Article: Mining Impact in Saskatchewan (Timeline)

1905-1910
Placer mining by means of a large steam dredge is undertaken on the North Saskatchewan River near Prince Albert, but without much success.

1906-1907
Richard Hall promotes a gold strike at Rotten Stone Lake. An investigation by Consolidated and Smelting (Cominco) does not reveal the presence of profitable ore.

1907
William McInnes (1858-1925) explore the Carrot River, as well as the northern and eastern of the Pasqua Hills, for the GSC.

1908
A branch line from Hudson Bay Junction in Saskatchewan, to the Pas, Manitoba, is the beginning of the Hudson Bay Rail way would reach Kettle Rapids on the Nelson River near Gillam , Manitoba in 1914. Financial complication of World War 1 intervened and it would not reach Churchill Manitoba, until April 3, 1929.

The Churchill River between South Indian Lake, Manitoba and Lac La Ronge is surveyed by McInnes. He finds Sulphides containing Chalcoprite at Moose Point on the northwest shore of Lac La Ronge , probably already known to exist by Local Indian. This deposit will come into production in 1966 as the Anglo-Rouyn Mine.

Summer
Mineral claims for copper are staked on sulphides in the Lac La Ronge area. A gold rush start in the area, with prospectors coming from all over Canada and the USA.

1910
A rail-road bridge is built across the Saskatchewan River at the Pas, Manitoba.

McInnes explore Wapawekka Lake, a large part of Lac La Ronge, Nemeiben Lake, and part of Churchill River above the mouth of the Rapid River. He survey Deschambault Lake, Deschambault River, Grassberry River, Amisk Lake, Candle River, and the western part of Cumberland Lake.

Piché a prospector stakes a claim for copper and nickel west of Robillard Bay on the north shore of Lake Athabasca, 18 miles east of Fond Du Lac.

According to some sources a discovery of gold in quartz along the north shore of Pine Channel Athabasca in this year by a miner named Dalton is the first of free gold in the Precambrian Shield of Saskatchewan. A short tunnel is driven but the results are not encouraging and the project is abandoned.

1911
S.C. Ells briefly examines reported asphaltic deposts on the shores of Peter Pond Lake for the GSC.

E.L. Bruce (1884- 1949) starts a three- year detailed investigation of the geology of the Amisk Lake area for the GSC. Inspired by the discovery of gold- bearing quartz veins the previous year, his study is designed to evaluate the economics geology: thus, in his own words, entering a new and third stage of exploration, the first having been the original or pioneer ventures and the second the track surveys. No longer does he apply the eastern names of Huronian and Laurentain, but instead uses local names
(Amisk volcanics, Missi conglomerate, Kisseynew gneisses).

A.G. Haultain commences a survey of Lake Athabasca for the GSC, using transit and stadia checked by means of astronomic readings. This survey was to be complete the following year by B.R. Mackay. Active staking and prospecting continues on the north shore of Lake Athabasca. Charles Camsell (1876- 1958), who would later become Deputy Minister of the Department of Mines, explores a route from Black Lake to Great Slave Lake and in so doing investigates the geology of the extreme northwestern corner of Saskatchewan along the Tazin River. His assistance F.J. Alcock, investigates the north shore of Lake Athabasca.

May 11
The first aircraft flight in Saskatchewan is undertaken in Saskatoon, in preparation for the Exhibition, by C.W. “Lucky Bob” Shaffer, stage actor, whose Curtiss biplane crashes from about 60 feet up.

1912
Thomas Creighton (1874-1949), from Ontario, arrives in the Pas, where he teams up with the prospectors Leon Dion and Jack Mosher to investigate the rocks between Lac La Ronge and east of Amish Lake.

1913
H. Geiger introduces the first successful electrical devise capable of counting individual alpha rays; Niels Bohr formulates his theory of atomic structure.
Further claims are stacked on the north shores of Lake Athabasca.

August
Creighton, Daniel and jack Mosher, and Leon and Isadore Dion jointly discover free gold in quartz veins on the northwest shore of Amisk Lake and Stacke claims for Hammell (see 1903). Hearing almost parallel to the bedding planes of metamorphosed sedimentary rocks produced irregular, lenticular opening or fissures in which the ore occurs. The value are carried chiefly as visible gold. Assays from quartz sample in which no flakes are to be seen rarely carry more than traces. The sulphides and arsenoslphides re always auriferous but the values in them are not very high. The claims, the first to be staked in the district, become known as the Prince Albert Group, as most of the money for the venture of developing them was raised in that town. Native gold, visible to the unaided eye, is reported to occur as specks and blebs in massive white quartz. This discovery sparks a prospective rush to the area resulting in the stacking of numerous deposits. The Prince Albert deposit would later be mined in 1937 and 1940-1942.

1914
Harold Victor Dandier, backed by capital from the British armament firm of Vickers LTD, prospects together with John Gibbs Devlin and George Fowler fir the nickel an the north shore of Lake Athabasca, near Fond Du Lac, from where J.B. Tyrrell had reported norite in 1983. However they encounter only a few stringers of sulphides and no commercial deposits. The area is also investigated by Alcock (GSC), assisted by camsell (see 1911), who reports finding traces of nickel.

Development of the gold property on the northwest shore of Amisk Lake, discovered the previous year by Creighton , the Dions and Moshers begin when the Beaver Lake Gold Mining Company sinks an inclined shaft to a depth of 70 feet. Just after breakup, a young San Francisco engineer, Emmet R. Cullity , accompanied by assayer Zar Crittenden of Butte, Montana , left the railroad at The Pas to ascend the Saskatchewan River by Steamboat to Cumberland and Namew Lakes to Shining Bay and Sturgeon Landing, at the outlet of the Sturgeon- weir River. From there they travelled by way of a 17.5 mile wagon road leading from Sturgeon Landing to Beaver Landing at the inlet of the Sturgeon – weir River in the southeast corner of Amisk Lake. At beaver Landing the brothers Will and Jack Hayes, fishermen and freighters, operated a cluster of log cabins as shelters for travelers. From the Beaver Landing Cullity and Crittenden paddled to the site of the Beaver Lake Gold Mining Company where a number of log building had been erected. John ashby was company clerk, Dan Milligan camp cook. A physican Dr. Mathieson, served on the company staff. The claims were being surveyed by J.E. Morier

of Montgomery and Morier, Prince Albert. In the vicinity of the mine was a general store operated by the “Bannock King” Leon H.G.Moore. a motor launch, operated by Dave Collett between Beaver Landing and the mining camp, carried mail, supplies, and the occasional passenger. After the prospecting team of Creighton-Dan Mosher-leon Dion had left the camp by September, the property was placed under the charge of Cullity, who was responsible for mine development. The aasay laboratory, which was operated on a custom basis, was placed in care of Criittenden.

Bruce commences for the GSC, geological of the country in the vicinity of Amisk Lake extending eastward along the edge of the Paleozoic rocks toward the Hudson Bay Railway (then reaching as far as Kettle Rapids, Manitoba). Also visiting the area were Alcock, GSC; John Reid nicknamed “turn ém down” Reid , an engineer from Toronto; Bateman, the chief geologist of the Canadian Exploration Company; and Peacock and Jamison, two mine operators from the State of Washington.

J. Sales of Prince Albert discovers gold prospect located north of North Channel at the tip of Amisk Lake. It was developed by a 25- foot shaft and several trenches. It became known as the Graham Mine.

The Waverley island gold occurrence in the northwestern part of Amisk Lake is staked. A.S. Davenport and E.W.Fahey are staking claims about 1 mile north of Amisk Lake. On the Wolverine Cliams, 2 miles north of the northeast bay Amisk Lake and near the Prince Albert Group of claims, a vein is traced by cross tracking for a distance of 2,000 feet. Part of it is completely stripped but no further work is done.

Messrs, Hacket and Woosley stake claims and find several gold showing in veins on the east shore of Wekusko (Herb) Lake across the boundary east of Amisk Lake, in Manitoba.

On the portage between the Churchill River and Lac La Ronge, Crieghton (see 1912) finds a pocket book entitled The Sunless City by Joyce Emerson Preston Muddock first publish in London in 1905. The principal character of this adventure novel was a Professor Josiah Flintabbatey Flontin (Flinn Flon for Short who , after having discovered an underground city of gold escapes back to the surface through the hole of an volcano. The next year Crieghton would give the name Flin Flon (spelled Flinflon until 1929) to a lake locally known as fishpole (now Flin Flon) Lake on the shore of which his party staked the Apex and Unigue claims, Located to the east of Amisk Lake and straddling the Saskatchewan- Manitoba boundary.

Fall
While his partners, Dan and Jack Mosher and Leon Dion remain at Amisk Lake to continue prospecting and stacking claims Creighton establishes a campsite at Phantom Lake. He is joined by Isadore Dion and Milligan.

1915
Einstein postulated his General Theory of Relativity.
The prospecting brothers Richard and Gordon Hall stake a copper deposit on the northwest shores of Lac Lac Ronge at Moose point, on the east side of Waden Bay, where mineralization had previously been recorded by McInnes in 1908.

R. Graham stakes six surveyed claims (Valley, Surprise, Ironside, Motherlode, Golden Gate, and Chicagoff) approximately 2.4 km north of the northeast end of North Channel, Amisk Lake.

March - April
Based on a rumour spread by one of Dardier’s men, Devlin, that a sample of ore from near Fond du Lac yielded a very high assay in silver, staking rush by dog team develops. The deposit is investigated from June 27 to July 10, by Camsell, who returns to the region in which he had worked the year before. He travels on Lake Athabasca using a small canoe motor borrowed from Mr. Colin Fraser (HBC trader) at Fort

Chipewyan, for the 200- mile trip. This is perhaps the first time a canoe motor was used for geological exploration in northern Saskatchewan.

March
Mining equipment is shipped by rail to The Pas and from there over the ice by freight teams to the Beaver Lake Gold Mining Company. The equipment consisted of a small second- hand steam power plant, shaft sinking equipment, and an incomplete amalgamation mill from a defunct mine in Ontario. When it arrived, the company was out of money and unable to re- finance. Not only was the equipment not installed, but also no work was done on the claims in 1915, 1916,or 1917.

Spring
At their Phantom Lake campsite Creighton, Isadore, Dion, and Milligan are joined by Dan and Jack , Mosher, and Leon Dion. By this time Dan Mosher had obtained financial backing from Hammell for development of the claims at the north end of Wolverine Lake. The work carried out between 1915 and 1918 only showed the ore to have a below average gold content.

Summer
Bruce continues geological mapping in the Amisk Lake- Athapapuskow Lake area.

July
Most prospectors have now left the Fond Du Lac Area because they failed to find any silver.

July – August
An Indian named David Collins showed rock samples to Creighton's prospecting party which guided them to the sulphide ore bodies on the shore of Flin Flon Lake where the Apex and Unique claims were subsequently developed. While development work was going on, Hammell and his wife Eola arrived at Wolverine Lake intending to see how the work was proving up when word reached them that Dan Mosher, whose prospecting activities he was backing financially, had found something promising at a location northeast of Amisk Lake. Hammell and his wife then cancel to Flin Flon Lake. Once there he recognized the importance of the find and soon dispacted samples to Crittenden's and Cullity's custom assay laboratory at Amisk Lake to run assays. In company of Dan Mosher he set off for The Pas in mid- August to register the claims. Between the time of finding the mineral late in the summer of 1915 and freeze-up in November, the locators of the original group of claims trenched acroos the ore in two places and opened a few pits down through the overburden where the cover was deep. Enough work was done to make it apparent that there was a large amount of ore. This activity brought on a flurry of prospecting. One of the prospecting teams consisted of Fred C. Jackson, civil engineer with the Hudson Bay Railway. And Sidney S. Reynolds, experienced prospector. On their first joint venture, they camped on top of an outcrop of a lens of solid chalcopyrite, 35 feet wide, located just north of the mouth of Phantom Creek. 2 miles from the northwest arm of Schist Lake, south of the present Flin Flon, and just east of the Saskatchewan- Manitoba boundary.

September
Dardier leaves Edmonton for Lake Athabasca. His party consisted of 25 engineers, asayers, and mineralogists, about 75 metis labourers, and included his wife and the wife of his camp foreman. This expedition, estimated to cost about $ 100,000, headed for Pine Channel, where camp was set up on Dardier Island. Two Davis-calyx steam-powered shot drills were used to obtain samples.

October
Dardier registers his and Reynolds' find in Tha Pas the "Mandy" after his (Jackson's) wife. A representative of Tonopah Canadian Mines Limited, J.E. Spurr of Nevada, after having been shown an ore specimen, negotiated deal on behalf of his company whereby an option would be taken on the property to develop it, with the original owners receiving a percentage of the profits. Operation would be by the Mandy Mining Company, a

subsidiary of Tonopah Minig Company of Neveda.

1916
Alcock continues his studies of the geology of thenorth shore of Lake Athabasca.

January
A diamond drill is brought in the ice to evaluate the Mandy ore body, the first drill in the northern Manitoba. Drilling and surface trenching reveals 25,000 tons of chalcopyrite, averaging over 20 per cent copper, with silver and gold to the value of $ 5. 00 per ton and 180,000 tons of lower grade ore consisting of mixed copper, iron, and zinc sulphides assaying from 5 to 8 per cent copper, 20 to 30 per cent zinc with gold and silver to the value of $ 5.00 per ton. For every $1,000 spent on drilling, over $1,250.000 in ore was disclosed. The ore body was too small for a smelter on the property. However owing to the war price of 26 cents a pound for copper, it was decided to commence operations immediately. The main difficulty was transportation. Hauling supplies from The Pas begins in January. Building and stables are erected and 85 miles of winter road constructed. The mining equipment consisted of a 125 h.p. boiler, a seven drill compressor, and a hoist, as well as a portable sawmill for cutting for the mine buildings.four 40 tons barges and a small sternwheeler to handle them were built for use on Schist and Athapapuskow Lakes. During the winter, a 60-ton tug was brought carry freight from the end of the road to the mouth of Schist Creek. A lock is being built on Schist Creek to overcome shallow places and allow barges to be brought from the mines directly to the south end of Athapapuskow Lake without unloading. This will cut sleigh haul in half.

March
From now until the middle of July, when work is suspended, two diamond drills work continuously on Flin Flon Lake properties and a very large body of ore is outlined. However , the ore is not of very high grade and the constituent minerals are intimately associated. It was impossible at the time to separate the copper and zinc minerals from the pyrite that forms the bulk of the ore. Hence the concentration of the ore and the shipping of high- grade concentrates during the winter is not feasible. This metallurgical problem would not be solved until 1927. In the meantime Hammell is busy raising funds for the Flin Flon mining venture. He forms an all-Canadian syndicate that includes himself, Lawyer Alexander Fasken (long- time director of Excelsior Life , director of Dome Mines and Nipissing Mining Company), prospector Dan Mosher, hotelman Frank Currie, and a man named Hugh Ryan. Some time later David Fasken (wealthy Haileyburian, barrister-at –law, lumberman, president of Northern Canada Power Company and Northern Ontario Light and Power Company, future president of Nipissing Mining Company) forms the Great Sulphide Company. thus the Fasken brothers were the first financiers to become involved in Flin Flon as a result of Hammell's search for the development capital. Hammell, Creighton, Dan and Jack Mosher, along with Leon Dion, shared ownership of Flin Flon, with Great Sulphide Company holding a 35 per cent interest.
Spring and Summer; Drilling proceeds at Dardier's camp, Pine Channel, but nothing of economic interest is found. Dardier and his wife leave in the spring, and the other crew members in late August when the camp was abandoned.

Summer and Fall
The Dominion Government sends a team of engineers north assess the water resources of the Churchill River. A visit to both the Mandy Mine and Flin Flon property is paid by geology professor R.C.Wallace and J.S.Delury (1884- 1968) of the University of Manitoba.

Fall
Dardier returns to the Pine Channel area with some gas-engine operated diamond drills and a small crew. They stay 10 months and work both 12 miles east and 12 miles west of the original camp.

December

A contract is let to Charlie Morgan of The Pas for the hauling, by teams pulling sleigh, of about 3,300 tons of ore from the Mandy Mines over a distance of some 40 miles to Sturgeon Landing, at the head of Navigation, for stockpiling. From there the Ross Navigation Company next summer would user a steam tug and barges to ship the ore 130 miles to the Pas whence it was sent by rail to Trail, British Columbia, about 1 ,200 miles away. To get the transportation of ore under way, work commences at the end of 1916 on the establishment of three complete sets of camps to be occupied by 110 men and 92 teams of horses, a task accomplished in two weeks. In addition to the teams engaged in hauling ore, a considerable number were employed in hauling in supplies and taking out fish from Athapapuskow Lake. At least 120 teams were using this road continuously during the winter months.

1917: Spring
A power house and other building are erected and a vertical shaft sunk to 100 feet on the Mandy claim. A crosscut is driven to the ore body and a drift and raise are made in the chalcopyrite lens. The ore was loaded directly from the shaft head by a tramway to barge that were towed down Schist Creek and thence to the south side of Athapapuskow Lake, hauled to Sturgeon Landing and thence to The Pas. In this year 6 000 tons were shipped. The ore at the Mandy has much the same composition as that of the Flin Flon Lake deposit but owes its value chiefly to the rich chalcopyrite in the middle of the lens. All the sulphides carry gold and silver but the value of these minerals is not high enough to warrant shipping for them alone. The segregation of the high-grade copper ore, however makes it possible to mine and ship that much of the lens, though it must bear the excessive cost of transportation. Only the phenomenally rich part of the deposit will be able to bear this expense. A few small bodies of sulphides were also opened up but nothing was found that was at all comparable to the two original deposit at Flin Flon Lake and the Mandy claim, both in Manitoba, close and to the east of Amisk Lake. Robert Graham, for instance, directed assessment work on a property north of Beaver Lake Gold Mining Company which consisted of claims staked in 1914 by sales. This Mother Lode Gold Mine was financed mainly by people living in The Pas. A ten ton mill was build by a Duluth Minnesota, company but ultimately the mine became inactive.

March
Diamond drilling commence, at Flin Flon and will continue until July, 1918, when 44 holes represented 25,664 feet are completed.

Summer- Fall
Dardier leaves the Lake Athabasca area for good, no worthwhile ore bodies having been discovered.

December 6
A Collision of two ships in the harbour cause an explosion in which half of Halifax is destroyed, 1300 killed and 6000 wounded.

1918
In the third year of its operation (1918-19) the Mandy Mine shaft is sunk another 100 feet to the 200- foot level to make possible mining from two levels. A total of 8,000 tons of ore is hauled by team a distance of 10 miles and piled near the outlet of Schist Lake, whence it would be hauled in 1919. Also 5,000 tons are hauled by team from the mine to Sturgeon Landing. The Mandy Mining Company takes over the boats from Ross Navigation Company and handles all their transportation themselves on the Saskatchewan River. The average load of a single team of horses for the winter haul is 6.5 tons and the cost of transportation 37.5 cents per ton-mile. A total of 300 teams are employed.

November 11
Armistice signed between the Allies and Germany.

1919

A fall in copper prices and the exhaustion of the riches vein leads to the closing of the Mandy Mine. Most of the equipment is sold to Canadian syndicate hoping to develop the Flin Flon property. The work of transporting Mandy ore has lasted four years. The first shipment was made from The Pas in 1917, and the last August, 1920.

Bruce completes geological mapping in the Amisk Lake- Athapapuskow Lake area in this, third, field season.

1920
The Alberta research Council is established. In Saskatchewan the Bureau of Labour and Industries starts its work. Both organizations encompass geological work. The University of Saskatchewan becomes involved in consultative work for the government, with Professor W. G. Worcester, a ceramic engineer, playing a major role.

Hammell approaches the mining Corporation of Canada, then winding up their Cobalt, Ontario, silver operations, for re-financing of the Flin Flon property. Turner, consulting engineer, advises the Corporation purchase a 65 per cent interest in Flin Flon. This is done and a new subsidiary of the mining Corporation of Canada is created, the Manitoba Metals Mining Company.

October17
The first aerial photograph of northern Canada is taken by Frank H. Ellis, northeast of Hudson Bay, Saskatchewan on a flight to The Pas, Manitoba, from 3,000 feet.

1921
After newspaper reports about the occurrence of enormous beds of hematite, claims are staked for iron in the Fish Hook Bay area on the north shore of Lake Athabasca, 56 miles east of the Alberta- Saskatchewan border and a few miles east of the future Goldfields. Iron was known to exist here since J.B.Tyrrell's exploration of 1893.

Prince Albert Gold Mines Limited acquires the gold mine northwest of Amisk Lake from the beaver Lake Gold Mining Company.

1922
The Evinrude outboard motor for canoe is now firmly establish in the northern bushland.

A placer gold flurry develops at the Waterhen River in which the studer brothers, John, Ernest, and Adolph participate.

J. A. Allan and A. E. for the Government of Alberta, investigate the reported iron occurrence at Fish Hook Bay, which caused some excitement in the previous year. They find the deposits of too low a grade to be economically exploitable and discern no indications for a possible enrichment with depth. Based on his travels in the area, Cameron also published on the postglacial history of Lake Athabasca.

Field work in the Flin Flon area is done by Alcock for the G.S.C.

1923
Delury investigates the Wapawekka- Dechambault area.

1924
Delury continues his field work in the Wapawekka- Dechambault area.

Late Summer
Turner, knowing of their interests in the mining speculation, corresponds with the offices of Harry Payne Whitney of New York. Whitney forwarded turner reports on Flin Flon to the westcoast office of Roscoe Harry Channing, who was in charge of all Whitney mining interests. The letter- was read by Robert Earlk Phelan, chief engineer, and resulted in a visit to the Toronto office of the Mining Corporation of Canada by the son of H.P. Whitney, Cornelius Vanderbilt "Sonny" Whitney. Among the Whitney interests

was a company called Complex Ore Recoveries, headed by Channing, and staffed by faculty from the Colorado School of Mines. It was this group that would work on and solve the metallurgical problems of Flin Flon ore.

1925
John Hyslin and associates stake a gold property on the east shore of a penninsula projecting north from the west side of Missi Island, northern Amisk Lake. Native gold is reported to occur in schist with pyrite crystal and magnetite. Gold is panned from the rusty capping at several points on the deposited. A 28 foot shaft and several trenches along 1,200 feet of the shore comprise the working on the property.

June
H.P. Whitney dispatches a party to the Flin Flon orebody to investigate the feasibility of mining, which depends on the quantity of ore and the availability of plentiful electrical power needed for the beneficiation process developed by Channing and his researchers. A source of power is located at Island Falls, 60 miles to the north.

1926
Eldorado Gold Mine Ltd., is incorporated by Gilbert Labine to develop some gold properties, mainly in the Long Lake District, Manitoba, where mining commences this year but will be suspended in 1929 when the gold supply is depleted.

W.H. Hasting, on a mineral reconnaissance for the Saskatchewan Bureau of Labour and Industries, reports the first indications of gold in the La Ronge area. A sample from the copper showing on the Moose Point, Lac la Ronge (which was later to become the Anglo- Rouyn Mine) returned a value of $ 2.00 per ton gold; sample from the Lynx River and sulphide Lake area returned gold values of 20 to 30 cents per ton.

August
A small power plant and pilot are built at the site of the Flin Flon ore body. Waldron Alvord “Baldy”Green superintendent of the constructed phases of the semi- commercial-sized plant set up in 1926-27 under the direction of Channing and Phelan met at the Pas with Gordon G. Duncan, who serves as Channing’s assistant superintendent, to discuss the planned movement of a huge tonnage of freight to Flin Flon. During this period of organization of the metallurgical works Duncan, who had received his technical training from Channing, was the only Canadian in a supervisory capacity at Flin Flon.

1927
Copper-zinc sulphides are discovered on the shores of Reindeer Lake at Paskwachi Bay.

Hammell founds Northern Aerial Minerals exploration Ltd. (NAME), with a plan to undertake mineral explorations with the large fleet of airplanes around the rim of the Arctic Circle.

Delury accepts the position of Professor and Head of the department of geology at the University of Saskatchewan.

March
At Flin Flon, the power plant and pilot will are completed and underground stoping is begun.

December17
Hudson Bay Mining and Smelting Ltd. (H.B.M.&S.), is formed with the Whitney interests holding 50 per cent, Newmont Company 35 per cent and Mining Corporation of Canada, 15 per cent. Channing became head of the entire operation; Frank L. Crocker, personal attorney to H.P.Whitney, became president.

1928
Founding of Flin Flon, Manitoba. Construction of mine and mill complex now underway.

An attempt is made to re-activate the Mandy Mine but there is to be no production and in 1930 the company becomes inactive.

Claims staked by two trappers, Tremblay and Olsen, on the Rottenstone Lake deposit were acquired by Ricahard Hall, MLA for Cumberland, and his borther. They optioned the property to Comico. The deposit, a gossan dome of decomposed (rotten) rock 200 feet high rising abruptly at the east end of rottenstone Lake, was discovered originally by local Indians who brought it to the attention of traders in the early part of this century. It assayed on the surface very high in nickel, iridium, platinum, and other precious metals. Drilling equipment was transported by horses from Prince Albert, a distance of about 300 miles. Drilling, however, shows the deposited to be small and uneconomic. Worked is abandoned.

George Chatten stakes a gold property claim on the west side of a peninsula projecting into the West Channel at the northwest end of Amisk Lake.

James Hayes stakes what is to become the Amisk Syndicate Mine on the west shore of Comeback Bay, northeast of Amisk Lake, Development consists of several pits and trenches, a 40 foot adit, and one other adit.

W.D.Cox stakes eight surveyed claims, named Duplex on the northwest shore of Amisk Lake.

Dominion Explorers Ltd. Finds copper- nickel sulphide on Axis lake, 8 miles northwest of Stoney Rapids, but the grade proves to be much too low for commercial exploitation.

When Dr. R.C. Wallace leaves the University of Manitoba to become Principal of Queen's University, Delury returns to Manitoba to succeed him as head of the Department of Geology.

Cominco options the Moose Point prospect and does some trenching and drilling. The Flynn Saskatchewan Syndicate trenches some mineralization near Sulphides lake.

The Mammoth claims, a large sulphide deposit near Forbes Lake staked by H.G. Montgomery and Pete Davidson, are investigated by Cominco by means of a diamond-drilling program.

March 1
The first pick is struck in the ground at the site of the permanent warehouse of H.B.M.& S. to mark the beginning of construction of the Flin Flon mine and metallurgical works.

April 3
The Hudson Bay Railway (without its roadbed) reaches Churchill Manitoba.

September 13
Roadbed of the Hudson Bay Railway is completed and the line is ready for use by the CNR.

1929
The Ace Deposit, in the southwestern part of Missi Island is staked by R. Besler, Native gold is panned from the rusty weathered porphyry that forms a capping on the deposit. Development consists of four pits on the southwest side of a large outcrop and three pits on its northwest side.

Dr.J.B. Mawdsley (1894- 1964) is appointed Professor and head of the Department of Geology, University of Saskatchewan.

1929
The stock market crash and ensuing depression adversity affect.

1933
prospecting for mineral deposits.

1930
The total metallic mineral production of the Province of Saskatchewan is less than $ 10,000.

Production starts at the Flin Flon Mine after metallurgical problems have been solved. An expenditure of 4 27,000.00 has been made by H.B.M.& S. The power for the mine comes from Island falls on the Churchill River near Sandy Bay.

Work is done by J.D. Nicholson (retired inspector of the Alberta Provincial Police), field manger of the mineral Belt Locators Syndicate, on a copper showing on their property in the area between Cornwall bay and Fish Hook Bay. On this property, which now become known as the " Nicholson" pitchblende will be discovered in 1935.

Amisk Gold Syndicate Co.Ltd, sink two inclined shafts to depth of 125 and 30 feet on the property staked two years earlier by Chatten.

W.W. Boehme and associates stake a group of claims in "kisseynew-type" rocks approximately 800 m north of the easternmost bay in Mari Lake (Dolly claim).

March 20
Mineral rights vested in the crown are transferred from the federal to the provincial government, except for those affecting Indian reservations.

May 16
Discovery of pitchblende on the southeast shore of Great Bear Lake by Labine of Eldorado Gold Mines. There the Port Radium Mine would develop.

October 1
The Saskatchewan Department of Natural Resources (DNR) is created by act of the legislature to be the administrative body of the mineral resources under it Mines Division as the result of the transfer of all natural resources from the federal to the provincial government. The staff of the new department totals 135 of which 100 are transfered from the dominion government and 35 from other department.

1930
Patty Houlihan, A.S. Davenport and associates of Flin Flon , stake four gold claims (Star, Sky, Sun, and Moon) on Hanny Island located in the West Channel in the northwestern part in Amisk Lake, west of Missi Island. Gold is panned from a rusty weathered schist exposed in a trench and a couple of pits.

1931
An area north of Pelican Narrows is investigated by J. Satterly for the GSC

Mawdsley reconnoiters a few unmapped areas in northern Saskatchewan and obtains assay values of 0.07 and 0.08 ounces of gold from a pair of grab samples in the Sulphides Lake Belt- the first geological work undertaken by the DNR – with, in his own words, " disappointing results". In this his first investigation in the Precambrian Shield area of Saskatchewan gold showing in the Amisk Lake area were also visited. Many such subsequent studies by him result in nine geological reports issued by the Department of Natural (later, Mineral) Resources, two reports for the GSC, and several papers in scientific and technical journals.

The Sonora deposit is staked for gold by S. " Shorty" Russick and associates (John Hyslin, Rudolph Singbell, Roy Besler and Richard Nelson). It is located on the east shore of the larger of two islands directly southwest of Waverley Island, Amisk Lake. Seven trenches expose the mineralization. A.J.Mcdonald and associates stake and control six claims (Royal) for gold on Parker Island, north end of North Channel, Amisk

Lake . C.M.Mitchell stake gold claims between Wolverine Bay, Amisk Lake. And Wolverine Lake. East of the south end of Wolverine Lake, A.C. Symons stakes three claims for gold.

A.J. Henning and P. J. Maloney stake a claim for gold approximately 1.5 km south of the south end of Douglas Lake, and 0.3 km east of Bootleg Lake about 72 km south of Creighton, Saskatchewan.

Summer
The first ore goes through the crushing plant at Flin Flon. In the space of 2 ½ years a railroad is build, a hydro- electric plant erected on the Churchill River, a high voltage power line build from Island Falls to Flin Flon , a portion of Flin Flon Lake dammed and drained, and both underground and open pit mining operation established.

September
With all building at Churchill completed, the Hudson Bay Railway is officially declared open.

Winter
At the University of Saskatchewan a two- week course in mineralogy and prospecting is taught by professor Mawdsley and F.H. Edmunds. One of their students is Fred Peet who the following summer will travel north to Port Radium, Great Bear Lake, in the uranium rush that developed after Labine's discovery.

1932
A research council is established in Saskatchewan as a precursor of a geological survey but remains a budgetary victim of the Great Depression.

Development work on the Waverley Island gold occurrence begins. One trench dug is 130 feet long and another, about 200 feet away, is 75 feet long with a 10- foot shaft at one end. Other opening are made on the east side of the island.

Amisk Gold Syndicate Company cease operation.

A gravel road reaches from Prince Albert north to the southern end of Montreal Lake.

Adolph Studer, acting on the advice of Mawdskey, begins work in the Sulphide Lake area, discovering several gold showing in the 1932- 1937 period.

July
Symons discover a small quartz lens with abundant free gold farther south from the claims he staked the previous year.

1932
W.W. Bowes build a 10-ton mill and did considerable development 1933- work on the Graham property (Amisk Lake area). Some gold showing in the area.

1933
J.F. Wright and C.H. Stockwell, both officers of the GSC, showing in the area.

J.Beda, T. Latena, and J.Tikanen of Flin Flon stake 30 claims for gold on the southeast shore of Douglas Lake, about 2 miles south-south-west of Creighton. A grade of 0.458 ounces of gold per ton and 15 per cent arsenic is reported.

1934
chadwick discovers the neutron.

In the Amisk Lake- Flin Flon area, Man- Sask Gold Mines Limited sinks a vertical shaft and carries out underground development near the south end of Phantom Lake, south of Flin Flon. Small quantities of gold are taken from the shaft. Henning- Maloney Gold

Mines LTD, is formed and the company sinks a two- compartment vertical shaft to the depth of 160 feet with the level at 125 and 150 feet and carries out underground development naer the south of Bootleg Lake.

July
Beda and associates form the Flin Flon Gold Mining Synicate Limited. Considerable drilling is done on the property, located on the east side of Douglas Lake, Amisk Lake area, which indicates at the 30 m level, grading $ 10. 50 per ton gold across a width of 0.9 m.

August
Tom Box (from Edmonton) and Gus Nyman two prospectors discover gold by Vick Lake, a small lake between Lodge Bay and Neiman Bay on the north shore of Lake Athabasca. Their 17 claims are taken up by Cominco which develops the Box Mine. Ore samples from the cliams contain not only not only gold but also nickel, copper , molybdenum,lead , and silver. Shortly after the discovery, J.E. Day and associates of Toronto stake the Murmac group (later Tranferred to Murmac Lake Athabasca Mines Limited) to the east. This followed by general staking by residents of Fort Chipewyan. Subsequently Great Bear Lake Mines Limited (in 1935 renamed Athona Mines Ltd) stake the Lucky- Willy groups southeast of the Vick group. Prospectors C.W. Shearing and R. Alloway stake several groups of claims for the Northwest Minerals in the Caldwell Bay area. Athabasca- Beaverlodge Gold Mines Limited stakes the Yah group in the Fish Hook Bay area. Also, the Melma group (later owned by Athabasca Portal Gold mInes Limited is staked, southwest of the Lucky- Willy group. E Cody. O. Knutson, and J.G. Paulsen stakes the Bearcat group, near Wabba Lake.

1934 - 1940
The GSC understakes an extensive program of reconnaisance mapping of the Precambrian Shield in Saskatchewan, resulting in 24 geological maps to the scale of 1 inch to 4 miles and covering 42,00 square miles. Party chiefs were F.J. Alcock G. M. Furnival, M.L. Keith. R. C. Murphy, J.C. Sproule, and J.F.Wright.

1935
Flin Flon Gold Mines Limited commences work on the Tikkanen property. Monarch Gold Miners Synicates lease the gold deposit held by Prince Albert Gold Mines Limited in the Amisk Lake area. The company deepens the original propect shaft and establishes two underground levels.

Gold fields established. Work start on the 1, 000- ton mill and Cominco develops a hydro- electric power plant on the Wellington River, 22 miles from Goldfields, which was needed to power the mine and mill.

Diamond drilling commences on the Cominco Box and Great Bear Lake
(Athona) properties, Lake Athabasca. The Star group (later transferred to Greenlee Mines Limited) is staked southwest of the Melma group.

The Bearcat group of claims is transferred to Ventures Limited.

Working for the GSC, Alcock maps some 400 squares miles on the north shore of Lake Athabasca. The provisional topographic sheets, which he uses in the mapping in the Tazin Lake, Fond Du Lac, and Stoney Rapids areas are prepared by the Topographical Survey Branch of Canada Department of the Interior from oblique aerial photographs, taken by the RCAF, Alcock uses float-equipped aircraft to visit his field parties. He didvides his field crew into groups, each consisting of four men with two canoes. E.A.Hart assisited by B.A.Valde, S.L. Tallman, and G. Munthe, covered the area from Alberta boundary eastward to Canary Bay and the northward to Tazin Lake. J.Anderson Thomson, with F.E.Hogg, E.G. Tallman , and Earl Till, mapped the region drained by Charlot and Crackingstone Rivers. E.S. Carpentar, with W.G.Robinson, W.N. Mulock and W.G Cameron, worked eastward from Tazin Lake up the Tazin River and down through

the country drained by the upper Oldman River to Beaverlodge Lake. D.T. Willis, assisted by W.G. Gallup, J.G. Thibault, and J.R. Talbot, covered the area drained by Bulyea River north of Fond Du Lac. A. E. Moss, with B. Sigurdson,

Autumn
Gold is discovered in quartz veins at the narrows, on the north shore of Lake Athabasca, 70 miles to the east of Goldfields.

Flin flon gold mining syndicate, limited sinks a vertical shaft and;

1937
starts extensive underground development on the east shore of Douglas lake.

1939
Athona mines performs extensive diamond drilling, shaft sinking, and underground development, which reveals a large tonnage of low-grade ore. Operations discontinue in 1939 due to financial problems.

1940
metallic mineral production for the province exceeds $8 000 000 in value.
Prospectors J.B. Coffyne and J. Krauchi pan gold from gossan on the Jojay property near Bog Lake, 4 miles west of Windrum Lake. The discovery initiated considerable staking in the area. Cominco, the most active company, staked several groups of claims and along with Coffyne, Krauchi, and L. Garski, discovered several gold showings throughout the Star-Waddy Lake area during 1940 – 1949.

1941
Henning-Maloney Mine no longer active. The headframe and large dumps remain at the mine site.

Joe Brain stakes what is to become the Flexar Mine, near Flin Flon as a gold property. H.B.M.& S. develops it for its copper content.

1948
prospecting for uranium ore on provincially held land, previously restricted to Eldorado, is opened to the public, first under permit agreements and then, after these expired, by claim staking which proceeded at a great pace. Eldorado starts to sink the Ace shaft down to the uranium deposits on the St. Louis Fault. Eldorado is appointed Canada's agent for the purchase of all uranium produced in Canada and its sale to the United States Atomic Energy Commission and the United Kingdom Atomic Energy Authority. This remains in force until 1971.
1949: Radioactive pegmatites are found on the north shore of Black Lake and to the north of Charlebois Lake.

1950
the Pitching Lake deposit, known prior to 1924, is explored for copper. A pit measuring 78 feet by 65 feet and 20 feet deep, and a 42-foot shaft expose the original discovery at hunter Falls on Drinking River at the south end of Pitching Lake, approximately 50 miles northeast of La Ronge. A 235-foot adit driven into another sulphide body 1.5 miles to the northeast is connected by a trail to the exploration programme

1952
Construction of Uranium City by the provincial government, with the input of Eldorado, begins. The Municipality of Uranium City is established.

The Mining Corporation of Canada Limited discovers three gold showings near Wedge Lake. One of these would be diamond-drilled the next year.