

**TO DETERMINE MASS SUSCEPTIBILITY OF ARCHAEOMAGNETIC DATING REMAINDER
MATERIAL FROM PENGUELAN PSS4 LEAD SMELTING HEARTH**

<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	61.2	4.06	81.2
High alumina cement	50.00	542	35.80	716
<u>Test samples</u>				
PSS4-2	47.81	424	28.01	586
PSS4-4	34.08	402	26.56	779
PSS4-5	33.67	407	26.89	799
PSS4-9	56.13	426	28.14	501
PSS4-12	61.69	375	24.78	402
PSS4-14	65.20	391	25.83	396
Mean				577
Median				544
Standard Deviation	+/-			178

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	61.2	4.06	61.2
		35.80	542

Slope & constant values as calculated by data trendline:

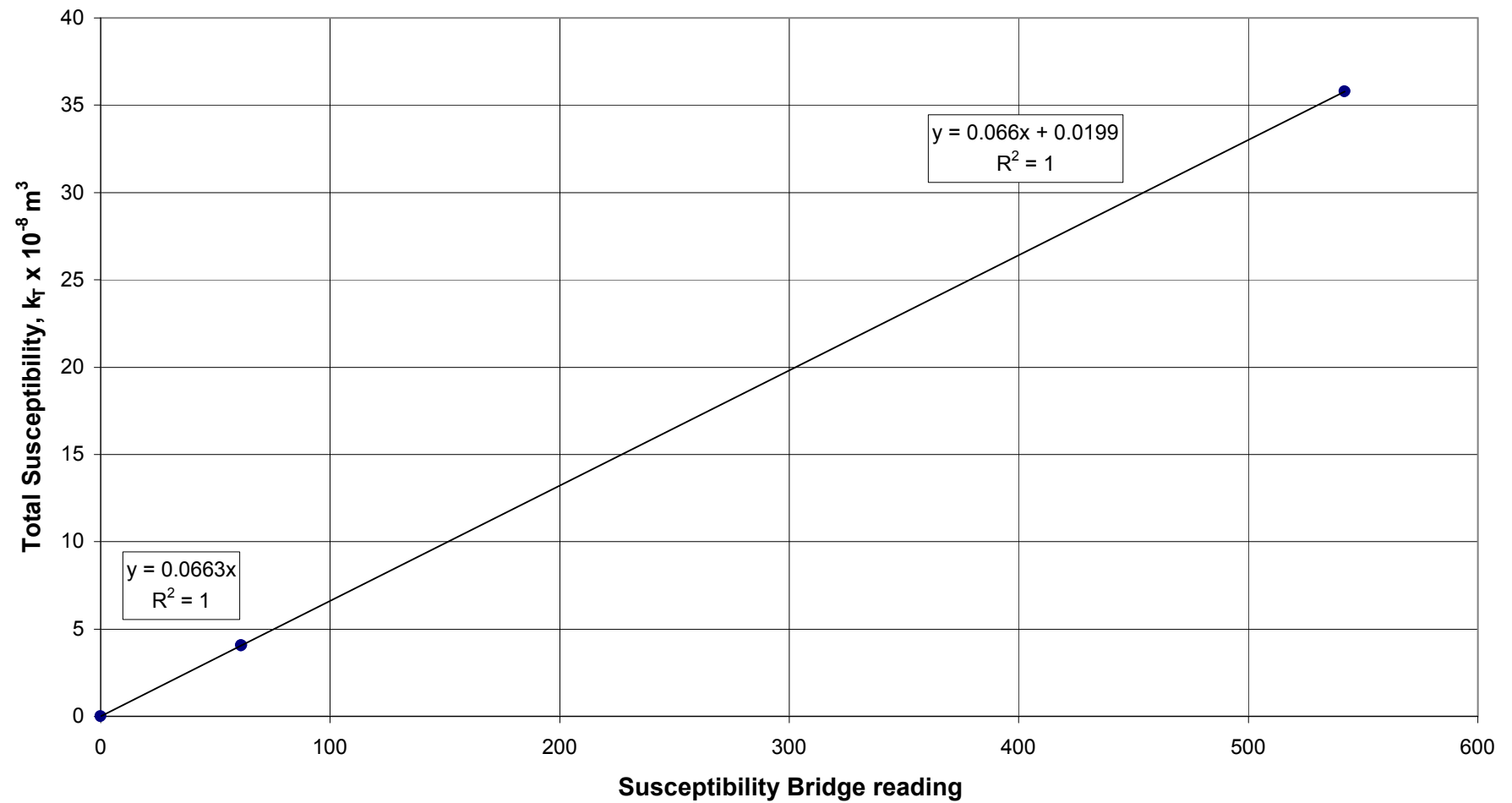
m	c	x	y
0.0663	0	61.2	4.0576
0.066	0.0199	61.2	4.0591
0.066	0.0199	542	35.7919

Slope & constant values as calculated from raw data:

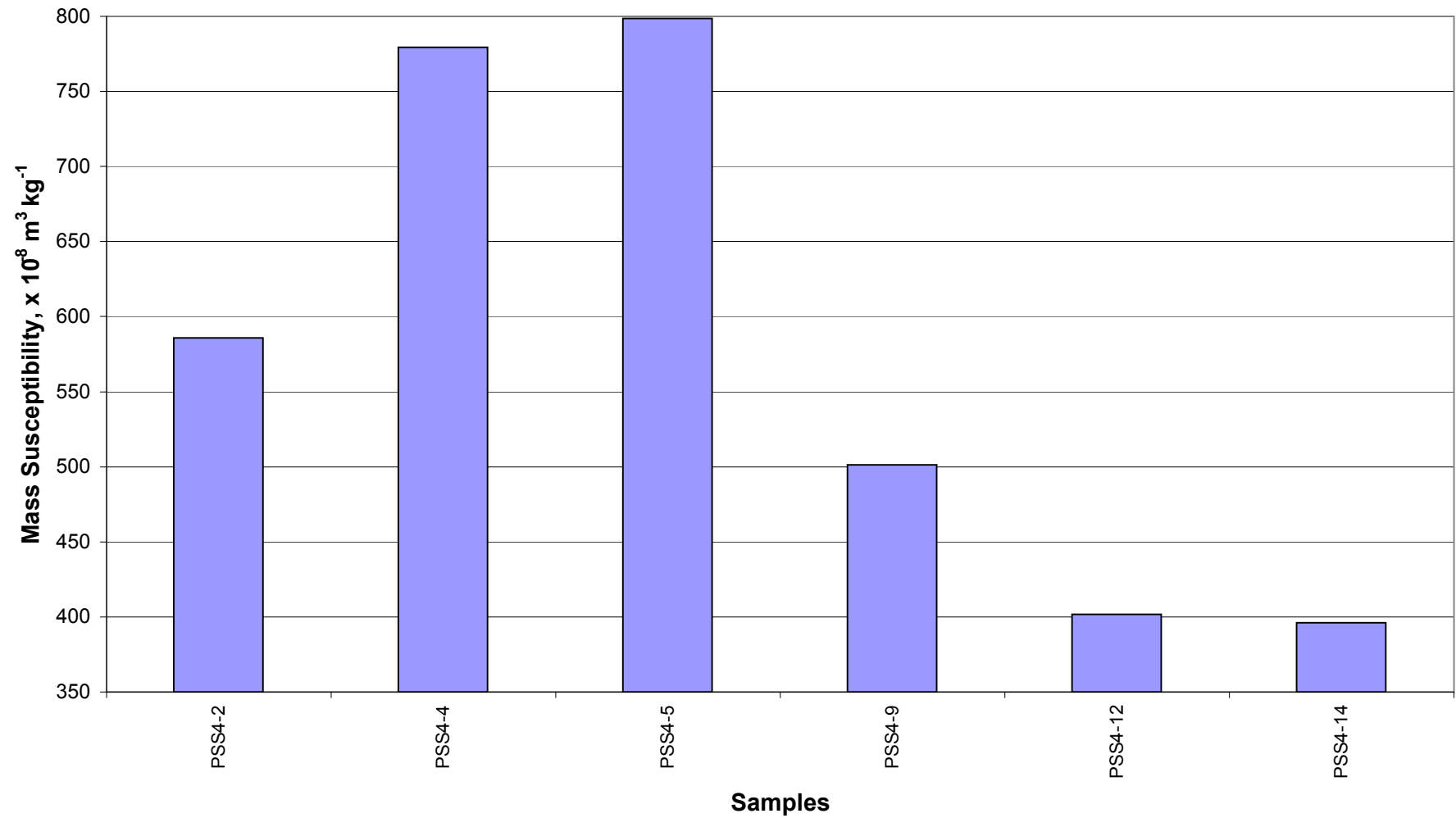
m	c	x	y
0.06634	0	61.2	4.06
0.06601	0.019884	61.2	4.06
0.06601	0.019884	542	35.80

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

PENGUELAN PSS4 A.M.D. MATERIAL SUSCEPTIBILITY CALIBRATION CURVE



PENGUELAN PSS4 A.M.D. MATERIAL MASS SUSCEPTIBILITY



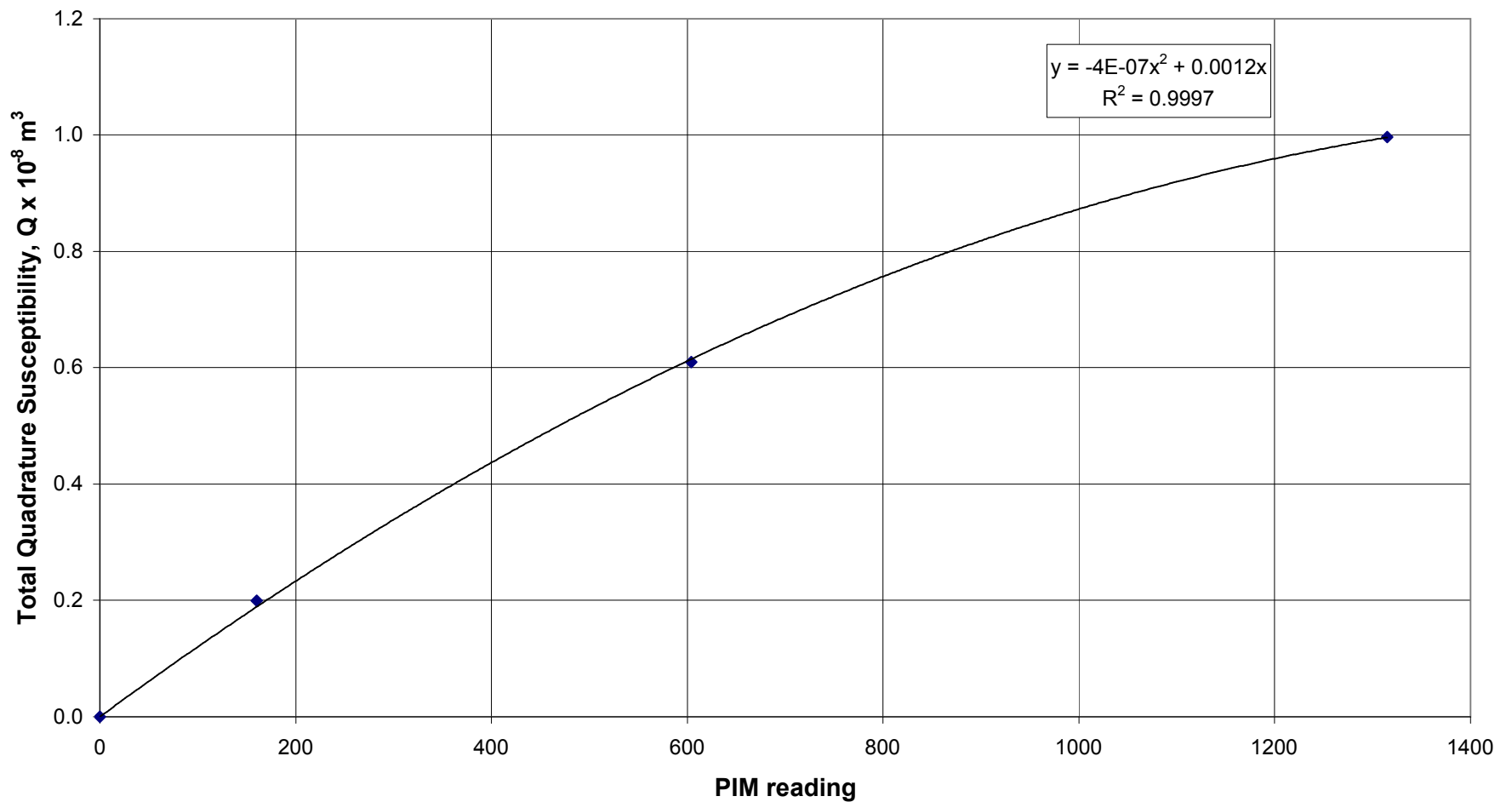
**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY OF ARCHAEOLOGICAL DATING
REMAINDER MATERIAL FROM PENGUELAN PSS4 LEAD SMELTING HEARTH**

<u>Calibration samples</u>	Mass g	PIM reading	Total quad. sus. Q x 10 ⁻⁸ m ³	Mass quad. sus. q x 10 ⁻⁸ m ³ kg ⁻¹	Magnetic viscosity %	
High alumina cement	50.00	160	0.20	4.0		
BS87	50.00	604	0.61	12.2		
BS62	38.20	1315	1.00	26.1		
<u>Test samples</u>	Type					
PSS4-2		47.81	1825	0.86	18	3.1
PSS4-4		34.08	1870	0.85	25	3.2
PSS4-5		33.67	1780	0.87	26	3.2
PSS4-9		56.13	1950	0.82	15	2.9
PSS4-12		61.69	1700	0.88	14	3.6
PSS4-14		65.20	1730	0.88	13	3.4
Mean				18	3.2	
Median				16	3.2	
Standard Deviation	+/-			5	0.2	

Chart data

Total quad.	PIM
0	0
0.20	160
0.61	604
1.00	1315

PENGUELAN PSS4 A.M.D. MATERIAL QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE



PENGUELAN PSS4 A.M.D. MATERIAL MASS QUADRATURE SUSCEPTIBILITY & MAGNETIC VISCOSITY

