

PROGRAM

SUNDAY 21 MARCH

	Koombana Bay Sailing Club
1700	Sunset with Dolphins Welcome Reception Proudly Sponsored by Albany International, Cockburn Cement & Westrac Equipment

MONDAY 22 MARCH

	Bunbury Entertainment Centre
	Session Chairperson: Paul Potter
0850	Welcome by AQW Committee Chairperson <i>Paul Potter, Worsley Alumina</i>
0900	Official Workshop Opening <i>Hon. Richard Court MLA, Premier of Western Australia</i>
0920	Keynote Address "The Global Alumina Market - What are the criteria for success" <i>Peter McIntosh, Kaiser Aluminium, California, USA</i>
0950-1020	Morning Tea - Marquee
	Session Chairperson: David Sutherland
1020	Alumina Dustiness Related to Physical Quality Parameters - User Experience and R&D in Hydro Aluminum <i>D. Olsen, Norsk Hydro Research Centre</i>
1050	Charge Contrast Imaging - Applications to the Bayer Process <i>J. Cornell, Alcoa</i>
1120	Alpart's Improvements in Quality Conversion of Batch to Continuous Precipitation <i>C. Thompson, Kaiser-US</i>
1150	Custom Designed Fluid Bed Calciner for Nabalco Pty Ltd <i>D. Brodie, Nabalco</i>
1220-1330	Lunch in Marquee - Proudly Sponsored by Keystone
	Session Chairperson: Robert Morton
1330	Investigation of the Growth of Gibbsite Crystals by Atomic Force Microscopy and Optical Microscopy <i>S. Freij, AJ Parker Research Centre</i>
1400	Sizing of Relief Valves for Two-Phase Flow in the Bayer Process <i>Q. Tran, Kaiser Engineers</i>
1430	Impact of Liquor Causticity on Plant Operation <i>D. Thomas, QAL</i>
1500	Afternoon Tea - Marquee
	Session Chairperson: Ivan Anich
1530	Solid Liquid Calcination Technology (SLC): Commissioning and Demonstration of a Full-Scale Unit <i>J. Pulpeiro, Alcoa Europe</i>
1600	An Investigation into NaOH Attack on Cementitious Materials <i>H. Trinh Cao, CSIRO</i>
1630	Estimating Bauxite Quality using FTIR Spectroscopy and Multivariate Calibration <i>S. Eyer, Alcoa</i>
1700	Close of session and wrap up
1710	Happy Hour at Trafalgars - Proudly Sponsored by Toussaint & Richardson
1900	Gibbsite Gala Dinner at the South West Italian Club Proudly Sponsored by Kaiser Engineers See shuttle timetable for pick-up times

ADVANCES
IN ALUMINA
TECHNOLOGY



TUESDAY 23 MARCH

	Bunbury Entertainment Centre	Grand Cinemas
	Precipitation Research Session Chairperson: Steve Rosenberg	
0800	Introduction Steve Rosenberg, Worsley Alumina	
0810	Particle Interactions and Surface Forces during Gibbsite Precipitation from Bayer Liquors J. Addai-Mensah, Ian Wark Research	
0840	The Role of Mixing Gibbsite Precipitation D. Ilievski, AJ Parker Research Centre	
0910	The Effect of Sodium, Potassium and Caesium on Gibbsite Agglomeration in Bayer Solutions J. Loh, AJ Parker Research Centre	
0940	Towards a Fundamental Rate Equation for Gibbsite Growth in Bayer Liquors C. Vernon, AJ Parker Research Centre	
1010	Morning Tea - Marquee	
	Session Chairperson: Gordon Parkinson	Session Chairperson: Charles Dobbs
1040	Nucleation Mechanisms of Gibbsite as Suggested by Computational Molecular Modelling T. Soar, Ian Wark Research Institute	Employing Intelligent Advisory Systems at Alcoa of Australia Ltd A. Noorati, Alcoa
1110	Precipitation of Gibbsite: Development of a New Rate Equation R. Cornell, Alcoa	Implementation Trial of Input-Output Linearizing Control on an Industrial Evaporation Simulator K. Kam, Curtin University
1140	Poisons, Polyols and Precipitation A. Owen, AJ Parker Research Centre	Business Optimisation for the Alumina Industry N. Freeman, Honeywell
1210	Lunch in Marquee - Proudly Sponsored by Lurgi [Aust]	
	Session Chairperson: John Farrow	Session Chairperson: Lesley Dewhurst
1320	Sodium Gluconate Poisoning of Primary and Secondary Nucleation of Gibbsite from Synthetic Bayer Liquors D. Rossiter, AJ Parker Centre	Development of advanced control and systems application B. Thorne, Aughinish Alumina
1350	Gibbsite Nucleation at Sodium Oxalate Surfaces G. Parkinson, AJ Parker Research Centre	Application of Soft Sensors, Dynamic Simulation and Model Based Control to Digestion Charge Control. J. Gorst, Nabalco
1420	A Rate Equation for Crystallization of Sodium Oxalate under Bayer Conditions A. McKinnon, Alcoa	Fluid Dynamics Analysis and Scale Modelling of Mixing and Agitating Vessels J. Wu, CSIRO
1450	Afternoon Tea - Marquee	
	Session Chairperson: Steve Rosenberg	Session Chairperson: Brendan Reid
1520	Effect of Humate on the Batch and Continuous Crystallization of Aluminium Hydroxide M. Ang, Curtin University	Necessary Fundamentals for Successful Alumina Seed Filtration R. Bott, Bokela
1550	Panel Review	Overland Bauxite Conveying- Cable Hauled Conveyors vs Conventional Conveyors P. Conley, G. Thomas, JLV Industries
1620	Close of session and wrap up	Close of session and wrap up
1630	Paddles Up Sundowner at the Bunbury Rowing Club. Follow our guides for the short walk there Proudly Sponsored by ACME Group Filtration & Scapa Filter Media	

WEDNESDAY 24 MARCH 1999

0800-1130	VISIT TO WORSLEY ALUMINA OR ALCOA WAGERUP REFINERIES * Delegates are required to wear appropriate clothing including long trousers and covered footwear.
1200	Depart the Bunbury Entertainment Centre for the Margaret River Wine Experience. Enjoy lunch at the superb Amberley Estate Vineyard and then take the opportunity to a visit a choice of other wineries, a brewery and the magnificent Geographe Bay.
1200	Coach departs the Bunbury Entertainment Centre for an afternoon of golf.

THURSDAY 25 MARCH 1999

	Bunbury Entertainment Centre	Grand Cinemas
	Session Chairperson: Ray Shaw	
0800	Agglomeration of Alumina During Dissolution in Aluminium Cells <i>J. Thonstad, SINTEF Materials Technology</i>	
0830	Alumina Quality Requirements for Improved Cell Feeding <i>E. Andrews, Comalco</i>	
0900	Globalisation of Analysis of Smelter Grade Alumina <i>F. Kimmerle, Alcan International</i>	
0930	Laboratory Evaluation of Agglomerated Superfine Alumina for Smelting <i>T. Barton, CSIRO</i>	
1000	Morning Tea - Marquee	
	Session Chairperson: Daniel Thomas	Session Chairperson: Greg Power
1030	The Effect of Quality of Alumina on the Environmental Emissions at Hillside Aluminium <i>J. Uys, Hillside Aluminium Smelter</i>	Quaternary Amines as Sodium Oxalate Seed Oxalate Seed Stabilisers in Bayer Liquors <i>G. Sipos, AJ Parker Research Co-Op Centre</i>
1100	Use of Laser Diffraction Techniques for Alumina <i>G. Roach, Alcoa</i>	A Case Study in Downstream Testing of Bayer Process Additives <i>J. Kildea, Nalco Australia</i>
1130	Improving Electrostatic Precipitator Performance by Ductwork Changes <i>C. Grainger, CSIRO</i>	The Effects of Flocculants in Thickener Scaling <i>P. Avotins, Cytec Inc</i>
1200	Lunch - Marquee Proudly Sponsored by Dustcotech WA	
	Session Chairperson: Wayne Connop	Session chairman: Gerald Roach
1320	Bauxite Extractable Phases in the Bayer High Temperature Process: Re-assessment of Boehmite Content and Aluminium Substitution in Alumino-Goethite <i>M. Authier-Martin, Alcan International</i>	Technical Advances and Cost Benefit From CFD Modelling <i>R. Kahane, Worsley Alumina</i>
1350	Mineralogical Analysis of Bayer Materials -Rietveld or not Rietveld <i>N. Pearson, Alcoa</i>	Caustic Soda Absorption under Bayer Conditions <i>J. Farrow, AJ Parker Research Centre</i>
1420	BQUANT 98: An Efficient Software Tool for Bauxite Mine Explorations <i>F. Kimmerle, Alcan International</i>	Effect of Sand Addition on the Rheological Properties of Red Mud Slurries <i>J. Doucet, Alcan International</i>
1450	Afternoon Tea - Marquee	
	Session Chairperson: Darren Rodda	Session Chairperson: Mike Sisley
1520	Bayer Liquors Desilication Process <i>G. Forte, Alcan International</i>	The Role of Chemical Flocculants in the Disposal of Red Mud <i>K. Bremmell, Advanced Mineral Products Special Research Cnt</i>
1550	Plant Impurity Balances and Impurity Inclusion in DSP <i>G. Riley, Alcoa</i>	Caustic Soda Adsorption on Bayer Residues <i>M.Thornber, CSIRO Minerals</i>
1620	Agitation Improvements in Predesilication at the EurAllumina Refinery <i>M. Zirnsak, Comalco Research</i>	A Fundamental Study of Photochemically Initiated Organic Reactions in Red Mud Disposal Wash Water <i>M. Nunes, Alcoa</i>
1650	Close of session and wrap up	Close of session and wrap up
1700	Happy Hour at Trafalgars - Proudly Sponsored by CYTEC Australia	
1745	Last Frontier Mystery Dinner Proudly Sponsored by Worsley Alumina See shuttle timetable for pick-up times	

FRIDAY 26 MARCH

	Bunbury Entertainment Centre
	Chairperson: Ross Greenhalgh
0900	Keynote Environmental Address <i>David Coutts, Australian Aluminium Council</i>
0920	Development of the Planning Principle of the ISO 14001 Environmental System Standard at the Worsley Alumina Refinery <i>P.B. Johnston, Worsley Alumina</i>
0950	Current and Future Strategies in Energy Management at Worsley Alumina <i>D. Heath, Worsley Alumina</i>
1020-1050	Morning Tea in Marquee - Proudly Sponsored by Australian Aluminium Council
	Chairperson: Ross Greenhalgh
1050	Understanding the Hydrogeology of Bauxite Residue disposal Areas at the Worsley Alumina Refinery <i>R. Wright</i>
1120	Application of Equilibrium State Rheological Data in the Red Mud Disposal Process <i>F. Sofra, University of Melbourne</i>
1150	Bauxite Mine Rehabilitation in the eastern Jarrah Forest <i>S. Vlahos, Worsley Alumina</i>
1220	Closing Ceremony
1240	Official Farewell to the City of Bunbury - Mayor John Castrilli Lunch in the Foyer of the Bunbury Entertainment Centre - Proudly Sponsored by Department of Resources Development and Finn International

OPTIONAL PROGRAM FRIDAY 26 MARCH 1999

	Bunbury Entertainment Centre
1400-1700	Environmental and Bauxite Residue Management Workshop Cost: \$150 Full Day Chairperson: David Coutts, Australian Aluminium Council \$50 Lunch & Meeting Only

Social Functions

SUNDAY 21 MARCH Sunset with the Dolphins

Welcome Reception, 5.00pm - 9.00pm, Koombana Bay Sailing Club
Enjoy a relaxed gourmet BBQ as the local sailing community welcomes you to the City of Bunbury.

Dress: Smart Casual. A light jacket is recommended

Proudly Sponsored by Albany International, Cockburn Cement & Westrac Equipment

MONDAY 22 MARCH Gibbsite Gala Dinner

Welcome Dinner, 7.30pm - late, South West Italian Club
You're invited to dine as we roll out the conveyor belting and red mud carpet for the Official Opening Dinner.

Dress: Formal preferred.

Proudly Sponsored by Kaiser Engineers

TUESDAY 23 MARCH Paddles Up Sundowner

Happy Hour and Dragon Boat Race, 4.30pm - 7.30pm, Bunbury Rowing Club
Just a short walk from the Entertainment Centre, this evening will give you a real feel for the Bunbury lifestyle. There will be a shuttle bus at 7.30pm for those wanting to return to their hotel, however, Victoria St is just one block away and has a variety of restaurants and cafes.

Dress: Casual - shorts & t-shirt. Paddlers make sure you bring along a change of clothes and towel. A light jacket may be required.

Proudly Sponsored by ACME Filtration Group & Scapa Filter Media

THURSDAY 25 MARCH Last Frontier Mystery Dinner

Farewell Dinner, 6.30pm - late
Clues to the secret destination will be "leaked" during the week
This is an evening with a difference and definitely not to be missed. We can't reveal much more about the evening - you will just have to be there!

Dress: Smart Casual - a light jacket is recommended.

Proudly Sponsored by Worsley Alumina

FRIDAY 26 MARCH Farewell Lunch

Bunbury Entertainment Centre Foyer, 12.30pm 2.00pm
The Mayor of Bunbury will bid you a farewell and the Bunbury Youth Chorale will leave you with fond memories of a week in the South West of Western Australia
Proudly Sponsored by Department of Resources Development & Finn International

REGISTRATION DESK

The Registration & Information Desk, located in the Foyer of the Bunbury Entertainment Centre, will be open during the following times: Phone number?

Sunday	21 March	2.00pm - 6.30pm
Monday	22 March	7.30am - 6.00pm
Tuesday	23 March	8.00am - 6.00pm
Wednesday	24 March	8.00am - 10.00am
Thursday	25 March	8.00am - 5.30pm
Friday	26 March	8.00am - 2.00pm

SMOKING POLICY

Please be aware that for the comfort of all delegates, meeting rooms, secretariat, speaker preparation, exhibition and meals areas will be smoke free.

NAME BADGES

It would be appreciated if all delegates and accompanying persons wear their name badges at all times as this identifies them as eligible for registered meals, Workshop sessions and social functions.

MOBILE PHONES

Please ensure your mobile phone is switched off during the sessions. The signals received and transmitted can interfere with the audio visual equipment and be extremely disruptive.

MESSAGES

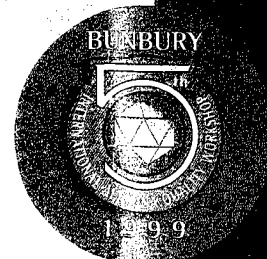
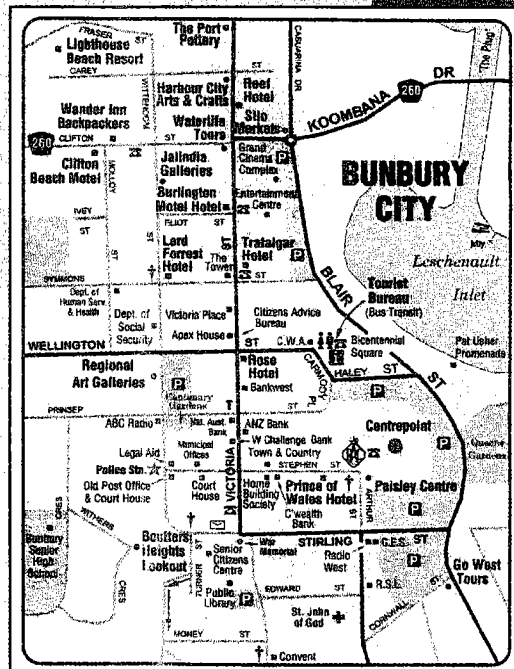
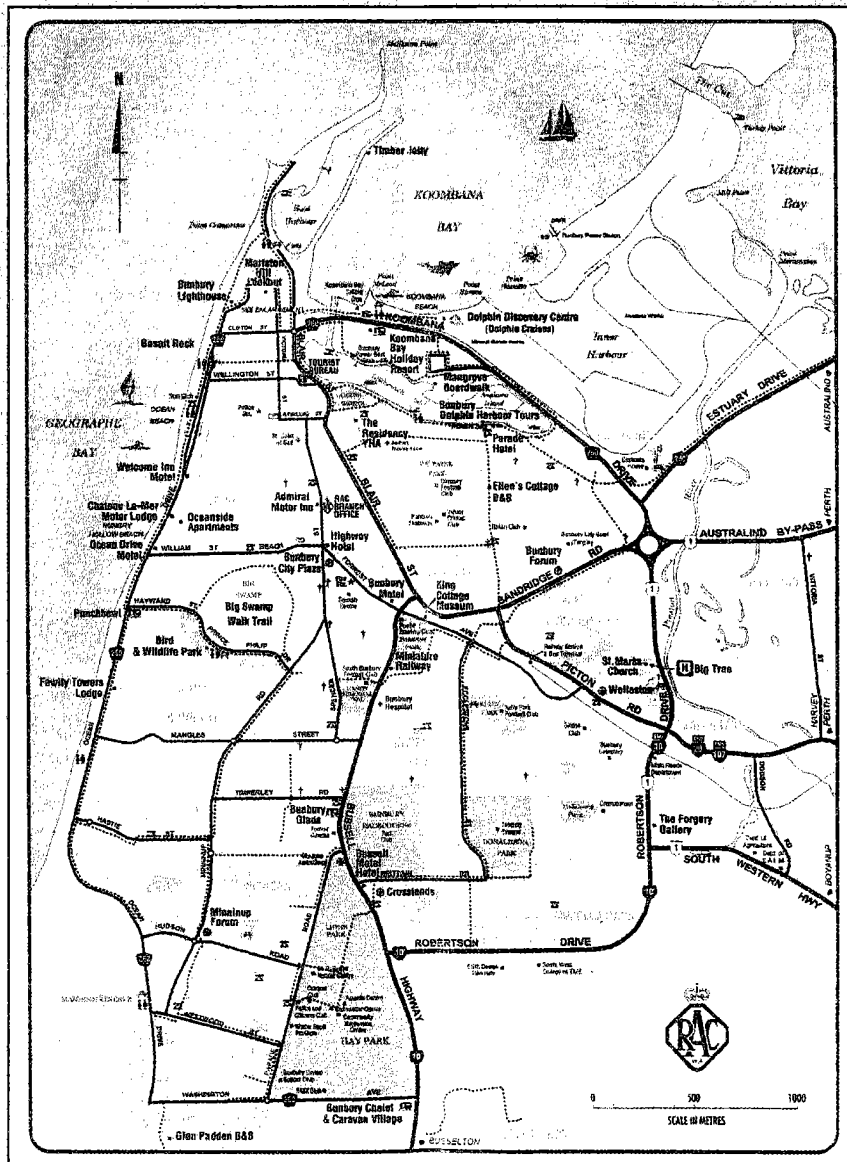
All messages for delegates will be posted on the message board adjacent to the Registration Desk.

Public telephones for outward calls are located near the box office.

Please note that sessions WILL NOT be interrupted to relay messages.

BUSINESS CENTRE

For your convenience, Honeywell Ltd is generously providing an area for delegates to access Email, fax and photocopier. It is a quiet area where you will be able to respond to messages and catch up on business. The "Honeywell Hub" will be located on the mezzanine level of the Bunbury Entertainment Centre.



SHUTTLE TIMETABLE

Daily Departure Times

From Hotel / Motels to Entertainment Centre

	Bunbury Village (Carpark Outside Village)	Ocean Drive Motel (Outside Reception)	Chateau La Mer (Outside Reception)	Welcome Inn Motel (Outside Reception)	Ellen's Cottage (Top of Driveway)	Bunbury Motel (Outside Reception)	Admiral Motel (Carpark left of Motel)
Monday	8:00 am	8:08 am	8:23 am	7:12 am	7:14 am	8:00 am	8:48 am
Tuesday	8:12 am	8:14 am	8:00 am	7:18 am	8:00 am	8:08 am	8:53 am
Wednesday	7:00 am	7:12 am	7:18 am	7:23 am	7:00 am	7:08 am	7:14 am
Thursday	8:23 am	8:12 am	8:14 am	7:00 am	8:18 am	8:30 am	8:38 am
Friday	8:00 am	8:18 am	7:00 am	7:08 am	8:23 am	8:42 am	8:44 am

* Delegates at other hotels should wait outside the reception area at 7:00am.

Bus Departure times

Bunbury Entertainment Centre to Hotel /Motels

The above Motel / Hotels will have the following afternoon shuttle service available

Monday 22 March Depart Entertainment Centre at 5:45 pm to selected Motel / Hotels

Thursday 25 March Depart Entertainment Centre at 5:00 pm to selected Motel / Hotels

Friday 26 March Depart Entertainment Centre at 2:00 pm selected Motel / Hotels

Shuttle Service - Sunday 21 March

See daily service for morning pick up times

4:45 pm - Buses depart Bunbury Entertainment Centre for Koombana Bay Sailing Club

Shuttle Service will leave Koombana Bay Sailing Club at 8:30 pm, 9:00 pm and 9:30 pm

Shuttle Service -Monday 22 March

To Italian Club

Bunbury Village	Admiral Motor Inn	Bunbury Motel	Oceanside Apartments	Lighthouse Beach Resort	The Clifton	The Lord Forrest
7:00 pm	7:10 pm	7:15 pm	7:00 pm	7:08 pm	7:13 pm	7:18 pm

Welcome Inn	Chateau La Mer	Ocean Drive Motel	Rose Hotel	Koombana Bay Resort	Ellen's Cottage
7:00 pm	7:05 pm	7:10 pm	7:00 pm	7:05 pm	7:12 pm

Shuttle Service will leave Italian Club to Hotel/Motels at 10:30 pm, 11:00 pm, 11:30 pm and 12:00 midnight

Shuttle Service - Tuesday 23 March

See daily service for morning pick up times

7:30 pm - Pick up from the Bunbury Rowing Club for people wanting to return to hotels

Shuttle Service - Wednesday 24 March

See daily service for morning pick up times

7:00 am - depart Bunbury Entertainment Centre for Refinery Site Visits

11:30 am - return to BEC drop off delegates to hotels if required

12:00 noon - Coaches leave Bunbury Entertainment Centre for the Margaret River Tour

12:00 noon - Coach leaves Bunbury Entertainment Centre to Golf Course

6:00 pm - return from Golf Course to guest's hotels or BEC

Shuttle Service - Thursday 25 March

Mystery Location

Bunbury Village	Admiral Motor Inn	Bunbury Motel	Oceanside Apartments	Lighthouse Resort	Ocean Drive Motel	Chateau La Mer
5:45 pm	5:50 pm	5:53 pm	5:45 pm	5:57 pm	5:45 pm	5:48 pm

Welcome Inn	The Rose Hotel	Koombana Bay Resort	Ellen's Cottage	The Clifton	The Lord Forrest
5:52 pm	5:45 pm	5:50 pm	5:57 pm	5:49 pm	5:53 pm

Shuttle Service will leave the secret destination to return to Bunbury from 10.30 until 12:00 midnight

Shuttle Service - Friday 26 March

See daily service for morning pick up times

2:00 pm - return from BEC to hotels

6:00 pm - return service to Perth - one bus