



DATE:
June 28, 2008 -
July 3, 2008

LOCATION:
JAMAICA

OBJECTIVE:
Preventing bauxite ore
from building up in the
beds of haul trucks.



Cleaning an MRA™ treated truck after an 8 hour shift - no excavator required.

The beds of all trucks were cleaned out prior to the start of the Trial. Of these trucks, only the V-body vehicles (88 & 56) were cleaned every 2nd day during the course of the Trial. The other vehicles were not cleaned at all. Vehicles were sprayed with approximately 2-3 gallons per application of the MRA™ product once every second load for the first day of the Trial and once every third load each day thereafter.

Spraying took place only during the day. The test trucks were allowed to work through a second 8 hour shift without new application of the MRA™ product over the course of the second shift. Trucks were sprayed at a staging area located near the stockpile where trucks unload.

Haul truck before treatment with MRA™



MRA™ treated truck after two loads





Historically, under normal operating conditions, untreated trucks at the subject mine can experience up to 20% carryback. The amount of time carryback accumulates to this amount varies, ranging from 1 to 6 x 8 hour shifts, depending upon ore characteristics and weather conditions

These conditions create carryback that;

- Reduces the efficiency of the trucks (unusable portion of the bed)
- Causes frequent overloading
- Requires additional truck cycles, resulting in increased wear on equipment, tires, etc.
- Increase the amount of time it takes to clean the mine haul trucks
- Increase the frequency of bed cleaning
- Increase the potential for damage to truck beds from cleaning using an excavator

Use of the MRA™ product was shown to significantly reduce the amount of carryback in the test trucks to between 1% and 2% from an average of approximately 15% to 20%, representing an improvement of up to 98%.

Importantly, none of the test trucks had the MRA™ product applied during the second shift of each day, following this shift there was still a vast difference in build-up between the treated and untreated trucks. With only one application at the end of the previous shift, the trucks returned from their 8 hour shifts (approximately 15-20 loads) with less than 1 ton (estimated) of carryback.

Cost vs. Return Calculation:

Extra Revenue **\$2,800.00 per day**
Extra Cost (direct & indirect): \$660.00 per day

**\$2,140.00 per day in increased
revenues based upon \$2.00 per ton
of ore hauled.**

Note: Increased revenues were calculated based upon the usage of Slip Coating on the 5 WGI trucks only. Use of Slip Coating on the fleet of smaller trucks as well will greatly increase extra revenue and reduce the cost per ton by a significant margin.



(left) This image shows a MRA™ treated truck on Day 3 after an 8 Hour Night Shift on Single Application of MRA™ (15-20 loads).

It is important to note that the longer MRA™ product is in use, the better it performs. Extended usage allows the product to effectively penetrate the undercarriages surfaces, creating a longer lasting, non-stick surface. Product performance will increase over what was achieved in the demonstration project when in full scale, regular use.