

TO DETERMINE MASS SUSCEPTIBILITY OF STINGAMIRE SM04
MISCELLANEOUS SAMPLES

<u>Calibration samples</u>	Mass g	Bridge reading	Total susceptibility $K_T \times 10^{-8} \text{ m}^3$	Mass susceptibility $\chi \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$
Manganese sulphate	50.00	61.8	4.06	81.2
High alumina cement	50.00	530	35.80	716
<u>Test samples</u>				
T1 Roasted ore A	12.87	1286	87.05	6764
T1 Roasted ore B	12.86	1185	80.20	6237
T1 Roasted ore C	11.61	1448	98.03	8444
T1 Roasted ore D	9.78	1001	67.73	6925
T2 Furnace in-fill	46.32	1610	109.01	2354
Mean	)			7092
Median	) Roasted ore			6845
Standard Deviation	+/-)			948

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	61.8	4.06	61.8
		35.80	530

Slope & constant values as calculated by data trendline:

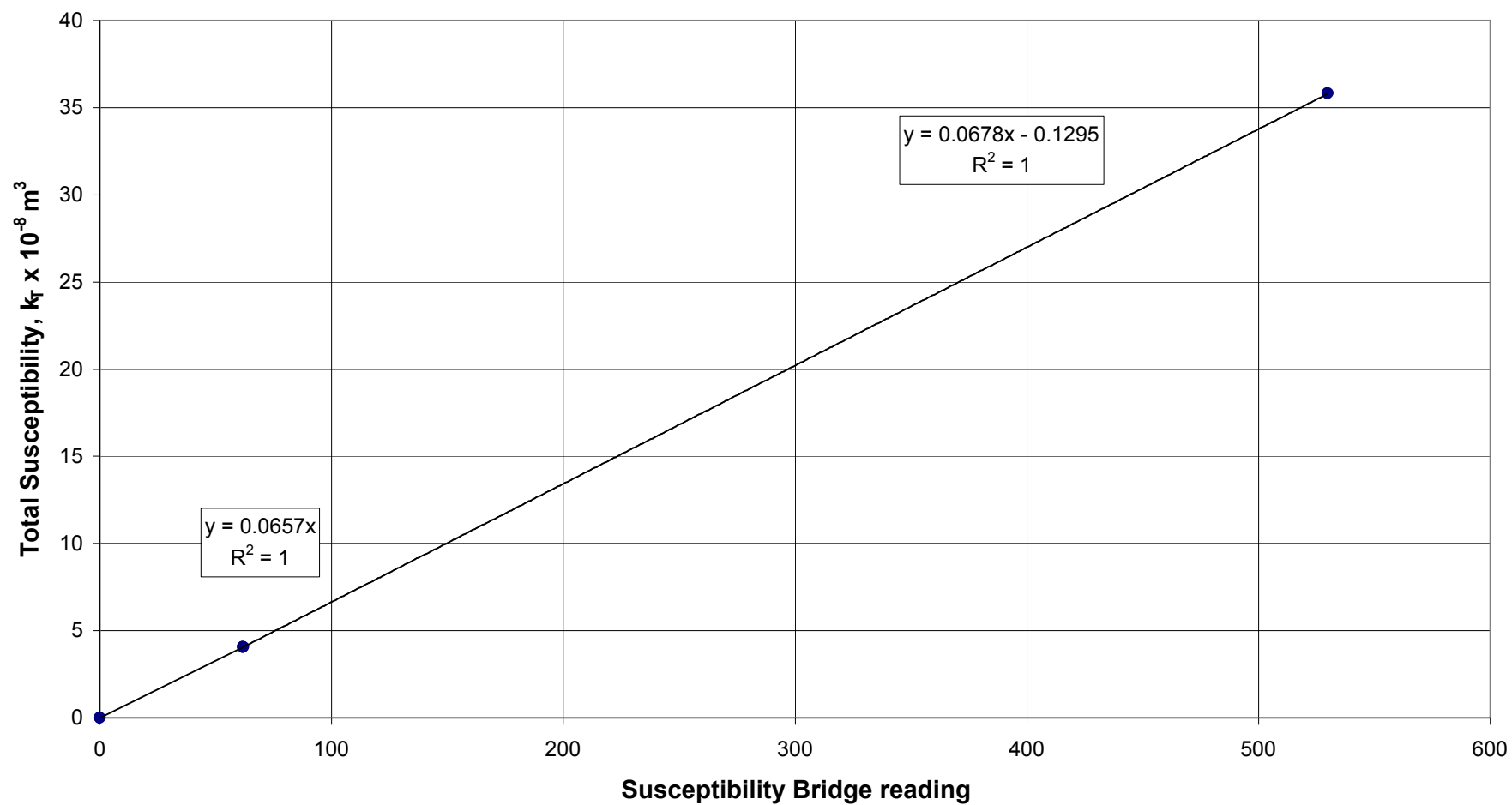
m	c	x	y
0.0657	0	61.8	4.0603
0.0678	-0.1295	61.8	4.0605
0.0678	-0.1295	530	35.8045

Slope & constant values as calculated from raw data:

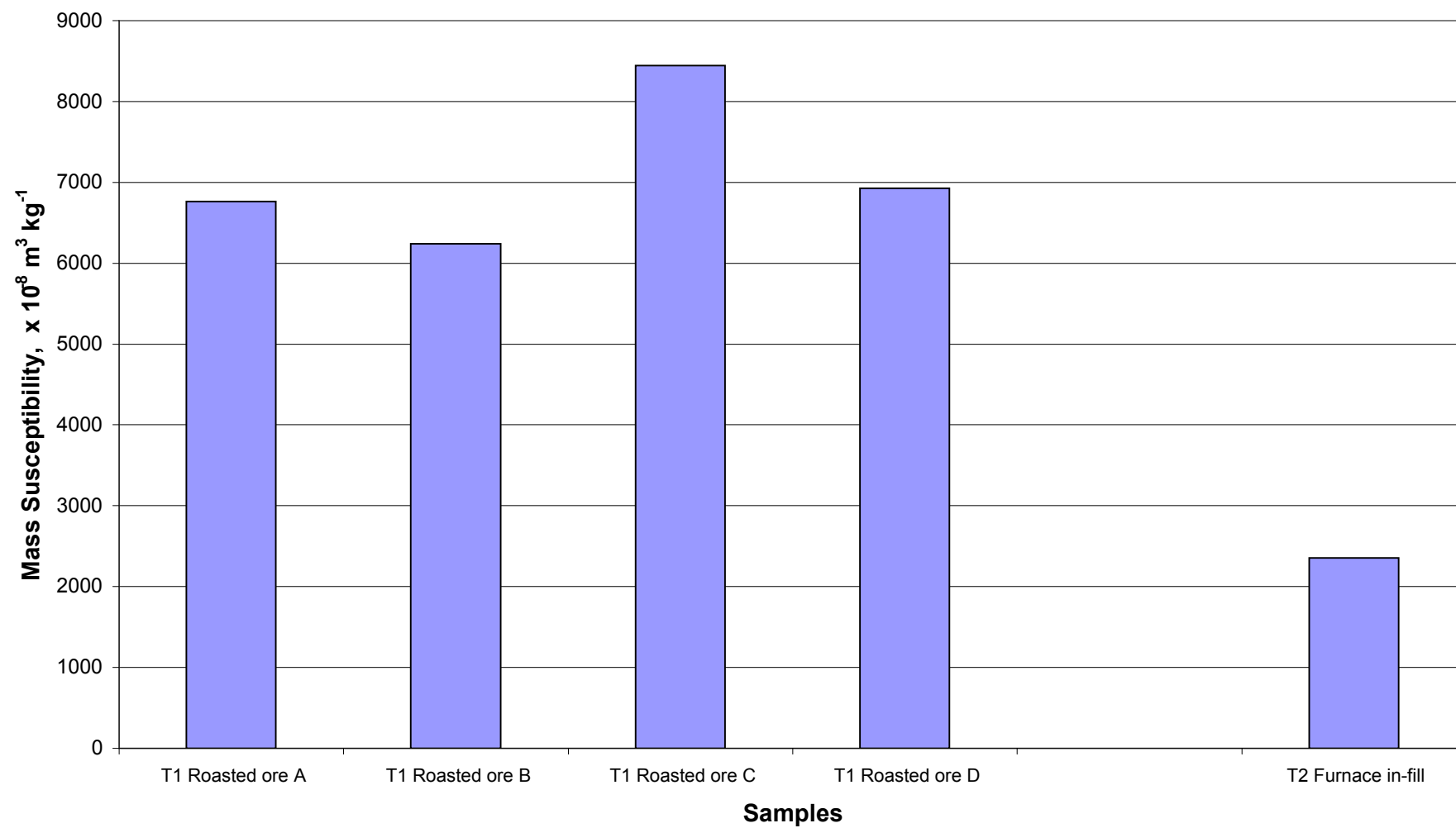
m	c	x	y
0.06570	0	61.8	4.06
0.06779	-0.12952	61.8	4.06
0.06779	-0.12952	530	35.80

Above slope & constant values used in formula to calculate total susceptibility from the corresponding meter reading.

SM04 MISCELLANEOUS SAMPLES SUSCEPTIBILITY CALIBRATION CURVE



SM04 MISCELLANEOUS SAMPLES MASS SUSCEPTIBILITY



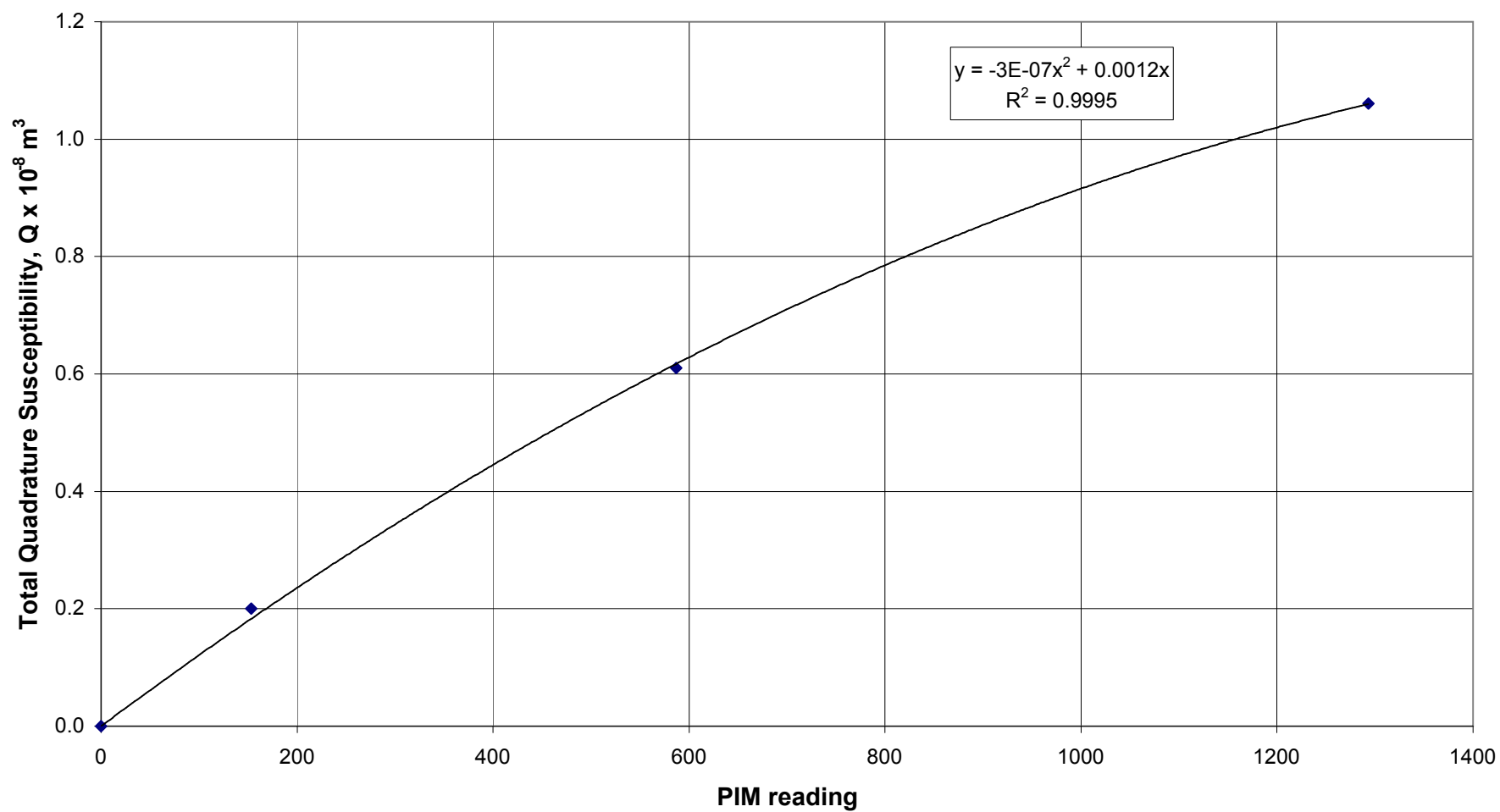
**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY
OF STINGAMIREs SM04 MISCELLANEOUS SAMPLES**

<u>Calibration samples</u>	Mass g	PIM reading	Total quad. sus. $Q \times 10^{-8} \text{ m}^3$	Mass quad. sus. $q \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$	Magnetic viscosity %
High alumina cement	50.00	153	0.20	4.0	
BS87	50.00	587	0.61	12.2	
BS62	40.64	1293	1.06	26.1	
<u>Test samples</u>					
T1 Roasted ore A	12.87	1999	1.20	93	1.4
T1 Roasted ore B	12.86	1980	1.20	93	1.5
T1 Roasted ore C	11.61	1800	1.19	102	1.2
T1 Roasted ore D	9.78	1590	1.15	118	1.7
T2 Furnace in-fill	46.32	868	0.82	18	0.7
Mean	)			102	1.4
Median	) Roasted ore			98	1.4
Standard Deviation	+/-)			11	0.2

Chart data

Total quad.	PIM
0	0
0.20	153
0.61	587
1.06	1293

SM04 MISCELLANEOUS SAMPLES QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE



SM04 MISCELLANEOUS SAMPLES MASS QUADRATURE SUSCEPTIBILITY & MAGNETIC VISCOSITY

