REPORT

Phase 7 - Woodsmith Mine Construction Environmental Management Plan

Woodsmith Mine Phase 7 - CEMP

Client: Sirius Minerals PLC

Reference: 40-RHD-WS-70-EN-PL-0029 REV 2

Revision: 03/Final

Date: 28 August 2018





HASKONINGDHV UK LTD.

Rightwell House Rightwell East Bretton Peterborough PE3 8DW Industry & Buildings

VAT registration number: 792428892

Document title: Phase 7 - Woodsmith Mine Construction Environmental Management Plan

Document short title: Phase 7 CEMP

Reference: 40-RHD-WS-70-EN-PL-0029 REV 2

Revision: 03/Final

Date: 28 August 2018

Project name: Sirius North Yorkshire Polyhalite Project

Project number: PB1110

Author(s): Charlotte Goodman

Drafted by: Charlotte Goodman

Checked by: Matthew Hunt

Date / initials: 24/08/2018

Approved by: Matthew Hunt

Date / initials: 28/08/2018

Classification

Project related

So 9001=ISO 14001
OHSAS 18001

Disclaimer

No part of these specifications/printed matter may be reproduced and/or published by print, photocopy, microfilm or by any other means, without the prior written permission of HaskoningDHV UK Ltd.; nor may they be used, without such permission, for any purposes other than that for which they were produced. HaskoningDHV UK Ltd. accepts no responsibility or liability for these specifications/printed matter to any party other than the persons by whom it was commissioned and as concluded under that Appointment. The integrated QHSE management system of HaskoningDHV UK Ltd. has been certified in accordance with ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007.

i

Project related



Table of Contents

1	Introduction	1
1.1	Purpose of Document	1
1.2	Phase 7	4
1.3	Scope of this Document	5
2	Environmental Management Framework	7
2.1	Structure and Responsibilities	7
2.2	Training, Awareness and Competence	7
2.3	Monitoring of Compliance	8
2.4	Complaints Procedure	8
3	Description of Site	8
3.1	Fencing and Security of the Site	8
3.2	Site Layout and Compounds	8
3.3	Welfare Facilities	9
3.4	Lighting	9
3.5	Materials Storage	9
3.6	Wheel Washing Facilities	9
3.7	Site Housekeeping	9
4	Traffic	10
4.1	Construction Traffic Management Plan (CTMP)	10
4.2	Enforcement Systems for Breaches of Traffic Management Requirements	10
5	Noise and Vibration	10
5.1	Noise and Vibration Management Plan	10
6	Air Quality and Dust Management	10
6.2	Construction Vehicle and Plant Management Plan	11
7	Nature Conservation	11
7.1	Protected Species and Precautionary Method of Working for Site Clearance	11
7.2	Vegetation Clearance	11
7.3	Environmental Enhancement	11
8	Archaeology	11
9	Hydrogeology, Water Quality and Drainage	11
9.1	Introduction and Generic Water Protection Issues	11

Project related



9.2	Groundwater Management	12
9.3	Surface Water Management	12
9.4	Silt and Pollutant Management	12
10	Soils and Contaminated Land	12
11	Materials and Waste	12
11.2	Contingency Grouting	13
11.3	Extractive Material	13
11.4	Fuel Oil Storage and Refuelling on Site	13
11.5	General Management of Non-Extractive Waste	13
12	Incident and Emergency Planning	14
Table	e of Tables	
Table	1-1 Condition NYMNPA-93: Construction Environmental Management Plan	1

Appendices

Appendix A – Sirius Minerals Community and Stakeholder Engagement Framework



Introduction 1

1.1 **Purpose of Document**

- 1.1.1 In 2014 a planning application (reference NYM/2014/0676/MEIA) was submitted to the North York Moors National Park Authority (NYMNPA) for permission to develop a polyhalite mine and underground Mineral Transport System (MTS). Planning permission was subsequently granted in 2015 subject to conditions, as varied in February 2018 by NYM/2017/0505/MEIA.
- 1.1.2 This Construction Environmental Management Plan (CEMP) has been prepared on behalf of Sirius Minerals plc (Sirius Minerals) for the Phase 7 Works at Woodsmith Mine (as described in paragraph 1.2.1 below).
- 1.1.3 This document is required to partially discharge condition NYMNPA-93, and has been prepared in accordance with current good practice. This planning condition states that:

Table 1-1 Condition NYMNPA-93: Construction Environmental Management Plan

NYMNPA-93	Compliance with Condition NYMNPA 93		
Prior to the commencement of each Phase of Construction in accordance with the approved Phasing Plan at either Dove's Nest Farm or Lady Cross Plantation, an updated CEMP shall be based on the approved Construction Method Statement (CMS) and shall be submitted to and approved in writing by the MPA in consultation with the Environment Agency in respect of the area concerned. The CEMP shall include details of:	This version of the CEMP is for Phase 7 as defined in Section 1.2 below. Earlier versions of the CEMP have been produced for preceding works.		
The size, location and design of any site compounds, including how any potentially polluting materials will be stored to minimise the risk of pollution;	Section 3.2, 3.3, Section 3.6 and Section 11.2 Phase 7 Construction Method Statement 40-SMP-WS-7100-PA-MS-00003		
An Incident Response Plan to deal with any pollution that may occur during the course of construction;	Section 12		
A scheme for the recycling/disposing of waste resulting from demolition and construction works;	Section 11		
Storage of waste not covered by the Mine Waste Directive;	Section 11		
Measures to control the glare from on-site lighting;	Section 3.4		
Measures to manage deliveries by HGV including routing and timing for deliveries and details of the penalty system for breaches of the agreed control;	Section 4		
Temporary traffic management;	Not applicable to this Phase		



NYMNPA-93	Compliance with Condition NYMNPA 93
The provision of a Dust Management Plan relating to Phase 1 of the construction period (earth works and bund formation) and Polyhalite handling and stockpiling to include dust generation modelling so as to identify sensitive receptors; likely dust generation and its disposition during the construction Phases and operation over time and under different weather conditions; the avoidance and mitigation measures required to ensure dust deposition levels at the sensitive receptors are maintained at the residual levels identified in the approved EIA, and monitoring arrangements. The Dust Management Plan must comply with the criteria set out in the 'Dust and Air Emission Mitigation Measures' best practice guidance for control of dust on construction sites from the Institute of Air Quality Management 2012. The monitoring arrangements will include dust deposition or dust flux or real-time PM ₁₀ continuous monitoring locations; baseline dust monitoring at least three months before construction commences; daily on-site and off-site inspections at monitoring locations with results recorded in a log to be made available to the MPA on request, and more frequent monitoring during periods of high dust generation;	Section 6
In the event that there is insufficient clay within the Lady Cross Plantation site to form the 1m deep basal layer beneath the spoil storage area, a contingency plan to address the importation of clay, including the source, quantity and quality of such material, and how adverse effects on the water environment would be avoided;	Lady Cross Plantation is not covered in this CEMP as works at that site have been deferred.
How the requirements of the approved CEMP will be disseminated to all relevant staff/ Contractor's throughout the construction period;	Section 2.2
The location of the site notice board;	Section 2.2.7
A scheme for parking, loading, unloading during construction;	Section 4.1.2
A scheme for security and lighting during construction;	Section 3.1 and 3.4



NYMNPA-93	Compliance with Condition NYMNPA 93
A protocol for the replenishment of tanks and containers including that all refuelling of vehicles, generators, plant and equipment shall be supervised and shall take place within a suitable bunded, impervious hardstanding;	Section 11.4
Contingency proposals for if fuel cannot be delivered for the generators, e.g. due to adverse weather;	40-RHD-WS-70-EN-PL-0014 - Phase 3 CEMP
How those artificial or historically straightened ephemeral surface water channels referenced in sections 15.7.22-15.7.24 of chapter 15 of part 2 of the ES are to be retained wherever possible, and enhanced to increase their capacity (e.g. through the introduction of meanders) and to increase their ability to capture sediment (e.g. through suitable planting);	40-FWS-WS-70-CI-PL-0002 – Phase 3 Surface Water Management Plan Phase 3 CEMP
Proposals / contingency plans for waste not managed as part of the Mine Waste Permit comprising the storage and management of temporary mining waste stored on-site for less than three years (e.g. Pyritic Mudstone); non-inert and non-hazardous materials stored for less than one year, and unexpected hazardous waste stored for less than six months, including measures to prevent the dispersal of dust, leachate and surface water runoff;	Section 11
A Precautionary Method of Working for Site Clearance (PMWSP) which shall be submitted to and agreed in writing by the MPA prior to commencement of Preparatory Works and shall be adhered to thereafter. The PMSWP shall set out proposals for tree clearance and the demolition of structures and shall include that between March and September each year surveys of areas to be cleared should occur no less than 48 hours before clearance occurs so that occupied wild bird nests can be identified and prevented from being destroyed;	Section 7
Alarms fitted to mobile plant and vehicles for the purposes of warning pedestrians of their movements.	Phase 3 CEMP

1.1.4 Additional conditions addressed in this CEMP are detailed in **Table 1-2**.

Project related



Table 1-2 Additional Planning Conditions Addressed in the CEMP

Condition	Topic	Compliance with Condition	
NYMNPA-52 Protected species		Section 7	
		Refer to Protected Species Management Plans:	
		40-RHD-WS-70-EN-PL-0010 Ph3 PSMP for Reptiles;	
		40-RHD-WS-70-EN-PL-0011 Ph3 PSMP for Badgers;	
		40-RHD-WS-70-EN-PL-0012 Ph3 PSMP for Birds; and	
		40-RHD-WS-70-EN-PL-0013 Ph3 PSMP for Bats.	
		These remain applicable for Phase 7	
NYMNPA-57	Landscape and	No works of landscape or ecological management relating to	
	ecological	the long-term environment of the mine site will be undertaken	
	management	during Phase 7. See Section 7.3.	
		Refer to the Phase 3 Landscape and Ecological Management	
		Plan (LEMP) (40-RHD-WS-70-EN-PL-0008) as this remains	
		applicable for Phase 7	
NYMNPA-70	Trees and vegetation	Section 7	
NYMNPA-76	Soil management	Section 10	
NYMNPA-95	Archaeological written	Section 8	
	scheme of		
	investigation		

1.1.5 This document details only the additional activities required for Phase 7 at Woodsmith Mine associated with the Sirius Minerals North Yorkshire Polyhalite Project ('the project'). It does not include any activities at Lady Cross Plantation as these Works have been deferred. Updates to this plan will be prepared for subsequent construction Phases and following any design or method change. The NYMNPA, as well as the Environment Agency and Natural England, agreed that they support this approach in meetings held in April 2016.

1.2 Phase 7

- 1.2.1 The scope of Phase 7 described by this document is as follows:
 - Completion of Service Shaft Headgear Chamber;
 - Completion of Service Shaft to 83.17m AoD via Vertical Shaft-Sinking Machine (VSM) method;
 - Excavation of Production Shaft Headgear Chamber;
 - Excavation from base of Production Shaft Headgear Chamber to 83.66m AoD;
 - Surface Water Run-Off Silt Treatment Facility building;
 - Erection of temporary facilities to enable mobilisation of deep shaft-sinking contractor;
 - Earthworks and drainage; and
 - Contingency grouting of the MTS Shaft (if required).



1.3 Scope of this Document

- 1.3.1 This CEMP details how the Phase 7 Works will be planned, monitored and managed in an environmentally responsible manner. It outlines the management framework for the environmental requirements, commitments, and performance targets associated with the planning and implementation of Phase 7 of the project.
- 1.3.2 This CEMP refers to several management plans, which have been prepared to partially discharge a number of planning conditions. Collectively these plans incorporate all mitigation measures relevant to Phase 7 (condition NYMNPA-06 refers).
- 1.3.3 This CEMP should be read in conjunction with the following previous CEMPs, as information within these previous documents remain relevant to Phase 7:
 - Phase 3 CEMP 40-RHD-WS-70-EN-PL-0014;
 - Phase 4 CEMP 40-RHD-WS-70-EN-PL-0023;
 - Phase 4a CEMP 40-RHD-WS-70-EN-PL-0026;
 - Phase 5 CEMP 40-CAR-WS-8300-PA-MS-00001; and
 - Phase 6 CEMP 40-RHD-WS-EN-PL-0028.
- 1.3.4 The Phase 7 CEMP should also be read together with the documentation submitted to partially discharge the following conditions. Information provided in these documents is summarised in this CEMP where appropriate:
 - Condition NYMNPA-18: Noise and Vibration Management Plan (40-RHD-WS-70-EN-PL-0030 (Phase 7));
 - Condition NYMNPA-34: Construction Traffic Management Plan (40-RHD-WS-70-CI-PL-0011 (Phase 7));
 - Condition NYMNPA-46: Hydrogeological Risk Assessment (40-FWS-WS-70-WM-RA-0008):
 - Condition NYMNPA-52: Protected Species Management Plans (400-RHD-WS-70-EN-PL-0010 Ph3 PSMP Reptiles; 40-RHD-WS-70-EN-PL-0011 Ph3 PSMP Badger; 40-RHD-WS-70-EN-PL-0012 Ph3 PSMP Birds; 40-RHD-WS-70-EN-PL-0013 Ph3 PSMP Bats as these remain applicable for Phase 7);
 - Condition-NYMNPA-60 and 79: Surface Water Management Plan Woodsmith Mine Phase 7 Works – NYMNPA 60 and 79 Surface Water Drainage Scheme (40-ARI-WS-7100-CI-RP-01001);
 - Condition NYMNPA-70: Tree Protection and Clearance (40-RHD-WS-70-EN-MS-0002 (Phase 3) as this remains applicable for Phase 7);
 - Condition NYMNPA-76: Soil Management Plan (40-AMC-W-71-EN-PL-0006 (Phase 4));
 - Condition NYMNPA-81: Woodsmith Mine Phase 7 Works NYMNPA-81 Non-Domestic Wastewater Management Scheme (40-ARI-WS-7100-CI-RP-01002) (Phase 7);
 - Condition NYMNPA-91: Emissions to Atmosphere (40-RHD-WS-70-EN-RP-0003 (Phase 4a));
 - Condition NYMNPA-92: Construction Vehicle and Plant Management Plan (40-RHD-WS-70-CI-PL-0012 (Phase 7));
 - Condition NYMNPA-94: Construction Method Statement (40-SMP-WS-7100-PA-MS-00003) (Phase 7); and
 - Condition NYMNPA-95: Written Scheme of Investigation (40-COT-WS-70-EN-PL-0002 (Phase 3) as this remains applicable for Phase 7).

Project related



1.3.5 The CEMP will remain a live document, being reviewed and updated in consultation with the appointed Contractors or sub-Contractor(s) as required. Each of these updated CEMPs will be submitted to NYMNPA for approval prior to the start of each Phase of construction.



2 Environmental Management Framework

2.1 Structure and Responsibilities

2.1.1 This CEMP addresses those environmental matters within the responsibility of Sirius Minerals and the Contractors engaged on its behalf to deliver the Phase 7 Works. While overall responsibility for compliance with environmental and approvals requirements will remain with Sirius Minerals, the Contractors working on site are accountable for undertaking the construction activities in line with the requirements of this CEMP as well as all legal and other requirements imposed via permits and licences. All Contractors delivering this Phase confirm that this is the case.

2.2 Training, Awareness and Competence

Internal Communication

- 2.2.1 All staff and sub-contractors working on Site will be required to attend a Site Induction prior to commencing work. This will cover the key environmental aspects relating to the project and the roles and responsibilities of individuals.
- 2.2.2 Toolbox talks will be undertaken by the Environmental Manager or other nominated personnel throughout the project. The aim will be to communicate information to all staff and serve to educate, prompt and remind them of their responsibility to protect the environment during construction activities.
- 2.2.3 Additional details on staff training and awareness are provided in the Phase 4 CEMP (40-RHD-WS-70-EN-PL-0023).
- 2.2.4 Monthly progress meetings will be used to disseminate the results of monitoring and audit reports. At these meetings, a review of the environmental performance throughout the site to date will be undertaken and any improvements required during the construction phase will be identified. Details of where sustainable approaches to construction have been implemented or developed as the work proceeds will also be discussed and recorded. Their suitability for implementation at other areas of the site will be considered and applied where appropriate. Decisions about amendments required to the processes and procedures will also be agreed.

External Communication

- 2.2.5 Sirius Minerals will lead communication with members of the public, including adjacent landowners, local residents and businesses in line with the Community Stakeholder and Engagement Framework (CSEF) (refer to **Appendix A**).
- 2.2.6 The CSEF includes provision for a quarterly Liaison Group Forum meeting, which are open to members of the public to attend. These Liaison Group Forum meetings provide a mechanism to provide project updates and to exchange feedback on all project matters, including environmental ones.



Site Notice Boards

2.2.7 A display board (i.e. a site information board) will be erected at the entrance to the Woodsmith Mine site, to keep local residents and stakeholders informed of the Works and their schedule. The site information board will identify key personnel, contact addresses, and telephone numbers, as well as showing visually the progress of Works.

Traffic Management Liaison Group

- 2.2.8 A Traffic Management Liaison Group (TMLG) has been convened to oversee the implementation of the Construction Traffic Management Plan (CTMP), monitoring and enforcement of construction traffic movements. The TMLG will facilitate liaison between Sirius Minerals, planning authorities, highways authorities, and other key stakeholders in relation to the transportation aspects of the construction and operation of the project.
- 2.2.9 Full details of the remit of the TMLG, its membership and its operation can be found in the Phase 7 CTMP (40-RHD-WS-70-CI-PL-0011).

2.3 Monitoring of Compliance

2.3.1 All construction and installation activities for Phase 7 Works will be supervised by the Contractors' Project Managers with the support of members of their teams on a daily basis using the same procedures as detailed in the Phase 4 CEMP.

2.4 Complaints Procedure

2.4.1 The implementation of the systems and procedures to protect the environment will, if implemented, fully prevent environmental breaches. However complaints may still be received, and in this event the Complaints Procedure, which remains unchanged from that outlined in Appendix 6 of the Phase 3 CEMP (40-RHD-WS-70-EN-PL-0014), will be implemented.

3 Description of Site

3.1 Fencing and Security of the Site

3.1.1 Site fencing and security measures remain as per the Phase 6 CEMP. Fencing is shown on site layout drawing 40-ARI-WS-7100-CI-18-01005.

3.2 Site Layout and Compounds

3.2.1 The Phase 7 site layout and compounds are detailed in drawing 40-ARI-WS-7100-CI-18-01005 and the Phase 7 Construction Method Statement (40-SMP-WS-7100-PA-MS-00003).



3.3 Welfare Facilities

3.3.1 The welfare facilities detailed in the Phase 6 CEMP (40-RHD-WS-EN-PL-0028) remain valid for Phase 7.

3.4 Lighting

- 3.4.1 The Phase 7 Works that are to be carried out away from the existing platform will be illuminated when necessary through additional temporary, task-specific directional lighting. When illumination is required, the following will apply:
 - Directional tower lighting with directional lanterns will be used, with lights directed down towards the area required to be lit and away from any areas of concern (e.g. roads);
 - Task lighting will be used where appropriate to light up local areas of small works instead
 of mast illumination affecting a large radius. Where required for safety reasons, lighting
 may be required from crane or rig masts;
 - All open excavations will be fenced off and have adequate general and task lighting in order to ensure that all open excavations are clearly visible;
 - The lighting will comply with the lowest recommended criteria within the relevant British Standards and relevant Chartered Institution of Building Services Engineers Lighting Guides (BS EN 12464-2 Lighting of work places – Outdoor work place, CIBSE Lighting Guide 6 – Lighting of the outdoor environment and CIBSE Lighting Guide 1 – Lighting of the industrial environment);
 - Any construction lighting will be designed in accordance with relevant British Standards and guidance from the 'Bat Conservation Trust's Interim Guidance Note on Artificial Lighting and Wildlife' (June 2015 http://www.bats.org.uk/pages/bats and lighting.html); and
 - Lights will be switched off when not in use.

3.5 Materials Storage

3.5.1 Details of the locations for storage of plant and materials remain unchanged from Phase 5. Additional storage is required by the shaft-sinking contractors and will be installed during Phase 7. This will be local to the Works and is shown in drawing reference 40-ARI-WS-7100-CI-18-01005. Materials will be stored appropriately in accordance with the approach detailed in the Phase 4 (40-RHD-WS-70-EN-PL-0023) and Phase 5 CEMP (40-CAR-WS-8300-PA-MS-00001).

3.6 Wheel Washing Facilities

3.6.1 Wheel washing facilities are provided on the site access road. Spent water will be managed as described in the Phase 5 CEMP (40-CAR-WS-8300-PA-MS-00001).

3.7 Site Housekeeping

3.7.1 The implementation of a good site housekeeping policy is key to reducing the likelihood of accidents and environmental pollution incidents. Good housekeeping measures that will be implemented on site remain as for Phase 4 (40-RHD-WS-70-EN-PL-0023) and Phase 5 (40-CAR-WS-8300-PA-MS-00001).



4 **Traffic**

4.1 **Construction Traffic Management Plan (CTMP)**

4.1.1 A Phase 7 Construction Traffic Management Plan (CTMP; 40-RHD-WS-70-CI-PL-0011) has been prepared and submitted to partially discharge condition NYMNPA-34. The CTMP contains a range of measures for the management of transport during Phase 7.

Parking and Deliveries to Site

- Deliveries and unloading arrangements at Woodsmith Mine remain unchanged from Phase 5 4.1.2 (40-CAR-WS-8300-PA-MS-00001).
- 4.1.3 Employees will use the North Yorkshire County Council Park and Ride facility at Cross Butts, Whitby during Phase 7. There will be no parking on site with the exception of limited designated spaces for exceptional use.

Pedestrians and cyclists

4.1.4 The procedures set out in the Phase 5 CEMP (40-CAR-WS-8300-PA-MS-00001) are applicable to Phase 7.

4.2 **Enforcement Systems for Breaches of Traffic Management** Requirements

4.2.1 These remain unchanged from Phase 5 (40-CAR-WS-8300-PA-MS-00001).

5 **Noise and Vibration**

5.1 **Noise and Vibration Management Plan**

5.1.1 A Phase 7 Noise and Vibration Management Plan (40-RHD-WS-70-EN-PL-0030) has been prepared and submitted to the NYMNPA to partially discharge condition NYMNPA-18. It includes details of the noise sensitive receptors, agreed noise limits, monitoring to be undertaken and the mitigation measures to be implemented.

6 **Air Quality and Dust Management**

- 6.1.1 Measures developed to reduce the impact of construction on air quality and, as part of this, to manage dust, remain unchanged from Phase 5. They are set out in the Phase 5 CEMP (40-CAR-WS-8300-PA-MS-00001).
- 6.1.2 A mobile crusher will be used on site to break up concrete and excavated rock. The crusher will be operated in accordance with an Environmental Permit under the Environmental Permitting (England and Wales) Regulations 2016 (as amended), which will ensure that emissions of dust and particulate matter are minimised.

28 August 2018

Project related



6.2 Construction Vehicle and Plant Management Plan

- 6.2.1 A Phase 7 Construction Vehicle and Plant Management Plan (40-RHD-WS-70-CI-PL-0012), has been prepared to enable the partial discharge of planning condition NYMNPA-92.
- 6.2.2 Mitigation measures identified in the Phase 7 CVPMP will be employed to minimise particulate emissions.

7 Nature Conservation

7.1 Protected Species and Precautionary Method of Working for Site Clearance

7.1.1 Protected Species Management Plans (PSMP) were produced for bats, reptiles, badgers and birds to partially discharge planning condition NYMNPA-52 for Phase 3. These remain applicable for the Phase 7 Works, and the Precautionary Methods of Working will be applied.

7.2 Vegetation Clearance

7.2.1 There are no areas of tree or vegetation clearance associated with the Phase 7 Works. Grass and topsoil stripping is detailed in **Section 10**.

7.3 Environmental Enhancement

7.3.1 The Phase 3 Landscape and Ecological Management Plan (LEMP; 40-RHD-WS-70-EN-PL-0008) was prepared to partially discharge condition NYMNPA-57 and remains applicable for Phase 7.

8 Archaeology

8.1.1 The Written Scheme of Investigation (WSI) submitted prior to the Phase 4 Works (40-COT-WS-70-EN-PL-0002) remains valid for Phase 7 and will be applied to the limited earthworks being undertaken in this Phase.

9 Hydrogeology, Water Quality and Drainage

9.1 Introduction and Generic Water Protection Issues

9.1.1 A range of watercourses run through the site. In addition, there are three different groundwater tables. In order to prevent pollution of the water environment the construction works will be undertaken in accordance with industry guidance set out in the withdrawn Pollution Prevention Guidance (PPG5) which was produced by the Environment Agency.



9.2 **Groundwater Management**

9.2.1 Groundwater will be monitored and managed in accordance with the Phase 7 Hydrogeological Risk Assessment (40-FWS-WS-70-WM-RA-0008).

9.3 Surface Water Management

- 9.3.1 Water accumulating within excavations (from rainfall or water trapped within the diaphragm wall) or any groundwater encountered inside the shafts will be pumped to a settlement facility and treated before discharge to the surface water drainage system, as described in the Phase 7 CMS (40-SMP-WS-7100-PA-MS-00003).
- 9.3.2 The Phase 7 Surface Water Drainage Scheme (40-ARI-WS-7100-CI-RP-01001) contains details of how surface water will be managed on site, including the runoff from new bunds formed on site during Phase 7.
- 9.3.3 A scheme for the management of non-domestic waste water during Phase 7 is detailed in document reference 40-ARI-WS-7100-CI-RP-01002.

9.4 **Silt and Pollutant Management**

- 9.4.1 If contingency grouting is utilised, the procedure for minimising grouting losses is detailed in the Phase 7 CMS (40-SMP-WS-7100-PA-MS-00003).
- 9.4.2 Other silt and pollutant management measures remain as per the Phase 4 CEMP (40-RHD-WS-70-EN-PL-0023.

10 Soils and Contaminated Land

- 10.1.1 As part of Phase 7, soils will be stripped in the area of the silt treatment facility building, leachate testing pond and underground cable trenches. The Phase 4 Soil Management Plan (40-FWS-WS-70-CI-PL-0003) outlines the methodologies for this work, which will be adhered to for Phase 7.
- 10.1.2 No areas of potentially-contaminated land were identified within the footprint of Phase 7 at Woodsmith Mine. The approach for dealing with unexpected contaminated soils found on site as described in the Phase 3 CEMP (40-RHD-WS-70-EN-PL-0014) remains applicable for Phase 7.

11 **Materials and Waste**

11.1.1 Details of the materials and waste materials stored on site are provided in the Phase 4 (40-RHD-WS-70-EN-PL-0023), 4a (40-RHD-WS-70-EN-PL-0026) and 5 (40-CAR-WS-8300-PA-MS-00001) CEMPs and remain applicable for Phase 7.



11.2 Contingency Grouting

11.2.1 Should contingency grouting be carried out, bunded areas of sufficient size will be developed to house all grout pumps, mixer, and wash out skips. All grout batching and mixing operations will be undertaken from within a containerised mixing unit with forced filtered extraction to control the loss and impact of airborne particulate on adjacent receptors from the operations. These are to be situated on the shaft platform, well away from any controlled waters.

11.3 Extractive Material

- 11.3.1 Site-won inert, non-waste material will be temporarily stockpiled in bunds on site (shown in drawing 40-ARI-WS-7100-CI-18-01005) and re-used where possible, such as backfill in the winder building foundations.
- 11.3.2 Arisings from the VSM will be collected from the slurry treatment plant and lime stabilised to ensure acceptability for re-use. The material will be spread and compacted within the visual and acoustic screening mounds as shown in drawing 40-ARI-WS-7100-CI-18-01005.
- 11.3.3 Landscape fill with low pollution potential may be encountered in the lower sections of the foreshaft excavations. This material would be temporarily stockpiled on site in a bunded area prior to permanent placement in later Phases.

11.4 Fuel Oil Storage and Refuelling on Site

- 11.4.1 Delivery and refuelling will be supervised at all times and checks will be made to ensure that the correct type and volume is being delivered. Appropriate pollution mitigation measures (including drip trays and spill kits) will be employed. Refuelling will occur across the site with appropriate control measures in place, as detailed in the Phase 5 CEMP (40-CAR-WS-8300-PA-MS-00001).
- 11.4.2 Fuel will be stored in accordance with The Control of Pollution (Oil Storage) (England) Regulations 2001. All static fuel tanks and bowsers will be integrated bunded tanks. These will have a primary container manufactured with integral secondary containment that holds a minimum of 110% of the volume of the inner tank. The locations of storage areas are shown in drawing 40-ARI-WS-7100-CI-18-01005.
- 11.4.3 Bunds for the 11kV transformers will have their own oil scrubber system and as a secondary containment safeguard the bund dewatering systems will be supported by a pumped water filtering system. The filtered water will be discharged to the site surface water drainage system.

11.5 General Management of Non-Extractive Waste

11.5.1 The management of non-extractive wastes will remain as set out in the Phase 4 CEMP (40-RHD-WS-70-EN-PL-0023).

Project related



Incident and Emergency Planning 12

12.1.1 The Phase 3 CEMP and the associated appendices detailed actions that will be taken to minimise the risk of pollution incidents occurring on site and identifies the actions to be taken in the event of a pollution incident. These procedures remain applicable to Phase 7.



Appendix A Sirius Minerals Community and Stakeholder Engagement Framework



Community and Stakeholder Engagement Framework

		Document Verificat	ion		
Docur	ment Number	0000-EXT-EXE-PLN-001			
Rev	Date	Reason for Revision	Author	Checked	Approved
0	11/01/2016	For Issue	MP	GE	GE
			MP	GE	ĢЕ
1	02/09/2016	Updated			

Page left intentionally blank

Community and Stakeholder Engagement Framework

Contents

1		Purp	oose and Scope	4
1.	1	Ва	ckground	4
1.	2	Pu	rpose	4
1.	3	Sco	ope	4
2		Enga	agement Strategy	4
2.	1	Ra	tionale	4
2.	2	Ар	proach	5
3		Stak	eholder Identification	5
4		Enga	agement Methodology	6
4.	1	Ide	entify stakeholders	6
4.	2	Pre	e-briefings for key events	6
4.	3	On	ngoing management	8
	4.3	3.1	Liaison Group Forum	8
	4.3	3.2	Traffic Management Liaison Group	8
	4.3	3.3	24-hour community helpline	8
	4.3	3.4	Regular briefings and updates	8
4.	4	Co	mmunity benefit initiatives	9
4.	5	Pro	otocols and guidelines	9
5		Role	s and Responsibilities	10
5.	1	Sir	ius Minerals	10
5.	2	Co	enstruction Contractors	11
Арр	end	lix 1 -	- Construction Events	12
App	end	lix 2 ·	- Engagement Activities Summary	14

Community and Stakeholder Engagement Framework

1 Purpose and Scope

1.1 Background

There is widespread interest in the Company's North Yorkshire polyhalite (the Project) at local, regional and national levels. This is demonstrated by the ongoing media and stakeholder enquiries, as well as the levels of participation during the planning consultations or at Company events.

Sirius Minerals (the Company) has successfully engaged the community and other key stakeholders during this period, gaining widespread support for the Project. This has helped to provide the Company with a social license to operate. Maintaining this throughout the construction period is important to the successful delivery of the Project and is a key objective of the Company's board and management team.

1.2 Purpose

This Community and Stakeholder Engagement Framework (CSEF or the Framework) aims to set out a clear communications approach during the construction period which, when implemented correctly, can help to maintain the Project's social license to operate.

1.3 Scope

The Framework sets out an approach to community and stakeholder communications during the construction period. It outlines the overall strategy, identifies the main stakeholder groups and details the engagement objectives and activities. It sets out the roles and responsibilities of the Company and the principle construction contractors for implementing and managing its delivery.

Detailed community and stakeholder engagement action plans, which align to the approach set out in this Framework, will be produced before each of the construction events listed in Appendix 1.

It is not within the scope of this plan to include engagement with the planning authorities and other statutory bodies in relation to the compliance with planning obligations and further environmental requirements, other than those specifically regarding community engagement.

2 Engagement Strategy

This section summarises the strategy for communicating with the community and stakeholders during the construction of the Project.

2.1 Rationale

The strategy is based on the principle that the local community and key stakeholders will react best to being kept informed of developments and in advance of them occurring. The failure to communicate always leads to a communications vacuum and this in turn leads to misinformation and rumours which can negatively affect the perception of the Project.

Similarly, providing channels for feedback to the Company in the first instance allows local people or spokespeople to be engaged in matters that might affect them. It also allows them to be able contact the Company in the first instance.

Keeping people informed is not just about notification of physical activities during the construction period, but is also about allowing a channel for feedback that might raise an issue or local knowledge that the Company or its contractor teams was not previously aware of. It also enables a channel to positively promote the benefits of the Project as well as engaging in other positive public relations activities.

Any materials that are prepared for public consumption to explain parts of the construction work should be designed / drafted in a manner that promotes the understanding of works or issues in as clear and straightforward manner as possible. Ideas and initiatives to better explain construction work or progress will be received well by the Company.

2.2 Approach

In summary, the strategy that is to be adopted is to:

1. Conduct pre-briefings for key events or activities

Providing clear information before works commence at each site detailing what construction will involve, when it will take place and the measures to limit impacts.

2. Have effective ongoing management of local communications

Providing ongoing updates about construction progress and establish mechanisms that enable concerns to be raised and acted upon. This includes participation in the various liaison groups and clear processes to manage incoming queries or complaints.

3. Community benefit initiatives

Undertaking and promoting regular initiatives that deliver community benefits such as education and training schemes and employment and business opportunity information sessions. This may include any other positive public relations activities.

Further details on the methodology for pre-briefings, ongoing management and community benefits initiatives are available in sections 4.2 - 4.4.

3 Stakeholder Identification

Stakeholder groups have been identified and engaged as the Project has developed and can be broadly categorised as follows:

Local residents

Residential neighbours and or landowners close to the individual construction sites. This could also include those directly affected in other areas such as those living close to key transport corridors or junctions.

Community representatives

This group includes elected representatives of the community including parish and town councils, local authority officers and councillors, and local MPs.

• Interest groups

Business networks, environmental bodies, other local clubs and groups.

Education institutions

This includes local schools, colleges, universities and other training providers.

Media

All online, print and broadcast outlets and journalists are considered key stakeholders.

General public

The wider public as accessed through media channels, the website or site signage etc.

The engagement approach for each stakeholder group will follow a 'monitor', 'keep informed', 'keep satisfied', or 'manage closely' hierarchy depending on their level of interest and ability to influence the successful delivery of the Project.

4 Engagement Methodology

This section sets out how community and stakeholder communications will be handled during the construction of the Project.

4.1 Identify stakeholders

Whilst the broad stakeholder groups have already been identified there will be specific stakeholders relevant to each of the construction sites, consisting of those that are most likely to be impacted by the works, which will need to be engaged. This will include landowners and local residents in close proximity to the sites. The detailed action plans will identify these.

4.2 Pre-briefings for key events

Before construction of key stages of the Project begins it is important to provide information to the local community. For the purpose of this Framework these stages are defined as "construction events" (these are listed in appendix 1) and each would trigger the requirement to undertake these pre-briefing activities.

The information to be included in these activities will include details about what construction will involve and, if appropriate, focus on the main issues that have been raised during previous consultation. Reassurance will be given that measures will be taken to limit adverse impacts to an acceptable level and that planning conditions and other requirements are in place to ensure that this happens. People will also be informed of what they can do if they have questions or concerns.

This will help to raise awareness of what to expect and demonstrate that concerns will be listened to and acted upon wherever reasonably possible. As a minimum, the pre-briefing activities will include:

- <u>Letters</u> Letters and or emails should be sent to those that are likely to be immediately affected. This might include neighbouring residents or households and businesses on access routes. As a courtesy, the same information will be sent to the local Parish Council, borough and county councillors covering those areas and the local MP.
- Newsletter / Leaflet A short summary newsletter or leaflet about the works will be made available. Depending on the scale or profile of the works, this can be posted out to the recipients of the above or circulated more widely. The precise details will be a matter of judgement and as a result of discussions between the contractor and the Company. As a minimum, copies of the leaflet will be available on site during the works in case people make onsite queries.
- <u>Information board and signage</u> Each site should have an information board at its entrance (and potentially at other prominent locations) containing the key details of what the work is, how long it is expected to last and contact details for further information, queries or emergencies. This should also include signage at sites where highways works related to the Project are being undertaken. HGV's associated to the Project should also be clearly identified.
- Exhibitions / Open days In the case of certain key events it will be appropriate to inform local residents and the wider general public through open days prior to works starting. This would include further information on exhibition boards and would be attended by key personnel from the Company and contractors, who would be able to respond to queries and be able to provide reassurance on potential concerns.
- <u>Press release</u> If appropriate (often where a wider audience is potentially affected or interested in the works planned) then a press release will be prepared detailing the key facts. The distribution will be a matter of judgement depending on the scope of the works. Any press release needs to be signed off by the Company in a timeframe that makes sure newspaper deadlines are met. Coverage should always appear in the week prior to the proposed activities beginning.
- <u>Website updates</u> Details of key events should be uploaded to the Company website. Some works may also require more detailed information and documents to be uploaded. This information needs to be provided to the Company in a timely fashion to enable this happen.
- <u>Social media updates</u> The Company will control its social media accounts. As above, the
 contractor will be expected to provide the relevant details to the Company in a timely fashion
 so the relevant information can be released through its social media channels.
- <u>Stakeholder briefings</u> In some circumstances the contractor will be required to undertake specific stakeholder briefings to inform them of key events. This may be as a result of the stakeholders being closely affected by the works or as a reaction to the issuing of any of the publications detailed above. The Company will take the lead on such matters, in close

collaboration with the contractor (as it is likely to have existing knowledge or dealings with the stakeholders concerned). Each case will be different and on some occasions representatives from the Company may not be required to attend the meetings. Each case should be discussed in advance with the Company.

4.3 Ongoing management

Local residents and stakeholders will need to continue to be engaged as construction progresses and be kept informed of key developments (i.e. general updates outside those covered under 'key events' in appendix 1). This will enable the Company to provide regular updates of the Project's progress, and that it is being delivered in accordance with planning consents and any other Company commitments. Alternatively, if the Project is not progressing as expected it is important that stakeholders are provided with an explanation and reassurance that corrective measures will be implemented.

In addition, on-going engagement will include a range of communication channels that enable stakeholders to raise issues and ask questions and for the Company or the contractor to respond to these.

4.3.1 Liaison Group Forum

A Liaison Group Forum will be established prior to the commencement of construction and will meet quarterly, as a minimum, throughout the construction and post-construction period. It will be chaired by the Company and its membership will include representatives from the National Park Authority, parish and town councils, local residents and wider community stakeholder representation as appropriate. It will also be open for the general public to attend.

The purpose of the group is to facilitate liaison between local stakeholders about construction, providing updates about progress, and to enable issues and concerns to be raised and resolved. The contractor will be expected to provide one or more representatives at this forum to contribute to its successful operation. Attendees from the contractor must be of a suitably senior position to enable meaningful dialogue and feedback at the Forum.

4.3.2 Traffic Management Liaison Group

The purpose of this group will be to facilitate liaison between local authorities and other interested stakeholders in regards to construction traffic. The group will oversee the management and monitoring of the Construction Traffic Management Plan (CTMP), and will be chaired by the Company.

There will be representation from the National Park Authority, local authorities, parish and town councils, and other stakeholders who may be affected by construction traffic.

4.3.3 24-hour community helpline

To ensure that there are accessible points of contact for the local community and wider stakeholders there will be a 24-hour helpline and a community email address, which will be widely promoted and staffed by the Company.

4.3.4 Regular briefings and updates

Key individuals and organisations will be regularly briefed and updated, the frequency of which will be determined by whether they have been categorised as monitor, keep informed, keep satisfied or

manage closely. The general public will also be kept informed. Similarly to pre-briefings for key events, updates will be communicated through the following channels:

- <u>Public meetings and presentations</u> Parish council and town council meetings will be regularly attended, together with presentations to local interest groups.
- <u>Press releases</u> the print and broadcast media will be utilised extensively to communicate with the wider community and at a regional and national level.
- Newsletters, website and social media regular updates produced throughout construction via the website, leaflets, newsletters, social media and publications relating to specific issues, such as careers.

4.4 Community benefit initiatives

The Company has made a number of commitments to benefit the local area during construction such as providing employment and supply chain opportunities, training schemes, school outreach programmes and funding community projects. It is important that these are implemented and widely promoted so that the community and stakeholders are aware that the Company's commitments are being delivered. The initiatives, many of which are planning obligations in the S106 agreements, are outlined below:

- Funding to Scarborough Borough Council and Redcar and Cleveland Council to identify and prepare local people for employment opportunities.
- Funding to raise awareness of science, technology, engineering and maths (STEM) related careers in schools in North Yorkshire and Redcar and Cleveland.
- Targets specified in the YPL Skills Strategy take on 50 apprentices, recruit 15 local students on the YPL Undergraduate Programme and train 300 adults.
- Quarterly employment opportunity sessions to promote job opportunities to local people
- Education outreach initiatives, careers events and presentations.
- Meet the buyer events for local businesses.
- Funding community projects through the York Potash Foundation.

4.5 Protocols and guidelines

There are guidelines in place, as listed below, to ensure that communication methods are clear, consistent, responsive and appropriate to the audience when dealing with different situations. Contractors will be expected to adhere to these procedures.

- Complaints procedure
- Media protocol

Crisis readiness

A clear communications approach is important should a major incident occur. The Company's Communications Issues Management Plan (CIMP) sets out the steps to be taken following a major incident. In such a situation the reporting procedures in the CIMP should be followed and it is the responsibility of contractors to incorporate key aspects of this plan into their own processes.

5 Roles and Responsibilities

This section provides a framework that identifies responsibilities for the delivery and management of community and stakeholder engagement, focusing on roles of the Company and the principle construction contractors.

The Company will be responsible for community and stakeholder engagement during construction, supported by each construction contractor as required.

5.1 Sirius Minerals

The Company will be responsible for:

- Identify key stakeholders likely to be impacted by the works.
- Undertake pre-briefing activities before construction starts such as:
 - Open Days / exhibitions as appropriate
 - Signage at construction sites and update as necessary
 - Produce an information leaflet including an outline of the programme, impacts and mitigation, contact information, etc.
 - Direct correspondence with neighbours and landowners in regards to construction events such as blasting
- Liaison with the planning authorities and community representatives, including chairing the Liaison Group Forum and Traffic Management Liaison Group.
- Media relations.
- Manage the complaints procedure.
- Staffing the 24-hour community helpline, producing project newsletters, social media and updating the website.
- Direct engagement and briefings with key stakeholders including local residents, community representatives and interest groups.

The YPL External Affairs Director has responsibility for all company communications and external relations and should receive a monthly community and stakeholder engagement report. The External Affairs Director will chair the Liaison Group Forum and YPL's Development Manager will chair the Traffic Management Liaison Group.

The External Affairs General Manager, reporting to the External Affairs Director, is responsible for production and implementation of detailed community and stakeholder engagement action plans.

5.2 Construction Contractors

Each of the construction contractors will be required to support the Company's stakeholder engagement approach as follows:

- Provide expected durations of phases or work, their potential impact on the local community and mitigation measures.
- Provide details of any expected public transport diversions, delays, planned road closures, impacts on highways, interrupted access for residents/ businesses, or other expected community disruption.
- Participate in quarterly employment opportunity sessions, at least two meet the buyer events, and a minimum of two education outreach days per year
- Cooperate with YPL in media events and provide information to YPL for publications, the website, newsletters, etc.
- Adherence to YPL communications protocols and guidelines.
- Attend the liaison groups, parish/town council meetings and assisting YPL as required.
- Ensure that all sub-contractors comply with stakeholder and community relations requirements.

Community	and Stake	holder En	gagement l	Framework
COMMUNICA	allu Stake	libiuei Eli	gageillelli	riaillewui

Appendix 1 – Construction Events

Appendix 1 - Construction Events

The following provides a list of construction events which would trigger the requirement for prebriefing activities, as outlined in section 4.2. The list is not exhaustive and there may be other events or activities not listed here that could be classified as construction events as a result of discussions between the Company and its contractors.

The construction events for the purposes of this Framework are:

- Any significant geotechnical investigation or drilling works
- Highways works
- Any site preparations
- Commencement of the MTS works
- Mine site shaft sinking
- MHF construction
- Harbour construction
- Overground conveyor construction (if not included with above)
- Temporary Park and Ride construction
- Any road closures
- Requirement to bring in abnormal loads

Community and Stakeholder Engagement Framework	
Community and otalicinoted: 21,848cmcnic Hametonia	-
Appendix 2 – Engagement Activities Summary	
Physical Control of the Control of t	

Appendix 2 - Engagement Activities Summary

The table below provides an 'at a glance' overview of the main community and stakeholder engagement activities, together with the respective roles of YPL and the construction contractors in delivering them.

	Pre-briefing activities	Ongoing management	Community benefit initiatives
York Potash	 Establish Liaison Group Forum and Traffic Management Liaison Group Project update newsletter Media, website update, social media Briefings with site neighbours, landowners, community representatives and other key stakeholders as identified Produce leaflet detailing upcoming construction activities Send letters to stakeholders likely to be immediately affected Hold public open days / exhibitions 	 Chair Liaison Group Forum and Traffic Management Liaison Group Manage 24-hour community helpline and info@yorkpotash.co.uk Attend parish and town council meetings quarterly Regular updates to site neighbours, landowners, community representatives and interest groups Media, website update, social media Manage complaints procedure 	 Careers talks and events \$106 training targets and promote initiatives funded by the \$106 Promote activities of the York Potash Foundation
Construction contractor	 Install information board and signage at construction sites / transport routes Provide information to YPL to be used in leaflets, letters, web content, etc., as required Attend public open days/exhibitions and meetings with stakeholders as required 	 Attend liaison groups, parish council and other meetings as required Provide information to support on-going community and stakeholder relations Participate in media events as required Adherence to complaints procedure, media protocol and crisis response procedure 	 Hold meet the buyer events Attend quarterly employment opportunity sessions Education outreach programmes