. Waldron, D.L.S., 1908.*

This township is most conveniently reached by a trail from Maple Creek on the main line of the Canadian Pacific railway. This trail passes Tenmile, south of the Cypress hills, and runs through the easterly side of township 2, range 30, west of the third meridian, and from there it is good travelling across the open prairie into this township. The surface is open prairie, no timber of any kind being found, and it is mostly very gently undulating. The soil is mostly a clay loam with a clay subsoil and is best suited for ranching as there appears to be insufficient rainfall for successful raising of crops. There is a large marsh, evidently an old lake bottom, as it has distinct beaches, in sections 9, 10, 11, 14, 15 and 16. With cultivation, this might be made a good hay meadow but it is too rough to be successfully cut in its present condition. The grass on the remainder of the township, owing to the dryness of the season, was too short for hay but made good pasture. Large herds of mules were grazing and were in prime condition. A creek, which had stopped running, passes through the six westerly sections and was the only surface water obtainable. A little water was found in holes along this creek and was free from alkali. A vein of lignite about two feet thick appears along the creek in section 19. The upper part of it contains considerable shale. There were no summer frosts. There are no stone-quarries or minerals of economic value. The nearest timber is in the Cypress hills near Tenmile. A few antelope were seen.—*J. Waldron, D.L.S., 1908.*

The most convenient way of reaching this township is by trail from Maple Creek station southwest past Tenmile into township 3, range 29, west of the third meridian, and then westerly across the prairie into this township. A small tributary of Lodge creek, locally called 'Bare creek' passes through the northerly part of the township. The slopes to this creek, especially from the south, are rough and broken and usually stony. The most westerly and southerly portion is only gently undulating while between this portion and the slopes to the creek it is rolling prairie. The soil is mostly a clay loam with clay subsoil and does not appear to be very productive as the grass was short. This, no doubt, was the result of a very dry season. It is essentially a ranching district only. Surface stone are plentiful

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.

over the greater part of the township. Some small willow grows along 'Bare creek,' and is the only fuel in the township. Timber may be obtained in the Cypress hills north of Tenmile. The only surface water is in the creek which is free from alkali. There are no available water-powers. There were no frosts, stone-quarries or minerals of any kind. Game was very scarce.—*J. Waldron, D.L.S., 1908.*

This township is most readily reached by trail from Maple Creek, a town on
4. the main line of the Canadian Pacific railway. This trail goes in a south-westerly direction to Tenmile, a police station on Battle creek. From there a good trail goes west up the valley of 'North Fork,' a tributary of Lodge creek into range 1, township 5, and travelling is good across the prairie from there to this township. The trail should be in good condition at all seasons of the year. The surface of this township is broken by Lodge creek which flows diagonally across the township, and by many coulees which enter its valley. Generally it is rolling or hilly prairie with a few level stretches on the benches or in the river bottom. In the river valley the soil is mostly light, while the remainder is clay loam with a clay subsoil, with gravel in patches. It is suitable only for ranching with the exception of the valley of the creek which might be made productive by irrigation. Here, as in most of this country, are indications of insufficient rainfall except in heavy storms which do not penetrate the soil, but cut deep water-courses and pass off into the creek without aiding vegetation. The grass was short and very little hay could be cut. A basin on the north boundary, which evidently was a lake some years ago is now dry and growing grass. Lodge creek, which contains fresh water, was a series of disconnected pools and was the only water in the township. Bunches of small willow grow along its banks and is the only timber in the township. Timber may be obtained to the north in the Cypress hills. There were no frosts. Surface stone suitable for building is plentiful but no stone-quarries, minerals and water-powers occur. No game of any kind was seen.—*J. Waldron, D.L.S., 1908.*

The road to this township is by trail, southwesterly from Maple Creek station to Tenmile, then westerly into the township. The north part is rough
5. and hilly, being in the south edge of the Cypress hills and broken by a tributary of Lodge creek, locally called 'North Fork.' The southerly part is undulating prairie, and is a clay loam with clay subsoil. The valley of 'North Fork' is mostly a sandy loam. This is a good ranching township, and many good locations have been taken up. There is a strong spring of good fresh water in the centre of section 2. Other good springs also occur in the hills along the creek. The creek is small but has a flow of good fresh water. It is being turned to good account for irrigation purposes by two settlers. There was plenty of good grass for grazing but not much for hay. There are no water-powers on the creek. Frosts appeared in September. A little willow grows along the creek, but plenty of wood can be obtained to the north in the Cypress hills. No stone-quarries or minerals of any kind occur. No game was seen.—*J. Waldron, D.L.S., 1908.*

The most convenient route to arrive at the township is by the mail trail from
56. Lloydminster to Onion Lake; from Onion Lake the wagon trail to Cold lake is followed west for one mile, where a trail branches and goes northerly through township 56. This route is in good condition for the greater part of the year. Hay can be obtained in small quantities from the marshes. The soil is clay and sand. Wood is easily available for fuel in any part of the township. The surface is rolling, covered with a thick growth of poplar from two to twelve inches in diameter, willow brush and scattered clumps of spruce and birch. Summer frosts do not occur. No

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.

minerals of economic value were found, and no water-powers were seen. The water supply is fresh and permanent. Game consists of moose, deer, bears, coyotes, rabbits, muskrats, grouse, partridges and ducks.—*T. A. Davies, D.L.S., 1909.*

The most convenient route to reach this township is by the mail trail from
57. Lloydminster to Onion Lake, crossing Saskatchewan river at Hewitt Landing. From Onion Lake the route follows the Cold lake trail for one mile west, where a pack and winter trail branches off through the township. This route is in fair condition and wagons may be used all the way. The soil is for the most part a sandy clay, but in some sections black loam shows for a depth of one to five inches, with a clay subsoil. The surface is rolling and covered with poplar from two to fourteen inches in diameter, scattered clumps of birch, spruce, tamarack and jackpine from two to eighteen inches in diameter, and a heavy willow underbrush. Hay can be obtained in small quantities around the edges of the swamps and marshes. The water supply is fresh and permanent. The land is not subject to floods. There are no water-powers. Summer frosts did not occur. Wood as fuel is easily available in any part of the township. No stone-quarries nor minerals were found. Game consists of moose, deer, bears, coyotes, rabbits, partridges, prairie-chickens and ducks.—*T. A. Davies, D.L.S., 1909.*

The most convenient route to this township is the mail trail from Lloyd-
58. minster to Onion Lake, crossing Saskatchewan river at Hewitt Landing by ferry and from Onion Lake a pack and wagon trail goes northerly to Cold lake. This route is in good condition as far as the north boundary of township 55, but north from here the trail is soft with bad mud-holes, except in very dry weather, or winter, when travelling is fair. The soil is clay, stony in some parts, and only a small portion of the township is suitable for agriculture. The surface, generally, is rolling and covered with poplar two to ten inches in diameter and willow brush. In the east tier of sections a considerable quantity of birch grows, averaging six inches in diameter. Clumps of spruce, tamarack and jackpine are scattered throughout the township. Hay in small quantities can be cut from the several marshes during the dry season. A fresh and permanent supply of water is obtainable from the lakes. The land is not liable to be flooded and there are no water-powers. Summer frosts do not occur. No stone-quarries or minerals were found. Game consists of moose, deer, bear, coyotes, rabbits, partridges and prairie-chickens.—*T. A. Davies, D.L.S., 1909.*

The best way to reach this township is from the Cold lake mission by
61. a winter road. The soil is a rich loam with clay subsoil covered with dense woods, chiefly poplar, south of Beaver river and chiefly spruce north of the river. There is no hay. Beaver river and some small lakes give an abundant supply of good pure water. There are no valuable water-powers. The climate is good and summer frosts are rare. Wood is the only fuel, and no stone-quarries or other valuable minerals were found. Fish abound in Beaver river and game is plentiful.—*M. W. Hopkins, D.L.S., 1908.*

The best way to reach this township is from the Cold lake mission. The
62. soil is a rich loam with clay subsoil. The eastern half of the township is covered with very fine spruce from eight to thirty inches in diameter. The west half is chiefly poplar. A line joining the northeast corner of section 34 with the southeast corner of section 5 very closely divides the spruce and birch from the poplar. Around the edges of the lakes in the south part of the township some hay

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RANGE 1.

can be cut in the dry season and also around the lake in sections 33 and 34. The numerous lakes supply abundance of good fresh water. The land is never flooded and there are no water-powers. The climate is good. No stone-quarries, coal or other minerals were seen.—*M. W. Hopkins, D.L.S., 1908.*

(*East outline*).—This township is situated on the southerly side of Cold lake. **63.** The land area consists of about ten square miles in the southerly part of the township and also a point of land containing about two square miles in the northeasterly part. The remainder of the township is in Cold lake and the southerly part has already been subdivided. The point of land is high and rough and thickly timbered with poplar, birch and spruce, the banks being about thirty feet high.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—This township is situated on the northerly side of Cold lake, **65.** the total land area being about sixteen square miles in the north part of the township. The lands are generally rolling and hilly and lightly timbered over the westerly part. On the easterly portion the timber is much denser. There is some good land along the shore of the lake, but to the north it is very hilly. The east boundary of the township (the fourth meridian) crosses Murray island close to the north shore of the lake, about fifty acres of the island being in this township. The island is the only one in Cold lake and contains altogether about two square miles. It rises about eighty feet above the lake and is thickly timbered.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—This township lies between Cold lake and Primrose lake. **66.** Its southerly half is hilly and thickly timbered with small birch, poplar and spruce seldom running over six inches. Martineau river flows across the extreme southeast corner of the township. A wagon road runs diagonally across the township from southwest to northeast. The land on the west half is high, but not hilly. There is a well-marked hill, rising about five hundred feet above Primrose lake, in the northeast of the township, which is visible for many miles.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—Primrose lake covers about eight square miles in the south- **67.** easterly part of this township. The shores of the lake have many stretches of sandy beach around the southwesterly part of the lake, and the water is beautifully clear. The lands in this township are generally rolling, there being many small pine ridges alternating with spruce and willow in the lower parts. The soil in the lower parts is generally good, but there is practically no open land. There are several small streams flowing southeasterly into Primrose lake. There is a road, over which wagons with light loads can travel, following near the banks of the lake from its extreme southwesterly end, where the road from Cold lake comes in, to the intersection with the fourth meridian. Beyond this there is a kind of pack trail following the bank of the lake for some distance northeasterly. There is no trail around the southeasterly side of the lake.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—The general aspect of this township is very irregular. The **68.** lower lands are good soil, but are generally more or less wet. The higher lands are either very sandy, with pine, or else formed of a hard clay with poplar. Along the east outline there are many large areas of swamp with small spruce and tamarack. The northerly part of the township is very hilly, especially in the vicinity

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RANGE 1.

of Shaver river. A considerable area is covered with poplar. There are many attractive areas in this township, but very little open country.—*J. N. Wallace, D.L.S., 1909.*

(East outline.)—There are many small hills in this township and the surface generally is very irregular. Shaver river flows easterly in a well-marked valley across the south of the township. It is a rapid stream varying greatly in depth, being in places only a foot or so over a stony bed, and a few yards farther five or six feet deep with a muddy bottom. There are some isolated large spruce along its banks, but elsewhere in the township the timber seldom runs over ten inches. There are many swamp areas along the east boundary of the township. The lower lands are the best soil, but these are generally wet. The higher lands are sandy with pine or, when covered with poplar, are formed of a hard clay with only a couple of inches of black soil on top.—*J. N. Wallace, D.L.S., 1909.*

70. *(East outline.)*—Along its easterly boundary this township is fairly level, with much wet land. About the middle of the township, in a north and south direction, poplar, which has been very common farther south, begins to get very scarce, and gets still scarcer in the townships farther north. Farrier creek, which is about ten feet wide and flows in a deep channel, with clay banks, is the chief stream. There is plenty of good grass for a few yards on each side of the creek, but the stream is liable to flood over frequently during summer. The best soil is generally more or less wet, while the southerly part of the township is generally much better than the north.—*J. N. Wallace, D.L.S., 1909.*

71. *(East outline.)*—The general aspect of this township is that of land covered with coniferous timber. The surface, except a narrow belt around the lakes and along the larger streams, the chief of which is Victor creek, is covered with moss, and the timber is practically all spruce, pine or tamarack, and poplar is almost unknown. There are many swamp areas but they are nearly all local, being formed by surrounding ridges preventing the surface water from getting away, and not by the general want of fall. In the west of the township there are some high poplar-covered hills, but there is good grass along the larger streams.—*J. N. Wallace, D.L.S., 1909.*

72. *(East outline.)*—This township is nearly all moss covered with spruce, pine and tamarack. Grass is very scarce except as a very narrow belt along the larger streams and around some lakes, although this latter is generally slough grass. The whole surface falls gradually to the valley of Calder river which flows easterly just north of the township. There are many small lakes most of which have swampy shores. The only stream of any size is Foster creek which has a deep channel between clay banks and a narrow belt of very good grass on each side. It flows north-easterly across about the middle of the north boundary of the township. At least one-third of the township is swampy land.—*J. N. Wallace, D.L.S., 1909.*

73. *(East outline.)*—The surface is generally rolling and nearly all covered with small spruce, jackpine and tamarack. As usual in this district the surface may nearly all be comprised in three classes, the higher parts are sandy with jackpine, and the intermediate levels are covered with small spruce and are generally very wet in early summer, but become quite dry in the fall. The lowest depressions are very wet and are covered with small tamarack. There are several streams which unite in a lake about a mile long in the southeast corner of the township, from which

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.

Calder river takes its source. There is very good grass all around the lake, sufficiently good for putting up hay with a scythe, although it does not extend far from the water. There is some good land along all the streams and it is almost certain that very nearly all the swamp land can be drained as the surface water is nearly always higher than the streams. Poplar is rare. The surface is to a large extent moss-covered. There is a large area of good bottom land along Neath creek covered with willow bushes. Higher up on this creek east of the fourth meridian the land is all composed of dry sandy ridges.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—This township is rolling and in many places hilly. It is
74. covered with a small forest of spruce, jackpine and tamarack, with mossy surface. The northerly part is especially hilly, with a great deal of small poplar-covered land, and except in the southeasterly part of the township the land is much higher and drier than in the townships to the south. Dillon river rises in the southwesterly part of the township, flows northwesterly and northeasterly, finally emptying into Buffalo lake, north of Ile à la Crosse after a course of about seventy or eighty miles. Where it flows through this township it is a small stream in a deep valley which can be seen a long way off. The northeasterly part of the township is quite rough and generally densely covered with small pine and poplar. Except along the streams and small lakes there is no grass. As elsewhere in the district the best soil is in the lower lands, the higher parts being either sandy or else a hard white clay.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—The surface is generally hilly and there are many streams
75. flowing in well-marked valleys. The timber is nearly all coniferous, although in the westerly part there is a good deal of poplar, and a great deal of fallen dead timber is found along the southerly part of the east outline. Good soil extends along many of the streams although their valleys are very narrow. Grass is very scarce over the whole township.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—The easterly part of this township is generally rolling and
76. in places hilly. There is some good land in the southeast, but the northeast has many large areas of swamp. The timber is almost all coniferous and the surface mossy. There are not many streams, Dillon river probably flowing across the extreme northwest of the township. It here flows in a valley a couple of hundred feet deep. There is a small stream of very clear water flowing east across the south of the township to join Clatto river.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—Fire has run through a large part of this township. The
77. ground has been burnt bare of everything in many places, especially to the north and south of Briant creek, which flows northeasterly across section 13. The surface is here all blackened. The lands are rolling and hilly, the higher parts being sandy and the lower parts having good soil, but generally wet. The timber is nearly all coniferous. An area of large spruce and poplar, running to two feet diameter, occurs on a high ridge running east and west across section 25. Dillon river flows northeasterly through the township. It is here about fifty feet wide with a swift current over a bed of boulders. The depth runs from about two to four feet. The valley is here narrow with banks about fifty feet high, but about six miles east of this township the valley widens out to nearly a mile with very good land and grass along its banks. Along Briant creek there is a narrow valley about a hundred yards wide with good soil and grass. Elsewhere grass is very rare.—*J. N. Wallace, D.L.S., 1909.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 1.

(*East outline*).—The soil over this township is markedly better than in the townships to the south. It consists generally of a heavy clay with a few inches of black surface soil. Even on the higher ridges the soil is not nearly so sandy as farther south and the almost barren surface of the sandy ridges to the south is replaced by black loam and moss in the township. Dillon river flows easterly across the extreme southeast corner of the township, flowing in a narrow valley about forty feet deep. About five miles farther the river runs through a fertile valley nearly a mile wide with good soil, grass and willow. The only other large stream is Landels river which flows northerly across the northwest quarter of the township. Between these two streams there occurs the height of land between the waters flowing by way of Athabaska river to the Arctic and those flowing to Hudson bay by way of Churchill river. This height of land appears to follow the course of Dillon river, keeping about half a mile or so to its northwest. A small creek about a foot wide which flows westerly across the east boundary of section 25, in the middle of a swamp, is the most southerly stream crossed by the meridian, which flows to Athabaska river. All the streams south of this one flow easterly. The timber is generally coniferous. There are only isolated small patches of poplar and there is hardly any grass in this township except along Landels river and in a lesser quantity along Dillon river.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—This township is generally rolling. Along Landels river and its tributary which flows east across section 1, there are narrow valleys with good land, grass and willow bushes. The rest of the township is covered with a dense forest of small spruce and pine, and the surface is all mossy. There is a good deal of poplar timber along the tributary mentioned, but along Landels river there is more pine. The soil is generally a heavy good clay with a few inches of black soil on top, the black soil being, however, deep along the two streams mentioned.—*J. N. Wallace, D.L.S., 1909.*

(*East outline*).—There is a large area of swamp land in this township, especially along its east outline. Graham creek flows west across section 1. It is eighteen feet wide and about three feet deep. Its banks are slough land with very good slough grass, affording good feed for horses when the ground is frozen. The northeasterly quarter of the township is very swampy. To the west it is hilly, with ridges of both poplar and pine. The higher lands are generally a good heavy clay. A route for dog teams in winter runs over Graham lake and down Graham creek. It probably comes from the middle of Buffalo lake, following up the valley of Dillon river, and runs west across a high ridge for a few miles to the southeast of Graham lake. There is some large timber, both spruce and poplar, on a high ridge crossing section 13.—*J. N. Wallace, D.L.S., 1909.*

RANGE 2.

This township is reached by a fairly good trail from Eagle Butte, entering this township in the northwest quarter of section 32. The surface is rolling and the soil is for the most part sandy clay with occasional large tracts of hardpan, stone and gravel. It is better adapted to ranching than farming. Hay of a poor quality exists on the sloughs, of which there are a good many. Bare creek enters the township in the north part of section 31, and leaves it on the east boundary of section 25, and in the driest weather contains a few pools, the other creeks drying up completely. There is no coal, timber, stone-quarries or water-powers in this township. The climate is variable, but no summer frosts were recorded. No land is liable to be flooded. Antelope, coyotes and jack rabbits were seen.—*M. Kimpe, D.L.S., 1909.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 2.

The most convenient route to reach this township is the mail trail from
56. Lloydminster to Onion Lake, crossing the Saskatchewan river, by ferry, at Hewitt Landing. From Onion Lake the trail to Cold lake passes through the township. This route is in good condition for the greater part of the year. Hay can be obtained in small quantities from the small sloughs and marshes. The soil is clay with a top soil of two inches of black loam in some parts. Wood is easily available for fuel, and can be obtained in any part of the township. The surface is rolling, covered with a thick growth of poplar from two to ten inches in diameter, willow brush, scattered spruce and birch. Summer frosts do not occur. There are no minerals of economic value and no water-powers. The water supply is fresh and permanent. Game consists of moose, deer, bears, coyotes, rabbits, grouse, partridges and ducks.—*T. A. Davies, D.L.S., 1909.*

The most convenient route into this township is the mail trail from Lloyd-
57. minster to Onion Lake, crossing the Saskatchewan river, at Hewitt Landing, by ferry. From Onion Lake the Cold lake trail is followed as far as Frog creek where another trail branches in a northeasterly direction going between Frog and Fishing lakes and following the northwest bank of Fishing lake. This route is in good condition for the greater part of the year. The soil is a black loam averaging three inches in depth with a clay subsoil. Judging from an extensive growth of weeds the township should be adapted to agriculture. The surface, generally, is rolling, covered with poplar from two to eight inches in diameter, willow brush, scattered clumps of spruce, tamarack and jackpine averaging six inches in diameter. Hay can be obtained from the sloughs and marshes. The water supply from the lakes and small creeks is fresh and permanent. There are no water-powers and the land is not liable to be flooded. Summer frosts do not prevail. Wood is available for fuel in all parts of the township. No stone-quarries nor minerals were found. Game consists of moose, deer, bears, coyotes, rabbits, partridges, ducks and grouse. Whitefish are caught, mostly in the winter season in Frog and Fishing lakes.—*T. A. Davies, D.L.S., 1909.*

The most convenient route to reach this township is the mail trail from
58. Lloydminster to Onion Lake, crossing Saskatchewan river at Hewitt Landing, and from Onion Lake following the Cold lake trail as far as Frog creek where a trail branches off in a northeasterly direction passing between Frog and Fishing lakes. The route then follows the north bank of Fishing lake into the centre of township 57 where it is joined by a branch trail running in a northerly direction into this township. This route is in good condition for the greater part of the year. The soil is black loam for an average depth of two inches with a clay subsoil. The surface generally is rolling, broken with marshes and swamps and covered with poplar from two to twelve inches in diameter, willow brush with scattered clumps of spruce, birch, tamarack and jackpine from two to fourteen inches in diameter. Hay can be obtained in small quantities around the edges of the swamps and marshes. The water supply is fresh and abundant. The land is not subject to floods and there are no water-powers. Summer frosts did not occur. Wood for fuel is available in any part of the township. No stone-quarries nor minerals were observed. Game consists of moose, deer, bears, coyotes, rabbits, partridges, prairie-chickens and ducks.—*T. A. Davies, D.L.S., 1909.*

The best way to get to this township is from the Cold Lake mission. The
61. soil is a rich loam with a clay subsoil and is covered with poplar. It is suitable for general farming. There is no hay and the land is not liable to be flooded. There are no valuable water-powers. The climate is delightful and summer

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 2.

frosts are rare. No stone-quarries, coal or other valuable minerals were found. Moose and deer are found and fish are plentiful in Beaver river and lakes.—*M. W. Hopkins, D.L.S., 1908.*

This township can be easily reached from the Cold Lake mission by a good
62. wagon road. The soil is a rich loam with clay subsoil covered with poplar from five to ten inches in diameter. Sections 17, 18, 19 and 20 contain a lighter poplar, and along the banks of Beaver river there is some fair spruce from eight to fifteen inches in diameter. There is some good slough hay in sections 15, 16, 17 and 18. Beaver river running across the township from section 30 to section 1 gives a good supply of fresh water and fish. The land is never flooded. There are no valuable water-powers. The climate is good. No stone-quarries, coal or other minerals were seen.—*M. W. Hopkins, D.L.S., 1908.*

The best way to reach this township is from the Cold Lake mission by a good
63. road passing along the shore of Cold lake. The soil is a rich loam with clay subsoil covered with small poplar and willow, and is suitable for general farming. Along the sides of Bear creek there is considerable jackpine. This is a very good township for farming, being high and dry. Cold lake and the smaller lakes and creeks supply good water and abundance of fish. There are no important water-powers. No stone-quarries, coal or other valuable minerals were seen. The climate is good and summer frosts are rare.—*M. W. Hopkins, D.L.S., 1908.*

A good road from the Cold Lake mission, running along the shore of Cold
64. lake leads to this township. There are branches of roads running all through it. The soil is a rich loam with clay subsoil, suitable for general farming and covered with poplar from five to ten inches in diameter. Around the marsh in sections 20, 21, 28 and 29 there is some small spruce. Very little hay is found in the township, and what there is lies around the marsh referred to above. Cold lake and some small lakes give abundance of fresh water. The land is never flooded and there are no water-powers. The climate is good and game is plentiful. Cold lake produces excellent fish.—*M. W. Hopkins, D.L.S., 1908.*

RANGE 3.

This township is reached by a fairly good trail from Eagle Butte, entering
3. the township in the north part of section 31. The surface is rolling and the soil sandy clay with large tracts of hardpan, and more suited to ranching than farming. There is no hay in this township. The only permanent water supply is Sage creek, and this is of a very poor quality. No coal, timber or water-powers are found in this township. There is no land liable to be flooded. The climate is usually dry and no summer frosts were recorded. Antelope, coyotes and jack rabbits were seen.—*M. Kimpe, D.L.S., 1909.*

The most convenient route to reach this township is the mail trail from
58. Lloydminster to Onion Lake, crossing Saskatchewan river at Hewitt Landing, by ferry, and from Onion Lake the wagon trail to Cold lake. This route is in good condition for the most of the year. The soil is clay and sand, and grain and vegetables can be grown. The surface, generally, is rolling and covered with poplar from two to eight inches in diameter, and willow brush. Scattered clumps of spruce and tamarack from four to eight inches in diameter grow along the north boundary and in the north tier of sections. Hay can be obtained in small quantities

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 3.

from the northwest quarter of section 16 and the northeast quarter of section 17. A fresh and permanent supply of water is furnished by the lakes and small creeks. The land is not liable to be flooded and there are no water-powers. Summer frosts did not occur. Wood fuel is easily available in any part of the township. There are no stone-quarries nor minerals. Game consists of moose, deer, bears, coyotes, rabbits, partridges and prairie-chickens. Whitefish are found in Frog lake.—*T. A. Davies, D.L.S., 1909.*

The St. Paul-de-Metis and Cold lake wagon road passes across this township and is very good. The soil is a rich loam with clay subsoil and covered with dense poplar up to a foot in diameter. There is no hay but there is plenty of fresh water and the land is not flooded. There are no water-powers. The climate is delightful and summer frosts are rare. No stone-quarries, coal or other valuable minerals were found.—*M. W. Hopkins, D.L.S., 1908.*

There is a good road going from the Cold Lake Indian reserve along the south side of Beaver river through this township. The soil is a rich loam with clay subsoil and is covered with poplar trees. There is no hay. The water is plentiful and pure. There are no water-powers of value. The climate is delightful and summer frosts are rare. Abundance of wood for fuel is easily obtained. No stone-quarries or other valuable minerals were found. Moose, deer, ducks and fish are plentiful.—*M. W. Hopkins, D.L.S., 1908.*

RANGE 4.

This township is reached by a fairly good trail from Eagle Butte, entering the township in the north part of section 35. The surface is rolling and the soil sandy clay with large tracts of hardpan, gumbo and gravel, and is more adapted to ranching than farming. There is no hay in this township. No permanent supply of water exists. There are no coal, timber, stone-quarries or water-powers in this township. The climate is usually dry and no summer frosts were recorded. No land is liable to be flooded. Antelope and coyotes were seen. *M. Kimpe, D.L.S., 1909.*

The most convenient route into this township is the mail trail from Lloydminster to Onion Lake. From Onion Lake the trail to Cold lake is followed as far as a small Indian settlement on the west side of Clearwater lake and in Indian reserve No. 121. Here a trail to Moose lake branches in a northwesterly direction and passes through this township. This route is in good condition for the greater part of the year. The soil of the township is a black loam for a depth of three to eight inches with a clay subsoil. The surface is rolling but is rough and hilly in the south and southwestern parts. It is covered with poplar from one to six inches in diameter, willow brush, and some scattered spruce and jackpine. Hay can be obtained in small quantities from the sloughs and marshes and some small open patches along the Moose lake trail. The water supply is fresh and permanent from the lakes, but not so plentiful as in the adjoining townships. There are no water-powers and the land is not liable to flooding. Summer frosts do not occur. Wood fuel is available in all parts of the township. No stone-quarries nor minerals were found. Game consists of moose, deer, bears, coyotes, rabbits, muskrats, partridges, grouse and ducks.—*T. A. Davies, D.L.S., 1909.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 4.

The most convenient route to reach this township is the mail trail from
58. Lloydminster to Onion Lake, crossing Saskatchewan river at Hewitt Landing, by ferry, and from Onion Lake following the Cold lake wagon trail. This route is in good condition for the greater part of the year. The soil is black loam for an average depth of two inches with clay subsoil. The surface, generally, is rolling and covered with poplar from two to ten inches in diameter, willow brush, with scattered clumps of spruce, tamarack and jackpine from two to fourteen inches in diameter. Hay can be obtained in small quantities from the few marshes. The water supply is fresh and permanent and the land is not liable to be flooded. There are no water-powers. Summer frosts do not occur. Wood is easily available on any part of the township. No stone-quarries nor minerals were found. Game consists of moose, deer, bears, coyotes, rabbits, partridges and prairie-chickens.—*T. A. Davies, D.L.S., 1909.*

There is a very good road from St. Paul-de-Metis to Cold Lake mission which
61. passes across this township. The soil is a rich loam with a clay subsoil covered with poplar, except around the swamps, where there is an abundance of hay. There is an abundance of water, all fresh. The hay land is flooded once a year. There are no water-powers. The climate is good. There is plenty of wood for fuel but no stone-quarries or other valuable minerals were found. Game is plentiful and there are fish in the lakes.—*M. W. Hopkins, D.L.S., 1908.*

The best way to reach this township is from the Moose lake and Cold lake road which is good. The soil is a rich loam with clay subsoil suitable for
62. general farming. It is covered with a thick growth of poplar and there are many sloughs and muskegs around which in the dry part of the year some hay can be cut. There are no valuable water-powers. The climate is good and summer frosts are rare. No stone-quarries, coal or other valuable minerals were seen. Moose, deer, and other game are plentiful.—*M. W. Hopkins, D.L.S., 1908.*

RANGE 5.

This township is reached by trail from Medicine Hat, entering the township
1. in the northwest of section 32. The north and centre portions of the township is rolling prairie and more suitable for ranching than farming; the remaining portion, especially that adjacent to Milk river, is so cut up by inaccessible ravines with high cut banks that it has been locally termed 'bad lands,' and is totally unsuitable for farming. The soil is for the most part sandy clay with occasional tracts of gravel and sand. There is no hay in this township. Milk river provides a permanent supply of a poor quality of dirty water, and the flats are liable to be flooded. Cottonwood and poplar up to twelve inches in diameter with thick undergrowth of willow exist in small quantities on the banks of Milk river. There is no coal, stone-quarries, or water-powers in this township. Antelope, deer, coyotes, rabbits, and rattlesnakes were seen daily. No summer frosts were recorded. The climate is variable and liable at any time to heavy thunder storms.—*M. Kimpe, D.L.S., 1909.*

This township is reached by a fairly good trail from Eagle Butte, entering
2. the township in the northwest part of section 33. The surface of the north-eastern portion of the township is rolling prairie and more adapted to ranching than farming, but that of the southwest portion is locally termed 'bad lands,' and consists chiefly of deep ravines and coulées, with precipitous cut banks to three hundred feet in height. The soil is of a poor quality and of a sandy clay nature, with

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RANGE 5.

large tracts of stone, gumbo and gravel. There is no hay in this township. A water divide exists in or about the centre of section 29, Canal creek flowing from here to the northwest, and Lost river to the southeast. The water supply, however, is not permanent. There is no coal, timber, stone-quarries or water-powers and no lands are liable to be flooded. The climate is usually dry, but liable at any time to heavy thunder storms and cloud bursts. No summer frosts were recorded. Antelope, coyotes, jack rabbits and innumerable rattlesnakes have been seen and killed.—*M. Kimpe, D.L.S., 1909.*

This township is reached by a fairly good trail from Medicine Hat, entering

3. the township in the northwest corner of section 18. The surface is for the most part heavily rolling, and has been considerably cut up by heavy rains into a series of coulées and cut banks, making the western and southern portions absolutely useless. The soil is of a sandy clay nature with tracts of gumbo and gravel. There is no hay and no permanent supply of water in this township. No coal, timber, stone-quarries or water-powers of any description are found. The climate is variable and liable to severe thunder storms and cloud bursts. No summer frosts were recorded, and no land is liable to be flooded. Antelope, coyotes and jack rabbits were seen from time to time.—*M. Kimpe, D.L.S., 1909.*

RANGE 6.

This township is reached by a good trail from Medicine Hat, entering it in

3. the northwest quarter of section 32. With the exception of a large gumbo flat stretching from section 31 to section 1, having a breadth of from one-half to two miles, the surface is water worn into a maze of coulées, with precipitous cut banks up to two hundred feet in depth and known locally as 'bad lands,' and absolutely useless for farming purposes. The soil is of a sandy clay nature with large tracts of gravel and sand. No permanent water supply exists. Canal creek runs through the township in a northwesterly direction, entering the township in section 1 and leaving it in section 31. The water is of very bad quality. There is no hay in this township. A small outcrop of coal has been worked from time to time in the northwest quarter of section 18, but it is of very poor quality. There is no timber, stone-quarries or water-powers in this township. The climate is usually dry, but liable at any time to heavy cloud bursts and thunder storms. No summer frosts were recorded and no lands are liable to be flooded. Antelope and coyotes were seen.—*M. Kimpe, D.L.S., 1909.*

This township is reached by a good trail from Medicine Hat, entering the

4. township in the north part of section 35. The part surveyed is rolling prairie with sand dunes in the southwest, and the soil for the most part is sandy clay with occasional tracts of gravel. There is no hay land and no permanent water supply in the part now surveyed. Summer frosts have been recorded. There is no land liable to be flooded. No coal or water-powers are to be found, but a little willow scrub exists along Ketchum creek. Antelope, coyotes and jack rabbits were seen.—*M. Kimpe, D.L.S., 1909.*

This township is reached by a good trail from Eagle Butte, entering the

5. township in the northeast part of section 25. The surface may be termed undulating prairie. The soil is chiefly sandy clay with occasional tracts of stony land and is more adapted to ranching than farming. There is no hay of any description, the only rancher in this township getting his hay from township 4, range 6, where he has land under irrigation. The northern part of the township is furnished

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RANGE 6.

with a fair supply of water from the irrigation creek and the southeastern portion with a good supply from Manyberries creek. No coal, timber, stone-quarries or water-powers are found in this township. Summer frosts with hail storms have been recorded. There is no land liable to be flooded. Antelope, coyotes and jack rabbits were seen.—*M. Kimpe, D.L.S., 1909.*

This township is reached by a good trail from Medicine Hat and Eagle Butte
6. entering the township in section 36. The surface is rolling prairie and the soil sandy clay with occasional tracts of stony land. It is better adapted to ranching than farming. A poor quality of hay grows in the few sloughs, but there is no permanent water supply. There are no stone-quarries, coal, timber or water-powers in this township. The climate is usually dry with no summer frosts recorded. Antelope, coyotes and rabbits were seen.—*M. Kimpe, D.L.S., 1909.*

RANGE 7.

This township is reached by a wagon trail from Coutts, either along the international boundary or via the police posts 'Writing on Stone' and 'Pendant d'Oreille.' The soil is light and composed of from six to ten inches of brown loam, sandy in places. It is most suitable for ranching purposes. The surface is very rolling prairie with no timber nor hay. There is a good supply of fresh water in the township but no water-power, and none can be developed. The climate is good for agricultural purposes and no signs of summer frosts were noticed. Coal must be used as fuel but no lignite veins were noticed. There are no stone-quarries nor minerals of economic value. No game was seen.—*J. L. Cote, D.L.S., 1909.*

This township is reached by a good trail from both Medicine Hat and Eagle
6. Butte, entering the township in the northwest part of section 36. The surface is rolling prairie. The soil is sandy clay and sandy loam for the most part with occasional tracts of stony land; it is better adapted to ranching than farming. A poor quality of hay exists on the few small sloughs. No permanent water supply exists in the township. No coal, timber, stone-quarries or water-powers are found in this township. The climate is usually dry and no summer frosts have been recorded. Antelope, coyotes and jack rabbits were seen from time to time. No lands are liable to be flooded.—*M. Kimpe, D.L.S., 1909.*

This township is best reached by a good road from Seven Persons, a station,
7. on the Crownsnest branch of the Canadian Pacific railway. The surface is rolling except in the valleys of Peigan creek and tributaries, where the banks are steep and cut up by ravines. The soil is clay or sandy clay with tracts of gravel. It is better adapted to ranching than farming. There is no timber in this township. Some scrub occurs in the valley of Peigan creek consisting of soft maple and wild cherry with a few poplar. Hay is scarce. Peigan creek and other creeks supply good fresh water, but run dry toward the latter part of the summer. There are no water-powers. The climate is dry with high winds and no summer frosts were recorded. No coal, stone-quarries or minerals are found in this township. Antelope, coyotes and jack rabbits were noticed.—*M. Kimpe, D.L.S., 1909.*

This township can be easily reached from the St. Paul and Cold lake wagon
61. road, which is in good condition. The soil is good and suitable for general farming and is covered with poplar of medium size. There is no hay land. There is a good permanent supply of good water in Moose lake in the southern part

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 7.

of the township and other lakes in the north and west. Moose river running south from sections 34 to 11 and a river in sections 5 and 8 also contain good water. These rivers are two or three chains wide and over six feet in depth. The land is not liable to be flooded. There are no water-powers in the township. The climate is delightful and summer frosts are not frequent. There is no coal, stone-quarries or other valuable minerals. Moose, deer, foxes, mink, bears and other game are plentiful and there are excellent whitefish in Moose lake.—*M. W. Hopkins, D.L.S., 1908.*

This township can be best reached from the St. Paul and Cold lake wagon road, which is very good. The soil is good and suitable for general farming. It is covered with medium-sized poplar. There is no hay land. There is a plentiful supply of good water in Beaver river which crosses the township from sections 19 to 25, 'Sandy' river in the northwest, Moose river in the southwest, and Forsyth lake in the southeast. The land is not liable to be flooded. There are no water-powers. The climate is delightful and summer frosts are not usual. There is no coal or other valuable minerals exposed. Moose, deer, bear, foxes, mink, muskrats and other game is plentiful.—*M. W. Hopkins, D.L.S., 1908.*

RANGE 8.

The soil is usually composed of from ten to fifteen inches of brown loam, 1. with a subsoil of clay and gravel intermixed. If the surface were more level it would be suitable for mixed farming, but it is now more adapted to ranching purposes. This township is reached by wagon trail from Coutts. This trail is well beaten to township 1, range 12, but is rather rough from there. The surface is very rolling prairie all over and the northern portion is badly broken up by numerous coulées which join Milk river valley. There is no timber and very little hay land was noticed. Water is not too plentiful in this township. There is a good fresh spring in section 14 and one or two small lakes in other parts, but these are inclined to be alkaline. There is no water-power and none can be developed. The climate is good for agricultural purposes and no signs of summer frosts were seen. Coal must be used as fuel. Several indications of lignite outcrops were noticed in the coulées which would insure a constant supply for all domestic purposes. There are no stone-quarries nor minerals of economic value. A few antelope were seen.—*J. L. Cote, D.L.S., 1909.*

This township is best reached from Seven Persons, on the Crowsnest branch of the Canadian Pacific railway, by a fairly good trail. The soil is of a sandy clay nature with some tracts of gravel and stones, and more adapted for ranching than farming. The surface is rolling prairie, except the northeast corner of the township, which is more level. There is no timber or scrub in this township. Hay is scarce, but in wet seasons it may be cut on sections 36 and 25. No permanent water supply is found except one spring of alkaline water in section 9. The climate is dry, with high winds, and no summer frosts were recorded. No fuel of any description was found, neither stone-quarries nor minerals. Antelope, badgers, coyotes, wolves and rabbits were seen.—*M. Kimpe, D.L.S., 1909.*

This township is best reached from Seven Persons, on the Crowsnest branch of the Canadian Pacific railway, by a fairly good wagon trail. The soil is of a sandy clay nature with large tracts of gravel and stone, and more adapted for ranching than farming. The surface forms an undulating prairie, riddled with badger holes and interspersed with large stone boulders. There is no timber or scrub of any kind. There are a few acres of poor hay land in the southeast part of section

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 8.

1. The ranchers, however, go some distance for their general supply. Peigan creek runs through the northwest part of the township in a northerly direction, this is, however, dry for about five months in the year (June to October); during its flood the average breadth is about seventy feet, three feet deep, with a current of three miles per hour. The ranchers in the township depend on their wells for water, which is of good quality but slightly alkaline. There is no land liable to be flooded. There is no water-power of any description. Variable strong winds blow almost daily, chiefly from the northwest. Summer frosts are general with showers of snow, hail and sleet. There is no fuel of any kind and no stone-quarries nor minerals. Antelope, badgers, coyotes, grey wolves and jack rabbits are seen from time to time.—*M. Kimpe, D.L.S., 1909.*

This township is best reached from Seven Persons, on the Crownest branch
8. of the Canadian Pacific railway, by a fairly good wagon trail. The soil is of a sandy clay nature with large tracts of gravel and stone, and more adapted for ranching than farming. The surface forms an undulating prairie riddled with badger holes, and interspersed with large stone boulders, with a few small clusters of box alder and wild cherry trees on the banks of Seven Persons creek, in sections 9 and 16. There is no other timber of any kind. A few acres of slough hay is found in Seven Persons coulée in the northwest part of section 16, the ranchers, however, haul their hay, which is of poor quality, from Kipp coulée, some seventeen miles distant. The water supply may be termed intermittent, as during five months of the year (June to October) the creeks are completely dried up; the few ranchers depend on wells for their supply, which is of a fairly good quality, but slightly alkaline. There is no land liable to be flooded. There is no water-power of any description. Variable strong winds blow almost daily, chiefly from the northwest. Summer frosts are general, with showers of snow, hail and sleet. A small outcrop of a very poor quality of lignite exists in Fortymile coulée in the southwest part of section 9. The ranchers, however, haul their fuel from a distance, as the quality is too poor. No other fuel exists. There are no stone-quarries nor minerals. Antelope, badgers, coyotes, grey wolves and jack rabbits are seen from time to time.—*M. Kimpe, D.L.S., 1909.*

This township can be reached by a good road that branches off from the St.
61. Paul and Cold lake wagon road at Bangs. The soil is good and suitable for general farming. It is covered with medium-sized poplar, with some scattered spruce around the muskegs. There is very little hay land in section 22. Minnie lake, in sections 22 and 23, gives a good supply of water, as does also the large creek running from section 30 to section 34. There are no water-powers. The climate is delightful and summer frosts are rare. There is no coal or other valuable minerals exposed. Moose, deer, foxes, mink, bears and other game are found.—*M. W. Hopkins, D.L.S., 1908.*

This township is easily reached by means of the wagon road from St. Paul to
62. Mosquito lake. This road is pretty good. The soil is good and suitable for general farming and covered with medium-sized poplar. There are no hay lands. Beaver river runs from section 32 to 24, 'Sandy' river across section 36 and a fine creek from section 3 to section 16 where it joins Beaver river. These are all permanent and good water supplies. There are no water-powers. The climate is delightful and summer frosts are rare. There is no coal, stone or other valuable minerals exposed. Moose, deer, bear, foxes and mink are plentiful.—*M. W. Hopkins, D.L.S., 1908.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 9.

1. This township is reached by wagon trail from Coutts. The soil is composed of from eight to sixteen inches of brown loam with a good clay subsoil. It should be good for agricultural purposes if it were not so rolling and broken. Ranching is more suitable. The surface is rolling prairie with no timber nor hay lands. There is plenty of fresh water in surface sloughs. There is no water-power and none can be developed. Coal must be used as fuel. Some lignite outcrops were noticed in the coulées. There are no stone-quarries nor minerals of economic value. A few antelope were seen. The climate is good for agricultural purposes, with plenty of rain and no indication of summer frosts.—*J. L. Cote, D.L.S., 1909.*

6. This township is reached by a fairly good trail from Medicine Hat into the north part of section 36. The surface is rolling and the soil for the most part of a sandy nature, with tracts of gravel and stone and more suitable for ranching than farming. There is no hay in this township and no coal, wood, permanent water supply or water-power. The climate is usually dry and no summer frosts were recorded. Antelope, coyotes, badgers and jack rabbits were seen from time to time.—*M. Kimpe, D.L.S., 1909.*

7. This township is best reached from Seven Persons on the Crowsnest branch of the Canadian Pacific railway by a fairly good wagon trail. The soil is of a sandy clay nature with large tracts of gravel and gumbo and more adapted to ranching than farming. The surface is an undulating prairie riddled for the most part with badger holes and interspersed with large tracts of gravel and stone. The land is much cut up by coulées, the largest being Fortymile coulée. A little slough hay is at times obtained in Fortymile coulée. The water supply may be termed intermittent, as during the greater portion of the summer the small creeks and long lake are completely dry. There is no land liable to be flooded. No water-powers are found. Variable strong winds blow daily and summer frosts with occasional showers of snow, hail and sleet occur. A small outcrop of poor quality of lignite was found in Forty mile coulée on the east boundary of section 10. There are no stone-quarries nor minerals. Antelope, badgers, coyotes, grey wolves and jack rabbits were seen daily.—*M. Kimpe, D.L.S., 1909.*

8. This township is best reached from Seven Persons, a station on the Crowsnest branch of the Canadian Pacific railway, by a good wagon road entering the township in section 36. The surface is rolling prairie, the soil sandy or clay sandy loam. It is better adapted for ranching than farming, although farming could be carried on successfully in wet seasons. There is no timber or fuel of any description in this township. Water is found in some small creeks which must run dry in the summer. No coal, stone-quarries or minerals are found in this township. The climate is dry with high wind. No summer frosts were recorded. Coyotes and antelope were noticed.—*M. Kimpe, D.L.S., 1909.*

61. This township is easily reached by the St. Paul and Lac LaBiche wagon road, which is very good. The soil is rich and suitable for general farming and chiefly covered with medium poplar. There is a large muskeg in sections 29, 31 and 32. A large creek runs from section 31 to section 25. There is a good supply of fresh water all over the township. There are no water-powers and the land is not liable to be flooded. The climate is delightful and summer frosts are rare. Coal, stone or other valuable minerals were not discovered. Moose, deer, mink, rats, foxes and other game are found.—*M. W. Hopkins, D.L.S., 1908.*

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 9.

62. This township can be reached from the St. Paul and Lac LaBiche wagon road which is good. The high land is rich but there is muskeg fringed with spruce and tamarack that may be valuable for timber but it is very narrow and not large. The muskegs themselves have only small scrub. One muskeg extends from sections 35 and 36 to section 2, and another from sections 32 and 33 to sections 6 and 5. There is no hay lands. There is a large lake in sections 11 and 2. Fresh water is plentiful all over. There are no water-powers. The climate is delightful and summer frosts are rare. Coal, stone or other valuable minerals were not discovered. Moose and deer are plentiful and other game was seen.—*M. W. Hopkins, D.L.S., 1908.*

RANGE 10.

This township is reached by wagon trail from Coutts. The soil as a rule is composed of from eight to eighteen inches of good brown loam. Owing to the rolling surface it is most suitable for ranching purposes. The surface is rolling prairie with no timber nor hay lands. There is an abundant supply of fresh water from creeks but no land is liable to be flooded. There is no water-power and none can be developed. The climate is suitable for agricultural purposes. No summer frosts were seen. Coal must be used as fuel but no lignite outcrops were seen. There are no stone-quarries nor minerals of any economic value. No game was noticed.—*J. L. Coté, D.L.S., 1909.*

3. This township is reached by wagon trail from either Warner, Milk river or Coutts. The soil is very light through this township and composed of brown loam from four to ten inches in depth, with subsoil, of gravelly nature. It is most suitable for ranching purposes, although cultivation could be carried on to a considerable extent. The surface is very rolling prairie with no timber, nor hay lands. Water is fairly plentiful in this township. There are several indications of springs in the coulées at the south side and quite a number of surface sloughs were noticed. There is no water-power and none can be developed. The climate is good for agricultural purposes and no indications of summer frosts were noticed. Coal must be used as fuel. Several signs of lignite outcrops were seen in the coulées, in the southwest corner of the township. There are no stone-quarries nor minerals of economic value. A few antelope were seen.—*J. L. Coté, D.L.S., 1909.*

4. A good wagon trail from Warner passes through the south part of this township. The soil is usually composed of from twelve to eighteen inches of brown loam. Gravel shows in some places and the knoll tops are often covered with stones. It is suitable for agricultural and ranching purposes. The surface is rolling prairie with no timber and no hay. Apart from surface sloughs, which are not of a very permanent nature, water is very scarce in this township. No land is liable to be flooded. There is no water-power and none can be developed. The climate is good for agricultural purposes and no signs of summer frosts were noticed. Coal must be used as fuel but no lignite outcrops were seen. There are no stone-quarries nor minerals of economic value. Coyotes and gophers were seen.—*J. L. Coté, D.L.S., 1909.*

5. This township is reached by a wagon trail from Grassy Lake station on the Canadian Pacific railway. The soil is composed of brown loam and clay with quite a lot of gravel intermixed in places. It is suitable for agricultural or grazing purposes. The surface is rolling prairie with no timber. No hay lands were noticed. Apart from Etzikom creek and a few small surface sloughs the water

TOWNSHIPS WEST OF THE FOURTH MERIDIAN.

RANGE 10.

is very scarce. No land is liable to be flooded. Etzikom creek was in high flood at the time of survey (June) causing a lot of trouble and delay, and making it hard to get at the true nature of the stream. There are no rapids in Etzikom creek but some power could be developed by the construction of dams. The climate is suitable for agricultural purposes and no signs of summer frosts were seen. Coal must be used as fuel. Several lignite outcrops were noticed in Etzikom coulée which should ensure a good local supply. There are no stone-quarries nor minerals of economic value. Antelope, coyotes and kit foxes were seen, as well as numerous duck.—*J. L. Coté, D.L.S., 1909.*

This township is reached by a wagon trail from Grassy Lake station on the
6. Canadian Pacific railway. The trail was in good condition, except for the steep grades required to cross Chin coulée. The soil is a good brown loam from twelve to eighteen inches in depth with clay subsoil. It is suitable for mixed farming. The surface is fairly level except in the south end near Etzikom coulée, which is rolling and hilly. There is no timber and no hay lands were seen. Water is scarce in this township. There is a spring on the southwest quarter of section 28, and Etzikom creek touches the south tier of quarter sections. There is also a large pond in Chin coulée but this water is alkaline. No lands are liable to be flooded. There is no water-power and none can be developed. The climate is very suitable for farming purposes. No indications of summer frosts were noticed. Coal must be used entirely for fuel. However, numerous outcrops of lignite were found in both Chin coulée and Etzikom coulée. These veins are from one foot to three feet wide. There are no stone-quarries nor minerals of economic value. Antelope were seen.—*J. L. Coté, D.L.S., 1909.*

This township is reached by a wagon trail from Grassy Lake station on the
7. Canadian Pacific railway. The soil is composed of brown loam and clay and although suitable for mixed farming it is badly cut up by Fortymile coulée and Chin coulée and therefore is better for ranching purposes. The surface is lightly rolling prairie with no timber nor hay. Water is scarce in the township except in Fortymile coulée and Chin coulée and this is inclined to be alkaline. There is no water-power and none can be developed. The climate is good for agricultural purposes and no indications of summer frosts were seen. Coal must be used as fuel and lignite outcrops were found along Fortymile and Chin coulées thus ensuring a constant supply. There are no stone-quarries nor minerals of economic value. Plenty of antelope were seen.—*J. L. Coté, D.L.S., 1909.*

This township can be reached by wagon trail from Grassy Lake station on
8. the Canadian Pacific railway, Burdett or Bow island. Trails were found to be in good order. The soil is usually composed of eighteen inches of brown loam, with clay subsoil. It is suitable for mixed farming or grazing purposes. The surface is fairly rolling prairie with no timber nor hay lands. Water is very scarce in this township. Settlers usually haul it from Fortymile coulée, but this is almost invariably alkaline. No lands are liable to be flooded. There is no water-power and none can be developed. The climate is good for agricultural purposes with no indications of summer frosts. Coal must be used entirely as fuel. This, however, is easily obtainable, as indications of lignite veins were noticed all along Fortymile coulée. These veins are from two to three feet thick and should answer all domestic purposes. There are no stone-quarries nor minerals of economic value. There are plenty of antelope.—*J. L. Coté, D.L.S., 1909.*

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RANGE 10.

61. This township is easily reached by the St. Paul and Lac LaBiche wagon road, which is very good. The soil is rich and suitable for general farming, and covered with medium sized poplar. There is a little spruce and tamarack around a few scattered muskegs. There is a large fresh water lake in the southeast part of the township and large creeks in all parts. The land is not liable to be flooded, and there are no water-powers. The climate is delightful and summer frosts are rare. There is no coal, stone or other valuable minerals exposed. Moose, deer, foxes, mink and other game are found.—*M. W. Hopkins, D.L.S., 1908*

62. The St. Paul and Lac LaBiche wagon road passes through this township from section 3 to section 31. There is a big muskeg extending from sections 35 and 36 to section 1 which is fringed with spruce and tamarack, and another in sections 7 and 8. A nice fresh water creek runs from section 4 to section 30 where it joins Beaver river. The soil is good and suitable for general farming. The high lands are chiefly covered with medium size poplar. There are no hay lands nor water-powers. The climate is delightful. There are no coal, stone or other valuable minerals exposed. Moose, deer, foxes, mink, rats and bears are to be had.—*M. W. Hopkins D.L.S., 1908.*

RANGE 11.

A good wagon trail from Coutts, following the international boundary, comes **1.** into township 1, range 12, and from here easy access is gained to this township. As a rule the soil is a good brown loam, from eight to fourteen inches deep, with clay subsoil, except along the coulées, where gravel and gumbo are encountered. This should be suitable for mixed farming and grazing purposes. The surface is gently rolling except where broken by deep rough coulées, which are quite frequent on the east and west sides. These, however, have good feed in the bottom. There is no timber nor hay. A good creek flows through this township. It is about eight feet wide and eighteen inches deep, with a current of about three miles an hour. No land is liable to be flooded. There is no water-power and none can be developed. The climate is good, with plenty of rainfall and no indication of summer frosts. Wood as fuel can be obtained in the Sweet-grass hills to the south, but the settlers must soon resort to coal as their mainstay. Outcrops of lignite were noticeable in most of the coulées. There are no stone-quarries nor minerals of economic value. A few antelope were seen.—*J. L. Coté, D.L.S., 1909.*

3. This township is reached by wagon trail from Warner. The soil is from eight to sixteen inches of brown loam with gravel and hardpan in many places. It is suitable for grazing and agricultural purposes in the northwest part. The surface is rolling prairie, with no timber or hay. Water is scarce in this township, but the coulées in the southern part have a few small springs. There is no water-power and none can be developed. The climate is good and no summer frosts were noticed. Coal must be used as fuel. Some lignite outcrops were noticed in the coulées, which should ensure a good domestic supply. There are no stone-quarries and no minerals of economic value were noticed. Coyotes were seen.—*J. L. Coté, D.L.S., 1909.*

4. A good wagon trail from Warner passes along the south boundary of this township. The soil is chiefly composed of a light brown loam from eight to twelve inches deep, and is good for agricultural or ranching purposes. The clay subsoil usually shows quite a lot of gravel intermixed. The surface is gently rolling prairie in most places. There is no timber nor hay land. Water seemed scarce

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RANGE 11.

in this township, except for several small sloughs, which would probably soon dry up. As no tests were made the supply is doubtful. There is no water-power and none can be developed. The climate is very suitable for agricultural purposes. No indications of summer frosts were noticed. Coal, the only fuel obtainable, can be obtained in township 3, range 12, but no lignite veins were noticed. There are no stone-quarries nor minerals of any economic value. No game was seen, though probably there are some antelope.—*J. L. Coté, D.L.S., 1909.*

5. This township may be reached by wagon trail, either from Grassy Lake station, on the Canadian Pacific railway, or Warner. The soil consists of a light brown loam with quite a lot of gravel intermixed, and is good for ranching purposes. The surface of this township is quite rolling and badly broken at the north end of Etzikom coulée. Etzikom creek was in high flood at the time of survey (May), and caused a lot of trouble and delay. There is no timber, and no hay lands were seen apart from Etzikom coulée, where some could be cut along the creek. There is plenty of fresh water in Etzikom coulée, but apart from that it appeared none too plentiful. There is no water-power, although it might be developed to a certain extent in Etzikom creek by the construction of dams. The climate is good for all agricultural purposes, and no summer frosts were noticed. Coal will have to be used as fuel, and lignite outcrops were noticed along Etzikom coulée. There are no stone-quarries, nor minerals of economic value. A few antelope were seen.—*J. L. Coté, D.L.S., 1909.*

6. This township may be reached by wagon trail either from Grassy Lake station on the Canadian Pacific railway, or Warner on the Athabaska Railway and Irrigation Company's railway. The trails are in good condition. On the whole the soil is composed of from eight to twelve inches of brown loam with clay intermixed which makes it good agricultural land. It is also suitable for grazing purposes. The surface is prairie, rolling, but not very much, except where broken up by Chin coulée. There is no timber, and no hay lands were noticed. Water at present is very scarce, but the settlers are all new, and have had no time to sink test holes. At present they haul it from a spring in township 6, range 10 or from Etzikom creek. No land is liable to be flooded. There is no water-power and none can be developed. The climate is good for all agricultural purposes and no indications of summer frosts were noticed. Settlers will depend entirely on coal for their fuel supply. This will be either hauled from the railway or mined in the vicinity, as numerous lignite outcrops were seen in Chin coulée. There are no stone-quarries nor minerals of economic value. A few antelope were seen.—*J. L. Coté, D.L.S., 1909.*

7. This township may be reached by wagon trail from Grassy Lake station on the Canadian Pacific railway. This trail is in good condition. The soil is usually composed of from twelve to sixteen inches brown loam with a good clay subsoil. It should be suitable for mixed farming or grazing. The surface is rolling prairie with no timber. Very little hay land was noticed, although enough upland hay can always be cut for domestic purposes. Water is rather scarce in this township and settlers will most probably have to haul water some distance. No land is liable to be flooded. There is no water-power and none could be developed. The climate is good for mixed farming and no indications of summer frosts were seen. This part of the country is entirely dependent on coal for its fuel supply. Lignite outcrops were noticed in several places along Fortymile coulée and the settlers have

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RANGE 11.

started opening prospect holes. Also a mine is operated about nine miles south of Grassy lake. There are no stone-quarries nor minerals of economic value. Plenty of antelope were seen.—*J. L. Coté, D.L.S., 1909.*

8. This township is reached by a good wagon trail from either Grassy Lake station on the Canadian Pacific railway or Burdett. The soil is composed of from six to eighteen inches of brown loam with a good clay subsoil and although gravel shows in places, it is suitable for all agricultural purposes. There is no timber and no hay lands were noticed. Water is scarce in this township apart from Fortymile coulée and even here the water is alkaline. No water-power can be developed. The climate is very suitable for all agricultural purposes and no indications of summer frosts were seen. Coal must be used as fuel. Several lignite outcrops were noticed in Fortymile coulée, which should insure a constant supply for all domestic purposes. There are no stone-quarries and no minerals of any economic value were discovered. Many antelope were seen.—*J. L. Coté, D.L.S., 1909.*

RANGE 12.

4. A good wagon trail coming from Warner on the Alberta Railway and Irrigation Company's railway, passes through this township. The soil is generally composed of from eight to sixteen inches of brown loam, though in places beds of hard gravel were encountered. This should be good for agricultural purposes. The surface is rolling prairie. There is no timber. Slough grass can be cut for local supply, but no meadows were seen. There are no creeks or lakes in this township, and the sloughs would probably soon dry up, so the water supply is doubtful till tests are made to some depth. There is no water-power and none can be developed. The climate is good for agricultural purposes. No indications of summer frosts were noticed. Coal must supply the fuel for all purposes. The settlers have opened a mine in township 3, range 12, from which they draw their supply. There are no stone-quarries and no minerals of any economic value were found. No game was seen.—*J. L. Coté, D.L.S., 1909.*

57. The part of this township north of Saskatchewan river is included in Indian reserve No. 125. The remainder consists of sections 5, 6 and 7, and parts of sections 4, 8, 9, 17 and 18. Though there is no trail to this township it is accessible from the south as there are some Russian settlers in township 56. The soil consists of from ten to thirty inches of black loam overlying a sandy subsoil. The soil is rich and should produce all the usual products of the district. The surface is mostly covered with small poplar and willow. Near the banks of the river the trees are larger and some spruce grows. The average diameter of the remaining spruce is about ten or twelve inches. Poplar and balm of Gilead averaging ten inches and some white birch averaging six inches also grow near the river. A small amount of hay could be cut around some small marshes in sections 6 and 7. Some small sloughs in sections 5, 6 and 7 give fresh water. Saskatchewan river of course gives abundance of the finest fresh water. No water-power could be developed, as no streams, other than the Saskatchewan are in this township. During the middle of September, 1909, while this part of the township was being subdivided, the weather was cold, but in adjacent townships excellent crops of oats and vegetables were grown this year. Fuel is plentiful in all parts of the township. No coal or lignite seams were noted nor any valuable minerals. A few moose, a considerable number of red deer, some bear, ruffed grouse and prairie-chicken are found. Ducks are found in the sloughs.—*H. S. Holcroft, D.L.S., 1909.*

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RANGE 14.

A good wagon trail leads from Coutts to this township. The soil is a light
1. brown loam with a fairly good percentage of gravel intermixed. It is suitable for mixed farming. The surface is easily rolling prairie with no timber. No hay lands were noticed but water is very scarce in this township and inclined to be alkaline. One or two settlers have found good water with wells. No land is liable to be flooded. There is no water-power and none can be developed. The climate is suitable for agricultural purposes and no indications of summer frosts were noticed. Coal must be used as fuel. This can always be obtained from the railway station at Coutts. There are no stone-quarries nor minerals of economic value. There is no game.—*J. L. Coté, D.L.S., 1909.*

RANGE 15.

The nearest railroad point to this township is Vegreville on the line of the
64. Canadian Northern railway. From Vegreville northerly there is a good trail to Whitefish Lake post-office. From there westerly through township 63, ranges 13, 14 and 15 there is a fairly good winter trail, but it is passable only as a summer trail as far as the east boundary of township 63, range 15. From this point the sleigh trail was cut through townships 63 and 64, range 15. This trail follows Beaver river through the greater part of the township. There is considerable second-class soil in this township consisting of black or sandy loam from six to eighteen inches in depth, with a clay subsoil. There is also a little sandy soil to the full depth of eighteen inches and in other places the surface soil is very shallow, practically all of which rests on a clay subsoil. A small amount of gravel was found in scattered spots. The muskeg soil is composed of moss. The township is of a rolling nature and is timbered throughout with poplar, balm of Gilead, spruce, tamarack and a small quantity of small birch. Poplar and balm of Gilead from two to twelve inches in diameter constitute a great part of the timber of this township. A number of small muskegs occur scattered throughout the township, these being timbered with a more or less scrubby growth of spruce and tamarack from three to ten inches in diameter. On parts of sections 23, 24, 25, 26, 27, 34, 35 and 36 there are patches of heavy spruce, tamarack and balm of Gilead from six to thirty inches in diameter. There is also a small amount of jackpine from four to twelve inches in diameter scattered throughout this township. A small amount of hay could be cut on numerous small patches of hay land along Beaver river and a creek flowing through sections 7, 16, 17 and 18 into the river. No large hay meadows, however, were found in this township. All the water is fresh and the supply is sufficient and permanent. Beaver river flows through this township, entering in section 31, and flowing through sections 1, 2, 10, 11, 15, 16, 21, 28, 29, 31, 32 and 33. This stream is from sixty to one hundred and fifty feet in width and from one to four feet deep. The current is not strong, the flow probably being no greater than one mile per hour, and the volume of water is small except in flood season. A creek enters this township in section 7, and flows through sections 7, 16, 17 and 18 into Beaver river. This stream is from ten to one hundred feet wide and from one to six feet deep, being quite stagnant. Owing to the rolling nature of the country I do not think the land is liable to serious spring floods. No water-power could be developed in this township. General indications point to a climate suitable for agricultural purposes. Wood is the only fuel available in this township but this is to be had in abundance in every section. No stone-quarries were located, nor minerals of economic value. Moose, caribou and black bear are plentiful in this district. Partridges were also found, but no prairie-chickens were seen.—*Wm. H. Waddell, D.L.S., 1908.*

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RANGE 15.

65. This township is reached by way of the main trail from Vegreville to Lac LaBiche settlement, and a branch from this trail westerly from a point near Whitefish Lake post-office. The latter trail is passable only in the winter time from a point near the east boundary of township 63, range 15. There is also another winter trail into this township branching from the Lac LaBiche trail, in township 65, range 12, and running westerly into ranges 13, 14 and 15. A large proportion of the soil in this township is second-class, consisting of a black or sandy loam on a clay subsoil. In the northeast quarter of the township there is a small area of clay soil from nine to twelve inches in depth resting on a sandy subsoil. Some gravel subsoil was noted, and in a number of places the soil is of a sand and gravel nature, rating third and fourth-class. The soil in the muskegs is black muck and moss, grading fourth-class. The surface is of a rolling nature and is almost entirely timbered with balm of Gilead, poplar, spruce and tamarack from three to twenty-four inches in diameter. In the more northerly portions of the townships there are small patches of country with a growth of willow underbrush. A large part of this township was burned over a few years ago and is growing up now with scrub spruce. A great percentage of the timber of this township is poplar and balm of Gilead from four to twelve inches in diameter. Sections 1, 2, 11, 12, 13, 14, 15, 21, 22, 23, 24, 25, 26, 27, 32, 33, 34, 35 and 36 are more or less burned over. Patches of spruce and tamarack from six to twenty-four inches in diameter were found on sections 2, 3, 4, 5, 10, 11, 14, 15, 16, 17, 19, 20, 22, 26, 27, 29, 33, 34. Considerable hay could be cut from the shores of the small lakes occurring in this township, but no large meadows were found. The water appears to be all fresh, and the numerous small lakes furnish a permanent supply. No large creeks flow through this township, but there are a number of small streams which appear to contain water until frozen up during the winter. Owing to the rolling nature of the township, I do not think the land is liable to serious floods. No water-power is available in this township. General indications point to a climate suitable to mixed northern farming. Wood is the only fuel available in this district, but this is to be found in abundance. No stone-quarries were located, and no minerals of economic value were known to occur. Moose, caribou, black bears and partridges are plentiful.—*W. H. Waddell, D.L.S., 1908.*

RANGE 16.

67. The trail from Athabaska Landing to Lac LaBiche settlement passes through the middle of this township and was found to be in good condition. The soil is composed of about five inches of black loam with sand and clay subsoil. It is suitable for mixed farming. The surface is mostly rolling and, as a rule, covered with small poplar and willow brush. There is no timber of any commercial value, but there is plenty of hay throughout the whole township. Plenty of fresh water is always obtainable from the numerous creeks which drain through the township. There is no water-power and none can be developed. The climate in winter is very good, and from all accounts received, no summer frosts are prevalent. Wood as fuel is obtainable in nearly every section, but no lignite veins were found. There are no stone-quarries nor minerals of any economic value. Moose and caribou seemed to be plentiful, and signs of bear were noticed.—*J. L. Coté, D.L.S., 1908.*

RANGE 17.

1. A wagon trail running northwest from Coutts enters this township in section 24. This was found in good condition. The soil, on the whole, is a light brown loam with gravel mixed throughout. Small patches on the two eastern tiers of sections are suitable for mixed farming, but the remainder is too rolling and hilly to be of any use except for grazing purposes. The surface is very

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RANGE 17.

heavily rolling prairie with numerous coulées and ravines. There is no timber nor hay lands. Several good strong springs are located in this township, and although some are slightly alkaline they should assure an abundant supply of water. In addition there are numerous small sloughs of fresh water throughout. No land is liable to be flooded. There is no water-power and none can be developed. The climate is good and no indications of summer frosts were noticed. Coal is the only fuel available. A mine is being opened on the southeast quarter of section 35. This is a lignite vein reported to be five feet thick. There are no stone-quarries nor minerals of economic value. Coyotes, duck and geese were noticed.—*J. L. Côté, D.L.S., 1909.*

Two trails lead to this township from Stirling. One follows the section lines east from Stirling for a few miles and then follows along the south side of Etzikom coulée, while the other runs along the north side. They are both very rough in places but, on the whole, are very good trails. The township is rolling prairie with the exception of those sections cut by Etzikom coulée. No timber or fuel is found, and there are no stone-quarries or minerals. There are a few sloughs in the northern part of the township in which hay grows. The creek in Etzikom coulée is very muddy in the spring, but dried up in the summer and fall. No game was seen. Most of the township is fenced and broken, and a few crops have been raised. The soil is a dark loam.—*W. H. Young, D.L.S., 1909.*

The trail to this township from Stirling runs along the north side of Etzikom coulée as far as township 6, range 17, from which it branches north, and though rough, is quite hard most of the year. The township is rolling prairie with the exception of sections 35 and 36, which are deeply cut by Chin coulée. No timber or fuel of any kind is found and there are no stone-quarries or minerals. Hay grows over the whole surface, more especially in the sloughs of which there are quite a number scattered over the whole township. No game was seen. Some of the sections have been fenced and partly broken, but no crops have yet been harvested. The soil is generally a dark loam and no doubt will yield excellent crops.—*W. H. Young, D.L.S., 1909.*

(*East outline*).—There is no wagon trail to these townships and I found **65 & 66.** it necessary to use pack horses. The soil is inclined to be light on the whole, being composed of four or five inches of black loam and a sandy subsoil. It is suitable for mixed farming. The surface is generally rolling and covered with small poplar bush with a small growth of poplar and willow. There are a number of small lakes and muskegs. There is no timber of any commercial value. No large hay lands were seen although for home use plenty could be cut with a little clearing of land. Plenty of fresh water is always obtainable from the numerous lakes and small muskegs but no land is liable to be flooded. There is no water-power and none can be developed. The climate is good, and no signs of summer frosts were found. Fuel in the form of wood may be obtained in abundance but no lignite veins were found. There are no stone-quarries, nor minerals of any economic value. Moose and caribou seem to be very plentiful.—*J. L. Côté, D.L.S., 1908.*

The Government wagon trail from Athabaska Landing to Lac LaBiche settlement passes through the middle of this township and was found to be in good condition. The soil is composed of about four inches of black loam, with a clay subsoil. It is suitable for mixed farming. The surface is fairly level and covered with poplar and spruce bush. There is some good commercial spruce in sections 28 and 21 from twelve to thirty inches in diameter and in section 2 from

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ten to twenty-four inches in diameter. There is very little hay, except for domestic purposes. Plenty of fresh water can always be obtained from the large lakes in this township. There is no water-power and none can be developed. The climate is good in winter and from accounts received no summer frosts are prevalent. Wood as fuel can be had on every section but no lignite veins were found. There are no stone-quarries, nor minerals of any economic value. Moose and caribou seemed to be plentiful.—*J. L. Coté, D.L.S., 1908.*

(*East outlines*).—We had to pack into these townships from the wagon trail **67 & 68.** to Lac LaBiche, which crosses on the east boundary of section 24, township 67. The soil as a rule is composed of about four inches of black loam with a clay subsoil and is suitable for mixed farming. The surface is generally undulating and covered with small poplar and willow. Very little hay land was seen. Fresh water can always be obtained from the small muskegs and lakes, but no land will be flooded. No water-power can be developed. The climate is good and no indications of summer frosts were noticed. Wood as fuel can be obtained in abundance, but no lignite veins were noticed. There are no stone-quarries. No minerals of any economic value were discovered. Moose and caribou seemed to be plentiful.—*J. L. Cote, D.L.S., 1908.*

RANGE 18.

A wagon trail from Coutts runs along the north boundary of this township, **1.** while another from Milk river also touches it. These were in good condition. The soil on the whole is a light brown loam and should be suitable for mixed farming, but owing to the rolling surface it is better for grazing purposes. There is no timber, and no hay lands were noticed. The south fork of Milk river touches the northwest corner of this township, from which an abundant supply of fresh water is always procurable. In addition there are several small lakes of fresh water in the southern part, which held plenty of water at the time of survey (July). No available water-power was noticed. The climate is good and no summer frosts were observed. Coal must be used as fuel. No lignite veins were noticed in this township, but in the township to the east a mine has been opened. There are no stone-quarries and no minerals of any economic value were encountered. Coyotes and jack rabbits were seen. The south and east halves of this township are very rolling and hilly, without any bush or scrub of any description. The northwest quarter is gently rolling prairie.—*J. L. Coté, D.L.S., 1909.*

(*North and east outlines*).—A sleigh trail to Lac LaBiche settlement crosses **65.** this outline, but I found it necessary to use pack horses. The soil is rather light, having considerable sand and gravel in it, but is suitable for grazing purposes. The surface is rolling, generally, and covered with small poplar and willow. There is no timber of any commercial value, and no hay lands were found. Plenty of fresh water can always be had from the lakes and small muskegs. There is no water-power that can be developed. The climate is good and no indications of summer frosts were seen. Wood as fuel is plentiful, but no lignite veins were noticed. There are no stone-quarries. No minerals of economic value were seen. Moose and caribou are plentiful.—*J. L. Coté, D.L.S., 1908.*

The wagon trail to Lac LaBiche passes through the northwest corner of this **66.** township, from which I opened a trail southeast into the centre of it. The soil is composed of about four inches of black loam with a clay subsoil, and is suitable for mixed farming. The west half of this township is muskeg, while the

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northeast part is undulating and brushy. There is some bush in the southeast quarter. In section 5 there is some good spruce bush, sixteen to thirty inches in diameter, and in section 1 from twelve to twenty-four inches. There is no hay of any commercial value, though some might be cut for feeding purposes. Plenty of fresh water can always be obtained from the muskegs and from Buck lake, but no land is liable to be flooded. There is no water-power and none could be developed. The climate is good and no summer frosts are prevalent according to local information. Wood as fuel may be obtained on every section, but no lignite veins were found. There are no stone-quarries nor minerals of economic value. Moose and caribou seemed to be plentiful, and some signs of bear were noticed.—*J. L. Coté, D.L.S., 1908.*

(*East outlines.*)—We had to pack into these townships from the wagon trail **67 & 68.** Biche settlement crosses the east boundary of section 12, township 67, but it was necessary to resort to packing to reach township 68. Township 68 and the north half of township 67 is chiefly muskeg, but the south half of township 67 is rich black loam and suitable for mixed farming. The muskegs are level and covered with small spruce and tamarack, while the high land is covered with small poplar and willow. There is no timber of any commercial value. No hay lands were noticed. Plenty of fresh water may be obtained from the muskegs at all times of the year, but no land is liable to be flooded. No water-power can be developed. The winter climate is good. Wood as fuel can be obtained on every section, but no lignite veins were noticed. There are no stone-quarries nor minerals of economic value. Moose and caribou seemed plentiful.—*J. L. Coté, D.L.S., 1908.*

RANGE 19.

This township may be reached either from Milk river or Coutts by wagon **1.** trail. The soil is composed chiefly of a brown loamy clay, running from eight to fourteen inches in depth, with a clay subsoil. It is suitable for mixed farming and ranching, especially the latter in the southern half which is very rolling. The surface is rolling prairie with no timber. No hay lands or meadows were noticed but the prairie grass of the uplands is cut and used for feeding purposes. This township is traversed by Milk river which ensures a constant supply of fresh water, but no land is liable to be flooded. Milk river averages nearly one chain in width and at the end of July was from one foot to eighteen inches in depth, although many deep places abound, where the current is very slow. The average speed of the current would be between two and three miles an hour. No waterfalls were seen but plenty of power can be developed by the construction of dams along the river. The climate is good for all agricultural purposes. There is plenty of rain and no indications of summer frosts were noticed. Coal must be used as fuel. No lignite veins were noticed, but a coal mine is being opened in township 1, range 17. There are no stone-quarries nor minerals of economic value. No game is found except duck.—*J. L. Coté, D.L.S., 1909.*

RANGE 20.

Wagon trails from Coutts and Milk river touch township 1, range 18, and **1.** from here, there is good travelling across prairie to this township. As a rule the soil is composed of from eight to fourteen inches of brown loam and clay, with gravel intermixed. This makes good ranching country and where not too rough should be suitable for mixed farming. The west side of this township is very rolling and hilly, but on the east side it is more gently rolling prairie. There is no timber nor hay meadow in this township but a certain amount of slough grass can

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RANGE 20.

be cut around a great many of the small sloughs and lakes. Water is abundant. There are several small springs of fresh water; although a few of the ponds are alkaline, the greater part of them hold fresh water. The south fork of Milk river touches the southeast corner. No land is liable to be flooded. There are no waterfalls although power could be developed by construction of dams. The climate is good and no indications of summer frosts were noticed. Coal is the only available fuel and although no lignite veins were noticed, a mine has been opened in township 1, range 17. There are no stone-quarries nor minerals of economic value. Coyotes, ducks and geese were seen.—*J. L. Côté, D.L.S., 1909.*

RANGE 25.

62. This township may be reached by the settlers' trail north from Edison post-office to township 61, range 26, thence by a new trail opened up through township 62, range 26, and entering township 62, range 25 in section 18. In the northern part of township 61, range 26, there is a large muskeg which must be crossed and which makes the trail impassable for wagons during the summer months. The soil on the uplands is a loam from three to eighteen inches or more in depth on a clay subsoil, and should be well adapted for mixed farming. Owing to the large amount of muskeg about fifty per cent of the township is fourth-class, while twenty per cent is third, and thirty per cent first or second-class. This township is timbered throughout with worthless timber except a small strip of good spruce and poplar on the north shore of the lake in sections 26 and 27. Large quantities of hay could be cut around the shores of the several lakes in this township and along the larger creeks. In dry seasons the quantity would be very large. All water is fresh, permanent and of the best quality. There are two large creeks flowing through the township; one through sections 21, 28, 33 and 34 is from twenty to thirty links wide and from three to four feet deep, and the other flowing through sections 12, 11, 2 and 3 is about fifty links wide and from four to six feet deep, the rate of flow in each case being about three miles per hour. No water-power could be developed from either of these streams. As the country is quite level and the streams have very low banks considerable country will be flooded during wet seasons. This would be only for a short time, however, and would include only the ordinary hay lands. The climate appears to be about the same as that of Edmonton, with no summer frosts. Wood for fuel may be had in any part of the township, but no coal or lignite is known to occur. No stone-quarries nor minerals of economic value were found. Game, consisting of moose, jumping deer and black bears is found in this township, while ducks are also plentiful on the lakes.—*W. H. Waddell, D.L.S., 1909.*

63. This township is reached by a wagon trail north from Edison post-office through townships 60, 61 and 62, range 26, thence easterly through township 62, range 25, thence westerly through townships 62 and 63, range 26, thence easterly to the central meridian of this township. Owing to a large muskeg in the north of township 61, range 26, this trail is impassable for wagons in the early summer or for loaded wagons at any time except when the frost is in the ground. A large part of this township is muskeg, but the soil on the ridges is loam from two to six inches in depth on a sandy clay subsoil. About thirty per cent of the township is of this nature and I have rated it as second-class. The remainder of the township is muskeg or very sandy and of a useless character. The best of the soil should make good mixed farming land. With the exception of a few small muskegs this township is wooded throughout with a worthless class of scrubby timber. Most of the township was burnt over a number of years ago and has since grown up with second growth.

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RANGE 25.

There is considerable growth of hay in the more open patches, but the scrub and fallen timber will make it impossible to cut at present. Considerable hay can be cut around the lakes, especially during dry seasons. All water is fresh and the supply is sufficient and of a permanent nature. No streams of importance occur, but water can be procured in any of the muskegs. As the higher portion of the township is of a more rolling nature than the townships to the south, I do not think there is much danger of any of the better land being flooded. No water-powers can be developed in the township. The climate appears similar to that of the Edmonton district to the south as no summer frosts were noticed. Wood for fuel can be procured in abundance in any part of the township, but no coal or lignite was seen. No stone-quarries nor minerals of economic value are known to occur. Game consisting of moose, deer and black bears are plentiful; partridges were also seen.—*W. H. Waddell, D.L.S., 1909.*

RANGE 26.

62. This township is reached by following the trail from Morinville to Edison, and then a trail branching northwesterly from it three miles east of Edison. This latter trail passes through townships 60, range 25 and 61, range 26 into this township. Owing to a large muskeg in the northern part of township 61, range 26, this trail is impassable for wagons in the summer season. The soil in the higher parts of the township is principally black loam from three to twelve inches deep on a clay subsoil, but in some places the loam seems to have been burnt off. Owing to the large amount of muskeg a large percentage of the township is rated as fourth-class; the higher portions should be well suited for mixed farming. With the exception of the northeast quarter, this township has been burnt over some years ago and is now grown up with a second growth of scrubby timber. There is a great deal of heavy windfall in the burnt portions of the township. The timber in the northeast quarter is chiefly spruce, birch and poplar from four to fourteen inches in diameter, and is of a rather scrubby nature. Hay is found in abundance in the burnt part, but very little could be cut on the uplands owing to the large amount of dead fallen timber. Considerable hay could be cut along the large creek flowing through sections 12, 11, 2 and 3, and smaller amounts in scattered districts throughout the township. All the water is fresh and the supply is sufficient and permanent. The creek flowing through sections 12, 11, 2 and 3 is from fifty to seventy links wide and from four to six feet deep with a flow of from three and a half to four miles per hour. Owing to the low level nature of part of this township and the low banks of the streams, there is danger of flooding during the wet season, but this danger will largely disappear when the land is cleared, so that the water will find an outlet where it is now blocked by logs and windfall. No water-power can be developed. The climate is much the same as that of Edmonton district, sixty miles south; no summer frosts were noticed. Wood for fuel is to be found in abundance in every part of the township, but no coal or lignite was found. No stone-quarries nor minerals of economic value are known to occur. Moose, jumping deer and black bears are plentiful, and a few partridges and ducks were seen.—*W. H. Waddell, D.L.S., 1909.*

63. This township is reached by a settlers' trail north from Edison, through townships 60 and 61, thence by a new trail cut through township 62 in a northeasterly direction, through the westerly part of township 62, range 25, and thence northwesterly through township 62 to the central meridian of this township; it follows this meridian more or less closely to the north chord. Owing to a large muskeg in the north third of township 61, this trail is impassable for wagons in the early summer, and for loads at any time except when there is frost in the

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RANGE 26.

ground. The soil of this township is a black loam from two to eighteen inches in depth on a sandy clay subsoil. With the exception of those portions which are muskeg or swampy, the soil should be fairly well adapted for the growing of cereals. This township is timbered throughout; sections 1, 2, 11, 12, 13, 14, 15, 16, 22, 23 and 24 are partly timbered with heavy spruce, balsam, balm of Gilead, poplar and birch from six to thirty inches in diameter. A large percentage of the remainder of the township has been burned over, and this is growing up with worthless second growth. A great deal of windfall occurs throughout the burnt area, and many dead trees of the former heavy timber are still standing. A great quantity of splendid upland hay is found throughout the north third of this township, but it is impossible to cut at the present time owing to the scrub and large amount of fallen timber. Along the creek flowing through sections 33, 32, 28, 21, 20 and 17 large amounts of good hay could be cut. This would probably total between 500 and 1,000 tons, and with the good grazing should make this district especially valuable as a ranching country. Smaller amounts of hay could also be cut in numerous small meadows throughout the township. All water in the township is fresh and of good quality, and there is a sufficient supply. A creek about twenty links wide and three feet deep enters the township in section 33, and flowing in a southwesterly direction leaves the township in section 7. This stream has a flow varying from one and a half to three miles per hour. It is joined in section 21 by a stream from eight to fifteen links in width and about a foot deep; this stream drains the large lake along the eastern boundary of the township. There is very little danger of serious flooding of the good land in this township. The creek flats will be flooded during the wet season, but will dry out quickly on account of the rolling nature of the country and the good descent of the streams. No water-power could be developed in this township, the volume not being sufficient. General indications point to a climate similar to that of the Edmonton district to the south; no summer frosts were noted. Wood for fuel is found in abundance in all parts of the township, but no coal or lignite veins were seen. No stone-quarries nor minerals of economic value were located. Moose, jumping deer and black bears appear to be very plentiful. Some partridges were seen, and also a few ducks on the lakes.—*W. H. Waddell, D.L.S., 1909.*

(*East outline.*)—This line is timbered throughout with a worthless class of
64. timber, including poplar, spruce, jackpine and a large amount of scrub. The east boundaries of sections 36, 13, 12 and 1 are rolling, while those of sections 25 and 24 are nearly level. The soil is a loam from three to ten inches deep on clay subsoil, which is very stony in places. Water is plentiful and of good quality, but there is no water-power. No coal, lignite, stone-quarries or minerals were found.—*W. H. Waddell, D.L.S., 1909.*

RANGE 27.

(*Fractional.*)—This township is reached by trail north from Edison through
62. townships 60, 61 and 62, in range 26. Portions of this trail are practically impassable for wagons except late in the season, the worst part of the trail being in the northerly third of township 61, where a muskeg a mile and a half wide is crossed. A great part of this township is muskeg, the soil being of the usual muck or humus nature. The soil on the higher portions of the township is a black loam from four to twelve inches in depth on a sandy clay subsoil, and is well suited for mixed farming. There is a belt of heavy spruce and tamarack in sections 26, 27, 34 and 35, and the remainder of this township surveyed is covered with a worthless growth of scrub and second growth timber. The spruce and tamarack in sections

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RANGE 27.

26, 27, 34 and 35 is from eight to twenty-four inches in diameter, the remainder of the timber being composed of spruce, tamarack, poplar and a small amount of balsam of Gilead, all ranging in diameter from two to eight inches. Fires have killed a large amount of the smaller timber. Very little hay was found in the township. All water is fresh, and the supply is sufficient and permanent. The few streams noted were small and of little consequence. Under present conditions this district will be flooded to a probable depth of twelve inches every year. This is caused by the blocking of the water courses with timber and old beaver dams, but this disadvantage should be overcome by settlement. No water-powers exist in this township. The climate appears to be about the same as that of the Edmonton district, and no summer frosts were noted. There is an almost unlimited supply of wood in this district, but no coal or lignite was found. No stone-quarries nor minerals of economic value were noticed. Moose, jumping deer and black bears are found in this township.—*W. H. Waddell, D.L.S., 1909.*

(*East outline*).—This line is timbered throughout but there is no timber of **63.** any commercial value, being mostly of a scrubby second growth nature and consisting of spruce, poplar and tamarack from two to eight inches in diameter. The country is level or very gently rolling. The best of the soil is a loam from six to eighteen inches in depth on a clay subsoil, but some sand and a great deal of muskeg occurs. Water is plentiful and of good quality, but there is no water-power. No stone-quarries, coal or minerals of economic value were found.—*W. H. Waddell, D.L.S., 1909.*

(*East outline*).—This line runs through a rolling country, timbered through- **64.** out. Part of the country has been burned over and is now covered with a second growth of scrub; most of the green timber is too small to be of much value. In section 25, however, there is a patch of spruce from eight to twenty-four inches in diameter. The soil is of an inferior grade, being of a light sandy nature on a sandy subsoil. Water is plentiful and of good quality but there is no water-power. There are no minerals or stone-quarries.—*W. H. Waddell, D.L.S., 1909.*

