



go for gold!

Alcoa's VicOps achieve a gold level of Waste Wise accreditation

alcoa anglesea

environment report

july

2009



australia's aluminium

air

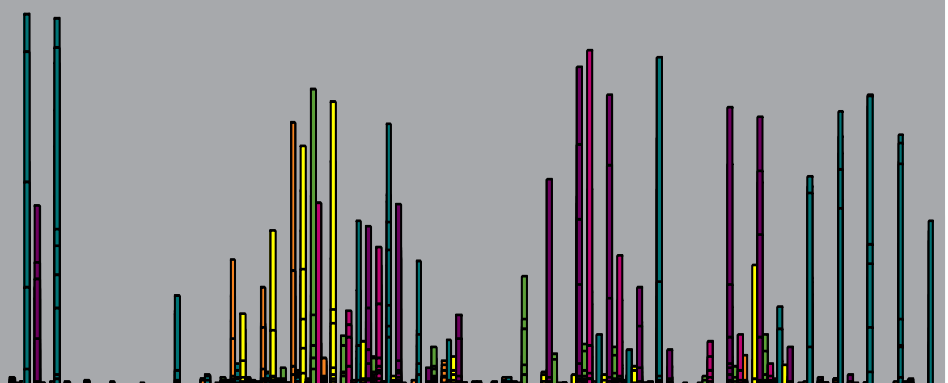
Air Monitoring	Average	Maximum
Stack Monitors		
Opacity g/m ³ 10-minute average	0.052	0.125
Stack SO ₂ kg/min 1-hour average Licence limit 100kg/min	59.56	70.80

Ambient Monitors	Average	Maximum
SO ₂ 1 hour ppb		
Community Centre	2	118
Primary School	2	134
Mt Ingoldsby	1	105
Scout Camp	10	148
Camp Wilkin	2	113
Camp Road	5	127

Ambient Monitors																															
SO ₂ Maximum 1 hour averages (ppb)																															
Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Community Centre	3	1	0	0	0	0	0	3	2	6	118	20	11	1	15	0	1	43	12	16	15	1	0	3	7	20	0	0	0	0	0
Primary School	1	0	0	0	0	0	0	2	1	0	73	29	55	-	-	-	-	-	0	134	51	1	0	17	20	8	0	0	0	0	
Mt Ingoldsby	1	1	0	1	1	0	2	50	39	105	11	2	1	0	10	1	3	0	1	0	2	0	1	0	12	2	0	2	1	1	0
Scout Camp	148	146	2	0	0	36	4	8	5	5	0	65	104	49	18	1	3	0	0	20	14	130	0	0	0	31	83	109	116	100	65
Camp Wilkin	0	0	0	0	0	0	0	28	61	95	113	17	3	0	11	0	1	5	4	4	7	0	0	0	47	8	0	0	0	1	0
Camp Road	71	1	0	0	0	0	0	3	2	2	0	63	72	7	28	0	0	82	127	116	39	14	0	111	107	15	3	4	0	2	0

EPA Air Quality Objective
200

Alcoa Local Standard
170



water



Water Storage

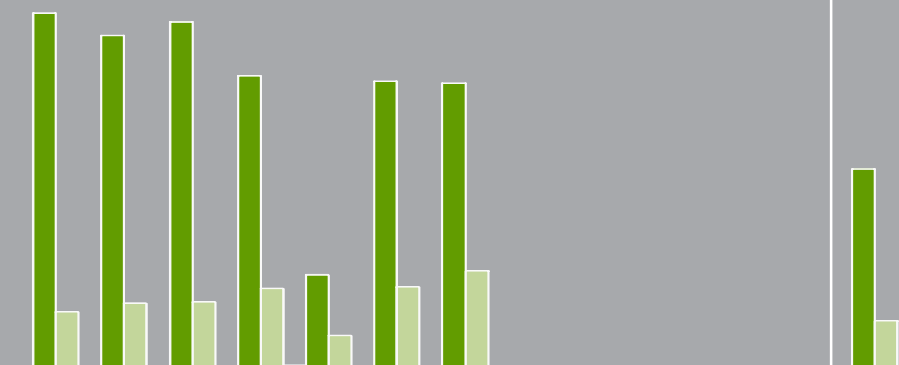
Barwon Water storage levels for the Geelong system at 21.5% capacity. Stage 4 restrictions apply with a Winter exemption to permit limited residential garden watering.

Water Discharge	July	Total
ML		
Ashponds (SP1)	148	865
Mine (SP4)	0	0

Water Monitoring 08/07/2009	SP1 Ashpond		SP4 Mine		SP3 Final	
	EPA limit	Lab Result	EPA limit	Lab Result	EPA limit	Lab Result
pH	4-10	7.9	3-9	no	5-9	7.0
Susp. Solids	100	< 4	100	discharge	30	< 4
Colour	50	4	50	at	50	4
Aluminium	10	0.44	10	time	5.5	0.29
Iron	10	0.40	20	of	4.0	0.013
Zinc	0.4	0.021	2.0	sampling	0.30	0.025

WATER WATER USAGE PER MONTH (ML)

Date	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
Town Water	2.5	1.0	1.5	1.5	2.9	1.6	0.6						11.6
Bore Water	288	270	281	237	76	233	231						1616
Mine Water	46	53	54	65	27	66	79						390



Waste Wise - Gold Accreditation!



Alcoa has taken its waste management to a new level, achieving gold status on its re-certification with the Sustainability Victoria Waste Wise program.

Alcoa's waste reduction achievements span the four VicOps locations, including the Anglesea Power Station, Point Henry Smelter, Portland Aluminium and Alcoa Australia Rolled Products Point Henry.

There are three levels of accreditation - bronze, silver and gold. Alcoa has demonstrated that the Waste Wise principles have been implemented throughout all areas of the business, as well as implementing Waste Wise at community events and engaging with the broader community. This has earned us the highest level of accreditation - gold!

The Waste Wise Program is more than just a 'feel good' program. It has been operating for nearly ten years and provides tangible, measurable outcomes. Participation in the program involves assessing our current waste streams and costs.

Following this, an action plan is developed that identifies actions to reduce waste, allocates responsibilities and sets targets. It is then up to all levels of the organisation to implement the action plan, which is updated annually.

Our association with the program started with our certification in 1999/2000 when we became the first industry to join the Ecorecycle Waste Wise Program.

Since then we have developed a strong partnership with Anglesea Primary School helping them to develop a waste collection system to separate recyclables and non-recyclables. Alcoa Anglesea civil maintenance personnel collect the recyclables from the school and process them through our own Materials Recovery Facility (MRF). Through this partnership, the school reduced its waste to landfill and waste management costs by 50% in one year. The school has saved this money in consecutive years to re-invest into sustainable waste management strategies.

PLANT OF THE ANGLESEA HEATH

TINY SUNDEW (*Drosera pygmaea*)

Drosera...from the Greek *droseras*, meaning with dewy referring to the glistening glandular hairs
pygmaea... dwarf, or very small

Size: up to 3 cm tall
Habitat: low nutrient, often wet or water logged, sandy soils in heathlands and woodlands
Form: small herb
Foliage: circular, covered on the upper surface with long sticky gland-tipped hairs
Flowers: white, to 4 mm wide, with four petals
September to February

An insectivorous species with sensitive hairs on the leaves which contain a gland that can release digestive enzymes. As the plant is so small it can only catch the smallest of invertebrates.

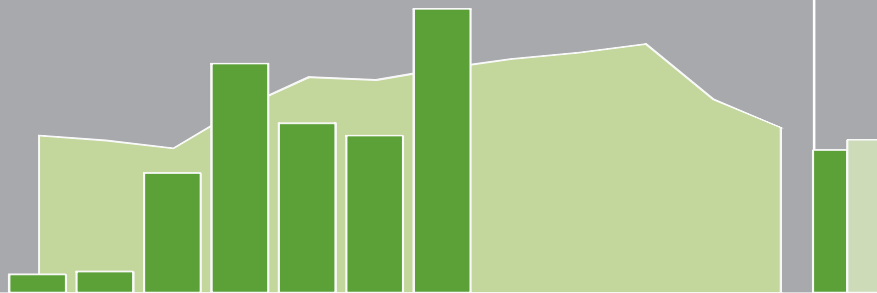
DROSERA PYGMAEA



LAND

RAINFALL (mm)

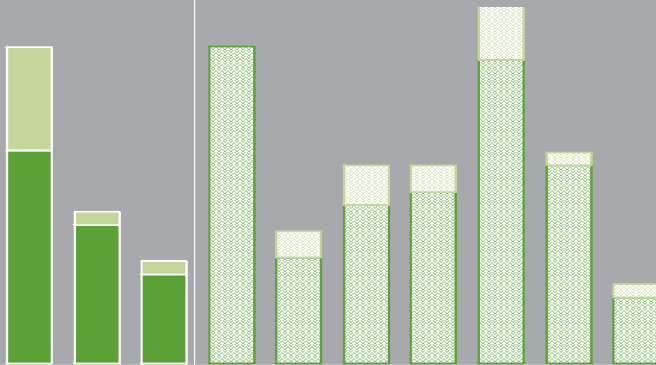
Month	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
2009 Rainfall	5.0	5.8	33.4	63.8	47.2	43.8	79.2						278.2
1968-2008 Average	43.9	42.5	40.4	51.6	60.2	59.5	62.6						298.1



WATER

TOWN WATER USE (ML)

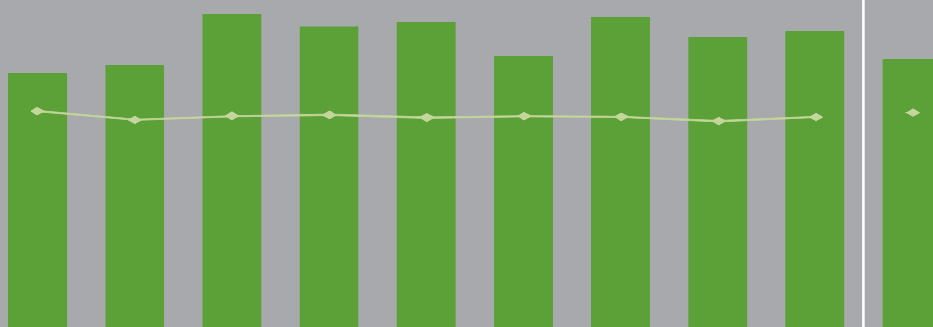
	2000	2008	2009	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Process	23.9	15.5	10.1	2.5	0.8	1.2	1.3	2.3	1.5	0.5					
Amenity	11.6	1.5	1.5	0.0	0.2	0.3	0.2	0.6	0.1	0.1					



AIR

GREENHOUSE GAS (GHG) TOTAL (Mt) & GHG EMISSION EFFICIENCY (t/MWh)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
GHG Mt	1.23	1.27	1.50	1.45	1.47	1.31	1.49	1.40	1.42	1.29
◆ GHG t/MWh	1.24	1.19	1.21	1.21	1.20	1.21	1.20	1.18	1.20	1.23



environmental improvement

Environmental Management Targets	July	2009 Total	Forecast	2009 Target
Reportable Environmental Incidents	0	1	1	0
Env Near Miss vs Env Incident Run Rate (ratio)	1	2.4	2.4	2.5
Monthly EHS ASAT Audit Completion (%)	100	91	91	90

Air Emission Targets	July	2009 Total	Forecast	2009 Target
Ambient SO ₂ (no. readings > 200ppb)	0	2	2	0
Stack SO ₂ (no. hrs > 100kg/min)	0	0	0	0
SO ₂ Load Reductions (lost MWh)	5285	14639	25096	N/A
GHG Efficiency (t CO ₂ e/MWh)	1.21	1.23	1.23	1.20
Opacity (10 min av > 0.25g/m ³ normal operation)	0	0	0	0

Water Targets	July	2009 Total	Forecast	2009 Target
Town Water (ML)	0.6	11.6	19.2	14.2
Bore Water (ML)	231	1616	2770	4000

Waste Targets	July	2009 Total	Forecast	2009 Target
Waste to Landfill (t)	0.0	7.2	10.5	8.0
Solid Prescribed Waste to Landfill (t)	0.0	0.0	0.0	0.0

Mine Rehabilitation Targets	2009 Total	2009 Target
2009 Area to Clear (ha)	0.245	0.0
2009 Area to Rehabilitate (ha)	0.658	0.0

OUR ENVIRONMENT AND OUR EMPLOYEEE

Hi Richard, I understand you are replacing Dale Fuller. Tell me a little about your role and its interaction with our environment.

I have recently moved to Anglesea from Bright, where I worked in the Alpine and Mount Buffalo National Parks. My role will focus on four areas of service delivery for the Anglesea Heath and Great Otway National Park - (1)Threatened Species Management, (2) Information, interpretation and education, (3) Marine National Park Management and (4) Asset validation.

What are your first impressions of the partnership between Alcoa and Parks Victoria?

The establishment of a land management cooperative agreement between the two bodies is very interesting. The Anglesea Heath is an extraordinary patch of land with such high biodiversity and this agreement is vital in protecting the long term future of the Heath.

Thanks Richard, we look forward to seeing you around!

...RICHARD FOSSETT

