

Summary stats for Grm - average for all pure ore types

ribbon banded
graphitic
quartzite

with measured pulp SG
pyritic
quartzite

massive
pyritic
sulphides

barite
bearing
massive
ores

020245
"average"

	4A	4CD	4E	4G	5008
n =	2349 (47%)	1115 (22%)	1060 (21%)	484 (10%)	
% Cu	0.08	0.13	0.17	0.12	0.11
% Pb	2.00	3.05	4.80	5.45	3.15
% Zn	3.58	5.25	7.65	8.34	5.27
gm/tonne Ag	36.3	53.0	81.3	91.8	54.9
gm/tonne Au	0.79	0.95	1.37	1.17	0.99
% Fe sol	1.80	3.45	3.39	2.14	2.44
% Fe insol	9.62	12.27	25.85	18.00	13.86
% Pb+Zn	5.58	8.31	12.45	13.79	8.43
% Fe tot	11.48	15.73	29.24	20.15	16.30
Zn / (Zn+Pb)	0.64	0.61	0.58	0.60	0.63
wt% "gal"	2.3	3.5	5.5	6.3	3.6
"sphal"	5.3	7.8	11.4	12.4	7.9
"py"	20.7	26.4	55.6	38.7	29.8
"po"	2.9	5.4	5.3	3.4	3.8
"cpy"	0.2	0.4	0.5	0.3	0.3
pulp SG calc	3.21 3.18	3.47 3.38	4.36 4.18	4.44 3.79	3.63
vol% "gal"	1.0	1.6	3.2	3.7	1.7
"sphal"	4.3	6.8	12.4	13.8	7.2
"py"	13.3	18.3	48.5	34.4	21.6
"po"	2.0	4.1	5.0	3.3	3.0
"cpy"	0.2	0.3	0.5	0.3	0.3
"tot S"	20.8	31.1	69.6	55.5	33.8

4.7% Bad insol adjust +1.5 → 4.26

19.8% Bad insol adjust 3.79 to 4.44

On the basis of the number of samples in the Gorn database the following statements can be made.

The deposit consists of 71% quartzose disseminated lithofacies and 29% massive

This breaks down further to

ribbon banded graphitic gneiss	47%	} mainly 10-50% /vol PtS^{\pm}
non graphitic sulphide bearing gneisses	24%	
pyritic massive sulphides	19.1%	> 80% / vol PtS^{\pm}
barite bearing massive sulphides/sulphates	8%	> 10% / vol BaSO_4
pyrrhotitic massive sulphides	1.1%	> 50% / vol Fe_{1-x}S
carbonate bearing massive sulphides	1%	> 10% / vol CO_3 sp

2349 samples of 4A

give the following averages

$$P = 3.21$$

$$Cu = 0.08$$

$$Pb = 2.00$$

$$Zn = 3.58$$

$$Ag = 36.3$$

$$Au = 0.79$$

$$\text{Fe Sol} = 1.68$$

$$\text{Fe insol} = 8.68$$

$$Pb + Zn = 5.58$$

$$\text{Fe tot} = 10.36$$

$$\text{Zn/Pb+Zn} = 0.64$$

Summary Stats on all pure ore facies
with measured Fe and pulp SG

	n	av. meas SG	av calc SG	Δ	% Δ
4A	2117	3.23	3.21	-.02	-0.4
4C	437	3.43	3.38	-.05	-1.3
4D	614	3.50	3.47	-.03	-0.5
4E	1053	4.36	4.22	-.14	-2.8
4G	479	4.44	3.78	-.66	-14.5

	Pb	Zn	Pb+Zn	sol Fe	insol Fe	tot Fe
4A	2.19	3.89	6.08	1.86	9.64	11.50
4C	1.24	1.77	3.01	4.26	13.60	17.86
4D	4.59	8.18	12.77	2.89	11.37	14.26
4E	4.81	7.67	12.48	3.42	26.02	29.44
4G	5.46	8.35	13.81	2.17	18.19	20.36

G RUM ASSAYS

summary of contents of entire assay database by # of sample

4A	3475 (47.4)	}	5187 (71%)	}	7329 (100%)	}	7993
4B	35 (0.5)						
4C	874 (11.9)	}	2142 (29%)	}	}	}	}
4D	803 (11.0)						
4E	1431 (19.5)	}	}	}	}	}	}
4G	586 (8.0)						
4H	41 (0.6)	}	}	}	}	}	}
4J	7 (0.1)						
4K	77 (1.0)	}	}	}	}	}	}
4L	659						
4P	5	}	}	}	}	}	8317
SA	74						
SB	60	}	99	}	173	}	}
3G	39						
SC	46	}	151	}	}	}	}
SD	99						
3C	6	}	}	}	}	}	}

At Gann

4A is 47% of volume of deposit, av SG is = 3.21
4CD is 22% " " = 3.47
4E is 21% " " = 4.36
4G is 10% " " = 4.44
average SG. for the deposit is 3.63

average Pb+Zn of 4A = 5.58 %
4CD = 8.31 %
4E = 12.45 %
4G = 13.79 %

average PbZn for the deposit is 8.43

∴ 4A is 47% $\left(\frac{3.21}{3.63}\right)$ = 42% of the ~~volume~~ tonnage.
4CD 21%
4E 25%
4G ~~12%~~
100%

∴ 4A contains 42% $\left(\frac{5.58}{8.43}\right)$ = 28% of the metal
21
~~37~~
20
106