

The logo graphic consists of a stylized, three-dimensional diamond shape. The top half of the diamond is a light gray, curved shape that resembles a road surface or a stylized 'S'. The bottom half is a darker gray, also curved, creating a sense of depth and perspective. The word 'ROADSCANNERS' is written in a bold, white, sans-serif font across the center of the diamond.

ROADSCANNERS

Advanced Tools for Infrastructure Design & Management

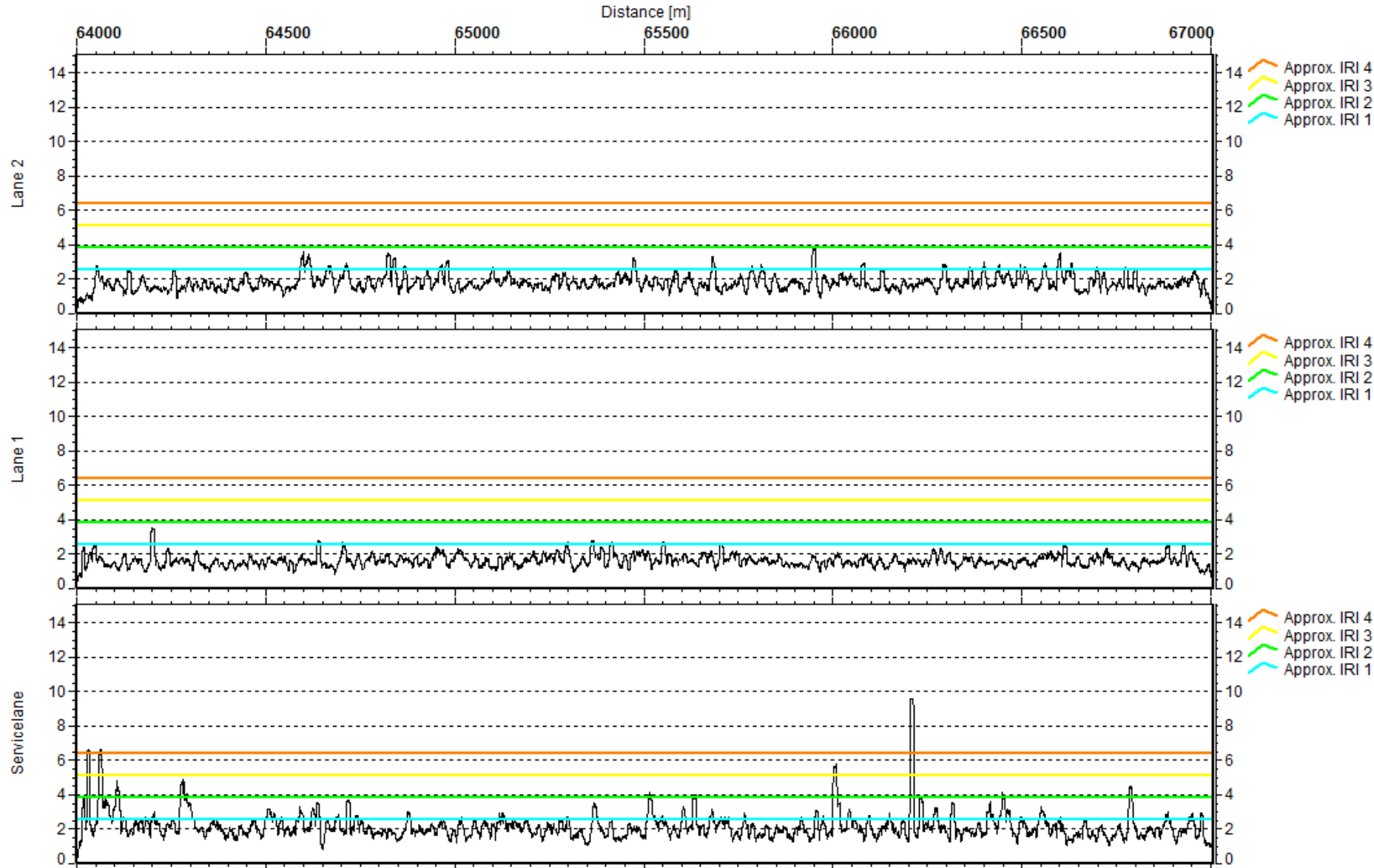
Section 1

Road 1, km 64-67



Roughness from Accelerometer Data

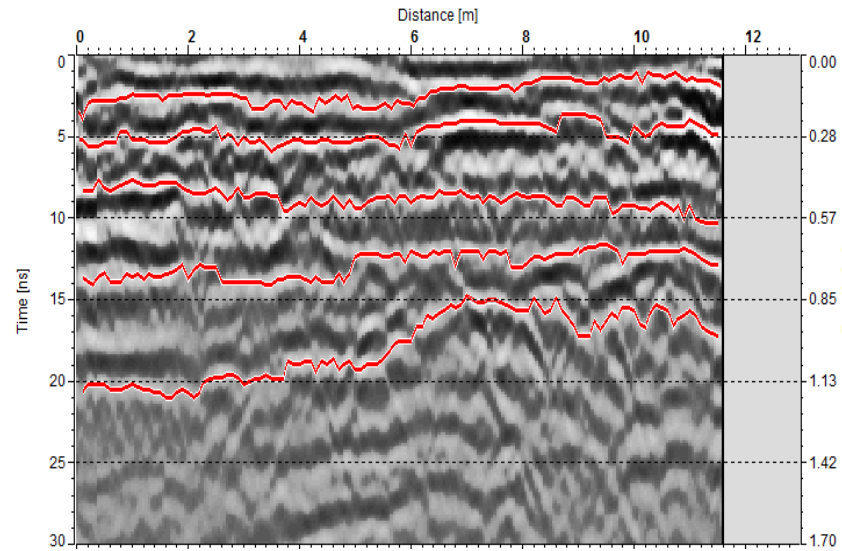
1_Road1_km64_67



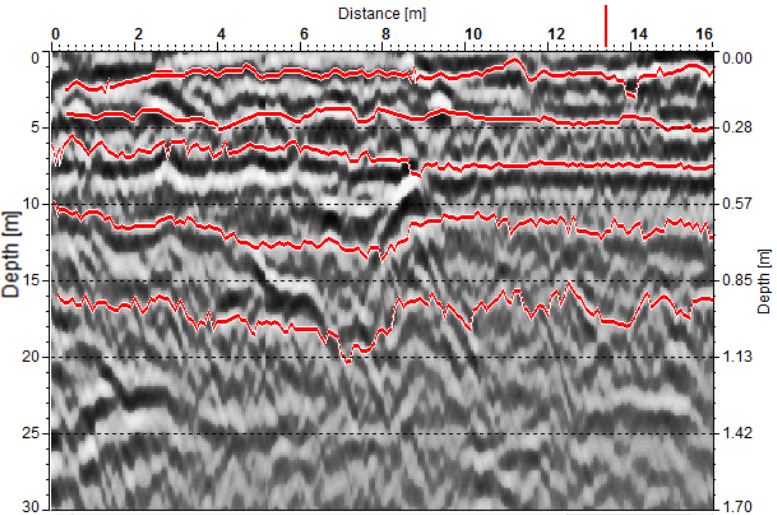
GPR Cross Sections

Structures location in the survey area	64 - 65,126	65,126 -67
Materials	[cm]	[cm]
Stone Mastic Asphalt KMA 12	4	4
Dense Asphalt concrete TAB 12II	5	5
Open graded asphalt concrete PAB 16	6	6
Pre-coated chippings MUK 12-32	6	6
Crushed Granite mix (0/63)	20	20
Gravel sand base	20	
Fine sand embankment	20	

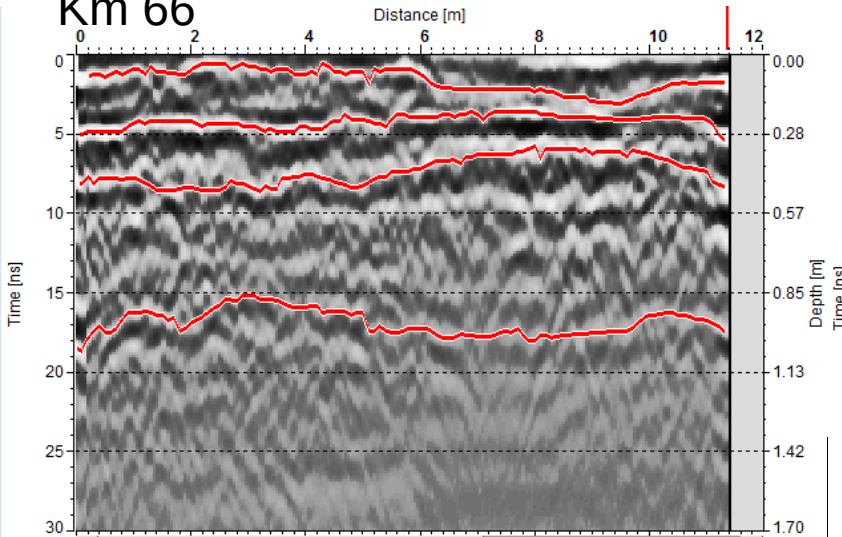
Km 64



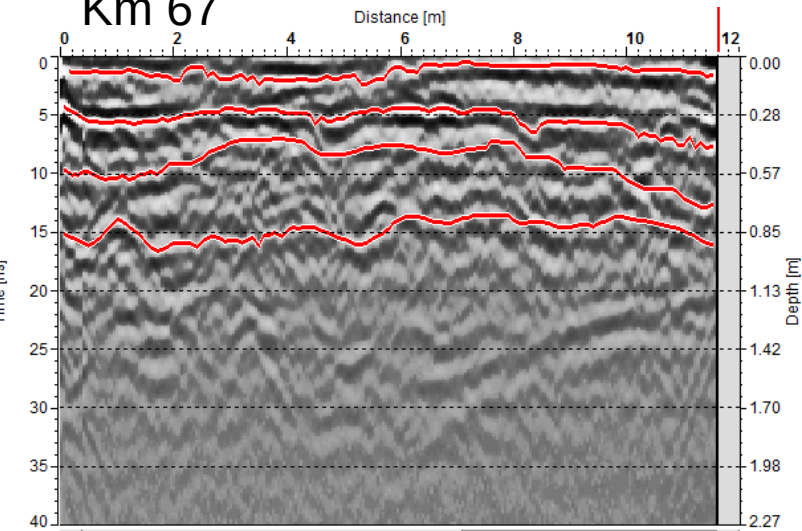
Km 65



Km 66



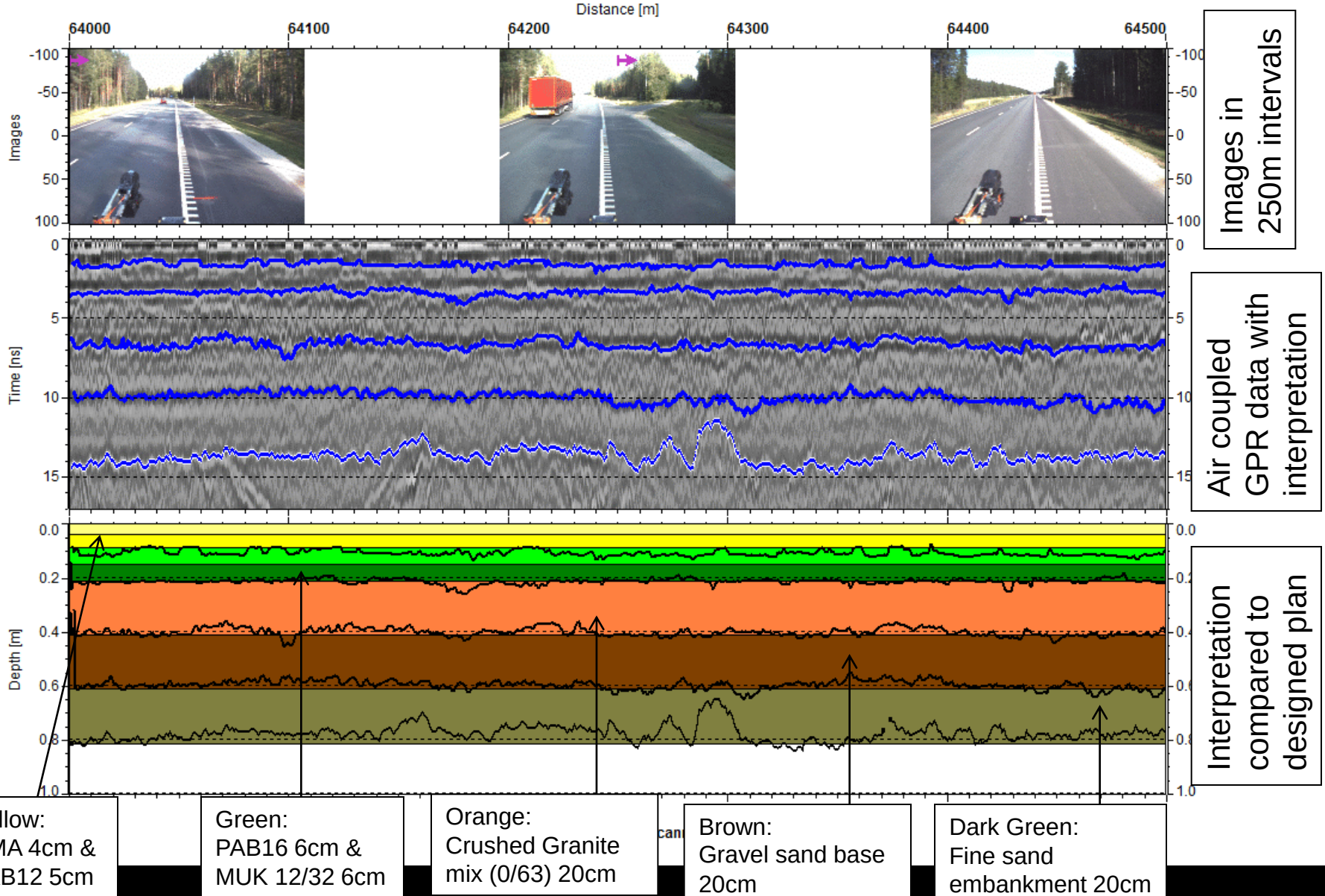
Km 67

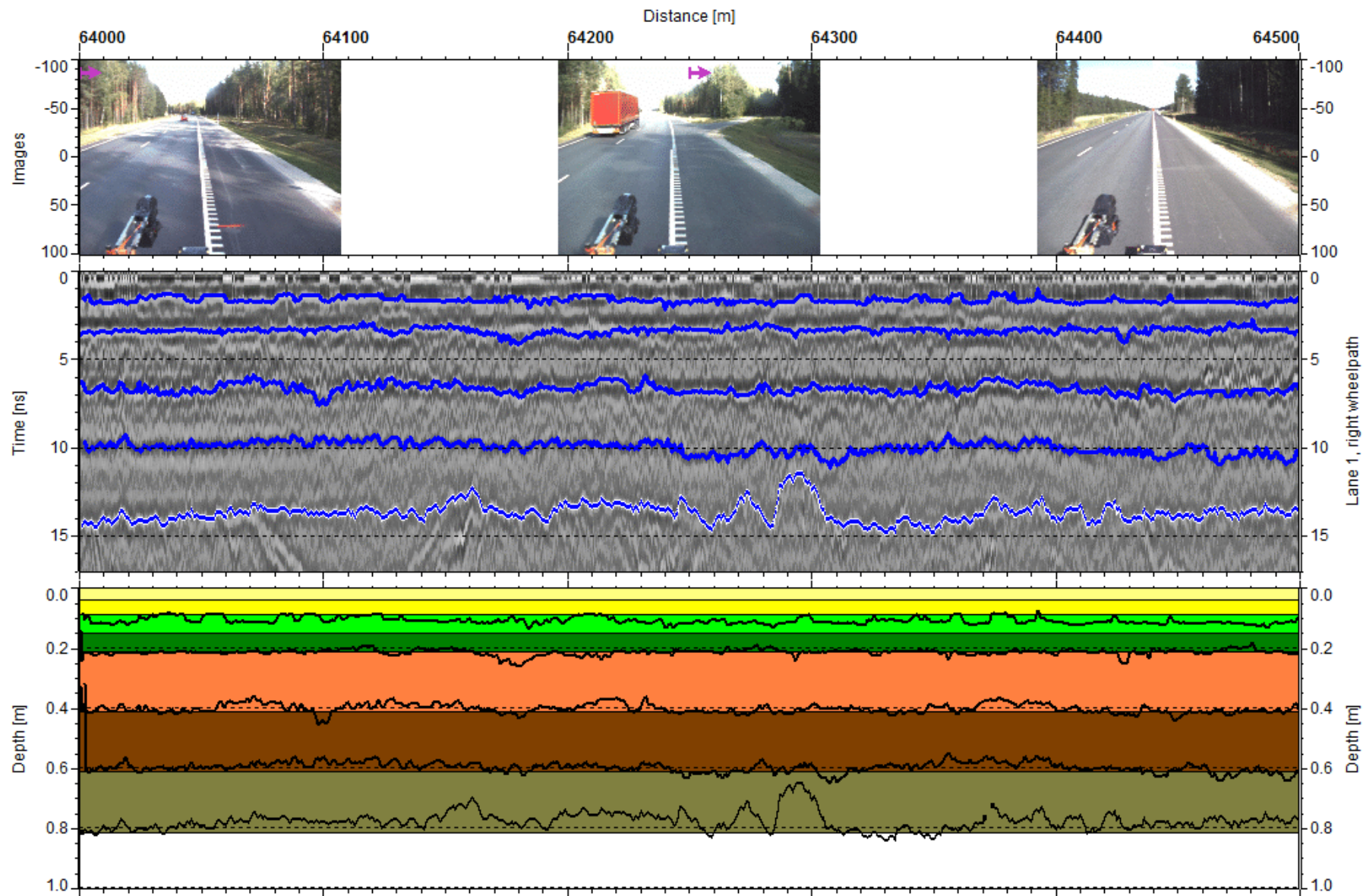


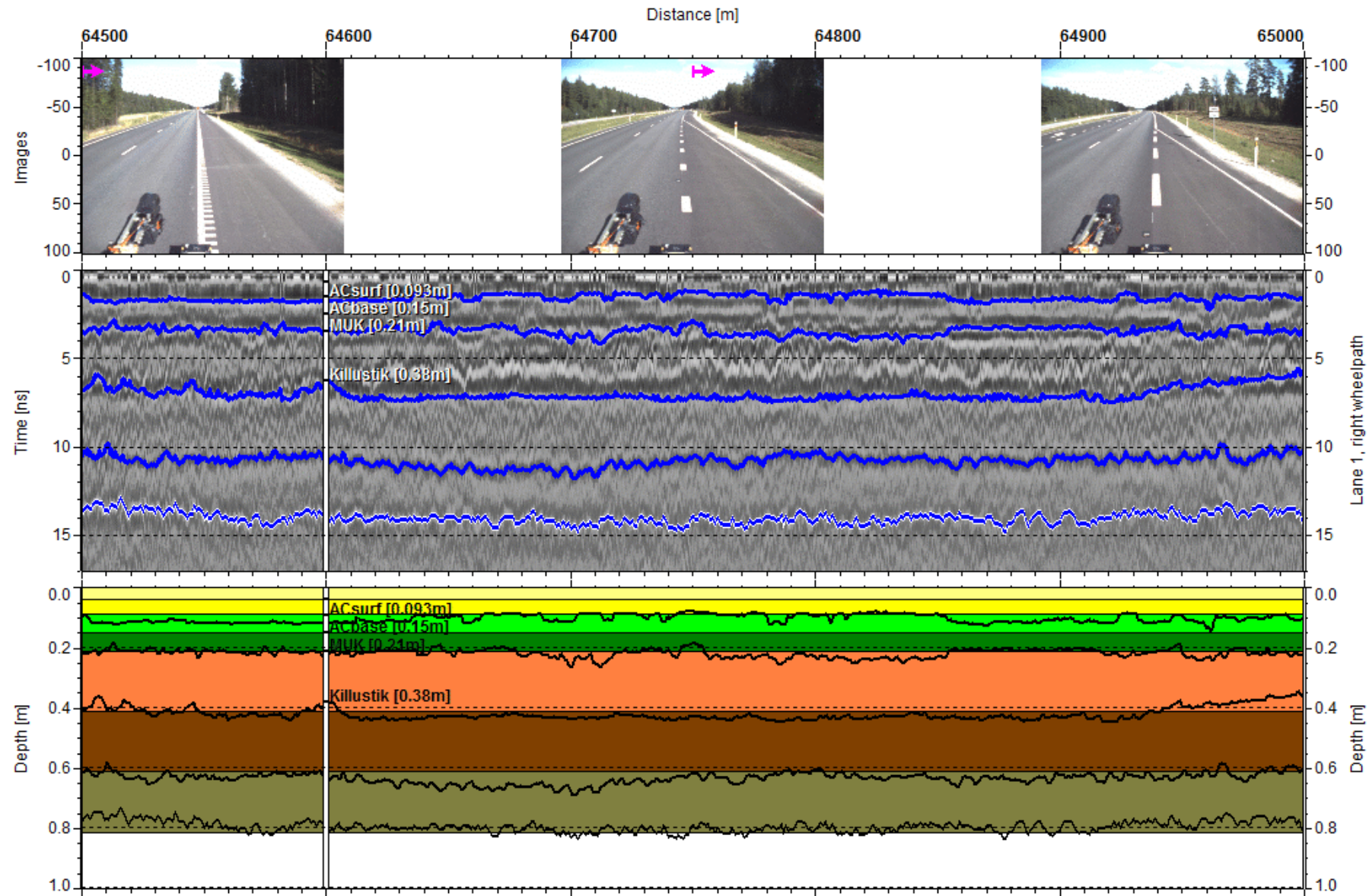
Explanation for longitudinal profiles

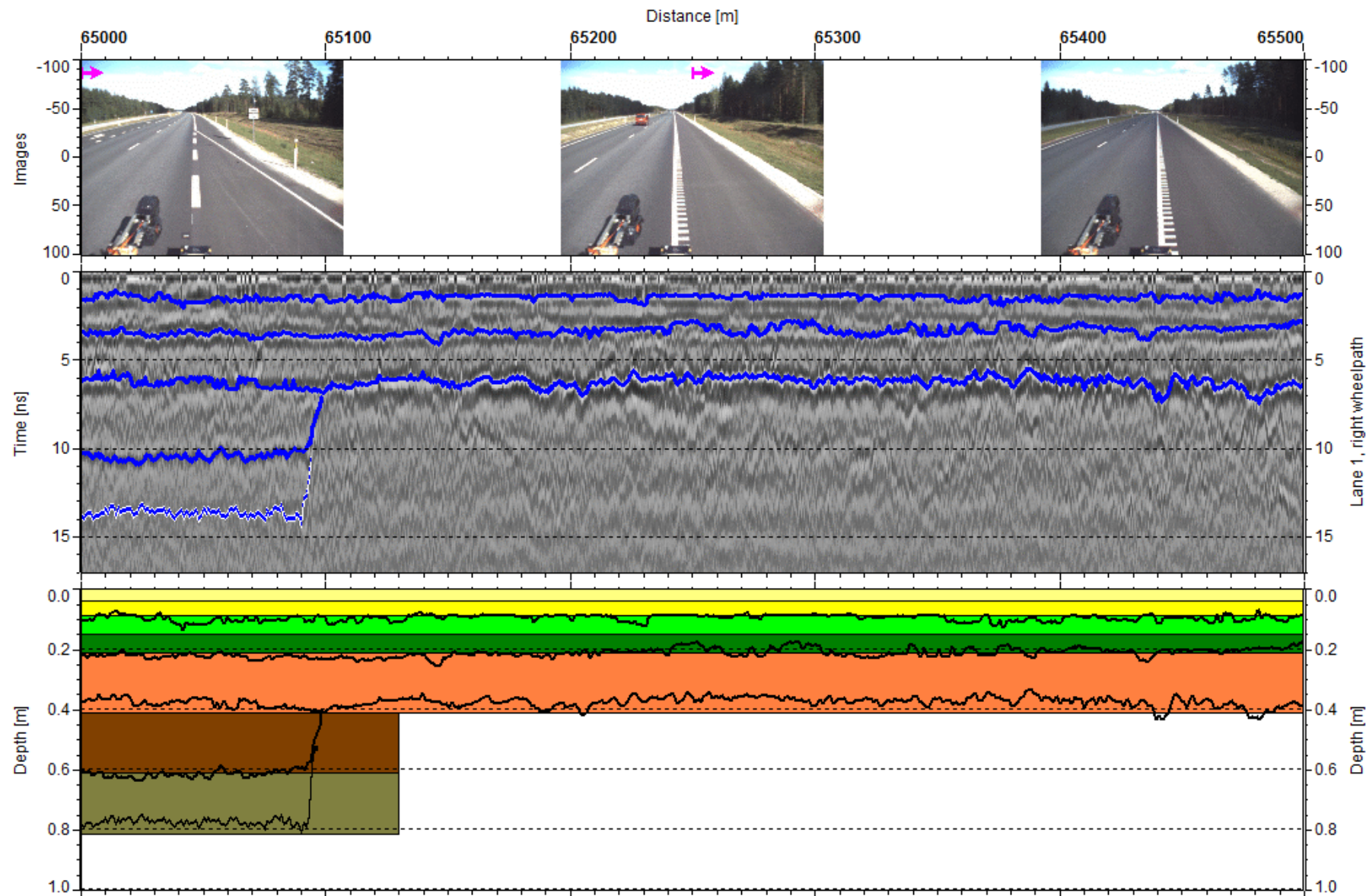
-Profiles are presented from Lane 1, right wheelpath

1_Road1_km64_67

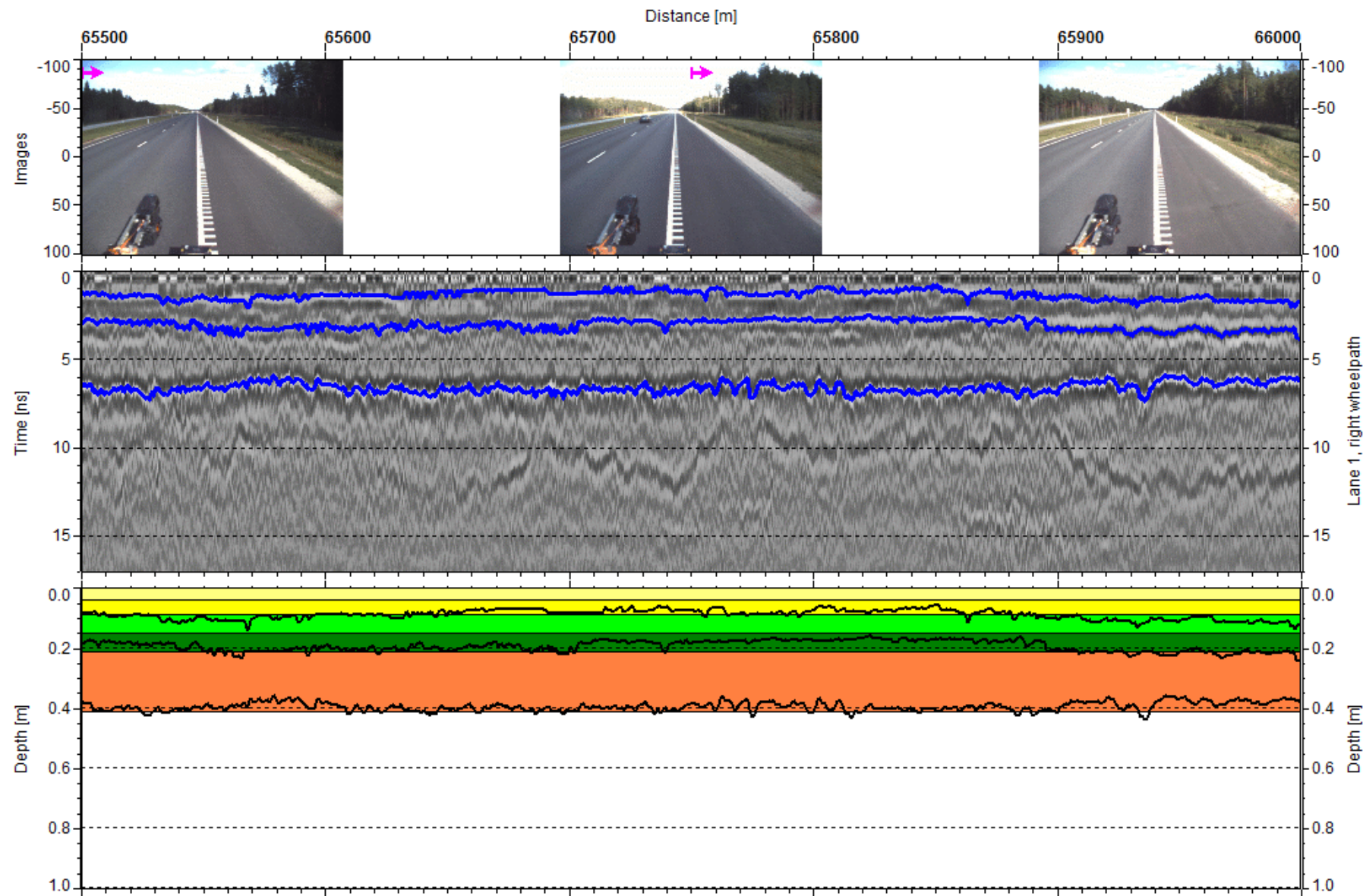


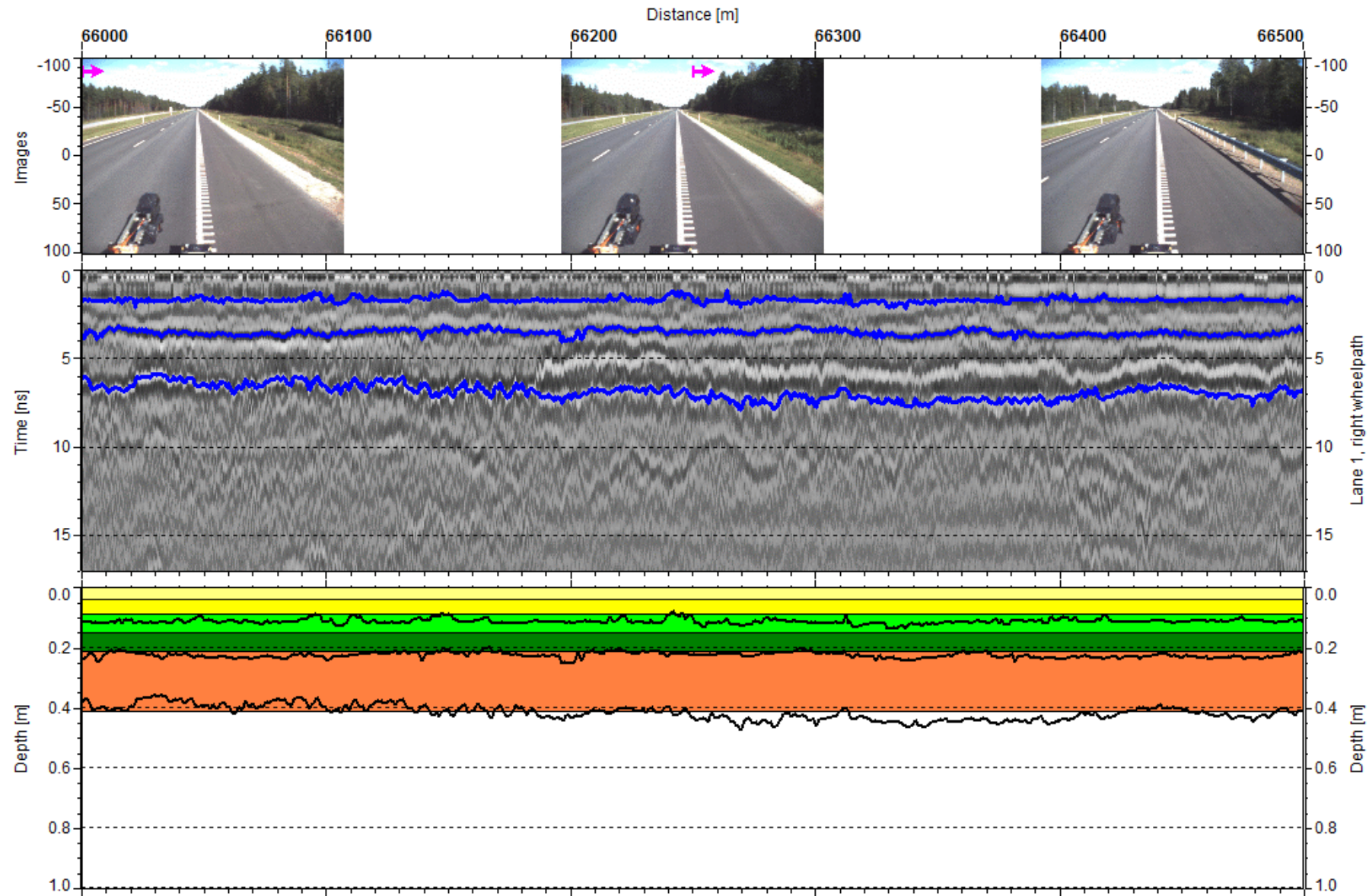




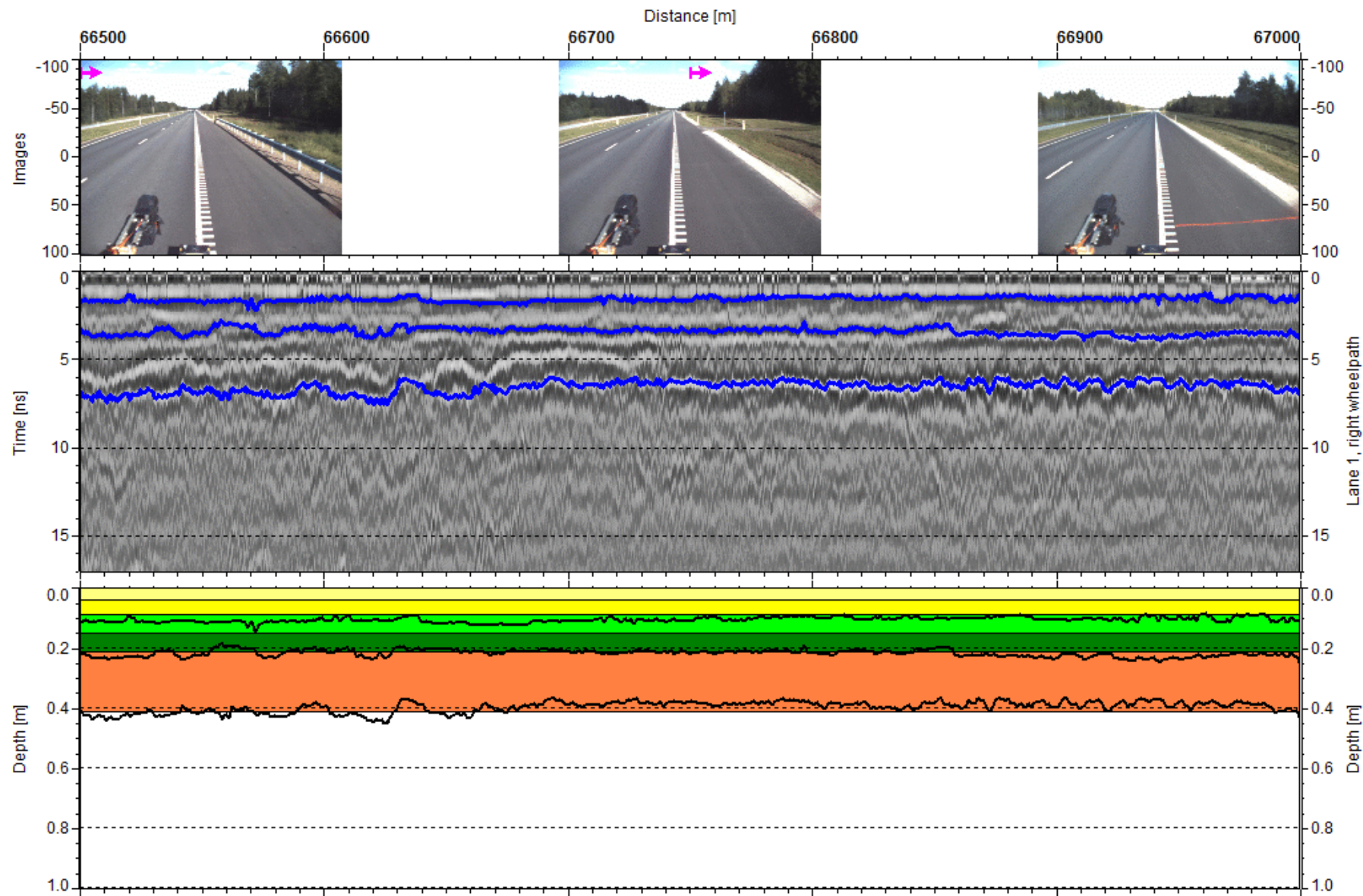


Roadscanners Oy, 10/2012





Roadscanners Oy, 10/2012

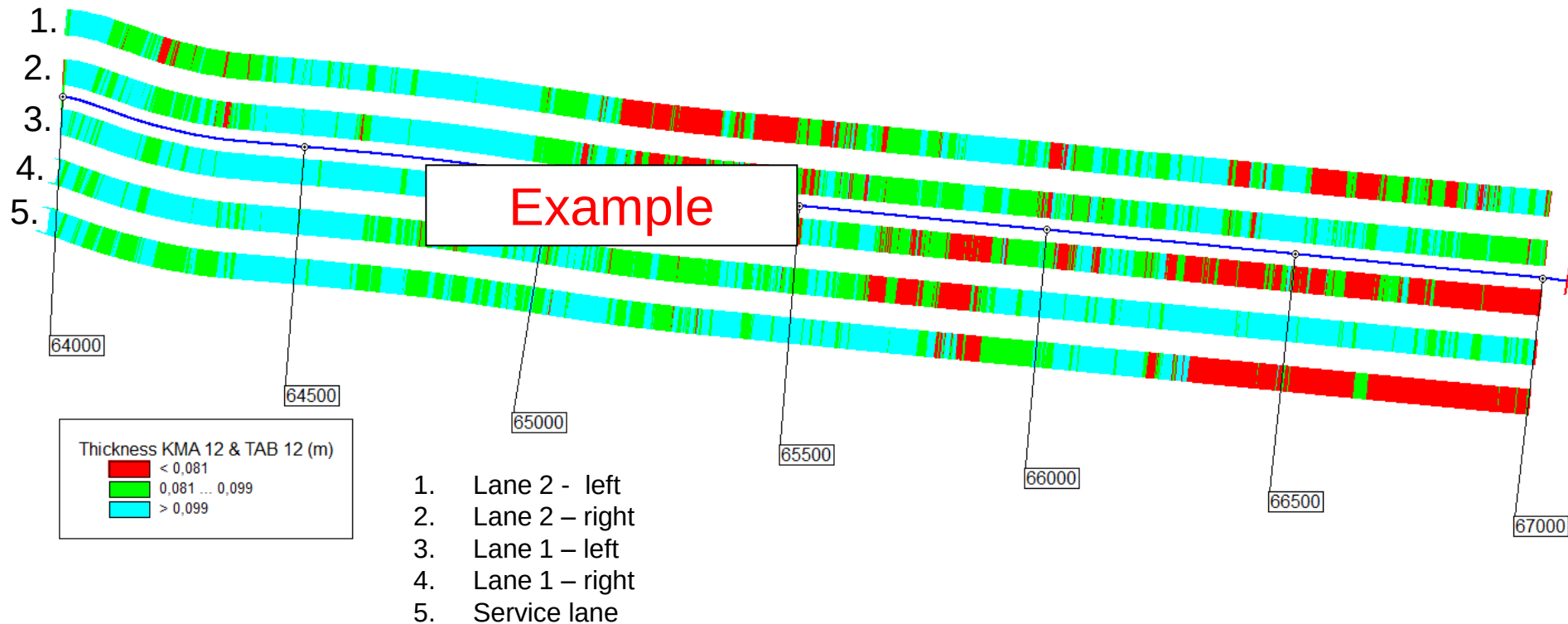


Roadscanners Oy, 10/2012

Explanation of Thickness Statistics and Maps

Table of average and statistical values:

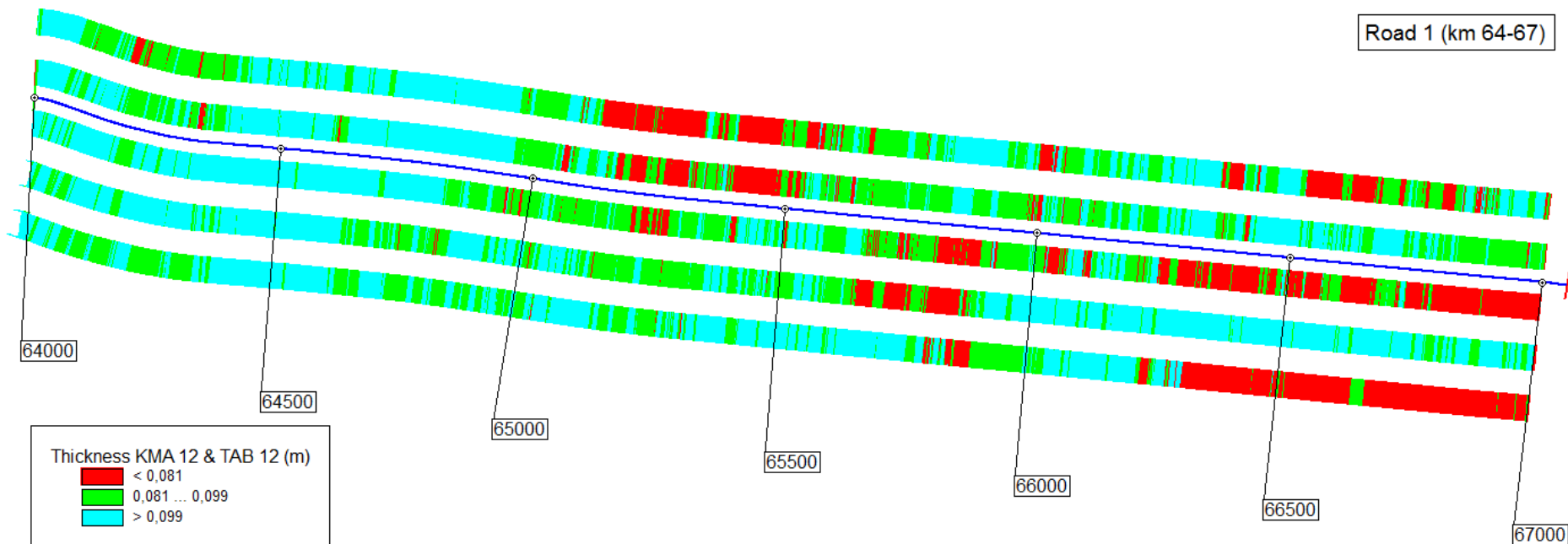
Planned thickness = 0,09 m (KMA 12 & TAB 12)		L2 left	L2 right	L1 left	L1 right
Average layer thickness (m)		0.093	0.099	0.093	0.103
% of distance where thickness is more than 10 % under		21.6	10.5	27.8	5.8
Average undershoot from planned in "more than 10 % under" class (m)	Example	-0.024	-0.018	-0.021	-0.018
% of distance where thickness is more than 10 % over		38.3	44.3	36.2	60.4
Average overshoot from planned in "more than 10 % over" class (m)		0.024	0.025	0.025	0.022
% of distance where thickness is between +/- 10 %		40.1	45.1	36.0	33.8
Standard deviation (m)		0.020	0.017	0.020	0.014



Maps of Layer Thicknesses

[1/5]

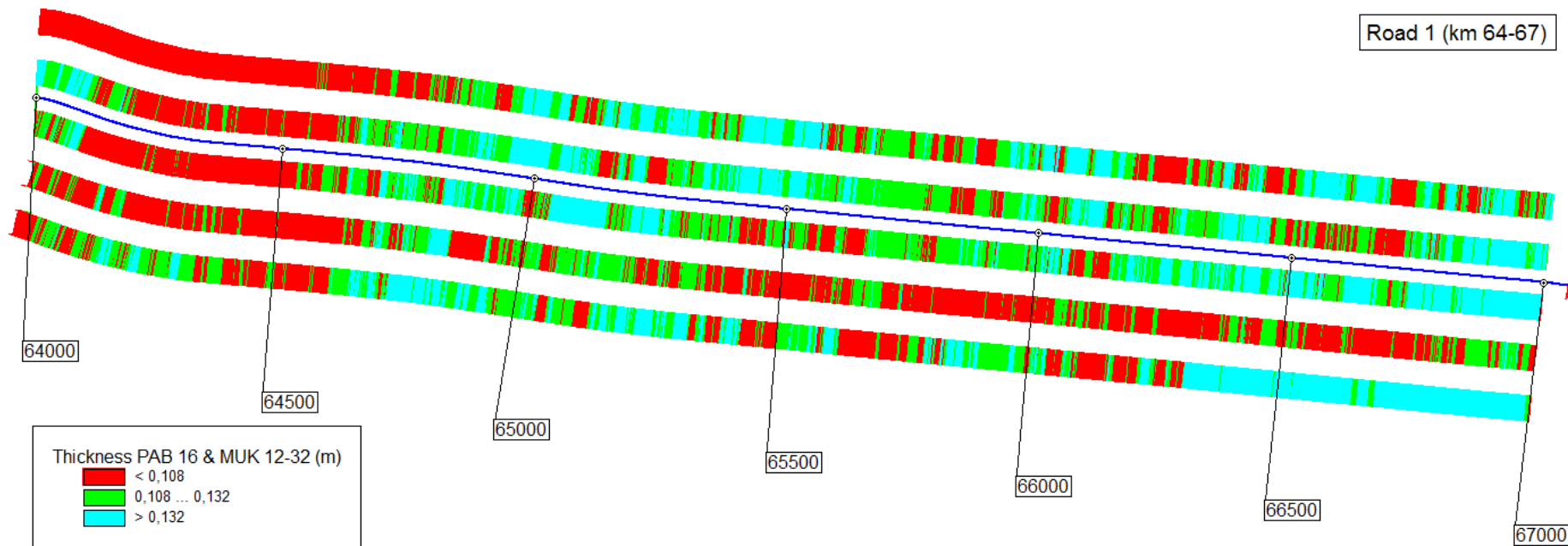
<i>Planned thickness = 0,09 m (KMA 12 & TAB 12)</i>	L2 left	L2 right	L1 left	L1 right
Average layer thickness (m)	0.093	0.099	0.093	0.103
% of distance where thickness is more than 10 % under	21.6	10.5	27.8	5.8
Average undershoot from planned in "more than 10 % under" class (m)	-0.024	-0.018	-0.021	-0.018
% of distance where thickness is more than 10 % over	38.3	44.3	36.2	60.4
Average overshoot from planned in "more than 10 % over" class (m)	0.024	0.025	0.025	0.022
% of distance where thickness is between +- 10 %	40.1	45.1	36.0	33.8
Standard deviation (m)	0.020	0.017	0.020	0.014



Maps of Layer Thicknesses

[2/5]

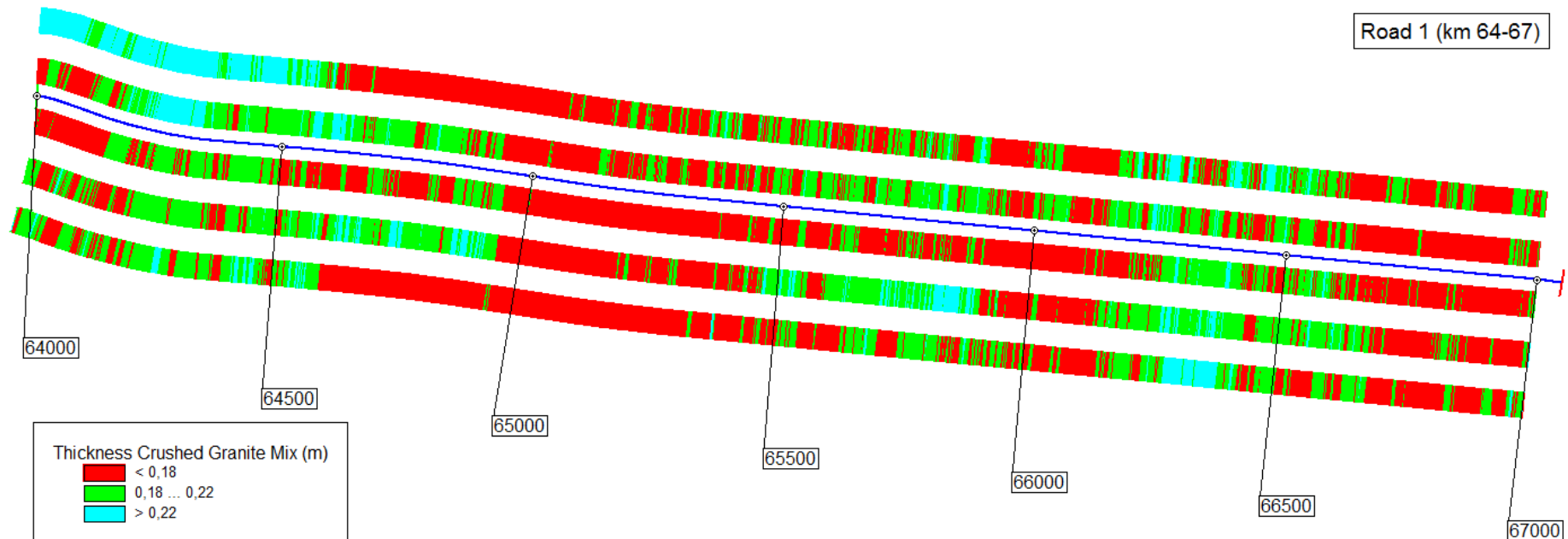
Planned thickness = 0,12 m (PAB 16 & MUK 12-32)	L2 left	L2 right	L1 left	L1 right
Average layer thickness (m)	0.112	0.120	0.121	0.101
% of distance where thickness is more than 10 % under	43.8	27.6	28.3	65.1
Average undershoot from planned in "more than 10 % under" class (m)	-0.036	-0.030	-0.031	-0.029
% of distance where thickness is more than 10 % over	25.9	28.6	32.6	3.9
Average overshoot from planned in "more than 10 % over" class (m)	0.029	0.028	0.031	0.021
% of distance where thickness is between +- 10 %	30.3	43.8	39.1	31.0
Standard deviation (m)	0.030	0.024	0.027	0.017



Maps of Layer Thicknesses

[3/5]

<i>Planned thickness = 0,20 m (Crushed Granite Mix)</i>	L2 left	L2 right	L1 left	L1 right
Average layer thickness (m)	0.182	0.183	0.165	0.186
% of distance where thickness is more than 10 % under	49.3	43.0	68.2	41.0
Average undershoot from planned in "more than 10 % under" class (m)	-0.049	-0.042	-0.049	-0.040
% of distance where thickness is more than 10 % over	19.7	8.1	0.8	10.0
Average overshoot from planned in "more than 10 % over" class (m)	0.037	0.033	0.027	0.029
% of distance where thickness is between +- 10 %	31.0	48.9	31.0	49.0
Standard deviation (m)	0.038	0.029	0.028	0.026

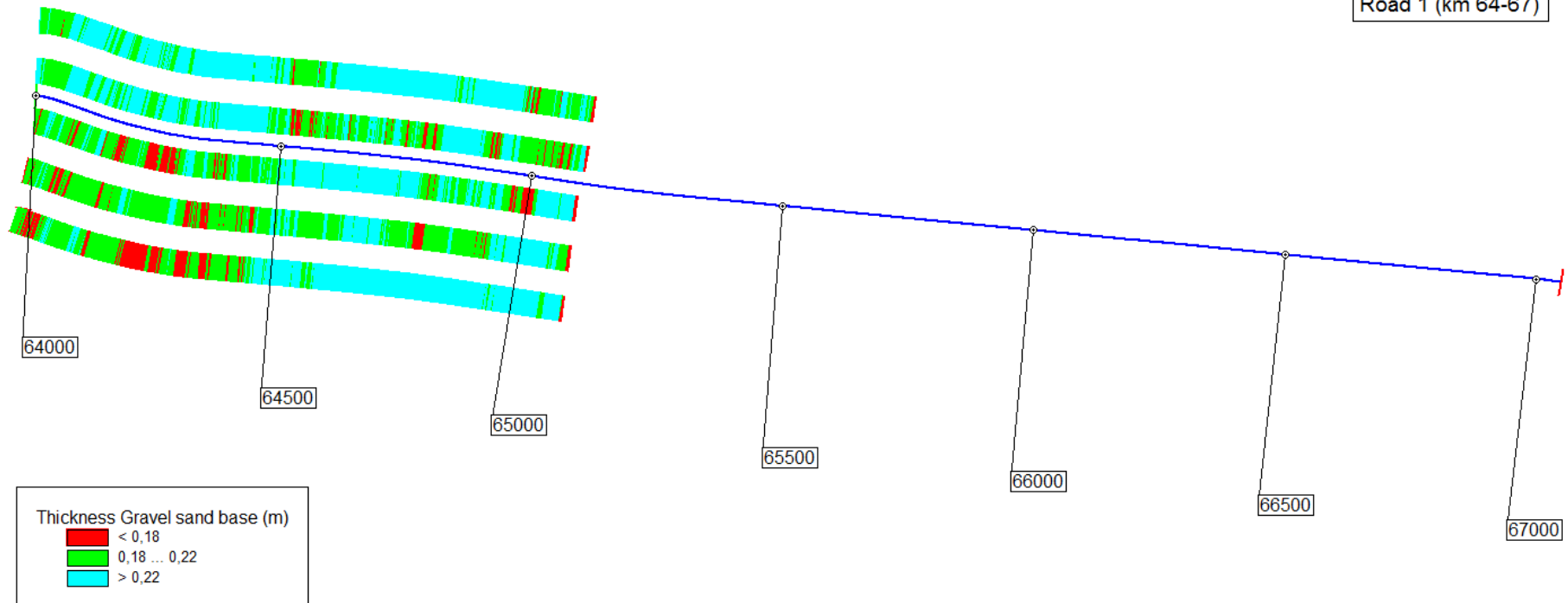


Maps of Layer Thicknesses

[4/5]

Planned thickness = 0,20 m (Gravel Sand Base)	L2 left	L2 right	L1 left	L1 right
Average layer thickness (m)	0.242	0.218	0.219	0.205
% of distance where thickness is more than 10 % under	1.9	6.6	11.2	10.0
Average undershoot from planned in "more than 10 % under" class (m)	-0.034	-0.029	-0.037	-0.036
% of distance where thickness is more than 10 % over	71.5	48.1	44.2	24.7
Average overshoot from planned in "more than 10 % over" class (m)	0.058	0.040	0.051	0.037
% of distance where thickness is between +- 10 %	26.6	45.2	44.6	65.2
Standard deviation (m)	0.035	0.026	0.036	0.025

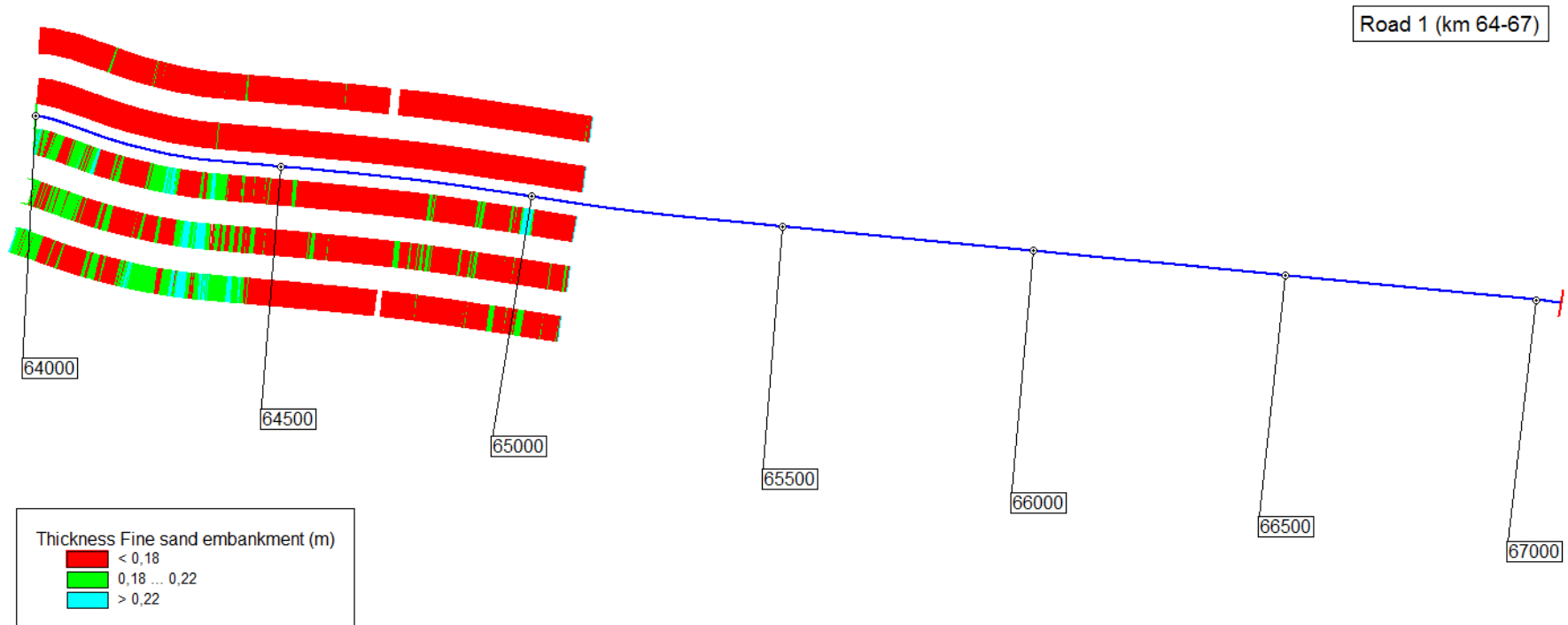
Road 1 (km 64-67)



Maps of Layer Thicknesses

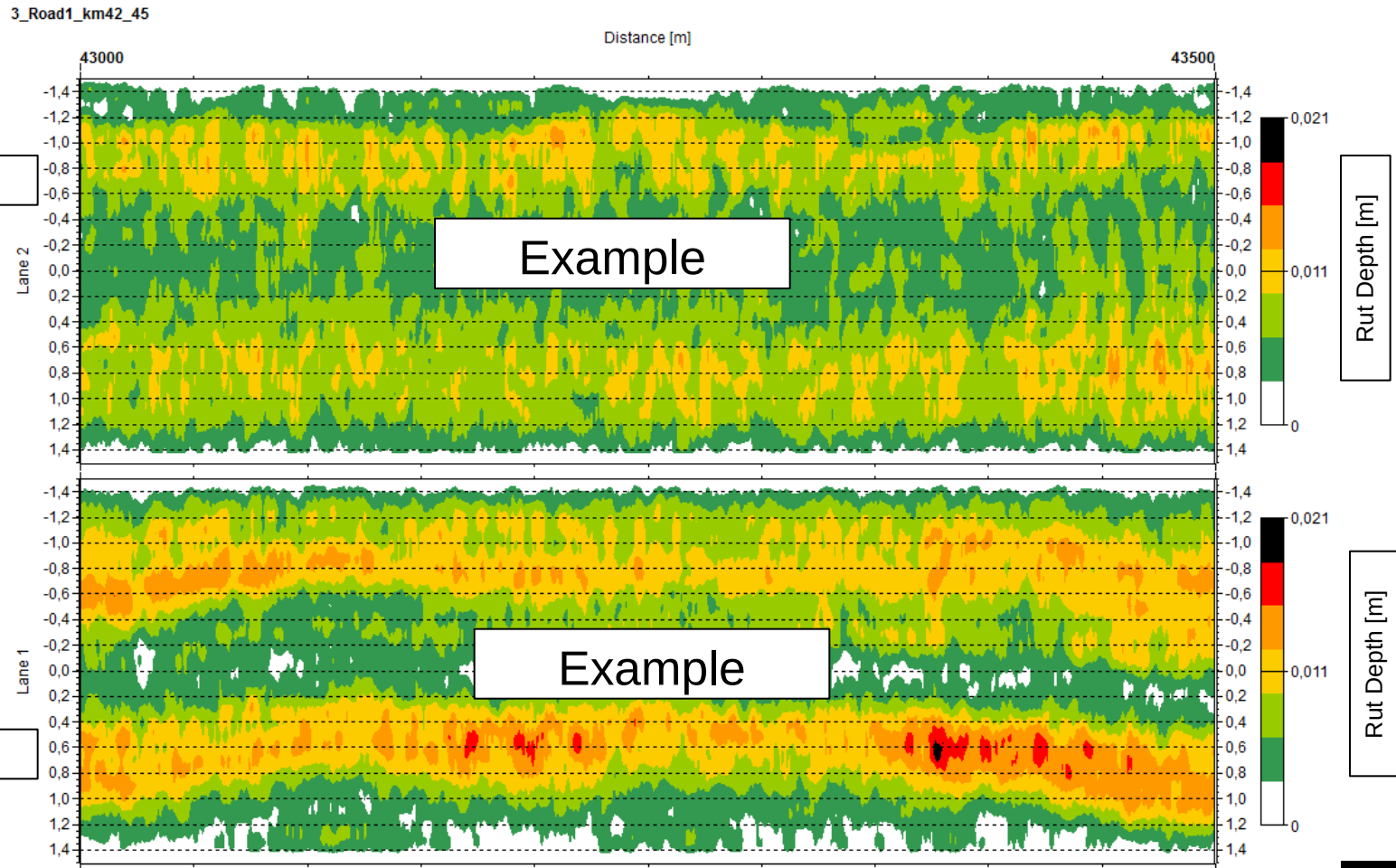
[5/5]

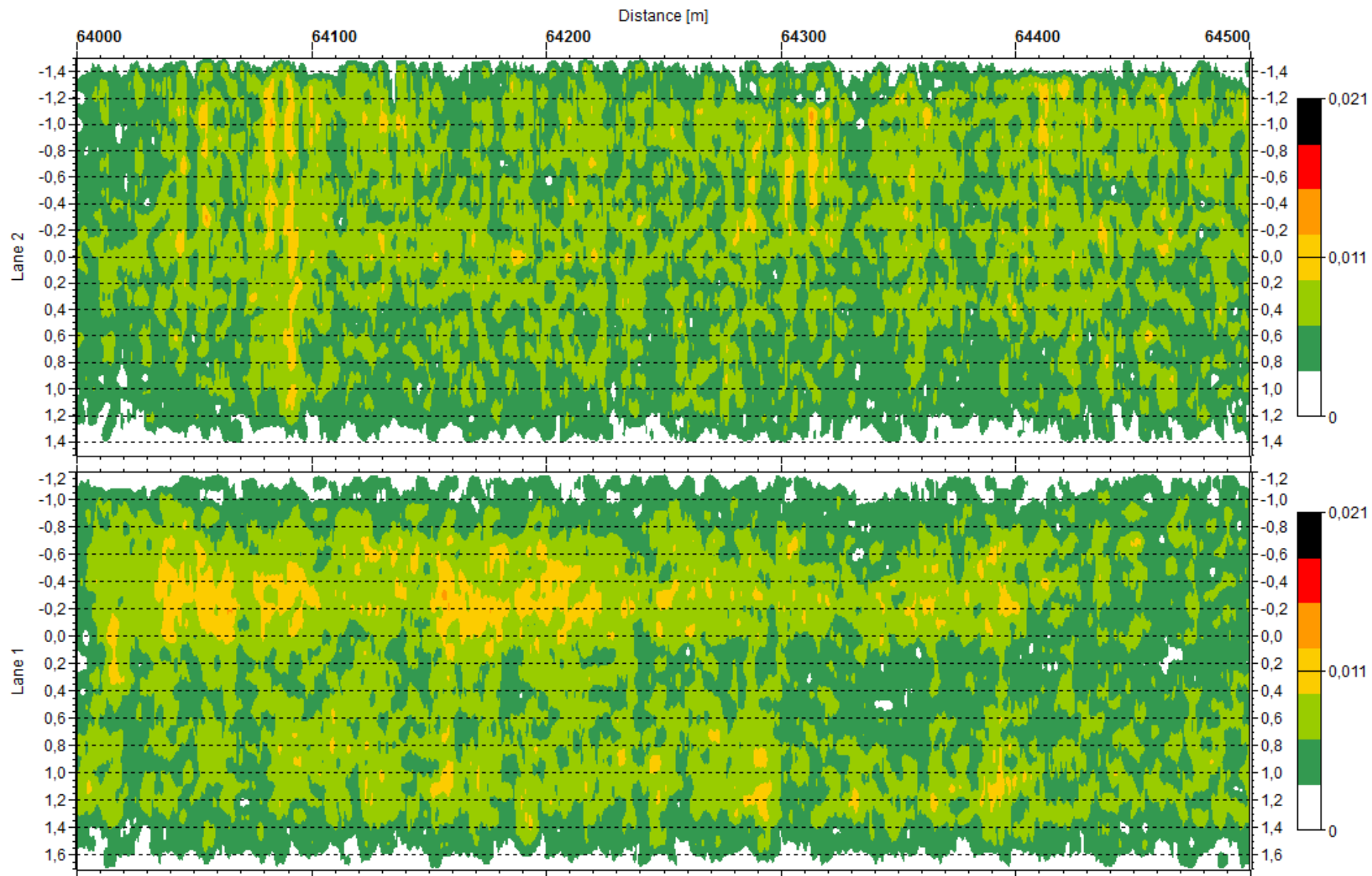
Planned thickness = 0,20 m (Fine Sand Embankment)	L2 left	L2 right	L1 left	L1 right
Average layer thickness (m)	0.104	0.109	0.154	0.163
% of distance where thickness is more than 10 % under	98.1	99.8	73.3	68.9
Average undershoot from planned in "more than 10 % under" class (m)	-0.098	-0.089	-0.061	-0.051
% of distance where thickness is more than 10 % over	0.1	0.0	5.0	2.7
Average overshoot from planned in "more than 10 % over" class (m)	0.022		0.039	0.033
% of distance where thickness is between +- 10 %	1.8	0.2	21.7	28.4
Standard deviation (m)	0.102	0.023	0.037	0.042

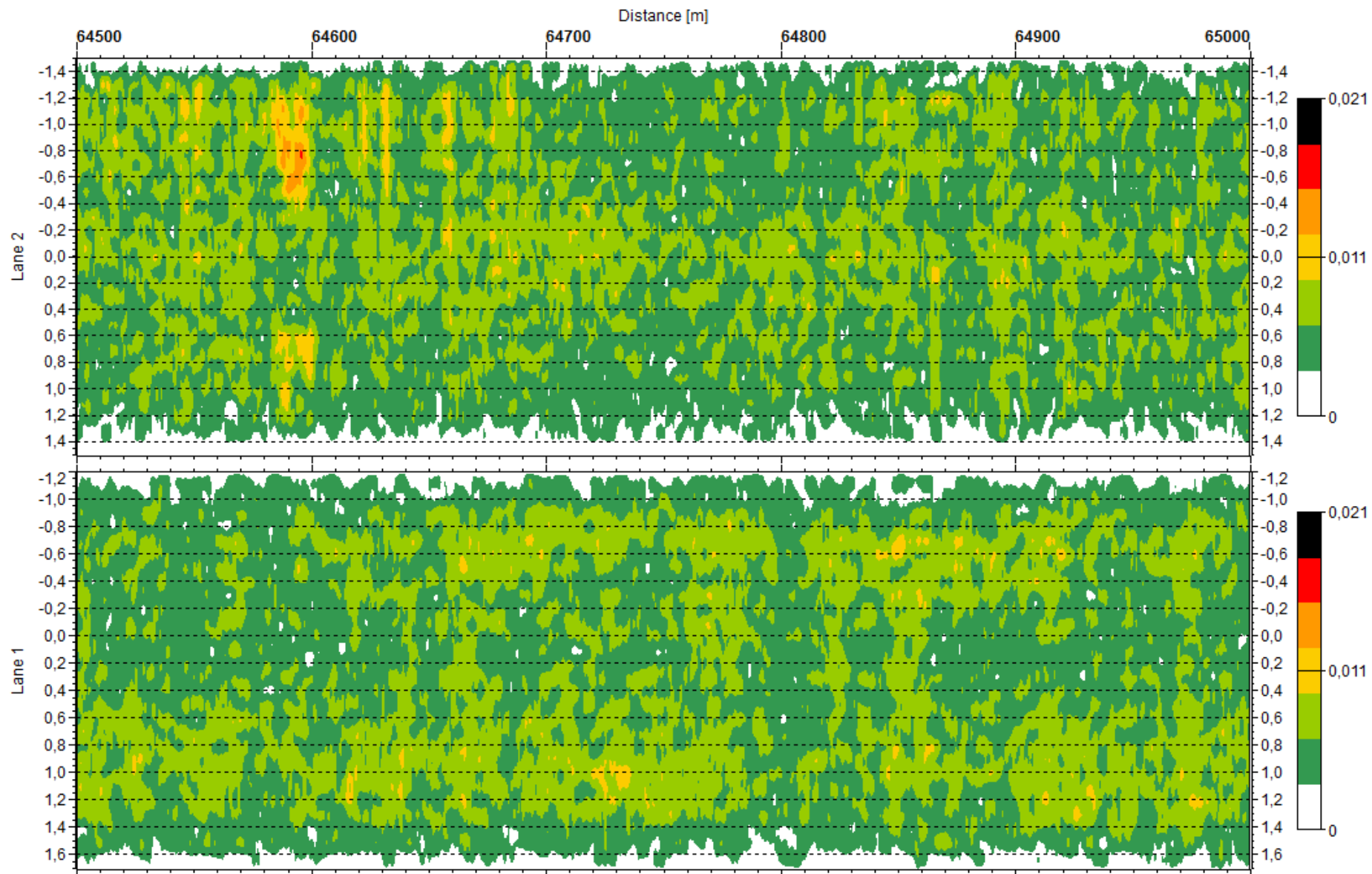


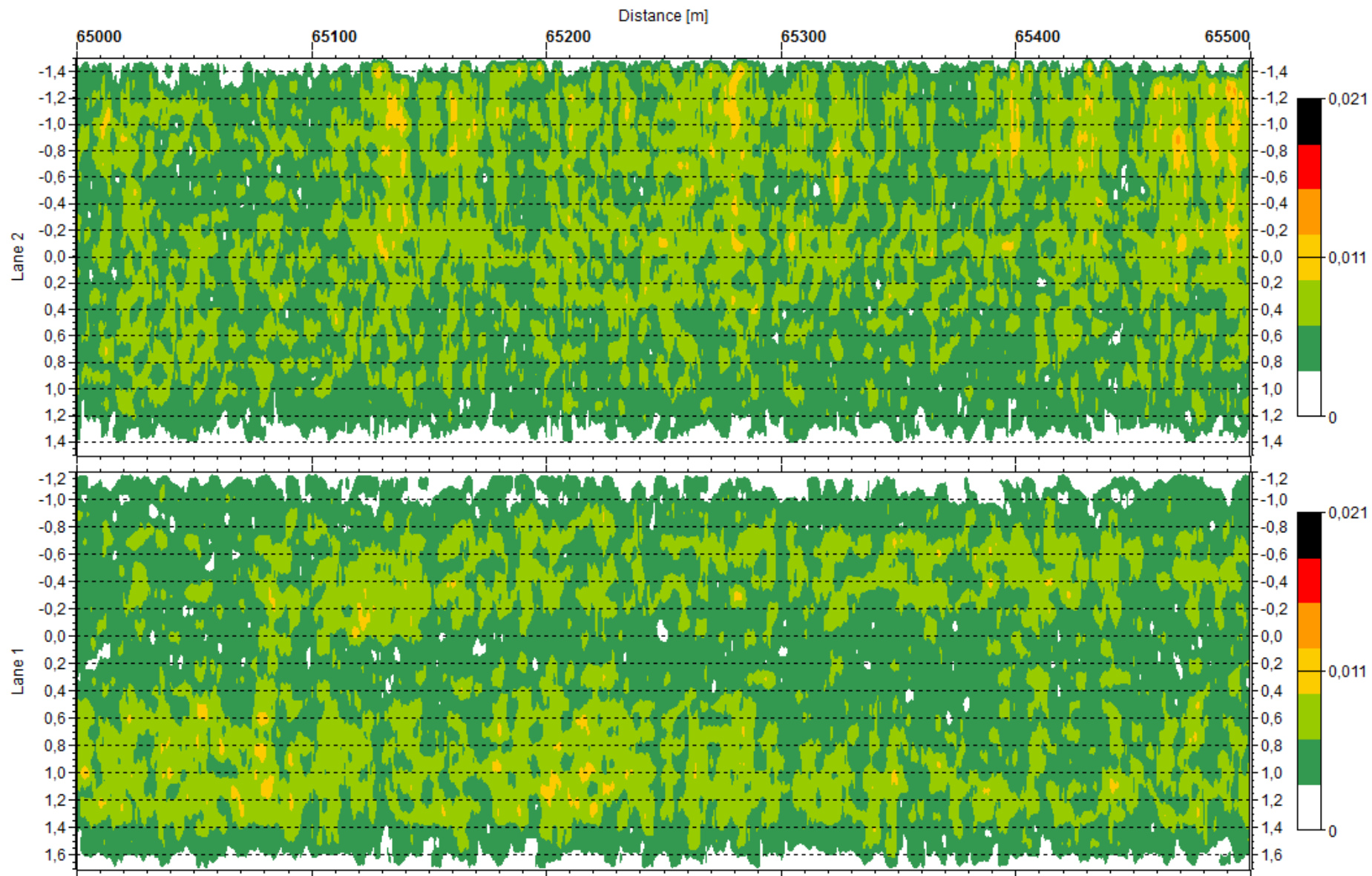
Explanation of Rut Analysis from Laser Scanner Data

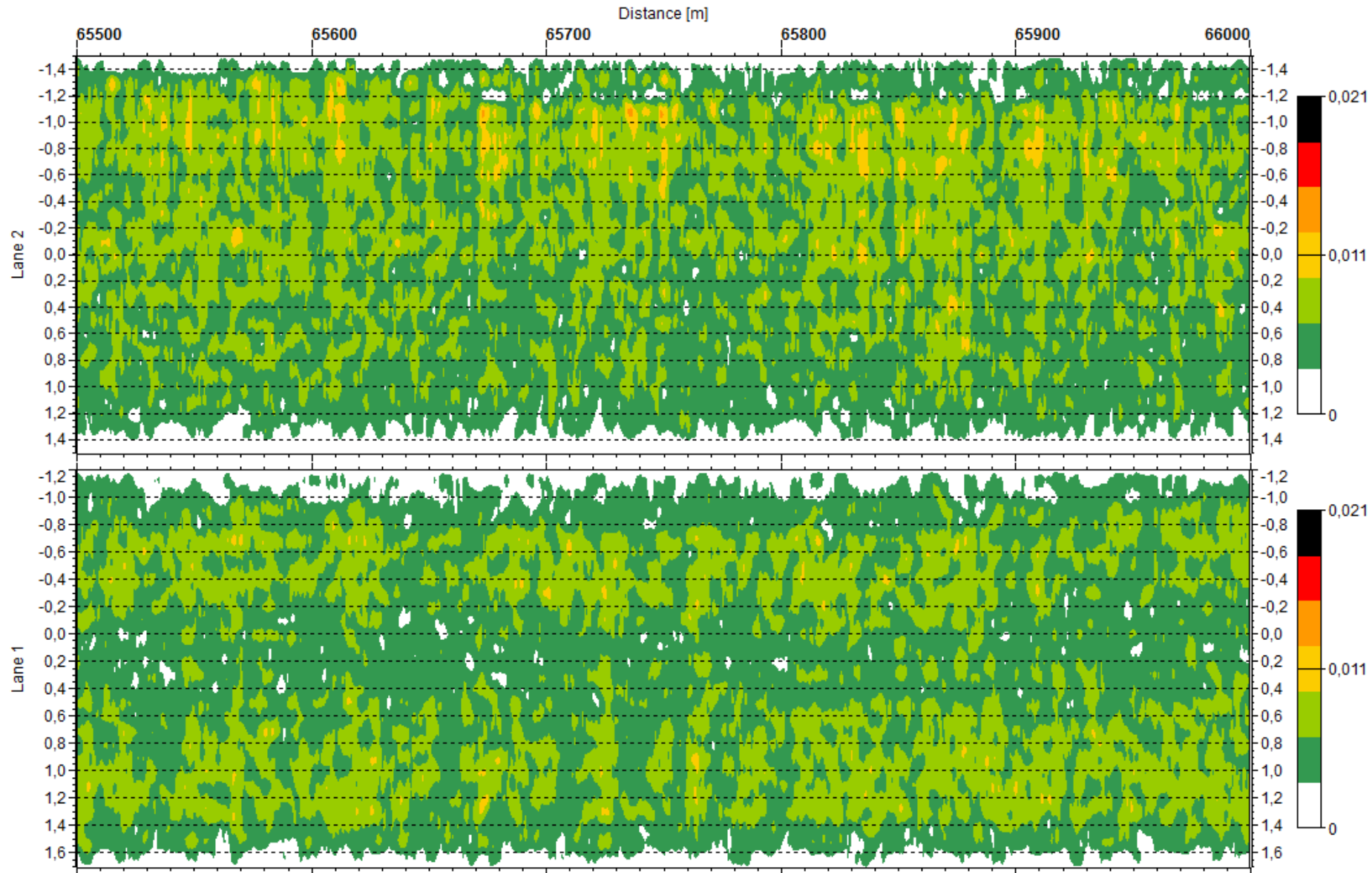
- Rutting was calculated from the laser scanner data using the wire rutting method and rutting was averaged over 5m distances.
- Rutting was analyzed from both driving lanes and from both wheel tracks.

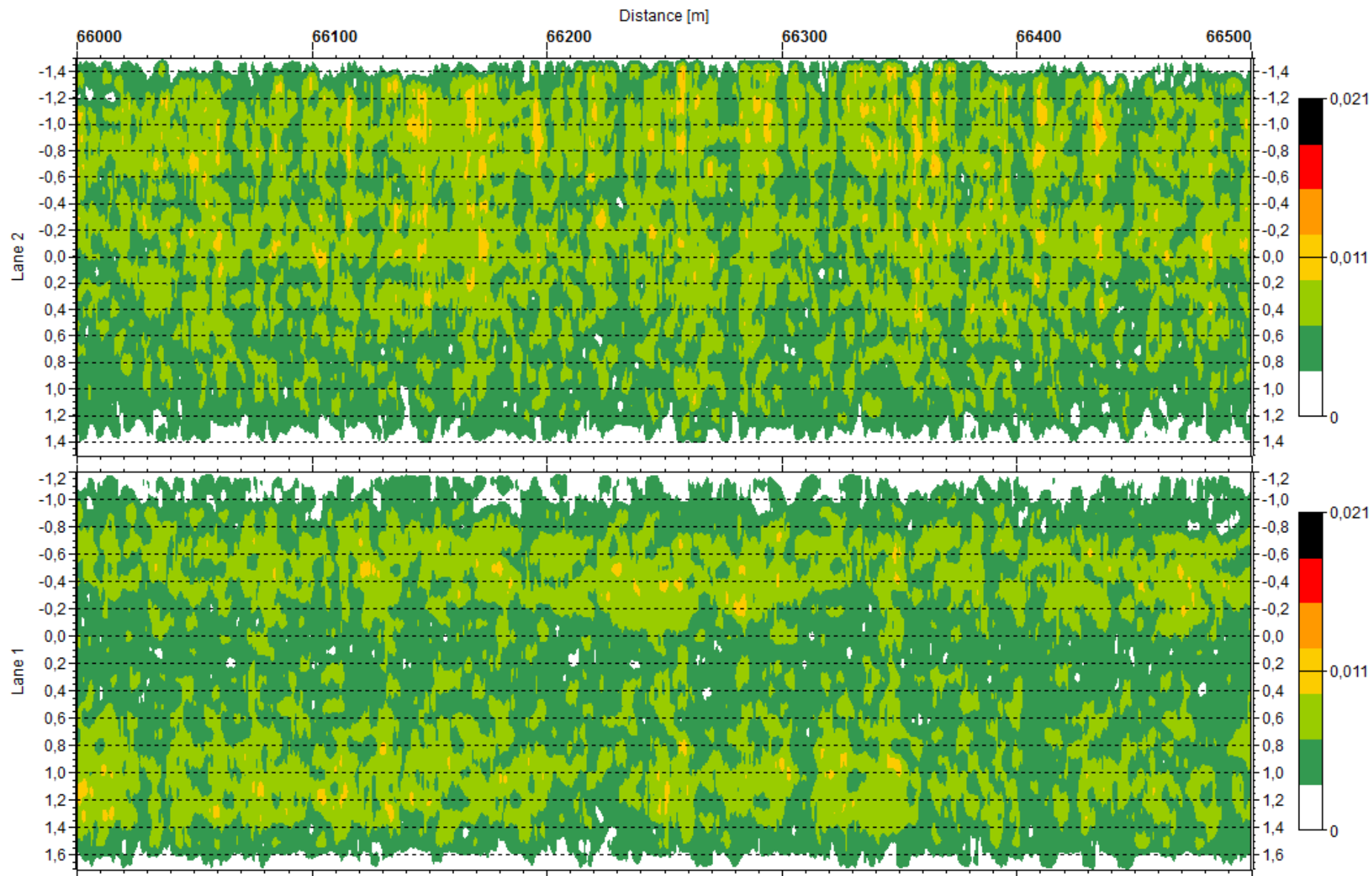


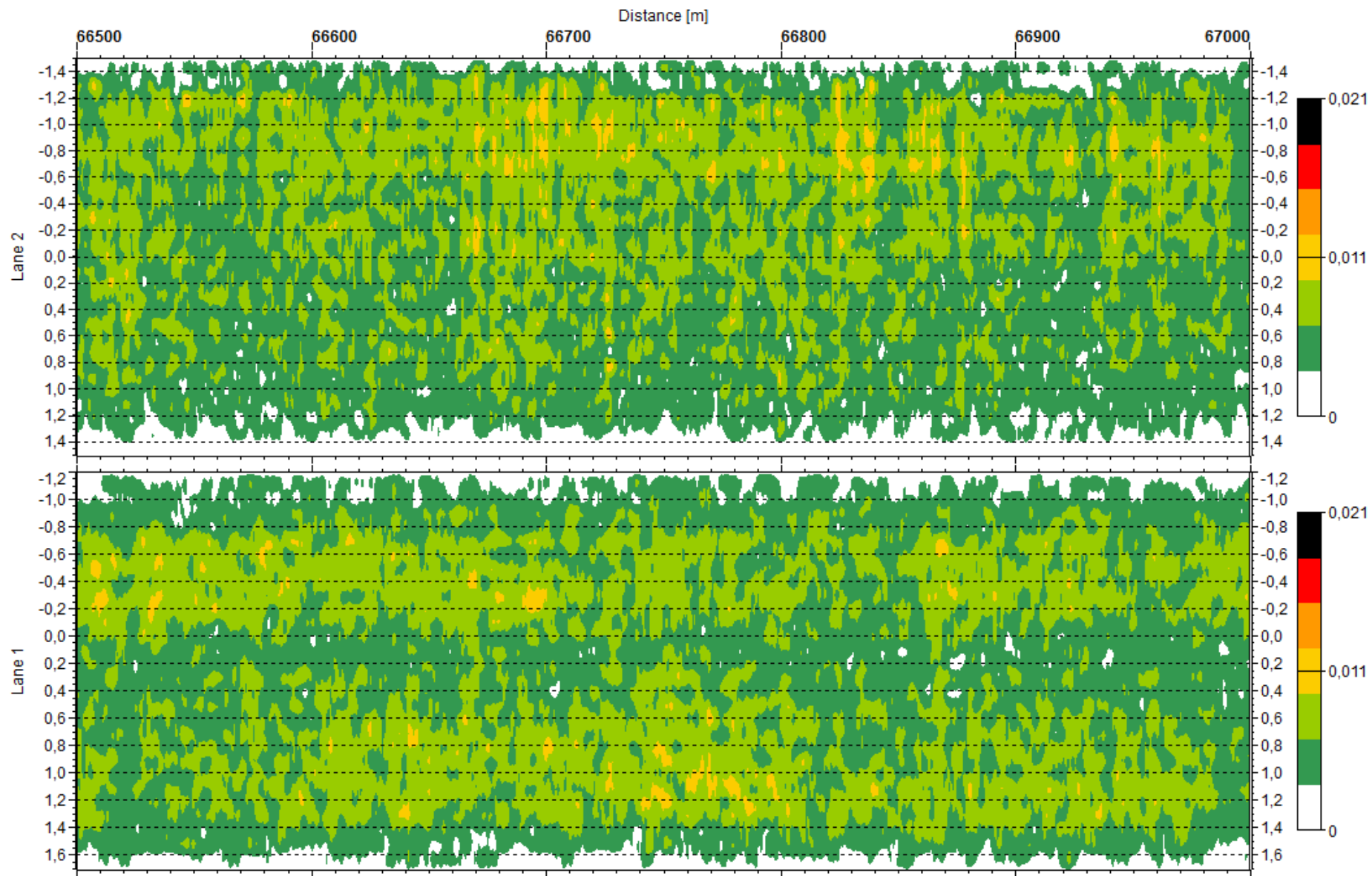




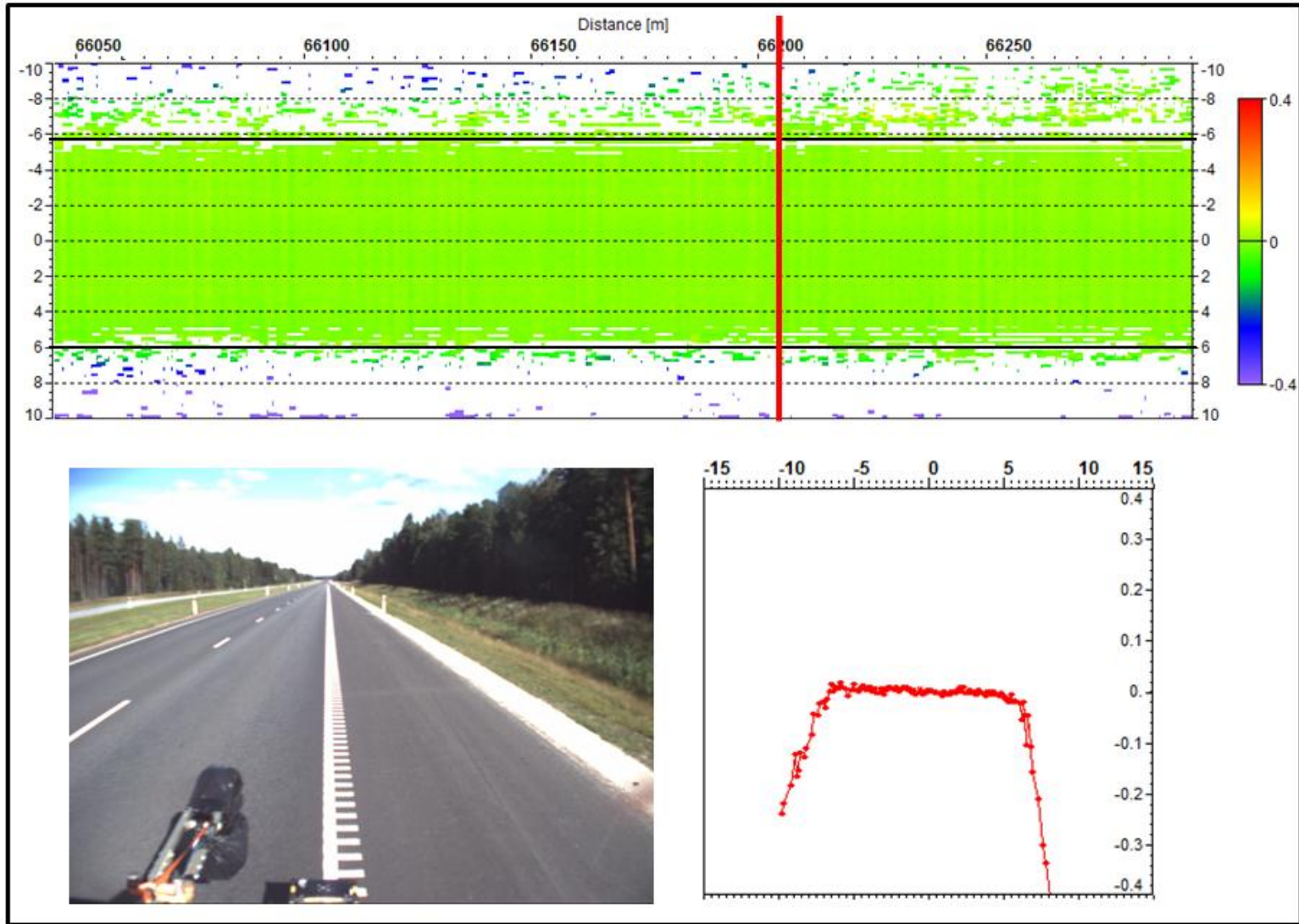








Example of Laser Scanners Data



Laser scanner surface elevation map from section 1 (road 1). The still image and cross section profile is picked from chainage 66 205m. The black lines on surface map represent the approximated road edges.