

**TO DETERMINE MASS SUSCEPTIBILITY OF MYERS WOOD MW03 TRENCH L
ARCHAEO MAGNETIC DATING REMAINDER MATERIAL**

<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	62.1	4.06	81.2
High alumina cement	50.00	533	35.80	716
<u>Test samples</u>				
L113-1	35.66	168	11.20	314
L113-2	84.66	318	21.31	252
L112-3	15.02	198	13.22	880
L112-4A	59.64	440	29.53	495
L112-4B	53.69	318	21.31	397
L112-4C	47.20	328	21.98	466
L112-5	49.11	362	24.27	494
L112-6	65.77	940	63.23	961
L112-7A	47.40	500	33.58	708
L112-7B	45.34	452	30.34	669
L112-7C	40.54	360	24.14	595
L112-8A	67.55	594	39.91	591
L112-8B	71.97	396	26.57	369
L112-9	29.06	485	32.56	1121
L114-10	30.74	354	23.73	772
L110-11	33.70	210	14.03	416
L115-12A	40.77	278	18.61	457
L115-12B	39.44	276	18.48	468
L115-13A	37.51	346	23.20	618
L115-13B	35.59	314	21.04	591
L115-13C	33.55	346	23.20	691
Mean	)			587
Median	)			591
Standard Deviation	+/-)			217

Chart data

Total sus.	Meter	Total sus.	Meter
0	0		
4.06	62.1	4.06	62.1
		35.80	533

Slope & constant values as calculated by data trendline:

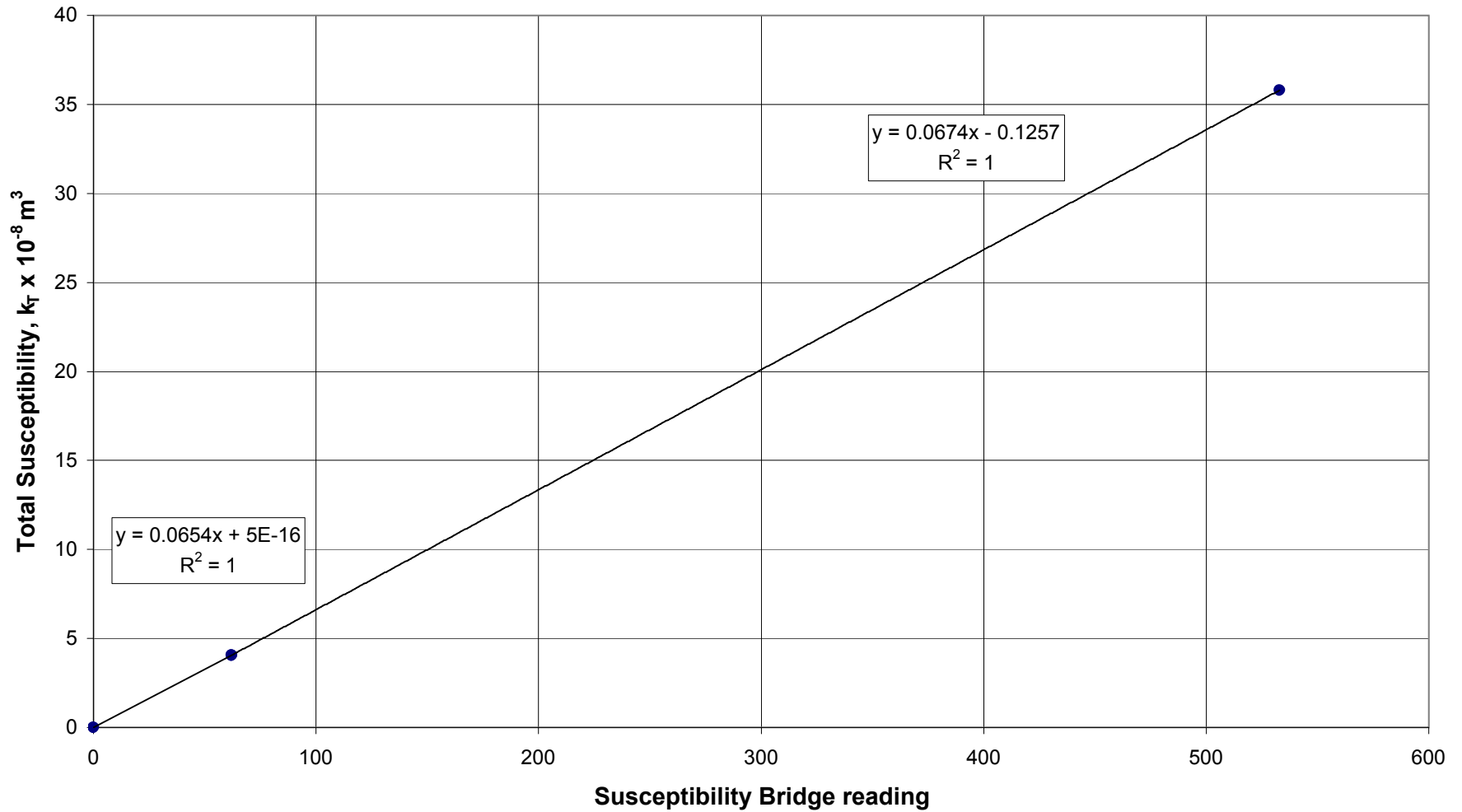
m	c	x	y
0.0654	0	62.1	4.0613
0.0674	-0.1257	62.1	4.0598
0.0674	-0.1257	533	35.7985

Slope & constant values as calculated from raw data:

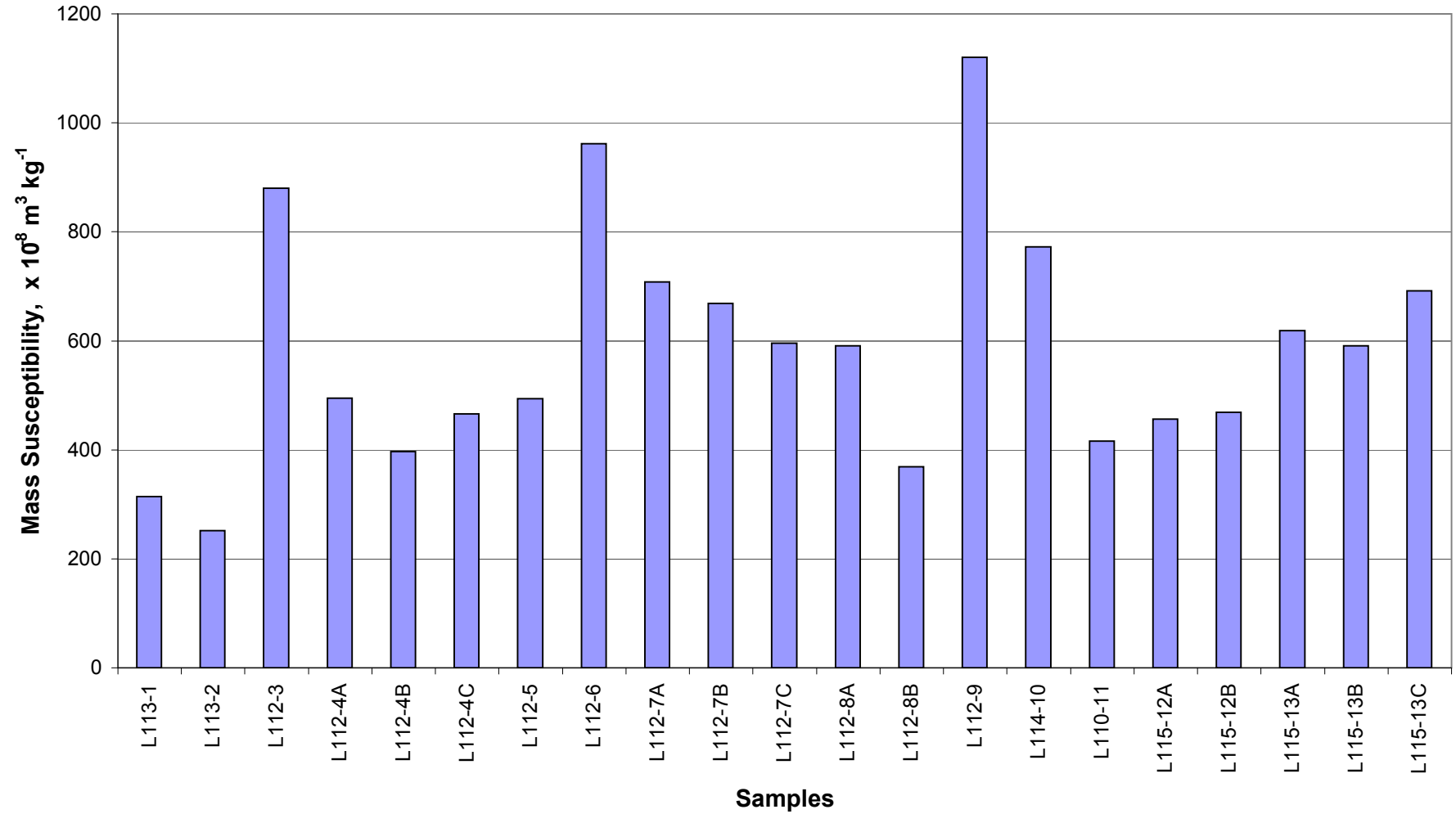
m	c	x	y
0.06538	0	62.1	4.06
0.06740	-0.12572	62.1	4.06
0.06740	-0.12572	533	35.80

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

MW03 TRENCH L A.M.D. MATERIAL SUSCEPTIBILITY CALIBRATION CURVE



MW03 TRENCH L A.M.D. MATERIAL MASS SUSCEPTIBILITY



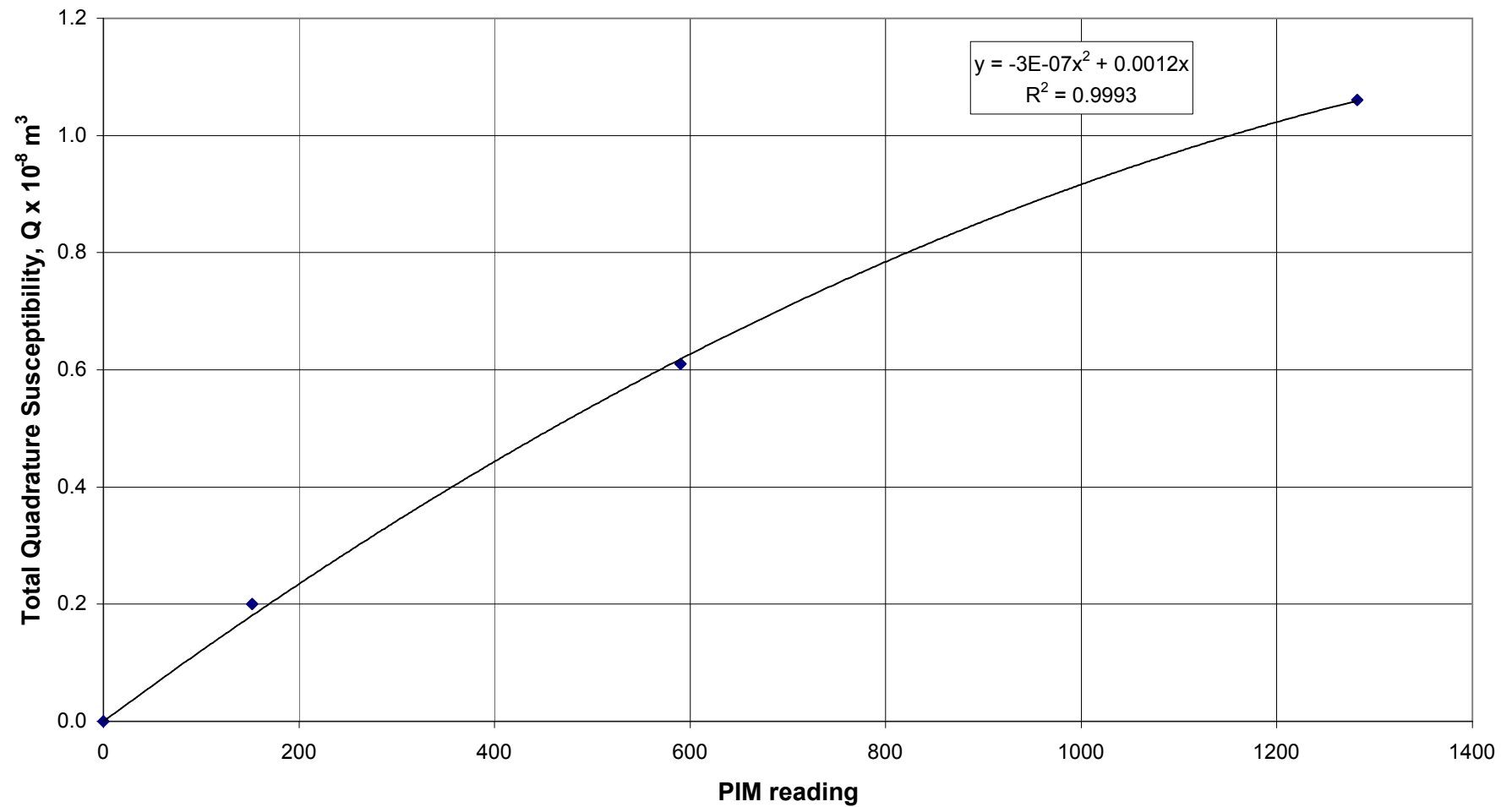
**TO DETERMINE MASS QUADRATURE SUSCEPTIBILITY AND MAGNETIC VISCOSITY OF
MYERS WOOD MW03 TRENCH L ARCHAEOLOGICAL DATING REMAINDER MATERIAL**

<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	152	0.20	4.0	
BS87	50.00	590	0.61	12.2	
BS62	40.64	1282	1.06	26.1	
<u>Test samples</u>					
L113-1	35.66	308	0.34	10	3.0
L113-2	84.66	930	0.86	10	4.0
L112-3	15.02	481	0.51	34	3.8
L112-4A	59.64	1490	1.12	19	3.8
L112-4B	53.69	820	0.78	15	3.7
L112-4C	47.20	880	0.82	17	3.7
L112-5	49.11	1028	0.92	19	3.8
L112-6	65.77	1780	1.19	18	1.9
L112-7A	47.40	1465	1.11	24	3.3
L112-7B	45.34	1354	1.07	24	3.5
L112-7C	40.54	1214	1.01	25	4.2
L112-8A	67.55	1899	1.20	18	3.0
L112-8B	71.97	1560	1.14	16	4.3
L112-9	29.06	918	0.85	29	2.6
L114-10	30.74	1376	1.08	35	4.6
L110-11	33.70	758	0.74	22	5.3
L115-12A	40.77	1134	0.98	24	5.2
L115-12B	39.44	1120	0.97	25	5.2
L115-13A	37.51	1360	1.08	29	4.6
L115-13B	35.59	1148	0.98	28	4.7
L115-13C	33.55	1580	1.15	34	4.9
Mean	)			22	4.0
Median	)			24	3.8
Standard Deviation	+/-)			7	0.9

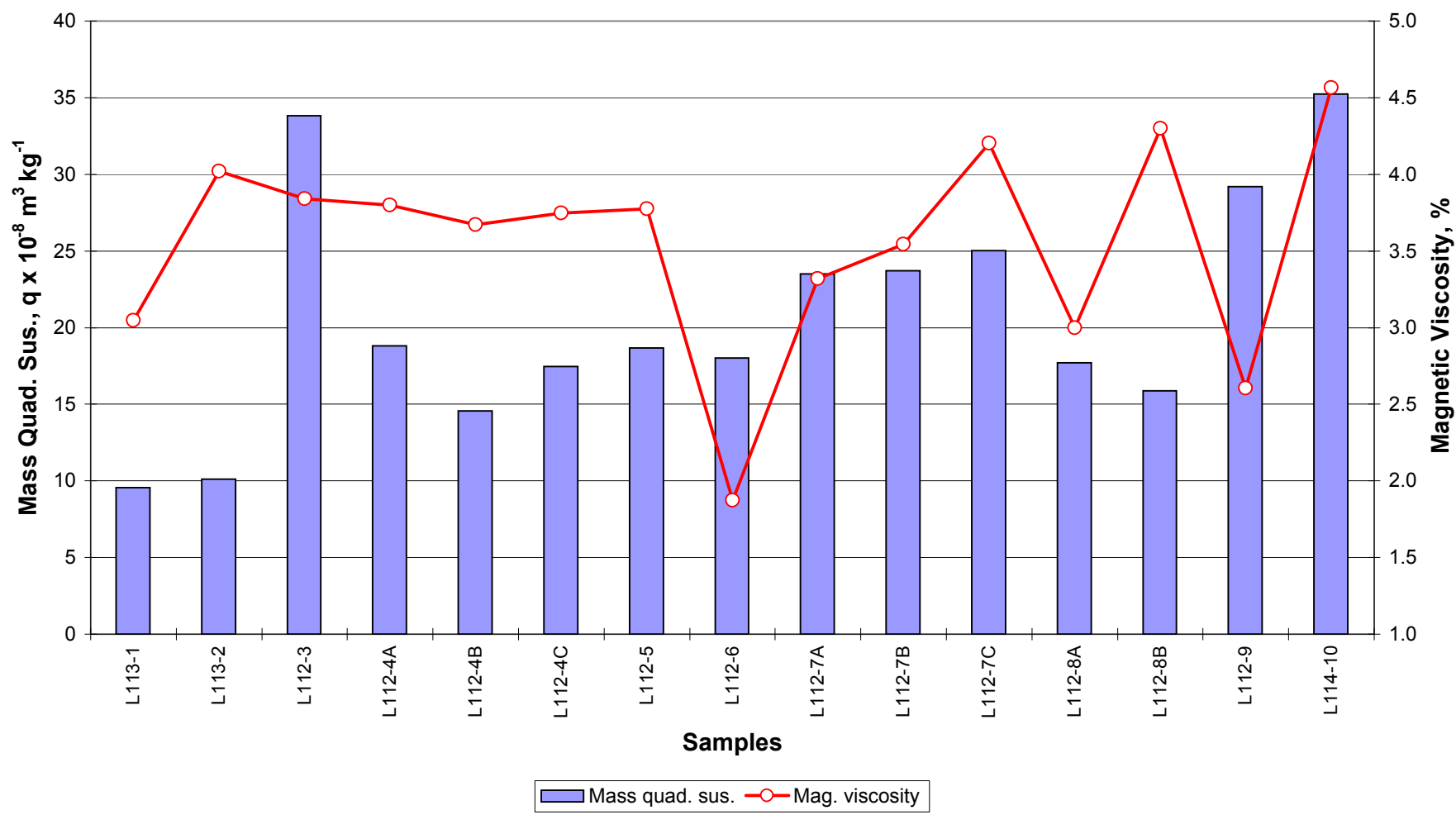
Chart data

Total quad.	PIM
0	0
0.20	152
0.61	590
1.06	1282

MW03 TRENCH L A.M.D. MATERIAL QUADRATURE SUSCEPTIBILITY CALIBRATION CURVE



MW03 TRENCH L A.M.D. MATERIAL
MASS QUADRATURE SUSCEPTIBILITY & MAGNETIC VISCOSITY



As-measured results

	Mass g	Total susceptibility $k_T \times 10^{-8} \text{ m}^3$	Total quad. sus. $Q \times 10^{-8} \text{ m}^3$
L113-1	35.66	11.20	0.34
L113-2	84.66	21.31	0.86
L112-3	15.02	13.22	0.51
L112-4A	59.64	29.53	1.12
L112-4B	53.69	21.31	0.78
L112-4C	47.20	21.98	0.82
L112-5	49.11	24.27	0.92
L112-6	65.77	63.23	1.19
L112-7A	47.40	33.58	1.11
L112-7B	45.34	30.34	1.07
L112-7C	40.54	24.14	1.01
L112-8A	67.55	39.91	1.20
L112-8B	71.97	26.57	1.14
L112-9	29.06	32.56	0.85
L114-10	30.74	23.73	1.08
L110-11	33.70	14.03	0.74
L115-12A	40.77	18.61	0.98
L115-12B	39.44	18.48	0.97
L115-13A	37.51	23.20	1.08
L115-13B	35.59	21.04	0.98
L115-13C	33.55	23.20	1.15

Recalculated results

	Mass g	Total susceptibility $k_T \times 10^{-8} \text{ m}^3$	Mass susceptibility $\chi \times 10^{-8} \text{ m}^3 \text{ kg}^{-1}$	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 %
L113-1	35.66	11.20	314	0.34	10	3.0
L113-2	84.66	21.31	252	0.86	10	4.0
L112-3	15.02	13.22	880	0.51	34	3.8
L112-4	160.53	72.82	454	2.73	17	3.7
L112-5	49.11	24.27	494	0.92	19	3.8
L112-6	65.77	63.23	961	1.19	18	1.9
L112-7	133.28	88.06	661	3.20	24	3.6
L112-8	139.52	66.48	476	2.34	17	3.5
L112-9	29.06	32.56	1121	0.85	29	2.6
L114-10	30.74	23.73	772	1.08	35	4.6
L110-11	33.70	14.03	416	0.74	22	5.3
L115-12	80.21	37.09	462	1.94	24	5.2
L115-13	106.65	67.43	632	3.21	30	4.8
Mean	)		607		22	3.8
Median	) All samples		494		22	3.8
Standard Deviation	+/-)		261		8	1.0