Proposed Milbrodale Core Hole
Geoff Brown to: csg.review 26/04/2013 12:32 PM
History: This message has been replied to and forwarded.

Professor Mar O'Kane, New South Wales Chief Scientist:

Re: AGL proposed MIlbrodale Core Hole Drilling

Dear Professor Kane,

I write about AGL's approved proposal, and recent perseverance, to drill a core hole in Milbrodale near the Redmanvale Fault in the Upper Hunter CIC. We are the largest Organic Vineyard in the Hunter Valley, and our grape vines are located as close as 500 meters to the proposed core hole. We have a licensed bore on our property, as do several neighbourhood properties.

AGL has announced twice since the recent proposals by the Government concerning exclusion of CIC's to CSG activities, that they intend to carry on and drill the Milbrodale core hole, as well as other test holes in the CIC Upper Hunter area for which they have approval (some recently started). This AGL drilling decision was made despite the fact that they will not be able to gain approval for any production activity under the policies introduced by the NSW Government.

There is a significant risk to the underground water and to the water table level in the Milbrodale area from this AGL drilling activity, and it is typical of AGL to ignore the risk to the environment, the wishes of the community, as well as the Government's intent, and to carry on drilling. Please find attached a brief report on the pertinent facts relating to geological factors that should have governed the decision to issue approval for this Milbrodale core hole.

We trust review will confirm that the proposed Milbrodale core hole is a danger to the local water resources, and approval will be withdrawn.

Yours truly,
Geoffrey P Brown Ph. D., P. Eng
Ascella Pure Wine
Riverpines Vineyard

Triple medallists in the 2011 Australia/New Zealand Organic Wine Show

Trophy NSW Top Organic Wine - NSW Top 40 Wine Open Class

Gold medal and trophy & Silver medal 2012 Hunter Valley Boutique Wine Show

Triple medallists in open competition 2011 Hunter Valley Wine Show

Made by Winemaker of the year Liz Jackson.

From a ★★★★★ winery.

EPA Milbrodal Core Hole Submission 25 Apr 2013.pdf

Local Geology (From AGL REF)

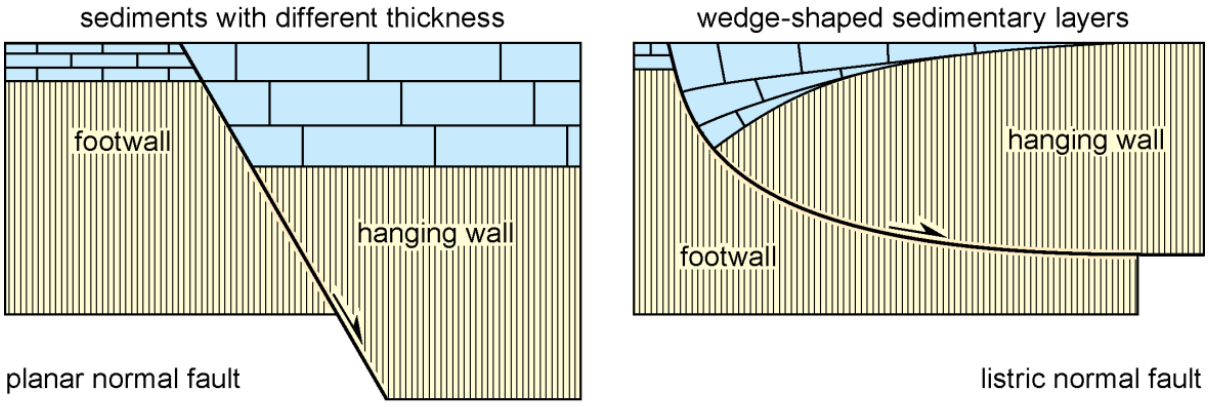
Sediments of the Newcastle Coal Measures conformably underlie a thin veneer of remnant Narrabeen Group sandstones which sub-crop at the Milbrodale Core hole site. These secondary target coal seams overlie the primary Wittingham Coal Measures targets in which the core hole will reach total depth. The hole location lies to the west and on the downthrown side of the Redmanvale Fault zone which has been identified from the regional 1:100,000 geological map and also the Sydney Gas Limited / AGL 2007 Hunter Valley 2D seismic survey.

Analysis

The above statement is the only paragraph in AGL's Review of Environmental Factors concerning geological factors and the geology of the Milbrodale area, submitted in support of the Milbrodale core hole application

Observation of the Google Maps for this area shows that the referenced fault is very close to the proposed drill hole, being approximately 1km from the 'surface location' of the primary fault mentioned in the REF.

Locally the fault is referred to as the Bulga -Inlet Fault line, but it is actually a part of the most significant geological feature in the valley, the **Redmanvale Fault**. The Redmanvale Fault has a throw in excess of 20 meters and runs from just south of Jerry Plains to south of Milbrodale. The core hole is on the downside (hanging wall) of the fault.



Growth normal faults with associated sedimentary basins

Typically (according to literature) the fault line slopes towards the downthrown side of the fault, the side on which drilling is proposed. At 1000m the drill hole could easily penetrate the subsurface fault line.

The Redmanvale (Bulga-Inlet) Fault is surface visible over approximately 20km. The throw of the Redmanvale Fault was 20 meters. It is a major rift in the earth's crust.

The recent (April 2012) earthquake of magnitude 2.8 on the richter scale was under the Redmanvale Fault in the Milbrodale Valley at approximately 3.5 km in depth approximately 1 km from the proposed drill hole. The Redmanvale Fault is generally attributed to activity (zone of influence) of the Tasman Rifts. Such cracks in the crust associated with continental changes are by their nature, quite deep.

There is permanent surface water above the fault zone in the Milbrodale valley on the downthrown side of the fault. It would be naive to believe that there is no prospect of seepage within the fault zone. There is often gas bubbles visible in the Parsons creek where it meets Bulga creek, about 500 meters from the proposed core hole drill site towards the fault.

To call the Redmanvale Fault inactive is academic. The fault exists. It is clearly visible on Google Earth, and is an active part of continental dynamics. However, active or not, the fault and capacity for the spread of toxic poisons pre-exists the intended gas fracking and core hole drilling. This pre-existing fault does not need an earthquake to spread poison through the valley and into the water ways; the conduit already exists.

Conclusion

When considering AGL's REF and the complete disregard of serious consideration of governing Geological Factors, the overriding observation is that AGL doesn't know much about local geology, and more importantly, doesn't want it considered an influencing factor.

It is apparent that AGL does not know whether they are drilling on the side of the fault line to which the fault slopes underground, or on the other side. Discussions with the AGL Geologist for the Upper Hunter made clear he didn't know which side was the downthrown side of the fault despite it being referenced in the single Geological paragraph in the REF, or that (according to literature) faults more often slope to the downthrown side. AGL's proposed core hole is on the downthrown side of the Redmanvale Fault, and fault penetration is a potential risk.