

**Submission  
No 38**

**INQUIRY INTO CURRENT AND POTENTIAL IMPACTS OF  
GOLD, SILVER, LEAD AND ZINC MINING ON HUMAN  
HEALTH, LAND, AIR AND WATER QUALITY IN NEW  
SOUTH WALES**

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My name is David Parry-Okeden, B.V.Sc.

### Qualifications and experience

I am a qualified veterinarian and have practiced for the past 50 years in the Mudgee district.

- I have observed the effects of lead poisoning many types of animals.
- I have experienced the extreme weather conditions which afflict rural Australia and Central West NSW.
- Lead in Ash from Bushfires
- I have observed and benefited financially from the enormous economic benefits that have been brought to the Mudgee district by mining.

### A: LEAD POISONING IN ANIMALS

1. *Lead is mainly absorbed into the system by ingestion.* Lead is sweet and is often sort out and swallowed for that reason. The major source is dust containing lead.
2. *Domestic animals* generally reach puberty at earlier age than humans; damage can occur to the reproductive organs with lower semen counts and ovarian damage so that eggs leading to future offspring will be effected before conception. This is particularly applicable to wild birds and domestic poultry. The effects on the brains young mammals has been extensively documented since Roman times. The saying MAD AS A HATTER goes back to the times when lead was used to make felt of hats. Kidneys and the organs can also be poisoned.
3. *Farm and production animals* Lead is one of the four contaminants specifically listed in the LPA fact sheet. The Livestock Production Assurance (LPA) program is the on-farm assurance program that underpins market access for Australian red meat. LPA National Vendor Declarations (NVDs) provide evidence of livestock history and on-farm practices when transferring livestock through the value chain. Property risk assessments ensure the integrity of the meat we produce, guaranteeing it's safe and of high quality. If livestock encounter persistent chemicals, the meat produced may contain unacceptably high chemical residues, impacting on food safety and market access. Repercussions of selling livestock with unacceptable levels of persistent toxins or physical contaminants, may include failure to be paid for the livestock, and possible legal liability for the resulting costs faced by processors and the rest of the supply chain. Blood testing of poisoned mammals is often too late as the symptoms are generally permanent. In baby animals (and human children) there is NO safe blood levels for lead.
4. *Bees are a significant agricultural enterprise,* both as honey producers and as pollinators of orchards and other agricultural crops. HOW CAN BEES BE KEPT AWAY FROM THE TAILINGS DAM? Neither the EIS nor the Assessment have addressed this issue. Prof Mark Taylor in a recent study showed that bees are affected by lead. They grow with smaller heads.

Cognitive impairment results in loss of memory and affected bees cannot find their way home to the hive.

Ecotoxicology and Environmental Safety

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“Chronic exposure to trace lead impairs honey bee learning”

HIGHLIGHTS OF PAPER

- Agrochemicals have been identified as important causes of pollinator declines in numbers, but major pollutants, like metallic trace elements, have received less attention.
- We exposed honey bee colonies to field-realistic concentrations of lead in food.
- Treated bees had reduced head size and cognitive performances.

## EXTREME WEATHER EVENTS

It has been claimed by Bowdens in their presentation to the IPC that the extremes of weather are infrequent. One way or another they have been frequent, if irregular, over the 50 years that I have lived in Mudgee.

**I believe that the risk of lead contamination of the district from dust in times of drought and water from extreme floods is real. Domestic animals, farm animals, wild animals, birds, bees and native insects will be at risk.**

- *Severe droughts have occurred:*

1964-65

1982-83

1997 to 2009 the millennium drought. (Black Friday of 2009)

2017 to 2019 the driest 36 months on record. Dangerous fire conditions during dec

2019 to January 2020 (Black Summer).

- *Floods have occurred in the Lawson Creek flowing down into the Cudgegong river at Mudgee Town in the following years*

1955 to 1956

1969

1971

1974

1990

Feb 2003 flash flood Mudgee recorded the state's highest rainfall, 174mm in 24 hours.

Dec 2010

2016

2017

Nov 2022, The worst flood on record for Mudgee and Lawson Creek. Along with other towns throughout NSW.

- *Future variable and extreme weather conditions* and the inevitable risks due to lack of water for future dust suppression, could result in lead levels through the years as being above the goal of .5ug/cubic metre.

## BUSH FIRES

During the recent and unforgettable bushfire between Mudgee and Sydney, We remember the ash and dust that was spread all over Sydney. This ash contained lead and other heavy metals. When analysed using isotope technology it was shown that the lead had originated from petrol fumes dispersed into the woodlands from times before the banning of leaded petrol.

Are we to now recommence contaminating our bushlands with lead having banned lead petrol and paint?

## MINING IN MUDGEE A PERSONAL VIEW OF A RESIDENT OF OVER 50 YEARS

Mudgee and the surrounding districts have benefitted inordinately from the coal mines 48 Km north of Mudgee.

The mines have expanded from a small underground coal mine with pit ponies when I first came to the district, to five major mines, producing around \$1.3 billion a year and employing 1,400 people.

When my youngest son left school he was offered an apprenticeship in a mine for which we were very proud and grateful. If that job had been in a silver-lead mine

would I have allowed him to accept the offer? A young man with his whole life ahead of him looking forward to one day having a family!

I cannot speak for other people in the district with scientific training, but our family will be moving from Mudgee if lead dust and water contamination becomes widespread as I believe will be inevitable.

The loss of employment opportunities from coal mine closures can largely be complemented by tourism and agricultural enterprises.

No amount of royalties and perceived job opportunities over the limited life of the silver-lead mine, will compensate for poisoning the environment and ruining our reputation as a clean green land.

