

Appendix 7

NOISE MONITORING DATA



March 8 2010

Ref: 06248/3461

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

RE: FEBRUARY 2010 ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE

This letter report presents the results of attended noise compliance monitoring conducted for the Sunnyside Coal Mine (SCM) on Tuesday 23rd February 2010. Noise monitoring was carried out in accordance with the conditions of the SCM Noise Monitoring Programme (NMP) as detailed below.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

- 7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

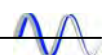
Location	Day $L_{Aeq(15\text{ minute})}$	Evening $L_{Aeq(15\text{ minute})}$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- *To determine compliance with the $L_{Aeq(15\text{ minute})}$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.*



- *These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.*
- *To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).*

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below (and shown in the attached figure):

Location R2:	Ivanhoe ¹
Location R4:	Illili
Location R5:	Ferndale
Location R6:	Plain View
Location R9:	Lilydale

¹ Gates at the entrance to Ivanhoe were locked and access was not possible. No monitoring was, therefore, undertaken at this residence.

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over two monitoring surveys, both during the day time of 23rd February 2010.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “Evaluator” software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the L_{eq} (15 min), L_{max} , L_1 , L_{10} , L_{90} and L_{min} percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) L_{eq} (15 min)** for all operating times.

The results shown in **Tables 2** and **3**, below, represent the total 15 minute L_{eq} noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. Note that the mine does not operate at night (i.e. between 10

pm and 7 am) and, therefore, the L1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2 SCM Noise Monitoring Results – 23 February 2010 (Morning)				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Illili	7:24 am	37	2.0m/s NE	Insects (35), traffic (30) SCM (30)
Ferndale	7:07 am	49	2.0m/s NE	Insects (49), SCM inaudible
Plain View	8:05 am	45	2.0m/s NE	Insects (44), SCM (35)
Lilydale				No access to property*

*Gates to this property were locked. The property is mine owned.

Table 3 SCM Noise Monitoring Results – 23 February 2010 (Afternoon)				
Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	3:30 pm	36	3.0m/s NW	Birds & insects (33), wind (33), SCM inaudible
Ferndale	3:59 pm	44	2.5m/s NW	Birds (43), SCM (37)
Plain View	3:10 pm	41	3.5m/s NW	Birds (40), SCM (31)
Lilydale	4:45 pm	40	2.5m/s NW	Birds & insects (48), wind (33), SCM inaudible

The results shown in Tables 2 and 3 indicate that, under the operational and atmospheric conditions at the time, noise emissions from the operations at SCM exceeded the noise criterion of 35 dB(A) at Ferndale during the afternoon monitoring period.

The noise at Ferndale was mainly the result of emissions from haul trucks and a dozer.

Data for the 15 minute Leq noise levels were analysed using the “*Evaluator*” software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

The product coal from the Sunnyside mine is transported by road trucks to the Whitehaven CPP, near Gunnedah.

In addition to the site noise monitoring, traffic noise from the transport trucks was measured at the “Roslyn” property on Torrens Lane, near the CPP. The transport of coal from Sunnyside is carried out on a relatively sporadic basis, and trucks using this route do not travel at the regular intervals that are associated with other Whitehaven projects in the area.

The sound level meter was set up in the paddock adjacent to Roslyn, at the same distance from the road as the façade of the residence. The noise levels from 11 trucks (6 full, 4 empty and a water cart) passing the site were measured between 7.45 pm and 8.45 am on Friday March 12.

Over the approximate 1 hour monitoring period the measured Leq noise level from mine vehicles was of 49.7 dB(A). This is below the noise criterion for a local road of 55 dB(A) Leq (1 hour).

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:

Review:



Ross Hodge
Acoustical Consultant



Neil Pennington
Acoustical Consultant

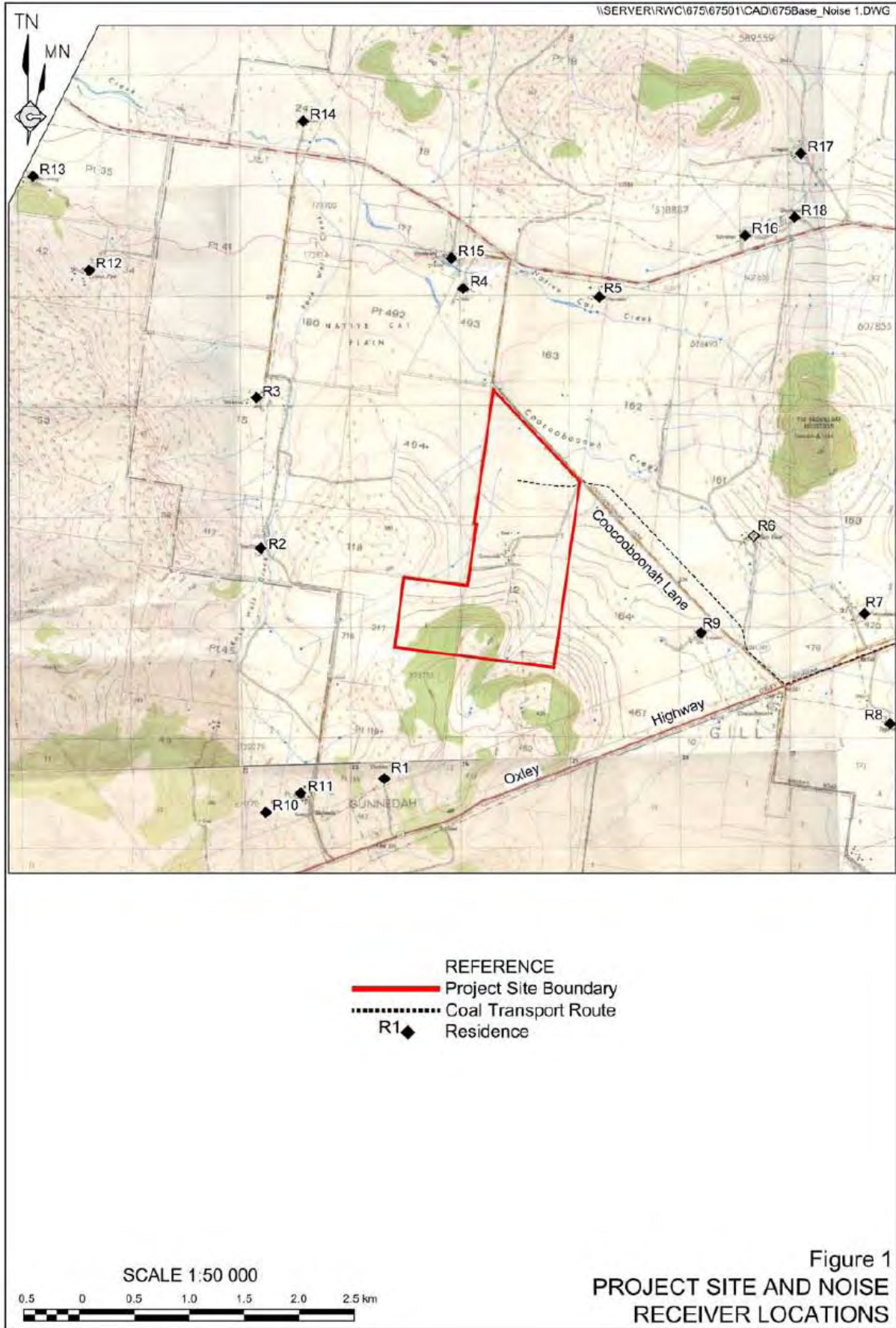


Figure Prepared by R.W. Corkery & Co. Pty Ltd



8 March 2010

Ref: 06248/3462

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

RE: FEBRUARY 23 ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE – “GLENPOWER”

This letter report presents the results of attended noise compliance monitoring conducted at “Glendower” on behalf of Sunnyside Coal Mine (SCM) on Tuesday 23 February 2010.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

- 7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Location	Day	Evening
	$L_{Aeq(15\text{ minute})}$	$L_{Aeq(15\text{ minute})}$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- To determine compliance with the $L_{Aeq(15\text{ minute})}$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.



- *These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.*
- *To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).*

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below (and shown in the attached figure):

Location R15: Glendower

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over two monitoring surveys, both during the day time of 23rd February 2010.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær "Evaluator" software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the L_{eq} (15 min), L_{max} , L_1 , L_{10} , L_{90} and L_{min} percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) L_{eq} (15 min)** for all operating times.

The results shown in **Table 2**, below, represent the total 15 minute L_{eq} noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison, but are available on request. Note that the mine does not operate at night (i.e. between 10 pm and 7 am) and, therefore, the L_1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2				
SCM Noise Monitoring Results at Glendower – 23 February 2010				
Day	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
23 February	7:43 am	51	2.0m/s NE	Birds/ insects(51), SCM inaudible
23 February	4:29 pm	40	2.5m/s NW	Birds & insects (38), wind (33), SCM (31)

The results shown in Table 2 indicate that, under the operational and atmospheric conditions at the time of both monitoring periods, noise emissions from the operations at SCM did not exceed the noise criterion of 35 dB(A) at the monitoring location at Glendower.

Data for the 15 minute Leq noise levels were analysed using the "Evaluator" software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:



Ross Hodge
Acoustical Consultant

Review:



Neil Pennington
Acoustical Consultant

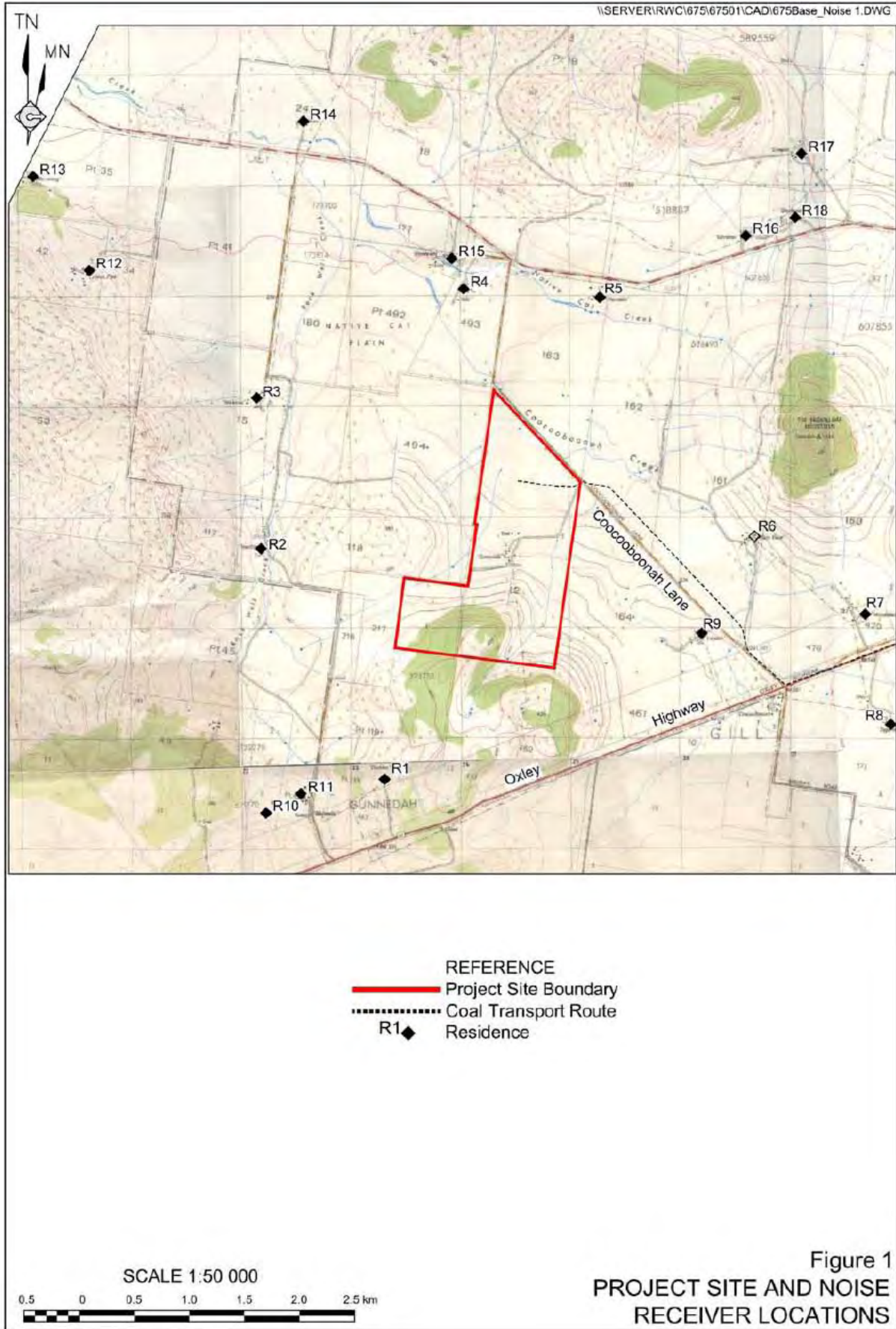


Figure 1
**PROJECT SITE AND NOISE
 RECEIVER LOCATIONS**

Figure Prepared by R.W. Corkery & Co. Pty Ltd



May 17 2010

Ref: 06248/3551

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

RE: MAY 2010 ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE

This letter report presents the results of attended noise compliance monitoring conducted for the Sunnyside Coal Mine (SCM) on Friday 14th May 2010. Noise monitoring was carried out in accordance with the conditions of the SCM Noise Monitoring Programme (NMP) as detailed below.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

- 7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

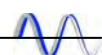
Location	Day $L_{Aeq(15\text{ minute})}$	Evening $L_{Aeq(15\text{ minute})}$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- *To determine compliance with the $L_{Aeq(15\text{ minute})}$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.*



- *These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.*
- *To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).*

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below (and shown in the attached figure):

Location R2:	Ivanhoe ¹
Location R4:	Illili
Location R5:	Ferndale
Location R6:	Plain View
Location R9:	Lilydale

¹ Gates at the entrance to Ivanhoe were locked and access was not possible. No monitoring was, therefore, undertaken at this residence.

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over three monitoring surveys, two during the day time and one during the evening of 14th May 2010.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “Evaluator” software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the L_{eq} (15 min), L_{max} , L_1 , L_{10} , L_{90} and L_{min} percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) L_{eq} (15 min)** for all operating times.

The results shown in **Tables 2, 3 and 4**, below, represent the total 15 minute L_{eq} noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. Note that the mine does not operate at night (i.e. between 10

pm and 7 am) and, therefore, the L1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2 SCM Noise Monitoring Results – 14 May 2010 (Morning)				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Illili	8:37 am	40	Calm	Birds & insects (40), SCM (28)
Ferndale	7:35 am	53	Calm	Traffic (53), birds & insects (41), SCM (38)
Plain View	8:17 am	41	Calm	Birds & insects (39), traffic (34), SCM (32)
Lilydale	8:00 am	46	Calm	Traffic (45), SCM (34) , birds & insects (33)

Table 3 SCM Noise Monitoring Results – 14 May 2010 (Afternoon)				
Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	3:20 pm	36	<0.5m/s SSW	Birds & insects (36), SCM (<25)
Ferndale	4:40 pm	37	<0.5m/s SSW	Birds & insects (34), SCM (32) , traffic (32)
Plain View	3:40 pm	43	<0.5m/s SSW	Birds (43), traffic (30), SCM (<20)
Lilydale	3:20 pm	53	<0.5m/s SSW	Birds & insects (53), traffic (38), SCM inaudible

Table 4 SCM Noise Monitoring Results – 14 May 2010 (Evening)				
Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	7:28 pm	36	<0.2m/s W	SCM (35) , insects (30)
Ferndale	7:49 pm	36	<0.2m/s W	SCM (35) , insects (28)
Plain View	6:50 pm	40	<0.2m/s W	SCM (40) , insects (31)
Lilydale	6:30 pm	40	<0.2m/s W	SCM (37) , birds & insects (36), traffic (31)

The results shown in Tables 2, 3 and 4 indicate that, under the operational and atmospheric conditions at the time, noise emissions from the operations at SCM were in excess of the noise criterion of 35 dB(A) at Ferndale during the morning monitoring period and Plane View and Lilydale during the evening. Lilydale is a mine owned property.

The noise at Ferndale was mainly the result of emissions from haul trucks and a dozer. It was noted as being variable in level. At Plane View and Lilydale the mine noise was from trucks, engine revs, dozers, horns and dumping noise.

Data for the 15 minute Leq noise levels were analysed using the “Evaluator” software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

The product coal from the Sunnyside mine is transported by road trucks to the Whitehaven CPP, near Gunnedah.

In addition to the site noise monitoring, traffic noise was measured at the “Roslyn” property on Torrens Lane, near the CPP. The transport of coal from Sunnyside is carried out on a relatively sporadic basis, and trucks using this route do not travel at the regular intervals that are associated with other Whitehaven projects in the area.

The sound level meter was set up in the paddock adjacent to “Roslyn”, at the same distance from the road as the façade of the residence. The monitoring was carried out over an approximately one and a half hour period from 1.30 pm on Friday May 14th. Several vehicles passed along Torrens Lane going into and out of the mine but no coal haulage trucks were present. The noise levels from eight light vehicles and two heavy vehicles passing the site were measured.

Over the approximate 1 hour monitoring period the measured Leq noise level from vehicles on Torrens Lane was of 44 dB(A). This is below the noise criterion for a local road of 55 dB(A) Leq (1 hour).

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:

Review:



Ross Hodge
Acoustical Consultant



Neil Pennington
Acoustical Consultant

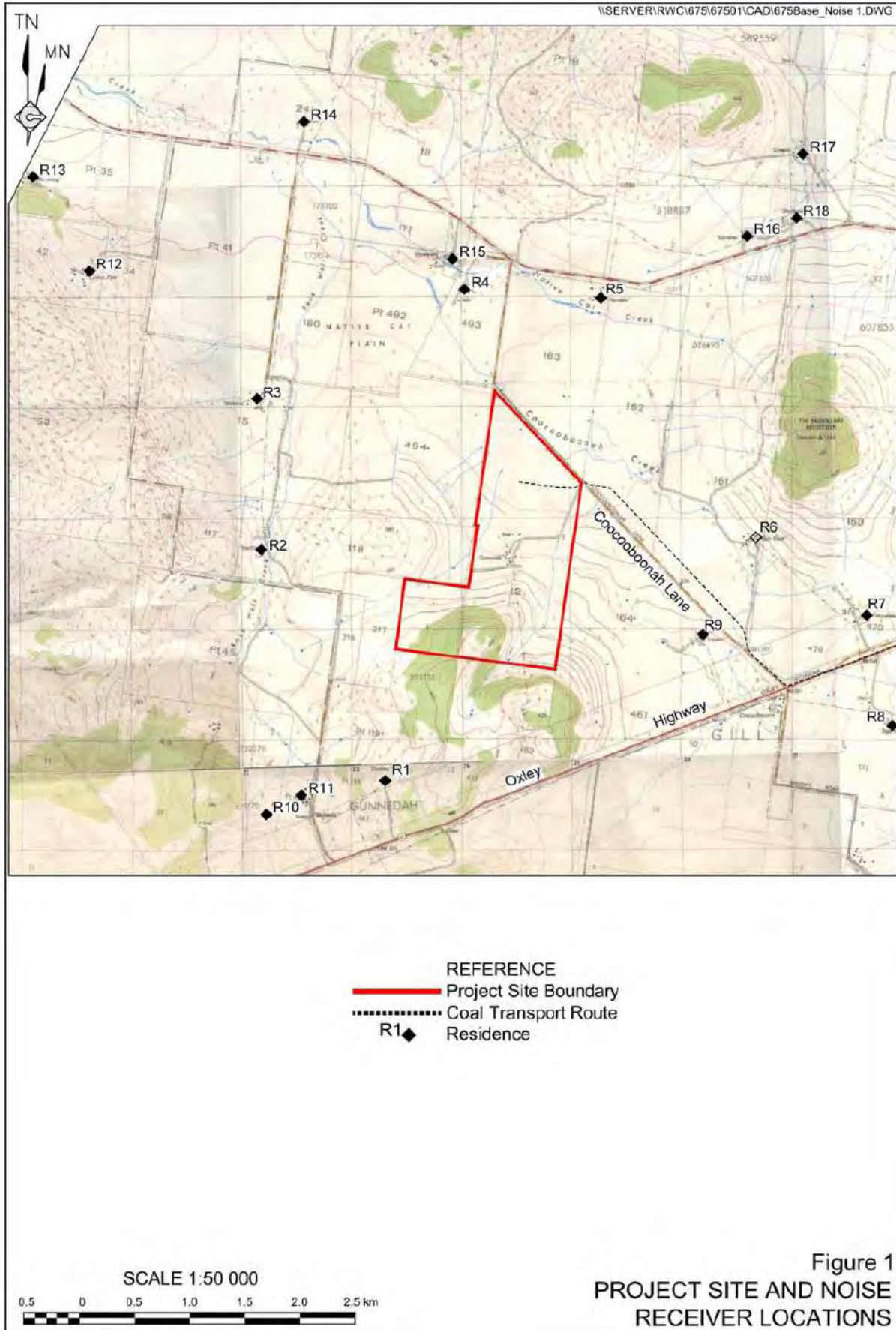


Figure Prepared by R.W. Corkery & Co. Pty Ltd



18 May 2010

Ref: 06248/3552

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

RE: MAY 14 ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE – “GLENOWER”

This letter report presents the results of attended noise compliance monitoring conducted at “Glendower” on behalf of Sunnyside Coal Mine (SCM) on Friday 14th May, 2010.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

- 7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

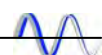
Location	Day	Evening
	$L_{Aeq}(15 \text{ minute})$	$L_{Aeq}(15 \text{ minute})$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- To determine compliance with the $L_{Aeq}(15 \text{ minute})$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.



- *These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.*
- *To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).*

NOISE MONITORING LOCATIONS

Noise measurement location for the attended noise survey are listed below (and shown in the attached figure):

Location R15: Glendower

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over three monitoring surveys, two during the day time and one during the evening of 14th May 2010.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær "Evaluator" software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the Leq (15 min), Lmax, L1, L10, L90 and Lmin percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) $L_{eq(15\text{ min})}$** for all operating times.

The results shown in **Table 2**, below, represent the total 15 minute Leq noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison, but are available on request. Note that the mine does not operate at night (i.e. between 10 pm and 7 am) and, therefore, the L1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2				
SCM Noise Monitoring Results at Glendower – 14 May 2010				
Day	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
14 May	7:15 am	41	Calm	Domestic noise (39), birds/ insects (37), SCM (30)
14 May	4:20 pm	36	<0.5m/s SSW	Birds & insects (35), SCM (30)
14 May	7:10 pm	33	<0.2m/s W	SCM (32), insects (26)

The results shown in Table 2 indicate that, under the operational and atmospheric conditions at the time of both monitoring periods, noise emissions from the operations at SCM did not exceed the noise criterion of 35 dB(A) at the monitoring location at Glendower.

Data for the 15 minute Leq noise levels were analysed using the "Evaluator" software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:



Ross Hodge
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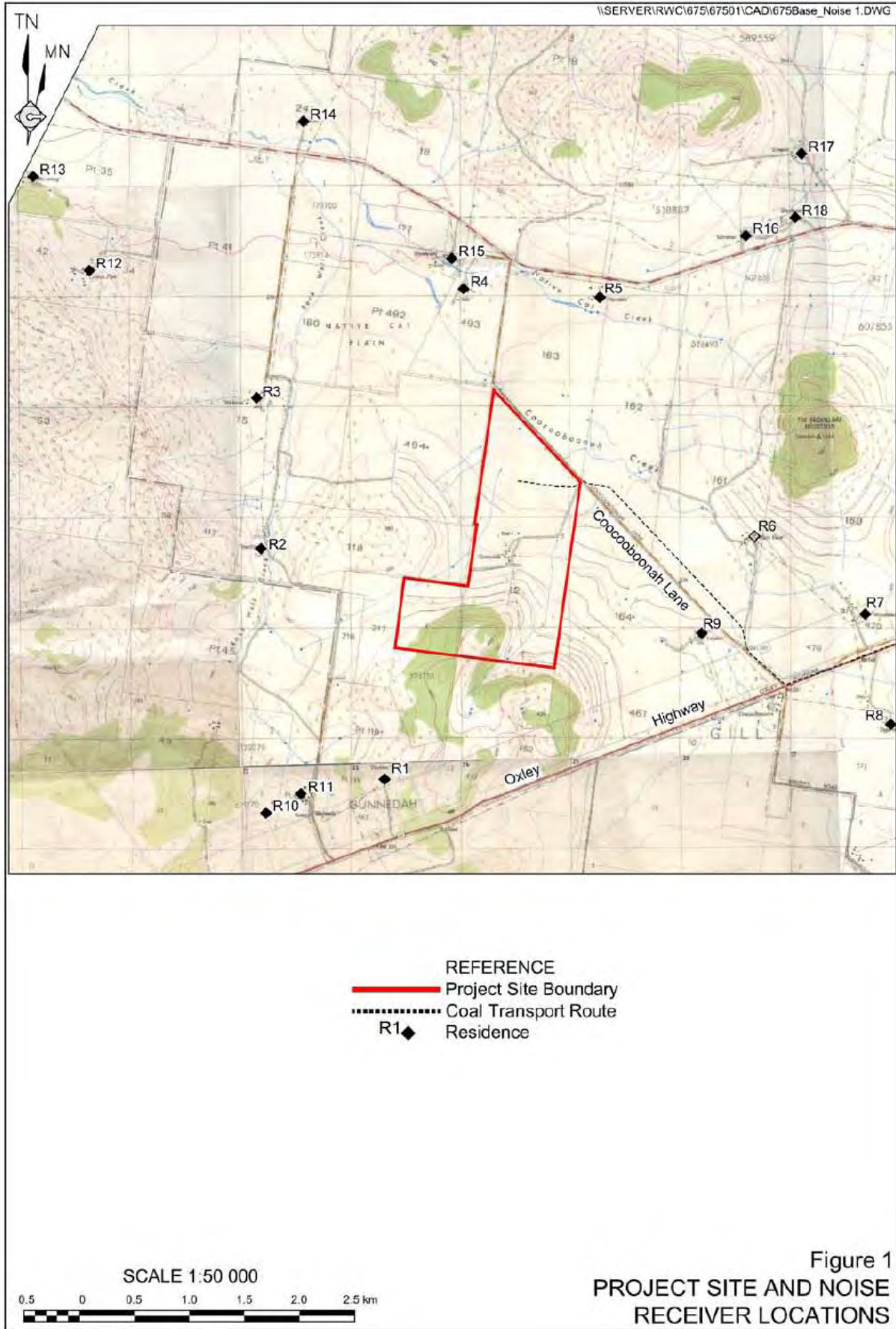


Figure 1
**PROJECT SITE AND NOISE
 RECEIVER LOCATIONS**

Figure Prepared by R.W. Corkery & Co. Pty Ltd



September 5 2010

Ref: 06248/3660

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

RE: AUGUST 2010 ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE

This letter report presents the results of attended noise compliance monitoring conducted for the Sunnyside Coal Mine (SCM) on Monday 30th and Tuesday 31st August 2010. Noise monitoring was carried out in accordance with the conditions of the SCM Noise Monitoring Programme (NMP) as detailed below.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

- 7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

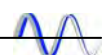
Location	Day	Evening
	$L_{Aeq(15\text{ minute})}$	$L_{Aeq(15\text{ minute})}$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- To determine compliance with the $L_{Aeq(15\text{ minute})}$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.



- These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.
- To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below (and shown in the attached figure):

Location R2:	Ivanhoe ¹
Location R4:	Illili
Location R5:	Ferndale
Location R6:	Plain View
Location R9:	Lilydale

¹ Gates at the entrance to Ivanhoe were locked and access was not possible. No monitoring was, therefore, undertaken at this residence.

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over two monitoring surveys, one during the day time and one during the evening of 30th August 2010. Farming activity at Ferndale during the day of 30th August meant that a valid noise measurement was not possible. The daytime measurement was, therefore, made in the morning of 31st August.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær "Evaluator" software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the Leq (15 min), Lmax, L1, L10, L90 and Lmin percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) $L_{eq}(15\text{ min})$** for all operating times.

The results shown in **Tables 2** and **3**, below, represent the total 15 minute Leq noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the

mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. Note that the mine does not operate at night (i.e. between 10 pm and 7 am) and, therefore, the L1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2 SCM Noise Monitoring Results – 30 August 2010 (Day)				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Illili	4:36 pm	35	Calm	Birds & insects (32), SCM (32)
Ferndale	8:45 am	47	1.3m/s NE	Birds (45), traffic (43), SCM inaudible
Plain View	4:17 pm	39	Calm	Birds & insects (34), SCM (34) , traffic (33)
Lilydale	4:00 pm	39	Calm	Birds & insects (38), SCM (30) , traffic (28)

Table 3 SCM Noise Monitoring Results – 30 August 2010 (Evening)				
Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	8:00 pm	34	<0.5m/s ESE	Dogs (32), frogs (32), SCM inaudible
Ferndale	8:35 pm	34	Calm	Frogs (34), SCM inaudible
Plain View	7:40 pm	32	<0.5m/s ESE	Traffic (32), SCM (<20)
Lilydale	7:20 pm	43	<0.5m/s ESE	Frogs (43), traffic (35), SCM inaudible

The results shown in Tables 2 and 3 indicate that, under the operational and atmospheric conditions at the time, noise emissions from the operations at SCM did not exceed the noise criterion of 35 dB(A) Leq (15 min) at any monitoring location at any time.

Data for the 15 minute Leq noise levels were analysed using the “*Evaluator*” software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

The product coal from the Sunnyside mine is transported by road trucks to the Whitehaven CPP, near Gunnedah.

In addition to the site noise monitoring, traffic noise was measured at the “Roslyn” property on Torrens Lane, near the CPP. The transport of coal from Sunnyside is carried out on a relatively sporadic basis, and trucks using this route do not travel at the regular intervals that are associated with other Whitehaven projects in the area.

The sound level meter was set up in the paddock adjacent to “Roslyn”, at the same distance from the road as the façade of the residence. The monitoring was carried out over a one hour period from 9.15 am on Tuesday August 31. A total of 31 heavy vehicles travelled along Torrens Lane during the

monitoring period. These consisted of 13 full and 14 empty coal haulage trucks, 2 full trucks transporting waste from road works on the access road, 1 garbage truck and 1 water cart.

The measured Leq noise level from vehicles on Torrens Lane was of **56 dB(A) Leq (1 hour)**. This is marginally higher than the noise criterion for a local road of 55 dB(A) Leq (1 hour).

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:

Review:



Ross Hodge
Acoustical Consultant



Neil Pennington
Acoustical Consultant

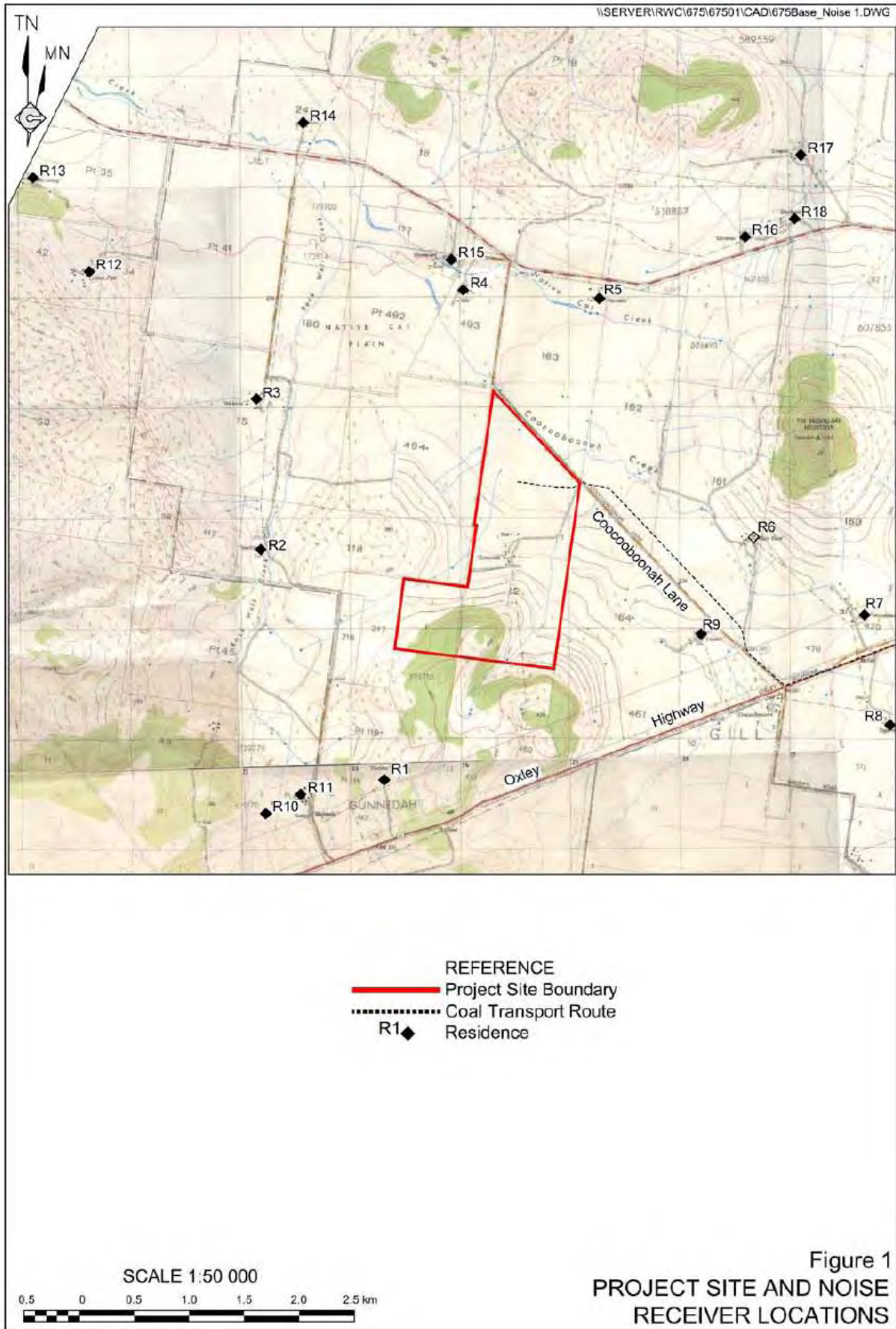


Figure Prepared by R.W. Corkery & Co. Pty Ltd



5 September 2010

Ref: 06248/3661

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

**RE: AUGUST 30 ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE – “GLENOWER” AND
“WOODLAWN”**

This letter report presents the results of attended noise compliance monitoring conducted at the “Glendower” and “Woodlawn” properties on behalf of Sunnyside Coal Mine (SCM) on Monday 30th August, 2010.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

- 7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

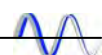
Location	Day	Evening
	$L_{Aeq}(15 \text{ minute})$	$L_{Aeq}(15 \text{ minute})$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- To determine compliance with the $L_{Aeq}(15 \text{ minute})$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.



- *These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.*
- *To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).*

NOISE MONITORING LOCATIONS

Noise measurement location for the attended noise survey are listed below (and shown in the attached figure):

Location R15: Glendower

Location R7: Woodlawn

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over two monitoring surveys, one during the day time and one during the evening of 30th August 2010.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær "Evaluator" software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the L_{eq} (15 min), L_{max} , L_1 , L_{10} , L_{90} and L_{min} percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) L_{eq} (15 min)** for all operating times.

The results shown in **Table 2**, below, represent the total 15 minute L_{eq} noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison, but are available on request. Note that the mine does not operate at night (i.e. between 10 pm and 7 am) and, therefore, the L_1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2 SCM Noise Monitoring Results – 30 August 2010				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Woodlawn	3:40 pm	38	Calm	Traffic (36), birds/ insects (34), SCM barely audible
Glendower	4:54 pm	38	Calm	Birds & insects (37), traffic (30), SCM (28)
Woodlawn	7:02 pm	33	<0.5m/s ESE	Traffic (33), frogs (20), SCM inaudible
Glendower	8:17 pm	38	Calm	Frogs (38), SCM (est. <25)

The results shown in Table 2 indicate that, under the operational and atmospheric conditions at the time of both monitoring periods, noise emissions from the operations at SCM did not exceed the noise criterion of 35 dB(A) at the monitoring location at either Glendower or Woodlawn.

Data for the 15 minute Leq noise levels were analysed using the "Evaluator" software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:



Ross Hodge
Acoustical Consultant

Review:



Neil Pennington
Acoustical Consultant

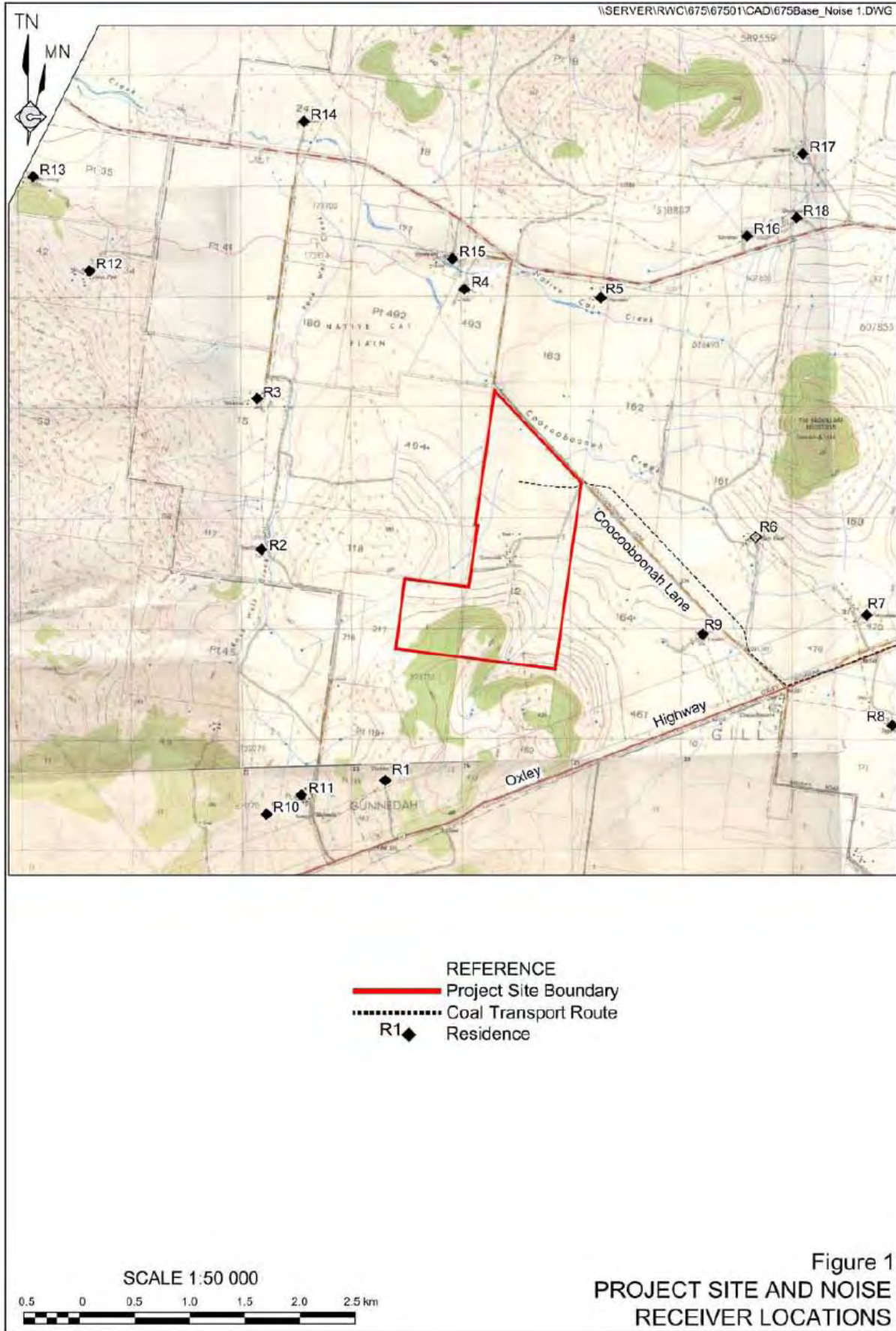


Figure 1
PROJECT SITE AND NOISE
RECEIVER LOCATIONS

Figure Prepared by R.W. Corkery & Co. Pty Ltd



November 8 2010

Ref: 06248/3758

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

RE: NOVEMBER 2010 ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE

This letter report presents the results of attended noise compliance monitoring conducted for the Sunnyside Coal Mine (SCM) on Wednesday 3rd and Thursday 4th November 2010. Noise monitoring was carried out in accordance with the conditions of the SCM Noise Monitoring Programme (NMP) as detailed below.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

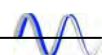
Location	Day	Evening
	$L_{Aeq(15\text{ minute})}$	$L_{Aeq(15\text{ minute})}$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- *To determine compliance with the $L_{Aeq(15\text{ minute})}$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.*



- These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.
- To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below (and shown in the attached figure):

Location R2:	Ivanhoe ¹
Location R4:	Illili
Location R5:	Ferndale
Location R6:	Plain View
Location R9:	Lilydale

¹ Gates at the entrance to Ivanhoe were locked and access was not possible. No monitoring was, therefore, undertaken at this residence.

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over two monitoring surveys, one during the evening of 3rd November and a second during the day of 4th November, 2010.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær "Evaluator" software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the L_{eq} (15 min), L_{max} , L1, L10, L90 and L_{min} percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) L_{eq} (15 min)** for all operating times.

The results shown in **Tables 2** and **3**, below, represent the total 15 minute L_{eq} noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. Note that the mine does not operate at night (i.e. between 10

pm and 7 am) and, therefore, the L1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2 SCM Noise Monitoring Results – 3 November 2010 (Evening)				
Location	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
Illili	8:10 pm	52	0.3m/s E	Insects (52), SCM (30)
Ferndale	8:52 pm	42	Calm	Birds & insects (41), SCM (35)
Plain View	7:35 pm	50	0.2m/s E	Birds & insects (50), traffic (40), SCM (30)
Lilydale	7:15 pm	41	0.3m/s E	Birds (40), traffic (35), SCM barely audible

Table 3 SCM Noise Monitoring Results – 4 November 2010 (Day)				
Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
Illili	8:57 pm	57	1.0m/s E	Birds (57), traffic (35), SCM (32)
Ferndale	9:33 pm	43	1.6m/s NE	Birds & insects (42), traffic (35), SCM (30)
Plain View	8:35 pm	40	1.4m/s E	Birds & insects (37), traffic (37), SCM barely audible
Lilydale	8:15 pm	38	0.4m/s E	Birds & insects (36), traffic (35), SCM (<30)

The results shown in Tables 2 and 3 indicate that, under the operational and atmospheric conditions at the time, noise emissions from the operations at SCM did not exceed the noise criterion of 35 dB(A) Leq (15 min) at any monitoring location at any time.

Data for the 15 minute Leq noise levels were analysed using the “*Evaluator*” software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

The product coal from the Sunnyside mine is transported by road trucks to the Whitehaven CPP, near Gunnedah.

In addition to the site noise monitoring, traffic noise was measured at the “Roslyn” property on Torrens Lane, near the CPP. The transport of coal from Sunnyside is carried out on a relatively sporadic basis, and trucks using this route do not travel at the regular intervals that are associated with other Whitehaven projects in the area.

The sound level meter was set up in the paddock adjacent to “Roslyn”, at the same distance from the road as the façade of the residence. The monitoring was carried out over a one hour period from 10.05 am on Thursday 4th November. A total of 11 heavy vehicles travelled along Torrens Lane during the monitoring period. These consisted of 7 full and 4 empty coal haulage trucks.

The measured Leq noise level from vehicles on Torrens Lane was of **53 dB(A) Leq (1 hour)**. This is in compliance with the noise criterion for a local road of 55 dB(A) Leq (1 hour).

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:

Review:



Ross Hodge
Acoustical Consultant



Neil Pennington
Acoustical Consultant

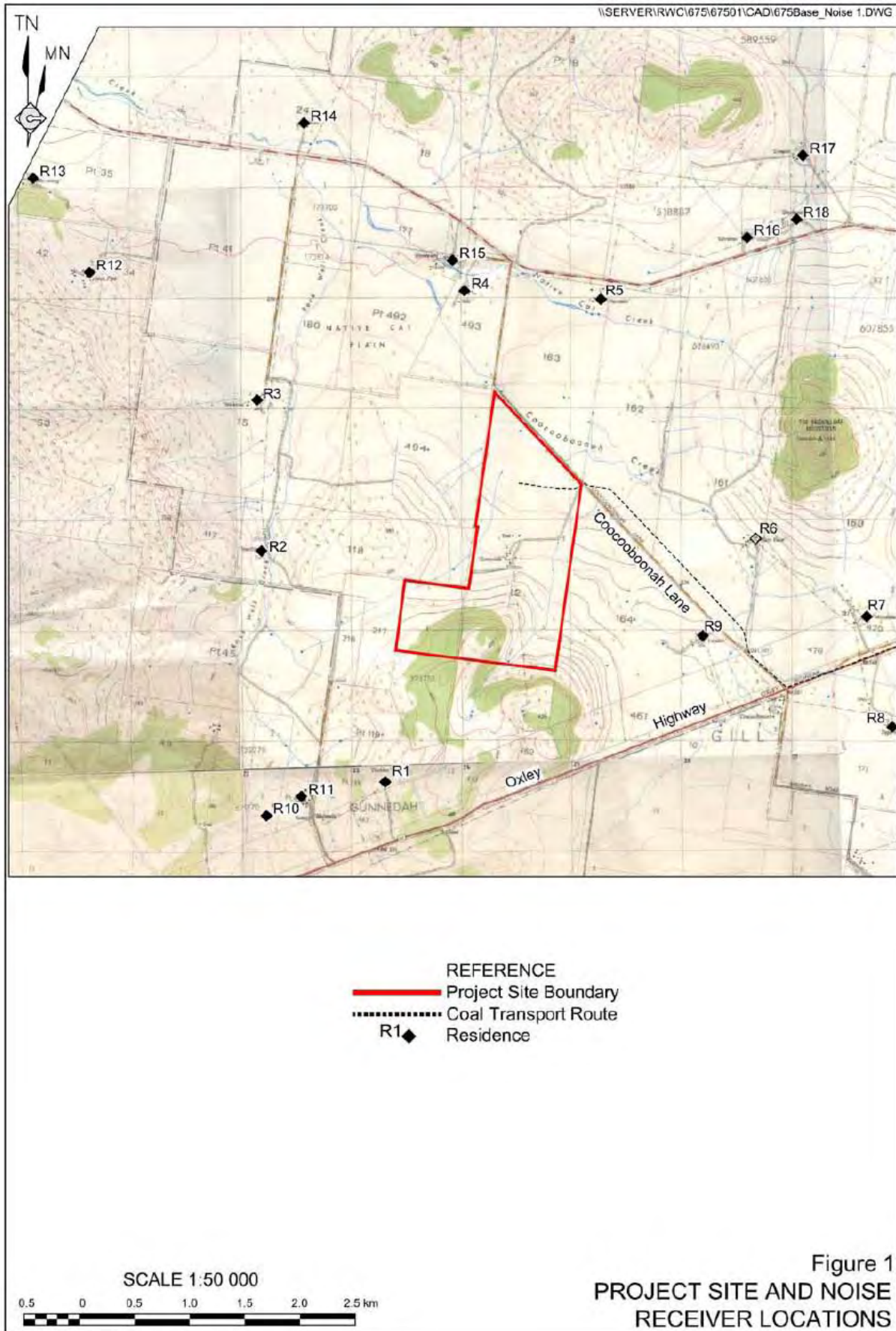


Figure Prepared by R.W. Corkery & Co. Pty Ltd



8 November 2010

Ref: 06248/3759

Mr Danny Young
Whitehaven Coal Pty Ltd
PO Box 600
GUNNEDAH NSW 2380

RE: NOVEMBER ATTENDED NOISE MONITORING RESULTS – SUNNYSIDE MINE – “GLENDOWER”

This letter report presents the results of attended noise compliance monitoring conducted at the “Glendower” property on behalf of Sunnyside Coal Mine (SCM) on Wednesday 3rd and Thursday 4th November 2010. Noise monitoring was carried out in accordance with the conditions of the SCM Noise Monitoring Programme (NMP) as detailed below.

NOISE CRITERIA

The following is an extract from the Sunnyside NMP:

Impact Assessment Criteria

- 7. Ensure that the noise generated by the Project does not exceed the noise impact assessment criteria set out in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

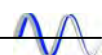
Location	Day	Evening
	$L_{Aeq(15\text{ minute})}$	$L_{Aeq(15\text{ minute})}$
All privately owned residences	35	35

Table 1: Impact assessment criteria dB(A)

If a written negotiated noise agreement with any landowner has been reached and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Notes:

- To determine compliance with the $L_{Aeq(15\text{ minute})}$ noise limits, noise from the Project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.



- These limits apply under the relevant meteorological conditions outlined in the assessment procedures in Chapter 5 of the NSW Industrial Noise Policy.
- To determine compliance with the $L_{A1(1\text{ minute})}$ noise limits, noise from the Project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the Project is impractical, the Department and DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).

NOISE MONITORING LOCATIONS

The noise measurement location for the attended noise survey is listed below (and shown in the attached figure):

Location R15: Glendower

NOISE MEASUREMENTS

Noise emission levels were measured with a Brüel & Kjær Type 2260 or 2250 Precision Sound Analyser. These instruments have Type 1 characteristics as defined in AS1259-1982 "Sound Level Meters". Calibration of the instrument was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2m above ground level.

Noise levels were measured over two monitoring surveys, one during the evening of 3rd November and a second during the day of 4th November, 2010.

RESULTS

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær "Evaluator" software. The software enables the contributions of the mine and other significant noise sources to the overall to be quantified.

In keeping with requirements of the SCM Noise Monitoring Programme noise levels were recorded for each of the L_{eq} (15 min), L_{max} , L_1 , L_{10} , L_{90} and L_{min} percentiles. As shown in Table 1, the noise criterion for the operational phase of the SCM project is **35 dB(A) L_{eq} (15 min)** for all operating times.

The results shown in **Table 2**, below, represent the total 15 minute L_{eq} noise level for all noise sources and the relative contributions of each. This is the compliance criterion for the operation of the mine. Levels for the other percentiles are not shown as they have no compliance criteria for comparison, but are available on request. Note that the mine does not operate at night (i.e. between 10 pm and 7 am) and, therefore, the L_1 (1 min) (which is the standard measure of sleep disturbance) does not apply.

Noise from SCM is shown in bold type. Where noise from SCM is listed as inaudible, this means the maximum levels from the mine were at least 10 dB below the minimum level during the measurement and not measurable.

Table 2				
SCM Noise Monitoring Results – 3 & 4 November 2010 - Glendower				
Date	Time	dB(A),Leq (15 min)	Wind speed/ direction	Identified Noise Sources as dB(A) Leq (15 min)
3 November	8:33 pm	35	0.4m/s E	SCM (33), birds & insects (31)
4 November	9:15 am	49	1.2m/s E	Birds (49), traffic (35), SCM (32)

The results shown in Table 2 indicate that, under the operational and atmospheric conditions at the time of both monitoring periods, noise emissions from the operations at SCM did not exceed the noise criterion of 35 dB(A) at the monitoring location at Glendower.

Data for the 15 minute Leq noise levels were analysed using the "Evaluator" software. These analyses showed the noise did not contain any tonal, impulsive or low frequency components as per definitions in the NSW Industrial Noise Policy.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

Author:



Ross Hodge
Acoustical Consultant

Review:



Neil Pennington
Acoustical Consultant

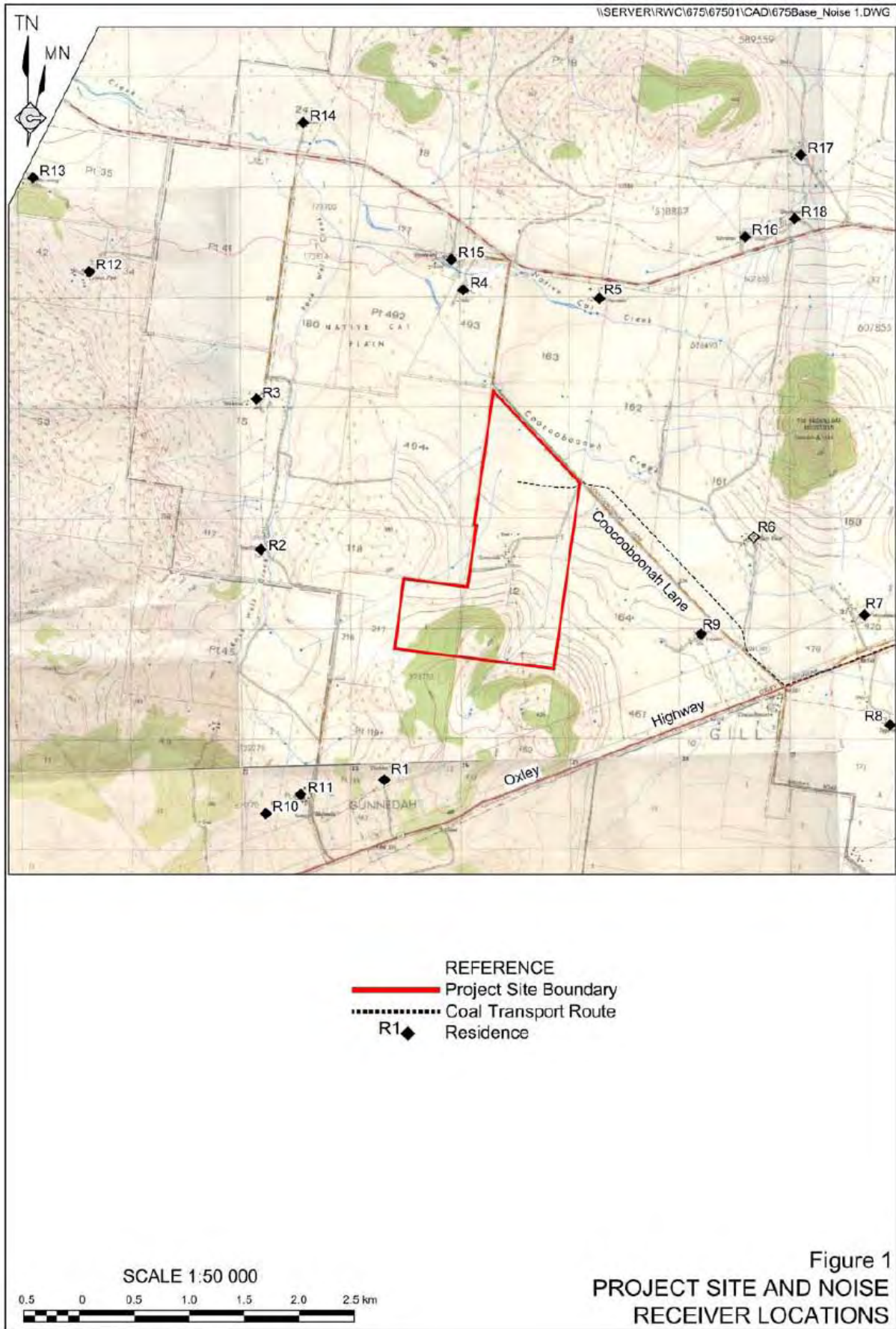


Figure Prepared by R.W. Corkery & Co. Pty Ltd