

APPENDIX 2

OCCURRENCES NOT INVESTIGATED

The following occurrences were brought to the writer's attention after the completion of field work and consequently were not examined in the field.

Antigonish County(116) Addington Forks - N.T.S. - 11-E/9A

Grace, (1966) reports barite veins at various intervals between 1447 feet and 1547 feet in D.D.H. KEH-5, drilled by Kennco Expl. Ltd. The barite occurs as veins in rocks of both the Horton Group and Windsor Group, the contact of which was believed to have been crossed at 1505 feet. The location of the drillhole is shown in Figure 195.

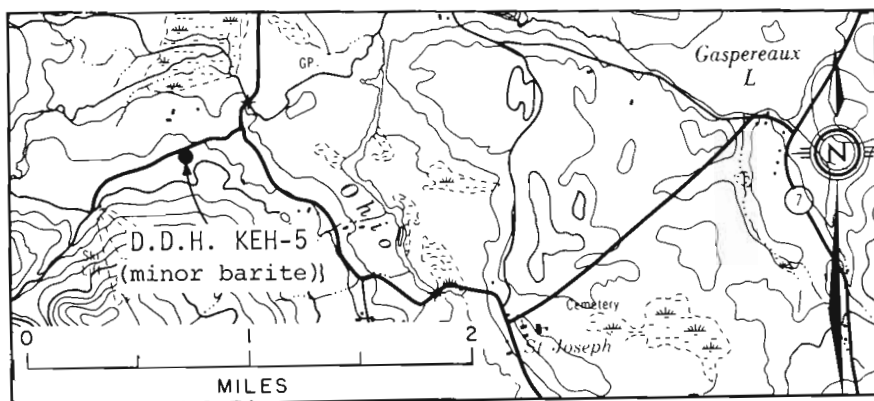


Figure 195

(117) Arisaig Agalmatolite Quarry - N.T.S. - 11-E/16A

The following extract is taken from Sabina, (1965, p. 50) who reports minor amounts of barite hosted by felsite (probably rhyolite, welded rhyolitic tuff identical to that found at Arisaig Point):

"Transparent, colourless, pink and white platy aggregates of barite, in places coated with fine powdery hematite, occupy cavities measuring up to 4 inches across."

"The quarry is on the right (east) side of the road leading to the Arisaig wharf, at a point 0.3 mile north of highway 245."

The location of the quarry is indicated on Map 4, (Sabina, 1965, p. 49).

(118) Cribbon's Point (Crebbing Pt., Cribbean Head) - N.T.S. - 11-F/13-B

Sabina (1965, p. 47, 48) reports barite in the Horton Group sediments at this locality. The following extract from the report indicates the nature of the mineralization:

"In reddish brown sandstone and grey conglomerate."

"The cliffs expose fossil tree trunks (the largest measured about 4 feet by 8 inches) and plant fragments, which have been converted to coal and partly replaced by fine-grained pyrite, calcite, and, less commonly, by platy aggregates of pink barite."

(119) Calpo Quarry (Southside) - N.T.S. - 11-F/12-C

A specimen of vuggy, fossiliferous, grey limestone containing minor barite was submitted by W. Burton of U. S. Borax Limited in 1977. The barite is white and coarsely crystalline with a well developed tabular habit, and is found filling irregular cavities in the limestone. The limestone belongs to the A-subzone of the Windsor Group.

(120) Lochaber Lake - N.T.S. - 11-E/8-D

Barite was noted (Murray, personal communication, 1975 and O'Reilly, personal communication, 1977) in D.D.H. 10 on property held by the Great Horn Mining Syndicate in

1972. The following description is given by O'Reilly (1977)*:

- "49'-65' - LIMESTONE; most part light grey, non-fossiliferous, massive interbedded with lesser amounts of finely laminated dark limestone. Core-bedding angle of intersection approximate 60°. Minor (<1%) disseminated chalcopyrite, bornite.
- 65'-68' - BARITE; coarsely crystalline, white, with a distinct tabular habit and containing rare inclusions of pyrite and chalcopyrite. Core broken into small pieces.
- 68'-85' - LIMESTONE; alternating layers of non-fossiliferous light grey, massive limestone and thinly laminated, dark limestone. Minor (<1%) disseminated chalcopyrite and barite.

The hole appears to be drilled in a southeast direction at an angle of approximately 45° - 50°. Outcrops in trenches in the nearby vicinity generally strike 030° azimuth and have dips from 78° N.W. to nearly vertical."

(121) MacLean Showing (Ohio) - N.T.S. - 11-E/9-A

This showing is primarily of interest as a copper prospect, however, a specimen of barite was obtained from the dumps that surround the old shaft. The barite is white, very coarsely crystalline and exhibits a well developed tabular habit (very similar in appearance to the barite found at Bass River of Five Islands, Colchester County). The mineralization appears to have been structurally controlled as evidenced by angular fragments of grey limestone in sharp contact with the barite. The limestone is believed to be part of the A-subzone of the Windsor Group.

* G. O'Reilly, Metallogenic Project, Nova Scotia Dept. Mines.

Colchester County(122) Banks of the Stewiacke River - N.T.S. - 11-E/3-D

Barite is reported at this locality by Church, (1889), Dawson, (1868, p. 276), Gilpin, (1880, p. 99), and How (1869, p. 160, 161). The most complete account on the showing is given by How, (1869, p. 160, 161), which reads in part:

"On the banks of the Stewiacke river, about 4 miles from the Brookfield railway station three veins of barytes are exposed on the surface, in a country rock of red sandstone, having an average thickness of 18 inches. A shaft of about 40 feet was sunk on the first workings by quarrying and one vein was found to thicken very considerably in depth. Last summer the shaft was emptied of water and a few tons of mineral raised the greater part of which is said to have been perfectly white. A specimen of some pounds weight shown to me, reported to have been taken from the surface, was white throughout, or with a greyish tinge in part, but perfectly free from pyrites and other metallic minerals; this latter character is said to belong to the whole deposit. It is estimated that 1200 tons, in all, have been taken out."

There is a possibility that this occurrence is synomomous with the Middle Stewiacke barite occurrence described in chapter 4 of this report.

(123) Little River (Brentwood) - N.T.S. - 11-E-3-D

The presence of fluorite at this location is reported by Murray, (1975, personal communication), who states:

"The limestone contains numerous very small cavities running parallel to the banding. Some of these small cavities contain small blebs of purple fluorite. This limestone outcrops in the river and on the south side of the river 2,045 feet downstream from where the Little River crosses the Brentwood - Forest Glen road."

In addition to this showing, fluorite was encountered in diamond drilling by Aurum Gold Mines Ltd. in 1973 in the immediate vicinity. The locations of the drill holes relative to the outcrop showing is indicated in Figure 196.

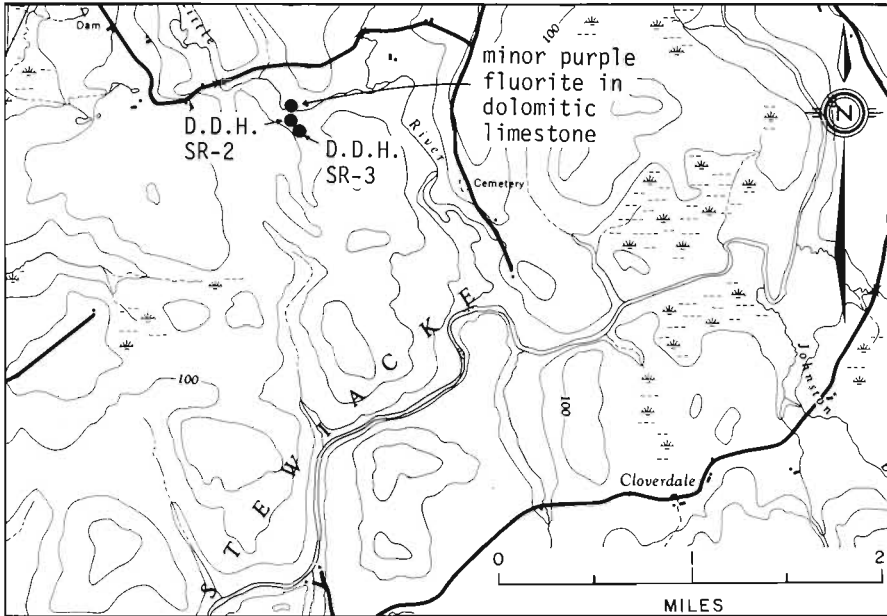


Figure 196

Fluorite was encountered in two drill holes (hole no.'s SR-2 and SR-3) with one, (SR-2) containing mineral showings at 4 different horizons. The fluorite bearing zones range in thickness from .5 feet to 2.0 feet with the mineral for the most part occurring as minor fine disseminations of purple and brown fluorite. Some sections however, (D.D.H. SR-3, 322.1'-322.6', and D.D.H. SR-2, 129.7'-130.7', 167.0'-167.8') show brown, fine grained fluorite filling cavities and replacing the host rock, which for the most part is a laminated, grey and light brown dolomitic limestone. Evidence of replacement (fine grained dolomite embayed by fine grained fluorite) was observed in thin sections E03-5011 and E03-5012 which were taken from between 322.1'-322.6' in D.D.H. SR-3. The cavities are both irregular in shape, cutting across bedding, and regular, as small 1-2 mm thick lenses and layers conformable to the bedding laminae. These stringers of fluorite are translucent, pale grey-brown in colour and generally fine grained, however in one instance

the grain size was larger and a growth pattern perpendicular to bedding was observed.

Although no samples were submitted for chemical analysis, visual examination of the mineralized sections indicate the fluorite content to range from 1 to 5 per cent, with the best section (D.D.H. SR-3, 322.1'-322.6') containing approximately 10 to 15 per cent. Assays of this section by Aurum Gold Mines Ltd., (1973, p. 8), report a CaF_2 value of 18.35 percent.

(124) Clifton - N.T.S. - 11-E/6-B

Barite is reported by Gilpin, (1880, p. 99) and Poole, (1907, p. 15) to occur at this locality with iron ores. The following extract is taken from Gilpin, (1880, p. 99):

"It (barite) also occurs associated with limonite at the mouth of the Shubenacadie River and Clifton."

(125) Nine Mile River - N.T.S. - 11-E/4-A

Although barite is not reported to occur here in outcrop, a small piece of drill core (barite), taken from a diamond drill hole (Jorex Ltd.), was shown to the writer by R. Boehner of the Nova Scotia Department of Mines. The following extract is taken from the drill log of hole No. JO NM-73-14, by Boehner, (1975):

- | | | |
|--------|----------|--|
| "531' | - 536.9' | Anhydrite dark grey with fragments of brown dolomite. Very brecciated. |
| 536.9' | - 537.9' | <u>Barite</u> - anhydrite mixture. Barite is pink to white with elongate crystals. |
| 537.9' | - 542' | Gypsum, light grey brown with a few selenite blades and satin spar veins. |
| 542' | - 557' | Anhydrite, medium blue grey, many satin spar veins and selenite blades. |

- 557' - 567' Gypsum, light grey brown, few selenite blades.
- 567' - 569' Limestone highly calcareous medium grey brown solution limestones. At 568' a 4" vein of barite."

The piece of barite examined by the writer was taken from the 537.5' mark. It is very coarsed grained with a prominent bladed habit, salmon pink, translucent white and grey-white in colour, and is relatively pure (90 percent barite).

The location of the drill hole is shown below in Figure 197.

(126) Great Village River - N.T.S. - 11-E/5-D and 11-E/12-A

Barite associated with ankerite and iron oxides veins in the Cobequid Complex of rocks is reported by Dawson, (1855, p. 329-332). The following excerpts indicate the location and nature of the showing:

"In the western bank of this stream, at the junction of the carboniferous and metamorphic series, Near the falls of the river, a short distance northward of the junction just noticed, the slates give place to grey quartzite, which, with some beds of olive slate, occupies the river section to, and for some distance beyond, the iron vein.

The vein is well seen in the bed of the stream, and also in excavations in the western bank, which rises abruptly to the height of 327 feet above the river bed.

Sulphate of Barytes occurs in small crystals lining fissures, and in compact veins in the ankerite."

This showing is also reported in Poole, (1907, p. 13).

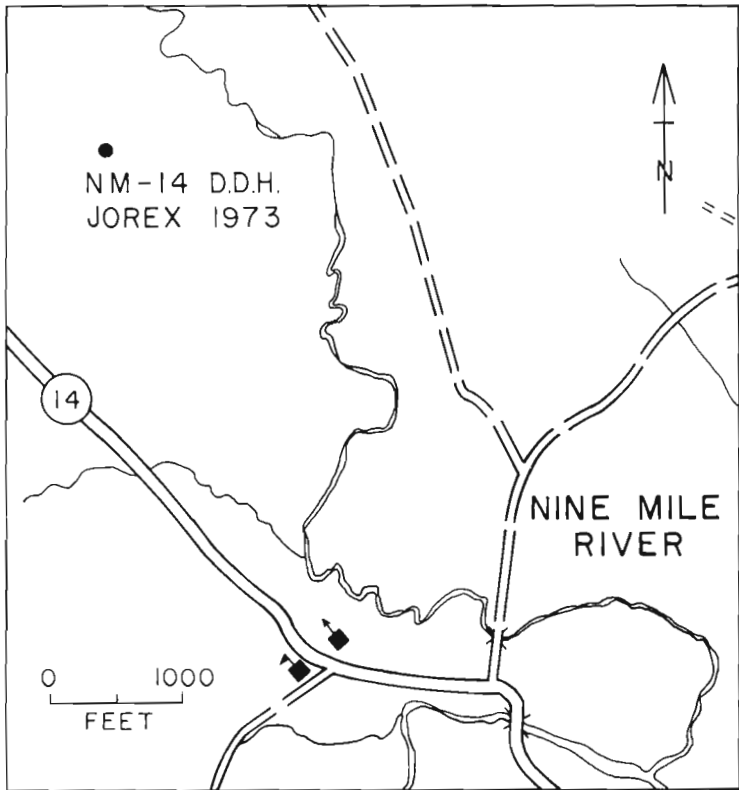


Figure 197

(127) Milford Station - N.T.S. - 11-E/3-B

Miller, (1978, personal communication) reports barite in the form of well developed crystals lining cavities in red siltstone in the quarry at this locality. The siltstone forms part of the D-Subzone of the Upper Windsor Group in this area.

(128) Maccan - N.T.S. - 21-H/9-C and D

This showing is a barite occurrence reported by Campbell and Shea, (1957) who themselves had not verified it, but indicate that it had been reported by other authors. No additional references to this showing could be found.

- (129) Wallace River - N.T.S. - 11-E/12-E, 11-E/13-A, and 11-E/14-B

Barite is reported to occur here by Gilpin, (1880, p. 99) who states:

"Among other localities may be mentioned the Lower Carboniferous of the Avon, Musquodoboit and Wallace Rivers."

Halifax County

- (130) Gays River - N.T.S. - 11-E/3-B

This is currently the site undergoing development as a lead-zinc mine by Imperial Oil Ltd. Examination of a hand cobbled specimen from the dumps contained approximately 15 per cent fluorite filling cavities and replacing dolomite. The fluorite is coarsely crystalline and occasionally seen as well developed cubic crystals lining irregular cavities in the dolomite. It ranges in colour from transparent, purple to black, with the purple and black varieties being the most common Figure 198. The host rock (dolomite), is highly fossiliferous and is part of the Gays River Formation, A subzone of the Windsor Group. Hannon (personal communication, 1975), reports that the fluorite is more abundant in the back reef than in the reef proper and fore reef.

- (131) Musquodoboit River - N.T.S. - 11-D/14-D, 11-E/3-A, & 11-E/2-W

Barite is reported by Gilpin (1880, p. 99) to occur in the Lower Carboniferous of the Musquodoboit River, however there is no indication given regarding the specific location or nature of the showing.

Inverness County

- (132) Pleasant Bay (MacKenzie River) - N.T.S. - 11-K/15-B

Fluorite is reported to occur at this locality by Fletcher, (1884, p. 21 H), Neale, (1963), and Sabina, (1965, p. 25). The location of the occurrence is indicated on the geology map for this area by Neale

(1963), and the descriptive notes accompanying the map describe the nature of the showing, which reads in part:

"At the mouth of MacKenzie River green and purple fluorite and small amounts of finely divided galena occur in calcite veins that cut granodiorite and overlying Horton sandstone."

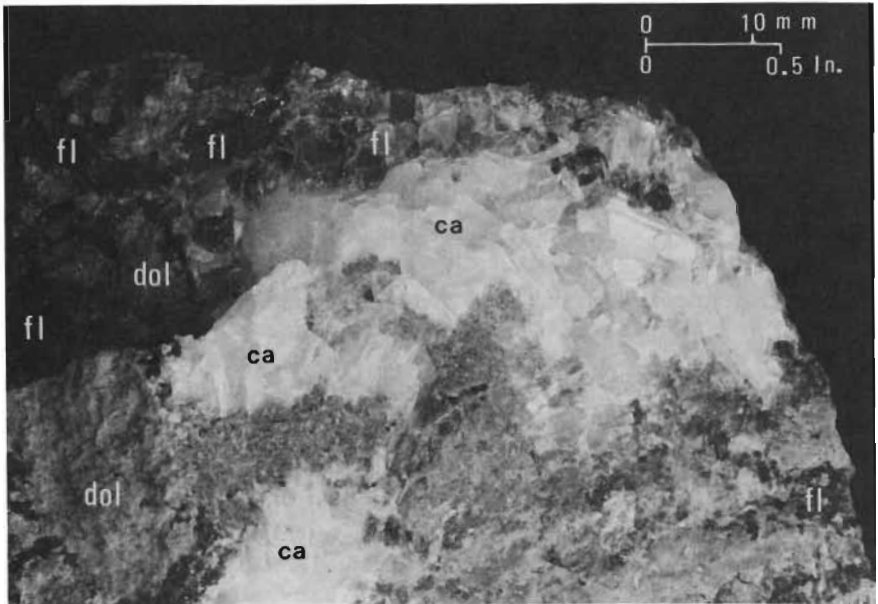


Figure 198 - Gays River. Purple and black fluorite in dolomite (Gays River Formation, Windsor Group).
fl - fluorite, ca - calcite, dol - dolomite.

(133) Whycomagh - N.T.S. - 11-/14-D

Barite is reported by Gilpin, (1880, p.99) to occur in this area, however no information regarding the location and nature of the showing is given. An extract from the above mentioned report reads as follows:

"I have also seen samples from Antigonish County, Whycomagh,".

(140) Jerome Brook - N.T.S. - 11-K/10-C

Murray (personal communication, 1975), reports the presence of barite and fluorite veins in granitic rocks at this locality (Fig. 145). However, this showing falls within the Cape Breton Highlands National Park boundary, consequently it is of academic interest only.

Pictou County(134) Melmerby Beach - N.T.S. - 11-E-10-D

Sabina, (1965, p. 52) and Bingley (personal communication, 1975), report barite in the outcrops at the western extremity of Melmerby Beach. An extract from Sabina, (1965, p. 52) reads in part:

"Coalified fossil plant fragments have been partly replaced by quartz and finely cystalline pyrite. Some tree trunks have been replaced by pink barite. The deposit is exposed along Northumberland Strait on the east side of the head land at the west end of Melmerby Beach."

(141) Roger's Hill (Rogers Hill) - N.T.S. - 11-E/10-C

Barite is indicated here on Church's Mineral Map of Nova Scotia, (1883), and also reported by How (1869, p. 208). No information is given regarding the nature of the deposit.

Richmond County(142) Irish Cove Brook - N.T.S. - 11-F/15-A

Forgeron, (1977) reports the occurrence of barite in this stream. The following extract indicates the nature of the showing:

"High-grade boulder floats occur in Irish Cove Brook. Texturally, they are identical to Pine Brook showing. Possibly transported by glacciation or the result of erosion of barite sub-outcrop underlying stream bed."

Victoria County(135) Dingwall Gypsum Quarry - N.T.S. - 11-K/16-C

Sabina, (1965, p. 26) reports the presence of minor amounts of celestite associated with the gypsum. An excerpt from her report reads as follows:

"celestite as light brown, transparent granular streaks;"

(136) Little Narrows (Jubilee Prospect) - N.T.S. - 11-F/15-C

This prospect is primarily of interest as a lead-zinc deposit, however a sample of the mineralized rock containing a small amount of barite was submitted to the writer in 1975. A specimen (sample No. F15-5005) was submitted for chemical analysis, the results of which are found in appendix III. Figure 199 shows the sample location.

The showing occurs as small, segregated clumps of white to transparent, coarse grained barite often with a well developed orthorhombic cleavage. The greater part of this sample is comprised of galena and sphalerite with a minor quantity of limestone.

The mineralization at this prospect was evidently structurally controlled with a certain amount of replacement of the host rock having taken place. The host rock is the basal member of the A-subzone limestone of the Windsor Group. A hand specimen of the limestone examined by the writer was vuggy and oozed thick black bitumen.

The prospect is currently under development license to Amax Expl. Ltd.

(137) St. Anns - N.T.S. - 11-K/7-A

Gilpin, (1880, p. 99) reports having seen barite from this area, however he gives no specifics regarding the location or nature of the showing.

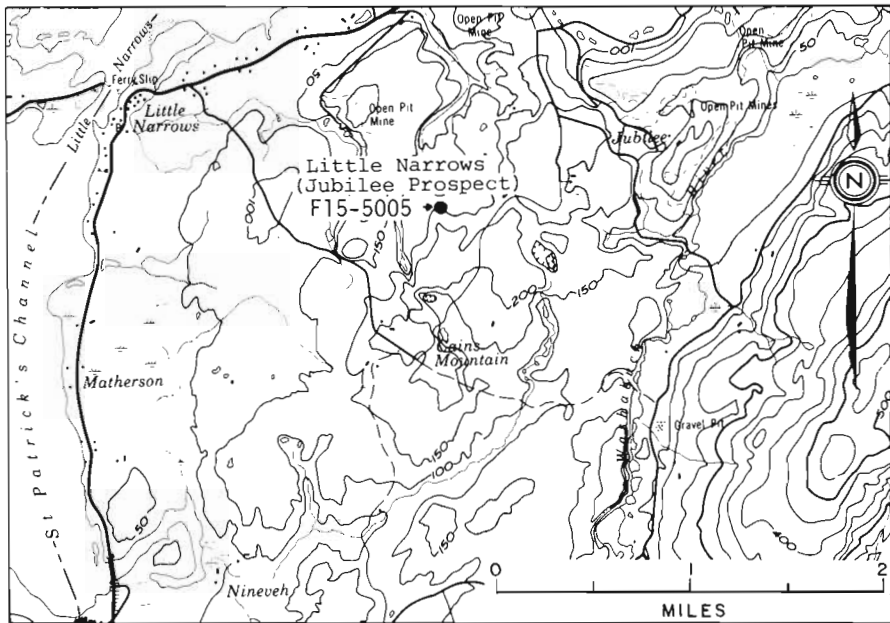


Figure 199

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