



Government of **Western Australia**
Department of **Environment and Conservation**

Your ref: L5343/1989/6
Our ref: NWK2001
Enquiries: Bradley Cox
Phone: 9182 2034
Fax: 9144 1118
Email: Bradley.cox@dec.wa.gov.au

The Manager
Kitchener Mining No Liability
PO Box 2791
SOUTH HEDLAND WA 6722

Dear Sir/Madam

ENVIRONMENTAL PROTECTION ACT 1986 – LICENCE L5343/1989/6

Bamboo Creek Gold Mine
M45/480
Marble Bar WA 6760

You are advised that your application for a licence to operate the works prescribed under the *Environmental Protection Act 1986* at the above-mentioned location has been approved subject to the attached conditions. Enclosed is your licence number **L5343/1989/6**.

If any aspect of the conditions of licence aggrieves you, you may lodge an appeal, accompanied by the \$50.00 fee, with the Minister for the Environment within 21 days from the date on which this licence is received. Members of the public may also appeal conditions. Please contact the Appeals Registrar at the Office of the Appeals Convenor on 6467 5190 after the closing date of appeals to check whether any appeals were received.

Under Section 58 of the *Environmental Protection Act 1986*, it is an offence to contravene a licence condition. This offence carries a penalty of up to \$125,000, with a daily penalty of up to \$25,000. The Department considers that a breach of this section, or any other section, of the *Environmental Protection Act 1986* to be extremely serious.

If you have any questions relating to the licence or licence conditions, please do not hesitate to contact Bradley Cox on 9182 2034 for clarification or discussion of any grievances you have.

Yours sincerely

Peter Vassel
Manager, Works Approval & Emissions Licensing Section

Thursday, 19 May 2011

enc:
copy to: Local Government Authority: Shire of East Pilbara

DIRECTOR GENERAL AND ENVIRONMENTAL SERVICES DIVISIONS: The Atrium, 168 St Georges Terrace, Perth, Western Australia 6000
Phone: (08) 6467 5000 Fax: (08) 6467 5562 TTY: 1880 555 630

PARKS AND CONSERVATION SERVICES DIVISIONS: Executive: Corner of Australia II Drive and Hackett Drive, Crawley, Western Australia 6009
Phone: (08) 9442 0300 Fax: (08) 9386 1578 Operations: 17 Dick Perry Avenue, Technology Park, Kensington, Western Australia 6151

Phone: (08) 9219 8000 Fax: (08) 9334 0498 TTY: 9334 0546

POSTAL ADDRESS FOR ALL DIVISIONS: Locked Bag 104, Bentley Delivery Centre, Western Australia 6983

www.dec.wa.gov.au
wa.gov.au

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Environmental Protection Act 1986

LICENCE

LICENCE NUMBER: L5343/1989/6

FILE NUMBER: NWK2002

NAME OF OCCUPIER:

Kitchener Mining No Liability
ACN: 008 721 168

ADDRESS OF OCCUPIER:

Suite 22, Piccadilly Square
7 Aberdeen St
Perth WA 6000

NAME AND LOCATION OF PREMISES:

Bamboo Creek Gold Mine
M45/480
Marble Bar WA 6760
(as depicted in Attachment 1)

Environmental Protection Regulations 1987

CLASSIFICATION(S) OF PREMISES:

Category 5 : Processing or beneficiation of metallic or non-metallic ore
Category 12 : Screening, etc. of material
Category 89 : Putrescible landfill site

COMMENCEMENT DATE OF LICENCE: Monday, 23 May 2011

EXPIRY DATE OF LICENCE: Saturday, 22 May 2016

CONDITIONS OF LICENCE:

As described and attached:

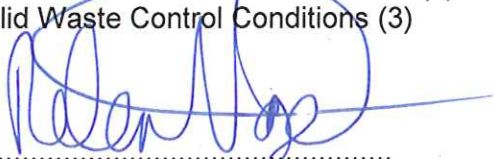
Definitions (6)

General Conditions (2)

Air Emissions Control Conditions (1)

Water Pollution Control Conditions (7)

Solid Waste Control Conditions (3)


.....
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Date of Issue: Thursday, 19 May 2011

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PREAMBLE

Applicability

This licence is issued to Kitchener Mining No Liability for the Bamboo Creek Gold Mine located at mining leases M45/480 and M45/481, in the Shire of East Pilbara (Attachment 1), which is a prescribed premises within Schedule 1 of the Environmental Protection Regulations 1987 as outlined in Table 1:

Table 1: Category under which the Bamboo Creek Gold Mine is prescribed.

<i>Category number</i>	<i>Category name</i>
5	Processing or beneficiation of metallic or non-metallic ore
12	Screening, etc. of material
89	Putrescible landfill site

The Bamboo Creek Gold mine has been designed with a total production capacity of 110 000 tonnes per annum. The plant is currently undertaking crushing, screening and gravity concentration of materials to extract gold. At present the chemical usage for the gold extracting processes is confined to processing of concentrates, although the capacity is there to operate at 110 000 tonnes per annum. Kitchener Mining NL is intending to expand the site to incorporate a new beneficiation facility, which will require assessment by the Department of Environment and Conservation. The expected capacity from the new facility will be at 110 000 tonnes per annum. Currently tailings are being produced from the concentrate processing.

Other Legal Requirements

The licensee should be aware that these conditions do not exempt the premises/licensee from other statutory obligations under the *Environmental Protection Act 1986*, or any other Acts or Regulations. This includes the licensee's obligations under the:

- Environmental Protection Regulations 1987 (as amended);
- Environmental Protection (Noise) Regulations 1997;
- Environmental Protection (Unauthorised Discharges) Regulations 2004;
- Environmental Protection (Controlled Waste) Regulations 2004; and
- Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

Where there is conflict between the conditions set in this licence and any Act or Regulations, the latter takes precedence.

Emergency, Accident or Malfunction - Discharge of Waste

The licensee should inform the Director as soon as practicable of any discharge of waste which has occurred as a result of an emergency, accident or malfunction, otherwise than in accordance with any condition of this licence and has caused or is likely to cause pollution.

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Alteration to Premises

Prior to making any significant alterations to the premises which may affect the air, water or noise emissions from the premises the licensee must submit a proposal to the Director accompanied by supporting information and plans which allow the environmental impact of that change to be assessed.

Non-standard Operations

The licensee should inform the Director at least 24 hours prior to the commencement of any planned non-standard operations, which may have the potential to cause pollution.

CONDITIONS OF LICENCE

DEFINITIONS

In these conditions of Licence, unless inconsistent with the text or subject matter:

"advise" means advise in writing;

"approved" means approved in writing;

"approval" means approval in writing;

"Director" means Director, Environmental Regulation Division of the Department of Environment and Conservation for and on behalf of the Chief Executive Officer as delegated under Section 20 of the *Environmental Protection Act 1986*;

"Director" for the purpose of correspondence means:

Regional Leader – Industry Regulation

Pilbara Region Office

Department of Environment and Conservation

PO Box 835

KARRATHA WA 6714

Telephone: (08) 9182 2000

Facsimile: (08) 9144 1118; and

"NATA" means the National Association of Testing Authorities.

GENERAL CONDITIONS

ANNUAL ENVIRONMENTAL REPORT

- 1(a) The licensee shall prepare and submit to the Director by **30 August** each year, an Annual Environmental Report (AER).
- 1(b) The licensee shall ensure the AER contains, but is not necessarily limited to, the results collected under condition 9, incorporating graphical presentation and an interpretation of results where appropriate.

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- 2 The licensee shall by **30 June** in each year, provide to the Director an Annual Audit Compliance Report in the form in Attachment 2 to this licence, signed and certified in the manner required by Section C of the form, indicating the extent to which the licensee has complied with the conditions of this licence, and any previous licence issued under Part V of the Act for the premises, during the period beginning 1 July the previous year and ending on 30 June in that year.

AIR EMISSIONS CONTROL CONDITIONS

DUST

- 3 The licensee shall take all reasonable and practicable measures to prevent or minimise the generation of dust from all materials handling operations, stockpiles, open areas and transport activities.

WATER POLLUTION CONTROL CONDITIONS

RUNOFF DIVERSION

- 4 The licensee shall divert surface water run-off away from areas adjacent to waste storage facilities to minimise the threat of accidental loss of stored matter due to flooding or erosion.

PROCESSING PLANT - DRAINAGE REQUIREMENTS

- 5 The licensee shall ensure that the plant and processing areas are drained such that surface water runoff from these areas is retained on the premises.

WASTE MANAGEMENT FROM ANCILLARY OPERATIONS

- 6(a) The licensee shall utilise and maintain, as appropriate, protective bunding, skimmers, silt traps, neutralisation pits, fuel and oil traps, drains and sealed collection sumps around the maintenance workshops and washdown bays to enable recovery of spillages and wastewater and for the protection of surrounding soils and groundwater.

- 6(b) The licensee shall collect waste lubricants and hydraulic fluids in holding tanks for recycling and disposal off-site.

PROTECTION AGAINST OVERTOPPING OF STORAGE FACILITIES

- 7 The licensee shall maintain any waste storage structures (including leach dams) such that they can maintain a minimum freeboard of 600mm above the materials in the dam structures at all times.

LIQUID CHEMICAL STORAGE

- 8(a) The licensee shall store environmentally hazardous chemicals including fuel, oil or other hydrocarbons (where the total volume of each substance stored on the premises exceeds 250 litres) within low permeability (10^{-9} metres per second or less) compound(s) designed to contain not less than 110% of the volume of the largest storage vessel or inter-connected system, and at least 25% of the total volume of substances stored in the compound.

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- 8(b) The compound(s) described in part (a) to this condition shall:
- i) be graded or include a sump to allow recovery of liquid;
 - ii) be chemically resistant to the substances stored;
 - iii) include valves, pumps and meters associated with transfer operations wherever practical. Otherwise the equipment shall be adequately protected (eg. bollards) and contained in an area designed to permit recovery of chemicals released following accidents or vandalism;
 - iv) be designed such that jetting from any storage vessel or fitting will be captured within the bunded area [see for example Australian Standard 1940-2004 Section 5.8.3 (h)];
 - v) be designed such that chemicals which may react dangerously if they come into contact, are in separate bunds in the same compound or in different compounds; and
 - vi) be controlled such that the capacity of the bund is maintained at all times (eg. regular inspection and pumping of trapped uncontaminated rain water).
- 8(c) The licensee shall immediately remove and dispose of any liquid resulting from spills or leaks of chemicals including fuel, oil or other hydrocarbons, whether inside or outside the low permeability compound(s).

GROUNDWATER MONITORING

- 9(a) The licensee shall measure and record the standing water level (SWL) in meters Australian height datum (mAHD) of monitoring bores, MB1, MB2, MB3, MB4, MB5, MB6, MB7, MB8, MB9, MB10, MB11, MB12, and MB13 on a 3-monthly basis. SWL shall be determined prior to collection of water samples.
- 9(b) The licensee shall take representative water samples from the monitoring sites listed in column 1 table 2, at the frequencies outlined in column 2 table 2 for the parameters listed in column 3 table 2:

Table 2: Groundwater Monitoring Requirements – Bamboo Creek Gold Mine

Monitoring sites (Attachment 1)	Sampling Frequency	Parameters to be measured
MB1, MB2, MB3, MB4, MB5, MB6, MB7, MB8, MB9, MB10, MB11, MB12, MB13	3-monthly (February, May, August and November)	pH Total Dissolved Solids (mg/L) Arsenic (mg/L) Copper (mg/L) Weak Acid Dissociable Cyanide

- 9(c) The licensee shall collect and preserve samples identified in part (b) of this condition in accordance with *Australian Standard 5667*. "AS/NZS5667 or Australian

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Standard 5667" means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on Water Quality Sampling.

- 9(d) The licensee shall submit all water samples to a laboratory with a current NATA accreditation for the analysis specified in part (b) of this condition, and have the samples analysed in accordance with the current "Standard Methods for Examination of Water and Wastewater-APHA-AWWA-WEF".
- 9(e) The licensee shall report the results of sampling and analysis required in parts (a) – (d) of this condition in the Annual Environmental Report (AER) in accordance with general conditions 1(a) and 1(b).

WATER QUALITY LIMITS

- 10(a) The licensee shall ensure that groundwater samples and water discharged from the premises does not exceed the following limits:
- i) pH in the range 6.0 to 9.0;
 - ii) Total Dissolved Solids: 2,000 mg/L; and
 - iii) Weak Acid Dissociable Cyanide: 0.5 mg/L.
- 10(b) The licensee shall advise the Director as soon as practicable of the exceedence of any of the parameters listed in part (a) of this condition.

SOLID WASTE CONTROL CONDITIONS

TOXIC MATERIALS STORAGE

- 11 The licensee shall ensure that all stored toxic or hazardous process materials shall be held within enclosures designed to minimise any threat to the environment resulting from fire, accident or extreme weather. Such enclosures shall be designed to take into account the type of container/packaging used for the stored material and shall include as appropriate, weatherproofing, impervious flooring and perimeter bunding.

LANDFILL - MANAGEMENT

- 12(a) The licensee shall maintain the putrescible landfill site disposal cells such that:
- (i) the base of the cells are greater than 3 metres above the height of the highest known water table; and
 - (ii) a minimum distance of at least 100 metres is maintained between the waste disposal sites and any superficial water body.
- 12(b) The licensee shall take the following measures when landfilling activities are conducted at the premises:
- (i) dispose of waste on the premises at least 35 m from the premises boundary;
 - (ii) place waste within a defined trench or within an area enclosed by earthen or other bunds;
 - (iii) restrict the tipping area to a maximum linear length of 30 metres;
 - (iv) cover waste with at least 150 mm of cover material;

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- (v) stockpile sufficient cover material to allow waste to be covered in accordance with part (iv) of this condition and to cover waste in the event of a fire;
- (vi) manage the active landfill area such that at no time does land filling result in an exposed face exceeding two metres in vertical height; and
- (vii) cover waste with a final soil cover of at least one metre.

LANDFILL - WINDBLOWN WASTE

- 13 The licensee shall manage the putrescible landfill facility such that earthen bunds are maintained around the perimeter of the active landfill cell to contain windblown waste.



Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Date of Issue: Thursday, 19 May 2011

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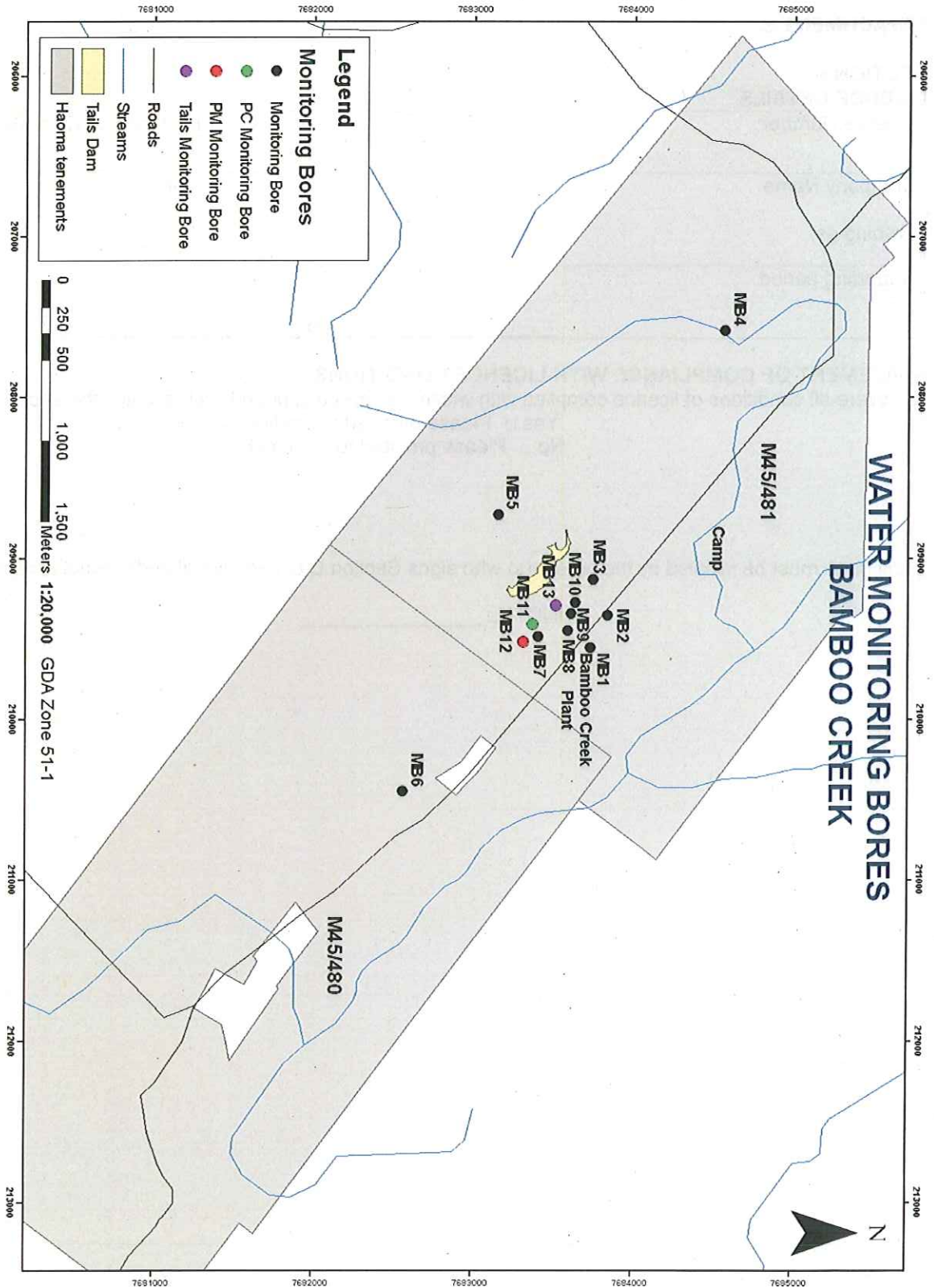
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ATTACHMENT 1: Site location and groundwater monitoring bore locations.



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ATTACHMENT 2.

**SECTION A
LICENCE DETAILS**

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of licence complied with within the reporting period? (please tick the appropriate box)
Yes ☐ Please proceed to Section C
No ☐ Please proceed to Section B

Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

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SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with?	
b) Date(s) when the non compliance occurred, if applicable?	
c) Was this non compliance reported to DEC?	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DEC verbally Date _____ <input type="checkbox"/> Reported to DEC in writing Date _____	<input type="checkbox"/> No
d) Has DEC taken, or finalised any action in relation to the non compliance?	
e) Summary of particulars of compliance non compliance, and what was the environmental impact?	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram)	
g) Cause of non compliance	
h) Action taken or that will be taken to mitigate any adverse effects of the non compliance	
i) Action taken or that will be taken to prevent recurrence of the non compliance	

Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

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SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report may only be signed by a person(s) with legal authority to sign it. The ways in which the Annual Audit Compliance Report must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this Annual Audit Compliance Report is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
an individual	<input type="checkbox"/>	by the individual licence holder, or
	<input type="checkbox"/>	by a person approved in writing by the Chief Executive Officer of the Department of Environment and Conservation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
A corporation	<input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or
	<input type="checkbox"/>	by two directors of the licensee; or
	<input type="checkbox"/>	by a director and a company secretary of the licensee, or
	<input type="checkbox"/>	if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	<input type="checkbox"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
A public authority (other than a local government)	<input type="checkbox"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
a local government	<input type="checkbox"/>	by the chief executive officer of the licensee; or
	<input type="checkbox"/>	by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

NAME: _____

(printed) _____

POSITION: _____

DATE: ____/____/____

SEAL (if signing under seal)

SIGNATURE: _____

NAME: _____

(printed) _____

POSITION: _____

DATE: ____/____/____