APPENDIX 3

Photomicrographs

(select to view individual core data)

next appendix

PHOTOMICROGRAPHS

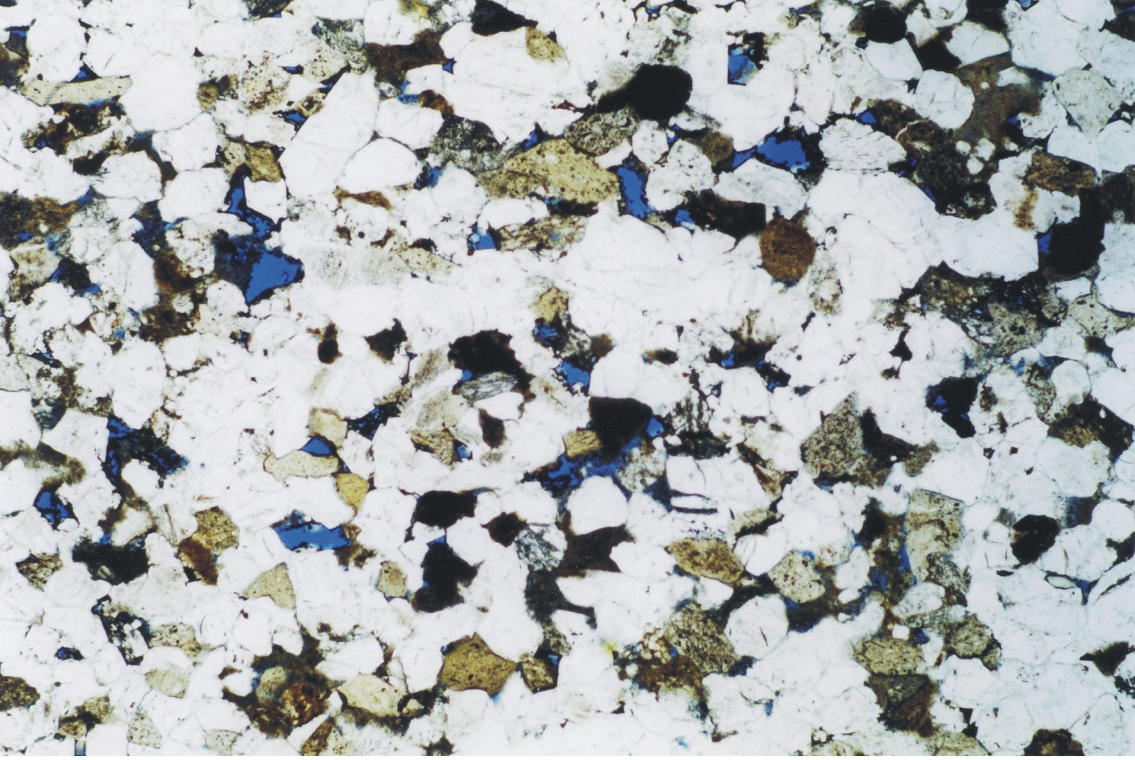

Photo 3-1: Cardium Formation -- Quartz-chert litharenite, very fine upper to medium-grained, moderately sorted. High compaction and extensive quartz overgrowths have greatly reduced effective porosity.

Imperial Uno-Tex Windsor a-3-B/93-P-1, 938.7 metres.

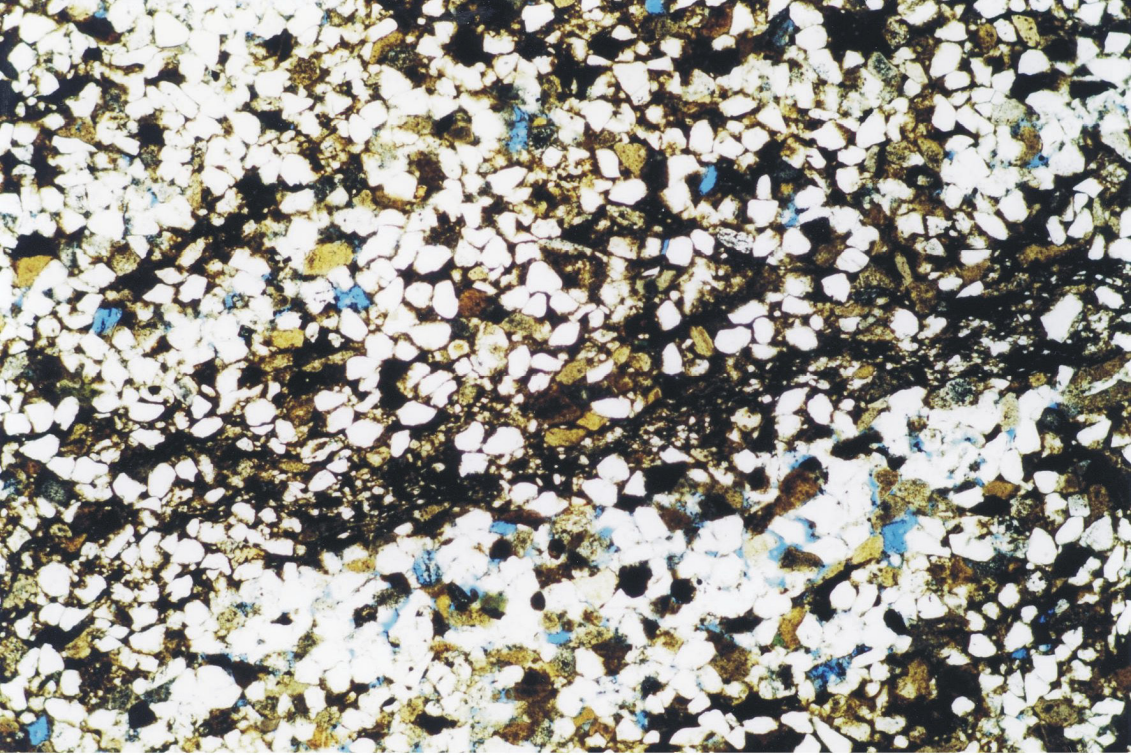

Photo 3-2: Sikanni Sandstone -- Quartz-chert litharenite, silt to lower fine-grained. Abudnant matrix clays degrade poor reservoir quality.

Suncor Bougie a-85-A/94-G-15, 781.5 metres.

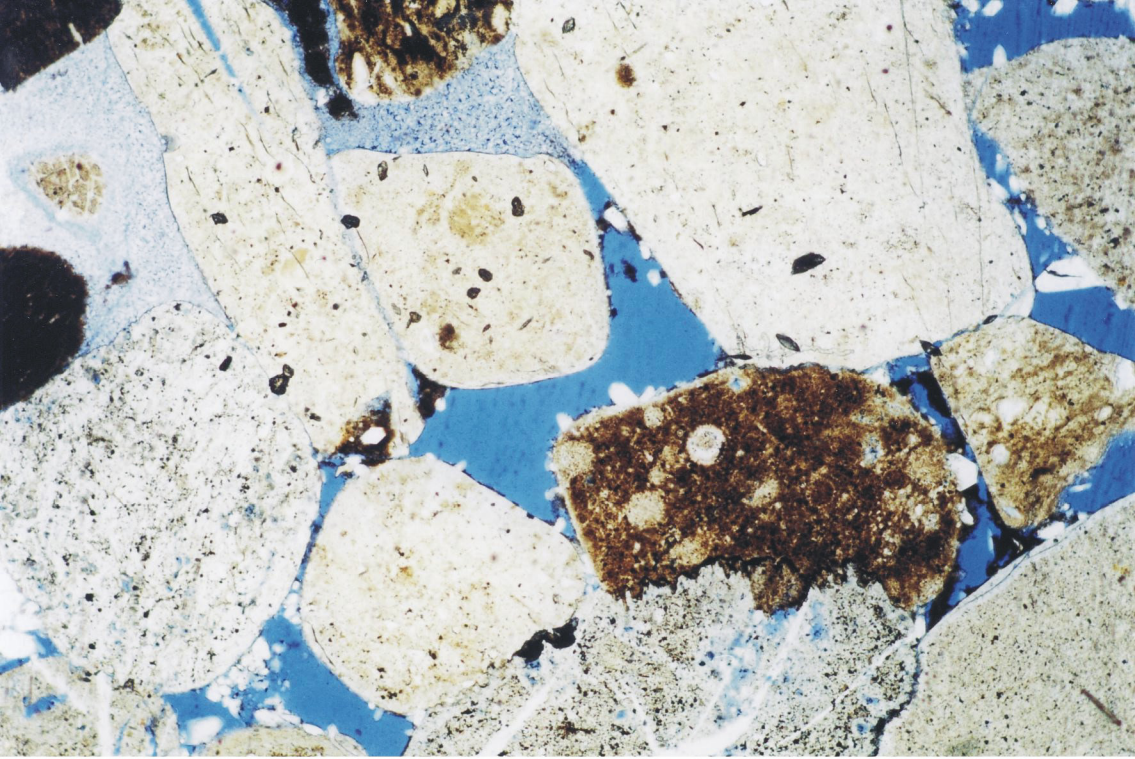

Photo 3-3: Cadotte Member -- Chert litharenite, very coarse-grained sandstone to granule conglomerate. Excellent primary intergranular porosity, with minor drusy quartz crystals.

Canhunter Noel b-24-A/93-P-7, 2054.3 metres.

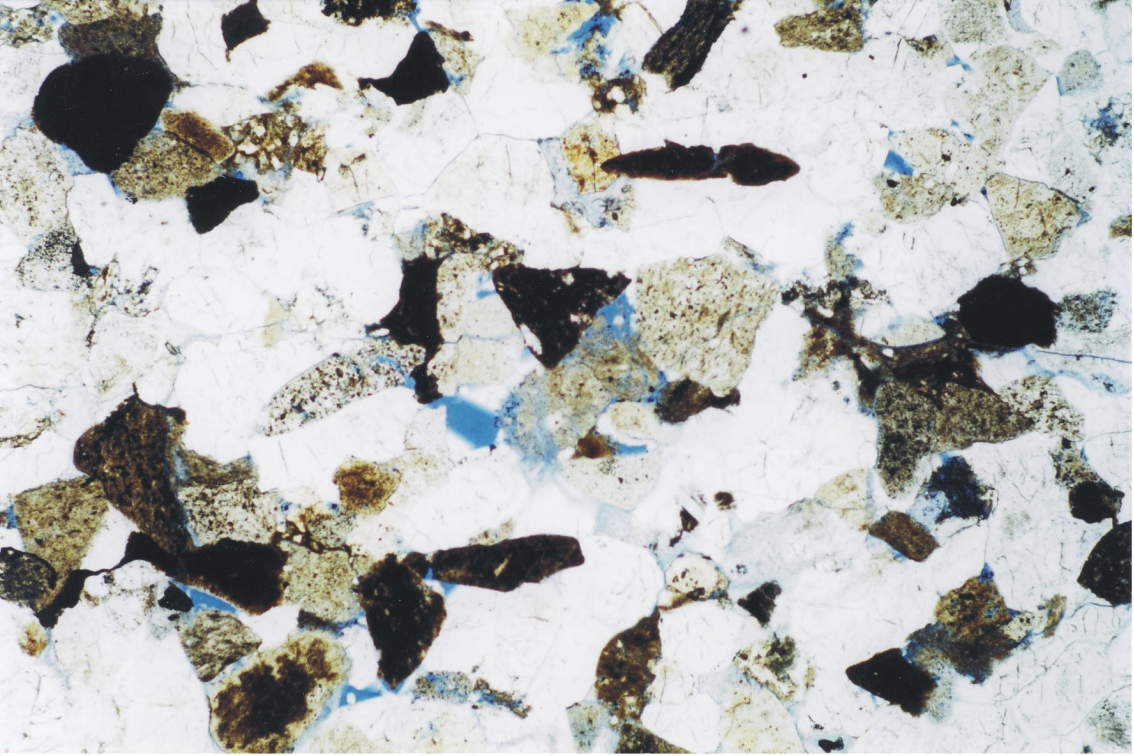

Photo 3-4: Cadotte Member -- Chert litharenite; most porosity is occluded by poor sorting, quartz overgrowths, and kaolinite cement.

Canhunter et al Jackpine c-14-F/93-P-7, 1850.5 metres.

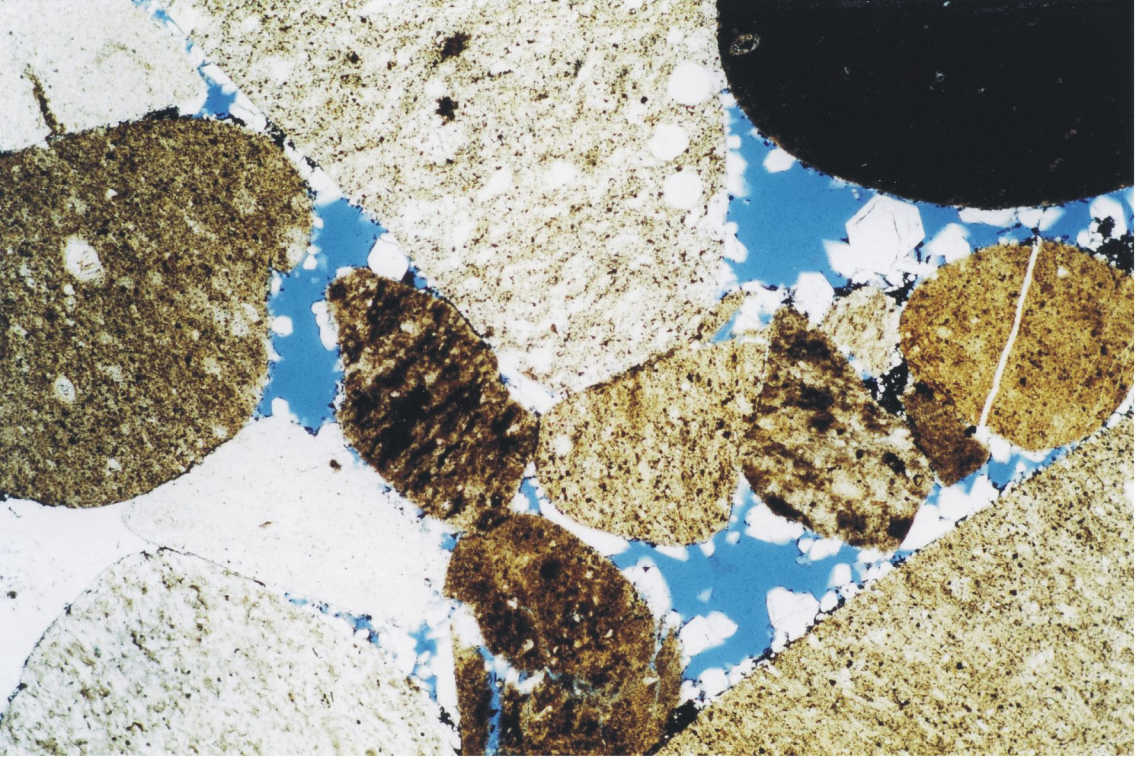

Photo 3-5: Falher B -- Chert litharenite; well-developed primary intergranular porosity, reduced to some extent by quartz crystals and compaction.

Esso Windsor b-2-H/93-P-1, 2100.4 metres

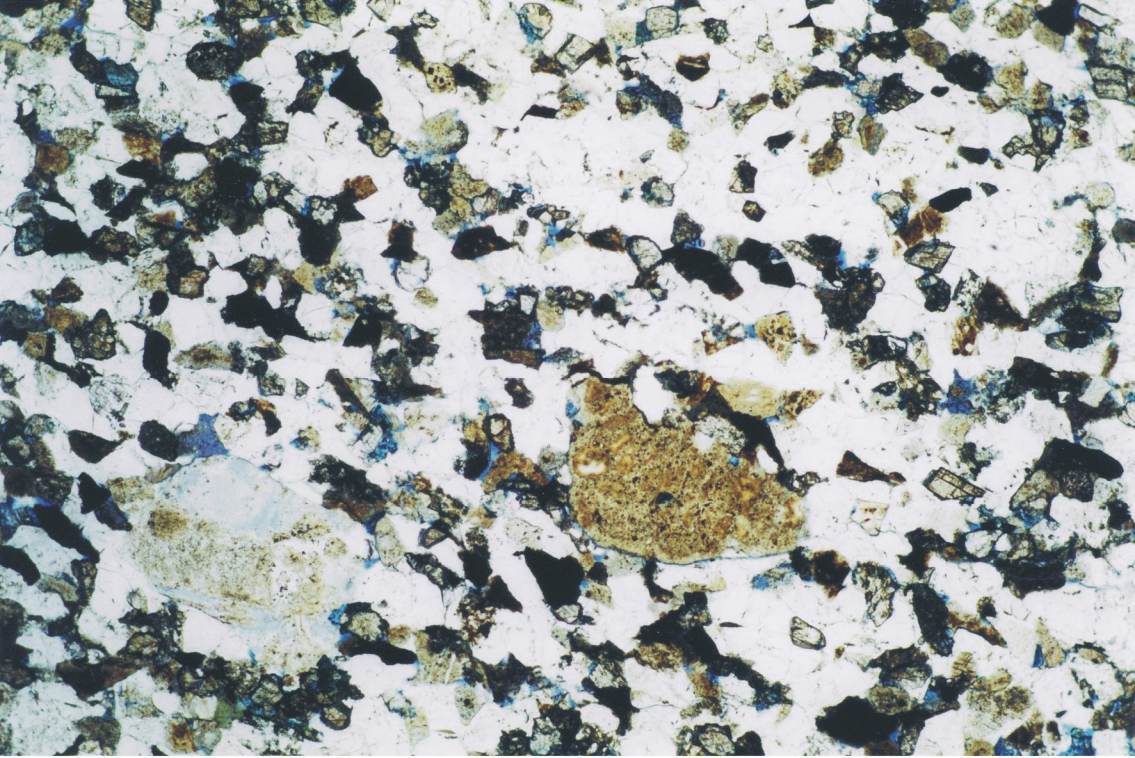

Photo 3-6: Falher A -- Litharenite; poor reservoir quality in very fine-grained middle shoreface sandstone. Note dolomite cement further reducing reservoir quality.

Canhunter Union Kelly b-28-G/93-P-1, 2343.5 metres

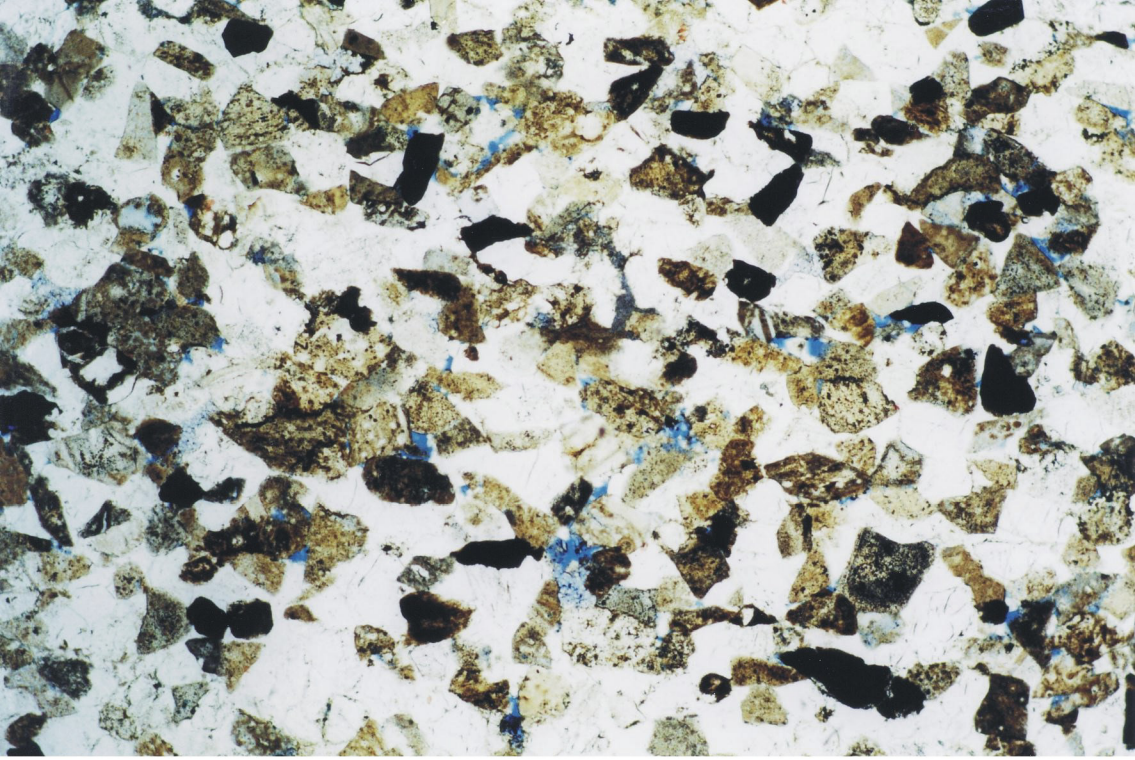

Photo 3-7: Basal Bluesky -- Litharenite; compaction and quartz cementation has degraded fine intergranular porosity.

Canhunter Noel d-73-D/93-P-8, 2382 metres.

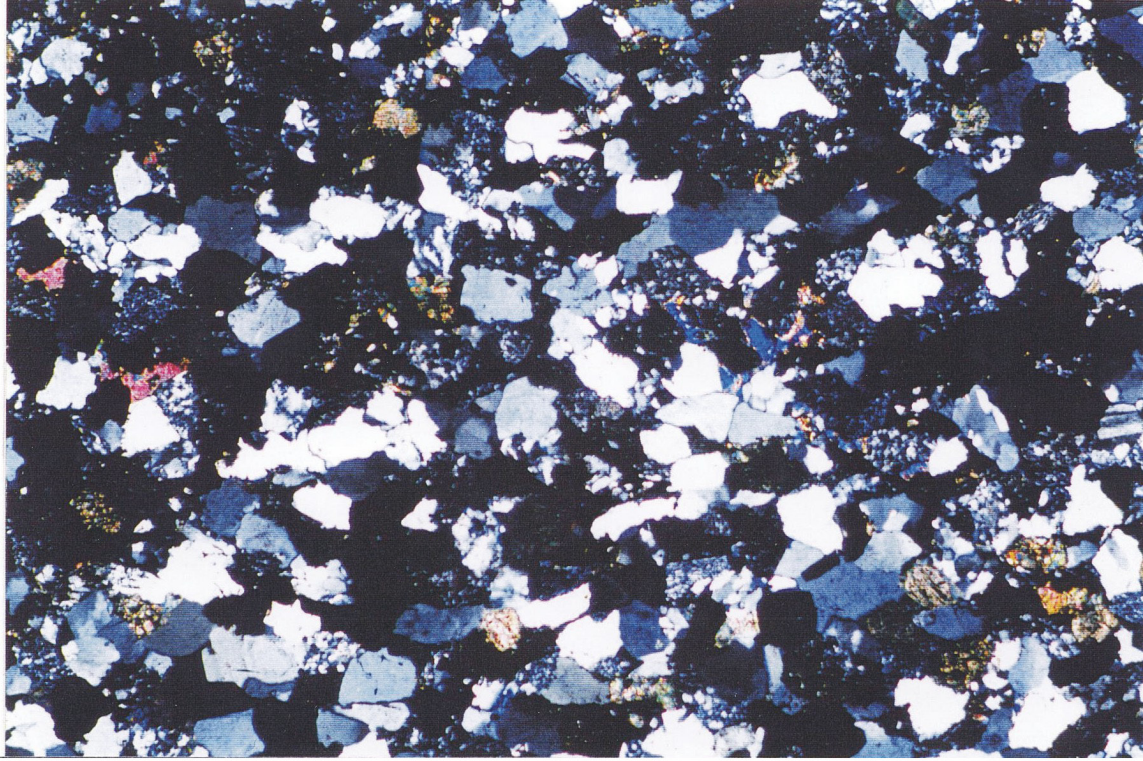

Photo 3-8: Bluesky valley fill -- Chert litharenite; porosity is almost completely occluded by compaction and quartz and carbonate cements.

Canhunter Town c-89-G/94-B-16, 1325.5 metres.

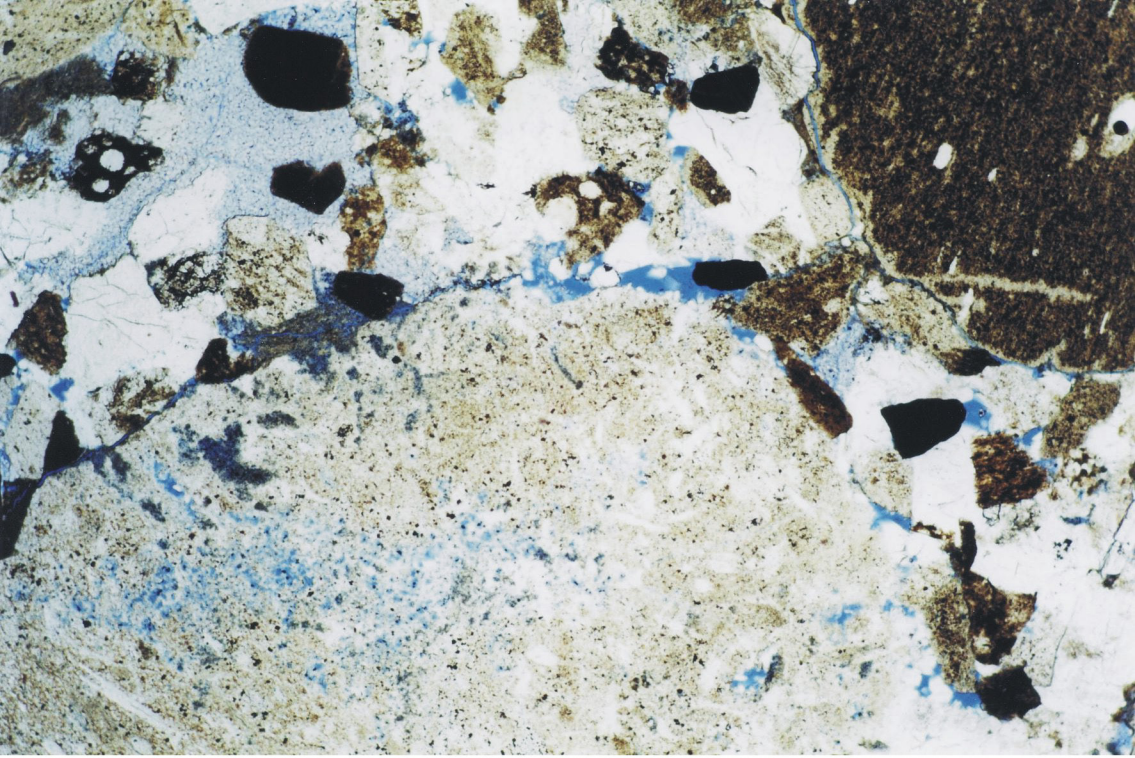

Photo 3-9: Cadomin Formation -- Poorly-sorted chert litharenite conglomerate. Silica and kaolin cements have filled most intergranular porosity, although there is limited development of secondary solution porosity in some chert grains.

Canhunter Esso Steepbank d-68-K/93-P-1, 2604.3 metres.

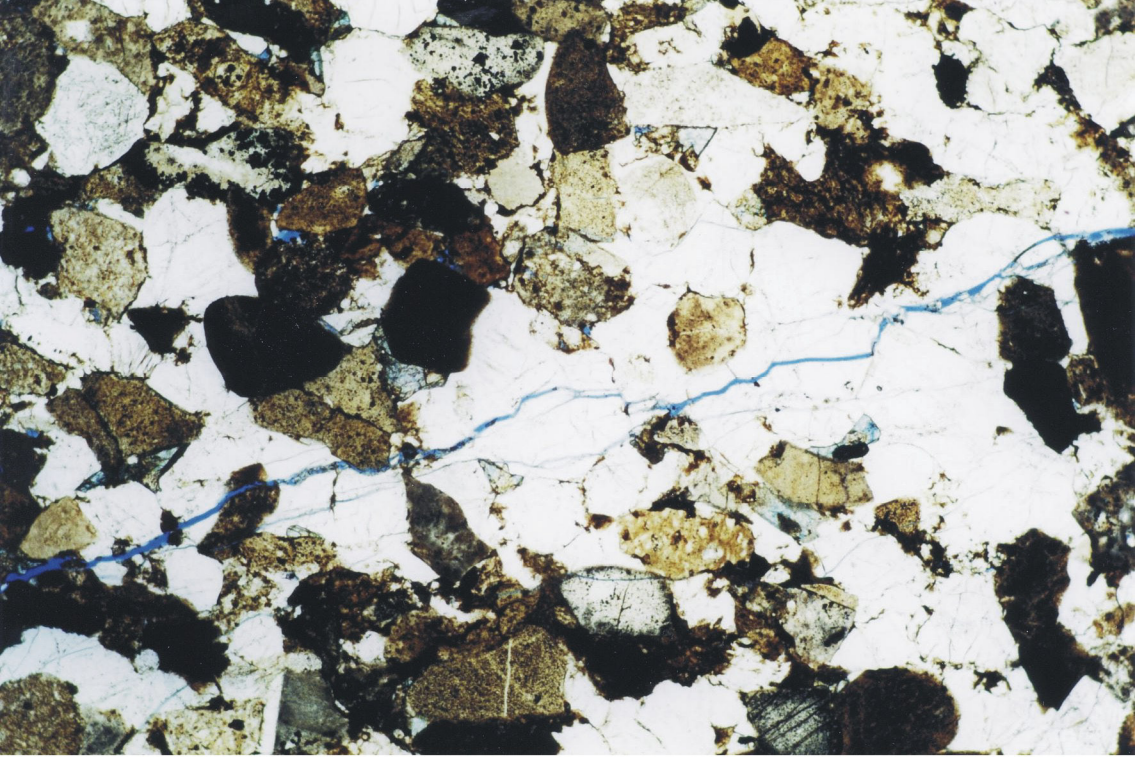

Photo 3-10: Nikanassin Formation -- Litharenite, extensively cemented by silica and minor ferroan dolomite. Essentially no remaining porosity.

Canhunter et al Cutbank a-23-H/93-P-8, 2231.5 metres.

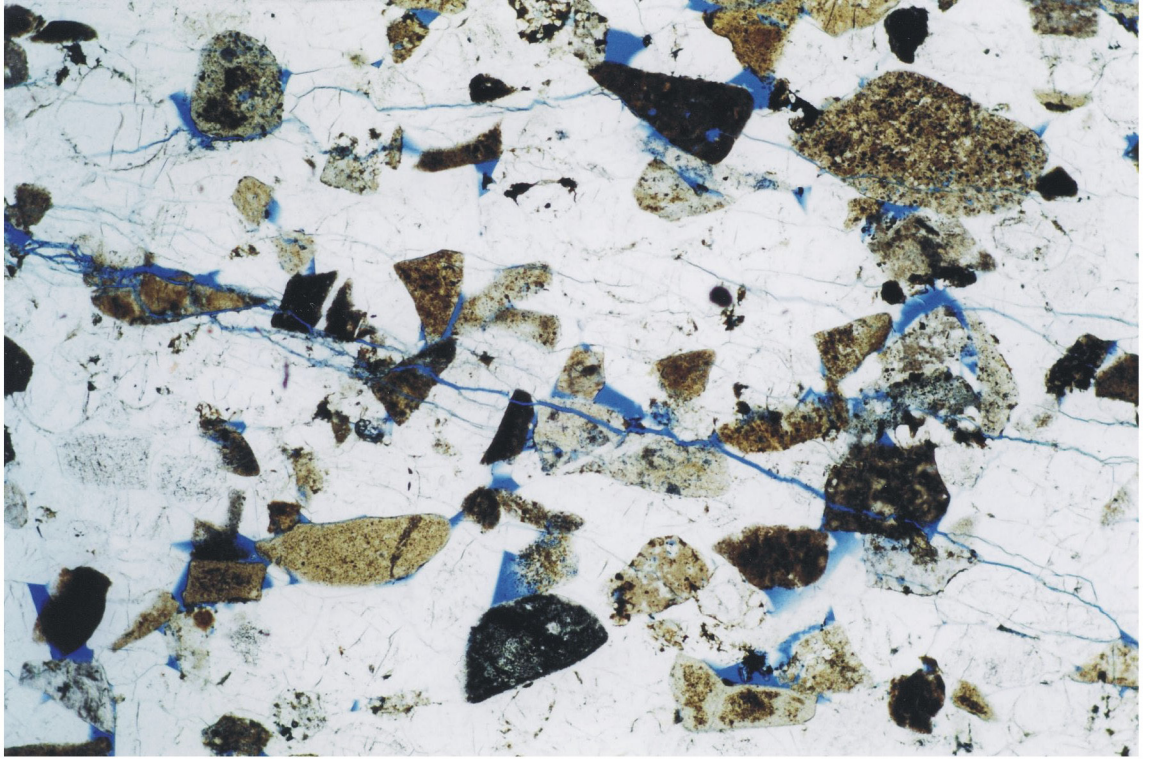

Photo 3-11: Nikanassin Formation -- Litharenite, as in Photo 3-10, but some primary intergranular porosity is preserved, and limited chert solution has taken place. Note presence of fractures.

a-23-H/93-P-8, 2247.4 metres

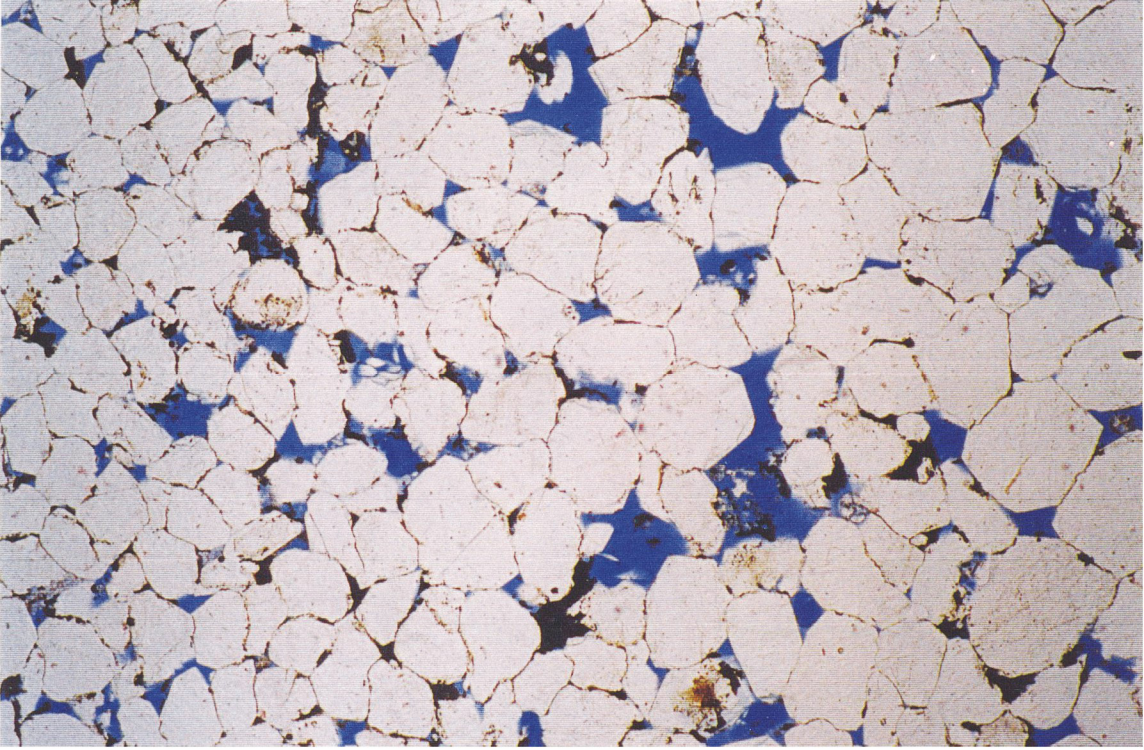

Photo 3-12: Buick Creek sandstone -- Quartzarenite, grading from coarse-grained (right) to fine-grained (left). Rock is well cemented by quartz overgrowths, but substantial primary porosity remains, along with minor secondary solution porosity of original lithic grains.

Dunlevy et al Buick Creek c-16-B/94-A-14, 3641.0 feet

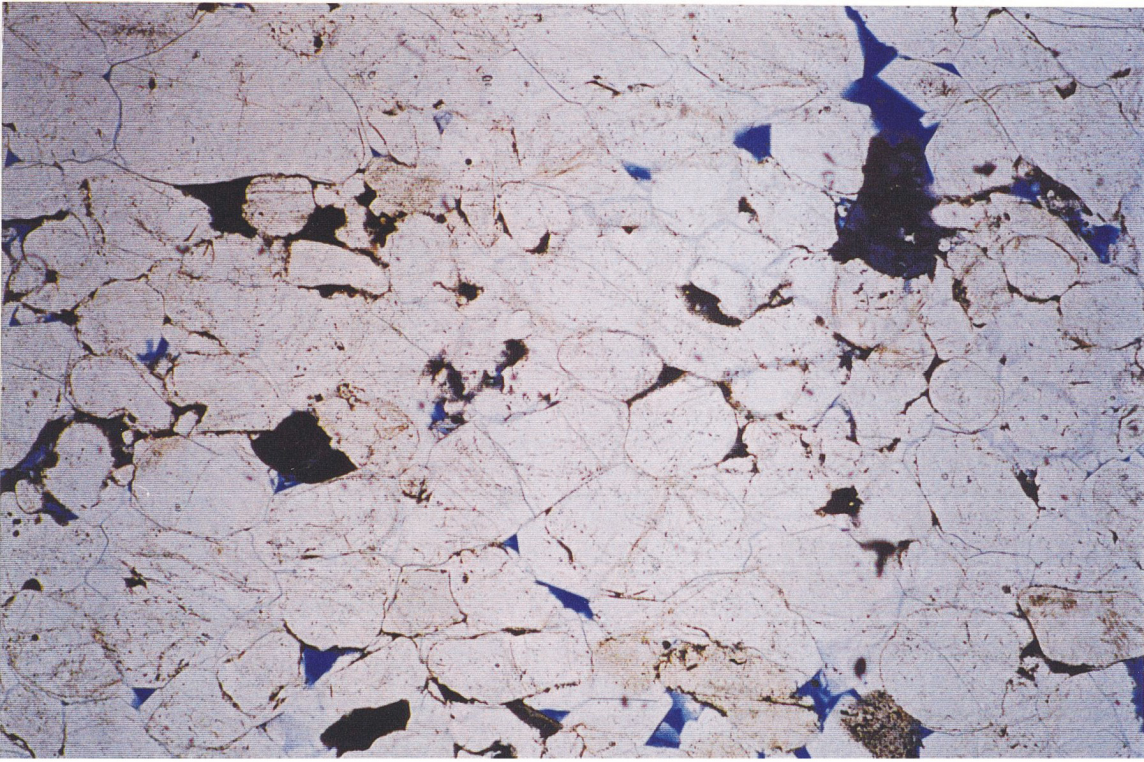

Photo 3-13: Buick Creek sandstone -- Quartzarenite, fine- to medium-grained, tightly cemented by quartz overgrowths. Remaining primary porosity consists of small, isolated pores; patchy bitumen fills some of the porosity.

Coseka et al Gundy a-8-H/94-B-16, 4442.0 feet

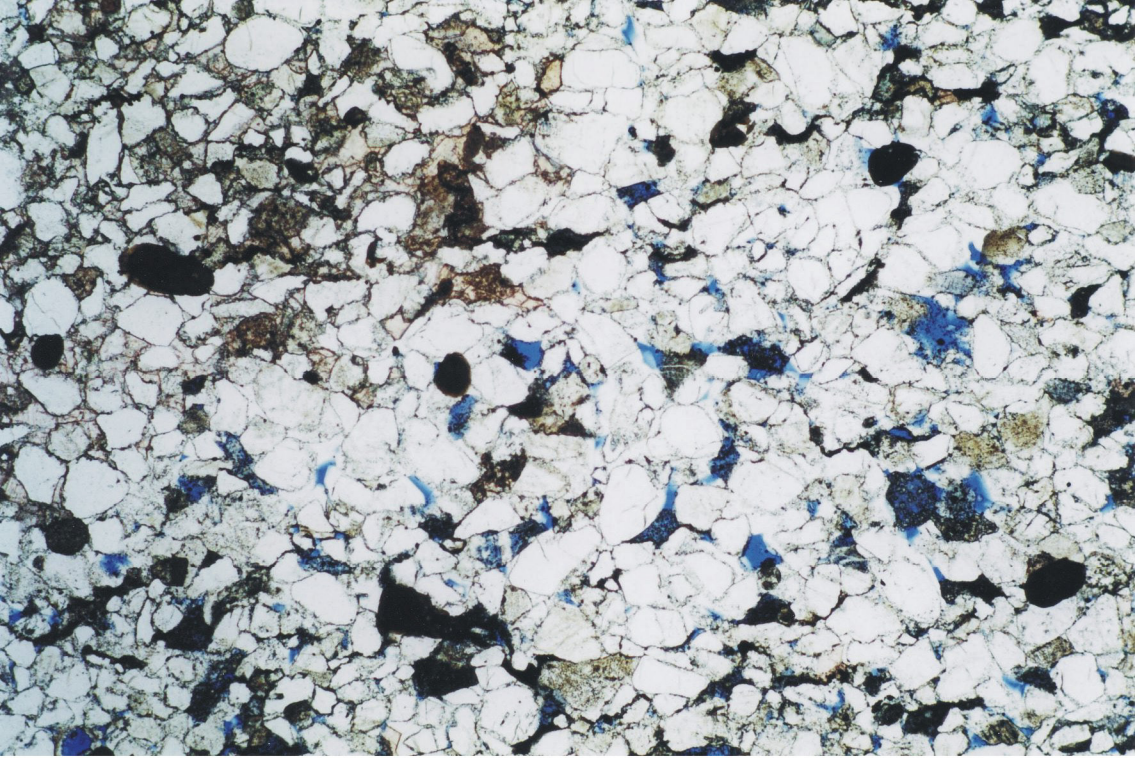

Photo 3-14: Halfway Formation -- Quartzarenite, moderately-sorted and fine-grained. Quartz overgrowths have modified primary porosity, but chert and calcite solution have generated some secondary porosity.

AEC Tupper d-99-I/93-P-8, 2589.1 metres.

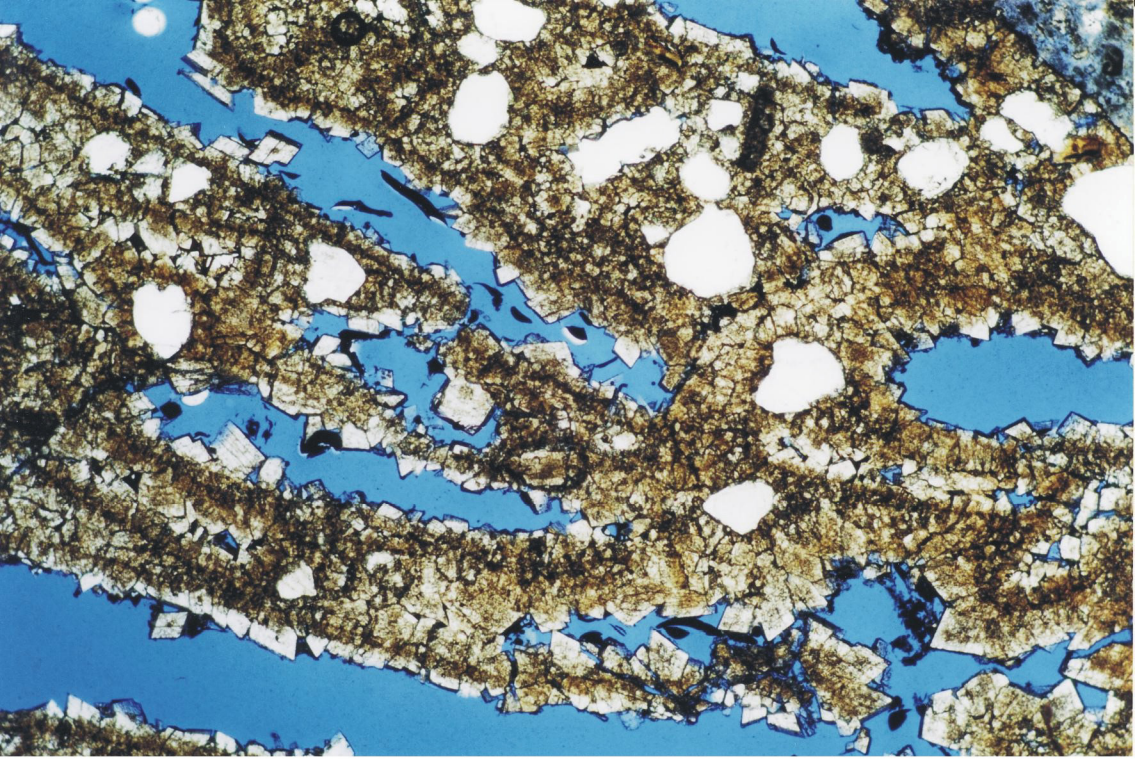

Photo 3-15: Halfway Formation -- Sandy bioclastic dolomite, exhibiting original depositional texture of shelly packstone-grainstone.

PEX Norcen Horn d-55-A/94-G-9, 1370.2 metres

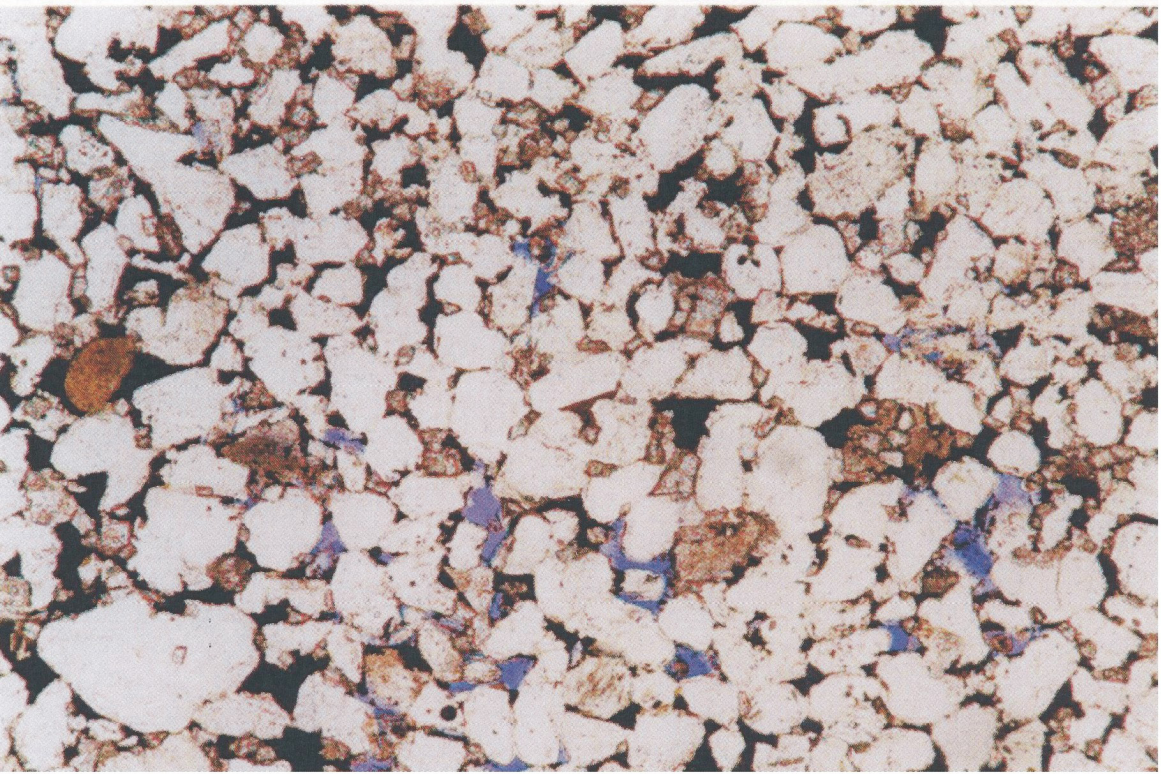

Photo 3-16: Mattson Formation -- Fine-grained quartzarenite; reservoir quality severely degraded by quartz overgrowths, carbonate cement, and pore-plugging bitumen. Remaining pores are poorly connected.

ARCO Maxhamish b-21-K/94-O-14, 5376.5 feet