AUSTRALIAN COAL ALLIANCE Inc.

Typical groundwater analysis of coal seam water in the proposed Wallarah 2 Coal Project. The following water analysis was conducted by the University of New South Wales on behalf of the Dooralong Valley Community during the fight to stop methane gas mining in the Wyong Water Catchment Valleys.

Sample water was taken from the two Methane Gas test wells, situated on the valley floor at Jilliby, and compared with Australian Drinking Water Guidelines and the Powder River Basin in the USA. Mine water from the latter has caused unprecedented environmental destruction. **It should be noted that the analysis of the coal seam water drawn from Jilliby would be of far greater concern than that of the USA, and potentially more destructive to the environment and local riverine systems.**

Table 1. Selected Chemical Analysis of Groundwater

	Australian Drinking Water Guideline	Powder River USA	JILLIBY 1	JILLABY 2A
pH	6.5 - 8.5	7.3	9.1	8.7
Total Dissolved Solids (TDS)	500mg/l	850	**3,976**	**5,452**
Total iron	0.30mg/l	0.8	<0.30	<0.30
Sodium	180 mg/l	300	**1,646**	**2,232**
Magnesium	150 mg/l	16	2.95	4.63
Chloride	250 mg/l	13	**590**	**590**
Barium	0.70 mg/l	0.62	**1.58**	**3.3**
Aluminium	0.20 mg/l	<0.05	**0.218**	0.044
Iodide	0.10 mg/l		**0.689**	**1.27**
Boron	0.30 mg/l		0.242	**0.301**
Calcium	80 mg/l	32	4.91	8.08
Ammonia	0.50 mg/l	2.4	<0.50	<0.50
Nitrate	1.50 mg/l		<5.00	<5.00
Fluoride	1.50 mg/l	0.92	2.98	2.91
Silver	0.10 mg/l		0.002	0.003
Chromium	0.05 mg/l	<0.001	0.005	0.009
Copper	2.0 mg/l	0.0076	0.017	0.084
Lead	0.01 mg/l	<0.0001	0.0005	0.0002
Nickel	0.02 mg/l	0.005	0.001	0.003
Zinc	3.0 mg/l		0.147	0.013
Mercury	0.001 mg/l	<0.0001	0.0003	0.0001
Manganese	0.50 mg/l	0.032	<0.50	<0.50
Arsenic	0.007 mg/l		0.005	0.004
Cadmium	0.002 mg/l	<0.0001	0.0001	0.0002
Selenium	0.01 mg/l	<0.002	0.005	<0.001
Molybdenum	0.05 mg/l		0.009	0.01

Powder River data from Rice *et al*. 2000; Jilliby data from Jones 2005