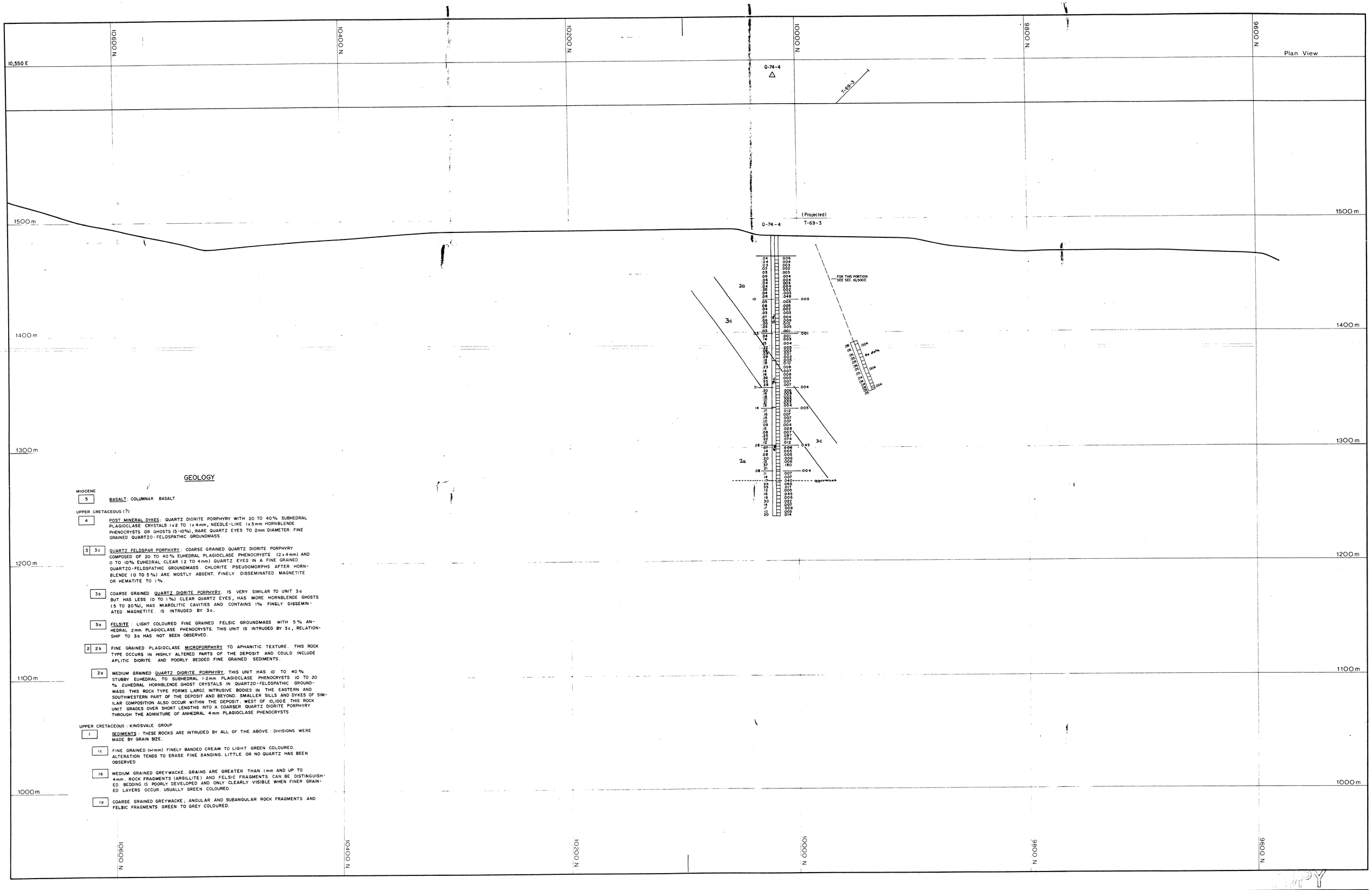

GEOLOGY

MIOCENE

5 BASALT: COLUMNAR BASALT

UPPER CRETACEOUS (?)

4 POST MINERAL DYKES: QUARTZ DIORITE PORPHYRY WITH 20 TO 40% SUBHEDRAL PLAGIOCLASE CRYSTALS (1x2 TO 1x4mm, NEEDLE-LIKE 1x3mm HORNBLENDE PHENOCRYSTS OR GHOSTS (5-10%), RARE QUARTZ EYES TO 2mm DIAMETER. FINE GRAINED QUARTZO-FELDSPATHIC GROUNDMASS.

3 3c QUARTZ FELDSPAR PORPHYRY: COARSE GRAINED QUARTZ DIORITE PORPHYRY COMPOSED OF 20 TO 40% EUHEDRAL PLAGIOCLASE PHENOCRYSTS (2x4mm) AND 0 TO 10% EUHEDRAL CLEAR (2 TO 4mm) QUARTZ EYES IN A FINE GRAINED QUARTZO-FELDSPATHIC GROUNDMASS. CHLORITE PSEUDOMORPHS AFTER HORNBLENDE (0 TO 5%) ARE MOSTLY ABSENT. FINELY DISSEMINATED MAGNETITE OR HEMATITE TO 1%.

3b COARSE GRAINED QUARTZ DIORITE PORPHYRY. IS VERY SIMILAR TO UNIT 3a BUT HAS LESS (0 TO 1%) CLEAR QUARTZ EYES, HAS MORE HORNBLENDE GHOSTS (5 TO 20%), HAS MIAROLITIC CAVITIES AND CONTAINS 1% FINELY DISSEMINATED MAGNETITE. IS INTRUDED BY 3c.

3a FELSITE: LIGHT COLOURED FINE GRAINED FELSIC GROUNDMASS WITH 5% ANHEDRAL 2mm PLAGIOCLASE PHENOCRYSTS. THIS UNIT IS INTRUDED BY 3c, RELATIONSHIP TO 3b HAS NOT BEEN OBSERVED.

2 2b FINE GRAINED PLAGIOCLASE MICROPORPHYRY TO APHANITIC TEXTURE. THIS ROCK TYPE OCCURS IN HIGHLY ALTERED PARTS OF THE DEPOSIT AND COULD INCLUDE APLITIC DIORITE AND POORLY BEDDED FINE GRAINED SEDIMENTS.

2a MEDIUM GRAINED QUARTZ DIORITE PORPHYRY. THIS UNIT HAS 10 TO 40% STUBBY EUHEDRAL TO SUBHEDRAL 1-2mm PLAGIOCLASE PHENOCRYSTS 10 TO 20% EUHEDRAL HORNBLENDE GHOST CRYSTALS IN QUARTZO-FELDSPATHIC GROUNDMASS. THIS ROCK TYPE FORMS LARGE INTRUSIVE BODIES IN THE EASTERN AND SOUTHWESTERN PART OF THE DEPOSIT AND BEYOND. SMALLER SILLS AND DYKES OF SIMILAR COMPOSITION ALSO OCCUR WITHIN THE DEPOSIT. WEST OF 10,100E THIS ROCK UNIT GRADES OVER SHORT LENGTHS INTO A COARSER QUARTZ DIORITE PORPHYRY THROUGH THE ADMIXTURE OF ANHEDRAL 4mm PLAGIOCLASE PHENOCRYSTS

UPPER CRETACEOUS: KINGSVALE GROUP

1 SEDIMENTS: THESE ROCKS ARE INTRUDED BY ALL OF THE ABOVE DIVISIONS WERE MADE BY GRAIN SIZE.

1c FINE GRAINED (<1mm) FINELY BANDED CREAM TO LIGHT GREEN COLOURED. ALTERATION TENDS TO ERASE FINE BANDING. LITTLE OR NO QUARTZ HAS BEEN OBSERVED

1b MEDIUM GRAINED GREYWACKE. GRAINS ARE GREATER THAN 1mm AND UP TO 4mm. ROCK FRAGMENTS (ARGILLITE) AND FELSIC FRAGMENTS CAN BE DISTINGUISHED. BEDDING IS POORLY DEVELOPED AND ONLY CLEARLY VISIBLE WHEN FINER GRAINED LAYERS OCCUR. USUALLY GREEN COLOURED.

1a COARSE GRAINED GREYWACKE; ANGULAR AND SUBANGULAR ROCK FRAGMENTS AND FELSIC FRAGMENTS GREEN TO GREY COLOURED.

inches 0 1 2
0 1 2 3 4 5 centimetres

BRITISH COLUMBIA GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same rate as the original image. It can be used as a reference for the original size.

MAP SCALE

25 0 25 50 75

SCALE IN METRES

REVISIONS No.	Date	MADE BY	DESCRIPTION
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BETHLEHEM COPPER CORPORATION

OFFICE	DEPARTMENT
VANCOUVER	EXPLORATION

FISH LAKE PROJECT

GEOLOGY

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	1:1250	