

TR12. 157-159

R. 540**GRINDING OF MT LYELL PYRITE CONCENTRATE****Sample**

A sample of Mt Lyell pyrite concentrate was submitted by the Department of Agriculture, who required samples of the material ground to various degrees of fineness for pot test applications to sulphur deficient soils.

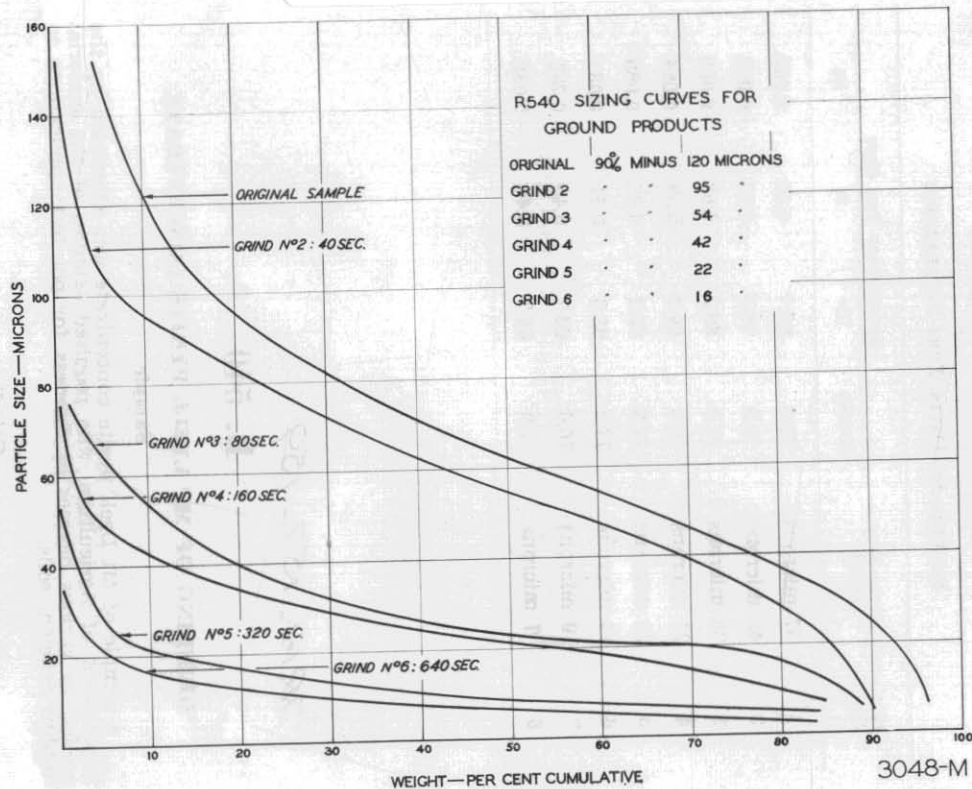
Grinding

Four hundred and fifty gram charges at 70% solids were wet ground in the Seibtechnik mill (250 cc vessel) for various time intervals ranging from 40 seconds to 10 minutes 40 seconds.

Sizing

Aliquots of the ground pulp were then taken and sized by wet and dry screening on the appropriate British Standard sieves with cyclosizing of the minus 300 mesh fraction.

The fineness of the samples is defined as 90% passing a given size.



SIZING ANALYSIS

Size Fraction	Equivalent Diameter Microns	PER CENT WEIGHT CUMULATIVE					
		Grind No. 1*	Grind No. 2	Grind No. 3	Grind No. 4	Grind No. 5	Grind No. 6
			(Period 40 sec)	(Period 80 sec)	(Period 160 sec)	(Period 320 sec)	(Period 640 sec)
+100	+152	4.8	0.5				
150	+104	15.3	5.2				
200	+ 76	35.2	27.8	1.5	0.4	0.1	
300	+ 53	60.3	53.4	10.9	3.0	0.4	0.1
C.S 1	+ 26	90.1	81.0	39.5	36.9	5.5	2.4
2	+ 20	92.3	85.0	70.7	54.2	12.3	5.1
3	+ 14	94.1	88.0	80.4	70.2	29.8	14.9
4	+ 9	95.5	89.9	86.4	80.5	50.1	35.1
5	+ 7	96.0	90.3	88.7	84.4	58.7	45.5
minus 5	- 7	100.0	100.0	100.0	100.0	100.0	100.0

* Original Sample.