Title	**Carry out inspections of gas pipeline environments**		
Level	**3**	**Credits**	**4**

Purpose	People credited with this unit standard are able to describe the requirements for gas pipeline environment inspections, prepare for and carry out inspections of gas pipeline environments, inspect pipeline appurtenances and above ground pipeline features and complete inspection documentation.

Classification	Gas Industry > Gas Transmission 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;
Resource Management Act 1991;
AS/NZS 4645.1:2018 *Gas distribution networks – Network management*;
AS/NZS 4645.2:2018 *Gas distribution networks – Steel pipe systems*;
AS/NZS 4645.3:2018 *Gas distribution networks – Plastic pipe systems*;
AS/NZS 2885.1-2018 *Pipelines – Gas and liquid petroleum Design and constructio*n;
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.
GIS refers to Geographical Information System.
Safety Management Study means the process that identifies threats to the pipeline network and applies controls to them.

7 Where aerial inspections are being undertaken, all aircraft safety procedures and pilot instructions must be followed.

Outcomes and performance criteria

Outcome 1

Describe the requirements for gas pipeline environment inspections.

Performance criteria

1.1 Requirements for gas pipeline environment inspections are described.

Range may include – planned maintenance, signage, vegetation control, natural events, land movement, land erosion, identification of interference threats, pipeline code compliance and changes to the safety management study.

Outcome 2

Prepare for and carry out inspections of gas pipeline environments.

Range must include a minimum of two inspections using any two of the following four inspection techniques – foot, vehicle, aircraft, drone.

Performance criteria

2.1 Route selection is identified from maps, plans and GIS in accordance with inspection technique requirements.

2.2 Access considerations for inspection technique are identified.

Range may include – registered easement, public highway, notification to landowners, conditions of right of way, traffic management.

2.3 Resource requirements are located and sourced.

Range may include – aircraft, vehicle, tools, personal protective equipment, documentation, personnel, communication equipment, camera, recorder, paper, observation forms, pipe locator, probe.

2.4 Hazards are identified, and controlled, according to inspection technique.

Range hazards may include – lone worker, weather, ground conditions, waterways, electric fences, animals, traffic, general public, working in road, aircraft, low level flying;
controls include one of – elimination, or minimisation with control measures.

2.5 Issues with the environment around the pipeline are identified, and their effects and location relative to the pipeline are assessed.

Range may include – interference detection, construction activity, tree felling, planting, vegetation encroachment, signage visibility, variation to surface condition from erosion, land movement, changes in land use, impediments to access to sites.

2.6 All warning and danger signs are confirmed as being compliant with class location, securely fixed, visible and legible.

2.7 Indications of leaks or defects are identified.

Range may include – dead vegetation, contaminated ground, contaminated waterways, subsidence, frozen ground, gas detection, corrosion.

2.8 Current land use, application, and conditions are established and matched against existing alignment plans.

Range may include – changes in land use, urban encroachment, new subdivisions, new developments, changes in water levels and flows, required development or extension of waste areas, encroachment of vegetation.

Outcome 3

Inspect pipeline appurtenances and above ground pipeline features.

Range may include – cased crossing, aerial span, cathodic protection test points.

Performance criteria

3.1 Pipelines appurtenances and above ground pipeline features are inspected.

3.2 Threats to pipeline appurtenances and above ground pipeline features are identified.

Range may include – impediments to access, encroachment from tree threats, vegetation, development affecting operation of equipment, security, safety management study changes, vandalism, corrosion, external damage.

Outcome 4

Complete inspection documentation.

Performance criteria

4.1 Results of the inspection are reported.

Range may include – patrol log, relevant documentation, reports, photos, follow up actions, incident report, emergency response, internal notification, external notification.

Replacement information	This unit standard and unit standard 32039 replaced unit standard 30369.

Planned review date	31 December 2026

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 February 2020	N/A
Rollover	2	30 January 2025	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 Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.