

IRON ORE

SALIENT DATA OF ORE DRESSING INVESTIGATION CARRIED OUT BY OD DIVISION, IBM

ZONE-C : KARNATAKA

SR. NO.	R.I. NO.	TITLE OF THE INVESTIGATION	ORIGINAL ANALYSIS %		MINERALOGY	CONCENTRATE			PROCESS ADOPTED	
						WT%	ASSAY%	%REC		
1.	105	Beneficiation of low grade iron ore samples from Kudremukh, Mysore.	Fe Al ₂ O ₃ SiO ₂ LOI	39.46 2.44 43.82 2.09	<u>Val. Mineral</u> Magnetite Goethite Hematite <u>Gangue</u> Quartz	49.7	Fe Al ₂ O ₃ SiO ₂ P	67.83 1.36 3.41 0.04	74.82	Magnetic separation and cyclone classification.
2.	107	Pilot Plant Ore dressing investigation on the iron ore sample from Donimalai deposit, Bellary Hospet, Mysore.	Fe Al ₂ O ₃ SiO ₂	66.15 2.00 1.70	<u>Val. Mineral</u> Hematite <u>Gangue</u> Quartz, Gibbsite, Kaoline	57.8	Fe Al ₂ O ₃ SiO ₂	67.23 1.50 1.09		Screening.
						37.0 (- 3/8'')	Fe Al ₂ O ₃ SiO ₂	67.13 2.00 1.75		Classification.
3.	141	Laboratory and Pilot Plant investigation on pelletization of blue dust sample from Bellary Hospet, Mysore.	Fe Al ₂ O ₃ SiO ₂	69.92 0.27 0.17	<u>Val. Mineral</u> Hematite	Suitable pellets obtained.			Pelletisation.	
4.	146	Sintering of the iron ore fines from Donimalai Deposit, Bellary Hospet, Mysore.	Fe Al ₂ O ₃ SiO ₂ LOI	67.13 2.00 1.75 0.56	<u>Val. Mineral</u> Hematite	Suitable sinter obtained.			Sintering.	

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5.	299	Pilot Plant filtration studies on Kudremukh Magnetic concentrate (NMDC)	-	-		The moisture content of the filter cake was brought down to about 8% solids.			
6.	335	Additional filtration studies on Kudremukh Magnetite Concentrate	-	-		The moisture content of the filter cake was brought down to 7.90% average by Dorr-Oliver Disc.filter.			
7.	527	Tumbling Cum wet screening on iron ore rejects sample (TNG/JK/1) from Tornagallu Rly. Stockyard, Karnataka.	Fe SiO ₂ Al ₂ O ₃ P	62.01 3.15 3.59 0.05	Val. Mineral Hematite, Gangue Quartz Clay & Gibbsite	52.95	+12.5mm Fe 63.5 Al ₂ O ₃ 2.99 SiO ₂ 2.29	53.83	Tumbling and sizing
8.	528	Tumbling Cum wet screening on iron ore rejects sample (TNG/MML/2) from Tornagallu Rly. Stockyard, Karnataka.	Fe Al ₂ O ₃ SiO ₂	63.03 3.95 2.19	Val. Mineral Hematite, Gangue Quartz Clay & Gibbsite	57.91	+12.5 mm Fe 63.85 Al ₂ O ₃ 3.86 SiO ₂ 1.61	58.29	Tumbling and sizing
9.	529	Tumbling cum wet screening on iron ore rejects sample (TNG/MML/HS/3) from Tornagallu Rly. Stockyard Karnataka.	Fe Al ₂ O ₃ SiO ₂	63.70 3.71 1.70	Val. Mineral Hematite, Gangue Quartz Clay & Gibbsite	56.80	+12.5mm Fe 65.01 Al ₂ O ₃ 2.67 SiO ₂ 1.37	57.86	Tumbling and sizing
10.	530	Tumbling cum wet screening on iron ore reject. Sample (TNG/ZTC/4 from Tornagallu Rly. Stockyard Karnataka.	Fe Al ₂ O ₃ SiO ₂	62.98 3.88 2.90	Val. Mineral Hematite, goethite Gangue Quartz Clay & Gibbsite	50.35	+12.5 mm Fe 64.21 Al ₂ O ₃ 3.05 SiO ₂ 2.70	51.09	Tumbling and sizing