



OPTIMAX/Series 9000 Case Study

47% of the downtime experienced by a coal mining company in Columbia, South America was due to the need to change constantly clogging air filters. In addition, this required them to maintain a huge inventory of air filters and when used, a huge amount of waste for disposal. They were hoping to achieve 250 hours between filter changes with no filter blow-outs in between. The case study involved installing an OPTIMAX on one of their Cat D11R machines, which then ran for 750 hours between filter changes with no blowouts. Massive increase in up-time, reduced filter inventory levels, and less waste make this a win-win for everyone except the filter supplier!

Company Information

Company Type:	Coal Mining Company
Location:	La Loma, Cesar, Colombia

Test Criteria

What would constitute successful test completion?	250 hours without blowing out or changing the filter			
Environment(s):	x	Humid	x	Dry Dust
		Muddy		Mixed Debris
		Heavy Debris		Snow
	x	Extreme Heat		Extreme Cold
Other Environment:				
Application:	x	Mining		Construction
		Agriculture		Forestry
		Waste Industry - Landfill		Waste Industry - Recycling
		Waste Industry - Transfer Station		
Other Application:	Coal load out			
Notes:	extreme heat, humidity, coal on fire			

Machine: Before OPTIMAX Installation

Manufacturer:	CATERPILLAR
Model:	D11R
Precleaning/Filtration Equipment Currently Installed:	STRATATUBE
Filter Changed when Level of Restriction Reaches:	25 INCHES OF WATER
Primary Air Filter Replacement Interval:	60 HOURS
Secondary Air Filter Replacement Interval:	500 HOURS
Maintenance Includes Blowing Out Filter:	YES
Operator's Comments on Current Machine Performance:	LOSS OF POWER, BLACK SMOKE, POOR PERFORMANCE
Notes:	

OPTIMAX Installation

OPTIMAX Installation Part Number:	9503-007
Other Parts Used:	
Notes:	

Performance Results

Test Period 1

Machine Hours:	150
Restriction Indicator Reading:	8 inches of water
Filter Changed:	No
Operator's Comments:	No changes or clean ups required, which halved the original changing time.

Test Period 2

Machine Hours:	349
Restriction Indicator Reading:	8 inches of water
Filter Changed:	No
Operator's Comments:	

Test Period 3

Machine Hours:	755
Restriction Indicator Reading:	23 inches of water
Filter Changed:	Yes
Operator's Comments:	

Test Period 4

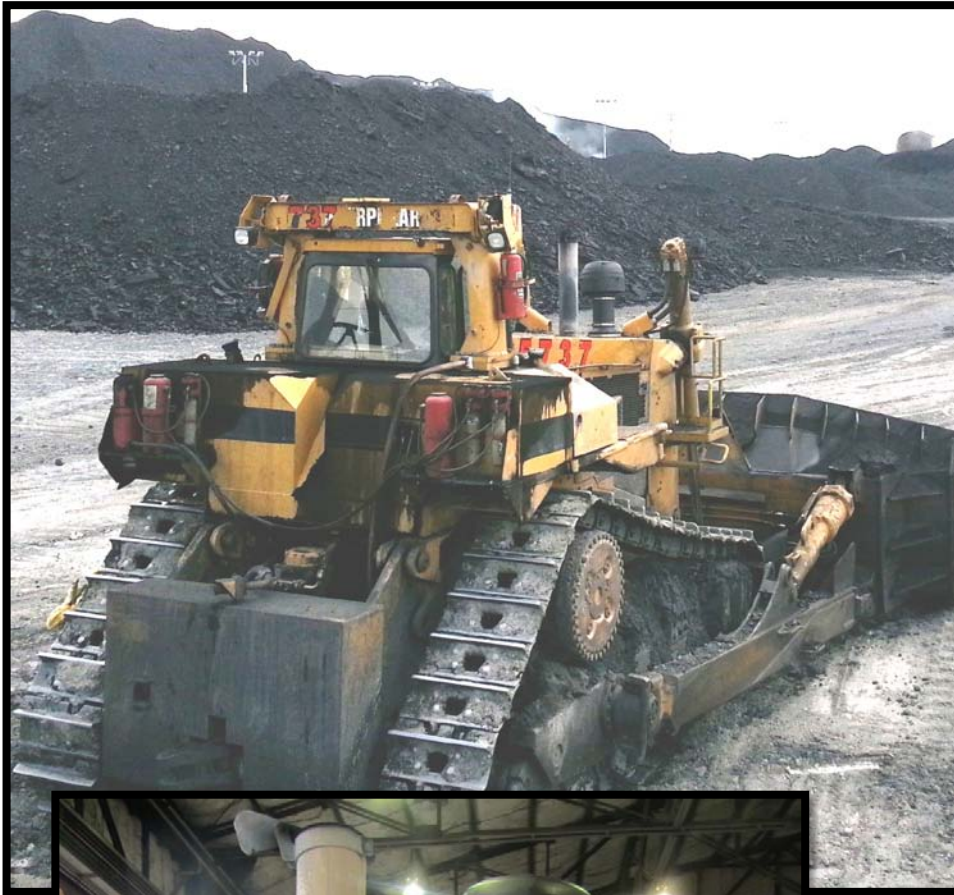
Machine Hours:	
Restriction Indicator Reading:	
Filter Changed:	
Operator's Comments:	

Testimonials

Job Title: Track type machine manager

Comments on Product Performance:

"Our fleet availability was really low, 47% of our downtime was because of filter changes, trying to improve this number we had workers, trucks and filters spread all around the pit changing filters all day. We were handling a lot of waste (used filters) in the mine, a huge filter stock and endless problems. We started using the OPTIMAX in our bulldozers with the goal of reaching 250 hour between filter changes without having to blow out the filters, the good surprise is that the filters lasted more than 750 hours without our mechanics having to touch the filter housing. The system has delivered on its promise to increase our machine availability and reduce our costs significantly. This is one of the rare times when the product greatly exceeded our expectations"



OPTIMAX
equipped
bull dozer in
coal loadout
Area



OPTIMAX Installation