

Arboricultural Method Statement

Phase Three works: Woodsmith Mine Site, Whitby

Client: Sirius Minerals Plc
c/o Royal Haskoning DHV
Rightwell House
Bretton
Peterborough
PE3 8DW

Planning Condition Ref: 40-RHD-WS-70-EN-MS-0002

NYMNPA-70 Rev 0 FINAL

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Rev 0 (final)	Discharge of Condition NYMNPA-70	AMB	TC	AMB	30/03/17

I hope you find this report satisfactory. If you need any more information regarding this assessment, please contact the office below.

Signed:



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Contents

1	INTRODUCTION.....	1
2	DEVELOPMENT DETAILS.....	3
3	SITE DESCRIPTION	4
4	SUPERVISION AND MONITORING.....	5
5	CARRY OUT ARBORICULTURAL WORKS.....	6
6	TREWORK GENERAL NOTES.....	6
7	ERECT PROTECTIVE BARRIERS	7
8	CARRY OUT OTHER PRE-COMMENCEMENT WORKS	8
9	OTHER PROTECTION MEASURES REQUIRED BY BS5837	8
	APPENDIX A – TREE PROTECTION PLAN	9
	APPENDIX B – BARRIERS TO BS5837-2012	10
	APPENDIX C – POSTER TO BE FIXED TO BARRIERS AND FENCES.....	11

1 INTRODUCTION

- 1.1 In 2014 a planning application (reference NYM/2014/0676/MEIA) was submitted to North York Moors National Park Authority (NYMNPA) for permission to develop a polyhalite mine and underground Mineral Transport System (MTS). Planning consent was subsequently granted in 2015 subject to conditions.
- 1.2 This document has been prepared on behalf of Sirius Minerals plc and details the requirements with respect to the management of trees affected by the Phase 3 Works at the Woodsmith Mine Site.
- 1.3 This document is required to partially discharge condition 70 of the NYMNPA planning permission NYM/2014/0676/MEIA (see Table 1 overleaf).
- 1.4 This document, read in conjunction with drawing 2556.Ph3.WM.YPL.TPP describes a suitable methodology for the protection of the trees on site during construction.
- 1.5 Protective measures have been developed and specified in accordance with the recommendations of BS5837: 2012, including relevant terms, definitions and Root Protection Area (RPA) calculations.

Table 1: Condition NYMNPA-70 Arboricultural Method Statement and Tree Protection Plan

Condition requirements	Compliance
<p>Prior to site preparatory works commencing at DNF or Lady Cross a scheme shall be submitted to and approved by the MPA showing:</p>	<p>This document prepared prior to work commencing. It considers works at Woodsmith Mine (previously Dove’s Nest Farm). Works at Lady Cross Plantation have been deferred.</p>
<ul style="list-style-type: none"> • any existing trees, hedges and other vegetation to be retained; together with • any measures for the protection and management/ reinforcement of these areas; and also • indicating trees, hedges and other vegetation to be removed. 	<ul style="list-style-type: none"> • Tree, hedges and other vegetation to be retained are indicated on drawing 2556.Ph3.WM.YPL.TPP (those NOT marked in red dashed lines and circles). • Protection measures are described in this document in sections 6-10. • Tree works to be carried out before work begins are described in this document in section 5, with trees to be removed listed in section 5.4 and indicated on drawing 2556.Ph3.WM.YPL.TPP by red dashed lines and circles.
<p>This shall include Arboricultural method statement and tree protection plans.</p>	<p>This document comprises an Arboricultural Method Statement for Phase 3 at the Woodsmith Mine Site. Drawing 2556.Ph3.WM.YPL.TPP comprises the Tree Protection Plan for the Phase 3 works at the Woodsmith Mine Site.</p>
<p>These measures shall be implemented ahead of site preparatory works and retained during construction period.</p>	<p>This instruction is made explicitly in this document, for example in sections 4, 5.1, 7.6, and 9.7.</p>

2 DEVELOPMENT DETAILS

2.1 The works required for the Phase 3 works at the Woodsmith Mine Site associated with the York Potash Project comprise:

- General site clearance including demolition of all farm buildings and sheds, and localised tree and scrub clearance, as shown on drawing 40-ARI-WS-71-CI-DR-1051.
- Excavation and construction of the south western extension of the upper tiered working platform at around 203m AOD, as shown on drawing 40-ARI-WS-71-CI-DR-1053.
- Excavation and construction of the Platform for the Construction Welfare Facility, Parking Area and Concrete Batching Plant, as shown on drawing 40-ARI-WS-71-CI-DR-1053.
- Construction of temporary and permanent soil mounds, including the basal liner for a future storage facility in the northeast corner of the site for non-hazardous non-inert spoil and three topsoil, subsoil and inert material storage bunds in the southwestern area of the site, as shown on drawings 40-ARI-WS-71-CI-DR-1053 and 40-ARI-WS-71-CI-DR-1055, with earthworks volumes presented in 40-ARI-WS-71-CI-DR-1054.
- Construction of surface water drainage, a temporary surface water attenuation pond and temporary wetland in the southern area, and two permanent attenuation ponds and two wetland areas in the north eastern area, as shown on Arup drawing YP-P10-WS-CD-050 (NMC).
- Construction of a spring and groundwater drainage layer in the north eastern area, discharging into a wetland area, as shown in drawing 40-ARI-WS-71-CI-DR-1080.
- Installation and commissioning of temporary dewatering as shown in drawing 40-ARI-WS-71-CI-DR-1058.
- Erection on site of the Concrete Batching Plant as shown in drawing 40-ARI-WS-71-CI-DR-1050, complete with reticulated water supplies and tanks.
- Construction of the drilling platform and temporary saline lagoon area for the groundwater reinjection well as shown in drawing 40-ARI-WS-71-CI-DR-1057.
- Establishment of construction welfare and security facilities - complete with hook-up of power, communications & water supplies and new waste water collection facilities as shown on drawing 40-ARI-WS-71-CI-DR-1050.

3 SITE DESCRIPTION

- 3.1 The site consists of existing farm tracks with highway access off B1416 (as improved in the Phase 1 highway works, see 2556.Ph1.Highways.YPL.AMS), coniferous and hardwood plantation and woodland; and small ditches and bodies of water.

4 SUPERVISION AND MONITORING

- 4.1 It is important that the tree protection measures are understood and adopted at all levels from client to project manager and any sub-contractors in order that the measures can be successful.
- 4.2 Communication between the Client, Principal Contractors (and their sub-contractors), the Project Manager and the Arboriculturalist are of high importance.
- 4.3 A pre-commencement meeting will be held on site between the Site Manager and any deputies; the Project Arboriculturalist; Contractors' forepersons and the Project Ecologist.
- 4.4 The Local Planning Authority Arboricultural Officer; the Landscape Officer and The Planning Officer will be notified of the meeting and invited to attend as appropriate.
- 4.5 The Site Manager will approve the protective barriers (comprising Site Security Fence; Temporary Fence or BS 59837 Barriers as appropriate) before any work commences, and monitor the physical and managed protective tree measures continually.

5 CARRY OUT ARBORICULTURAL WORKS

- 5.1 The area of the plantation for removal will be identified with tape in a manner agreed with the treework contractor.
- 5.2 A number of trees in woodland plantation 041 W2 will be removed (as denoted by the dashed red lines on the drawing 2556.Ph3.WM.YPL.TPP)

6 TREWORK GENERAL NOTES

- 6.1 Before the commencement of any tree works, the Project Ecologist or similar will carry out the necessary inspections for bats and nesting birds as specified in the Woodsmith Mine Phase 3 Construction Environmental Management Plan (CEMP) and associated Protected Species Management Plans (PSMPs).
- 6.2 The start date for tree work will be agreed following the advice of the Project Ecologist.
- 6.3 Tree work is skilled and potentially dangerous work. It will be carried out by trained and certificated staff working to BS3998: 2010 and working in accordance with the various Regulations of the Health and Safety at Work Act 1974.
- 6.4 Contractors will have Public Liability Insurance and Employer's Liability Insurance to a level appropriate to the nature of the Works.
- 6.5 Machinery and equipment will be maintained, inspected and operated in accordance with the various Regulations within the Health and Safety at Work Act.
- 6.6 The Contractor will be responsible for producing their own Method Statement for the works that will include Risk Assessments, staff profiles and certification, machinery and equipment inspection records and certificates.
- 6.7 The Contractor will be responsible for the treatment of coniferous stumps, according to an assessment of species, soil and climate by the Project's Arboriculturalist.
- 6.8 Stump removal may be required and will be agreed with the Client, including the disposal of arisings.
- 6.9 Disposal of timber, brash and other arising is specified in the Contractor's Project Management Plan (PMP).

7 ERECT PROTECTIVE BARRIERS

7.1 Once the treeworks are complete, the retained Plantation will be protected as follows:

- Where the site security fence is positioned in the same place as the recommended barrier on drawing 2556.Ph3.WM.YPL.TPP, it will provide adequate tree protection if:
 - a) the fence is beyond the radial extent of the RPA or is beyond the drip line of the trees' crown; and
 - b) the fence is able to resist lateral forces.
- A barrier to Fig 2 BS5837 will be erected in place of proposed security or temporary fence where works are required ahead of their installation, with the line of the barrier being on the same line as the proposed fence. See Appendix B for Fig 2 BS5837 barrier illustration.

7.2 In low activity zones, (as defined by Sirius Minerals plc) the existing stock fence and ditches are considered to provide adequate tree protection.

7.3 Weather-proof notices stating: 'PROTECTED AREA – DO NOT ENTER' will be erected on the security fencing, existing fencing or the protective barriers not less than 5m apart.

7.4 Temporary access to the protected area will be by permission of the Site Manager who will consult the Project Arboriculturalist if required.

7.5 The Site Manager will assess the integrity of the protective fencing protection measures regularly. Any shortcomings must be rectified to the original specifications immediately.

7.6 Barriers will remain in place until the end of Phase 3 where they may be retained for future use or removed according to requirements.

8 CARRY OUT OTHER PRE-COMMENCEMENT WORKS

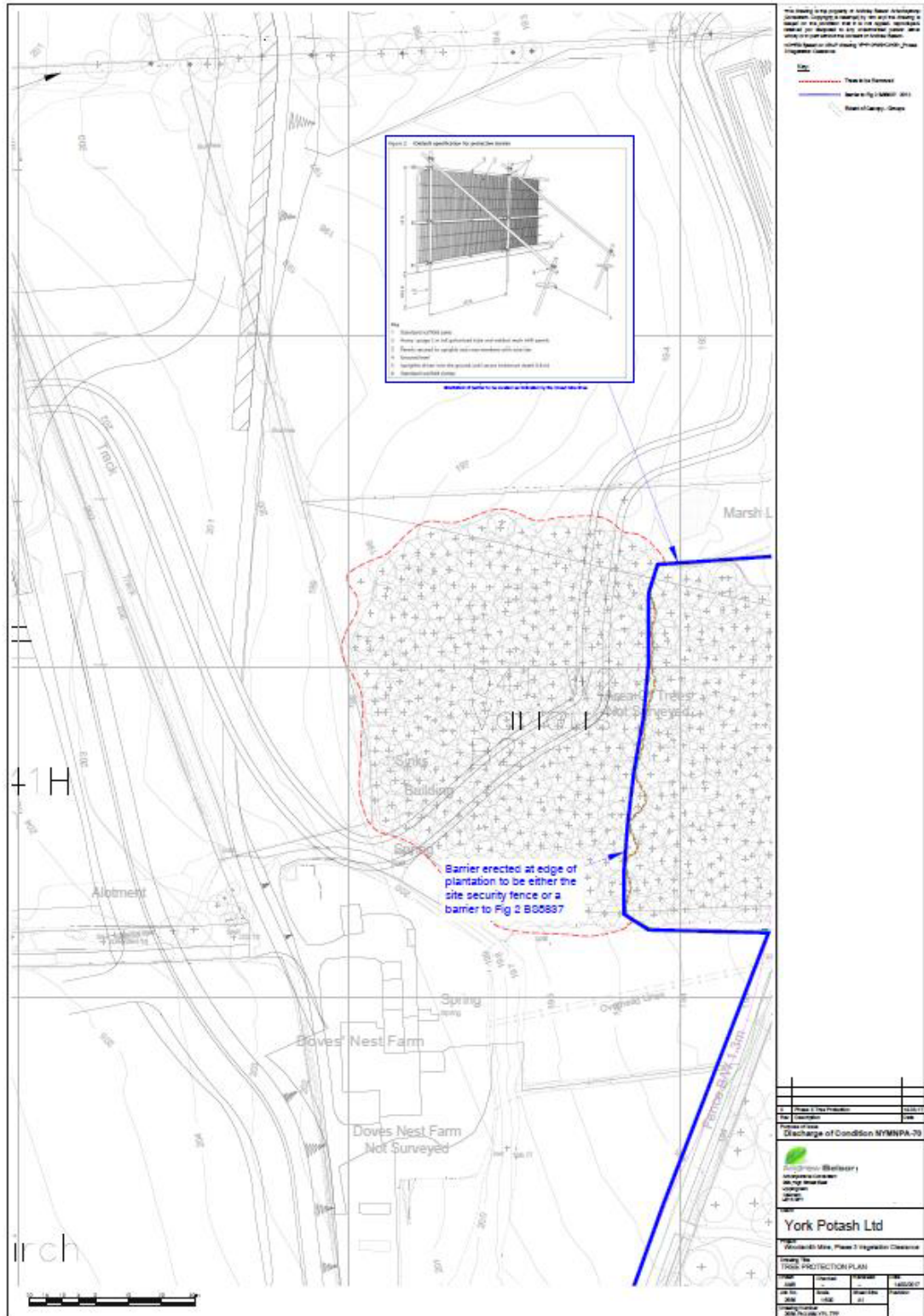
- 8.1 The works will be planned in such a way as to minimise the pressure on the trees through careful planning and management, particularly in excavations and the storage of materials.

9 OTHER PROTECTION MEASURES REQUIRED BY BS5837

- 9.1 No fires to be lit on site where flames can reach within 5m of a tree's crown, taking the size of the fire, wind speed and direction into account.
- 9.2 No storage or discharge of materials within 5 metres of a tree bole.
- 9.3 No mixing of cement or dispensing of fuel or chemicals within 5 metres of a tree bole.
- 9.4 No stripping of topsoil, excavation or changing of levels to occur within the RPA.
- 9.5 Any damage that occurs to the trees during construction must be rectified to the British Standard BS 3998: 2010 (Tree Work – Recommendations).
- 9.6 Trees must not be used as anchor points for winching or for supporting wires/cables.

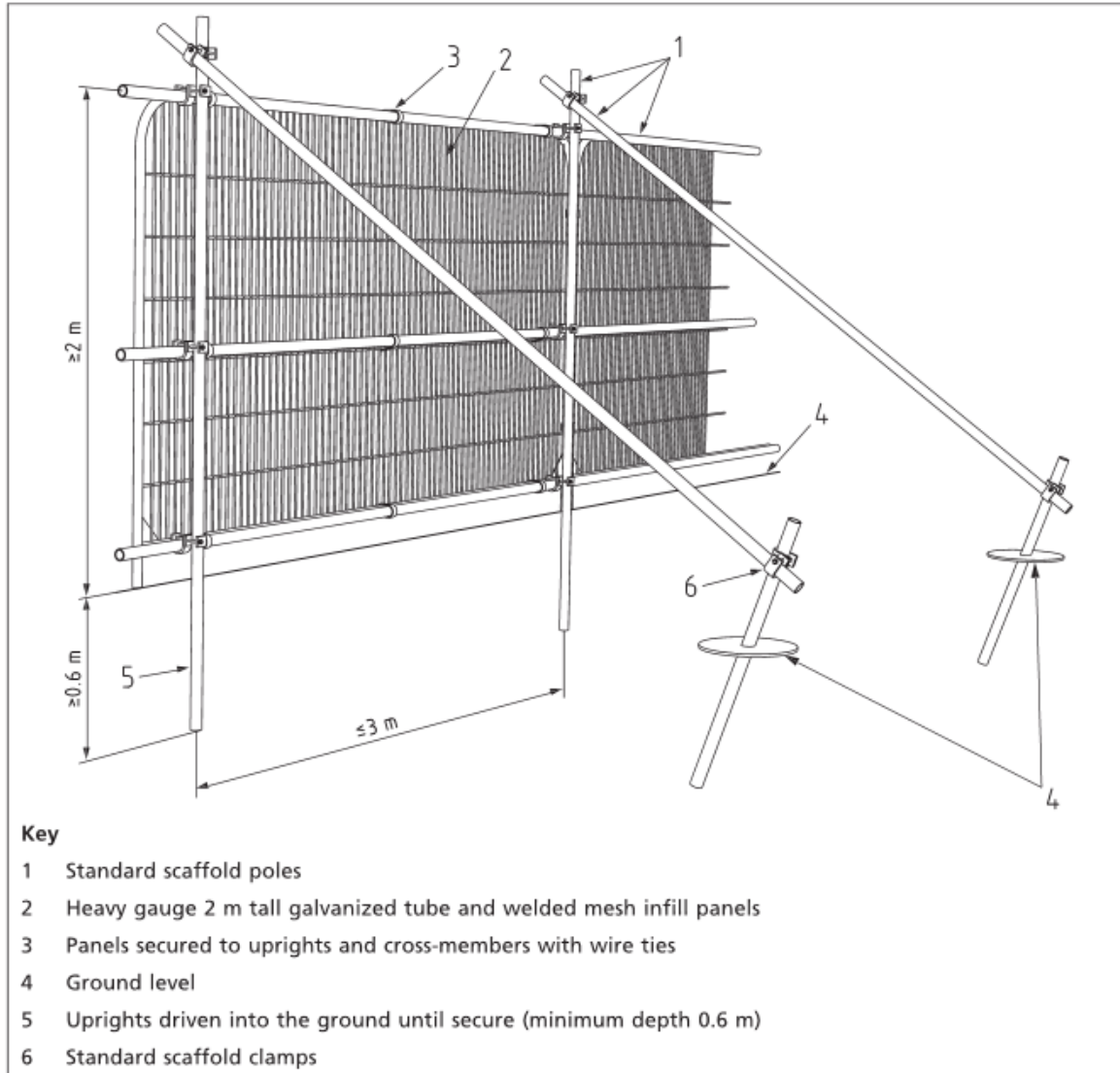
APPENDIX A – TREE PROTECTION PLAN

The Tree Protection Plan is pictured below. A full-sized version of the plan has been provided with this file (Filename: 2556.Ph3.WM.YPL.TPP).



APPENDIX B – BARRIERS TO BS5837-2012

Figure 2 Default specification for protective barrier



APPENDIX C – POSTER TO BE FIXED TO BARRIERS AND FENCES

PROTECTED
AREA

DO NOT ENTER

(WITHOUT PERMISSION)

This barrier is designed to protect these
trees.

PLEASE REPORT ANY BREACH IN
THE BARRIER TO THE SITE
MANAGER