

Job Identification HL S8 98110306

EDM Calibration Certificate

This report has been generated by program Baseline Version 5.6.0.6, developed by the Western Australian Land Information Authority.

Use of this application elsewhere should rely on baseline distances certified by the relevant authority.

Observation Date: 25/11/2009

Computation Date: 15/12/2009

Instrument Operator: HL

Computation Time: 12:01:28 PM

Equipment Details

Instrument Owner: HL

Owner Address: OSBORNE PARK WA

EDM Instrument Make: Trimble

EDM Instrument Model: S6 High Precision

EDM Serial Number: 98110306

Reflector Make: Trimble

Reflector Model: S6 TRAVERSE

Serial Number: N/A

Reflector Constant: -35 mm

Baseline Details

Name: CurtinA

Location: Curtin University Kent Street Bentley

Authority: Landgate

Last calibration Date: 24/09/2009

Authority Address: Midland Square Midland 6056

This baseline consists of known lengths, which are the certified distances between the pillars of the baseline. All certified distances are on the same horizontal plane and on the same vertical plane running through the first and last stations.

The baseline has been calibrated in accordance with the NATA requirements which include the requirements of ISO/IEC 17025 and are traceable to the Australian National Standards of Measurement in accordance with Section 10 of the National Measurement Act.

Instrument Correction (IC) in mm (to be added to the instrument reading)

$$IC = -2.34 + 0.00013 D$$

Where D = distance in metres

The reflector constant has been entered into the instrument

CYCLIC ERRORS ARE INSIGNIFICANT

Calibration Parameters	Value	Uncertainty(95%)
Index	-2.34 mm	0.44 mm
Scale	0.13 ppm	1.06 ppm

The instrument correction has been determined from measurements in the range of 143 to 540 metres

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Uncertainty of the Instrument Correction

Minimum standard for the uncertainty of calibration of an EDM instrument is 4.00 mm + 20.00 ppm as described in terms of Recommendation No.8 of the Working Party of the National Standards Commission on the calibration of EDM Equipment of 1 February, 1983. All uncertainties are specified at the 95 % confidence level. A coverage factor of 2 has been used for the uncertainty computations.

Uncertainty of instrument correction : 0.44 mm + 1.06 ppm

Distance (metres)	Instrument Uncertainty (mm)	Minimum Standard (mm)	Comparison Test
50	0.50	5.00	PASS
100	0.55	6.00	PASS
200	0.66	8.00	PASS
300	0.76	10.00	PASS
400	0.87	12.00	PASS
600	1.08	16.00	PASS

This instrument satisfies the National Standards Commission standards.

First Velocity Correction (Atmospheric Correction)

The atmospheric correction dial of the EDM instrument was set for all observations. Therefore the observed distances have already been corrected for atmospheric effects.

The baseline has been calibrated in accordance with the NATA requirements which include the requirements of ISO/IEC 17025 and are traceable to the Australian National Standards of Measurement in accordance with Section 10 of the National Measurement Act.

The calibration of the EDM Instrument has been carried out according to Work Instructions '6000/02/1550', Revision 3 of the Quality Management System (ISO 9001 Certification) at the Western Australian Land Information Authority.

Data entry by: _____

Results checked by: _____

Position: _____

Position: _____

Signature: _____

Approved Signatory: _____

Date: _____

Date: _____