

AMENDED RESULTS OF MEASUREMENT—*continued.*

No. of Section.	No. of Measurement.	Individual Measurements.	Weights.	Weighted Means.	Reduction to Sea-level.	Length at Sea-level.	Remarks.
8	Links.			Links.	Links.	Links.	Brought forward.
	1	5896-4425	1	51628-9154 ₁	0-4142	51628-5012 ₁	
	2	5896-4426	1	5896-4425			
	3	5896-4470	1	5896-4426			
	4	5896-4403	1	5896-4470			
			1	5896-4403			
			4	1-7724			
				5896-4431 ₀	0-0282	5896-4149 ₀	
9	Links.			Links.			Total amended length of line.
	1	7251-8374	1	7251-8374			
	2	7251-8342	1	7251-8342			
	3	7251-8229	1	7251-8229			
	4	7251-8014	1	7251-8014			
			4	3-2959			
				7251-8239 ₈	0-0732	7251-7507 ₈	
				64777-1825	0-5156	64776-6668 ₉	
AUXILIARY BASE.							
	1	..	..	11463-7583			Amended length of Auxiliary Base.
	2	..	..	11463-7533			
	3	..	..	11463-7044			
	4	..	..	11463-7150			
			4	45854-9310			
				11463-7327 ₅	0-04384	11463-6889 ₁	

27th February, 1912.

J. LANGMUIR,
Inspecting Surveyor.

ADJUSTMENT OF WAIRARAPA BASE-NET.

[By C. E. ADAMS, M.Sc., F.R.A.S., Chief Computer.]

DURING the year Mr. H. E. Girdlestone, assistant surveyor, has observed at the following trigonometrical stations in the Wellington District, using a 10-in. Everest theodolite with three verniers reading to 10": Rangitumau, Rimutaka, Wainui, Kapakapanui, Taungata, Puketoi, Arawaru, Wharite, Moutere, Raetihi, Raetihi Hill, Kawai-o-tawaki, and Waipuna. The angles have been taken out from the field-books and the angular errors of the triangles ascertained. Mr. J. Langmuir, Inspector of Surveys, has slightly amended the lengths of the measurements of the Wairarapa base-line, the alteration being due to a small constant error in the correction for mean tension.

An extract from the field-book shows a portion of the observations of the horizontal angles at geodetic station, Arawaru. The observations are taken in four sets: set 1 is taken face right and in the clockwise direction; set 2 is taken face left and in the reverse direction. These two sets give one complete observation as shown at No. 1 on the abstract of horizontal angles. In a similar way the other seven observations are taken, and the mean of the eight observations is adopted as the observed angle.

Opaki Circuit, Arawaru Geodetic Station.

12th August, 1911, 9.30-10.40 a.m. 10 in. Everest instrument. Field-book No. 21, page 27. Origin: Puketoi, 103° 38' 02.6". Observer: H. E. Girdlestone.

Face.	Verniers.	Puketoi.	Rangitumau.	Mount Dundas.	Return.	Description of Stations and Remarks.
Right	A	103 42 20	166 12 45	212 11 15	103 42 20	Cold south-east breeze: atmosphere very clear.
	B	42 15	12 40	11 05	42 20	
	C	42 10	12 45	11 15	42 10	
Left	C	133 45 00	196 15 30	242 14 00	133 45 05	
	B	45 00	15 30	14 05	45 00	
	A	45 10	15 35	14 05	45 05	
Left	B	163 47 00	226 17 30	272 15 55	163 46 55	
	C	46 50	17 25	16 00	46 50	
	A	47 00	17 30	16 00	47 00	
Right	A	193 49 30	256 19 55	302 18 30	193 49 30	
	B	49 35	20 00	18 40	49 35	
	C	49 25	20 00	18 25	49 25	
		71 15	197 05	59 15	71 15	
Means	..	103 45 56.2	166 16 25.4	212 14 56.2	103 45 56.2	