



Pursuing the most attractive niche in iron ore

Southdown Magnetite and Kemaman Pellet Project



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Pursuing the most attractive niche in iron ore

- The niche.....DR pellets
- Steelmaking 101: Integrated vs Electric Arc Furnace
- Supply & Demand
- DR pellet price and premium
- Grange - positioned to capture the DR Pellet opportunity
 - Southdown magnetite project in Australia
 - Kemaman pellet plant in Malaysia
- Project Status

The most attractive niche in the iron ore industry:

DR Pellets

- We all understand the China boom – massive, growing demand for iron ore to China.
- In Australia that demand is being met by Rio, BHP, FMG and some Juniors primarily with DSO.
- Less understood is an iron ore opportunity that Grange considers even more attractive:
the DR pellet opportunity, in the Middle East and Southeast Asia
 - A niche, growing even faster on a percentage basis than iron ore to China
 - Undersupply set to increase for the foreseeable future
 - Higher prices, rising even faster than DS iron ore prices

**To supply the rapidly growing DRI+EAF steelmakers
in the Middle East and Southeast Asia**



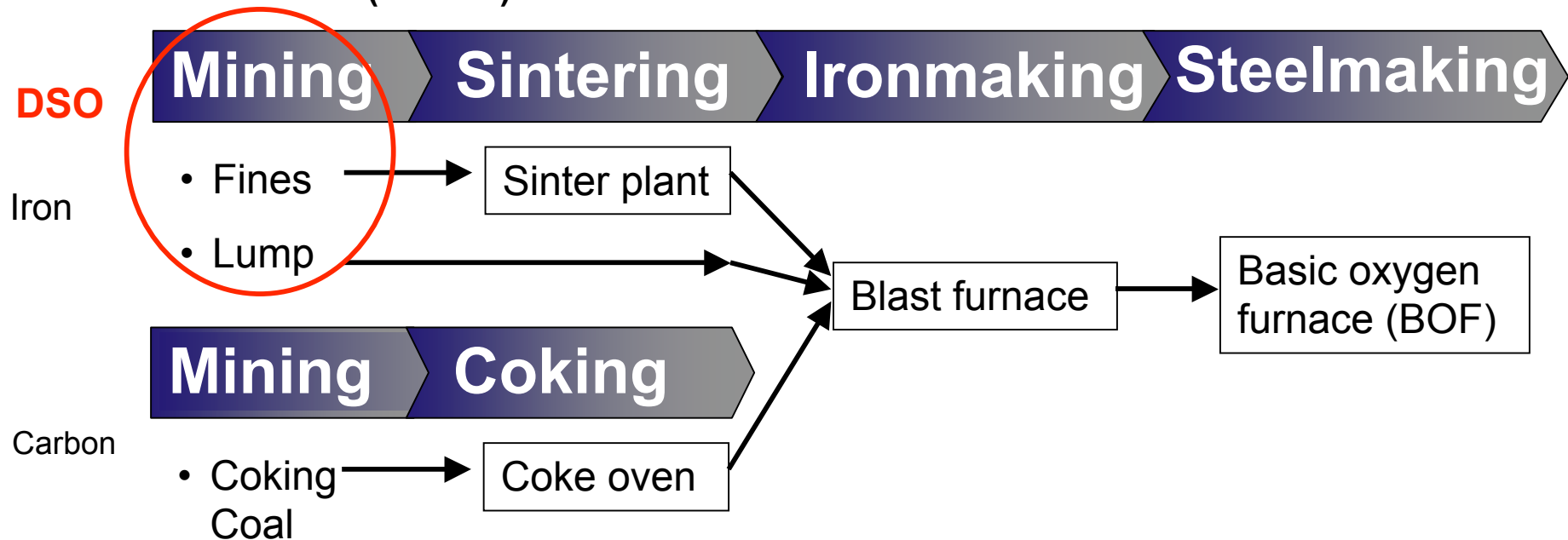
Steelmaking 101

- As pricey as it's become, iron ore has no inherent value: it is only valuable as a feedstock for steelmaking
- So, the attractiveness of supplying iron feedstocks to the steel industry starts with the competitiveness of the steelmaking process to which they contribute
- There are 2 steelmaking processes competing in the steel industry:
 1. The Integrated Steelmaking route
 2. The Electric Arc Furnace route

Integrated Steelmaking process

- End-to-end, the **Integrated Steelmaking** route (the traditional and still dominant route for steel) is both capital intensive and environmentally unattractive

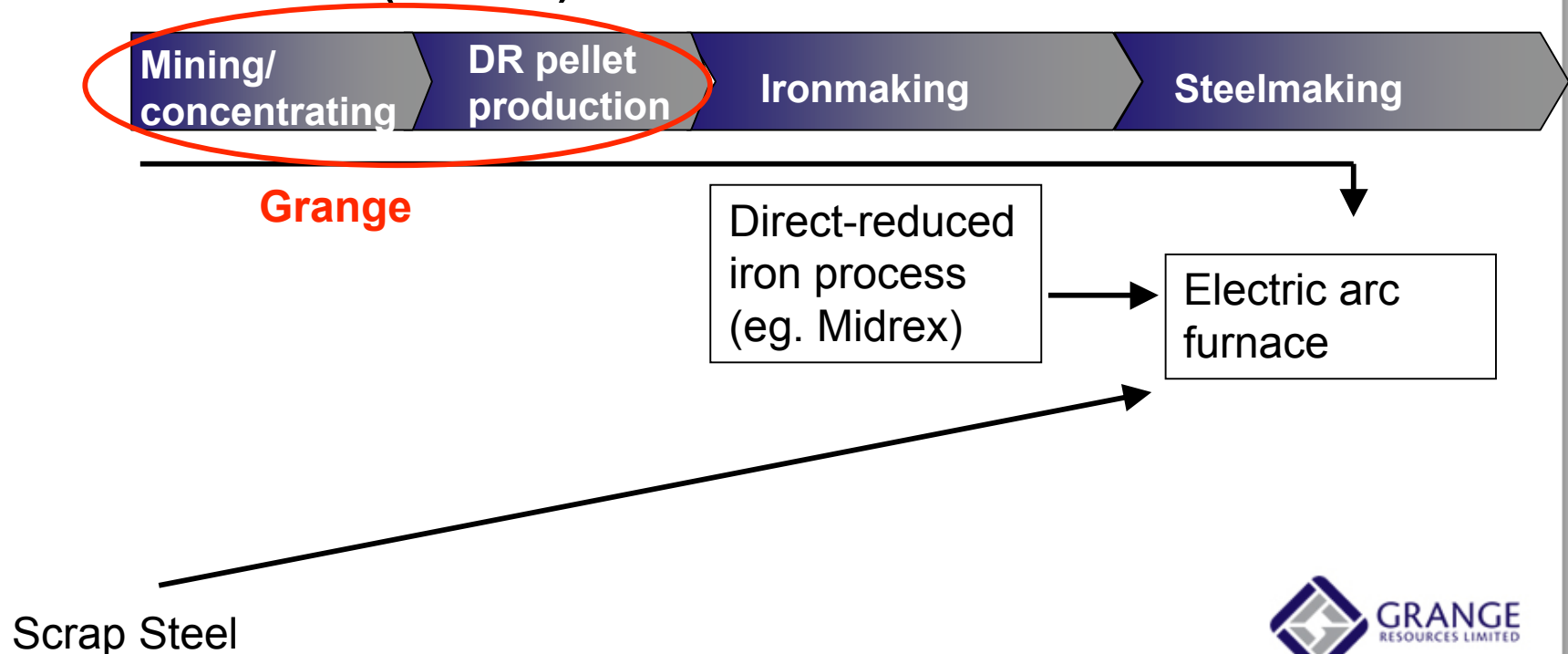
Feeds for standard (carbon) steel:



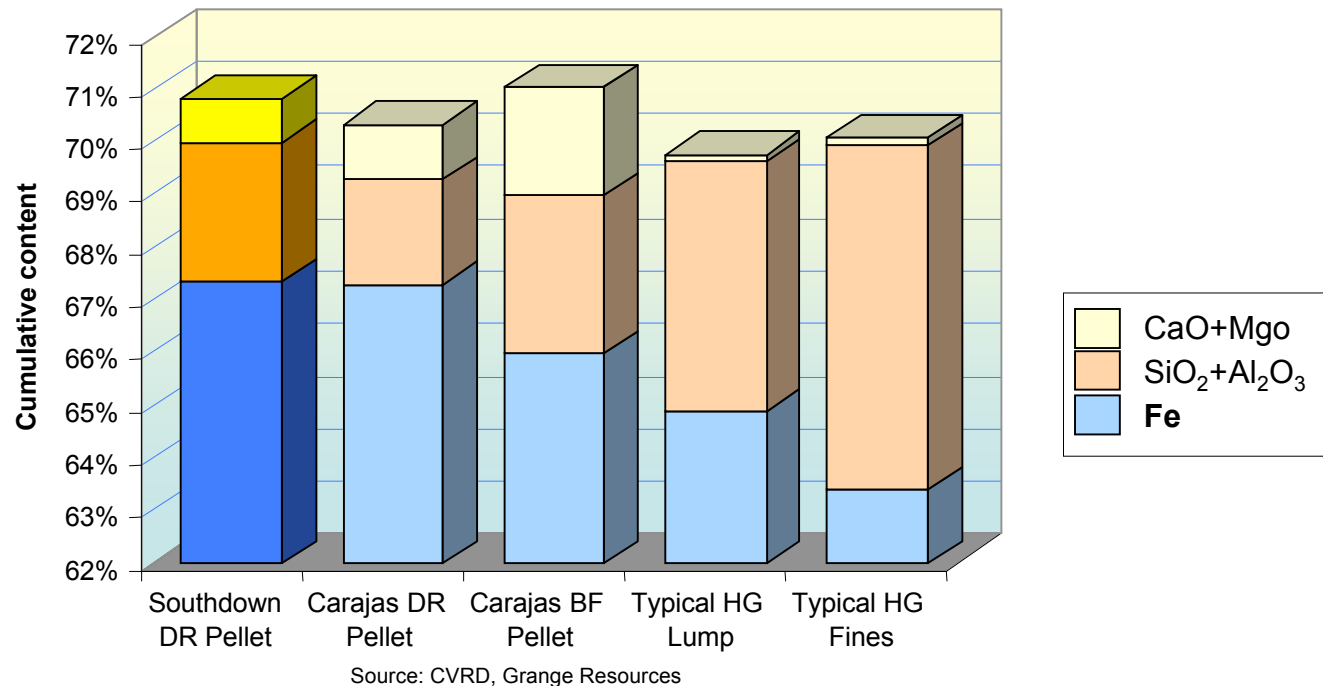
Electric Arc Furnace process

- In contrast to integrated steelmaking, the **Electric Arc Furnace** steelmaking route is less capital-intensive and more environmentally attractive

Feeds for standard (carbon) steel:



Feedstock for DRI and EAF



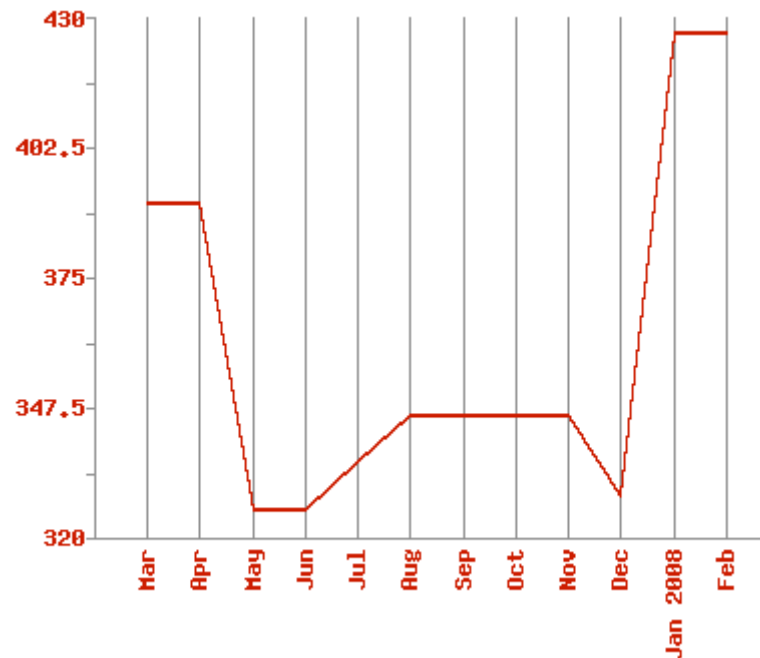
EAFs require suitable high grade pellets (pre-processed to DRI) or scrap steel as feedstock rather than lower grade pellets which together with Direct Ship Ore (DSO) supply Blast Furnaces.

Basket tests indicate Grange will produce high grade pellets

Scrap steel vs DRI for the EAF steelmaker

- Historically, scrap steel < US\$200/t.
- The price of scrap steel has increased hugely, due to overwhelming steel demand from China and other emerging economies:

SCRAP STEEL PRICE HISTORY



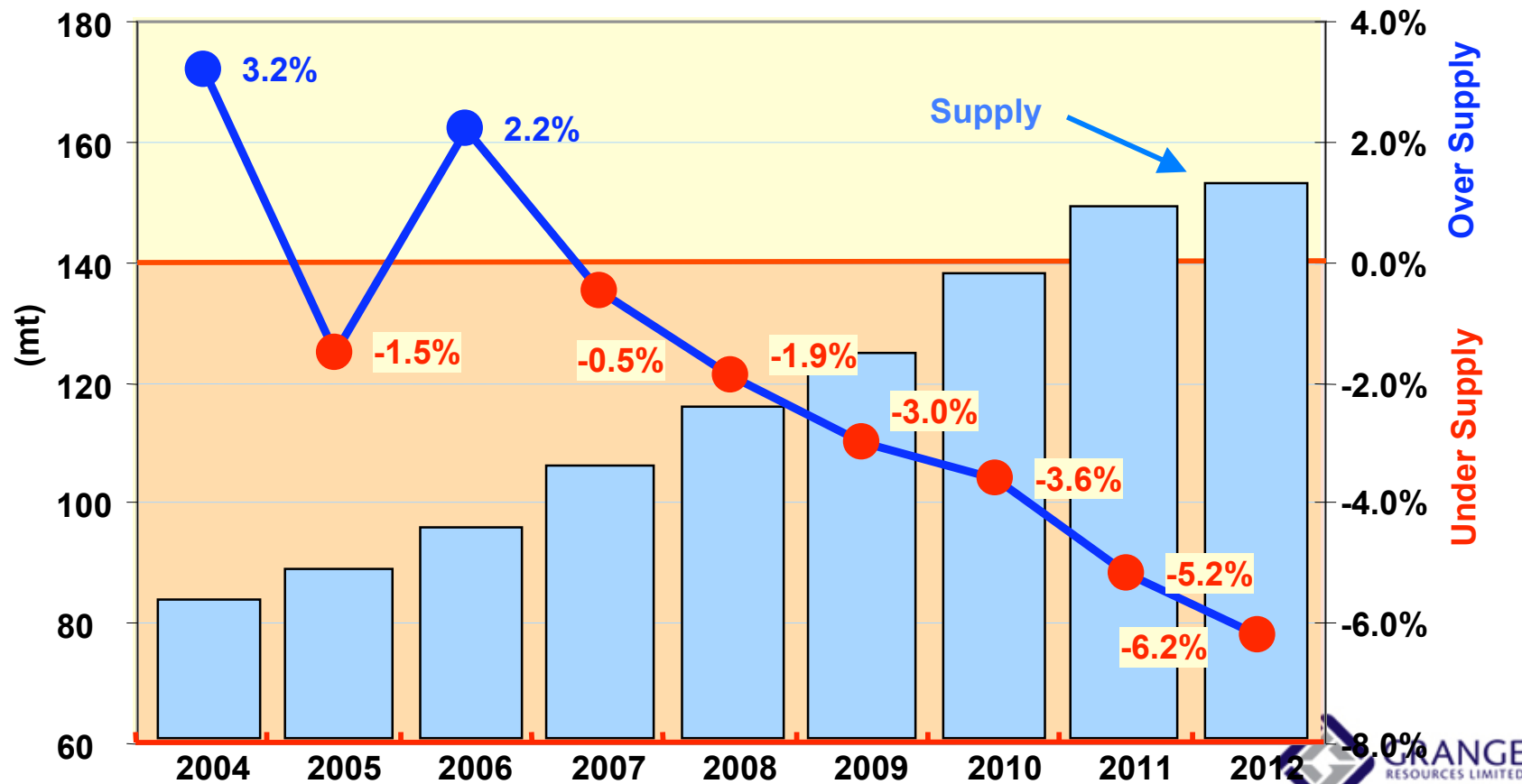
Source: Iron Age Scrap Price Bulletin

- The demand and price implications of this '*scrap squeeze*' for Grange's alternative feed, DR pellets, are profound

Growing shortage of DR pellets

Credit Suisse Brazil—in the heartland of world DR pellet supply—sees DR pellet undersupply increasing for the foreseeable future.

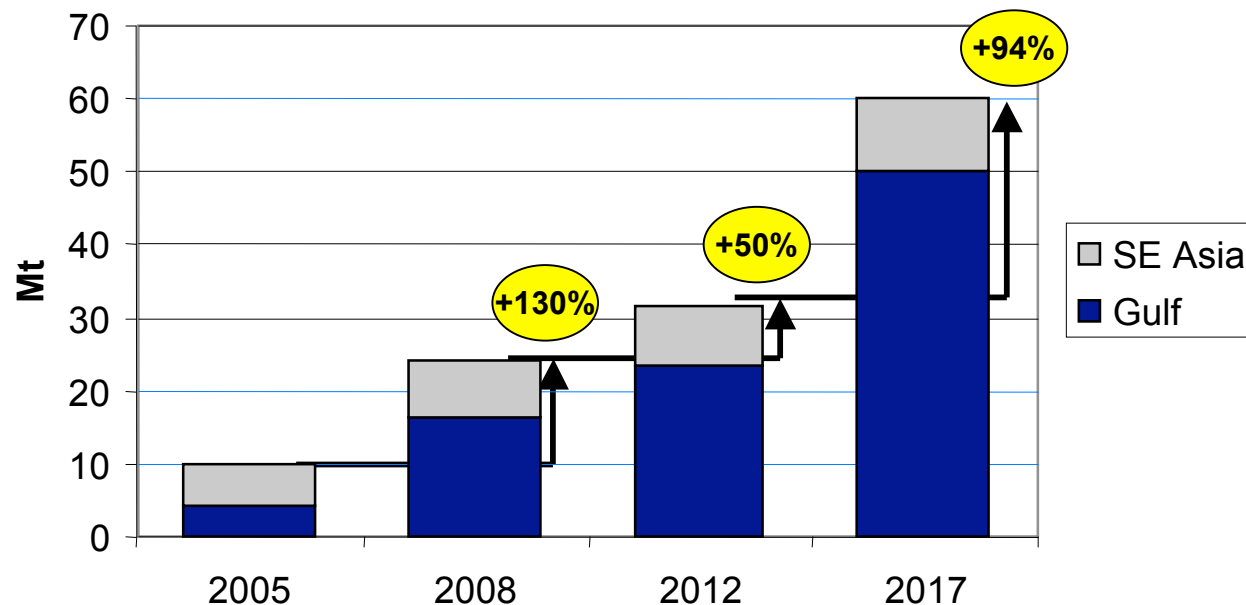
Seaborne Pellet Supply and Supply/Demand balance



Source: Credit Suisse estimates and CRU

Demand for DR Pellets

DR pellet demand is projected to increase significantly in SE Asia and the Gulf Region.



SE Asia

- Perwaja Steel
- Mega Steel
- Krakatau Steel

Gulf

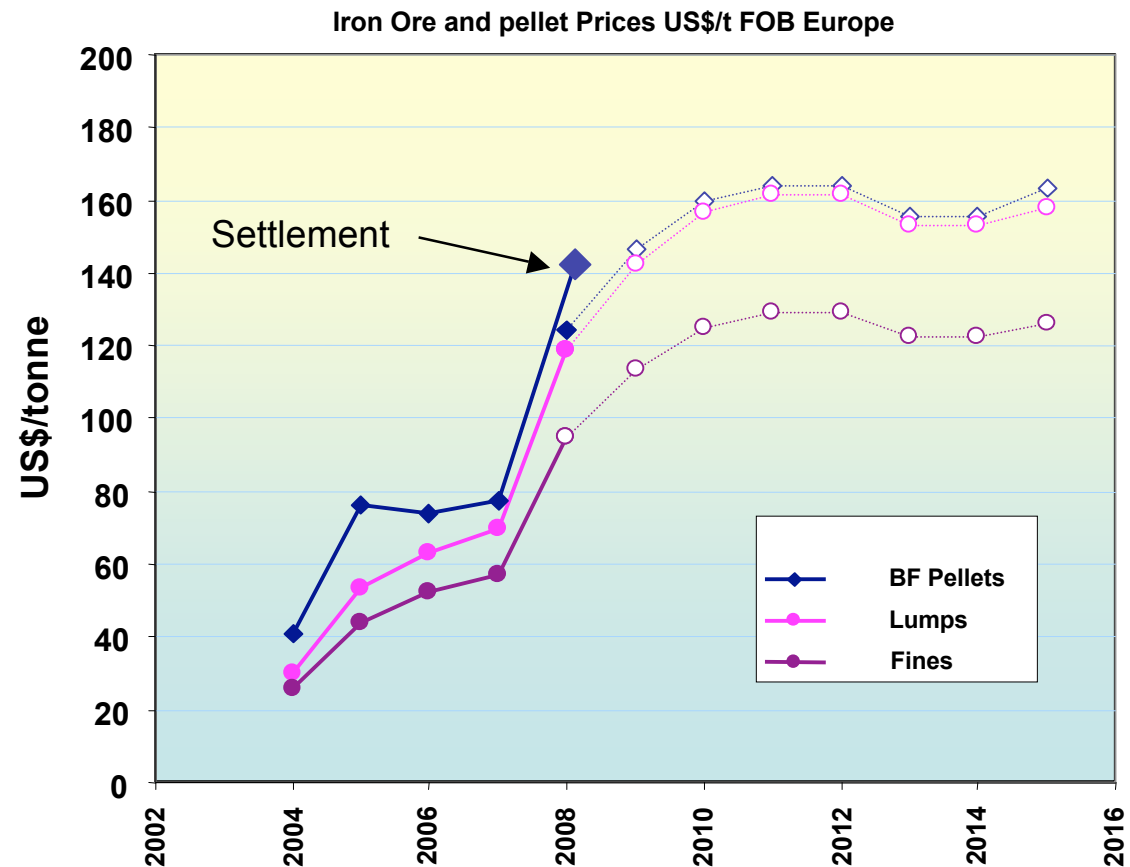
- Hadeed
- Qasco
- Shadeed
- Al-Tuwairqi
- Others

Drivers of increasing DR Pellet Demand

- Capital cost of traditional integrated steel plants – availability / cost of coking coal
- Environmental issues of sinter plants – intensifying over time
- Abundant and cheap natural gas availability in SE Asia and Gulf Region
- Proximity of steel plants to fast growing industrialisation and urbanisation in SE Asia and Middle East

Prices...the Pellet opportunity is attractive...

With increasing demand, future price forecasts continue to look strong, with a good premium for BF pellets over DSO...



Source: Metalytics 2008, GRR

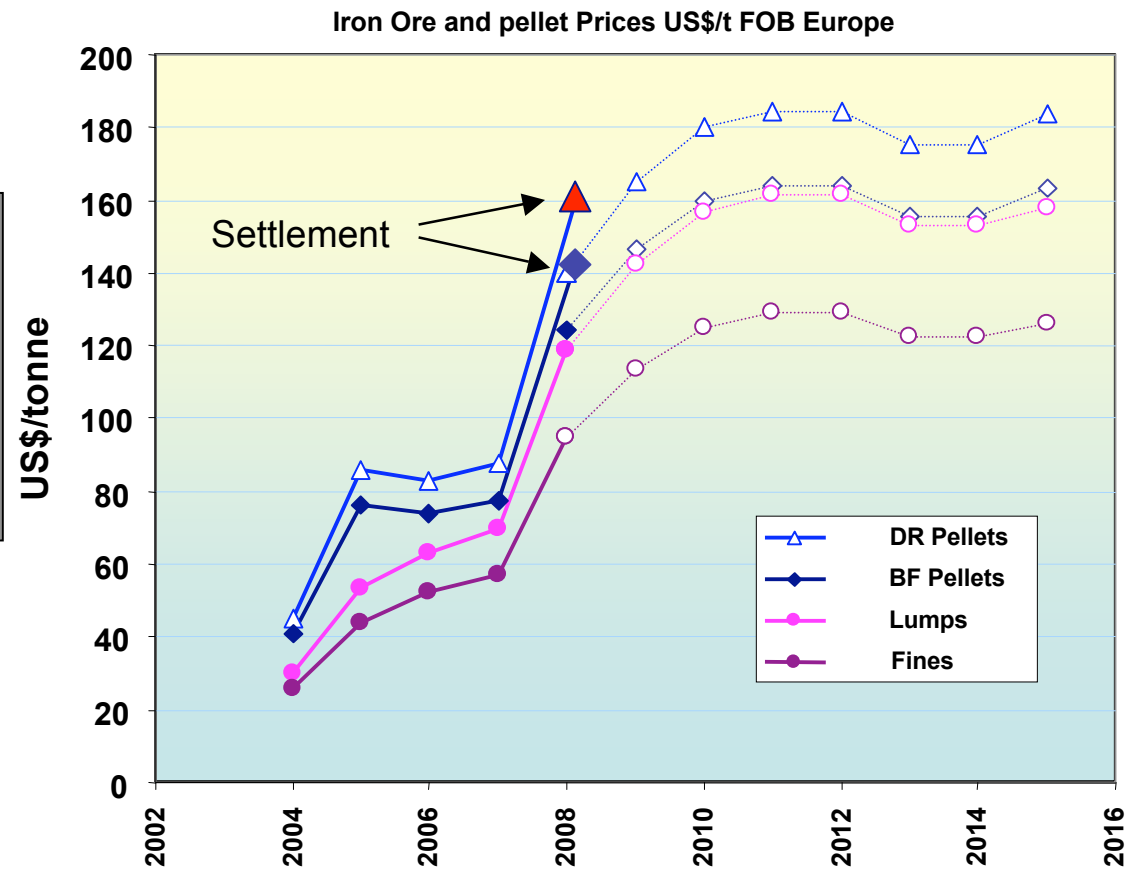


...but the DR Pellet opportunity is even more attractive

with a further 10% premium for DR pellets over BF pellets.

For DR pellets expect a premium of:

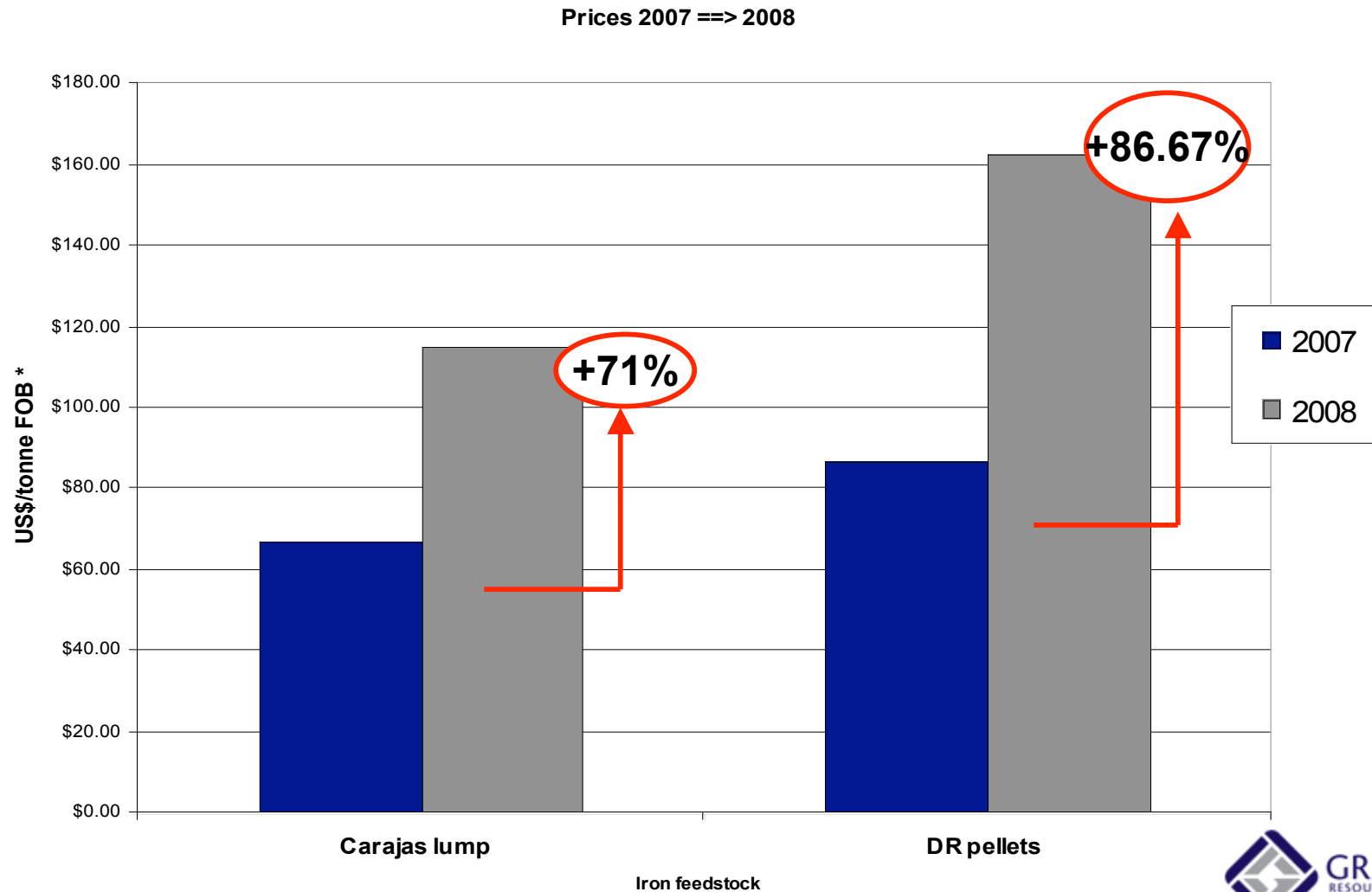
US\$17/t over BF
US\$20/t over Lump (DSO)
US\$40/t over Fines (DSO)



Source: Metalytics 2008, GRR



Price – this year's result



* Benchmark prices in US¢/dmu, translated to US\$/tonne FOB @ 67% Fe for ease of understanding.

In Summary:

- Iron Ore consumption is increasing worldwide, particularly in China.
- With abundant gas and expanding infrastructure, demand for DR grade pellets is increasing exponentially in the Middle East and South East Asia
- Supply is not matching demand in the DR market
- Prices in the DR market reflect the increasing DSO price and attract a significant premium to it
- Grange is excellently positioned for this market



Grange – Southdown/Kemaman overview

1	Grange Resources Limited
2	The Southdown and Kemaman Project
3	The Southdown Magnetite Deposit
4	Project Infrastructure
5	Markets
6	Economics
7	Recent Developments and Current Status

Grange Overview

Board of Directors

Anthony Bohnenn Chairman	Non Executive
Russell Clark	Managing Director
Alex Nutter	Technical Director
Richard Krasnoff	Non Executive Director
David Macoboy	Non Executive Director
Douglas Stewart	Non Executive Director

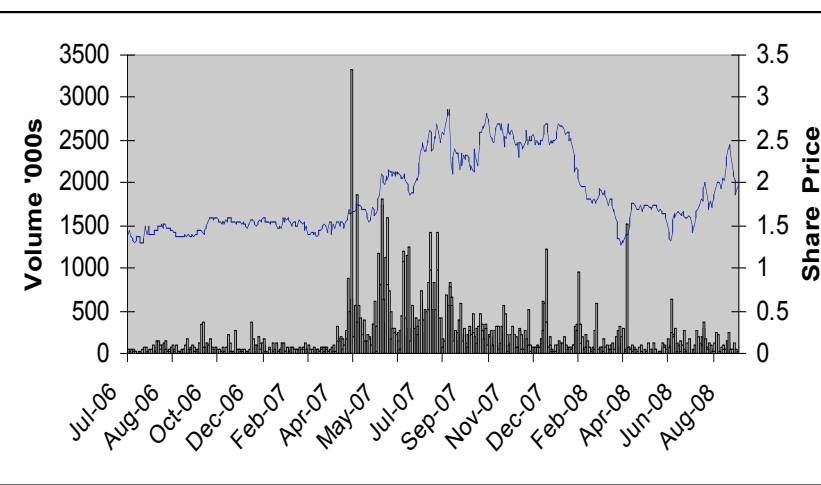
Shares

ASX Code:	GRR
Current shares on Issue:	115,201,099
Unlisted Options on Issue to Rio Tinto:	17,500,000
Share price (19 August 2008):	~A\$2.00
Market Capitalisation (19 August 2008):	A\$230.4 m

Major Shareholders

Management	12.5%
Rio Tinto Ltd	7.9%
Top 10 Shareholders	81.1%
<u>After Exercise of Options:</u>	
Rio Tinto Ltd	19.9%

Share Price



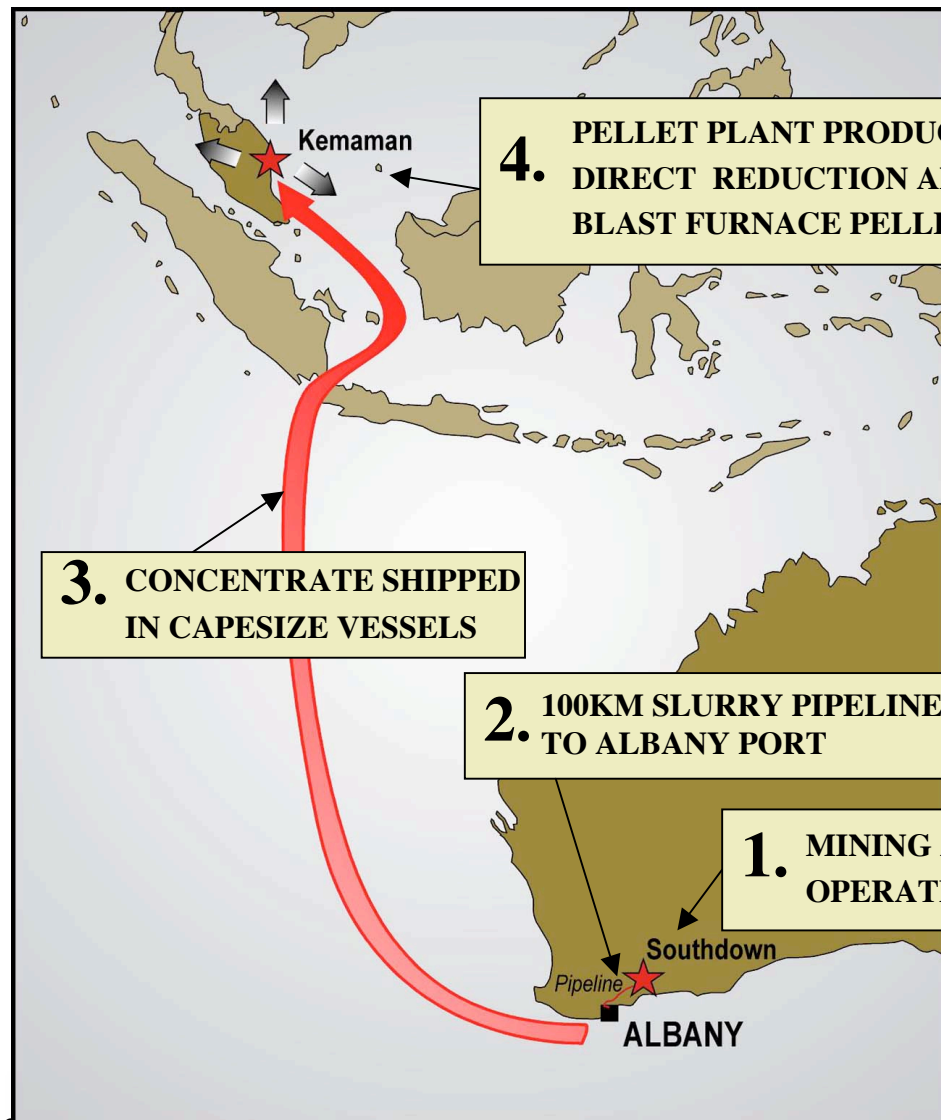
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Project Highlights

Advanced Project	
Initial Feasibility Study Completed	
Infrastructure Solutions in Place	
Ability to produce High Quality (DR Grade) Pellets with very low Phosphorus content	
Growing DR Pellet Market in SE Asia & Middle East	
Pellet Plant Close to Key Markets	
Joint Venture with Sojitz – a leader in the world pellet market	

Project Overview



**4. PELLET PLANT PRODUCING
DIRECT REDUCTION AND
BLAST FURNACE PELLETS**

**3. CONCENTRATE SHIPPED
IN CAPESIZE VESSELS**

**2. 100KM SLURRY PIPELINE
TO ALBANY PORT**

**1. MINING AND CONCENTRATION
OPERATIONS FOR 35 YEARS**

Dual Location

Southdown

- Open pit mine operation
- Magnetite concentrate production 6.6mtpa @ 69% Fe
- Slurry pipeline to existing port
- Shipping in Capesize vessels

Kemaman

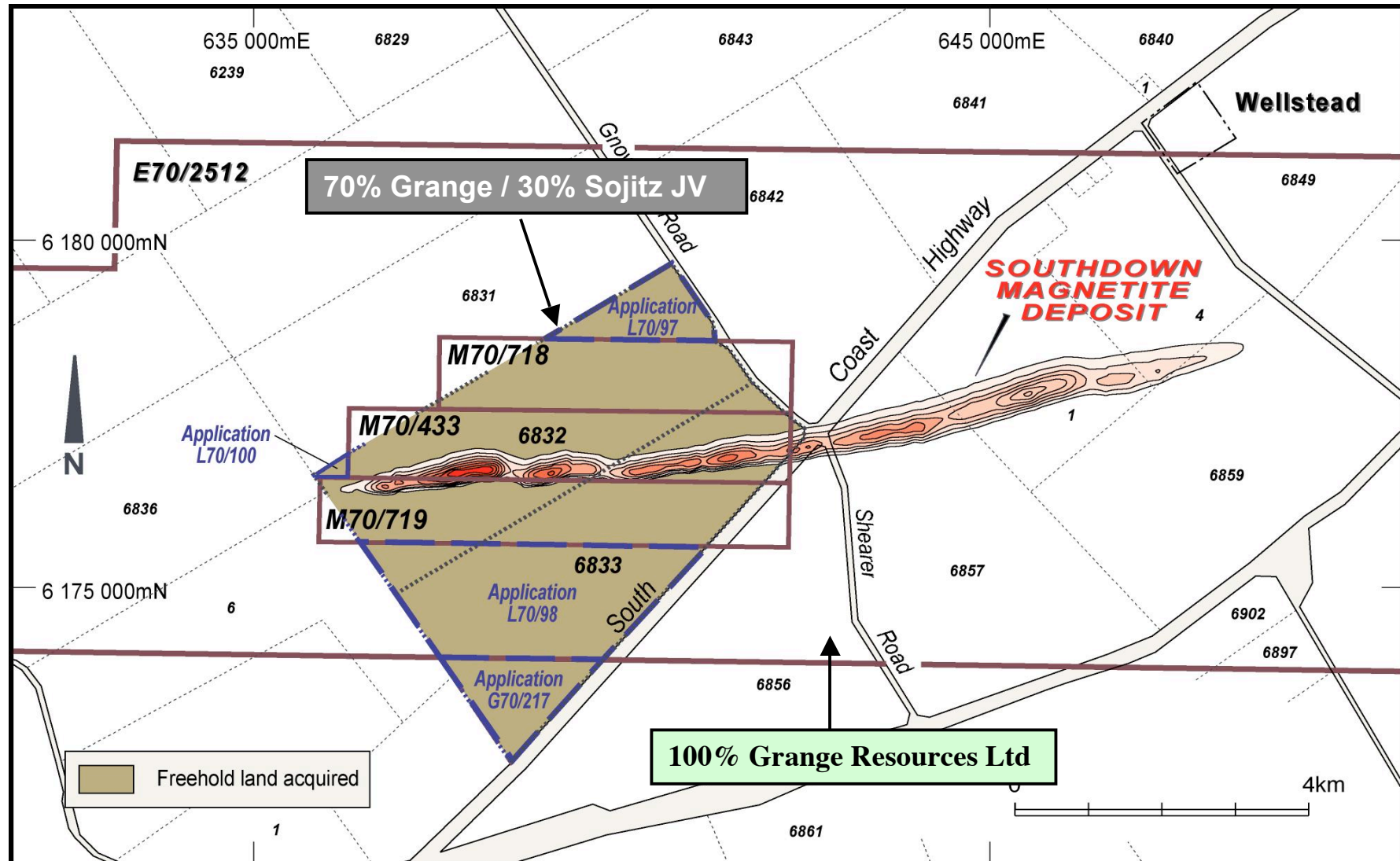
- Pellet production ~7mtpa
- Deep water, capesize port
- Availability of gas, power, water
- Proximity to markets (first in South East Asia)
- Investment incentives



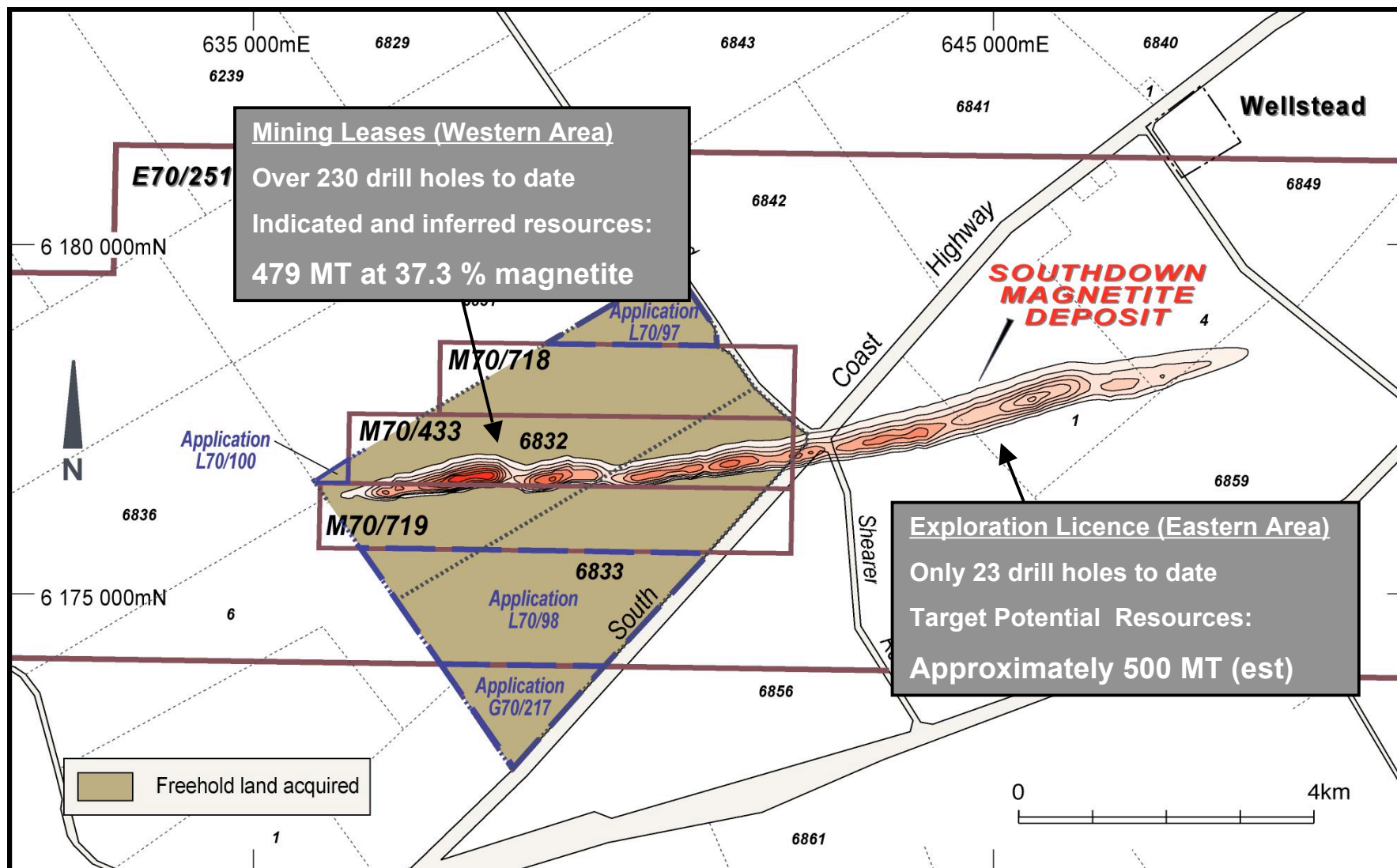
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Tenement & Deposit Location



Southdown Resource



Metallurgical & Pelletising Testwork

	Kobelco Concentrate	Kobelco Pellets
	%	%
Fe	69.76	67.23
SiO ₂	1.00	1.24
Al ₂ O ₃	1.39	1.42
TiO ₂	0.40	0.40
Mn	0.03	0.03
CaO	0.07	0.65
MgO	0.13	0.15
P	<0.005	<0.006
S	0.125	0.004
Na ₂ O	0.007	
K ₂ O	0.009	

Binder	Bentonite (0.55%)
Strength (CCS)	296kg
Tumbler Index	97.7%
Abrasion Index	1.3%
Linder Reduction Test	
Fragmentation (-3.35mm%)	0.48%
Strength after Reduction (>50kg)	45.6kg
Metallisation	96.2%

Comprehensive programme of metallurgical test work completed, culminating in the successful production of high quality DR and BF grade pellets from Kobelco (Japan) and Lurgi (Germany)

- Extremely low phosphorus <0.006%
- Initial Design parameters for concentrator and pellet plant completed
- Metso currently reviewing design and conducting testwork to provide Process Guarantees.
- Basket test underway to confirm performance and characteristics in the DRI process





Grange – Southdown/Kemaman overview

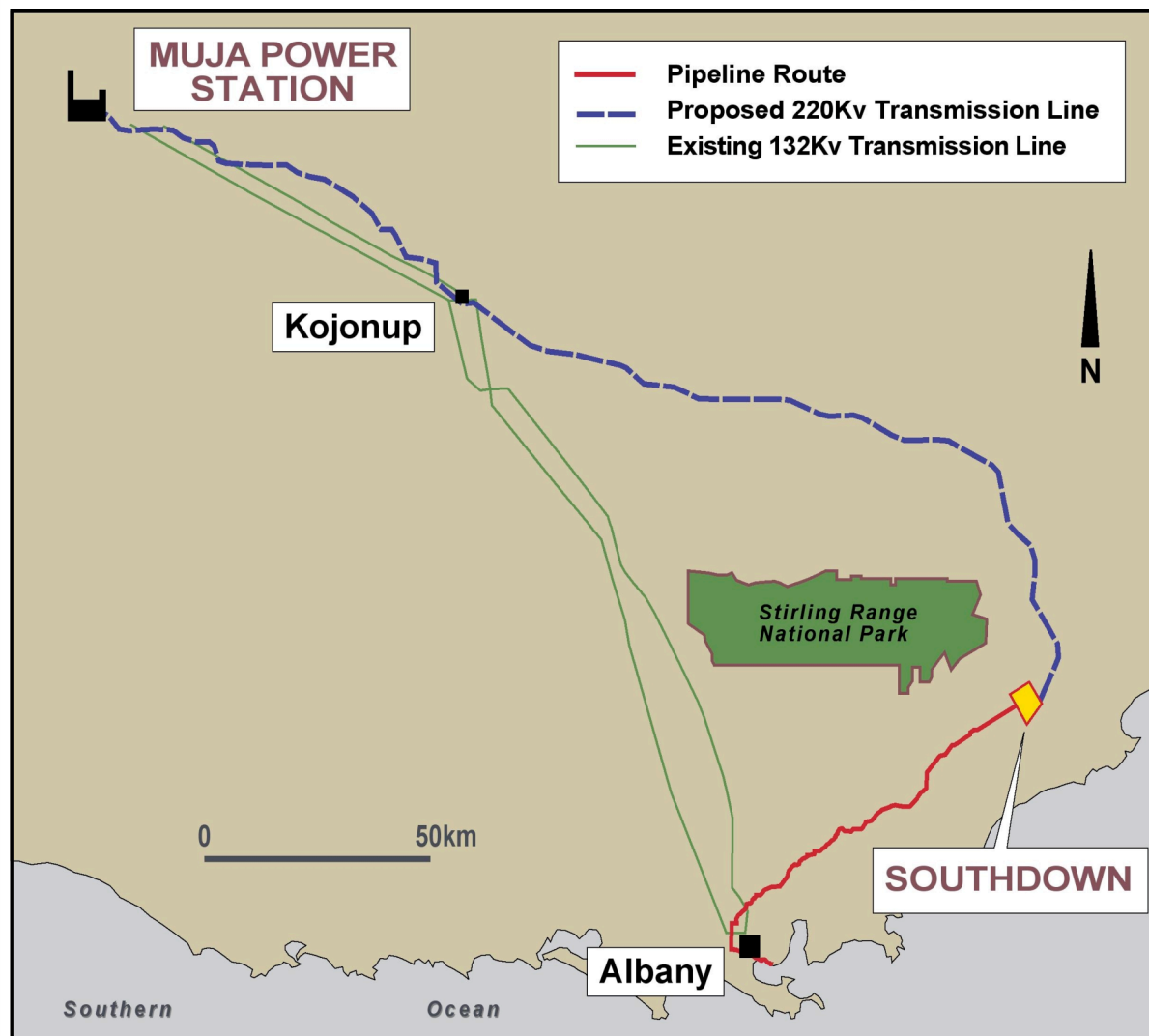
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Project Infrastructure – Southdown & Albany

All key infrastructure in place or well advanced

<input checked="" type="checkbox"/>	Water	▶ Pit dewatering, site water harvesting, retreating Albany waste water, groundwater
<input checked="" type="checkbox"/>	Power	▶ Premier Power (Wesfarmers) (coal and natural gas potentially augmented by wind power)
<input checked="" type="checkbox"/>	Power Transmission	▶ Western Power Networks
<input checked="" type="checkbox"/>	Concentrate Transport	▶ Slurry Pipeline (to date agreement on easements reached with most landowners)
<input checked="" type="checkbox"/>	Workforce	▶ Local communities with skilled workforce
<input checked="" type="checkbox"/>	Deep Water Port	▶ Albany Port to be dredged to 16m to take Capesize vessels

Project Infrastructure – Southdown & Albany



Slurry Pipeline

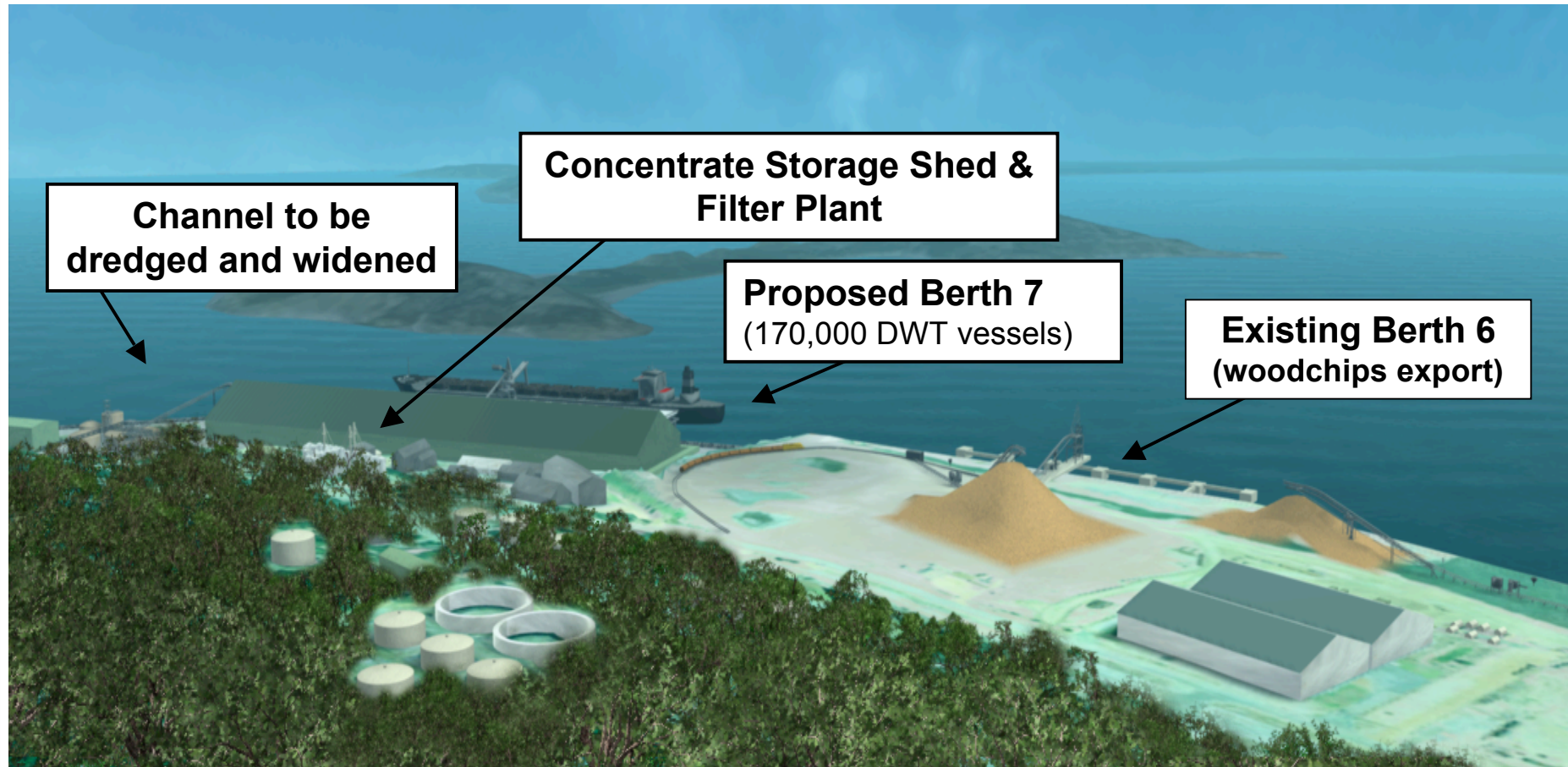
- Optimal transport method
- Finalising easements with landowners

Power

- Western Power Networks 220kv line from Muja (150MW capacity). No EPA Assessment
- Interconnected to SWIS¹
- Transmission line easement progressing

¹ South West Interconnected System (Western Australia)

Project Infrastructure – Port of Albany



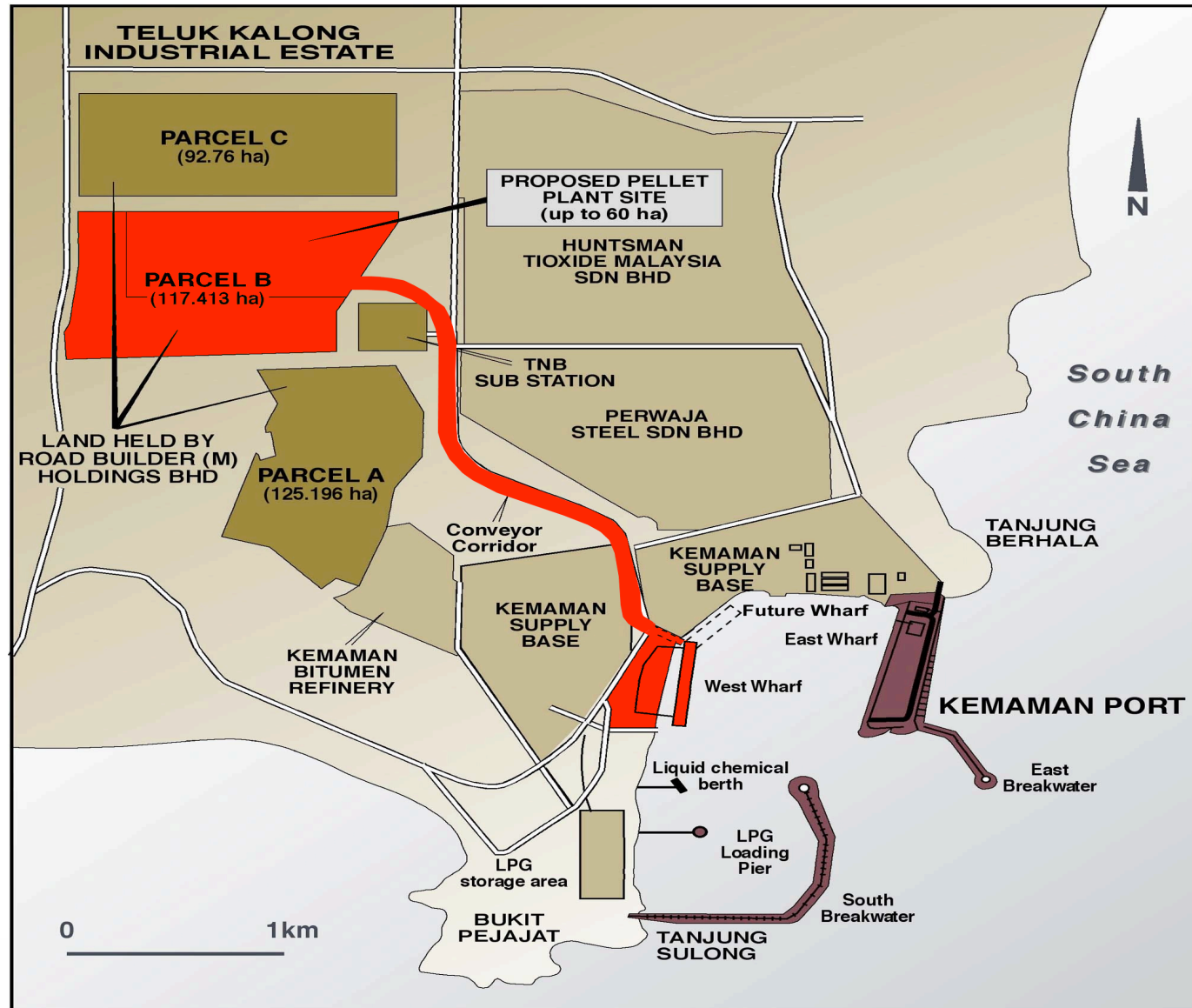
- Work advancing on port design and pre-development engineering
- Heads of Agreement signed with Albany Port Authority for Port development

Project Infrastructure - Kemaman

All key infrastructure in place

<input checked="" type="checkbox"/>	Deep Water Port	Existing Wharf at Kemaman (West Wharf) Suitable for Capesize vessels
<input checked="" type="checkbox"/>	Transport	Conveyor corridor between Port and pellet plant
<input checked="" type="checkbox"/>	Power, Gas & Water	Power – TNB (substation adjacent to site) Gas – Petronas, Water – mains supply
<input checked="" type="checkbox"/>	Workforce	Local population – skilled and unskilled
<input checked="" type="checkbox"/>	Investment Incentives	15 Year Tax Holiday – granted by Malaysian Govt Various other concessions granted
<input checked="" type="checkbox"/>	Markets	Excellent proximity to key DR and BF markets (Perwaja DR Plant, on adjacent land)

Project Infrastructure – Kemaman Site



Project Infrastructure – Kemaman Port



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Kemaman Pellet Plant – Strategic Position

Proximity to Customers



DR PELLET CONSUMERS

COUNTRY

- | | |
|------------------|--------------|
| ① Perwaja Steel | Malaysia |
| ② Amsteel | Malaysia |
| ③ Krakatau Steel | Indonesia |
| ④ Megasteel | Malaysia |
| ⑤ Qasco | Qatar |
| ⑥ Hadeed | Saudi Arabia |
| ⑦ Various | UAE |
| ⑧ Various | India |

BF PELLET CONSUMERS

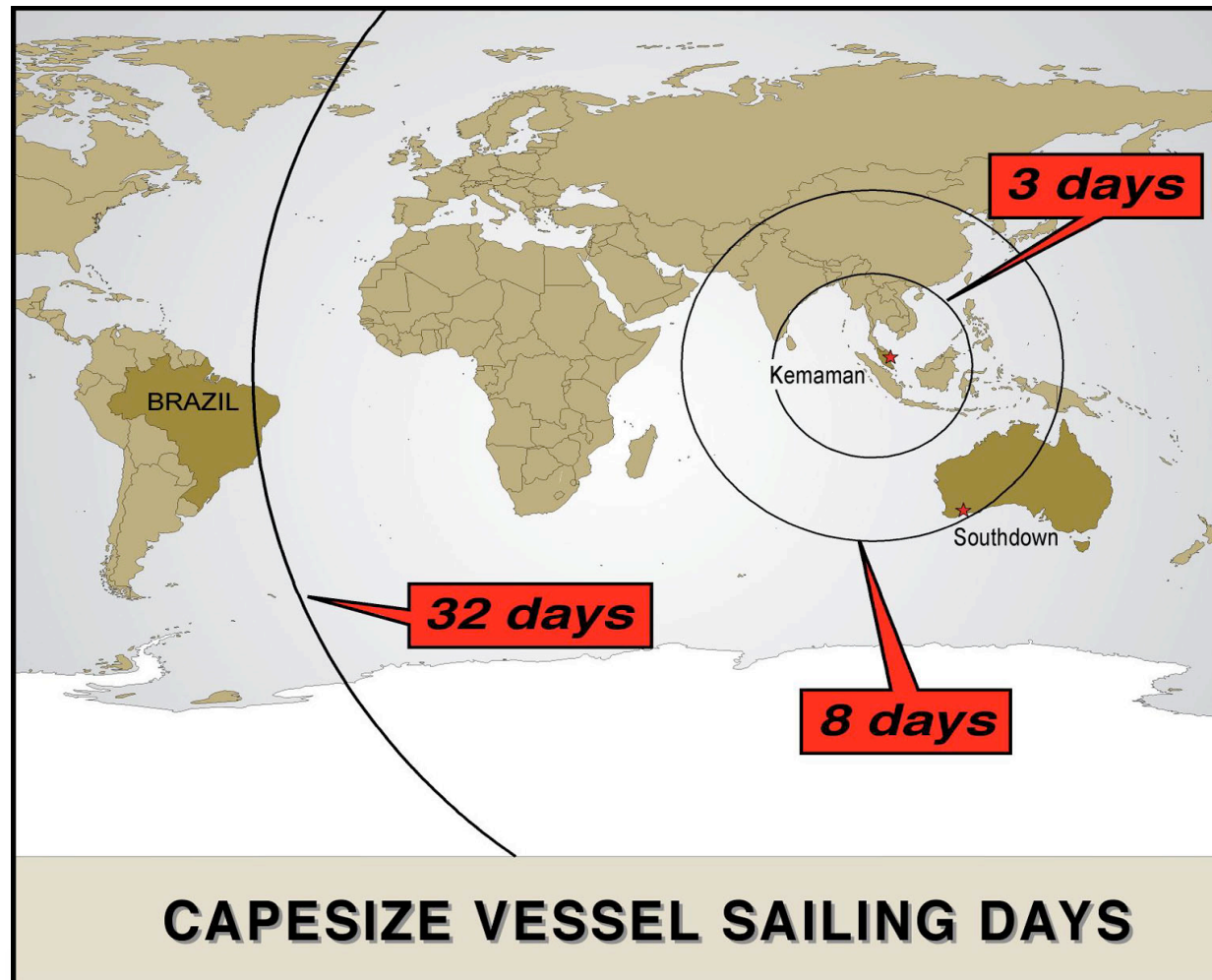
COUNTRY

- | | |
|-------------------------------|-----------|
| A China Steel Corp. | Taiwan |
| B Bluescope Steel Ltd | Australia |
| C Posco | Sth Korea |
| D Japanese Steel Mills | Japan |
| E Chinese Steel Mills | China |

Kemaman Pellet Plant – Strategic Position

Kemaman Freight Advantage

Kemaman has distinct freight advantages over South American pellet producers



- Close to key markets hence reduced shipping costs
- Panamax size vessels can economically deliver smaller quantities to ports not able to handle capesize vessels
- The close proximity to key consumers reduces working capital costs for customers

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Operating and Capital Costs

Project costs are well understood and are the product of a detailed feasibility study
(Note: Costs below are as at June 2007)

Operating & Capital Costs	US\$
Operating Costs	(US\$/t pellets)
▪ Southdown Mining & Processing ¹	35.4
▪ Shipping to Malaysia (incl. handling)	10.6
▪ Pelletising	6.2
Total Cost (FOB Kemaman)	52.2
Capital Costs	
▪ Southdown	839
▪ Kemaman	534
Total Capital Cost	US\$1,373m

Note: Source currencies of €, AUD, MR all converted to US\$ at A\$/US\$ 0.75

1. Includes WA State Royalties

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Project Status

The Southdown & Kemaman projects are well advanced with feasibility complete, most infrastructure in place and approvals in progress.

Item	Status	Expected Timing
Initial Feasibility Study	<input checked="" type="checkbox"/>	Refinement of process flowsheet work underway with Metso Minerals (Q3 2008)
Kemaman Environmental Approval	<input checked="" type="checkbox"/>	
Kemaman Investment Incentives	<input checked="" type="checkbox"/>	
Southdown Environmental Approval	In progress	<ul style="list-style-type: none"> ▪ Full Ministerial Approval expected Q3 2008 (mine & pipeline) & Q4 2008 (port)
Commence Construction		<ul style="list-style-type: none"> ▪ 2009
First Production Year		<ul style="list-style-type: none"> ▪ 2012

Summary of Grange's DR Pellet opportunity

An advanced Iron Ore Project for the Direct Reduction Pellet Market

- Grange has the ore, the land and access to infrastructure.
- Grange's Pellets will be a premium Direct Reduction grade.
- Our pellets will be sold into a niche market:
 - *Geographically advantageous location – Mid East*
 - *Targeting DR and Electric Arc Furnaces, not Blast Furnaces*
 - *Expanding faster than Direct Ship Iron Ore*
 - *Higher value product.*
- Annual production 7 million tonnes potentially for > 35 years.
- US\$1 billion revenue potential per annum.
- Annual EBIT potential US\$400m to US\$500m.



Key Contacts

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