

Department of Commerce and Labor

Bureau of Standards

Certificate of Analyses

OF

STANDARD SAMPLE No. 29

MAGNETITE IRON ORE (Dried at 100°)

Furnished by the Thomas Iron Co., Hokendauqua, Pa.

CONSTITUENT.	ANALYST.	METHOD.	PER CENT.	AVERAGE.
SiO ₂	1	HCl → Na ₂ CO ₃ fusion.....	12.04	12.02
	2	HCl → Na ₂ CO ₃ fusion.....	12.11	
	4	Not stated.....	11.96	
	5	HCl evaporation.....	12.01	
	5	H ₂ SO ₄ evaporation.....	11.97	
TiO ₂	1	Electrolytic → Colorimetric.....	1.01	.99
	1	Phenylhydrazine → Colorimetric.....	.98	
	1	Blair's method → Colorimetric.....	.99	
Al ₂ O ₃	1	Electrolytic separation.....	1.91	1.91
	1	Phenylhydrazine separation.....	1.92	
V ₂ O ₅	1	SO ₂ reduction → ZnO precipitation.....	.07	.08
	1	Electrolytic → ZnO precipitation.....	.08	
	5	Modified Campagne.....	.08	
Fe (total).....	1	Jones reductor ^a	55.76	55.75
	1	SnCl ₂ reduction ^b	55.79	
	1	SO ₂ reduction ^b	55.77	
	4	Not stated ^c	55.83	
	5	H ₂ S reduction ^c	55.67	
	5	Zn reduction ^d	55.65	
FeO.....	1	Pratt method.....	24.78	24.78
Fe ₂ O ₃	1	Calculated from B. S. values.....	52.20	52.20
MnO.....	1	Persulphate colorimetric.....	.09	.09
CaO.....	1	Gravimetric.....	2.90	2.90
MgO.....	1	Gravimetric.....	2.01	2.01
K ₂ O.....	1	J. L. Smith.....	.51	.51
	2	J. L. Smith.....	.50	
Na ₂ O.....	1	J. L. Smith.....	.44	.45
	2	J. L. Smith.....	.45	