# NSL CONSOLIDATED LTD QUARTERLY ACTIVITIES REPORT December 2017

### 25 January 2018

NSL Consolidated Limited (the "Company" or "NSL") (ASX: NSL), is pleased to provide its quarterly activities report for the period ended 31 December 2017.

### DECEMBER QUARTER HIGHLIGHTS

- Sales of 5,000 tonnes to Minera Steel and Power Pvt Ltd achieved despite significant rainfall events and localised flooding impacting on operations.
- Key focus on increasing plant efficiency and reliability, with the drying of feed and engineering modifications to mitigate the wet feed.
- Phase two wet beneficiation plant is now operating two ball mill streams at 80 tonnes per hour – set to increase to targeted 100 tonnes per hour during this quarter.
- Minera Steel and Power Pvt Ltd utilised NSL's filter cake (concentrate) in their steel plant process, with the filter cake producing a high-quality product with excellent pelletising characteristics and physical properties.
- 4,000 tonne purchase order received for premium filter cake grading 58-60% Fe from JSW Steel with commercial terms in line with other customers.
- Robust customer base now includes three significant steel mill customers, JSW Steel, the largest steel mill in the region, BMM Ispat, the second largest and Minera Steel and Power Pvt Ltd.
- NSL completed a testing and plant configuration programme on site in partnership with Shandong Xinhai Mining Technology & Equipment Inc (Xinhai).
- Xinhai technical team mobilised to India to finalise engineering, design and equipment details for the additional 200,000 tonnes per annum expansion, expected to be operational in the second half of 2018 with requisite funding already secured.



- Immediately post quarter end the Company successfully obtained a GST credit under the GST transition period in India, totalling INR 19,971,831 or A\$416,079 (AUD/INR - 48).
- Immediately post quarter end, Government of Andhra Pradesh (GoAP) Cabinet and associated Industries and Commerce Department approved and instructed the Kurnool District Collector to immediately allocate 20 acres of land adjacent to the existing NSL stockyard. This additional 20 acres is to be utilised for the purposes of the upcoming Phase 3 wet plant expansion and laying of a bypass road.

### December Quarter Management Commentary

**NSL's Managing Director and CEO, Cedric Goode commented**; "Notwithstanding the extended monsoonal conditions and its impact on operations experienced during the December quarter, the business executed a number of key operational improvements and the sale of 5,000 tonnes to Minera a pleasing outcome given the challenging conditions.

"Importantly, the operational streamlining achieved during the quarter in line with the passing of the monsoon and its impacts has laid the foundations for an anticipated boost to quarterly sales.

We also made significant inroads with regard to our Phase 3 wet plant expansion with an additional 20 acres of land granted by the local Government and a strategic testing and plant configuration programme underway on site.

"With a strong customer base and growing production profile, NSL is very well positioned to unlock considerable value during the course of 2018."

### **IRON ORE - INDIA**

### **KURNOOL IRON ORE BENEFICIATION PLANT**

### PHASE TWO WET PLANT

# **Plant Update**

NSL is pleased to advise that during the quarter the Phase Two wet beneficiation plant individual processing components were able to reach nameplate throughput, grade and yields.

The on-site team worked safely and diligently to be able to operate each of the two ball mill processing trains at their design throughput capacity of 50 tonnes per hour as part of the nameplate testing, producing designed 58-62% Fe concentrate from a feed as low grade as 30% Fe.

This was achieved noting significant rainfall events and localised flooding impacting on operations during the first half of the quarter. The monsoon at 50% above normal levels, continued to impact the plant in the second half of the quarter with the very wet feed material hanging up inside silos, blocking conveyors and feed chutes. This resulted in the plant not being able to operate continuously at or near the nameplate levels. However, the Phase two wet beneficiation plant is now operating two ball mill streams at 80 tonnes per hour and it is anticipated to now increase towards consistent nameplate of 100 tonnes per hour during the March quarter.



With extended rainfall experienced during the quarter, the Company made the strategic decision to complete a testing and plant configuration programme. This was recommended by Xinhai and is designed to increase both yields and grades in the Phase three wet plant expansion.



Figures 1 & 2: Flooded plant area

As part of the programme, the Company and Xinhai mobilised a technical team in India to focus on finalising the engineering, design and equipment details for an additional 200,000 tonnes per annum of iron ore concentrates. The team has been tasked with the expectation of the Phase three construction and commissioning occurring in the first half 2018 and operational in the second half of 2018.

This work with Xinhai is under the strategic cooperation agreement for the provision of wet beneficiation plant Engineering, Procurement and Construction (**EPC**) services.

Xinhai is continuing a comprehensive sample testing program of NSL feed material in China to finalise the process flow and equipment requirements to produce a routine operating concentrate grade targeting in excess of 62% Fe.

The results of the Xinhai site visit and testing are now being fed into the expansion projects, whereby Xinhai as an EPC contractor will have the opportunity, based on acceptable commercial terms, to build capacity up to 2.5 million tonnes per annum and optimise the existing beneficiation plant to produce a routine operating concentrate grade targeting in excess of 62% Fe.

### <u>Sales</u>

### Minera

Despite the heavy monsoonal rains with the operational after effects and Xinhai on site testing, the Company dispatched a total of 5,000 tonnes of premium quality filter cake in grades between 58% and 61% Fe to Minera. Minera continues to utilise NSL filter cake into their steel plant process and have been complimentary of the results, with the filter cake producing a high-quality pellet with excellent pelletising characteristics and physical properties which has then been successfully fed further into the steel process.

Minera has communicated that they desire a minimum of 15,000 tonnes per month of premium 60/61 Fe product for their operations which currently require between 70,000 and 80,000 tonnes per month of iron ore.



### **BMM**

As announced on 30 October, the Company had expanded its customer base with the receipt of a 5,000 tonne purchase order from BMM Ispat Ltd ("BMM"). The order is for the supply of 5,000 tonnes of premium filter cake grading 59-61% Fe, on commercial terms similar to the previous 63% Fe order from BMM.

### **JSW**

As announced on 30 November, the Company further expanded its customer base with the receipt of a 4,000 tonne purchase order (4-5000 tonne PO's represent normal steel mill ordering size in India), from JSW for premium filter cake grading 58-60% Fe. The order is on commercial terms in line with other customer orders.

JSW is India's leading private sector steel producer and among the world's most illustrious steel companies. It is a circa \$9 billion global conglomerate spread over six locations in India and a footprint that extends to the US, South America and Africa.

As the flagship company of the \$11 billion JSW Group, JSW is testament to decades of experience and a dynamic culture that have culminated in the company becoming the leading provider of specialised steels in India.

The JSW steel complex is approximately 160kms from NSL operations and located within the Hospet region of Karnataka, southern India's main steel producing belt. Production facilities include a Beneficiation Plant, Pellet Plant, Coke Plant, Hot Metal Plant, Steel Plant, Mill Plant and a R&D Facility. The plant consumes in excess of 20 million tonnes of iron ore per annum and is the largest steel producer in Southern India. The complex has been awarded numerous awards and accolades, including the Prime Ministers special commendation as the Best Integrated Steel Plant in 2012-13

For further information on JSW, please refer to www.jsw.in/

Importantly, with the receipt of the BMM and JSW PO's the Company now has three significant customers for its premium filter cake grading between 58-62% Fe. This expanding customer base is testament to the filter cake concentrate product quality and Company bona fides in India, allowing the Company to further strengthen its marketing position and prepare for expansion.

### MINERA COLLABORATION AGREEMENT

During the quarter, the Company continued discussion revolving around its Collaboration Agreement (**CA**) with existing customer, Minera Steel and Power Pvt Ltd (**Minera**).

Minera is an Indian company engaged in the production of pellet, sponge iron and steel in the Indian domestic steel industry. As an existing customer to NSL, the business relationship continues to strengthen.

The collaboration agreement outlines the framework for business enhancement and is specifically focussed on the following key areas:

- Setting up wet plant facilities for the beneficiation of low grade iron ore located at the Minera steel facility;
- Setting up similar facilities in Karnataka or Andhra Pradesh or any other locations as may be deemed suitable and necessary for both parties;



- Acquiring or tying up mine lease holders for purchase of leases, mining and/or supply
  of ore for beneficiation either in Karnataka or Andhra Pradesh or any other locations
  as may be deemed suitable and necessary for both parties; and
- To finalise a suitable corporate and business structure models in above areas or such other areas as may be identified while forging a long-term relationship.

As announced previously, Minera had re-configured their plant to accept the wet plant filter cake highlighting their intent to continue working with the Company. Minera are utilising NSL filter cake in their steel plant process with excellent results, producing a high-quality pellet with excellent pelletising characteristics and physical properties. The high-quality pellets are being successfully utilised in steel production.

### STRATEGIC EPC CO-OPERATION AGREEMENT WITH XINHAI

The Company continued to work closely with Shandong Xinhai Mining Technology & Equipment Inc (Xinhai) under the strategic cooperation agreement for the provision of wet beneficiation plant Engineering, Procurement and Construction (EPC) services. This involved testing and initial designs of the Phase Three wet plant which is expected to double plant capacity to 400,000 tonnes per annum of concentrate.

With the impact of the monsoon coupled with Chinese design, process and engineering personnel on site during December, under the guidance of Xinhai the Company took the opportunity to complete a testing and plant configuration programme. The programme recommended by Xinhai was a large-scale test of the Xinhai plant configuration to increase both yields and grades in the Phase three wet plant expansion.

Founded in 1997, Xinhai, is a Beijing listed technology enterprise providing "Turnkey Solutions" for mineral processing plants, including design and research, machine manufacturing, equipment procurement, management services, mine operation, mine materials procurement & management, as well as industry resources integration.

With 500 mining EPC projects encompassing 70 kinds of mineral ore technologies and 20 patents, Xinhai has established overseas offices in Sudan, Zimbabwe, Tanzania, Peru and Indonesia, and has exported to more than 20 countries.

For further information on Xinhai, please visit: http://www.xinhaimining.com/

Xinhai has previously exported equipment to India, and is now looking to further its exposure in the growing Indian economy through the provision of EPC services, viewing an Australian company operating in India as an ideal opportunity.

The cooperation agreement complements the existing Huate relationship and enhances the Company's relationships and expertise in China as more Chinese companies look to Indian business opportunities for their future growth.

Xinhai has a strong history with Chinese import/export banks to provide funding for EPC projects throughout its global footprint. The Company and Xinhai are continuing the process to secure financing for future beneficiation plants up to a concentrate production target of 2.5 million tonnes per annum.



### MEMORANDUM OF UNDERSTANDING WITH ANDHRA PRADESH GOVT

The Company further progressed actions pertaining to the Memorandum of Understanding (MoU) with the Government of Andhra Pradesh (GoAP) for collaboration in the mining, beneficiation and value addition of low grade iron ores that are abundant in the State.

Post the quarter, GoAP Cabinet and associated Industries and Commerce Department approved and instructed the Kurnool District Collector to immediately allocate 20 acres of Government land adjacent to the existing NSL stockyard. This is to be utilised for the upcoming Phase 3 wet plant expansion and laying of a bypass road.

The allocation of land to support the expansion by the GoAP is a further strengthening of support by the AP Government to the Company.





Figures 3, 4, 5: The Kurnool District Collector inspecting +62% Fe concentrate, on plant inspection and meeting villagers at site as part of land allocation.

During the quarter work continued with senior members of the Andhra Pradesh Industrial Infrastructure Corporation (**APIIC**) on potential sites for the larger 2x1 million tonne per annum expansion plants (for more information please visit www.apiic.in).

A 98-acre site located adjacent to the AP3 project, and within 4km of the AP23 project, both part of the pipeline of expansion projects under development by NSL is being progressed through the Government processes.

As announced previously, the Company had signed an MOU, whereby the GoAP will facilitate the necessary assistance for the Company to grow its Andhra Pradesh mining, beneficiation and value addition activities to in excess of 8 million tonnes per annum of iron ore; such assistance includes prompt land acquisition, adequate infrastructure development and attractive incentives as per the policies / rules and regulations of the State Government.



### **TS1 MINING LEASE**

During the quarter, the Company continued work to progress the grant of TS1 (formally AP14). Specifically, this included approaching the court for assistance in speeding up the approval through the Central Government. The State Government had already approved the Mining Lease grant of TS1.

Upon approval from the Central Government the Company will then be able to undertake further exploration activities on the lease.

### **PELLET AND STEEL PLANT**

During the quarter the Company progressed work relating to the establishment of a greenfield steel plant in Andhra Pradesh (**AP**) After careful examination, APIIC allotted 250 acres of land for a pellet plant and 750 acres of land for an integrated steel plant in the Orvakal Industrial hub within the Kurnool District to M/s. NSL Mining Resources India Pvt Ltd.

Based on current Indian mining and pellet industry norms for integrated plants, this indicates a possible A\$44-\$52 per pellet tonne operating profit for a NSL owned pellet plant.

With the favourable analysis obtained to date, the Company is continuing to progress the downstream pellet plant strategy in line with its Indian iron ore beneficiation strategy. Work continues both in India and China in relation to the initial focus on the Pellet Plant with a variety of significant Chinese EPC companies. The Company will further progress the pellet plant project in the coming quarter with visits to China.

### CORPORATE

### **AS416K GST CREDIT AVAILED**

During the period, the Company completed and submitted an application for a GST Credit in relation to excise duty paid on the import of the Phase two plant capital components. Subsequently, on 23 January the Company announced it had successfully obtained approval and been granted a GST credit under the GST transition period in India, totalling INR 19,971,831 or A\$416,079 (AUD/INR - 48). The Company will utilise the GST credit against current and future GST obligations as they arise.

The Company has also commenced an application for concessional rates on import duty on future capital imports in relation to the Phase Three wet beneficiation plant expansion from 200ktpa to 400ktpa.

### **LEGAL NOTICE**

As previously disclosed the Company received a writ of summons in relation to a Coal Acquisition Agreement dated 15 June 2011 with Birmanie Nominees Pty Ltd (the vendor under the agreement) relating to 4 coal EPCs in Queensland. The writ alleges that NSL has failed to meet various obligations under the Coal Acquisition Agreement.

The trial finally concluded on 10 August 2017 and her Honour Justice Banks-Smith has reserved her decision. The Company was content with how the trial progressed and is eagerly awaiting the handing down of the judgment by her Honour.



### **ANNUAL GENERAL MEETING**

On 29 November 2017, the Company held its annual general meeting of shareholders. All resolutions subject to the meeting were passed on a show of hands.

## INTERESTS IN MINING TENEMENTS

Project/Tenements	Location	Held at end of quarter	Acquired during the quarter	Disposed/Lapsed during the quarter
Kuja	Andhra Pradesh, India	100%	-	-
Mangal	Andhra Pradesh, India	100%	-	-
TS 1 (formally AP14)	Andhra Pradesh, India	100%	-	-
EPC 2336	Queensland, Australia	100%	-	-
EPC 2337	Queensland, Australia	-	-	100%
EPC2338	Queensland, Australia	-	-	100%

Regards

**NSL** Consolidated Limited

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