



Occurrence Details

Occurrence Number: 106C 020

Occurrence Name: Goz

Occurrence Type: Hard-rock

Status: Deposit

Date printed: 12/16/2025 10:42:03 AM

General Information

Primary Commodities: zinc

Secondary Commodities: cadmium, iron, silver

Aliases: Barrier Reef

Deposit Type(s): Sediment hosted Mississippi Valley-Type Pb-Zn (MVT)

Location(s): 64°25'43" N - -132°32'47" W

NTS Mapsheet(s): 106C07

Location Comments: .5 Kilometres

Hand Samples Available: Yes

Last Reviewed:

Capsule

Work History

Originally staked as 192 Goz, Gin, Al, etc cl (Y70006) between July and Sep/73 by Barrier Reef Resources Ltd, which carried out prospecting, geological mapping and rock geochemical sampling in 1973. The property was subsequently optioned by Conwest Exploration Company Ltd which carried out geological mapping and drilled 20 holes (2 023.6 m) in 1974 and soil geochemical sampling, geological mapping and drilled 35 holes (4 195.3 m) in 1975.

The property was transferred to MFC Mining Finance Corporation and then to Fairfield Minerals Ltd in 1987.

Capsule Geology

The area is underlain by a large northwest-trending fault-bounded strip of Upper Proterozoic carbonate to siliciclastic rocks.

Sphalerite, often totally oxidized to smithsonite, occurs with quartz, lesser amounts of galena and minor pyrite and boulangerite in a flat-lying, grey, thick-bedded, porous, partly pisolitic and sandy dolomitized limestone unit 762 m thick mapped as Upper Proterozoic Risky Formation. The favourable unit can be traced for a length of 8 km and a width of up to 3.2 km. Mineralization occurs as the matrix in silicified and brecciated beds, filling vugs and cross fractures, disseminated in coarsely crystalline horizons, and as the banded matrix of cross-bedded sandstone horizons, and displays both stratigraphic and tectonic controls. Mineralization was controlled initially by primary and secondary porosity, was later upgraded by tectonic brecciation and paleokarsting along faults with concomitant remobilization and was subsequently modified by supergene alteration during the Laramide uplift.

The principal showings occur over a length of 1 340 m within an upper dolomite layer 107 m thick that dips 5-10 degrees south. Other showings have been found at a second horizon 122 m lower in the section.

The 1974 drilling roughly outlined about 1 360 777 million tonnes grading 10% sulfide Zn and 3% oxide and carbonate Zn in a linear, steep-walled mass of collapse breccia about 30 m wide, with stratiform wings that average 6 m thick. The deposit is surrounded by irregular zones of lower grade disseminated mineralization. The sphalerite ranges from white to pale yellow (turkey fat ore) to honey brown to red. The 1975 work tested other zones and generally returned lower grades.

In 1989, Fairfield apparently recalculated the resource inventory for the deposit and reported an open pit reserve of 2 494 758 million tonnes averaging 11% Zn (George Cross News Letter, 19 May/89).

Assay of select hand samples (Heon, 2006) from the DDH-8 area and HAB zone gave low silver values, typical of an MVT setting, but surprisingly high antimony values (e.g., 1818 ppm Sb).

References

BARRIER REEF RESOURCES LTD, Aug/74. Assessment Report #061056 by C.M. Hamilton.

BARRIER REEF RESOURCES LTD, 1975. Assessment Report *#091702 by T. Terriff and R. Lennox.

CONTRIBUTIONS TO GEOLOGY OF NWT, 1984, p. 95-106.

CONWEST EXPLORATION COMPANY LTD, Dec/74. Assessment Report #061075 by C.G. Verley.

DAWSON, K.M., 1975. Carbonate-hosted zinc-lead deposits of the Northern Canadian Cordillera. Geological Survey of Canada, Paper 75-1A, p. 239-241.

GEORGE CROSS NEWSLETTER, 19 May/89.

GORDEY, S.P. AND MAKEPEACE, A.J., 2003. Yukon Digital Geology, version 2.0, S.P. Gordey and A.J. Makepeace (comp); Geological Survey of Canada, Open File 1749 and Yukon Geological Survey, Open File 2003-9 (D).

*GUTRATH, G.C., 1974. Report on the Bonnet Plume - Goz Creek Property, Yukon Territory, for Twin River Resources Ltd.

HEON, D., 2006. Isotope dating of lead-zinc occurrences in the Bonnet Plume area, Preliminary Report, Yukon Geological Survey, Open File 2006-16.

MINERAL INDUSTRY REPORT 1973, p. 23-24; 1974, p. 23-24; 1975, p. 44-47; 1976, p. 6-19.

| Work History | | |
|--------------|--------------|---|
| Date | Work Type | Comment |
| 12/31/1975 | Drilling | Number of holes drilled: 35 Amount of work done: 4208.37 METRES |
| 12/31/1975 | Geology | |
| 12/31/1975 | Geochemistry | Claims east of Goz Creek soil sampled. |
| 12/31/1974 | Drilling | Number of holes drilled: 20 Amount of work done: 2023.57 METRES |
| 12/31/1974 | Geology | |
| 12/31/1974 | Other | |
| 12/31/1973 | Geology | |
| 12/31/1973 | Other | |

| Assessment Reports that overlap occurrence | | | | | |
|--|------|---|--|---------------|----------------|
| Report Number | Year | Title | Worktypes | Holes Drilled | Meters Drilled |
| 095667 | 2008 | Assessment Report Describing Diamond Drilling and Geophysical Surveys at the Goz Property | Diamond - Drilling, Soil - Geochemistry, EM - Ground Geophysics, Magnetics - Ground Geophysics | 7 | 775.73 |
| 091702 | 1975 | [Diamond Drilling on the Boz-Creek Property] | Diamond - Drilling | 35 | 4207 |
| 061056 | 1973 | Geological Report on the Baf,Vuh,Ang,Ham,Lin,Duo,Stol,Ann,Goz,Walt,Ang,Luv Mineral Claims | Rock - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other | | |

| Related References | | | | |
|----------------------------|--|---------|--------------------------|---------------------------------|
| Number | Title | Page(s) | Reference Type | Document Type |
| ARMC005720 | Correspondence Re: Great Plains Development Corp. - Proposed joint venture with Conwest on claims in Goz Creek area, Y.T. | | Property File Collection | Report |
| ARMC005735 | Progress report - | | Property File Collection | Report |
| ARMC004981 | Correspondence Re: Barrier Reef Goz Creek property, Bonnet Plume area | | Property File Collection | Miscellaneous Company Documents |
| ARMC012734 | Report to shareholders - Goz Creek property | | Property File Collection | Report |
| ARMC013943 | Topographic map of Goz claims - sheet 1 of 4 - 74-38 | | Property File Collection | Geoscience Map (General) |
| ARMC013944 | Topographic map of Goz claims - sheet 2 of 4 - 74-38 | | Property File Collection | Geoscience Map (General) |
| ARMC013945 | Topographic map of Goz claims - sheet 3 of 4 - 74-38 | | Property File Collection | Geoscience Map (General) |
| ARMC013946 | Topographic map of Goz claims - sheet 4 of 4 - 74-38 | | Property File Collection | Geoscience Map (General) |
| ARMC016982 | A summary report on the outside exploration programme July to September 1973 | | Property File Collection | Report |
| ARMC012730 | Air photo enlargement - Goz Creek area | | Property File Collection | Geoscience Map (General) |
| ARMC012735 | General correspondences Re: Goz Creek zinc prospect | | Property File Collection | Miscellaneous Company Documents |
| ARMC012732 | General geology information - Goz Creek: Diamond drill holes, Northern Cordillera mineral report, news clips, correspondence, budget plan, assay report and proposed exploration program | | Property File Collection | Miscellaneous Company Documents |
| ARMC012727 | General plan of Barrier Reef property - Goz Creek area | | Property File Collection | Geoscience Map (General) |
| ARMC019537 | Memo re: Barrier Reef Resources Goz Creek zinc prospect, Yukon | | Property File Collection | Miscellaneous Company Documents |
| ARMC017495 | Assay sheet - Geology of Barrier Reef - Goz Creek property | | Property File Collection | Assays |
| ARMC012731 | Claim map of Goz Creek and Bonnet Plume River area | | Property File Collection | Geoscience Map (General) |

| Resource/Reserve | | | | | | | | | |
|------------------|------|------|-----------|-------|---------|--------|-----------------|------------------|---------|
| Year | Zone | Type | Commodity | Grade | Tonnage | Amount | Reported Amount | 43-101 Compliant | Cut-off |

| | | | | | | | | | |
|--|----------------|---------------------|------|------|-----------|--|----|----|---------|
| 1989 | GOZ (OPEN PIT) | Historical Estimate | zinc | 11 % | 2,494,758 | | No | No | Unknown |
| Not National Instrument 43-101 compliant. Recorded for historical purposes.; George Cross Newsletter May 19 1989, p. 2. | | | | | | | | | |
| 1975 | GOZ (OPEN PIT) | Historical Estimate | zinc | 13 % | 1,360,777 | | No | No | Unknown |
| Grade includes sulfide, oxide and carbonate Zn.; Mineral Industry Report 1974, p. 24, with reference to Northern Miner, 30 Jan/75. | | | | | | | | | |

Drill core at YGS core library

| Number | Property | Year Drilled | Core Size | Photos | Data |
|---------------------------|-----------|--------------|-----------|--------|------|
| BAF-75-36 | Goz Creek | 1975 | BQ | 0 | 2 |
| BAF-74-11 | Goz Creek | 1974 | AQ | 0 | 2 |
| BAF-74-12 | Goz Creek | 1974 | AQ | 0 | 2 |
| BAF-74-6 | Goz Creek | 1974 | AQ | 0 | 2 |
| BAF-74-9 | Goz Creek | 1974 | AQ | 0 | 2 |