

# NSL Consolidated

12 July 2011

The Company Announcements Platform ASX Limited

By E-lodgement

#### ASX Announcement

#### **PRESENTATION**

Please find attached a copy of the presentation titled "Bringing Indian Iron Ore production closer to reality for Australian investors".

- Ends -

For more information:

Cedric Goode Managing Director/Chief Executive Officer NSL Consolidated +61400 408 477



Bringing Indian iron ore production closer to reality for Australian investors





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NSL Consolidated remains focussed on developing its iron ore resources in India and adding additional value in Qld coal

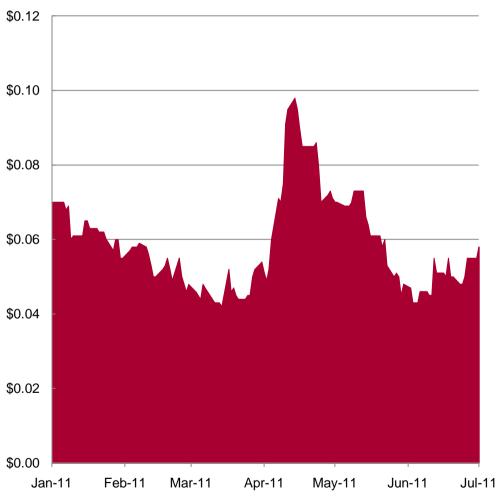
- ü Potential near term cashflow from initial two projects in India
- ü Significant progress and assets in India trial mining undertaken, port facilitates secured, assay laboratory, advanced approvals, known costs
- Highly leveraged to near term iron ore price nine month time frame to production, through a simple beneficiation process
- ü Building towards a vision of becoming a significant iron ore producer based in India, producing DSO, beneficiated material and iron ore pellets.
- ü Only foreign company to own and operate Indian iron ore mines
- Also progressing first pass exploration activities at grass roots coal exploration project in Queensland - Attractive preliminary exploration targets of 500Mt to 600Mt in thermal coal<sup>1</sup> already exist at the project

1. It should be noted that the tonnages quoted above are conceptual in nature and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.



# Corporate profile

| Shares                 | Number      |
|------------------------|-------------|
| Total Shares on issue  | 272,333,208 |
| Total Options on issue | 22,250,000  |
| Тор 40                 | ~ 55%       |
| Board and Management   | ~ 25%       |
| Total Shareholders     | ~1700       |





# Board and management

| Jock Muir<br>Non Executive Chairman                               | <ul> <li>30 years experience in global mining services</li> <li>Strong business development experience</li> <li>Current Non Executive Chairman of Barminco Ltd, Former Non-Executive Director of Dyno Nobel Limited</li> </ul>  |
|---|---|
| Cedric Goode<br>Managing Director                                 | <ul> <li>16 years experience in mining and mining services (iron ore, gold, coal)</li> <li>Proven track record in global strategic planning, business development and profit and loss responsibility</li> <li>Former Vice-President Commercial at Dyno Nobel</li> </ul>   |
| Peter Wall<br>Non Executive Director                              | <ul> <li>Partner of Steinepreis Paganin - a leading Western Australian commercial law firm</li> <li>Significant experience in equity capital markets, mergers and acquisitions, and resources law</li> </ul>  |
| Peter Richards<br>Non Executive Director                          | <ul> <li>30 years experience in mining and mining services (BP, Wesfarmers, Dyno Nobel)</li> <li>Strong business development experience</li> <li>Former CEO of Dyno Nobel, current Chairman of Kangaroo Resources Limited, Director of Emeco, Bradken, Norfolk</li> </ul>                                       |
| Julian Tambyrajah<br>Chief Financial Officer                      | <ul> <li>20 years experience in mining resources, oil and gas and manufacturing industries</li> <li>Senior global finance executive who has held positions held at Woodside, Normandy, DRDgold, Crescent Gold, Rusina Mining, Central Petroleum.</li> </ul>   |
| Sean Freeman<br>Chief Operating Officer                           | <ul> <li>Mining engineer with 16 years industry experience, including lead of strategic planning at BHP Billiton's Nickel West</li> <li>Global mining experience throughout in India, Canada USA, Europe, Asia and Australia</li> </ul>   |
| Ravi Tripathi<br>Vice President – Finance<br>and Commercial India | <ul> <li>Responsibility for overall financial management of the company in India</li> <li>Multiple corporate functions including controller, treasury, supply, logistics.</li> <li>Extensive experience as a finance and corporate controller</li> </ul>  |
| Debabrata Sanyal<br>Vice President –<br>Beneficiation India       | <ul> <li>Extensive experience in iron ore beneficiation and pelletisation</li> <li>Overseen operations of a 7.5mtpa beneficiation plan and construction of a 3.5mtpa iron ore pellet plant</li> <li>Experience across iron ore mineralisation types, power generation and major capital construction</li> </ul> |

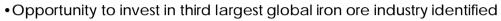


# Our strategic approach

| Target India                  | <ul> <li>World's third largest iron ore exporter</li> <li>Strong domestic market</li> <li>Low production costs, established infrastructure</li> <li>Untapped potential for Australian investors</li> </ul>   |
|-------------------------------|--|
| Ready to operate              | <ul> <li>Target near term cashflow projects</li> <li>Acquire projects with approvals and clearances in place</li> <li>Reduces risk and allows fast track to production and early cashflow</li> <li>Staged investments to allow regular company expansion</li> </ul>  |
| Consolidate for synergies     | <ul> <li>Indian iron ore sector highly fragmented, many small opportunities</li> <li>Consolidation can capture synergies across multiple mine sites</li> <li>Leverage beneficiation plant investment across multiple projects</li> <li>Build towards Pellet plants – significant profit advantages</li> </ul>        |
| Leverage short<br>term demand | <ul> <li>Global iron ore demand unabated</li> <li>Chinese and Asian customers looking to diversify supply sources</li> <li>Indian domestic demand robust - 5<sup>th</sup> largest steel manufacturer, 10% YOY growth</li> <li>Experienced and committed team in place</li> </ul>                                     |
| Additional opportunities      | <ul> <li>Attractive stand alone thermal coal project in Queensland secured for minimal upfront expenditure</li> <li>Preliminary Exploration target of 500Mt to 600Mt<sup>1</sup> already exists</li> <li>Some ability to leverage Indian knowledge and thermal coal demand into future offtake agreements</li> </ul> |



## NSL background in India



- •Two iron ore project areas secured large asset footprint
- Numerous additional projects reviewed acquisition ready
- Only foreign company to own and operate iron ore mines in India

- Project development well advanced
- Geological and metallurgical reviews completed
- Infrastructure route identified
- Supporting export assets acquired
- Substantial trial mining and test export program commenced and completed
- Ambitious production timeframes initially set
- Approvals time frame longer than initially expected government action on illegal mining delayed process
- Historical mining data, including government certified data, required independently commissioned verification
- Delays to initial timeframes as a result now positioned to move towards production



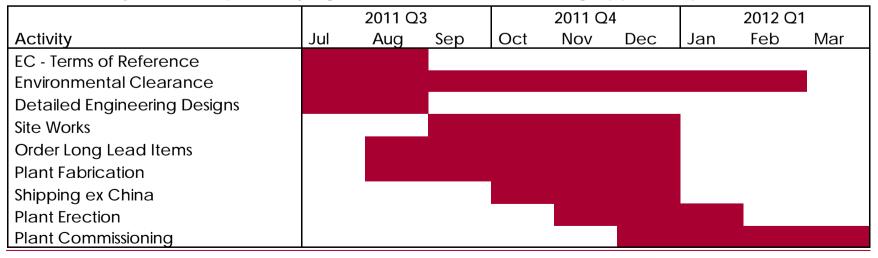
# What we now have in India

| Near-term<br>production                    | <ul> <li>Kurnool Beneficiation Plant authorised for construction</li> <li>First commissioning in late 2011</li> <li>Go ahead unlocks mining asset value and opens future opportunities</li> </ul>         |  |
|--|---|--|
| Kurnool Plant                              | <ul> <li>Robust Economics – modest cost (\$2.3M), cash back within 2-3 months post commissioning</li> <li>ROM grades lifted from 25-27% Fe to 58%-61% Fe product grade</li> </ul>                         |  |
| Strong Mining<br>Assets                    | <ul> <li>Mangal – trial mining complete, production next step</li> <li>Kuja – modified mining plan approvals near completion</li> <li>AP14 – second generation project under early development</li> </ul> |  |
| Experience                                 | <ul> <li>Trial mining and beneficiation testing program complete</li> <li>Senior Indian management in place – 27 years beneficiation experience</li> <li>Successful approvals track record</li> </ul>     |  |
| Infrastructure<br>and supporting<br>assets | <ul> <li>Owner operated laboratory</li> <li>Port, including land secured</li> <li>Stockyard with weighbridge and water supply in place</li> </ul>   |  |



### Near term production

- Kurnool plant authorised for construction, subject to Indian environmental clearance
- First commissioning to commence in Late 2011
- Production first half 2012
- Set to capitalise on strong short term pricing outlook for iron ore
- Approximately nine months for completing final plant design, construction and commissioning, contingent on receipt of necessary approvals
- Approximately seven to nine months estimated for government approvals, to be pursued concurrently with design, construction & commissioning (subject to satisfactory terms of reference for environmental clearance)
- Local environmental approvals advisor (with extensive local project experience) advise that they do not expect any significant issues to arise during approvals process





### Kurnool plant – robust economics

- Modest total project cost of \$US2.3M and cash back within 2-3 months post commissioning
- Potential to lift ROM ore grades from as low as 25-27% Fe to 58% - 61% Fe product grade, with good yield and recovery
- Robust economics:
  - Modelled cash cost of US\$57.22 per tonne of product produced (through trial mining)
  - Potential annual output of 196,000t of concentrate
  - Current spot price of US\$130 US\$150 per tonne (58% 62% product)
  - Short term modelled price of US\$128/t, long term (2014+) of US\$108
  - Net cash flow (steady state) US\$800,000 per month
- NSL is evaluating a range of potential options to fund the modest capital cost of the plant and is confident the expected economics will support a range of funding alternatives.



Product samples arriving in China



#### Historical operating costs and plant modelling overview<sup>1</sup>

#### Historical Operating Costs (US\$ per tonne)<sup>2</sup>

| Mining                   | 16.81     |
|--------------------------|-----------|
| Maintenance              | 0.47      |
| Transport and Port       | 24.77     |
| Beneficiation (modelled) | 15.17     |
| Total Modelled Cash Cost | US\$57.22 |

All costs are per tonne of saleable concentrate produced Royalties, Export Duties - \$17.90 to \$22.90

#### Plant Design Capacity<sup>3</sup>

| Total Throughput (per hour) | 100 tonnes  |
|-----------------------------|-------------|
| Total Throughput (annual)   | ~ 496,000 t |

#### Estimated Plant Performance <sup>3</sup>

| Potential output (annual) | 196,000 t |
|---------------------------|-----------|
| Modelled ROM input grade  | 25-27% Fe |
| Recovery (at input grade) | 74-76%    |
| Yield per 100t            | 36-37 t   |
| Final Product grade       | 58-62% Fe |

#### Current Pricing

| Current Spot price         | US\$130 to |
|----------------------------|------------|
| (grade 58%-62%)            | \$151 /t   |
| Short Term Modelled        | US\$128 /t |
| Long Term Modelled (2014+) | US\$108 /t |

#### **Project Costs**

| Beneficiation Plant    | ~ 50%     |
|------------------------|-----------|
| Power Facilities       | ~ 20%     |
| Design, Site works etc | ~ 30%     |
| Total                  | \$US 2.3M |

#### Modelled Financial Outcomes<sup>4</sup>

| Cash back period             | 2-3 months      |
|------------------------------|-----------------|
| Net cash flow (steady state) | US\$800,000 per |
| -                            | month           |

1. The numbers in the tables above are based on the theoretical plant design capacity. They are not a forecast and actual results may vary significantly after the plant has been commissioned.

2. These costs are based on the actual mining costs incurred under contracts by NSL from its Mangal and Kuja projects historically at the time of trial mining.

3. This plant performance has been modelled on the lowest proposed feed grade, and a two shift operation. However increasing ROM grade, based on the test work to date, is expected to have a positive impact on the recovery, and more specifically an impact on the yield of the plant.

4. These outcomes are based on achieving all outcomes as presented in the historical operating costs and plant modelling overview above, including achieving an annual throughput of 496,000 tonnes of iron ore. The ability of the Company to achieve these results will depend on the Company mining or securing the required throughput and grades to feed the beneficiation plant as modelled. In the event that any of the variables in the above tables are not achieved, it could significantly impact the modelled returns to the Company.



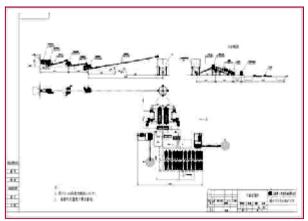
## Kurnool plant design

The proposed process flow and design from the Shanghai Minggong Heavy Equipment Company involves the following high level processes:

- 1. Three stage primary crushing circuit from 500mm to 10mm.
- 2. Twin ball mills grinding from 10mm to 75 micron.
- 3. Low intensity magnetic separation (LIMS) at 2000 gauss.
- 4. Wet high intensity magnetic separation (WHIMS) at 10,000 Gauss.
- 5. WHIMS concentrate cleaning circuit shaking tables.
- 6. Disc vacuum filters for water recycling.

Shanghai Minggong have delivered similar plants to a number of global customers, including current operating plants in Vietnam, Malaysia, Indonesia, Pakistan, Brazil and across China





Plant Technical drawings

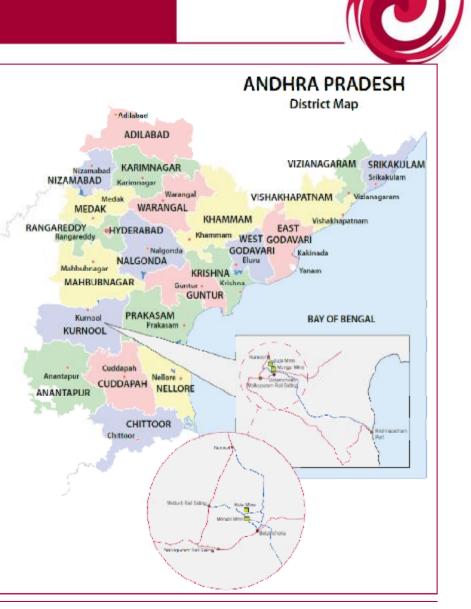


# NSL projects

#### Kurnool Province of Andhra

#### Pradesh – Southern India

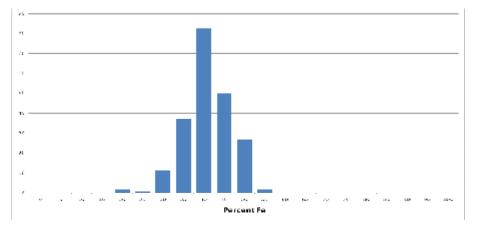
- Recognised and established iron
   ore region
- Approximately 360km from port by road/rail
- Good access to labour
- Mangal
  - Acquisition in September
    2009
  - Direct road access to port and 25km from rail siding
- Kuja
  - Acquisition in October 2009
  - Located 5km from Mangal Mine



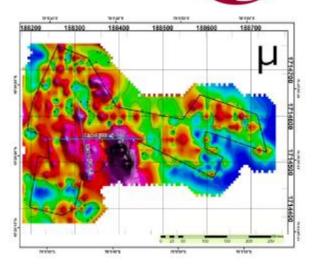


### Mining Assets - Mangal

- Evaluations undertaken include drilling, independent assessment, geophysical interpretation and trial mining
- Trial mining undertaken
  - 2.5km site access road constructed, weighbridge installed
  - Mining operations started and iron ore trucked to the port
- Trial mining data correlated back to magnetic intensity readings pit designs completed on higher intensity zones
- Magnetic surveys and electrical resistivity imaging indicate average depth of mineralisation



Mining Data Grade Distribution



Magnetic anomaly contours for Mangal



Mine location and export route



### Mining Assets - Kuja

- Evaluations undertaken include drilling, independent assessment, geophysical interpretation and trial mining
- Small scale trial mining undertaken, but limited by scope of previous mining plan licence
- Modified mining plan now approved, increased 331,297 tonnes per annum over the 5 year period of validity for the Mining Plan
- Adjacent to NSL stockyard facilities



Kuja Mineralisation



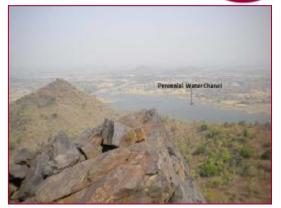
Drilling underway at Kuja



### Future Development – AP14

- AP14 magnetite project in Karimnagar (200km NE of Hyderabad in Andhra Pradesh) consists of 290 acre Mining Lease application
- Exploration Target of 62 million to 125 million tonnes of magnetite<sup>1</sup> at grades of 20% to 50% iron
- Banded Magnetite Quartzite style mineralisation spot samples ranging from 39.72% Fe up to 69.23% Fe
- Project represents "second generation" for NSL in India significantly larger potential than Mangal and Kuja project currently underway
- Area well served by infrastructure including:
  - Two Ports (Vizag & Krishnapatnam) for international export
  - Singareni Coal Mines for power generation
  - Railway siding within 30km, linked by sealed road
  - Domestic power within 5km
  - Nearby perennial water source for process water
- Low acquisition and holding costs during early development stage, with royalty based acquisition
- Two to three year pathway to development

1. It should be noted that the tonnages quoted above are conceptual in nature and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.



View from top of AP14 project



**Regional Setting** 

| No.    | Sample Code              | Fe%   |
|--------|--------------------------|-------|
| 1      | AP14/KHM1/LU/0306111030  | 69.23 |
| 2      | AP14/BMQK2/LU/0306111100 | 50.39 |
| 2<br>3 | AP14/K3/LU/0306111130    | 50.39 |
| 4      | AP14/K4/LU/0306111200    | 39.72 |



# Experienced people and trial operations

- Trial mining and beneficiation testing program complete
  - Trial mining correlated back to magnetic intensity readings, subsequent pit designs on higher intensity zones
  - Accurate costs estimates derived for all aspects of mining, crushing, screening and transport to port – accurate modelling of expected cash costs
  - Extensive plant test work demonstrates potential to lift ROM grades from 25-27% Fe to 58%-61% Fe product
- Senior team in India over 27 years of beneficiation project experience
  - Mr Debabrata Sanyal, Vice President Beneficiation
  - Overseen operations of a 7.5mtpa beneficiation plan and construction of a 3.5mtpa iron ore pellet plant
  - Mr Ravi Tripathi, Vice President Finance and Commercial for India
  - Extensive experience as a finance and corporate controller





Trial Mining at Mangal



# Infrastructure and Supporting Assets

- NSL holds extensive local infrastructure and supporting assets to enable production to commence:
  - Local stockyard with necessary infrastructure and space to support beneficiation plant including weighbridge, office and support buildings.
  - Water resources from Kuja bore wells.
  - Local laboratory, under the ownership and control of NSL local management.
  - Secured Port plot area and export capacity.



NSL Stockyard facilities, including weighbridge



NSL Laboratory assay area



NSL Laboratory sample prep area

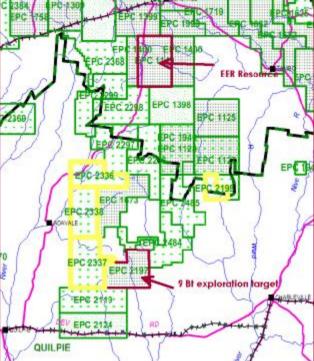


# Additional opportunities - Qld thermal coal

- Agreement to acquire Queensland exploration permits for coal (EPCA) 2198, 2336, 2337 & 2338 covering 2585km<sup>2</sup>
- Permits are considered prospective for thermal coal and are targeting similar style of mineralisation to the nearby East Energy Resources (ASX:EER) 1.2 Billion Tonne Inferred Resource EPC 1149
- Exploration target of between 500Mt to 600Mt of thermal coal<sup>1</sup> identified for EPCA 2198 alone
- Adjacent EPC 2197 with International Coal Limited has an Exploration Target of 8.8-8.9 billion tonnes<sup>2</sup>
- Low acquisition cost, with small upfront consideration and scaling payments upon grant of the EPCs and establishment of JORC resources
- Potential to leverage Indian demand for coal products through existing local Indian experience
- Additional opportunity to iron ore in India does not distract from progress in that area
- NSL now undertaking further geological program to establish potential at all permits

1. It should be noted that the tonnages quoted above are conceptual in nature and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

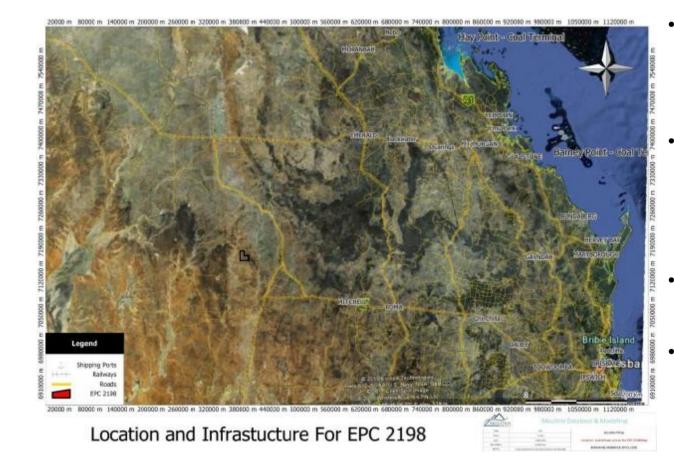
Reference ICL Prospectus



EPCA location (nearby resource / exploration target shown in red)



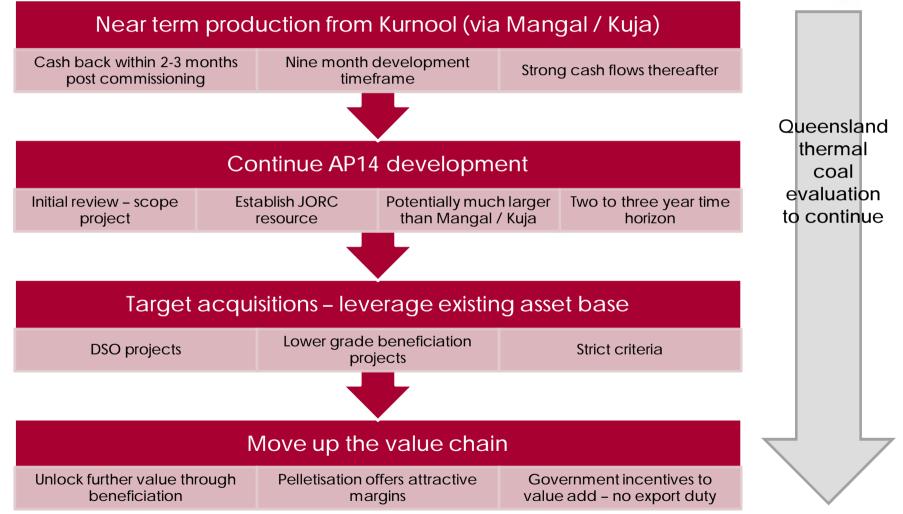
# Old thermal coal - excellent potential



- Main exploration target are coal bearing sequences within the Eromanga Basin, mainly the Winton formation
- Winton formation covers most of EPCA2198 tenement area, intersection range in thickness from 1m to 7m (3m average)
- Investigation of similar potential at other permits underway
- Excellent local infrastructure – power, water, sealed rods, nearby rail lines

## **Growth Pipeline**







## Time is right for NSL

- Near term cash flow from Kurnool plant
- Payback period 2 months after commissioning strong cash flows thereafter
- Ready to acquire and expand, leverage cash flow asset base
- Previous Indian experiences addressed and overcome
- Additional upside with Queensland thermal coal
- High leverage to near term iron ore prices not a "2014+" production story
- Ultimate vision of becoming a significant iron ore producer based in India, producing DSO, beneficiated material and iron ore pellets





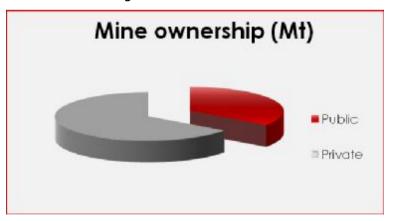


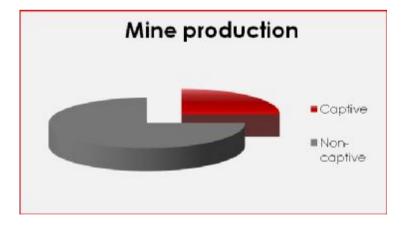




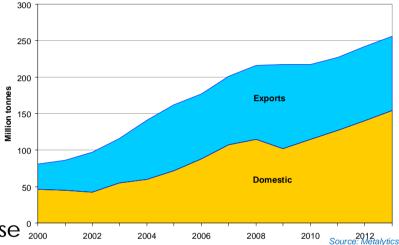
# Why India?

- Łarge but fragmented industry with small scale operations
  - ~ 223Mtpa production
  - ~ 80 companies
  - ~ 250 operating mines, ~ 250 inactive mines
- Approx 100Mtpa exported: China, Japan, Taiwan and Korea
- Well serviced by existing infrastructure
- Z Close to key markets
- Strong local steel demand, forecast to increase substantially









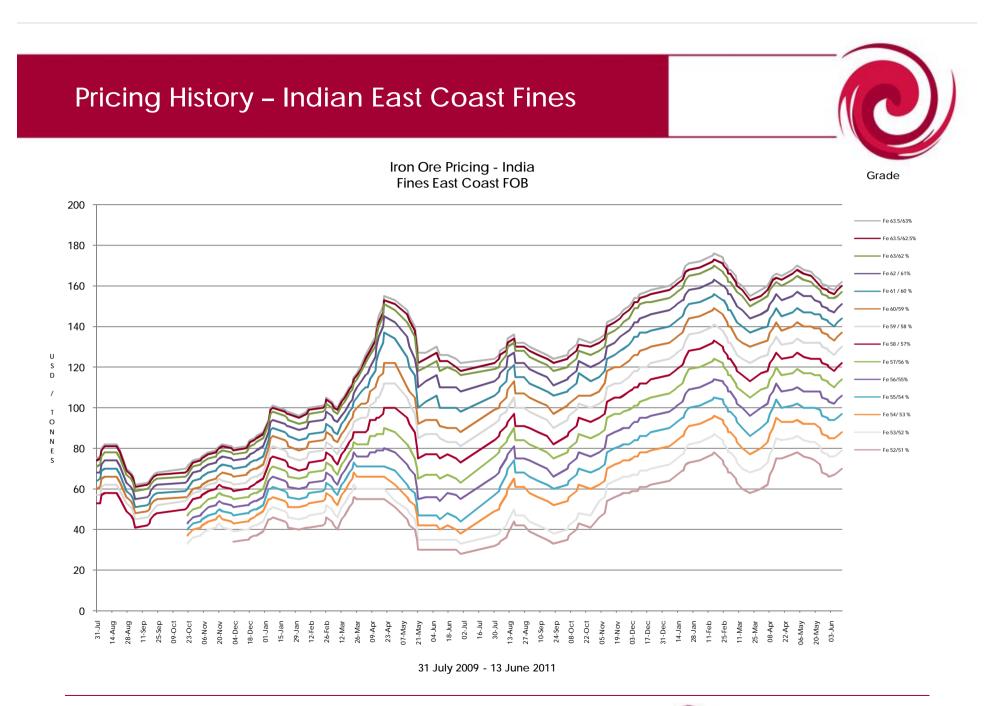
# Key Indian iron ore provinces



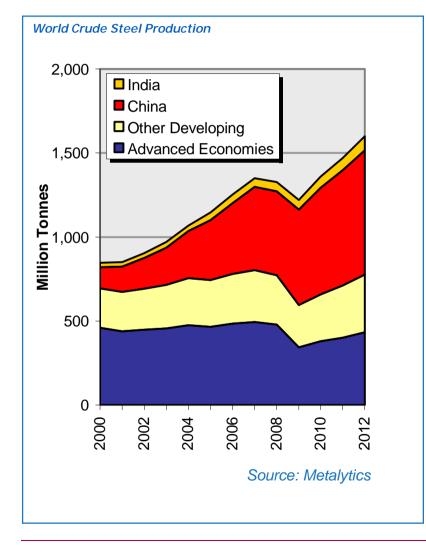


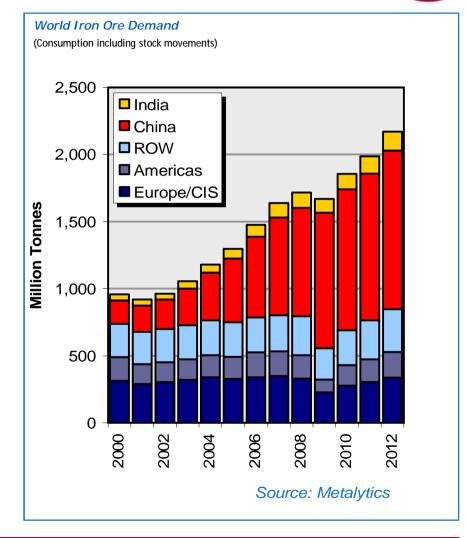
| Goa            | 51- 62% Fe  |
|----------------|-------------|
| Karnataka      | 58 - 64% Fe |
| Orissa         | 58 - 67% Fe |
| Jharkhand      | 58 - 67% Fe |
| Chhattisgarh   | 58 - 67% Fe |
| Andhra Pradesh | 51- 67% Fe  |













### **Competent Persons Statement**



Technical information relating to the coal projects in this announcement has been compiled by Mr Mark Biggs, Principal Geologist of Moultrie Database and Modelling. Mr Biggs is a member of the Australasian Institute of Mining and Metallurgy and has over 24 years of experience relevant to the style and type of coal mineralisation under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined by the Australasian Code for Reporting of Minerals Resources and Reserves (JORC) 2004. The estimates of the Coal Resources presented in this Report are considered to be a true reflection of the Coal Resources as at 1<sup>st</sup> March 2011 and have been carried out in accordance with the principles and guidelines of the Australian Code for Reporting of Coal Resources and Coal Reserves published in September 2004 (JORC Code). Mr Mark Biggs consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears

The information in this statement relating to the iron ore exploration results is based on information compiled by Mr Paul Blackney who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Blackney is employed by Optiro Pty Ltd. Paul has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Paul Blackney consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

