

# CSA Mine Area Regolith Landform Map Cobar, New South Wales

## TRANSPORTED REGOLITH

### Alluvial Sediments

**Aap1** – Sub-rounded to well-rounded lithic and quartzose gravels dominated by a fine silty and sandy clay matrix. Typically broad areas (up to 500 m across) of low relief and gently sloping incised channels greater than 1 m in depth with occasional large areas of sediment deposition.

**Aap2** – Sub-rounded to well-rounded lithic, quartzose and psoidal ferruginous gravels and fragments in a fine sand matrix also containing silts and clays. Low relief and gently sloping, shallow incised and occasionally braided channels less than 1 m in depth, with some minor areas of sediment deposition.

**Aed1** – Sub-rounded to angular fragments of lithic and quartzose gravels with minor sands and silts. Wide spread sub-rounded to well-rounded ferruginous material consisting of psoidal lag <15 mm in diameter. Gently inclined slopes, aggraded by sheet wash material.

**Aed2** – Sub-rounded to angular fragments of lithic and ferruginous quartzose gravels <15 mm with minor sands and silts. Gently inclined slopes, and irregular slightly incised channelways, aggraded by sheet wash material.

**Apd** – Well sorted quartzose and lithic sands, silts and clays with minor areas of lithic gravels and ferruginous lag. Extremely low relief.

**ACA** – Well-rounded to sub-rounded psoidal ferruginous, lithic and minor quartzose gravels, up to 20 mm in diameter. Some highly weathered bedrock fragments typically cemented by a heavy clay matrix, including minor sands and silts. Broad areas up to 500 m across of low relief, with active and occasionally braided channels dominate this landform. Main channels are infilled up to a depth of 10 m. Gravel accumulations are generally reworked due to the eroding of clay cement.

### Colluvial Sediments

**Cer** – Well-rounded ferruginous lag, also with some minor angular lithic gravels and quartz fragments. Low angle, gently sloping rises with minor topographic relief.

**Cher1** – Angular to sub-angular lithic and minor quartzose gravels. Sub-angular to rounded psoidal ferruginous lag commonly visible on land surface. Occasional sub-cropping fine grained sandstones and siltstones. Low, gently sloping, undulating rises with minor topographic relief.

**Cher2** – Angular to sub-angular lithic and quartzose gravels. Sub-angular to rounded psoidal ferruginous lag and lithic gravel. Small areas of sub-cropping sandstones and siltstones. Low, gently sloping, undulating rises with minor topographic relief. Minor features characteristic of sheet wash processes.

**Cher3** – Minor sub-angular lithic and quartzose gravels and fragments up to 100 mm, dominated by an aeolian sediment-rich matrix consisting of fine sands and silts. Minor sub-cropping sandstones, siltstones and mudstones. Minor fraction of well-rounded lithic gravels. Abundant sub-rounded to well-rounded psoidal ferruginous lag. Large areas of low to very low topographic relief, rare undulating land surface consistent with palaeoplain dominate this landform.

**Ched** – Sub-rounded to angular lithic, quartzose and ferruginous gravels, sands and minor silt and clay. Shallow open depressions, mostly with moderately inclined slopes, aggraded by angular and sub-angular sheet wash material.

**Chep** – Sub-rounded to sub-angular lithic and quartzose gravels with sub-rounded ferruginous lag and minor silt and sand wash. Undulating land surfaces of low relief.

**Chpd** – Dominantly sub-rounded to sub-angular lithic and quartzose fragments and ferruginous lag. Minor angular gravel and lag. Large quantities of ferruginous lag predominantly consisting of well-rounded to sub-rounded psoidal lag varying in size up to 10 mm in diameter. Low and slightly undulating landform pattern, typically located opposite to eroding channel bank or hill slope.

## IN SITU REGOLITH

### Slightly Weathered Bedrock

**SSel** – Dominated by near vertical exposed siltstones and fine-grained sandstones, with minor aeolian sand and silt accumulations. Exposed bedrock has been strongly indurated by iron- and manganese-oxides (primarily hematite) forming resistant gossanous coatings and infillings of fractures and joints in exposed bedrock. Moderate relief landform with gentle to steeply sloped areas, and occasional channelled drainage. Landform encircled by active sheet wash surface, aggrading colluvial sediments.

**SSer1** – Exposed slightly weathered, medium to coarse-grained quartz sandstone boulders with minor accumulations of lithic and ferruginous lag. These are dominated by sub-rounded to well-rounded psoidal lag up to 10 mm in size. Minor accumulations of sands, silts and clays derived from both colluvial and aeolian processes. Large areas of moderate to low topographic relief, occasional undulating land surfaces. Characteristic of early development of sheet wash processes.

**SSer2** – Near vertical sub-cropping partially altered and slightly weathered siltstones and occasional fine-grained quartz sandstone beds, dominated by in situ and aeolian sands, silts and clays. Also abundant lithic and minor ferruginous and quartzose fragments. Large areas of moderate to low topographic relief, occasional undulating land surfaces. Surface features characteristic of sheet wash processes.

**SSEP** – Exposed sub-angular sandstone cobbles and boulders with abundant sub-angular lithic and ferruginous lag and minor silt and sand accumulations and wash. Widespread and abundant well-rounded psoidal ferruginous lag, up to 10 mm in diameter. Undulating land surfaces of low relief.

## OTHER

### Fill

**Fm** – Anthropogenic and disturbed highly variable regolith and landforms.

