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University of Manchester, Quarterly mercury monitoring, March 2010.

Dear Melanie

Please find on page 2 the results of the analyses of the atmospheric mercury samples collected in March 2009.

I also include on the following pages tables showing all the data gathered by both the passive and the pumped sorbent sampling thus far.

Yours sincerely

Andrew Easterbrook

Table of results of monitoring,

HSL Sample no.	Sample details	Building	Room	Concentration of mercury in air ($\mu\text{g}/\text{m}^3$)
02647/10	Passive 17	Museum	B52	1.74
02637/10	Passive 7	Museum	B55	1.18
02636/10	Passive 6	Museum	B56	1.46
02640/10	Passive 10	Museum	B58	1.85
02651/10	Pumped 1a	Museum	B58	5.18
02652/10	Pumped 1b	Museum	B58	5.49
02634/10	Passive 4	Museum	B61	0.05
02632/10	Passive 2	Museum	G53	1.81
02631/10	Passive 1	Museum	G54	7.14
02655/10	Pumped 3a	Rutherford	2.058	3.03
02656/10	Pumped 3b	Rutherford	2.058	3.79
02646/10	Passive 16	Rutherford	2.057	0.61
02638/10	Passive 8	Rutherford	2.058	2.63
02643/10	Passive 13	Rutherford	2.059	0.45
02633/10	Passive 3	Psychology annexe	1.31	3.90
02642/10	Passive 12	Psychology annexe	1.38	0.61
02648/10	Passive 18	Psychology annexe	1.39	14.04
02639/10	Passive 9	Psychology annexe	1.40	0.37
02641/10	Passive 11	Psychology annexe	1.41b	2.92
02653/10	Pumped 2a	Psychology annexe	1.41b	8.03
02654/10	Pumped 2b	Psychology annexe	1.41b	7.86
02635/10 02644/10 02645/10 02649/10 02650/10	Passive 5 Passive 14 Passive 15 Passive 19 Passive 20			<0.01 μg

Tables of all monitoring data:

HSL Sample number	Date	Sample ref. No.	Sample locations: <u>Rutherford Building</u> Room no:	Concentration mercury in air (µg/m ³)
03754/09	June 2009	4	G055	1.6
03755/09	June 2009	5	G056	0.3
03753/09	June 2009	3	G057	<0.2
03751/09	June 2009	1	G058	<0.2
03752/09	June 2009	2	G058A	<0.2
03760/09	June 2009	10	1.051	0.2
03759/09	June 2009	9	1.052	0.6
03758/09	June 2009	8	1.053	<0.2
03757/09	June 2009	7	1.057	0.4
03756/09	June 2009	6	1.058	0.4
03771/09	June 2009	21	2.051 by door to stairs	0.6
03772/09	June 2009	22	2.051 on desk partition	0.5
03773/09	June 2009	23	2.051B	0.4
03767/09	June 2009	17	2.052 on notice board	0.9
03768/09	June 2009	18	2.052A on widow opener nr. desk	2.0
03766/09	June 2009	16	2.052B on in-tray	0.8
03764/09	June 2009	14	2.053	0.7
03763/09	June 2009	13	2.054	0.3
03762/09	June 2009	12	2.057	0.9
09121/09	Dec 09	passive 13	2.057	0.4
02646/10	March 2010	Passive 16	2.057	0.61
03761/09	June 2009	11	2.058	6.3
09122/09	Dec 09	passive 14	2.058	3.4
9131/09	Dec 09	pumped 2a	2.058 – 24-hr	6.0
9132/09	Dec 09	pumped 2b	2.058 – 8-hr	5.1
02638/10	March 2010	Passive 8	2.058	2.63
02655/10	March 2010	Pumped 3a	2.058– 24-hr	3.03
02656/10	March 2010	Pumped 3b	2.058– 8-hr	3.79
03765/09	June 2009	15	2.059	0.6
09123/09	Dec 09	passive 15	2.059	0.6
02643/10	March 2010	Passive 13	2.059	0.45
03774/09	June 2009	24	3.2	0.5
03776/09	June 2009	26	3.4	0.9
03769/09	June 2009	19	3.5	1.2
03775/09	June 2009	25	3.1 (MA001.A)	0.5

HSL Sample number	Date	Sample ref. No.	Sample location: <u>Psychology Annexe</u> Room no:	Concentration mercury in air ($\mu\text{g}/\text{m}^3$)
03855/09	June 2009	105	Common room	<0.2
03854/09	June 2009	104	Servery in common room	<0.2
03778/09	June 2009	28	G30	<0.2
03779/09	June 2009	29	G32	<0.2
03858/09	June 2009	108	G34	<0.2
03859/09	June 2009	109	G35	<0.2
03856/09	June 2009	106	G36	<0.2
03857/09	June 2009	107	G37	<0.2
03781/09	June 2009	31	H16	<0.2
03780/09	June 2009	30	H17	<0.2
03782/09	June 2009	32	H18	<0.2
03783/09	June 2009	33	H22	0.3
03784/09	June 2009	34	H23	1.5
03786/09	June 2009	36	H24 (room off corridor)	0.4
03785/09	June 2009	35	H24 (room with external wall)	0.5
03787/09	June 2009	37	Downstairs H24a	0.4
03788/09	June 2009	38	H24C	0.3
03789/09	June 2009	39	H25	0.3
03790/09	June 2009	40	H27	0.3
03853/09	June 2009	103	H28	0.3
03851/09	June 2009	101	H28 (1)	<0.2
03852/09	June 2009	102	H28 (2)	0.2
03845/09	June 2009	95	Pear lecture theatre 1.26 Front	<0.2
03846/09	June 2009	96	Pear lecture theatre 1.26 Rear	<0.2
03843/09	June 2009	93	1.29	<0.2
03844/09	June 2009	94	1.30	<0.2
03847/09	June 2009	97	1.31	2.5
09116/09	Dec 09	passive 8	1.31	3.0
02633/10	March 2010	Passive 3	1.31	3.90
03848/09	June 2009	98	1.32	<0.2
03869/09	June 2009	119	1.33	<0.2
03850/09	June 2009	100	1.34	<0.2
03849/09	June 2009	99	1.35	0.3
03867/09	June 2009	117	1.36	0.5
03861/09	June 2009	111	1.37	0.5
03862/09	June 2009	112	1.38	0.9
09120/09	Dec 09	passive 12	1.38	1.3
02642/10	March 2010	Passive 12	1.38	0.61

HSL Sample number	Date	Sample ref. No.	Sample location: <u>Psychology Annexe</u> Room no:	Concentration mercury in air (µg/m ³)
03863/09	June 2009	113	1.39	9.3
09119/09	Dec 09	passive 11	1.39	5.3
02648/10	March 2010	Passive 18	1.39	14.04
03864/09	June 2009	114	1.40.	0.5
09117/09	Dec 09	passive 9	1.40	0.6
02639/10	March 2010	Passive 9	1.40	0.37
03866/09	June 2009	116	1.41	2.2
03865/09	June 2009	115	1.41A	2.2
03868/09	June 2009	118	1.41B	3.8
09118/09	Dec 09	passive 10	1.41B	4.2
09133/09	Dec 09	pumped 3a	1.41B - 24-hr	7.6
09134/09	Dec 09	pumped 3b	1.41B – 8-hr	7.5
02641/10	March 2010	Passive 11	1.41b	2.92
02653/10	March 2010	Pumped 2a	1.41b - 24-hr	8.03
02654/10	March 2010	Pumped 2b	1.41b– 8-hr	7.86

HSL Sample number	Date	Sample ref. No.	Sample location: <u>Museum Building</u> Room no:-	Concentration mercury in air (µg/m ³)
3805/09	June 2009	55	B17	<0.2
03804/09	June 2009	54	B18	<0.2
03803/09	June 2009	53	B21	0.2
03802/09	June 2009	52	B26	<0.2
03809/09	June 2009	59	B27	<0.2
03808/09	June 2009	58	B29	<0.2
03807/09	June 2009	57	B36	<0.2
03806/09	June 2009	56	B39	<0.2
02647/10	March 2010	Passive 17	B52	1.74
03791/09	June 2009	41	B55	0.3
09109/09	Dec 09	passive 1	B55	1.2
02637/10	March 2010	Passive 7	B55	1.18
03792/09	June 2009	42	B56	7.5
09110/09	Dec 09	passive 2	B56	1.5
02636/10	March 2010	Passive 6	B56	1.46

HSL Sample number	Date	Sample ref. No.	Sample location: <u>Museum Building</u> Room no:-	Concentration mercury in air (µg/m ³)
09111/09	Dec 09	passive 3	B58	1.9
9129/09	Dec 09	pumped 1a	B58 – 24-hr	3.44
9130/09	Dec 09	pumped 1b	B58 – 8-hr	4.00
02640/10	March 2010	Passive 10	B58	1.85
02651/10	March 2010	Pumped 1a	B58– 24-hr	5.18
02652/10	March 2010	Pumped 1b	B58– 8-hr	5.49
03795/09	June 2009	45	B61	0.2
09112/09	Dec 09	passive 4	B61	0.1
02634/10	March 2010	Passive 4	B61	0.05
03796/09	June 2009	46	B62	5.4
09113/09	Dec 09	passive 5	B62	2.6
03797/09	June 2009	47	B63	1.1
03799/09	June 2009	49	B65	<0.2
03798/09	June 2009	48	B68	0.3
03794/09	June 2009	44	B110	1.0
03801/09	June 2009	51	ex 114 Workshop system	<0.2
03800/09	June 2009	50	ex 116	<0.2
03813/09	June 2009	63	G8	<0.2
03812/09	June 2009	62	G13, end adj loading bay	<0.2
03811/09	June 2009	61	G18	0.3
03810/09	June 2009	60	G23	<0.2
03814/09	June 2009	64	G52	0.9
03815/09	June 2009	65	G53	1.9
09114/09	Dec 09	passive 6	G53	2.9
02632/10	March 2010	Passive 2	G53	1.81
03816/09	June 2009	66	G54	4
09115/09	Dec 09	passive 7	G54	11.0
02631/10	March 2010	Passive 1	G54	7.14
03825/09	June 2009	75	1.2	<0.2
03817/09	June 2009	67	1.8	<0.2
03820/09	June 2009	70	1.10.	<0.2
03821/09	June 2009	71	1.11	0.5
03822/09	June 2009	72	1.13	0.4
03823/09	June 2009	73	1.14	<0.2
03830/09	June 2009	80	1.15	<0.2
03824/09	June 2009	74	1.17	<0.2
03826/09	June 2009	76	1.22	<0.2
03827/09	June 2009	77	1.26	<0.2
03828/09	June 2009	78	1.28	<0.2
03819/09	June 2009	69	1.50 (?)	1.6
03818/09	June 2009	68	1.52	0.6
03840/09	June 2009	90	2.11	<0.2
03841/09	June 2009	91	2.13	<0.2

HSL Sample number	Date	Sample ref. No.	Sample location: <u>Museum Building</u> Room no:-	Concentration mercury in air (µg/m³)
03833/09	June 2009	83	2.17	<0.2
03832/09	June 2009	82	2.18	<0.2
03831/09	June 2009	81	2.19	<0.2
03834/09	June 2009	84	2.20.	<0.2
03835/09	June 2009	85	2.27	<0.2
03836/09	June 2009	86	2.32	<0.2
03837/09	June 2009	87	2.36	<0.2
03838/09	June 2009	88	2.37	<0.2
03839/09	June 2009	89	2.39	<0.2