



RETHINK • REINVEST • REINVENT

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Two Smelter Brownfield
Redevelopment Projects
Freeport-McMoRan Copper & Gold
www.fcx.com
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Oklahoma Brownfields
CONFERENCE 2012
MAY 22-23, 2012



DEQ
OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Presentation Outline

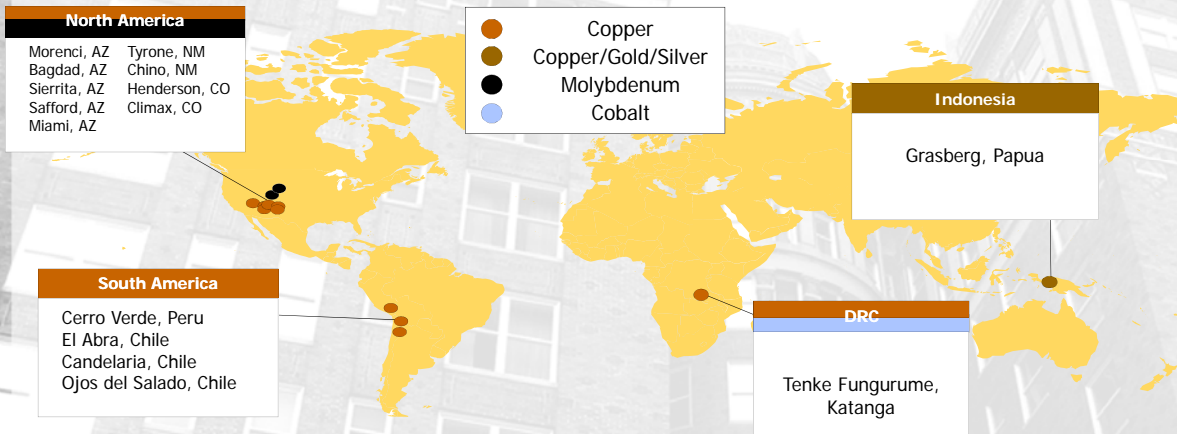
- Corporate overview
- Smelter redevelopment case studies
 - Amax Metals Recovery, Inc. – Port Nickel, Braithwaite, LA
 - United States Metals Refining Company – Carteret, NJ

Corporate Overview

Freeport-McMoRan Copper & Gold

- World's largest publicly-traded copper miner
- Significant producer of gold, molybdenum, and cobalt
- Operations in U.S., Asia, South America and Africa

Freeport-McMoRan Worldwide Operations



Port Nickel – Braithwaite, LA



Port Nickel Production History

- Built in 1958 by Freeport Sulphur to process nickel laterite ores
- Closed in 1959 due to suspension of feedstock from Cuba
- Operations restarted in 1972 as Amax Nickel, Inc.
- Closed in 1985 due to depressed metal prices
 - Subsequently retrofitted in 1985 to reprocess nickel catalyst
- Final closure in 2000, again due to economic considerations

Port Nickel Redevelopment Strategy

- Implement clean closure to avoid limiting future redevelopment options
- Redevelop in a manner that take advantage of existing infrastructure and siting
- Accelerate closure to minimize long-term site holding costs
- Seek regulatory approvals to facilitate post-production beneficial use
 - 2007 – LDEQ investigation and certification through Voluntary Remediation Program (VRP)
 - 2008 – EPA investigation and certification through Ready for Reuse Program (RfR)

Port Nickel Redevelopment Strategy

- Size of site facilitated two-pronged redevelopment approach that would:
 - Allow industrial redevelopment of portions of the site
 - Reserve a significant portion for enhanced wildlife habitat

Port Nickel Industrial Redevelopment

- Process cleanout and demolition activities in 2004/05
- 95% of demolition materials recycled/resold in Louisiana
- Existing infrastructure preserved to facilitate future land use
 - Foundations, electrical, rail, water and marine
- Industrial portion of site currently under contract for sale – expected close in 2Q-2012

Port Nickel Before and After Site Remediation



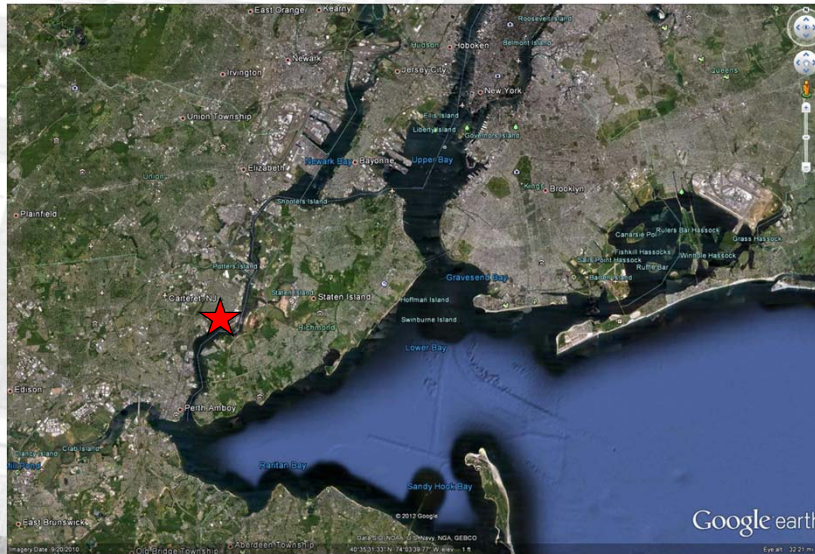
Port Nickel Wildlife Habitat

- Historic process water pond and surrounding marsh area was determined to be the appropriate focal point for wildlife habitat enhancement
 - Received fresh water from Mississippi River – sampling indicated no adverse impacts from historic operations
 - Cooperative effort with Wildlife Habitat Council and Pontchartrain Institute for Environmental Sciences
 - Area schools participating in habitat inventory process as component of WHC's Corporate Lands for Learning initiative with goal of CLL certification in 2012

Port Nickel Wildlife Management and Education



USMR Carteret – Carteret, NJ



USMR Carteret Site History

- Copper refining operations commenced in 1902
- Progressive site and production expansion through early 1960s
- Transition to secondary smelting in 1960s
- Shutdown announced in 1985
- Decommissioning and demolition complete by 1995

USMR Carteret (1929)



FIGURE 2-3. PORT CARTERET, 1929

USMR Carteret Site Remediation and Redevelopment

- Remedial investigations and feasibility study performed under auspices of NJDEP
- Selected remedy consisted of selected soil removal followed by site encapsulation and groundwater management
- Site encapsulated through development of warehouse structures and parking facilities

USMR Carteret Warehouse Development

Warehouse	Built	Owner	Tenant	Use	Leased SF
1	1987	Port Carteret, JV	NACA Logistics	Short term warehousing	203,679
2	1988	Port Carteret, JV	Turnpike Recycling, UPS Supply Chain, ITS Caleb Brett, Max Brown	Solid waste recycling, warehousing, wholesale goods	233,220
3	1993	PPI Carteret Holdings, LLC	Porky's Products	Non-refrigerated food warehousing	76,548
4	1994	KTR Carteret, LLC	DiGiorgio (White Rose)	Refrigerated food warehousing	809,762
5	1997	KTC Carteret, LLC	DiGiorgio (White Rose)	Non-refrigerated food warehousing	278,936
6	2007	Port Carteret, JV	NACA Logistics	Short term warehousing	202,724
6A	TBD	TBD	TBD	TBD	120K (est.)
7	TBD	TBD	TBD	TBD	310K (est.)

USMR Carteret (2010)





Summary

- Port Nickel and USMR Carteret
 - Examples of successful remediation of former smelter sites
 - Careful coordination of regulatory obligations and voluntary initiatives with site redevelopment objectives
 - Industrial portions of site are well-positioned for redevelopment and long-term benefit to local communities
 - Establishment of wildlife conservation and education area to benefit local community and schools



Questions?