

MINUTES OF MEETING

STRATHALBYN COMMUNITY CONSULTATIVE COMMITTEE

Thursday 17 November 2011 @ 7.00 pm

Senior Citizens Hall, 6 Parker Street, Strathalbyn

PRESENT:

| | | | |
|-----------------------|----------------|--------------------|---------------------|
| Charles Irwin - Chair | Mike Farrier | Susan Jettner | Fred Carrangis |
| Rhonda McCarthy | Malcolm Twartz | Anne Woolford | Mark Dale |
| Julia Currie | Karen Hawke | Adrian Pederick MP | Merri Tothill – Sec |

Gallery approx 23, including Terramin staff

DMITRE:

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| Hans Bailiht | Greg Marshall | Dr Ted Tyne |
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TERRAMIN:

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| Matt Daniel | Robert Howie | Nic Clift, Managing Director and CEO | Yullinah Wylie |
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EPA:

Glenn Sorenson

APOLOGIES:

Barry Davis, Rob Lyons, Nicole Edkins.

Meeting commenced at 7.10 pm

1. WELCOME, INTRODUCTIONS AND APOLOGIES

Charles Irwin welcomed all and thanked everyone for attending. Apologies were accepted, as outlined above. Terramin are also recording this meeting.

2. REVIEW OF MINUTES OF LAST MEETING

Corrections to 18 August 2011 minutes:

- Spelling of Angas
- Pate is meant to be paste
- ISO3100 is meant to be ISO 31000

18 August minutes, amended as above accepted as true and correct record.
NB **Amended minutes are available on the PIRSA website.**

Review of Action items – all achieved or to be addressed at tonight's meeting.

Terramin made handouts available for SCCC members and gallery. NB that some of the pictures sent to SCCC members have already been up dated based on comments and will be up dated again. These will be referred to as part of Terramin presentation.

3. DMITRE: COMPLIANCE OVERVIEW

Inspections and compliance report.

Hans Bailiht

Visited site last Friday (11 November). Observed new RO plant, now installed and to be commissioned on Tuesday (22 November). Water now flowing through and will ramp up next week.

New silt traps have been built and new survey markers around TSF dam for Surveyor to check any wall movement.

Greg Marshall

Now in new department DMITRE – Department of Manufacturing, Innovation, Trade, Resources and Energy, no longer PIRSA. NB DMITRE Minerals website is still part of and accessible through the PIRSA website and this is not likely to be changed until sometime in 2012.

Environmental Direction issued on 28 October. This is a new provision in the Mining Act and has been available since July 2011. Issued in response to excess water in pond and non compliance on operational parameters.

In summary requires Terramin :-

- To provide a plan by end of December 2011 to bring water level back into compliance
- To address non conformance as outlined in TSF Surveillance report by end of December 2011
- To demonstrate that the Mine water balance has been rectified
- To bring amount of water down in decant pond so that no “head” of water on the area of single lining. The focus must be on the outcome – the single liner was not meant to have any head on it. (NB Terramin to explain the difference between RL and volume on decant pond).

Action: Terramin will present on and explain the difference between measurements as RL and volume at the next SCCC meeting.

Questions:

Re timing of this Environmental Direction – why wasn't it an issue before?

Only able to issue Environmental Directions since the new Act came into operation in the later part of this year. Also recognise that Terramin has had plans in place and spent lots of money on RO plants but it is evident that there has been continuing slippage in achieving compliance with the size of the decant pond.

We now have an instrument, so decided to use this tool. Did not want to go through any more winters with this ongoing water problem. Also related to the potential mine life, needs to be rectified before end of mine. The risk is with leakage through the single liner. At the moment that risk is not high. We want to make sure it does not go beyond that and want to confirm the integrity of the walls.

Appears that the TSF Audit report could not make any judgements on the stability of the walls?

We need an explanation from the ATC consultants on what this means. The dam wall has not been surveyed and it needs to be surveyed as per the designer's requirements. DMITRE will respond to this after Terramin has addressed this issue.

The Environmental Direction also directs Terramin to amend the measurement criteria in the PEPR, so that they are reporting on performance criteria on the TSF and can see that risks being managed. Better criteria for monitoring needed. Failure to comply attracts a \$250,000 fine. DMITRE has also asked for quotes for rehab work.

In relation to the \$250,000 fine, is that each week or for each event?

Non compliance will result in court action and the courts will determine the fine. They can and will look at higher levels and have the ability to ramp the fine up. NB \$250,000 is a significant amount to Terramin.

MARP/PEPR addenda

With the amount of variations required, there has been some talk of a new PEPR. Current one is back with Terramin and is being reviewed in the light of the recently issued Environmental Direction. Terramin is looking at a number of water discharge options and PEPR being reviewed in light of that. Terramin will refer to this in presentation, following.

Question:**Why do a new PEPR when considering the length of the mine life?**

DMITRE is looking at different options for Terramin and what level to do the review. Need to arrive at an understanding with Terramin. The review periods are yet to be scheduled and have been delayed by TSF management. Tree planting and carbon offsets will be carried forward though have had some discussions with Alexandrina Council. Sue Jettner has received a letter from Council re tree planting around boundary of nearby property .

Note that with recent amendments to the Mining Act it was not intended to regulate on greenhouse. However, it is a shame that this was not mentioned in earlier discussions on tree planting and carbon offsets.

Thank you to DMITRE for up dates.

In regard to the *media release* on the Environmental Direction, the SCCC did not know about this until they saw it in *The Courier*. Charles received it the same Tuesday as it was released to the media. Noted that DMITRE did not send it to all SCCC members, they acknowledge that should have done this.

Action: In future DMITRE will send all public documents to all members of SCCC prior to release to the public.

Question:**A letter accompanied the press release emailed to Charles. Is this a public document, available to all members of the SCCC?**

The detailed letter will not be sent to all SCCC members. Charles has seen it and is comfortable with it.

4. TERRAMIN: REVIEW OF MINING OPERATION**Matt Daniel**

Please see Terramin Quarterly Report #20 (July-Sept 2011) by Matt Daniel, available in full on the PIRSA/DMITRE website www.pir.sa.gov.au/minerals/sa_mines/approved_mines/angas under Wider Community Engagement and also emailed to all members prior to the meeting. Hard copy also made available at the meeting. Presentation available on website also.

Up coming Activities

- Noise monitoring (December)
- Environmental Direction targets
- Program for Environmental Protection and Rehabilitation (PEPR) review
- On site exploration
- Rabbit and weed control
- Water release

Activity report

- Underground decline extended to over 9,740m
- 95,398 tonnes of ore processed
- Solid production output during the Qtr
- 13 day outage in Process plant due to high voltage equipment event
- Weed management continued
- Fox baiting
- TSF Rehabilitation trial commenced
- National Pollutants Inventory (NPI) report submitted
- 4 environmental incidents and 8 community events recorded

Reports follow on noise monitoring; dust/air quality, community feedback and PEPR review. The details of paste backfill and water management will be covered separately.

1. Noise Monitoring

Noise monitoring in December is part of original schedule. Planned for end of December, maybe sooner. November monitoring was delayed due to drill rig activity in close proximity and equipment problems.

(see graphs in QER presentation on website).

East monitor results

Issue is that this is next to the mill and so it looks like non compliant. Needs closer analysis and correlation with wind speed. Still recording when mill is off-line and some noise levels still at high level, so maybe background noise or aberration. To be part of further analysis.

Action: Terramin to analyse east monitor results to explain why consistently showing readings above limits.

West monitor results

Shows that compliant, except for around 14 Nov. Note that no noise complaints in that period. However, have no data to interpret relationship with weather. Have wind speed data but still requires closer analysis as for the east monitor.

Action: Terramin to analyse why there is such a high reading well above limit, around 14 November. Link to close analysis of east monitor results.

Two noise related complaints in the QER period, one weather related, the other drilling noise and this was dealt with by erecting a hay bale bund.

2. Dust Monitoring

High Volume Samplers - total dust and lead in dust within PEPR criteria and within EPA early indicator limits with one exception, possibly relates to high winds. Note that filter is replaced on High Vol sampler every 6 days.

Dust Deposition Gauges- all lead deposition within PEPR criteria, however 2 results above EPA indicator limits. However, numerous TSP above PEPR limits. PM10 monitor is being trailed for 3 months and placed next to North High Volume Sampler.

Question:

Why have the monitors been placed close together? Will this bias the results?

Action: Terramin to take this question on notice and get back next meeting with an answer.

Note also personnel have personal dust monitors at each shift.

Up dated maps (background)

Action item from last meeting achieved.

Question re water monitoring map

The 2 different groundwater monitoring bores go into two different aquifers at different levels. The Angas River monitoring is for water quality not flow.

EPA response

High results

Had a discussion with Terramin about abnormal results in December 2010. Looked to duplicate this but original samples have been destroyed (normal practice after 3 months). Report sent to EPA, explaining possibilities and seems like it is either an outlier or a lab error. EPA is satisfied with this. Terramin has looked at the soil samples and these are consistent with pre-mine results.

Characterisation of dust

Have a consultant looking at this and not happy with initial results. More work required but moving forward on this.

Potential leaking of STEDS into creek system and ramifications of this

EPA did risk analysis of potential release of RO water, also involved SA Health and Alexandrina Council. Found it to be low risk.

Process involved combination of likelihood and consequences. Considered amount of effluent as well as RO water. If the lagoon was leaking it would be likely through the bottom. If sides were leaking via the wall this would be evident through green vegetation and obvious wet areas. If there were any leakage it would affect the dilution rate.

Results of risk assessment indicated that leak would be unlikely but possible and the consequences insignificant overall, this equated to risk rating of LOW.

Questions:

Sounds like a desk top audit, did anyone take tests for *E coli* levels?

No, as soon as the water enters the environment there will be *E coli* present from sources such as bird life etc. Standard tests do not distinguish between bird and human generated *E coli* strains, so best to look for spills.

How do you know where *E coli* have come from?

If it was a high risk, then would look at this. Terramin does take samples and all results have come back as zero.

If RO goes into the STEDS and people buy this water, why can't it go straight into the creek?

Awaiting the answers from the whole review of this. NB the STEDS located here will be decommissioned in the future.

3. Blast Monitoring

Still problems with missing over pressure blast data.

Is this acceptable?

Yes, because it is an underground mine, no longer a requirement but continue to report on it. It was relevant in early development of the mine. Maybe it can be removed from the next PEPR.

7 Blasts exceeding current PEPR level relate closely to wind speed.

4. Community/ Environment feedback

8 community incidents recorded include:-

- 2 noise complaints
- 3 stope blast notifications – resolved this by checking who was on the list within 1-1.5km of the mine
- Prank call that could not be traced. NB if this happens again, need to publicise this more widely.
- Exploration tracks in paddock due to wet weather, had permission from landholder to be there.

4 internal environmental incidents reported

- 1 TSF A water pooling
- 1 – dust monitor 10 destroyed
- 1 – rabbit infestation on neighbouring property and in touch with neighbours re this
- 1 – minor paste spill at paste plant

Action – Terramin to up date QER presentation with a table that states when event occurred and what action taken and date.

5. PEPR review process

Terramin is compiling areas that need focus and collecting facts from different sources. Do not have a timeline for completion. Note that SCCC require realistic timeframe for their input and a comparison between old and new documents. SCCC will be interested to see if Terramin can capture all information and inputs, including what achieved and how this was measured.

DMITRE comment

The Mining Act prescribes content of the PEPR. Recognise that here are expectations, including historically and from the community. It must include a review of all exceedances. Meanwhile the current document remains valid.

SHORT BREAK TAKEN at 8.35pm.

Note: Don and Ruth are celebrating 60 years of marriage

Nic Clift, new MD and CEO of Terramin introduced.

6. TERRAMIN: UPDATE ON WATER MANAGEMENT - TSF AUDIT, PASTE BACKFILL, WATER TREATMENT

Rob Howie and Matt Daniel

Please see presentation available on the PIRSA/DMITRE website

www.pir.sa.gov.au/minerals/sa_mines/approved_mines/angas under Wider Community Engagement.

TSF Audit

TSF Audit is done every year by ATC as an independent external audit. They come up with the requirements and Terramin have rectified all of these except for one. The decant area where collected water is transferred for processing has a blockage. Terramin is working to rectify this (Ref: Section 6.3, page 15 of ATC report, March 2010).

There are 15 survey points to be measured on a monthly basis, these are new and data to be sent to ATC.

DMITRE comment - this is included in the Environmental Direction.

Data has been submitted to ATC to be reviewed and to reconfirm compliance. Surveys are to indicate any excessive wall movement (which is yet to be defined) in dam wall. Excessive movement would be treated as an incident. Survey points have been measured in 3 different directions i.e. 15 survey points x 3 = 45 dimensions which is hard to graph, (see example of TSF Survey Data from Monitoring Point S5 on presentation slide 14). Total movement is 15 mm and at most 25 mm – is this excessive? Need ATC perspective on this. Measurements made using laser, however some survey points have been impacted on over time and survey interval has been erratic making interpretation difficult. Dam wall is made of clay and movement is not correlated to rainfall.
Action: Terramin to ask ATC to define “excessive movement” and determine the accuracy of survey/measuring equipment.

Decant tower is a man made bore that draws water from dam into processor. There are a number of internal drains collecting water. When tailings discharged, water is pushed towards the decant tower and forms a semi-circle shape. Behaves like a balloon re area and height. At 51,000sq m, it is 4 times the PEPR volume of 15,000 sq m.

DMITRE comment – 15,000 sq m is defined as the maximum. The area is meant to be 4,000 sq m with a buffer up to 15,000 sq m, the maximum area of water based on the modelling to allow for perched water above the height of the second liner as the TSF is filled in later years. The extent of the double liner was designed on this basis. If it were all double lined, it would be better and may hold up to 68 RL. 15,000 sq m is not an “ideal” area but would be more acceptable. The issue is – there should be no water head/pressure above 68 RL and the double liner.

Question:

We are seeing a net effect of increasing water, has it actually increased?

As the mine deepens we are exposing more water but it is not significant.

The 30m long 280mm diameter decant drain is believed to be blocked (combination fluid and silt) but still able to remove water from the dam. Also have a floating pump.

The monitoring system includes monitoring bores that are measured on a regular basis and to date all monitoring bores are dry. Also monitor groundwater to detect any leakage. These are 5-10m below the surface, so not influenced by TSF and the pH and EC levels are static. Drain flows are also measured (see page 18 of ATC report).

Action: Terramin to correct graph of Drain Flows and circulate.

Despite all of this, the water level trend is still up. Even though non compliant, the dam is structurally stable.

Water Treatment and Paste Backfill

The new RO is in full commission. Silt ponds will be ready in December 2011. The silt removed will be processed.

Paste backfill on the mark and tracking well. Have backfilled the mine and so it is technically stable. NB about half way through “life of the mine” – end of mine life first quarter 2015, unless find anything deeper. Roughly 50% way through ore body now.

Questions:

Given that you have been non-complaint for 2 years re water levels, have you been approached re use of this excess water?

One of the requirements must be the quality level of the water. Will be able to release 1mgl per day of treated water to STEDS or for use within the month. Have received approaches but confidential at this stage.

What are you doing on site? Could be maximising water use for revegetation as part of long term planning?

EPA comment – all water quality parameters must be **fit for use**, so there are different levels i.e. for irrigated crops, pasture, livestock, ecological etc.

Can you put more underground or is that at a maximum?

We are drilling more bores now. We are focussing on the Environmental Direction and believe we can achieve this. We have 12 months to get down to 68RL and aiming for 15,000 sq m. Water level draw down projections given last meeting remain current despite 2 week commissioning delay on new RO plant.

DMITRE comment – 15,000 sq m is the upper limit and with no buffer, so need to be below this. DMITRE is looking for sustained compliance. So we need to go back to area as the prime measure as the level is brought down to and passes below the 68RL.

Will the new RO remain as a rental facility?

We are in discussion with the supplier and deciding which way to go in relation to buying it.

7. TERRAMIN; COMMUNITY ENGAGEMENT PROGRAM UPDATE

Copies of the flyer were put into local papers.

Stand organised at the Strathalbyn Show involved:

- Displays including the new production drill rig
- Information on water and mining
- Handouts (show bags)
- Kids colouring competition

Two presentations at the Eastern Fleurieu School

Numerous tours of the AZM including;

- Two mining enthusiasts groups
- Adelaide High School chemistry class
- Indigenous TAFE group

Continuing to increase exposure by offering to go to local groups, to do presentations and answer questions. Also talking to immediate neighbours.

Part of an NAB advertisement was filmed at AZM in September

- Donations to CLASS of the funds from the NAB advertisement.

Also information at the Strath Information Centre.

New CE Nic Clift introduced to some members of the SCCC at Mine site visit in October, talked about issues and included a mine visit. Nic addressed SCCC – important to be compliant, it is not good PR or good practice not to do this. Need to meet the timetable set for compliance. A fantastic amount of time has been committed by the community and Nic thanked everyone for this.

Questions:

In the newsletter it talked about water levels being increased by rain events, is it more water coming from the mine?

Rain does increase the flow into the mine and thus requires pumping more water from the mine. This is contributing to extra water, but rainfall has not been abnormal.

8. OTHER BUSINESS

Up date on mine Closure Planning (Matt Daniel)

Has started planning for revegetation with preliminary investigations and trials using native grasses.

Contact list

Regularly up dated, hard copy distributed for editing. Will be finalised and sent out as email copy with minutes.

Action: Merri to send updated Contacts List with Minutes

Schools rep on SCCC

Adam Dean has been suggested. He was supposed to attend this meeting but is not here.

Chair visit with Minister

Charles will have annual visit with Minister. Thanks to Adrian Pederick for organising. Note that the Minister has not visited the mine as yet.

Strathalbyn Museum

Run by the National Trust and looking at displays on the history of mining in the area. Have sent a letter to Terramin asking for some support for this and awaiting a response.

Action: Terramin to respond to letter from Strath Museum, National Trust.

Round Table Discussion

Terms of Reference – DMITRE looking into this.

Site inspection – in new year, prior to next meeting. Suggested 16 February at 4.30pm, however depends on what we want to see. Focus should be on new developments.

Action: Terramin to organise site inspection on Thursday 16 February 2012. All members invited to attend.

Absent members i.e. Barry and Ben.

Action: Charles to determine intentions re membership

Thanks to Don and Ruth for hall and catering and thanks to all in attendance.

9. FUTURE MEETINGS

Next meeting on Thursday 16 February 2012 at 7pm.

Meeting Schedule – Thursday 17 May; 16 August; 15 November 2012.

10. MEETING CLOSE.

Meeting closed at 10.20pm.

ACTION LIST

| | |
|----------------------|-----------------------------------------------------------------------------------------------------------------|
| Terramin | Present on and explain the difference between measurements as RL and volume at the next SCCC meeting |
| DMITRE | Send all public documents to all members of SCCC prior to release to the public |
| Terramin | To analyse East Noise Monitor results to explain why consistently showing readings above limits. |
| Terramin | To analyse why there is such a high reading well above limit for West Noise Monitor, around 14 November. |
| Terramin | To find out why dust monitors have been placed close together and get back next meeting with an answer |
| Terramin | Up date QER presentation with a table that states when event occurred and what action taken and date |
| Terramin | Correct graph of Drain Flows and circulate (QER). |
| Terramin | Ask ATC to define “excessive movement” and to determine the accuracy of survey/measuring equipment |
| Terramin | Respond to letter from Strath Museum re support for mine display |
| Terramin | Organise mine site inspection for Thursday 16 February at 4.30pm, prior to next meeting. |
| Merri | Send updated Contacts List with minutes |
| Charles/Merri | Determine Barry and Ben’s intentions re membership of SCCC |