

**Submission  
No 134**

**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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## **Submission into the 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 by Bruce Reynolds.**

### **Outline of what I hope this inquiry will achieve.**

- Provide a clean safe environment that all resident can live in neighbouring mining operations.
- Ensure any mining company is complying with the conditions of consent, with severe penalties for failure to comply.
- Independent monitoring and analysis of mines emissions, not directly paid for by the company
- Dramatic increases in fines for noncompliance.
- Better and more rapid pathways for court action for noncompliance.
- An EPA with more powers to investigate and prosecute.
- Mine production closed down until the company can proved compliance.
- Residents provided with safe drinking water and clean air.
- Health Department that cares about the community and does not just take the side of big mining.
- Health Department staff take seriously potential contamination of the human population and provide immediate free testing where breaches are proven to have occurred.
- Independent investigations into whether heavy metals have entered the food chain for local residents.
- Compensation process for those impacted by contamination which is independent of the mine.
- Safeguard food production, both livestock and plant around any mine site in NSW from potential contamination.
- Safeguard water supplies, cities/towns dams and tanks around any mine site in NSW from potential contamination.

### **My story:**

I first became aware of major issues in 2018 following the failure of the Northern Tailings Dam. Major dust incidents started occurring with a grey dust engulfing our area.

This failure occurred in the middle of the drought and saw no tailings and water added to the dams. The two tailings' dams at this time dried out and dust events started to occur. These events were visible from our place which is about nine kilometres east north east of the from the tailings dams.

The use of polymer products were then applied to stabilise the dust by aircraft. These crop dusting aircraft were flying over our house every few minutes to apply the dust and what was clearly below CASSA safety rules.

The Southern tailings dam recommenced operations after a period of time until the company gained approval to fill the pit, where application of water and tailings again ceased.

There were several dust events and I asked to have my tank tested by Cadia Valley Operations in late 2018. At this stage the testing found the water quality was very good.

This testing was undertaken from a tap at the bottom of a concrete tank and has been the base for all subsequent testing.

Until the end of the drought in 2020, there were some dust events but most appeared to be covered by the suppressants applied to the tailings dam's surface.

From 2021 there appeared to be more haze in the air around the Mt Canobolas area. When the wind was from the Westerly direction, we appeared to have a haze over our property. I reported this to on a couple of occasions to Cadia Valley Operations and was told it was only water vapor and no dust particles. It is important to note that the Nucleus of any water droplets is dust. I also reported one dust event to the EPA as well in 2022.

On April 19th, 2022 I reported a major dust event coming from the northern tailings dam. I was called by a neighbouring resident to the mine to come and have a look. At around noon, I arrived at gates 22-23 on Cadia road. I observed a major dust lift. I disembarked from the car and smelt a major odour coming from the site. It was the smell of rotten egg gas. I immediately rang the Cadia Hotline and left a message on both events, (Cadia Valley has no noted on the left message) and called the EPA. The following is part of the written response from the EPA.

*"Thank you for reporting your concerns about dust and odour emissions from Cadia Valley Operations (CVO) on 19 April 2022 to the NSW Environment Protection Authority (EPA). The EPA continues to take the management of dust and from CVO very seriously and its action is ongoing."*

To this date nothing has come of this report to the EPA. CVO has admitted has admitted there was a breach and gas release at the Molybdenum plant.

During late Winter of 2022 I noticed a large amount of mud in my gutters. I cleaned the gutters and washed them out. I collected some of the mud and stored it. This was offered to both the EPA and Cadia Valley Operations, in a public meeting, with both declining at the time to test it.

On the 7<sup>th</sup> of November 2022 I reported a haze event over our property to the EPA and to Cadia Valley Operations. I received the follow response to my compliant on the 13<sup>th</sup> of December, yes over one month later from the EPA.

*"Thank you for taking the time to contact the NSW Environment Protection Authority to notify of dust events from the Cadia Valley Operations premises owned and operated by Newcrest. The EPA takes these matters very seriously and is continuing to investigate the events you notified on 7th November 2022. At this stage of the investigation, the EPA will not be conducting sampling on neighbouring residents' properties however if this is required at any stage of the investigation the EPA may be in contact with you in the future."*

The material in the gutter mud is a grey colour, similar to mine dust. On the 6<sup>th</sup> March 2023 ALS on behalf of CVO conducted testing of the gutter mud material, as well as three soil samples from three different locations on the property. It found the gutter mud to have very high levels of copper, eight times the level of the surrounding soils, chromium, at least four times the surrounding soil samples, zinc six times the surrounding soil samples, nickel two-point five time the surrounding soils samples and cadmium twice the surrounding soil samples. I am happy to make these test results available for the committee if required.

In December of 2022, several local landholders concerned about ongoing dust and haze moved to get their water tested and we participated. The testing was undertaken by the University of Western Sydney. Results came back in early February, as the University was shut down in January. These

results showed high levels of copper, zinc, nickel, lead and Chromium We were also advised not to drink our water because of the high heavy metals in the sample. We also stopped eating any of our home grown fruit and vegetables at this time because of the unknown risks.

After receiving these results, I undertook further testing of the tank water with ALS. These results showed increased levels of the above heavy metals in the water supply, confirming the first test results.

We then approached a Bathurst company to provide filtration equipment at our house. We provided the test results and after extensive research, including approaching overseas firms, we now have a first flush system, heavy metal filter and reverse osmosis filter system for drinking water installed. This has cost me personally more than \$8,000 to provide safe drinking water to my family.

Following the second lot of test results, we approached Cadia Valley Operations with a meeting around our kitchen table. This was attended by the then General Manager, Aaron Branagan and two other senior staff. It was agreed CVO take a further water sample. These results showed the water in the tank was cleaner than what was leaving the tank. This was surprising given the previous two test results and close neighbours tanks coming back with high heavy metal results.

Given the tank results conducted by Cadia Valley Operations, no further support has been provided in the form of tank cleaning. We did receive bottled water until we introduced the reverse osmosis system. We discontinued deliveries after the reverse Osmosis system was installed.

I also had blood testing for heavy metals. These test results have shown that I have higher levels of copper in my blood. My daughter has high Selenium levels. When I took these results to NSW Health, they were not interested. I have serious concerns about the way NSW Health conducts itself on mining related human health matters. There needs to be safeguards put in place that all NSW health staff don't have any conflicts of interest, real or perceived, with relatives or share ownership of any related mining companies publicly declared. There appears to be a policy in Health of blaming the tank owner for non-cleaning, which I do every five years, rather than investigate potential sources. This is equivalent of a neighbour dumping their rubbish over your fence each week and Health then saying sorry, you are responsible because the rubbish is on your property, even though we can prove it is your neighbours.

Finally, I attended via video on a presentation by the SAGE organisation on Monday 4<sup>th</sup> September 2023 on their 4000 plus page report commissioned by CVO. While 4000 plus pages may seem to cover everything, there were two observed deficiencies in the study. Firstly, the report authors said they could not find any linkage between the roofs and tank contamination. As stated, I have that information and the testing was conducted on behalf of Cadia Valley operations by ALS and happy to provide to the inquiry. Secondly, as a qualified Horticulturalist, Uni of Sydney, I was shocked no analysis appeared to have been undertaken into the absorption of heavy metals by plant leaf tissues and this was not taken into account in the findings on human health. The assumptions on human health impacts of eating fruit and vegetables was purely done on root uptake. As horticulturalists would know, the most effective way to improve plant performance during their growth cycle is via foliar fertilisers. Any leaf contamination during the growing season appears to have been totally ignored by the report writer, bringing into serious question any findings.

While I could go into fine detail and provide pages of material, I have tried to provide a broad overview of our situation.

What needs to happen is some serious change to the planning, approval and monitoring processes to make residents of NSW much safer with mining in their backyards.

I am more than happy to appear in front of any inquiry if public hearings are being held and provide appropriate documentation on request.

Regards,

Bruce Reynolds