

TO DETERMINE MASS SUSCEPTIBILITY OF MYERS WOOD SURFACE SLAG 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	61.1	4.06	81.2
High alumina cement	50.00	538	35.80	716
<u>Test samples</u>				
MW2	34.51	111	7.38	214
MW3	19.95	68	4.52	227
MW4	21.03	154	10.24	487
MW5	4.91	71	4.72	961
MW6	8.06	46	3.06	379
MW7	61.34	134	8.91	145
MW8	14.44	133	8.85	613
MW9	12.37	124	8.25	667
MW10	17.48	292	19.43	1111
MW11	35.55	172	11.44	322
MW12	30.04	203	13.50	450
MW13	20.46	83	5.52	270
MW14	26.81	332	22.09	824
MW15	10.15	62	4.12	406
MW16	18.23	92	6.12	336
MW17	7.62	60	4.01	526
MW18	26.44	165	10.98	415
MW19	20.73	135	8.98	433
MW20	20.99	611	40.66	1937
MW21	33.08	468	31.14	941
MW22	37.20	127	8.45	227
Mean	)			566
Median	)			433
Standard Deviation	+/-)			413

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	61.1	4.06	61.1
		35.80	538

Slope & constant values as calculated by data trendline:

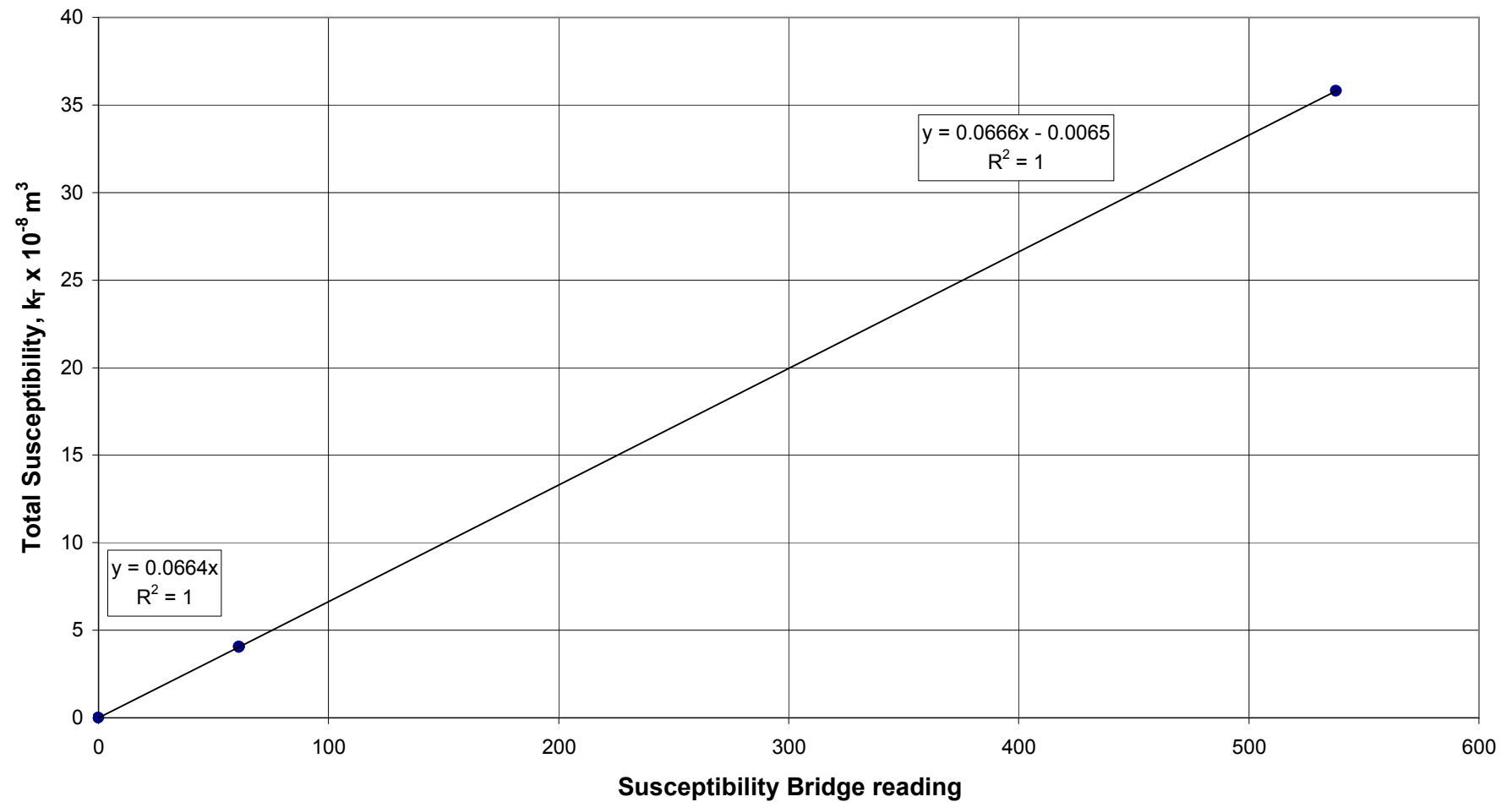
m	c	x	y
0.0664	0	61.1	4.0570
0.0666	-0.0065	61.1	4.0628
0.0666	-0.0065	538	35.8243

Slope & constant values as calculated from raw data:

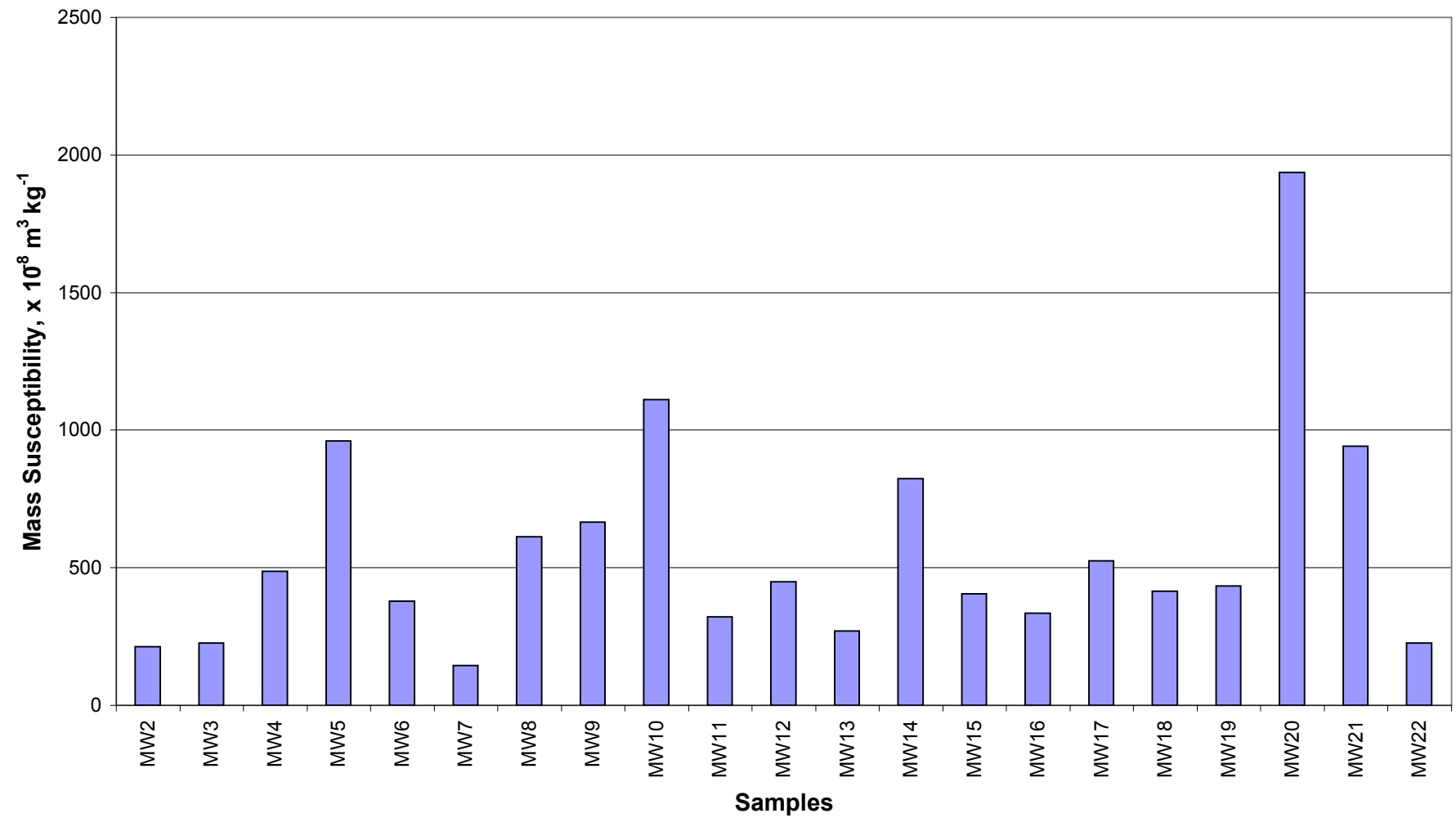
m	c	x	y
0.06645	0	61.1	4.06
0.06655	-0.0065	61.1	4.06
0.06655	-0.0065	538	35.80

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

MYERS WOOD SURFACE SLAG SAMPLES SUSCEPTIBILITY CALIBRATION CURVE



MYERS WOOD SURFACE SLAG SAMPLES MASS SUSCEPTIBILITY



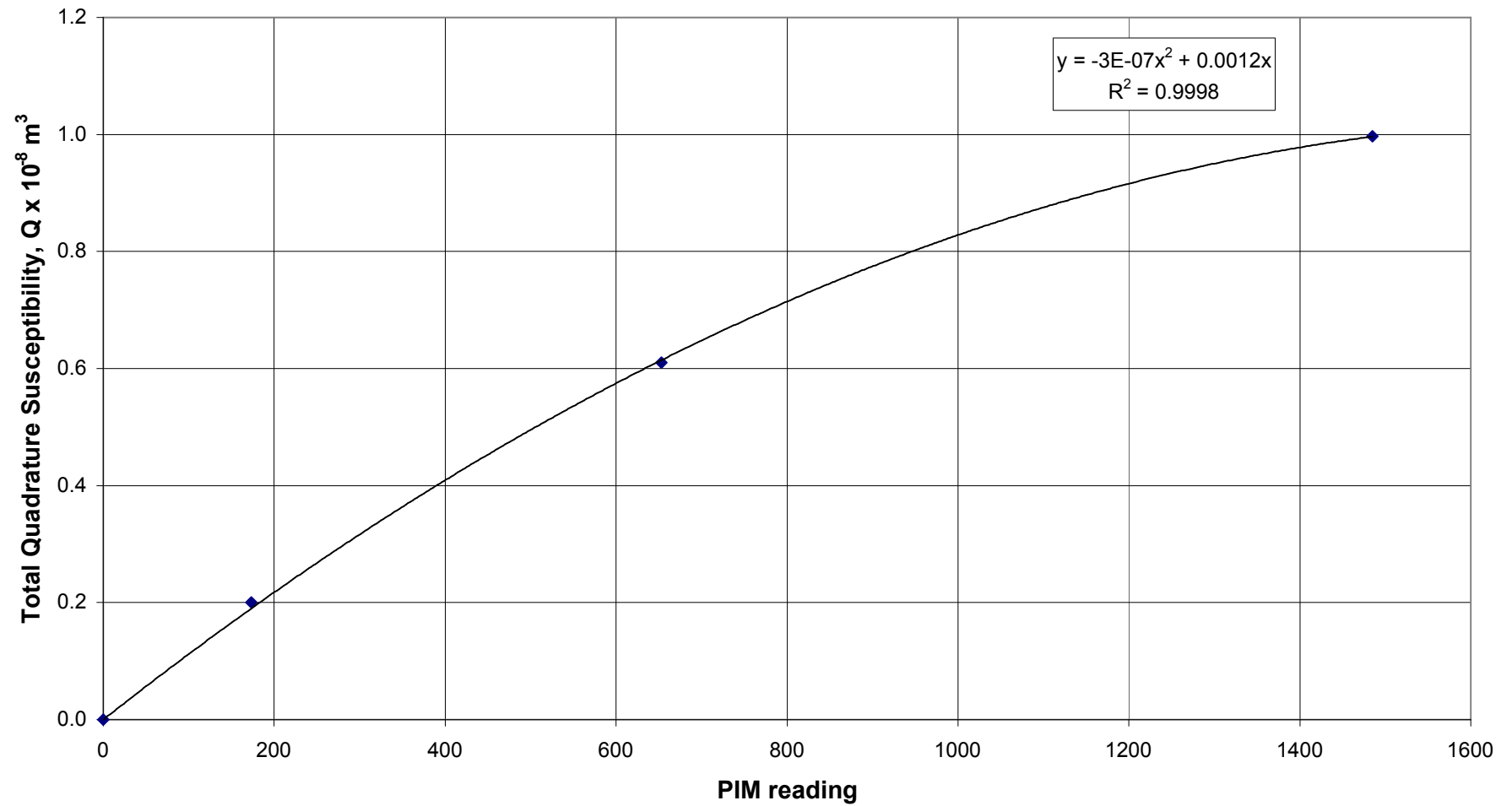
**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY
OF MYERS WOOD SURFACE SLAG SAMPLES**

<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	173	0.20	4.0	
BS87	50.00	653	0.61	12.2	
BS62	38.20	1485	1.00	26.1	
<u>Test samples</u>					
MW2	34.51	92	0.11	3	1.5
MW3	19.95	40	0.05	2	1.1
MW4	21.03				
MW5	4.91	40	0.05	10	1.0
MW6	8.06	19	0.02	3	0.7
MW7	61.34				
MW8	14.44	62	0.07	5	0.8
MW9	12.37	66	0.08	6	0.9
MW10	17.48	265	0.30	17	1.5
MW11	35.55	110	0.13	4	1.1
MW12	30.04	138	0.16	5	1.2
MW13	20.46	17	0.02	1	0.4
MW14	26.81	246	0.28	10	1.3
MW15	10.15	29	0.03	3	0.8
MW16	18.23	55	0.07	4	1.1
MW17	7.62	26	0.03	4	0.8
MW18	26.44	120	0.14	5	1.3
MW19	20.73	88	0.10	5	1.2
MW20	20.99	268	0.30	14	0.7
MW21	33.08	220	0.25	8	0.8
MW22	37.20				
Mean	)			6	1.0
Median	)			5	1.0
Standard Deviation	+/-)			4	0.3

Chart data

Total quad.	PIM
0	0
0.20	173
0.61	653
1.00	1485

MYERS WOOD SURFACE SLAG SAMPLES QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE



MYERS WOOD SURFACE SLAG SAMPLES MASS QUADRATURE SUSCEPTIBILITY & MAGNETIC VISCOSITY

