

Field Engineering and Technology

Review of *Extractive Industries* unit standards

Subfield	Domain	ID
Extractive Industries	Extractive Industries Management	8905, 16686, 17743, 21155, 21629, 21661, 23648, 28739, 28740, 28983, 29087, 31091, 31761, 31762, 32283, 32284
	Surface Extraction	15663, 15664, 15665
	Underground Extraction	17741

Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council has completed the review of the unit standards listed above.

Date new versions published

January 2025

Planned review date

December 2029

Summary

Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council initiated a combined review of the extractives suite of qualifications and associated unit standards in the Extractive Industries Management, Surface Extraction, and Underground Extraction domains. This was long overdue as this industry has undergone extensive health and safety review resulting in more stringent regulatory requirements identifying specific unit standards required for compliance. The Technical Advisory Group (TAG) consisted of industry, regulatory bodies and providers who have consent to assess.

All unit standards were updated in line with current industry practices, standards, acts and regulations. This was done in consultation with industry representatives and providers with consent to assess during many online TAG meetings.

Unit standard 31091 was initially set to expire in December 2026, but feedback from industry stakeholders has indicated that it is still required, integrating elements of unit standards 32283 and 32284. These two standards were originally developed to replace unit standard 31091 by separating theoretical knowledge from practical application, addressing the challenge that learners often struggled to complete the practical components. However, industry has now recognized that in the absence of practical application - specifically, in extractive settings where there are no stockpiles or tip heads, the theoretical knowledge is unnecessary. Consequently, this theoretical component has been removed from the Certificate of Competence (CoC) compliance requirements for these employers.

Main changes

- Guidance Information was updated to reflect current legislation.
 - Standard Setting Body changed from MITO to Hanga-Aro-Rau Workforce Development Council.
- Extractive Industries Management*
- Outcome, performance criteria and range statements were amended in unit standards 8905, 16686, 17743, 21155, 21629, 21661, 23648, 29087, 31761 and 31762 to align with current industry practices, standards, acts and regulations.
 - Unit standard 26855 was added as recommended for entry to unit standard 16686.
 - Title of unit standard 21661 was amended to align with content of the standard.
 - Unit standards 28739, 28740 and 28983 are cover sheets for Australian standards, change of cover sheet titles removing the context “at an extractives site” so that the unit standard title is the same as the Australian standard as required in the license agreement.

- Unit standards 32283 and 32284 were set to expire (Category D).
- Unit standard 31091 was made current (Category B) with minor change to the title, outcomes, performance criteria and range statements.

Surface Extraction

- Unit standards 5663, 15664 and 15665 - minor changes were made to performance criteria and range statements, and title (15665).

Underground Extraction

- Unit standard 17741 - Outcome 4 was moved to Outcome 1. Outcomes 1 and 2 were merged as Outcome 2.

Category D unit standards will expire at the end of December 2026

The last date for assessment of superseded versions of Category B unit standards is 31 December 2026

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Engineering and Technology > Extractive Industries > Extractive Industries Management

ID	Title	Level	Credit	Review Category
8905	Demonstrate knowledge of construction and maintenance of working surfaces at an extractive site	3	5	B
16686	Conduct an incident investigation at an extractive site	5	8	B
17743	Demonstrate knowledge of survey principles and apply to an extraction site	4	4	B
21155	Demonstrate knowledge of the management and use of water at an extractive site	4	7	B
21629	Evaluate plans to manage old workings and inundations at extractive sites	5	10	B
21661	Demonstrate knowledge of the use of electrical reticulation plant and equipment in extractive operations Explain the uses of electrical reticulation plant and equipment in extractive operations	4	7	B
23648	Demonstrate knowledge of and follow safe working practices at an extractive site	3	5	B
29087	Survey and produce statutory mine plans	6	20	B
31091	Operate and maintain stockpiles and tip heads at extractive sites Operate and maintain stockpiles and tip heads at an extractive site	4	8	B
31761	Demonstrate knowledge of assessing, monitoring, and controlling risks to worker health in the extractive industries	4	8	B
31762	Demonstrate knowledge of worker health in the extractive industries	2	3	B

ID	Title	Level	Credit	Review Category
32283	Explain hazards and controls associated with stockpiling and tip heads at extractive sites	4	2	D
32284	Follow, maintain and recommend modifications for stockpiling and tip head management plans at an extractive site	4	6	D
28739	Establish and maintain risk management systems at an extractive site (Cover Sheet) Establish and maintain the risk management system	6	15	B
28740	Establish and maintain the work, health and safety (WHS) management system at an extractive site (Cover Sheet) Establish and maintain the WHS management system	6	20	B
28983	Carry out the risk management process at an extractive site (Cover Sheet) Carry out the risk management process	5	10	B

Engineering and Technology > Extractive Industries > Surface Extraction

ID	Title	Level	Credit	Review Category
15663	Demonstrate knowledge of the geotechnical requirements for ground stability at surface extraction sites	5	15	B
15664	Demonstrate introductory knowledge of geology at surface extraction sites	3	5	B
15665	Demonstrate knowledge of geology and geotechnical features and failures for surface extraction Demonstrate knowledge of geology and geotechnical features and hazards for surface extraction	4	5	B

Engineering and Technology > Extractive Industries > Underground Extraction

ID	Title	Level	Credit	Review Category
17741	Demonstrate specialist underground survey techniques	6	15	B