



QUEENSLAND ALUMINA LIMITED



Environmental Project Summary

August 2011

Safer. Cleaner. Better.



| Task Name | 2009 | | | | 2010 | | | | 2011 | | | | 2012 | | | | 2013 | | | | 20 | |
|--|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|----|----|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 |
| DUST | | | | | | | | | | | | | | | | | | | | | | |
| 1631 / 1632 Airslide Improvements | | | | | | | | | | | | | | | | | | | | | | |
| 1646/1649 Transfer Point | | | | | | | | | | | | | | | | | | | | | | |
| 16305 / 1631 Transfer Improvements | | | | | | | | | | | | | | | | | | | | | | |
| BSL Transfer Improvements | | | | | | | | | | | | | | | | | | | | | | |
| Alumina Loader Boom Tailgate Modification COMPLETE | | | | | | | | | | | | | | | | | | | | | | |
| Alumina Loader Boom Improvements | | | | | | | | | | | | | | | | | | | | | | |
| Cascade Chute Improvements | | | | | | | | | | | | | | | | | | | | | | |
| Gas Suspension Calciner Dust System Improvements | | | | | | | | | | | | | | | | | | | | | | |
| ODOUR REDUCTION | | | | | | | | | | | | | | | | | | | | | | |
| Thermal Oxidiser Cooling Capacity Upgrade - COMPLETE | | | | | | | | | | | | | | | | | | | | | | |
| Thermal Oxidizer VSD Installation and Condenser Changes - COMPLETE | | | | | | | | | | | | | | | | | | | | | | |
| Holding Tank Vents | | | | | | | | | | | | | | | | | | | | | | |
| Relief Tank | | | | | | | | | | | | | | | | | | | | | | |
| ALKALI EMISSION REDUCTION | | | | | | | | | | | | | | | | | | | | | | |
| TT Hosing Concrete Arm - COMPLETE | | | | | | | | | | | | | | | | | | | | | | |
| Hydrate Cyclone Project - COMPLETE | | | | | | | | | | | | | | | | | | | | | | |
| Precipitation Pump Off Pumps - Wash Tank Option | | | | | | | | | | | | | | | | | | | | | | |
| Environmental Monitoring System | | | | | | | | | | | | | | | | | | | | | | |
| Environmental Monitoring System - additional meters | | | | | | | | | | | | | | | | | | | | | | |



Odour Reduction

- Relief Tanks
 - Review Options
 - » Site Visit completed
 - » Expect Proposal August



Dust

- Shiploading
 - Ship Loading Upgrade to Cascade Chute completed
 - Modification To Boom Door completed early August

- Calciner Dust System Upgrade
 - Unit 1 and 3 operational, Unit 2 tie in during current turnaround.

- Island A frame Airslide Improvement
 - Design complete, seeking approval

- Wharf Alumina Transfer
 - Options being investigated and evaluated.



Alkali Emission

- Precipitation Pump off Pumps
 - Use of Wash Tanks as accumulation storage
 - Design complete.
 - Tanks cleaned out and currently being inspected
 - Construction Q3 / Q4