# Appendix 17.2

**Baseline Noise Survey** 



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# 1 Baseline Noise Survey Report

# 1.1 Introduction

- 1.1.1 This Appendix reports the measured baseline noise levels along the section of the A9 between Glen Garry and Kincraig prior to the commencement of any physical works in relation to the proposed dualling of the existing trunk road.
- 1.1.2 The survey has been carried out in accordance with guidance within the Department of Transport document 'Calculation of Road Traffic Noise', together with BS 7445-1: 2003 'Description and measurement of environmental noise Part 1 Guide to quantities and procedures'.
- 1.1.3 This report presents the results of the ambient noise survey.

# 1.2 Baseline Survey Equipment

- 1.2.1 The long-term noise surveys, undertaken for periods of 24 hours or more, were undertaken using a 01dB Blue Solo Sound Level Meter with a 01dB Pre 21S Pre-amplifier and a 01dB MCE212 ½" microphone (serial number 142693). The meter was calibrated using a Castle GA607 Sound Level Calibrator.
- 1.2.2 The equipment used was calibrated in a National Physical Laboratory (NPL) accredited laboratory within 12 months prior to the survey and the details are shown in **Table 1-1** below.

Table 1-1: Sound Level Meter Details and Calibration Details – Long Term Measurements

Equipment	Serial Number	NPL Calibration Certificate Number	UKAS/NPL Calibration Certificate Reference	Last Calibration Date
01dB Blue Solo Sound Level Meter	61046	01655/4	0801	24/01/2014
Castle GA607 Acoustic Calibrator	035748	035748/61288	S6312/07428	09/05/2014

- 1.2.3 The shortened period noise surveys were undertaken using a Castle Pro-DX Vocis GA131M Sound Level Meter with a Castle MKDXP Pre-amplifier (serial number 1026) and a Castle ½" microphone (serial number 5035). The meter was calibrated using a Castle GA607 Sound Level Calibrator.
- 1.2.4 The equipment used was calibrated in an NPL accredited laboratory within 12 months prior to the survey and the details are shown in **Table 1-2** below.

Table 1-2: Sound Level Meter Details and Calibration Details – Short Term Measurements

Equipment	Serial Number	NPL Calibration Certificate Number	UKAS/NPL Calibration Certificate Reference	Last Calibration Date
01dB Blue Solo Sound Level Meter	0062925	0062925/61288	S6312	09/09/2014
Castle GA607 Acoustic Calibrator	035748	035748/61288	S6312/07428	09/05/2014

1.2.5 It should be noted that the Sound Level Meter was calibrated before and after each measurement to check for 'drift' in the accuracy of the meter. No drift in the calibration level was found at any time.



1.2.6 Noise measurements were taken in accordance with the methodology in British Standard 7445-1: 2003 'Description and measurement of environmental noise Part 1 Guide to quantities and procedures', with the microphone between 1.2 and 1.5m above local ground level. All measurement locations were also at least 3.5m away from any reflecting surface, and as a result it can be considered that all measurement locations were 'free-field'.

# 1.3 Baseline Measurement Locations

- 1.3.1 Prior to the commencement of the baseline noise measurement works, consultation took place with Mr R Murdoch, Environmental Health Officer for The Highland Council for this area.
- 1.3.2 The locations proposed to be used were identified beforehand and were in the main agreed, or relocated slightly to accommodate the discussions. In the main the measurement locations remained the same, and although a couple have been relocated to reflect access or security issues, it is considered that the baseline in the vicinity of the A9 within this section of its route has been appropriately captured. The locations of the measurements are presented below in **Table 1-3** and are shown in **Figure 1-1**.
- 1.3.3 The A9 was considered to be freely flowing during all attended (i.e. 3 hour) surveys. For the unattended surveys this cannot be verified, but on setup and collection it was noted that the A9 was freely flowing.
- 1.3.4 Also, on most days when the unattended measurements were being undertaken the surveyor was in the area performing the attended measurements.
- 1.3.5 It should be noted that during all measurements the Average Speed Cameras (ASC) on the A9 were installed but were not yet operational, as such the measurement results represent typical road traffic noise conditions.



Table 1-3: Baseline Noise Measurement Locations

Location	Measurement Duration	GPS Location of Measurement
Station House, Dalnaspidal, Pitlochry	3 Hr	NN64450 BNG73353
Balsporran Cottages, Dalwhinnie	24 Hr	NN62711 BNG79196
Drumochter Lodge, Dalwhinnie	3 Hr	NN63065 BNG79591
Loch Ericht Hotel, Dalwhinnie	3 Hr	NN63812 BNG84953
2, Truim View, Dalwhinnie	24 Hr	NN63693 BNG84335
Willet Cottage, Cuaich, Dalwhinnie	24 Hr	NN65573 BNG87071
Crubenmore Lodge, Newtonmore	3 Hr	NN67513 BNG91014
Invernahavon Caravan Park, Glentruim	3 Hr	NN68851 BNG94972
Ptarmigan Lodge, West Ralia	3 Hr	NN70467 BNG97075
Upper Nuide, Newtonmore	3 Hr	NN72837 BNG98471
Ruthven Farm House, Kingussie	3 Hr	NH75924 BNG00628
The Spinney, Spey Street, Kingussie	24 Hr	NH75948 BNG00558
Craig-An-Darach, Kingussie	24 Hr	NH76415 BNG00997
Three Bridges, Kingussie	3 Hr	NH77045 BNG01207
Kerrow Cottage, Kingussie	3 Hr	NH76635 BNG01227
Croila Road, Kingussie	3 Hr	NH76321 BNG01156
Ard Dalle, Lynchat, Kingussie	24 Hr	NH78148 BNG01832
Mains of Balavil, Kingussie	24 Hr	NH79025 BNG02279
Balavil House, Kingussie	3 Hr	NH79087 BNG02609
Dunachton Lodge, Kingussie	3 Hr	NH82237 BNG04734
Silverwood, Dunachton Road, Kincraig	24 Hr	NH82824 BNG05536
17, Suidhe Crescent, Kincraig	3 Hr	NH83251 BNG06015
The Old Manse, Alvie Estate, Kincraig	24 Hr	NH83485 BNG06506



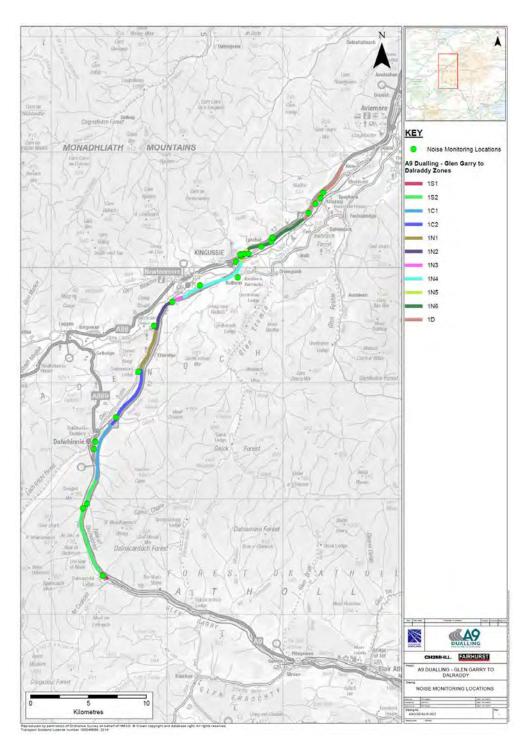


Figure 1-1: Noise Measurement Locations

# 1.4 Baseline Noise Survey Results

1.4.1 A summary of the results of the baseline survey are recorded in **Table 1-4** below; full measurement record sheets are provided in **section 1.6** at the end of this Appendix.



Table 1-4: Summary of Measured Baseline Noise Measurements

Location	Measurement Duration	L <sub>Aeq,T</sub> dB	L <sub>A10,T</sub> dB
Station House, Dalnaspidal, Pitlochry	3 Hr	57.5	61.3
Relanarran Cattagaa Dalukinnia	06:00 - 00:00	57.4	59.6
Balsporran Cottages, Dalwhinnie	00:00 - 06:00	51.0	55.5
Drumochter Lodge, Dalwhinnie	3 Hr	58.8	63.6
Loch Ericht Hotel, Dalwhinnie	3 Hr	50.6	52.8
2, Truim View, Dalwhinnie	06:00 - 00:00	46.0	47.9
2, Truin view, Daiwiininie	00:00 - 06:00	38.6	42.3
Willet Cottage Cueich Delwhippie	06:00 - 00:00	55.5	57.7
Willet Cottage, Cuaich, Dalwhinnie	00:00 - 06:00	49.2	53.3
Crubenmore Lodge, Newtonmore	3 Hr	50.3	53.4
Invernahavon Caravan Park, Glentruim	3 Hr	44.7	47.0
Ptarmigan Lodge, West Ralia	3 Hr	61.3	60.4
Upper Nuide, Newtonmore	3 Hr	49.4	54.3
Ruthven Farm House, Kingussie	3 Hr	50.9	55.3
The Spinney, Spey Street, Kingussie	06:00 - 00:00	50.3	47.8
The Spiriney, Spey Street, Kingussie	00:00 - 06:00	39.2	42.7
Craig-An-Darach, Kingussie	06:00 - 00:00	52.0	54.6
Claig-All-Daracti, Kiligussie	00:00 - 06:00	45.9	50.2
Three Bridges, Kingussie	3 Hr	53.2	57.3
Kerrow Cottage, Kingussie	3 Hr	52.8	57.6
Croila Road, Kingussie	3 Hr	45.9	42.1
Ard Dollo, Lynchat Kingungio	06:00 - 00:00	52.0	54.2
Ard Dalle, Lynchat, Kingussie	00:00 - 06:00	49.7	50.2
Mains of Balavil, Kingussie	06:00 - 00:00	61.6	65.8
Ivialits of Dalavii, Killigussie	00:00 - 06:00	56.7	60.0
Balavil House, Kingussie	3 Hr	54.7	59.0
Dunachton Lodge, Kingussie	3 Hr	55.1	59.4
Silverwood, Dunachton Road, Kincraig	06:00 - 00:00	55.5	58.9
Silverwood, Dunaction Road, Kincralg	00:00 - 06:00	49.1	53.1
17 Suidhe Crescent, Kincraig	3 Hr	54.3	58.7
The Old Manse, Alvie Estate, Kincraig	06:00 - 00:00	55.3	57.4
The Old Ividiae, Aivie Estate, Militialy	00:00 - 06:00	52.5	54.6

- 1.4.2 Given the above measured noise levels, together with the guidance provided on the correction of shortened measurements contained within *'Calculation of Road Traffic Noise'*, **Table 1-5** reports the measured and subsequently corrected L<sub>A10,18hr</sub> noise levels for each of the measurement locations.
- 1.4.3 It should be noted however, that the 3-hour measurements taken are just that; an individual measurement with a statistical average of the 3 measurements. Therefore, the analysis procedure described in CRTN was not strictly followed.



1.4.4 However, from observations made by the surveyor it is not considered likely that this will have resulted in any significant difference in the reported noise levels due to there being very little fluctuation in noise level over the 3-hour survey period. Therefore, if required the shortened measurement procedure could be relied upon to provide an approximation to the 18-hour value.

Table 1-5: Full Measured 18-hour periods and Those Calculated From 3-hour
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Location	L <sub>A10,18h</sub> dB
Station House, Dalnaspidal, Pitlochry	60.3
Balsporran Cottages, Dalwhinnie	59.6
Drumochter Lodge, Dalwhinnie	62.6
Loch Ericht Hotel, Dalwhinnie	51.8
2, Truim View, Dalwhinnie	47.9
Willet Cottage, Cuaich, Dalwhinnie	57.7
Crubenmore Lodge, Newtonmore	52.4
Invernahavon Caravan Park, Glentruim	46.0
Ptarmigan Lodge, West Ralia	59.4
Upper Nuide, Newtonmore	53.3
Ruthven Farm House, Kingussie	54.3
The Spinney, Spey Street, Kingussie	47.8
Craig-An-Darach, Kingussie	54.6
Three Bridges, Kingussie	56.3
Kerrow Cottage, Kingussie	56.6
Croila Road, Kingussie	41.1
Ard Dalle, Lynchat, Kingussie	54.2
Mains of Balavil, Kingussie	65.8
Balavil House, Kingussie	58.0
Dunachton Lodge, Kingussie	58.4
Silverwood, Dunachton Road, Kincraig	58.9
17 Suidhe Crescent, Kincraig	57.7
The Old Manse, Alvie Estate, Kincraig	57.4

# 1.5 Discussion

- 1.5.1 A detailed baseline noise survey has been carried out along the route of the proposed dualling of the A9 Trunk Road between Glen Garry and Kincraig. This has revealed a relatively stable noise environment in the vicinity of the A9, punctuated by other sources. Examples of this, which are not reflected in the measured results, could be found in Dalwhinnie, adjacent to the Loch Ericht Hotel measurement location.
- 1.5.2 In this vicinity a construction contractor's compound was operational, connected to the upgrade of high tension power lines in the area. Noise levels associated with these activities were apparent, but other activities from this site, which involved the use of a helicopter, did not occur in the vicinity whilst the measurements were being taken, although they were observed as taking place during other survey periods.



- 1.5.3 This is a clear indication that noise levels can be cyclical and can vary from hour to hour or day to day. Another example is the overflight by military aircraft, which is a regular but not necessarily daily occurrence in this vicinity.
- 1.5.4 Nonetheless it is considered that the data presented in this report forms a representation of the typical ambient noise levels in the vicinity of the proposed A9 works, taken at locations which are considered to be representative of a number of areas along the section of the route between Glen Garry and Kincraig.
- 1.5.5 Given the above it is considered that the data contained within this report forms a suitable basis for the consideration of potential construction noise impacts of the proposed dualling operations, and is also suitable to be used for the verification of modelled noise levels for the dual carriageway once it is constructed and operational.
- 1.6 Noise Measurement Record Sheets
- 1.6.1 This section presents the measurement record sheets for each measurement location, including photographs of each location.





aspidal Station Traffic on A9 and						Date	16-Sep-2014
Traffic on A9 and						By	I Stanworth
. wanted to the part of the	d noise from	passage of trains on H	ighland Main I	ine			
e Pro-DX Vocis M	I GA131		Serial No.	0062925		Cal. Date	9-May-2014
e ½"			Serial No.	1026		Cal. Date	9-May-2014
e MKDXP			Serial No.	5035		Cal. Date	9-May-2014
e GA607			Serial No.	035748		Cal. Date	9-May-2014
B @1000Hz	Correction	0.2dB	Date	16-Sep-20	14	Time	10:10
B @1000Hz	Correction	0.2dB	Date	16-Sep-20	14	Time	13:12
9 side of residenti	al location at	former station site			Height ab	ove ground	1.25 m
4450 BNG73353		Bearing to source	North East Distan			to source	50.00 m
e					Distance	to surface	- m
tl tl tl Od	tle ½" tle MKDXP tle GA607 odB @1000Hz dB @1000Hz	tle MKDXP tle GA607 odB @1000Hz Correction odB @1000Hz Correction A9 side of residential location at 164450 BNG73353	tle 1/2"  tle MKDXP  tle GA607  odB @1000Hz Correction 0.2dB  odB @1000Hz Correction 0.2dB  A9 side of residential location at former station site 164450 BNG73353 Bearing to source	tle № Senial No.  tle MKDXP Senial No.  tle GA607 Senial No.  dB @1000Hz Correction 0.2dB Date  dB @1000Hz Correction 0.2dB Date  A9 side of residential location at former station site  (64450 BNG73353 Bearing to source North East	tle № Serial No. 1026  tle MKDXP Serial No. 5035  tle GA607 Serial No. 035748  odB @1000Hz Correction 0.2dB Date 16-Sep-20  odB @1000Hz Correction 0.2dB Date 16-Sep-20  A9 side of residential location at former station site  164450 BNG73353 Bearing to source North East	tle 1/2" Serial No. 1026  tle MKDXP Serial No. 5035  tle GA607 Serial No. 035748  dB @1000Hz Correction 0.2dB Date 16-Sep-2014  dB @1000Hz Correction 0.2dB Date 16-Sep-2014  A9 side of residential location at former station site Height at 16-4450 BNG73353 Bearing to source North East Distance	Serial No.   1026   Cal. Date





Weather		_										
□ Measured	0 - 1 m/s	Equipm	ent	Details:	Silva Windy	ratch						
□ Estimated		Select:		Force	m/s	Description	on	Condition	s			
(Beaufort Se	cale)		[]	0	< 0.3	Calm		Calm. Smoke rises vertically.				
			[X]	1	0.3-1.5	Light air	Light air Wi		Wind motion visible in smoke.			
			[]	2	1.5-3.3	-3.3 Light breeze		Wind felt o	n exposed	skin. Leaves rustle.		
			[]	3	3.3-5.5 Gentle breeze		Leaves and smaller twigs in constant motion.  Dust and loose paper raised. Small branches begin to move.  Branches of a moderate size move. Small trees begin to sway					
			11	4	5.5-8.0 Moderate breeze 8.0-10.8 Fresh breeze							
			H	5								
Wind Direction	on	Westerl	y		Conditions:		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		10-16%					[] Rain /	Snow	[]Sun			
Measured N	oise Levels											
Location	Date	Time	8: 1	Duration	$L_{Aeq}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{\Lambda 90}$	$L_{A10}$	Notes		
Dalnaspidal Station	16/09/2014	10:10 - 3 hours		57.5	78.2	36.6	78.2	61.3	See Below			

Road Traffic Noise on the A9, passage of passenger trains on the Highland Main Line, overflights by aircraft including low flying military aircraft and activities associated with the nearby estate.



Reference: 495298.AA.02.02

Project	A9 Baseli	ne Noise Asse		Date	16-Sep-2014				
Measurement Location	Ballsporra	an Cottage B&	eВ					By	I Stanworth
Source(s) Description	Road Tra	ffic on A9 and	noise from	passage of trains on Hi	ghland Main Li	ine			
Equipment									
Sound Level Meter	01dB Blu	e Solo			Serial No.	61046		Cal. Date	24-Jan-2014
Microphone	01dB MC	E212			Serial No.	142693		Cal. Date	24-Jan-2014
Preamplifier	01dB Pre	21 S			Serial No.	16016 Ca		Cal. Date	24-Jan-2014
Field Calibrator	Castle Ga	1607			Serial No.	035748 Cal		Cal. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	16-Sep-20	14	Time	09:50
Final Calibration Level	94.0dB	@1000H2	Correction	0.2dB	Date	18-Sep-20	14	Time	10:00
Measurement Location(	9)								
Description	B&B/Re	sidential Locat	tion Near Dr	mochter Summit betw	een A9 & Rail	way	Height ab	ove ground	1.25 m
GPS Coordinates	NN62711	BNG79196		Bearing to source	East	Distance		to source	130.00 m
Vertical Refl. Surface(s)	None						Distance	to surface	- m
Sharah / Bharassaha				•		,			,





□ Measured		Equipm	ent I	Details:	Silva Windwatch							
□ Estimated	-	Select:	I	Force	m/s Description		Conditions					
(Beaufort S	icale)		11	0	< 0.3	Calm		Calm. Smo	oke rises vert	ically.		
			[]	1.	0.3-1.5	Light air		Wind mot	ion visible in	smoke.		
	bservation of		[X]	2	1.5-3.3	Light bree	ze	Wind felt on exposed skin. Leaves rustle.				
	er reports and from resident		[]	3	3.3-5.5	Gentle bre	eze	Leaves and	d smaller twi	gs in constant motion.		
			[] 4		5.5-8.0	Moderate	Moderate breeze D		Dust and loose paper raised. Small branches begin to move.			
			[]	5	8.0-10.8	8.0-10.8 Fresh breeze			Branches of a moderate size move. Small trees begin to sway			
Wind Directi	on	Westerly		terly Condi			[]Fog		[] Frost	[X] Other: Cloud		
Temperature		10-16°C					[] Rain /	Snow	[]Sun	Drizzle in last hour of measurement		
Measured N	loise Levels					4			7			
Location	Date	Time	& I	Ouration	$L_{Aeq}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes		
Balsporran	16/09/2014 -	Daytime 0600 - 0000 Night-time 0000 - 0600		00 - 0000	57.4	87.6	27.4	43.1	59.6			
B&B	18/09/2014			51.0	69.0	25.0	30.4	55.5	Sée Below			

Road Traffic Noise on the A9, passage of passenger and freight trains on the Highland Main Line, overflights by aircraft including low flying military aircraft and activities at the property. Last hour of measurements affected by light rain/drizzle which resulted in a damp road surface on the A9.





Reference: 495298.AA.02.02

Project	A9 Baseli	ne Noise Ass	essment - Lot		Da	ate	16-Sep-2014		
Measurement Location	Drumoch	iter Lodge					Ву	7	I Stanworth
Source(s) Description	Road Tra	ffic on A9 an	d noise from	passage of trains on H	ighland Main I	Line	•		
Equipment									
Sound Level Meter	Castle Pro	o-DX Vocis A	I GA131		Serial No.	0062925	Ca	al. Date	9-May-2014
Microphone	Castle 1/2"				Serial No.	1026	Ca	al. Date	9-May-2014
Preamplifier	Castle MI	KDXP			Serial No.	5035		al. Date	9-May-2014
Field Calibrator	Castle GA	A607			Serial No.	035748 C		al. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	16-Sep-20	14 Ti	me	13:20
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	16-Sep-20	14 Ti	me	16:25
Measurenent Location(	5)								1,82
Description	To A9 sid	le of building					Height above	ground	1.25 m
GPS Coordinates	NN63065	BNG79591		Bearing to source	West	West		Distance to source	
Vertical Refl. Surface(s)	None						Distance to surface		- m
Sketch/ Photographs									e





Weather											
□ Measured	0 - 1 m/s	Equipme	nt Details	s: Silva Windy	vatch						
□ Estimated		Select:	Force	m/s	Description	on	Conditions				
(Beaufort S	cale)	1 3	[] 0	< 0.3	Calm		Calm. Smo	ke rises ver	tically.		
		[	[X] 1	0.3-1.5	Light air		Wind moti	on visible in	n smoke.		
		[] 2 [] 3		1.5-3.3	Light breez	ze	Wind felt o	on exposed	skin. Leaves rustle.		
				3.3-5.5	Gentle bre	eze	Leaves and	smaller tw	igs in constant motion.		
			[] 4	5.5-8.0	Moderate l	breeze	Dust and le	oose paper	raised. Small branches begin to move.		
			[] 5	8.0-10.8	8.0-10.8 Fresh breeze		Branches o	f a modera	te size move. Small trees begin to sway.		
Wind Direction	on	Westerly		Conditions		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		13.5-169	С			[ ] Rain /	Snow	[ ] Sun			
Measured N	oise Levels										
Location	Date	Time	& Durati	on L <sub>Aeq</sub>	$L_{AMax}$	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes		
Drumochter Lodge	16/09/2014	13:20	0 - 3 hour	s 58.8	81.4	37.8	44.8	63.6	See Below		
General Obs	ervations						1	•			

Road Traffic Noise on the A9, passage of passenger and freight trains on the Highland Main Line, overflights by aircraft and activities associated with the measurement location, including the barking of dogs and the movement of vehicles within the car parking area.





Reference: 495298.AA.03.02

Project	A9 Baseline Noise	Assessment - Lo	1			Date	18-Sep-2014
Measurement Location	Car Park of Forme	Loch Ericht Ho	otel			Ву	I Stanworth
Source(s) Description	Road Traffic on A	and local road a	s well as noise from pa	sage of trains	on Highland	Main Line	
Equipment							
Sound Level Meter	Castle Pro-DX Vo	is M GA131		Serial No.	0062925	Cal. Date	9-May-2014
Microphone	Castle ½"			Serial No.	1026	Cal. Date	9-May-2014
Preamplifier	Castle MKDXP			Serial No.	5035	Cal. Date	9-May-2014
Field Calibrator	Castle GA607			Serial No.	035748	Cal. Date	9-May-2014
Initial Calibration Level	94.0dB @1000	Hz Correction	0.2dB	Date	18-Sep-201	14 Time	09:55
Final Calibration Level	94.0dB @1000	Hz Correction	0.2dB	Date	18-Sep-201	14 Time	16:20
Measurenent Location(s	)						
Description	To A9 side of build	ing on southern	side of Dalwhinnie			Height above ground	1.25 m
GPS Coordinates	NN63693 BNG84	35	Bearing to source	East		Distance to source	380,00 m
Vertical Refl. Surface(s)	None					Distance to surface	- m
Sketch/ Photographs	/						





Weather											
□ Measured	0 - 2.5 m/s	Equipme	nt Details:	Silva Windw	ratch						
□ Estimated	7	Select:	Force	m/s	Description	n	Condition	ıs			
(Beaufort Se	cale)		[] 0	<0.3 Calm			Calm. Smo	oke rises vert	ically.		
			[] 1	0.3-1.5	Light air		Wind motion visible in smoke.				
			[X] 2		Light breez	e	Wind felt on exposed skin. Leaves rustle.				
			[] 3	3.3-5.5	Gentle bree	Gentle breeze		l smaller twi	ant motion.		
			[] 4	5.5-8.0	Moderate b	oreeze	Dust and I	oose paper i	aised. Smal	l branches begin to move.	
			[] 5	8.0-10.8 Fresh breeze		ze	Branches of	of a moderat	e size move	e. Small trees begin to sway.	
Wind Direction	on	Southerly	7	Conditions:		[]Fog		[] Frost		[X] Other: Cloud	
Temperature		13.5-16%	Ĉ.			[ ] Rain /	Snow	[ ] Sun		Occasional Light Drizzle	
Measured N	oise Levels										
Location	Date	Time	& Duration	$L_{Aeq}$	$L_{AMax}$	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes		
Loch Ericht Hotel Car Park	Hotel Car 18/09/2014 10:00 - 3 hours		50,6	73.3	43.4	45.0	52.8		See Below		
General Obs	ervations	•		-	1	•	*	*			

Road Traffic Noise on the A9 and on the A889 running through Dalwhinnie, including traffic to and from the cafe that is operating in the former hotel. In addition sources include the passage of passenger trains on the Highland Main Line, overflights by aircraft and activities associated with the construction compound associated with the Beauly-Denny power line works which has been in place for several years.



Reference: 495298.AA.03.02

Project	A9 Baseli	ne Noise Asse	ssment - Lot	1				Date	18-Sep-2014
Measurement Location	2, Truim	View, Dalwhii	nnie					Ву	I Stanworth
Source(s) Description	Road Tra	ffic on A9 and	l local road th	rough Dalwhinnie tog	ether with nois	e from passa	age of trains or	n Highland	Main Line
Equipment									
Sound Level Meter	01dB Blu	e Solo			Serial No.	61046		Cal. Date	24-Jan-2014
Microphone	01dB MC	E212			Serial No.	142693		Cal. Date	24-Jan-2014
Preamplifier	01dB Pre	21 S			Serial No.	16016		Cal. Date	24-Jan-2014
Field Calibrator	Castle GA607			Serial No.	035748		Cal. Date	9-May-2014	
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	18-Sep-20	14	Time	10:10
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	19-Sep-20	14	Time	10:15
Measurement Location(s	5)		*						
Description	Front gar	den of unoccu	ippied holiday	home with clear dista	nt view of A9		Height abov	re ground	1.25 m
GPS Coordinates	NN63812	2 BNG84953		Bearing to source	East		Distance to	source	420.00 m
Vertical Refl. Surface(s)	None				72.72		Distance to	Distance to surface	





Weather													
□ Measured	1	Equipm	ient l	Details:	Silva Windw	atch							
□ Estimated		Select:		Force	m/s	Descripti	on	Condition	15				
(Beaufort S	cale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	tically.			
			[]	1	0.3-1.5	Light air		Wind motion visible in smoke.					
Based on of	bservation of		[X]	X] 2 1.5-3.3 Light breeze Wind felt on exposed skin. Leaves rustle.		skin. Leaves rustle.							
local weather reports			[]	3	3.3-5.5	Gentle bro	Gentle breeze		Leaves and smaller twigs in constant motion.				
			[]	4	5.5-8.0 Moderate breeze			Dust and	loose paper 1	raised. Small branches begin to move.			
			[]	5	8.0-10.8	Fresh bree	ze	Branches	of a moderat	e size move. Small trees begin to sway.			
Wind Direction	on	Westerly			Conditions:		[]Fog		[] Frost	[X] Other: Cloud			
Temperature		10-16℃					[ ] Rain /	Snow	[ ] Sun				
Measured N	loise Levels									14			
Location	Date	Time	e & 1	Duration	$\mathbf{L}_{ ext{Aeq}}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes			
No 2, Truim	118/09/2014 -		Daytime 0600 - 0000		46.0	72.3	23.1	35.0	47.9	See Below			
View, Dalwhinnie	19/09/2014	Night-t	ime (	0000 - 0600	38.6	59.0	23.4	27.1	42.3	See Delow			

Conditions damp at the time of meter set-up through low cloud base, but road surfaces day. Noise environment affected by road traffic noise from the A9 in the distance, the local road through Dalwhinnie (A889), together with noise from trains on the Highland Main Line and birdsong.



Reference: 495298.AA.03.02

Project	A9 Baseline Noise	Assessment - Lot	1			Date	19-Sep-2014
Measurement Location	Willet Cottage, Cu	aich, Dalwhinnie				Ву	I Stanworth
Source(s) Description	Road Traffic on A	9 and local activity	y together with noise fr	om passage of	trains on Hig	ghland Main Line	
Equipment							
Sound Level Meter	01dB Blue Solo			Serial No.	61046	Cal. Date	24-Jan-2014
Microphone	01dB MCE212			Serial No.	142693 Cal. Date		24-Jan-2014
Preamplifier	01dB Pre 21 S			Serial No.	16016	Cal. Date	24-Jan-2014
Field Calibrator	Castle GA607			Serial No.	035748 Cal. D		9-May-2014
Initial Calibration Level	94.0dB @100	0Hz Correction	0.2dB	Date	19-Sep-201	14 Time	10:20
Final Calibration Level	94.0dB @100	0Hz Correction	0.2dB	Date	20-Sep-2014 Time		10:25
Measurenent Location(s	)						
Description	Front fenceline of	estate workers co	ttage with clear view of	elevated A9		Height above ground	1.25 m
GPS Coordinates	NN65573, BNG8	NN65573, BNG87071 Bearing to source		East		Distance to source	98.00 m
Vertical Refl. Surface(s)	None					Distance to surface	- m
Sheetala / Dheeta awaralaa							





□ Measured	0 - 1 m/s	Equipm	ent !	Details:	Silva Windw	ratch					
□ Estimated		Select:		Force	m/s	Descripti	on	Condition	ns		
(Beaufort S	cale)		[]	0	< 0.3	Calm		Calm. Sme	oke rises vert	rically.	
			[X]	1	0.3-1.5	Light air		Wind motion visible in smoke.			
Based on o	bservation of		[]	2	1.5-3.3	.5-3.3 Light breeze		Wind felt on exposed skin. Leaves rustle.			
local weather reports			[]	3	3.3-5.5	Gentle bro	Gentle breeze		d smaller twi	gs in constant motion.	
			[]	4	5.5-8.0 Moderate breeze			Dust and loose paper raised. Small branches begin to move.			
		[]	5	8.0-10.8	Fresh bree	ze	Branches	of a moderat	e size move. Small trees begin to sway		
Wind Directi	on	Westerly		Conditions:		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		10-16℃					[ ] Rain /	Snow	[ ] Sun		
Measured N	oise Levels									A	
Location	Date	Time	&	Duration	${ m L_{Aeq}}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes	
Willet Cottage,	19/09/2014 -	Daytin	ne 0	500 - 0000	55.5	97.0	22.0	40.1	57.7	See Below	
Cuaich, Dalwhinnie	20/09/2014	Night-time 0000 - 0600		49.2	68.8	20.0	25.8	53.3	See Delow		

Location affected by activities around residential location which are all tied to the local estate, including the keeping of working dogs and the dealing with game shot on estate, but A9 remains the dominant noise source at this location.



Reference: 495298.AA.03.02

Project	A9 Baselin	ne Noise Asse	ssment - Lot	1			Date	18-Sep-2014
Measurement Location	Crubenmo	ore Lodge					Ву	I Stanworth
Source(s) Description	Road Traf	fic on A9 and	l General Wa	de's Military Road as w	ell as noise fro	m passage of	trains on Highland M	in Line
Equipment								
Sound Level Meter	Castle Pro	-DX Vocis M	I GA131		Serial No.	0062925	Cal. Dat	9-May-2014
Microphone	Castle 1/2"				Serial No.	1026 Cal. I		9-May-2014
Preamplifier	Castle MK	XDXP			Serial No.	5035	Cal. Dat	9-May-2014
Field Calibrator	Castle GA607				Serial No.	035748	Cal. Dat	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	18-Sep-201	14 Time	09:55
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	18-Sep-201	14 Time	16:20
Measurenent Location(s	)			*		1		
Description	To A9 side	e of building	on opposite s	ide of Truim Valley			Height above ground	1.25 m
GPS Coordinates	NN67513 BNG91014 Bearing to sour		Bearing to source	East		Distance to source	245.00 m	
Vertical Refl. Surface(s)	None						Distance to surface	- m
Sketch/ Photographs					•			





		-	
I XX	lea	1	10

□ Measured	0 - 1.8 m/s	Equipn	nent l	Details:	Silva Windwatch								
□ Estimated		Select:		Force	m/s	Description	on	Condition	ns				
(Beaufort Sc	cale)	700	[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	rically.			
			[]	1	0.3-1.5	Light air		Wind motion visible in smoke.					
		[X] 2		2	1.5-3.3	Light bree:	Light breeze		Wind felt on exposed skin. Leaves rustle.				
		-	[]	3	3.3-5.5	Gentle bre	eze	Leaves and	d smaller twi	gs in constant motion.			
		[]		4	5.5-8.0	Moderate l	breeze	Dust and loose paper raised. Small branches begin to m					
				5	8.0-10.8	Fresh bree	ze	Branches	of a moderat	te size move. Small trees begin to sway.			
Wind Directio	n	Westerl	y		Conditions:		[]Fog		[] Frost	[X] Other: Cloud			
Temperature		13.5-16	°C				[ ] Rain /	n / Snow [ ] Sun					
Measured No	oise Levels									1			
Location	Date	Time	e & 1	Duration	$L_{Aeq}$	$L_{AMax}$	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes			
Crubenmore	18/09/2014	13.	15 -	3 hours	50.3	68.7	37.0	43.7	53.4	See Below			

# General Observations

Lodge

18/09/2014

13:15 - 3 hours

50.3

Road Traffic Noise on the A9 and on General Wade's Military Road which runs past the measurement location. In addition sources include the passage of passenger and freight trains on the Highland Main Line, overflights by helicopters and activities associated occasional traffic movements to and from the measurement location.



See Below



Reference: 495298.AA.04.02

Project	A9 Baseline	Noise Asse	ssment - Lot	1			Date	19-Sep-2014
Measurement Location	Invernahavo	on Caravan	Park				Ву	I Stanworth
Source(s) Description	Local Road	traffic and a	activities on s	ite - very little noise fro	om A9 audible			·
Equipment								
Sound Level Meter	Castle Pro-I	OX Vocis M	I GA131		Serial No.	0062925	Cal. Date	9-May-2014
Microphone	Castle ½"				Serial No.	1026	Cal. Date	9-May-2014
Preamplifier	Castle MKD	OXP			Serial No.	5035	Cal. Date	9-May-2014
Field Calibrator	Castle GA607				Serial No.	035748	Cal. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	19-Sep-201	4 Time	10:00
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	19-Sep-201	4 Time	16:20
Measurenent Location(s	s) ·					*		
Description	Adjacent to	Caravan Pa	rk Site Office				Height above ground	1.25 m
GPS Coordinates	NN68851 BNG94972 B		Bearing to source	East		Distance to source	310.00 m	
Vertical Refl. Surface(s)	None						Distance to surface	- m
Sketch/ Photographs								





- M	0 1 /	T	. D '1	Silva Windw	1.						
□ Measured	0 - 1 m/s	Equipmer					100.000.00				
□ Estimated		Select:	Force	m/s	Descriptio	n	Conditions				
(Beaufort Se	cale)	[	] 0	< 0.3	Calm		Calm. Smo	ke rises vert	ically.		
			[ 1	0.3-1.5	Light air		Wind moti	on visible in	smoke.		
		[] 2		1.5-3.3	Light breeze		Wind felt on exposed skin. Leaves rustle.				
			] 3	3.3-5.5	Gentle bree	ze	Leaves and	l smaller twi	gs in constant m	otion.	
		Ī	] 4	5.5-8.0	Moderate b	reeze	Dust and I	oose paper 1	aised. Small bran	iches begin to move.	
		Ī	] 5	8.0-10.8	Fresh breez	Fresh breeze		of a moderat	e size move. Sm	all trees begin to sway	
Wind Direction	n	Westerly		Conditions:		[]Fog		[] Frost	[2	Other: Cloud	
Temperature		14-16℃		1	Rain /			/ Snow [X] Sun			
Measured N	oise Levels										
Location	Date	Time &	& Duration	$L_{Aeq}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes		
Invernahavo n Caravan Park	n Caravan 19/09/2014 10:00 - 3 hours		44.7	78.5	39.3	40.5	47.0		See Below		

Very Little noise from the A9 as the site is somewhat distant, and most of the major sources noted during the survey emanated from site activity such as the movement of cars and caravans on and off site, waste collection and grounds maintenance contractors. Other sources include the passage of trains on the Highland Main Line and overflying aircraft.





Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	ssment - Lot	1			Date	23-Sep-2014
Measurement Location	Griogcha	n /Ptarmigan	Lodge, Ralia				Ву	I Stanworth
Source(s) Description	Road traf	fic on A9 and	local road, m	ovements on the High	land Main Line	and overflig	ht of military aircraft	
Equipment								
Sound Level Meter	Castle Pro	o-DX Vocis M	I GA131		Serial No.	0062925	Cal. Dat	9-May-2014
Microphone	Castle 1/2		2 1 1		Serial No.	1026	Cal. Dat	9-May-2014
Preamplifier	Castle MI	KDXP			Serial No.	5035	Cal. Dat	9-May-2014
Field Calibrator	Castle Ga	A607	47		Serial No.	035748	Cal. Dat	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-201	14 Time	09:55
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-201	14 Time	16:25
Measurenent Location(	5)							
Description	In parkin	g area of resid	ential lodge at	t Ralia/ Newtonmore	unction		Height above ground	1.25 m
GPS Coordinates	NN70467	BNG97075		Bearing to source	South		Distance to source	20.00 m
Vertical Refl. Surface(s)	None				T. William		Distance to surface	- m
	-1							





□ Measured	0 - 2 m/s	Equipn	nent l	Details:	Silva Windw	atch							
□ Estimated		Select:		Force	m/s	Description	n	Condition	5				
(Beaufort S	cale)		[]	0	< 0.3	Calm		Calm. Smo	ke rises vert	ically.			
			[]	1	0.3-1.5	Light air		Wind moti	on visible in	smoke.			
		91	[X]	2	1.5-3.3	Light breez	e	Wind felt o	n exposed s	kin. Leaves rustle.			
			[]	3	3.3-5.5	Gentle bree	ze	Leaves and smaller twigs in constant motion.					
			[]	4	5.5-8.0	Moderate b	reeze	Dust and lo	oose paper r	aised. Small branches begin to move.			
		[]	5	8.0-10.8	Fresh breez	e	Branches o	f a moderate	e size move. Small trees begin to sway				
Wind Directi	on	Westerl	ly		Conditions:		[]Fog		[] Frost	[X] Other: Cloud			
Temperature		9-12℃					[ ] Rain /	Snow	[ ] Sun				
Measured N	oise Levels												
Location	Date	Tim	e & 1	Duration	$L_{ m Aeq}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes			
Ptarmigan Lodge	23/09/2014	10:	00 - 3	3 hours	61.3	99.3	32.4	39.8	60.4	See Below			

Noise from the A9 and the Newtonmore Road (B9150) junction predominates at this location, together with the passage of trains on the Highland Main Line, the overflight of aircraft at the location, collection of waste from the measurement location and some limited residential activity.



Reference: 495298.AA.04.02

Project	A9 Baselin	ne Noise Asse	ssment - Lot	1			Date	19-Sep-2014
Measurement Location	Upper Nu	uide					Ву	I Stanworth
Source(s) Description	Road traf	fic on A9 and	local road, do	omestic activity includi	ng grounds ma	intenance, sh	nooting activities on near	oy estate
Equipment								
Sound Level Meter	Castle Pro	o-DX Vocis \	I GA131		Serial No.	0062925	Cal. Date	9-May-2014
Microphone	Castle 1/2"				Serial No.	1026	Cal. Date	9-May-2014
Preamplifier	Castle MI	KDXP			Serial No.	5035	Cal. Date	9-May-2014
Field Calibrator	Castle GA	A607		V	Serial No.	035748	Cal. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	19-Sep-201	14 Time	10:00
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	19-Sep-201	14 Time	16:20
Measurenent Location(s	s)							
Description	In garden	of remote res	idential prope	erty			Height above ground	1.25 m
GPS Coordinates	NN72837	BNG98471		Bearing to source	South		Distance to source	200.00 m
Vertical Refl. Surface(s)	None					Distance to surface	- m	
Sketch / Photographs								





□ Measured	0 - 1 m/s	Fauinme	nt Details:	Silva Windw	atch				
□ Estimated	0 - 1 111/ 3	Select:	Force	m/s	Descriptio	n	Condition	ıs	
(Beaufort Se	cale)		[] 0	<0.3	Calm		Calm. Smc	ke rises vert	ically.
		[	X] 1	0.3-1.5	Light air		Wind moti	on visible in	smoke.
		[] 2		1.5-3.3	Light breez	e	Wind felt o	on exposed s	kin. Leaves rustle.
			[] 3	3.3-5.5	Gentle bree	eze	Leaves and	smaller twi	gs in constant motion.
		1	[] 4	5.5-8.0	Moderate b	oreeze	Dust and I	oose paper r	aised. Small branches begin to move.
			[] 5	8.0-10.8	Fresh breeze		Branches o	e size move. Small trees begin to sway	
Wind Direction	on	Westerly		Conditions:		[]Fog		[] Frost	[X] Other: Cloud
Temperature		16-20℃				[ ] Rain /	Snow	[X] Sun	
Measured N	oise Levels			2.					<u> </u>
Location	Date	Time	& Duration	$L_{Aeq}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes
Upper Nuide	19/09/2014	13:20	0 - 3 hours	49.4	64.3	33.5	35.5	54.3	See Below

Noise from the A9 which is elevated at this location together with occasional traffic on the local road (unclassified with no name) and some domestic activity including gardening works. Large peak emanated part way through measurement for about 20 minutes from shooting activity from game estate on opposite site of





Reference: 495298.AA.04.02

Project	A9 Baseline Noise Asse	essment - Lot	1			Date	22-Sep-2014
Measurement Location	The Spinney, Spey Stre	et, Kingussie				Ву	I Stanworth
Source(s) Description	Road Traffic on A9 and	l local activity	and noise from passag	e of trains on l	Highland Ma	in Line at the end of the	garden
Equipment							
Sound Level Meter	01dB Blue Solo			Serial No.	61046	Cal. Date	24-Jan-2014
Microphone	01dB MCE212			Serial No.	142693	Cal. Date	24-Jan-2014
Preamplifier	01dB Pre 21 S			Serial No.	16016	Cal. Date	24-Jan-2014
Field Calibrator	Castle GA607	,		Serial No.	035748	Cal. Date	9-May-2014
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	22-Sep-201	4 Time	09:50
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	23-Sep-201	4 Time	09:25
Measurenent Location(s	s)		7		7		
Description	Residential garden facia	ng A9 with Hi	ghland Main Line at ei	d of garden		Height above ground	1.25 m
GPS Coordinates	NH75948, BNG00558		Bearing to source	South		Distance to source	500.00 m
Vertical Refl. Surface(s)	None					Distance to surface	- m
Sketch / Photographs							- 12





Weather												
□ Measured		Equipm	ent .	Details:	Silva Windw	atch						
□ Estimated		Select:		Force	m/s	Descripti	on	Condition	ns			
(Beaufort Se	cale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	tically.		
			[]	1	0.3-1.5	Light air		Wind mot	ion visible in	smoke.		
Based on ol	oservation of		[X]	2	1.5-3.3	Light bree	ze	Wind felt	on exposed :	skin. Leaves rustle.		
local weat	her reports		[]	3	3.3-5.5	Gentle bro	eeze	Leaves and	d smaller twi	gs in constant motion.		
			[]	4	5.5-8.0	Moderate	breeze	Dust and	Dust and loose paper raised. Small branches begin t			
			[]	5	8.0-10.8	Fresh bree	eze	Branches	of a moderat	e size move. Small trees begin to sway.		
Wind Direction	on	Westerl	у		Conditions:		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		10-16°C					[ ] Rain /	Snow	[ ] Sun	Some light drizzle overnigh		
Measured N	oise Levels					-						
Location	Date	Time	e & 1	Duration	${ m L}_{ m Aeq}$	$L_{AMax}$	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes		
The Spinney,	22/09/2014 -	/2014 - Daytime 0600 - 0000		500 - 0000	50.3	82.0	24.9	36.8	47.8	See Below		
Spey Street, Kingussie 23/09/2014		Night-time 0000 - 0600		39.2	61.4	23.3	28.1	42.7	See Below			

Misty/hazy at the start of the measurement and light overnight rain - main sources appear to be from local traffic in Kingussie together with railwa traffic on the Highland Main Line, which adjoins the garden to the South. Some noise from the A9 was however apparent.





Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	essment - Lot	1			Date	22-Sep-2014
Measurement Location	Ruthven	Farmhouse					Ву	I Stanworth
Source(s) Description	Road traf	fic on A9 and	local road, ag	ricultural activity and o	verflight of mi	ilitary aircraft		
Equipment								
Sound Level Meter	Castle Pro	o-DX Vocis M	I GA131		Serial No.	0062925	Cal. D	ate 9-May-2014
Microphone	Castle 1/2	,			Serial No.	1026	Cal. D	ate 9-May-2014
Preamplifier	Castle MI	KDXP			Serial No.	. 5035 Cal. Da		ate 9-May-2014
Field Calibrator	Castle Ga	A607			Serial No.	035748	Cal. D	ate 9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	22-Sep-201	14 Time	09:55
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	22-Sep-201	14 Time	13:05
Measurenent Location(	s)							
Description	In garden	of residential	property repr	resentative of group to	South of A9		Height above grou	nd 1.25 m
GPS Coordinates	NH75924	4 BNG00628		Bearing to source	North		Distance to source	240.00 m
Vertical Refl. Surface(s)	None						Distance to surface	- m
Stratch / Photographs								





Weather													
□ Measured	0 - 1.9 m/s	Equipm	ent I	Details:	Silva Windw	atch							
□ Estimated		Select:	- 1	Force	m/s	Description	n	Condition	ns				
(Beaufort S	cale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	rically.			
			[]	1	0.3-1.5	Light air		Wind mot	ion visible in	smoke.			
		[X] 2		1.5-3.3	Light breez	e	Wind felt	istle.					
			[]	3	3.3-5.5	Gentle bre	eze	Leaves and	l smaller twi	gs in constant	motion.		
			[]	4	5.5-8.0	Moderate l	Ioderate breeze		oose paper 1	raised. Small b	ranches begin to move.		
			[]	5	8.0-10.8 Fresh breeze			Branches of a moderate size move. Small trees begin to sway.					
Wind Direction	on	Westerl	у		Conditions:		[]Fog		[] Frost		[X] Other: Cloud		
Temperature		7-15℃					[ ] Rain /	Snow	[ ] Sun		Clearing to Sunshine		
Measured N	oise Levels												
Location	Date	Time	e & I	Duration	$\mathbf{L}_{ ext{Aeq}}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes			
Ruthven Farmhouse	22/09/2014 10:00 - 3 hours		50.9	75.1	36.1	41.8	55.3		See Below				

General Observations

Noise from the A9 which is at grade or in a slight cutting at this location together with occasional traffic on the local roads (B970 and an unclassified road with no name) and some agricultural activity including the use of bird-scarers or shotguns. Measurement also affected by overflight of military aircraft, which is a common occurrence.



Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	essment - Lot	1			Date	23-Sep-2014
Measurement Location	Craig-An	-Darach, King	ussie				By	I Stanworth
Source(s) Description	Road Tra	ffic on A9 and	l local traffic	on A86 Kingussie to S	pean Bridge ro	ad, together	with noise from domesti	c activity
Equipment								
Sound Level Meter	01dB Blu	e Solo			Serial No.	61046	Cal. Date	24-Jan-2014
Microphone	01dB MC	E212			Serial No.	142693	Cal. Date	24-Jan-2014
Preamplifier	01dB Pre	21 S			Serial No.	16016	Cal. Date	24-Jan-2014
Field Calibrator	Castle G	A607			Serial No.	035748	Cal. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-20	14 Time	09:45
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	24-Sep-20	14 Time	09:45
Measurenent Location(	s)							- i
Description	Residenti	al garden over	looking A9/A	A86 junction			Height above ground	1.25 m
GPS Coordinates	NH76415	5, BNG00997	7 72 77	Bearing to source	South East		Distance to source	180.00 m
Vertical Refl. Surface(s)	None					Distance to surface		- m
Stretch / Photographs								



Weather													
□ Measured		Equipm	ent I	Details:	Silva Windw	atch							
□ Estimated		Select:	]	Force	m/s	Descripti	on	Condition	ıs				
(Beaufort S	cale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	tically.			
			[]	1	0.3-1.5	Light air		Wind motion visible in smoke.					
Based on o	bservation of		[X]	2	1.5-3.3	Light bree	ze	Wind felt	on exposed	skin. Leaves	rustle.		
local wear	ther reports		[]	3	3.3-5.5	Gentle bro	eeze	Leaves and	d smaller twi	gs in constan	it motion.		
			[]	4	5.5-8.0	Moderate	breeze	Dust and	loose paper 1	aised. Small	branches begin to move.		
			[]	5	8.0-10.8	Fresh bree	eze	Branches	of a moderat	e size move.	Small trees begin to sway.		
Wind Directi	on	Westerly			Conditions:		[]Fog		[] Frost		[X] Other: Cloud		
Temperature		10-16℃					[ ] Rain /	Snow	[ ] Sun		Some light drizzle overnigh		
Measured N	loise Levels									La Company			
Location	Date	Time	& I	Ouration	$L_{ m Aeq}$	L <sub>AMax</sub>	$\mathcal{L}_{\mathrm{AMin}}$	$L_{A90}$	$L_{A10}$	Notes			
Craig-An- Darach, 23/09/2014 -		Daytin	ne 06	00 - 0000	52.0	79.3	18.7	40.4	54.6		See Below		
Kingussie	24/09/2014	Night-t	ime 0	000 - 0600	45.9	64.4	18.7	25.9	50.2		See Delow		

Location close to junction of A86 and A9 and road traffic dominates at this location, together with residential activity including chickens within smallholding and some DIY activity in shed building to rear of house and movements of residents car in and out of location. Some overnight rain but location largely dry throughout measurements.





Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	essment - Lot	1			Date		30-Sep-2014
Measurement Location	Three Bri	dges, Lynchat	, Kingussie				Ву		I Stanworth
Source(s) Description	Road traf	fic on A9, mo	vements on t	he Highland Main Line	and activity ar	ound estate			
Equipment									
Sound Level Meter	Castle Pro	o-DX Vocis M	I GA131		Serial No.	0062925	Cal.	Date	9-May-2014
Microphone	Castle 1/2				Serial No.	1026	Cal.	Date	9-May-2014
Preamplifier	Castle MI	KDXP			Serial No.	5035	Cal.	Date	9-May-2014
Field Calibrator	Castle Ga	A607		- 	Serial No.	035748	Cal.	Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	30-Sep-20	14 Time		09:55
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	30-Sep-20	14 Time	2	16:25
Measurenent Location(s	s)								
Description	In garden	between resid	dential proper	ty and A9			Height above gro	ound	1.25 m
GPS Coordinates	NH77045	BNG01207		Bearing to source	North West I		Distance to source		320.00 m
Vertical Refl. Surface(s)	None						Distance to surface		- m
o									





Weather		_	_										
□ Measured	0 - 3 m/s	Equipm	ent D	etails:	Silva Windw								
□ Estimated		Select:	F	orce	m/s	Description	n	Condition	ns				
(Beaufort S	cale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	ically.			
			[]	1	0.3-1.5	Light air		Wind mot	ion visible in	smoke.			
			[X]	2	1.5-3.3	Light breez	ė	Wind felt	on exposed s	kin. Leave	s rustle.		
			[]	3	3.3-5.5 Gentle breeze I			Leaves and smaller twigs in constant motion.					
			[]	4	5.5-8.0	Moderate b	reeze	Dust and loose paper raised. Small branches begin to move.					
				5	8.0-10.8	Fresh breez	ė	Branches of	of a moderat	e size mov	e. Small trees begin to sway		
Wind Directi	on	Westerly	7		Conditions:	T	[]Fog		[] Frost		[X] Other: Cloud		
Temperature		12-14℃					[ ] Rain /	Snow	[X] Sun				
Measured N	oise Levels									2			
Location	Date	Time	& D	uration	$L_{ m Aeq}$	L <sub>AMax</sub>	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes			
Three Bridges	30/09/2014	10:0	00 - 3	hours	53.2	76.3	41.7	47.5	57.3		See Below		

Location elevated close to A9 junction at east end of Kingussie and affected by noise from elevated section that road together with local traffic on the B9152 Kingussie to Kincraig road. Also affected by passage of trains on Highland Main Line and overflight of aircraft in the area, together with residential activity at the beginning and end of the measurement period.



Reference: 495298.AA.04.02

Project	A9 Baseline Noise Ass	essment - Lot	1			Date	30-Sep-2014
Measurement Location	Kerrow Cottage, King	ussie				Ву	I Stanworth
Source(s) Description	Road traffic on A9					* -	
Equipment							
Sound Level Meter	Castle Pro-DX Vocis	M GA131		Serial No.	0062925	Cal. Date	9-May-2014
Microphone	Castle 1/2"			Serial No.	1026	Cal. Date	9-May-2014
Preamplifier	Castle MKDXP			Serial No.	5035	Cal. Date	9-May-2014
Field Calibrator	Castle GA607	Castle GA607				Cal. Date	9-May-2014
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	30-Sep-201	4 Time	09:55
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	30-Sep-201	4 Time	16:25
Measurenent Location(	s)						
Description	In open area between	residential proj	perty and A9			Height above ground	1.25 m
GPS Coordinates	NH76635 BNG01227 Bearing to source Ea				East Dist		55.00 m
Vertical Refl. Surface(s)	None					Distance to surface	- m
Sketch / Photographs	-19						





□ Measured	0 - 3 m/s	Equipmen	t Details:	Silva Windw	atch						
□ Estimated		Select:	Force	m/s	Descriptio	n	Conditions				
(Beaufort S	Scale)	1	] 0	< 0.3	Calm		Calm. Smo	oke rises vert	ically.		
		]	] 1	0.3-1.5	Light air		Wind mot	ion visible in	smoke.		
		[2	2	1.5-3,3	Light breez	e	Wind felt	on exposed s	kin. Leaves rustle.		
	[]			3.3-5.5	Gentle bree	eze	Leaves and smaller twigs in constant motion.				
			] 4	5.5-8.0	Moderate b	reeze	Dust and I	oose paper r	aised. Small branches begin to move.		
			] 5	8.0-10.8	Fresh breez	ze.	Branches of	of a moderat	e size move. Small trees begin to sway		
Wind Direct	on	Westerly		Conditions:		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		12-14℃		[] Rain /			/ Snow [X] Sun				
Measured N	Noise Levels										
Location	Date	Time 8	& Duration	$\mathbf{L}_{Aeq}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes		
Kerrow Cottage	30/09/2014	13:15	- 3 hours	52.8	69.7	40.1	44.5	57.6	See Below		

Isolated location on the eastern side of Kingussie. The main source was the A9, with occasional vehicle movements on the access road and in the immediate area, together with barking of working dogs in nearby pen.



Reference: 495298.AA.04.02

Project	A9 Baselin	e Noise Asse	ssment - Lot		Date	23-Sep-201-		
Measurement Location	End of Cr	oila Road Kir	igussie		By	I Stanworth		
Source(s) Description	Road traff	ic on local ro	ad and A9 in	distance, movements o	on the Highland	Main Line	and overflight of mil	itary aircraft
Equipment								
Sound Level Meter	Castle Pro	-DX Vocis M	GA131	0062925	Cal. D	9-May-2014		
Microphone	Castle 1/2"				Serial No.	1026	Cal. D	ate 9-May-2014
Preamplifier	Castle MK	DXP			Serial No.	5035	Cal. D	ate 9-May-2014
Field Calibrator	Castle GA	Castle GA607				035748	Cal. D	ate 9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-20	14 Time	09:55
Final Calibration Level	94.0dB	94.0dB @1000Hz Correction 0.2dB Date 23-Sep-2014			14 Time	16:25		
Measurement Location(s	5)							
Description	In parklan	d area at the	end of Croila	Road overlooking A9			Height above grou	nd 1.25 r
GPS Coordinates	NH76321 BNG01156 Bearing to source East Distance to sour				Distance to source	330.00 r		
Vertical Refl. Surface(s)	None					Distance to surface		e i
Sketch/ Photographs			_					





_		_		_	_	_
W	e	a	r1	١	ė	r

□ Measured	0 - 2 m/s	Equipm	ent i	Details:	Silva Windw	atch						
□ Estimated		Select:		Force	m/s Description			Conditions				
(Beaufort Se	cale)		[]	0	< 0.3	Calm		Calm. Smoke rises vertically.				
			[]	1	0.3-1.5	Light air		Wind moti	ion visible in	smoke.		
			[X]	2	1.5-3.3	Light breeze		Wind felt o	on exposed s	skin. Leaves rustle.		
			[]	3	3.3-5.5	Gentle bree	ze	Leaves and smaller twigs in constant motion.				
	[] 4				5.5-8.0	Moderate b	reeze	Dust and loose paper raised. Small branches begin to mov				
	[] 5				8.0-10.8	Fresh breez	ė	Branches o	of a moderat	e size move. Small trees begin to sway.		
Wind Direction	011	Westerly			Conditions:	Conditions: [ ] Fog			[] Frost	[X] Other: Cloud		
Temperature		12-13%					[] Rain /	Snow	[ ] Sun	Occasional light drizzle		
Measured N	oise Levels											
Location	Date	Time	e & 1	Duration	$\mathbf{L}_{Aeq}$	$L_{AMax}$	$L_{AMin}$	L <sub>A90</sub>	$L_{A10}$	Notes		
Croila Road	23/09/2014	13:	20	3 hours	45.9	80.9	33.6	35.7	42.1	See Below		

Location representative of a large number of properties on the Eastern side of Kingussie, elevated from the A9. Sources noted included local road traffic in the vicinity and distance traffic on the A9, together with the overflight of aircraft together with local residents using the open area used for the measurement to exercise their dogs.





Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	ssment - Lot	1			Date	30-Sep-2014
Measurement Location	Ard Dalle	, Lynchat, Kir	igussie		By	I Stanworth		
Source(s) Description	Road Tra	ffic on A9 and	l local traffic	(B9152) through Lyncl	nat, together wi	th noise from	m domestic activity	
Equipment								100
Sound Level Meter	01dB Blu	e Solo			Serial No.	61046	Cal. Dat	e 24-Jan-2014
Microphone	01dB MC	E212			Serial No.	142693	Cal. Dat	e 24-Jan-2014
Preamplifier	01dB Pre	21 S			Serial No.	16016	Cal. Dat	e 24-Jan-2014
Field Calibrator	Castle Ga	Castle GA607				035748	Cal. Dat	e 9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	30-Sep-20	14 Time	09:45
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	1-Oct-201	4 Time	09:55
Measurenent Location(s	5)			*	*			
Description	Bare deve	lopment plot	adjacent to 2	new properties close to	to A9		Height above ground	1 1.25 m
GPS Coordinates	NH82237	, BNG04734		Bearing to source	North		Distance to source	90.00 m
Vertical Refl. Surface(s)	None						Distance to surface	- m
C1 1 / P1								-0





Weather										
□ Measured		Equipmen	nt Details:	Silva Windw	ratch					
□ Estimated		Select:	Force	m/s	Descripti	on	Condition	ns		
(Beaufort S	Scale)	]	] 0	< 0.3	Calm		Calm. Smo	oke rises vert	ically.	
		[2	ζ] 1	0.3-1.5	Light air		Wind mot	ion visible in	smoke.	
Based on o	bservation of	[2	2	1.5-3.3	Light bree	ze	Wind felt	on exposed s	skin. Leaves rustle.	
local wear	local weather reports [ ] 3		] 3	3.3-5.5	Gentle br	eeze	Leaves and	d smaller twi	gs in constant motion.	
		[	] 4	5.5-8.0	Moderate breeze		Dust and I	loose paper 1	aised. Small branches begin to move.	
		1	] 5	8.0-10.8	Fresh bree	eze	Branches of	of a moderat	e size move. Small trees begin to sway.	
Wind Directi	on	Westerly		Conditions:	7	[]Fog		[] Frost	[X] Other: Cloud	
Temperature		6-16℃				[ ] Rain /	Snow	[ ] Sun		
Measured N	Noise Levels									
Location	Date	Time &	k Duration	$L_{Aeq}$	L <sub>AMax</sub>	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes	
Ard Dalle,	30/09/2014 -		Daytime 0600 - 0000		76.9	30.2	45.2	54.2	0.70	
Lynchat, Kingussie	01/10/2014	Night-time 0000 - 0600		49.7	63.9	27.4	38.0	50.2	See Below	

Location close to A9 at new residential development area on the Western side of Lynchat. Road traffic dominates at this location, together with limited residential activity particularly from children after school periods.





Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	ssment - Lot		Date	1-Oct-2014		
Measurement Location	Mains of	Balavil, Kingu	ssie	By		I Stanworth		
Source(s) Description	Road Tra	ffic on A9 tog	ether with no	ise from Highland Ma	in Line in dista	nce and B915	52	-
Equipment								
Sound Level Meter	01dB Blu	e Solo			Serial No.	61046	Cal. Date	24-Jan-2014
Microphone	01dB MC	E212			Serial No.	142693	Cal. Date	24-Jan-2014
Preamplifier	01dB Pre	01dB Pre 21 S				16016	Cal. Date	24-Jan-2014
Field Calibrator	Castle G	Castle GA607				035748	Cal. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	1-Oct-2014	4 Time	10:05
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	2-Oct-2014	Time	10:35
Measurenent Location(s	s)							
Description	Residenti	al Property in	old estate ste	ading on Balavil Estate	ate - close to A9		Height above ground	1.25 m
GPS Coordinates	NH79025	, BNG02279		Bearing to source	South		Distance to source	50.00 m
Vertical Refl. Surface(s)	None				·		Distance to surface	- m
CI I/DI I								





Weather												
□ Measured		Equipme	ent I	Details:	Silva Windw	ratch						
□ Estimated		Select:		Force	m/s	Descripti	on	Condition	ıs			
(Beaufort Sca	ale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	ically.		
			[X]	1	0.3-1.5	Light air		Wind mot	ion visible in	smoke.		
Based on obs	ervation of		[]	2	1.5-3.3	Light bree	ze	Wind felt	on exposed s	skin. Leaves rustle.		
local weathe	er reports	. []		3	3.3-5.5	Gentle bre	eeze	Leaves and smaller twigs in constant motion.				
	[]		4	5.5-8.0	Moderate breeze		Dust and loose paper raised. Small branches begin to mo					
			[]	5	8.0-10.8	Fresh bree	ze	Branches	of a moderat	e size move. Small trees begin to sway.		
Wind Direction	1	Westerly			Conditions:		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		10-14℃					[ ] Rain /	Snow	[ ] Sun			
Measured Noi	ise Levels											
Location I	Date	Time	& I	Duration	$\mathbf{L}_{ ext{Aeq}}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes		
Mains of Balavil,	02/10/2014 -	Daytime 0		Daytime 0600 - 0000 61.6		83.5	29.8	45.3	65.8	See Below		
Kingussie 03/10/2014		Night-time 0000 - 0600		56.7	73.3	29.4	33.4	60.0	See Delow			
General Obser	rvations					1	1	1	-	1		

Location close to A9 at old but occupied residential location in the estate steading for the Balavil Estate. This location is predominantly affected by road traffic noise on the A9, together with some contribution from the Highland Main Line and the B9152 Kingussie to Kincraig road.





Reference: 495298.AA.04.02

Project	A9 Baseline Noise	Assessment - Lo	1			Date	1-Oct-2014
Measurement Location	Balavil House	X	100		Ву	I Stanworth	
Source(s) Description	Road traffic on A						
Equipment							
Sound Level Meter	Castle Pro-DX Vo	cis M GA131		Serial No.	0062925	Cal. Date	9-May-2014
Microphone	Castle 1/2"			Serial No.	1026	Cal. Date	9-May-2014
Preamplifier	Castle MKDXP			Serial No.	5035	Cal. Date	9-May-2014
Field Calibrator	Castle GA607	Castle GA607				Cal. Date	9-May-2014
Initial Calibration Level	94.0dB @100	Hz Correction	0.2dB	Date	1-Oct-2014	4 Time	11:00
Final Calibration Level	94.0dB @100	Hz Correction	0.2dB	Date	1-Oct-2014	4 Time	14:15
Measurenent Location(s	5)			*			
Description	In garden on large	estate house with	direct line of sight to	19		Height above ground	1.25 m
GPS Coordinates	NH79087 BNG02	609	Bearing to source	South		Distance to source	260.00 m
Vertical Refl. Surface(s)	None					Distance to surface	- m
Sketch/ Photographs						~	





Weather												
□ Measured	0 - 3 m/s	Equipm	nent De	tails:	Silva Windw	atch						
Estimated		Select:	Fo	rce	m/s	Description	n	Condition	s			
(Beaufort S	Scale)		[]	0	< 0.3	Calm		Calm. Smo	ke rises vert	rically.		
			[]	1	0.3-1.5	Light air		Wind moti	on visible in	smoke.		
			[X]	2	1.5-3.3	Light breeze	e	Wind felt on exposed skin. Leaves rustle.				
			[]	3	3.3-5.5	Gentle bree	ze	Leaves and smaller twigs in constant motion.				
			[]	4	5.5-8.0	Moderate b	reeze	Dust and le	oose paper r	aised. Small branches begin to	move.	
			[]	5	8.0-10.8	Fresh breez	e	Branches o	f a moderat	e size move. Small trees begin	to sway	
Wind Directi	ion	Westerl	У		Conditions:		[ ] Fog		[] Frost	[X] Other: C	loud	
Temperature		12-14°C					[ ] Rain /	Snow	[ ] Sun	Occasional ligh	t rain	
Measured N	Noise Levels											
Location	Date	Time	e & Du	ration	$L_{Aeq}$	L <sub>AMax</sub>	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes		
Balavil House	01/10/2014	014 11:00 - 3 hours		ours	54.7	70.8	37.4	46.5	59.0	See Belov	V	

Isolated large estate house elevated above the A9 and with a clear view of the road. Sources included traffic on the A9, wind in the trees (although the measurement location was sheltered by those trees, cars on gravel drive and dogs from the house barking.



Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	ssment - Lot	1				Date	29-Sep-2014
Measurement Location	Daunacht	on Lodge, Ki	ncraig			Ву	I Stanworth		
Source(s) Description	Road traf	fic on A9, mo	vements on t	he Highland Main Line	and activity ar	ound estate			-
Equipment									
Sound Level Meter	Castle Pro	o-DX Vocis M	I GA131		Serial No.	0062925		Cal. Date	9-May-2014
Microphone	Castle ½"				Serial No.	1026		Cal. Date	9-May-2014
Preamplifier	Castle MI	KDXP			Serial No.	5035		Cal. Date	9-May-2014
Field Calibrator	Castle GA	A607	6	3.5	Serial No.	035748		Cal. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	29-Sep-20	14	Time	09:55
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	29-Sep-20	14	Time	16:25
Measurenent Location(s	5)								
Description	On large	garden betwee	n Dunachton	Lodge house and A9			Height above ground		1.25 m
GPS Coordinates	NH82237 BNG04734 Bearing to source South East Distance to source					110.00 m			
Vertical Refl. Surface(s)	None						Distance to	surface	- m





Weather											
□ Measured	leasured 0 - 3 m/s Equipment Details:		etails:	Silva Windw	atch						
□ Estimated		Select:	F	orce	m/s	Descriptio	n	Condition	ns		
(Beaufort S	cale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	rically.	
		[] 1		1	0.3-1.5	Light air Light breeze		Wind motion visible in smoke.			
		13	[X]	2	1.5-3.3			Wind felt on exposed skin. Leaves rustle.			
			[]	3	3.3-5.5 5.5-8.0	Gentle bree	ze	Leaves and	d smaller twi	gs in constant motion.	
			[]	4		Moderate b	reeze	Dust and I	loose paper i	raised. Small branches begin to move.	
			[]	5	8.0-10.8 Fresh breeze			Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	on	Westerly			Conditions:	[ ] Fog			[] Frost	[ ] Other:	
Temperature		15-18℃		[ ] Rain /		Snow	[X] Sun				
Measured N	oise Levels							,			
Location	Date	Time	& D	uration	$\mathbf{L}_{ ext{Aeq}}$	L <sub>AMax</sub>	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes	
Dunachton Lodge	29/09/2014	13:1	5 - 3	hours	55.1	67.2	37.1	45.5	59.4	See Below	

# General Observations

Isolated location elevated from the A9 and with a clear line of sight to the road. The major noise source is the A9 throughout the measurement, with some activities around the measurement location including residents taking phone calls and the movement of vehicles on the gravel drive. In addition noise could be heard from the Highland Main Line and overflying aircraft.





Reference: 495298.AA.04.02

Project	A9 Baseline Noise Ass	essment - Lot	I	Date	29-Sep-2014			
Measurement Location	Silverwood, Dunachto	n Road, Kiner	I	Ву	I Stanworth			
Source(s) Description	Road Traffic on local	road (B9152) a	nd A9 which is more d	listant				•
Equipment								
Sound Level Meter	01dB Blue Solo			Serial No.	61046	(	Cal. Date	24-Jan-2014
Microphone	01dB MCE212			Serial No.	142693	(	Cal. Date	24-Jan-2014
Preamplifier	01dB Pre 21 S			Serial No.	16016		Cal. Date	24-Jan-2014
Field Calibrator	Castle GA607	Castle GA607					Cal. Date	9-May-2014
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	29-Sep-20	14	Γime	08:55
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	30-Sep-20	14	Γime	09:35
Measurenent Location(s	s) ·							
Description	Residential garden over	rlooking B915	2 and A9 which is som	ewhat more di	stant	Height above	ground	1.25 m
GPS Coordinates	NH82824, BNG05530	NH82824, BNG05536 Bearing to source			North West		Distance to source	
Vertical Refl. Surface(s)	None					Distance to s	urface	- m
Sketch/ Photographs								





□ Measured		Equipment	Details:	Silva Windwatch							
□ Estimated		Select: Force		m/s	Descripti	on	Condition	15			
(Beaufort Scale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	ically.		
		[] 1		0.3-1.5 Light air		Wind motion visible in smoke.					
Based on observation of		[X] 2		1.5-3.3	Light breeze		Wind felt on exposed skin. Leaves rustle.				
local wear	her reports	[] 3		3.3-5.5	Gentle br	eeze	Leaves and smaller twigs in constant motion.				
		[]	4	5.5-8.0	8.0 Moderate breeze		Dust and loose paper raised. Small branches begin to mo				
		[]	5	8.0-10.8	Fresh bree	Fresh breeze Br		Branches of a moderate size move. Small trees begin to sw			
Wind Directi	on	Westerly		Conditions:		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		5-16℃		[] Rain /		Snow [] Sun					
Measured N	oise Levels								0		
Location	Date	Time &	Duration	$\mathbf{L}_{Aeq}$	L <sub>AMax</sub>	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes		
Silverwood, Dunachton Road, Kincraig	29/09/2014 - 30/09/2014	Daytime (	0600 - 0000	55.5	78.0	21.7	42.8	58.9	See Below		
		Night-time	0000 - 0600	49.1	68.2	21.1	25.3	53.1	Jee Below		

Location close to B9152 and road traffic dominates at this location, together with noise from a slightly more distant A9 which is slightly sheltered from the residential location by the intervening topography.





Reference: 495298.AA.04.02

Project	A9 Baselin	ne Noise Asse	Date	23-Sep-2014					
Measurement Location	Adjacent t	to property or	By	I Stanworth					
Source(s) Description	Road traff	ic on local roa	ad and A9 in	distance, movements o	on the Highland	l Main Line	and grounds maintenanc	e work	
Equipment									
Sound Level Meter	Castle Pro	-DX Vocis M	I GA131		Serial No.	0062925	Cal. Date	9-May-2014	
Microphone	Castle 1/2"				Serial No.	1026	Cal. Date	9-May-2014	
Preamplifier	Castle MK	Castle MKDXP				5035	Cal. Date	9-May-2014	
Field Calibrator	Castle GA	Castle GA607			Serial No.	035748	Cal. Date	9-May-2014	
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-20	14 Time	09:55	
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-20	14 Time	16:25	
Measurenent Location(s	3)								
Description	In parklan	In parkland area adjacent to property on Suidhe Crescent, Kincraig Height above ground 1.25							
GPS Coordinates	NH83251	NH83251 BNG06015 Bearing to source				st	Distance to source	235.00 m	
Vertical Refl. Surface(s)	None						Distance to surface	- m	
Sketch/ Photographs									





37 1	0 0 1	l		CH TWO I							
		Equipment		Silva Windw							
□ Estimated		Select:	Force	m/s	Description	n	Condition	ıs			
(Beaufort Scale)		[]	0	< 0.3	Calm		Calm. Smo	oke rises vert	ically.		
		[] 1		0.3-1.5	Light air		Wind motion visible in smoke.				
		[X] 2 [] 3		1.5-3.3	8		Wind felt on exposed skin. Leaves rustle.				
				3.3-5.5			Leaves and	gs in constant motion.			
		[]	4	5.5-8.0	Moderate breeze		Dust and loose paper raised. Small branches begin to mo				
		[]	5	8.0-10.8	Fresh breeze		Branches of a moderate size move. Small trees begin to s				
Wind Directi	on	Westerly		Conditions:		[]Fog		[] Frost	[ ] Other:		
Temperature		8-15℃			[ ] Rain /		Snow X Sun				
Measured N	loise Levels								40-		
Location	Date	Time &	Duration	$L_{Aeq}$	L <sub>AMax</sub>	$L_{AMin}$	$L_{A90}$	$L_{A10}$	Notes		
Suidhe Crescent	29/09/2014	10:00 -	3 hours	54.3	75.0	38.8	46.4	58.7	See Below		

Location representative of a large number of properties in the centre of Kincraig somewhat set down from the A9 and partially protected from it by intervening topography. Sources noted included local road traffic in the vicinity and distance traffic on the A9, together with the overflight of aircraft, passage of trains on the Highland Main Line and some grounds maintenance works on residential locations in the vicinity.





Reference: 495298.AA.04.02

Project	A9 Baseli	ne Noise Asse	ssment - Lot		Date	24-Sep-2014		
Measurement Location	The Old	Manse, Kincra	ig				Ву	I Stanworth
Source(s) Description	Road Tra	ffic on A9 and	local traffic	(B9152), together with	noise from dor	mestic activi	у	
Equipment								
Sound Level Meter	01dB Blue Solo				Serial No.	61046	Cal. Da	te 24-Jan-2014
Microphone	01dB MCE212				Serial No.	142693	Cal. Da	te 24-Jan-2014
Preamplifier	01dB Pre	01dB Pre 21 S				16016	Cal. Da	te 24-Jan-2014
Field Calibrator	Castle G	Castle GA607			Serial No.	035748	Cal. Da	te 9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	24-Sep-201	4 Time	09:55
Final Calibration Level	94.0dB @1000Hz Correction 0.2		0.2dB	Date	26-Sep-201	4 Time	10:30	
Measurenent Location(s	5)							
Description	Residentia	al garden over	looking A9 ar	Height above groun	d 1.25 m			
GPS Coordinates	NH82237	7, BNG04734		Bearing to source	South East		Distance to source	90.00 m
Vertical Refl. Surface(s)	None						Distance to surface	- m
		•					7	





Weather				ALC: 10 (15 1 )							
□ Measured		Equipmen	nt Details:	Silva Windy	Silva Windwatch						
□ Estimated		Select:	Force	m/s	Descripti	on	Condition	ns			
(Beaufort	Scale)	]	] 0	< 0.3	Calm		Calm. Sme	oke rises vert	tically.		
		[2	[] 1	0.3-1.5	Light air		Wind motion visible in smoke.				
Based on observation of local weather reports		[2	2	1.5-3.3	Light bree	ze	Wind felt on exposed skin. Leaves rustle.				
		[2	3	3.3-5.5	Gentle bro	eeze	Leaves and smaller twigs in constant motion		gs in constant motion.		
		]	] 4	5.5-8.0 Moderate breeze		breeze	Dust and loose paper raised. Small branches begin to move.				
		1	] 5	8.0-10.8	Fresh bree	ze	Branches of a moderate size move. Small trees begin to sway				
Wind Direct	ion	Westerly		Conditions:		[]Fog		[] Frost	[X] Other: Cloud		
Temperature		10-16℃		[ ] Rain		[ ] Rain /	Snow	[ ] Sun			
Measured N	Noise Levels										
Location	Date	Time &	k Duration	${ m L_{Aeq}}$	L <sub>AMax</sub>	L <sub>AMin</sub>	$L_{A90}$	$L_{A10}$	Notes		
The Old Manse, Kincraig	24/09/2014 -	Daytime	0600 - 0000	55.3	85.4	26.2	47.2	57.4			
	26/09/2014		e 0000 - 0600	52.5	69.5	27.7	40.3	54.6	See Below		

Location close to A9 and road traffic dominates at this location, together with limited residential activity as part of the location is an unoccupied holiday home. A9 is in a slight cutting at this location, and there are some impacts from a nearby Primary School at various times of the day.

