Some Tasmanian coal statistics (Revision 2)

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INTRODUCTION

The consumption of coal by Tasmanian industry has doubled during the ten years from 1980/81 and local coal is now used by a number of Tasmanian secondary industry as a boiler fuel. The largest users are the paper factories and the cement works, which together use around three-quarters of the Tasmanian coal produced.

Statistics relating to Tasmanian coal consumption and production are given in tabular form, along with an account of coal reserves within the State. These statistics are taken from figures collated by the NSW Joint Coal Board, published in yearbooks *Black Coal in Australia* to 1987/88 (wherein figures are given on a financial year basis) and more recently in *Australian Black Coal Statistics*, which gives figures on a calendar year basis. Figures from various sources can differ, and users should be aware of the basis of calculation: financial or calendar year, and even whether the end of the year is deemed to be at the end of, or part way through, a production fortnight.

Figures for coal consumption, coal production and employment are given in Tables 1, 2 and 3, and are shown graphically in Figures 1 and 2.

TABLE 1

Coal consumption ('000 t)

Year	Cement Works	Paper Mills	General Industry	TOTAL	NSW coal used	Local coal used#
1980/81	71	93	43	207	10	197
1981/82	94	100	73	267	4	263
1982/83	77	172	75	324	13	311
1983/84	49	195	61	305	12	293
1984/85	78	200	67	345	26	319
1985/86	87	203	101	391	46	345
1986/87	67	219	99	385	26	359
1987/88	71	218	119	408	47	361
1988/89	81	235	132	448	60	388
1989*	84	228	126	438	63	375
1990*	92	218	137	447	60	387
1991*	78	196	128	402	69	333

1980/81 to 1988/89 from NSW Joint Coal Board financial year statistics
* calendar year JCB statistics
\# calculated from total coal used less imported coal

TABLE 2

Coal Production ('000 t)

Year	Raw Coal	Saleable Coal	Closing Stocks#
1980/81	302	208	57
1981/82	390	249	42
1982/83	557	329	87
1983/84	453	280	92
1984/85	491	321	95
1985/86	502	310	60
1986/87	617	294	92
1987/88	600	380	110
1988/89	645	407	?
1989*	571	312	95
1989/90§	569	388	?
1990*	628	390	98
1990/91§	546	388	?
1991*	536	324	88

1980/81 to 1988/89 from NSW Joint Coal Board financial year statistics

* calendar year JCB statistics

\# 1980/81 to 1987/88 stocks as at June; 1989–1991 stocks as at December

§ Department of Mines statistics register

TABLE 3

Employment (persons)

1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
135	141	140	138	143	155	150	146	134	136	146

Figure 1

TASMANIAN COAL PRODUCTION, 1980/81–1990/91

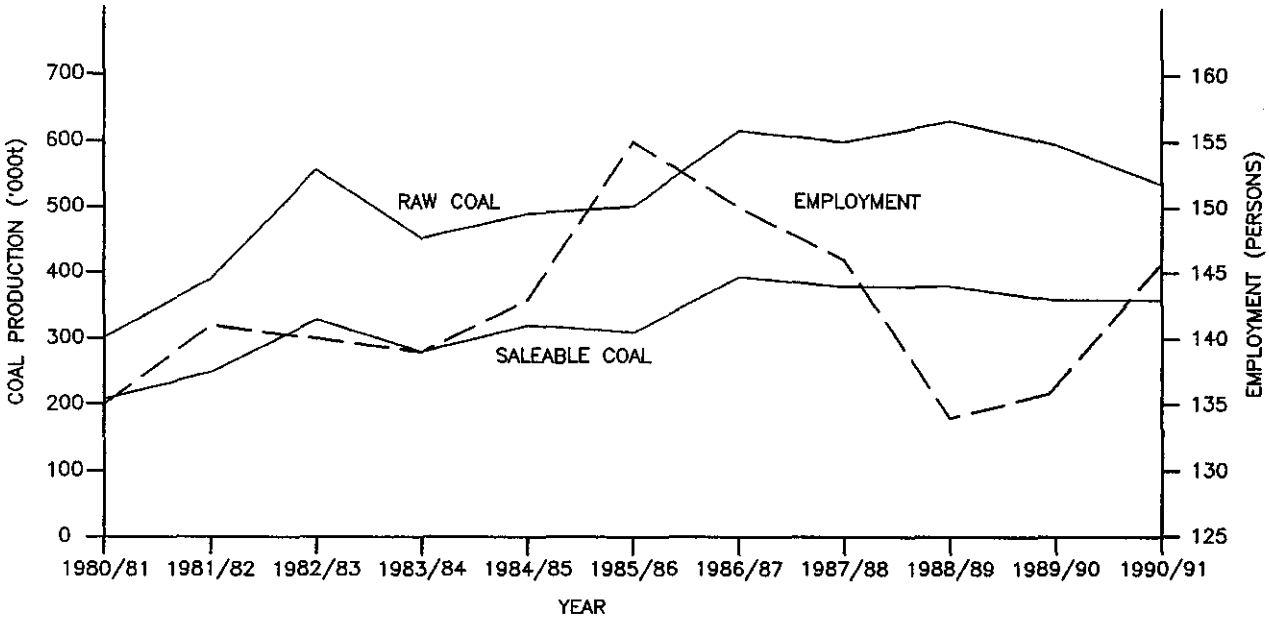
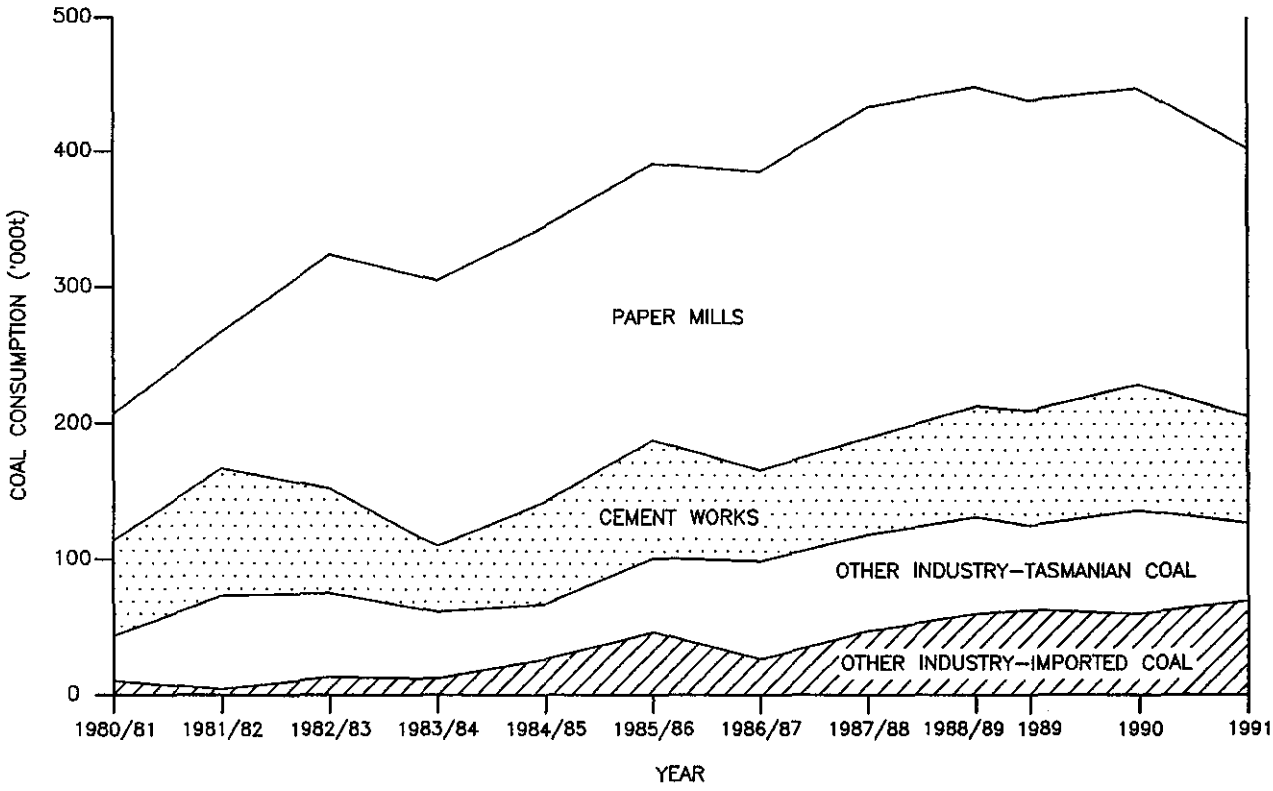


Figure 2

TASMANIAN COAL CONSUMPTION, 1980/81–1990/91



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COAL RESERVES

In reporting or calculating coal reserves the Department recommends adherence to Australian Standard 2519-1982: *Standing Committee on Coalfield Geology of NSW: Codes for calculating and reporting coal reserves (fourth edition).*

A brief summary of the reserve categories of AS2519-1982 is as follows:–

MEASURED RESERVES are those for which the density of observation points is sufficient to give control on quality, quantity, thickness, depth and other relevant conditions, and to allow for both a reliable estimate of the reserves and the planning of their extraction. The standard suggests that the observation points should be spaced no further than one kilometre apart, and in many instances much closer spacing is needed.

INDICATED RESERVES are those for which the density of observation points is sufficient to allow for a realistic estimate of reserves and for which there is a reasonable expectation that the reserves could be raised to the measured category with further information. Observation points should be spaced no further than two kilometres apart.

INFERRED RESERVES are those for which there is a poor cover of information so that only an uncertain estimate of the reserves can be made. Further information will either raise these reserves to a higher category or show that part or all of them does not exist. Quantitative values are not assigned to inferred reserves, other than to indicate the relative size of the deposit within the following ranges:

very large	>10,000 million tonnes
large	100 to 10,000 million tonnes
small	20 to 100 million tonnes
very small	<20 million tonnes

In view of the fact that a large number of extremely small coal deposits occur in Tasmania the Department has adopted a modification of the inferred reserve category. Indications are made in the table where extremely small deposits contain less than 5 million tonnes or less than 1 million tonnes.

STATUS OF (IN SITU) RESERVES (Revised August 1991)

Location	Measured + Indicated (million tonnes)	Inferred (million tonnes)
Mt Nicholas	98	small
Harefield	5	-
Fingal	250	large
Dalmayne	160	large
Douglas River	30	small
Langloh (Hamilton)	10	-
Woodbury	25	-
Merrywood		very small <1
Mt Christie		very small <1
Denison Rivulet		very small <2
Strathblane		very small <1
Moss Glen		very small <1
Catamaran		very small <5
Colebrook		very small <5
York Plains		very small <1
Preolenna		very small <5
Mersey		very small <5
Cygnet		very small <1
Mt Lloyd		very small <2
Kaoota		very small <1
Total	578	

The remainder of areas in which coal is known to occur in Tasmania contain extremely small reserves, or very thin seams which in the current economic climate are not workable.

PREVIOUSLY REPORTED RESERVE FIGURES

Coal figures reported in the 1983/84 JCB Year Book *Black Coal in Australia* (as supplied by the Tasmanian Department of Mines) are: (million tonnes)

Measured and indicated (*in situ*) (non-coking)		530
Recoverable*		
	Open cut	22
	Underground	224
	TOTAL	246
Marketable# (non-coking)		147
Inferred resources (*in situ* coal)		large

* derived by taking 50% of the measured and indicated (*in situ*) reserves, minus those thought to be entirely without mining access.
\# derived by taking 60% of the recoverable reserves.

Reserve figures in the 1989 NSW JCB Year Book are given under new definitions. The source for the figures quoted is the Bureau of Mineral Resources.

The categories of both identified *in situ* resources and identified recoverable resources may be: economic, subeconomic, paramarginal or submarginal, depending on the data available.

The categories relating to Tasmania are:

	Tasmania	Australia (total)
Identified in situ resources (Mt)		
(Economic)	530	71 230
Identified recoverable resources (Mt)		
(Economic)	250	50 776

Firm statistics can only be obtained on individual blocks of coal after a proper feasibility study has been conducted, however, the above figures have been used to give "ball park" figures of the resources.

With the measured and indicated reserves estimated at 578 Mt, and present production (raw coal) at just over half a million tonnes per year, there is little incentive for explorers who hold ground to actively increase the status of other reserves, as there is, at present, no call for greater production. With further exploration no doubt part of the "inferred" category reserves could be firmed up, and taken into the "measured" category.

No attempt has been made to delineate what constitutes "economic recoverable coal" as this depends on such variable factors as the market price which could be obtained, proximity to infrastructure, freight charges or subsidies, as well as constant technological changes. There is the possibility that at some time in the future some coal may possibly be burnt *in situ*, with factories or power plants using the coal sited above the seam, drawing up hot gases and/or circulated (heated) water. This technique is referred to as "in situ gasification". This can enable coal which cannot be extracted by usual means, due to problems of mining access, to be profitably used.

[15 July 1992]