Landgate

Survey Staff Calibration

Version 5.6.0.4, Nov 2019

Staff Serial No:209 Length: 4 metres
Staff Owner: Landgate Material: Fibreglass

Test No: Test 3-209 Location: Victor Road, Darlington

Test Date: 17/03/2020 Laboratory: Boya

Observer: V.Ung Audit Test: Test 47:Boya Checked by: Audit Date : 17/03/2020

Signature: Average Observed Temperature21.3 degrees Celsius

Date: Level: Leica/LS15/702272

Correction Factor: 0.99982 At 25.0 degrees Celsius (Correction Factor is temperature dependent).

Graduation Uncertainty: 0.00026 metres at 95% confidence level

		Staff Readings		Known Height	Measured Height	Corrected
0 - 1	Disc.	From	То	Difference	Difference	Difference
<u>Set</u>	Pins Pins	(metres)	(metres)	(metres)	(metres)	(metres)
1	1-2	0.07082	0.16173	0.09084	0.09091	-0.00007
1	2-3	0.16173	0.32593	0.16401	0.16420	-0.00019
1	3-4	0.32593	0.47206	0.14615	0.14613	0.00002
1	4-5	0.47206	0.68494	0.21305	0.21288	0.00017
1	5-6	0.68494	0.87108	0.18609	0.18614	-0.00005
1	6-7	0.87108	1.07090	0.19975	0.19982	-0.00007
1	7-8	1.07090	1.27582	0.20498	0.20492	0.00006
1	8-9	1.27582	1.52320	0.24691	0.24738	-0.00047
1	9-10	1.52320	1.79073	0.26761	0.26753	0.00008
1	10-11	1.79073	2.12384	0.33313	0.33311	0.00002
1	11-12	2.12384	2.38770	0.26384	0.26386	-0.00002
1	12-13	2.38770	2.51359	0.12582	0.12589	-0.00007
1	13-14	2.51359	2.64339	0.12978	0.12980	-0.00002
1	14-15	2.64339	2.87205	0.22857	0.22866	-0.00009
1	15-16	2.87205	3.05452	0.18243	0.18247	-0.00004
1	16-17	3.05452	3.20623	0.15183	0.15171	0.00012
1	17-18	3.20623	3.35958	0.15330	0.15335	-0.00005
1	18-19	3.35958	3.51683	0.15720	0.15725	-0.00005
1	19-20	3.51683	3.66545	0.14863	0.14862	0.00001
1	20-21	3.66545	3.87527	0.20969	0.20982	-0.00013

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Test Date: 17/03/2020	Laboratory: Boya
Observer: V.Ung	Audit Test: Test 47:Boya
Checked by:	Audit Date: 17/03/2020
Signature:	Average Observed Temperature21.3 degrees Celsius

Date: Level: Leica/LS15/702272

Correction Factor = 0.99978030 (1+(0.00001000 (Temperature - 21.3)))

Correction Factor = 1.00000 when the temperature is 43.3 degrees Celsius

Temperature	Correction Factor	Correction/Metre (mm)
0	0. 99957	- 0. 43
2	0. 99959	- 0. 41
4	0. 99961	- 0. 39
6	0. 99963	- 0. 37
8	0. 99965	- 0. 35
10	0. 99967	- 0. 33
12	0. 99969	- 0. 31
14	0. 99971	- 0. 29
16	0. 99973	- 0. 27
18	0. 99975	- 0. 25
20	0. 99977	- 0. 23
22	0. 99979	- 0. 21
24	0. 99981	- 0. 19
26	0. 99983	- 0. 17
28	0. 99985	- 0. 15
30	0. 99987	- 0. 13
32	0. 99989	- 0. 11
34	0. 99991	- 0. 09
36	0. 99993	- 0. 07
38	0. 99995	- 0. 05
40	0. 99997	- 0. 03

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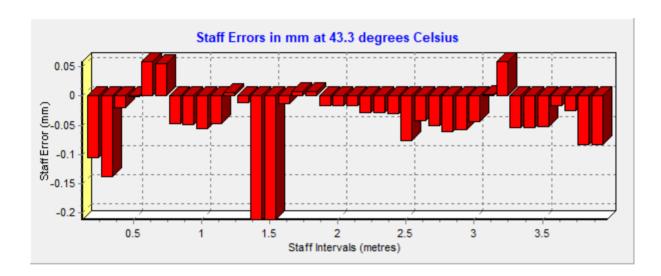
Staff Serial No:209 Length: 4 metres
Staff Owner: Landgate Material: Fibreglass

Test No: Test 3-209 Location: Victor Road, Darlington

Test Date: 17/03/2020 Laboratory: Boya

Observer: V.Ung Audit Test: Test 47:Boya Audit Date: 17/03/2020

Average Observed Temperature 21.3 degrees Celsius



To (metres)	Error (mm)	Corrected Interval (metres)
0. 200	- 0. 11	0. 09989
0. 300	- 0. 14	0. 09986
0. 400	- 0. 02	0. 09998
0. 500	0.00	0. 10000
0. 600	0.06	0. 10006
0. 700	0. 05	0. 10005
0.800	- 0. 05	0. 09995
0. 900	- 0. 05	0. 09995
1. 000	- 0. 06	0. 09994
1. 100	- 0. 05	0. 09995
1. 200	0. 01	0. 10001
1. 300	- 0. 01	0. 09999
1. 400	- 0. 21	0. 09979
1. 500	- 0. 21	0. 09979
	(metres) 0. 200 0. 300 0. 400 0. 500 0. 600 0. 700 0. 800 1. 000 1. 100 1. 200 1. 300 1. 400	(metres) (mm) 0. 200 - 0. 11 0. 300 - 0. 14 0. 400 - 0. 02 0. 500 0. 00 0. 600 0. 06 0. 700 0. 05 0. 800 - 0. 05 1. 000 - 0. 05 1. 100 - 0. 05 1. 200 0. 01 1. 300 - 0. 01 1. 400 - 0. 21

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From (metres)	To (metres)	Error (mm)	Corrected Interval (metres)
1. 500	1. 600	- 0. 01	0. 09999
1. 600	1. 700	0. 01	0. 10001
1. 700	1. 800	0. 01	0. 10001
1. 800	1. 900	- 0. 02	0. 09998
1. 900	2. 000	- 0. 02	0. 09998
2. 000	2. 100	- 0. 02	0. 09998
2. 100	2. 200	- 0. 03	0. 09997
2. 200	2. 300	- 0. 03	0. 09997
2. 300	2. 400	- 0. 03	0. 09997
2. 400	2. 500	- 0. 08	0. 09992
2. 500	2. 600	- 0. 04	0. 09996
2. 600	2. 700	- 0. 05	0. 09995
2. 700	2. 800	- 0. 06	0. 09994
2. 800	2. 900	- 0. 06	0. 09994
2. 900	3. 000	- 0. 04	0. 09996
3. 000	3. 100	0.00	0. 10000
3. 100	3. 200	0.06	0. 10006
3. 200	3. 300	- 0. 05	0. 09995
3. 300	3. 400	- 0. 05	0. 09995
3. 400	3. 500	- 0. 05	0. 09995
3. 500	3. 600	- 0. 02	0. 09998
3. 600	3. 700	- 0. 03	0. 09997
3. 700	3. 800	- 0. 08	0. 09992
3. 800	3. 900	- 0. 08	0. 09992