

Sample ID	Lab ID	Sample ID	Lab ID	Sample ID	Lab ID
A31	1	H33	57	N26	108
B28	2	I24	58	N27	109
B29	3	I25	59	N28	110
B30	4	I26	60	N29	111
B31	5	I27	61	N30	112
B32	6	I28	62	N31	113
C26	7	I29	63	N32	114
C27	8	I30	64	N33	115
C28	9	I31	65	N34	116
C29	10	I33	66	O23	117
C30	11	J24	67		
C31	12	J25	68	T32	118
C32	13	J26	69	K31	119
D25	14	J27	70	K32	120
D26	15	J28	71		
D27	16	J29	72		
D28	17	J30	73		
D29	18	J31	74		
D30	19	J32	75		
D31	20	J33	76		
D32	21	K24	77		
E24	22	K25	78		
E25	23	K26	79		
E26	24	K27	80		
E27	25	K28	81		
E28	26	K29	82		
E29	27	K30	83		
E30	28	K33	84		
E31	29	K34	85		
E32	30	L25	86		
E33	31	L26	87		
F24	32	L27	88		
F25	33	L28	89		
F26	34	L29	90		
F27	35	L30	91		
F28	36	L31	92		
F29	37	L32	93		
F30	38	L33	94		
F32	39	L34	95		
F33	40	M25	96		
G24	41	M26	97		
G25	42	M27	98		
G26	43	M28	99		
G27	44	M29	100		
G28	45	M30	101		
G29	46	M31	102		
G32	47	M32	103		
G33	48	M33	104		
H24	49	M34	105		
H25	50	N19	106		
H26	51	N20			
H27	52	N21			
H28	53	N22			
H29	54	N23			
H30	55	N24			
H32	56	N25			

41604

NOT RECEIVED

[07]



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CERTIFICATE OF ANALYSIS 41604

Client:

Douglas Partners Unanderra
Unit 1, 1 Luso Drive
Unanderra
NSW 2526

Attention: Jane Smalley

Sample log in details:

Your Reference:	<u>40661.03, Tallawarra Power Station</u>
No. of samples:	120 Soils
Date samples received:	31/05/10
Date completed instructions received:	31/05/10

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by:	7/06/10
Date of Preliminary Report:	Not Issued
Issue Date:	4/06/10

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Accredited for compliance with ISO/IEC 17025.

Tests not covered by NATA are denoted with *.

Results Approved By:

Matt Mansfield
Approved Signatory

Envirolab Reference: 41604
Revision No: R 00



Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-1 A31 Soil	41604-2 B28 Soil	41604-3 B29 Soil	41604-4 B30 Soil	41604-5 B31 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-6 B32 Soil	41604-7 C26 Soil	41604-8 C27 Soil	41604-9 C28 Soil	41604-10 C29 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-11 C30 Soil	41604-12 C31 Soil	41604-13 C32 Soil	41604-14 D25 Soil	41604-15 D26 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-16 D27 Soil	41604-17 D28 Soil	41604-18 D29 Soil	41604-19 D30 Soil	41604-20 D31 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-21 D32 Soil	41604-22 E24 Soil	41604-23 E25 Soil	41604-24 E26 Soil	41604-25 E27 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-26 E28 Soil	41604-27 E29 Soil	41604-28 E30 Soil	41604-29 E31 Soil	41604-30 E32 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-31 E33 Soil	41604-32 F24 Soil	41604-33 F25 Soil	41604-34 F26 Soil	41604-35 F27 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-36 F28 Soil	41604-37 F29 Soil	41604-38 F30 Soil	41604-39 F32 Soil	41604-40 F33 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-41 G24 Soil	41604-42 G25 Soil	41604-43 G26 Soil	41604-44 G27 Soil	41604-45 G28 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-46 G29 Soil	41604-47 G32 Soil	41604-48 G33 Soil	41604-49 H24 Soil	41604-50 H25 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-51 H26 Soil	41604-52 H27 Soil	41604-53 H28 Soil	41604-54 H29 Soil	41604-55 H30 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-56 H32 Soil	41604-57 H33 Soil	41604-58 I24 Soil	41604-59 I25 Soil	41604-60 I26 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-61 I27 Soil	41604-62 I28 Soil	41604-63 I29 Soil	41604-64 I30 Soil	41604-65 I31 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-66 I33 Soil	41604-67 J24 Soil	41604-68 J25 Soil	41604-69 J26 Soil	41604-70 J27 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-71 J28 Soil	41604-72 J29 Soil	41604-73 J30 Soil	41604-74 J31 Soil	41604-75 J32 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-76 J33 Soil	41604-77 K24 Soil	41604-78 K25 Soil	41604-79 K26 Soil	41604-80 K27 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-81 K28 Soil	41604-82 K29 Soil	41604-83 K30 Soil	41604-84 K33 Soil	41604-85 K34 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-86 L25 Soil	41604-87 L26 Soil	41604-88 L27 Soil	41604-89 L28 Soil	41604-90 L29 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-91 L30 Soil	41604-92 L31 Soil	41604-93 L32 Soil	41604-94 L33 Soil	41604-95 L34 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-96 M25 Soil	41604-97 M26 Soil	41604-98 M27 Soil	41604-99 M28 Soil	41604-100 M29 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-101 M30 Soil	41604-102 M31 Soil	41604-103 M32 Soil	41604-104 M33 Soil	41604-105 M34 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-106 N19 Soil	41604-107 N25 Soil	41604-108 N26 Soil	41604-109 N27 Soil	41604-110 N28 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-111 N29 Soil	41604-112 N30 Soil	41604-113 N31 Soil	41604-114 N32 Soil	41604-115 N33 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ----- -----	41604-116 N34 Soil	41604-117 O23 Soil	41604-118 I32 Soil	41604-119 K31 Soil	41604-120 K32 Soil
Date analysed	-	3/6/2010	3/6/2010	3/6/2010	3/6/2010	3/6/2010
Sample Description	-	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil	Approx 40g Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Method ID	Methodology Summary
ASB.1	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

Report Comments:

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample.

Envirolab recommends supplying 30-40g of sample in it's own container.

Asbestos was analysed by Approved Identifier: Matt Mansfield

Asbestos was authorised by Approved Signatory: Matt Mansfield

INS: Insufficient sample for this test NT: Not tested PQL: Practical Quantitation Limit <: Less than >: Greater than

RPD: Relative Percent Difference NA: Test not required LCS: Laboratory Control Sample NR: Not requested

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria:

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the sample batch were within laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for

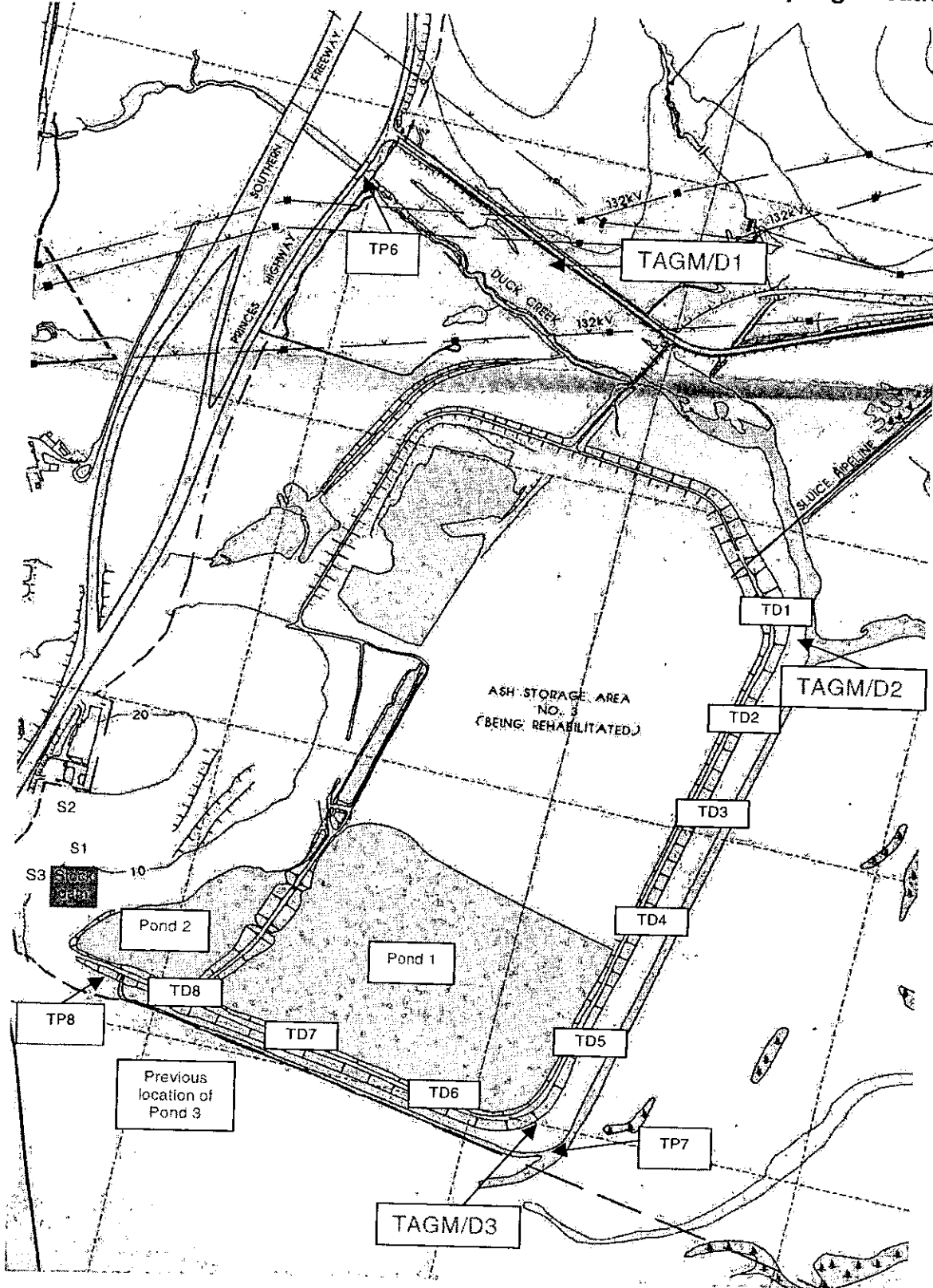
SVOC and speciated phenols is acceptable. Surrogates: 60-140% is acceptable for general organics and 10-140% for

Appendix A-3

**TRUenergy plans showing surface and groundwater
monitoring locations**



Figure 1 - Tallawarra Ash Dam 3 Surface & Groundwater Sampling Locations





Tallawarra Power Station – Ground and Surface Water Monitoring

A program of ground and surface water monitoring has been in place at the former Tallawarra Power Station since 1991. The program involved sampling and testing of waters by PPI's Technical Services Group. PPI's Environmental Services Group has provided comment of the testing data.

Groundwater has been monitored at the following boreholes:

- Ash dam 3, 3 sites known as TGM1/D1 – D3; and
- Asbestos dump (located in ash dam 1), 4 sites known as TPA – D.

Surface water has been monitored at the following locations:

- Station drains and creeks, 13 locations known as TP1 to TP13;
- Four ponds known as Pond 1 to Pond 4;
- Seepage drains surrounding ash dam 3, known as TD1 to TD8;
- Ash dam 2 settling pond, two locations known as TSET1 and TSET2;
- Surface water entering the site from the highway, two sites known as TAC1 and TAC2;
- Channel between ash dams 1 and 2, one site known as TWET1.

The location of these borehole and surface water sites is illustrated in figures 1 and 2.

Copies of the results of testing are attached.





Figure 2 - Tallawarra Power Station Station Surface & Groundwater Sampling Locations



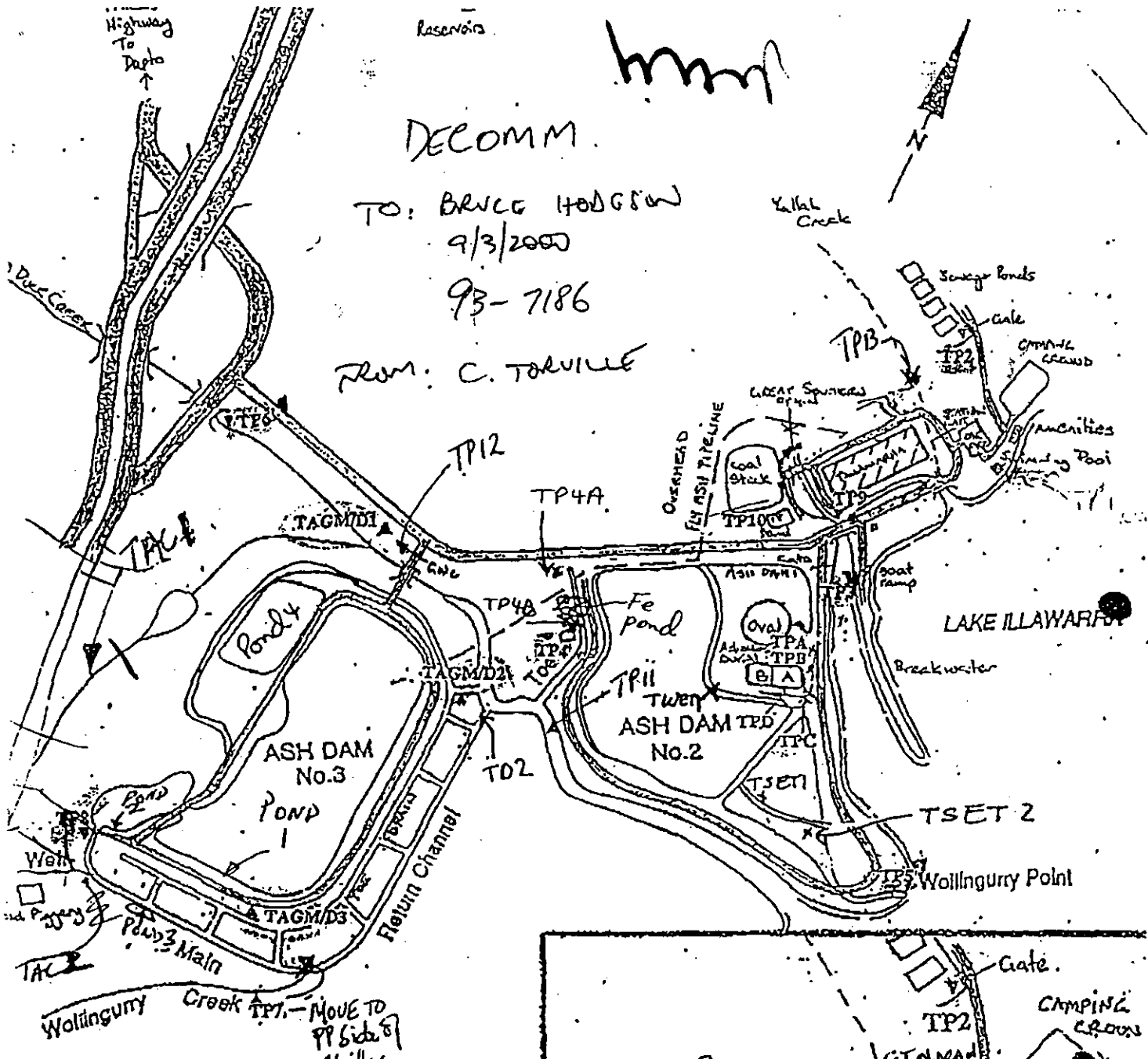
DECOMM

TO: BRUCE HODGSON

9/3/2000

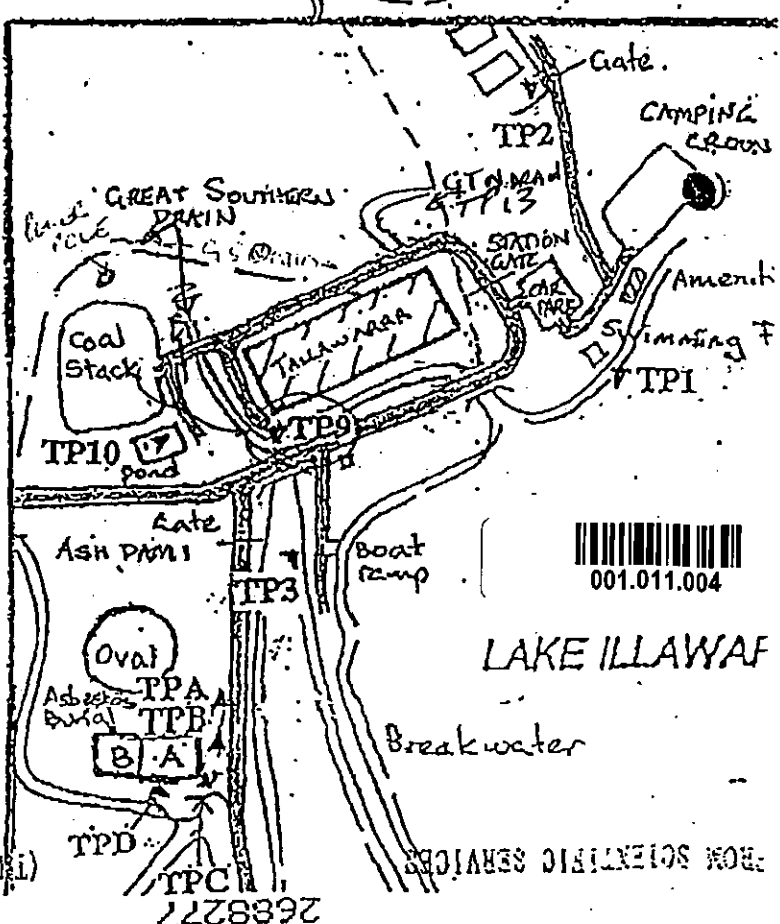
93-7186

FROM: C. TORVILLE



- KEY**
- ▲ MONITORING SITES
 - == DRAIN OR CREEK
 - == ROAD/TRACK

NEW OR MOVED SITE



decommissioned Power Stations
 Site Monitoring
 Tallawarra
 / NO: 3081024967.P

(T) 09.05.91 10:13

2688277

FROM SCIENTIFIC SERVICES

Routine/Availability Report

DECOMMISSIONED POWER STATIONS
MONITORING OF GROUND AND SURFACE WATERS
12 MONTHLY SEDIMENT CORE ANALYSIS

Decommissioned Power Stations in conjunction with Environmental Services has requested on-going monitoring of drain and surface flows after rainfall events and groundwaters in existing boreholes at Tallawarra, [REDACTED] Power Stations.

Sample Locations

The stations were visited to identify practical sample locations on 20th August, 1991 (Tallawarra) and 26th August, 1991 (Metropolitan Stations) by Environmental Services and Scientific Services officers.

Tallawarra Power Station - Surface Waters

- TP1 Station Drain to Lake Illawarra - North of station near picnic/camping area. Sample from twin pipe outlet.
- TP2 Spray Irrigation (SPCC licence point). North of station, west of picnic/camping area. Sample from pump during operation.
- TP3 Outlet of Canal (SPCC licence point). Sample at boom.
- TP4 Refer Dames & Moore 'Environmental Assessment of Tallawarra Power Station Ash Dams' August, 1990 - Location 50 metres downstream TA7 in Toe Drain between ash dams Nos. 2 and 3.
- TP5 Wollingurry Point. Collection point of drains from ash dams Nos. 1 and 2. Sample from 50 metres downstream of timber weir.
- TP6 Refer Dames & Moore 'Environmental Assessment of Tallawarra Power Station Ash Dams' August, 1990 - Location between highway and road bridge at Tallawarra Power Station entrance. Sample from Duck Creek, above tidal influence.
- TP7 Wollingurry Creek (Joins No. 3 Ash Dam Main Return Channel). Sample creek 50 metres upstream of Creek.
- TP8 Ash dam No. 3 Discharge Weir (SPCC licence point).
- TP9 Great Southern Drain, outlet at southern corner of Power Station.
- TP10 Coal Stack Runoff - Inlet to settling pond.

*Th
+ R
2*



M. Bedford

Tallawarra Power Station - Boreholes

TPA Opposite outlet Canal/Asbestos burial south of new enclosure for asbestos burial.

TPB 20 metres south of TPA

TPC 20 metres west of TPB

TPD 100 metres north of TPA

TAGM/D1 Located between the No.3 Ash Dam and the main station access road.

TAGM/D2 East of Ash Dam No. 3 wall

TAGM/D3 East of Ash Dam No. 3 wall

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



Appendix B

Site History and Groundwater Bore Search Results

Geotechnical, Contamination and Groundwater Investigation,
Tallawarra Lands, Yallah, NSW

B-1 Groundwater Bore Search Results

**B-2 Department of Conservation, Climate Change and Water (DECCW)
Notices**

B.1 AERIAL PHOTOGRAPH REVIEW

Aerial photographs dating back to 1948 were provided by Wollongong City Council and reviewed by a senior environmental scientist. The aerial photographs have been reproduced in Figures 4A to 4G, which show the locations of main relevant observations made during the review. Table B1 briefly summarises these observations. It is noted that aerial photographs were not available for all parts of the site.

TABLE B1 – AERIAL PHOTOGRAPH REVIEW

DATE	OBSERVATIONS
23/10/1948 (black & white)	<p>On Site: The Site appears to be vacant rural land that is mostly grass covered. Typically pockets of trees are evident along watercourses and in lower lying areas in the southern areas of the site. Duck Creek is evident in the southern portion of the site and meanders through this area. Several possible swampy areas are evident in the southern portion of the site. Several small structures, possibly houses, sheds or dams were noted throughout the northern and southwestern portions of the site. A railway line is evident near the northeastern site boundary which appears to terminate at the shoreline of Lake Illawarra.</p> <p>Off Site: The surrounding area also appears to be rural grass covered land.</p>
11/1/1955 (black & white)	<p>On Site: The site still appears to be mostly vacant rural land. Some of the small structures previously identified are no longer evident in this photograph. Several structures are located in the central part of the site which may be former residences associated with power station construction workers. Ash Pond 1, Yallah Bay Road, railway line and two water thanks are now evident. Faint tracks are observed in the northwestern portion of the site orientated east-west and generally parallel to the slope.</p> <p>Off Site: The power station appears to be under development and the cooling water canal/breakwater can be observed.</p>
21/11/1966 (black & white)	<p>On Site: The majority of the site layout appears similar to the previous aerial photograph with the exception of Ash Pond 2 which is now evident in the central eastern part of the site and partially filled with ash. Transmission lines and a new relatively small structure are evident north of Yallah Bay Road. Two new small structures are noted south of Yallah Bay Road near the Railway Line and near Yallah Bay Road. Ash Pond 1 appears to be in the process of being capped. A pond or dam appears to be located immediately west of Ash Pond 2.</p> <p>Off Site: The construction of the power station appears complete and appears to be in operation.</p>

<p>23/8/1977 (Colour)</p>	<p>On Site: The majority of the site layout appears similar to the previous aerial photograph. Ash Pond 1 appears to be grass covered with a pocket of trees evident in the northeastern corner of the pond. The majority of Ash Pond 2 appears to be filled with ash. A square shaped excavation (possibly a borrow pit) is evident adjacent to northeastern boundary of the power station.</p> <p>Off Site: A residential housing development is evident north of the site and the former Yallah Woolshed is evident west of the site. Remaining areas appear unchanged.</p>
<p>1987 (Colour)</p>	<p>On Site: The majority of the site appears similar to the previous aerial photograph. Ash Pond 3 is now evident in the southwestern portion of the site and partially filled with ash. Exposed soils are observed west of Ash Pond 3 and near the ridge in the northeastern portion of the site. An access road is located in the northwestern portion of the site near the western site boundary and extends north from Yallah Bay Road. Two fill mounds were observed north of Ash Pond 3 and one fill mound between the former Yallah Woolshed and Ash Pond 3.</p> <p>Off Site: Further residential housing development is evident north of the site. Remaining areas appear unchanged.</p>
<p>1993 (Colour)</p>	<p>On Site: A relatively small structure is located adjacent to the southeast corner of Ash Pond 2. Ash Pond 2 appears to have been capped and occupied by vegetation re-growth. The remaining areas of the site are relatively unchanged from the previous aerial photograph.</p> <p>Off Site: The general surrounding areas appear similar to the previous photograph.</p>
<p>2010 (Colour)</p>	<p>On Site: Further vegetation re-growth is noted on Ash Ponds 1 and 2. Some additional farm dams and retention ponds are evident in the central northern portions of the site. One farm dam that was previously located northwest of the Heggies Contractor area is no longer evident. An area south of Ash Pond 2 appears to be disturbed (storage of refuse type waste). A second disturbed area is noted near the access tracks in Ash Pond 1 (storage of slag stockpile).</p> <p>Off Site: The general surrounding areas appear similar to the previous photograph except for Haywards by residential housing development located south of the site.</p>

B.2 INTERVIEWS

Interviews were carried out with a former employee of Tallawarra Power Station Mr John McGrath and leasee of the Tallawarra lands surrounding the plant Mr Trevor Knowles and an ajistee of those lands Mr Colin Valance of Colin's Floats & Trailers who were/are familiar with the history of the site on the 15, 16 and 11 February 2010, respectively. A brief interview was also held with Lloyd Townsend on the 24 February 2010 relating to some recent Landfilling activities being carried out on a particular part of the site. An interview was also carried out with Mr Chris Brandis of the Illawarra Bird Observers Club on 9 June 2010.

A summary of the relevant information from the interviews is summarised below. Refer to Figure 4G for the approximate location of Site features.

MR JOHN McGRATH

Mr McGrath worked for Pacific Power at the Tallawarra Power Station as an electrician for 12 years up until the plant ceased operations as a coal fired plant. Mr McGrath's recollection of issues related to contaminated land was restricted due to his role at the plant as an electrician, but he was able to recall the following issues:

- Treated sewerage waste water had been irrigated on to the surface of an area located north of the plant;
- The sheds located on the eastern side of the Ash Pond 2 eastern retaining wall was previously a small laboratory used for measuring the bituminous content of coal that was previously brought to the site to fire the power station;
- A floating boom was located on the surface of the water channel leading out of the plant and into Lake Illawarra. This floating boom was used to collect oil that may have leaked from the plant and was collected in a pond located at the western side of the channels shoreline. The collection of oil was later disposed off site;
- The electrical transformers of the former coal fired plant were not known to contain PCB but instead mineral oil was used. Mr McGrath indicated that there was anecdotal evidence to suggest that PCBs taken from the Kangaroo Valley plant were sent to the Tallawarra plant for treatment/disposal. Mr McGrath was not aware where this may have occurred. (It is noted that information provided by TRUenergy showed that this allegation had previously been investigated and concluded that the allegations were unfounded – copies of the documents provided are included at the end of this appendix); and
- While Mr McGrath was not aware of the disposal and land filling practices of the Ash Ponds he was aware of certain areas where asbestos waste had been buried.

MR TREVOR KNOWLES

Mr Knowles is the current leasee of grassed rural areas located on the northern side of the plant and uses the land for the grazing. He has been the leasee of the lands in question for approximately 18 to 19 years. While Mr Knowles knowledge of the Tallawarra lands is restricted to the grassed rural areas to the north, he was able to indicate the following information:

- The lands were originally leased as a horse riding school, a horse dentistry, blacksmith, horse and stables up until 2002/2003. Following the closure of the above mentioned enterprises the land has

since been used for the grazing of cattle and horses. Mr Knowles also adjusts the land to other horse owners for the grazing of horses;

- A railway line was once located along the northeastern boundary of the site. The former railway line which was located just outside the site fencing and within the Illawarra Lake Foreshore lands was used for transporting excavated coal to a jetty before being dispatched onto a barge. Mr Knowles indicated the railway line crossed over a bridge located on the northern side of the dam located in the central northern portion of Zone 1(B);
- When he first took the lease on for the property, fill material containing large quantities of concrete was being brought to the site and dumped in an area approximately 260m northeast of the house and former dairy sheds located in the central western portion of Zone 1(B). The fill was said to be up to about 2m to 3m in depth. The dumping was continued up until about 15 years ago when Mr Knowles was not happy with the quality of fill that was being brought to the site i.e. too much concrete and building waste materials. Material however was still being illegally brought to the site without his consent;
- Fill material was brought to the site to create the rectangular shaped area located approximately 120m east of the house and former dairy sheds. The area was to be used for horse training purposes. The fill material was supposed to be "clean" fill but after a few loads of material containing concrete fragment/slabs, the fill material ceased being brought to the site;
- The shacks located in the southeastern corner of Zone 1(B) were constructed by Mr Knowles as picnic and camping areas for ajistees of the lands he leased. The area was not used for major burnoffs of waste but instead for burning old timber for BBQ and campfires pits. The materials used to build the shacks were sourced from disused sheds of the former dairy;
- The buildings located in the central western portion of Zone 1(B) were previously a house and a number of sheds for the dairy that once operated on the site. The dairy was in a state of disrepair when he took over the lease of the lands and is not familiar with the practices of the former dairy. The dilapidated sheds are used for storing miscellaneous rubbish and are often used as a source of building materials patching up fences and stock yards etc on the property. Adjistees of the land have made attempts to repair the sheds for storing equipment and feed related to the up keep of horses on the site;
- Lantana removal had been carried out in the central northern portions of the Zone 4 (B)(D) approximately 380m southwest of the former house and dairy sheds. The lantana was mechanically removed and later sprayed with 'roundup' to kill off any remaining lantana roots.
- When cattle or horse have passed away on the site, a hole has been dug, the animal buried and covered over at the location where it died. The location of each burial was not known. There was not one set place used for burying dead animals; and
- Dams located within Zone 1(B) were often topped up with fill material that had been brought to the site.

MR COLIN VALANCE

Mr Valance is one of the ajistees of the lands leased by Mr Knowles. Mr Valance has been associated with the rural lands located on the northern side of the plant up to 20 years. While Mr Knowles knowledge of the Tallawarra lands is restricted to the grassed rural areas to the north, he was able to indicate the following information:

- Relatively large quantities of fill material containing concrete and brick was brought to the site and dumped in an area approximately 260m northeast of the house and former dairy sheds located in the central western portion of Zone 1(B). The fill was said to be up to about 2m to 3m in depth. The dumping was continued up until about 15 years ago when Mr Knowles was not happy with the quality of fill that was being brought to the site i.e. too much concrete and building waste materials. Material however was still being illegally brought to the site without Mr Knowles consent with both Mr Knowles and Mr Valance chasing people off the site;
- Dams located within Zone 1(B) were often topped up with fill material that had been brought to the site as evident by the fragments of brick and concrete on the surface; and
- Approximately 60m east of the current dams was a former dam. The wall of the dam was breached and the water released. The dam was not backfilled but instead a diversion channel from the current dams was setup into this area. The diversion channel comprised an excavated channel which was grass covered with a section lined with well compacted sandstone cobbles/boulders; and
- Mr Valance made reference to an area located approximately 95m north of the current house building which was used for the dumping of various fill materials and waste. Mr Valance did not specify the type of waste dumped but indicated that several complaints by himself and Mr Knowles were made to Council and the EPA regarding the dumping and the quality of material being brought to site. One of the access pathways into this area is marginally located within the north-western portion of Zone 1(B).
- Mr Valance could not recall any other incidents of burnoff, fuel/chemical spills, fuel/chemical storage or any other issues of environmental concern apart from those mentioned above.

MR LLOYD TOWNSEND

Mr Townsend is the current Lands Coordinator of the Tallawarra Lands. Mr Townsend was questioned with regards to some recent Landfilling activities were being conducted during the test pitting field activities in central southern portion of Zone 2(A) i.e. the former landfill/tip area located approximately 270m west of the Ash Pond 1. It was observed that up to 3 semi-trailer trucks were making multiple runs/loads during the day and dumping fill material at the surface of the former landfill/tip area. The material was noted to be clayey gravelly soils which were being spread across the area and used as cover material. Mr Townsend indicated the material was being sourced from a stockpile of material located near the jetty approximate 200m south of the Tallawarra Power station. The material was originally sourced from a Cleary Bros quarry and comprised natural excavated material. The material was deemed to be 'clean' fill material.

MR CHRIS BRANDIS

Mr Brandis has been involved with the site since the late 1980s. Mr Brandis indicated areas to the north of the site have been used for grazing and to his knowledge, no filling has taken place. The area in the northeastern portion of the site is used by a pony club. Mr Brandis confirmed that a railway line existed along the eastern boundary of Zone 1(B) to transport coal. The area south of Ash Pond 2 was apparently used for dairy farming. Mr Brandis indicated to his knowledge that cattle dips were not used as part of the dairy farming operations.

There was some uncertainty as to whether the Ash Ponds were excavated or constructed on the original ground surface. Mr Brandis indicated that based on this observations of the ash pond area, it would appear that they were built on the original ground surface due to the height of the ash pond walls.

B.3 DECCW NOTICES

A search of the NSW DECC Contaminated Land Record website on the 8 February 2010 indicated that four notices issued for the site under the Environmentally Hazardous Chemicals Act (1985) or the Contaminated Land Management Act (1997). Three of the four notices associated with remediation have been revoked. One notice which still is current was issued to TXU Australia (Bairnsdale Power) Pty Ltd in 2003 for maintaining buried asbestos impacted material located in Ash Pond 1.

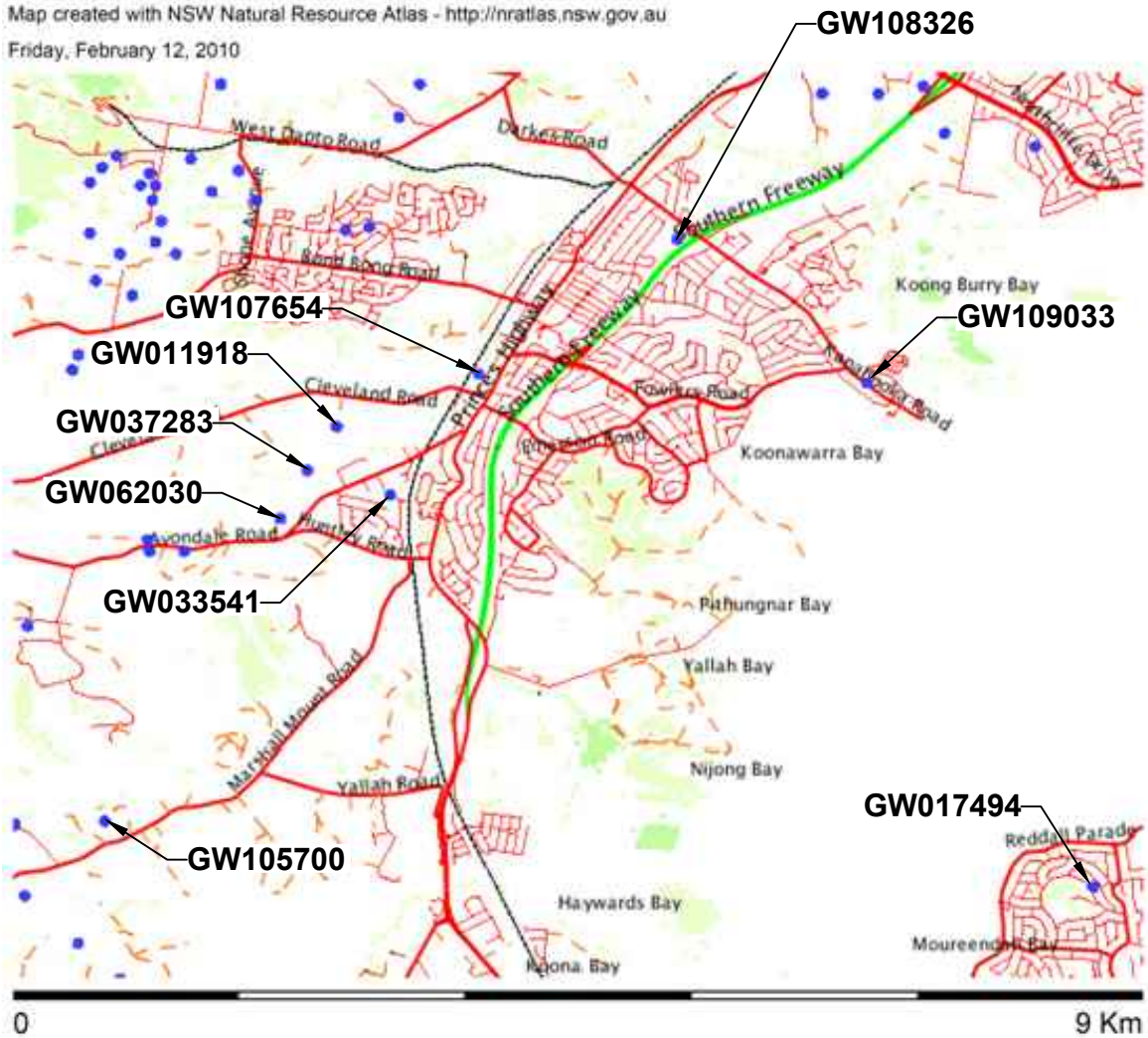
A copy of the search results is included in Appendix B-2.

Appendix B-1

Groundwater Bore Search Results

Map from the NSW Natural Resource Atlas

Map created with NSW Natural Resource Atlas - <http://nratlas.nsw.gov.au>
 Friday, February 12, 2010



Legend

Symbol	Layer
	Cities and large towns renderImage: Cannot build image from features
	Populated places renderImage: Cannot build image from features
	Towns
	Groundwater Bores
	Catchment Management Authority boundaries
	Major rivers
	Primary/arterial road
	Motorway/freeway
	Railway
	Runway
	Contour
	Background

Topographic base map

COPYRIGHT © 2010 NEW SOUTH WALES GOVERNMENT. MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND MAY CONTAIN ERRORS OMISSIONS. NO REPRESENTATION IS MADE AS TO ITS ACCURACY OR SUITABILITY

drawn	CCQ/LT	<p>coffey environments SPECIALISTS IN ENVIRONMENTAL, SOCIAL AND SAFETY PERFORMANCE</p>	client:	TRUENERGY		
approved	JMF		project:	GEOTECHNICAL, CONTAMINATION AND GROUNDWATER INVESTIGATION TALLAWARRA LANDS, YALLAH, NSW		
date	19/08/10		title:	GROUNDWATER BORE SEARCH WITH 4.5Km RADIUS OF SITE BOUNDARY		
scale	1:60 000		project no:	ENVIWOLL00250AB-R05	figure no:	FIGURE B1
original size	A4					

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Monday, March 1, 2010

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW011918

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW011918
LIC-NUM 10BL004814
AUTHORISED-PURPOSES DOMESTIC INDUSTRIAL STOCK
INTENDED-PURPOSES GENERAL USE
WORK-TYPE Bore
WORK-STATUS Supply Obtained
CONSTRUCTION-METHOD Cable Tool
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1952-01-01
FINAL-DEPTH (metres) 17.30
DRILLED-DEPTH (metres) 0.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY BRIDGEWATER ESTATE
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 214 - WOLLONGONG COAST
AREA-DISTRICT
CMA-MAP 9028-1N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6179652.00
EASTING 295710.00
LATITUDE 34 30' 16"
LONGITUDE 150 46' 29"
GS-MAP 0075D3

AMG-ZONE 56
 COORD-SOURCE GD.,ACC.MAP
 REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
 PARISH KEMBLA
 PORTION-LOT-DP 293

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH KEMBLA
 PORTION-LOT-DP 55

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	(Unknown)	0.00	3.90	152			(Unknown)
1	1	Casing	(Unknown)	0.00	12.10	127			(Unknown)

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Work Requested -- GW017494

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW017494
LIC-NUM 10BL009983
AUTHORISED-PURPOSES STOCK
INTENDED-PURPOSES STOCK
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD Cable Tool
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1959-12-01
FINAL-DEPTH (metres) 27.40
DRILLED-DEPTH (metres) 27.40
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY ROSEHILL
GWMA 603 - SYDNEY BASIN
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 214 - WOLLONGONG COAST
AREA-DISTRICT
CMA-MAP 9028-1N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6175047.00
EASTING 302290.00
LATITUDE 34 32' 50"
LONGITUDE 150 50' 43"
GS-MAP 0075D3

AMG-ZONE 56
 COORD-SOURCE PR.,ACC.MAP
 REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
 PARISH TERRAGONG
 PORTION-LOT-DP 1

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH TERRAGONG
 PORTION-LOT-DP 10 10970

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	(Unknown)	0.40	27.80	127			Suspended in Clamps

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
15.20	15.20	0.00	Fractured	6.00					(Unknown)
27.40	27.40	0.00	Fractured	6.00	0.15				(Unknown)

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	27.43	27.43	Shale	Water Supply	

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[Works Details](#) [Site Details](#) [Form A](#) [Licensed](#) [Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW033541

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW033541
LIC-NUM 10BL026435
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES IRRIGATION
WORK-TYPE Well
WORK-STATUS Test Hole
CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1968-02-01
FINAL-DEPTH (metres) 0.00
DRILLED-DEPTH (metres) 6.10
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA 603 - SYDNEY BASIN
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 214 - WOLLONGONG COAST
AREA-DISTRICT
CMA-MAP 9028-1N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6178953.00
EASTING 296185.00
LATITUDE 34 30' 39"
LONGITUDE 150 46' 47"
GS-MAP 0075D3

AMG-ZONE 56
 COORD-SOURCE GD.,ACC.MAP
 REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 16

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 6 751263

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Backfill	Backfill	0.00	6.00	914			

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK-CAT- DESC	S- W-L	D- D- L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
5.40	6.00	0.60	Unconsolidated	3.00					(Unknown)

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	5.48	5.48	Clay		
5.48	6.09	0.61	Sand	Water Supply	

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Groundwater Works Summary

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Work Requested -- GW037283

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW037283
LIC-NUM 10BL162508
AUTHORISED-PURPOSES DOMESTIC STOCK
INTENDED-PURPOSES DOMESTIC STOCK
WORK-TYPE Bore open thru rock
WORK-STATUS Supply Obtained
CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 1968-10-01
FINAL-DEPTH (metres) 32.90
DRILLED-DEPTH (metres) 32.90
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY CASSAR
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 214 - WOLLONGONG COAST
AREA-DISTRICT
CMA-MAP 9028-1N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6179191.00
EASTING 295469.00
LATITUDE 34 30' 31"
LONGITUDE 150 46' 19"
GS-MAP 0075D3

AMG-ZONE 56
 COORD-SOURCE GD.,ACC.MAP
 REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP LT 29 DP 23265

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 29 23265

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	Threaded Steel	-0.20	15.60	152			Suspended in Clamps

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK-CAT- DESC	S- W-L	D- D- L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
9.70	10.00	0.30	Unconsolidated	6.00		0.32			(Unknown)
14.30	14.60	0.30	Unconsolidated	6.00		0.63			(Unknown)
30.40	30.50	0.10	Fractured	6.00		1.26			(Unknown)
31.00	31.30	0.30	Fractured	6.00		4.55			(Unknown)

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL COMMENT
0.00	0.45	0.45	Topsoil	
0.45	2.43	1.98	Clay Grey Puggy	
2.43	9.75	7.32	Clay Sandy	
9.75	12.49	2.74	Silt Sandy Water Supply	
9.75	12.49	2.74	Gravel	
12.49	14.32	1.83	Clay Grey Puggy	
14.32	15.54	1.22	Silt Sandy Water Supply	
14.32	15.54	1.22	Gravel	
15.54	16.45	0.91	Shale Grey Sandy	

16.45 32.91 16.46 Tuff White Light Grey Dark Grey Water Supply

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW062030

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW062030
LIC-NUM 10BL122283
AUTHORISED-PURPOSES DOMESTIC IRRIGATION STOCK
INTENDED-PURPOSES IRRIGATION
WORK-TYPE Bore
WORK-STATUS (Unknown)
CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE
FINAL-DEPTH (metres) 6.10
DRILLED-DEPTH (metres) 0.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY N/A
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN 214 - WOLLONGONG COAST
AREA-DISTRICT
CMA-MAP 9028-1N
GRID-ZONE 56/1
SCALE 1:25,000
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6178686.00
EASTING 295247.00
LATITUDE 34 30' 47"
LONGITUDE 150 46' 10"
GS-MAP 0075D3

AMG-ZONE 56
COORD-SOURCE GD.,ACC.MAP
REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
PARISH CALDERWOOD
PORTION-LOT-DP 15

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH CALDERWOOD
PORTION-LOT-DP NOT AVAILABLE

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW105700

Works Details [\(top\)](#)

GROUNDWATER NUMBER	GW105700
LIC-NUM	10BL161971
AUTHORISED-PURPOSES	DOMESTIC
INTENDED-PURPOSES	DOMESTIC
WORK-TYPE	Bore
WORK-STATUS	Supply Obtained
CONSTRUCTION-METHOD	Down Hole Hammer
OWNER-TYPE	Private
COMMENCE-DATE	
COMPLETION-DATE	2004-02-12
FINAL-DEPTH (metres)	72.00
DRILLED-DEPTH (metres)	72.00
CONTRACTOR-NAME	
DRILLER-NAME	
PROPERTY	HOUSE WITH NO STEPS
GWMA	-
GW-ZONE	-
STANDING-WATER-LEVEL	43.00
SALINITY	
YIELD	0.20

Site Details [\(top\)](#)

REGION	10 - SYDNEY SOUTH COAST
RIVER-BASIN	214 - WOLLONGONG COAST
AREA-DISTRICT	
CMA-MAP	9028-1N
GRID-ZONE	56/1
SCALE	1:25,000
ELEVATION	
ELEVATION-SOURCE	(Unknown)
NORTHING	6175542.00
EASTING	293810.00
LATITUDE	34 32' 28"
LONGITUDE	150 45' 11"
GS-MAP	

AMG-ZONE 56
 COORD-SOURCE GIS - Geographic Information System
 REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 1//1039888

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 1 1039888

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	12.00	205			Down Hole Hammer
1		Hole	Hole	12.00	72.00	165			Down Hole Hammer
1	1	Casing	PVC Class 9	0.00	12.00	160	148		Screwed and Glued; Driven into Hole

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S-W- L	D-D- L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
62.50	63.00	0.50		43.00	64.00	0.02		1.00	500.00

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	6.00	6.00	clay		
6.00	72.00	66.00	siltstone		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW107654

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW107654
LIC-NUM 10BL165768
AUTHORISED-PURPOSES RECREATION (GROUNDWATER)
INTENDED-PURPOSES RECREATION (GROUNDWATER)
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Rotary Air
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-02-09
FINAL-DEPTH (metres) 54.00
DRILLED-DEPTH (metres) 54.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY DAPTO BOWLING CLUB LTD
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 6.00
SALINITY
YIELD 0.10

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6180221.00
EASTING 296918.00
LATITUDE 34 29' 59"
LONGITUDE 150 47' 17"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 1 1077277

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 1 1077277

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	24.00				Rotary Air
1		Hole	Hole	24.00	54.00				Rotary Air
1	1	Casing	P.V.C.	-0.30	28.00				Glued; Driven into Hole

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
19.00	19.05	0.05		6.00	0.20	24.00	0.50	Fresh	
40.00	40.15	0.15		6.00	3.60	45.00	0.50	Fresh	
42.00	42.10	0.10		6.00	0.50	47.00	0.50	Fresh	
46.00	46.10	0.10		6.00	0.10	51.00	0.50	Fresh	

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.00	1.00	TOPSOIL		
1.00	10.00	9.00	LANDFILL		
10.00	12.50	2.50	GREY CLAY		
12.50	26.00	13.50	GREY SANDSTONE/SHALE BANDS		
26.00	38.00	12.00	BLUE SHALE		
38.00	54.00	16.00	GREY SANDSTONE		

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW108326

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW108326
LIC-NUM 10BL600597
AUTHORISED-PURPOSES RECREATION (GROUNDWATER)
INTENDED-PURPOSES RECREATION (GROUNDWATER)
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Rotary Air
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-01-01
FINAL-DEPTH (metres) 54.00
DRILLED-DEPTH (metres) 54.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY DAPTO DANDALOO HOTEL
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL 1.00
SALINITY
YIELD 4.40

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6181654.00
EASTING 298576.00
LATITUDE 34 29' 13"
LONGITUDE 150 48' 23"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 8 560853

Licensed [\(top\)](#)

COUNTY CAMDEN
 PARISH CALDERWOOD
 PORTION-LOT-DP 8 560853

Construction [\(top\)](#)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	18.00	200			Rotary Air
1		Hole	Hole	18.00	54.00	160			Rotary Air
1	1	Casing	PVC Class 6	0.30	18.00	160			Glued; Driven into Hole
1	1	Opening	Slots - Vertical	15.00	16.00	160			PVC; SL: 1mm; A: 20mm

Water Bearing Zones [\(top\)](#)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
13.00	13.03	0.03		1.00		2.50		0.50	Brackish
40.00	40.10	0.10		1.00		4.40		0.50	Brackish

Drillers Log [\(top\)](#)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.20	0.20	TOPSOIL		
0.20	3.00	2.80	SANDY CLAY		
3.00	8.00	5.00	PUGGY CLAY		
8.00	16.00	8.00	COARSE GRAVEL		
16.00	30.00	14.00	GRANITE		

30.00	42.00	12.00	BLUE SHALE
42.00	54.00	12.00	GREY SANDSTONE

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Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW109033

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW109033
LIC-NUM 10BL601042
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2008-07-14
FINAL-DEPTH (metres) 95.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY WITHNALL
GWMA -
GW-ZONE -
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6180203.00
EASTING 300231.00
LATITUDE 34 30' 2"
LONGITUDE 150 49' 27"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A [\(top\)](#)

COUNTY CAMDEN
PARISH CALDERWOOD
PORTION-LOT-DP 32//1070753

Licensed [\(top\)](#)

COUNTY CAMDEN
PARISH CALDERWOOD
PORTION-LOT-DP 32 1070753

Water Bearing Zones [\(top\)](#)

no details

Drillers Log [\(top\)](#)

no details

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Appendix B-2

**Department of Environment, Climate Change and Water
Notices**



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Search results

Your search for: LGA: Wollongong City Council

Matched 23 notices relating to 11 sites.

Suburb	Address	Site Name	Notices related to this site
Bulli	7 Molloy Street	Scrapmetal Yard	1 former
Dapto	178 Kanahooka Road	Slag Dump	3 former
Fairy Meadow	46-58 Montague Street	Former Caltex Fuel Depot	1 current
Lysaghts	Springhill Road	BHP Area 21	1 former
Lysaghts	2 Five Islands Road	BHP No.2 Steelworks (Flat Products)	1 current and 2 former
Port Kembla	Darcy Road	Orica Chemnet Port Kembla	1 current
Port Kembla	Flinders Street	Port Kembla Bunkering Facility	2 current
Port Kembla	Military and Darcy Roads	Port Kembla Copper	1 current and 3 former
Stanwell Tops	Plateau Road	Christian Conference Centre	1 current
Unanderra	45-49 Princes Highway	Prime - Unanderra	2 current
Yallah	Tallawarra Road	Tallawarra Power Station	1 current and 3 former

Page 1 of 1

8 February 2010



Site and notice details

Your search for: LGA: Wollongong City Council

23 notices on 11 sites were matched.

Area No: 3025

The information below was correct at the time the notices were issued.

Site: Tallawarra Power Station

Address: Tallawarra Road, Yallah, 2530

LGA: Wollongong City Council

Owner: TXU Australia (Bairnsdale Power)

Lot 4 DP 208657

Notices relating to this site (1 current and 3 former)

(Map) where available, maps show the part of the site affected by the notice

* notice matched search criteria

Notice recipient	Notice type & number	Status	Date
TXU Australia (Bairnsdale Power) Pty Ltd	Notice for Maintaining Remediation* 28019 Map	Current	Issued 11 Aug 2003
Pacific Power	Notice for Maintaining Remediation* 28003	Former	Issued 26 Aug 1998 Revoked 11 Aug 2003
Pacific Power	Remediation Order* 506	Former	Issued 26 Aug 1998 Revoked 01 Sep 1998
Electricity Commission of NSW	Remediation Order* 282 Map	Former	Issued 21 Sep 1990 Revoked 01 Sep 1998

8 February 2010

Environment Protection Authority**Maintenance of remediation notice****Section 28 of the Contaminated Land Management Act 1997**

REGISTERED MAIL

TXU Australia (Bairnsdale Power) Pty Ltd
Level 33
385 Bourke Street
MELBOURNE VIC 3000

Notice Number: 28019

Area # 3025

Date: **11th August, 2003**

TXU Australia (Bairnsdale Power) Pty Ltd ("the recipient") must maintain remediation action in accordance with the requirements set out in this notice.

This notice is issued under section 28 of the *Contaminated Land Management Act 1997* ("the Act").

1. Land to which this notice applies ("the land")

This notice applies to the land located at Princes Highway, Yallah, NSW, being the whole of Lot 109, DP 1050302, and currently owned by the recipient.

2. Previous Notices

Previous notices that have been issued by the Environment Protection Authority ("EPA") in relation to the land are:

- Notice # 282, issued to Pacific Power ("the former owner") on 21 September 1990, under section 35 of the *Environmentally Hazardous Chemicals Act 1985*; and
- Notice # 28003, issued to Pacific Power ("the former owner") on 26 August 1998, under section 28 of the *Contaminated Land Management Act 1997*.

3. Commencement of maintenance of remediation notice

This notice takes effect on **11th August, 2003** and continues in force until it is otherwise varied or revoked.

4. Maintenance requirements

Asbestos materials are buried at the site within the land which is referred to as the "existing asbestos disposal site" on Attachment 1.

Crushed concrete demolition debris which is known to be or which may be contaminated with asbestos is buried where the former power station was located on the land (the "demolition site"). (Refer to areas shown in drawing at Attachment 2). A locality plan of the site showing both of these areas can be found in Attachment 3

The EPA requires the recipient to maintain the following remediation action in relation to the land:

- a. The recipient must maintain the integrity of the capping layer over the asbestos contaminated material and crushed concrete buried at the existing asbestos disposal site and the demolition site in order to prevent the emission of asbestos fibres and potential harm to any person from the asbestos or the asbestos fibres; and
- b. The recipient must ensure that no work or activity that may result in any disturbance to any part of the existing asbestos disposal site and/or the areas at the demolition site known to be contaminated with asbestos shall be undertaken unless prior written approval has been obtained from the EPA and the work is undertaken in accordance with all requirements of that approval; and
- c. The recipient must ensure that:
 - (i) Prior to any person carrying out any work or activity that may result in disturbance to any part of the areas of the demolition site which may be contaminated with asbestos, samples of the buried material in that part are collected and tested for asbestos; and
 - (ii) If asbestos is detected, the work or activity is not to be undertaken unless prior written approval has been obtained from the EPA and the work is undertaken in accordance with all requirements of that approval; and
- d. The recipient must ensure measures are put in place to prevent people entering and disturbing the above areas unless:
 - (i) they are disturbing the areas whilst undertaking work or activities that are approved by the EPA; or
 - (ii) they are authorised by the recipient to enter the areas for the purposes of maintaining and/or inspecting the areas.

5. Notification of change of owner/occupier

At least 30 days prior to the recipient selling, transferring, leasing or otherwise relinquishing responsibility for the land, the recipient must give written notification of this to the EPA including the name of the prospective owner or occupier.

.....
Carolyn Strange
Director Contaminated Sites
(by Delegation)

Attachments:

- [Attachment 1 – Drawing of 'Existing asbestos disposal area'.](#)
- [Attachment 2 – Drawing of the former power station 'demolition site'.](#)
- [Attachment 3 – Locality Plan of former Tallawarra Power Station site](#)

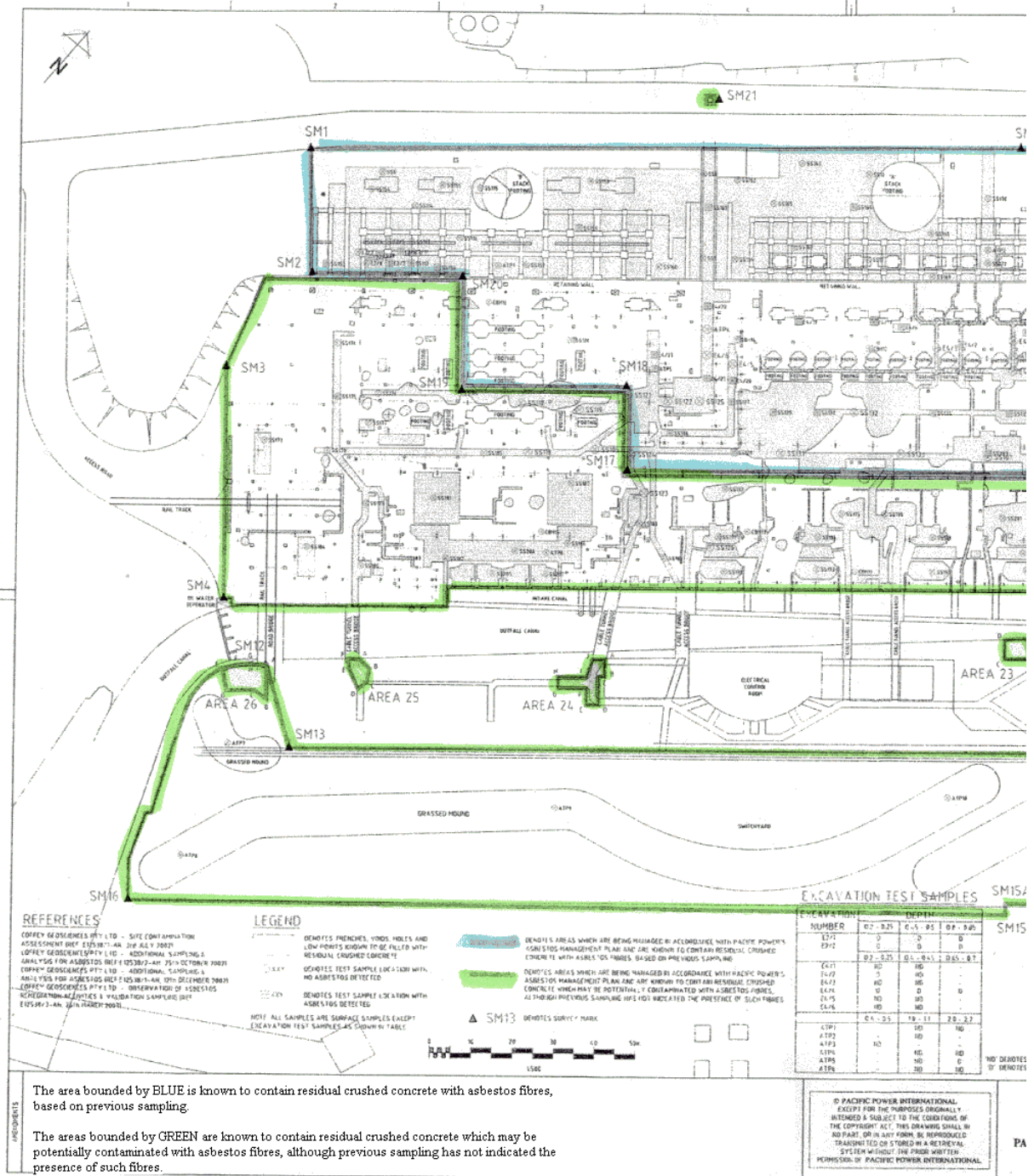
NOTE:

Breaches of this Notice

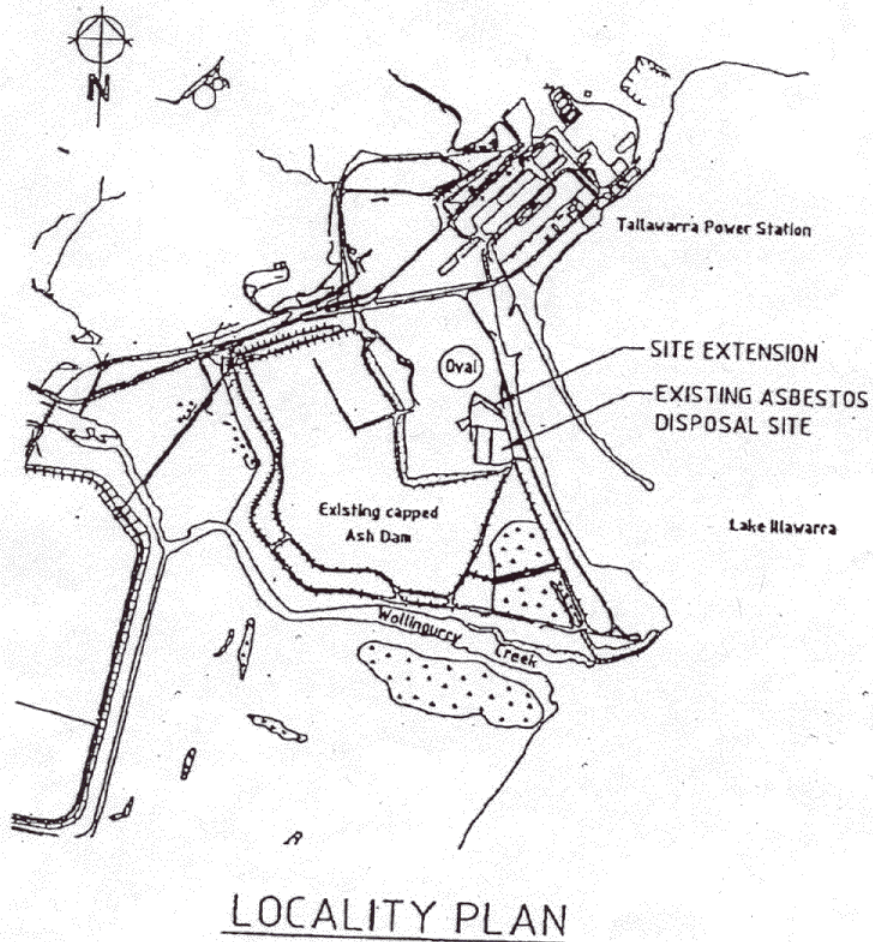
A person who fails to comply with a notice issued under section 28 of the Act is guilty of an offence. Heavy penalties may be imposed where a person fails to comply with directions given in a notice issued under section 28 of the Act.

Information recorded by EPA

Section 58 of the Contaminated Land Management Act 1997 and clause 6 of the Contaminated Land Management Regulation 1998 requires the EPA to maintain a public record. A copy of this notice will be included in the public record.



Attachment 3: Locality Plan of former Tallawarra Power Station site

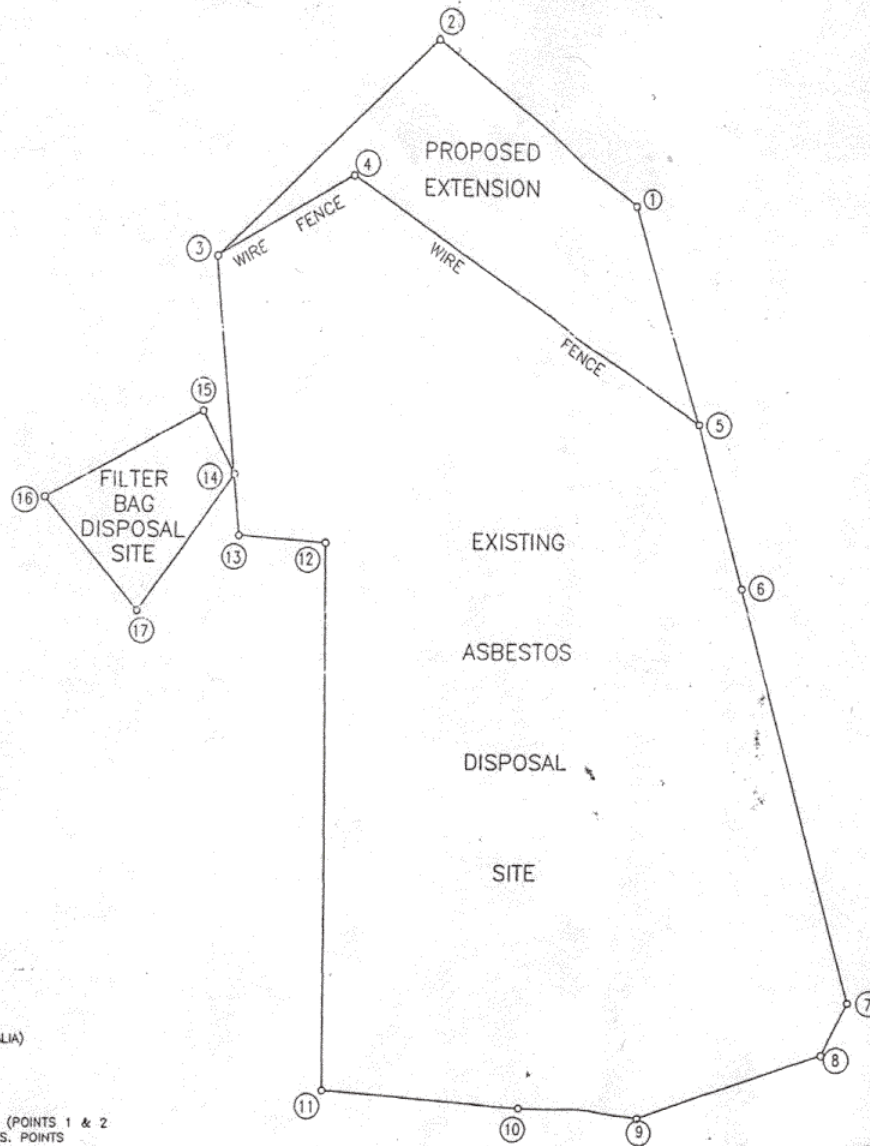


Extract from:

Company: Pacific Power International

Drawing Title: Tallawarra Power Station – Asbestos Disposal Site Proposed Extension

Drawing Number: TA823941



NOTE :

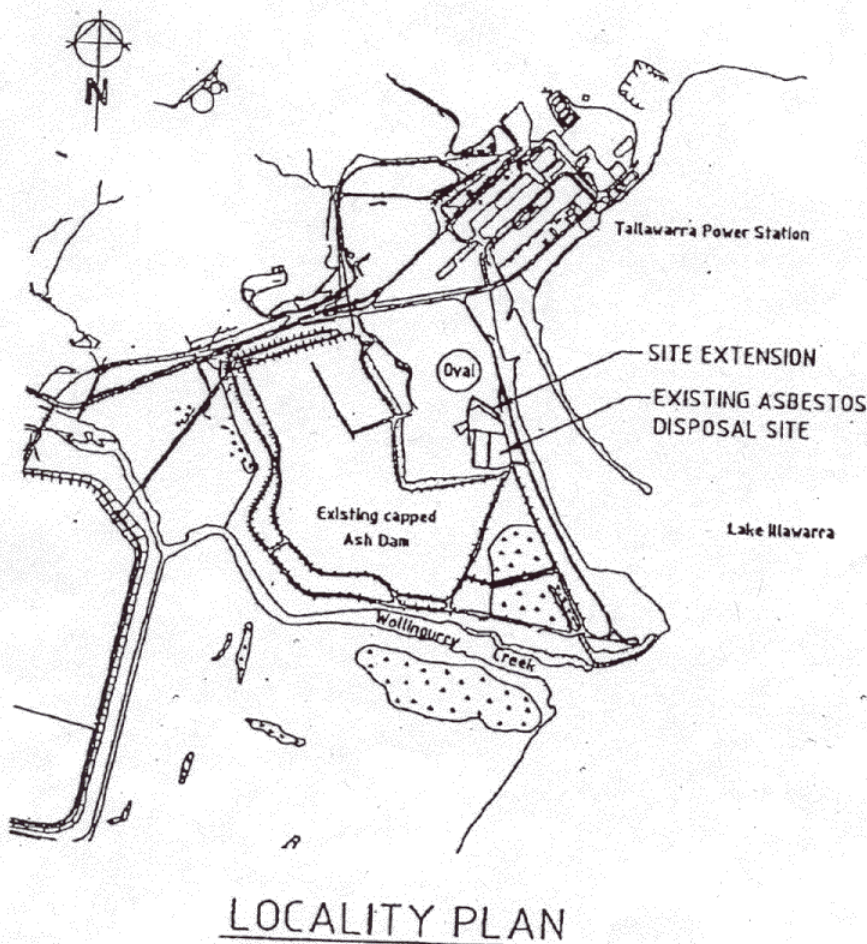
1. ALL CO-ORDINATES ARE MGA (MAP GRID OF AUSTRALIA)
2. ORIGIN OF CO-ORDINATES PM 54621
E 298,861.386, N 6,177,431.98 ZONE 56
SOURCE: SCIMS 1/11/02
3. POINTS 1-5 HAVE BEEN LOCATED BY FIELD SURVEY (POINTS 1 & 2 ARE NOT FENCED AND ARE LOCATED BY SURVEY STAKES, POINTS 3, 4 & 5 ARE FENCE POSTS).
4. POINTS 6-17 HAVE NOT BEEN SURVEYED AND HAVE BEEN CONVERTED FROM ISG CO-ORDINATES SHOWN ON PACIFIC POWER PLAN DATED 27/7/90.

No	Subject	Date	Initial
AMENDMENTS			

This drawing is copyright to G.A. Goodman Surveys Pty Ltd. No part of this drawing including the whole or part of the same shall be used for any other purpose nor by any other person nor by any third party without the prior written consent of G.A. Goodman Surveys Pty Ltd.

G.A.

Attachment 3: Locality Plan of former Tallawarra Power Station site



LOCALITY PLAN

Extract from:

Company: Pacific Power International

Drawing Title: Tallawarra Power Station – Asbestos Disposal Site Proposed Extension

Drawing Number: TA823941

Appendix B-3

Documentation on allegations of dumping of drums



State Pollution Control Commission



07.25

Mr J Weidemier
 Assistant General Manager
 Electricity Commission of NSW
 G P O Box 5257
 SYDNEY NSW 2001

State Office Block
 84 Crown Street
 Wollongong 2500
 P.O. Box 513 Wollongong East 2500

Our Reference:

280,195A/2 DNN:DT

Your Reference:Contact:

Douglas Nicolaisen 268118
 Telephone: 042 268100
 268111

Facsimile: 042 ²⁶⁸⁶⁰⁰~~268268~~

9 AUG 1990

Dear Mr Weidemier

PCB Investigation - Tallawarra Power Station

This letter confirms the meeting between you and Messrs J Zahra and J Bryant and Mr D Nicolaisen and myself at the Commission's Wollongong Office on 8 August 1990, when the Summary Report of your investigations thus far in to allegations of toxic waste disposal at Tallawarra was tabled and discussed.

I now wish to confirm that on the evidence of analysis of samples taken so far, and the results of other investigations, it is not likely that PCB wastes have been disposed of in the ash pond.

On the matter of the alleged burial of up to 32 drums in the ash pond at Tallawarra, possibly containing waste oil, we note the following:

1. Mr Caddle stated he saw a drum or drums buried in the waste dump.
2. The report from SETS of the magnetometer survey that was carried out for your Commission, stated that the survey results indicated the possibility that one or more drums could have been buried at each of the anomaly locations within the surveyed area.
3. Your report states that 30 drums containing bearing oil were removed from Kangaroo Valley to Tallawarra Power Station but that the subsequent movements of those drums is not clear.
4. Initial soil samples taken by Dames and Moore showed the presence of hydrocarbons near the waste dump.
5. Mr K Miller has stated that he saw a number of drums lying and standing in the "..... asbestos hole in the ash pond at Tallawarra....".
6. The Electricity Commission has confirmed that the area in question was used as a rubbish disposal dump.

Based on the above information, some or all of which could of course be challenged, we believe there could well be a number of drums containing oil buried in the rubbish dump in the ash pond. Would you please advise what further action you now propose to resolve this matter.

Yours faithfully

Joe Woodward
 JOE WOODWARD
 Regional Manager - South Coast



001.008.001

FAXED
 9-8-90

**MEDIA
RELEASE****ELECTRICITY
COMMISSION**

Not to be published or
broadcast before

The Electricity Commission of N.S.W
Electricity House GPO Box
Park and Elizabeth Streets Sydney
Sydney Telephone 268

Time _____

Date of issue

13.7.98

Date _____

CONTACT Name Peter McIlveen

TELEPHONE Office 265 6800 Home _____



**TALLAWARRA POWER STATION SITE
ALLEGED DISPOSAL OF PCB WASTE**

The Commission is concerned about allegations of PCB dumping at Tallawarra Power Station site.

The Commission has been involved for many years in a very active programme of PCB eradication and has worked closely with all relevant authorities in the proper disposal process.

As soon as the Commission was notified about the claims, it sought immediate high level discussions with senior State Pollution Control Commission officers.

The Commission is eager to meet at Tallawarra with SPCC officers to ensure that there is a proper investigation and will send its senior scientific officer down from Sydney, together with the ex-Station Manager and the supervisor at the time of the alleged dumping.

Without these qualified and knowledgeable officers in attendance a proper investigation would be doubtful.

The Commission has never denied SPCC access to the site, which it cannot anyway, and has in fact assisted the SPCC in any previous inspections of Commission sites.

Handwritten signature and initials

THE ELECTRICITY COMMISSION OF NEW SOUTH WALES



Electricity House
Park and Elizabeth Streets Sydney
Postal Address:
G.P.O. Box 5257 Sydney 2001

LP

Dr W Forrest
Acting Director
State Pollution Control Commission
157 Liverpool Street
SYDNEY NSW 2000

Facsimile: (02) 268 6529
Telex: 120454
Telephone: 268 8111

Extension:

Your Ref:

Our Ref:

Weidmier

Dear Dr Forrest

ALLEGATIONS CONCERNING THE DUMPING OF TOXIC WASTE
DRUMS AT TALLAWARRA ASH DISPOSAL SITE

In view of the continuing allegations being made in the press and the need to conduct proper investigations into the matters being raised, the General Manager of the Electricity Commission has instituted a committee comprising internal officers and outside practitioners in the field of environmental toxic waste management to inquire and provide a written report within fourteen days. The terms of reference are attached for your information.

The Commission is taking this action to inform itself of the events during operations over the past twelve to fifteen years. As you would appreciate an extensive review of records is required together with the conduct of interviews of past and present employees.

It is essential that such enquiries are made in a proper manner and for this reason the assistance of external practitioners has been sought.

I would expect that the SPCC would conduct its own enquiries under its charter, and as in the past the Commission will continue to assist the SPCC in the conduct of its enquiries.

In order that the Electricity Commission is able to properly define the substance of the allegations being made it will be seeking the assistance of the SPCC in this regard.

In the meantime I would be pleased to have your comments on what further actions the Commission might need to take to ensure that its investigations are conducted in a proper fashion and in the best interests of the community.

Yours faithfully

J Weidmier 25/7/90
J WEIDMIER
ASSISTANT GENERAL MANAGER



INQUIRY INTO TALLAWARRA TOXIC WASTE ALLEGATIONS

TERMS OF REFERENCE

The Committee is to report on:

1. The substance of the allegations being made.
2. Review any Commission records in order to determine if any drums of toxic waste have been disposed of as alleged.
3. Carry out any necessary investigations, interviews of Commission personnel in order to determine if any instructions were given to dispose of any toxic waste in the alleged manner.
4. Seek the co-operation of officers of the SPCC in order to validate any information which becomes available to the SPCC on alleged dumping of toxic waste drums.
5. The Committee is to provide a written report within 14 days.

**FINAL REPORT OF THE
COMMITTEE INVESTIGATING
ALLEGATIONS MADE
RE THE DUMPING OF DRUMS
OF HAZARDOUS CHEMICALS
IN TALLAWARRA POWER STATION**

1. ORIGIN OF COMMITTEE ON INQUIRY

The General Manager directed Assistant General Manager/Environment & Engineering Services to convene an inquiry (see Appendix A) following allegations initially made by former Tallawarra Power Station Cleaner/Labourer, Mr Caddle, that he found a buried drum he suspected contained a hazardous substance when operating a backhoe to prepare a trench in the approved asbestos disposal area late in 1988 (see Appendix B Mr Caddle's Allegations).

Mr Caddle's allegations were made through Miners Federation Solicitor, Mr Mark McDonald to the media and the South Coast Regional Office of State Pollution Control Commission (SPCC). The basis of Mr Caddle's claim was subsequently found to be in an unsigned statement (Appendix C) which apparently had been prepared for the Huntley Inquiry but not admitted by the Inquiry.

In cooperating with the inquiry the SPCC also made available a signed statement by former Electricity Commission Tallawarra truck driver, Mr Miller, which they had also received through Mr McDonald (Appendix D).

2. METHODOLOGY UTILISED IN INQUIRY

The methodology used in the inquiry is set out in Appendix E. The relevant material gathered to support the findings is included in the various appendices - a listing of which appears in below in paragraph 6.

3. FINDINGS OF THE INQUIRY

Mr Caddle's Allegations - Following Mr Caddle's public statements in which he announced his clear recollection of the exact location of the drum, a magnetometer survey was carried out over the area and no indications were apparent within 5 metres of the location as determined on site by Caddle. Appendix F contains the Dames and Moore report of the magnetometer survey.

In respect of the this matter, the inquiry concluded that Mr Caddle's allegations are unfounded.

Following detailed investigations by the Committee (see Appendix G) which included a review of records covering the handling of PCB's in the early 1980's, the Committee concluded:

That no PCB's were transported from Kangaroo Valley to Tallawarra Power Station and in fact, that there were no PCB's in Tallawarra Power Station.

The SPCC, following examination of the interim report which was presented during discussions on 8th August, 1990 agreed with the Committee's findings in respect to PCB's. On 9th August, 1990 SPCC confirmed "... it is not likely that PCB wastes have been disposed of in the ash pond." The "Summary of ECNSW Investigation Findings to Date" (i.e., the Summary of the interim report of 8th August, 1990) is enclosed as Appendix H.

Once it was clear PCB's were not an issue, the General Manager agreed that the inquiry should redirect its attention to pursuing the movement of 30 or so drums of waste bearing oil which were identified during the inquiry. The drums were transported from Kangaroo Valley Power Station (following a flood in 1977) to Tallawarra Power Station (see Appendix I).

In respect to the latter investigation, from the evidence available and statements from witnesses about the procedure for disposal of such material at that time (see Appendix 6), the Committee concluded that:

there was no practical reason why drums of oil should have been buried in the ash dam asbestos disposal area and it is most likely that these drums were disposed of in accordance with the waste disposal procedure.

4. SUMMARY OF MAJOR FINDINGS

- A. MR CADDLE'S ALLEGATIONS ARE UNFOUNDED.
- B. THAT NO PCB'S WERE TRANSPORTED FROM KANGAROO VALLEY TO TALLAWARRA POWER STATION AND IN FACT THERE WERE NO PCB'S IN TALLAWARRA POWER STATION.
- C. IN RESPECT OF THE 30 OR SO DRUMS OF WASTE BEARING OIL EX KANGAROO VALLEY POWER STATION - THERE WAS NO PRACTICAL REASON WHY DRUMS OF OIL WOULD HAVE BEEN BURIED IN THE ASH DAM ASBESTOS DISPOSAL AREA AND IT IS MOST LIKELY THAT THESE DRUMS WERE DISPOSED OF IN ACCORDANCE WITH THE WASTE DISPOSAL PROCEDURE.

5. COST OF INQUIRY

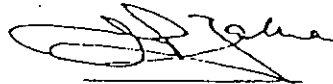
The total chargeable costs which the Commission has incurred in carrying out these inquiries is approximately \$81,595.

6. INDEX TO APPENDICES

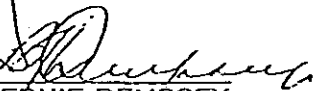
- A Memo Directing an Inquiry Committee to Investigate Allegations
- B Mr Caddle's Allegations
- C Unsigned Statement - Mr Caddle
- D Mr Miller's statement
- E Minutes of 1st Meeting - Inquiry Committee
- F Dames and Moore Report
- G Review of Records and Notes of Interviews
- H Summary Report of ECNSW findings to date (8th August, 1990)
- I Interim Report (to General Manager)



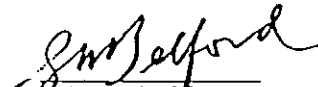
JOHN WEIDEMIER
ECNSW



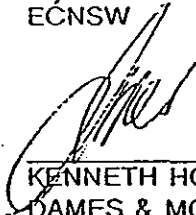
JOE ZAHRA
ECNSW



BERNIE DEMPSEY
ECNSW



BILL BELFORD
CONSULTANT



KENNETH HOLMES
DAMES & MOORE

Signatures dated 7th September, 1990.

719



STATE POLLUTION CONTROL COMMISSION

WOLLONGONG REGIONAL OFFICE - SOUTH COAST BRANCH

STATE GOVERNMENT OFFICE BLOCK

B4 CROWN STREET

WOLLONGONG

TELEPHONE: (042) 268100

FACSIMILE: (042) 268600

MESSAGE TO:

TOM BRYANT.

FAX NUMBER:

02-2688277

FROM:

DOUGLAS NICOLAISEN

DEP. REG. MANAGER SOUTH COAST

PHONE NUMBER:

042.268118.

COMMENTS:

As discussed - Pre forward
original reports & comments asap.

DATE:

24.7.90.

NO OF PAGES FOLLOWING:

2

ORIGINAL DOCUMENT(S) TO FOLLOW YES/NO

YES



438
5390



State Pollution Control Commission

CERTIFIED MAIL
 General Manager
 Electricity Commission of New South Wales
 G P O Box 5257
 SYDNEY NSW 2001

State Office Block
 84 Crown Street
 Wollongong 2500
 P.O. Box 513 Wollongong East 2500

Our Reference:
 280,195A/1 DNN:DT
Your Reference:

Contact:
 Douglas Nicolaisen 268118
 Telephone: 042 268100
 268111
 Facsimile: 042 ~~268600~~ 268268

Dear Sir

24 JUL 1990

PCB Investigation - Tallawarra Power Station

This letter confirms the meeting between your Messrs T Bryant and T Cook and our Mr D Nicolaisen and me at Wollongong on 20 July 1990, when your preliminary report of the work done by Dames and Moore to locate the possible presence of PCB's or other toxic wastes at Tallawarra Power Station was discussed.

We now confirm our request that all original reports and comments from the magnetometer and soil gas sampling should be forwarded to this office as soon as possible. Similarly, the outstanding soil sample analysis results should be forwarded as soon as they are available.

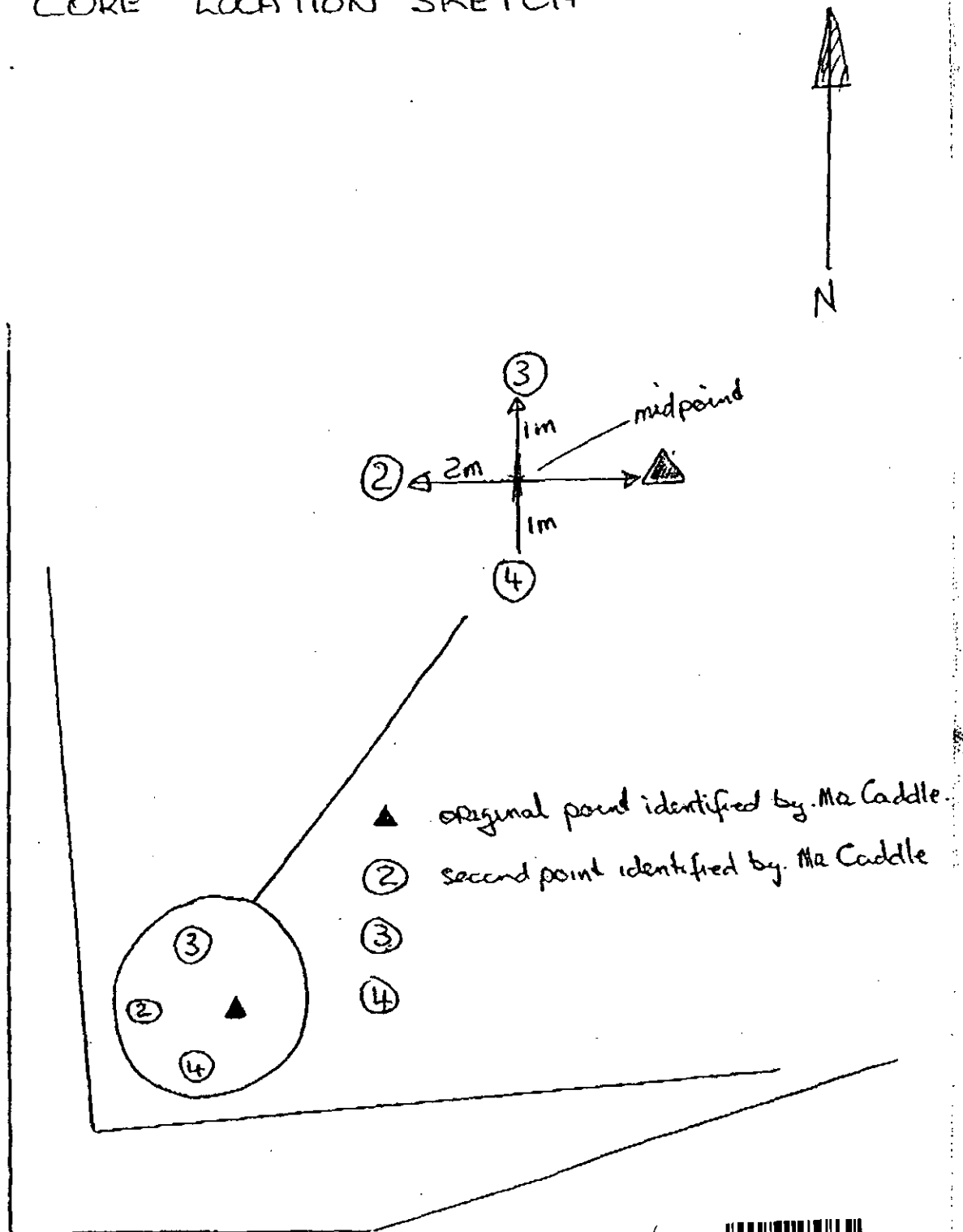
We further confirm, in accordance with Section 1 of the the Notice under Section 35 of the Environmentally Hazardous Chemicals Act, 1985, dated 18 July 1990, served on your Commission that a pattern of four core samples are to be taken from the area of the asbestos disposal site identified by Mr P Caddle, and tested for the presence of PCB's.

The location of the cores is identified on the attached sketch. You should advise Mr Nicolaisen or Mr Woodward at this office of the day the work is to be done, prior to it commencing. Any queries you may wish to make in this matter should be directed to Mr D Nicolaisen or me.

Yours faithfully

JOE WOODWARD
Regional Manager - South Coast

CORE LOCATION SKETCH



CORES TO BE DRILLED TO 3 METRES BELOW EXISTING SURFACE LEVEL AT THE POINTS MARKED ▲, ①, ②, ③. SAMPLES ARE TO BE COLLECTED OF SOIL AT 2 METRES AND 3 METRES DEPTH IN EACH BORE AND TESTED FOR P.C.B

Prepared by D. Nicolaisen
24.7.90

LP

*Document with no address
- from the Commission
- he advised he will advise
- next week when in Sydney
- may call in Mon/Thurs*

Mr J Woodward
Regional Manager - South Coast
State Pollution Control Commission
PO Box 513
WOLLONGONG EAST NSW 2500

280,195A/2 DNN:DT

J 17/8

Dear Mr Woodward

Thank you for your letter 9th August, 1990 in which I note that you have now accepted that "it is not likely that PCB wastes have been disposed of in the ash pond of Tallawarra Power Station".

It is however noted that further to various evidence offered by the Electricity Commission, SPCC "believe there could well be a number of drums containing oil buried in the rubbish dump in the ash pond". However you noted that "some or all of which (information) could of course be challenged. In view of your comments our investigations have been continued.

In that regard we would confirm the following.

1. That the Commission has already carried out extensive investigations at some considerable cost with your agreement and direction in order to establish the substance or otherwise of Mr Caddle's unsigned statement and various comments made to yourselves and the media. The results of these extensive investigations have revealed quite positively that Mr Caddle's claim is unfounded. You may remember that Mr Caddle not only said he saw a drum but claimed to have positively identified the location.
2. With regard to the SETS' comment "that the results indicated the possibility that one or more drums could have been buried at each of the anomaly locations within the surveyed area". I feel that this needs further explanation of the process used by Dames and Moore to draw the conclusions as contained in their report.

Dames and Moore used the services of SETS to carry out the on-site measurements. SETS operator at site (Mr O'Connell) in his initial interpretation concluded that the anomalies registered in the survey were not 200 litre drums. A second opinion was then sought by Dames and Moore from Mr P Gidley of ENCOM who prepared the software package used by SETS to interpret the data.

Mr Woodward
State Pollution Control Commission

The Dames and Moore report conclusion

"Only three magnetic anomalies were detected. The amplitude and intensity of the two northern most anomalies indicate that they are caused by point source (that is isolated) bodies buried at a depth of approximately two metres. The intensity of the signals are consistent with objects more dense than 200 litre drums and it is not considered likely that these anomalies are caused by such drums. The anomaly detected at the south western corner is shielded by the field distortions caused by the fence, however is consistent with a quite small body of metal"

is based on the Gidley interpretation.

3. With regard to the movement of some 30 drums of waste bearing oil which were moved from Kangaroo Valley to Tallawarra some 10 years ago. The Commission's investigations were able to identify the movement of these drums into the power station. It also clears the confusion that existed over the storage of them in Tallawarra (as a result of industrial action rather than concern over hazardous wastes), and established that the practice of waste oil disposal used by the Electricity Commission was clearly being used at Tallawarra. Evidence exists that in the period in question some 54 drums of waste oil were sold together with some 44,000 litres of bulk waste oil all from Tallawarra Power Station. There would be no purpose or would it be practical for the Commission to record the movement of drums containing oil. The Commission has conducted further investigations in this regard and have clear statements from a previous Power Station Manager at Tallawarra, Mr Norm Emslie stating "... it is unlikely someone would have given such a direction to dump the drums as it would be pointless to have done so in that there was a well established procedure for the handling of waste oil".

Mr Emslie also advised that your Mr Nicholaisen had contacted him and had also discussed these issues.

From all of the evidence collected and summaries obtained it is a reasonable conclusion that the drums in question have been included in these processes. The Commission has also received statements given by Mr Ted Scott, a past foreman in Tallawarra Power Station who was directly responsible for the daily oversight of the area in question.

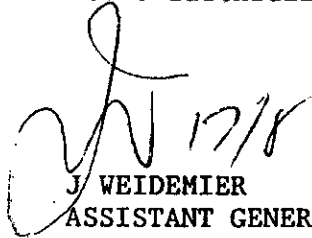
4. You note "that initial soil samples taken by Dames and Moore showed that presence of hydrocarbons near the waste dump". Further testing by Australian Analytical laboratories on the sample which tested positive to hydrocarbons clearly indicates that the hydrocarbon was not an oil but a high molecular weight hydrocarbon polymer. In addition subsequent testing by Dames and Moore on six additional locations have not shown the presence of hydrocarbons.
5. The only signed statement available in this matter is the one you have referred to by Mr Miller. As discussed recently I have found the statement somewhat confused and as suggested by you at our meeting it may be necessary to formally investigate Mr Miller's allegations.

Mr Woodward
State Pollution Control Commission

6. As outlined in the various information provided to you, Commission operated an asbestos disposal area and a rubbish dump in the Tallawarra Power Station ash disposal pond. The asbestos disposal area was not utilised as a general rubbish dump however as clearly stated in the Dames and Moore report when disposing of asbestos, various components of plant bearing asbestos would have been placed in the area. The asbestos disposal area therefore is not regarded as a general rubbish dump.

Thank you for the opportunity to clarify the points you have raised and we would be pleased to discuss these matters further with you.

Yours faithfully



J WEIDEMIER
ASSISTANT GENERAL MANAGER

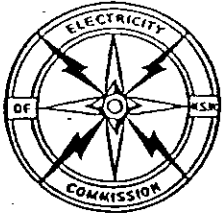
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Tallahassee File

TRANSMISSION REPORT

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ECNSW SCIENTIFIC SVS

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TIME TX	(FRI) AUG 17, 11:45
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DESTINATION	SPOC WCOM
RESULT	O. K.
PAGES	4 PAGE(S)
MODE	GS



THE ELECTRICITY COMMISSION OF NEW SOUTH WALES

MANAGEMENT - FACSIMILE MESSAGE

FAX NO.: (042) 26 8600

FROM FAX NO.: (02) 261 5898
TELEX NO.: 120454
TELEPHONE NO.: (02) 268 6120
POSTAL ADDRESS: GPO BOX 5257
SYDNEY NSW 2001
ADDRESS: ELECTRICITY HOUSE
CNR PARK & ELIZABETH STS
SYDNEY NSW 2000

TO: MR JOE WOODWARD
STATE POLLUTION CONTROL COMMISSION

FROM: JOHN WEIDEMIER
ASSISTANT GENERAL MANAGER

SUBJECT: ATTACHED LETTER

DATE: 17th August, 1990



NO. OF PAGES TO FOLLOW:

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Appendix C

Site Photographs

**Geotechnical, Contamination and Groundwater Investigation,
Tallawarra Lands, Yallah, NSW**

Zone 1(B) – Observations



Photo 1 - Looking south-east along the lake foreshore of Zone 1(B) Note rock outcropping highlighted



Photo 2 - Looking east along the major west-east running ridgeline shown dividing Zone 1(B)



Photo 3 - Looking east down the broad valley towards Lake Illawarra in Zone 1(B).
Area of boggy ground indicated approximately.



Photo 4 - Looking north-east up a man made gully or depression on the southern side
of the main ridge line Zone 1(B)



Photo 5- Fill soils with brick and concrete fragments in dam wall located in central northern portion of Zone 1 (B)



Photo 6 - Fill soils with brick and concrete fragments/slabs nearby the dams located in the central northern portion of Zone 1 (B). Also note voids caused by rabbit burrows.



Photo 7 - Horse riding yard constructed from mounded fill soils denoted by rubber tyres in Zone 1(B)



Photo 8 - Panoramic west to east across Zone 1(B)



Photos 9 to 15 - Several photographs of the disused buildings etc in Zone 1(B)

Zone 2(A) – Observations



Photo 16 - Looking southeast along the Lake Illawarra foreshore, Zone 2 (A).



Photo 17 - Looking northwest across a grass covered localised depression associated with the filling of the road Zone 2 (A).



Photo 18 - Looking northeast at the face of the waste disposal area at southern central portion of Zone 2(A)



Photo 19 - Fragments of fibre cement identified in fill soils at the waste disposal area indicated in Photo 18



Photo 20 - Looking southwest at cover material used at the waste disposal area, Zone 2(A)



Photo 21 - Looking west to north west from southeast corner of Ash Pond 1, Zone 2(A)



Photo 22 - Looking south along an access road comprising coalwash /slag approximately 6m above the ground surface of Ash Pond 1 And 2 in Zone 2(A) which is located on the left-hand side of photo



Photo 23 - Looking south at a stockpile of slag fill. Slag noted on the surface of most of the access roadways in Zone 2(A)



Photo 24 - Looking west at the former coal fired burner in Zone 2(A)



Photo 25 - Looking West at a mound of coal used by the burner indicated in Photo 24 , sheet metal debris and a disused shed in the background of Zone 2(A)

Zone 2(B) – Observations



Photo 26 – Valley with creek channel running from northwest to southeast through dams (background of photo). A soft boggy zone is highlighted.



Photo 27 – Looking southeast -water ponded in creek channel.



Photo 28 – Gully Erosion



Photo 29 - Looking west along the toe of the ridgeline slope. The toe of the slope is indicated by a red line.