17.0 MINERAL RESOURCE

17.1 *Resource Model*

A mineral resource estimate was prepared for the Mada area using a three-dimensional block model to estimate cobalt, nickel, and manganese grade for individual blocks with dimensions of 10 by 10-meters horizontal by 1-meter vertical. In addition, lithology codes and resource classification codes were defined for each block.

Compared to the Nkamouna deposit, the Mada deposit is reported to have similar geologic properties. Significant differences between the deposits and data are as follows:

1. The potentially mineralized material at Mada covers an area approximately seven times larger than Nkamouna.

2. All Mada samples are pits and most of the pits are not deep enough to penetrate the full thickness of the lower limonite (ferralite) horizon, which is the primary ore-bearing horizon at Nkamouna.

3. The Mada deposit is much more sparsely sampled than Nkamouna. Except for a few fences of pits at 100-meter spacing, sample spacing is on an approximate 500-meter grid. There are 296 pits at Mada, while 1,272 pits and drill holes were used for the Nkamouna estimate or 77 percent fewer sample locations. Considering the greater area of Mada, the sampling density is only $1/30^{th}$ that of Nkamouna.

The resource model for Mada was prepared using the same method of "unfolding" the deposit as was used at Nkamouna, but with several significant differences, as follows:

1. The top of ferralite was used to define the index surface for unfolding the deposit rather than the top of mineralization.

2. A nearest-neighbor (NN) estimate with appropriate grade caps was used to estimate block model grades rather than inverse-distance-power (IDP). The NN estimates were adjusted using the IDP/NN ratios for tonnage and grade from Nkamouna to account for volume-variance effects.

3. The Nkamouna resource estimate was limited to the area inside a drilling grid of 600 meters with a maximum extrapolation of 170 meters outside the sampled area. Because of the wider sample spacing and the limited drilling to the full depth of the deposit, Mada resources were estimated inside a drilling grid of 1,500 meters with a maximum extrapolation of 420 meters.

4. All Mada resources are classified as "Inferred Resources."

The Mada resource is summarized in Table 17-1 using a cutoff grade of 0.12 percent for ferralite and 0.28 percent cobalt for breccia.

TABLE 17-1
Geovic, Ltd.
Mada Resource Estimate
(Sample Spacing up to 1500 meters, Maximum Extrapolation 420 meters)

Inferred NN Resource Before Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	13,200	0.43	0.56	2.87
Ferralite	0.12	118,000	0.21	0.49	1.08
Total		131,200	0.23	0.50	1.26
Inferred NN Resource After Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	14,300	0.38	0.53	2.53
Ferralite	0.12	130,800	0.20	0.48	1.00
Total		145,100	0.21	0.48	1.15

The cobalt resource using a cutoff grade of 0.12 percent cobalt is shown graphically in Figure 17-1 as a grade-thickness map and in Figure 17-2 as thickness of mineralization.

17.2 *Sample Data*

Pit sample data including collar coordinates, assays, and lithology were provided by Geovic as Excel spreadsheet files. The format of the data is similar to that provided by Geovic for Nkamouna and the same procedures were used to extract lithologic contacts and to reformat the data for use in the MicroModel® resource modeling system.

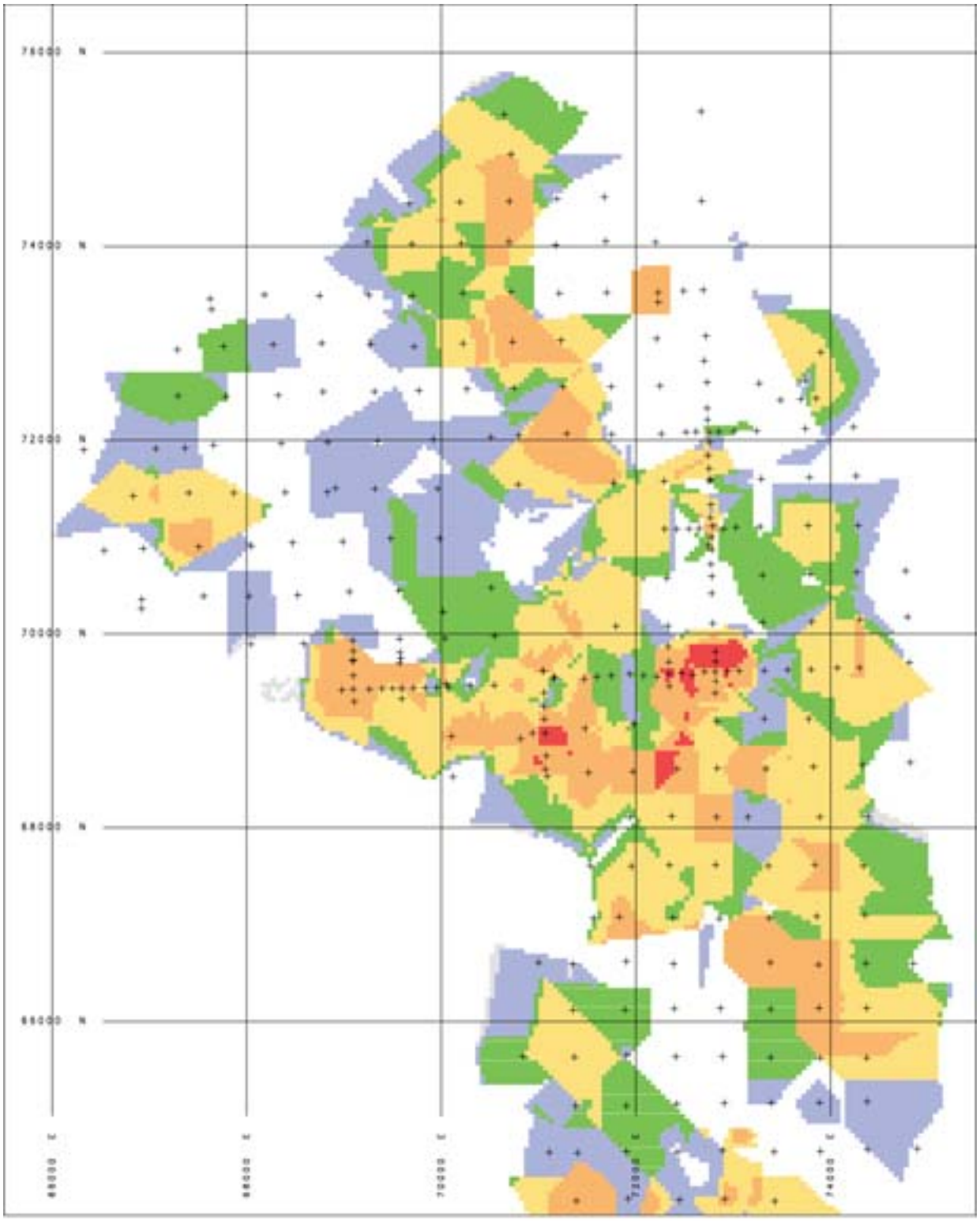
17.3 *Topographic Data*

No topographic data are available for the Mada area. The collar elevations for the pit were contoured and are shown in Figure 17-3 with pit locations.

17.4 *Grade Distributions*

17.4.1 Cobalt Grade

Cobalt grade cumulative frequency plots were prepared for the breccia and ferralite zones at the Mada deposit using a nearest-neighbor model to decluster the samples. A cutoff grade of 0.05% cobalt was used to remove unmineralized samples from the distributions.



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Project Name
Mada Cobalt 43-101

FIGURE 17-1
COBALT GRADE THICKNESS

Date of Issue
Jun/2006

Drawing Name
Fig 17-1.cdr

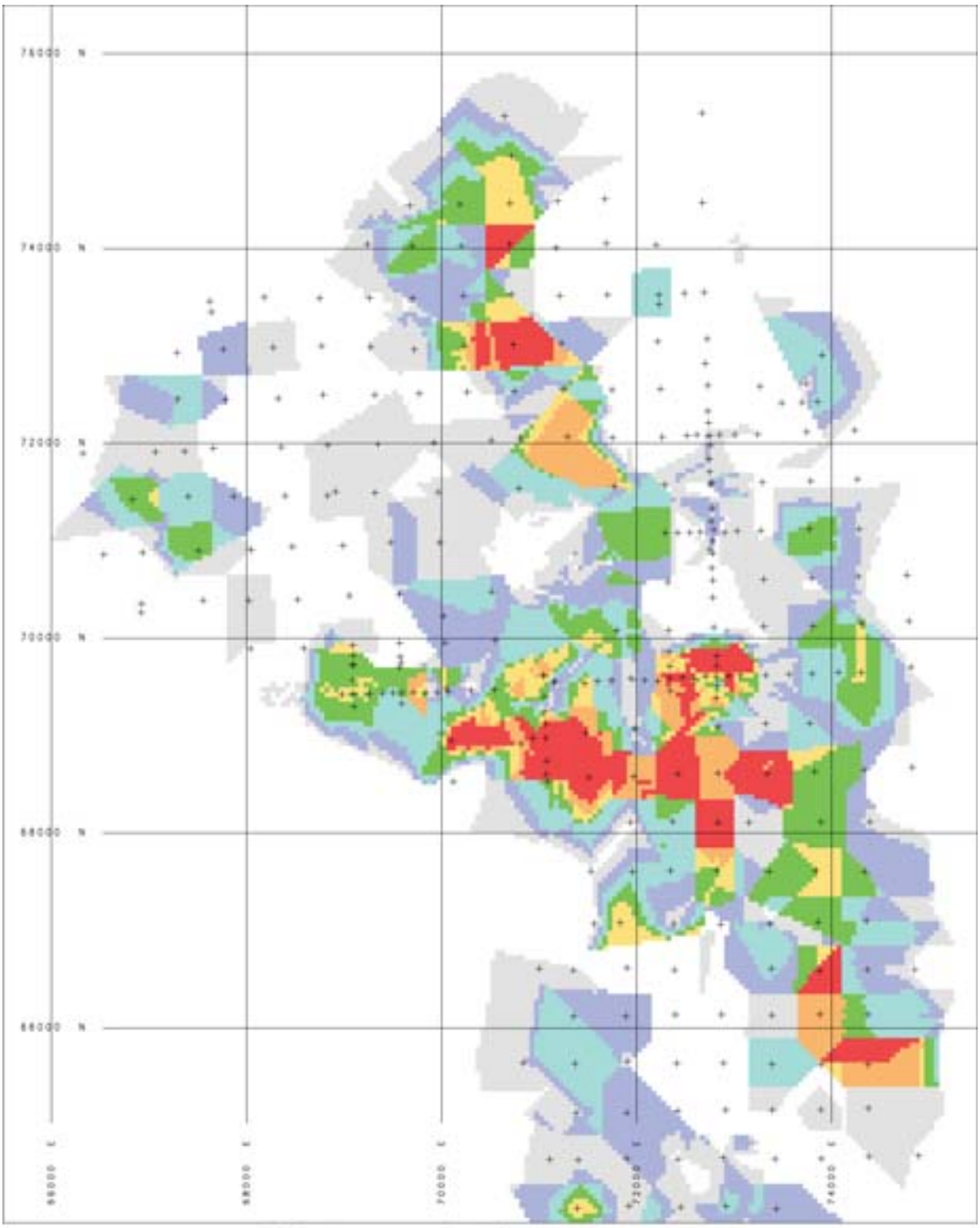

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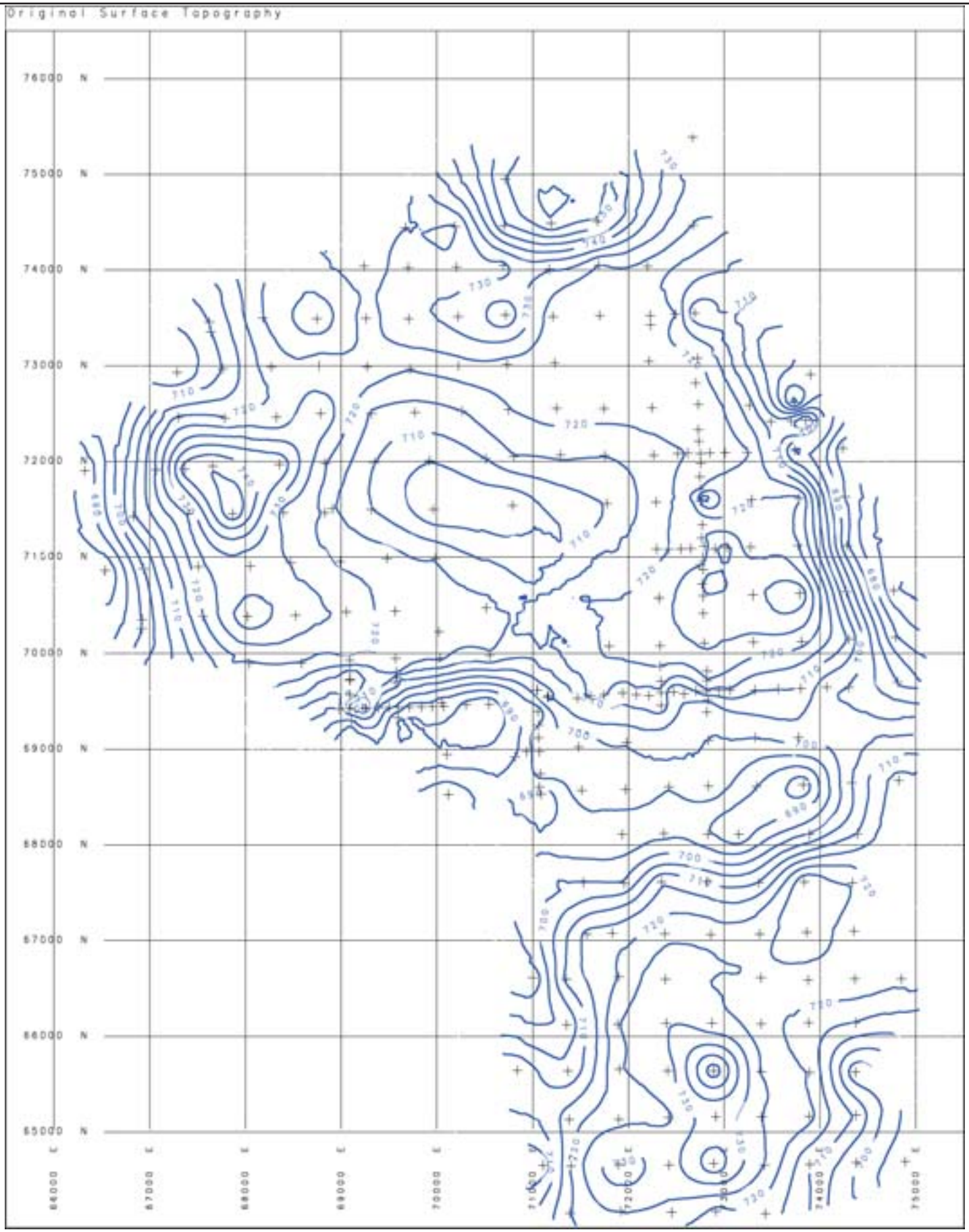
FIGURE 17-2
THICKNESS OF MINERALIZATION

Date of Issue

Jun/2006

Drawing Name

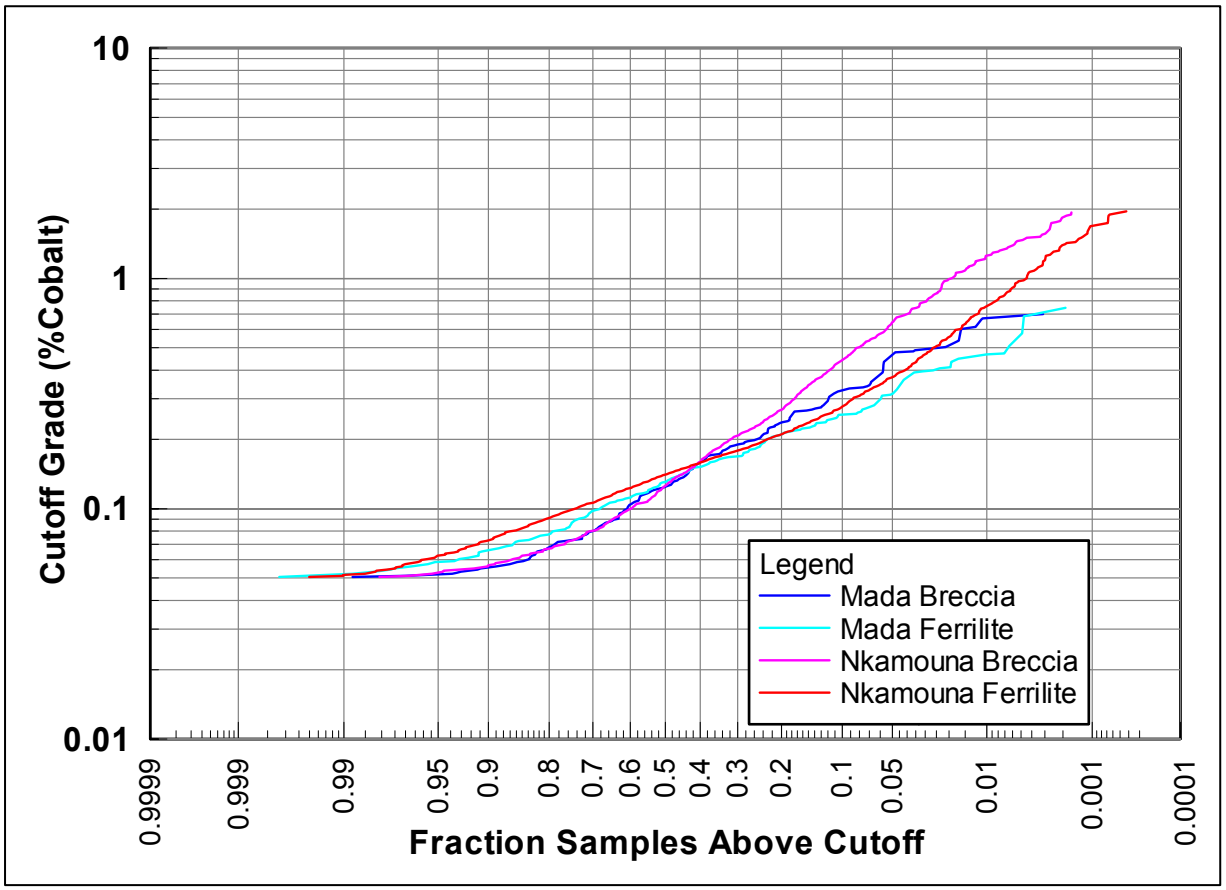
Fig 17-2.cdr



Prepared by **pincock, allen & holt** 165 S. Union Boulevard, Suite 950 Lakewood, Colorado 80228 Phone (303) 986-6950	Prepared for ***GEOVIC Ltd.***	**FIGURE 17-3** **TOPOGRAPHY**	Date of Issue **Feb/2006**
Project No. **34419**	Project Name Mada Cobalt 43-101		Drawing Name **Fig 17-3.cdr**

These plots, shown in Figure 17-4, indicate that the grade distributions at Mada are similar to those at Nkamouna, although the high-grade population appears to be absent at Mada. Since the size of the high-grade cobalt zones at Nkamouna is generally much smaller than the 500-meter pit spacing at Mada, this difference may be an artifact of sample spacing and high-grade pods may still be found when the deposit is sampled at closer spacing. It is also possible that these differences would be less significant if only the better mineralized portions of Mada were compared to Nkamouna.

FIGURE 17-4
Geovic, Ltd.
Mada Resource Estimate
Lognormal cumulative frequency plot for cobalt grade. Mada and Nkamouna deposits



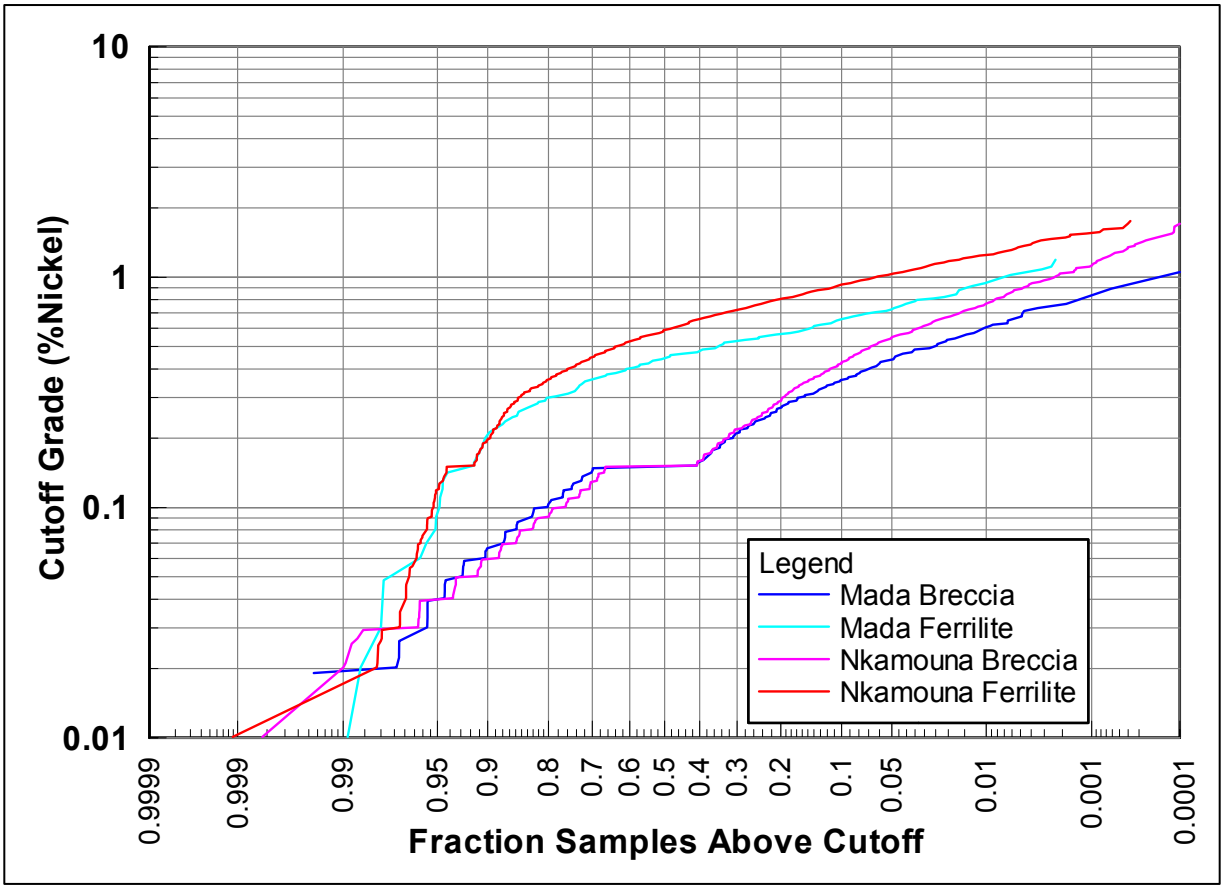
17.4.2 *Nickel Grade*

Nickel grade cumulative frequency plots were prepared for the breccia and ferralite zones at the Mada deposit using a nearest-neighbor model to decluster the samples.

These plots, shown in Figure 17-5, show that the nickel grade distributions at Mada are similar to those at Nkamouna. Up to 0.2 percent nickel the distributions in the two deposits are virtually identical. Above

0.2 percent; however, nickel at Nkamouna is about 30 to 40 percent higher grade than at Mada. As with cobalt, it is too early to determine the significance of the differences in the nickel grade distributions.

FIGURE 17-5
Geovic, Ltd.
Mada Resource Estimate
Lognormal cumulative frequency plot for nickel grade. Mada and Nkamouna deposits



17.5 *Lithologic Surfaces*

Lithologic surfaces were defined using a triangular network, or wireframe, to interpolate the elevation of the various lithologic surfaces to resource model block centers from the formation depths in the pit lithology logs. Surfaces were estimated for the bottom of the granular zone (upper limonite), the bottom of breccia (which is also the top of ferralite), and the bottom of ferralite (lower limonite).

Where depth of formation data were available from the pit lithology logs, that depth was used to define the lithologic surface. Where a formation depth could not be determined from the lithologic data, a depth was estimated based on the surrounding drill holes. Estimation of formation depths was particularly important for the bottom of ferralite surface since only 13 percent of the pits penetrated saprolite, schist, or serpentine. In addition, about 40 percent of the pits terminated in breccia, therefore the elevation of the top of the ferralite is often estimated from adjacent pits.

17.6 *Resource Estimation Method*

Resources were estimated for Mada using a similar "unfolding" procedure to that used for Nkamouna. Because the sampling was much wider spaced at Mada than at Nkamouna, grade zones were not used and a nearest neighbor (NN) method of estimation was used rather than inverse-distance-power (IDP) estimation. In addition, the top of the ferralite unit was used as the index surface for unfolding the deposit rather than the top of mineralization.

The top of ferralite was used rather than the top of mineralization both to save time, and because the top of mineralization is difficult to define with the wide sample spacing at Mada. Early work at Nkamouna showed that the top of ferralite was very similar to the top of mineralization, thus should be appropriate for the Mada resource estimate.

Grade zones were not used because the samples were too widely spaced to provide reliable delineations of the grade zone outlines. In addition, the NN estimation method used at Mada is insensitive to geologic assumptions and grade zoning. NN was also preferred over IDP for the Mada estimate because the smoothing of the IDP estimates is difficult to control when the sample spacing is very wide. Although NN estimation provides a reasonable overall estimate for the resource in this case, tonnage and grade must be corrected for volume-variance effects (internal dilution), since NN estimates assume a much greater degree of mining selectivity than can be achieved in actual practice. Volume-variance adjustments were estimated based on the ratio if IDP/NN tonnage and grade for measured and indicated resource estimates at Nkamouna.

17.7 *Resource Classification*

The NN model was estimated in the unfolded model for all blocks inside a sample grid of 1500 meters and blocks extrapolated up to 420 meters outside the sampled area. The 1,500 meter grid implies a

maximum distance between sample point and block center of 1060 meters. This large search radius was sufficient to provide resource estimates for about 82 percent of the resource blocks.

Since even the nominal 500 meter sampling grid at Mada is relatively large compared to the inferred resource at Nkamouna, for which the sampling grid for inferred resource was between 200 and 600 meters, the inferred resource at Mada was reported as three subcategories based on 500, 1000, and 1500-meter sample grids. The subcategories of the Mada inferred resources are shown in Tables 17-2 through 17-4.

TABLE 17-2
Geovic, Ltd.
Mada Resource Estimate
(Sample Spacing up to 500 meters, Maximum Extrapolation 140 meters)

Inferred NN Resource Before Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	9,100	0.43	0.55	2.71
Ferralite	0.12	39,000	0.21	0.50	1.14
Total		48,100	0.25	0.51	1.44
Inferred NN Resource After Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	9,800	0.38	0.52	2.39
Ferralite	0.12	43,600	0.20	0.48	1.06
Total		53,400	0.23	0.49	1.30

TABLE 17-3
Geovic, Ltd.
Mada Resource Estimate
(Sample Spacing 500 to 1000 meters, Maximum Extrapolation 280 meters)

Inferred NN Resource Before Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	3,700	0.44	0.60	3.36
Ferralite	0.12	55,700	0.21	0.49	1.05
Total		59,400	0.22	0.49	1.19
Inferred NN Resource After Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	3,900	0.36	0.50	1.96
Ferralite	0.12	61,800	0.19	0.47	0.97
Total		65,700	0.20	0.47	1.03

TABLE 17-4
Geovic, Ltd.
Mada Resource Estimate
(Sample Spacing 1000 to 1500 meters, Maximum Extrapolation 420 meters)

Inferred NN Resource Before Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	500	0.40	0.54	2.23
Ferralite	0.12	23,000	0.21	0.48	1.05
Total		23,500	0.21	0.48	1.08
Inferred NN Resource After Adjustment for Volume-Variance Effects					
Type	Cutoff %Co	Tonnes (1000's)	%Co	%Ni	%Mn
Breccia	0.28	500	0.36	0.50	1.96
Ferralite	0.12	25,500	0.19	0.47	0.98
Total		26,000	0.20	0.47	1.00