Australian Government
Department of Industry, Innovation and Science

Anti-Dumping Commission

INVESTIGATION 312

CONTINUATION OF ANTI-DUMPING MEASURES

AMMONIUM NITRATE

THE RUSSIAN FEDERATION

(EITHER DIRECTLY OR VIA ESTONIA)

VISIT REPORT – AUSTRALIAN MANUFACTURER

ORICA AUSTRALIA PTY LTD

THIS REPORT AND THE VIEWS OR RECOMMENDATIONS CONTAINED THEREIN WILL BE REVIEWED BY THE CASE MANAGEMENT TEAM AND MAY NOT REFLECT THE FINAL POSITION OF ANTI-DUMPING COMMISSION

November 2015

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1. ABBREVIATIONS

the applicants	Orica Australia Pty Ltd and CSBP Limited
the Commission	Anti-Dumping Commission
the Commissioner	the Commissioner of the Anti-Dumping Commission
ADN	Anti-Dumping Notice
Orica	Orica Australia Pty Ltd
the goods	ammonium nitrate as per section 2 - the goods the subject of the continuation inquiry
Russia	the Russian Federation
the Parliamentary Secretary	Assistant Minister for Science and the Parliamentary Secretary to the Minister for Industry, Innovation and Science
KI	Kooragang Island
SEF	Statement of Essential Facts
CON 312	Consideration Report 312
CSBP	CSBP Limited
ABF	Australian Border Force
DTH	down the hole
MMU	mobile manufacturing units
CTMS	cost to make and sell
SG&A Costs	selling, general and administration costs

2. BACKGROUND

2.1 Background to Continuation Inquiry

On the 9 October 2015 the Commissioner of the Anti-Dumping Commission (the Commissioner) initiated a continuation inquiry to determine whether the continuation of anti-dumping measures applying to certain ammonium nitrates exported to Australia from the Russian Federation (Russia) is justified.

Further information in relation to the initiation of this continuation inquiry is contained in Anti-Dumping Notice (ADN) 2015/119.[1]

History of the anti-dumping measures applying to ammonium nitrate is contained in *Consideration Report 312* (CON 312) relating to the initiation of this inquiry.[2]

2.2 The goods

The goods under consideration

The goods the subject of the current anti-dumping measures are ammonium nitrate, prilled, granular or in other solid form, with or without additives or coatings, in packages exceeding 10 kg, exported to Australia from Russia.

Ammonium nitrate is broadly categorised into two grades – low density and high density. Low density ammonium nitrate is generally of solid prilled form and is typically used in the manufacture of explosives. It is blended with fuel oil to make one of the most commonly used explosives in Australia. Low density ammonium nitrate is generally coated with additives to enhance its properties.

Globally, high density solid ammonium nitrate, which can be in granular or prilled form, is generally used in the agricultural sector as a fertiliser. In Australia, high density ammonium nitrate is mainly used for this purpose. However, high density ammonium nitrate can also be used in the manufacture of explosives.

Ammonium nitrate can also be in a solution state, which may also be used in the manufacture of emulsion phase explosives.

Tariff classification

Ammonium nitrate, whether or not in aqueous solution, is classified within sub-heading 3102.30.00, statistical code 05, in Schedule 3 to the *Customs Tariff Act 1995*. The duty rate is free from all sources.

2.3 Purpose of visit

The Anti- Dumping Commission (Commission) completed a verification visit to Orica Australia Pty Ltd (Orica) at its Brisbane offices. The purpose of the visit was to:

- obtain relevant information about the Australian market for ammonium nitrate;

[1] See record number 1 on public record.
[2] See record number 2 on public record.

- gain a greater understanding of the company's manufacturing, marketing and distribution processes;
- verify information provided in the application;
- obtain relevant financial data about the likelihood of future injury to the Australian industry; and
- gather information relevant to assessing whether the resumption of imports would be at dumped prices, and would cause material injury to the Australian industry.

2.4 Meeting Details

The applicant provided the following contact details.

Company	Orica Australia Pty Ltd
ABN	99 004 117 828
Company representative	Mr Malcolm Hart - AN Product Manager Australia Asia
Nominated representative	John O'Connor- John O'Connor & Associates Pty Ltd
Date of visit	17- 18 November 2015

The following were present at various stages of the verification.

Company Representatives	Mr Malcolm Hart - Mr Tim Kuswadi - Mr Darren Jones- Mr Toby Iemma -	AN Product Manager Australia Asia Finance Team Lead - Projects Finance Manager Nitrates Market Lead
Anti-Dumping Commission	Mr Rhys Piper - Mr Tim King - Ms Chris Kunaratnam -	Director – Operations 1 Assistant Director – Operations 3 Senior investigator Operations 4

2.5 Investigation Process and Timeframes

The Orica representatives at the meeting were advised that the Statement of Essential Facts (SEF) is due to be published on 27 January 2016 and that the final report is due to be provided to the Assistant Minister for Science and the Parliamentary Secretary to the Minister for Industry, Innovation and Science (the Parliamentary Secretary) by 14 March 2015.

2.6 Visit Report

The visit team explained to Orica that we would prepare a report of our visit (this report) and provide it to Orica to review its factual accuracy, and to identify those parts of the report it considers confidential.

We explained that, in consultation with Orica, we would prepare a non-confidential version of the report, and place this on the inquiry's Public Record.

3. THE AUSTRALIAN INDUSTRY AND LIKE GOODS

3.1 Australian Industry

The Australian industry producing ammonium nitrate is comprised of Orica, CSBP Limited (CSBP), QNP, Incitec Pivot and Yara Pilbara. QNP is a joint venture between CSBP and Dyno Nobel, an Incitec Pivot company. Yara Pilbara is a joint venture between Orica and Yara International, a Norwegian chemical company.

The application for this continuation inquiry was lodged by CSBP and Orica (the applicants).

In the application it was stated that CSBP and Orica accounted for approximately 70% of the total Australian production capacity of ammonium nitrate.

Orica produces ammonium nitrate at two locations, Yarwun in Queensland and Kooragang Island (KI) in New South Wales. The main raw material used in the production of ammonium nitrate is ammonia, which Orica produces at KI.[3]

3.2 Corporate, Organisational and Ownership Structure

Orica is a wholly owned subsidiary of Orica Limited, an Australian publicly listed company.

Originally incorporated in 1925, Orica has been known by its current name since February 1998. Orica Limited claims that companies within the Orica group have manufactured and supplied explosives since 1874.

Orica has both domestic and international operations. It manufactures and supplies commercial explosives and initiating systems to the mining, quarrying and construction industries. It also performs blasting services for its customers and manufactures sodium cyanide for gold extraction. Orica claims to be the world's largest supplier of commercial explosives and a global leader in the provision of ground support in mining and tunnelling, and a leading supplier of sodium cyanide for gold extraction. Orica operates in more than 50 countries and has customers in over 100 countries, including Russia.

In 2006, Orica Limited acquired its second largest competitor in the global explosives market, Dyno Nobel. The Australian operations of Dyno Nobel are now owned by Incitec Pivot Limited as the Australian Competition and Consumer Commission (ACCC) prevented Orica from purchasing Dyno Nobel. Orica is not related to any of its competitors.

Subsequent to the 2010 continuation enquiry, material changes to Orica's corporate structure have been:

- Minova, which provided geotechnical solutions for mining, was fully integrated into Orica's operations after being initially acquired in 2007.

[3] Orica on occasion also imports ammonium nitrate.

- Orica's Chemical Business was sold to the Blackstone Group in March 2015. Orica continues to manufacture and sell sodium cyanide. However, the manufacture and sale of sodium cyanide is now incorporated into its mining services business.
- In August 2015 Orica announced an operational restructure to enable the business to respond to customer needs more effectively.

Orica provided a presentation on its operations. This is attached at **Confidential Attachment Gen 1.**

3.3 Accounting Structure and Details of Accounting Systems

Orica operates on an October to September financial year.

Orica explained that it used [redacted] as its accounting system for its Australian operations with [redacted] being used for the purposes of consolidating the Orica group of companies' accounts into the annual audited financial statements. [redacted] was used for financial analysis. Production volumes and raw material usage was measured and monitored using [redacted] software. Where applicable, [redacted] is input into [redacted] daily.

Orica provided a list of its profit centres, cost centres and cost hierarchies which were applicable to ammonium nitrate production (**Confidential Attachment Gen 1**).

Orica advised that, subsequent to the 2010 continuation enquiry, the only significant change to its accounting policies was that corporate recharges were no longer made to the downstream business.

3.4 Relationship with Suppliers and Customers

Sales to Australian customers are predominately made on a [redacted] basis, with approximately [redacted] of Orica's business being conducted in this way. [redacted] See **Confidential Attachment Gen 1.**

It is Orica's policy to maintain a [redacted]. Contracts with customers usually range from [redacted], although there were some [redacted]. The contracts generally [redacted] which are negotiated on a contract to contract basis. Most contracts are tendered for. Orica advised that it is not related to any of its Australian customers.

Orica advised that it was different to other Australian producers of ammonium nitrate. Orica sees itself as a mining service provider that seeks to provide a service which includes both the provision of bulk explosives (containing ammonium nitrate) and related services to assist with blasting on site.

Orica advised that it has a [redacted] agreement with [redacted] as needed, at an agreed price set by reference to prevailing import

prices, however these arrangements commenced in September 2015 and therefore occurred outside of the inquiry period.[4]

Orica advised that customers are prepared to pay [redacted] for the benefits of local supply. Orica advised that the [redacted] it was able to [redacted] was currently between [redacted]. Orica provided an example of its import factory gate equivalent pricing calculations which is contained in **Confidential Attachment Gen 1.**

Orica advised that it is not related to any of its suppliers. However, it was noted that Orica has entered into a joint venture with Yara International to develop a production facility on the Burrup Peninsula (due to commence production in mid-2016). Yara International has supplied [redacted] to Orica in the [redacted].

3.5 Manufacturing Facilities

Orica produces ammonium nitrate at two locations, Yarwun in Queensland and KI in New South Wales. The main raw material used in the production of ammonium nitrate is ammonia which is produced from natural gas (CH_4) at KI.

3.6 The production process

Ammonium nitrate (NH_4NO_3) is produced by reacting ammonia (NH_3) with nitric acid (HNO_3).

Ammonia production

Orica produces ammonia from natural gas at its KI plant. Ammonia is produced by combining natural gas with steam over a catalyst bed to produce hydrogen and carbon dioxide (CO_2). The hydrogen and nitrogen, from the air, is reacted in a final catalyst bed to produce ammonia gas. The ammonia gas is cooled to [redacted]C at which point it becomes a liquid which is stored in tanks. The carbon dioxide by-product is captured and also sold by Orica (for example, to carbonated beverage manufacturers).

All of Orica's ammonia requirements for the [redacted]. The Yarwun plant does [redacted]; its [redacted] are predominantly supplied either from [redacted]. Currently, around [redacted]% of Yarwun's [redacted] requirements are obtained from [redacted].

Nitric acid production

Nitric acid is produced by converting ammonia through a succession of chemical reactions, including a catalyst comprising wire gauze made from platinum, rhodium and palladium. Ammonia is reacted with oxygen to produce nitric oxide, which is then reacted with oxygen to form nitrogen dioxide. The nitrogen dioxide

[4] 1 July 2014 to 30 June 2015.

is converted into nitric acid with the addition of steam. The gauze is expensive and needs to be replaced at regular intervals of between [redacted] days.

Ammonium nitrate production

Ammonia is reacted with nitric acid in a neutralization reaction to produce an ammonium nitrate solution of approximately [redacted]% concentration. The percentage varies depending on the efficiency of the plant.

The ammonium nitrate is then heated with steam to boil away water and produce a [redacted] solution.

To produce prilled ammonium nitrate, the resulting mixture is fed into the top of a prilling tower (approximately 60 metres) where it is sprayed into a current of cool rising air that dries the falling ammonium nitrate drops, forming individual solid prills. The prills are then collected at the bottom of the tower, further cooled and coated to reduce its ability to absorb water, improving handling and storage characteristics. An inorganic additive is also blended during the production process in order to stabilise the prills' structure and form.

Confidential Attachment Gen 1 contains copies of process diagrams for the ammonium nitrate, ammonia and nitric acid manufacturing processes.

3.7 Product range

Globally, ammonium nitrate is used predominantly in the production of fertilisers. However, in Australia it is mainly used by the mining and quarrying industries for explosives. Orica advised that it does not ordinarily sell ammonium nitrate in the fertiliser market.

The products manufactured by Orica include the following:

- ANSOL – a liquid, ammonium nitrate solution;
- HDAN, also called OPAL – high density ammonium nitrate; and
- LDAN, also called Nitropril, Universal Prill, ANOPRIL and PPAN.

Orica provided listings of the different ammonium nitrate products it produced, which have varying levels of ammonium nitrate concentrate and varying formats (eg solution, prill). These are contained in **Confidential Attachment Gen 1.**

The main types of explosives produced by Orica are ANFO (ammonium nitrate fuel oil), heavy ANFO and emulsion explosives.

ANFO is a mixture of ammonium nitrate and diesel fuel. The diesel fuel is absorbed within the prills. It is made using low density ammonium nitrate. The density of the ammonium nitrate and other chemical properties determine the diesel fuel retention rate, which governs its suitability for use as an explosive. ANFO is generally only suitable for dry hole blasting. ANFO made from high density ammonium nitrate is not effective for blasting use.

Heavy ANFO is a mixture of ammonium nitrate, diesel fuel and emulsion explosives. The diesel fuel is absorbed within the prills and the emulsion explosive coats and fills the voids between the prills and provides some water resistance. Heavy ANFO is used in applications where more energy, rather than water resistance, is required. Heavy ANFO may contain [redacted] emulsion explosives. Consequently, there is more ammonium nitrate in the blast hole and this results in greater blasting power. The ANFO in these applications is also most effective when it is made using low density ammonium nitrate.

Ammonium nitrate emulsions are made by blending ammonium nitrate solution with certain emulsifiers and fuel oil; the final emulsion is a semi-solid product. Emulsion explosives are made by mixing ammonium nitrate emulsions with ANFO or ammonium nitrate. Typically they contain more than [redacted]% emulsion and the finished product is waterproof and suitable for wet hole blasting. The ammonium nitrate solution used to make emulsion explosives can be obtained by using the solution before it is prilled or granulated. Orica has several emulsion plants around the country and although the solution can be transported to them, transportation would involve using heated tankers (to prevent the solution from solidifying), which can be expensive. Given the logistical problems in transporting solutions, emulsions can also be made by dissolving high density ammonium nitrate.

Orica claimed that both high and low density ammonium nitrate can be dissolved to make emulsion explosives depending on the application. However, certain additives are added during the production of low density ammonium nitrate to enhance its storage, handling and transportation properties. Orica stated that these need to be removed, or skimmed from the solution, before low density ammonium nitrate can be used to make emulsion explosives. Orica stated that due to the need to remove these additives and the price premium applicable to low density ammonium nitrate, high density ammonium nitrate is generally used where ammonium nitrate solution is not available.

3.8 Annual Turnover

For its 2015 financial year, Orica reported sales of $5.6 billion, of which some $4.7 billion (84%) related to its explosives business.

3.9 Capacity

Table 1below details Orica's production capacities in Australia.

Plant	Location	Capacity
Yarwun	Qld, Australia	550 Ktpa
KI (KI)	NSW, Australia	430 Ktpa
Burrup *(commencing mid 2016)*	WA, Australia	300 Kpta

Table 1: Orica's AN Australian production capacity

In Australia, ammonium nitrate is supplied to customers from its KI and Yarwun sites. Orica is currently constructing an ammonium nitrate manufacturing plant in

Burrup, Western Australia, which is due to be completed during 2016 and will be used to supply its customers in the west coast more effectively.

The nameplate capacity at KI is 455,000 tonnes per annum with the plant operating 24/7 but the usual capacity is [redacted] tonnes.

The nameplate capacity at Yarwun is 550,000 tonnes per annum. Orica regards Yarwun as a [redacted] plant which can be [redacted], as required.

Orica advised that KI supplies approximately [redacted]% of its total production and Yarwun approximately [redacted]%. In September 2015, Orica announced a reduction in production and jobs at its Yarwun site with production to be reduced from [redacted] tonnes of ammonium nitrate to [redacted] tonnes. This lower level of production is [redacted], given [redacted] for blasting activities on the [redacted].

3.10 Like Goods

Orica produces low density prills and ammonium nitrate solution. While it manufactures a small quantity of high density ammonium nitrate, this product is only used internally by Orica or is exported.

Orica advised that the ammonium nitrate it produces was predominately for use in explosives. Immaterial amounts of degraded prill or diluted ammonium nitrate solution were sold for use as fertiliser.

Orica was asked whether it could [redacted] ammonium nitrate in the production of its explosives. Orica advised there were some additional risks using [redacted] ammonium nitrate, as the product can [redacted] during the [redacted] journey. If the ammonium nitrate [redacted] where the temperature reaches [redacted] degrees or higher, the product can commence [redacted] (a process whereby the [redacted]) affecting its [redacted] and handling properties. Despite this, Orica indicated that both high and low density ammonium nitrate imported from Russia could be, and is, used, subject to testing. Orica advised that in Latin America, particularly Brazil, where there has historically been insufficient local supply of ammonium nitrate, the industry imports low and high density ammonium nitrate for use in explosives.

Orica also stated that it did not consider Russian ammonium nitrate to be as high quality as the ammonium nitrate it produced. It further advised that other explosives suppliers were prepared to use Russian ammonium nitrate, which was accepted by some mining companies.

Australian Border Force (ABF) considered the issue of like goods during the original investigation as well as in the subsequent continuation reviews. As part of its consideration it also sought the views of all interested parties. The ABF concluded that ammonium nitrate, irrespective of whether in solid or solution state,

prilled or granular form, low or high density, was like goods. The visit team obtained no evidence to suggest that this is an unreasonable conclusion.

3.11 Conclusion

Orica is a manufacturer of the goods under consideration as defined in the like goods category.

4. AUSTRALIAN MARKET

4.1 Market size

In the current application Orica and CSBP estimated the size of the Australian ammonium nitrate market to be approximately 2.0 million tonnes in 2014/15, a 33% increase from the estimated 1.5 million tonnes in 2009/10.

In the application Orica and CSBP stated that imports from the Ukraine, China and Russia accounted for approximately 57,500 tonnes of the approximate 142,300 tonnes of ammonium nitrate imported in 2009/10. Imports from Russia were approximately 3,665 tonnes or 2.6% of the total import volumes during 2014/15.

4.2 Market Segmentation and End Use

Ammonium nitrate has two primary uses, being the manufacture of explosives and fertilisers. Orica advised that in Australia ammonium nitrate is predominantly used by the mining and quarrying industries as a raw material for explosives manufacture. Orica advised that ammonium nitrate had limited usage in Australia as a fertiliser.

Orica stated that it viewed itself as a provider of commercial explosives, blasting systems, chemicals (sodium cyanide)[5] and services to the mining sector. Except for the sale of immaterial amounts of dilute ammonium nitrate waste and degraded prill products, Orica advised that it did not supply ammonium nitrate for use as a fertiliser.

The mining sector was broadly divided into open cut mining, underground mining and to a lesser extent quarrying. The major commodities mined in Australia are gold, iron ore and coal (thermal and metallurgical). Copper and other metals are also mined.

Orica provided a diagram illustrating the ammonium nitrate supply channels for the mining sector:

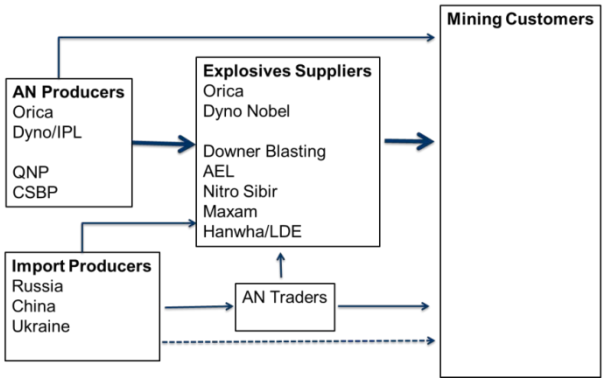

Figure 1: Ammonium nitrate supply channels to the mining sector

[5] In March 2015 Orica sold its chemical business, Orica Chemicals, however, it continues to produce sodium cyanide.

Australian ammonium nitrate production plants and supply channels are typically organised to be geographically close to mining sites. The Australian market is geographically divided into west coast and east coast segments. Orica's two operational ammonium nitrate plants are both located on the east coast of Australia. Orica, as a part of a joint venture, is currently constructing an ammonium nitrate manufacturing plant in Burrup, Western Australia. This plant is due to be commissioned during 2016.

4.3 Demand

Subsequent to the 2010 continuation inquiry, Orica's domestic sales volumes of finished like goods (ammonia nitrate, bulk explosives and packaged explosives) has steadily increased, however [redacted] during the 2014/15 financial year.

Orica advised that slowing commodity growth had resulted in the easing of the ammonium nitrate demand growth that had been experienced since 2010. Orica advised that its demand modelling indicated [redacted] and that the trend in outlook for the use of [redacted]. Orica advised that the anticipated [redacted] demand was matched with [redacted] demand. This would result in a [redacted], but a subsequent [redacted] in the Australian ammonia nitrate market would occur for the next five years. Orica provided a presentation which included information on its forecasted domestic demand and supply of ammonia nitrate in the Australian market until 2022 (see **Confidential Attachment Gen 1**).

Orica advised that it developed its forecasts based on its knowledge of projected mining activity and took into consideration factors such as mine strip ratios and overburden removal requirements, the type of mine (open cut, below ground) and the types of commodity being mined. Market intelligence in relation to demand was continually updated through discussions with its customers. This intelligence was further supplemented with analysis and forecasting provided by business intelligence companies, such as the [redacted].

4.4 Substitutable Products

Orica advised that ammonium nitrate, as an explosive, was a [redacted] product.

Orica advised that technical developments in relation to explosives were predominately through improvements to blasting systems and bulk explosives products.

Orica advised that propellant based explosives, were a possible alternative product, however, these products had limited usage and were unlikely to have any material impact on the demand for ammonium nitrate as a substitutable product.

4.5 Marketing and Distribution

As previously mentioned, Orica considers itself to be a mining service provider which includes supplying ammonium nitrate based bulk and packaged explosive products to its customers. Primarily these are sold as part of a delivered service to mining customers with [redacted] of sales made in this manner.

Ammonium nitrate products are also sold as a trade sale to other mining service providers who compete with Orica in the mining services market. These sales are typically made on an ex works basis

Orica advised that the sales data provided to the Commission had been evaluated and presented on a comparable [redacted] pricing basis. Any [redacted] component to the pricing is recorded in a separate line in the sales data provided.

5. SALES

5.1 General

Orica is a global business with operations in over 50 countries and customers in more than 100 countries, including Russia.

The Australian and Pacific region accounted for the [redacted] of the company's earnings before interest and tax.

Orica provided a detailed, line-by-line sales listing of its domestic sales of ammonium nitrate and bulk explosives for the period between 1July 2014 and 30 June 2015. This listing included the following details:

- customer name;
- invoice/bill document/purchase order number;
- invoice date;
- product type;
- payment terms;
- billing type;
- quantity of goods (in tonnes, kilograms or number of 1.2 tonne bags); and
- invoice values.

Sales and Distribution

Orica's sales of ammonium nitrate are predominately comprised of:

- ammonium nitrate;
- bulk explosive products; and
- packaged explosives.

Bulk explosive products accounted for in excess of [redacted]% of Orica's sales of explosive products during the 2014/15 financial year.

Orica does not regard itself as a producer and seller of ammonium nitrate, rather it sees itself as being a provider of mining services. Orica offers a range of service levels to its customers: These include:

- Down the Hole (DTH) Loading Service (approximately [redacted]% of services are provided at this level);
- Blast Loading Service (approximately [redacted]% of services are provided at this level); and
- Blast Management Services (approximately [redacted]% of services are provided at this level).

Sales of explosive products without associated services account for approximately [redacted]% of Orica's sales.

Orica advised that given the downturn in the market, the higher margin, added-value component of the "services" was an important part of its business.

Pricing

Orica advised that pricing for contracted sales are generally subject to [redacted] which are negotiated on a contract to contract basis. For [redacted] customers, there was a [redacted] price. Documents relating to Orica's internal pricing policies are contained in **Confidential Attachment PP**.

Sales of bulk products and packaged explosives are made on a [redacted] basis, accounting for approximately 85% of ammonium nitrate volume sold. For trade sales made directly to customers, approximately [redacted]% of these sales are sold on [redacted] basis.

Orica advised that all pricing in the A4 sales listing of bulk products and ammonium nitrate was evaluated on [redacted] pricing basis and the freight component was recorded separately in the sales listings provided.

Discounts and rebates

Orica advised that it rarely provides any discounts or rebates to its customers for bulk explosives and ammonium nitrate sales.

5.2 Verification of sales data

Verification to audited financial statements

To assess the submitted line-by-line sales data in Confidential Appendix A4 and the Turnover data provided in Confidential Appendix A3 for completeness and relevance, verification to Orica's 2014 audited financial statements was undertaken by the verification team. Orica's audited financial statements for the year ending 30 September 2015 were publically released on the second day of the verification visit. Given the late release of this report in relation to the verification visit, reconciliation of Orica's sales and turnover data to its audited financial statements was completed for the earlier year ending 30 September 2014.

After accounting for consolidation adjustments, the Commission was able to reconcile the reported segment revenue for Orica's Mining Services division (incorporating blasting services) for the Australian Pacific region to the recorded sales in SAP and to the reported A3 turnover figures for ammonium nitrate, bulk explosives and packaged explosives. A small variance and a minor calculation error were identified during the reconciliation process. The minor calculation error was corrected. The variance in the reconciliation was less than 1% of total reported sales and was considered to be immaterial.

The Commission further sought to reconcile the line by line listing of transactions provided to the Commission. The Commission was able to reconcile the volume and values of the individual transaction listing for ammonium nitrate sales. Given the volume of sales and complexity of the product range for bulk sales, the verification team verified with Orica how sales for one of the largest volume bulk

products (Fortis Coal) reconciled to the whole volume and value of bulk sales. The verification team was then able to reconcile this value and volume back to the bulk sales listing filtered for this product. Documents relating to the sales reconciliation are contained in **Confidential Attachment Sales Reconciliation.**

Completeness and relevance of sales data - conclusion

Having regard to the above, we consider that the sales data provided at Confidential Appendix A4 represents reasonably complete and relevant accounts of the sales of ammonium nitrate.

Verification of sales data to source documents

To assess sales data for accuracy, verification to source documents was undertaken by the verification team.

Prior to the visit, the Commission selected 10 sales transactions from Orica's Confidential Appendix A4. The selected transactions covered various quarters and customers within the 2014/15 financial year. A combination of bulk and ammonium nitrate sales were selected.

Orica provided supporting documentation for each selected sale during the verification visit. For the selected transactions, Orica provided a variety of documents, including:

- tax invoices;
- purchase orders;
- delivery documents;
- supply contracts (where applicable); and
- evidence of payment.

Whilst the documents provided varied between each of the selected sales, we consider the supporting documentation provided to be reasonable for verification.

These documents are at **Confidential Appendix–Sales Documents**.

Invoice details

We noted that the invoice and delivery advice contained sufficiently detailed information, including the customer name, order number, invoice number, product details and the quantity of the units of product that made up the order.

We were able to reconcile the transaction details recorded in Confidential Appendix A4, including dates, volumes and values, to the details recorded in the relevant invoices.

Proof of payment

For the selected sales transactions, Orica provided evidence of payment including copies of remittance advices and copies of the applicable debtors' ledgers.

Based on the evidence provided we are satisfied that the invoice amount as recorded in Confidential Appendix A4 was the amount paid.

Rebates

There were no rebates in the transactions selected for verification.

Accuracy of sales data - conclusion

Having regard to the above, we consider the sales data provided at Confidential Appendix A4 is a reasonably accurate record of Orica's sales of ammonium nitrate during the period from 1 July 2014 to 30 June 2015.

Sales – conclusion

The Commission has verified the sales information provided by Orica in Confidential Appendix A4 for ammonium nitrate and is satisfied that the data is complete, relevant and accurate, and therefore suitable, for the purposes of analysis of the economic condition of the Australian industry.

6. COST TO MAKE AND SELL

6.1 General

As part of its application, Orica provided cost to make and sell (CTMS) data for its domestic sales for the period of 1 October 2010 to 30 June 2015[6] in Confidential Appendix A6. The information was provided on a quarterly basis and was aggregated from separate A6 appendices created for the Yarwun and KI manufacturing facilities.

6.2 Verification of production volumes

The production volumes specified in the A6 spreadsheet were based on the actual production volumes adjusted to an equivalent [redacted]% ammonium nitrate volume.

The verification team sought to verify the production volumes specified in the CTMS data and the [redacted]% equivalent conversion applied to these volumes. The verification of these production volumes focused on the June 2015 quarter. Production volumes for both KI and Yarwun were successfully reconciled back to the internal cost reports provided for both sites. The verification team further reconciled the production volumes for April and May 2015 back to the reported production figures in SAP for Yarwun. The verification team also reconciled the production volume specified in SAP for 1 April 2015 back to Orica's production reporting system.

The verification team queried a [redacted] in production at Yarwun during the December 2013 quarter. Orica provided an explanation for the [redacted].

Documents relating to the reconciliation of production volumes are contained in **Confidential Attachment PV**.

6.3 Cost to make and sell

As previously mentioned, Orica provided separate Appendix A6 data workbooks for the Yarwun and KI production facilities.

The costs to make for Yarwun and KI are recorded separately within Orica's accounts. Orica provided downloads from its SAP accounting system, worksheets and monthly internal cost reports for each site including cost per tonne analysis and fixed costs. Orica also provided screen prints from its SAP system as supporting evidence.

Cost to sell information was drawn from Orica's total expenses relating to selling, distribution and administration expenses which are then allocated between total domestic and export sales. As previously mentioned, costs relating to corporate overhead costs are no longer recharged. Consequently, these costs were separately aggregated into the cost to sell data provided.

[6] Data was provided dating back to 1 October 2006. Only data from 1 October 2010 is considered to be relevant to this continuation enquiry.

Whilst costs in [redacted] were recorded on a [redacted] basis, internal cost reports were prepared on an [redacted] basis.

For the purposes of verification, the verification team focused on the June 2015 quarter to verify the cost to make for both KI and Yarwun.

A copy of Orica's CTMS A6 workbook is contained at **Confidential Attachment CTMS**

Verification of cost to make and sell data to audited financial statements

Orica advised that it was not able to readily demonstrate how the costs data specific to the production of ammonium nitrate could be reconciled to the cost of goods sold in its audited accounts. Orica explained that this was due to the complexity of its operations and how it accounted for costs. This is consistent with the advice received from Orica during the verification completed in respect of the 2010 continuation inquiry.

Cost to make - KI

A copy of the Appendix A6 data for KI's cost to make for the June 2015 quarter is contained at **Confidential Attachment KI 1.**

A workbook was provided to evidence the construction of the A6 data for KI (**Confidential Attachment KI 2).** This workbook contained the calculations used to aggregate the production costs for the three types of ammonium nitrate produced at Kooragang ([redacted]% ammonium nitrate solution, Bulk Opal and Bulk Nitropril) to the costs reported in A6 spreadsheet for KI. The verification team queried why CPAN, which was recorded as a product produced at the time of the 2010 verification visit, was not recorded as a product in the current cost data provided. Orica advised that this product was no longer produced.

The verification team also requested a copy of internal monthly cost reports for the year ending 30 September 2015 (**Confidential Attachment KI 3).** The verification team was able to satisfactorily trace the aggregated A6 cost data to the workbook used to construct the A6 data for KI through to the 2015 internal cost report provided by Orica. The verification team was also able to verify that the internal 2015 cost report contained the reported variable and fixed manufacturing costs reported in the aggregated A6 spreadsheet. The verification team further tested the allocations made in the internal cost report and was satisfied that the allocation of costs was reasonable.

To further verify the costs associated with ammonium nitrate production the verification team:

- verified the cost of the primary feedstock for ammonia production (natural gas) to source documents for the June 2015 quarter; and
- verified the specified depreciation costs to SAP for two nitric acid plants, the ammonia production plant and the ammonia storage plants for April 2015.

The verification team further queried variations in the amount of depreciation allocated to costs at KI. Orica advised that these movements predominantly related to the capitalisation of costs relating to major plant upgrades or planned overhauls. In one instance the variation was due to a major disruption to production. The verification team was satisfied with the explanations and evidence supplied to verify these variations in the depreciation allocated.

Documents relating to the verification of natural gas and deprecation costs are contained in **Confidential Appendix KI 4**.

Cost to make - Yarwun

As with the cost to make data provided in relation to KI, Orica provided a separate Yarwun Appendix A6 workbook, a workbook containing the construction of the Yarwun costs and a workbook containing Orica's internal monthly cost reports used to construct those costs. These are contained in **Confidential Attachments Yarwun 1 to 3** respectively.

As with the cost data provided for KI, the verification team reviewed the workbooks used to construct the CTMS for Yarwun. Minor discrepancies were identified in relation to the calculation of variable costs and depreciation for Yarwun. Orica adjusted the A6.1 workbooks to account for these discrepancies.

To further verify the costs associated with ammonium nitrate production at Yarwun, the verification team:

- verified the cost of ammonia feedstock transferred from [redacted] to [redacted]. The verification team verified that [redacted] ammonia used at [redacted] was costed at [redacted] cost (plus [redacted]);
- verified the most recent purchase of ammonia (May 2014) from [redacted] Ltd to source documents; and
- verified electricity costs for Yarwun for the June 2015 quarter to source documents.

Documents relating to the adjustments to the depreciation costs and variable costs and the verification of ammonia and electricity costs are contained in **Confidential Attachment Yarwun 4.**

Accuracy of production costs – conclusion

Having regard to all of the above, the verification team considers the production cost data provided by Orica is a reasonably accurate account of the actual costs to manufacture ammonium nitrate.

6.4 Verification of selling, general and administration costs

Costs relating to selling, distribution and administration costs (SG&A costs) were allocated as a percentage of total selling costs based on ammonium nitrate's share of total revenue. Further adjustments were made to account for SG&A

costs associated with export sales. The verification team reviewed the calculations and supporting spreadsheets provided to support the calculations and found no material errors in the calculation and allocation of SG&A costs. Copies of the applicable spreadsheets relating to SG&A costs are contained in **Confidential Attachment SG&A.**

Having regard to all of the above, the Commission considers that the SG&A cost data provided is a reasonably accurate account of the actual SG&A costs relating to ammonium nitrate.

6.5 Costs to make and sell – conclusion

Given that Orica were unable to demonstrate how its reported costs associated with the manufacture of ammonium nitrate reconciled to its total cost of goods sold, the verification team could not be satisfied that the cost data provided by Orica reflected all costs associated with the production of ammonium nitrate.

However, based on the verification of the internal cost report and the verification to source documents, the verification team is satisfied that the reported cost to make and sell was reasonably accurate.

7. ECONOMIC CONDITION OF THE INDUSTRY

Introduction

Given the large range of ammonium nitrate products sold by Orica, Orica provided a calculated price for ammonium nitrate based on converting all its products pricing and sales volumes back to an equivalent 100% ammonium nitrate value and volume.

The verification reviewed the methodology applied by Orica and was satisfied that the method used was reasonable. To further test the accuracy of the adjusted pricing, the verification team compared the calculated values against the actual pricing for Nitropril and ANSOL sales during the 2014/15 financial year. The verification team found that the calculated pricing was reasonably consistent with the sales data pricing for *Nitropril* and ANSOL (adjusted to [redacted]% strength).

The verification team considers that this calculated "[redacted]% equivalent" for prices and volumes provide a suitable basis for evaluating the economic condition of the Australian industry.

7.1 Volume Trends

Orica's sales volumes of ammonium nitrate are illustrated below.

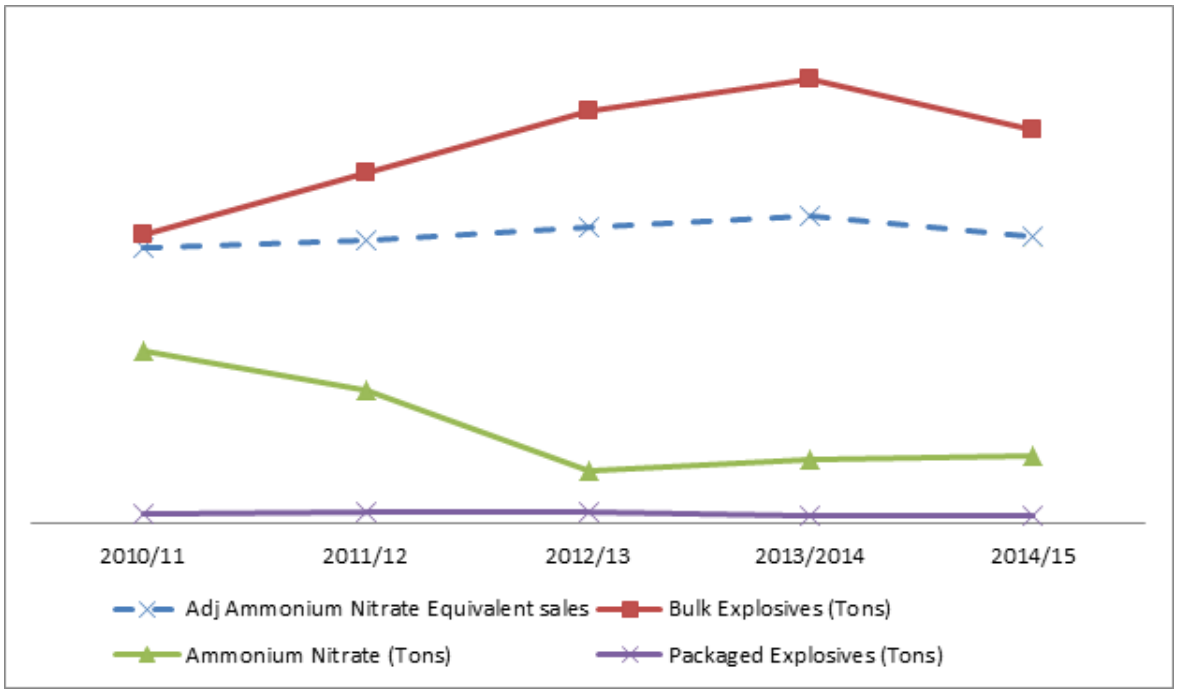

Figure 2: Orica Sales Volume of Ammonium Nitrate Based Products

Orica provided both domestic sales volumes for bulk explosives, packaged explosives and ammonium nitrate. Orica also provided sales volumes based on a calculated [redacted]% ammonium nitrate equivalent.

7.2 Price and Cost Trends

Figure 3, below, illustrates the relationship between Orica's per unit price and unit CTMS for ammonium nitrate.

[Graph deleted for confidentiality]

Figure 3: Unit Revenue and Unit CTMS

It is noted that the margin of revenue per unit over the CTMS per unit peaked in the 2012/13 financial year. The margin reduced in both the 2013/14 and 2014/15 financial years. The 2013/14 decrease in the margin was due to increased CTMS, whereas the 2014/15 reduction in the margin resulted from a reduced price per unit. Overall, for the whole five year period, Orica's revenue per tonne exceeded its CTMS per tonne.

7.3 Profit and Profitability Effects

Figure 4, below, illustrates Orica's profit and profitability in relation to ammonium nitrate.

[Graph deleted for confidentiality]

Figure 4: Ammonium Nitrate Profit and Profitability

Consistent with Orica's price and cost trends, Orica's profitability peaked in the 2012/13 financial year and reduced in the 2013/14 and 2014/15 financial years. Orica's profit increased in 2013/14 and 2014/15. The increased profit in 2013/14 appears to predominately relate to improved sales volumes whereas the profit increase in 2014/15 appears to be predominately related to a reduced CTMS.

7.4 Revenue factors

Figure 5, below, illustrates the relationship between Orica's total revenue and sales quantity for ammonium nitrate.

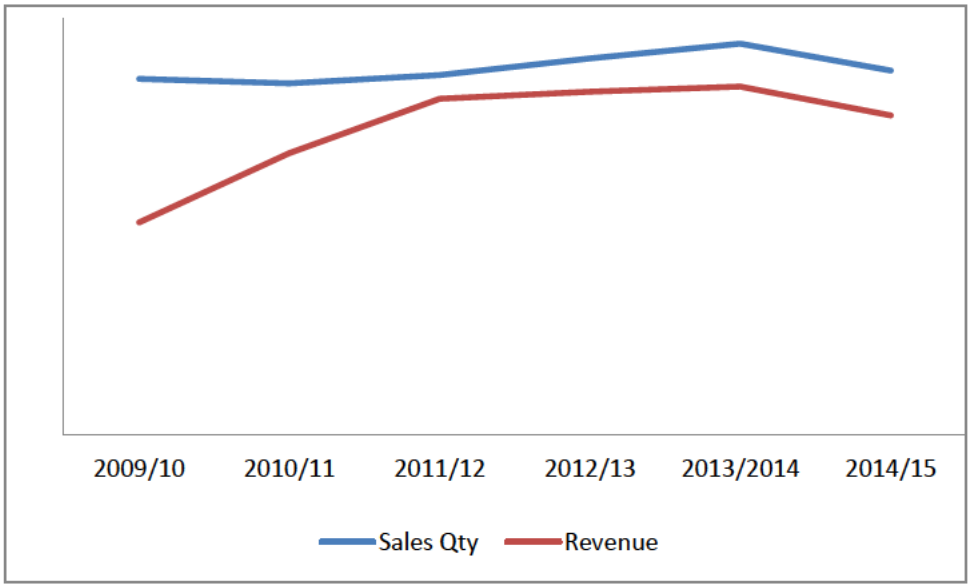

Figure 5: Sales Quantity and Total Revenue

The visit team notes that there was a decline in revenue associated with a decline in sales volumes in the inquiry period.

7.5 Other economic factors

Orica provided information in respect of other economic factors for each of the 2013, 2014 and 2015 years. In summary, this information indicates that:

- Assets applied towards the production of ammonium nitrate marginally increased over the period, whereas assets applied to other production reduced over the same period;
- Capital investment in relation to ammonium nitrate and the production of other goods has reduced over the period;
- Research and development investment in relation to ammonium nitrate has reduced over the period;
- Capacity has remained static in relation to both ammonium nitrate and other production;
- Capacity utilisation for both ammonium nitrate and other production has reduced over the period;
- Employment has reduced over the period; and
- Productivity improved in the 2014 year, but reduced in the 2015 period. Overall, productivity is marginally higher in 2015 than it was in 2013.

Information used in relation to the assessment of the economic condition of the Australian industry is contained in **Confidential Attachment EC.**

8. CONTINUATION OF MEASURES

Under the terms of subsection 269ZHF(2) of the *Customs Act 1901*, in order to recommend that the Parliamentary Secretary take steps to secure the continuation of the anti-dumping measures applying to ammonium nitrate exported from Russia, the Commissioner must be satisfied that the expiration of measures would lead, or would be likely to lead, to a continuation or recurrence of:

- dumping; and
- the material injury that the anti-dumping measure is intended to prevent.

Accordingly the verification team sought Orica's views on these matters.

Orica typically seeks to enter into [redacted] contracts to supply bulk explosives and any associated mining services to its customers. These contracts are typically between [redacted] years in duration.

Orica provided information on the estimated proportion of current Orica contracted sales and competitor contracted sales that would be subject to re-tendering or renegotiation in the next five years. Orica provided a graph illustrating that in the next five years almost all of Orica's ongoing contracts and the majority of its competitors' contracts are likely to be re-tendered or be subject to renegotiation.

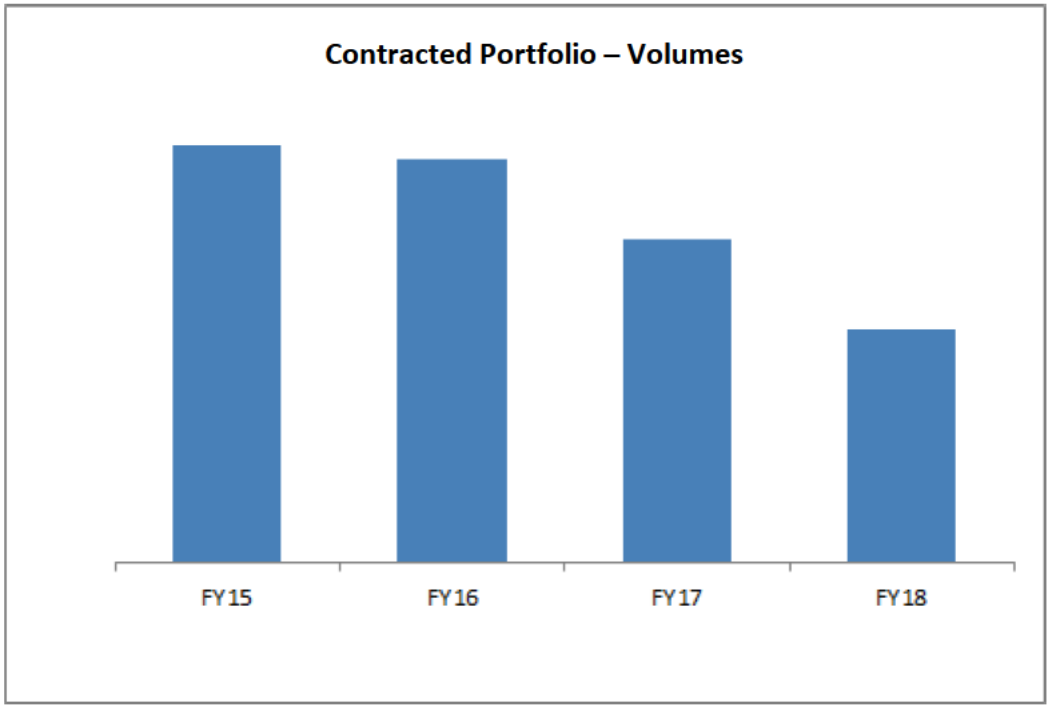

Figure 6: Volume of ammonium nitrate products subject to contracted supply

Orica advised that there is significant pressure in the mining sector to reduce costs, particularly since the downturn in resource prices. Orica also noted that

Australian domestic gas prices are moving to export parity arrangements and are expected to rise in coming years, which is likely to place pressure on margins.

Orica advised that its customers are, at times, referencing prices from other potential import sources to negotiate lower prices. Orica also believe that it has lost contracts to supply ammonium nitrate to suppliers that are sourcing ammonium nitrate from overseas producers. The verification team asked Orica to provide examples of where imported ammonium nitrate had either impacted on its prices or where a contract or tender had been lost to an imported source of ammonium nitrate.

Orica provided the Commission with examples of six cases. These cases covered a variety of customers and demonstrated where pricing negotiations had been influenced by import prices or where tenders had been lost to competitors that Orica believes were sourcing ammonium nitrate from overseas suppliers. Two of these cases involved lost tenders to competitors that Orica believes were sourcing ammonium nitrate from Ukrainian and Russian suppliers. These case examples also demonstrated that Chinese imports of ammonium nitrate were influencing import prices and that contracts were being lost to competitors sourcing ammonium nitrate from China. The case examples, with supporting documents, are contained in **Confidential Appendix C1**. Orica acknowledged that the current anti-dumping measures discourage the importation of ammonium nitrate from Russia.

Orica advised that there were concerns around the reliability of the supply of ammonium nitrate from China. The causes of these concerns included the Tianjin explosion in August 2015 and another plant explosion in November 2015. Orica also advised that China imposed major tax increases during 2008 on fertiliser products including ammonium nitrate. This was done so that its fertiliser production could be reserved for domestic food production rather than being exported. Orica indicated that these tax increases had a significant impact on ammonium nitrate prices and Chinese imports of ammonium nitrate into Australia. Orica provided further documents in support of its claims regarding the reliability of supply from China. These are contained in **Confidential Appendix C2**.

Orica also provided information on recent developments in relation to Russian ammonium nitrate production, including current production capacity, expansions to production capacity, gas pricing and the devaluation of the Russian currency. Orica advised that these factors enhanced Russian producers' capacity to export ammonium nitrate to Australia. Orica also advised that new competitors were moving into the Australian blasting services domain which was likely to change the competitive landscape in the Australian market for blasting services. The information provided by Orica is contained in **Confidential Attachment Gen 1**.

9. UNSUPPRESSED SELLING PRICE & NON-INJURIOUS PRICE

Orica advised that it may make a future submission in regard to establishing an unsuppressed selling price and a non-injurious price.

10. APPENDICES AND ATTACHMENTS

Confidential Attachment Gen 1	Overview and background information supplied
Confidential Attachment: PV	Verification of production volumes
Confidential Appendix C1	Case examples of influence of import prices
Confidential Appendix C2	Evidence supporting claims in relation to the reliability of supply from China
Confidential Attachment CTMS	Aggregate CTMS A6 workbook
Confidential Attachment KI 1	KI CTMS A6 workbook
Confidential Attachment KI 2	Workbook constructing costs
Confidential Attachment KI 3	Internal Cost reports from KI
Confidential Attachment KI 4	Documents relating to the verification of natural gas and deprecation costs at KI
Confidential Attachment Yarwun 1	Yarwun CTMS A6 workbook
Confidential Attachment Yarwun 2	Workbook constructing costs
Confidential Attachment Yarwun 3	Internal Cost reports from Yarwun
Confidential Attachment Yarwun 4	Documents relating to the adjustments to the depreciation costs and variable costs and the verification of ammonia and electricity costs at Yarwun
Confidential Attachment SG&A	Workbooks relating to SG&A costs
Confidential Attachment EC	Information used in relation to the assessment of the economic condition of the Australian industry
Confidential Attachment – Sales Documents	Sales documents provided
Confidential Attachment PP	Documents relating to Orica's internal pricing policies
Confidential Attachment Sales Reconciliation	Upwards sales reconciliation