Brammer Standard Company, Inc.

Certificate of Analysis

B.S. 1B

Chill-cast Iron

	Carbon	2.50	Vanadium	0.113
	Manganese	1.89	Niobium	0.021
	Phosphorus	0.026	Cobalt	0.20
	Sulfur	0.035	Tungsten	0.10
	Silicon	1.85	Arsenic	0.004
	Copper	0.013	Zirconium	(0.002)
	Nickel	2.12	Antimony	(0.001)
\	Chromium	0.79	Cerium	0.010
	Molybdenum	0.175	Boron	0.012
	Tin	0.010	Tellurium	0.021
	Aluminum	0.015	Lead	(0.001)
	Titanium	0.057		

Several laboratories in three countries cooperated in providing the analytical data for this cast iron Reference Material. The methods of analysis were classical "wet" analysis, atomic absorption and plasma excitation techniques. Combustion instruments were used for carbon and sulfur analysis.

Listed below are some of the cooperating laboratories:

Alpha Research Laboratory, Stevensville, Michigan, USA Brammer Standard Company, Inc., Houston, Texas, USA Midstates Analytical Laboratories, Tulsa, Oklahoma, USA Turret Alloys, Ltd., Analytical Services, Sheffield, England Sluzba Vyzkumu, Praha, Czechoslovakia VHG Labs, Inc., Manchester, New Hampshire, USA

This material was produced by the American Cast Iron Pipe Company, (ACIPCO), Birmingham, Alabama, USA.

See reverse side for more information

Certificate No. 1B-101888