Envireauwater Ltd on behalf of Mansfield Sand Company Ltd

Two Oaks Quarry

Appendix H – Waste Acceptance

3020067 – R02 (02) Permit Application

RSK GEOSCIENCES

APRIL 2024

RSK GENERAL NOTES

Project No.: 3020067

Title: Appendix H – Waste Acceptance: Two Oaks Quarry

Client: Envireauwater Ltd on behalf of Mansfield Sand Company Ltd

Date: April 2024

Office: RSK Environment Limited, Fourways House, 57 Hilton Street, Manchester, M1 2EJ, UK

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1 INTRODUCTION

1.1 Report Context

RSK Environment Limited (RSK) was commissioned by Envireauwater Ltd (an RSK Group company) on behalf of Mansfield Sand Company Ltd to prepare a Waste Acceptance Summary as part of supporting documentation for an application to obtain a Bespoke Environmental Permit for their site at Two Oaks Quarry, Coxmoor Road, Mansfield, NG18 5BW, hereafter referred to as the 'Site'.

A scheme to redevelop the site is proposed which will involve the importation of waste materials to support in the restoration of a sand and gravel quarry to produce a mosaic of acid grass land, low level heathland and marginal wetland habitats in line with Nottinghamshire County Councils approved restoration scheme.

A Waste Recovery Plan has been developed and approved by the Environment Agency.

1.1.1 Waste Acceptance Procedure

The purpose of this Waste Acceptance Procedure is to ensure that the site only accepts waste that is:

- Suitable for use on this site;
- Listed within the permit; and
- Appropriately considered by the Environmental Risk Assessment.

The procedure will also assist with ensuring that no pollution arises as a result of the waste accepted onto site.

1.2 Operator and Agent

The Environmental Permit application and this summary have been prepared by RSK Environment Ltd (RSK) which is acting as an 'Agent' on behalf of the proposed 'Operator', Mansfield Sand Company Ltd, which is registered in England and Wales as Company Number 03754188.

1.3 Background

The site is located approximately 3.50 km South of Mansfield in Nottinghamshire and is centered on grid reference SK 453699 356842.

Access to the Site is gained from the Southeastern corner of the Site via Coxmoor Road, approximately 400 m West of Derby Road.

It is approximately 173 acres. Phase 1 of the quarry workings accounts for 30% of the total acreage. Under planning condition 48, and 56 of Planning Permission 4/2010/0178 granted by Nottinghamshire County Council the site must be progressively restored, and a restoration scheme submitted to the County Council within 12 months of exhausted mineral extraction in each phase of working.

Mineral extraction of the whole quarry site will be carried out in 4 phases, with the whole site progressively restored during mineral extraction. The Site will be restored in line with the restoration schemes with imported inert materials, and the stockpiles of topsoil and subsoils previously stripped from the Site.

The restoration proposals aim to return the Site close to existing levels and its previous agricultural use to the South of the site. Deposit for Recovery operations will be located within the permitted area marked with a green line on the site plan at **Appendix C Figure 3 of this application**.

The centre of the site is to be marginal wetland with oak and birch, and the North and West of the site is to be lowland acid grassland and heathland.

Suitable margins have been left at the perimeters of the excavations to ensure support to adjoining unworked land and to protect retained peripheral boundary features, hedgerows and fencing.

To ensure adequate drainage, there will be a slight gradient from the site boundaries towards the proposed wetland in the centre of the site. The final gradient will be approximately 1:30 to permit surface water runoff to the south and southwest of the Site to existing drainage ditches feeding an existing seasonal pond to the southwest of the Site.

The quantity of site derived soils required to restore the site in accordance with the restoration scheme amounts to 1,474,362 tonnes of silt and 11,600 tonnes of sand.

In addition, a further 296,000 tonnes of suitable imported waste material is required. This waste acceptance procedure focuses on the imported waste materials, though some consideration is given to the site derived soils.

This work will be undertaken over the quarry's current life expectancy of 15 years.

Activities at the site will be regulated under the Environmental Permitting (England and Wales) Regulations 2016 and will be carried out as defined under Annex II of the Waste Framework Directive as follows:

- R10 Land Treatment resulting in benefit to agriculture or ecological improvement;
- R11 Use of waste obtained from any of the operations numbered R1 to R10; and
- R13 Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).

2 WASTE PRE-ACCEPTANCE AND ACCEPTANCE PROCEDURE

2.1 Acceptable Waste Types

Only the waste types listed in **Table 1** below and **Table 2** overleaf will be accepted onto site from other locations.

Waste material will comprise of inert wastes (Table 1) required to cap off lagoon systems and suitable non-hazardous waste (Table 2) required to cap off the lagoon systems. Despite codes **17 03 02** and **01 01 02** being originally included within the waste acceptance criteria, these have been removed as it has been decided the site will no longer accept these wastes.

Table 1: Permitted Waste Types for General Fill of the top layer of lagoons

Waste 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 containing dangerous substances
01 04 09	Waste sand and clays
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
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[1]
17 05	Soil Stones and Dredging Soil
17 05 04	Soil and stones[2]
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
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 09	minerals (excluding residual fines)[3]
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones[3]

[1] Metal from reinforced concrete must have been removed

[2] Restricted to topsoil, subsoil and stones only

[3] Restricted to wastes from treatment of waste aggregates that are otherwise naturally occurring mineral. Does not include fines from treatment of non-hazardous waste or gypsum from recovered plasterboards.

All waste accepted at site for general fill will be inert. No contaminated materials will be accepted.

Table 2. Permitted Waste Types for the basal layer of high-level lagoons

Waste 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 containing dangerous substances
01 04 09	Waste sand and clays
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
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[1]
17 05	Soils Stones and Dredging Soil
17 05 04	Other stones and soils[2]
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

[1] Metal from reinforced concrete must have been removed

[2] Restricted to topsoil, subsoil and stones only. Restricted to non-hazardous soils, crushed bricks, tiles, concrete and ceramics only. Any contaminants not deemed to be inert must have been removed (<1% contamination by weight).

The backfilling of the lagoons will be completed in stages and certain suitable non-hazardous and non-contaminated waste for the filling of high-level lagoons 7 (a and b), 8, 9 and 10 will be accepted. The wastes outlined in Table 2 below can be utilised as a basal capping layer for lagoons which sit high above the water table. This will be deposited in layers no thicker than 0.5m and will be capped by inert waste (as outlined in **Table 1** on the previous page).

For the construction of the sidewall attenuation layer only chemically and physically suitable cohesive waste materials will be used that ensure a permeability of no more than 1×10^{-7} m/s.

There is no intention to accept any other wastes apart from those listed in **Table 1** and **Table 2** at the site and the waste acceptance procedure will be implemented in order to ensure this. Documentation will accompany all waste material accepted.

Waste shall only be accepted and / or redeposited if it is of a type listed in **Table 1** and/or **Table 2** and meets the additional restrictions in that table and:

- It is compliant to the sites' acceptance classification;
- Appropriate measures will be taken to ensure that the waste is free from contamination;

- It has been identified as a suitable waste in the approved Waste Recovery Plan; and
- It's chemical, physical and biological characteristics make it suitable for its intended use on the site.

All waste will be subject to waste acceptance procedures at the site.

Staff responsible for receiving and accepting waste at the site will be trained in the procedure to ensure they are competent.

2.2 Pre-Acceptance Procedure

When waste is to be accepted from offsite the following information shall be obtained prior to receipt:

- The full address where the waste was produced;
- The (legal) identity of the waste producer;
- All the reasonably identifiable previous uses of the producer site (where the waste is excavation waste);
- A description of the waste (including EWC code);
- The process giving rise to the waste;
- The physical appearance of the waste including size, colour and texture; and
- The quantity of the incoming waste.

In the event that there is suspicion of contamination in the waste coming to site, then this must be queried and tested.

The acceptance criteria that will be adopted at the site will be the inert waste acceptance criteria as detailed in **Table 3** and **Table 4** overleaf**.**

Waste producers do not need to test certain types of waste, apart from testing them for classification. For example:

- If the waste comes from a single source;
- If it is well characterised and described;
- If it carries no risk of contamination, for example from a site that hasn't previously been developed; and
- If the waste is listed in **Table 5** on pages 8 and 9.

In all other situations, the producer will have been expected to have carried out the necessary testing to characterise the waste.

The pre-acceptance procedure will result in either the waste:

1. Being approved for delivery to the site as one of the permitted wastes in **Table 1** and/or **Table 2** and therefore suitable for recovery at the site; or
2. Failing the site's waste pre-acceptance criteria and therefore not approved for delivery to the site.

If the waste is not approved, the customer must be advised that the waste is unsuitable for receipt at the site.

The waste producer is responsible for ensuring that the sampling procedure employed characterises the waste both chemically and physically, and accounts for the variability of the waste stream.

The waste producer should undertake the necessary chemical testing of a representative number of samples of the material in order to assign an appropriate EWC code to the waste.

Table 3 and **Table 4** below details the acceptance criteria that will be adopted at the site for imported waste to comply with the Inert Waste Criteria (Transposed from Council Decision annex 2003/33/EC).

Table 3: Inert Waste Acceptance Criteria for Soil Waste

Component	Parameters determined on the waste – total concentration
Total Organic Carbon [(a)] (%w/w)	3% (30,000mg/kg)
Loss on ignition (%w/w)	-
BTEX compounds (mg/kg)	6 mg/kg
PCBs (7 congeners) (mg/kg)	1 mg/kg
Mineral oil C10-C40 (mg/kg)	500
PAHs (mg/kg)	100
pH	-
Acid neutralisation capacity	-
(a) In the case of soils, a higher limit value may be permitted by the Environment Agency, provided a Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH value of between 7.5 and 8.0.	

Table 4: Limit Values for Compliance Testing

Limit values (mg/kg) for compliance leaching test using BS EN 12457 at L/S 10l/kg		
Arsenic	As	0.5
Barium	Ba	20
Cadmium	Cd	0.04
Total Chromium	Cr_{total}	0.5
Copper	Cu	2

Limit values (mg/kg) for compliance leaching test using BS EN 12457 at L/S 10l/kg		
Mercury	Hg	0.01
Molybdenum	Mo	0.5
Nickel	Ni	0.4
Lead	Pb	0.5
Antimony	Sb	0.06
Selenium	Se	0.1
Zinc	Zn	4
Chloride	Cl^-	800
Fluoride	F^-	10
Sulphate [a]	SO_4^{2-}	1,000
Phenol index	PI	1
Dissolved Organic Carbon [b]	DOC	500
Total Dissolved Solids [c]	TDS	4,000

(a)This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of C0 (the first eluate of a percolation test at L/S = 0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 l/kg under initial equilibrium conditions.

(b) If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.

(c) The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.

Table 5: Types of waste that may not need to be tested

Code	Description
01	**WASTE RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 04	Wastes from physical and chemical processing of non-metalliferous minerals

Code	Description
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays
17	**CONSTRUCTION AND DEMOLITION WASTES**
17 01	Concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Brick
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 stones and dredging spoil
17 05 04	Soil and stones other than those mentioned in 17 05 03
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
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)
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 02	Garden and park wastes
20 02 02	Soil and stones

2.3 Acceptance Procedure

Upon delivery of waste to the site, the following processes will occur:

- Visual inspection of pre-approved loads at gate;
- Checking and completion of paperwork accompanying each load;
- Inspection of loads during and following discharge;

- Verification sampling and testing, where required; and
- Rejection and/or quarantine of unacceptable loads.

2.3.1 Visual Inspection of Pre-approved Loads at Gate

All drivers delivering waste to the site will be required to disclose the nature of the waste they are carrying and provide relevant documentation upon arrival at the site gate.

All loads of waste delivered to site will be pre-arranged. Upon arrival they will be visually inspected where practicable. The objective of this initial inspection is to detect the presence of any unauthorised waste. Vehicles that arrive at the site sheeted will be required to unsheet to allow this inspection to take place before they are permitted to proceed.

Cameras or a raised gantry will be used to allow staff to visually inspect the contents of each load.

No waste will be deposited at the site unless an initial visual inspection has been carried out.

2.3.2 Checking and Completion of Paperwork Accompanying Each Load

Staff on site will ensure that a fully completed waste transfer note is received for every load (unless part of a multiple consignment) and will issue the delivery driver with a receipt.

Only registered waste carriers will be allowed on site. Any new waste carrier must provide evidence of registration before being allowed to deposit the load.

Only after inspection of the load will the waste transfer note be signed to confirm that the details are correct.

Once satisfied that everything relating to a load is acceptable, the load will be directed to the unloading/tipping area, prior to deposit for recovery.

If inspection is not possible at the site entrance, the waste transfer note will only be signed when the vehicle returns to the site entrance after the unloading of waste has taken place.

2.3.3 Inspection of Loads During and Following Discharge

On arrival at the unloading/tipping area, the load will be deposited as directed by the competent site staff.

Every load of waste will be observed by the competent site staff as it is discharged from the vehicle. The waste will be visually inspected at that stage to ensure there are no unauthorised materials present within the load. In the event of suspicion regarding the waste, the delivery driver will be asked to observe as well prior to any further action being undertaken.

When the competent person has satisfied themselves as to the acceptability of the waste, it will then be ready to be deposited in the deposition area or into a temporary stockpile if immediate deposition is not possible.

If unauthorised/non-conforming waste is observed or suspected it will be dealt with in accordance with the waste rejection and/or quarantine procedures.

2.3.4 Verification sampling and testing

In the event that there is suspicion of contamination, waste will be tested. The waste acceptance criteria that will be adopted at the site will be the inert waste acceptance criteria detailed in **Table 3** and **Table 4**.

Additional chemical testing may also be required in order to classify the waste. Waste classification testing will be undertaken in accordance with the Environment Agency's Technical Guidance WM3 – Guidance on the classification and assessment of waste.

Waste to be sampled and tested will be stored in a separate area of the site and following sampling will be quarantined and not disturbed until the sample results are received.

If the waste is not contaminated it may be deposited as usual.

If the waste is found to be contaminated, then the process outlined in **Section 3** will be followed.

2.3.5 Rejection of Unacceptable Loads

Waste will be rejected from site in the following circumstances:

- If the waste has not been pre-approved;
- If the waste does not conform to the description on accompanying paperwork, the waste transfer note or the Approved Job List;
- If the waste is delivered by an unauthorised carrier; or
- If the visual inspections and/or sampling and testing reveal the presence of unauthorised waste.

In these circumstances the load will be rejected from site and the responsible staff on site will advise the driver that the load is rejected. The producer and carrier of the waste will be informed. Relevant paperwork will be completed.

If a load is rejected before completion of paperwork accepting the waste on site, there will have been no 'transfer' of the waste from the carrier and accordingly a new waste transfer note will not be created. If waste is rejected following completion of the original transfer note, a new transfer note will be generated.

If, for any reason, the producer and carrier is not present to be informed the waste has been rejected, the unacceptable waste will be quarantined in the designated area on site until the producer and carrier can be informed.

The operator will ensure they maintain a record of all unacceptable loads.

2.3.6 Acceptance of Site Derived Waste Material

The site derived wastes will have been assessed for chemical and geotechnical suitability prior to removal.

Acceptance criteria is required to regulate the quality of fill material being used and to allow subsequent validation to take place.

The weighbridge on Site operates 2 high resolution cameras mounted on a gantry directly over the inbound and outbound bridge. These can be swivelled and rotated to be zoomed in to visually inspect the whole of the inside of the inbound HGV. It is only after the

weighbridge operative is satisfied that the inbound waste meets the criteria for the waste code that the load can be accepted onto the site.

Should any site derived waste materials fail to meet the suitability requirements it will be disposed of at an appropriately permitted site.

All site-won waste material will be assessed based on a frequency of one sample per 500 m^3 for general contaminants and asbestos screen.

3 REJECTION AND QUARANTINE PROCEDURE

The objectives of the rejection and quarantine procedure is to ensure that all non-conforming waste is removed from site when identified, and that the waste producer and carrier are informed so that appropriate action can be taken to prevent a re-occurrence.

Any odorous materials will be rejected as potentially contaminated.

In all cases where waste is to be rejected from site, the site manager must be informed, and the incident and actions taken recorded in the site diary.

3.1 Rejection at Site Gate

Waste will be rejected from site by the competent staff at the gate in the following circumstances:

- If the waste has not been pre-approved;
- If the waste does not conform to the description on the accompanying paperwork;
- If the waste is delivered by an unauthorised carrier; or
- If the visual (and olfactory) inspection reveals the presence of unauthorised waste.

In these circumstances the load will be rejected from site and site staff will issue relevant paperwork to the driver.

3.2 Rejection at Unloading / Tipping Area

If unauthorised waste is observed by site staff either during or after deposit, the driver of the vehicle will be alerted, and the waste will be reloaded onto the vehicle where possible. The vehicle will then be redirected to the site entrance, issued with relevant paperwork and asked to leave the site.

If the vehicle has left the operational area, site staff will attempt to intercept the vehicle before leaving the site so that the waste can be re loaded, and relevant paperwork issued.

If the vehicle has left the site before the presence of unauthorised waste is identified, the waste will be isolated or moved to a temporary ‘quarantine’ storage area.

The waste carrier will then be contacted and asked to remove the waste from site as soon as possible. If the carrier is unable to remove the waste it will be consigned to an alternative suitably authorised facility by a registered waste carrier.

In the event it is necessary to sample such waste to identify a suitable treatment facility, the necessary sampling will be carried out. The waste will be stored in the quarantine area until a suitable alternative facility has been identified.

A skip will be maintained close to the operational area and will be used for the storage of isolated contaminants identified within loads of waste which would not warrant rejection of the load. Such inclusions may include very minor amounts of plastic, wood or other refuse. These minor physical contaminants will be removed from the load and placed in skips prior to off-site removal.

4 RECORD KEEPING

4.1 Waste Transfer Notes

All waste accepted for recovery at the site will be accompanied by a waste transfer note (unless it is a multiple consignment) as required by the Duty of Care Regulations, which will provide all of the required details. This includes:

- Waste description including appropriate waste classification code;
- Waste origin (including relevant SIC code);
- Transferor and transferee;
- Signatures of transferor and transferee;
- Waste carrier registration details;
- Time and date of transfer; and
- Waste hierarchy declaration.

4.2 Records of Quantities Deposited

A register of the quantities and characteristics of waste accepted at the site will be maintained on a computerised database. The database will include the following details:

- Source of waste:
    - Site of origin re-use
    - Waste accepted from offsite sources
- Date of delivery;
- Waste quantity;
- Waste description and classification code; and
- Waste producer and/or carrier.

A record will also be maintained of all waste that is removed from the facility.

4.3 Waste Characterisation & Analysis Records

Copies of all information relating to the characterisation and analysis of waste accepted at the site will be maintained.

4.4 Site Diary

A record of any significant transfers will be maintained within a site diary. This will include, but may not be limited to, any waste rejections and communications with the regulator.

APPENDIX A
SERVICE CONSTRAINTS

1. Service Constraints for all Reports

1.1. This Report (the “Report”) and any study, inspection, investigation, sampling, testing and or interpretation carried out in connection with the Report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) trading as Carbon Zero Consulting, Leap Environmental or RSK Geosciences, for the Client named in the first paragraph of the Report (the "Client") in accordance with the terms of an RSK Fee Proposal including RSK Environment Standard Terms and Conditions (the “Appointment”) between RSK and the Client, unless otherwise stated in the first paragraph of the Report. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by a geo-environmental consultant at the time the Services were performed. Nothing in this Report shall be construed as imposing any fitness for purpose obligation. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the Client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.

1.2 Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services. RSK shall not be liable in respect of any action or proceedings arising out of or in connection with this Report whether in contract, in tort, for breach of statutory duty or otherwise after the expiry of six (6) years from either (i) the date of the Report or (ii) such earlier date as prescribed by law, unless varied in the terms of the Appointment.

1.3 Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent, or condone any party, other than the Client relying upon the Services. Should this Report or any part of this Report, or details of the Services or any part of the Services, be made known to any such party, and such party relies thereon, that party does so wholly at its own and sole risk, and RSK disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent geo-environmental consultant and/or lawyer.

1.4 The Client shall not, without the prior written consent of RSK, assign, transfer, charge, mortgage, subcontract, or deal in any other manner with all or any of the benefits provided in this Report. Unless specified in the Appointment, RSK shall not be obliged to assign the benefit of the Report whether by collateral warranty, third party rights pursuant to the Contracts (Rights of Third Parties) Act 1999, letter of reliance or otherwise. If RSK agrees to any assignment of the benefit of this Report, in whatever form, benefits to third parties through collateral warranties, third party rights or letters of reliance shall not be provided unless a fee for each right, warranty or letter is agreed. The form of wording used in the warranty or letter shall be provided by RSK for agreement by the Client. Any reasonable changes to the form of wording will be implemented by mutual agreement, however the terms in the warranty or letter cannot offer the third party any greater benefit than the Appointment offered to the Client.

1.5 It is the understanding of RSK that this Report is to be used for the purpose described in the introduction to the Report. That purpose was a significant factor in determining the scope and level of

the Services. Should the purpose for which the Report is used, or the proposed use of the site change, this Report may no longer be valid and any further use of or reliance upon the Report in those circumstances by the Client without the review and advice of RSK shall be at the Client's sole and own risk. RSK shall not be liable for any use of this Report for any purpose other than that for which it was provided.

1.6 The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the Report inaccurate or unreliable. The information and conclusions contained in this Report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the Report in the future shall be at the Client's own and sole risk.

1.7 The observations and conclusions described in this Report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out, or required by the Appointment between the Client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this Report, RSK did not seek to evaluate the presence on or off site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas, fuel storage, persistent bio-accumulative or toxic chemicals (including PFAS and related compounds) or other radioactive or hazardous materials, unless specifically identified in the Services.

1.8 The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of desk based publicly available information, including documentation, obtained from third parties and from the Client on the history and usage of the site, unless specifically identified in the Services and the limitations below:

a.The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.

b.The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.

c.The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the Client or third parties, including laboratories and information services, during the performance of the Services.

d.The Client has identified in writing to RSK, the information, reports, findings, surveys and preliminary works RSK may not rely upon when providing the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK, and including the doing of any independent investigation of the information provided to RSK, save as otherwise provided in the terms of the Appointment between the Client and RSK.

1.9 Any site drawing(s) provided in this Report is (are) not meant to be an accurate base plan for scale measurement but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not

drawn to scale but are centred over the approximate location. Such features should not be used for accurate setting out and should be considered indicative only.

1.10 Should RSK be requested to review the Report after the date of issue of this Report, RSK shall be entitled to additional payment at the existing rates, or such other terms as agreed between RSK and the Client.

2. Service Constraints where the Report provides an intrusive assessment of ground conditions:

2.1 The intrusive environmental ground investigation aspects of the Services are a limited sampling of soil from the site, at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this Report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated in the scope agreed between the Client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species (not tested) are not present.

2.2 The comments given in this Report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. The extent of the exploratory holes, laboratory testing and monitoring undertaken may have been restricted due to a number of factors including accessibility, the presence of buried or overhead services, current development, site usage, timescales or the Client's specification. The exploratory holes only assess a small proportion of the site area with respect to the site as a whole, and as such may only provide an indicative assessment of ground conditions on site. There may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised. The presence of hotspots of undisclosed contamination or exceptional and unforeseen ground conditions cannot be discounted.

2.3 Where the Services include Investigation of an exploratory nature or relating to physical ground works, any costings and prices provided in the Report are estimated and provided for guidance purposes only. The actual cost and time quantities shall be remeasured and shall be dependent upon the ground or other conditions, constraints present, and number and depth of the investigation locations, which shall influence the number of samples and tests required, and the quantities of soil being classified.

2.4 Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works. However, this Report does not constitute an asbestos survey. On this basis, the presence of asbestos on site cannot be discounted and a full asbestos survey should be undertaken.

2.5 Unless stated otherwise, only preliminary geotechnical recommendations are presented in this Report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed. Eurocode 7 gives guidance on the type of sampling, sample quality, number and spacing of intrusive investigations, and number of laboratory tests required. It is intended that the Geotechnical Information section of this Report will fulfil the general requirements of the Ground Investigation Report as set out in section 6 of Eurocode7, although this is subject to the restrictions imposed on the investigation, as listed above. For geotechnical design, Eurocode 7 requires the Geotechnical Design Report to address both the geotechnical and structural aspects of the geotechnical design for both the limit and serviceability states. The Geotechnical Appraisal section of this Report will not meet the requirements of a Geotechnical Design Report (GDR) and should therefore be used for preliminary guidance only.

3. Service Constraints where the Report relates to Surface Water Management:

3.1 The Surface Water Management Inspection (SWMI) Report, documents provided, observations, actions, and recommendations, with respect to the management of potential pollution issues to surface waters, made during the site Inspection visit, are those present at the time of the visit, and may not represent those recorded by others on the same day.

3.2 The comments given in this Report and the opinions expressed are based on the weather, ground and ground water conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the inspection and therefore could not be taken into account. In addition, groundwater levels and flows, may vary from those Reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.

3.3 RSK places a degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this Report was prepared.

3.4 This Report is a live document, to be continually reviewed and updated as the development progresses or other changes occur on site. RSK can only maintain the currency of this Report through the Client requesting support with supplementary site visits or attendance at meetings ahead of key stages of the development in relation to surface water management. Our risk rating assesses a number of risk factors in line with the source-pathway- receptor model and is therefore subject to constant change.

3.5 Standard design drawings are indicative. Material types, dimensions and construction details will need to be adjusted by the Client to suit the specific conditions / flows on Site.

3.6 The full responsibly for implementing the site-specific protection and maintenance measures to protect the surface water system as stated in this Report, remains with the Client and their site management team. Additional control measures may be required to achieve the objectives set out in the Surface Water Management Plan to be implemented and financed by the Client.

4. Service Constraints where the Report relates to Waste Management:

4.1 In accordance with the definition provided in the Waste Framework Directive (WFD), materials are only considered waste if ‘they are discarded, intended to be discarded or required to be discarded,

by the holder'. Naturally occurring soils are not considered waste if re-used on the site of origin for the purposes of development. Soils such as made ground that are not of clean and natural origin (irrespective of whether they are contaminated or not) and other materials such as recycled aggregate, do not necessarily become waste until the criteria above are met. Excavation arisings from the development may therefore be classified as waste if surplus to requirements and/or unsuitable for re-use.

4.2 It is the duty of the waste producer, to ensure that all waste is accurately classified prior to waste disposal. Technical Guidance WM3 (EA, 2018) sets out in its Appendix D requirements for waste sampling. It is a legal requirement to correctly assess and classify waste. The level of sampling should be proportionate to the volume of waste and its heterogeneity. Unless otherwise stated, the waste assessment presented in this Report should be considered as preliminary and further testing and assessment of the waste under the provisions of a Waste Sampling Plan may be required to obtain the necessary level of data required for basic characterisation of the waste in support of disposal.

4.3 Unless stated otherwise in the Report, information relating to historical operations at the site was not reviewed as part of the assessment by RSK. In addition, unless otherwise stated in the Services, RSK was not present during the collection of the samples nor had any input on the chemical testing suite. Therefore, the waste assessment and classification detailed in this Report are based solely on any information that were provided to RSK (e.g., laboratory chemical data, exploratory hole records) and were completed without prejudice for our Client.

4.4 RSK's assumes that any ground investigation data, chemical testing results etc., that were provided by the Client to inform the waste assessment and supporting review were carried out in accordance with current best practice and relevant guidance/ standards, where applicable. Thus, the comments given in this Report and the opinions expressed are based solely on the information provided by the Client. However, it is noted that there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account as part of the RSK assessment.

5. Service Constraints for Construction Environmental Management Plan Reports:

5.1 This Report should be considered in the light of any changes in legislation, statutory requirement or industry practices that may have occurred subsequent to the date of issue.

5.2 The measures and comments outlined in this Report and any opinions expressed are based on the plans provided at the time and discussions with relevant parties. However, there may be conditions pertaining to the site that have not been disclosed by investigations and therefore could not be taken into account.

5.3 This CEMP is a live document and is subject to change throughout the project, as and when necessary, to ensure management of environmental aspects remains relevant, and to ensure continued compliance with legislation and commitments as they may change. RSK understands that this CEMP will be reviewed by the Client every six months and updated as and when necessary.

5.4 It is the full responsibility of the Principal Contractor/ Client to ensure that their works do not contravene legal requirements, and adherence to this CEMP alone cannot be a full defence regarding legal action against the Principal Contractor.

6. Service Constraints where the Report relates to Ground Gas Membrane Verification:

6.1 This Report is limited to the verification of the gas resistant membrane/vapour membrane/ radon barrier after installation and no inspections were undertaken of the substrate (i.e. prepared ground). The Report therefore does not constitute as a full verification of ground gas protection system.

6.2 The comments given in this Report and the opinions expressed, are based on the condition of the ground gas membrane as encountered at the time of inspection by suitably qualified personnel. RSK cannot accept liability for any subsequent change to the status of the gas membrane by follow-on trades or other construction activity.

6.3 Where not designed by RSK, the verification of protection measures is carried out with reference to the gas protection design provided by the Client. RSK assume the scope of gas protection measures as determined by third parties to be correct and to have achieved any required approval from authorities.

6.4 The Ground Gas Design Report/Remediation Strategy and Verification Plan contains details of the procedures to be adopted for inspection and validation of the works. However, it should be noted that responsibility for the correct implementation of the strategy lies with the appointed contractor. RSK cannot be held responsible for any remedial works that are carried out without the agreed procedures involving either direct supervision by RSK, or inspection and validation of the works by a representative from RSK.

7. Service Constraints for Environmental Due Diligence (EDD)Reports:

7.1 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the site, therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information.

7.2 This Report describes the results of the EDD exercise. The scope of this EDD Report, where appropriate, covers legal or regulatory compliance with respect to UK or international regulations associated with environmental matters.

7.3 As with any EDD exercise, there is a certain degree of dependence upon information provided by the target company. The EDD does not include a site walkover / visit or liaison with site representatives unless identified in the Services. Therefore, the assessment is based on the available desk study information. Also, there is a certain degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this EDD exercise was performed.

7.4 This Report, including all supporting data and notes (collectively referred to hereinafter as "information"), was prepared or collected by RSK for the benefit of its Client.

7.5 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment and the site inspection visit. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the Site therefore any comments

relating to ground conditions and subsurface contamination are based solely on a review of desk-based information and observations collected during the site inspection visit.

8. Service Constraints for Ground source heat energy Reports:

8.1 It is understood that this is a desktop survey only and that there are no requirements for a site walkover, service utility survey, or provision of service plans. These services can be provided upon request if required.

8.2 At a later stage, it is possible that a thermal response test (TRT) will need to be completed, for which a test borehole will have to be drilled, and these would be costed at the time. RSK can provide all aspects of subsequent site work for a GSHP system if required.

9. Service Constraints for Water Abstraction Borehole Reports:

9.1 The Report aims principally to only identify and assess the suitability of the site for a water abstraction borehole. This Report should be considered in the light of any changes in legislation, statutory requirements, and industry practices, that have occurred subsequent to the date of the Report.

9.2 Unless stated in the Report, the opinions expressed in this Report including all comments and recommendations provided are on the basis of the information obtained from a desk-based assessment.