

# Gold in Saskatchewan

## Deposit Types

Economic gold mineralization has been found primarily in two types of deposits in Saskatchewan's Canadian Shield: **orogenic gold** deposits and **volcanogenic massive sulfide (VMS)** deposits. The majority of deposits are structurally controlled orogenic gold deposits that are associated with quartz-carbonate veins along major faults and shear zones. Significant gold has also been found in association with copper and zinc in VMS deposits that are hosted in Paleoproterozoic volcanic rocks.



Seabee mine, SSR Mining Inc.

## Mining History

Gold has been produced as the primary commodity from 11 orogenic gold deposits in the Goldfields, La Ronge, Laonil Lake and Flin Flon areas, **resulting in over 2 million ounces** (oz) of gold production to date. The majority of this has been from the Seabee gold operation at Laonil Lake, which has produced more than 1.9 million oz of gold since 1991. The operation remains active today and has recently experienced several consecutive years of record annual production, including over 136,000 oz of gold in 2022. Gold has also been produced as a by-product of base metal mining from several VMS deposits in the La Ronge and Flin Flon areas of Saskatchewan. The largest of these, the Flin Flon deposit, straddled the Saskatchewan–Manitoba border and was mined between 1930 and 1992. The Saskatchewan portion of the Flin Flon mine yielded over 3.5 million oz of by-product gold, making it **Saskatchewan's largest-ever gold producing operation**.

## Strong Potential

Saskatchewan has a long history of gold production and holds several key geological ingredients for significant deposits. Despite this potential, it is estimated that Saskatchewan has accounted for only about 1% of national exploration expenditures for precious metals over the past 20 years.\* There remains great opportunity for gold discoveries.

\*Natural Resources Canada data

## For more information

### Saskatchewan Geological Survey

Ministry of Energy and Resources, Government of Saskatchewan  
p: 306-787-2585 email: [skgeosurvey@gov.sk.ca](mailto:skgeosurvey@gov.sk.ca)

### Saskatchewan Mining and Petroleum GeoAtlas

[www.saskatchewan.ca/GeoAtlas](http://www.saskatchewan.ca/GeoAtlas)

### Additional Resource:

Morelli, R.M. and MacLachlan, K. (2012): [Saskatchewan Gold: Mineralization Styles and Mining History](#); Saskatchewan Ministry of Energy and Resources, Report 262.









[saskatchewan.ca/invest](http://saskatchewan.ca/invest)

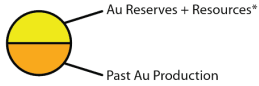


Native gold in core from Santoy Gap, Seabee gold operation

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## Gold Deposits

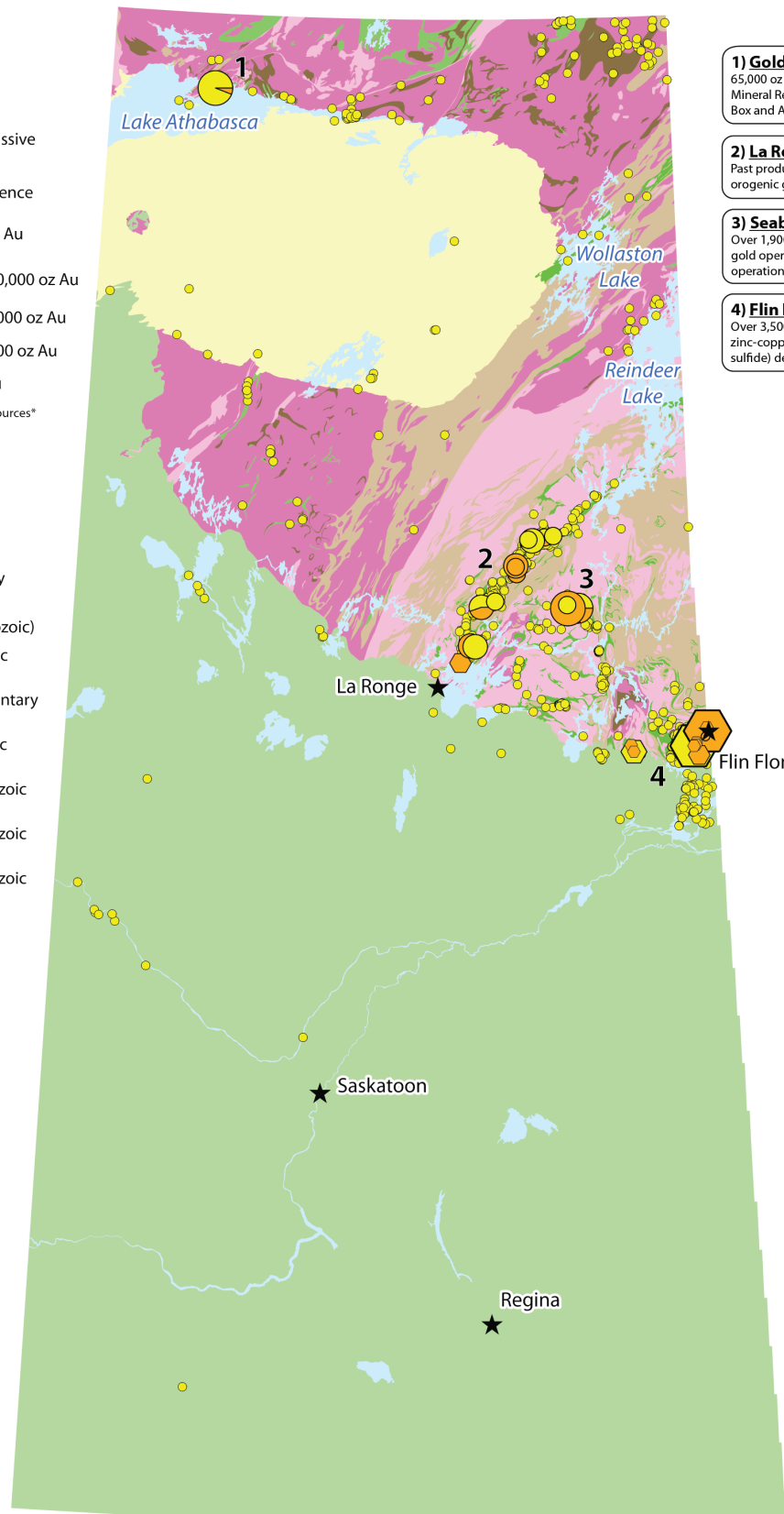
-  Orogenic Gold Deposit
-  Gold in Volcanogenic Massive Sulphide Deposit
-  Unclassified Gold Occurrence
-  > 1,000,000 oz Au
-  250,000 - 1,000,000 oz Au
-  100,000 - 250,000 oz Au
-  50,000 - 100,000 oz Au
-  < 50,000 oz Au



\* Reserves: Proven and Probable  
Resources: Measured and Indicated

## Geology

-  Phanerozoic sedimentary cover
-  Athabasca Basin (Proterozoic)
-  Paleoproterozoic plutonic rocks
-  Paleoproterozoic sedimentary rocks
-  Paleoproterozoic volcanic rocks
-  Archean to Paleoproterozoic plutonic rocks
-  Archean to Paleoproterozoic sedimentary rocks
-  Archean to Paleoproterozoic volcanic rocks



### 1) Goldfields

65,000 oz of past gold production and a combined Mineral Resource of ~1,000,000 oz remaining at the Box and Athona deposits.

### 2) La Ronge Area

Past production of 650,000 oz of gold from multiple orogenic gold deposits in the La Ronge area since 1985.

### 3) Seabee Gold Operation

Over 1,900,000 oz of gold produced from the Seabee gold operation near Laonil Lake since 1991, with operations ongoing today.

### 4) Flin Flon Mining District

Over 3,500,000 oz of by-product gold produced from zinc-copper mining of VMS (volcanogenic massive sulfide) deposits over the past century.



0 50 100 200 km