

BHPBilliton Iron Ore Port – *Sweating the assets*



September 2003



Port Hedland Ports Operations



Nelson Point

- 240 hectares
- Approx 400 employees
- 3 car dumpers
- 4 reclaimers
- 6 stackers
- 2 berths



Finucane Island

- 222 hectares
- Approx 100 employees
- 1 car dumper
- 1 Primary stacker
- 2 dual stacker/reclaimers
- 1 berth

West Yard

Expected to be fully operational January 2004

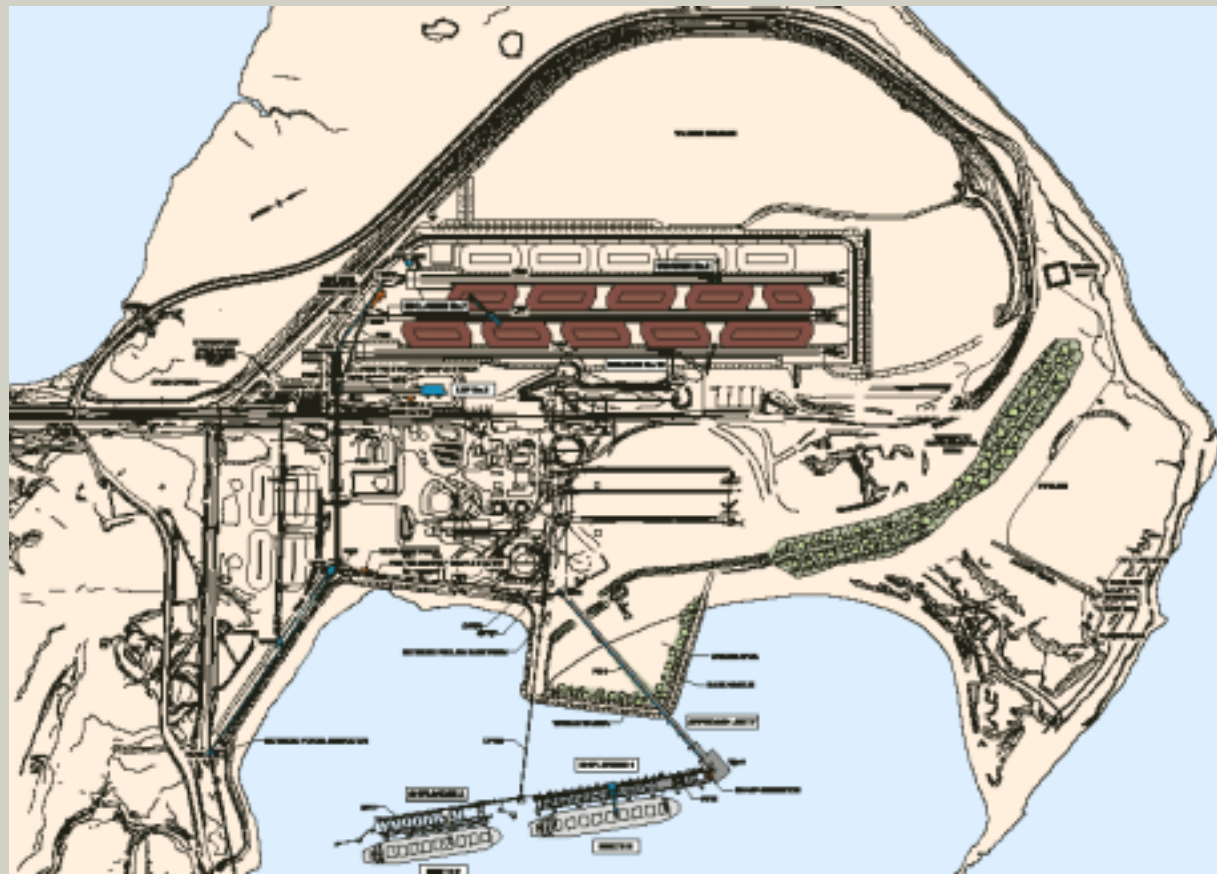
Forecast shipping in excess of 3 million tonnes this year

Nominal yard capacity 20 million tonnes per annum

New standards in workplace arrangements

Cutting edge environmental controls

Commissioning team for start up in place – *ready to hit the ground running*



Capacity Post West Yard (PACE)

	Nelson Point	Finucane Island	West Yard (January 04)
Now	3 car dumpers 4 reclaimers 6 stackers 2 berths (250 kt ship)	1 car dumper 1 Primary stacker 2 dual stacker/reclaimers 1 berth (250 kt ship)	2 stackers 1 Reclaimer 1 berth (250 kt ship)
Shipping	80 + Million Tonnes		20 Million tonnes
Future	100 + Million tonnes		

Improved Capital Efficiency

Ore car dumping efficiencies achieved by increasing the use of multiple dumpers at the same time

- *has improved inflow substantially*
- *Taking CSMS another step*

Ongoing improvements in both shiploading and dumping rates

- *has led to new monthly and weekly shipping records*

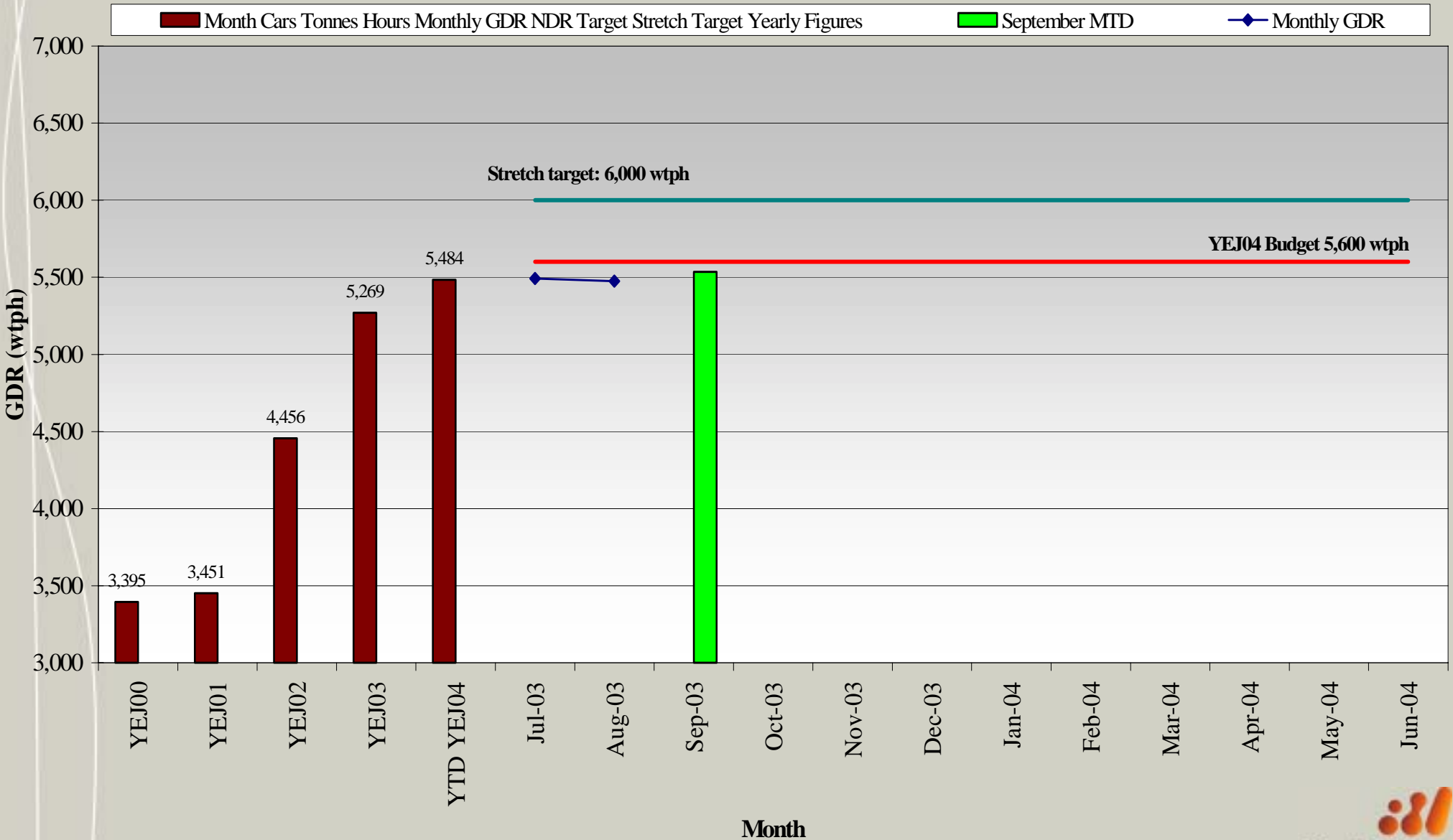
Employee engagement and involvement

- *has accelerated the process of ongoing change and improvement*



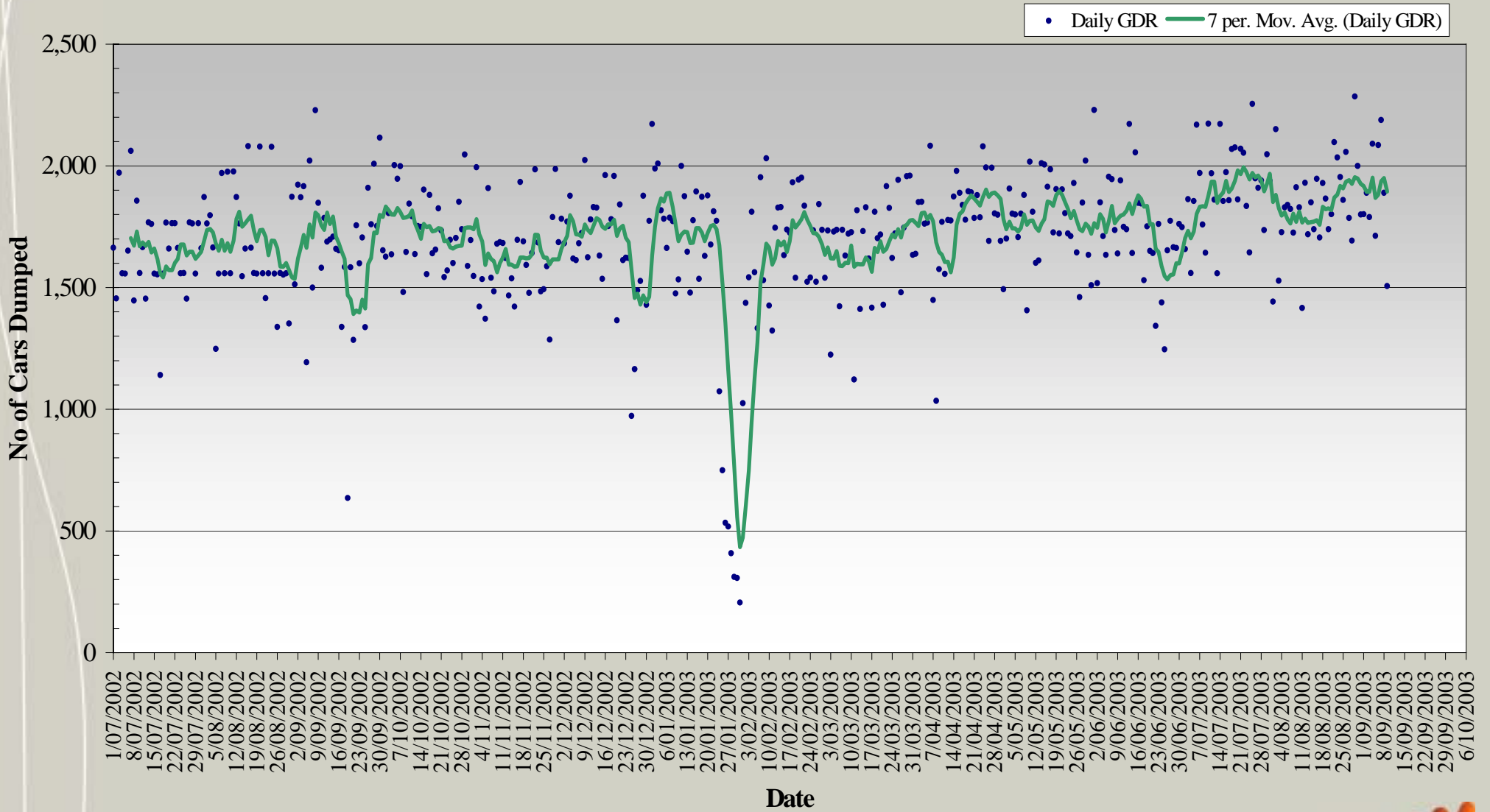
Production – Gross Dumping Rate

GDR - YEJ04 Monthly Averages vs Historical Monthly Averages



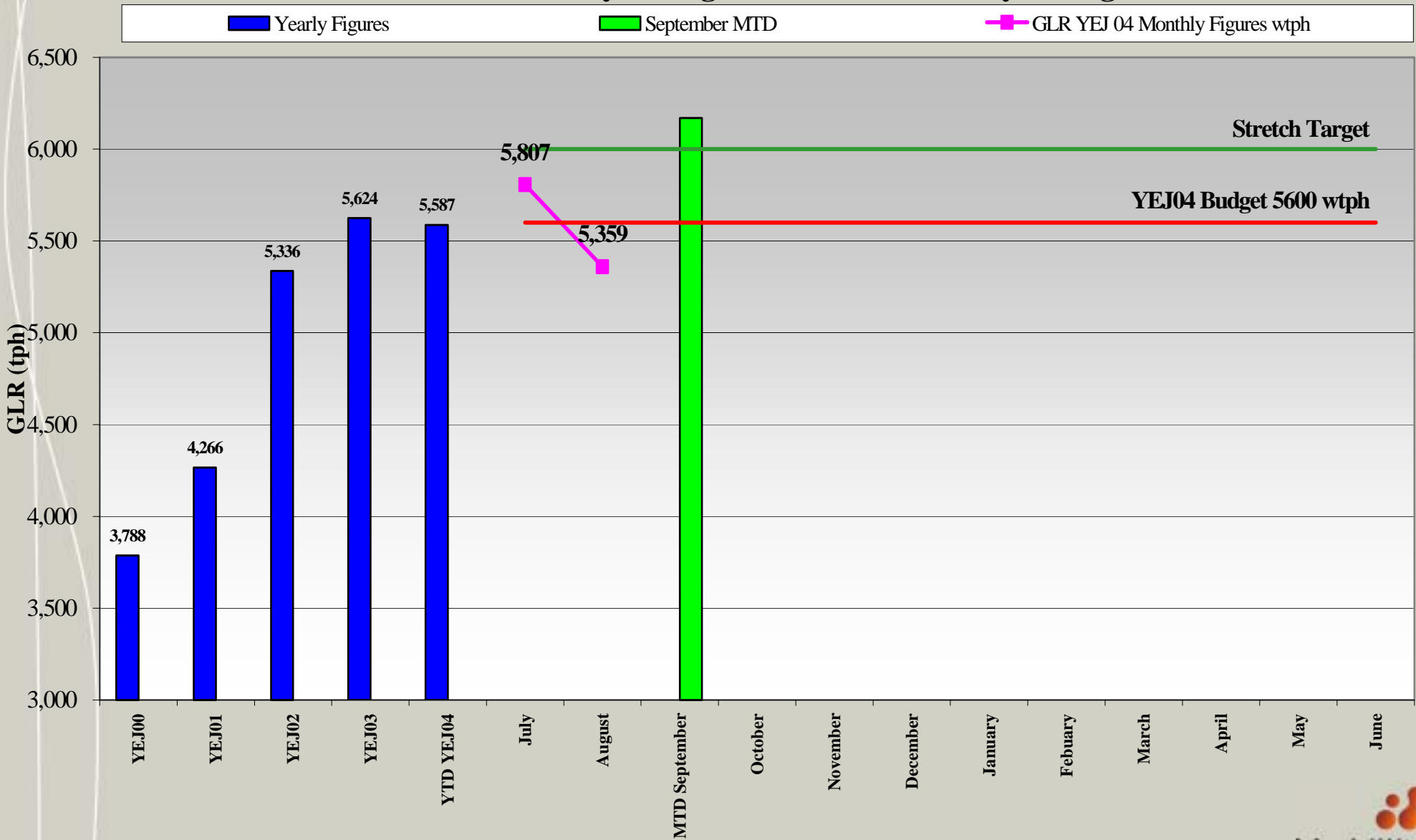
Production – Cars Dumped

No of Cars Dumped per Day



Production – Gross Loading Rate

GLR - YEJ 04 Monthly Averages vs Historical Monthly Averages



Growth

2002/03 80.3Mt tonnes shipped

(13% increase on 2001/02)

Growth achieved through:

- Better use of existing resources
- Improved workplace relations
- Better communications with Mine, Rail & Port
- Record briquettes shipped through Port



Business Plans

PORT OPERATIONS YEJ04 BUSINESS PLAN

Health and Safety	Environment	Community Relations	People Management	Cost	Efficiency	Planning	Product Quality	Tonnage	Growth
Implement Safety Case Management Plan Implement Safety Case Management Plan Implement Safety Case Management Plan	Implement Environment Management Plan Implement Spillage Clean Up Program Implement Spillage Clean Up Program	Enhance Reputation Community Relations ACHR Top 50 Community Relations	Reduce Employee Turnover Employee Satisfaction Employee Engagement Employee Retention	Control Total Cost Reduce Cost Reduce Cost Reduce Cost	Improve Capital Efficiency Improve Process Efficiency Improve Process Efficiency	Develop Strategic Planning Develop Strategic Planning Develop Strategic Planning	Improve Product Quality Improve Product Quality Improve Product Quality	Complete Volume of 5.6M to 6.0M tpa Complete Volume of 5.6M to 6.0M tpa Complete Volume of 5.6M to 6.0M tpa	Expand Capacity Expand Capacity Expand Capacity

NSCC Inauguration


Implement NSCC Contributor Safety, Compliance and Responsibility Program

Engage NSCC for the Government of Western Australia

Implement NSCC Safety and Health Program

KPI	CRF	Indigenous Employment	Tonnage Shipped	Cost	Turnover
Budget	+6	6%	83 mwtpe	PM10 50 µg/m³	3%
Stretch	+5	7%	85 mwtpe	PM10 50 µg/m³	2%

BHAGS



Shipped Tonnage

80 mwtpe

Cost per tonne

\$2.02

Ship 5 next from Western Yard

Dumper Utilization

88%

CRF

3


Crushed by 100% by 1st quarter of 2014

No Dust

Indigenous Employment

1.5%

Western Yard 2nd Benchmark



Port Maintenance YEJ04 Business Plan

	In Progress	More Effort	Stretch Goal	Completed	Not Started
Safety	Implement Safety Case Management Plan	Implement Safety Case Management Plan	Implement Safety Case Management Plan	Implement Safety Case Management Plan	Implement Safety Case Management Plan
Community Relations	Enhance Reputation	Community Relations	ACHR Top 50	Community Relations	Community Relations
Cost	Control Total Cost	Reduce Cost	Reduce Cost	Reduce Cost	Reduce Cost
Efficiency	Improve Capital Efficiency	Improve Process Efficiency	Improve Process Efficiency	Improve Process Efficiency	Improve Process Efficiency
Planning	Develop Strategic Planning	Develop Strategic Planning	Develop Strategic Planning	Develop Strategic Planning	Develop Strategic Planning
Product Quality	Improve Product Quality	Improve Product Quality	Improve Product Quality	Improve Product Quality	Improve Product Quality
Tonnage	Complete Volume of 5.6M to 6.0M tpa	Complete Volume of 5.6M to 6.0M tpa	Complete Volume of 5.6M to 6.0M tpa	Complete Volume of 5.6M to 6.0M tpa	Complete Volume of 5.6M to 6.0M tpa
Growth	Expand Capacity	Expand Capacity	Expand Capacity	Expand Capacity	Expand Capacity

	CRF	CRF	Indigenous Employment	Port Maint Budget	Dumping Volume	Shedding Volume	Accession	CRF	CCMS Utilization
Budget	+10	+10	7%	\$1.0M	+10%	+10%	1000	90%	90%
Stretch	+10	+10	8%	\$1.1M	+10%	+10%	1000	90%	90%
Actual	+10	+10	8%	\$1.1M	+10%	+10%	1000	90%	90%

Reduce ORM Outstanding Action List - Quarterly Plan

	In Progress	More Effort	Stretch Goal	Completed	Not Started
Current Status	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target
Future Status	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target
Responsibility / Deliverable	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target	Positive remaining actions to achieve target
Target	50%	85%	92%	100%	
Actual	50%	0%	0%	0%	

Polaris

Project **Polaris** delivers an *Advanced Planning and Optimisation* solution to forecasting and supply chain planning. It includes the provision of accurate and timely information for port and vessel scheduling & commercial execution.

Port Hedland & Perth personnel use the system to:

- Forecast scheduled production take-on at the port and record actual stocks
- In conjunction with Singapore scheduling staff, assess the ability of production and the port to fulfil customer demand
- Build and assess the forward vessel schedule
- Perform berth management functions and record vessel events, tonnages and produce documentation
- Report port performance, throughput and summarised vessel and product information

Costs Advantages

- Decreased freight costs - increased cross commodity freight sharing opportunities
- Decreased demurrage/penalties – more accurate, visible planning & forecasting

Workplace Change

- More flexibility through individual arrangements – Australian Workplace Agreements (AWAs)
- Less third party interference - direct relationships
- All employees taking responsibility for driving change - OE process
- Goals linked to site business plans and Iron Ore road map



Sustainable Development

Aboriginal Employment

Ngarda Civil & Mining, Departmental indigenous targets, Cultural training

Environmental Management

Dust, Greening projects, Water recycling, noise controls, mangrove care

Community Relations

Community Consultation Group, Management involvement in community, community investment, Environmental Economic and Social impact analysis on each project

Local Economy

Local sourcing, workforce reside local, partnerships with Local Government



Emission Controls

Benchmarked as worlds best practice

Extensive dust management program, components:

- Dedicated team
- Program based on scientific research (CSIRO)
- Employee education
- Community involvement
- Local amenity projects
- Positive relationship with regulators



Where to from here

- Further “*sweating the assets*”
- Maximising potential of new assets
- Step change in employees relation model
- Using full capacity of our grade control system (CSMS)
- All employees involved in operational excellence (OE)
- Behaviour based safety system
- Town of PH strategy aligned to our business objectives
- Integrated planning – ship scheduling to mine

