Title	**Identify assets, and install or maintain signage for a gas network**		
Level	**3**	**Credits**	**6**

Purpose	People credited with this unit standard are able to: demonstrate knowledge of terminology used to identify assets in a gas network, signage used to identify assets in a gas network, plans and drawings used to identify assets in a gas network; and prepare to install or maintain and install or maintain signage in a gas network and complete reporting and documentation.

Classification	Gas Industry > Gas Network Operations

Available grade	Achieved

Guidance Information

1 This unit standard is intended for, but is not limited to, workplace assessment. The range statements relate to enterprise specific equipment, procedures, and processes.

2 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's specifications, company procedures and legislative requirements. This includes the knowledge and use of suitable tools and equipment.

3 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the current version of:
Health and Safety at Work Act 2015;
Health and Safety in Employment (Pipelines) Regulations 1999;
Gas Act 1992;
Gas (Safety and Measurement) Regulations 2010;
Resource Management Act 1991;
Hazardous Substances and New Organisms Act 1996;
*Excavation Safety Good Practice Guidelines ISBN: 978-0-908336-49-4 (*online);
*Guide for Safety with Underground Services ISBN 0-477-03665-1 (*online);
AS/NZS 4645.1:2018 *Gas distribution networks – Network management*;
AS/NZS 2885.1-2018 *Pipelines – Gas and liquid petroleum Design and construction*;
AS 2885.3-2012 *Pipelines – Gas and liquid petroleum Operation and maintenance*;
and any subsequent amendments and replacements.

4 References
Australian standards (AS) may be found at www.standards.org.au;
Australian/New Zealand standards (AS/NZS) may be found at www.standards.govt.nz.

5 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

6 Definitions
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 legislation, regulations, guidelines, standard operating procedures, manuals, codes of practice, or policy statements.
GPS refers to global positioning system.
Signage may refer to signs and posts.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of terminology used to identify assets in a gas network.

Performance criteria

1.1 Terminology used to identify gas assets in a network is described.

Range equipment – District Regulator Station, Pressure Reducing Station, Gas Measurement System, Delivery Point, Main Line Valve, Compressor Station, cased crossing, CP test point, siphon, valve, valve box;
pipelines – mains, services, auxillary;
material – steel, polyethylene;
pressure – High Pressure, Intermediate Pressure, Medium Pressure, Low Pressure;
size – diameter, length;
location – depth of cover, centre line.

1.2 Terminology used to identify other utility assets is described.

Range electricity – voltage, overheard, underground;
water – hydrant, stop valve;
telecommunications – pits, overhead, underground, cable, fibre;
sewerage – manhole;
stormwater – sumps, manhole, swale, culvert.

Outcome 2

Demonstrate knowledge of signage used to identify assets in a gas network.

Performance criteria

2.1 Reasons for using signage to identify assets are described.

Range legislative requirements, asset owner requirements, visibility.

2.2 Types of safety signs and their application are described.

Range caution, warning, danger, mandatory emergency, fire, prohibition, hazardous substances.

2.3 The requirements for signage to inform third parties of the presence of gas assets are described.

Range asset owner, asset details, product details, contact details, asset position.

2.4 The requirements for gas asset signage placement and location are described.

Range visibility, spacing, roads, rivers, structures, street furniture, fences, gates.

2.5 The requirements for safety signage on above ground gas assets are described.

Range asset owner, contact details, site hazards, access restrictions, personnel protective equipment, chemical hazards.

2.6 Equipment and materials required to install and maintain signage on a gas network are described.

Range pipe and cable locator, excavation tools, fastenings, paint.

2.7 The hazards and controls associated with installing signage on a gas network are described.

Range hazards include – other utilities, excavations, vegetation, electric fences, animals, traffic, general public;
controls may include – utility location and identification, safe access and egress, temporary traffic management, barriers, personal protective equipment;
evidence of four hazards and controls are required.

Outcome 3

Demonstrate knowledge of plans and drawings used to identify assets in a gas network.

Performance criteria

3.1 Types of drawings that are encountered in the gas industry are described.

Range network plan, construction, as-built, process flow, piping and instrumentation, pipeline route, alignment sheet.

3.2 Plans and drawings title block are described.

Range colour coding, line styles, scales, key.

Outcome 4

Prepare to install or maintain signage in a gas network.

Performance criteria

4.1 Company procedures for installing or maintaining signage are located and interpreted.

Range may include – network standard, safe work procedure, work instruction, job hazard analysis, job risk assessment.

4.2 Documentation and instructions for a specified job are obtained.

Range may include – job card, utility plans, permit, network plans, easement conditions, consents.

4.3 Signage for the location is selected, and information displayed on sign is confirmed.

4.4 Equipment and materials for installing signage is prepared and positioned.

4.5 Hazards for the specified job are identified and controlled.

Outcome 5

Install or maintain signage in a gas network.

Performance criteria

5.1 Signage is installed or maintained.

Range may include – fixing, excavation, painting, clearing, vegetation control, surface preparation, cleaning, replacement, condition assessment.

Outcome 6

Complete reporting and documentation.

Performance criteria

6.1 Records and documents are completed and processed, and information is communicated to internal or external parties as required.

Range may include – job card, as-built records, completion notice, additional work, photographs, GPS reference.

Replacement information	This unit standard replaced unit standard 9543, unit standard 10994 and unit standard 11326.

Planned review date	31 December 2025

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 August 2017	31 December 2021
Review	2	27 February 2020	31 December 2023
Review	3	27 May 2021	N/A
Revision	4	26 August 2021	N/A

Consent and Moderation Requirements (CMR) reference	0014

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.