SMS uScan %R Measurements of the WHT Secondary Mirror, 6 November 2012 Repeated measurements at locations. Many are outside repeatability tolerance 0.5% This also occurred on INT secondary. May be difficult to hold detector still on convex surface.

1 location 1	1.78E-02	8.18E-04	0.814	353.9	14:57:25	11/06/1912
2	1.77E-02	8.14E-04	0.808 >0.5%	354.4	14:57:30	11/06/1912
3 2	3.50E-03	2.71E-04	0.843	85.8	14:57:41	11/06/1912
4	3.45E-03	2.71E-04	0.841	84.3	14:57:47	11/06/1912
5 3	2.10E-03	1.69E-04	0.851 >0.5%	63.8	14:57:57	11/06/1912
6	2.10E-03	1.71E-04	0.843	63.1	14:58:02	11/06/1912
7	2.09E-03	1.73E-04	0.838	62.6	14:58:08	11/06/1912
8 4	3.21E-03	2.14E-04	0.867 >0.5%	93.8	14:58:49	11/06/1912
9	3.26E-03	2.14E-04	0.85	97.1	14:58:54	11/06/1912
0 5	2.60E-03	3.39E-04	0.841	50.7	14:59:05	11/06/1912
1	2.97E-03	4.79E-04	0.816 >0.5%	50	14:59:11	11/06/1912
2	2.61E-03	4.26E-04	0.856	45.5	14:59:20	11/06/1912
average	2.77E-03	2.48E-04	0.842	69.67		
	2 3 4 5 3 6 7 8 4 9 0 5 1 2	2 1.77E-02 3 2 3.50E-03 4 3.45E-03 5 3 2.10E-03 6 2.10E-03 7 2.09E-03 8 4 3.21E-03 9 3.26E-03 1 2.97E-03 2 2.61E-03	2 1.77E-02 8.14E-04 3 2 3.50E-03 2.71E-04 4 3.45E-03 2.71E-04 5 3 2.10E-03 1.69E-04 6 2.10E-03 1.71E-04 7 2.09E-03 1.73E-04 8 4 3.21E-03 2.14E-04 9 3.26E-03 2.14E-04 1 2.97E-03 4.79E-04 2 2.61E-03 4.26E-04	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 1.77E-02 8.14E-04 0.808 >0.5% 354.4 14:57:30 3 2 3.50E-03 2.71E-04 0.843 85.8 14:57:41 4 3.45E-03 2.71E-04 0.841 84.3 14:57:47 5 3 2.10E-03 1.69E-04 0.851 >0.5% 63.8 14:57:57 6 2.10E-03 1.71E-04 0.843 63.1 14:58:02 7 2.09E-03 1.73E-04 0.867 >0.5% 93.8 14:58:08 8 4 3.21E-03 2.14E-04 0.867 >0.5% 93.8 14:58:49 9 3.26E-03 2.14E-04 0.85 97.1 14:58:54 0 5 2.60E-03 3.39E-04 0.816 >0.5% 50 14:59:11 2 2.61E-03 4.26E-04 0.856 45.5 14:59:20

Conclusion: Condition of mirror is generally good and does not warrant re-aluminisation First measurement is probably a stain. Mirror has several small stains of diverse origins.