

# Agisoft PhotoScan

## Processing Report



# Survey Data

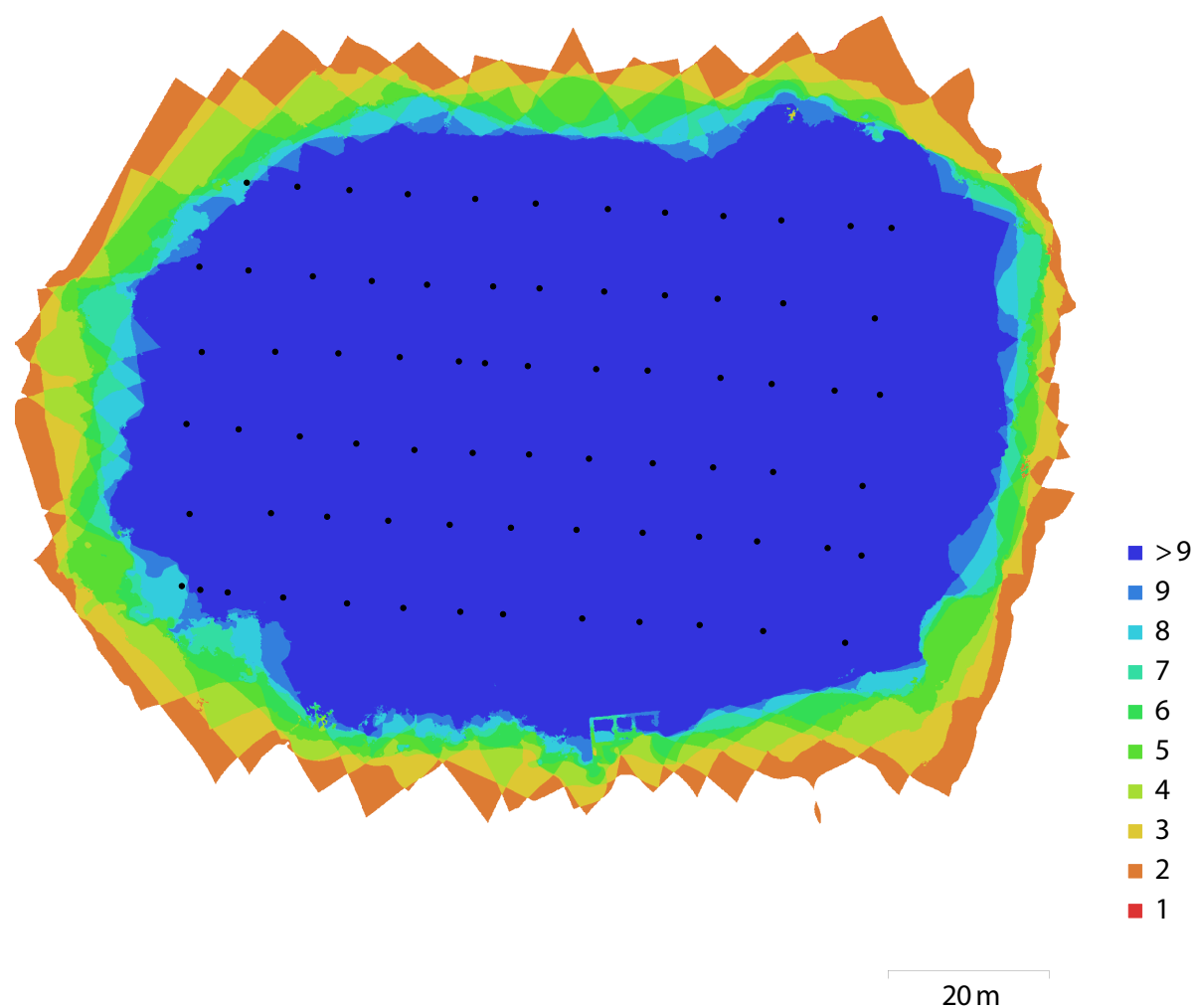


Fig. 1. Camera locations and image overlap.

Number of images:	74	Camera stations:	74
Flying altitude:	30 m	Tie points:	38,548
Ground resolution:	25 mm/pix	Projections:	194,872
Coverage area:	1.05e+04 sq m	Reprojection error:	1.53 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
FC330 (3.61 mm)	4000 x 3000	3.61 mm	1.56 x 1.56 um	No

Table 1. Cameras.

# Camera Calibration

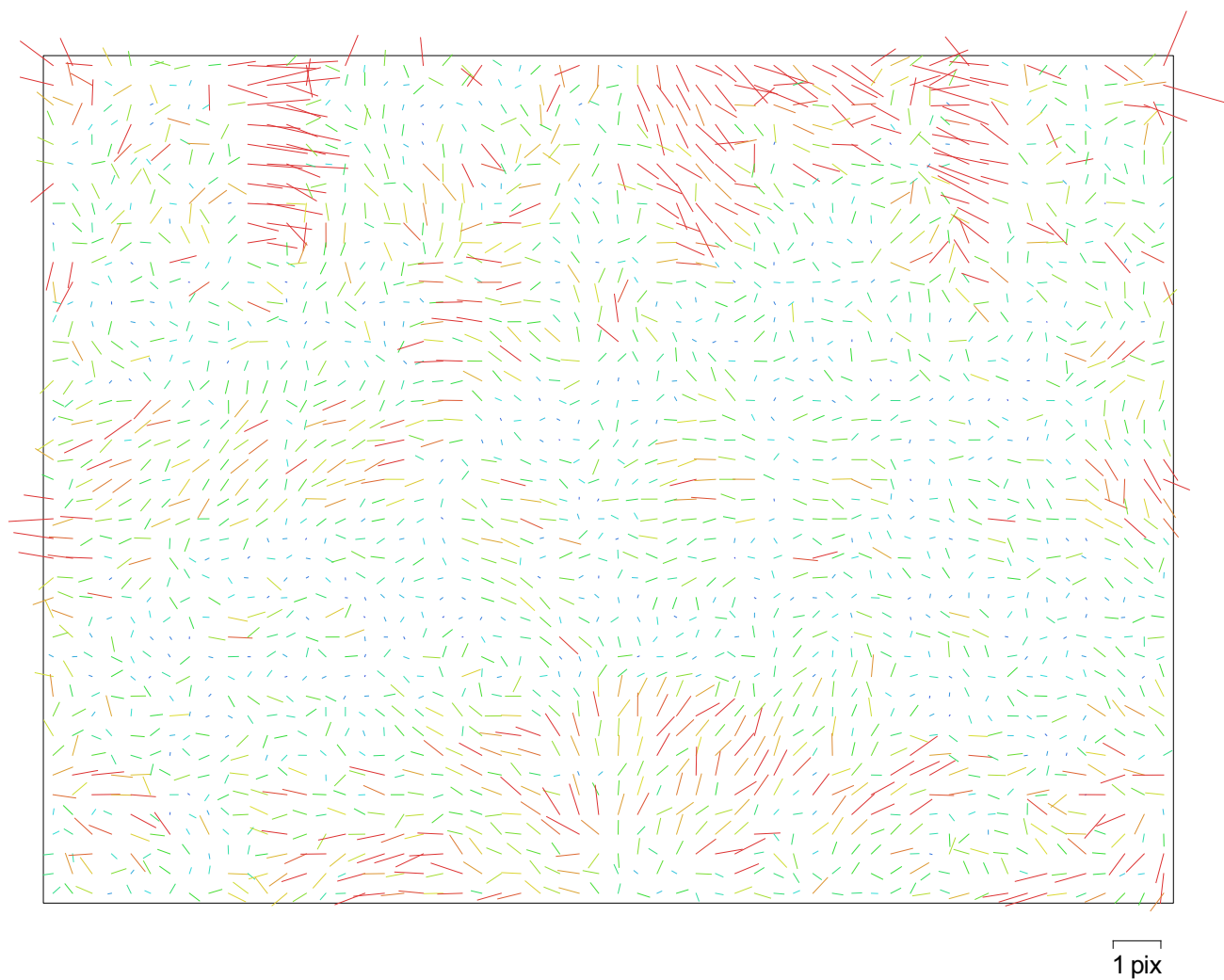


Fig. 2. Image residuals for FC330 (3.61 mm).

## FC330 (3.61 mm)

Resolution	Focal Length	Pixel Size	Precalibrated
4000 x 3000	3.61 mm	1.56 x 1.56 um	No
Type:	Frame	Skew:	0
Fx:	2359.91	Cx:	2005.9
Fy:	2359.91	Cy:	1460.49
K1:	-0.00396675	P1:	-0.000429393
K2:	-0.00352299	P2:	0.00109231
K3:	0.00216182	P3:	0
K4:	0	P4:	0



# Camera Locations

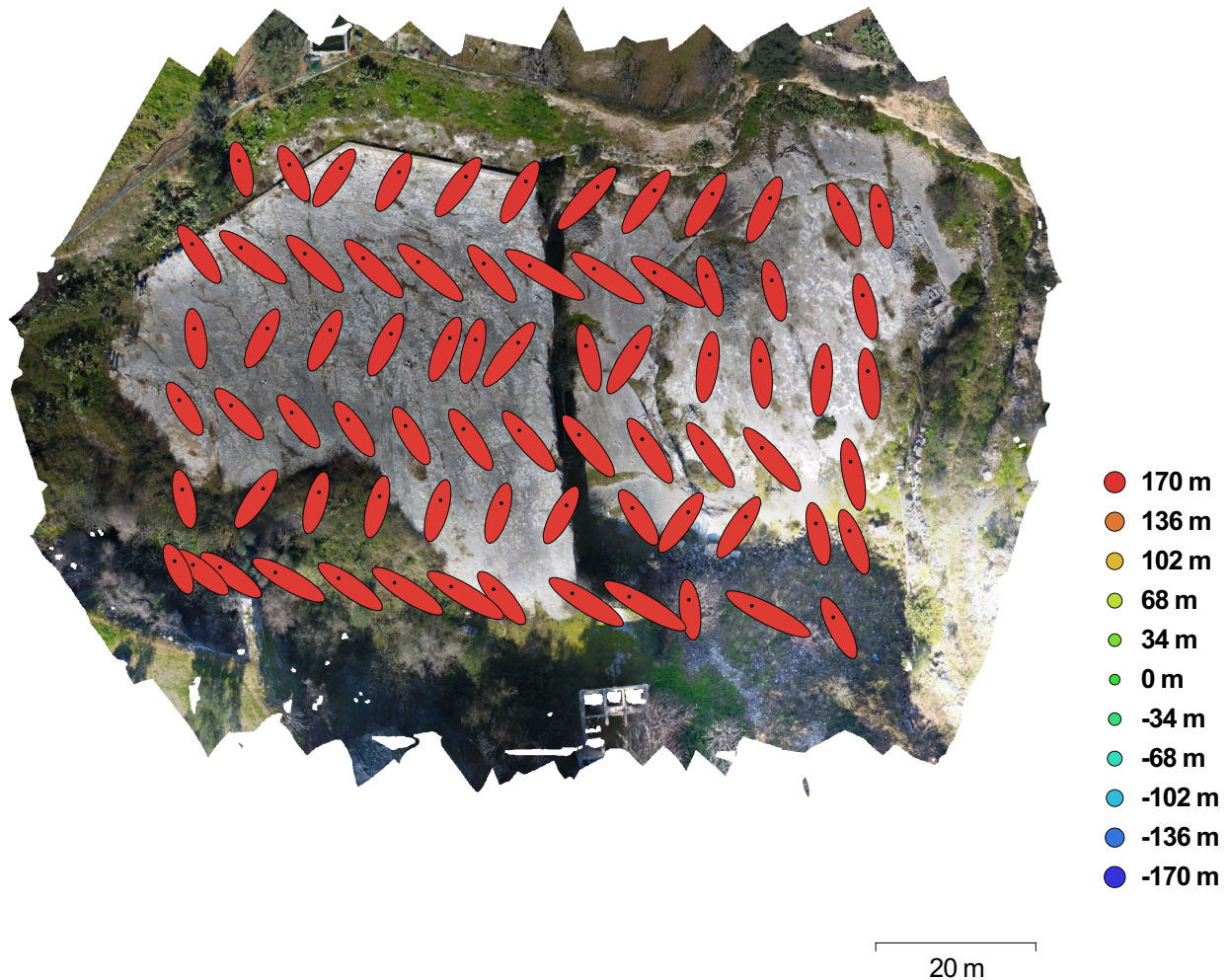


Fig. 3. Camera locations and error estimates.

Z error is represented by ellipse color. X,Y errors are represented by ellipse shape.

Estimated camera locations are marked with a black dot.

X error (m)	Y error (m)	XY error (m)	Z error (m)	Total error (m)
1.99269	2.56832	3.2507	165.528	165.56

Table 2. Average camera location error.



# Ground Control Points

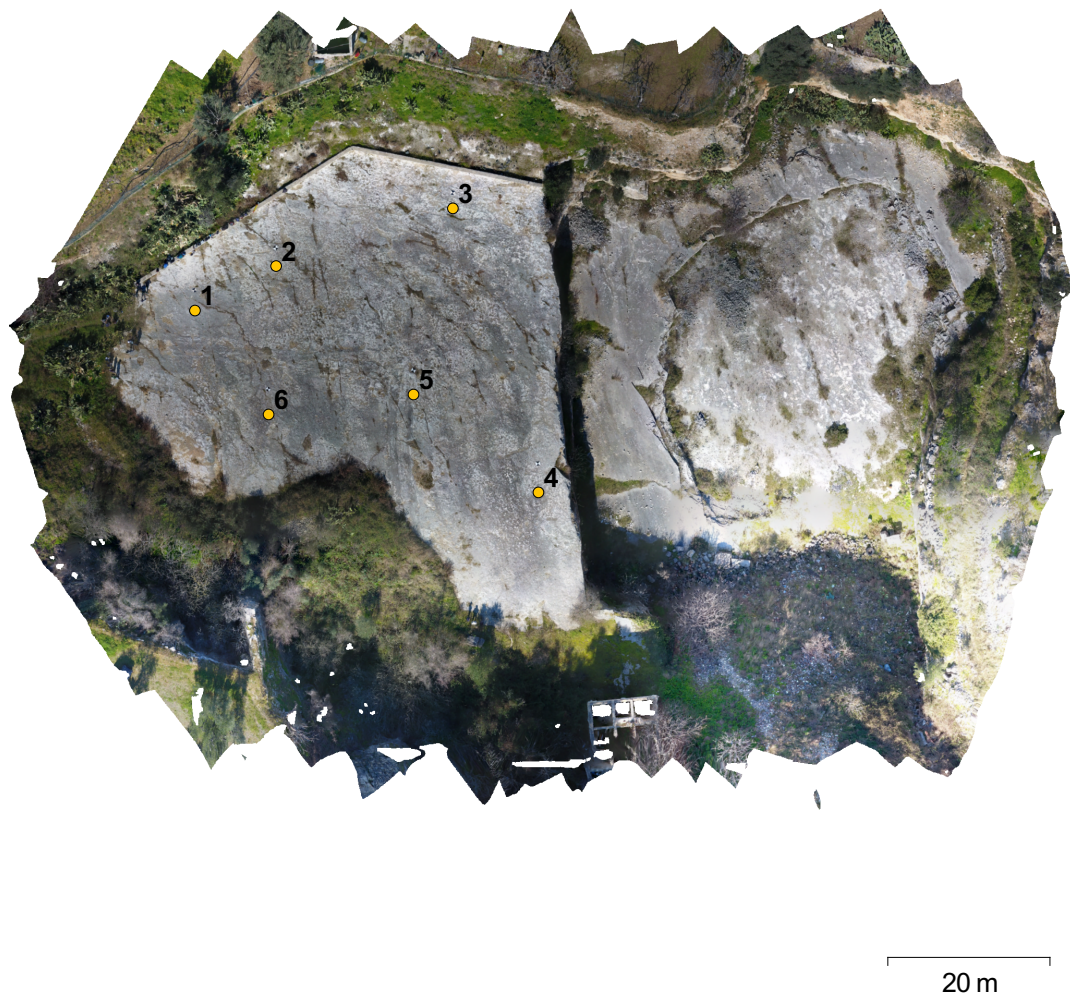


Fig. 4. GCP locations.

Label	XY error (m)	Z error (m)	Error (m)	Projections	Error (pix)
2	0.0782788	0.0361278	0.0862136	16	1.074
5	0.0655187	-0.0817364	0.104755	18	2.224
4	0.016615	0.0474588	0.0502832	14	2.005
3	0.0691072	-0.00422549	0.0692363	17	1.540
<b>Total</b>	<b>0.0621935</b>	<b>0.0506366</b>	<b>0.0802004</b>		<b>1.772</b>

Table 3. Control points.

Label	XY error (m)	Z error (m)	Error (m)	Projections	Error (pix)
1	0.552374	0.0845498	0.558808	14	1.238

<b>Label</b>	<b>XY error (m)</b>	<b>Z error (m)</b>	<b>Error (m)</b>	<b>Projections</b>	<b>Error (pix)</b>
6	0.151215	-0.0336176	0.154906	23	1.648
<b>Total</b>	<b>0.404959</b>	<b>0.0643382</b>	<b>0.410038</b>		<b>1.506</b>

Table 4. Check points.

# Digital Elevation Model

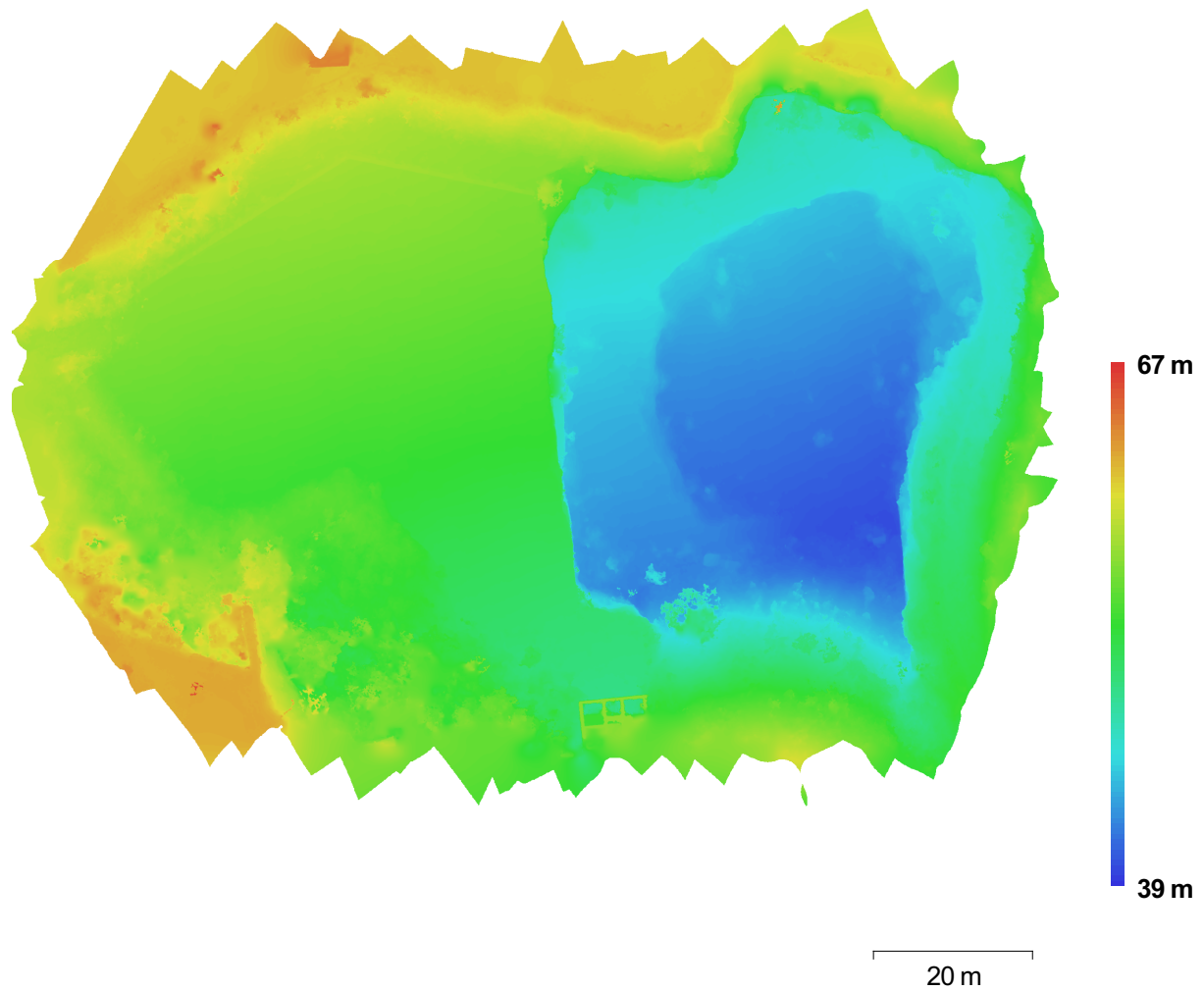


Fig. 5. Reconstructed digital elevation model.

Resolution: 2.82 cm/pix  
Point density: 2293.577982 pt/ sq m



# Processing Parameters

## General

Cameras	74
Aligned cameras	74
Markers	6
Coordinate system	WGS 84 (EPSG:4326)

## Point Cloud

Points	38,548 of 49,624
RMS reprojection error	0.451728 (1.53437 pix)
Max reprojection error	1.48763 (30.3761 pix)
Mean key point size	3.60806 pix
Effective overlap	7.07099

## Alignment parameters

Accuracy	High
Pair preselection	Reference
Key point limit	50,000
Tie point limit	4,000
Constrain features by mask	No
Matching time	7 minutes 46 seconds
Alignment time	20 seconds

## Depth Maps

Count	74
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## Reconstruction parameters

Quality	High
Filtering mode	Mild
Processing time	42 minutes 50 seconds

## Dense Point Cloud

Points	25,260,652
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## Reconstruction parameters

Quality	High
Depth filtering	Mild
Processing time	12 minutes 45 seconds

## Model

Faces	978,632
Vertices	491,471
Texture	4,096 x 4,096, uint8

## Reconstruction parameters

Surface type	Height field
Source data	Dense
Interpolation	Enabled
Quality	High
Depth filtering	Mild
Face count	1,000,000
Processing time	43 seconds

## Texturing parameters

Mapping mode	Orthophoto
Blending mode	Mosaic
Texture size	4,096 x 4,096
UV mapping time	11 seconds
Blending time	1 minutes 14 seconds

## DEM

Size	6,381 x 4,817
Coordinate system	WGS 84 (EPSG:4326)

## Orthomosaic

Size	9,328 x 7,016
Coordinate system	WGS 84 (EPSG:4326)
Channels	3, uint8

Blending mode

Mosaic