# FOSTERVILLE GOLD MINE - ENVIRONMENTAL REVIEW COMMITTEE

# Tuesday 9th February 2016

# **MINUTES**

Tour Undertaken at 9.30am
Attendance:
Alan Read
Tim Harrington
Jeff Cummins
Lynley Strachan
Areas visited: Process Plant tour including the new gravity circuit upgrade and noise attenuation projects.

Meeting Opened at: 11:10am	Minutes by: Tegan Parsons
Attendance: Chairman: Cr Rod Campbell (COGB) Morgan James (COGB) Benny Asirvatham (DEDJTR) Peter Hamence (DEDJTR) Lynley Strachan (GMW) Ashley Elliott – Goldfields Revegetation Nick Tuohey - EPA Jeff Cummins – Community Representative Tim Harrington – Community Representative Ian Holland – Fosterville Gold Mine (FGM) Felicia Binks – FGM Tegan Parsons – FGM Steve Gannon – FGM Erin Simpson - FGM Joseph Hughes- FGM	Apologies Barrie Winzar– Community Representative Bob Disken (DEDJTR)  Observers Alison Campbell Alan Read

**Meeting Commenced:** Cr Rod Campbell commenced the meeting and welcomed everyone to the ERC Meeting. Cr Campbell also wanted to congratulate the company on the significant milestone celebration held on Wednesday 3<sup>rd</sup> February and stated it was an amazing organised day and very much appreciated by all.

## **Minutes of the Previous Meeting**

Amendments/Corrections - N/A

**Business arising from the Minutes: (Action Plan)** 

## **Information Update:**

## 1: COGB – Environmental Project – Ian Holland

Ian Holland updated the ERC meeting that the company confirmed that the \$25k donation has been paid to the COGB. Meetings had occurred between COGB, FGM & Community Representatives, with a couple of project suggestions: The Quarry and the River Reserve in Axedale.

Jeff Cummins reminded the meeting about how this donation came from the Robbins Hill spray drift incident that EPA was investigating. At the last ERC it was to ensure that the funds were spent locally and that between the Community Representatives, Ian Holland and the COGB representative Anthony Sheehan got together and discussed the options. COGB have since communicated that their preferred the option is the Axedale Environment Project. The project itself shows benefit to local community and transparency which is the outcome we were after.

Tim Harrington also added that the meeting bought interest to the Quarry and will be looked into further by COGB. The Axedale Project has a lot of merit and feels happy to support this project.

Cr Campbell stated that along with community management by the AOTOF and CMA it will be of interest to see the project progress.

Ian Holland said that it was a universal view that the scopes of work could be a bit more thorough but in the company's view we are in support of this project and in terms of actions the company will follow up directly with COGB with the recommendation that the ERC would like to see more scope.

## 2: Anaerobic Wetland Trial: Presentation by Joseph Hughes

As per presentation slides:

- A trial wetland pond containing sheep manure has been constructed to treat mine water.
- The pond is passive water treatment method (does not require regular human intervention).
- The wetland has the potential to remove contaminants such as sulphate, arsenic and antimony.
- Mine water has a residence time of about 2 weeks in the pond before discharging by gravity to the outflow channel
- The treated water is being monitored for odour, trace metals (e.g. arsenic, antimony), sulphate, ecoli and nutrients.

## Questions:

Cr Campbell asked how this could be scaled up. Joseph explained that the trial so far shows the ability to treat some of the contaminants. Scale up would require further investigation.

lan Holland noted that at this stage the trial needs to show the following:

- Proof of concept
- Proof that is working
- What sort of scale we could work with

Tim Harrington asked what volume of sheep manure had been brought in for the trial and the total of volume of the pond. Joseph said approximately 20 -30tonne of manure was added and the pond. The pond holds 140 cubic metres of water. Ian Holland added that the mine generated 1.2 excess mega litres of mine water per day. The wetland trial could be an option for the future, but would probably only treat smaller volumes of water. It is one part to a bigger puzzle.

Jeff Cummins asked how long the wetland could treat water. Joseph said that is one of the objectives of the trial. The trial needs to show how efficient the water treatment is overtime. Felicia added that this information is beneficial for the future and is seen as a learning exercise for the company.

Nick Tuohey asked whether the paunch contributed to the odour. Joseph indicated the odour is from hydrogen sulphide generation and not the paunch. Joseph indicated the odour is strong but localised within approximately 80m of the pond. The odour can be limited by adjusting the flow rate of mine water into the pond.

Benny Asirvatham suggested using silos instead of an open wetland system. Different organic substrates could also be used. This could help with odour.

## 3: Falcon Evaporation Spray Results – Presented by Felicia Binks

- New wider diameter nozzles installed in June 2015.
- Vegetation not responding due to additional stress from long dry autumn and summer.
- Results periodically still elevated at FA2.
- Decision made to isolate northern catenary line 15/9/15.
- Maximum wind speed reduced from 16 to 14km/hr.

#### Questions:

Tim Harrington queried if the wind speed trigger had increased as he thought it was at 12km/hr. Felicia said he might have been thinking of the sprays at Robbins Hill which have a more conservative wind speed trigger due to evaporation of CIL water. The wind speed triggers at Falcon Pit have only ever come down.

Jeff Cummins asked if there was ever a baseline of information and if so would like to compare it for next meeting. Felicia said that there was baseline information and a control site as well. Fosterville will consider revising the Falcon spray drift monitoring graph.

lan Holland reiterated that mine water is clearly an issue for the company and there are multiple solutions for mine water and this is one of them. The company need to get this to a point where it works in a sustainable way and this is a solution going forwards.

Jeff Cummins then asked the Regulator if they were happy with the outcome from the previous incident that occurred in May 2015 at the Falcon pit. Benny Asirvatham said that since that incident the company reduced the spray pressure and he had been out at Falcon Pit twice in the last 6 months and was happy as long as the company kept monitoring these sprays closely.

Lynley Strachan asked if the evaporation rates changed in the pit area with the additional spray lines. Ian Holland said they can become less efficient if the lines are too close together. Fosterville are monitoring the flow rate of mine water into the sprays for evaporation purposes. Again reiterated that the use of the sprays are always more in the summer period – hot, dry conditions and less in the winter months.

Nick Tuohey asked about monitoring which Felicia said that monitoring takes place on fortnightly in the peak season to keep on top of the sprays and will be down to monthly inspections during winter.

Tim Harrington asked about the space between the spray lines. Ian Holland said that they could have been closer together but the company did not want them to compromise each other.

#### **OPERATIONS REPORT**

(As per Operations Report issued to members)

## Safety:

As per the report:

lan spoke on the Minerals Council of Victoria, Mines Rescue Competition (FGM 2<sup>nd</sup>) and the 2016 Safety Plan completed – key element is the "Zero Today Program".

## **Environment:**

As per report and presentation:

Felicia spoke on the changes to the Environment Team for 2016: Joseph Hughes has been promoted to Senior Environmental Advisor Erin Simpson has had Community added to her role.

#### **Activities:**

An environmental and community risk assessment was facilitated by a consultant. Jeff Cummins queried the E & C Risk Register and felt that key new risks through this forum could present well for community representatives to be informed.

Felicia Binks explained that this was in line with the new regulations brought out by DEDJTR. Peter Hamence asked what the company's definition of community was. Felicia said all stakeholders, which includes all external community that surround the operation.

## **Surface Water: Presented by Erin Simpson**

Jeff Cummins asked if there was a reason for the very high result at FWR24. Erin explained with the dry conditions, there was hardly any water in the dam. It has recently been topped up with Epsom water as there was a localised odour around the offices.

## **Ground Water: Presented by Erin Simpson**

Tim Harrington queried whether the historical means of monitoring data had increased over time? Erin explained that the historical means for each parameter are different for each monitoring site, so we will have to analyse the data for each site to determine if they have increased from a previous point in time. The historical mean is calculated from all the data available for each site so changes slightly after each monitoring event.

## Hi Volume Dust: Presented by Joseph Hughes

Jeff Cummins noted the very high result on 14/12/15 and question what was different. Joseph indicated that the field notes indicated a very hot and windy day. Joseph indicated that over 2015 as a whole that there was only one other exceedance and that was during fires in the region. Felicia explained a thorough investigation was carried out and the water cart was working on the 14/12. There was no direct answer or link to this high result. Again it's been a long dry, hot summer. Jeff would like to reach out to Alan Read to come and have a look at the Dust monitor at his residence

## **Depositional Dust: Presented by Joseph Hughes**

The figure in the report shows the levels of total insoluble matter, ash and combustible material deposited at the monitoring locations during 2015. The results show that there were seven exceedances over the year including one exceedance at site FA6 in November. Four of these exceedances had ash content below the compliance limit of 4 g/m2/mth. This includes the November exceedance which was noted to contain a significant quantity of dead insects.

Nick Tuohey asked about the yearly graph in the report and said in terms of monitoring what are the longer term trends. Joseph explained that four of the seven exceedances over the year had a significant portion of the dust assay as combustible matter, which is not attributable to mining as this material is insects or leaf litter for example. Tim Harrington and Joseph indicated there was dust generated from road traffic on Russel Bridge Road affecting site FA5. Joseph indicated that there has also been some land disturbance on a neighbouring property.

lan Holland said the depositional dust method showing ash content and combustible matter was the agreed method with the EER.

### **Noise Monitoring:**

Tim Harrington asked if the company's noise technician had noted an increase in noise of the December – January period, as Tim and other local residents found that Axedale – Goornong Rd had a significant increase of trucks, tourists with boats etc. which would have had noise related issues to the limits. Joseph said that there had been a number of variables contributing to noise and the noise technician is out there to monitor noise coming from the operations but does write down the number of cars/trucks that pass during the monitoring period. It was difficult however to confirm if there was additional traffic.

lan Holland added that in January the company had two surface rigs which could have elevated noise emissions, however additional monitoring had taken place for the duration of the operation of the rigs.

## Community:

As per report

Discussions were held around the complaint for the month of October in relation to odour from the underground settlement dam. The dam was flushed with diluted limestone and then topped up with mine water to eliminate the expected algae that was producing the odour. Tim Harrington questioned if the dams were active at all times and whether they were being operated in line with what they were originally designed for? It was explained that the dams are mainly used for Underground operations, with mine water from underground being pumped into them to settle out before being used elsewhere onsite or pumped back underground for use. Ian Holland said that there had been no fundamental reason any changes to their use.

Jeff Cummins wanted to thank the Company for the information sent out to the community on the surface drilling that took place in two different locations and wondered how many residents would have received this information. Felicia said that we sent out to over 40 residents in a couple of kilometres from the operations and found late last year that a lot of the residents in the Daleys Hill area don't have letterboxes, so with the help of the Axedale Post Office they were able to drop the information sheet into each residents PO Boxes.

## **Production Update:**

As per report:

## **Exploration:**

As per report:

## **Rehabilitation Report**

As per report:

## **General Business/ Questions from the Gallery**

Tim Harrington spoke on the application for a boiler farm. As a community representative he feels that it does need to go through the process and wanted the regulators to give this application serious consideration. This will add noise, odour and more traffic and would have effects on how Fosterville Gold Mine would be able to complete monitoring and noted the close proximity to the operations and local residents. Tim reiterated for everyone to take time in reading the application and again look into the application.

Morgan James said that there would be mediation sessions held to discuss the application.

Jeff Cummins said he was in support of Tim on this application and feels that there are strategic planning issues and urges the company to look in to this and wondered how the buffer separation would work.

lan Holland said that the company had taken this application seriously as the property borders the property the company owns and in the review of the application, the company found insufficient information in regards to the mining operations in the area or any reference to the mining lease in which the application sits on, also with the factors of roads and amenities. The company has been in contact with COGB in relation to the above matter. Cr Campbell stated that if there are more than four objections the application would become before council.

Benny Asirvatham spoke on the resignation of Mr Colin Thornton and Bob Disken is acting in the role until further notice. Benny will be acting in Bob's role.

Nick Tuohey updated the ERC with the news that Scott Pigdon is now back as the North West Manager.

## **Action Plan**

No	Action	Responsibility	When
1	Contact COGB to confirm Environmental project was raised at ERC meeting and agreed Axedale project was worthwhile, just needed more detail.	FB	Feb
2	Any new risks related to the community to be raised at ERC meetings.	FB	When required
3	Assess groundwater trends to determine if historical means have increased over time.	ES	May ERC
4	Assess baseline data for Falcon evaporation spray monitoring and determine if a point or line can be added to graphs in new database reports.	JH	May ERC

Meeting Closed: 13:10pm

Next Meeting: Tuesday 3<sup>rd</sup> May 2016 is to be confirmed. Currently conflicts with training program.

Site Tour at 9.30am followed by the meeting at 11am