Ulan Coal Mines CCC Meeting
21 April 2009

Attending Guests:	Julia Imrie (JI), Bev Smiles (BS), John Webb (JW), Esme Martens (EM), Rod Williams (RW)
UCML Attendees:	Phil English (PE), Jamie Lees (JL), Cheryl Holden (CH), Brian Pease (BP), Diana Barnes (DB), Pam Mills (PM) – minute taker
Apologies:	Scott Lillis
Chair:	Esme Martens
Meeting Opened:	**12.05pm** **Meeting Closed:** **4.30pm**

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1 PREVIOUS MINUTES

Previous minutes were accepted as a true and correct record on the 21 April 2009.
Moved by JI and Seconded by BS.

Business Arising

No business arising or issues identified.

2 OVERVIEW – OPERATIONAL UPDATE

PE provided an overview of the key results and performance achieved by UCML during 2008.

- Record development/production (>20km/>6MT)
- Xstrata Coal CEO Safety Award (Underground)
- SMP approval received for Longwalls W2W3
- Continued to work on Ulan Coal Continued Operations project
- Development & implementation of site water management strategy
- Completed Open Cut mining operations – July 08
- Continued progressive rehabilitation e.g. old fuel facilities
- Continued Open Cut reshaping & revegetation – 45Ha
- Commenced investigations and development of Goulburn River diversion rehabilitation strategy

<u>Rehabilitation</u>

BS Exactly what % of area does the current reshaping (rehabilitation) of 45 ha represent across the whole Open Cut area?

PE Could not provide an answer without getting the areas calculated.

JL Estimated that the area would be approximately 10% if the original East Pit area (mined in the 80's and 90's) was included.

JI Requested the microbiological testing data which had been discussed at the previous meeting.

PE Provided hard copies of the microbial studies report to the CCC.

CH provided an overview of the Environmental monitoring data that has been provided publicly on UCML Web site.

Subsidence Monitoring

PE Provided subsidence update from DPI reporting. Explained LWW1 subsidence monitoring results.

JW Does subsidence change due to difference surface landform?

PE Applies to what is above coal, eg depth of cover not surface landform.

JI Is there an increased impact on surface landforms when adjoining panels are mined?

PE Not really – only very minor impact.

JW Is the duration of subsidence monitoring affected by the depth of cover?

JL Once the longwall passes the critical point (400m into the longwall) maximum subsidence has occurred.

Goulburn River water monitoring

CH presented GR WQ results for Jan – March 09. Upstream EC approx 300-450µS/cm, Downstream approx 500-750µS/cm, Ulan Creek EC approx 300-600µS/cm. Discharge pH around 7, one result above 8.5 – discharge turned off. Minimal discharge to Ulan Creek, around 2ML/day average - irrigating during drier months.

JI What changes have been made to the water monitoring arrangements at the bridge gauging stations station to address misreadings ?

CH PH probes have been added and other probes have been upgraded. Issues with downstream flow due to location of probe under road bridge. Development approval needed to move downstream gauging station to more suitable location– proposal to place velocity sensor in future but bank stabilisation required first.

JI/JL Discussion on Electrical Conductivity trends vs river flow.

JI Refer to some anomalous readings of EC– well above samples collected for DWE at Gleniston that show median range for river flow 500-600EC.

PE/JL Have to look at whole catchment – not just Moolarben Creek.

General Monitoring

JI Continual contamination of dust deposition data – how can this be prevented as it reduces the effectiveness of the monitoring. Can another system be developed e.g. a small suction pump that works off a solar panel as per electric fence. Collecting representative data (dust, noise or water) is essential for the community to have confidence in the monitoring programs & how this information is interpreted - critical with three mines operating

PE Ulan has high volume air samplers that do give better readings, however all monitoring equipment and methodologies are in accordance with the relevant Australian Standards and have been approved by DECC and DoP.

Goulburn River Diversion Long Term Rehabilitation Strategy

JL Provided an overview of the strategy detailing the approach UCML and the consultant group (URS) adopted to develop the strategy. The Strategy also considered what could be done to improve all features of the Diversion and then conducted a Cost / Benefit analyses to determine what would be reasonable and feasible.

Consideration was also given to issue that excessive work done in the channel would result in significant mobilisation of sediments in the channel system that has been deemed to be stable. Therefore significant works in stream is not a desirable option and most works would be aimed at achieving stable river banks and surface drainage system.

BS Will battering expose mine waste in East Pit?

JL The primary reason why the current river channel is eroding is a result of unsuccessful rehabilitation being achieved at the time of construction in 1981. The current strategy identifies that future rehabilitation activities should be staged over shorter areas i.e. 500 m and that the entire cycle of rehabilitation (construction – stabilisation) should be completed before commencing the next stage. The issue of battering into mine waste has been addressed in the strategy – UCML will maintain a buffer between the river and reject emplacement areas.

BS What period of time will it take to complete to channel?

JL Approximately 10 years, however it would depend on seasonal conditions.

Ground Water Monitoring

JI Quarterly monitoring reports very informative on the website – Dec & Mar showed impact on Triassic aquifers from Longwalls – PZ11a & b reading showed ↓ in upper aquifer more recently. Is there any advice from experts on this result?

JL The groundwater Environmental Assessment is still being finalised and will be presented to the CCC at the next meeting.

JI Asked what UCML thought of Moolarben claims that UCML fat face is breaching the upper Triassic aquifers and that MCM future drawdown would be the greatest above UCML ?.

PE We are currently reviewing Moolarben Stage 2 EA and need to complete this review in greater degree before discussion.

JI Need info for submission to Moolarben by the end of the month.

JI Raised concerns about Cumulative Impact and Long Term river flow loss and asked if UCML is participating in developing the Regional Groundwater model which Moolarben is required to develop.

PE Currently the groundwater data contained within the SMP is current until Mackie Environmental Research provides the updated model and assessment. UCML is in discussion with Moolarben to develop a working relationship for data sharing and the development of the regional groundwater model.

JI Piezometer monitoring of the upper aquifers associated with the long walls has only been over the last few years?

JL There was very little groundwater monitoring undertaken pre 1986, however over time UCML has built a comprehensive ground water monitoring network. This network was expanded considerably in last 4 years with the installation of the regional monitoring network.

BS The impact on upper aquifers has been on the table for 10 years – it needs to be (a) monitored and (b) recognised

JI Cumulative impacts of 3 mines on water resources will be enormous – monitoring as far as Triassic aquifer system needs to be viewed as urgent.

3 ULAN COAL - CONTINUED OPERATIONS

JL Provided an update on the status of the project and detailed the refinements to project since the last CCC meeting.

BS How long does current SMP last?

JL The current SMP provides approval for the current operation up to LW W3 and 26. However based on the current schedule a new SMP will be required by mid 2010 to allow for the commencement of development in LW27.

PE It was originally anticipated that the new Environmental Assessment would change the current SMP process, however recent advice from DPI indicates that a new SMP in its current format will be required.

BS So only 2-3 panels for next SMP?

PE In the past UCML have been limited by information available e.g. Aboriginal Heritage Surveys. Now that the broader survey has been completed UCML hope to make the next SMP incorporate a larger area.

JI What is the rationale for future discharge of water ?

JL UCML are currently revising its Life of Mine mass water balance based on the new groundwater model predictions – However in accordance with the UCML water strategy the EA is ensuring provisions are in place for future water management options if required.

JI Disputed logistical need to discharge water into Talbragar – excess water is coming from the Triassic and Permian aquifers which flow to north east as per river .

PE Logistically UCML would discharge into Ulan Creek, however other alternatives need to be investigated.

JI Suggested that UCML look at Managed Aquifer Recharge (MAR) - would assist aquifer recovery instead of discharging groundwater off site.

PE There is a fine balance required to manage water underground and sustain water on site. Due to the dip of the coal, putting water back underground would be detrimental to UCML current operations.

Energy & Greenhouse Gas Assessments

RW Provided a detailed presentation on the Noise, Air, Energy & Greenhouse Environmental Studies.

JI Does energy study involve round trip for trains or just one way?

RW Round trip.

JI How did Umwelt calculate the coal transport scope 3 GHG emissions percentage (0.16% of Australia's total greenhouse emissions)?

RW Will come back with data - Australia's total greenhouse emissions are around 576 million TCO_2-e pa (DoCC, National Greenhouse Inventory 2006).

JL All major R&D greenhouse projects are done at XC level, however sites look at energy savings projects unless there are issues with fugitive gas emissions.

JW Fuel usage figures do not seem correct – does it include employee travel to and from work?

JL Figures give consideration to the fact that the Open Cut only operates for up to 8 years with UG then ongoing. The dragline at Open Cut is powered through electricity and not diesel.

BS Has spontaneous combustion and slow oxidation of coal been included in the GHG calculations?

RW (response post meeting) spontaneous combustion and slow oxidation of coal have been included for information purposes At this point in time, without an accepted methodology for estimating these emissions, the emissions from both slow oxidation and spontaneous combustion are excluded from the National Greenhouse Gas Inventory. However, in an effort to include the potential emissions from slow oxidation and spontaneous combustion, emission factors for calculating these emissions were taken from the Energy Strategies report on fugitive greenhouse emissions. Slow oxidation & spontaneous combustion contributing minor amounts to CO2-e i.e. <0.9% of the total emission from the Project.

BS How is methane monitored?

JL O/C ROM estimated, U/G measured through vent air

Air Assessment

JW What is the total landholding of Ulan Coal Mines – leased separate?

JL Total 17,886ha (comprising both Privately owned land and Crown Land). UCML land within the mining lease boundary is 11081 ha.

BS Will some of the Ulan Coal dust monitors be impacted by Moolarben dust?

RW Will need to revisit placement of monitors pertaining to different projects.

PE UCML will be reviewing placement in EPL.

JL DM5 data contaminated because of dirt road adjacent to the monitor location i.e. when the road is graded excessive dust is collected due to an isolated event.

PE A theory across areas where there is neighbouring mines is to have a single monitoring network for all sites. This can be problematic due to issues with maintenance etc.

JI What is the limit for dust deposition?

RW 4g/m^2/month annual average, calculated monthly.

RW Dust emissions based on key dates over project life i.e. Yr 1,5,7,12 & 17. Assessment took into account Moolarben operations.

BS What about Wilpinjong?

RW Yes, however they won't have a large impact on project.

JI What is the max increase in dust deposition based on?

RW Background level of 2.9g/m^2/month however UCML have annual average limit of 4g/m^2/month

Noise

BS What are the Moolarben Noise monitors – Part I requirement?

JL Need to review Stage 1 consent.

JI Moolarben stops the modelling contours to the the north – does Ulan Coal monitor noise near Gleniston? Set up a temporary monitoring site years ago but removed it due to bird noise

RW Ulan monitors all areas and contours.

JI Is the Open Cut the main noise source and once it is finished will this noise reduce?

JL The Wash Plant is the major background noise source at UCML.

RW The noise heard at a location is relative to the locations of the noise sources e.g. the types of noises heard at the village are different to that at the north of the project and again different to that heard along Cope Road. Noise is relative to where you are actually standing.

Environmental Assessment Studies

BS The Aboriginal Archaeology/Ecology/Traffic and Transport – cumulative impacts of these along with other mines critical. Are Ulan's studies taking into account cumulative impacts including past impacts from UCLM operations ?

RW All reports will consider cumulative impact - Wilpinjong & Moolarben.

JI Congratulate Ulan Coal for EA information provided, better than from the other mines.

JL We need to set another meeting to present the findings of the other key EA studies i.e. Groundwater, Surface Water, Subsidence & Traffic.

JW How is traffic assessment going?

RW End of month time frame.

JL We will be talking to Council regarding the traffic assessment – from the point of view of CCC – need to set aside another day.

JI What will be the total workforce numbers?

JL Total = 1088 @ peak minus 270 construction people, leaving 818.

4 GENERAL BUSINESS

JI Website link to noise graphs needs fixing

JI Dec 08 internet summary – groundwater make from model 18ML/day in 2011. Is this still current? Is UCML monitoring P and N - DWE monitoring shows an upward trend from 2000?

JL Model being revised - will be presented in groundwater assessment. No P & N data collected

EM Letter tabled at meeting from Chairperson of Moolarben CCC requesting CCC of 3 mine sites convene at a meeting.

JL/PE Who would be the attendees? Is it a one off? If not, how often? Need clear agenda as to meeting purpose.

BS Meeting just to get mines together for general discussion.

PE Will need to run it past the General Manager before any further action

JI Suggest proposed agenda be put forward from the three mines for consideration .

BS Meeting is just a reality check of what's happening on the ground. Genuine conversation not witch hunt.

JL Suggest brainstorm of agenda between BS, JI, JW EM and present to mines.

Next Meeting

Monday 1 June 2009 – 10am – 2pm
Specific Meeting for Key issues of Subsidence, Groundwater and Traffic only.

Action Status Table

ITEM	RAISED BY	ACTION	RESPONSIBILITY	STATUS
1	BS	Present results from soil microbiological testing at next CCC meeting	PE	Complete
2	JI	Contact concerned resident on Wongaroo Rd to discuss use of road by exploration vehicles	JL	Complete
3	JI	Add OH to list of analytes for monthly sampling of Ulan Creek discharge water	PE	Complete
4	JI	Present comparison of discharge WQ and Goulburn Rover WQ at next meeting	PE	Complete
5	PE	UCML to finish reviewing community risk assessment and sent out revised document for comment	PE	Complete
6	BS	Distribute Biodiversity Monitoring review	PE	Complete
7	BS	Distribute DGR's for Continued Operations Project EA	JL	Pending
8	JL	Follow up on JL's request for information on proposed roadworks for Ulan and Cope Roads	JW/GB	Complete
9	JL	Brainstorm of proposed agenda for three way mine/CCC meeting	EM, BS, JI, JW	Pending
10	JI	Provide explanation of how Coal Transport Scope 3 emissions % was calculated.	RW	Pending
11	JI	Report to CCC on Col Mackie Groundwater Investigation?		