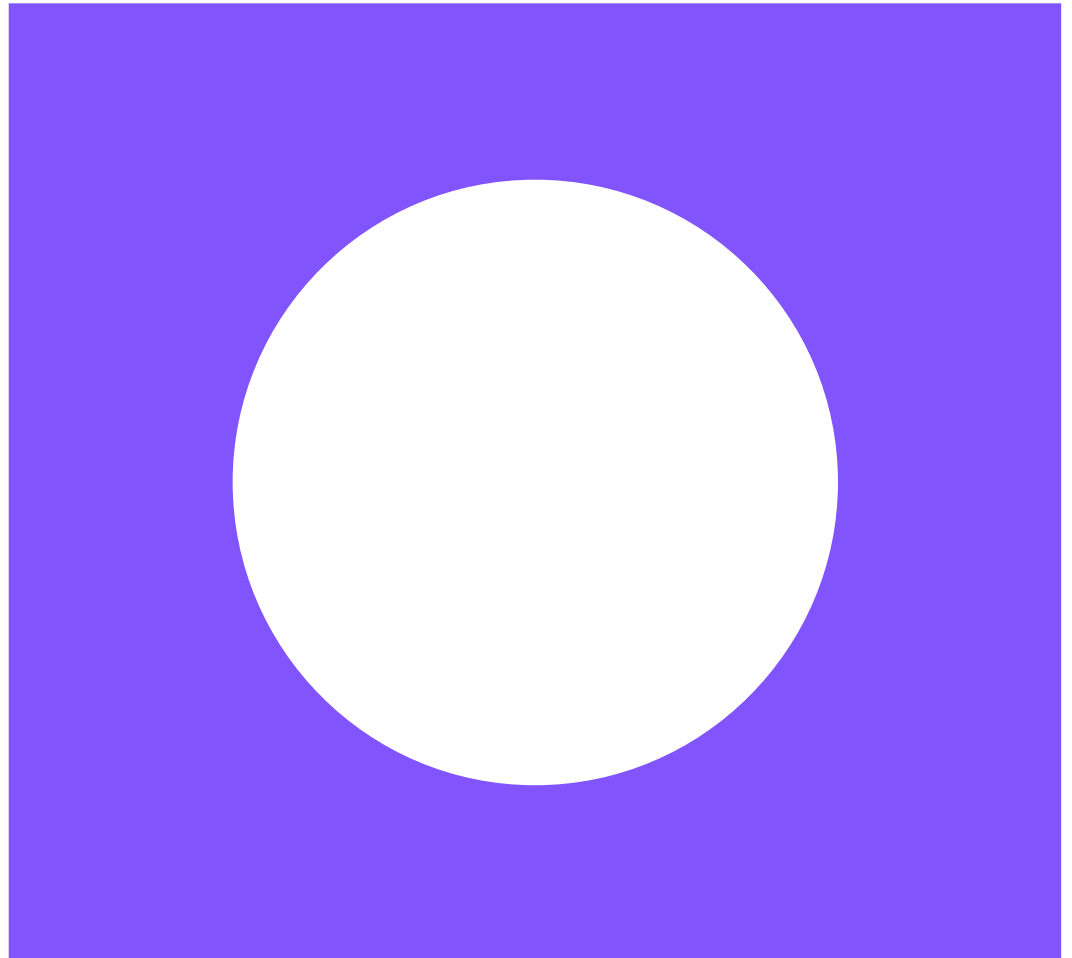




Waste Recovery Plan

Swanworth Quarry

February 2025

This page left intentionally blank for pagination.

Mott MacDonald
7th Floor
26 Whitehall Road
Leeds LS12 1BE
United Kingdom

T +44 (0)113 394 6700
mottmac.com

Waste Recovery Plan

Swanworth Quarry

February 2025

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
1	26/01/24	Lucia McDermott	David Dray	Anita Manns	First review
2	12/04/24	Lucia McDermott	David Dray	Anita Manns	Final amendments following client's comments
3	10/06/25	Lucia McDermott	David Dray	Anita Manns	Reference to cross sectional drawings updated
4	27/02/25	Olivia Ellson	Lucia McDermott	Anita Manns	Amended drawing to show the extension area and existing permits boundary in different colours

Document reference: 100110814_WRP_SUT_v4

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Contents

1	Introduction	1
1.1	Background	1
1.2	The site	3
1.3	Planning history	4
1.4	Completed areas of restoration	6
1.5	Proposed area of quarry extension development phasing	6
2	Applying the test to Swanworth Quarry	8
2.1	Introduction	8
2.1.1	Waste recovery guidance and assessment criteria	8
2.1.2	Is there a clear benefit from the activity?	8
2.1.3	Is the recovered waste suitable for its intended use?	10
2.1.4	Is the minimum amount of waste being used to achieve the intended benefit?	11
2.1.5	Is the waste being used as a substitute for a non-waste material?	11
2.1.6	Will the proposal be completed to an appropriate standard?	12
2.2	Drawings	12
3	Summary	13
	Appendices	14
A.	Waste Acceptance Criteria – Inert landfills	15
B.	Drawings	18
B.1	Site Location	18
B.2	Development plans	19
B.3	Composite Restoration and Habitat Plan	29
B.4	Landscape designations	30
C.	Additional borehole location	31
D.	Waste Acceptance Criteria (WAC) results	34
D.1	Excavated waste (17 05 04) WAC results	34
D.2	Non-Hazardous inert waste (17 05 04) WAC results	43
D.3	Screening fines (19 12 12) WAC results	52
E.	Cross sectional drawings	61

F. Volume calculations

63

1 Introduction

1.1 Background

J Suttles Transport Ltd (Suttles) has an existing recovery permit (EPR/CB3030RQ) that also covers a screening operation and permits the crushing and screening of inert waste. The original Waste Recovery Plan (WRP) was submitted in 2011, as part of an Environmental Permit Application for the 'use of waste for restoration' of Swanworth Quarry at Worth Matravers near Swanage, Dorset. In 2017, a variation was made to the WRP to update the restoration plan, to add EWC codes 17 05 04 and 19 12 12 and to add 'washing' to the recycling element of the permit.

Suttles also operates a screening operation, at Swanworth Quarry, under an Environment Permit (which permits the crushing and screening of inert waste).

In 2020, Suttles applied for a planning permission (application reference 6/2020/0321_1). This application was to continue the winning and working of limestone through the lateral extension to Swanworth Quarry, retention of processing plant and existing infrastructure, importation of inert waste material for restoration purposes, and continued production and sale of recycled aggregates. Planning Permission was granted on the 15 December 2023 by Dorset Council. A copy of the planning permission can be viewed on the Dorset planning application portal.¹

To enable the restoration of the lateral extension of the site, post extraction, Mott MacDonald was instructed by Suttles to produce a WRP to support the application of an additional waste recovery permit. The extension area will be restored to calcareous grassland use through the importation of clean inert waste materials, as is currently the case with the restoration of the existing quarry.

Clean, inert waste materials will be sourced locally or brought in from Suttles own inert waste treatment facility and used as infill material. Only material that meets the Waste Acceptance Criteria (WAC) for Inert Landfill² as identified in Appendix A, will be permitted for use.

Waste quarry stone from the ongoing restoration of Swanworth Quarry will also be used as infill material, as shown in drawings presented in Appendix B.

Originally, the Environment Agency expressed concerns over the operations proposed by Suttles. Discussions were held with the local area Environment Agency officer regarding the extension of the quarry and planned restoration. Suttles and the Environment Agency agreed requirements for the proposed development, which are listed in Table 1 and expressed in Document ref WX/2020/134353/02-L01.

¹ Dorset Council (2023). Planning Decision Notice (application number 6/2020/0321) Available at: [Planning application: 6/2020/0321 - dorsetforyou.com \(dorsetcouncil.gov.uk\)](https://dorsetcouncil.gov.uk/planning-application/6/2020/0321) (Last accessed January 2024)

² COUNCIL DECISION of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC, Annex 2, 2.1 pages L11/31 – L11/34. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003D0033&from=EN> (Last accessed January 2024)

Table 1: Request for further information required for the permit application (issued from the Environment Agency)

Request for further information	Response
The variation of the licence for the use of water from the Hill Bottom Valley springs, prior to the commencement of works.	A minor variation of the licence for the Hill Bottom Valley springs is being prepared for submission to the Environment Agency and is in the process of being varied from potable use to amenity use. The planning permission states that the extension of the site, shall not commence unless the abstraction licence for the Hill Bottom Valley has been granted by the Environment Agency.
Install at least one downgradient borehole position to monitor most of the waste mass, current boreholes do not provide adequate coverage. Any borehole should demonstrate strata composition and be completed to facilitate groundwater monitoring zones of preferential flow in the Portland Sand sequence.	A downgradient borehole (as seen in Appendix C) has been installed. The location of the borehole was agreed by the local Environment Agency officer.
Worst case leachate quality for permitted wastes and rogue loads and the potential effects on background groundwater quality.	The imported infill material used to facilitate the restoration landform will comprise classified inert wastes. This will include wastes resultant from the site mineral processing operation and imported waste soils, inert demolition wastes and other inert waste materials incapable of producing potentially contaminated leachate. WAC results for typical waste types used for the infilling can be found both within the site's Hydrogeological Risk Assessment and within Appendix D. The WAC results attached in Appendix D demonstrate that leachate from the wastes fall within the thresholds for compliance for inert wastes.
The suitability of lining materials for the site in terms of physical and chemical composition.	A Construction Quality Assurance (CQA) plan was produced detailing the suitability of the lining materials selected for the extension area.

Whether an activity constitutes disposal or recovery depends on a legal test derived from the Waste Framework Directive 2008/98/EC (WFD) and European Union (EU) case law. The definition of recovery was introduced into the WFD in 2008 and is one of its key concepts.

The European Court of Justice has said that “the essential characteristic of a waste recovery operation is that its principal objective is that the waste serves a useful purpose in replacing other materials which would have had to be used for that purpose, thereby conserving natural resources”.

This document sets out Mott MacDonald’s understanding for conducting a test to demonstrate that the waste used in the proposed extension, is being used as a substitution of non-waste materials. This WRP has been prepared in accordance with the Environment Agency guidance available on the gov.uk website³.

This WRP aims to demonstrate that:

- There is a clear benefit from the activity;
- The recovered waste material is suitable for its intended use;
- The minimum amount of waste is being used to achieve the intended benefit;
- The waste being used is a substitute for a non-waste material; and

³ Environment Agency (2023) Waste recovery plans and deposit for recovery permits [online]. Available at [Waste recovery plans and deposit for recovery permits - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/waste-recovery-plans-and-deposit-for-recovery-permits) (Last reviewed January 2024)

- The scheme will be completed to an appropriate standard.

Development plans of the area to be permitted and cross sections of the scheme, clearly showing the areas where the waste is to be used, are presented in Appendix E.

1.2 The site

Swanworth Quarry is a limestone quarry located approximately 3.7km west of Swanage in the Isle of Purbeck, 2.5km south of Corfe Castle and north of St Aldhelm's Head. The nearest property to the site is Compact Farm, 400m to the east and the nearest village is Worth Matravers which is 400m to the south. The sea, at Chapman's Pool, is 1.5km to the southwest. Limestone has been extracted from Swanworth Quarry over the past 100 years.

The existing quarry area amounts to approximately 51 hectares (ha). This includes the extension of an area of 14ha that was permitted under planning permission (application reference 6/2020/0321_1) received in 2023. The location of the site and planning application boundary is shown in Appendix B.1.

The postcode for the site is BH19 3LE. The 100m NGR for the existing quarry is SY 969 781 and it is marked as Swanworth Quarries on the Ordnance Survey 1:25,000 Purbeck and South Dorset map. The 100m NGR for the extension area to the quarry is SY 964 788.

The quarry access is on the road from Kingston to Worth Matravers. There is no access to the quarry without permission from the owners. The quarry lies along the valleys of Coombe Bottom and Hill Bottom on the Purbeck coastal plateau in a predominantly farmed landscape with pasture and arable fields.

Access to the extension area will be via the existing quarry with a new vehicular bridge being constructed across the Coombe valley and a cutting through the southern-most field to the extraction area. The bridge will avoid vehicles interfering with the Purbeck Way footpath and stream located in the base of the Coombe⁴.

Swanworth Quarry is situated in the Dorset Area of Outstanding Natural Beauty (which covers approximately 40% of the county of Dorset) and adjacent to the South Dorset Coast Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). The SSSI was designated because it contains internationally important geological interest and a rich range of habitats supporting populations of several rare plants and animals. The majority of unimproved limestone grassland in Dorset lies within the SSSI and it also contains one of the largest areas of unimproved chalk grasslands in Dorset. The character of these calcareous grasslands is strongly influenced by their maritime location. The largest national populations of the rare species Early Spider Orchid (*Ophrys sphegodes*) and the Lulworth Skipper butterfly (*Thymelicus acteon*) are found in the SSSI. There is a belt of native woodland and scrub along the north-western boundary of the quarry.

Two public rights of way (part of the Purbeck Way) cross the quarry: the bridleway BR39/WM19 runs from Afflington Barn to Hill Bottom following the floor of Coombe Bottom along the west side of the quarry and the public footpath WM20 from Worth Matravers joins the bridleway in Hill Bottom to the south of the quarry. Neither right of way is affected by the working of the quarry.

⁴ Quarryplan (GB) Limited (2020). Volume 4 Planning Application Statement, Suttle Stone Quarries. (Last accessed January 2024)

1.3 Planning history

Stone extraction has been ongoing at Swanworth Quarry since the early 1920s and has been the subject of a number of planning applications. Please see Table 2 for a summary of historic planning permissions that have been granted for the site.

Table 2: Historic planning permissions

Planning reference	Date	Subject	Decision
931	10.04.1947	Existing quarry and extensions	Approved
316760/C/M	20.08.1972	Extension to offices	Approved
316917/C/M	21.09.1972	Erection of garage and workshops	Approved
317954/C/M	18.09.1973	Erection of mess room and toilet	Approved
6/75/487	01.08.1975	Erection of a roadstone coating plant	Approved
6/1981/0162	14.05.1981	Extension to existing building and change of use to office	Approved
6/81/513	31.07.1981	Mineral extraction	Approved
6/1983/0806	20.01.1984	Change of use to mess room	Approved
6/1987/0884	04.01.1988	Use of buildings as mess room and toilet	Approved
6/87/979	15.08.1988	Quarry extension	Refused
6/93/793	27.06.1994	Quarry extension	Approved
6/1997/0637	18/12/1997	Production and sale of secondary aggregates	Approved
6/2003/1063	08.02.2004	Extension of life of the quarry	Approved
6/2006/0070	04.04.2006	Production and sale of secondary aggregates in parallel with existing mineral operations	Approved
6/2010/0383	13.10.2010	Extension of time for secondary aggregate production	Approved
6/2010/0384	13.10.2010	Extension of life of the quarry	Approved
6/2013/0186	24.06.2013	Extension of time for secondary aggregate production	Approved
6/2013/0187	24.06.2013	Extension of life of the quarry	Approved
PL/2002/13	26.07.2016	Additional storage cabin	Approved
6/2017/0258	21.07.2017	Revised restoration scheme	Approved

Source: Planning Application Statement⁴

The planning permission granted for the extension (application reference 6/2020/0321_1) listed a number of proposed planning conditions. Table 3 presents the conditions referenced in the planning permission. Please note that this list is not exhaustive of all conditions of the planning permission.

Table 3: Relevant planning conditions listed in the planning permission for the extension area

No.	Condition	Description
2	Approved Plans and Details	The development shall not be carried out other than in accordance with the approved plans and drawings (as seen in Appendix B).
3	Protection of Local Water Supplies	The development hereby permitted shall not be implemented unless the abstraction licence variation for the Encombe water supply, comprising the removal of the three spring sources in Hill Bottom (Licence 13/44/003/S/012 Springs 1-3) from potable water supply, has been granted by the Environment Agency.

No.	Condition	Description
7	Duration of Development	All winning and working of minerals shall cease by 31 December 2044 and all processing plant, structures and buildings shall have been removed and restoration of the site completed in accordance with the Composite Restoration and Habitats Plan (as shown in Appendix B.3) by 31 December 2051.
9	Soil Handling	Topsoil, subsoil and overburden shall be stripped and stored separately, as shown in Appendix B.2.2 - B.2.10. Soils shall only be handled when dry and friable and then with the minimum of working compaction.
10	Retention and Use of Soils and Overburden	No soils or overburden shall be sold or otherwise removed from the site and all soils and overburden shall be used in restoration of the site.
11	Treatment and Management of Bunds and Topsoil Storage	All screening bunds and stockpiles of topsoil shall be seeded in the first available planting season following their construction, mown or trimmed during summer months, and maintained weed-free.
13	Survey of Restoration Materials	Prior to commencement of soil stripping in phases 2 and 3, a survey of the progress of restoration of each of the previous phases and of the volume of stockpiled backfill and restoration materials shall be carried out. The results of the survey shall be compared with the anticipated rate of progress as shown in drawings 191128-00144-5 to 9 (as seen in Appendix B.2.5 - B.2.9) and the outcome provided to the Mineral Planning Authority.
14	Depth of Mineral Extraction	The maximum depths in the extension area shall not be other than identified in 191128-00144-3 to 9 (as seen in Appendix B.2.3 - B.2.9), unless the results of the survey required by condition 13 show that there is a shortfall in the imported backfill materials of a quantity equivalent to more than 150,000 cubic meters.
17	Material Imported for Aggregate Recycling	Only clean, inert material shall be imported for the purposes of aggregate recycling at the site.
18	Limitation on Aggregate Recycling	No more than 30,000 tonnes of recyclable waste material for the purposes of recycled aggregate production shall be imported to the site in any calendar year.
20-22	Noise	These conditions set maximum noise levels that can be produced from short term activities, rock drill activities and routine site operations.
24	Dust Control	The dust control measures set out in the Air quality assessment ⁵ shall be employed at all times.
25	Wheel Cleaning	Wheel cleaning facilities shall be provided at the site and employed at all times to ensure that no lorry shall leave the site unless its wheels and chassis have been sufficiently cleaned to prevent mud or debris being deposited on a public highway.
26	Sheeting of Lorries	No lorry carrying material of less than 500mm in dimension shall leave the site unless securely sheeted and/or covered to ensure the materials does not spill on to the public highway.
30	Bunding of Tanks	All oil and fuel stores shall have secondary containment or bunding that is impervious to oil and water and sufficient to contain 110% of the content by volume of the tanks and any associated pipework in the event of a spillage
32	Aftercare	Aftercare of the application site for the nature of conservation/amenity purposes shall take place for a period of five years.

Source: Dorset Council (2023)¹

The planning permission is also accompanied by a Section 106 agreement. The Section 106 agreement was granted in November 2022 and states that the site must comply with the following obligations:

- The development of 12.29 ha of land adjoining the existing quarry for the creation of new and existing habitats.
- Long term (30 years) management of all restored and proposed newly created habitat areas including the existing quarry.
- New footpaths to be created within the existing quarry to be made available for access by the public for at least the same period of long-term management as the finally restored quarry site.

⁵ VIBROCK (2019) Air quality assessment for a proposed northern extension to Swanworth Quarry, Dorset, Suttles Stone Quarries. (Last accessed January 2024)

- A financial contribution to fund compensatory environmental enhancement.

The site also has a discharge consent (No. 043200) which relates to “Site Drainage: vehicle wheel wash water and fuel store”. There is no water abstraction licence at the quarry.

1.4 Completed areas of restoration

Drawing 191128-00144-1 (as seen in Appendix B.2.1) shows the restored eastern landform area which has been completed under the existing WRP.

No quarrying activity or restoration has been undertaken in the application area proposed for the extension to the quarry.

1.5 Proposed area of quarry extension development phasing

The proposed extension to the quarry is shown within the drawings of Appendix B.2. The below section discusses the plan for removal of overburden and minerals from the initial point of development through to complete restoration.

Initial development removal

The initial operation in the extension area will be the stripping of topsoil, subsoil and overburden from the access cutting through the southern-most field. The soils will be stripped and used separately to create shallow screen banks on either side of the cutting and on the southern and eastern boundaries of the extension area to assist in minimising views of the extension. There is no requirement for screen banks on the northern and western boundaries. The overburden and any surplus soil will be transported across the bridge over the Coombe in articulated dump trucks to be stored in the base of the existing quarry floor. The total of overburden material produced in the initial development is expected to be 37,100 m³.

Following the removal of soils and overburden from the access road, limestone will be removed by drilling and blasting.

Quarry waste stone from the working face and from processing, will be stored within the exhausted northern part of the existing quarry. The waste stone will be stored together with imported inert infill materials awaiting future use in the restoration of the extension area.

Phase 1

Topsoil, subsoil and overburden will be separately stripped from the Phase 1 extraction area and transported by dump truck to the northern part of the existing quarry for storage. The total of overburden materials produced in Phase 1 is expected to be 114,100m³.

Following the removal of soils and overburden from Phase 1 limestone extraction will progress over two benches gradually from the access cutting in a westerly and northerly direction.

Phase 2

Towards the end of limestone extraction in Phase 1 soils and overburden will be stripped from Phase 2 and used in the restoration of Phase 1. Surplus soils and overburden will be stored in the existing quarry. The total of overburden materials produced in Phase 2 is expected to be 84,700m³.

Limestone extraction will progress from Phase 1 into Phase 2 in a northerly direction.

Phase 3

Towards the end of limestone extraction in Phase 2, soils and overburden will be stripped from Phase 3 and used to create an additional shallow screen bank to the north and to continue the restoration from Phase 1 into Phase 2. The northerly screen bank will have a height of 3 metres. The total of overburden materials produced in Phase 3 is expected to be 58,500m³.

Limestone extraction will progress from Phase 2 into Phase 3 in a northerly direction.

Quarry waste stone and imported inert infill material will be used in the restoration of the Phase 2 area. Any surplus materials will be stored in the existing quarry.

Restoration Landform

The extension area will be restored back to calcareous grassland at original ground levels using imported inert infill material and by transferring the stored materials from the northern part of the existing quarry. The boundary screen banks will be removed and used in restoration. The restoration of the extension area will take up to five years to complete following the removal of all limestone.

Restoration of the existing quarry will be completed once sales of limestone have ceased and the processing plant, workshops and ancillary areas had been removed. It will take up to a further two years to complete the restoration of the existing site using imported infill material and soils stored on the eastern boundary of the existing site.

In accordance with the planning permission, the restored land will undergo a minimum five-year aftercare period¹. This will be delivered as part of the long term (30 years) management of all restored and proposed newly created habitat areas.

2 Applying the test to Swanworth Quarry

2.1 Introduction

The Environment Agency guidance defines waste recovery as “replacing a non-waste material that would have been used in the operation with a waste material that performs the same function”. The clearest indicator of waste recovery is when it can be shown that the waste is a suitable replacement for non-waste materials that would otherwise have to be used to achieve the same end benefit. The waste then consequently serves a useful purpose by using fewer natural resources.

2.1.1 Waste recovery guidance and assessment criteria

The guidelines on the interpretation of key provisions of Directive 2008/98/EC⁶ on waste describes the difference between waste recovery and disposal. The Environment Agency guidance, available on the gov.uk website³ identifies three main ways of showing evidence that waste is being used in place of non-waste. These are:

- Financial benefit by using non-waste materials.
Carrying out the work with non-waste would result in a benefit from a net financial gain and therefore, it would be commercially worthwhile to use non-waste.
- Funding to use non-waste materials.
If non-waste is to be used without any net financial benefit, and funding has been secured to cover the costs of work using non-waste materials.
- Obligations to complete the scheme.
The operator is obliged to carry out the work. For instance, a regulator has imposed a requirement e.g. a quarry operation required by planning conditions to restore it according to an approved plan. These fall under two types of obligations, specific and general obligations:
 - Specific obligations may specify the work to be carried out.
 - General obligations may require certain results to be achieved but do not specify exactly how this must be done.

It is considered that the extension activity Suttles wishes to undertake, would fall under the ‘obligations to do work’ category. The following sub-sections aim to demonstrate how Suttles meet this category to justify the extension activity at Swanworth Quarry as a recovery operation.

2.1.2 Is there a clear benefit from the activity?

The restoration of the quarry is a requirement of the planning permission granted by Dorset Council. The main aim of the restoration is to:

- Ensure adequate and suitable materials for the restoration of the site in the interest of the landscape character.
- Maintain the interests of landscape character and local amenity by restoring the site back to original ground level (to prevent possible side effects related to the displacement of recreation and to protect the integrity of local European and Ramsar sites).
- Ensure that restoration of the site is sustained in the interest of biodiversity, landscape character, cultural heritage and amenity value.

⁶ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives. http://ec.europa.eu/environment/waste/framework/pdf/guidance_doc.pdf#page=30

- Ensure that the restoration is appropriate to the landscape character of the Dorset AONB.

A further reason for the restoration of the quarry, is to reclaim the site to a condition where it is capable of beneficial after use, in the interests of the visual amenity of the locality in accordance with Policies SS1, RS1, DM1, DM2, DM4 and DM5 of the adopted Bournemouth, Dorset and Poole Minerals Strategy⁷ and Policy 6 of the Dorset Minerals and Waste Local Plan⁸.

Mineral resource availability

Bournemouth, Christchurch, Poole and Dorset Mineral Sites Plan 2019⁹ identifies Swanworth Quarry as an important source of crushed rock, supplying approximately half of the Dorset annual total. It provides an alternative source of crushed rock to the Portland quarries, or Mendip quarries. In terms of reducing distances to be travelled, it is considered to offer a more sustainable source of construction aggregate for the Poole and Bournemouth markets. In recognition of the benefits of maintaining an alternate source of crushed rock in Dorset, Policy MS-3 allocates an extension to Swanworth Quarry.

At the beginning of 2020, the consented reserves of limestone remaining at Swanworth Quarry amounted to less than 200,000 tonnes, which is sufficient for less than two years production. As shown in Table 4, the proposed quarry extension will provide 2.2 million tonnes of saleable materials, for a further 19 – 20 years extraction at a rate of up to 125,000 tonnes per year.

Table 4: Expected net materials and years of supply produced during each stage of the proposed quarry extension

Phase	Net mineral (m ³)	Saleable minerals (tonnes)	Years of supply*
Initial development removal	95,861	239,653	1.9
Phase 1	269,879	674,698	5.4
Phase 2	270,293	675,733	5.4
Phase 3	345,435	863,588	6.9
Total	981,468	2,214,019	19.6

*based on a rate of 125,00 tonnes per annum

Source: Swanworth Quarry development plans (Appendix B)

Ecological benefits

Worked areas will be progressively infilled using imported inert material to return the landform to pre-existing levels. The restoration will be managed and maintained as high quality, species rich habitats which will support the conservation objectives of the adjacent SAC and SSSI.

Once infilled, habitats will be progressively restored to species rich calcareous grassland with scrub and woodland planting at the outer margins, rough calcareous grassland, ephemeral pools and damp marginal areas and agricultural land divided by restored drystone walls.

⁷ Dorset Council (2014) Minerals Strategy [online]. Available at: [9022e767-ff8a-d94b-14de-9c3a5279f961](https://www.dorsetcouncil.gov.uk/9022e767-ff8a-d94b-14de-9c3a5279f961) (dorsetcouncil.gov.uk) (Last accessed January 2024)

⁸ Dorset Council (2019) Adopted Waste Plan [online]. Available at: [Adopted Waste Plan](https://www.dorsetcouncil.gov.uk/adopted-waste-plan) (dorsetcouncil.gov.uk) (Last accessed January 2024)

⁹ Dorset Council (2019) Bournemouth, Christchurch, Poole and Dorset Minerals Sites Plan 2019 [online]. Available at: [Bournemouth, Christchurch, Poole and Dorset Minerals Sites Plan 2019](https://www.dorsetcouncil.gov.uk/bournemouth-christchurch-poole-and-dorset-minerals-sites-plan-2019) (dorsetcouncil.gov.uk) (Last accessed September 2023)

Grassland management will be through conservation grazing. Parts of the top two quarry benches in Swanworth Quarry will be left exposed¹⁰.

Both used and disused quarries can be important for wildlife. The area within the site's boundary contains designations for heritage, ecology and landscapes, these designations are shown in Appendix B.4.

The current, ongoing restoration of Swanworth Quarry is evidence that the restoration habitats can, and will be, created successfully within a reasonable timeframe. Comparison of the habitats offered by the restoration against the existing baseline demonstrate that the restoration will offer 290% greater surface area of habitats of principal importance⁴.

Socio-economic benefits

The continued operation of Swanworth Quarry is expected to have positive socio-economic effects on local communities generated from the continuation of employment and financial stimuli injected into the local economy by means such as using local suppliers.

The site is also, in its present state, used for educational purposes, showing that there is already a beneficial use, which could be enhanced when restoration is complete. As an educational resource the site has been used by universities as part of the curriculum activities, and as a visit for geological societies.

Using waste as a resource

The extension area will be restored to calcareous grasslands use by the importation of clean inert waste materials, as is currently the case with the restoration of the existing quarry site.

Clean, inert waste materials will be sourced locally, or brought in from Suttles own inert waste treatment facility, and used as infill material. Only material that meets the WAC for Inert Landfill, as identified in Appendix A, will be permitted for use.

Waste quarry stone from the ongoing restoration of Swanworth Quarry will also be used as infill material, as shown in drawings presented in Appendix B.

Choosing to use inert waste as infill material will reduce the requirement for virgin raw materials, consequently minimising the strain on finite resources.

2.1.3 Is the recovered waste suitable for its intended use?

The proposed waste types to be used for the restoration of the quarry extension are set out in Table 5.

Table 5 highlights the materials that could potentially be accepted at the site for use in the restoration. Before waste is accepted it has to meet the WAC for inert landfill (see Appendix A). The material samples are tested by a 3rd Party accredited laboratory. If it is shown to meet the WAC for inert landfill, then this waste material will be used instead of non-waste material.

Table 5: Waste types to be accepted for restoration purposes only

EWC Code	Description
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays

¹⁰ AEcol Ecological Consultants (2020) Ecological Management Plan, Swanworth Quarry. (Last accessed [September 2023](#))

EWC Code	Description
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07 ¹¹
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

The proposed recovery operations for the extension area will remain the same as the permitted operations at the existing quarry area under Permit EPR/CB3030RQ. The proposed recovery operations are:

- R3 - Recycle/reclaim organic substances which are not used as solvents;
- R5 - Recycle/reclaim other inorganic materials;
- R10 – Land treatment resulting in benefit to agriculture or ecological improvement;
- R11 – Use of wastes obtained from any of the operations numbered R1 to R10; and
- R13 - Store wastes pending any of the operations number R1 to R12 except temporary storage pending collection on the site where it is produced.

There will be limits on the activities and the treatment in the extension area of the quarry. The treatment will consist only of manual sorting and separation of waste into different categories for reuse. No screening activities will occur in the extension area.

2.1.4 Is the minimum amount of waste being used to achieve the intended benefit?

As seen in Appendix B.2.10 and the supporting calculations shown in Appendix F, the total imports required for the extension will be 1,229,609 m³.

Only the amount of waste needed to carry out the backfilling and infilling activities will be used, otherwise non-waste will be used during the development of the extension of the quarry.

These quantities have been identified and agreed by the Local Planning Authority as per the proposed restoration plan submitted in 2020.

The majority of this material will be sourced from the existing restoration activity at the Swanworth site or imported from other local sites for the purpose of the restoration.

2.1.5 Is the waste being used as a substitute for a non-waste material?

It is difficult to source raw materials for re-profiling and restoration. In addition, it would not be economically or environmentally viable to extract material specifically for the purpose of re-

¹¹ Please note that the intended waste that will be accepted under the EWC code 01 04 13, is offcuts of primary stone from local quarry workings, which will be used as an inert waste for infilling.

profiling and restoring the site. Therefore, Suttles has substituted a non-waste material for clean inert waste materials sourced and available locally.

2.1.6 Will the proposal be completed to an appropriate standard?

The waste material will comply with the Inert WAC, before it is accepted at the site. This is a standard procedure for Suttles to ensure that the quality of the material is not jeopardised and the material remains suitable for the intended use. On this basis, the material is not considered to pose a risk to the environment or harm to human health.

The site is to be restored in accordance with the Swanworth Quarry Restoration landform plan (as seen in Appendix B.2.10), as specified in the site's planning permission. This document has been reviewed for the purpose of this variation and is still considered relevant in its current form.

Appendix B.3 shows the Composite Restoration and Habitats Plan, drawing ref DR-0007 (dated 2022) for the Swanworth Quarry Extension area, the drawing illustrates the design for the landscape restoration of the quarry.

2.2 Drawings

Drawings submitted have been produced for the purpose of the planning submission and permit application for the extension area of the site and can be viewed in Appendix B.

3 Summary

This Waste Recovery Plan demonstrates that the methodology proposed by Suttles to restore Swanworth Quarry, once extraction has been completed, is a waste recovery operation rather than a disposal operation. This plan follows the guidance set out on the Environment Agency website³.

The Waste Recovery Plan shows that:

- The use of non-waste materials in the restoration of the quarry can be substituted by using clean, inert waste materials. This will reduce the requirement for virgin raw materials, consequently minimising the strain on finite resources and local mineral reserves.
- The reason for the restoration is to support Policy MS-3 of the Bournemouth, Christchurch, Poole and Dorset Minerals Plan 2019⁹. The proposed extension area at Swanworth Quarry is identified as a Mineral Site Allocation CR1 within the plan, due to its ability to contribute to the adequate and steady supply of crushed rock in the region⁹. The proposed extension allows for sufficient supply for the next 19 – 20 years, based on current supply levels.
- The proposed extension will provide a more sustainable source of crushed rock for the Dorset area. Allowing a continued supply of locally produced limestone products will reduce the environmental impacts associated with sourcing limestone from further afield, such as increased greenhouse gas emissions generated from transportation.
- The Bournemouth, Christchurch, Poole and Dorset Minerals Plan 2019⁹ contains a number of development guidelines with a particular emphasis on landscape and visual impacts on the AONB. The Environmental Statement that accompanied the planning application (application reference 6/2020/0321_1) considered such developmental guidelines and concluded that the proposed development would not result in any significant effect⁴.
- Additionally, the reason for the restoration is to ensure that the site is reclaimed in an orderly manner to a condition capable of beneficial after-use in accordance with the adopted Bournemouth, Dorset and Poole Minerals Strategy⁷ and Policy 6 of the Dorset Minerals and Waste Local Plan⁸.
- The waste is not contaminated, as demonstrated through the use of the WAC for inert landfills. The clean, inert requirement also identifies that the material to be used is not from contaminated sources and will therefore not cause harm to the environment or human health, in the same way as non-waste material.
- The development plans seen in Appendix B and supporting calculation seen in Appendix F identify a further requirement for 1,229,609m³ of waste material for restoration of the quarry extension. This consists of 570,667m³ of imports directly placed in the extension and 658,942m³ of imports from the main quarry. Additionally, 309,937m³ of on-site derived processed extractive waste will be placed, of which 194,441m³ will be placed in the extension area and 115,497m³ placed in the main quarry.
- The scheme will be completed to an appropriate standard and will follow the agreed restoration plan. The restoration plan also details the management of the site once restoration has been completed and the phasing of the extraction and subsequent restoration so that the site is suitable for the intended beneficial use. Substantial biodiversity benefits would be provided in the restoration.

Plans of the area to be permitted and cross sections of the scheme (as seen in Appendix B and E) clearly show the areas where the waste is to be used.

The operation and activities undertaken by Suttles Stone Quarries, in relation to Swanworth Quarry, therefore, meets all the requirements that define a waste recovery operation.

Appendices

A. Waste Acceptance Criteria – Inert landfills

Chemex Environmental International Ltd	WASTE ACCEPTANCE CRITERIA (WAC)	Section No: 1.104
QA/ Method Summary		Page 1 of 2
Issue Date: Dec 2007		Version: 1.0

1. Analyte: **WASTE ACCEPTANCE CRITERIA**
2. Matrix Types: Soil, Solid Waste
3. Technique: A number of different analytical techniques are employed in the analysis of WAC. See Table 1.
4. Reference Method: The method is a combination of individual validated methods from the Chemex Method manual.

Recent changes in legislation have led to the introduction of the Environment Agencies Waste Acceptance Criteria for Landfill Disposal and the requirement for those responsible for waste clearance to have their waste tested for suitability for disposal in landfill sites. There are three classifications of landfill. These classes are hazardous waste, stable non-reactive hazardous waste and inert waste. Each of these classes has a different suite of analytical parameters and limits that must be met.

Despite the differences between the classes, they all require the waste to undergo a two part leaching procedure for calculation of the cumulative release of a number of inorganic parameters at a liquid solid ratio of 10:1. This leaching procedure is outlined in the BS EN 12457 standard, which details not only the two part leaching procedure, but also additional procedures that can be adopted for different scenarios and matrices.

In addition to the leaching procedure carried out for all classes, each class requires a number of different parameters to be carried out on the solid waste. These are very dependent on the class being considered. Chemex offer the required analysis to enable clients to determine whether their waste meets the necessary criteria and decide upon the most appropriate disposal method accordingly.
5. Chemex Method ID: WAC/INERT/1.0, WAC/HAZ/1.0
6. Scope of Application: Table 1 indicates which analysis is required for each class of landfill and the necessary limits for disposal.
7. Sample requirements: Sample masses required depend upon the required suite of analysis but generally approximately 1Kg of sample is sufficient. Sample bottles provided are 500ml amber glass bottles however it should be noted that due to the leaching requirement, if the sample has a high moisture content then a larger amount of sample is required.
8. Sample Batch QC: Blank, Blank Spike monitoring, Sample Duplicate when requested.
9. Instrument QC: Instrument QC is described in the individual methods, but comprises initial calibration followed by real time QC checks such as Independent Quality Control solutions, internal standard monitoring and continuing calibration checks.
10. Interferences/Points to Note: Not specified.
11. Detection Limits: Table 1 indicates method detection limits for individual analytes.
12. Turnaround: Chemex Standard 10 Day.

Chemex Environmental International Ltd	WASTE ACCEPTANCE CRITERIA (WAC)	Section No: 1.104
QA/ Method Summary		Page 2 of 2
Issue Date: Dec 2007		Version: 1.0

Table 1.

Parameter	Method Detection Limit (MDL)	Analytical Technique	Inert waste	Stable non-reactive hazardous waste	Hazardous Waste
Parameters to be determined on the waste					
Total Organic Carbon (TOC%)	0.1%	TOC Analyser	3	5	6*
Loss on Ignition (LOI)	-	Gravimetric			10*
BTEX (mg/Kg)	0.005mg/Kg	GC-PID	6		
PCB Congeners (mg/Kg)	10ng/Kg	GC-ECD	1		
TPH C ₁₀ -C ₄₀ (mg/Kg)	0.7mg/Kg	GC-FID	500		
PAH (mg/Kg)	0.075mg/Kg	GC-MS	100		
pH	-	pH Meter		>6	
Acid Neutralisation Capacity	-	Titration		To be evaluated	To be evaluated
Parameters to be determined on the leachate			Limit Values (mg/Kg) at L/S=10 L/Kg according to leaching test BS EN 12457-3		
Arsenic (As)	0.002mg/L	ICP-MS	0.5	2	25
Barium (Ba)	0.001mg/L	ICP-MS	50	100	300
Cadmium (Cd)	0.00025mg/L	ICP-MS	0.04	1	5
Chromium Total (Cr)	0.002mg/L	ICP-MS	0.5	10	70
Copper (Cu)	0.002mg/L	ICP-MS	2	50	100
Mercury (Hg)	0.00006mg/L	CV-AFS	0.01	0.2	2
Molybdenum (Mo)	0.001mg/L	ICP-MS	0.5	10	30
Nickel (Ni)	0.002mg/L	ICP-MS	0.4	10	40
Lead (Pb)	0.0005mg/L	ICP-MS	0.5	10	50
Antimony (Sb)	0.0005mg/L	ICP-MS	0.06	0.7	5
Selenium (Se)	0.001mg/L	ICP-MS	0.1	0.5	7
Zinc (Zn)	0.005mg/L	ICP-MS	4	50	200
Chloride (Cl)	0.10mg/L	Ion Chromatography	800	15,000	25,000
Fluoride (F)	0.05mg/L	Ion Chromatography	10	150	500
Sulphate (SO ₄)	0.05mg/L	Ion Chromatography	1,000	20,000	50,000
Total Dissolved Solids (TDS)**	20mg/L	Gravimetric	4,000	60,000	10,000
Phenol Index	0.005mg/L	Flow Injection Analysis	1		
Dissolved Organic Carbon (DOC)	0.2mg/L	TOC Analyser	500 +	800	1,000

Key: * Either TOC or LOI must be used for hazardous wastes. LOI analysis is subcontracted.
 ** The values for TDS can be used instead of the values for Cl and SO₄.
 + In the case of soils a higher TOC limit value may be permitted by the Environment Agency at an inert waste landfill provided the DOC value of 500mg/Kg is achieved at L/S=10.

B. Drawings

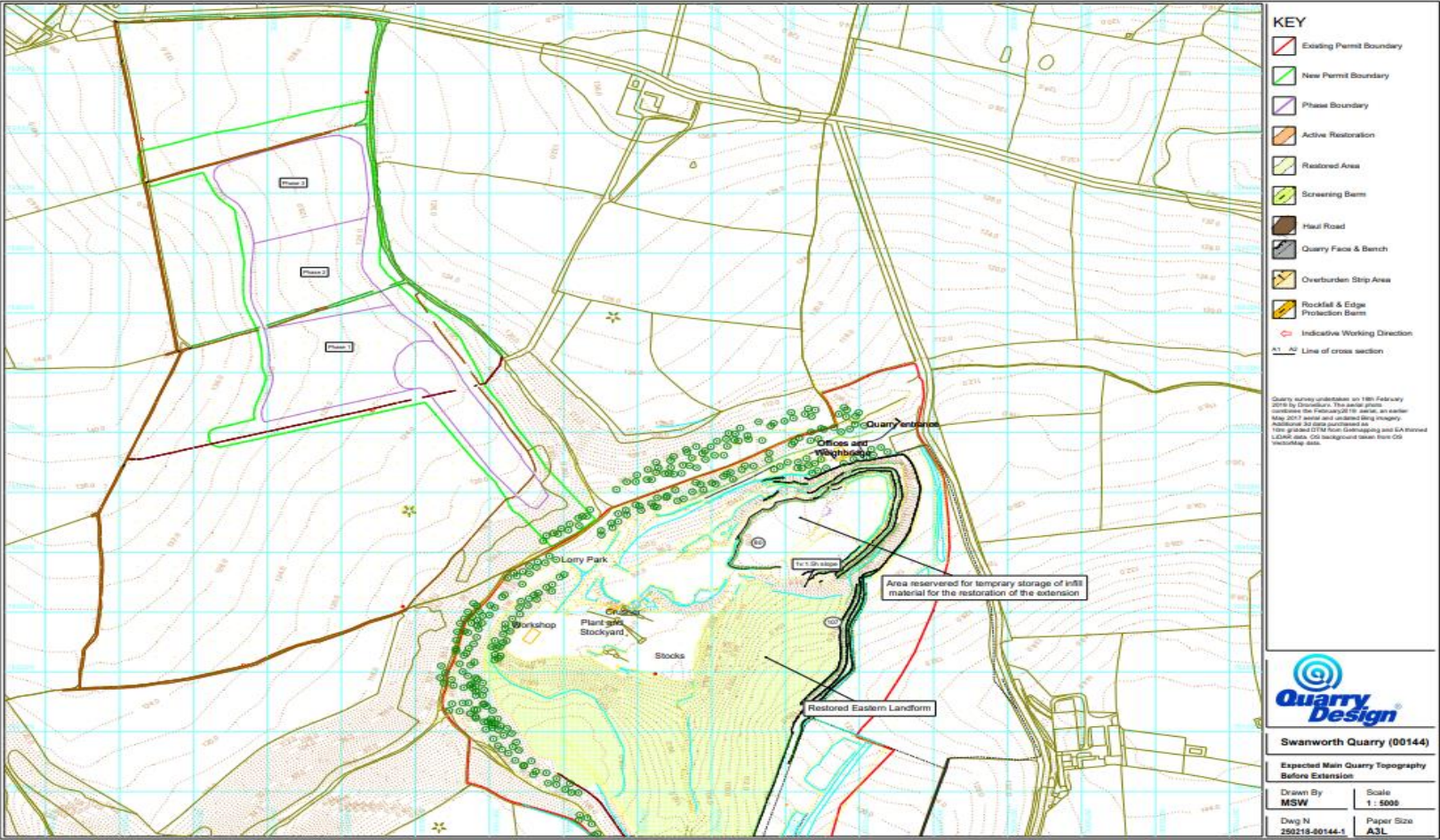
Please note the below drawings and plans are saved images from A3 sized documents, all documents can be sent through in their original form upon request.

B.1 Site Location

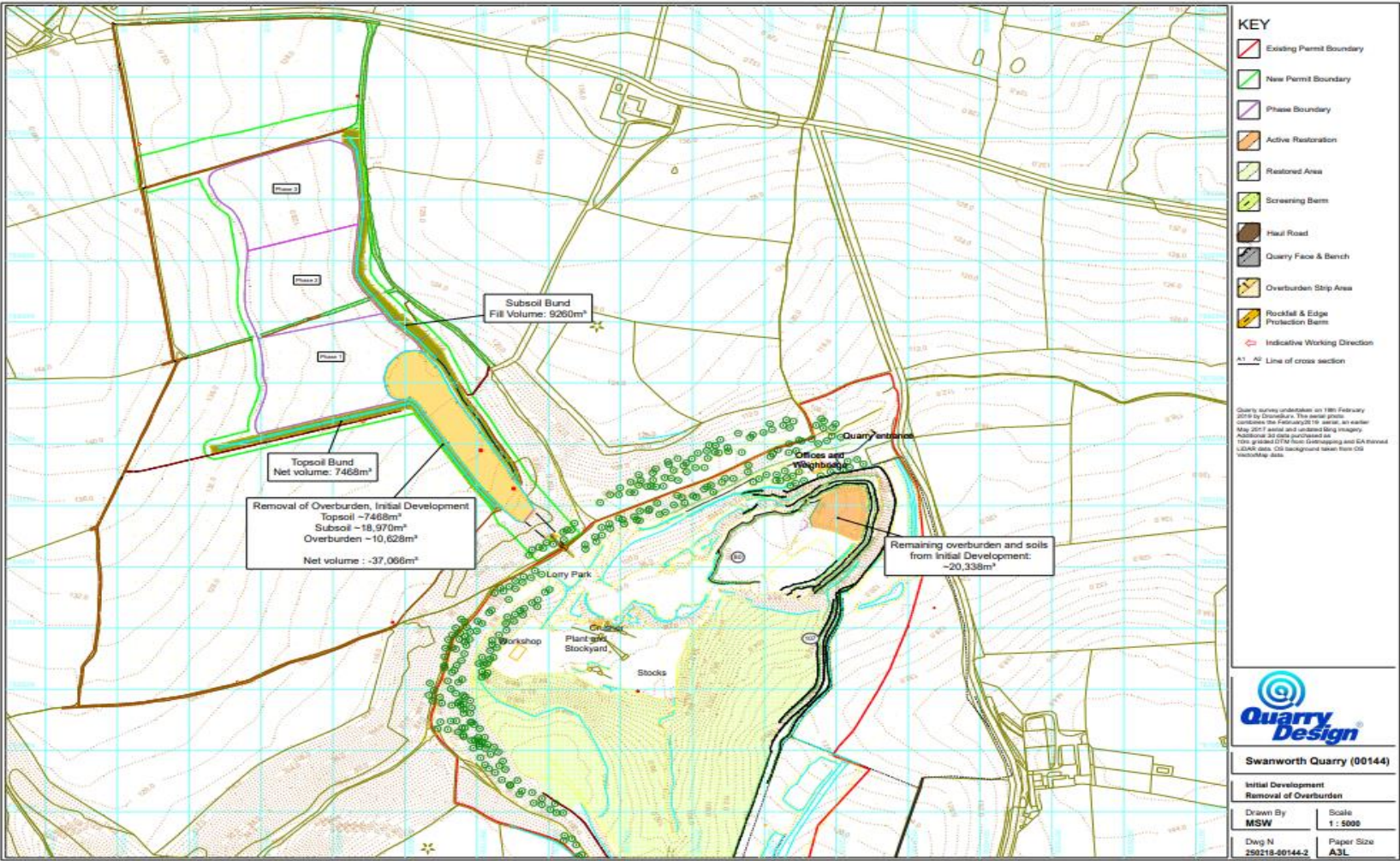


B.2 Development plans

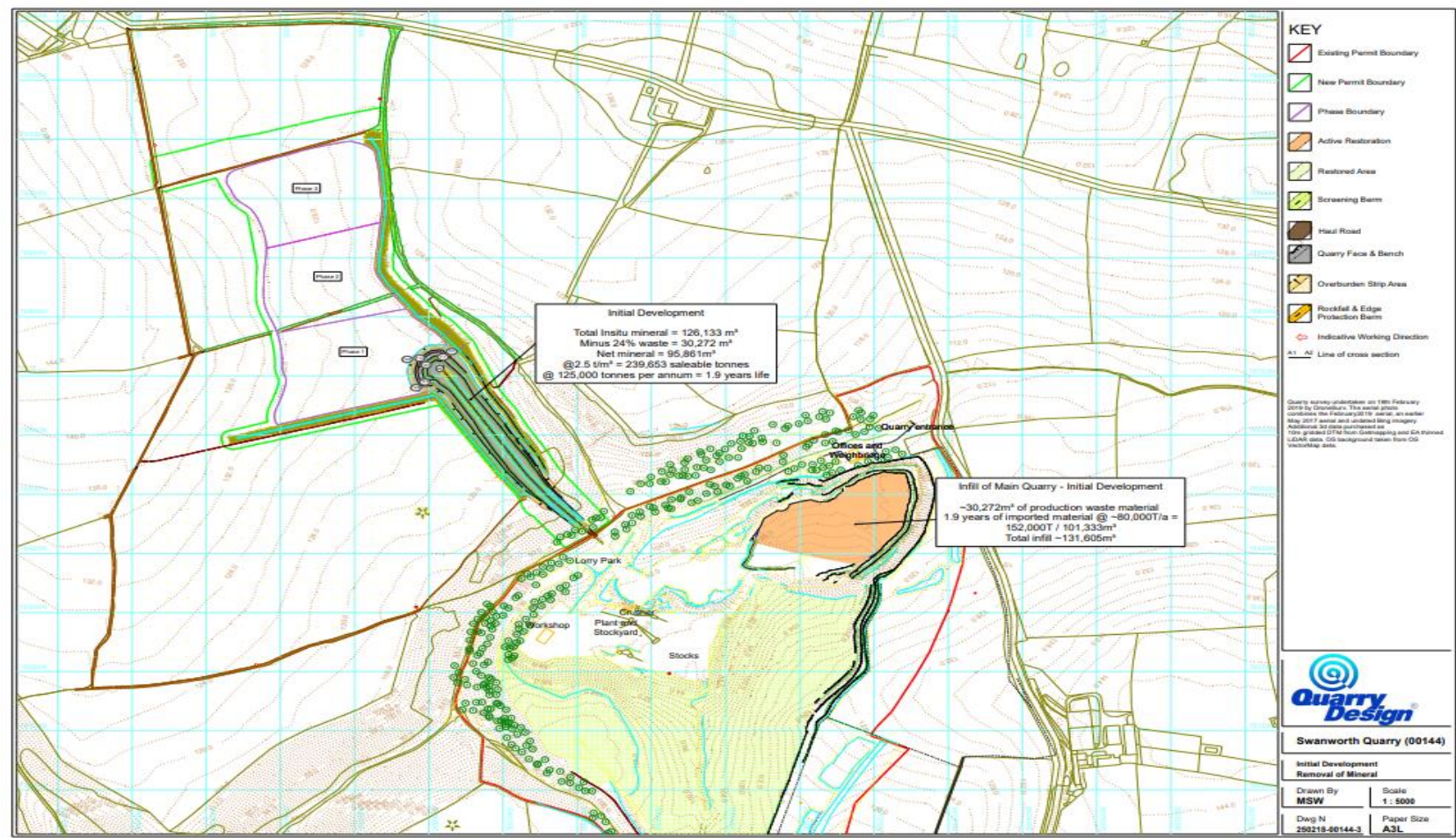
B.2.1 Expected main quarry topography before extension



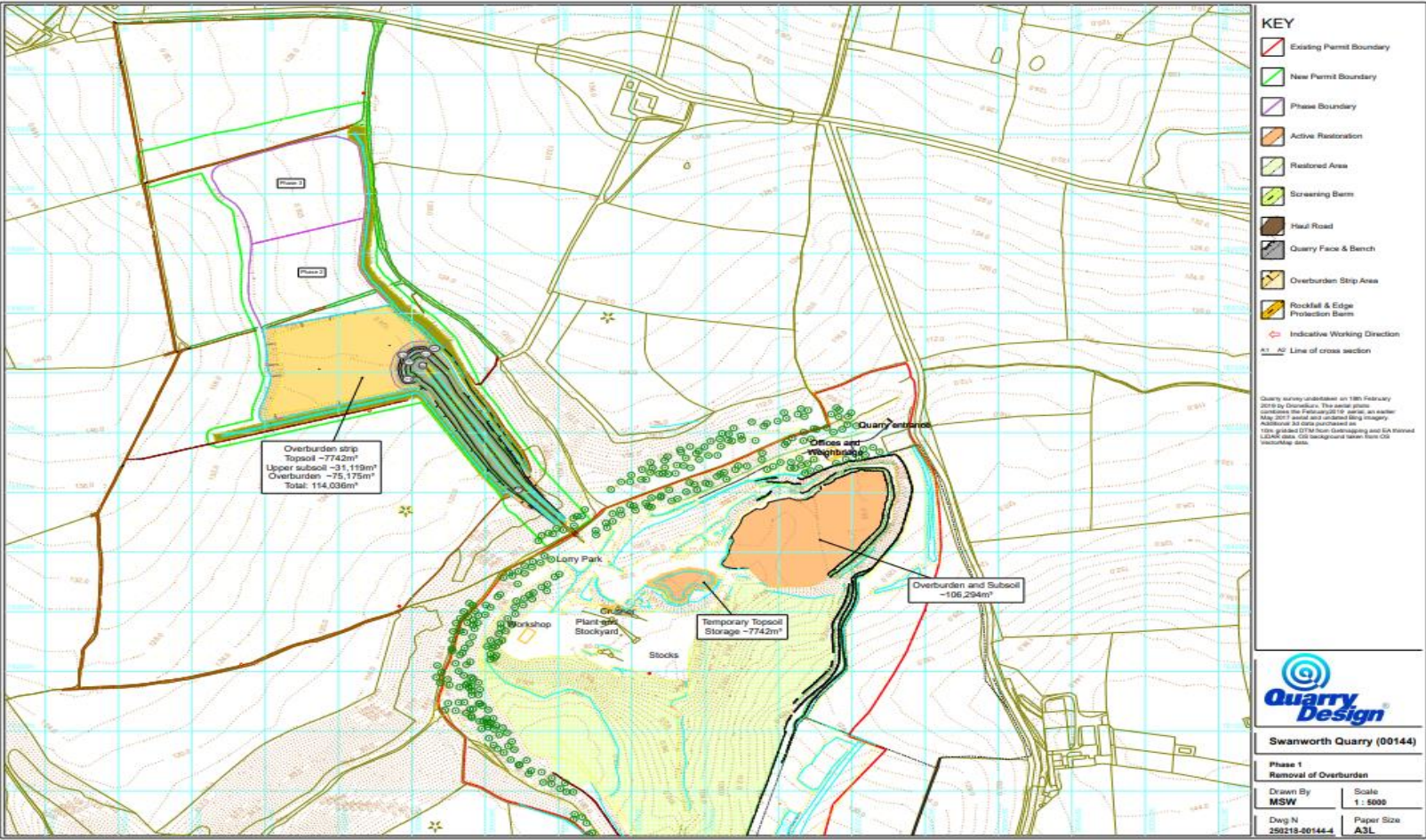
B.2.2 Initial development: Removal of overburden



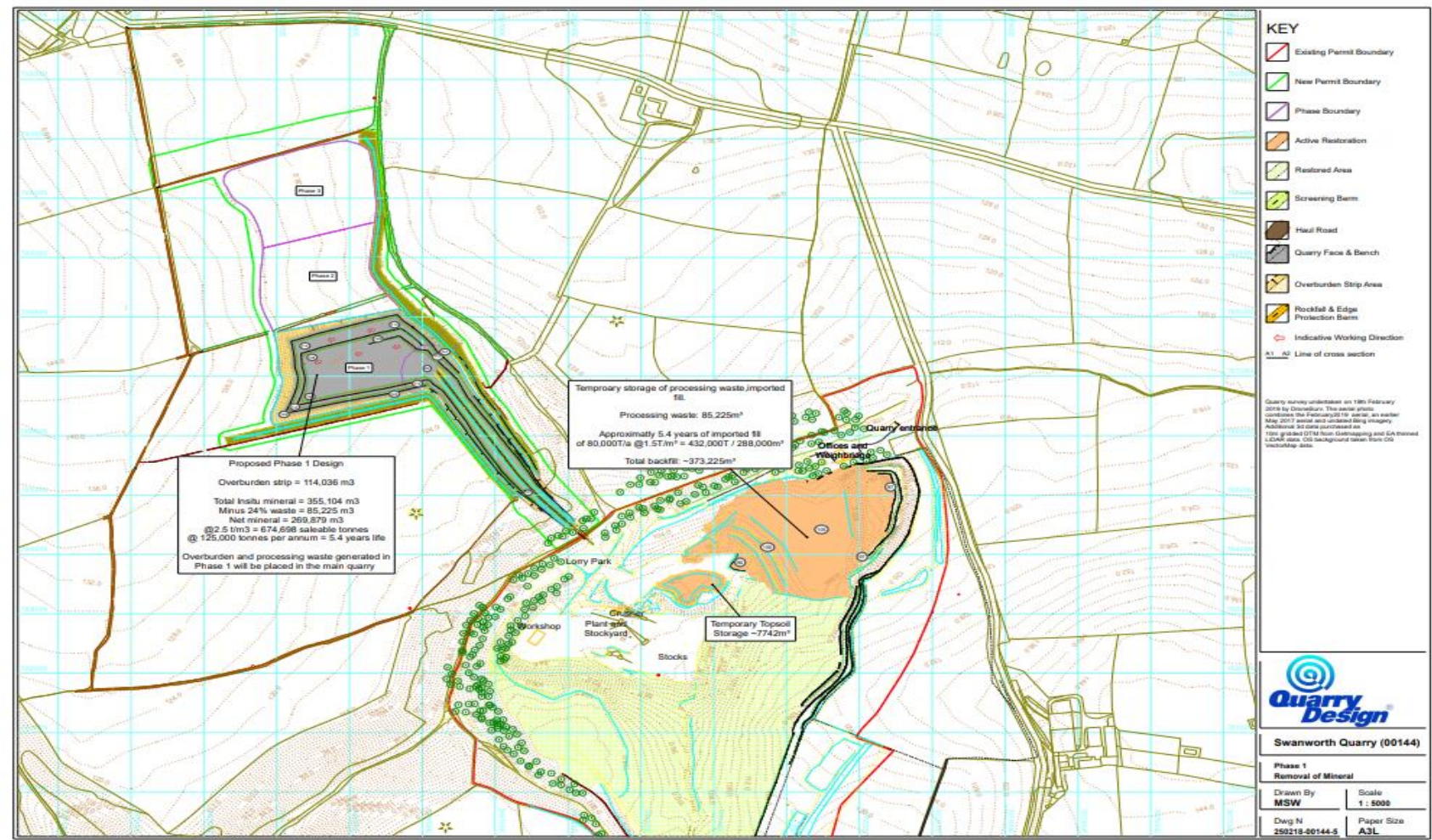
B.2.3 Initial development: Removal of mineral



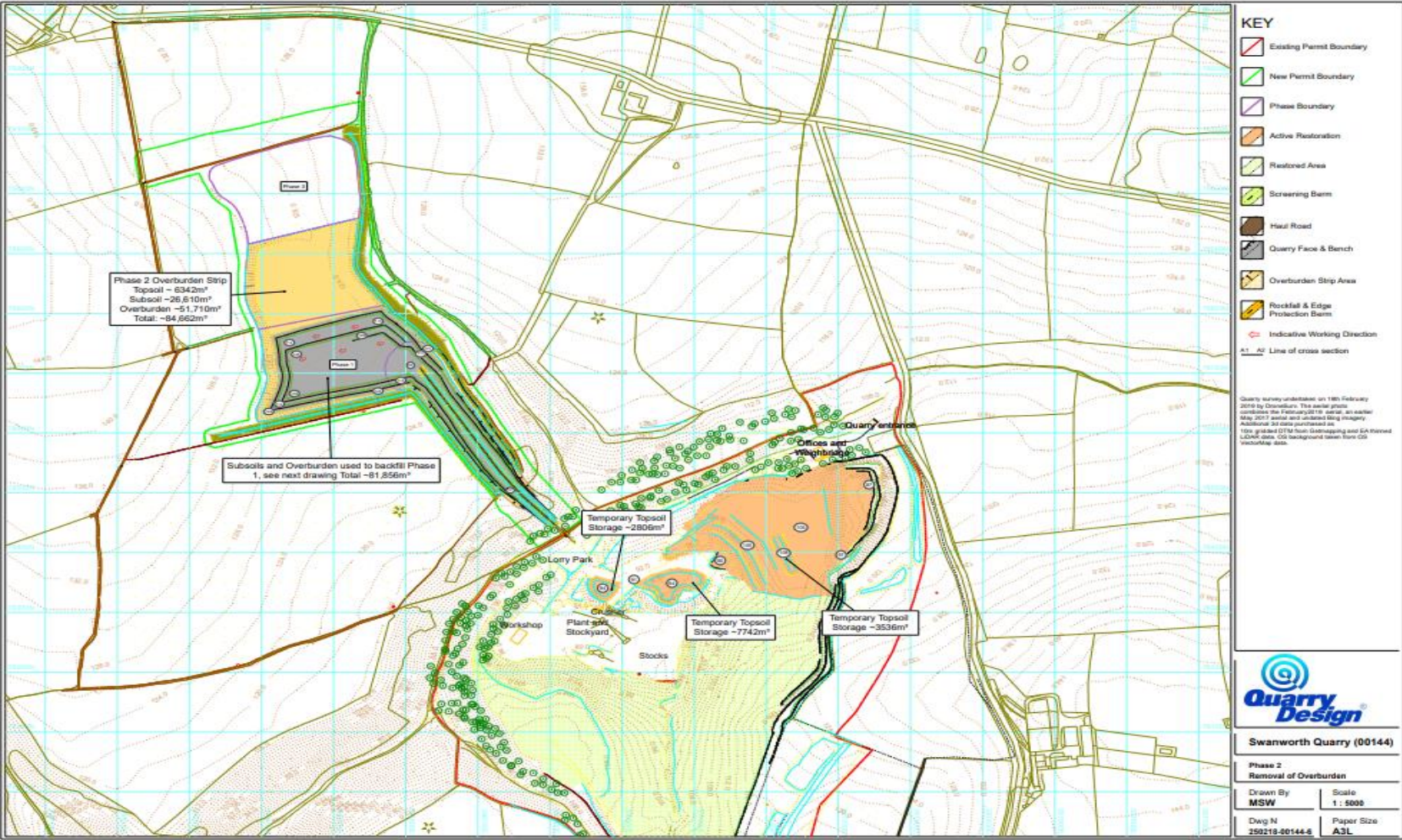
B.2.4 Phase 1: Removal of overburden



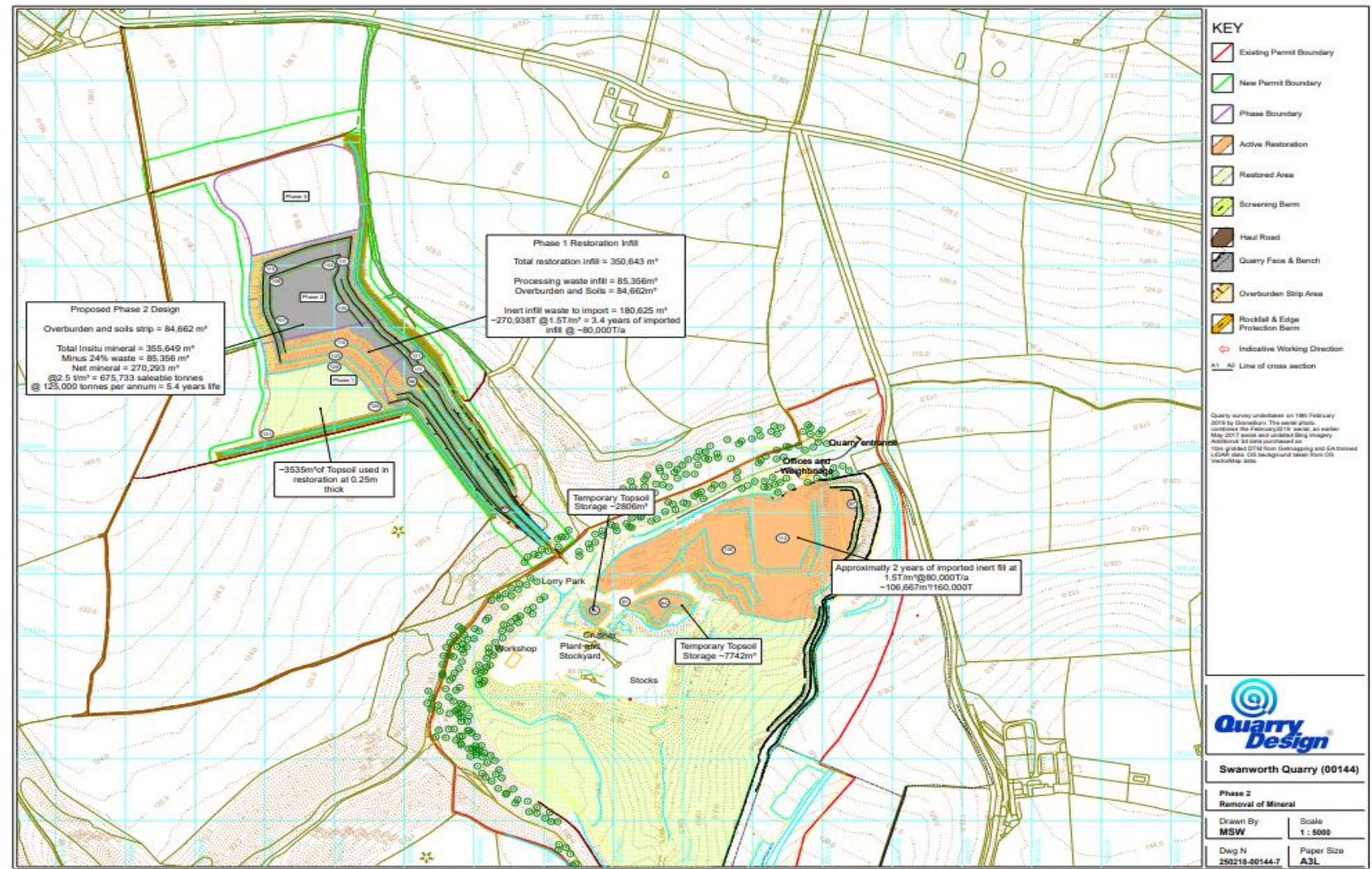
B.2.5 Phase 1: Removal of mineral



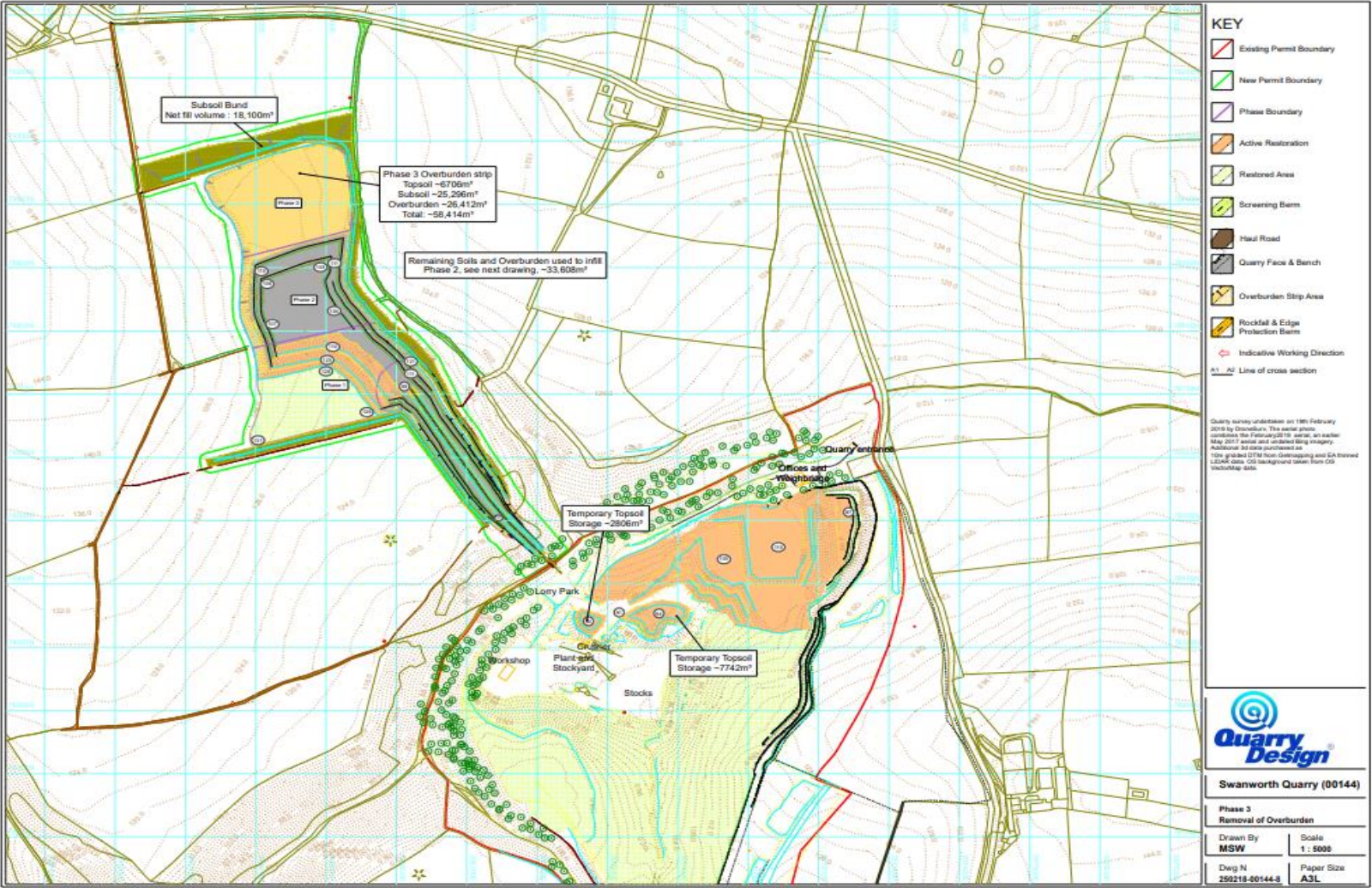
B.2.6 Phase 2: Removal of overburden



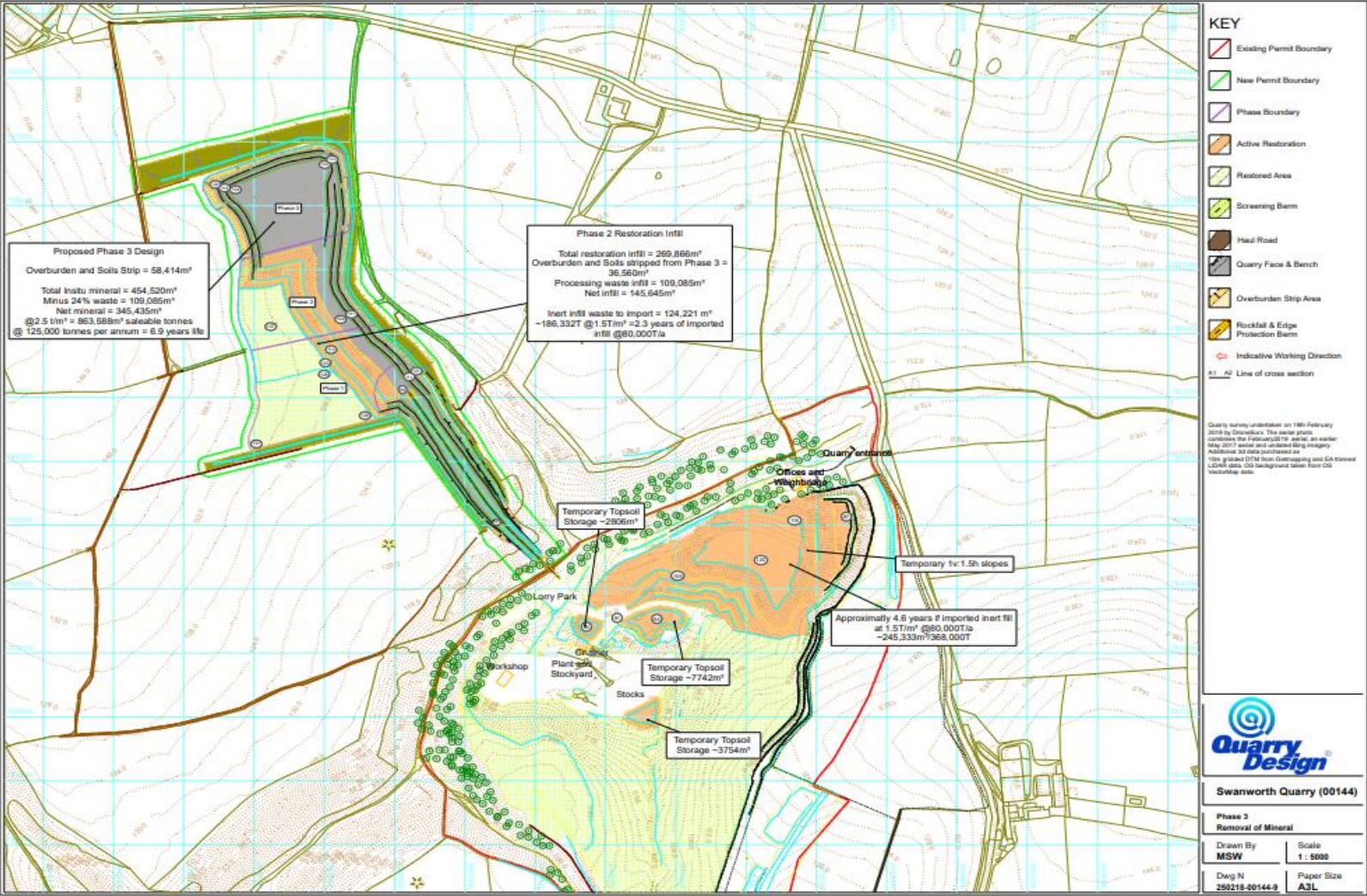
B.2.7 Phase 2: Removal of mineral



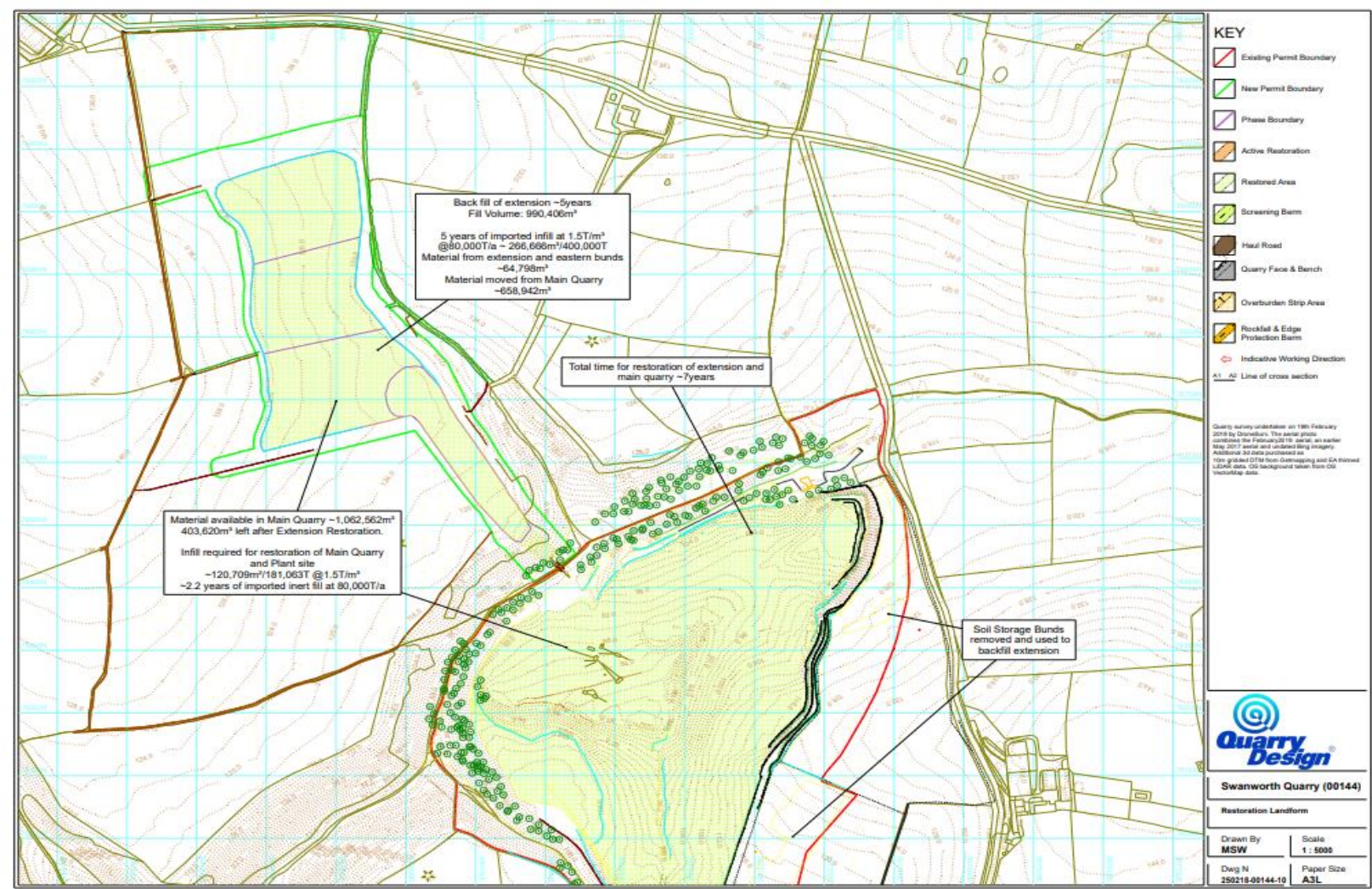
B.2.8 Phase 3: Removal of overburden



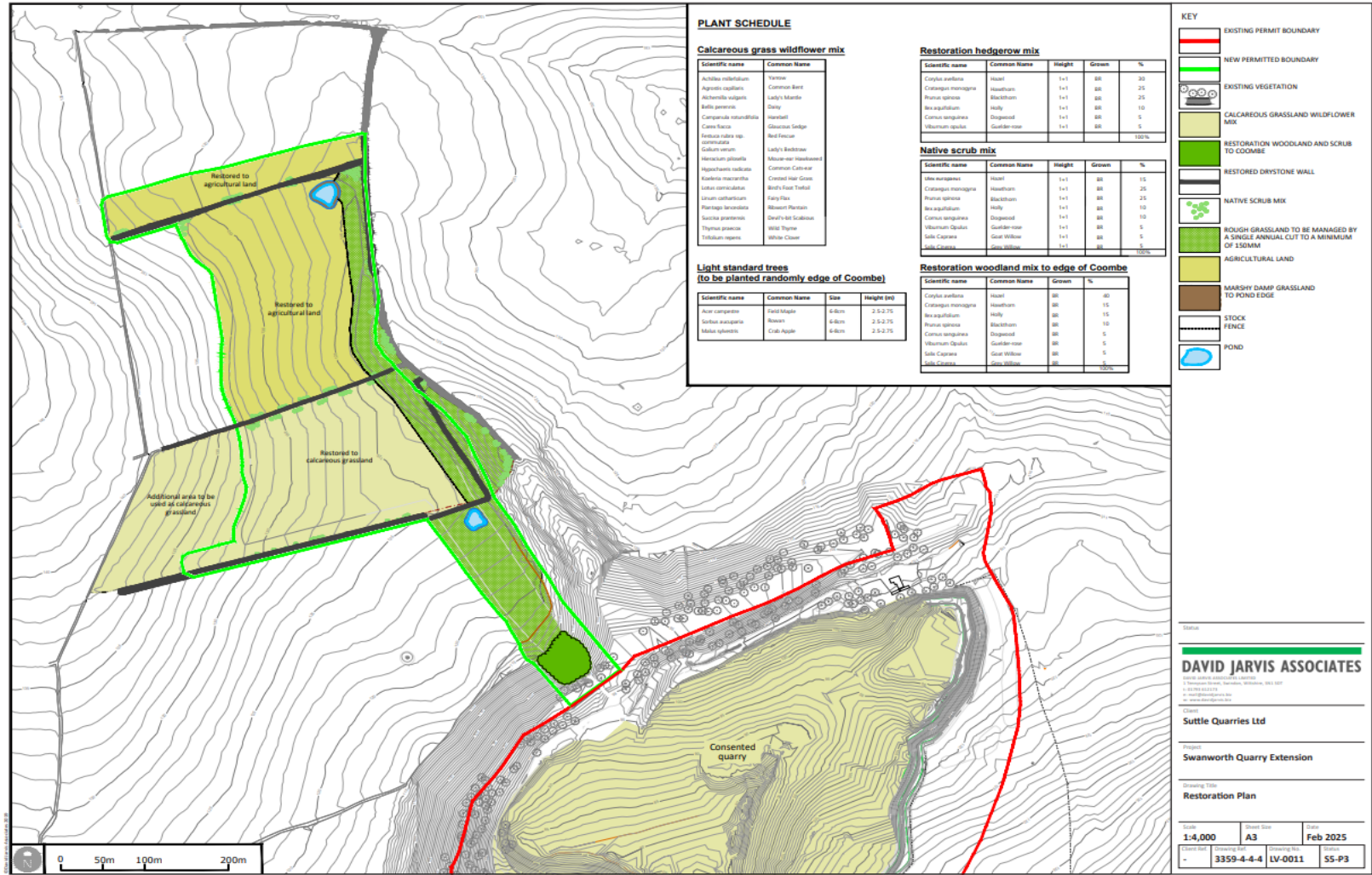
B.2.9 Phase 3: Removal of mineral



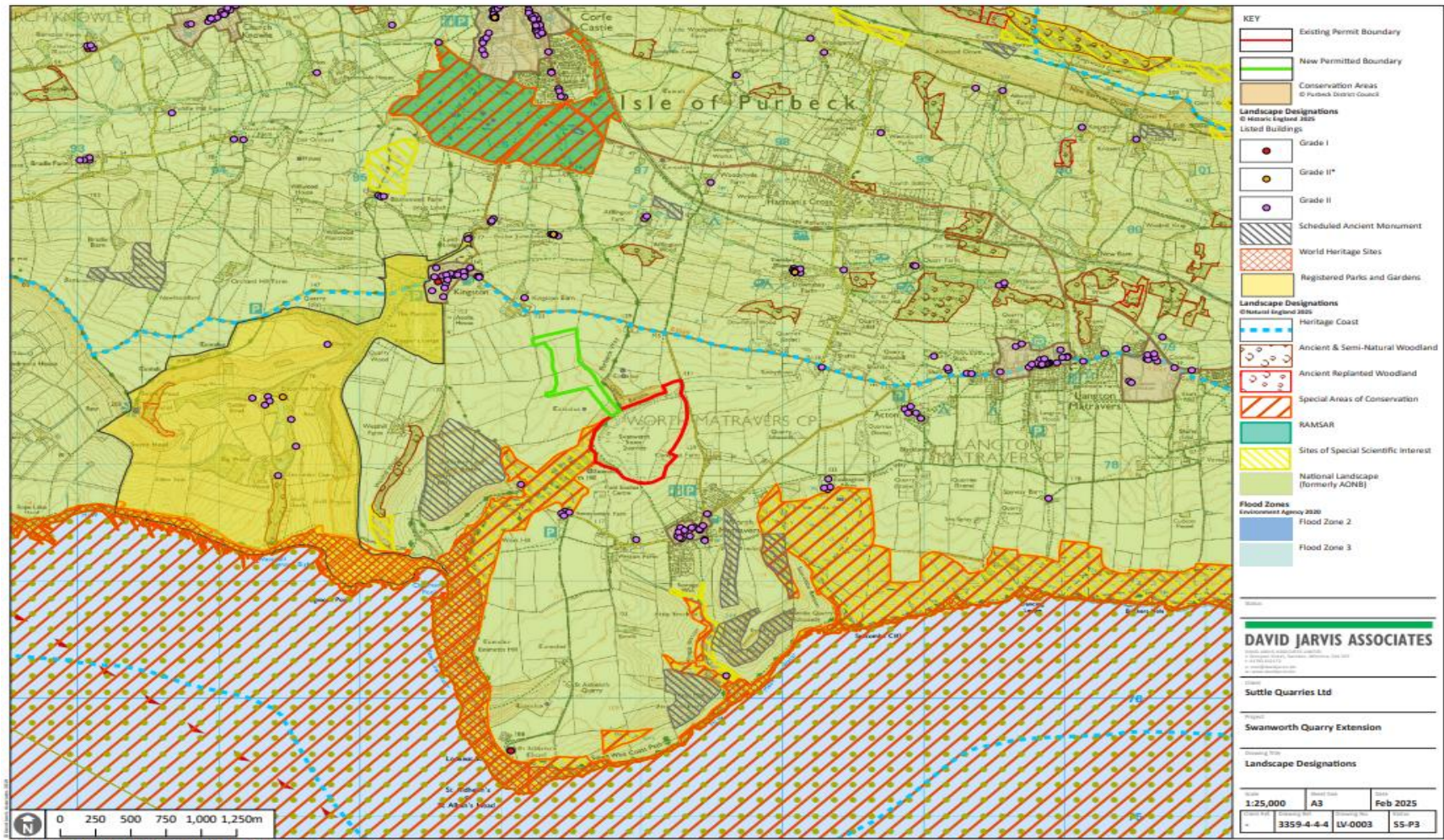
B.2.10 Restoration landform



B.3 Composite Restoration and Habitat Plan



B.4 Landscape designations



C. Additional borehole location



Key

- Extension/Infill Area
- ◆ Existing groundwater monitoring point and (ID)
- Piezometric surface contour (maOD)



Suttle Stone Quarries

Swanworth Quarry, Worth Matravers,
Dorset

Quarry Extension – Environmental Permit
Application

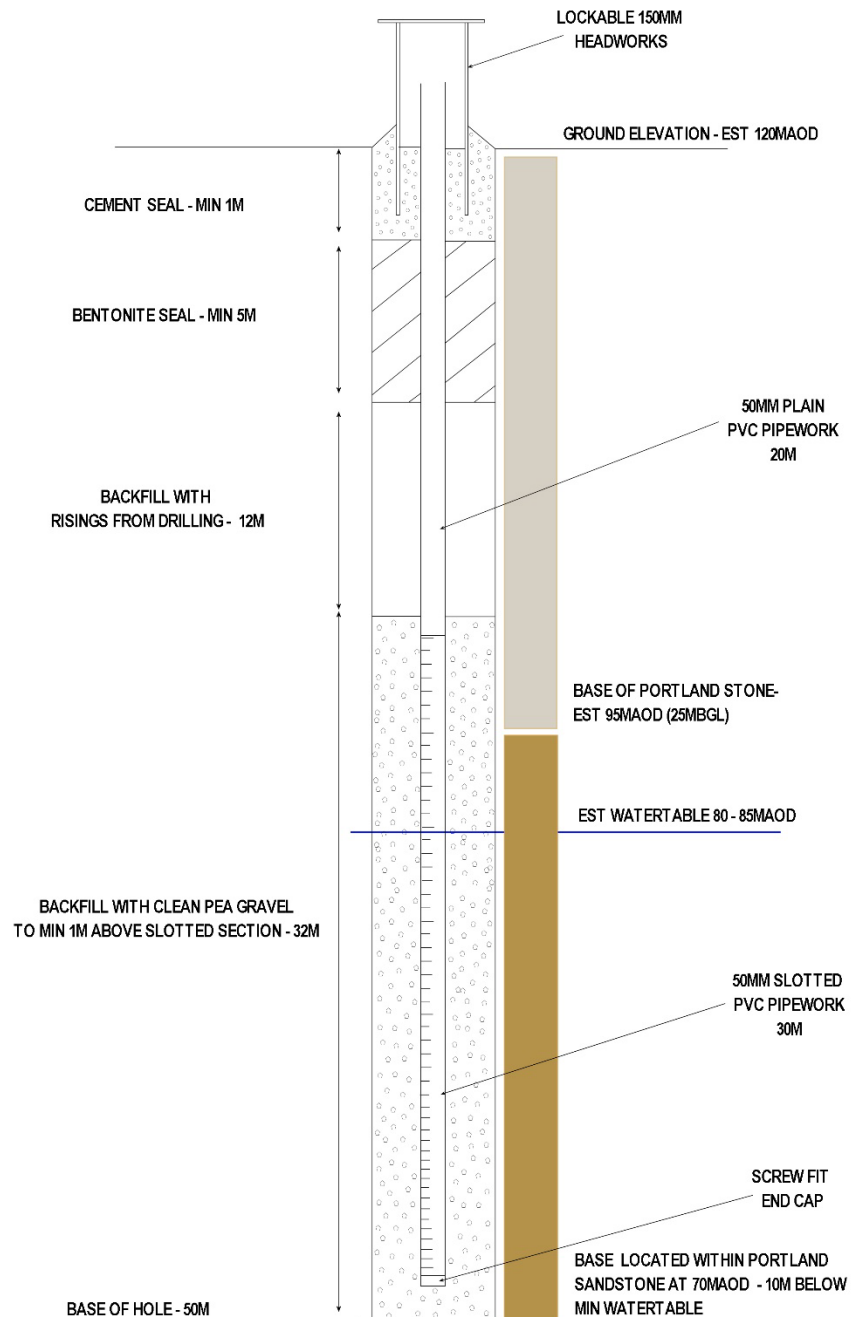
Figure 1: Proposed indicative location for
additional down hydraulic gradient
groundwater monitoring point

Drawn By: PB

Scale: 1:7,500

Date: May 23

Format: A4L



Suttle Stone Quarries

Swanworth Quarry, Worth Matravers,
Dorset

Quarry Extension – Environmental Permit
Application

Figure 2: Groundwater monitoring point –
Schematic design

Drawn By: PB

Scale: Not to scale

Date: May 23

Format: A4L

D. Waste Acceptance Criteria (WAC) results

D.1 Excavated waste (17 05 04) WAC results

Certificate of test
Internal Laboratory Transfer Header



Laboratory Reference: **OCMT-5811-1352**
Client: **J. Suttle Transport Limited**
Clients Address: **Swanworth Quarry, Worth Matravers, Swanage, BH19 3LE**
Site: **Mannings Heath Depot**

Certificate Reference: **OCMT-5811-1352-IntTran**
Issue Number: **1**
Client Order Number: **19810 - June 23**

Sample Reference: **Excavated Waste (17 05 04)**
Source: **Stockpile**
Location of Sample on Site: **Mannings Heath**
Material Description: **Excavated Waste**
Clients Indicated Specification: **Waste Code 17 05 04**

Sample Certificate: **No - None Submitted**
Date Sampled: **19/06/2023**
Sampled by: **SC (Client)**
Date Received: **19/06/2023**

Analysis undertaken:

Test	Laboratory
Waste Classification Suite (Full WAC 10:1, WM3 Solids Suite & Haz Waste Report HWOL)	Oemachem, Unit 4 Trinity Court
See attached interlaboratory certificate(s) of test OCLA-5811-C0642	

Remarks: **This sample was transferred from Oema, Unit 1, Building 267A, Commercial Road, Christchurch, BH23 6NW**



Approved By: **Martin Slater - Material Technologist**
Date Approved: **09/07/2023**
Sheet Ref: **IntTran-Rev1-Oct22**

Refer to the remarks section for any additions, deviations or exclusions from the stated test & preparation methods.
The results within this test report are representative of the samples submitted at the time of analysis.
This test report should not be reproduced, except in full, without the express permission of the issuing laboratory.
Bulk samples are retained for a period of 28 days from receipt

Oemachem Limited
Unit 4, Trinity Court
Brunel Road
Totton
Southampton
SO40 3WX

Final Laboratory Report

OCLA – 5811 – C0642

OCMT – 5811 – 01352

Customer: **J. Suttles Transport Limited**

Customer Address: **Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE**

Report Date: **09/07/2023**

Sample Received: **19/06/2023**

PO number: **19810 – June 23**

Issue Number: **1 (Original)**

Report Authorised By: **Amanda Jensen**

Role: **Laboratory Manager**



Report Authorised Date: **09/07/2023**

**Comments: Deviation code DC6 Applied to all results.
Please refer to report notes section for further information.**

Report Notes

Comments
- Results relate to the items tested - Results apply to the sample as received - This report shall not be reproduced except in full without approval of the laboratory - The laboratory is not responsible for information provided by a customer where the data can affect the validity of results - Results reported with * are produced from a subcontract laboratory (result not UKAS accredited to ISO 17025) - Results reported with ** are produced from a subcontract laboratory (result UKAS accredited to ISO 17025) - Results reported with *** are produced from a subcontract laboratory (result UKAS certified to MCERTS) - Results reported with † are produced by the OEMA laboratory (result not UKAS accredited to ISO 17025) - Results reported with †† are produced by the OEMA laboratory (result UKAS accredited to ISO 17025) - Measurement uncertainty data are available upon request - Where statements of conformity have been provided, the associated decision rules are based on simple acceptance unless otherwise indicated in a standard on which the result the test is based. Refer to report comments section where alternative decision rules have been requested - Any sample classification is limited to the scope of testing performed and may not include all parameters to provide an overall classification
Deviations
Where samples are found to be deviating, the following deviation codes have been applied to the affected test results: - DC1. Sample received does not meet minimum volume or mass requirements for all tests to be conducted - DC2. Sample received in incorrect container, please refer to sampling requirements - DC3. Sample integrity compromised during transit to the laboratory - DC4. Sample received outside of holding time for the sample type and test required - DC5. Sample tested outside of holding time for the sample type and test required - DC6. Temperature of sample at sample receipt falls outside of acceptance criteria - DC7. The time or date of sampling has not been provided, therefore it is not known if the time between sampling and analysis has exceeded the holding time. - DC8. Sample supplied with excessive headspace - DC9. Samples have been analysed in accordance with a deviation from the laboratory test method, please refer to comments section for further details Deviating samples may jeopardise the validity of the reported test result. This is interpreted by OEMA as not wholly representative of the result of the sample at the source and time it was sampled.
Sample condition terminology;
- AD. Air Dried D. Dried (to specific temperature) - AR. As Received

Date of Report: 09/07/2023

OCLA 5811 – C0642

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

Landfill Waste Acceptance Criteria#					
Date Sampled:	19/06/2023	Report No:	OCLA-5811		
Date Received:	19/06/2023	Sampled By:	Client		
Date Analysed:	30/06/2023	Sample ID:	C0642		
Time Received:	16:07	Customer PO:	19810 – June 23		
Time Sampled:	15:00	Customer Ref:	OCMT 5811 – 01352		
Product Matrix:	Excavated Waste	Site:	Mannings Heath Depot		
Temperature Received:	26.6 °C	Location:	Mannings Heath		

Analyte	Method	Sample Results		Landfill Acceptance Criteria for Inert Waste (INERT)	Stable non-reactive hazardous waste in non-hazardous (SNR)	Hazardous waste landfill (HWL)
Total Organic Carbon (%)*	6.07	1.20%	INERT	3%	5%	6%
Loss on ignition (%)***	5.01, 6.09	2.0%	-	-	-	10%
BTEX (mg/kg)***	6.11	< 0.01%	INERT	6	-	-
PCBs (7 congeners - mg/kg)*	6.06	< 0.03%	INERT	1	-	-
TPH Total WAC (mg/kg)*	6.04	32	INERT	500	-	-
Total (of 17) PAHs (mg/kg)*	6.05	11.0	INERT	100	-	-
pH (pH units)***	6.03	8.0	-	-	< 6	-
Moisture Content (%)*	6.01	93%	-	-	-	-

Results in mg/kg				Limit values for compliance leaching test using BS EN 12457-2 at L/S 10l/kg		
Arsenic*	5.04, 6.08	0.06	INERT	0.5	2	25
Barium*	5.04, 6.08	0.23	INERT	20	100	300
Cadmium*	5.04, 6.08	< 0.01	INERT	0.04	1	5
Chromium*	5.04, 6.08	< 0.05	INERT	0.5	10	70
Copper*	5.04, 6.08	0.07	INERT	2	50	100
Mercury*	5.04, 6.08	< 0.01	INERT	0.01	0.2	2
Molybdenum*	5.04, 6.08	< 0.05	INERT	0.5	10	30
Nickel*	5.04, 6.08	0.06	INERT	0.4	10	40
Lead*	5.04, 6.08	< 0.05	INERT	0.5	10	50
Antimony*	5.04, 6.08	< 0.05	INERT	0.06	0.7	5
Selenium*	5.04, 6.08	< 0.05	INERT	0.1	0.5	7
Zinc*	5.04, 6.08	0.54	INERT	4	50	200
Chloride*	5.04, 6.02	< 50	INERT	800	15000	25000
Fluoride*	5.04, 6.02	< 10	INERT	10	150	500
Sulphate*	5.04, 6.02	482.00	INERT	1000	20000	50000
Total dissolved solids*	5.04, 6.12	1740.00	INERT	4000	60000	100000
Phenol index*	5.04, 6.19	< 0.10	INERT	1	-	-
Dissolved organic carbon*	5.04, 6.07	175.00	INERT	500	800	1000

Establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC

Notes: Determination of Landfill Category (Inert/SNR/HWL) may also be dependent upon Waste Classification (i.e. WM3 Waste Code). Oema highlight values BELOW "INERT" levels for GUIDANCE ONLY. Results should also be assessed in conjunction with a WM3 Waste Code depending upon proposed disposal option.

Date of Report: 09/07/2023

OCLA 5811 - C0642

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

WM3 SUITE

Date Sampled:	19/06/2023	Report No:	OCLA 5811
Date Received:	19/06/2023	Sampled By:	Client
Date Analysed:	30/06/2023	Sample ID:	C0642
Time Received:	16:07	Customer PO:	19810 - June 23
Time Sampled:	15:00	Customer Ref:	OCMT 5811 - 01352
Product Matrix:	Excavated Waste	Site:	Mannings Heath Depot
Temperature Received (°C):	26.6 °C	Location:	Mannings Heath

Metals

Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Antimony*	300	0.5	2.2	mg/kg	-
Arsenic***	300	0.5	8.4	mg/kg	-
Barium**	300	1	110	mg/kg	-
Cadmium***	300	0.2	0.4	mg/kg	-
Chromium***	300	1	11.8	mg/kg	-
Cobalt***	300	0.2	3.1	mg/kg	-
Copper***	300	4	38.2	mg/kg	-
Lead***	300	1	166	mg/kg	-
Mercury***	300	0.1	0.4	mg/kg	-
Molybdenum***	300	1	<1.0	mg/kg	-
Nickel***	300	1	8.9	mg/kg	-
Selenium***	300	1	<1.0	mg/kg	-
Thallium**	300	0.2	<0.2	mg/kg	-
Vanadium***	300	0.5	16	mg/kg	-
Zinc***	300	4.5	157	mg/kg	-

Anions

Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Water Soluble Sulphate***	172	40	305	mg/kg	-

Inorganics

Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Hexavalent Chromium*	113	0.8	<0.8	mg/kg	-
Total Cyanide***	204	1	<1.0	mg/kg	-
Water Soluble Boron*	202	0.5	0.7	mg/kg	-

Date of Report: 09/07/2023

OCLA 5811 – C0642

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

Miscellaneous					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Loss On Ignition***	129	0.01	1.96	%	-
Acid Neutralisation Capacity*	NEN 737	0.1	< 0.1	mol/kg	-
pH***	113	0.10	8.1	pH Units	-
Total Carbon*	210	0.01	1.1	%	-
Total Inorganic Carbon*	210	0.01	0.2	%	-
Total Organic Carbon*	210	0.01	1.2	%	-

BTEX					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Benzene***	181A	10	< 10.0	µg/kg	-
Toluene***	181A	10	< 10.0	µg/kg	-
Ethylbenzene***	181A	10	< 10.0	µg/kg	-
Xylenes***	181A	10	< 10.0	µg/kg	-
MTBE*	181A	10	< 10.0	µg/kg	-
Total BTEX*	181A	0.01	< 0.01	mg/kg	-

Polyaromatic Hydrocarbon					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Naphthalene*	113	0.1	< 0.1	mg/kg	-
Acenaphthylene*	113	0.1	< 0.1	mg/kg	-
Acenaphthene*	113	0.1	< 0.1	mg/kg	-
Fluorene*	113	0.1	< 0.1	mg/kg	-
Phenanthrene*	113	0.1	0.2	mg/kg	-
Anthracene*	113	0.1	0.1	mg/kg	-
Fluoranthene*	113	0.1	1.3	mg/kg	-
Pyrene*	113	0.1	1.1	mg/kg	-
Benzo(a)anthracene*	113	0.1	0.7	mg/kg	-
Chrysene*	113	0.1	1	mg/kg	-
Benzo(b)fluoranthene*	113	0.1	1.2	mg/kg	-
Benzo(k)fluoranthene*	113	0.1	1.3	mg/kg	-
Benzo(a)pyrene*	113	0.1	1.3	mg/kg	-
Indeno(1,2,3-cd)pyrene*	113	0.1	1.1	mg/kg	-
Dibenzo(a,h)anthracene*	113	0.1	0.2	mg/kg	-
Benzo[g,h,i]perylene*	113	0.1	1.00	mg/kg	-
Total PAH(16)*	113	0.4	10.5	mg/kg	-

Date of Report: 09/07/2023

OCLA 5811 - C0642

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)



TPH					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Total (C ₅ -C ₄₀) Aliphatic*	181	1	52.2	mg/kg	-
Total (C ₅ -C ₄₀) Aromatic*	181	1	57.3	mg/kg	-
TPH aromatic C ₅ -C ₇ *	181	0.01	< 0.01	mg/kg	-
TPH aromatic C ₇ -C ₈ *	181	1	< 0.01	mg/kg	-
TPH aromatic C ₈ -C ₁₀ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₀ -C ₁₂ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₂ -C ₁₆ *	181	1	1.0	mg/kg	-
TPH aromatic C ₁₆ - C ₂₁ *	181	1	3.6	mg/kg	-
TPH aromatic C ₂₁ -C ₃₅ *	181	1	35.8	mg/kg	-
TPH aromatic C ₃₅ -C ₄₀ *	181	1	16.8	mg/kg	-
TPH aliphatic C ₅ -C ₆ *	181	0.01	< 0.01	mg/kg	-
TPH aliphatic C ₆ -C ₈ *	181	0.01	< 0.01	mg/kg	-
TPH aliphatic C ₈ -C ₁₀ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₀ -C ₁₂ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₂ -C ₁₆ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₆ - C ₂₁ *	181	1	3.6	mg/kg	-
TPH aliphatic C ₂₁ -C ₃₅ *	181	1	34.6	mg/kg	-
TPH aliphatic C ₃₅ -C ₄₀ *	181	1	14.0	mg/kg	-

PCB (ICES 7 Congeners)					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
PCB 28*	120	0.01	< 0.01	mg/kg	-
PCB 52*	120	0.01	< 0.01	mg/kg	-
PCB 101*	120	0.01	< 0.01	mg/kg	-
PCB 118*	120	0.01	< 0.01	mg/kg	-
PCB 153*	120	0.01	< 0.01	mg/kg	-
PCB 138*	120	0.01	< 0.01	mg/kg	-
PCB 180*	120	0.01	< 0.01	mg/kg	-
Total PCBs (7 Congeners)*	120	0.07	< 0.07	mg/kg	-

Phenols					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Phenols***	121	1	< 1	mg/kg	-
M,P-Cresol*	121	1	< 1	mg/kg	-
O-Cresol*	121	1	< 1	mg/kg	-
3,4-Dimethylphenol	121	1	< 1	mg/kg	-
2,3-Dimethylphenol***	121	1	< 1	mg/kg	-
2,3,5-Trimethylphenol***	121	1	< 1	mg/kg	-
Total Monohydric Phenols*	121	5	< 5	mg/kg	-

OEMA, Unit 4 Trinity Court, Brunel Road, Totton, Southampton, SO40 3WX

T 02380 707 686 E hello@oema.co.uk oema.co.uk

OEMA is the trading name of OEMAchem Ltd

Version 6 1/04/23

Date of Report: 09/07/2023

OCLA 5811 – C0642

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

Waste Classification Report

Date Sampled:	19/06/2023	Report No:	OCLA-5811
Date Received:	19/06/2023	Sampled By:	Client
Date Analysed:	30/06/2023	Sample ID:	C0642
Time Received:	16:07	Customer PO:	19810 – June 23
Time Sampled:	15:00	Customer Ref:	OCMT 5811 – 01352
Product Matrix:	Excavated Waste	Site:	Mannings Heath Depot
Temperature Received:	26.6 °C	Location:	Mannings Heath

Waste Classification Report

Sample ID: * CO642

Sample Details: * Excavated Waste

Chapter: * 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)

Entry: * 1705 04 (Soil and stones other than those mentioned in 1705 03)

Classification of sample: *



Non Hazardous Waste
Classified as **17 05 04**
in the List of Waste

Further Comments:

This report has been produced solely based on the results provided and further testing is required to confirm the classification. This has been produced by a partner laboratory to the best knowledge and available guidance at the time of writing this report. A desk study of the site, more knowledge of the source of the material and operations is required to confirm this classification with a lines of evidence approach.

D.2 Non-Hazardous inert waste (17 05 04) WAC results

Certificate of test
Internal Laboratory Transfer Header



Laboratory Reference: OCMT-5996-1534	Certificate Reference: OCMT-5996-1534-IntTran
Client: J. Suttle Transport Limited	Issue Number: 1
Clients Address: Swanworth Quarry, Worth Matravers, Swanage, BH19 3LE	
Site: Mannings Heath Depot	Client Order Number: 20097 (July 2023)

Sample Reference: Excavated Waste (17 05 04)	Sample Certificate: No - None Submitted
Source: Stockpile	Date Sampled: 17/07/2023
Location of Sample on Site: Mannings Heath	Sampled by: SC (Client)
Material Description: Excavated Waste	Date Received: 17/07/2023
Clients Indicated Specification: Waste Code 17 05 04	

Analysis undertaken:

Test	Laboratory
Waste Classification Suite (Full WAC 10:1, WM3 Solids Suite & Haz Waste Report HWOL)	Oemachem, Unit 4 Trinity Court
See attached interlaboratory certificate(s) of test OCLA-5996-C0775	

Remarks: This sample was transferred from Oema, Unit 1, Building 267A, Commercial Road, Christchurch, BH23 6NW


Approved By: Daniel Parris - Technical Manager
Date Approved: **07/08/2023**
Sheet Ref: **IntTran-Rev1-Oct22**

Refer to the remarks section for any additions, deviations or exclusions from the stated test & preparation methods.
The results within this test report are representative of the samples submitted at the time of analysis.
This test report should not be reproduced, except in full, without the express permission of the issuing laboratory.
Bulk samples are retained for a period of 28 days from receipt

Oemachem Limited
Unit 4, Trinity Court
Brunel Road
Totton
Southampton
SO40 3WX

Final Laboratory Report

OCLA/OCMT 5996

Mannings Heath Depot

20097 (July 2023)

Customer: J. Suttles Transport Limited

Customer Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Report Date: 01/08/2023

Sample Received: 17/07/2023

PO number: 20097 (July 2023)

Issue Number: 1 (Original)

Report Authorised By: Amanda Jensen

Role: Laboratory Manager



Report Authorised Date: 01/08/2023

T 02380 707686 E hello@oema.co.uk
OEMA, Unit 4 Trinity Court, Brunel Road,
Totton, Southampton, SO40 3WX • oema.co.uk

OEMA is the trading name of OEMA chem Ltd
F7-421 Version 6 18/04/23

Date of Report: 01/08/2023

OCLA 5996 – C0775

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)



Report Notes

Comments
- Results relate to the items tested - Results apply to the sample as received - This report shall not be reproduced except in full without approval of the laboratory - The laboratory is not responsible for information provided by a customer where the data can affect the validity of results - Results reported with * are produced from a subcontract laboratory (result not UKAS accredited to ISO 17025) - Results reported with ** are produced from a subcontract laboratory (result UKAS accredited to ISO 17025) - Results reported with *** are produced from a subcontract laboratory (result UKAS certified to MCERTS) - Results reported with † are produced by the OEMA laboratory (result not UKAS accredited to ISO 17025) - Results reported with †† are produced by the OEMA laboratory (result UKAS accredited to ISO 17025) - Measurement uncertainty data are available upon request - Where statements of conformity have been provided, the associated decision rules are based on simple acceptance unless otherwise indicated in a standard on which the result the test is based. Refer to report comments section where alternative decision rules have been requested - Any sample classification is limited to the scope of testing performed and may not include all parameters to provide an overall classification
Deviations
Where samples are found to be deviating, the following deviation codes have been applied to the affected test results: - DC1. Sample received does not meet minimum volume or mass requirements for all tests to be conducted - DC2. Sample received in incorrect container, please refer to sampling requirements - DC3. Sample integrity compromised during transit to the laboratory - DC4. Sample received outside of holding time for the sample type and test required - DC5. Sample tested outside of holding time for the sample type and test required - DC6. Temperature of sample at sample receipt falls outside of acceptance criteria - DC7. The time or date of sampling has not been provided, therefore it is not known if the time between sampling and analysis has exceeded the holding time. - DC8. Sample supplied with excessive headspace - DC9. Samples have been analysed in accordance with a deviation from the laboratory test method, please refer to comments section for further details Deviating samples may jeopardise the validity of the reported test result. This is interpreted by OEMA as not wholly representative of the result of the sample at the source and time it was sampled.
Sample condition terminology;
- AD. Air Dried D. Dried (to specific temperature) - AR. As Received

Date of Report: 01/08/2023

OCLA 5996 – C0775

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)



Landfill Waste Acceptance Criteria#						
Date Sampled:	17/07/2023	Report No:	OCLA 5996			
Date Received:	17/07/2023	Sampled By:	Client			
Date Analysed:	28/07/2023	Sample ID:	C0775			
Time Received:	15:50	Customer PO:	20097 (July 2023)			
Time Sampled:	15:00	Customer Ref:	OCMT 5996 - 01534			
Product Matrix:	Excavated Waste	Site:	Mannings Heath Depot			
Temperature Received:	18.2 °C	Location:	Mannings Heath Depot			

Analyte	Method	Sample Results		Landfill Acceptance Criteria for Inert Waste (INERT)	Stable non- reactive hazardous waste in non- hazardous (SNR)	Hazardous waste landfill (HWL)
Total Organic Carbon (%)*	210	0.51%	INERT	3%	5%	6%
Loss on ignition (%)*	129	1.76%	-	-	-	10%
BTEX (mg/kg)*	181	< 0.01%	INERT	6	-	-
PCBs (7 congeners - mg/kg)*	120	< 0.03%	INERT	1	-	-
TPH Total WAC (mg/kg)*	117	31	INERT	500	-	-
Total (of 17) PAHs (mg/kg)*	133	12.0	INERT	100	-	-
pH (pH units)***	113	8.3	-	-	< 6	-
Moisture Content (%)*	-	6%	-	-	-	-

Results in mg/kg				Limit values for compliance leaching test using BS EN 12457-2 at L/S 10l/kg		
Arsenic**	301	< 0.05	INERT	0.5	2	25
Barium**	301	0.10	INERT	20	100	300
Cadmium**	301	< 0.01	INERT	0.04	1	5
Chromium**	301	< 0.05	INERT	0.5	10	70
Copper**	301	< 0.05	INERT	2	50	100
Mercury**	301	< 0.01	INERT	0.01	0.2	2
Molybdenum*	301	< 0.05	INERT	0.5	10	30
Nickel**	301	< 0.05	INERT	0.4	10	40
Lead**	301	< 0.05	INERT	0.5	10	50
Antimony*	301	< 0.05	INERT	0.06	0.7	5
Selenium*	301	< 0.05	INERT	0.1	0.5	7
Zinc**	301	1.50	INERT	4	50	200
Chloride*	270	< 50	INERT	800	15000	25000
Fluoride*	270	< 10	INERT	10	150	500
Sulphate*	270	506	INERT	1000	20000	50000
Total dissolved solids*	144	1330	INERT	4000	60000	100000
Phenol index*	121	< 0.10	INERT	1	-	-
Dissolved organic carbon*	102	114	INERT	500	800	1000

Establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC

Notes : Determination of Landfill Category (Inert/SNR/HWL) may also be dependent upon Waste Classification (i.e. WM3 Waste Code). Oema highlight values BELOW "INERT" levels for GUIDANCE ONLY. Results should also be assessed in conjunction with a WM3 Waste Code depending upon proposed disposal option.

OEMA, Unit 4 Trinity Court, Brunel Road, Totton, Southampton, SO40 3WX

T 02380 707 686 E hello@oema.co.uk oema.co.uk

OEMA is the trading name of OEMAchem Ltd

Version 61/04/23

Date of Report: 01/08/2023

OCLA 5996 – C0775

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)



WM3 SUITE					
Date Sampled:	17/07/2023	Report No:	OCLA 5996		
Date Received:	17/07/2023	Sampled By:	Client		
Date Analysed:	28/07/2023	Sample ID:	C0775		
Time Received:	15:50	Customer PO:	20097 (July 2023)		
Time Sampled:	15:00	Customer Ref:	OCMT 5996 - 01534		
Product Matrix:	Excavated Waste	Site:	Mannings Heath Depot		
Temperature Received (°C):	18.2 °C	Location:	Mannings Heath		

Metals					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Antimony*	300	0.5	0.7	mg/kg	-
Arsenic***	300	0.5	3.5	mg/kg	-
Barium**	300	1	60.7	mg/kg	-
Cadmium***	300	0.2	< 0.2	mg/kg	-
Chromium***	300	1	5.1	mg/kg	-
Cobalt***	300	0.2	2.1	mg/kg	-
Copper***	300	4	11.1	mg/kg	-
Lead***	300	1	66.6	mg/kg	-
Mercury***	300	0.1	< 0.1	mg/kg	-
Molybdenum***	300	1	< 1.0	mg/kg	-
Nickel***	300	1	3.2	mg/kg	-
Selenium***	300	1	< 1.0	mg/kg	-
Thallium**	300	0.2	< 0.2	mg/kg	-
Vanadium***	300	0.5	7.9	mg/kg	-
Zinc***	300	4.5	43.6	mg/kg	-

Anions					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Water Soluble Sulphate***	172	40	516	mg/kg	-

Inorganics					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Hexavalent Chromium*	113	0.8	< 0.8	mg/kg	-
Total Cyanide***	204	1	< 1.0	mg/kg	-
Water Soluble Boron*	202	0.5	1.0	mg/kg	-

Miscellaneous					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Loss On Ignition***	129	0.01	1.76	%	-
Acid Neutralisation Capacity*	NEN 737	0.1	< 0.1	mol/kg	-
pH***	113	0.10	8.9	pH Units	-
Total Carbon*	210	0.01	1.4	%	-
Total Inorganic Carbon*	210	0.01	0.9	%	-
Total Organic Carbon*	210	0.01	0.51	%	-

OEMA, Unit 4 Trinity Court, Brunel Road, Totton, Southampton, SO40 3WX

T 02380 707 686 E hello@oema.co.uk oema.co.uk

OEMA is the trading name of OEMAchem Ltd

Version 61/04/23

Date of Report: 01/08/2023

OCLA 5996 – C0775

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)



BTEX					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Benzene***	181A	10	< 10.0	µg/kg	-
Toluene***	181A	10	< 10.0	µg/kg	-
Ethylbenzene***	181A	10	< 10.0	µg/kg	-
Xylenes***	181A	10	< 10.0	µg/kg	-
MTBE*	181A	10	< 10.0	µg/kg	-
Total BTEX*	181A	0.01	< 0.01	mg/kg	-

Polyaromatic Hydrocarbon					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Naphthalene*	113	0.1	< 0.1	mg/kg	-
Acenaphthylene*	113	0.1	0.2	mg/kg	-
Acenaphthene*	113	0.1	< 0.1	mg/kg	-
Fluorene*	113	0.1	< 0.1	mg/kg	-
Phenanthrene*	113	0.1	0.5	mg/kg	-
Anthracene*	113	0.1	0.2	mg/kg	-
Fluoranthene*	113	0.1	1.4	mg/kg	-
Pyrene*	113	0.1	1.3	mg/kg	-
Benzo(a)anthracene*	113	0.1	0.6	mg/kg	-
Chrysene*	113	0.1	0.9	mg/kg	-
Benzo(b)fluoranthene*	113	0.1	1.2	mg/kg	-
Benzo(k)fluoranthene*	113	0.1	1.6	mg/kg	-
Benzo(a)pyrene*	113	0.1	1.5	mg/kg	-
Indeno(1,2,3-cd)pyrene*	113	0.1	1.2	mg/kg	-
Dibenzo(a,h)anthracene*	113	0.1	0.2	mg/kg	-
Benzo[g,h,i]perylene*	113	0.1	1.10	mg/kg	-
Total PAH(16)*	113	0.4	12.0	mg/kg	-

TPH					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Total (C ₅ -C ₄₀) Aliphatic*	181	1	78.8	mg/kg	-
Total (C ₅ -C ₄₀) Aromatic*	181	1	210	mg/kg	-
TPH aromatic C ₅ -C ₇ *	181	0.01	< 0.01	mg/kg	-
TPH aromatic C ₇ -C ₈ *	181	1	< 0.01	mg/kg	-
TPH aromatic C ₈ -C ₁₀ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₀ -C ₁₂ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₂ -C ₁₆ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₆ - C ₂₁ *	181	1	8	mg/kg	-
TPH aromatic C ₂₁ -C ₃₅ *	181	1	116	mg/kg	-
TPH aromatic C ₃₅ -C ₄₀ *	181	1	86.8	mg/kg	-
TPH aliphatic C ₅ -C ₆ *	181	0.01	< 0.01	mg/kg	-
TPH aliphatic C ₆ -C ₈ *	181	0.01	< 0.01	mg/kg	-
TPH aliphatic C ₈ -C ₁₀ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₀ -C ₁₂ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₂ -C ₁₆ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₆ - C ₂₁ *	181	1	2.3	mg/kg	-
TPH aliphatic C ₂₁ -C ₃₅ *	181	1	68.5	mg/kg	-
TPH aliphatic C ₃₅ -C ₄₀ *	181	1	7.9	mg/kg	-

OEMA, Unit 4 Trinity Court, Brunel Road, Totton, Southampton, SO40 3WX

T 02380 707 686 E hello@oema.co.uk oema.co.uk

OEMA is the trading name of OEMAchem Ltd

Version 61/04/23

Date of Report: 01/08/2023

OCLA 5996 – C0775

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)



PCB (ICES 7 Congeners)					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
PCB 28*	120	0.01	< 0.01	mg/kg	-
PCB 52*	120	0.01	< 0.01	mg/kg	-
PCB 101*	120	0.01	< 0.01	mg/kg	-
PCB 118*	120	0.01	< 0.01	mg/kg	-
PCB 153*	120	0.01	< 0.01	mg/kg	-
PCB 138*	120	0.01	< 0.01	mg/kg	-
PCB 180*	120	0.01	< 0.01	mg/kg	-
Total PCBs (7 Congeners)*	120	0.07	< 0.07	mg/kg	-

Phenols					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Phenols***	121	1	< 1	mg/kg	-
M,P-Cresol*	121	1	< 1	mg/kg	-
O-Cresol*	121	1	< 1	mg/kg	-
3,4-Dimethylphenol	121	1	< 1	mg/kg	-
2,3-Dimethylphenol***	121	1	< 1	mg/kg	-
2,3,5-Trimethylphenol***	121	1	< 1	mg/kg	-
Total Monohydric Phenols*	121	5	< 5	mg/kg	-

Date of Report: 01/08/2023
 OCLA 5996 – C0775
 Client: J. Suttles Transport Limited
 Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE
 Issue Number: 1 (Original)



Waste Classification Report			
Date Sampled:	17/07/2023	Report No:	OCLA 5996
Date Received:	17/07/2023	Sampled By:	Client
Date Analysed:	01/08/2023	Sample ID:	C0775
Time Received:	15:50	Customer PO:	20097 (July 2023)
Time Sampled:	15:00	Customer Ref:	OCMT 5996 - 01534
Product Matrix:	Excavated Waste	Site:	Mannings Heath Depot
Temperature Received:	18.2 °C	Location:	Mannings Heath

Waste Classification Report	
Sample ID: *	C0775
Sample Details: *	Excavated Waste
Chapter: *	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Entry: *	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
Classification of sample: *	Non Hazardous Waste Classified as 17 05 04 in the List of Waste

Further Comments:

This report has been produced solely based on the results provided and further testing is required to confirm the classification. This has been produced by a partner laboratory to the best knowledge and available guidance at the time of writing this report. A desk study of the site, more knowledge of the source of the material and operations is required to confirm this classification with a lines of evidence approach.

End of Report

D.3 Screening fines (19 12 12) WAC results

Certificate of test
Internal Laboratory Transfer Header



Laboratory Reference: **OCMT-6177-1682**
Client: **J. Suttle Transport Limited**
Clients Address: **Swanworth Quarry, Worth Matravers, Swanage, BH19 3LE**
Site: **Mannings Heath Depot**

Certificate Reference: **OCMT-6177-1682-IntTran**
Issue Number: **1**
Client Order Number: **20331**

Sample Reference: **Screened Fines 19 12 12**
Source: **Stockpile**
Location of Sample on Site: **Mannings Heath**
Material Description: **Screened Fines 19 12 12**
Clients Indicated Specification: **Waste Code 19 12 12**

Sample Certificate: **No - None Submitted**
Date Sampled: **18/08/2023**
Sampled by: **SC (Client)**
Date Received: **18/08/2023**

Analysis undertaken:

Test	Laboratory
Waste Classification Suite (Full WAC 10:1, WM3 Solids Suite & Haz Waste Report HWOL)	Oemachem, Unit 4 Trinity Court
See attached interlaboratory certificate(s) of test OCLA-6177-C0880	

Remarks: **This sample was transferred from Oema, Unit 1, Building 267A, Commercial Road, Christchurch, BH23 6NW**



Approved By: Martin Slater - Material Technologist
Date Approved: **04/09/2023**
Sheet Ref: **IntTran-Rev1-Oct22**

Refer to the remarks section for any additions, deviations or exclusions from the stated test & preparation methods.
The results within this test report are representative of the samples submitted at the time of analysis.
This test report should not be reproduced, except in full, without the express permission of the issuing laboratory.
Bulk samples are retained for a period of 28 days from receipt

Oemachem Limited
Unit 4, Trinity Court
Brunel Road
Totton
Southampton
SO40 3WX

Final Laboratory Report

OCLA/OCMT 6177 – C0880/01682

Mannings Heath Depot

20331

Customer: J. Suttles Transport Limited

Customer Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Report Date: 04/09/2023

Sample Received: 18/08/2023

PO number: 20331

Issue Number: 1 (Original)

Report Authorised By: Amanda Jensen

Role: Laboratory Manager



Report Authorised Date: 04/09/2023

T 02380 707686 E hello@oema.co.uk
OEMA, Unit 4 Trinity Court, Brunel Road,
Totton, Southampton, SO40 3WX • oema.co.uk

OEMA is the trading name of OEMA chem Ltd
Version 7 01/09/23
Refer to comments and deviation references on final page

Date of Report: 04/09/2023
 OCLA 6177 – C0880
 Client: J. Suttles Transport Limited
 Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE
 Issue Number: 1 (Original)

Landfill Waste Acceptance Criteria#					
Date Sampled:	18/08/2023	Report No:	OCLA-6177		
Date Received:	18/08/2023	Sampled By:	Client		
Date Analysed:	01/09/2023	Sample ID:	C0880		
Time Received:	15:45	Customer PO:	20331		
Time Sampled:	14:00	Customer Ref:	OCMT 6177 - 01682		
Product Matrix:	Screened Fines 19 12 12	Site:	Mannings Heath Depot		
Temperature Received:	24.7 °C	Location:	Mannings Heath		

Analyte	Method	Sample Results		Landfill Acceptance Criteria for Inert Waste (INERT)	Stable non-reactive hazardous waste in non-hazardous (SNR)	Hazardous waste landfill (HWL)
Total Organic Carbon (%)*	210	0.64%	INERT	3%	5%	6%
Loss on ignition (%)*	129	1.20%	-	-	-	10%
BTEX (mg/kg)*	181	< 0.01%	INERT	6	-	-
PCBs (7 congeners - mg/kg)*	120	< 0.03%	INERT	1	-	-
TPH Total WAC (mg/kg)*	117	46	INERT	500	-	-
Total (of 17) PAHs (mg/kg)*	133	13.0	INERT	100	-	-
pH (pH units)***	113	8.0	-	-	< 6	-
Moisture Content (%)*	-	6%	-	-	-	-

Results in mg/kg				Limit values for compliance leaching test using BS EN 12457-2 at L/S 10l/kg		
Arsenic**	301	< 0.05	INERT	0.5	2	25
Barium**	301	0.13	INERT	20	100	300
Cadmium**	301	< 0.01	INERT	0.04	1	5
Chromium**	301	< 0.05	INERT	0.5	10	70
Copper**	301	< 0.05	INERT	2	50	100
Mercury**	301	< 0.01	INERT	0.01	0.2	2
Molybdenum*	301	< 0.05	INERT	0.5	10	30
Nickel**	301	< 0.05	INERT	0.4	10	40
Lead**	301	< 0.05	INERT	0.5	10	50
Antimony*	301	< 0.05	INERT	0.06	0.7	5
Selenium*	301	< 0.05	INERT	0.1	0.5	7
Zinc**	301	< 0.05	INERT	4	50	200
Chloride*	270	< 50	INERT	800	15000	25000
Fluoride*	270	< 10	INERT	10	150	500
Sulphate*	270	738	INERT	1000	20000	50000
Total dissolved solids*	144	1810	INERT	4000	60000	100000
Phenol index*	121	< 0.10	INERT	1	-	-
Dissolved organic carbon*	102	176	INERT	500	800	1000

Establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC

Notes : Determination of Landfill Category (Inert/SNR/HWL) may also be dependent upon Waste Classification (i.e. WM3 Waste Code). Oema highlight values BELOW 'INERT' levels for GUIDANCE ONLY. Results should also be assessed in conjunction with a WM3 Waste Code depending upon proposed disposal option.

Date of Report: 04/09/2023

OCLA 6177 – C0880

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

WM3 SUITE					
Date Sampled:	18/08/2023	Report No:	OCLA 6177		
Date Received:	18/08/2023	Sampled By:	Client		
Date Analysed:	01/09/2023	Sample ID:	C0880		
Time Received:	15:45	Customer PO:	20331		
Time Sampled:	14:00	Customer Ref:	OCMT 6177 - 01682		
Product Matrix:	Screened Fines 19 12 12	Site:	Mannings Heath Depot		
Temperature Received (°C):	24.7 °C	Location:	Mannings Heath		

Metals					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Antimony*	300	0.5	2.1	mg/kg	-
Arsenic***	300	0.5	9.6	mg/kg	-
Barium**	300	1	146	mg/kg	-
Cadmium***	300	0.2	< 0.2	mg/kg	-
Chromium***	300	1	24.0	mg/kg	-
Cobalt***	300	0.2	4.5	mg/kg	-
Copper***	300	4	20.9	mg/kg	-
Lead***	300	1	97.3	mg/kg	-
Mercury***	300	0.1	0.1	mg/kg	-
Molybdenum***	300	1	< 1.0	mg/kg	-
Nickel***	300	1	11.3	mg/kg	-
Selenium***	300	1	< 1.0	mg/kg	-
Thallium**	300	0.2	< 0.2	mg/kg	-
Vanadium***	300	0.5	20.2	mg/kg	-
Zinc***	300	4.5	85.1	mg/kg	-

Anions					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Water Soluble Sulphate***	172	40	524	mg/kg	-

Inorganics					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Hexavalent Chromium*	113	0.8	< 0.8	mg/kg	-
Total Cyanide***	204	1	1.0	mg/kg	-
Water Soluble Boron*	202	0.5	1.0	mg/kg	-

Miscellaneous					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Loss On Ignition***	129	0.01	1.18	%	-
Acid Neutralisation Capacity*	NEN 737	0.1	< 1.0	mol/kg	-
pH***	113	0.10	9.3	pH Units	-
Total Carbon*	210	0.01	1.2	%	-
Total Inorganic Carbon*	210	0.01	0.6	%	-
Total Organic Carbon*	210	0.01	0.64	%	-

Date of Report: 04/09/2023

OCLA 6177 – C0880

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

BTEX					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Benzene***	181A	10	< 10.0	µg/kg	-
Toluene***	181A	10	< 10.0	µg/kg	-
Ethylbenzene***	181A	10	< 10.0	µg/kg	-
Xylenes***	181A	10	< 10.0	µg/kg	-
MTBE**	181A	10	< 10.0	µg/kg	-
Total BTEX*	181A	0.01	< 0.01	mg/kg	-

Polyaromatic Hydrocarbon					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Naphthalene*	113	0.1	0.2	mg/kg	-
Acenaphthylene*	113	0.1	< 1.0	mg/kg	-
Acenaphthene*	113	0.1	0.5	mg/kg	-
Fluorene*	113	0.1	0.3	mg/kg	-
Phenanthrene*	113	0.1	1.4	mg/kg	-
Anthracene*	113	0.1	0.4	mg/kg	-
Fluoranthene*	113	0.1	2.0	mg/kg	-
Pyrene*	113	0.1	1.6	mg/kg	-
Benzo(a)anthracene*	113	0.1	0.9	mg/kg	-
Chrysene*	113	0.1	1.1	mg/kg	-
Benzo(b)fluoranthene*	113	0.1	1.0	mg/kg	-
Benzo(k)fluoranthene*	113	0.1	1.1	mg/kg	-
Benzo(a)pyrene*	113	0.1	1.1	mg/kg	-
Indeno(1,2,3-cd)pyrene*	113	0.1	0.8	mg/kg	-
Dibenzo(a,h)anthracene*	113	0.1	0.2	mg/kg	-
Benzo[g,h,i]perylene*	113	0.1	0.6	mg/kg	-
Total PAH(16)*	113	0.4	13.2	mg/kg	-

TPH					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Total (C ₅ -C ₄₀) Aliphatic*	181	1	94.4	mg/kg	-
Total (C ₅ -C ₄₀) Aromatic*	181	1	138	mg/kg	-
TPH aromatic C ₅ -C ₇ *	181	0.01	< 0.01	mg/kg	-
TPH aromatic C ₇ -C ₈ *	181	1	< 0.01	mg/kg	-
TPH aromatic C ₈ -C ₁₀ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₀ -C ₁₂ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₂ -C ₁₆ *	181	1	< 1.0	mg/kg	-
TPH aromatic C ₁₆ - C ₂₁ *	181	1	4.2	mg/kg	-
TPH aromatic C ₂₁ -C ₃₅ *	181	1	83	mg/kg	-
TPH aromatic C ₃₅ -C ₄₀ *	181	1	50.4	mg/kg	-
TPH aliphatic C ₅ -C ₆ *	181	0.01	< 0.01	mg/kg	-
TPH aliphatic C ₆ -C ₈ *	181	0.01	< 0.01	mg/kg	-
TPH aliphatic C ₈ -C ₁₀ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₀ -C ₁₂ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₂ -C ₁₆ *	181	1	< 1.0	mg/kg	-
TPH aliphatic C ₁₆ - C ₂₁ *	181	1	4.6	mg/kg	-
TPH aliphatic C ₂₁ -C ₃₅ *	181	1	61.6	mg/kg	-
TPH aliphatic C ₃₅ -C ₄₀ *	181	1	28.2	mg/kg	-

OEMA, Unit 4 Trinity Court, Brunel Road, Totton, Southampton, SO40 3WX

T 02380 707 686 E hello@oema.co.uk oema.co.uk

OEMA is the trading name of OEMAchem Ltd

Version 7 01/09/23

Date of Report: 04/09/2023

OCLA 6177 – C0880

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

PCB (ICES 7 Congeners)					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
PCB 28*	120	0.01	< 0.01	mg/kg	-
PCB 52*	120	0.01	< 0.01	mg/kg	-
PCB 101*	120	0.01	< 0.01	mg/kg	-
PCB 118*	120	0.01	< 0.01	mg/kg	-
PCB 153*	120	0.01	< 0.01	mg/kg	-
PCB 138*	120	0.01	< 0.01	mg/kg	-
PCB 180*	120	0.01	< 0.01	mg/kg	-
Total PCBs (7 Congeners)*	120	0.07	< 0.07	mg/kg	-

Phenols					
Analyte	Method	Limits of Detection	Results	Units	Deviating Code
Phenols***	121	1	< 1	mg/kg	-
M,P-Cresol*	121	1	< 1	mg/kg	-
O-Cresol*	121	1	< 1	mg/kg	-
3,4-Dimethylphenol*	121	1	< 1	mg/kg	-
2,3-Dimethylphenol***	121	1	< 1	mg/kg	-
2,3,5-Trimethylphenol***	121	1	< 1	mg/kg	-
Total Monohydric Phenols*	121	5	< 5	mg/kg	-

Date of Report: 04/09/2023

OCLA 6177 – C0880

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)

Waste Classification Report

Date Sampled:	18/08/2023	Report No:	OCLA 6177
Date Received:	18/08/2023	Sampled By:	Client
Date Analysed:	04/09/2023	Sample ID:	C0880
Time Received:	15:45	Customer PO:	20331
Time Sampled:	14:00	Customer Ref:	OCMT 6177 - 01682
Product Matrix:	Screened Fines 19 12 12	Site:	Mannings Heath Depot
Temperature Received:	24.7 °C	Location:	Mannings Heath

Waste Classification Report

Sample ID: *	C0880
Sample Details: *	Screened Fines 19 12 12
Chapter: *	Code: Chapter: 19: Wastes from Waste Management Facilities, Off-site Waste Water Treatment Plants and the Preparation of Water Intended for Human Consumption and Water for Industrial Use
Entry: *	19 12 12 (other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11)
Classification of sample: *	 Non Hazardous Waste Classified as 19 12 12 in the List of Waste

Further Comments:

This report has been produced solely based on the results provided and further testing is required to confirm the classification. This has been produced by a partner laboratory to the best knowledge and available guidance at the time of writing this report. A desk study of the site, more knowledge of the source of the material and operations is required to confirm this classification with a lines of evidence approach.

Date of Report: 04/09/2023

OCLA 6177 – C0880

Client: J. Suttles Transport Limited

Client Address: Swanworth Quarry, Worth Matravers, Swanage, Dorset BH19 3LE

Issue Number: 1 (Original)



Report Notes

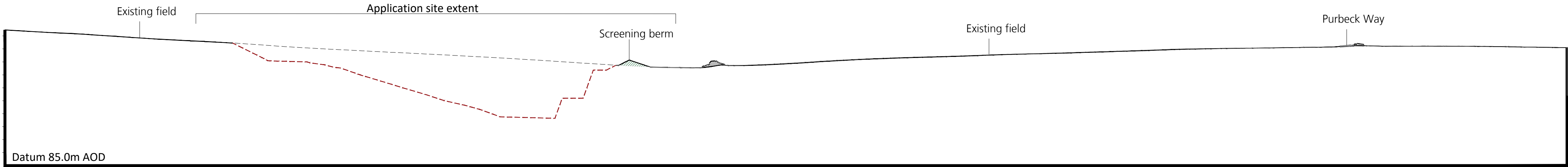
Comments
- Results relate to the items tested - Results apply to the sample as received - This report shall not be reproduced except in full without approval of the laboratory - The laboratory is not responsible for information provided by a customer where the data can affect the validity of results - Results reported with * are produced from a subcontract laboratory (result not UKAS accredited to ISO 17025) - Results reported with ** are produced from a subcontract laboratory (result UKAS accredited to ISO 17025) - Results reported with *** are produced from a subcontract laboratory (result UKAS certified to MCERTS) - Results reported with † are produced by the OEMA laboratory (result not UKAS accredited to ISO 17025) - Results reported with †† are produced by the OEMA laboratory (result UKAS accredited to ISO 17025) - Measurement uncertainty data are available upon request - Where statements of conformity have been provided, the associated decision rules are based on simple acceptance unless otherwise indicated in a standard on which the result the test is based. Refer to report comments section where alternative decision rules have been requested - Any sample classification is limited to the scope of testing performed and may not include all parameters to provide an overall classification
Deviations
Where samples are found to be deviating, the following deviation codes have been applied to the affected test results: - DC1. Sample received does not meet minimum volume or mass requirements for all tests to be conducted - DC2. Sample received in incorrect container, please refer to sampling requirements - DC3. Sample integrity compromised during transit to the laboratory - DC4. Sample received outside of holding time for the sample type and test required - DC5. Sample tested outside of holding time for the sample type and test required - DC6. Temperature of sample at sample receipt falls outside of acceptance criteria - DC7. The time or date of sampling has not been provided, therefore it is not known if the time between sampling and analysis has exceeded the holding time. - DC8. Sample supplied with excessive headspace - DC9. Samples have been analysed in accordance with a deviation from the laboratory test method, please refer to comments section for further details Deviating samples may jeopardise the validity of the reported test result. This is interpreted by OEMA as not wholly representative of the result of the sample at the source and time it was sampled.
Sample condition terminology;
- AD. Air Dried D. Dried (to specific temperature) - AR. As Received

End of Report

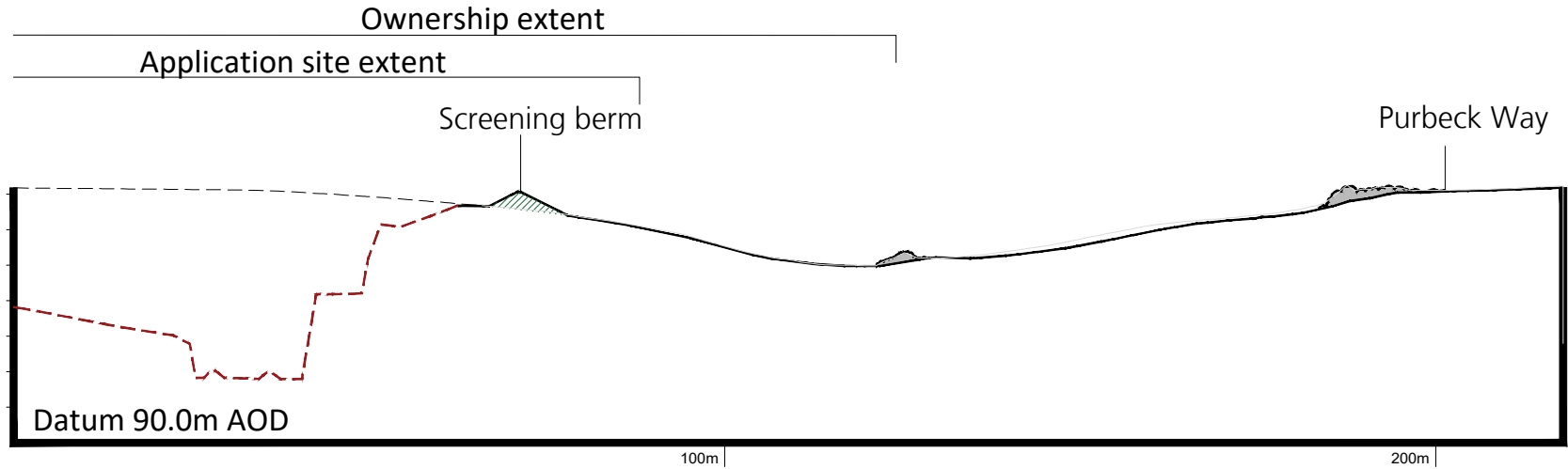
E. Cross sectional drawings

Z:\2020 Swanworth Quarry\2020-4-5 POST APP\LOCATION\2020-4-5-1 Bund cross sections.dwg

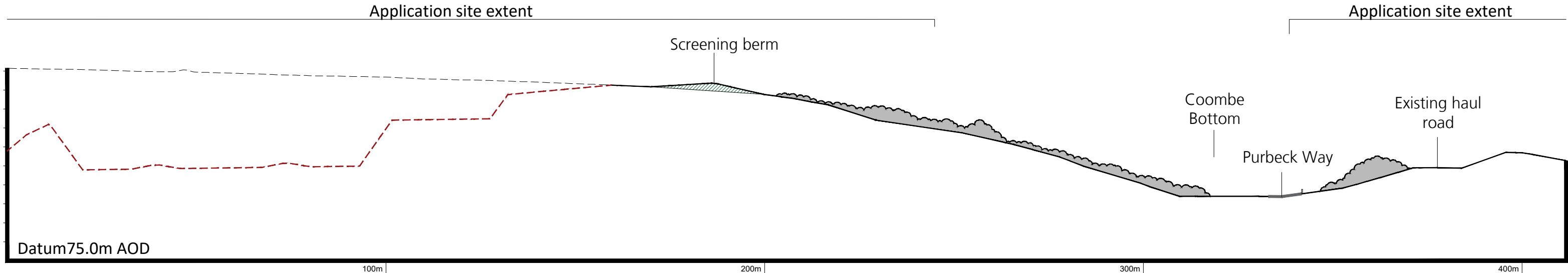
©David Jarvis Associates 2022



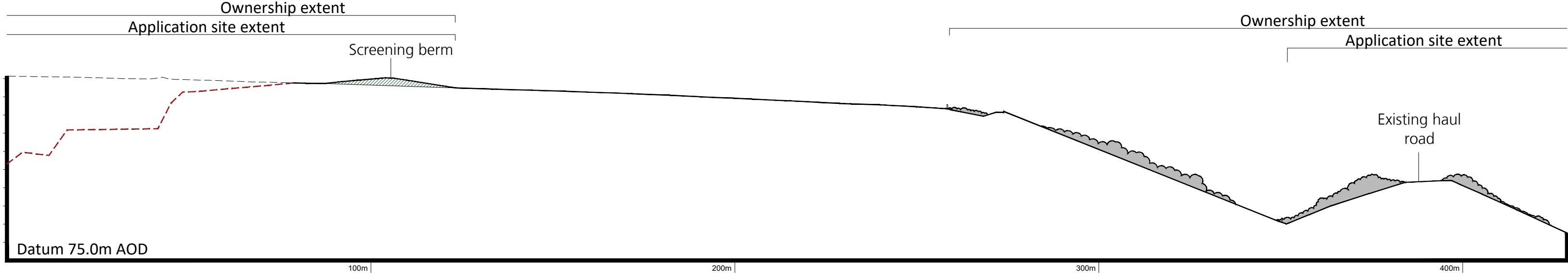
Section 1



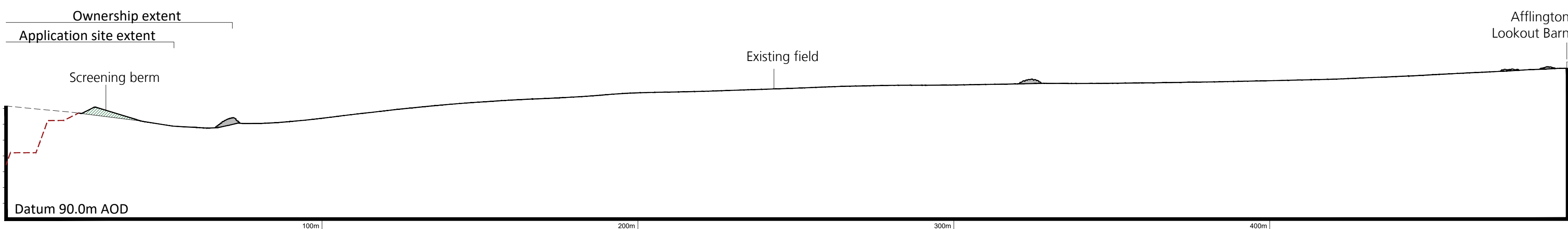
Section 2



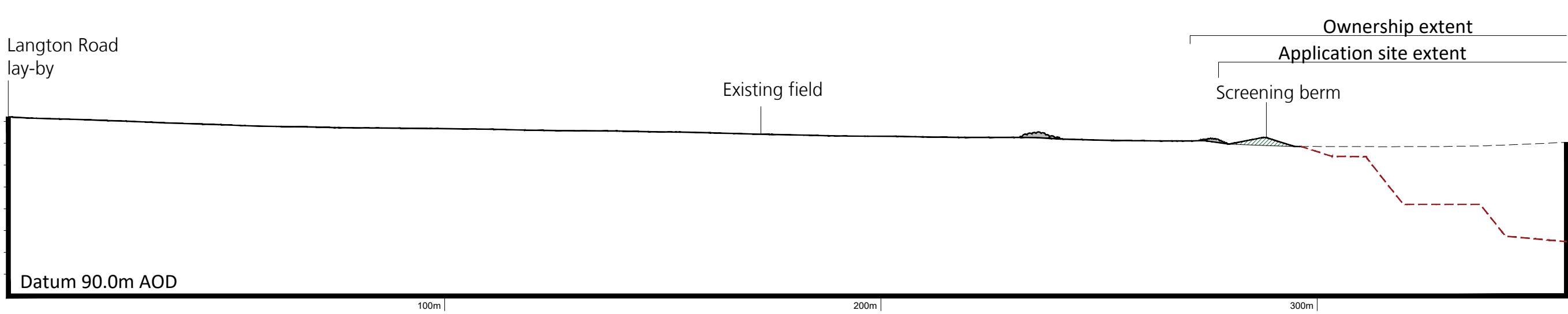
Section 4



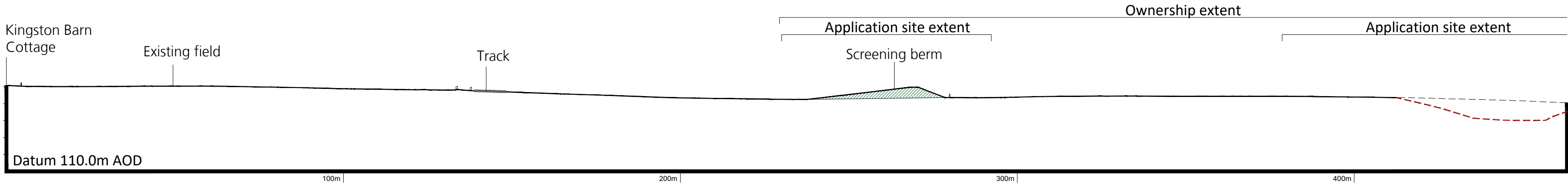
Section 5



Section 6



Section 7



Section 8

KEY

Existing ground level

Existing vegetation

Quarry works

Screening berm

Notes

Related Drawings: DIA Drawing based on
- Quarryplan LSS ref: 00144-190425 018 SWANWORTH PHASE 3 EXTRACTION IN DEM, dated 04.07.2019
- LIDAR DSM
- Quarry Design drawing ref: 200407dwg01 Application Area Plan

Issue: Drawn by David Jarvis Associates Limited (CROWN COPYRIGHT). ALL RIGHTS RESERVED 2022 LICENCE NUMBER 01000311. This drawing is for Planning purposes only - Do not use this drawing for Construction. The information contained in the drawing should be used as a guide to the final forms and finishes of the landscape scheme. Any revisions to be approved by the Client and Local Authority

Scaling: Do not scale this drawing. Use given dimensions only.

Setting out: refer to Engineers for information regarding setting out. In the event of discrepancy refer to Engineers in the first instance.

Survey: Original survey provided by the Client.

Services: Where possible these are identified on the drawings but, for the avoidance of doubt all service/utility locations should be considered indicative until identified on site. To ensure those services / utilities shown are current refer to the original survey provider or utilities designer or Client for confirmation and further information regarding easements. In the event of new services being installed refer to the appointed Engineer. It is recommended that hazard warning tape 'danger electric cable'/danger services' to be installed over all service routes (to remain on site) to current BS guidelines (BS7671).

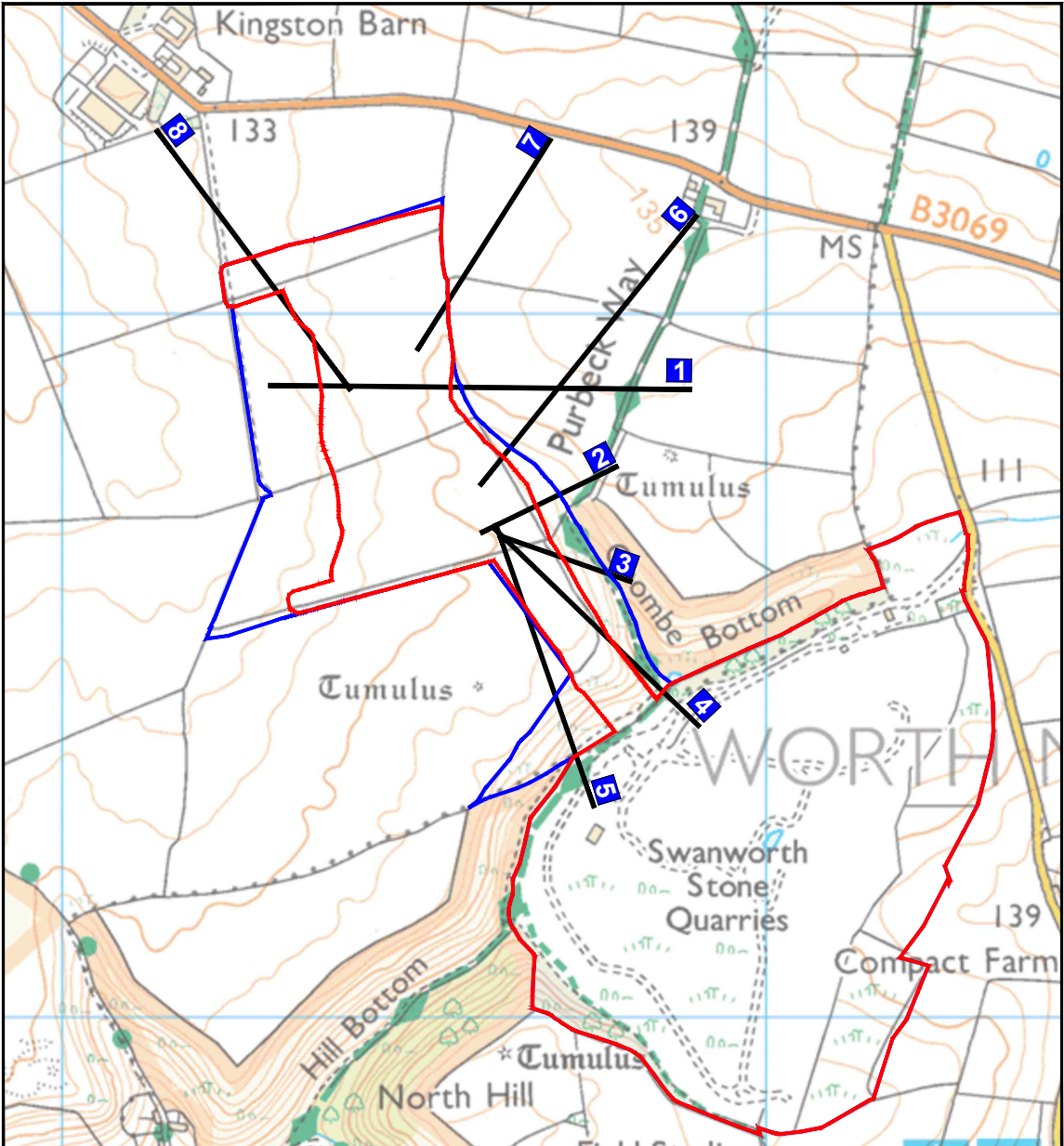
Lighting: Refer to lighting engineers drawings.

Planting: Plant species are selected and located in line with consideration of the site conditions, NHBC guidelines and discussions with the Local Authority and design team. All plants and planting procedure to conform to the David Jarvis Associates Limited Landscape Specification that will accompany the Construction issue drawings. No species or plant location is to be varied without prior consent of the Landscape Architect.

Foundations: Developers / Contractors to ensure that all foundations (buildings and external walling) are designed and constructed so as to take into account, at the time of maturity, any existing or proposed trees, hedgerows or other vegetation on the application site or existing vegetation on land adjoining the site at the time of construction and any trees felled or hedgerows removed on or adjacent to the site during the previous 15 years. For this purpose the developer / contractors will submit all relevant details to the authority dealing with the Building Regulations Certificate.

Design Levels: Refer to Engineers where design levels are not shown.

CDM: Drawings to be read in conjunction with Designers risk assessment. Potential risks above that of those associated with the general construction typical to the drawing are identified below;



Key Plan
Scale 1:10,000

Status

DAVID JARVIS ASSOCIATES

DAVID JARVIS ASSOCIATES LIMITED
1 Tennyson Street Swindon Wiltshire SN1 5DT
t: 01793 612173
e: mail@ davidjarvis.biz
w: www.davidjarvis.biz

Client
SUTTLE STONE QUARRIES

Project
SWANWORTH QUARRY
COOMBE EXTENSION

Drawing Title
APPENDIX 8 - BUND CROSS SECTIONS

Scale
1:1,000

Sheet Size
A1

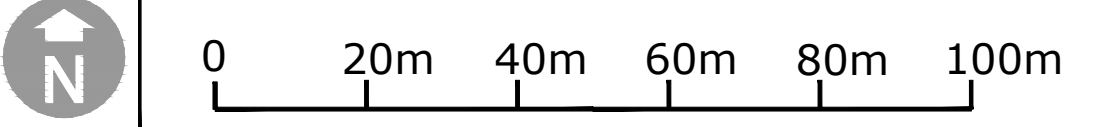
Date Plotted
05/07/2022

Client Ref.
-

Drawing Ref.
2620-4-5-1

Drawing No.
AP-0008

Version
S4-P3



OS data © Crown copyright and database rights 2022 Ordnance Survey 0100031673

F. Volume calculations

Swanworth Volumes (APW Review)

INITIAL DEVELOPMENT

Removal of Overburden

Topsoil strip	7,468 m³
Subsoil strip	18,970 m³
Overburden strip	10,628 m³
TOTAL STRIP	37,066 m³

Extension Topsoil Bund	7,468 m³
Extension Subsoil Bund	9,260 m³
Overburden and soils in Main Quarry	20,338 m³
TOTAL PLACED	37,066 m³

Removal of Mineral

Insitu Mineral	126,133 m³
24% processing waste	30,272 m³
Net Mineral	95,861 m³
Net Mineral at 2.5T/m³	239,653 ST
Duration @125,000 ST/a	1.9 Yr

Waste placed

24% processing waste waste placed in Main Quarry	30,272 m³
1.9 x 80,000T imports placed in Main Quarry	153,378 T
Imports at 1.5T/m³	102,252 m³
Total placed in Main Quarry	132,524 m³

PHASE 1

Removal of Overburden

Topsoil strip	7,742 m³
Subsoil strip	31,119 m³
Overburden strip	75,175 m³
TOTAL STRIP	114,036 m³

Topsoil Bund in Main Quarry	7,742 m³
Subsoil (with OB) in Main Quarry	31,119 m³
Overburden (with SS) in Main Quarry	75,175 m³
TOTAL PLACED	114,036 m³

106,294 m³

Removal of Mineral

Insitu Mineral	355,104 m³
24% processing waste	85,225 m³
Net Mineral	269,879 m³
Net Mineral at 2.5T/m³	674,698 ST
Duration @125,000 ST/a	5.4 Yr

Waste placed

24% processing waste waste placed in Main Quarry	85,225 m³
5.4 x 80,000T imports placed in Main Quarry	431,806 T
Imports at 1.5T/m³	287,871 m³
Total placed in Main Quarry	373,096 m³

PHASE 2

Removal of Overburden

Topsoil strip	6,342 m³
Subsoil strip	26,610 m³
Overburden strip	51,710 m³
TOTAL STRIP	84,662 m³

Topsoil Bunds in Main Quarry	6,342 m³	2,806 m³	3,536 m³
Subsoil (with OB) in part Phase 1	26,610 m³	78,320 m³	
Overburden (with SS) in part Phase 1	51,710 m³		
TOTAL PLACED	84,662 m³		

Removal of Mineral

Insitu Mineral	355,649 m³
24% processing waste	85,356 m³
Net Mineral	270,293 m³
Net Mineral at 2.5T/m³	675,733 ST
Duration @125,000 ST/a	5.4 Yr

Waste placed

24% processing waste placed in part Phase 1	85,356 m³
3.4 x 80,000T imports placed in part Phase 1	272,000 T
Imports at 1.5T/m³ placed in part Phase 1	181,333 m³
2.0 x 80,000T imports placed in Main Quarry	160,000 T
Imports at 1.5T/m³ placed in Main Quarry	106,667 m³

PHASE 3

Removal of Overburden

Topsoil strip	6,706 m³
Subsoil strip	25,296 m³
Overburden strip	26,412 m³
TOTAL STRIP	58,414 m³

Topsoil Bunds in Main Quarry	3,774 m³	6,706 m³
Topsoil used on Phase 2	2,932 m³	
Subsoil into Phase 3 bund	18,100 m³	
Subsoil used on Phase 2	7,196 m³	25,296 m³
Overburden in part Phase 2	26,412 m³	
TOTAL PLACED IN PHASE 2	36,540 m³	

Removal of Mineral

Insitu Mineral	454,520 m³
24% processing waste	109,085 m³
Net Mineral	345,435 m³
Net Mineral at 2.5T/m³	863,588 ST
Duration @125,000 ST/a	6.9 Yr

Waste placed

24% processing waste placed in part Phase 2	109,085 m³
2.3 x 80,000T imports placed in part Phase 2	184,000 T
Imports at 1.5T/m³ placed in part Phase 1	122,667 m³
4.6 x 80,000T imports placed in Main Quarry	368,000 T
Imports at 1.5T/m³ placed in Main Quarry	245,333 m³

FINAL RESTORATION

5 Years for Extension

Imports 5 x 80,000 T/a	400,000 T
Imports at 1.5T/m³	266,667 m³
Temporary Topsoil bunds	14,302.0 m³
Initial development TS bund	7,468 m³
Phase 3 Subsoil Bund	18,100 m³
Initial development SS bund	9,260 m³
Material from Main Quarry	988,413 T
Material from Main Quarry	658,942 m³

2806 7742 3754

Almost guaranteed to be Imported in-Fill

2.2 more years to restore Main Quarry

Imports 2.2 x 80,000 T/a	176,000 T
Imports at 1.5T/m³	117,333 m³

Swanworth Volumes (APW Review)

INITIAL DEVELOPMENT		1.9 Years							
Imports	1.9 x	80,000 Tonnes per year	totals	153,378 Tonnes		Balance in Extension	0 Tonnes	Balance in Main Quarry	153,378 Tonnes
A density of	1.5 T/m³	gives a total m³ of		102,252 m³			0 m³		102,252 m³
All placed in the Main Quarry									

PHASE 1		5.4 Years							
Imports	5.4 x	80,000 Tonnes per year	totals	431,806 Tonnes		Balance in Extension	0 Tonnes	Balance in Main Quarry	585,184 Tonnes
A density of	1.5 T/m³	gives a total m³ of		287,871 m³			0 m³		390,123 m³
All placed in the Main Quarry									

PHASE 2		5.4 Years							
Imports	5.4 x	80,000 Tonnes per year	totals	432,469 Tonnes		Balance in Extension	272,000 Tonnes	Balance in Main Quarry	745,184 Tonnes
A density of	1.5 T/m³	gives a total m³ of		288,313 m³			181,333 m³		496,789 m³
3.4 years capacity direct placed into Phase 1 of Extension with the remaining 2.0 years placed into Main Quarry									

PHASE 3		6.9 Years							
Imports	6.9 x	80,000 Tonnes per year	totals	552,696 Tonnes		Balance in Extension	456,000 Tonnes	Balance in Main Quarry	1,113,184 Tonnes
A density of	1.5 T/m³	gives a total m³ of		368,464 m³			304,000 m³		742,123 m³
3.4 years capacity direct placed into Phase 1 of Extension with the remaining 2.0 years placed into Main Quarry									

RESTORATION OF EXTENSION		5 Years							
Imports	5.0 x	80,000 Tonnes per year	totals	400,000 Tonnes		Balance in Extension	1,844,413 Tonnes	Balance in Main Quarry	124,771 Tonnes
A density of	1.5 T/m³	gives a total m³ of		266,667 m³			1,229,609 m³		83,181 m³
Previously imported material brought from Main Quarry				988,413 Tonnes					
A density of	1.5 T/m³	gives a total m³ of		658,942 m³					

RESTORATION OF MAIN QUARRY		2.2 Years							
Imports	2.2 x	80,000 Tonnes per year	totals	176,000 Tonnes		Balance in Extension	1,844,413 Tonnes	Balance in Main Quarry	300,771 Tonnes
A density of	1.5 T/m³	gives a total m³ of		117,333 m³			1,229,609 m³		200,514 m³
All placed in the Main Quarry									

Imports directly placed in the Extension	856,000 Tonnes
	570,667 m³
Previous imports from Main Quarry placed in Extension	988,413 Tonnes
	658,942 m³
TOTAL Imports in Extension	1,844,413 Tonnes
	1,229,609 m³

TOTAL Imports and Extractive Waste in Extension	1,424,049 m³
--	---------------------

TOTAL on-site derived processed Extractive Waste placed in Extension	194,441 m³
TOTAL on-site derived processed Extractive Waste placed in Main Quarry	115,497 m³
TOTAL on-site derived processed Extractive Waste	309,937 m³

