

U. S. DEPARTMENT OF COMMERCE

National Bureau of Standards

Certificate of Analyses

OF

STANDARD SAMPLE 28A

NORRIE IRON ORE

(CERTIFIED FOR MANGANESE ONLY)

[All results based on a sample dried for one hour at 105° C.]

ANALYST*	METHOD	MANGANESE
		Percent
1	Bismuthate, FeSO ₄ -KMnO ₄ , based on Na ₂ C ₂ O ₄	0.436
2	Bismuthate, FeSO ₄ -KMnO ₄ , based on Na ₂ C ₂ O ₄427
3	Bismuthate, FeSO ₄ -KMnO ₄ , based on Na ₂ C ₂ O ₄436
6	Bismuthate, FeSO ₄ -KMnO ₄ , based on Na ₂ C ₂ O ₄426
2	Bismuthate, FeSO ₄ -KMnO ₄ , based on a standard ore.....	.44
	Average.....	0.433
1	Persulfate-Arsenite, based on high-purity electrolytic Mn.....	0.434
2	Persulfate-Arsenite, based on a standard ore.....	.43
4	Persulfate-Arsenite, based on Na ₂ C ₂ O ₄43
5	Persulfate-Arsenite, based on Na ₂ C ₂ O ₄435
6	Persulfate-Arsenite, based on Na ₂ C ₂ O ₄42
7	Persulfate-Arsenite, based on a standard steel.....	.431
	Average.....	0.430
	Recommended value.....	0.435

*LIST OF ANALYSTS

1. Ferrous Laboratory, National Bureau of Standards. John L. Hague, in charge, analysis by J. I. Shultz and Florence Yenchius.
2. Jones & Laughlin Steel Corp., H. E. Slocum, director of chemical laboratories, analysis by Pittsburgh Works, J. D. Ritz, chief chemist.
3. W. D. Brown, Carnegie-Illinois Steel Corp., Duquesne Works, Duquesne, Pa.
4. L. P. Chase, Carnegie-Illinois Steel Corp., South Works, Chicago, Ill.
5. O. W. Baldwin, Carnegie-Illinois Steel Corp., Gary Works, Gary, Ind.
6. H. Berg, Carnegie-Illinois Steel Corp., Clairton Works, Clairton, Pa.
7. T. R. Cunningham and H. N. Fry, Union Carbide & Carbon Research Labs., Niagara Falls, N. Y.

WASHINGTON, D. C., March 29, 1948.

E. U. CONDON, *Director.*