

Wacol Emesent MLS Range - Results Summary



DOCUMENT CONTROL

Project Number: 3206
Project Name: 3206 – Wacol Emesent MLS Range
Document Reference: 3206 Wacol Emesent MLS Range - Results Summary - Backpack RTK.docx

1. Introduction:

Date of capture: September 2024

For the purposes of testing the accuracy of the Backpack RTK solution, Emesent captured data along part of the 2km stretch of the MLS Test Range in Wacol, Brisbane. Covering QA Sites 4 to 9. The Backpack RTK setup mount was used. The baseline length was a maximum of 1km, with the Emlid RS3 rover connected to a local base station.

The data was reprojected to GDA2020 MGA Zone 56 and a geoid applied (AHD). No ground control was used in the processing of this dataset.



2. Accuracy assessment:

Control Network

To assess the accuracy, the dataset was compared against 75 quality control points which Orion Spatial Solutions established on the 2km stretch of road using a Leica TS13 Total Station and Leica LS15 Digital Level, in accordance with Queensland Government Transport and Main Roads Surveying Standards.



Example Control/QA Point (Tip of Arrow / Corner of Continuity Linemarking)



Example group of Control/QA points

For a full copy of the survey control network report, please contact Emesent.

Global Accuracy

The Backpack RTK solution achieved the following global accuracy:

**Horizontally 68% of the results were within 14mm and 95% of the results were within 27mm.
Vertically 68% of the results were within 6mm and 95% of the results were within 10mm.**

	Horizontal	Vertical
RMSE	0.014m	0.005m

See below tabulated results demonstrating Orion Spatial Solutions results:

