

PORT KEMBLA COAL TERMINAL
DECEMBER 2013 COMPLIANCE MONITORING

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PREPARED FOR

PORT KEMBLA COAL TERMINAL
PO BOX 823
WOLLONGONG NSW 2520

DOCUMENT CONTROL

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Celebrating 50 Years in 2012

Wilkinson Murray is an independent firm established in 1962, originally as Carr & Wilkinson. In 1976 Barry Murray joined founding partner Roger Wilkinson and the firm adopted the name which remains today. From a successful operation in Australia, Wilkinson Murray expanded its reach into Asia by opening a Hong Kong office early in 2006. 2010 saw the introduction of our Queensland office and 2011 the introduction of our Orange office to service a growing client base in these regions. From these offices, Wilkinson Murray services the entire Asia-Pacific region.



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GLOSSARY OF ACOUSTIC TERMS

Most environments are affected by environmental noise which continuously varies, largely as a result of road traffic. To describe the overall noise environment, a number of noise descriptors have been developed and these involve statistical and other analysis of the varying noise over sampling periods, typically taken as 15 minutes. These descriptors, which are demonstrated in the graph below, are here defined.

Maximum Noise Level (L_{Amax}) – The maximum noise level over a sample period is the maximum level, measured on fast response, during the sample period.

L_{A1} – The L_{A1} level is the noise level which is exceeded for 1% of the sample period. During the sample period, the noise level is below the L_{A1} level for 99% of the time.

L_{A10} – The L_{A10} level is the noise level which is exceeded for 10% of the sample period. During the sample period, the noise level is below the L_{A10} level for 90% of the time. The L_{A10} is a common noise descriptor for environmental noise and road traffic noise.

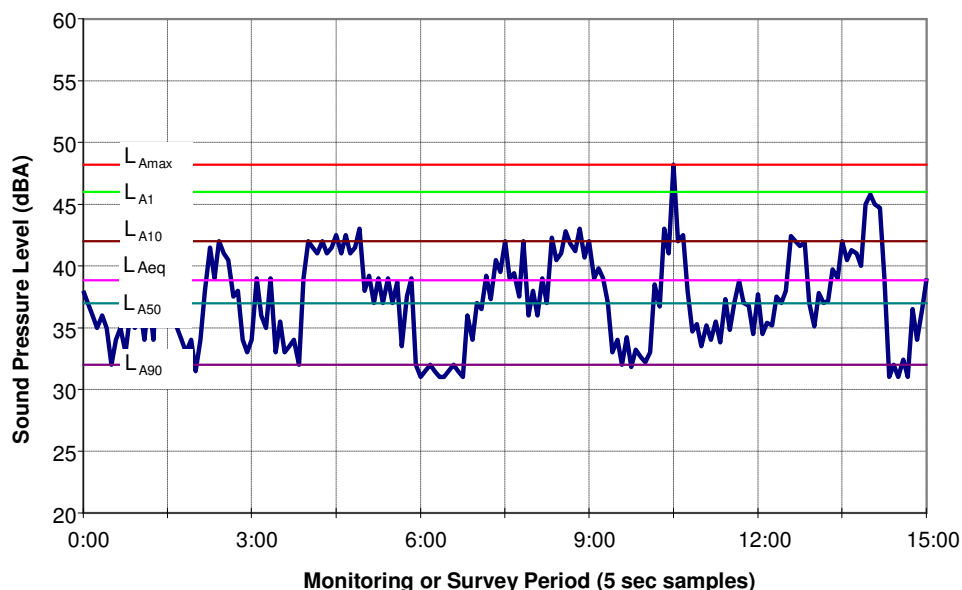
L_{A90} – The L_{A90} level is the noise level which is exceeded for 90% of the sample period. During the sample period, the noise level is below the L_{A90} level for 10% of the time. This measure is commonly referred to as the background noise level.

L_{Aeq} – The equivalent continuous sound level (L_{Aeq}) is the energy average of the varying noise over the sample period and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment. This measure is also a common measure of environmental noise and road traffic noise.

ABL – The Assessment Background Level is the single figure background level representing each assessment period (daytime, evening and night time) for each day. It is determined by calculating the 10th percentile (lowest 10th percent) background level (L_{A90}) for each period.

RBL – The Rating Background Level for each period is the median value of the ABL values for the period over all of the days measured. There is therefore an RBL value for each period – daytime, evening and night time.

Typical Graph of Sound Pressure Level vs Time



1 INTRODUCTION

This report details the half-yearly noise compliance monitoring of operations at Port Kembla Coal Terminal (PKCT) conducted on Wednesday, 18 and Thursday, 19 December 2013 by Wilkinson Murray Pty Limited (WMPL).

The results of this monitoring are compared to the noise limits as outlined in Department of Planning (DoP) Conditions of Approval (CoA) 08/0009, dated 12 June 2009.

These noise measurements occurred during typical operations and are therefore considered to appropriately represent any impacts on nearby residential receivers.

2 SITE DESCRIPTION

The Port Kembla Coal Terminal (PKCT) is a major coal intermodal facility that receives coal by road and rail for loading onto ships for export.

Currently PKCT site operations are permitted 24 hours per day, 7 days per week. The site operations typically include:

- delivery of material by road and rail to receipt hoppers;
- transfer of received coal via conveyor to stackers to be stockpiled prior to arrival of ship;
- transfer of products received to Bulk Product Berth to stockpile via front end loader;
- movement of stockpiled coal to the ship loader using bucket wheel reclaimers and conveyors;
- loading of coal to ship using the ship loader at Berth 102; and
- loading of product received at Bulk Product Berth to ship via ship loader at Berth 101.

Figure 2-1 and **Figure 2-2** shows the site plan of the PKCT site and its location relative to the surrounding receivers, respectively.

Figure 2-1 Site Plan for PKCT



Figure 2-2 PKCT & Surrounding Receivers



3 LEGISLATIVE & OTHER REQUIREMENTS

3.1 Legislative Requirements

Legislation relating to the management of noise includes:

- Protection of the Environment Operations Act 1997 (POEO Act);
- Protection of the Environment Operations (General) Regulation 1998; and
- Protection of the Environment Operations (Noise Control) Regulation 2000.

3.2 Conditions of Approval

The CoA specifies the requirements with which PKCT must comply during its operations, with respect to noise. The CoA conditions for noise include the following:

NOISE

Impact Assessment Criteria

1. *The Proponent shall ensure that the noise generated by the project at any privately-owned residence does not exceed the criteria specified in Table 1 for the location nearest to that residence.*

Table 1 Noise impact assessment criteria dB(A) $L_{Aeq,(15min)}$

Location	Time Period	Noise Criteria $L_{Aeq,(15min)}$ (dBA)
<i>Cnr Swan & Kembla Streets</i>	<i>Day</i>	<i>51</i>
	<i>Evening</i>	<i>50</i>
	<i>Night</i>	<i>49</i>
<i>Cnr Swan & Corrimal Streets</i>	<i>Day</i>	<i>51</i>
	<i>Evening</i>	<i>50</i>
	<i>Night</i>	<i>49</i>
<i>Cnr Keira & Fox Streets</i>	<i>Day</i>	<i>55</i>
	<i>Evening</i>	<i>49</i>
	<i>Night</i>	<i>45</i>

Notes:

- To determine compliance with the $L_{Aeq,(15min)}$ noise level limits in the above table, noise from the project is to be measured at the most affected point within the residential boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the 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.*
- The noise emission limits identified in the above table apply under meteorological conditions of:*
 - *wind speeds of up to 3m/s at 10m above ground level; or*
 - *temperature inversion conditions of up to 3°C/100m, plus a 2m/s source-to-receiver component drainage flow wind at 10m above ground level for those receivers where applicable in accordance with the NSW Industrial Noise Policy.*

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forward to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

Noise Monitoring Program

2. *The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:*
 - a) *be developed in consultation with DECC.*
 - b) *be submitted to the Director-General for approval within 6 months from the date of this approval, or as otherwise agreed by the Director-General; and*
 - c) *include a:*
 - *combination of attended and unattended noise monitoring measures;*
 - *noise monitoring protocol for evaluating compliance with the noise impact assessment criteria in this approval; and*
 - *reasonable and feasible best practice noise mitigation measures to ensure project specific noise criteria are met.*

4 MONITORING INSTRUMENTATION & METHODOLOGY

Due to the complex nature of the noise environment, which involves numerous industrial sources, sub-arterial roadways and close proximity to the Wollongong town centre, traditional noise monitoring with a sound level meter cannot adequately measure the noise contribution from PKCT due to elevated background noise levels.

4.1 Monitoring Instrumentation

A BarnOwl[®] directional noise monitoring system was used to conduct the attended noise monitoring. Directional noise monitoring provides source detection and analysis of noise from the PKCT and excludes operator discretion in the attended monitoring.

BarnOwl[®] uses three microphones spaced 500mm apart. The microphone signals are digitised using 24-bit, state-of-the-art A-D conversion. Specially-developed, optimised signal analysis software allows inter-microphone time differences (and therefore source directions) to be evaluated for a 1/2-second noise sample while the next sample is being acquired. BarnOwl[®] can therefore provide real time tracking of noise sources, with source locations displayed on a monitor and/or saved for later analysis. The system can simultaneously record total noise, and a filtered signal excluding high-frequency sources such as insects. BarnOwl[®] measures in 5 degree increments.

A traditional non-directional sound level meter (SLM) has been used in previous monitoring. This monitoring has demonstrated the validity of BarnOwl[®] as a standalone monitoring system for this application and therefore an SLM is not required. On this occasion, a SLM (Bruel and Kjaer 2236) was used in conjunction with BarnOwl[®] for the convenience of multiple noise descriptors in real-time.

Field calibration of all three BarnOwl[®] microphones and the SLM was undertaken using a Bruel and Kjaer 4230 Portable Acoustic Calibrator. The levels measured were all in specification and no drift occurred.

4.2 Monitoring Locations

Monitoring was conducted as close as possible to the three locations detailed in the CoA, namely:

- Corner Swan & Kembla Streets – In the park on the southern side of Swan Street, opposite Kembla Street. This location is at the same height as nearby residences which are on the northern side of Swan Street;
- Corner Swan & Corrimal Streets – Measurements were undertaken just off the Golf Course Tee on the southern side of Swan Street; and
- Corner Keira & Fox Streets – On the western side of Keira Street, adjacent to 392 Keira Street. This location is of a similar height to nearby residences on Keira Street.

These noise monitoring locations were chosen to cause the least possible disturbance to nearby residents, particularly during late night monitoring, and also to differentiate local noise sources, typically traffic, from the PKCT direction.

During these measurements, WMPL was also present at the receive area to observe the events occurring on-site during measurements at the three monitoring locations.

Figure 4-1 to **Figure 4-3** show the monitoring locations and the relative angular exposure to the PKCT operations. **Figure 4-4** shows the approximate locations where observations and measurements were taken in the vicinity of the receive area.

Figure 4-1 Monitoring Location 1 – Corner Swan & Kembla Streets



The angle of 35° is obtained by setting BarnOwl® to measure between angles 140° to 175°.

Figure 4-2 Monitoring Location 2 – Corner Swan & Corrimal Streets



The angle of 25° is obtained by setting BarnOwl® to measure between angles 170° to 195°.

Figure 4-3 Monitoring Location 3 – Corner Keira & Fox Streets



The angle of 40° is obtained by setting BarnOwl® to measure between angles 125° to 165°.

Figure 4-4 Monitoring Location – Receivals



5 MONITORING RESULTS

The results of the survey are summarised in **Table 5-1** to **Table 5-3**. Each field is defined as follows:

- **Start Date & Time** – The time and date that the measurement was started. All measurements were 15 minutes in duration (unless otherwise noted).
- **Period** – The *INP* time period for that measurement, Day (7.00am – 6.00pm), Evening (6.00pm – 10.00pm) or Night (10.00pm – 7.00am). Note that on Sundays and Public Holidays that the night ends / day begins at 8.00am.
- **Criteria** – As per CoA detailed in Section 3.2 of this report.
- **BarnOwl® All Noise L_{Aeq}** – The total L_{Aeq} averaged over the three microphones – this level is equivalent to that reported for a traditional sound level meter.
- **BarnOwl® PKCT Direction L_{Aeq}** – The total L_{Aeq} for the segment (arc) capturing the PKCT site (may also include some traffic noise or other noise in that segment). In addition, where possible the BarnOwl® operator estimates the contribution directly from PKCT during times when traffic noise or other noise is minimised. This is done by observing the L_{Aeq} regularly within the 15-minute measurement period. Compliance is demonstrated when the Noise Limits are shown to be below BarnOwl PKCT Direction L_{Aeq} , in particular the operator estimated contribution. It is noted that this is limited to no more than 15dB below BarnOwl® All Noise L_{Aeq} , except when the operator estimate is during periods where other noise (i.e. traffic) is low.
- **SLM L_{A90}** – The sound pressure level exceeded for 90% of the measurement. This is commonly used to determine the background noise level in the environment.
- **Wind Speed and Direction** – Obtained from PKCT northern weather station.
- **Stability Class** – Pascal stability class derived from Bluescope Steel weather station.
- **Observations** – This field contains any comments regarding the noise environment, the relative audibility of noise from PKCT and any information of the site activities.

Table 5-1 Summary of Monitoring Results – Location 1 – Corner Swan & Kembla Streets

Date & Start Time	Period	Criteria (dBA)	BarnOwl® PKCT Direction L _{Aeq} (dBA)	BarnOwl® All Noise L _{Aeq} (dBA)	SLM L _{A90} (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
19/12/13 12.15-12.30pm	Day	51	< 49 (≈ 41)	64	55	6.1 - 6.4 m/s 38 -43 Deg	C	YES Not Audible	At measurement location noise dominated by road traffic and wind. PKCT activities not audible. On-site typically 7 truck movements. No other notable site noise.
18/12/13 18.35-18.50pm	Evening	50	< 55 (≈ 47)	70	48	3.4 - 3.6 m/s 34 - 36 Deg	D	YES Not Audible	At measurement location noise dominated by road traffic. PKCT activities not audible. On-site typically 8 truck movements. Train arrival during measurement and remained idling throughout.
19/12/13 12.30-12.45am	Night	49	≈ 31	45	38	0.8 - 1.1 m/s 303 - 330 Deg	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible. On-site typically 13 truck movements. No other notable site noise.
19/12/13 2.40-2.55am	Night	49	< 29 (≈ 28)	44	36	1.6 - 1.9 m/s 346 - 349 Deg	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible. On-site typically 11 truck movements. Slow moving train and intermittent clangs from shed measured at 65dBA on site.

Table 5-2 Summary of Monitoring Results – Location 2 – Corner Swan & Corrimal Streets

Start Date & Time	Period	Criteria (dBA)	BarnOwl® PKCT Direction L _{Aeq} (dBA)	BarnOwl® All Noise L _{Aeq} (dBA)	SLM L _{A90} (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
19/12/13 1.00-1.15pm	Day	51	< 46 (≈ 43)	61	54	6.2m/s 35 - 38 Deg	C	YES Not Audible	At measurement location noise dominated by road traffic and wind. PKCT activities not audible. On-site typically 23 truck movements. Entering trucks backed up in a queue for long periods.
18/12/13 19.15- 19.30pm	Evening	50	< 44 (≈ 41)	59	50	3.2 - 3.6m/s 34 – 36 Deg	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible. On-site typically 4 truck movements. Slow train pass by throughout.
19/12/13 1.10-1.25am	Night	49	< 34 (≈ 32)	49	37	1.2 – 1.3m/s 344 – 357 Deg	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible. On-site typically 17 truck movements. No other notable site noise.
19/12/13 3.05-3.20am	Night	49	< 34 (≈ 29)	46	37	3.2 - 3.6m/s 339 – 347 Deg	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible. On-site typically 6 truck movements. Slow moving train and intermittent clangs from shed measured at 65dBA on site.

Table 5-3 Summary of Monitoring Results – Location 3 – Corner Keira & Fox Streets

Start Date & Time	Period	Criteria (dBA)	BarnOwl® PKCT Direction L _{Aeq} (dBA)	BarnOwl® All Noise L _{Aeq} (dBA)	SLM L _{A90} (dBA)	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations
19/12/13 1.40-1.55pm	Day	51	≈ 53 ¹	64	55	5.9 – 6.8m/s 34 – 37 Deg	D	YES Not Audible	At measurement location noise dominated by road traffic and wind. PKCT activities not audible. On-site typically 18 truck movements. No other notable site noise.
18/12/13 19.50- 20.05pm	Evening	50	≈ 51 ²	61	46	2.8 - 3.1m/s 28 – 31 Deg	D	YES Not Audible	At measurement location noise dominated by road traffic. PKCT activities not audible. On-site typically 11 truck movements. No other notable site noise.
19/12/13 1.55-2.10am	Night	49	≈ 46	53	34	1.3 – 1.4m/s 351 – 357 Deg	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible. On-site typically 11 truck movements. Slow moving train and intermittent clangs from shed measured at 65dBA on site.
19/12/13 3.30-3.45am	Night	49	≈ 39	46	35	1.7 – 2.1m/s 342 – 352 Deg	D	YES Not Audible	At measurement location noise primarily from road traffic. PKCT activities not audible. On-site typically 5 truck movements. Train arrival during measurement and remained idling throughout.

¹ Measurement impacted by heavy winds and significant traffic in the direction of Port Kembla Terminal.

² Measurement impacted by significant traffic noise in the direction of Port Kembla Terminal.

6 ASSESSMENT

6.1 PKCT Site Operations

The PKCT Operations Reports for the monitoring period are presented in Appendix A.

In addition to the above reports, during the measurements WMPL personnel located on-site witnessed the specific road and rail movements.

A summary of the key acoustic points relevant to this assessment are summarised below:

6.1.1 Truck Movements

Over a period of 15-minutes, truck movements in the receivals area during the monitoring ranged from:

- Day 7 to 23
- Evening 4 to 11
- Night 5 to 17

The typical main noise sources as experienced whilst on-site included: trucks going over grids; trucks unloading; trucks moving up over the rail bridge and truck engine and exhaust noise. Truck engine and exhaust noise is considered to be the dominant constant noise source. With respect to typical maximum noise levels, such levels were noted to occur from trucks moving over grids and unloading.

Truck movements during day, evening and night periods were witnessed during all 12 noise measurements.

Considering the monitoring at the residential locations, noise from trucks was inaudible.

These sources were included in the BarnOwl[®] measurement segment (see **Figure 4-1**, **Figure 4-2** and **Figure 4-3**) and as such, have been included in the measurement contribution from the PKCT site.

6.1.2 Rail Movements

During each of the measurements periods, the following train movements have been noted:

Day	no trains
Evening	train unloading between 17:31 – 18:40
	train unloading between 18:59 – 19:38
Night	train unloading between 01:50 – 03:23
	train unloading between 03:36 – 04:52

Train movements during the evening period were witnessed during noise measurements at Location 1 (train entering and idling) and Location 2 (train unloading).

During the night the same train unloading was witnessed at Location 1 (second measurement), Location 2 (second measurement) and Location 3 (first measurement). Whilst at Location 3, prior to the second measurement, it was noted that another train was arriving.

The typical main noise sources as experienced whilst on-site included: noise from locomotives moving, at idle and unloading – a constant low level hum was noted to emanate from the train shed. Locomotive noise is considered to be the dominant constant noise source and also likely to result in the typical maximum levels when moving and unloading. Intermittent “clangs” were in the order of 65dBA.

Considering the monitoring at the residential locations, noise from trains was inaudible.

These sources were included in the BarnOwl[®] measurement segment (see **Figure 4-1**, **Figure 4-2** and **Figure 4-3**) and as such, have been included in the measurement contribution from the PKCT site.

6.1.3 Ship Loading

During these set of measurements a ship arrived at 9:19am on 19 December 2013, however loading did not occur during our measurements.

6.2 Review of Noise from PKCT Direction

During all measurements noise associated with PKCT site activities were deemed to be inaudible.

The estimated L_{Aeq} noise levels using BarnOwl[®] in the direction from PKCT varied as follows:

Day	41 to 53dBA
Evening	41 to 51dBA
Night	28 to 46dBA

The measured noise levels from the direction capturing PKCT (and any other noise in that direction) were within criteria for all times at all locations with the exception of the day and evening measurements for Location 3.

A review of site logs and observations from WMPL personnel onsite confirm no unusual site activities occurred.

On the basis that noise from the site was deemed inaudible and that no unusual site activities were witnessed, it can be concluded that the additional noise in the direction of PCKT is not associated with PCKT operations.

7 CONCLUSION

Wilkinson Murray Pty Limited (WMPL) has conducted compliance noise monitoring for the Port Kembla Coal Terminal during the day, evening and night time periods on Wednesday 18 and Thursday 19 December, 2013 during typical operations.

During the measurements, WMPL personnel were located on-site and witnessed the specific road and rail movements. These were confirmed following a review of The Operations Reports. In addition, following discussions with PKCT personnel and a review of The Operations Reports confirm that a ship was being loaded during some of the noise measurements.

The methodology used has been able to demonstrate compliance of the CoA noise limits for all measurements at all locations during all the monitoring periods.

Furthermore, it can be concluded that the noise from PKCT was inaudible at all times during all measurements.

APPENDIX A
PKCT OPERATIONS REPORTS

ROAD LOG REPORT

17/12/2013 07:00 TO 18/12/2013 07:00



	<u>Start Time</u>	<u>Stop Time</u>	<u>Code</u>	<u>Zone</u>	<u>Dest Machine</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
DELAY	17/12/2013 06:43	17/12/2013 07:09						WAIT ON TRUCKS	26		X
JOB	17/12/2013 07:07	17/12/2013 08:28	BHPA	Z1&2	STK4	4			81	1721	
DELAY	17/12/2013 08:27	17/12/2013 08:46						CHANGING ZONES	18		O
POSN	17/12/2013 08:31	17/12/2013 08:39					STK4	IN POSITION	8		O
JOB	17/12/2013 08:43	17/12/2013 08:54	NREA	Z3	STK4	19		<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :165Mtrs</i>	11	324	
DELAY	17/12/2013 08:53	17/12/2013 09:16						CHANGING ZONES	23		O
POSN	17/12/2013 08:59	17/12/2013 09:05					STK4	IN POSITION	6		O
JOB	17/12/2013 09:10	17/12/2013 09:56	BHPA	Z1&2	STK4	4		<i>Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :166Mtrs</i>	46	1178	
DELAY	17/12/2013 09:57	17/12/2013 10:16						UNKNOWN	19		O
POSN	17/12/2013 10:01	17/12/2013 10:10					STK4	IN POSITION	9		O
JOB	17/12/2013 10:14	17/12/2013 10:42	NREA	Z3	STK4	19		<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :169Mtrs</i>	28	872	
DELAY	17/12/2013 10:41	17/12/2013 11:01						CHANGING ZONES	20		O
POSN	17/12/2013 10:46	17/12/2013 10:55					STK4	IN POSITION	9		O
JOB	17/12/2013 10:59	17/12/2013 12:30	BHPA	Z1&2	STK4	4		<i>Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :171Mtrs</i>	91	1974	
DELAY	17/12/2013 12:30	17/12/2013 12:49						CHANGING ZONES	19		O
POSN	17/12/2013 12:34	17/12/2013 12:43					STK4	IN POSITION	9		O
JOB	17/12/2013 12:47	17/12/2013 13:11	NREA	Z3	STK4	19		<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :175Mtrs</i>	24	843	
DELAY	17/12/2013 13:11	17/12/2013 13:33						CHANGING ZONES	22		O
POSN	17/12/2013 13:19	17/12/2013 13:26					STK4	IN POSITION	7		O
JOB	17/12/2013 13:30	17/12/2013 14:26	BHPA	Z1&2	STK4	4		<i>Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :177Mtrs</i>	56	1532	
DELAY	17/12/2013 14:26	17/12/2013 14:44						CHANGING ZONES	18		O
POSN	17/12/2013 14:29	17/12/2013 14:38					STK4	IN POSITION	9		O
JOB	17/12/2013 14:42	17/12/2013 14:50	NREA	Z3	STK4	19		<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :180Mtrs</i>	8	302	
DELAY	17/12/2013 14:51	17/12/2013 16:05						MAINTENANCE GREASING	73		O

Port Kembla Coal Terminal
December 2013 Compliance Monitoring

ROAD LOG REPORT

17/12/2013 07:00 TO 18/12/2013 07:00



	<u>Start Time</u>	<u>Stop Time</u>	<u>Code</u>	<u>Zone</u>	<u>Dest Machine</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
JOB	17/12/2013 16:03	17/12/2013 16:13	NREA	Z3	STK4	19			10	393	
DELAY	17/12/2013 16:13	17/12/2013 16:31						CHANGING ZONES	18		O
POSN	17/12/2013 16:17	17/12/2013 16:26					STK4	IN POSITION	9		O
								<i>Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :181Mtrs</i>			
JOB	17/12/2013 16:30	17/12/2013 17:42	BHPA	Z1&2	STK4	4			72	2407	
DELAY	17/12/2013 17:42	17/12/2013 18:06						CHANGING ZONES	24		O
POSN	17/12/2013 17:50	17/12/2013 18:01					STK4	IN POSITION	11		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :187Mtrs</i>			
JOB	17/12/2013 18:04	17/12/2013 19:24	NREA	Z3	STK4	19			80	1373	
DELAY	17/12/2013 18:44	17/12/2013 18:50						WAIT ON TRUCKS	6		X
								<i>Filling Bins</i>			
DELAY	17/12/2013 18:53	17/12/2013 19:45						WAIT ON TRUCKS	52		X
								<i>Filling Bins</i>			
POSN	17/12/2013 19:29	17/12/2013 19:40					STK4	IN POSITION	11		O
								<i>Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :189Mtrs</i>			
JOB	17/12/2013 19:43	17/12/2013 20:35	BHPA	Z1&2	STK4	4			52	1427	
DELAY	17/12/2013 20:32	17/12/2013 23:00						WAIT ON TRUCKS	148		X
								<i>Filling Bins</i>			
JOB	17/12/2013 22:58	17/12/2013 23:51	BHPA	Z1&2	STK4	4			53	1110	
DELAY	17/12/2013 23:51	18/12/2013 02:33						WAIT ON TRUCKS	161		X
JOB	18/12/2013 02:31	18/12/2013 03:19	BHPA	Z1&2	STK4	4			48	1156	
DELAY	18/12/2013 03:14	18/12/2013 05:01						WAIT ON TRUCKS	106		X
								<i>Filling bins</i>			
JOB	18/12/2013 04:59	18/12/2013 07:10	BHPA	Z1&2	STK4	4			131	1991	

Port Kembla Coal Terminal
December 2013 Compliance Monitoring

RAIL LOG REPORT

17/12/2013 07:00 TO 18/12/2013 07:00



<u>Start Time</u>	<u>Stop Time</u>	<u>Train/Unit</u>	<u>Code</u>	<u>Dest</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
17/12/2013 06:41	17/12/2013 07:29	CG18 50	NREA	STK1	11			48	1402	
17/12/2013 07:29	17/12/2013 07:41					STK1	IN POSITION	12		O
17/12/2013 07:45	17/12/2013 07:53						Position From Stockpile(11) to Stockpile(9) For HELA from MC68. Distance Travelled :179Mtrs SYSTEM STARTUP	7		O
17/12/2013 07:45	17/12/2013 09:18	MC68 51	HELA	STK1	9			93	3152	
17/12/2013 08:28	17/12/2013 08:31						WAGON DOORS FAULTY	3		PN
17/12/2013 08:32	17/12/2013 08:37						WAGON DOORS FAULTY	4		PN
17/12/2013 08:38	17/12/2013 08:41						WAGON DOORS FAULTY	3		PN
17/12/2013 09:20	17/12/2013 09:31					STK1	IN POSITION	11		O
17/12/2013 10:57	17/12/2013 11:05						Position From Stockpile(9) to Stockpile(11) For NREA from CG14. Distance Travelled :173Mtrs SYSTEM STARTUP	8		O
17/12/2013 10:57	17/12/2013 11:58	CG14 50	NREA	STK1	11			61	1432	
17/12/2013 11:07	17/12/2013 11:27					NC6	BELT RIP TRIP	20		E
17/12/2013 13:04	17/12/2013 13:19					STK2		15		O
17/12/2013 15:52	17/12/2013 16:31	CG16 50	NREA	STK1	11		Position From Stockpile(8) to Stockpile(7) For HELA from MC86. Distance Travelled :121Mtrs	39	1448	
17/12/2013 15:52	17/12/2013 16:01						SYSTEM STARTUP	9		O
17/12/2013 16:34	17/12/2013 16:44					STK1	POSITION FAULT	10		O
17/12/2013 16:42	17/12/2013 16:47						Position From Stockpile(11) to Stockpile(9) For HELA from MC86. Distance Travelled :150Mtrs			
17/12/2013 16:58	17/12/2013 17:04					STK2	IN POSITION	5		O
17/12/2013 16:58	17/12/2013 18:08	MC86 51	HELA	STK1	9		Position From Stockpile(7) to Stockpile(8) For HELB from MC92. Distance Travelled :123Mtrs SYSTEM STARTUP	6		O
17/12/2013 18:13	17/12/2013 18:30					STK1	IN POSITION	17		O
17/12/2013 18:35	17/12/2013 20:24	CA64 52	CENC	STK1	13		Position From Stockpile(9) to Stockpile(13) For CENC from CA64. Distance Travelled :349Mtrs	109	3500	
17/12/2013 18:35	17/12/2013 18:45						SYSTEM STARTUP	11		O
17/12/2013 18:58	17/12/2013 19:28					NC5	FAULT	30		E
17/12/2013 20:25	17/12/2013 22:49	LS48 53	CENC	STK1	13		conveyor 5 TS4 Sampler primary sampler overbelt	144	3400	
17/12/2013 20:25	17/12/2013 20:32						SYSTEM STARTUP	7		O

Port Kembla Coal Terminal
December 2013 Compliance Monitoring

RAIL LOG REPORT

17/12/2013 07:00 TO 18/12/2013 07:00



<u>Start Time</u>	<u>Stop Time</u>	<u>Train/Unit</u>	<u>Code</u>	<u>Dest</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
17/12/2013 20:50	17/12/2013 20:56						WAGON FAULTY	7		PN
17/12/2013 21:06	17/12/2013 21:10						EXAMINER WORKING ON TRAIN	4		PN
17/12/2013 21:22	17/12/2013 21:48						NC6_BI BELT RIP TRIP <i>Fitter working on belt</i>	26		E
17/12/2013 21:49	17/12/2013 21:59						NC6_BI BELT RIP TRIP <i>Fitter working on belt</i>	9		E
17/12/2013 22:01	17/12/2013 22:10						RLBFD FAULT <i>Sensors seem to be in conflict with system cant get system to start up.</i>	9		E
17/12/2013 22:52	17/12/2013 23:06					STK1	IN POSITION <i>Position From Stockpile(13) to Stockpile(11) For NREA from CG18. Distance Travelled :177Mtrs</i>	14		O
17/12/2013 23:15	17/12/2013 23:24						SYSTEM STARTUP	9		O
17/12/2013 23:15	18/12/2013 00:33	CG18	NREA	STK1	11			78	1376	
17/12/2013 23:45	17/12/2013 23:49						EXAMINER WORKING ON TRAIN	4		PN
17/12/2013 23:50	18/12/2013 00:23						EXAMINER WORKING ON TRAIN	33		PN
18/12/2013 00:42	18/12/2013 00:48						BRAKE PROBLEMS ON WAGON SYSTEM STARTUP	6		O
18/12/2013 00:42	18/12/2013 02:21	MC92	51 HELB	STK2	8			99	3068	
18/12/2013 00:56	18/12/2013 01:00						WAGON DOORS FAULTY	4		PN
18/12/2013 01:28	18/12/2013 01:33						WAGON DOORS FAULTY	4		PN
18/12/2013 02:46	18/12/2013 03:11					STK1	IN POSITION <i>Position From Stockpile(11) to Stockpile(16) For CENC from CB78. Distance Travelled :442Mtrs</i>	25		O
18/12/2013 04:55	18/12/2013 05:04						SYSTEM STARTUP	9		O
18/12/2013 04:55	18/12/2013 06:15	CB78	61 CENC	STK1	16			80	3460	
18/12/2013 06:22	18/12/2013 06:46					STK1	IN POSITION <i>Position From Stockpile(16) to Stockpile(11) For NREA from CG20. Distance Travelled :436Mtrs</i>	24		O
18/12/2013 06:54	18/12/2013 07:03					STK1	IN POSITION <i>Position From Stockpile(11) to Stockpile(9) For HELA from MC68. Distance Travelled :175Mtrs</i>	9		O



ROAD LOG REPORT

18/12/2013 07:00 TO 19/12/2013 07:00

	<u>Start Time</u>	<u>Stop Time</u>	<u>Code</u>	<u>Zone</u>	<u>Dest Machine</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
JOB	*****	*****	BHPA	Z1&2	STK4	4			131	1991	
DELAY	*****	*****						WAIT ON TRUCKS	51		X
JOB	*****	*****	BHPA	Z1&2	STK4	4			57	1671	
DELAY	*****	*****						CHANGING ZONES	24		O
POSN	*****	*****					STK4	POSITION FAULT	5		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :85Mtrs</i>			
POSN	*****	*****					STK4	IN POSITION	6		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :119Mtrs</i>			
JOB	*****	*****	NREA	Z3	STK4	19			35	1029	
DELAY	*****	*****						CHANGING ZONES	24		O
POSN	*****	*****					STK4	IN POSITION	10		O
								<i>Positoin from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :208Mtrs</i>			
JOB	*****	*****	BHPA	Z1&2	STK4	4			77	2093	
DELAY	*****	*****						CHANGING ZONES	26		O
POSN	*****	*****					STK4	POSITION FAULT	5		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :88Mtrs</i>			
POSN	*****	*****					STK4	IN POSITION	6		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :122Mtrs</i>			
JOB	*****	*****	NREA	Z3	STK4	19			23	857	
DELAY	*****	*****						CHANGING ZONES	24		O
POSN	*****	*****					STK4	IN POSITION	11		O
								<i>Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :213Mtrs</i>			
JOB	*****	*****	BHPA	Z1&2	STK4	4			34	1212	
POSN	*****	*****					STK2	IN POSITION	17		O
								<i>Position Stacker via manual position task from position 160Mtrs to position 578Mtrs .Position from Stockpile(8) to Stockpile(4)</i>			
DELAY	*****	*****						CHANGING ZONES	18		O
POSN	*****	*****					STK4		12		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :217Mtrs</i>			
POSN	*****	*****					STK2	IN POSITION	6		O
								<i>Position from Stockpile(4) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :131Mtrs</i>			
JOB	*****	*****	BHPA	Z1&2	STK2	4			30	876	
DELAY	*****	*****						CHANGING ZONES	6		O



ROAD LOG REPORT

18/12/2013 07:00 TO 19/12/2013 07:00

	<u>Start Time</u>	<u>Stop Time</u>	<u>Code</u>	<u>Zone</u>	<u>Dest Machine</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
JOB	*****	*****	NREA	Z3	STK4	19			25	834	
DELAY	*****	*****						CHANGING ZONES	8		O
JOB	*****	*****	BHPA	Z1&2	STK2	4			87	1352	
DELAY	*****	*****						FAULT	33		O
DELAY	*****	*****						road reeival to west stockpile loss of control fault			
DELAY	*****	*****						CHANGING ZONES	8		O
JOB	*****	*****	NREA	Z3	STK4	19			33	898	
DELAY	*****	*****						CHANGING ZONES	10		O
JOB	*****	*****	BHPA	Z1&2	STK2	4			55	719	
DELAY	*****	*****						CHANGING ZONES	6		O
JOB	*****	*****	NREA	Z3	STK4	19			24	608	
DELAY	*****	*****						WAIT ON TRUCKS	42		X
POSN	*****	*****					STK4	filling bins IN POSITION	13		O
JOB	*****	*****	BHPA	Z1&2	STK4	4		Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :230Mtrs	38	1141	
DELAY	*****	*****						WAIT ON TRUCKS	21		X
POSN	*****	*****					STK4	filling bins POSITION FAULT	6		O
POSN	*****	*****					STK4	Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :100Mtrs IN POSITION	6		O
JOB	*****	*****	NREA	Z3	STK4	19		Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :127Mtrs	20	352	
POSN	*****	*****					STK4	IN POSITION	13		O
JOB	*****	*****	BHPA	Z1&2	STK4	4		Position from Stockpile(19) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :230Mtrs	74	2026	
DELAY	*****	*****						WAIT ON TRUCKS	34		X
JOB	*****	*****	BHPA	Z1&2	STK4	4		Filling bins	123	2915	
DELAY	*****	*****						WAIT ON TRUCKS	22		X
JOB	*****	*****	BHPA	Z1&2	STK4	4		filling bins	62	1521	
DELAY	*****	*****						CHANGE ROAD FROM EAST TO WEST	121		O
JOB	*****	*****	BHPA	Z1&2	STK4	4		CHANGED FROM ROAD TO RAIL EAST TO WEST	76	2273	

ROAD LOG REPORT

18/12/2013 07:00 TO 19/12/2013 07:00



	<u>Start Time</u>	<u>Stop Time</u>	<u>Code</u>	<u>Zone</u>	<u>Dest Machine</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
DELAY	*****	*****						WAIT ON TRUCKS	38		X
								<i>filling bins</i>			
JOB	*****	*****	BHPA	Z1&2	STK4	4			59	1455	
DELAY	*****	*****						WAIT ON TRUCKS	49		X
POSN	*****	*****					STK2	IN POSITION	22		O
								<i>Position from Stockpile(7) to Stockpile(4) For BHPA from Z1&2. Distance Travelled :583Mtrs</i>			
POSN	*****	*****					STK4	POSITION FAULT	4		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :122Mtrs</i>			
POSN	*****	*****					STK4	IN POSITION	5		O
								<i>Position from Stockpile(4) to Stockpile(19) For NREA from Z3. Distance Travelled :127Mtrs</i>			

Port Kembla Coal Terminal
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RAIL LOG REPORT

18/12/2013 07:00 TO 19/12/2013 07:00



<u>Start Time</u>	<u>Stop Time</u>	<u>Train/Unit</u>	<u>Code</u>	<u>Dest</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
18-DEC-2013 06:54	18-DEC-2013 07:03					STK1	IN POSITION	9		O
							<i>Position From Stockpile(11) to Stockpile(9) For HELA from MC68. Distance Travelled :175Mtrs</i>			
18-DEC-2013 08:47	18-DEC-2013 09:07						SYSTEM STARTUP	20		O
18-DEC-2013 08:47	18-DEC-2013 10:34	MC68	51 HELA		STK1	9		107	3168	
18-DEC-2013 09:37	18-DEC-2013 09:44						WAGON DOORS FAULTY	7		PN
18-DEC-2013 10:37	18-DEC-2013 10:48					STK1	IN POSITION	11		O
							<i>Position From Stockpile(9) to Stockpile(11) For NREA from CG20. Distance Travelled :169Mtrs</i>			
18-DEC-2013 10:54	18-DEC-2013 11:03						SYSTEM STARTUP	9		O
18-DEC-2013 10:54	18-DEC-2013 11:38	CG20	50 NREA		STK1	11		44	1394	
18-DEC-2013 14:02	18-DEC-2013 14:13					STK1	IN POSITION	11		O
							<i>Position From Stockpile(11) to Stockpile(13) For CENC from CB96. Distance Travelled :173Mtrs</i>			
18-DEC-2013 15:25	18-DEC-2013 15:34						SYSTEM STARTUP	10		O
18-DEC-2013 15:25	18-DEC-2013 16:45	CB96	56 CENC		STK1	13		80	3534	
18-DEC-2013 16:52	18-DEC-2013 17:05					STK1	POSITION FAULT	13		O
							<i>Position From Stockpile(13) to Stockpile(9) For HELA from MC86. Distance Travelled :263Mtrs</i>			
18-DEC-2013 17:31	18-DEC-2013 17:40						SYSTEM STARTUP	9		O
18-DEC-2013 17:31	18-DEC-2013 18:40	MC86	51 HELA		STK1	9		69	3124	
18-DEC-2013 18:18	18-DEC-2013 18:37					STK2		19		O
							<i>Position From Stockpile(4) to Stockpile(7) For HELA from MC92. Distance Travelled :454Mtrs</i>			
18-DEC-2013 18:37	18-DEC-2013 18:55					STK2		18		O
							<i>Position From Stockpile(8) to Stockpile(7) For HELA from MC92. Distance Travelled :152Mtrs</i>			
18-DEC-2013 18:43	18-DEC-2013 18:54					STK1	IN POSITION	11		O
							<i>Position From Stockpile(9) to Stockpile(11) For NREA from CG16. Distance Travelled :162Mtrs</i>			
18-DEC-2013 18:59	18-DEC-2013 19:38	CG16	50 NREA		STK1	11		39	1548	
18-DEC-2013 18:59	18-DEC-2013 19:08						SYSTEM STARTUP	10		O
18-DEC-2013 20:19	18-DEC-2013 20:30					STK1	IN POSITION	11		O
							<i>Position From Stockpile(11) to Stockpile(13) For CENC from CB78. Distance Travelled :171Mtrs</i>			
19-DEC-2013 01:50	19-DEC-2013 02:04						SYSTEM STARTUP	14		O
19-DEC-2013 01:50	19-DEC-2013 03:23	MC92	51 HELA		STK2	7		93	3008	
19-DEC-2013 02:45	19-DEC-2013 02:48						BF6_BE BELT SLIP TRIP	3		E
19-DEC-2013 02:55	19-DEC-2013 02:58					BF6	LIMIT/PROXIMITY FAULT	3		E
							<i>CENSORS ON BELT FEEDERS DROPPING OUT WITH FAULTS</i>			

RAIL LOG REPORT

18/12/2013 07:00 TO 19/12/2013 07:00



<u>Start Time</u>	<u>Stop Time</u>	<u>Train/Unit</u>	<u>Code</u>	<u>Dest</u>	<u>StPile</u>	<u>Delay Equip</u>	<u>Delay Reason</u>	<u>Dur</u>	<u>Tonnes</u>	<u>Cat</u>
19-DEC-2013 03:36	19-DEC-2013 03:46						SYSTEM STARTUP	10		O
19-DEC-2013 03:36	19-DEC-2013 04:52	CB78 52	CENC	STK1	13			76	3440	
19-DEC-2013 05:45	19-DEC-2013 05:51						SYSTEM STARTUP	5		O
19-DEC-2013 05:51	19-DEC-2013 06:05						NC6_BI BELT RIP TRIP	15		E
19-DEC-2013 06:05	19-DEC-2013 06:46						NC6_BI BELT RIP TRIP	41		E

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Ship Loading Log Report:

From	To	Source Equip	Stack	Dest Equip	Hatch	Delay Equipment	Delay Description	Minute	Tonnage	Cat
Vessel Name		VENUS HORIZON								
Start Date		19/12/13 12:19								
Berth Date		19/12/13 9:04								
Complete Date		21/12/13 1:56								
19/12/2013 9:25	10:01						MASTERS INSTRUCTIONS	36		V
		<i>Opening Hatches : Rigging Gangway : Initial Survey</i>								
19/12/2013 10:01	10:41					SL2BH_ROPES	FAULT	40		E
		<i>shuttle rope equaliser sw prox sw2 fault</i>								
19/12/2013 10:41	10:59					NC11_MOTOR	OVERTEMPERATURE TRIP	18		E
19/12/2013 10:59	11:07					NC14_MOTOR	OVERTEMPERATURE TRIP	8		E
		<i>motor B drive end end bearing overtemp</i>								
19/12/2013 11:07	11:11					NC11	FAILED TO START	4		E
		<i>nc 11 winch too many adjustments</i>								
19/12/2013 11:11	12:04					NC14_MOTOR	OVERLOAD	53		E
		<i>motor B overload earth fault. Waiting for motor to cool down</i>								
19/12/2013 12:05	12:19					NC11_MOTOR	OVERTEMPERATURE TRIP	14		E
19/12/2013 12:15	14:31	RC1	4	SL2	3			136	6596	
19/12/2013 12:20	12:27					RC1	SLACK CABLE	7		E
19/12/2013 12:27	12:30					RC1	SLACK CABLE	3		E
19/12/2013 13:30	13:33						COAL GAP	3		O
19/12/2013 13:33	13:37						RECLAIMER REPOSITION	4		O
		<i>reclaimer changing bench levels</i>								

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Ship Loading Log Report:

Vessel Name		VENUS HORIZON									
Start Date		19/12/13 12:19									
Berth Date		19/12/13 9:04									
Complete Date		21/12/13 1:56									
From	To	Source Equip	Stack	Dest Equip	Hatch	Delay Equipment	Delay Description	Minute	Tonnage	Cat	
19/12/2013 14:32	14:41						HATCH CHANGE	9		O	
19/12/2013 14:38	16:32	RC1	4	SL2	5			114	6580		
19/12/2013 15:02	15:07						RECLAIMER REPOSITION	5		O	
							<i>reclaimer changing bench levels</i>				
19/12/2013 15:29	15:46					SL2BH	FAULT	17		E	
							<i>SLD2 bh motor cooling fan failed to close</i>				
19/12/2013 15:48	15:51						COAL GAP	3		O	
19/12/2013 16:33	16:47						HATCH CHANGE	14		O	
19/12/2013 16:44	18:06	RC1	4	SL2	1			82	6092		
19/12/2013 17:12	17:20						RECLAIMER REPOSITION	8		O	
							<i>changing bench level</i>				
19/12/2013 18:07	18:26						HATCH CHANGE	19		O	
19/12/2013 18:23	19:51	RC1	4	SL2	7			88	6560		
19/12/2013 19:52	20:08						HATCH CHANGE	16		O	
19/12/2013 20:06	21:28	RC1	4	SL2	2			82	6052		

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Ship Loading Log Report:

Vessel Name VENUS HORIZON

Start Date 19/12/13 12:19

Berth Date 19/12/13 9:04

Complete Date 21/12/13 1:56

From	To	Source Equip	Stack	Dest Equip	Hatch	Delay Equipment	Delay Description	Minute	Tonnage	Cat
19/12/2013 21:28	21:44						HATCH CHANGE	16		O
19/12/2013 21:40	0:33	RC1	4	SL2	6			173	6520	
19/12/2013 22:32	22:45						RECLAIMER REPOSITION	13		O
19/12/2013 22:48	23:32					RC1	PACE COLLISION STOP	44		E
19/12/2013 23:33	23:43						RECLAIMER REPOSITION	10		O
20/12/2013 0:33	0:57						HATCH CHANGE	24		O
20/12/2013 0:54	4:36	RC1	4	SL2	4			222	10304	
20/12/2013 1:35	1:44					RC1	SLEW OVERSPEED	9		E
20/12/2013 3:37	3:49					SL2	SLACK CABLE	12		E
20/12/2013 3:54	4:00						POSITION RECLAIMER	6		O
20/12/2013 4:27	4:43					SL2	SLACK CABLE	16		E

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Ship Loading Log Report:

Vessel Name		VENUS HORIZON								
Start Date		19/12/13 12:19								
Berth Date		19/12/13 9:04								
Complete Date		21/12/13 1:56								
From	To	Source Equip	Stack	Dest Equip	Hatch	Delay Equipment	Delay Description	Minute	Tonnage	Cat
20/12/2013 4:39	6:01	RC1	4	SL2	5			82	4448	
20/12/2013 4:49	5:02					RC2	POSITION FAULT	13		E
							<i>reclaimer jumping out of bench level</i>			
20/12/2013 5:37	5:48					RC1	RECLAIMER REPOSITION	11		O
20/12/2013 6:01	6:14						HATCH CHANGE	13		O
20/12/2013 6:11	17:13	RC1	4	SL2	2			662	6028	
20/12/2013 6:44	6:59					SL2LT	SLACK CABLE	15		E
20/12/2013 7:40	15:30						MEETING, TEAM SAFETY	470		O
20/12/2013 15:30	15:40					GENERAL	MOVE INTO HATCH	10		O
20/12/2013 15:40	16:33					SL2SH	FAULT	53		E
							<i>Shuttle motor fan not running fault.</i>			
20/12/2013 17:27	19:09	RC1	4	SL2	7			102	5424	
20/12/2013 17:35	17:38						COAL GAP	3		O
20/12/2013 18:50	18:59					RC1	FAULT	9		O
							<i>Loss of hatch run figures resulting in loss of manual reclaim operation.</i>			
20/12/2013 19:08	19:22						HATCH CHANGE	14		O

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Ship Loading Log Report:

Vessel Name		VENUS HORIZON									
Start Date		19/12/13 12:19									
Berth Date		19/12/13 9:04									
Complete Date		21/12/13 1:56									
From	To	Source Equip	Stack	Dest Equip	Hatch	Delay Equipment	Delay Description	Minute	Tonnage	Cat	
20/12/2013 19:19	20:24	RC1	4	SL2	3			65	5036		
20/12/2013 20:23	20:36						HATCH CHANGE	13		O	
20/12/2013 20:32	22:13	RC1	4	SL2	6			101	5460		
20/12/2013 21:08	21:23					RC1	PACE COLLISION STOP	15		E	
20/12/2013 21:23	21:33						RECLAIMER REPOSITION	10		O	
20/12/2013 22:14	22:31						HATCH CHANGE	17		O	
20/12/2013 22:26	23:52	RC1	4	SL2	1			86	5728		
20/12/2013 23:51	0:16						DRAFT CHECK	25		V	
21/12/2013 0:12	1:01	RC1	4	SL2	2			49	1176		
21/12/2013 0:30	0:39					RC1BW	OVERLOAD	9		E	
							<i>Bucket wheel drive overload or earth trip fault.</i>				
21/12/2013 0:46	0:56					RC1BW	OVERLOAD	10		E	
							<i>Bucket wheel drive overload or earth trip fault.</i>				
21/12/2013 1:02	1:16						HATCH CHANGE	14		O	

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Ship Loading Log Report:

Vessel Name VENUS HORIZON

Start Date 19/12/13 12:19

Berth Date 19/12/13 9:04

Complete Date 21/12/13 1:56

From	To	Source Equip	Stack	Dest Equip	Hatch	Delay Equipment	Delay Description	Minute	Tonnage	Cat
21/12/2013 1:12	1:40	RC1	4	SL2	6			28	992	
21/12/2013 1:31	1:34						COAL GAP	3		O
21/12/2013 1:41	1:56						DRAFT CHECK	15		V

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