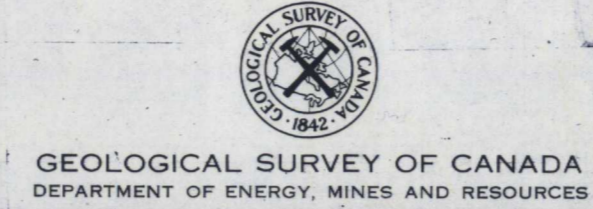


ROBERTS ARM
NEWFOUNDLAND

Scale: One Inch to One Mile = 63,360
1 1/2 0 1 2 MILES

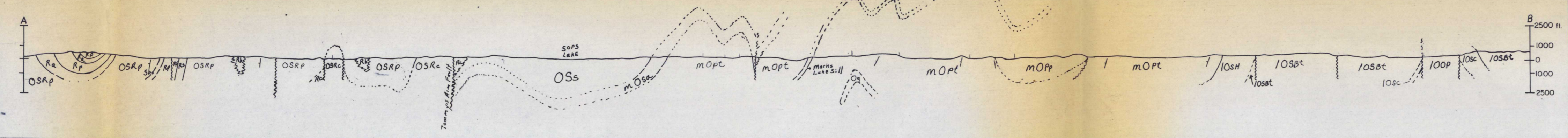
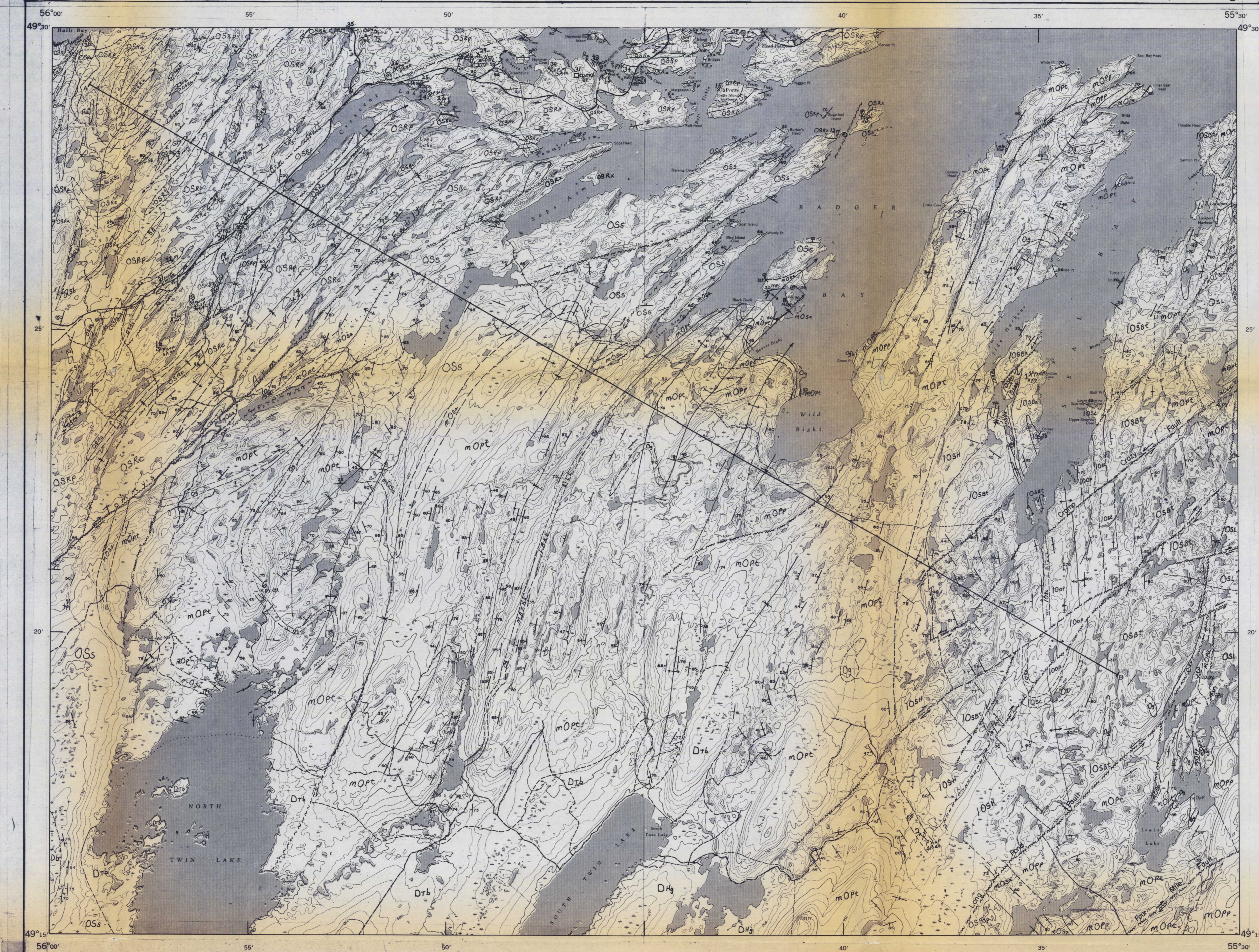


SHEET 2

Mineral Occurrences, Prospects and Mines

Explanatory Notes - Roberts Arm Map-Area

- DEVONIAN
- Dgh HALLS BAY PLUTON: Grey-green to greyish-pink, massive and foliated granodiorite, quartz monzonite and granite.
 - Dhg HODGES HILL GRANITE: Pink to brick-red coarse to medium-grained granite.
 - Db Light grey to light greenish grey, medium-grained diorite and granodiorite.
 - DTb TWIN LAKES DIORITE COMPLEX: Cream to dark grey, medium to coarse grained, hornblende diorite, tonalite, granodiorite, gabbro and amphibolite.
- SILURIAN
- SN WOODFORDS ARM PLUTON: Pink to brownish-red, medium to fine-grained granite and granodiorite.
 - Sb Medium to fine-grained gabbro and diabase sills. (Intrude Roberts Arm Group).
- ORDOVICIAN AND SILURIAN
- ROBERTS ARM GROUP (OSRk, OSRe, OSRp, OSRs, OSRb, OSRa)
- OSRa Greyish-green to grey and white rhyolite and dacite flows, agglomerates, tuffs and sills.
 - OSRb Green to light greenish-grey, intermediate to basic, coarse volcanic breccia and agglomerate (possibly includes some pillow breccia).
 - OSRs Reddish brown to grey bedded tuff, chert and greywacke.
 - OSRp Dark greenish-grey to reddish brown and black pillowed basalt, pillow breccia and massive flows; thin lenses and beds of chert, tuff and greywacke.
 - OSRC CRESCENT LAKE FORMATION: Red and green shale, chert and tuff; grey to black tuffaceous greywacke, shale; minor conglomerate horizons and basalt flows near the base.
 - OSRx SOPS HEAD COMPLEX: Chaotically slumped black and grey argillite; mafic volcanic flows, tuff, greywacke, conglomerate, limestone and chert. V-large volcanic blocks.
 - OSFop FROZEN OCEAN GROUP: Dominantly dark green mafic pillow lavas.
 - OSs SANSON GREYWACKE: Medium-grey well-bedded graded greywacke; local conglomeratic horizons near top and bottom of the formation.
- MIDDLE AND LOWER ORDOVICIAN
- mOsa SHOAL ARM FORMATION: Red to green and black chert; black carbonaceous argillite and argillaceous siltstone; minor siliceous tuff.
 - Og Fine to coarse-grained, porphyritic to non-porphyritic gabbro and diabase sills. (Intrude Wild Bight Group)
 - OSL SOUTH LAKE IGNEOUS COMPLEX: Coarse to medium-grained hornblende tonalite, hornblende diorite, trondhjemitic granodiorite and gabbro (some phases intrude Wild Bight Group)
- WILD BIGHT GROUP (10Op, 10Sc, 10Sb, 10Sh, mOp)
- mOp PENNY'S BROOK FORMATION. (mOp, mOpP, mOpA)
 - mOpT Red and green thin bedded tuff; green, thick-bedded lapilli tuff; tuffaceous sandstone, greywacke, argillite and chert.
 - mOpP Pillow lava, pillow breccia, mafic flows and agglomerate.
 - mOpA Acidic pyroclastic and flow rocks.
 - 10Sh SIDE HARBOUR FORMATION: mafic pillow lava, pillow breccia and mafic flows. Sh: rhyolite pyroclastics and flows.
 - 10Sb SEAL BAY BROOK FORMATION (10Sbt, 10Sba, 10Sbb, 10Sbs)
 - 10Sbt Massive and bedded coarse agglomerate and tuff, containing abundant chert fragments; minor fine-grained tuff, greywacke and chert.
 - 10Sba Acidic pyroclastic and flow rocks.
 - 10Sbb Mafic volcanic flows and pillow lava.
 - 10Sbs Red and green fine grained tuff, chert and greywacke
 - 10Sc SPARROW COVE FORMATION: Black to green mafic pillow lava and pillow breccia.
 - 10Op OMEGA POINT FORMATION: Red and green chert, cherty tuff and argillite; grey to green tuff, tuffaceous sandstone and greywacke.



1. Indian Cove: Massive to disseminated pyrite and chalcocopyrite in acidic pyroclastic rocks.
2. Point Leamington Deposit: Large massive pyritic sulphide body with copper values around 1% and with sphalerite rich lenses near top of the body.
3. Long Pond: Pyrite and chalcocopyrite in veinlets and disseminated throughout acidic volcanic rocks and red cherts.
4. Cramp Crazy Lake: Disseminated pyrite in coarse volcanic agglomerate.
5. Rocky Pond: Veinlets and inclusions of chalcocopyrite in medium grained quartz-gabbro.
6. Kippens Ridge: Pyrite and chalcocopyrite stringers in argillite near contact with gabbro sill.
7. & 8. Gull Island: Manganiferous cherts at the base of the Shoal Arm Formation.
9. Gull Island: 10 ft. bed of grey recrystallized limestone.
10. Kippens Pond: Lenses, stringers and pod-shaped aggregates of pyrite in black shale, chert and thin felsic volcanic units of the Shoal Arm Formation.
11. O'Brien's showing: Pyrite lenses and disseminations in black shale and chert.
12. Duck Island Tickle: Stringers and heavily disseminated pyrite in a large rhyolite block in the Sops Head Complex.
13. Duck Island: 20' lense of white to grey recrystallized limestone in Sops Head Complex.
14. Kippens Pond North: Pyrite in massive and pillowed basalt.
15. Pretty Island: 10' limestone bed in pillowed basalt.
16. Rust Pond: Massive and stringer sulphides in silicified basalt with thin acidic units.
17. Ghost Pond: Chalcocite stringers with malachite staining in basalt.
18. Round Pond: Disseminated and stringer sulphides in pillow basalt, pillow breccia and chloritic tuff.
19. Fourth Pond: Pyrite in basalt.
20. Fourth Pond Tuff: Stringers and disseminations at pyrite and chalcocopyrite in banded chert and acidic tuff.
21. N.A.T.O. Showing: Pyrite, chalcocopyrite, malachite and azurite in fractures in basalts and in banded cherts.
22. Island Pond: Pyrite veinlets and disseminations in basalt.
23. Crescent Lake Narrows: Heavily disseminated pyrite with minor chalcocopyrite in silicified basalt with thin acid volcanic bands.
24. Crescent Lake Vein C: Pyrite and chalcocopyrite blebs and stringers in a quartz vein.
25. Crescent Lake Mine: Massive and stringer sulphides in quartz veins and in chloritized and silicified basalt.
26. Crescent Lake, Vein D: Blebs and stringers of pyrite, chalcocopyrite, sphalerite and galena in quartz veins and silicified basalt.
27. Falconridge Showing: Pyrite, chalcocopyrite, sphalerite and galena blebs and crystals in silicified basalt.
28. Roberts Arm Pond: Massive to disseminated pyrite, chalcocopyrite, sphalerite and galena in silicified basalt.
29. Dean's Showing: Blebs and stringers of pyrite, chalcocopyrite, sphalerite and galena in quartz veins in altered basalt.
30. Hamer Cove: Stringers and dissemination of pyrite, chalcocopyrite, sphalerite and galena in quartz stringers and in silicified basalt.
31. Measles Cove: Calcite stringers containing chalcocopyrite blebs and disseminations with malachite and azurite stainings.
32. Tilley Cove: Blebs and disseminations of pyrite and chalcocopyrite in altered pillow basalt.
33. Tilley Cove North: Blebs and disseminations of pyrite, chalcocopyrite and galena in acidic volcanics and in quartz stringers cutting the volcanics.
34. Flat Rock Tickle: Heavily disseminated pyrite in acidic volcanics.
35. Rushy Pond: Pyrite and malachite disseminated in acidic volcanics.
36. Mansfield Cove: Disseminated pyrite in acidic volcanics.

- Geological boundary (defined, approximate and assumed).....
- Bedding, tops known (horizontal, inclined, vertical, overturned).....
- Bedding, tops unknown (inclined, vertical).....
- Dyke trend (inclined, vertical).....
- Schistosity, onenessity, cleavage, foliation (horizontal, inclined, vertical).....
- Fault (defined, approximate, assumed).....
- Anticline (upright, overturned).....
- Syncline (upright, overturned).....
- Fossil locality.....
- Mineral occurrence.....
- Mineral prospect, test pit or trench.....
- Shaft or quarry (exploration, abandoned production, production, producing).....
- Adit or tunnel.....

Large Devonian intrusive bodies cut all rock types in the area.

The main structural features in the area are north to northeast trending, steeply plunging fold axes. Fold trends are more north-south in the eastern part of the area and trend progressively more eastward to the northeast. There is a suggestion of dome-like structures in the area of the Seal Bay Anticline and north of North Twin Lake. Large northeast-trending faults are generally post folding and post-Devonian intrusion.

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