



tree-mendous

doing our bit for world environment day

anglesea environment report

JUNE 2006

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Plus we talk to an employee about their contribution to improving the environment



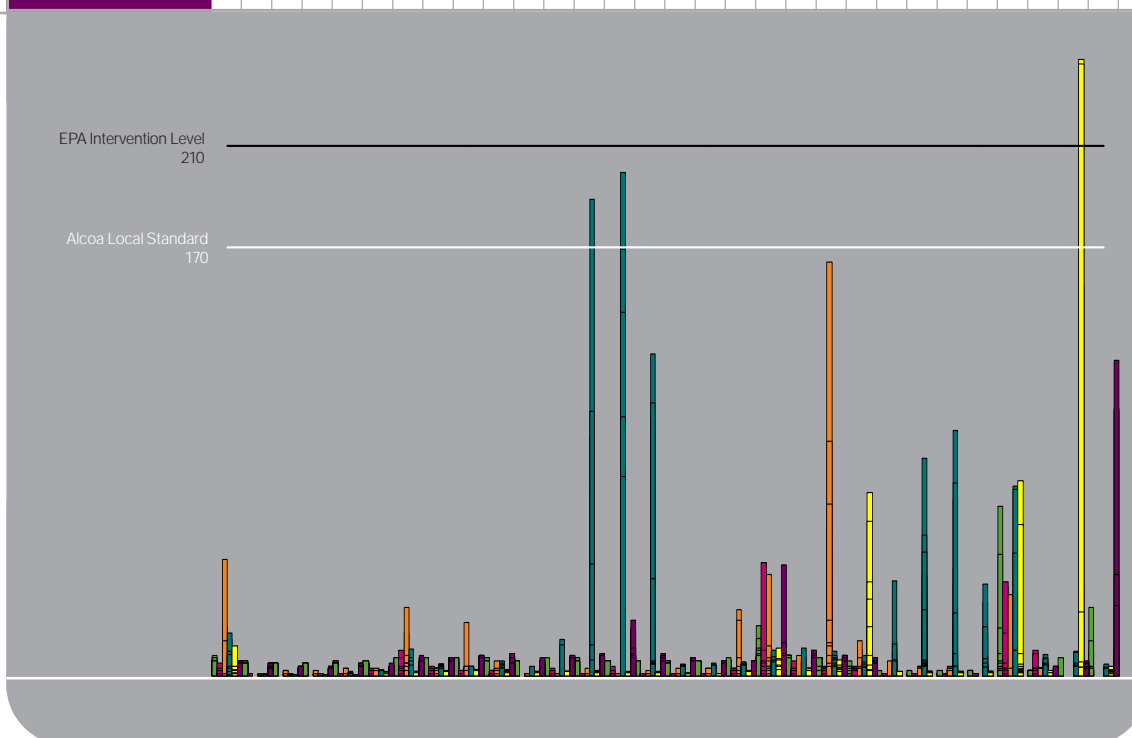
australia's aluminium

air

Air Monitoring	Average	Maximum
Stack Monitors		
Opacity g/m ³ 10-minute average	0.057	0.170
Stack SO ₂ kg/min 1-hour average Licence limit 111.34kg/min	76.47	93.05

Ambient Monitors	Average	Maximum
SO ₂ 1 hour ppb		
Community Centre	5	67
Primary School	2	45
Mt Ingoldsby	3	164
Scout Camp	9	199
Camp Wilkin	3	244
Camp Road	6	125

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
Community Centre	8	6	5	5	6	6	7	7	7	7	6	7	7	6	6	6	6	7	20	8	7	6	2	2	2	2	67	2	7	27
Primary School	5	1	0	0	1	3	10	4	2	2	0	3	1	4	1	1	1	3	45	6	4	4	1	1	1	1	37	10	-	-
Mt Ingoldsby	46	0	2	2	3	3	27	3	21	6	1	1	3	1	2	3	3	26	40	8	164	14	6	4	4	-	32	3	-	-
Scout Camp	17	1	1	1	2	3	10	5	4	6	4	14	189	199	127	5	5	5	10	11	10	8	38	86	97	36	75	9	10	5
Camp Wilkin	12	1	0	0	1	2	2	2	2	2	2	2	2	2	2	1	1	2	11	3	6	73	2	2	2	2	77	2	244	4
Camp Road	6	5	4	4	5	5	8	7	8	9	7	8	9	22	9	7	6	6	44	10	8	7	-	-	-	-	-	4	6	125



water



Water Storage

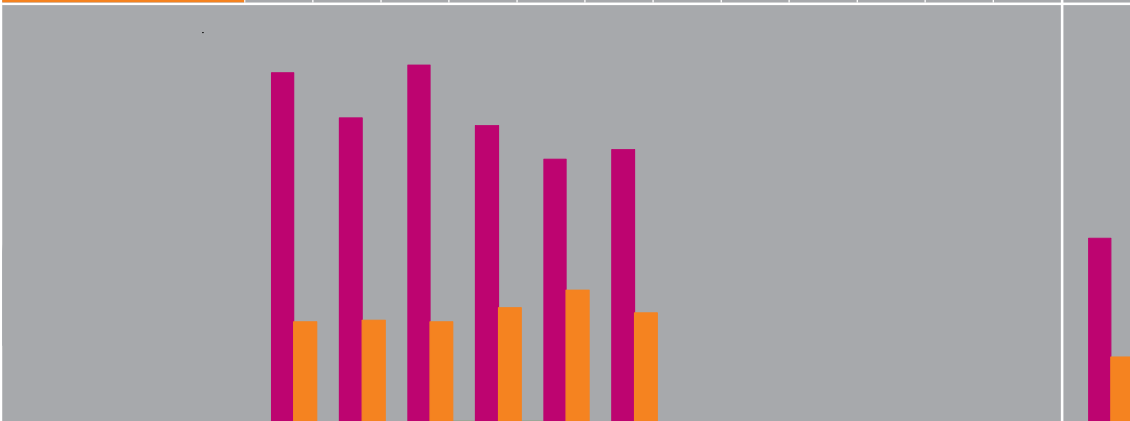
Barwon Water storage levels within the Geelong system at 24.8% capacity. Stage 1 restrictions now apply.

Water Discharge	June	Total
ML		
Ashponds (SP1)	141	860
Mine (SP4)	0	0.8

Water Monitoring 19/06/2006	SP1 Ashpond		SP4 Mine		SP3 Final	
	EPA limit	Lab Result	EPA limit	Lab Result	EPA limit	Lab Result
pH	4-10	7.4	3-9	-	5-9	7.4
Susp. Solids	100	2	100	-	30	< 2
Colour	50	5	50	-	50	6
Aluminium	10	0.4	10	-	5.5	0.2
Iron	10	0.9	0	-	4.0	0.1
Zinc	0.4	0.1	2.0	-	0.3	< 0.1

WATER WATER USAGE PER MONTH (ML)

Date	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
Town Water	1.0	1.0	1.0	1.5	1.6	0.8							6.9
Bore Water	279	243	285	237	210	218							1472
Mine Water	81	82	81	92	106	88							530



world environment day



World Environment Day (WED), commemorated each year on June 5, is one of the principal vehicles through which the United Nations stimulates worldwide awareness of the environment and enhances political attention and action.

Established by the United Nations General Assembly in 1972, WED gives a human face to environmental issues; empowers people to become active agents of sustainable and equitable development; promotes an understanding that communities are pivotal to changing attitudes towards environmental issues; and advocates partnership which will ensure all nations and peoples enjoy a safer and more prosperous future.

World Environment Day is a people's event with colourful activities such as street rallies, bicycle parades, green concerts, essays and poster competitions in schools, tree planting, as well as recycling and clean-up campaigns. Here at Alcoa Anglesea, there were several WED activities involving employees and the wider community.

Over 1000 indigenous trees and shrubs were planted in the mining area by two dedicated tree planting crews. The first session consisting of Graeme Kerr, Leigh Fonseca, Maryann Thorp, Barry Knight, Tony Cust, Elise Jeffery and Chris Rolland, planted trees and shrubs along Coalmine Road as part of the strategy to minimise the visual impact of the open cut mine. The second session involved Daryl Carson, Keith Giles, Jonathon Morrow, Elise Jeffery and Chris Rolland planting and mulching trees and shrubs around the mine lunchroom area to remove weed species and create bird-friendly habitat using indigenous species for the smaller local birds.

Alcoa Anglesea also participated with the Surf Coast Shire, CCMA, Barwon Water, Eco Logic and Rural Ambulance Victoria in an environmental awareness activity involving 300 school children.

To complete the WED celebrations, Alcoa Anglesea was named a finalist at the United Nations WED Awards for land management.

ANIMALS OF THE ANGLESEA HEATH

Holly Leaf Lomatia (*Lomatia ilicifolia*)

Lomatia...from Greek *loma*, border or margin, and refers to the winged edge of the seeds

ilicifolia... having leaves like holly

Size: 0.5 m wide 1m high
Form: stiff erect shrub
Habitat: damp and sclerophyll forests, sclerophyll woodland, grassy low open forest
Foliage: dull green, leathery, crinkly, holly-like leaves to 15 cm with prominent veins
Flowers: racemes of glabrous cream flowers held above the foliage
rarely seen in flower but flowers well after fire
December to February

Many plants in the Proteaceae family are susceptible to the fungus disease Cinnamon Fungus, *Phytophthora cinnamomi*, but species in this genus appear to be tolerant of the disease.

LOMATIA ILICIFOLIA



LAND

RAINFALL (mm)

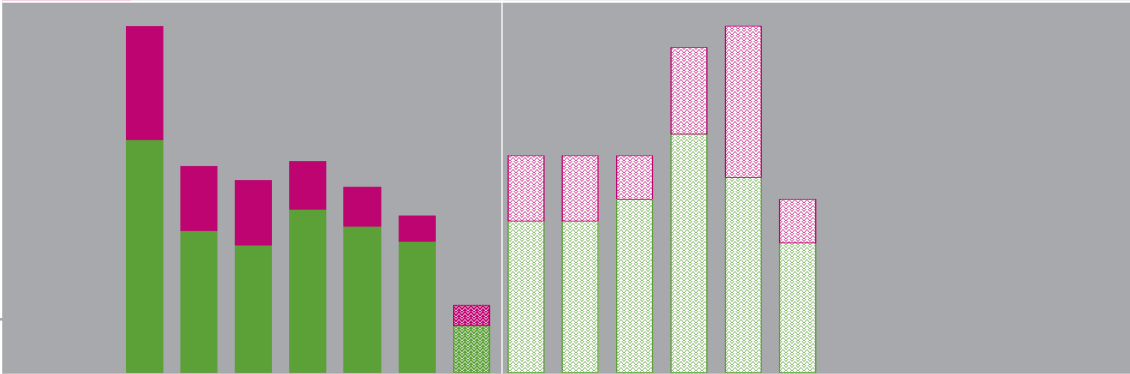
Month	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
2006 Rainfall	46.2	19.6	7.3	37.1	129.4	17.0							256.6
1968-2005 Average	44.6	43.9	42.5	53.5	59.3	60.8							304.6



WATER

TOWN WATER USE (ML)

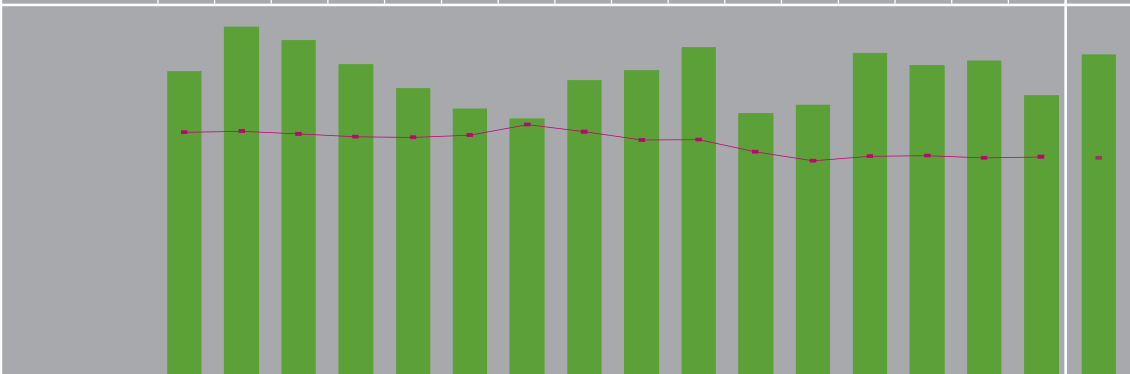
	2000	2001	2002	2003	2004	2005	2006	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Process	23.9	14.6	13.1	16.7	15.0	13.5	4.8	0.7	0.7	0.8	1.1	0.9	0.6						
Amenity	11.6	6.6	6.6	5.0	4.0	2.6	2.1	0.3	0.3	0.2	0.4	0.7	0.2						



AIR

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

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
GHG Mt	1.42	1.62	1.56	1.45	1.34	1.25	1.20	1.38	1.42	1.53	1.23	1.27	1.50	1.45	1.47	1.31	1.51
◆ GHG t/MWh	1.34	1.35	1.33	1.32	1.31	1.33	1.38	1.34	1.30	1.30	1.24	1.19	1.21	1.21	1.20	1.21	1.20



environmental improvement

Environmental Management Targets	June	2006 Total	Forecast	2006 Target
Reportable Environmental Incidents	0	0	0	0
Monthly EHS ASAT Audit Completion (%)	100	100	100	90
Air Emission Targets	June	2006 Total	Forecast	2006 Target
Ambient SO ₂ (no. readings > 210ppb)	2	2	4	0
Stack SO ₂ (no. hrs > 100kg/min)	0	0	0	0
SO ₂ Load Reductions	9	48	96	N/A
GHG Efficiency (t CO ₂ e/MWh)	1.16	1.20	1.20	1.20
Opacity (10 min av > 0.25g/m ³ normal operation)	0	0	0	0
Water Targets	June	2006 Total	Forecast	2006 Target
Town Water (ML)	0.8	6.9	13.8	17.2
Bore Water (ML)	218	1472	2944	2440
Waste Targets	June	2006 Total	Forecast	2006 Target
Waste to Landfill (t)	0.0	2.7	5.4	10.0
Solid Prescribed Waste to Landfill (t)	0.0	0.0	0.0	0
Mine Rehabilitation Targets	June	2006 Total	Forecast	2006 Target
2006 Area Cleared (ha)		3.3		3.3
2006 Area Rehabilitated (ha)		7.5		> 3.3
2005 Mine Rehabilitation Species Richness (%)		N/A		100

OUR ENVIRONMENT AND OUR EMPLOYEES..

Graeme, it was great to see the mining crews involved in some tree planting to celebrate World Environment Day. How did you enjoy the activity?

It was good to help out. We planted a lot of trees along Coalmine Road.

How do you consider the environment in your day to day work?

On a daily basis, our main consideration for the environment for the mining operation is controlling the dust. Recently I was involved in some drainage work in the strip area diverting water and silt from Coalmine Road and a berm of the open cut from running across the strip area into the unmined heathland.

Is it a challenge mining in an area as environmentally sensitive as Anglesea?

It is a challenge however we work to minimise our environmental impact as best we can. For example, when we are clearing new areas, we work within the plans set out by Tony and Elise to ensure we don't clear more than we have to.

...GRAEME KERR

