

Title	Blend product using a blending plant for extractive industries		
Level	4	Credits	8

Purpose	People credited with this unit standard are able to: plan blending operations; prepare site for blending operations; operate screened or pit-run blending plant; monitor and maintain product quality; and maintain blending plant and equipment.
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Classification	Extractive Industries > Surface Extraction
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Available grade	Achieved
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Guidance Information

- 1 Performance of the outcomes of this unit standard must comply with the following:
Health and Safety at Work Act 2015 (HSW);
Health and Safety at Work (General Risk and Workplace Management) Regulations 2016;
Health and Safety at Work (Worker Engagement, Participation, and Representation) Regulations 2016;
Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016;
approved codes of practice issued pursuant to the HSW Act;
WorkSafe NZ's Good Practice Guidelines for the extractives industries, including *Health and Safety at Opencast Mines, Alluvial Mines and Quarries Good Practice Guidelines 2015*, available from <https://worksafe.govt.nz/>;
Manufacturer's guidelines for plant maintenance.
- 2 Any new, amended or replacement Acts, regulations, standards, codes of practice, guideline, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 3 Definitions
Product, in the context of this unit standard, includes but is not restricted to aggregates.
Site procedures, site requirements, product requirements, and company procedures mean the documented methods for performing work activities and include health and safety, operational, environmental, and quality management requirements. They may refer to manuals, codes of practice, or policy statements.
- 4 This unit standard is intended for, but is not limited to, workplace assessment.

Outcomes and performance criteria

Outcome 1

Plan blending operations.

Performance criteria

- 1.1 Briefings or handover details are received, interpreted, and clarified.
- Range worksite inspection, defects on machinery, nature and scope of task, adequacy of site lighting, location of potential hazards.
- 1.2 Instructions given include plant configuration.
- Range types of additives to be used, customer requirements.

Outcome 2

Prepare site for blending operations.

Performance criteria

- 2.1 Pre-start check is carried out in accordance with manufacturer's and/or site procedures.
- 2.2 Site preparation is co-ordinated with personnel in and around the work area.
- Range may include but is not limited to – housekeeping, plant, stock, piles or bins, product removal or preparation, material grades.
- 2.3 Basic product knowledge required to complete the allocated task is received and applied in accordance with product requirements.
- 2.4 Safety rules and regulations, including site manager's rules and schemes, legislation, and site specific instructions, are complied with.

Outcome 3

Operate screened or pit-run blending plant.

Performance criteria

- 3.1 Start-up checks are completed in accordance with manufacturer's guidelines.
- Range may include but is not limited to – check oil levels and greasing of designated components, activate water spray systems, check material transport systems for condition or tracking.

- 3.2 Start-up is performed according to plant setting requirements.
Range includes ancillary equipment.
- 3.3 Monitoring and adjusting of blending plant are performed in accordance with manufacturer's guidelines.
Range may include but is not limited to – read out systems (appropriate action as and when required), feed rates, blockages, overloads.
- 3.4 Optimisation of blending plant is maintained in accordance with company procedures and product requirements.
Range product bin levels, control systems.
- 3.5 Shut-down is completed according to plant setting requirements.
- 3.6 Post-shut-down checks are completed according to plant setting requirements and system.
- 3.7 Operations are conducted within the capacity of the allocated plant in accordance with site quality and safety plans.
Range may include but is not limited to – operating during night and day and in a variety of weather conditions.
- 3.8 Emergency procedures are carried out in accordance with manufacturer's and/or site procedures.

Outcome 4

Monitor and maintain product quality.

Performance criteria

- 4.1 Specified plant settings are monitored and maintained in accordance with site quality assurance procedures.
- 4.2 Compliance with site product quality targets is monitored and maintained.
- 4.3 Product quality parameters are monitored in accordance with site quality assurance procedures, and adjustments, if required, are recommended to company management.
- 4.4 Laboratory staff are assisted with the gathering of a representative sample in accordance with site quality plans.

Outcome 5

Maintain blending plant and equipment.

Performance criteria

- 5.1 Inspection and fault-finding are conducted in accordance with manufacturer's specifications or site requirements.
- 5.2 Routine operational servicing, lubrication, and housekeeping tasks are carried out to manufacturer's and/or site requirements.
- 5.3 Maintenance is carried out to manufacturer's and/or site requirements.
- 5.4 Records are maintained in accordance with site requirements.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 November 1996	31 December 2019
Revision	2	17 December 1996	31 December 2019
Revision	3	18 December 1998	31 December 2019
Revision	4	17 April 2002	31 December 2019
Review	5	27 January 2005	N/A
Rollover and Revision	6	16 July 2010	N/A
Rollover and Revision	7	25 January 2018	N/A

Consent and Moderation Requirements (CMR) reference	0114
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.