

Grade Tonnage Tables & Graphs for Block Model Reporting in the Mineral Industry

DEEPLINE

Ni cutoff	Classification	Ktons	Ni Ktons metal quantities	average grade Ni (%)	average grade Fe (%)	average grade SiO2 (%)	average grade Al2O3 (%)	average grade MnO (%)	average grade Cr2O3 (%)
[2.0, 2.2]	Measured	85.582	1.84	2.15	37.02	12.47	3.40	0.65	2.73
[2.2, 2.3[Measured	58.921	1.33	2.25	36.89	12.44	3.39	0.64	2.72
[2.3, 2.4[Measured	94.577	2.22	2.35	37.00	12.42	3.42	0.64	2.74
[2.4, 2.5[Measured	152.079	3.73	2.45	36.93	12.41	3.41	0.64	2.73
[2.5, 2.6[Measured	199.503	5.11	2.56	36.91	12.40	3.40	0.64	2.73
[2.6, 2.7[Measured	238.996	6.33	2.65	36.95	12.38	3.40	0.64	2.73
[2.7, 2.8[Measured	273.763	7.53	2.75	36.89	12.37	3.38	0.64	2.72
[2.8, 2.9[Measured	347.855	9.91	2.85	36.83	12.38	3.37	0.64	2.71
[2.9, 3.0[Measured	375.402	11.07	2.95	36.85	12.37	3.39	0.64	2.71
[3.0, inf[Measured	28.792	1.01	3.50	36.83	12.34	3.41	0.64	2.70
[2.0, 2.2[Indicated	42.791	0.97	2.26	37.02	6.24	1.70	0.64	3.03
[2.2, 2.3[Indicated	19.640	0.46	2.36	36.89	4.15	1.13	0.64	3.02
[2.3, 2.4[Indicated	23.644	0.58	2.47	37.00	3.11	0.86	0.64	3.04
[2.4, 2.5[Indicated	38.020	0.98	2.57	36.93	3.10	0.85	0.64	3.03
[2.5, 2.6[Indicated	49.876	1.34	2.69	36.91	3.10	0.85	0.64	3.03
[2.6, 2.7[Indicated	59.749	1.66	2.78	36.95	3.09	0.85	0.64	3.03
[2.7, 2.8[Indicated	68.441	1.98	2.89	36.89	3.09	0.85	0.64	3.02
[2.8, 2.9[Indicated	86.964	2.60	2.99	36.83	3.09	0.84	0.64	3.01
[2.9, 3.0]	Indicated	46.925	1.45	3.10	36.85	1.55	0.42	0.64	3.01
[3.0, inf[Indicated	2.399	0.09	3.68	36.83	1.03	0.28	0.64	3.00

GRADE TONNAGE TABLES

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GRADE TONNAGE CURVES





Grade Tonnage Tables & Graphs

Grade tonnage tables or graphs are based on this fundamental relationship in mining:

Metal Quantity = Tonnage x Mean Grade

usually written as Q=TxM









Metal Quantity: Corresponds to the mass of the metal of interest

Tonnage: Corresponds to the **mass** of the considered **ore volume**.

Mean Grade: Corresponds to the average mass ratio between the mass of the metal of interest and the mass of the considered ore volume.

Note: Be careful not to consider the Mean Grade as the average volume ratio of the metal and the ore.

Reporting the QTM

CUTOFFS

Grade Tonnage Tables & Graphs report the QTM for several cutoffs of interest on the main variable.

RESOURCE CLASIFICATION

It is usual to consider the resource classifications (Inferred, Indicated, Measured) or the reserve classifications (Probable, Proven).

SECONDARY CHEMISTRY

It is common to report the Metal Quantities and the Mean Grade of the secondary chemistries as they can represent an economical co-product, an ecological threat, or they can penalize elements for the ore processing.

DENSITY

A proper estimation of density is usually required to get confident Metal Quantity and Tonnage from the Block Model.

BLOCK VOLUME PROPORTION

It might be relevant to take into account the mineralized proportion of the block depending on the geology.

Want to know more about Block Model Validation?

Contact us at: contact@deeplime.io



