

ULAN WEST LONGWALL 8 MID-BLOCK ROADWAYS

FIRST WORKINGS AMENDMENT: ABORIGINAL HERITAGE ADVICE

Prepared by:

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Ulan Coal Mines Pty Limited (UCMPL)¹ received Project Approval (PA) 08_0184 on 15 November 2010 under Part 3A of the NSW *Environmental Planning and Assessment Act 1979* for the Ulan Coal - Continued Operations Project (UCCO Project).

An approved Heritage Management Plan (HMP) (currently Version 8.0, UCMPL 2019a) guides the management of Aboriginal heritage within the Project Approval Area.

South East Archaeology has been engaged by UCMPL to provide advice about Aboriginal heritage issues in relation to a proposed amendment to first workings for the Ulan West underground mine Longwall 8 (LW8) in the vicinity of the Brokenback Conservation Area (refer to Figures 1 and 2).

This advice has been prepared by Peter Kuskie, an archaeologist with a BA (Honours) degree in Aboriginal archaeology and over 30 years experience in the conduct of Aboriginal cultural heritage assessments throughout Australia, including 20 years experience at Ulan.

To ensure significant heritage items within the Brokenback Conservation Area are protected from subsidence related impacts and to ensure compliance with Condition 24, Schedule 3 of PA 08_0184, longwall mining of Ulan West LW8 requires the longwall to be recovered and reinstalled in two separate locations, referred to as an “A” block to the north and a “B” block to the south (refer to Figure 1).

There are three groups of first workings associated with the proposed amendment, all located within a barrier to longwall mining that is required to protect cliff formations and significant heritage sites within the Brokenback Conservation Area (refer to Figure 1).

The first group of first workings are intended to assist with ventilation and access during recovery of the longwall supports when the longwall steps around the Brokenback Conservation Area. Specifically, these proposed recovery headings are required to:

- ❑ Provide a second ventilation path and access way for equipment recovery when the longwall face is stepped around the Brokenback Conservation Area; and
- ❑ Provide a second means of egress to persons and ensure compliance with Clause 96 of the *Work Health and Safety (Mine and Petroleum) Regulation 2014* (the Regulation).

¹ Formerly Ulan Coal Mines Limited (UCML).

The Regulation prohibits the formation of a roadway greater than 250 metres in length without a second means of egress. Due to the Longwall face being 400 metres in length, on commencement of Longwall roof support recovery, Ulan West would not be able to satisfy Clause 96 of the Regulation without inclusion of the proposed underground roadway.

The second group of first workings is located in and adjacent to the maingate of Longwall 8. These workings are required to ensure compliance with Clause 96, allow installation of mine infrastructure and extend the companion road to the Longwall 8B installation road.

The third group of first workings is mainly in the maingate of Longwall 7 and includes a slight move in the installation road for Longwall 8B so that the goaf of Longwall 8B remains outside the BBCA and various cut-throughs and stubs required for relocation of the longwall face.

The proposed amendments to underground workings do not involve the addition or change in the approved location of any previously approved surface infrastructure.

The amendments are located in the immediate vicinity of the eastern portion of the Brokenback Conservation Area (refer to Figure 2).

The primary purpose of the establishment of the 58 hectare Brokenback Conservation Area was to ensure that subsidence impacts are avoided to Aboriginal sites located within the Brokenback Conservation Area (refer to Figure 2 and Table 1).

These conserved Aboriginal sites include six (ID# 194, 195, 196, 197, 907 and 908) of the 11 sites of high heritage significance that would have been susceptible to impacts from the Project and four (ID# 192, 193, 901 and 906) of the 17 sites of moderate to high significance, and three sites of moderate significance, that would have been susceptible to impacts (refer to Table 1). Detailed descriptions of each of these rock shelter sites are presented in Volume B13 of Kuskie (2009).

The Brokenback Conservation Area also includes other rock shelter sites of low heritage significance, several rock shelter sites of moderate to high significance that were unlikely to be affected by subsidence, and 19 open artefact sites of which 16 lie wholly within the conservation area and three partially within the area (refer to Table 1). Eleven of the open artefact sites had been assessed as being of low heritage significance, one of low to possibly moderate significance, one of low to moderate significance and six of moderate significance (Kuskie 2009). Detailed descriptions of each of the open artefact sites are presented in Volume B12 of Kuskie (2009).

Management of the Brokenback Conservation Area occurs in accordance with an Aboriginal Conservation Management Plan (UCMPL 2019b), consistent with Condition 47(c) of PA 08_0184.

An assessment of the potential subsidence impacts of the proposed first workings amendments has been prepared by Dr Ken Mills (2020) of SCT Operations Pty Ltd. Mills (2020) has concluded that the proposed first workings “do not have potential to cause subsidence or to significantly affect the subsidence effects or subsidence impacts that are approved to occur at the completion of mining Longwall 8” and that “the first workings will have no impact on Aboriginal heritage values, including those associated with the Brokenback Conservation Area”.

On this basis, it is concluded that the proposed amendment to the first workings will have no impact on Aboriginal heritage values, including those associated with the Brokenback Conservation Area.

References:

Kuskie, P. 2009 *Ulan Coal Continued Operations: Aboriginal Heritage Assessment (Volumes A and B)*. Unpublished report to Umwelt (Australia) Pty Ltd on behalf of Ulan Coal Mines Ltd.

Mills, K. 2020 *Subsidence Assessment for First Workings Amendment: Ulan West Longwall 8 Mid-Block Roadways*. Unpublished report to Ulan Coal Mines Ltd.

UCMPL 2019a *Heritage Management Plan (ULNCX-111515275-95 Version 8.0 Effective 15/05/2019)*. Unpublished report.

UCMPL 2019b *Aboriginal Conservation Management Plan (ULNCX-111515275-1785 Version 7.0 Effective 15/05/2019)*. Unpublished report.

Figure 1: Ulan West Longwall 8 proposed first workings amendment (courtesy UCMPL).

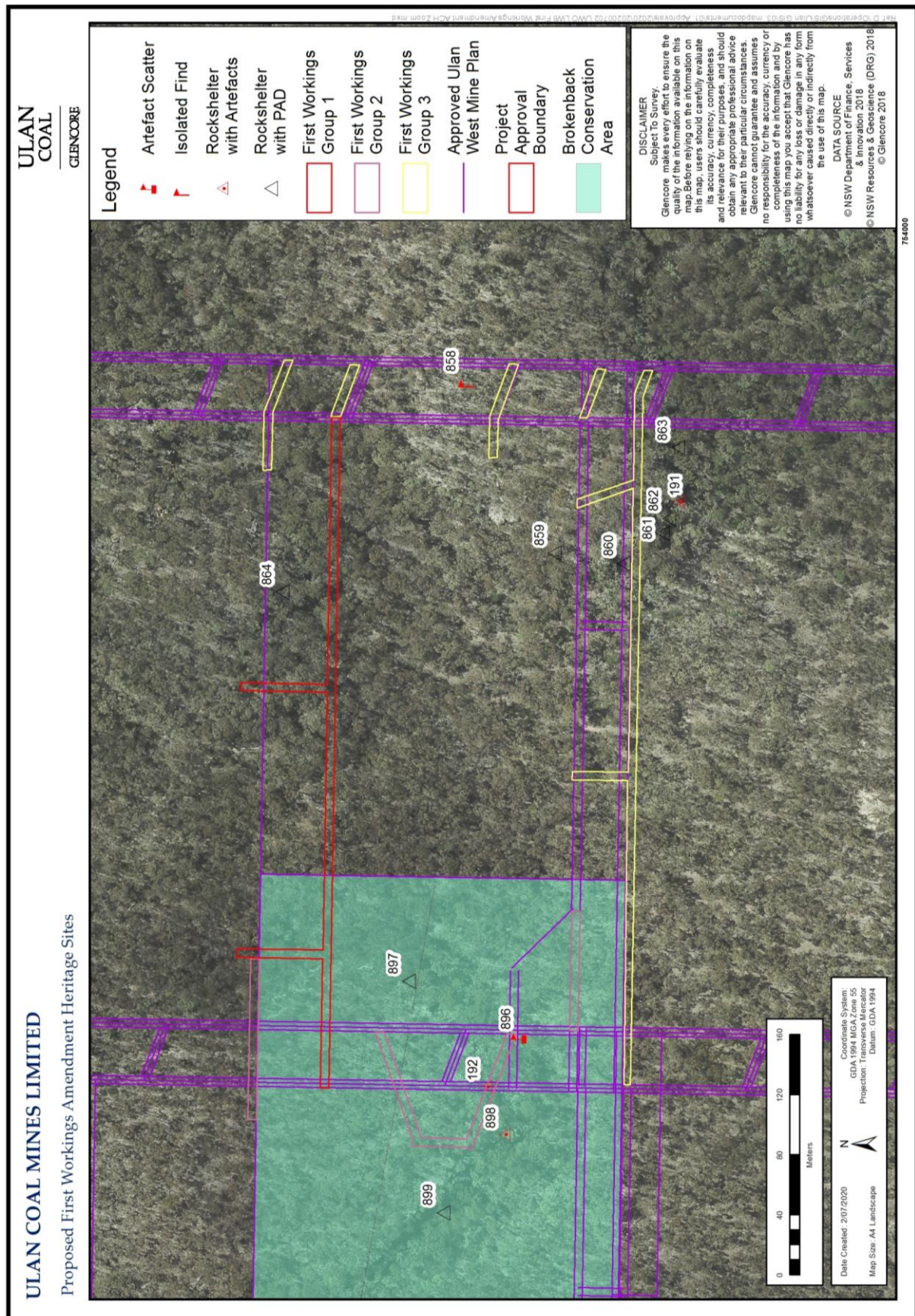


Figure 2: Brokenback Conservation Area Aboriginal heritage sites and Ulan West Longwall 8 proposed first workings amendment (courtesy UCMPL).

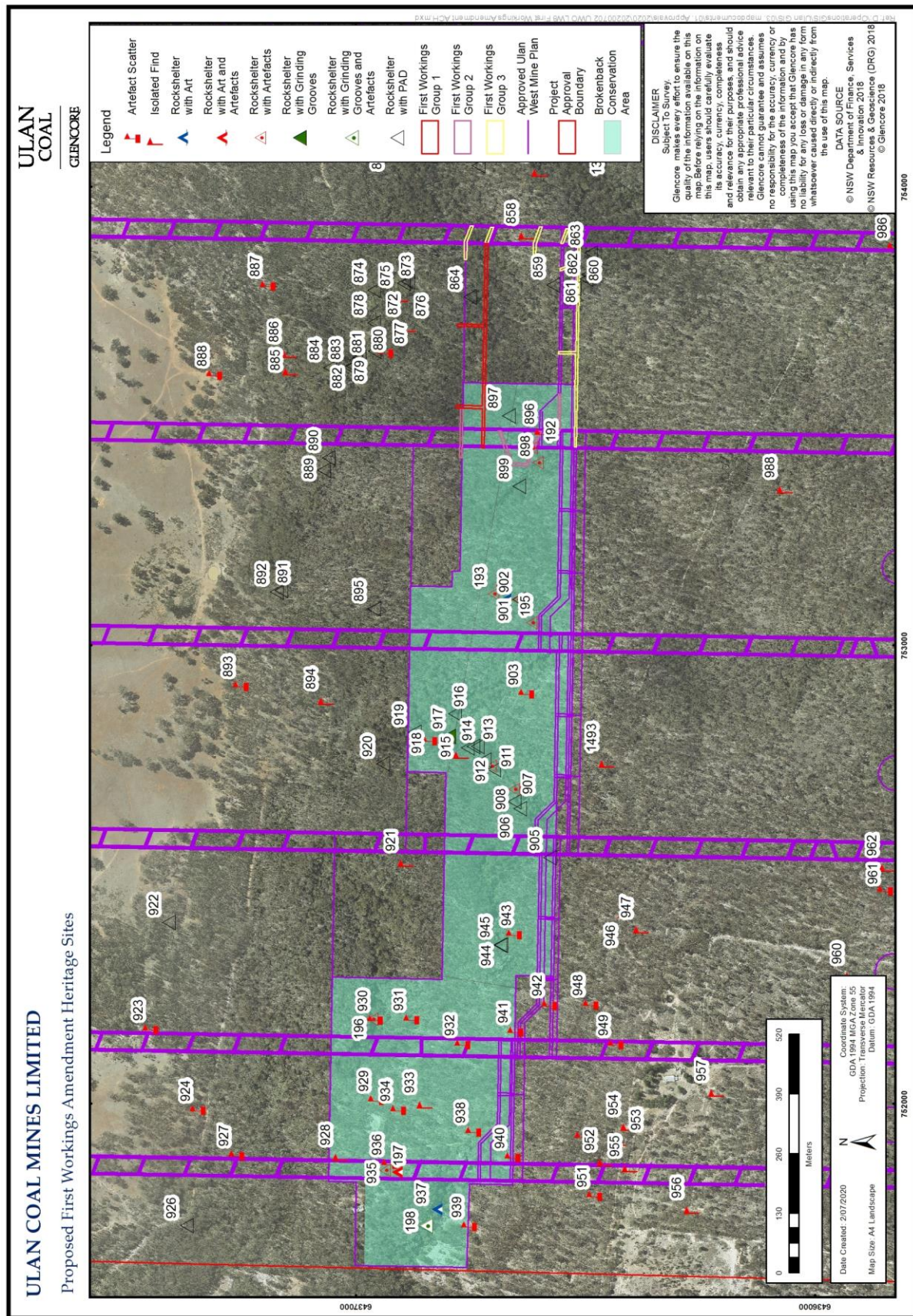


Table 1: Aboriginal rock shelter sites and open artefact sites (artefact scatters and isolated finds) wholly or partially present within the Brokenback Conservation Area.

Ulan ID#	Site Type	Heritage Significance	Probability of Perceptible Impacts	Probability of Rock Falls
192	Rock Shelter with Artefacts	moderate - high	0%	0%
193	Rock Shelter with Artefacts	moderate - high	0%	0%
194	Rock Shelter with Art	high	0%	0%
195	Rock Shelter with Artefacts	high	0%	0%
196	Rock Shelter with Artefacts	high	0%	0%
197	Rock Shelter Art and Artefacts	high	0%	0%
198	Rock Shelter with Grinding Grooves and Artefacts	moderate	0%	0%
896	Artefact Scatter	low	0%	n/a
897	Rock Shelter with PAD	low	0%	0%
898	Rock Shelter with Artefacts	low - moderate	0%	0%
899	Rock Shelter with PAD	low	0%	0%
900	Artefact Scatter	low	0%	n/a
901	Rock Shelter with Artefacts	moderate - high	0%	0%
902	Rock Shelter with PAD	low	0%	0%
903	Artefact Scatter	low	0%	n/a
904	Artefact Scatter	low-possibly moderate	0%	n/a
905	Rock Shelter with PAD	low	10%	0%
906	Rock Shelter with PAD	moderate - high	0%	0%
907	Rock Shelter with PAD	high	0%	0%
908	Rock Shelter with Artefacts	high	0%	0%
909	Rock Shelter with PAD	low	0%	0%
910	Rock Shelter with Artefacts	low	0%	0%
911	Rock Shelter with PAD	low - moderate	0%	0%
912	Rock Shelter with PAD	low	0%	0%
913	Rock Shelter with PAD	low	0%	0%
914	Rock Shelter with PAD	low	0%	0%
915	Isolated Find	low	0%	n/a
916	Rock Shelter with PAD	low	0%	0%
917	Rock Shelter with Grinding Grooves	moderate	0%	0%
918	Artefact Scatter	low	0%	n/a
919	Rock Shelter with PAD	low	10%	0%
928	Isolated Find	low	0%	n/a
929	Artefact Scatter	low	0%	n/a

Ulan ID#	Site Type	Heritage Significance	Probability of Perceptible Impacts	Probability of Rock Falls
930	Artefact Scatter	moderate	0%	n/a
931	Artefact Scatter	moderate	0%	n/a
932	Artefact Scatter	low	0%	n/a
933	Isolated Find	low	0%	n/a
934	Artefact Scatter	low	0%	n/a
935	Rock Shelter with Artefacts	moderate	0%	0%
936	Artefact Scatter	moderate	0%	n/a
937	Rock Shelter with Art	moderate - high	0%	0%
938	Artefact Scatter	moderate	0%	n/a
939	Artefact Scatter	low-moderate	0%	n/a
940	Artefact Scatter	moderate	0%	n/a
941	Artefact Scatter	moderate	0%	n/a
943	Artefact Scatter	low	0%	n/a
944	Rock Shelter with PAD	moderate	0%	0%
945	Rock Shelter with PAD	low	0%	0%