Site Verification Certificate
Integra Underground Continued Operations Project (SVC 8691)

Part 4AA, Division 3 of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*

Pursuant to clause 17C(1) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*, I determine the application made by HV Coking Coal Pty Ltd by issuing this certificate.

I certify that in my opinion, having regard to the criteria in the *Interim protocol for site verification and mapping of biophysical strategic agricultural land*, the Verification Application Area land specified in Schedule 1 is not Biophysical Strategic Agricultural Land.

The reasons for forming this opinion against relevant criteria, is contained in Schedule 2.

Deputy Secretary
As delegate of the Secretary
Date certificate issued: 11 September 2017

This certificate will remain current for 5 years from the date of issue.

OEH – Report on Site Verification Certificate

DP&E Application No. 17_8691

Project Name : Integra Underground Mine Modification 8

Proponents Name: HV Coking Coal Pty Limited

Proponents Address: 640 Middle Falbrook Road, Singleton NSW 2330

Date complete application and data received by OEH: 1st September, 2017

Date report dispatched to DP&E:

Summary of Project:

Integra Underground Mine, a subsidiary of Glencore, is located in the Upper Hunter Valley and lies approximately 12 km north-east of Singleton.

The project is to modify Integra's Project Approval (PA 08_0101). This modification application is being made under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act). HV Coking Coal is seeking approval to continue longwall mining of the Middle Liddell Seam further to the north of the currently approved longwall panels (the Modification). The Modification also involves the construction and operation of ancillary surface infrastructure. The application under section 75W of the EP&A Act triggers the requirement for a Site Verification Certificate which requires the assessment of the relevant land in accordance with the *Interim protocol for site verification and mapping of biophysical strategic agricultural land* (NSW Government, 2013) (Interim Protocol).

According to the proponent's report, the majority of the Assessment Area is comprised of open-cut mining activities and rehabilitated emplacement areas and the remaining undisturbed area of approximately 19.3 ha. The proponents have forwarded an SVC application with site assessment data to DP&E, whom have requested OEH to undertake assessment against the standards of the *Interim Protocol.*

OEH received the proponents report, from DP&E on the 21st of August, 2017 but due to insufficient technical data, was unable to undertake an assessment. The proponent provided additional data on the 1 September 2017, which enabled OEH to commence the SVC assessment.

This document undertakes a review of data supplied as part of the Integra Underground Mine Modification 8 (SVC 17_8691) application against the *Interim Protocol for Site Verification and Mapping of Biophysical Strategic Agricultural Land (BSAL)*. OEH provides the following advice in respect of the 17_8691 SVC application.

OEH Advice to DP&E:

Applicant's soil and land data appears consistent with the protocol for site verification and mapping of biophysical strategic agricultural land	Yes
Applicant's soil and land data appears consistent with OEH soil survey knowledge and existing soil and landscape data of the general area	Yes
Applicant's project area, or part thereof, is likely to contain BSAL according to the protocol for site verification and mapping of biophysical strategic agricultural land	No

Approved by:

5 Sept 2017

Brian Jenkins, Senior Team Leader, Assessment

OEH ASSESSMENT OF BSAL SITE VERIFICATION CERTIFICATE APPLICATION

SVC 17_8691

SUMMARY OF ASSESSED ITEMS	Appropriate as per the Protocol		Justification
	Yes	No	
PERSONNEL			
Evidence provided by the applicant that a qualified soil scientist oversaw the verification assessment and signed off on the quality and extent of the work	X		Clayton Richards oversaw and reviewed all components of the soil survey and SVC assessment. He is suitably qualified holding a current Certified Practising Scientist (CPSS 2) rating with Soil Science Australia (SSA). Additionally, a statement has been provided by the scientist certifying the accuracy and quality of the assessment.
MAPS			
Geographically accurate base map (at 1:25,000) of assessment area supplied as per *Interim Protocol*. Spatial dataset (boundary of assessment area) supplied in GIS format as per *Interim Protocol*.	X		A comprehensive suite of PDF base maps was provided. Spatial data of SVC assessment area (subject area) included both disturbed and undisturbed land. Using the proponent's data OEH considers the total area requiring assessment as approximately 20 ha.

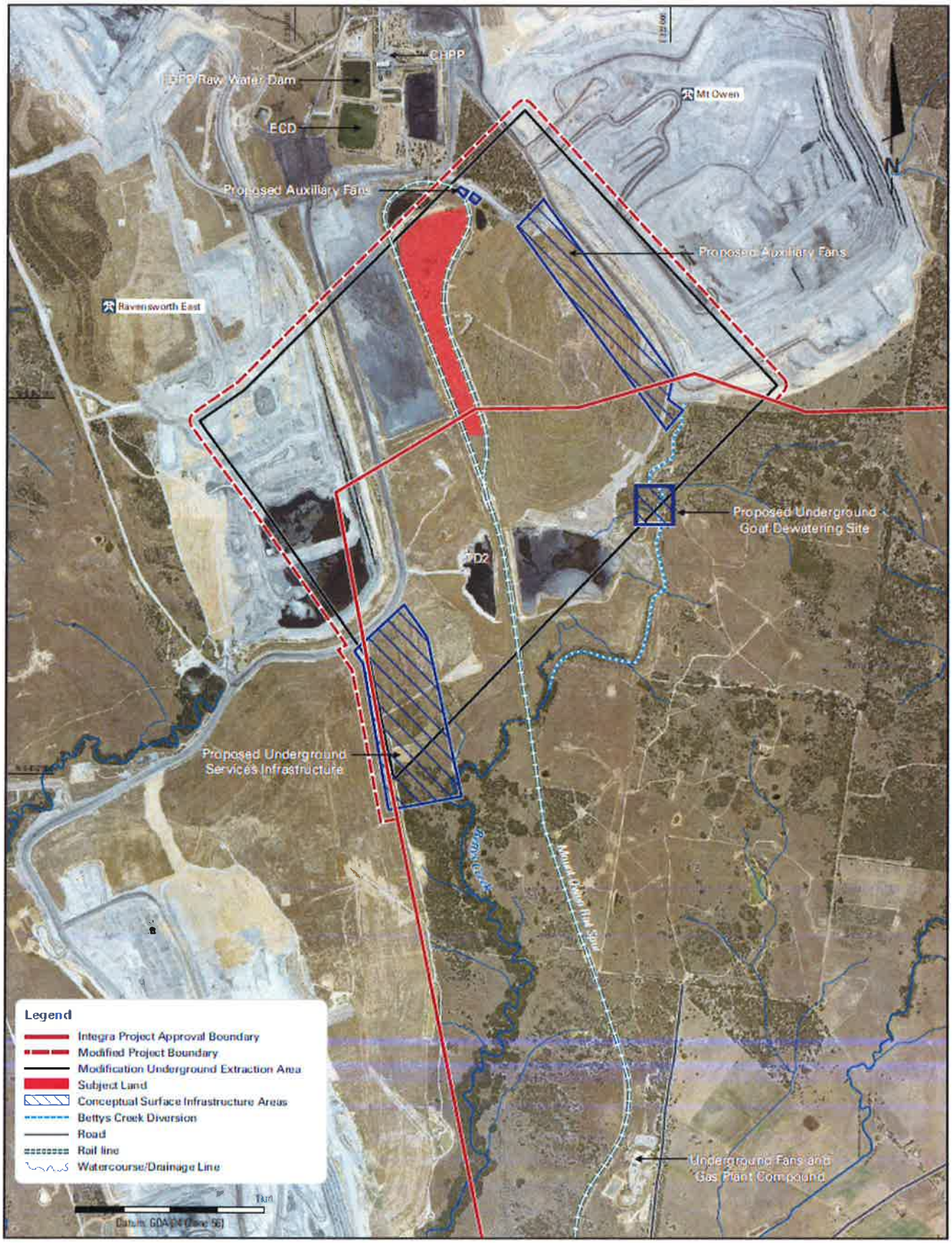
SUMMARY OF ASSESSED ITEMS	Appropriate as per the Protocol		Justification
	Yes	No	
Soil map (at 1:25,000) of project area supplied including all observation (Detailed, Check and Exclusion) sites as per *Interim Protocol*. Spatial datasets (soil map, observation sites and data reliability/data source diagram) supplied in GIS format as per *Interim Protocol*.	X		Soil map of a single soil type provided as PDF map in proponent's report but not in GIS format. As there was only one soil type present (as verified by site data and OEH assessment) a GIS soil map was not necessary for OEH's assessment.
Map of assessment area showing BSAL (at 1:25,000) and exclusion zones marked according to their BSAL limitation. Spatial dataset (boundary of BSAL areas) supplied in GIS format as per the *Interim Protocol*.	X		No BSAL was identified from site data.
Maps presented in correct datum with appropriate symbology, north points, unambiguous legends, meaningful colour ramps, scale bars, and sampling grid included as per the *Interim Protocol*.	X		
Metadata for spatial datasets have been provided as per the *Interim Protocol*.	X		
LODGEMENT OF SITE AND LABORATORY DATA			
All Site observations lodged on BSAL Soil Data Cards or eDIRT and all required field attributes completed correctly for each observation type as per the *Interim Protocol* (i.e. **check. exclusion and detailed**).	X		

SUMMARY OF ASSESSED ITEMS	Appropriate as per the Protocol		Justification
	Yes	No	
All Laboratory data supplied in the SALIS Lab Data Template, appropriate test procedures (e.g. National Test Code) identified and all relevant test results completed as per the *Interim Protocol.*	X		All laboratory data provided in SALIS format except for Electrical Conductivity (EC) 1:5 water (C1A/5). However, EC data was provided in Appendix C of PDF report and manually entered by OEH into SALIS.
MODEL OF SOILS DISTRIBUTION			
Where the proponent does not have access to the land, a model of soils distribution is provided detailing the methodology used to enable an assessment of the land in question to be made.	NA	NA	Proponents had access to the land.
SITE ASSESSMENT			
The project area or part thereof contains a contiguous area of at least 20 hectares which meets all BSAL conditions – possible/verified BSAL adjoining the assessment area may need to be considered		X	
Sampling density is as specified in the *Interim Protocol*	X		
Site observations are recorded as specified in the *Interim Protocol*	X		
Observation sites (**check, detailed and exclusion sites**) are relatively evenly distributed across the survey area	X		

SUMMARY OF ASSESSED ITEMS	Appropriate as per the Protocol		Justification
	Yes	No	
Each soil type identified has at least three **Detailed sites**	X		Only one soil type present (Sodosol) which has 4 detailed site observations.
All relevant data has been collected and provided for **detailed sites** as per the *Interim Protocol*	X		
Detailed sites are representative of the soil type being assessed	X		
Description of **detailed sites** is accompanied by a photograph of the site and of the soil profile being described	X		
Appropriate information (as specified in the *Interim Protocol*) collected for all **exclusion sites**	NA	NA	The total exclusion area is extremely small (<3 ha), comprising of numerous tiny fragments of steep slopes (0.3 ha >10%) and a small area (~2.5 ha) of prior disturbance (supported by aerial photography). OEH considers it was not necessary for additional information to be provided due to the small size of the exclusion areas.

SUMMARY OF ASSESSED ITEMS	Appropriate as per the Protocol		Justification
	Yes	No	
At least two **exclusion sites** per polygon in excluded areas (except for areas with no access e.g. only remote modelling of attributes)	NA	NA	OEH considers it was not necessary for additional information to be provided due to the small size of the exclusion areas (see comment above).
Adequate numbers of **check sites** used to (i) allocate a site to a soil type and soil map unit and, (ii) confirm existing mapping			All sites were detailed sites
CROSS REFERENCE ASSESSMENT WITH OEH SOILS DATA			
Soil mapping and attributes appear consistent with OEH soil and landscape data and expected/anticipated soil types in the project area or locality	X		Soil mapping and attributes appear consistent with OEH soil and landscape data and knowledge of the soils in the general area. The entire assessment area occurs within the **Bayswater** (**SC-bz**) map unit of the *Soil Landscapes of the Singleton 1:250 000 sheet* (Kovac and Lawrie 1991). This map unit contains soils of low fertility with a moderate to extreme erosion hazard. Topsoils are often hardsetting and subsoils can be sodic and sometimes saline.

SCHEDULE 1



INTEGRA UNDERGROUND MINE

GLENCORE | Hansen Bailey |

Subject Land

SCHEDULE 2

Relevant criteria	Consideration
Soil fertility (type), drainage, pH and salinity.	The site comprises soil landscapes that fail to meet the criteria for biophysical strategic agricultural land, due to a combination of the following parameters: sodicity, fertility, drainage, soil type and salinity.