

- Some changes to performance criteria, elements, and titles have been made.
- Entry information on unit standards 16696 and 16697 has been added.
- Entry information on unit standards 17697, 17699, and 17700 has been updated to include 21152, which replaced 8890 in January 2005.
- The context of 'sand' has been removed from unit standards 17979, 17980, 17982, 17984-17986, 17989, 17991, and 17992 to make these unit standards more generic and therefore available in a greater range of contexts.
- Unit standards 17979, 17980, 17982, 17984, 17985, 17986, 17989, and 17991 have been moved from the Surface Extraction domain to the Extractive Industries Management domain.

Unit standards categorised as category C expire at the end of December 2006.

Impact on existing provider accreditations

None.

Impact on Accreditation and Moderation Action Plan (AMAP)

None.

Impact on existing qualifications

The following NZ Extractive Industries Training Organisation qualifications are affected by the outcome of this review and will be updated to reflect the changes.

| Qualification title | Standards in the qualification |
|---|--------------------------------|
| National Diploma in Extractive Industries (Management) with strands in Surface Extraction, Underground Coal Extraction, and Underground Metalliferous Extraction/Tunnelling [Ref: 0806] | 15670, 17692, 17693, 17743 |
| National Certificate in Extractive Industries (Construction Blasting) (Level 4) [Ref: 0803] | 17697, 17698 |

Summary of main changes to standards' Ids, classification, titles, levels, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**.

Subfield Extractive Industries
Domain Extractive Industries Management

| Id | Title | Level | Credit | Review Category |
|-------|--|-------|----------------|-----------------|
| 17691 | Use mathematics to solve problems in an extractive industries workplace | 4 | 15 | B |
| 17692 | Use mathematics to solve complex problems in an extractive industries workplace Use advanced mathematics to solve problems in an extractive industries workplace | 5 | 15 | B |
| 17693 | Demonstrate knowledge of water properties in extractive sites Explain and determine water flow, select pumps, and structures for an extraction site | 6 | 6 20 | B |

| Id | Title | Level | Credit | Review Category |
|-------|---|--------|--------|-----------------|
| 17743 | Demonstrate knowledge of surveying tools and principles applicable to an extractive site Demonstrate knowledge of survey principles and apply to an extraction site | 2 4 | 2 4 | B |

| Id | Domain | Title | Level | Credit | Review Category |
|-----------|---|--|--------|----------|-----------------|
| 17697 | Surface Extraction | Design blasting layouts and carry out blasting operations for construction work Design blasting layouts and carry out blasting operations for construction sites | 4 | 30 | B |
| 17698 | Surface Extraction | Demonstrate knowledge of blasting layouts for specialist blasting techniques Demonstrate knowledge of and apply blasting layouts for underwater blasting | 5 4 | 20 10 | C |
| 21630 and | | Demonstrate knowledge of and apply blasting layouts for blasting hot surfaces | 4 | 10 | |
| 21631 and | | Demonstrate knowledge of and apply techniques for blasting for pipeline perforations | 4 | 10 | |
| 21632 and | | Demonstrate knowledge of and apply blasting layouts for pile and pipe cutting blasting | 4 | 10 | |
| 21633 | | | | | |
| 17699 | Surface Extraction | Plan layouts, assemble, place and fire shots for snow control Describe procedures, plan layouts, assemble, place and fire shots for snow control | 4 | 20 | B |
| 17700 | Surface Extraction | Design blasting layouts and carry out blasting operations for land work | 3 | 28 | B |
| 17745 | Surface Extraction | Survey and draw a surface extractive site plan | 5 | 10 | B |
| 17992 | Surface Extraction | Operate and control stockpiles at a sand extraction site Select, design, maintain, and manage stockpiles at an extraction site | 4 | 15 | B |
| 17979 | Surface Extraction Extractive Industries Management | Operate a belt wagon at a sand extraction site Describe and operate a belt wagon at an extraction site | 4 | 6 12 | B |

| Id | Domain | Title | Level | Credit | Review Category |
|-----------|---|--|--------------|---------------|------------------------|
| 17980 | Surface Extraction Extractive Industries Management | Operate a bucket wheel excavator at a sand extraction site Describe and operate a bucket wheel excavator at an extraction site | 4 | 8 15 | B |
| 17982 | Surface Extraction Extractive Industries Management | Operate control rooms at a sand extraction site Describe and operate control rooms at an extraction site | 4 | 15 | B |
| 17984 | Surface Extraction Extractive Industries Management | Operate a gravity separation system at a sand extraction site Describe and operate a gravity separation system at an extraction site | 4 | 8 12 | B |
| 17985 | Surface Extraction Extractive Industries Management | Operate high capacity slurry pumping systems at a sand extraction site Describe and operate high-capacity slurry pumping systems at an extraction site | 4 | 20 | B |
| 17986 | Surface Extraction Extractive Industries Management | Operate magnetic separation systems at a sand extraction site Describe and operate magnetic separation systems at an extraction site | 4 | 8 12 | B |
| 17989 | Surface Extraction Extractive Industries Management | Operate and control recyclable water systems at a sand extraction site Describe, operate, and control recyclable water systems at an extraction site | 4 | 12 | B |
| 17991 | Surface Extraction Extractive Industries Management | Operate slurry pumping systems at a sand extraction site Describe and operate slurry pumping systems at an extraction site | 4 | 20 | B |

Domain Underground Extraction

| Id | Title | Level | Credit | Review Category |
|-----------|---|--------------|---------------|------------------------|
| 15669 | Demonstrate knowledge of extraction method for tunnels Demonstrate knowledge of tunnelling methods | 5 | 10 15 | B |
| 15670 | Demonstrate knowledge of extraction methods for metalliferous mines Demonstrate knowledge of mining methods for metalliferous mines | 6 | 15 20 | B |

| Id | Title | Level | Credit | Review Category |
|--------------|---|-------|-----------|-----------------|
| 16696 | Operate BG174 oxygen breathing apparatus in a confined area with an irrespirable atmosphere | 4 | 5 | B |
| 16697 | Deal with mine fires using extinguishing agents | 4 | 3 | B |
| 17741 | Demonstrate specialist underground survey techniques | 6 | 15 | B |
| 17742 | Survey and draw an underground extractive site plan | 6 | 20 | B |
| 17746 | Show ability to manage old workings and other sources of danger in underground extraction sites | 5 | 10 | C |
| 21629 | Evaluate and implement plans to manage old workings and inundations in underground sites | | 10 | |