T Level Technical Qualification in Agriculture, Land Management and Production

Tree and woodland management and maintenance (Forestry pathway) Occupational Specialism

Guide Standard Exemplification Material Threshold Competence – Sample 2023

Version and date	Change detail	Section
November 2023 v1		
August 2024 v1.1	All placeholders replaced with photo evidence	Task 5, Task 6, Task 7

Contents

Introduction

The sample evidence within this document refer to the Tree and Woodland Management and Maintenance (Forestry pathway) Occupational Specialism assignment. The aim of these materials is to provide centres with examples of knowledge, skills and understanding that attest to threshold competence. The evidence presented here has been developed to reflect threshold competence within each task but is not necessarily intended to reflect the work of a single candidate. It is important to note that in live assessments a candidate's performance is very likely to exhibit a spikey profile and the standard of performance will vary across tasks. The Guide Standard Exemplification Material (GSEM) illustrates linear performance across all pieces of evidence at the grade. Threshold competence will be based on a synoptic mark across all tasks.

The evidence in this GSEM is separated into the sections as described below. Evidence is presented against tasks from the assignment. Assessors using the GSEM may find it helpful to review this document along with the sample assessment materials.

Task
This section details the evidence to be submitted for marking and any additional evidence required including any photographic/video evidence. Also referenced in this section are the performance outcomes and assessment themes the evidence will be marked against when completing the tasks within it. In addition, evidence that has been included or not been included in this GSEM has been identified within this section.

In this GSEM there is evidence from:

- Task 1
- Task 2
- Task 3
- Task 4
- Task 5
- Task 6
- Task 7

Evidence
This section includes exemplars of evidence, photos/video recordings of the evidence in production (or completed) and assessor observation records of the assessment completed by centre assessors. This will be exemplar evidence that was captured as part of the assessment and then internally marked by the centre assessor.

The items of evidence included in the GSEMs are designed to illustrate the grade at evidence level. They are not intended to reflect the performance of a single candidate across the assignment. Not all items of evidence are included in the GSEM, however a representative sample of evidence from across the assignment has been included to sufficiently illustrate the standard of performance expected for each type of evidence.

Commentary

This section includes detailed comments to demonstrate how the evidence attests to the standard of threshold competence.

It is important to note that the commentary section is not part of the evidence or assessment but are evaluative statements on how and why that piece of evidence meets a particular standard.

Grade descriptors

To achieve a pass (threshold competence), a candidate will be able to:

Demonstrate an adequate performance that meets the requirements of the brief, demonstrates the adequate technical skills and techniques for planning, preparing, and carrying out the work to adequate standards, including safety and quality, and is able to enter the industry to begin work in the occupational area.

Interpret technical information, plan, assess risk and follow safe working methods appropriately when applying practical skills to an adequate standard to satisfy the requirements of the brief.

Adequately prepare working areas to allow safe working, acknowledging potential risks and applying adequate control measures during tasks.

Work safely and make adequate decisions on the selection and appropriate use of tools, materials and equipment within the working environments for establishment, management/maintenance and felling activities.

Carry out practical tasks to an adequate standard, producing work that meets relevant regulations and standards, with an adequate standard of work.

Identify and measure characteristics and features and apply adequate knowledge and skill in how to record, present and analyse information to satisfy the requirements of the brief.

Mostly use technical terminology accurately.

Task 1 – Tree survey and report

Evidence contributes to the following:

Performance outcome	Assessment themes
PO4 Manage woodlands to meet objectives.	Environment and plant health. Planning and silviculture. Surveying and measurement.
PO6 Undertake complex felling operations.	Environment. Prepare for complex felling operations.

Evidence	**Assessment themes**	**Candidate producing**	**Assessor producing**	**Included in this GSEM**
	Parts a) and b) survey, report and method statement.			
Survey results and report.	PO4: Environment and plant health. PO4: Surveying and measurement.	√		√
Method statement including annotated map.	PO4: Environment and plant health. PO4: Planning and silviculture PO6: Environment. PO6: Prepare for complex felling operations.	√		√
	Part c) marking constraints.			
Assessor observation.	PO4: Surveying and measurement. PO6: Prepare for complex felling operations.		√	√
Photographs.	PO4: Surveying and measurement. PO6: Prepare for complex felling operations.		√	√ (partially complete)

Candidate evidence – Survey results and report

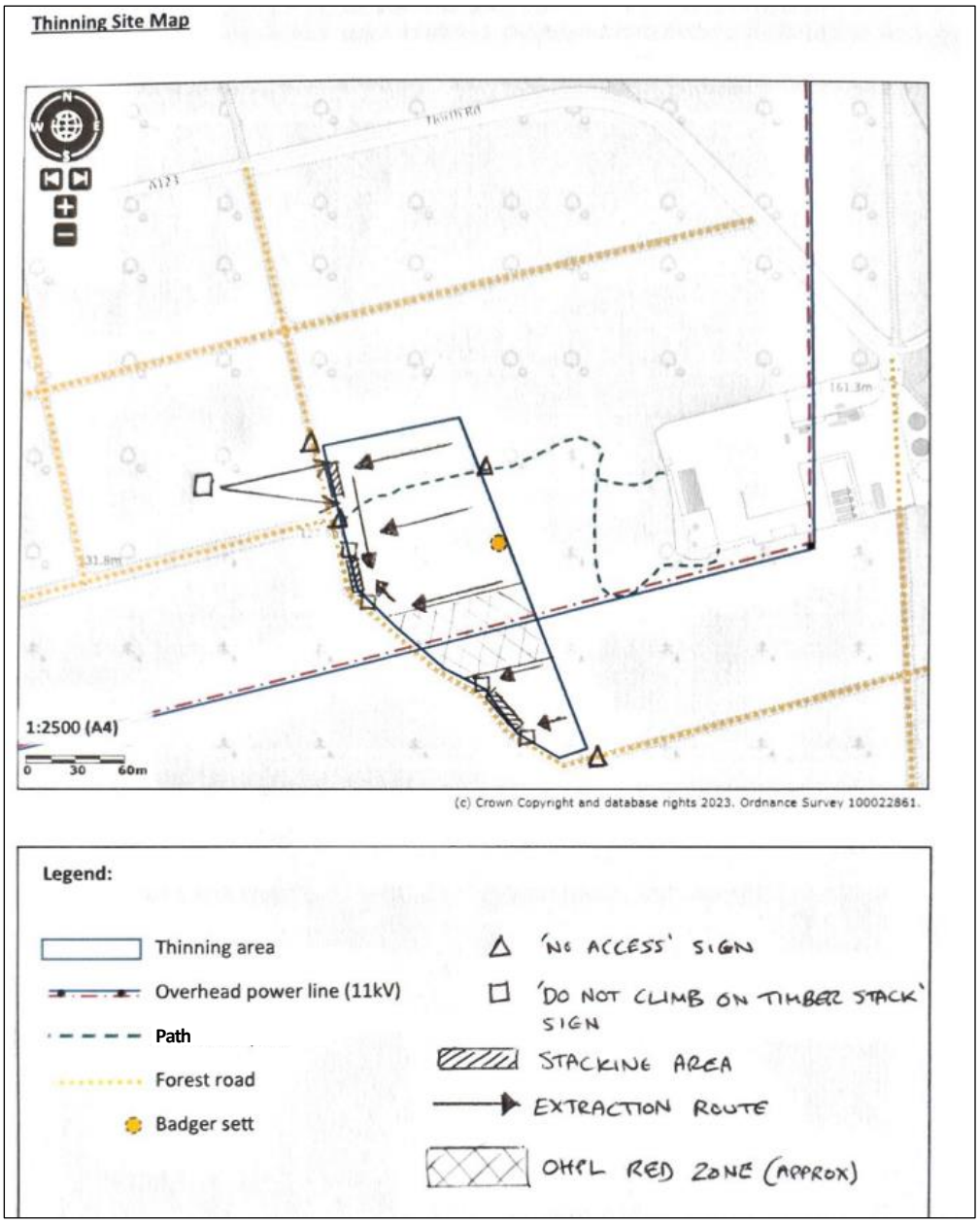
Tree species:	*Pinus sylvestris* (Scots pine) – main crop, even aged, fairly uniform spacing. *Fagus Sylvatica (Beech)* - a small number of these growing near the boundary.
Tree health and condition:	*Pinus sylvestris* – appears to have no health issues, trees are mostly in good condition although there was one tree with a dead top. *Fagus Sylvatica* – most trees in reasonable condition. One larger tree with bracket fungus *Meripilus giganteus* (giant polypore).
Pests/diseases:	*Pinus sylvestris* – no visible signs of disease. One with damaged/dead top. *Fagus Sylvatica* – one tree with bracket fungus on lower stem - *Meripilus giganteus* (giant polypore).
Constraints:	• 11kV overhead power line crossing bottom end of the site • Path crossing top end of the site • Badger sett a third of the way down the eastern boundary of the thinning area.

Commentary

The candidate has applied adequate **surveying and measurement** skills to the task and identified the species on the site, and given some information about them (e.g. on age structure and spacing of the *Pinus sylvestris* and quantity of *Fagus Sylvatica*). They have recorded all of the other information required by the task (e.g. the main site constraints) although not in much detail.

The candidate has applied adequate knowledge and understanding of **environment and plant health** to appraise tree health and condition and identify signs of pests/diseases/disorders. The candidate has given some notes on the condition of the trees noting one dead top in the *Pinus sylvestris* and a *Fagus Sylvatica* with *Meripilus giganteus* present, although they have not gone into any further detail other than identifying these issues.

Candidate evidence – Method Statement including annotated map



Method Statement

Site location: Brindle forest, North Road, AB1 2CD. Grid ref: SU 882 153

Description of work: Thinning of Scots Pine and extraction of timber.

Constraints:

- 11kV overhead power line.
- Path.
- Badger sett on the site.

Health and safety:

Hazard: Contact with power line.

Controls: Red zone clearly marked. No working in the red zone. Amber zone clearly marked. Amber zone trees felled AWAY from the power line. All operations to comply with FISA 804 Electricity at work: Forestry.

Hazard: Machinery movements / flying debris from machinery.
Controls: Warning signs in place. All ground operators to comply with machine risk zones and safe working distances. All on site wearing helmets and hi-vis clothing at all times. Competent, trained, certified operators.

Hazard: Injury to people using the path.
Controls: Warning signs in place telling people not to enter the thinning area.

Hazard: Chainsaws, cuts / falling debris.
Controls: Competent, trained, certified operators. PPE (see equipment list).

Site specific risk assessment - The team leader will complete a risk assessment on-site each day to take into account any changes or additional hazards during the operation.

Training and qualifications:
Machine operators – must hold relevant Certificates of competence for machine and operation being carried out (harvester / forwarder).
Chainsaw operators – Must hold Certificates of competence.
All - Emergency first aid at work.

Method:

Trees marked for thinning will be felled and processed by the harvester and then timber will be extracted to roadside stacking areas by the forwarder. Extraction routes and stacking areas marked on map.
The red and amber zones for the OHPL will be clearly marked out on site. Machines will not enter the red zone or cross under the power line.
No working in the red zone. The network operator will be consulted before any work is carried out in the Amber zone. A shut down must be agreed before any harvesting takes place in the red zone.
Hand felling of some trees may be necessary. These trees will be felled and processed by competent qualified chainsaw operators, to be extracted by the forwarder.

Machinery and equipment:

- Harvester
- Forwarder
- Fuel and oil
- Chainsaws
- Felling aids
- First aid kits
- Spills kits
- Warning signs
- Tree marking equipment
- PPE: Helmets, ear defenders, visors, hi-vis clothing, chainsaw trousers, chainsaw boots, gloves.

Environmental:

- Badger sett will be clearly marked and no machinery movements over the sett. If trees can't be reached by the harvester they will be manually felled.
- Figure 1 states there is evidence of *Phytophthora ramorum* in the forest. Biosecurity procedure will be followed to minimise risk of spread – boots, chainsaws, harvester and forwarder to be thoroughly cleaned before leaving site.
- Pollution control plan in place – designated refuelling points for machinery. Spills kits available on site.

This template may be modified by expanding fields only.	
Relevant health and safety legislation: Health and Safety at Work Act. Provision and use of work equipment regulations (PUWER).	**Relevant environmental legislation:** Wildlife and Countryside Act. Environmental Protection Act. Countryside and Rights of Way Act.

Commentary

The method statement shows adequate consideration of environment and plant health, for example the badger sett has been correctly identified as a constraint and suitable measures have been identified to avoid damage (e.g. marking and not allowing machinery movement over the area, manual felling of trees growing over the sett).

Environment has also been adequately considered in the planning of how the thinning will be carried out, for example the candidate has specified spills kits within their equipment list, and their 'environmental' section includes adequate measures to protect the badger sett, minimise the risk of spreading disease, and preventing and controlling pollution (e.g. 'designated fuelling points for machinery').

The method statement and map show the candidate has adequate knowledge and understanding of how to **prepare for complex felling operations** with some consideration of **planning and silviculture**; the candidate has chosen a safe felling and extraction method (harvester and forwarder) and has selected suitable stacking areas and extraction routes (clearly marked on the map). There are some examples of industry best practice; extraction routes do not cross beneath the OHPL within the felling zone. They have identified the major hazards and specified adequate controls (e.g. adequate measures for OHPL and compliance with FISA 804, compliance with machine risk zones and hi-vis and helmets worn at all times on site). The candidate's use of warning signs to control access is adequate and meets minimum industry requirements. The candidate has provided adequate, accurate information on operator training/qualification requirements. The annotated map is clear and corresponds with the content of the method statement, and some relevant legislation has been listed in the appropriate sections.

Overall, the method statement contains adequate information and the choices made are safe and effective. However, there is opportunity to provide more detail and reasoning for choices, and strengthen some areas such as additional signage/more detail on types of signs, and considering alternative felling/extraction methods taking into account more of the information in the brief/Figure 1.

Assessor Observation (Task 1 – thinning site survey)

Task	Qualification number
Task 1) Thinning site survey.	8717-406
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Surveying and measurement PO6: Prepare for complex felling operations

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Marking out site constraints on the ground according to candidates annotated map. Path: Identifies appropriate locations for warning signs.	Candidate placed signage in the locations they had specified on their map on the forest road where the road met the boundary of the thinning area. Warning signs placed on the footpath at each end of the site on the boundary of the thinning area.
Power line: • Identification of vicinity zone appropriate to OHPL voltage given in the brief (refer to information in FISA 804 provided) • measurement of tree height • Red Zone clearly marked on site at a distance equal to the vicinity zone plus one tree length, from the power line's location.	Candidate referred to FISA guide and the site map and task information provided, and identified the vicinity zone should be 2.5 m for an 11 kV line. Candidate visually estimated where the red zone boundary would be and selected a tree to measure. Candidate measured tree height using tape and clinometer, reading a height of 15.3 m. Candidate measured the perpendicular distance from tree to the line using the tape measure, reading 16.8 m (power line location was simulated, pre-marked on the ground by the assessor). Candidate correctly marked the tree as being in the red zone - RZ = one tree length 15.3 m + vicinity zone 2.5 m = 17.8 m). Candidate correctly marked 3 trees in total.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Badger sett: • Trees immediately surrounding the badger sett location clearly marked using an appropriate method (e.g. paint, tape, stakes)	Candidate identified the trees which should be marked around the indicated location of the badger sett and marked them clearly with marking tape.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photo/video evidence

Photo evidence:

- Photo showing method used to measure height.

Photo evidence:

- Photo showing marking of Red Zone trees.

Photo evidence:

- Photo showing marking of exclusion zone around badger sett location.

Commentary

The candidate has demonstrated the knowledge and skill to apply **surveying and measurement** techniques to take accurate measurements; e.g. heights and distances. This evidence in isolation provides minimal differentiation between grades, however the measurements taken enabled the candidate to mark the locations of site constraints accurately.

Adequate knowledge and understanding of how to **prepare for complex felling operations** was demonstrated e.g. the candidate placed warning signs at all entrances to the thinning area (as they had specified on their annotated map). The candidate referred to FISA 804 and interpreted the information to correctly apply the vicinity zone (2.5m) for the voltage of line (11 kV) stated in the brief and task. The candidate also marked the badger sett so that it would be clearly visible to operators approaching from any direction.

Task 2 – Calculate the timber volume expected from the thinning operation

Evidence contributes to the following:

Performance outcome	Assessment themes
PO4 Manage woodlands to meet objectives.	Planning and silviculture. Surveying and measurement.

Evidence	Assessment Themes	Candidate producing	Assessor producing	Included in this GSEM
	Parts a) and b) carry out tariff			
Assessor observation.	PO4: Surveying and measurement.		√	√
Photographs.	PO4: Surveying and measurement.		√	√
	Part c) calculate timber volume.			
Tariff data recording form.	PO4: Surveying and measurement.	√		√
	Part d) recommended timber products.			
List of timber products with explanations.	PO4: Planning and silviculture.	√		√

Assessor observation (Task 2 – tariff)

Task	Qualification number
Task 2) Calculate the timber volume expected from the thinning operation.	8717-406
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO4: Surveying and measurement

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Selection of required equipment.	Correctly selected girth tape, linear tape, clinometer, and tree marking tape.
Carrying out appropriate checks on equipment to ensure accuracy of measurements (e.g. checking girth tapes for stretch).	Checked girth tape for stretch by folding along dividing line on dbh scale and checking alignment. An analog clinometer was used but candidate did not check if it was reading level.
Compliance with the abbreviated tariff procedures.	Followed the tariff procedure according to the information given in the task, measuring and recording girth of every marked tree and the height of every 3rd marked tree as per the sampling fractions given (1:1 and 1:3).
Recording of data during the tariff.	At times they lost track of when a height measurement was required due to the way they were tallying the counted trees on the recording form, so had to repeat some measurements where the wrong tree was initially selected for height measurement, costing them time.
Application of standard measuring conventions (e.g. for dbh, height).	Standard dbh measuring conventions were mostly followed accurately using a dbh tape at 1.3 m up the stem, although some minor errors were made when taking the dbh of some slightly leaning trees, they measured from the opposite side of the lean not the same side – however the lean was not severe enough to cause a significant error in dbh measurement, and the candidate applied the convention correctly on subsequent trees with more obvious lean. The clinometer and tape were used correctly to take height readings, although one

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	of the heights measured was a tree on the gently sloping part of the site and these readings would have been more accurate if taken from across the slope.
Use/reference to provided information sources as required (Task instructions, Timber Measurement Field Guide/Forest Mensuration: a handbook for practitioners).	The Forest Mensuration handbook provided was not used by the candidate. They did make use of the Timber Measurement Field Guide to check where to measure timber height on the tree.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photographic evidence (Task 2 – tariff):

Photo evidence:

- Photo showing method used to measure height.

Photo evidence:

- Photo showing method used to measure stem diameter.

Commentary

The candidate interpreted the requirements of the task and applied the required woodland **surveying and measurement** techniques (e.g. measurement of heights and dbh) mostly correctly, selecting and using appropriate equipment (e.g. girth tape, linear tape, clinometer) to complete the tariff and capture all necessary information to an adequate standard.

The candidate demonstrated the required **surveying and measurement** techniques to an adequate standard. Sampling, **surveying and measurement** techniques were generally carried out accurately – although with small inaccuracies in some of the measurements taken. These resulted from instances of inconsistent/incorrect application of measurement conventions (for example occasionally measuring dbh's from opposite side to the lean direction of some trees, instead of the side the tree was leaning). Overall, the accuracy of measurements was adequate.

The candidate only made reference to the available information sources to check the definition of Timber Height. They could have referred to the Forest Mensuration Handbook to check the conventions for measurement of dbh which could have prevented the minor errors made and given more accurate results.

The candidate adequately recorded and presented the information gathered during the survey, although they did not do this in the most efficient or logical way. For example, having to repeat height measurements due to losing track of the sample trees, costing them time. The candidate could have improved their performance by keeping a separate tally of trees in groups of 3 to keep track of when height measurements were required (see commentary on tariff data recording form).

Candidate evidence – Tariff data recording form

Figure 3: Tariff data recording form (template)

Candidate name	Candidate number
Sample Candidate	CG12345
Assessor name	**Date**
Sample Assessor	23/03/2025
Site/Location	
Example Forest, Sub-compartment 1a.	

Species	Girth sampling fraction:	Volume (height) sampling fraction:
Beech	1:1	1:3

Sampling fractions to be provided by assessor

DETAILS OF VOLUME SAMPLE TREES MEASURED FOR HEIGHT

Tree No.	dbh (cm)	Height (m)	Tariff number
1	26	23.0	46
2	25	21.9	45
3	26	22.0	46
~~4~~	~~25~~	~~20.7~~	
4	24	21.3	44
5	26	22.8	46
~~6~~	~~29~~	~~21.4~~	
6	22	18.7	41
7	29	23.8	47
8	27	22.9	47
9	23	20.1	42
10	28	24.0	48
11	24	21.5	44
12	25	22.2	45
		Total of tariff numbers:	541
		Average tariff number (rounded down): Total of tariff numbers divided by number of sample trees	45

Note for assessors: add/remove rows as required.

Mean dbh (cm)	Mean volume (m^3) From table 46, *Forest Mensuration, a handbook for practitioners*	Total number of trees	Total volume (m^3) Mean volume x total number of trees
26.1 cm	0.7 m^3	37	25.9 m^3

TALLY OF TREES MARKED

Note for assessors: add/remove rows as required.

Total number of trees:	

RECORD OF TREES MARKED AND MEASURED FOR GIRTH

dbh (cm)	**Tally of girth sample trees**	**Total**	**Total x dbh²**
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22	I	1	484
23	I	1	529
24	𝍸 I	6	3456
25	𝍸 II	7	4375
26	𝍸 𝍸	10	6760
27	𝍸 I	6	4374
28	II	2	1568
29	II	2	1682
30			
31	II	2	1922
32			
33			
34			
35			
36			
37			
38			
39			
40			
	Total number of measured trees	37	
	Total dbh² (add together results for each dbh class)		25150
	Mean dbh² (Total dbh² divided by total number of measured trees)		679.7
	Mean dbh (cm) (square root of mean dbh²)		26.1 cm

Note for assessors: add/remove rows and/or change dbh values to suit dbh range of stand.

Commentary

The candidate used the form to record all necessary information to enable a calculation of timber volume to be made. The information recorded in the field has been presented with adequate clarity to be interpreted when performing the subsequent calculations.

The candidate applied some knowledge of **surveying and measurement** and how to record and present information, although did not do this in the most efficient or logical way. For example, the candidate could have used the “tally of trees marked” section of the form to keep track of when height measurements were required. They would also have been able to compare the totals in both sections to check for any counting errors (although no counting errors appear to have occurred here).

The candidate used the correct methods to calculate the mean dbh and estimate the timber volume, and their application of the methods and calculations was mostly correct. The tariff numbers which the candidate worked out for sample trees no. 3, 6 and 8 were each out by 1, likely due to some inaccuracy when using the alignment chart in the Forest Mensuration handbook. This resulted in an overestimation of timber volume by 0.4 m3 (1.5%), compared to what would have been estimated without these errors.

Candidate evidence - List of recommended timber products

Recommended products:

- *Sawlogs*
- *Firewood*

Beech is good timber for joinery. Most marked trees had straight stems and not many low branches so sawlogs could be cut from the bottom of the tree and sold for furniture making, flooring, or used for making tool handles. The rest of the tree including the larger limbs could be logged up for firewood and sold locally. Most of what is produced will be firewood.

Commentary

The candidate has listed two product types which could be produced from a thinning of Beech woodland. The candidate has suggested that sawlogs could be produced from the crop and has demonstrated some consideration of **planning and silviculture** factors such as timber quality/tree form in their explanation. The candidate has partially justified their choices, giving the straight form of the trees and lack of low branches as justification for their recommendation.

This is a reasonable recommendation in terms of *species, quality* and *potential*, but the mean dbh calculated in part c) of the task would indicate that the *size* of the timber is mostly too small to produce marketable sawlogs and would not be the most suitable choice (for this thinning operation).

The candidate has demonstrated some knowledge of **planning and silviculture** in their response, with reference to the species characteristics and timber quality/form in their explanations, and some consideration of quantity, for example acknowledging that the majority of produce will be firewood.

The response could have been improved by more thoroughly considering the results of the tariff such as the mean dbh and the overall volume of timber and referencing this information to justify the choices made.

Task 3 – Carry out the thinning operation

Evidence contributes to the following:

Performance outcome	Assessment themes
PO3 Operate and maintain forestry and arboriculture machinery.	Health and safety. Maintain machinery. Operate machinery.
PO6 Undertake complex felling operations.	Health and safety. Environment. Perform complex felling operations.

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this GSEM
	Part a) prepare for operations.			
Risk assessment.	PO3: Health and safety. PO6: Health and safety.	√		√
Emergency plan.	PO3: Health and safety.	√		√
	Parts b)-e) carry out thinning operation.			
Assessor observation.	PO3: Maintain machinery. PO3: Operate machinery. PO6: Health and safety. PO6: Environment. PO6: Perform complex felling operations.		√	√
Photographs.	PO6: Health and safety. PO6: Environment. PO6: Perform complex felling operations.		√	√

Candidate evidence - Risk Assessment

Candidate's name	**Sample Candidate**	**Enrolment number**	**CG12345**
Task / Activity	Thinning operations	Location	Centre training area
Assessor's name	Sample Assessor	Date	23/03/2023

Item no.	What are the hazards?	Who might be harmed and how?	What precautions are already in place?	Risk rating (high/ medium/ low)	What further action is necessary?	Action by who and when?	Residual risk rating (high/ medium/ low/ trivial)
1	Slips/trips/falls. Cuts and bruises	Chainsaw operator, cuts and bruises, falling over, slips / trips / falls	PPE, take care when walking on rough ground	Medium	Monitor during operations	Work site supervisor	Low
2	Chainsaw use	Chainsaw operator, cut by moving chain, ear damage	Chainsaw boots and chainsaw trousers, ear protection, gloves	High	Check and maintain chainsaw Use correct cutting techniques	Operator and Site supervisor- Prior to start of work	Medium
3	Falling branches / trees	Chainsaw operator and others, hit by branches / timber	Maintain safe working distance. Helmets and eye protection	Medium	Escape routes Check area clear before putting in the back cut Use assisted felling to fell dangerous trees Look out for people entering the site	Operator and work site supervisor	Low
4	Fuelling	Chainsaw operator, spills	Use of combi can	Medium	Use designated fuelling point	Operator and work site supervisor	Low

5	Assisted felling: winching equipment / falling timber / debris	Chainsaw operator / Struck by winching equipment / falling timber / debris	Trained operator. Winching equipment checked before use Gloves when handling wire rope	Medium	Do not enter danger zones	Operator and work site supervisor	Low

Date: 23/03/2023	Risk assessment carried out by: Sample Candidate

Commentary

The candidate completed an adequate site-specific risk assessment which would keep themselves and others safe, showing a sound understanding of the requirements of **health and safety** for the task, and the relevant legislation.

They applied adequate understanding of **health and safety** in the context of the task, to identify the main hazards and risks (including the major hazards). The risk assessment was completed with an adequate understanding of the difference between hazards, risks and control measures, and correctly categorised risk ratings. Adequate controls were specified according to legislation and industry practice. They identified brief precautions to minimise the risks, although they could have provided more detail such as more specific items/types of PPE and 'correct cutting techniques'.

They considered brief further control measures that could be applied to reduce the risk ratings although they are vague; they could have included what practices should be followed rather than state 'monitor during operations'. Some identified hazards are not fully relevant to health and safety, for example item 4 – this relates to environmental damage rather than risk to the chainsaw operator.

Technical terminology was mostly accurately used e.g. 'escape routes' is correct, although they could have referred to 'final felling cut' rather than 'back cut'.

Candidate evidence – Emergency plan

Candidate's name	**Sample Candidate**	**Enrolment number**	**CG12345**
Task / Activity	Thinning operations	Location	Sample centre training area
Assessor's name	Sample Assessor	Date	23/03/2023

Worksite Location:	Sample centre training area		
OS Grid Reference:	SD 341 965		
What3Words Reference:	Shock.streak.twinkled		
Meeting point for emergency services:	Meet at Top Car park at the gate		
Type of vehicle access: (e.g. surfaced road / unsurfaced track / off-road or 4x4 vehicle required)	Forest road, 4x4 vehicle required		
Nearest A&E hospital:	Sample Hospital	Phone:	01229 870870 999
Location of nearest mobile phone signal / landline:	Good signal		
Site/landowner contact name:	Joe Brown- Forester	Phone:	07822 884444
Emergency contact name:	Assessor 1	Phone:	07833 884555
Other details / comments:	n/a		

Commentary

Candidate completed an adequate emergency procedure for the thinning operations giving sufficient information to enable emergency services to locate the work site, e.g. providing accurate what3words and grid references for site. Some detail is provided on location of meeting point, but a grid reference and/or what3words reference could have been usefully included. All other fields have been completed although not in great detail. The plan contains adequate information to be used in the event of an emergency.

This evidence in isolation provides minimal differentiation between grades, however it supports the risk assessment to demonstrate the candidate's understanding of **health and safety** and ability to enter the industry to begin to work in the occupational area.

Assessor Observation Form (Task 3b-g – Carry out tree work)

Task	**Assessment component number**
Task 3) Thinning operation.	8717-406
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO3: Maintain machinery. PO3: Operate machinery. PO6: Health and safety. PO6: Environment. PO6: Perform complex felling operations.

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Ensure compliance with risk assessment and industry best practice, including use of correct PPE.	Site set up according to legislation, and industry best practice. Correct PPE selected for the task. Candidate demonstrated awareness of control measures from the risk assessment and complied with these throughout the operation. The candidate placed their combi-can in a suitable location away from any watercourses and sources of ignition.
Field maintenance carried out (e.g. sharpening, tensioning chain)	The candidate fueled the saw, and the chain tension was adjusted but the tension was sub-optimal (the chain was not dangerously loose but could have been tightened further for optimal cutting performance and wear). The candidate sharpened the chain but didn't mark the cutter they started on resulting in some uneven sharpening (some cutters filed more than others).
Pre-start checks carried out as per operator's handbook and industry best practice.	Candidate demonstrated pre-use checks of the chainsaw: • chain tension and condition checked for safe and effective use • safety features checked for condition and function • external nuts and bolts checked for security • chainsaw contains sufficient fuel and chain oil for operations.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Saw started as per handbook and best practice. Post start checks were then carried out - candidate checked the function of the chainbrake, on/off switch and checked the chain was not creeping.
Felling: Operation of chainsaw and associated tools equipment in line with industry best practice.	**Species to be felled: Larch** Candidate assessed the site before starting work. Candidate made appropriate use of felling lever and but not the timber tongs/ pulp hook throughout the felling operations. Logs moved by hand. logging tape was used.
Felling and processing techniques taking into account the specific worksite conditions and industry best practice (FISA guidance). Efficiency of working methods (e.g. minimising manual handling, minimising distance covered by measuring/marking product lengths while snedding, etc.)	Demonstrated a range of felling cuts appropriate to the trees being felled. Escape routes were sufficiently cleared before starting. Conventional cut, split level was used. Cuts had effective hinges but felling direction was not consistent. Sink cuts were a little small. Chain brake was used appropriately throughout felling and processing. Once felled the trees were snedded correctly leaving the stems clean but with some small pegs. Operator spent significant time when processing the tree and went up two or three times. Tops cut off at 7cm. Some of the stumps were not cut as low to the ground as they could have been, showing a lack of attention to detail.
Correct configuration of an organised felling system (timber and brash zones) (e.g. bench felling setting up a natural bench using felled trees, timber stacks, strops/slings etc.).	Bench system set up using length of timber but rested on a stump which didn't aid the operator in improving manual handling/efficiency. During the felling of the trees, candidate didn't establish clear timber and brash zones. Brash spread about with no evidence that they were thinking about how the timber was to be extracted.

Assessor observation	Notes – *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Processing: Products cut to length according to cutting specification and stacked or presented appropriately for extraction (e.g. appropriately dressing the butt of the first log, removing hinge wood and flares, presenting timber tip/butt first depending on extraction method etc.)	**Cutting spec provided to candidates:** **fencing: length 2.4m, min. top dia. 12cm.** **chip: length 2.1m, min. top dia. 7cm.** The operator crosscut the timber, this was slow as they measured each length individually, although products were eventually cut to spec. Because clear timber/ brash zones were not developed during felling there was a lot of manual handling to get the timber moved and stacked. Timber was stacked but by hand not with the pulp hook or timber tongs, although manual handling was adequately safe. Timber was not always stacked efficiently – sometimes moved heavier timber to the lighter timber instead of the other way around. Timber stacked was a little untidy and little consideration given to extraction after. There were a small number of pegs left on produce not completely flush to the stem. Candidate forgot to remove hinge wood from one of the logs.
Assisted fell: Pulling system set up in accordance with industry best practice, and of sufficient capacity for the tree being felled. Components selected must be compatible (e.g. strops, shackles, winch, rope/cable), fit for purpose and free from damage.	The candidate set up a winch based assisted felling system. Candidate checked that all equipment used was compatible with the safe working load of the winch and fit for purpose and no damage. Correctly selected anchors for a diverted pull set up so operator out of line of fall. Danger zones e.g. within the triangle formed by the divert, were observed throughout. Candidate attached the cable as close to two-thirds height of the tree to be felled as possible, and high enough to achieve sufficient leverage to safely complete the assisted fell. Correct PPE worn and the winch system was eventually set up correctly with some hesitation, with the cable set as high as possible in the tree to be felled. Cable from the tree run to another anchor where snatch block set up and then the cable was run back to the winch which was set up on a tree just to the side and behind the tree to be felled. The winch was connected directly to the sling (for best practice a shackle would be used to reduce wear on the sling).

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	Routing of the cable meant that a tree to be retained was damaged by the cable.
Assisted felling techniques taking into account the specific worksite conditions and industry best practice. (FISA guidance)	Tree felled using a safe corner (Danish) cut releasing the tree and then winch operator directed to winch the tree over. Communication was ok with the winch operator, at times too focused on their cut but did check with the winch operator prior to releasing the tree. Equipment was dismantled and stowed out of the way and the tree processed to the same standard as the previous trees.
Biosecurity: Tools equipment and PPE thoroughly cleaned down removing debris.	All equipment disinfected and stowed in the vehicle and signage packed away. Site inspected and ensured that it was safe and left reasonably tidy.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photographic/video evidence:

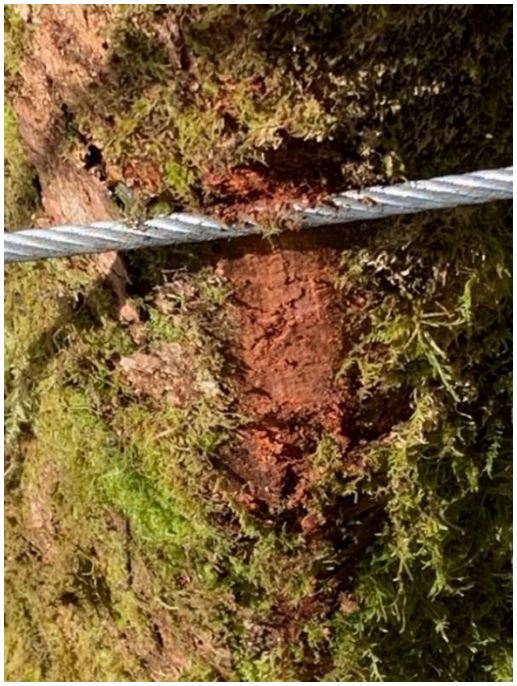
- Photos of working area showing brash zone / timber zone and tidiness of work

Below: Visible attempt to establish brash and timber zones but result is untidy with some timber covered by/on top of brash.

- Series of photos showing set up of assisted fell: Attachment points (tree, anchor), winch position.

Below: Pulling system configured correctly with re-direct and winch positioned in safe zone

Above: Winch connected directly to sling with no shackle



Above: damage to standing tree caused by routing of cable

Commentary

The candidate demonstrated consideration of **health and safety** and the **environment** when setting up the site and preparing for work, e.g. combi-can placed away from watercourses and sources of ignition, used correct PPE and complied with the risk assessment throughout.

The candidate showed adequate knowledge and skill to **maintain machinery**, conducting field maintenance of the chainsaw to an acceptable standard but with some areas for improvement, e.g. they could have been tightened chain further for optimal cutting performance and wear, and could have checked the chain for oiling post-starting.

Candidate demonstrated adequate knowledge and skill when **performing complex felling operations**. An attempt was made to set up a bench system using length of timber resting on a stump to fell the trees onto. However, wasn't always effective (e.g. due to the felling direction not being consistently fully accurate).

Trees were felled with adequate skill using recognised cuts, but this could be improved (e.g. some of the sinks were a little small, felling direction was inconsistent.) They were able to **operate machinery** safely e.g. chain brake was used appropriately throughout. Timber was not always stacked in the best place to aid extraction, and although cut to spec, was carried out inefficiently.

The candidate applied industry best practice related to **performing complex felling operations** during the assisted felling portion of the task, showing an adequate level of skill. For example, the winch system was 'eventually set up correctly with some hesitation', making use of suitable anchors in safe positions, the equipment selected was fit for purpose and compatible to the safe working load of the winch. The tree was safely felled using a recognised holding cut (safe corner cut) and with adequate communication with the winch operator (checked with winch operator before releasing the tree).

There were some areas for improvement - the candidate could have better ensured the cable was clear of remaining trees, as one was damaged by the cable. The winch was safely connected to the anchor point with a sling, but no shackle was used. Long term this could result in wear on the sling and it having to be replaced.

Task 4 – Planting plan

Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Grow trees and woodlands.	PO2: Plan for establishment (tree stocks). PO2: Plan for establishment (establishment plans). PO2: Establish trees.
PO4 Manage woodlands to meet objectives	PO4: Environment and plant health PO4: Planning and silviculture

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this GSEM
Planting plan.	PO2: Plan for establishment (tree stocks). PO2: Plan for establishment (establishment plans). PO2: Establish trees. PO4: Environment and plant health. PO4: Planning and silviculture.	√		√

Candidate evidence – Planting plan

Task 4 Planting plan.

Number of trees required:

50 ha x 2,500 = 125,000 total trees

45% of 125,000 = 56,250 Scots Pine,

45% of 125,000 = 56,250 Norway Spruce

10% of 125,000 = 12,500 Native Broadleaf

Selection of native broadleaf species:

Betula pendula - Silver Birch.

This species is fast growing and will keep up with the NS and SP. Slower growing broadleaves would risk being shaded out by the fast growing conifers. Species will be planted in an even mixture.

Tree supplier:

Guilds Forest Nurseries (note, supplier is fictional for purposes of GSEM)

Norway Spruce: 60cm – £0.49
Scots Pine: 20-40cm – £0.45
Betula pendula (Silver Birch): 20-40cm – £0.45

Guilds Forest Nurseries plant health policy states they do not import any trees from outside of Great Britain or buy from nurseries that do. They are regularly inspected by Forest Research and APHA (Animal and Plant Health Agency). They have a published Biosecurity Policy on their website which is reviewed annually. This means we can be confident that trees from this supplier will be free from pests and diseases.

Planting specification:

Stock type: bare root transplants

Size:
Norway Spruce 60cm
Scots Pine 20-40cm
Silver Birch 20-40cm

Spacing: 2 m

Plant handling: Do not overfill planting bags, handle trees with care and keep roots protected from the wind while planting.

Planting method: Planter creates a notch with planting spade, insert roots and ensure tree is upright, lightly pull and firm in. For the Birch, hammer in a stake, slide tube over the tree and attach to stake with zip ties.

Factors affecting establishment:

Deer grazing is a known threat on the site, they will eat the plants if they aren't protected. Larch trees on the site are infected with Phytophthora but this isn't a threat to the species being planted.

Tree protection:

The Silver Birch will be protected with stakes and tree tubes to prevent any damage being caused by the Roe deer. The Birch will be protected with standard 120cm tubes, supported with 130cm stakes. This height of tube is the minimum needed to protect against roe deer. The conifer species will be protected by culling the deer and replanting any lost trees by beating up each year.

Costs:

Species	**Purchase cost £**	**Planting cost £**	**Protection type**	**Purchase cost £**	**Installation cost £**	**Total £**	**Qty**	**Total £**
Norway Spruce	0.49	0.25	n/a	n/a	n/a	0.74	56,250	41,625
Scots Pine	0.45	0.25	n/a	n/a	n/a	0.70	56,250	39,375
Silver Birch	0.45	0.40	Std. tube	Tube 1.44 stake 0.83	0.50	3.62	12,500	45,250

Total: £126,250

Costs per hectare:

Trees:

0.49 x 56250 = 27,562.5

0.45 x 56250 = 25,312.5

0.45 x 12500 = 5,625 +

58,500

/50 ha

= £1,170 /ha

Support/protection materials:

1.44 + 0.83 x 12500 = 28,375

/50 ha

= £567.50 /ha

Labour:

Planting Norway Spruce 0.25 x 56250 = 14,062.50

Planting Scots Pine 0.25 x 56250 = 14,062.50

Planting and protecting Silver Birch 0.40 + 0.50 = 0.90 x 12,500 = 11,250 +

39,375

/50 ha

= £787.50 /ha

Commentary

The candidate applied adequate knowledge, understanding and skills to interpret the brief and carry out relevant research to inform the content of their plan.

The candidate adequately interpreted technical information from the brief (including Figure 1) and the task, applying sound technical knowledge and skills to analyse the information and develop an adequate **establishment plan** – for example specifying recognised methods of protecting the planted trees from the threats given in the brief and task (tubes and culling to prevent/mitigate damage from deer population).

The response contains adequate information showing some understanding of **environment and plant health** and **establishment plans**, although this could have been expanded on, for example in the 'tree protection' section the candidate stated the conifers will be protected by 'culling the deer and replanting any lost trees by beating up each year' however no further detail is given such as estimated costs or timing/frequency for the deer control and beat up planting (other than 'each year').

The native species selected is broadly suitable for the site and soil conditions, with evidence of some consideration of **planning and silviculture** (e.g. species and site/environmental conditions). The candidate showed understanding of tree stocks taking into account some relevant factors (e.g. noting that a faster growing broadleaved species such as Betula pendula may be less likely to be outcompeted by the conifers). The species is suitable for the soil conditions given in the task/brief.

The candidate demonstrated some knowledge of how to successfully **establish trees,** providing a suitable planting specification for the species and **tree stock** types to be planted (e.g. a recognised planting method is described, which is suitable for the ground conditions and stock type). The information given on planting locations/pattern only states an 'even mixture' - it would be assumed the candidate intends the species to be planted in an 'intimate mixture'. There was opportunity to provide more detail here (e.g. spacing is given as '2m' but '2m x 2m' would be clearer, and the candidate could have explicitly stated that the species are to be planted in an intimate mixture, or given detail on how the Betula pendula should be distributed within the mixture).

The candidate applied the necessary calculations and completed them with a sufficient level of accuracy, although not in the most efficient or logical manner (e.g. laid out the various costs in a table but then had to show additional steps of calculation to give costs per hectare).

Overall, the candidate produced an **establishment plan** which would be adequate to establish the required amount of trees.

They mostly used technical terminology accurately, although did not consistently include full scientific names for all species.

Task 5 – Planting

Evidence contributes to the following:

Performance outcome	Assessment themes
PO2 Grow trees and woodlands.	Plan for establishment (tree stocks). Establish trees.

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this GSEM
Assessor observation.	PO2: Plan for establishment (tree stocks). PO2: Establish trees.		√	√
Photographs.	PO2: Plan for establishment (tree stocks). PO2: Establish trees.		√	√

Assessor Observation Form (Task 5 - planting)

Task	Assessment component number
Task 5) Planting	8717-406
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO2: Plan for establishment (tree stocks) PO2: Establish trees

Assessor observation Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Select tools, equipment and resources.	The trees to be planted were medium sized bare root *Quercus robur* transplants, 25x to be planted in row with 2m spacing between trees. Ground conditions in planting area were firm, dry and stony with some short rough grass. Candidate selected and checked hand tools (suitably sized planting spade, planting bag). Appropriate PPE was worn throughout the task (safety boots, gloves).
Check the condition of the plants, check roots, foliage, size, health. Identify and report defects.	The candidate made a cursory inspection of tree condition but did not fully examine the roots. The candidate reported poor root condition with significant J-rooting on one tree. After some significant hesitation and lengthy inspection, the candidate identified and reported the second defective tree (which displayed some less obvious drying of the roots).
Prepare planting stock for planting: plants handled with care and loaded into suitable bags/containers for planting	Candidate loaded the correct number (25) of trees into their planting bag. Handled slightly roughly but caused no damage.
Planting technique, spacing, depth, appropriate to ground conditions and stock type.	Candidate planted the trees using a simple slit technique, sometimes struggling to insert trees to the required depth due to the firmness of the ground, which also made the task slow. Spacing started out inconsistent

Assessor observation Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	but the candidate corrected this after the first few trees and achieved a reasonably accurate spacing for the remainder of the row.
Stakes and guards installed appropriately and securely avoiding any damage to the tree for **two** trees.	Stakes were handled correctly and driven in using a hammer. First stake was placed at a distance slightly too far away from the tree initially, which the candidate noticed when they tried to install the tube. This was rectified and the second tree was completed with no problem. Tubes were installed securely over the trees causing no damage.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photographic/Video evidence:

Photo evidence: Photo of defective plant

Photo evidence: Photos showing planting before protection installed.

Photos courtesy of Woodland Trust: Paul Bunton / WTML

Photo evidence: Photo showing spacing achieved

Photo evidence: Photo showing a planted tree with protection installed.

Commentary

The candidate demonstrated adequate knowledge and skills relating to **tree stocks** when **planning for establishment** - they checked the condition of the tree stock before planting, and identified and reported the tree with significant root damage. They struggled more to identify the second defective tree as the signs were less obvious but did eventually report it to the assessor.

The candidate demonstrated adequate skill to **establish trees**. They planted the trees to an acceptable standard, with sufficient regard for the health and initial establishment of the trees using a planting technique which, although effective, was difficult in the ground conditions and therefore slow (an L-notch or T-notch technique would have been more suitable for firm stony ground). After an inconsistent start, a reasonably accurate spacing was achieved.

The candidate installed support and protection with only minor errors which were corrected and resulted in adequate conditions for successful establishment of the trees. The planting specification was sufficiently met (although with some inefficient working).

Task 6 – Boundary maintenance

Evidence contributes to the following:

Performance outcome	Assessment themes
PO5 Maintain woodlands to meet prescribed objectives.	Health and safety. Plan for management/ maintenance. Perform woodland maintenance.

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this GSEM
Assessor observation.	PO5: Health and safety. PO5: Plan for management/ maintenance. PO5: Perform woodland maintenance.		√	√
Photographs.	PO5: Health and safety. PO5: Perform woodland maintenance.		√	√

Assessor Observation Form (Task 6 – boundary maintenance)

Task	Assessment component number
Task 6) Boundary maintenance.	8717-406
Candidate name	**Candidate number**
The Candidate	CG12345
Centre name	**Assessment themes**
Sample centre	PO5: Health and safety PO5: Plan for management/ maintenance. PO5: Perform woodland maintenance

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Inspect the fence and identify the maintenance or repairs required.	The Candidate was allocated a section of post and rail fence and asked to inspect the section and report back on its condition. They identified one post that was loose and one section of rail to replace; the rail was correctly identified as not being re-usable.
Select the equipment needed to carry out the repairs and maintenance.	The Candidate selected appropriate PPE, tools and equipment to undertake the work and transported these from the store (claw hammer, spade, spirit level and wire nails) in two trips, but did not pick up the tamper.
Removal of damaged rail (If **post and rail fencing** is used).	The Candidate removed the necessary rails (both damaged and undamaged) and placed them so they were out of the way of the work, but with the nails pointing upwards.
Removal of damaged netting (If **stock fencing** is used).	N/A
Removal of damaged fence post.	They then removed soil from around the post using a rabbiting spade and shovel and took it out of the ground with the help of an assistant to lift the post out.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Installation of post.	The candidate didn't check the depth of the existing hole. With the help of their assistant (to lift and hold the post in place), the post was placed in the hole, straightened and soil replaced around it. The Candidate returned to the tool store for a third time and collected a tamper before using this to firm in the soil. The post had to be removed and hole dug out again using a shove-holer to ensure it was deep enough. Once in the ground and the soil firmed in, using a spirit level the Candidate checked and confirmed the post was upright. However, the top of the post was at a slightly different height in relation to the existing fence line.
Marking and cutting of rail to size if necessary (If **post and rail fencing** is used).	They collected and safely carried one new rail from the stack of new fencing materials. The rail did not need to be cut to size.
Fixing of rail (If **post and rail fencing** is used).	The Candidate then attached the new rail using wire nails and ensured it was appropriately spaced and securely attached. They also attached the other rails to the post using the existing nails.
Fixing/tightening of netting (If **stock fencing** is used).	N/A
Carry out the work in a manner that minimises environmental damage. Ensure the site is left in a safe and tidy condition.	The damaged rail was safely carried to the allocated area for waste disposal and placed on the pile of existing materials with the nails pointing down. The Candidate was aware of the protruding nails when carrying the rail. Some excess soil was left in a pile near the post. The spade was cleaned of soil, and tools and equipment were returned to the tool store and the site left in a safe and tidy condition. Throughout, the Candidate worked safely and demonstrated an awareness of relevant factors associated with boundary maintenance. The Candidate completed the task within the 2 hours allowed for the task and appropriately directed an assistant to help install the post.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photographic/video evidence

Photo evidence: Photo showing post installed

Photo evidence: Photo showing fixing of rail

Photo evidence: Photo showing finish of fence.

Commentary

The **woodland maintenance** task was completed within the time allowed, in line with relevant **health and safety** legislation and regulations. There were missed opportunities to reduce risks, e.g. by removing nails before transporting damaged rails to waste stack. Although rails were initially placed with nails pointing upwards after removal, the candidate corrected this when they moved the rails to the area for disposal.

The candidate showed some consideration of **planning for maintenance** - they selected suitable tools, equipment, and resources to complete work to an adequate standard. There were missed opportunities to minimise the need for manual handling and improve work efficiency (e.g. they had to return to tool store for additional resources: tamper). Maintenance of machinery/equipment was carried out with an adequate level of skill for safe operation. The candidate cleaned the spade of soil before returning it to the tool store but missed opportunities such as inspecting the other tools for damage.

The **woodland maintenance** task was **performed** to an adequate standard but resulted in some minor errors against the specification. The top of the post was not fully in line with the rest of the posts in the fence line. The post was firmed in, but this could have been done in stages rather than in one go to achieve a better result.

Task 7 – Vegetation management

Evidence contributes to the following:

Performance outcome	Assessment themes
PO5 Maintain woodlands to meet prescribed objectives.	Health and safety. Plan for management / maintenance. Perform woodland maintenance.

Evidence	Assessment themes	Candidate producing	Assessor producing	Included in this GSEM
Assessor observation.	PO5: Health and safety. PO5: Plan for management / maintenance. PO5: Perform woodland maintenance.		√	√
Photographs.	PO5: Perform woodland maintenance.		√	√

Assessor observation (Task 7 – vegetation management)

Task	Assessment component number
Task 7) Vegetation management.	8717-406
Candidate name	**Candidate number**
Sample Candidate	CG12345
Centre name	**Assessment themes**
Sample Centre	PO5: Health and safety. PO5: Plan for management / maintenance. PO5: Perform woodland maintenance.

Complete the table below referring to the relevant marking grid, found in the assessment pack. Do not allocate marks at this stage.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
Clearing saw maintenance: Select and prepare tools, equipment and machinery for use including pre-use checks – As a minimum: condition of blade, presence and condition of correct guards, function of power on/off switch, security and fit of harness and attachment system. Remove, sharpen and re-fit the clearing saw blade.	Maintenance carried out in workshop: • Visually checked the condition of the clearing saw blade and the blade guard. • Identified that the blade needed sharpening. • Blade was removed safely wearing gloves. • Initially struggled due to forgetting to insert the locking pin but realised their mistake and successfully removed the blade. • Visually inspected the blade for cracks and damage before securing it in a vice. • Visually identified the most damaged tooth but did not take any measurements. • They sharpened the blade using the correct round file and file guide to complete adequate sharpening of the blade. • They made a cursory visual check of the offset of the teeth. • Blade was refitted to the machine securely. • While tightening the locking nut the candidate noticed they had put the blade on upside down (wrong direction of rotation) so had to remove the blade, turn it over and then refit the locking nut. • Candidate selected appropriate PPE for the task - gloves, safety boots, helmet with ear defenders and visor, and non-snag outer clothing.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
	• The candidate fitted their harness, attached the machine and adjusted it to achieve adequate balance. Machine was then placed on the floor, started safely. • The candidate confirmed the blade was not moving at idle and that the on/off switch worked.
Organisation and setting out the worksite: Placement of appropriate warning signage or other measures to manage public access during the operation e.g. placing of warning signs at perimeter/access point of working area to warn public.	Candidate placed a warning sign at the edge of the work area next to the track.
Selection of suitable area(s) for re-fueling and fuel storage e.g. away from watercourses and sources of ignition or direct sunlight.	Candidate placed their fuel can next to the warning sign and covered it with a jacket.
Interpretation of the job specification provided (identify the area to be cleared, the vegetation to be cleared, and any vegetation to be retained or obstacles to be avoided).	**Job specification:** Assessment site was an area of sparse Birch with dbh of 9-15 cm, with a thick understory of regen with dbh of 2-6 cm. Candidate was instructed to re-space the regeneration to achieve a spacing of approximately 2m between trees, retaining the larger Birch.
Clearing saw operation: Clear unwanted vegetation according to the specification. Use the machine in a safe and effective manner throughout the operation which maintains health and safety and is consistent with	The candidate removed the blade cover, moved away from the fuel can and safely started the machine. They began re-spacing the birch as specified. The candidate used mostly suitable cuts, mostly to a good standard. Directional control when cutting small diameter material was not always evident, a few times cut vegetation falling back towards the candidate slowing them down and having to be handled.

Assessor observation	**Notes –** *detailed, accurate and differentiating notes which identify areas of strength and weakness are necessary to distinguish between different qualities of performance and to facilitate accurate allocation of marks once all evidence has been submitted.*
current legislation and codes of practice. Use appropriate cutting techniques to avoid damaging not-target species/obstacles	The candidate followed the specification retaining the larger birch, and avoided any significant damage, although one tree's bark was scored with the clearing saw blade when cutting a stem close to it (see photo).
Ensure the site is left in a safe and tidy condition.	On completion the site was left safe and reasonably tidy with all cut vegetation laying on the ground, a lot of stems laying across each other but nothing hanging up or presenting a hazard. The warning sign, fuel can, and machine were removed from the site and placed in the correct storage area.

Assessor signature	**Date**
Sample Assessor	23/03/2023

Photo/video evidence:

Photo evidence: Photo showing example of damage caused to non-target species.

Commentary

The candidate carried out the work to adequate standards, including **health and safety** and quality, and is able to enter the industry to begin work in the occupational area.

They interpreted the specification provided by the assessor and followed safe working methods appropriately when applying practical skills to an adequate standard to satisfy the requirements of the **woodland maintenance** task.

The candidate demonstrated adequate **planning for management/maintenance** - the working area and machine were prepared adequately to allow safe working. The candidate worked safely, selecting and appropriately using PPE, maintenance tools and equipment to maintain and prepare the clearing saw to an adequate standard. Pre use checks were completed to a safe standard, and the blade was maintained adequately however this could have been more thorough with some minor errors made (e.g. measurements not taken, offset not checked thoroughly, blade initially on backwards but corrected).

The practical vegetation management task was completed safely, to an adequate standard although with some minimal damage caused to one of the retained trees (see photo). The candidate **performed the woodland maintenance** task in line with the specification given, although they didn't work in a systematic manner (e.g. strip cutting to maximise efficiency). They left the site in a safe and reasonably tidy condition, although stems were left laying across each other – this could have been improved if a more systematic approach was used, and better directional control when making cuts.