CROSS SECTION 1450 E
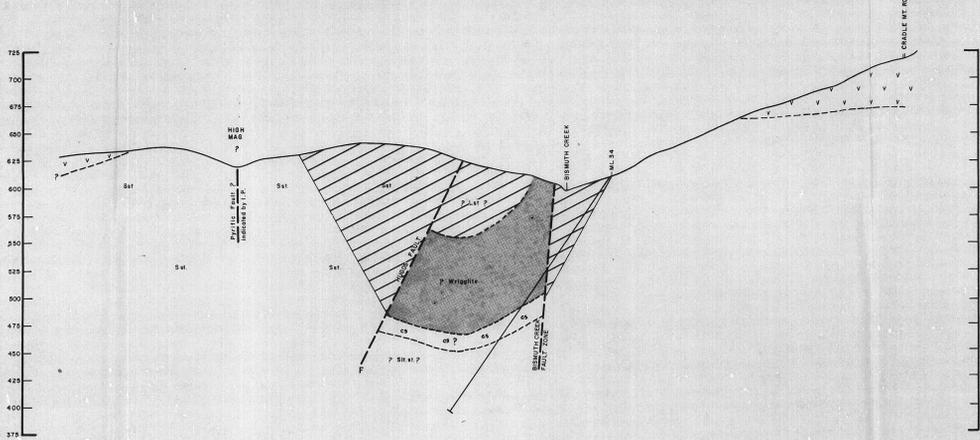
INDICATED   Nil
INFERRED (Because of lack of understanding of geology here)
Area of Section   17 x 25 x 25 ≈ 1,060 m²
BLOCK 1   ≈ 175 m across (NW-SE)
Volume   175 x 10600 = 1,855,000 m³
Mass   = 1,800,000 x 3 ≈ 5·9 million tonnes

OVERBURDEN
Area of Section   26 x 25 x 25 ≈ 16,250 m²
BLOCK 1   Assume south contact dips parallel to open pit
Assume north west contact incorporated into block 2
Volume   = 175 x 16,000² = 2,800,000 m³
Mass   ≈ 2,800,000 x 2·5 ≈ 7·0 million tonnes
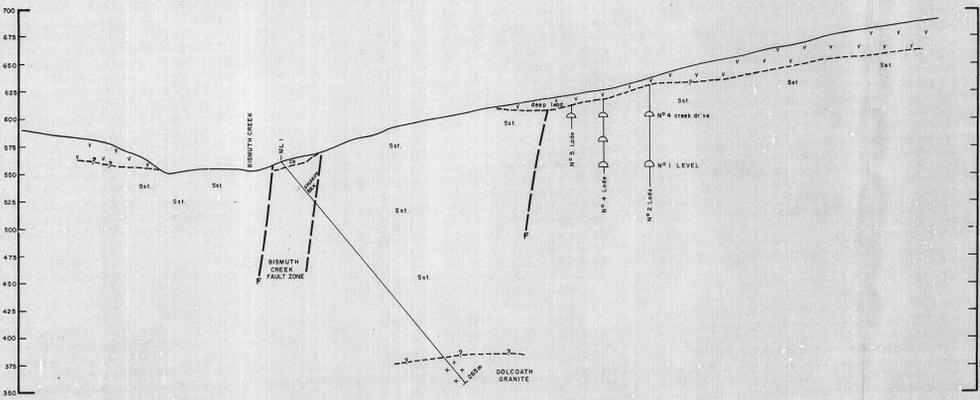
CROSS SECTION 1350 E

INDICATED   Nil
INFERRED
Area of Section   14 x 12·5 sq 12·5 sq = 2,000 m²
BLOCK 2   ≈ 100 m across
Volume   100 x 2,000 = 200,000 m³
Mass   = 200,000 x 3·3 ≈ 660,000 tonnes

OVERBURDEN
BLOCK 2   Assume S.E. edge incorporated into block 1
N.W. edge has additional batter.
Area of Section   = ½ x 130 x 130 = 8450
Volume   = 8450 x 100 = 845,000 m³ plus batter N.W. edge
see W-E. section.
Approx. Volume   = ½ x 120 x 70 x 100 = 420,000 m²
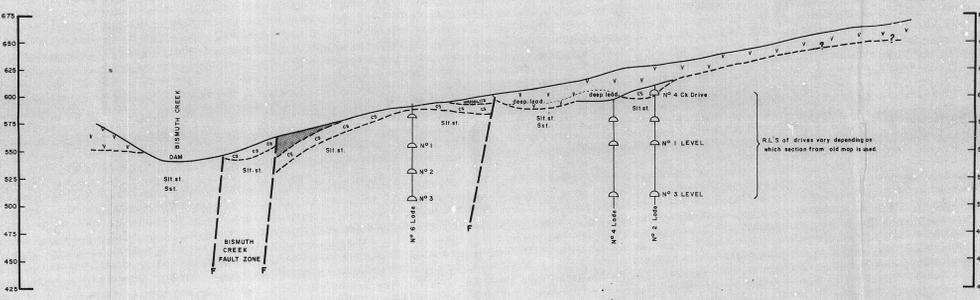Total Volume   = 1,265,000 m³
Mass   = 1·265 x 2·5 ≈ 3·2 million tonnes
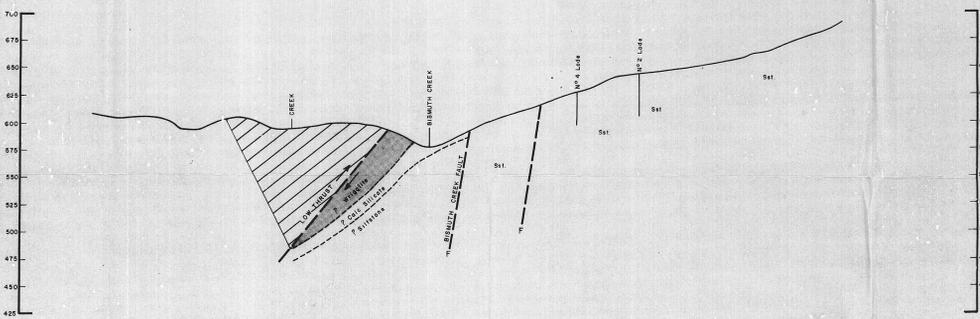
CROSS SECTION 1175 E

INFERRED   Nil
INDICATED   Nil

CROSS SECTION 1100 E

INFERRED   Negligible
INDICATED   Negligible

INDICATED
BLOCK 3
Area of Section   = 16250 m²
Because of dipping beds, half this area is assumed representative of whole block.
Average width of block is close to 50 m
Volume   = 16250 x ½ x 50 = 406,250 m²
Mass   406,250 x 3·3 = 1,340,500 tonnes
OVERBURDEN   NIL

INDICATED
BLOCK 4
Area of Section   = 9700 m²
Because of irregular east edge of block, half this area is assumed representative of whole block. Average width about 30 m.
Volume   = 9700 x ½ x 30 = 145,500 m³
Mass   145,500 x 3·3 = 480,000 tonnes
OVERBURDEN
Batter also along eastern edge, length 175 m, depth to wrigglite average 30 m, with 60° slope
Volume   20 x 30 x ½ x 175 = 52,500 m³ plus area of section x average width of block
is 4840 x 30 = 145,200 m³
TOTAL VOLUME   = 197,700 m³
Mass   = 197,700 x 2·5 ≈ 494,250 tonnes

INDICATED
BLOCK 5
Area of Section   19 x 25 x 25 + 28 x 12·5 x 12·5 = 11875 + 4375
= 16250 m²
This area assumed representative of whole block.
Volume   = 16250 x 50 = 812,500 m³
Mass   812,500 x 3·3 = 2,681,000 tonnes
OVERBURDEN   NIL
BLOCK 6
Area of Section   12 x 25 x 25 + 14 x 12·5 x 12·5 = 7500 + 2188 = 9688 m² say 9700 m²
This area assumed representative of whole block.
Volume   = 9700 x 50 = 485,000 m³
Mass   485,000 x 3·3 = 1,600,500 tonnes
OVERBURDEN
Area of Section   31 x 12·5 x 12·5 = 4840 m²
Volume   4840 x 50 = 242,000 m³
Mass   242,000 x 2·5 = 1,210,000 tonnes

CROSS SECTION 1000 E

INDICATED
BLOCK 7
Area of Section   54 x 12·5 x 12·5 + 5 x 25 x 25 ≈ 8440 + 3125
= 11,565 m²
Volume   11565 x 100 = 1,156500 m³
Mass   1,156,00 x 3·3 ≈ 3,816,000 tonnes
OVERBURDEN
Area of Section   99 x 12·5 x 12·5 = 15,470 m²
Volume   15,470 x 100 = 1,547,000 m²
Plus batter on western side, south end of block, length 250 m
overage depth 35 m
Volume   250 x 20 x ½ x 35 = 87500 m³
plus northern edge, 12·5 x ½ x 9 x 125 = 7030 m³
plus southern edge   55 x ½ x 35 x 100 = 96205 m³
TOTAL VOLUME   = 1,737,500 m³
Mass   173,500 x 2·5 = 4,343,750 tonnes
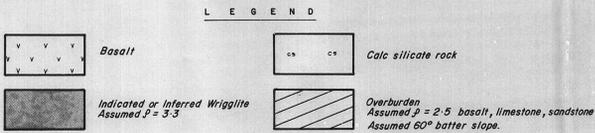say 4,344,000 tonnes
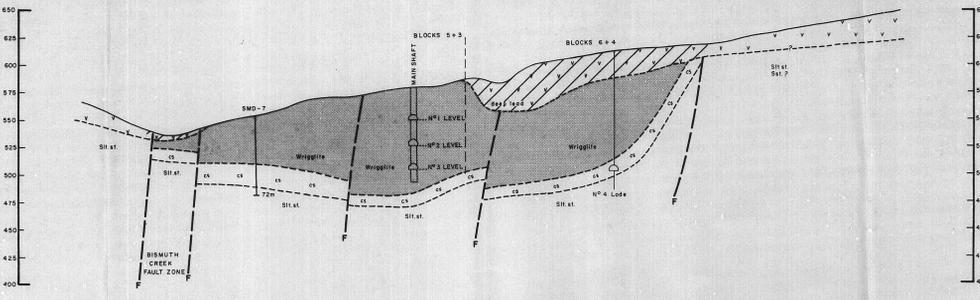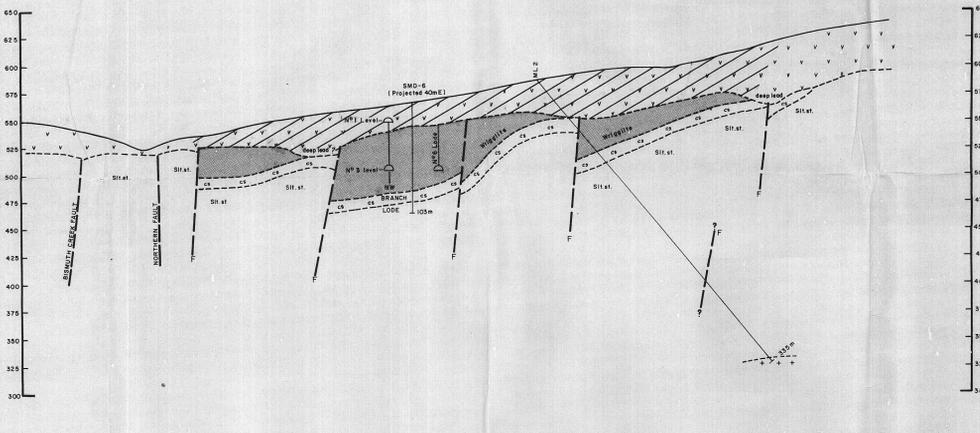
CROSS SECTION 900 E

INDICATED
BLOCK 8
Area of Section   45 x 12·5 x 12·5 + 7 x 25 x 25 = 7030 + 4375
= 11405 m²
Volume   11405 x 100 = 1,140,500 m³
Mass   1140500 x 3·3 = 3,764,000 tonnes
OVERBURDEN
Area of Section   13 x 25 x 25 + 22 x 12·5 x 12·5 = 8125 + 3438
= 11563 m²
Volume   11563 x 100 = 1,156,300 m³
plus northern edge   15 x ½ x 10 x 100 = 7500 m³
plus southern edge   50 x ½ x 25 x 100 = 62500 m³
TOTAL VOLUME   = 1,226,300 m³
Mass   1,226,300 x 2·5 = 3,065,750 tonnes
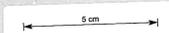say 3,066,000 tonnes
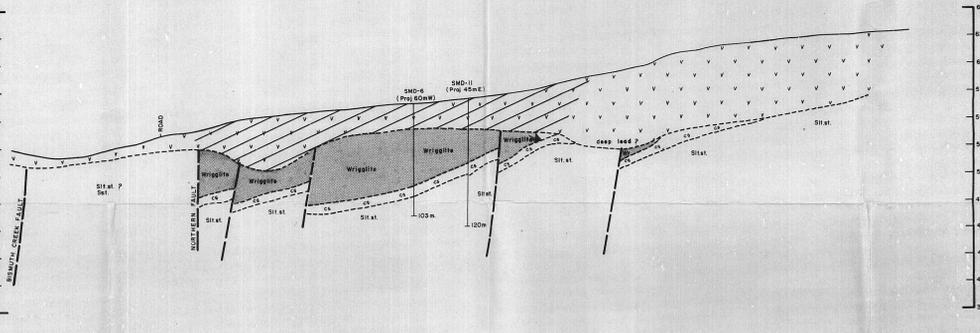
CROSS SECTION 800 E

SUMMARY
INDICATED WRIGGLITE TOTAL   15,501,000 tonnes
INFERRED WRIGGLITE TOTAL   6,580,000 tonnes
TOTAL OVERBURDEN OVER INDICATED + INFERRED WRIGGLITE TOTAL   21,443,000 tonnes
TOTAL OVERBURDEN OVER INDICATED WRIGGLITE   TOTAL   11,243,000 tonnes
INDICATED WRIGGLITE / OVERBURDEN RATIO   = 1·38 : 1

LEGEND

Basalt	Calc silicate rock
Indicated or Inferred Wrigglite Assumed β = 3·3	Overburden Assumed β = 2·5 basalt, limestone, sandstone. Assumed 60° batter slope.

NOTE: For Block Areas see seperate plan.

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5 cm